BUILDING THE PLACE TO BE

CITY OF LONDON URBAN DESIGN GUIDELINES

DRAFT DECEMBER 2011

London
CANADA

CONTENTS

INTRODUCTION

1

Quality urban design and vibrant inclusive urban spaces are the central ingredients of liveable communities. Our aim should be to leave for future generations a legacy of design that responds to the challenges of today and serves the needs of the future.

What Is Urban Design

Over the past decades, cities across the continent, both big and small are striving to be economically competitive, provide a high quality of life and create a place that people are proud to call home.

As cities look to the future, urban design will be a powerful tool in helping to successfully achieve these aspirations. Urban design is the process of shaping the setting (or public realm) for life in cities, towns and villages. How does the public realm work together with the built form and transportation? In general terms, the public realm (ie streets, public squares, parks and open space) influences the type of urban environment we can create. The urban environment has a profound effect on how we live our lives both in our neighbourhoods and the larger city. At its heart, urban design incorporates a "people first" design philosophy. This design approach promotes healthy and socially interactive neighbourhoods that contribute to the economic success of the City of London.

The value in building "people first" developments is wide ranging. Foremost, it encourages a compact urban form, which promotes alternative and healthy transportation choices (ie walking, cycling and transit), better use of municipal infrastructure and maintains the viability of neighbourhood businesses. Over the longer term, this style of development fosters a distinct community character that builds a brand and civic pride for the City and its neighbourhoods. Urban design is the key to making places where talented people will want to live, which will nurture economic success. These urban design guidelines will assist proponents and designers in creating vibrant and dynamic neighbourhood places within our community.

Purpose

The purpose of this document is to provide urban design guidance to project applicants, funding bodies and interested third parties for development applications within the City of London. The City's objectives of achieving quality urban design that is well constructed, functions properly and enhances the appearance and experience of the public realm forms the basis of this guideline document. To ensure these objectives are achieved this document contains design guidance for both the public and private realm.

Policy Context

The policy and design standards identified in this document serve as a tool to integrate urban design into planning approvals decisions and in the preparation of municipal engineering standards. The following documents where used to assist in the creation of these Guidelines:

Placemaking Design Guidelines
Adopted on November 2007, the City of London Placemaking Design Guidelines provides guidance to developers, builders, consultants, and internal Engineering and Planning Staff for the development of outstanding communities that offer a distinct character, a strong sense of community and a context for healthy lifestyles and a high quality of life. The Placemaking Design Guidelines establish a foundation for the adoption of the Urban Design Guidelines.

Official Plan
The Official Plan contains City Council's objectives and policies to guide the short-term and long-term physical development of all lands within the boundary of the municipality. It provides direction for the allocation of land use, provision of municipal services and facilities, and preparation of regulatory by-laws to control the development and use of land.

Growth Management Implementation Strategy
The purpose for the Growth Management Implementation Strategy (GMIS) is to provide guidance for the coordination of the timing of City-initiated infrastructure works with the approval of development applications. The GMIS identifies priority areas for growth over the 0 to 5, 6 – 10, and 11 to 20 year time periods. Council adopted the GMIS on June 23, 2008.

Access Management Guidelines
The City of London recently prepared their Access Management Guidelines that contain a comprehensive set of guidelines and standards relative to the access or driveway layout, turning movement restrictions, roadway features, and parking operations. All development applications and associated access proposals should conform to the standards contained in the Access Management Guidelines.

Site Plan Control
All site plans for development must be submitted to the City for approval. The City's design standards for site development are set out in the City's Site Plan Control By-law and Policies.

Application Of These Guidelines
These Urban Design Guidelines will apply to all new developments, investments, and initiatives in London, including without limitation:

• All City projects;
• All planning approvals; and
• All other City standards and processes.

How This Document is Organised
The Urban Design Guidelines are divided into four sections the first being the introduction, but the remaining three relevant to different elements of urban design. The second section is the Urban Structure, which provides the overall organising structure for the City, primarily focusing on the transportation network. It defines the intended road functions, which will ultimately reflect the desired vision for the elements found in the following sections. Section three identifies the design objectives related public realm; while section four provides design guidance the private realm (or the built form and site layout). Throughout the entire document the text is supplemented by graphics and photographs to illustrate principles and details being conveyed.
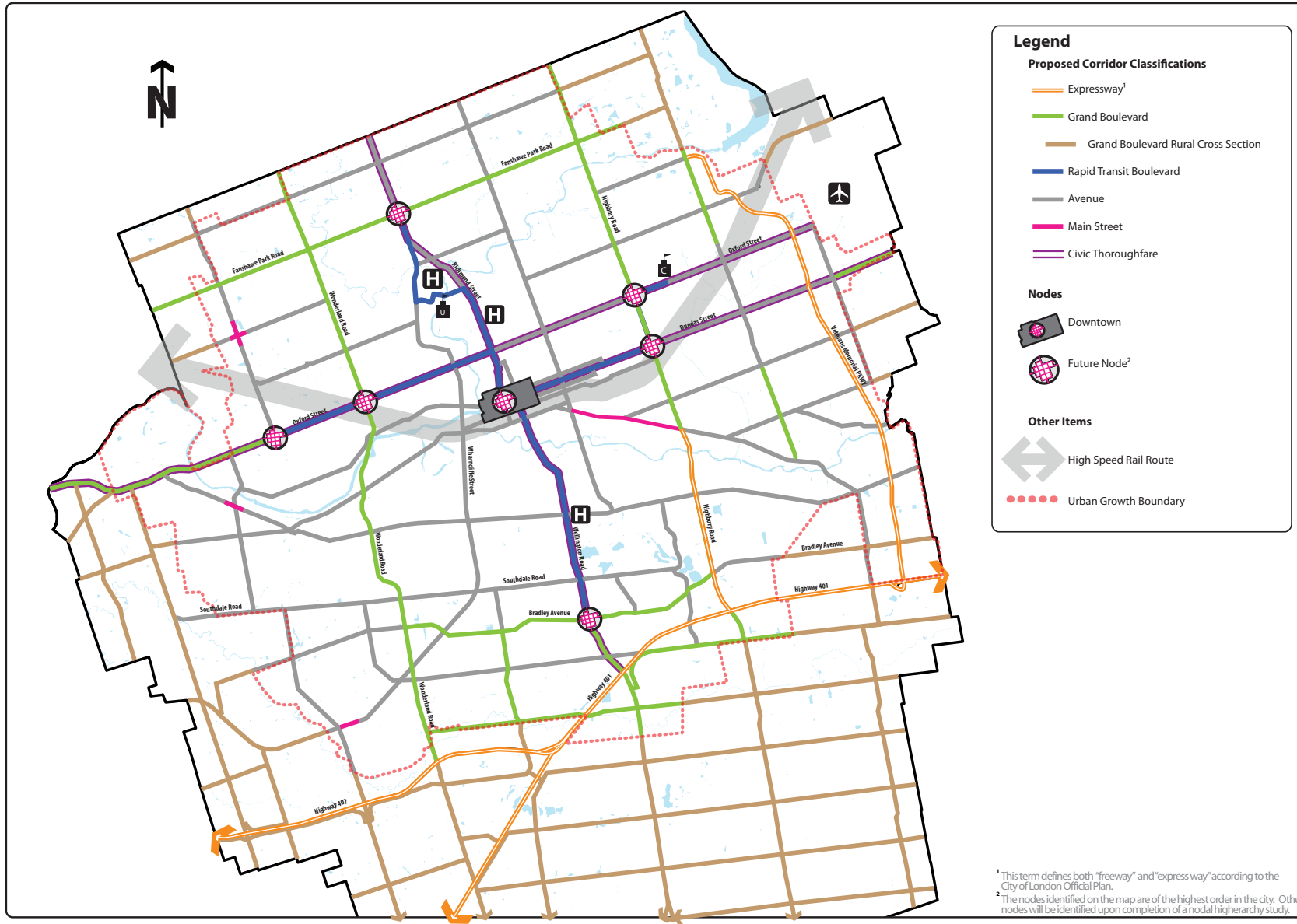
URBAN STRUCTURE

2

Urban Structure

The urban structure of a city or neighbourhood is a network of connected spaces and routes for pedestrians, cyclists, public transit and vehicles. This organising structure sets the framework of streets, blocks and lots that direct the overall land use pattern and built form of a community.

A well designed urban structure minimises walking distances between major land uses and public transit stops. On a more detailed level, the design, location and function of buildings can reinforce the identity and character of the routes and spaces they service. For example, concentrating the most active uses and locating the built form along the street edge on main routes and around focal points will contribute to the vitality of a place. Successful places are unlikely to have an urban structure that includes large blocks of inward looking development that limits public access.

With the creation of an urban structure plan the community can begin to define and provide parameters for change, like infill and intensification, in neighbourhoods throughout the city. The plan also identifies public rights-of-way that are of civic importance, "places" that require greater review to ensure economic competitiveness and civic image are maintained.

NODES AND CORRIDORS MAP

Legend

Proposed Corridor Classifications

- Expressway[1]
- Grand Boulevard
- Grand Boulevard Rural Cross Section
- Rapid Transit Boulevard
- Avenue
- Main Street
- Civic Thoroughfare

Nodes

- Downtown
- Future Node[2]

Other Items

- High Speed Rail Route
- Urban Growth Boundary

[1] This term defines both "freeway" and "express way" according to the City of London Official Plan.
[2] The nodes identified on the map are of the highest order in the city. Other nodes will be identified upon completion of a nodal higherarchy study.

Planning and Development
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Nodes and Corridors Plan
October 14, 2010 (Updated January 31, 2011)

Urban Structure Plan
The Urban Structure Plan (USP) sets the context for development. The intention of the USP is to direct a vision for the type of street that is desired in certain locations (eg. a mainstreet, transit oriented boulevard or residential arterial road). The vision for the type of street that is desired will ultimately effect the type and configuration of the adjacent land uses. For example, if the street is constructed with wide lanes to move traffic unconstrained, the pedestrian experience is diminished and in turn the built form is setback to accommodate parking in the front. This ultimately leads to an undesirable streetscape, which affects the overall image of a neighbourhood and undermines walking, cycling and transit usage.

The map on page 7 identifies the Urban Structure Plan for the City of London as part of the City's Transportation Master Plan. The plan contemplates a five category road classification system and 7 nodal areas. It will form the basis of the intended built form along each of the identified streets as each classification will have a specific cross-section design. Grand Boulevards are intended to move vehicles throughout the City and will have less of a priority on the pedestrian realm. By contrast, mainstreet areas will have a reverse role in that the primary focus will be on the pedestrian. For all streets in this sliding scale of focus there will be a balanced approach between people and the vehicle. The nodal areas are to become transit hubs with a focus on the creation of a mixed-use mainstreet environment. These areas are to be highly pedestrianised and focus on connecting people to transit and city amenities. A specific mention, should also be given to rapid transit boulevards, which will be the most balanced street environment between people and vehicles. These boulevards are to support transit oriented development and also accommodate rapid transit.

The USP also identifies Civic Thoroughfares. These are public rights-of-way in the city that greatly impact the civic image of London. They are entries into the community and/or cross city paths of travel that define people's sense and reputation of our city, both residents and visitors. Increased importance through the development review process will be placed on the Civic Thoroughfares to ensure a high level of design is achieved.

For many of these streets identified in this Plan, the current condition on the ground is not consistent with the future vision. It is understood that City of London documents and standards will need to be realigned to be consistent with the USP. Those processes are beginning and through various public works projects the conditions on the ground will ultimately change. It must be recognised that the construction of new built form may occur prior to the future public works being completed. However, the life span of the built form lasts much longer than the lag between development projects and city infrastructure transformations. As such, this document will guide development to meet the intent of the future vision; so that when the vision is implemented, the built form can positively integrate with and contribute to the public realm.
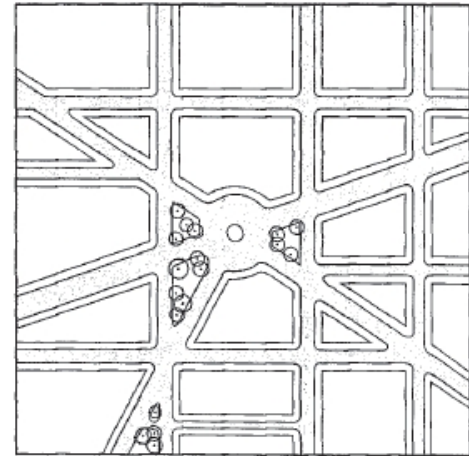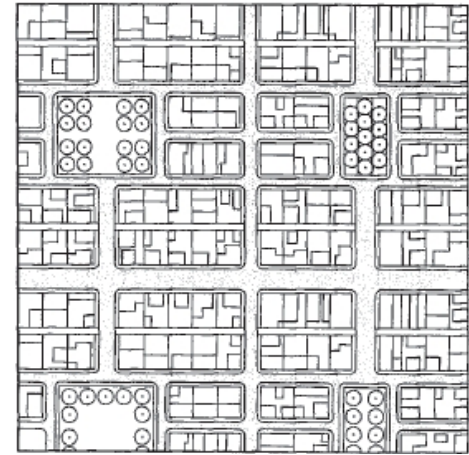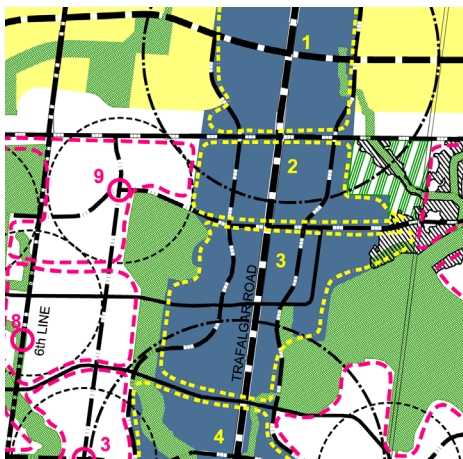
Street Networks

The street network must be in keeping with a greater vision for the city and its neighbourhoods, and the corresponding Urban Structure Plan.

Historically, London was founded on a system of connected streets that supported walkable, complete communities. As London develops, such a system of connected streets will be expanded upon, ensuring people have a range of mobility options to choose from including walking, cycling, public transit, and driving. Different segments of streets will have different standards, priorities, and designs based on the overall street network, the Urban Structure Plan, and the vision for each area.

As the city grows and develops, in addition to serving as transportation corridors, roads will be considered a major component of the open space system and a prime location for city life and placemaking. Transportation planning, land use planning, environmental planning, and urban design, will operate hand-in-hand. The long term success and sustainability of London as a place to live and do business depends on the City's ability to integrate city building and transportation objectives. The urban design objectives of the transportation system are to:

- Enable the efficient movement of people and goods, across the city and region;
- Encourage the use of different modes of transportation, giving citizens the freedom to choose the mode that works best for them. This includes walking, cycling, public transport and driving;
- Support the location and function of land uses in a way that is sustainable, transit supportive, and pedestrian oriented;
- Improve the connectivity of the overall system in order to reduce travel distances and encourage walking and cycling;

A connected network of streets and blocks should generally be maintained and developed in the City of London, integrating a hierarchy of street types to ensure efficient pedestrian, bicycle, transit, truck and car flows and pleasant neighbourhood streetscapes. Land uses should be planned accordingly, so as to reinforce the roles of different street types, in different parts of the city. To ensure a cohesive transportation network and longer term economic viability for neighbourhoods the following guidelines apply:

a) Residential, commercial and institutional block sizes shall have a perimeter not greater than 500 metres;
b) Industrial block sizes should include a grid-based network of public rights-of-way, but blocks can vary in size depending on the purposed land use;
c) Full movement intersections (traffic lighted) with arterial roads shall generally be a minimum of 400 metres apart;
d) Connections to arterial roads that are right-in and right-out only are permitted at a minimum of 75 metres apart (this includes local roads);
e) Where a grid-base network of public rights-of-way exist, driveways shall not be permitted along the arterial road. Access is to be gained via the intervening side street;
f) Where possible, the street network should be oriented 15° of the east-west axis to take advantage of passive solar opportunities for the built form;
g) A grid-based transportation network, to increase permeability, shall be incorporated into all proposed subdivisions;
h) The transportation network should be structured (ie provide convenient access to) around existing or proposed community focal points and regional destinations, such as, but not limited to, public space, public transit access, community shopping areas, libraries and schools;
i) The incorporation of public transit routes within a grid-based transportation network are encouraged. These routes should increase the opportunities for transit-oriented development within the proposed subdivision;
j) Principal access roads into new development areas should be of similar scale as streets they are connected with. Landscaping or entrance treatments to subdivisions shall not be permitted;
k) New subdivisions should design their transportation network to provide convenient access and sightlines to topographic and natural and built environment features.

In addition, further design guidelines for specific street designs are located in the Public Realm Section of this document. That section provides guidance on street design, street cross-sections, on-street parking, light standards and other applicable information.

PUBLIC REALM

3

Public Realm

The public realm is both the largest and most influential piece of infrastructure that a municipality or government owns. Its design has the largest impact on the type of built form that occurs in the City. The public realm consists of two elements, the public right-of-way and the public space system. Two subcategories exist within the public space system, which are, the urban forest and stormwater management features. The edges of this space is often defined by the private realm (or the built form). As such, these spaces or "places" are the defining elements of any community. These are the primary arteries of the city that provide citizens the opportunity to move, work, shop, recreate or socialise. It is through the design of the public realm that the lasting image of London for residents and visitors alike is created. This section provides the design guidance, based upon the Urban Structure Plan found in Section 2 of this document, for the four elements of the public realm. Through this design guidance, the public and private sectors will create a positive image for London that instills civic pride.

Public Rights-Of-Way

Streets are the arteries of cities and neighbourhoods. A place's success can depend on how well it is connected to local services and the broader city. Over the past three decades the design of streets have often centred around moving people, by automobile, from one point to another. In reality, streets have many other functions. They are vital components of neighbourhoods and greatly affect the overall quality of life for residents of the City of London.
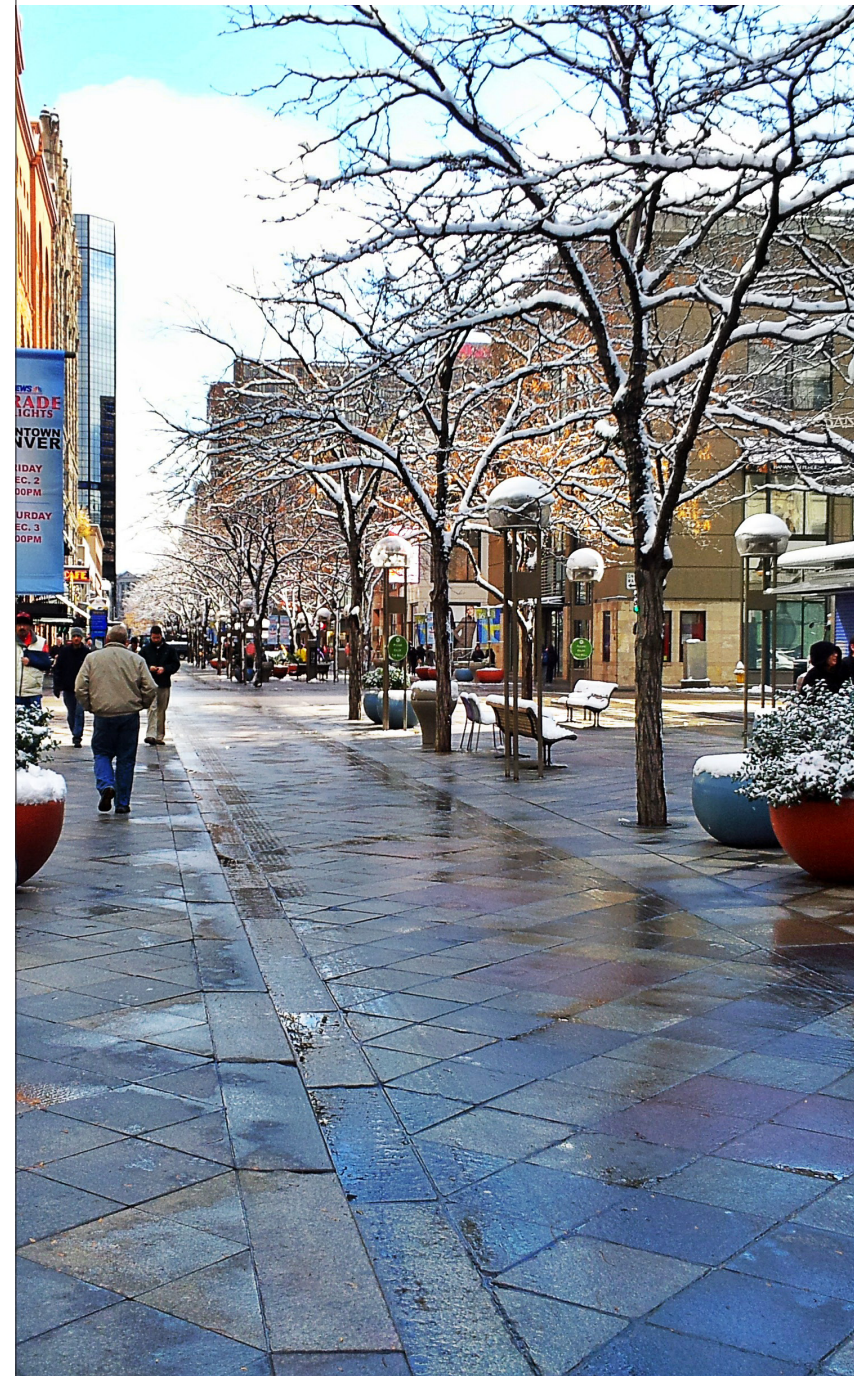
Places and streets that have stood the test of time are those where traffic and other activities have been integrated successfully, and where buildings and spaces, and the needs of people, not just of their vehicles, shape the area. The street is, by definition, a multi-functional space, providing enclosure and activity as well as movement. The main objectives for the design of public rights-of-way are to:

- Provide safe access and circulation, for pedestrians, cyclists, public transit and vehicles;
- Provide access to transit;
- Provide access to buildings, and the provision of light and natural ventilation for buildings;
- Be a route for utilities;
- Be a storage space, primarily for vehicles;
- Define the character of the adjacent land uses and surrounding neighbourhood;
- Create public infrastructure that instills civic pride within the community; and,
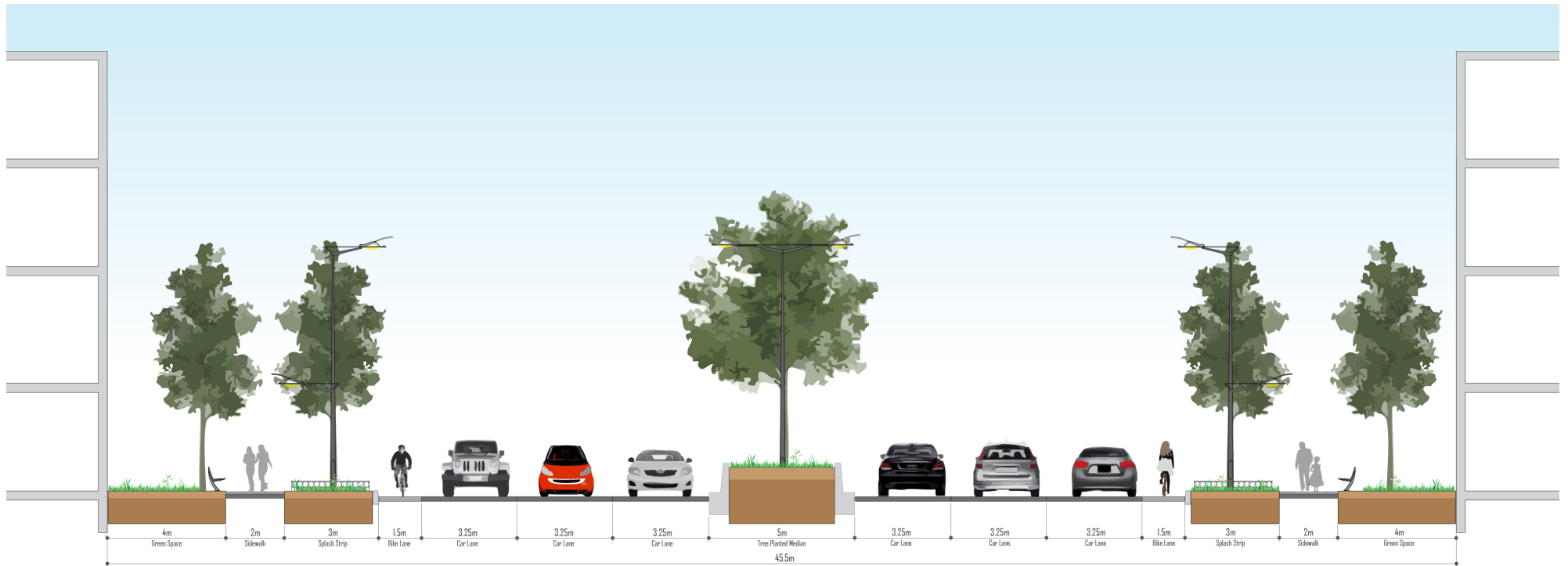- Be a public space for human interaction.

Virtually all streets in urban areas perform these functions, and often the balance between them will vary along the length of a street. Ideally, all these facets of the street can successfully coexist, but all too often it is one function (especially the movement of vehicles) which has been allowed to dominate.

The public realm should be designed to encourage the activities intended to take place within it. Streets should be designed to accommodate a range of users, create visual interest and amenity and encourage social interaction. The place function of streets may equal or be more of a priority than the movement function. This can be satisfied by providing a mix of streets of various dimensions, squares and courtyards, with associated pocket parks, play spaces, resting places and shelter. The key is to think carefully about the range of desirable activities for the environment being created and to vary designs to suit each place in the network.

The following will provide design guidance for the public realm and the interface with the private realm based on the public right-of-way classifications identified in the *Section 2 - Urban Structure* of this document. The information provided will set out a vision for each type of public right-of-way; additional information for designs specification can be found in *Appendix 1*.

Grand Boulevard

4m	2m	3m	1.5m	3.25m	3.25m	3.25m	5m	3.25m	3.25m	3.25m	1.5m	3m	2m	4m
Green Space	Sidewalk	Splash Strip	Bike Lane	Car Lane	Car Lane	Car Lane	Tree Planted Median	Car Lane	Car Lane	Car Lane	Bike Lane	Splash Strip	Sidewalk	Green Space

45.5m

45.5M ROW - GRAND BOULEVARD (non-site specific)
Cross Section Detail

Rapid Transit Boulevard

| 5.5m | 2.8m | 2.7m | 1.5m | 3.25m | 3.25m | 1.5m | 3.5m | 3.5m | 1.5m | 3.25m | 3.25m | 1.5m | 2.7m | 2.8m | 5.5m |
| Green Space | Sidewalk | Parking Lane | Bike Lane | Car Lane | Car Lane | Splash Strip | Bus Lane | Bus Lane | Splash Strip | Car Lane | Car Lane | Bike Lane | Parking Lane | Sidewalk | Green Space |

48m
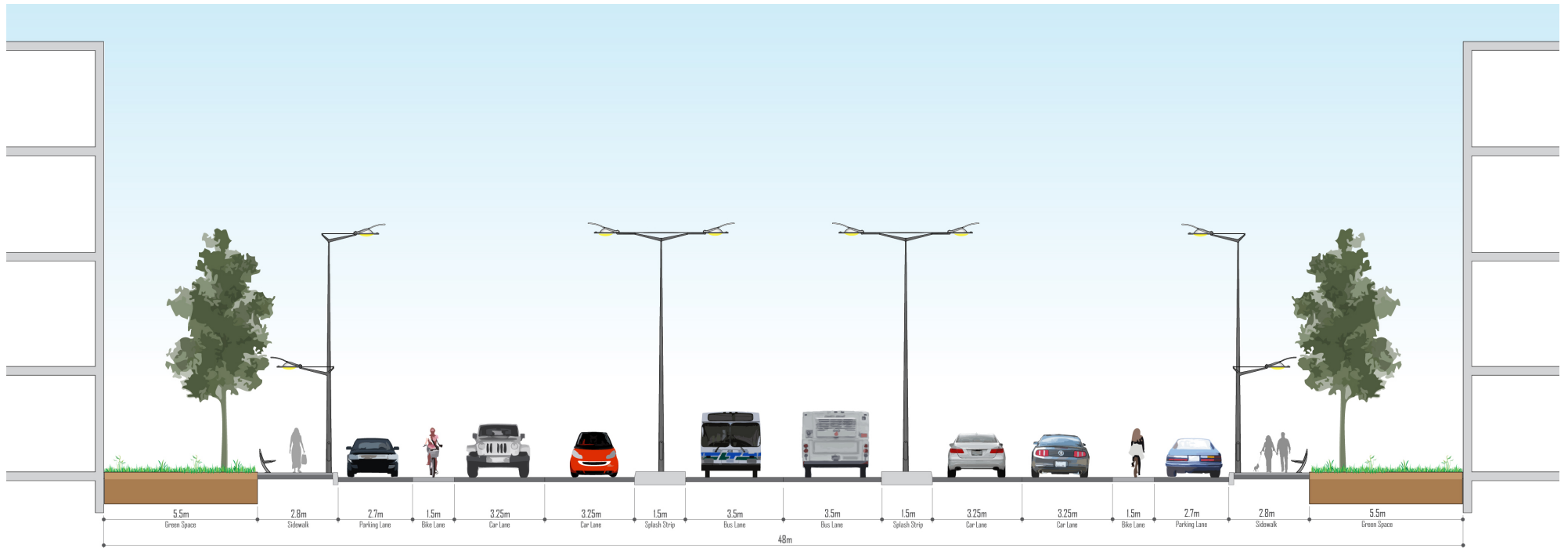
48M ROW - Rapid Transit Boulevard (non-site specific)
Cross Section Detail

Rapid Transit Boulevard (Station Stop)

| 5.5m
Green Space | 2.8m
Sidewalk | 2.7m
Parking Lane | 1.5m
Bike Lane | 3.25m
Car Lane | 3.25m
Car Lane | 1.5m
Splash Strip | 3.5m
Bus Lane | 3m
Transit Station | 3.5m
Bus Lane | 1.5m
Splash Strip | 3.25m
Car Lane | 3.25m
Car Lane | 1.5m
Bike Lane | 2.7m
Parking Lane | 2.8m
Sidewalk | 5.5m
Green Space |

51m

51M ROW - Rapid Transit Boulevard (non-site specific)
Cross Section Detail

Avenues

2.5m	1.8m	2m	2.7m	1.5m	3.25m	3.25m	3.25m	3.25m	1.5m	2.7m	2m	1.8m	2.5m
Green Space	Sidewalk	Splash Strip	Parking Lane	Bike Lane	Car Lane	Car Lane	Car Lane	Car Lane	Bike Lane	Parking Lane	Splash Strip	Sidewalk	Green Space

34m

34M ROW - Avenue (non-site specific)
Cross Section Detail

Avenues (No On-street Parking)

2.3m	1.5m	1.5m	2.7m	3m	3m	2.7m	1.5m	1.5m	2.3m
Green Space	Sidewalk	Splash Strip	Parking Lane	Car Lane	Car Lane	Parking Lane	Splash Strip	Sidewalk	Green Space

22m

22M ROW - Avenue (non-site specific)
Cross Section Detail

Mainstreets (2 Lane)

6.3m	2.7m	3m	3m	2.7m	6.3m
Sidewalk	Parking Lane	Car Lane	Car Lane	Parking Lane	Sidewalk

24.4m
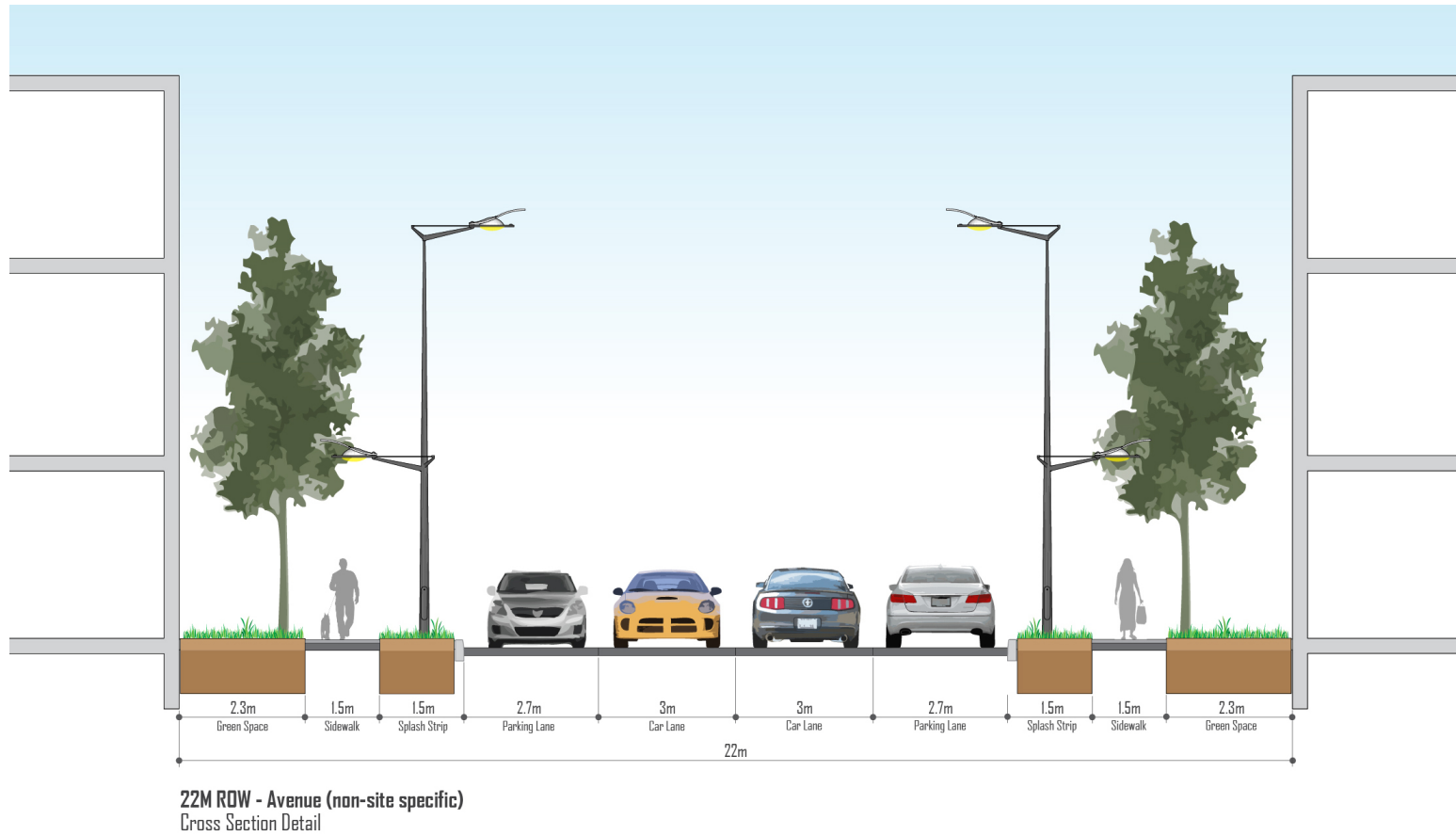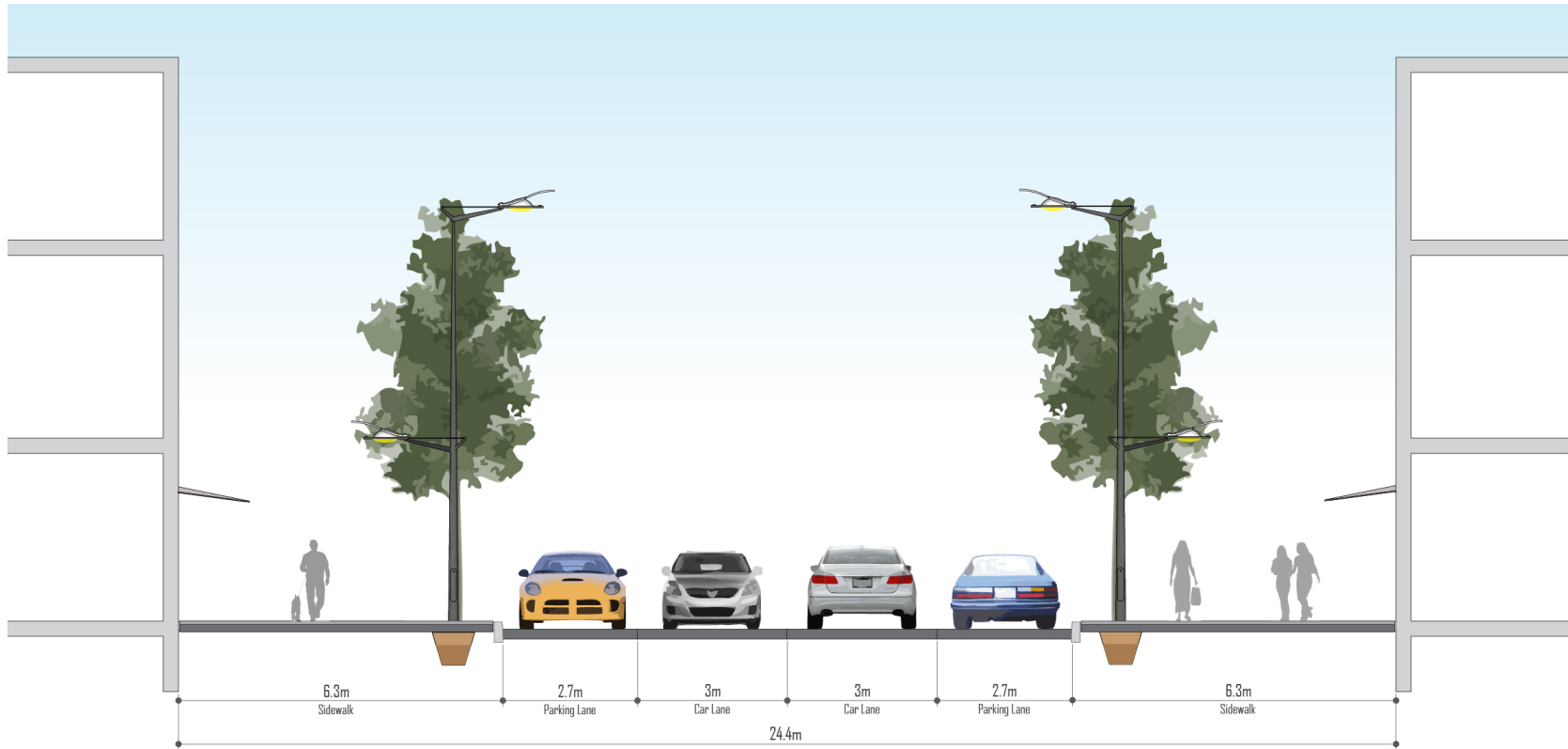
24M ROW - Mainstreet (non-site specific)
Cross Section Detail

Mainstreets (4 Lane)

6.3m Sidewalk	2.7m Parking Lane	3m Car Lane	3m Car Lane	3m Car Lane	3m Car Lane	2.7m Parking Lane	6.3m Sidewalk

30.4m

30M ROW - Mainstreet (non-site specific)
Cross Section Detail

Rear Lanes
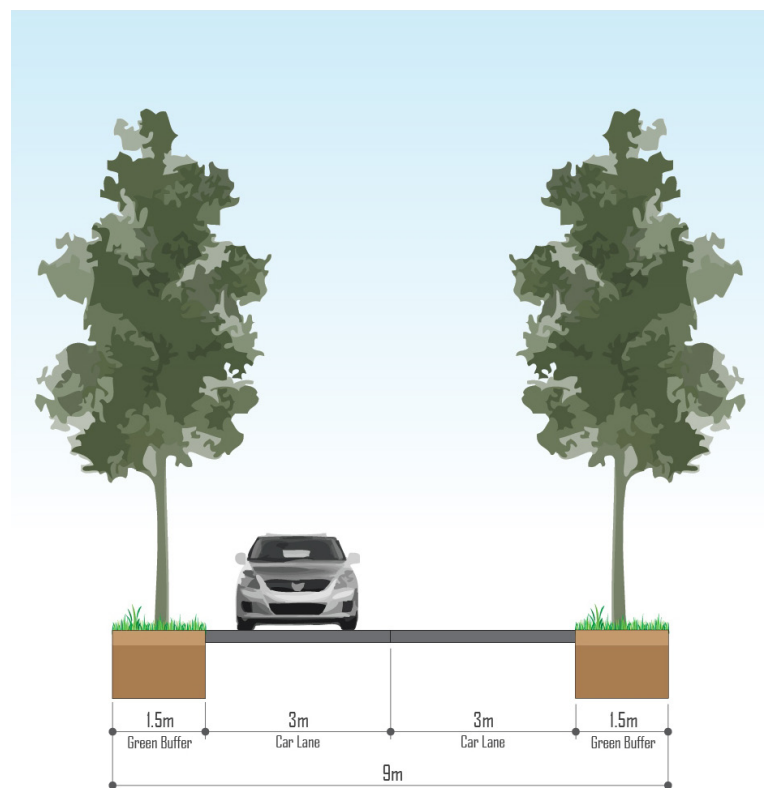
9M ROW - Rear Lane (non-site specific)
Cross Section Detail

Public Space

Creating neighbourhoods with a strong sense of place relies heavily public space system that is functional, attractive, and well integrated into the community. Public spaces work in conjunction with the built form and the pattern of streets and blocks to provide the common elements that bind a community together visually and physically. These spaces generally range in size and characteristics from conservation areas to neighbourhood parks to a hard landscaped public squares.

The City of London, through public investments and private developments, will make it a priority to design and develop a high quality public realm composed of public spaces of different characteristics and sizes such as parks, squares, sitting areas, streets, and buildings that reflect the desired character and image of the community. Natural features, parks, and open spaces – public and private – will contribute to the success of the city and neighbourhood. The urban design objectives for the public space system are:

- To assist with the conservation and connectivity of areas that are environmentally significant and/or have a natural heritage feature;
- To ensure public space is an integral component of the City's transportation network (connecting to the city's system of trails, pathways, public transit and public rights-of-way);
- To create public space/infrastructure that instills civic pride within the community;
- To be a public space for human interaction;
- To ensure that the public space system contributes to placemaking for the city at large and its neighbourhoods.

The urban design guidelines for the public space system has been categorised into three sections: *Parks, Open Space and Public Squares; The Urban Forest* and *Stormwater Management*. These three elements are what define the public open space system for the City of London. It should also be noted, that some of the elements of these categories are to be cross-referenced with other sections of the public realm (eg. Urban Forestry and Public Rights-Of-Way).

Parks, Open Space and Public Squares

a) Park designs should limit single purpose areas – e.g. sports-oriented designs – and provide areas that are diverse in type and flexible in use.
b) Relationships with adjacent buildings should provide optimal sunlight penetration, skyview, and wind conditions.
c) Streetscape and buildings that abut public squares, parkettes, forecourts, and courtyards should be designed to reinforce an interactive relationship between the open space and its adjacent land use/building.
d) Buildings should front onto the open space to create built form edges.
e) The landscape along the street frontage, including high canopy street trees, should be complementary on both sides of the street.
f) Entry and access points should be located conveniently and incorporate civic design themes.
g) Hard and soft landscape elements and features shall be designed to define and articulate activity areas, circulation, entry points, seating and gathering areas, as well providing for proper drainage.
h) Open spaces that are intended to link different areas or uses must be pedestrian-oriented and designed in accordance with CPTED principles – they should be safe and secure.
i) The minimum width of mid-block connections should be 10 metres, and enough to provide growing space for a double row of trees.
j) Open spaces will be configured, designed, landscaped, and programmed in a manner that enhances their connectivity, proximity, and synergy with adjacent land uses and built form, especially for pedestrians.
k) Land uses and buildings adjacent to open spaces will be configured and designed to enhance, where possible, the year-round use of open spaces.
l) A minimum of 75% of the perimeter of public open spaces should be fronted by public streets or publicly accessible uses. Entirely open parks with frontage on all sides are encouraged.
m) When a private property abuts an open space, buildings should be designed to front the open space, with doors and windows, creating an active built form edge to the open space.
n) All buildings located across from open spaces or adjacent to an open spaces should front, not flank the open space.
o) Blank walls, surface parking, garages, structured parking, and service areas should not front directly onto an open space.
p) Trees should be planted along the edge without blocking the view into public open spaces.

The Urban Forest
In order to support and enhance London's image as the "Forest City" and the overall health of natural areas, all open spaces, including streets, should contribute to the building of a continuous tree canopy.

a) Existing street trees should be preserved, wherever possible, to create a sense of enclosure along streets.
b) The planting of trees as infill along existing streets, where the rhythm of existing trees is interrupted, should be implemented and such trees should be of a compatible species.
c) The tree canopy should be expanded to include areas that are currently lacking or devoid of trees.
d) Tree species that are well adapted to harsh urban conditions should be used.
e) Trees should be provided along key pedestrian routes and streetscape design should facilitate enough room to provide maximum soil area for roots to spread, and water and air to penetrate.
f) Street design should also consider the configuration of buildings and other streetscape elements so as to not interfere with the vitality of trees and provide sufficient room for tree canopies to grow and develop without conflict.
g) In high traffic areas, tree guards should be used to protect trunks from damage.
h) Street trees should generally be located within the boulevard and should be offset a minimum of 1.5m from the curb to accommodate snow storage, large vehicle movements, and minimize salt damage.
i) Trees should be spaced consistently at a minimum of 6 metre intervals. 6 metres – 9 metres is a good range for producing a consistent canopy. Appropriate clearances from utility boxes, street lights, and sight triangles should be considered.
j) On routes designated for goods movement, careful consideration should be given to the type and location of trees to ensure there is no interference with truck traffic. Sight lines should be considered in the location of trees planted at intersections.

Stormwater Management
The objective for SWM, as related to placemaking, is to develop green infrastructure as both a functioning ecological feature and as a community amenity.

SWM facilities should be considered a part of the greater open space network.

a) Stormwater management ponds and channels will be designed as integral and significant features of the landscape; i.e., grading of a stormwater management pond shall ensure natural and variable side slopes and sinuous contours.
b) In addition to naturalized conditions, where appropriate, consider providing a hard edge to SWM facilities that can accommodate active neighbourhood uses.
c) SWM facilities should maintain the overall connectivity of a neighbourhood, and not pose a major pedestrian barrier. Avoid large ponds that break up a community.
d) Ponds shall not be fenced.
e) Public walking/cycling trails and pathways should encircle ponds and extend along stormwater channels.
f) When a compact built form is desirable, SWM facilities should be considered that are integrated with the built form and urban design.
g) Preference will be given to SWM that relies on a number of smaller scale and ponds and facilities than singular/larger ponds and facilities – a dispersed approach is preferable than on large SMW facility.

BUILT FORM

4

The creation of good public spaces does not end at the boundary of the public right-of-way. The built form has an immense impact on the character of the space and its success in a neighbourhood. However, the built form's end product (ie massing, rhythm and materiality) responds directly to the type of street environment/configuration that exists or is to be created over time.

Built Form Design Guidelines

Built form is the component that provides definition or "the edges" to the public realm. The following are general design guidelines for the built form. Sections 2 and 3, provide both the street classification and the detailed design guidance for the particular classifications. These guidelines, both the generic and the specific, will assist with planning and development applications.

Generally, there are two over arching design elements to the built form, they are building design and site organisation. As such, the design objectives for this section are categorised under those two headings. First, the urban design objectives for building design are:

- *The Base* should contribute to the quality of the public realm, having active frontages (windows with transparent glass providing views to the interior), porches, awnings, lighting and high quality materials;
- *The Middle* should compliment the architectural features of the base and the top by including windows and a material typology that is visually cohesive with the base and top that maintains the overall scale of the street;
- *The Top* consists of the roof and cornice treatment for smaller buildings and on larger buildings this also includes the mechanical penthouse. This section should integrate the base and the middle to provide a visually coherent building;
- The massing and scale of buildings should create a consistent urban form, at a human scale, with its surrounding context; unless otherwise directed in a stated future vision for an area.

Each of these objectives is very important to delivering an enhanced streetscape and pedestrian environment. To ensure that this is created, the scale of the built form and the proper proportions are needed for the public realm (pedestrian environment). The public realm is defined by height as well as width; or, more accurately, the ratio of height to width. It is therefore recommended that the height of buildings is in proportion to the width of the public space (or right-of-way) to achieve a sense of enclosure. The actual ratio depends on the type of street or open space being designed for; this is a fundamental urban design principle.
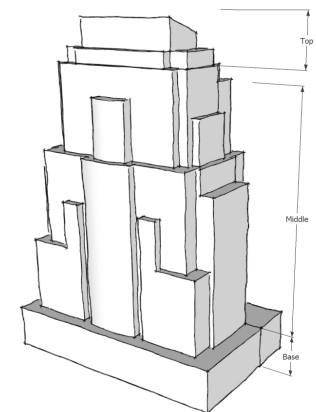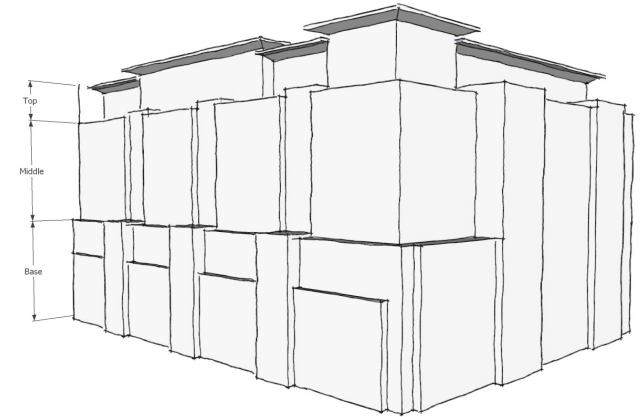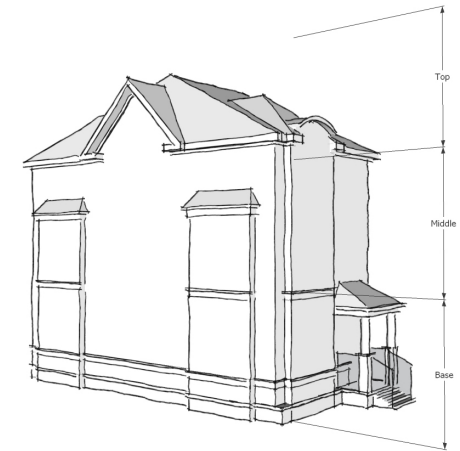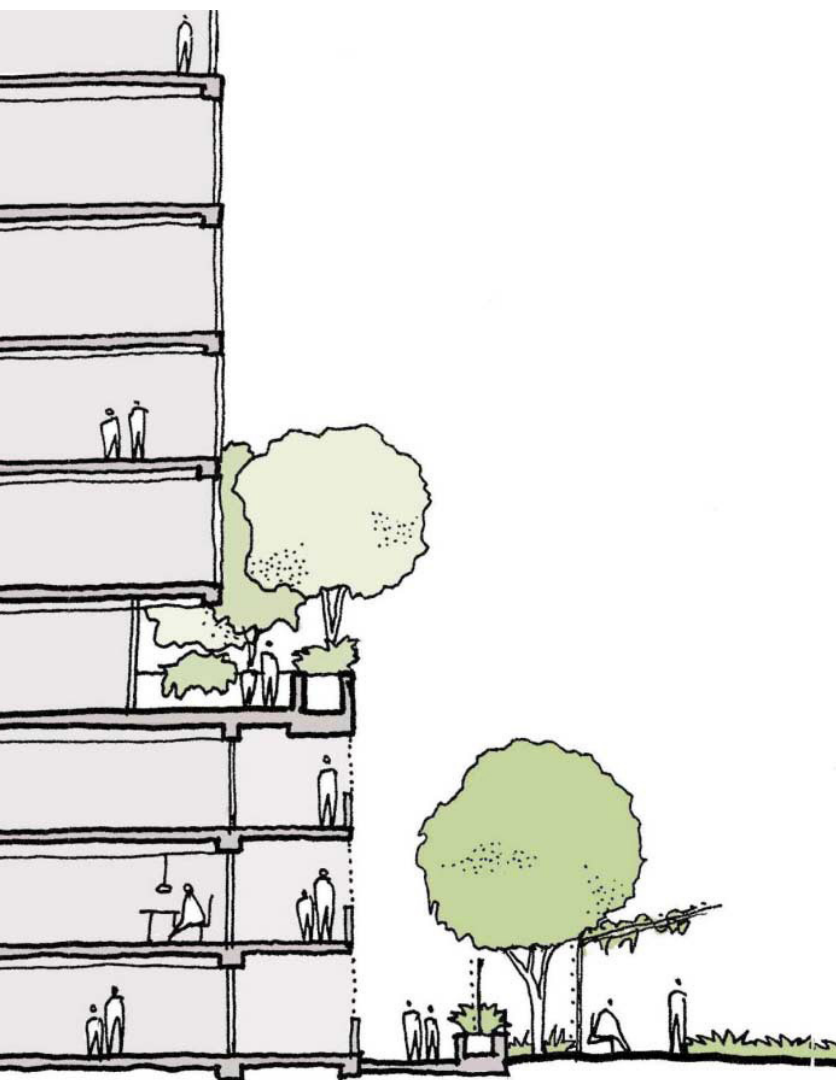
Second, equally as important to the design of the building is the organisation of the site. The built form's location, parking and landscaping influence the character and feel of the public realm. The space between the road and the front of the building needs to be carefully designed and managed as it marks the transition from the public to the private realm. Therefore, the design objectives for site organisation are:
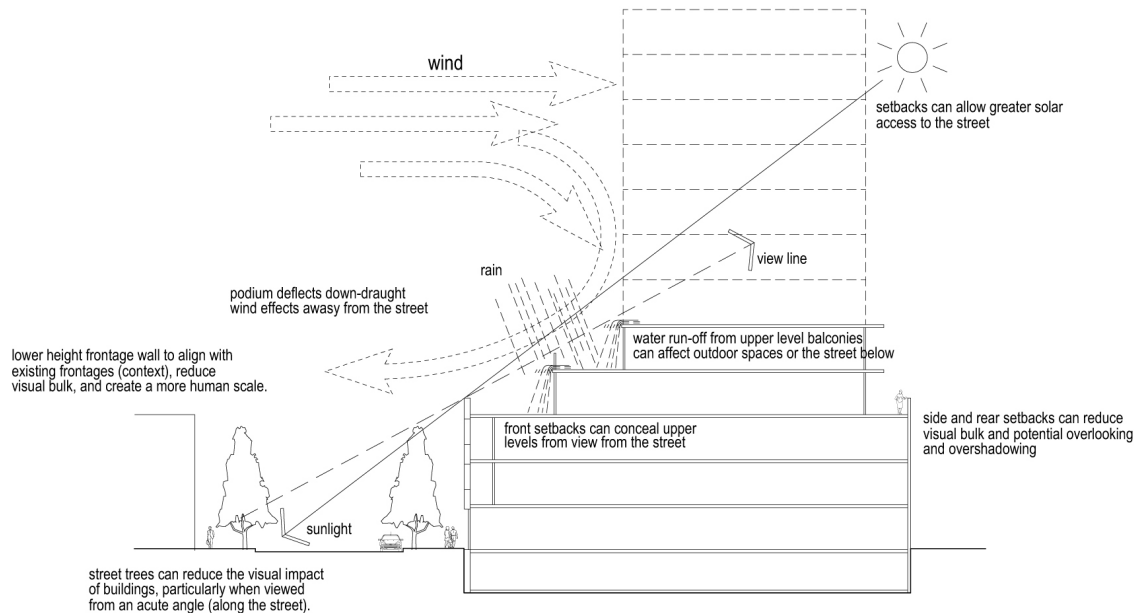
- That buildings should be located to provide all users, definition to, and enclosure of, the public realm;
- That buildings should be located on sites to promote a healthy, vibrant, transit supportive and safe public realm;
- That landscaping is to enhance the public realm experience for all users;
- That parking be provided for the appropriate functioning of a site, but not degrade the overall experience for all users of the public realm.

Under the two over arching elements of the built form design guidelines (*Building Design* and *Site Organisation*) there are subcategories that have specific design guidance. The element of *Building Design* has two subcategories that include, *Scale and Massing* and *Facade.* The element of *Site Organisation* has three subcategories: *Site Structure*, *Parking* and *Landscaping*. All of these provide generic design guidance for developments within the City and should be cross-referenced with Sections 2 and 3 of this document.

Scale and Massing
a) Arrange building height, massing and form to reinforce the structure and character of the area. Reinforce valued aspects of existing neighbourhood character unless planning policies identify a new character, or a new character needs to be created to achieve the planning policies for the area.
b) Mass new buildings in response to the scale of surrounding buildings unless doing otherwise helps to achieve neighbourhood character objectives. The existing context may often suggest that new developments on large sites be broken up into different buildings of varied design, or into subgroups of an overall building form.
c) Relate building height to street width with the intended character of the neighbourhood. Most urban areas are characterised by a strong sense of enclosure with street spaces that are generally lined by a street wall or buildings set close to the front property boundary. The relationship between street width (including front setbacks) and building height is important for defining the character of a place.

d) For high-rise buildings set upper levels back or use a podium and tower form to help create a pedestrian scale at the street level. Tower buildings or elements should be set back from the street on a podium to mitigate unwanted wind effects and to provide sunlight to the public right-of-way. Taller buildings without a podium level create a dramatic urban form and this may be appropriate on some sites where the local context can support this approach.

e) Buildings with a height of 10 storeys or less shall provide articulation and massing in a coherent architectural manner to the built form's base, middle and top.

f) Buildings with a height of 11 storeys or greater should incorporate a podium at the base of 3 to 4 stories in height. The floorplate size for any tower above the top floor of the podium is to have a maximum floorplate area of 1200 m2.

g) New development should respect adjacent heritage buildings and places. Heritage policies and statements of significance can provide guidance on how this can be achieved.

h) The built form shall avoid long expanses of pitched roofs.

i) Buildings with a height over 3 storeys should incorporate architectural massing that avoids the use of pitched roofs.

j) Articulation and massing in a coherent architectural manner should be applied to distinguish the built form's base, middle and top.

k) Avoid reducing sunlight to important public spaces. Shadows cast by a new development should not be considered in isolation, but as part of the cumulative shadowing effect of surrounding buildings, structures and trees.

wind

setbacks can allow greater solar access to the street

view line

rain

podium deflects down-draught wind effects awasy from the street

water run-off from upper level balconies can affect outdoor spaces or the street below

lower height frontage wall to align with existing frontages (context), reduce visual bulk, and create a more human scale.

front setbacks can conceal upper levels from view from the street

side and rear setbacks can reduce visual bulk and potential overlooking and overshadowing

sunlight

street trees can reduce the visual impact of buildings, particularly when viewed from an acute angle (along the street).

Facade

a) Entrances and windows, not garages, should be the dominant elements of front facades.
b) Houses should not be located in areas that reduce sightlines to the street and neighbouring properties.
c) Garages should be recessed from the entry porch. Rear garages are strongly encouraged and designed to preserve backyard space.
d) Buildings are encouraged to have principal entrances and porches oriented to the public right-of-way. This will assist with providing natural surveillance for the community.
e) Corner buildings should be planned so both exposed facades enhance the street. To do this rooms that promote activity (i.e. Family Room) should be placed along each façade.
f) Houses developed on corner sites should have a detached garage that is not accessible from the street the dwelling fronts.
g) Architecture within infill residential developments should reflect current streetscape conditions with regards to scale, massing, details and materials.
h) Architecture within new residential developments should create a variety of dwelling types.
i) Each block within new developments should include a variety of one and two-storey elements.
j) Dwellings of similar models should not be located on adjacent lots.
k) Visual interest should be created by articulation of facades, eaves, forms, materials and use of colour.
l) The entire building should have a coherent architectural composition with transitions from front, sides and rear elevations.
m) On corner lots, architectural style and details should be consistent on both exposed facades.
n) Stairways, fences, garbage enclosures and other accessory elements should be designed as integral parts of the architecture.
o) Buildings that form a gateway function (i.e. entrance to a neighbourhood or activity node) or terminates a vista must have a high architectural design standard and a built form that reflects its prominence and acts as an entry or architectural statement to the community.
p) Building forms should be articulated by varying roof heights and wall planes. Long, unbroken volumes and large, unarticulated wall and roof planes are not permitted.
q) Design various building elements to suit the different ways they are viewed. Relatively bold forms and robust detailing are appropriate for roofs of tall buildings, whereas the details of parts of buildings that are highly visible to pedestrians (such as shop fronts and doorways) merit particular attention at a very fine scale.
r) Consider materials as an integral part of the design response. High quality materials that withstand the effects of weathering and wear are important to the value of buildings over the long term.
s) Use external lighting to enhance the design.
t) Integrate signage and graphics with the building's architectural design.
u) Provide a discrete location for utility units.
v) Landscape the area in front of any blank walls and use projections, recesses, arcades, awnings, colour and texture to reduce the visual bulk of any unglazed walls.

Site Structure

a) Buildings should frame neighbourhood gateways and define open spaces.

b) Public, semi-public and private spaces should be clearly distinguishable.

c) Ground floor units should have direct access from streets and public open spaces.

d) Buildings should provide natural surveillance by orienting towards the street and public open spaces.

e) Buildings should not be located in areas that reduce sightlines to the street and neighbouring properties.

f) Built form is to be designed with active frontages along the public right-of-way. For example, locating store entrances towards the public streets or spaces.

g) Provide weather protection at the main building entrance, for areas close to public transit stops, bicycle parking, walkways and in places with pedestrian amenities.

h) Use building height, setbacks, architectural styles and building orientation to provide context with adjacent and neighbouring buildings and the surrounding neighbourhood in general.

i) Where possible, use green building technologies such as green roofs, drip irrigation, and other Leadership in Energy and Environmental Design (LEED) approaches.

j) The built form must be sited to support clear sight lines to ensure a safe and convenient experience through the site and the public right-of-way.

k) A coherent organising structure of roads, buildings and paths in a grid-like design is to be established. This structure is to support the easy navigation and clear sight lines of the site and surrounding area for pedestrians, cyclists and vehicles.

l) Buildings are to be sited along the edge of the Public Right-of-Way to create a consistent street wall and to give a sense of enclosure, which enhances the pedestrian experience.

m) Buildings located on the interior of sites be designed to give pedestrian connections from the Public Right-of-Way priority, while enhancing the pedestrian environment and ensuring the site is easily navigable.

n) Buildings should be situated and the site organised to capitalise on solar orientation and other green technologies.

o) Overall site design and built form location should reflect view corridors to the site and potential focal point and gateway functions.
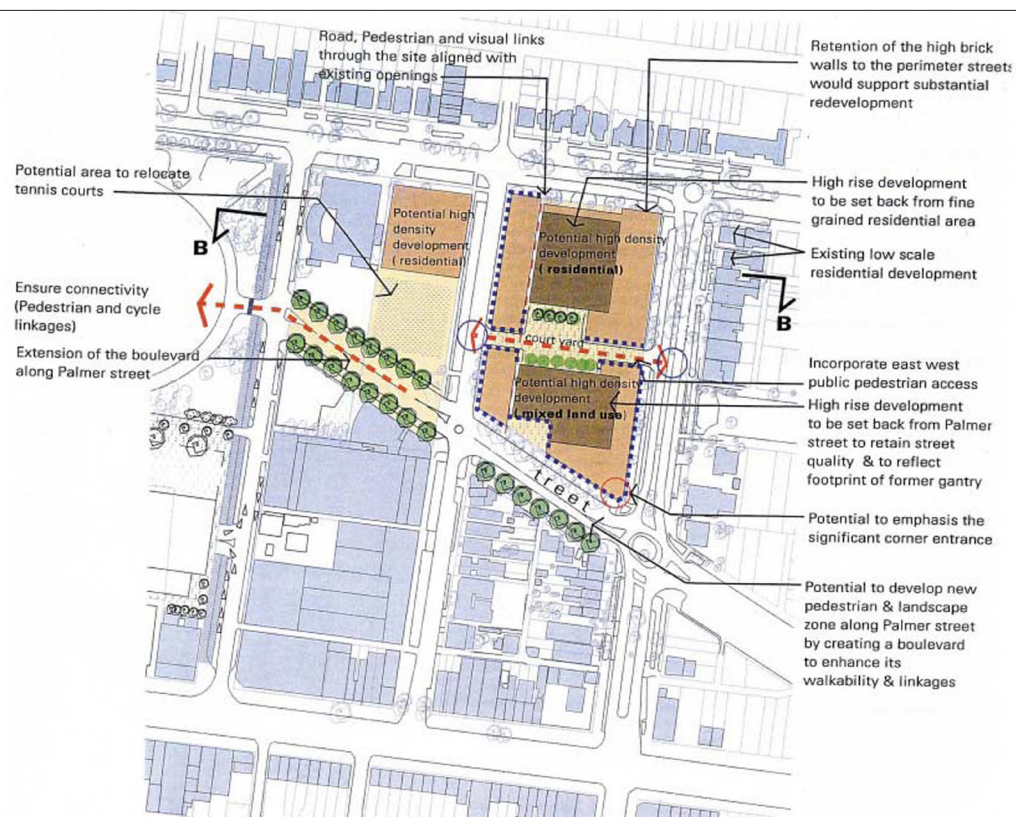

RECORD AND ANALYSE INFORMATION ON THE SITE AND ITS SURROUNDINGS.
Image: MGS Architects (Australia)
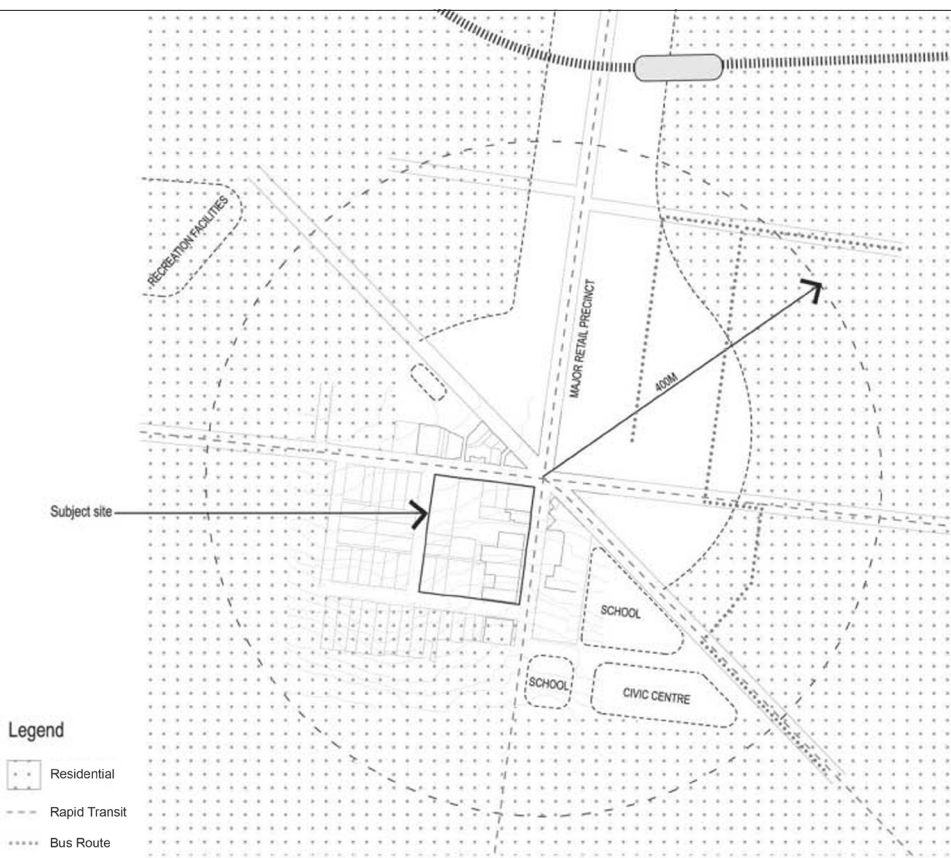
ENSURE A DEVELOPMENT IS CONSISTENT WITH
THE STRATEGIC LOCATION OF THE SITE.
Image: MGS Architects (Australia)

ACCURATELY ASSESS THE OPPORTUNITIES AND
CONSTRAINTS AFFECTING POTENTIAL
DEVELOPMENTS.
Image: MGS Architects (Australia)

Parking
a) Vehicular entrances/drive aisles are to have a maximum width of 6.7m and be minimised in number to ensure a consistent built form street edge can be created along the public street enhancing the overall pedestrian experience.
b) Locate surface parking areas and stacking lanes in the interior side yard or rear yard of buildings.
c) Locate vehicular access points to the sites as far away as possible from street intersections.
d) Provide only the minimum number of parking spaces required by the Zoning Bylaw to reduce excess parking and provide opportunities for increased landscaping areas and amenities.
e) Off-street parking for all uses other than single detached, semi-detached, duplex and townhouse dwellings, shall be located underground or to the rear of the site (behind the building), in a structure or surface parking field. If these options are not possible, then surface parking can be considered in the interior side yard, provided design measures are used to mitigate the parking field from the public realm. Parking is not permitted between the building line and the public right-of-way.
f) In surface parking areas, every eighth space should provide a landscape island with tree plantings;
g) Parking fields should provide dedicated pedestrian facilities for safe access to building entrances and the public right-of-way.
h) Parking should be screened by landscaping and the built form.

Landscaping
a) Select trees, shrubs and other vegetation considering their tolerance to urban conditions, such as road salt and heat. Give preference to native species of the region that are of equal suitability.
b) Where parking areas, drive lanes or stacking lanes are adjacent to a public street, use trees, shrubs and low landscape walls to screen cars from view. Landscape walls are to be similar in materials and architectural style to that of the buildings on site. In addition, the landscape wall is to be no higher than 1.2m.
c) Provide a minimum 3m wide landscape area, which may include a solid wall or fence in addition to planting, at the rear edges of sites that are adjacent to residential or institutional properties. This design treatment is not to be used towards the street frontage.
d) Protect existing vegetation, while featuring heritage specimen and mature trees on the site by minimizing grade changes and preserving permeable surfaces.
e) Use sodded areas and shrub beds and other innovative features to collect, store and filter stormwater in order to improve groundwater recharge.
f) Use public spaces to further enhance the pedestrian environment and act as an anchor for the overall site and neighbourhood. At corner sites a public square/forecourt is to be located at the major intersection that integrates with the organising structure of the site.

APPENDIX

5

Street Typology Design Specifications

Public Right-of-Way Designation	Expressway	Grand Boulevard	Rapid Transit Boulevard	Avenue	Mainstreet
Goal	• Priority for Vehicles and Freight Movement • Move Large Volumes of Vehicular Traffic • Quality Standard of Urban Design to Promote the City	• Emphasis on through movement of vehicles and Freight • High Quality Pedestrian Realm • High Standard of Urban Design	• Emphasis on through movement and connection to/of transit vehicles • Move large volumes of traffic (Pedestrian, cycle and Vehicular) • Higher Quality Pedestrian Realm • Higher Standard of Urban Design	• Emphasis on Pedestrian, cycle and transit movements • Move medium volumes of vehicular traffic • Higher Quality Pedestrian Realm • Higher Standard of Urban Design	• Priority for Pedestrians • Move medium-large volumes of cycle, transit and vehicle movements • Minimise Width of Vehicle Zone • Highest Quality Pedestrian Realm • Highest Standard of Urban Design
Measurements	50-100m	36-45m	40-50m	20-30m	20-30m
Vehicle Zone (Vehicle Zone is 60% of the Public Right-of-Way)					
Divided Road Way	Required	No	No	No	No
4-6 Through Lanes	Required	Required	No	No	No
2-4 Through Lanes	No	No	Required	Required	Required
1-2 Transit Lanes (Possibly Separate or Part of Through Lanes)	No	Avoid*	Required	No	Avoid*
Bicycle Lanes	No	Required	Required	Required	No
Bus Bays	No	Required	No	No	No
Centre-lane Transit Station Facility	No	Avoid*	Required	No	Avoid*
Demarcated Pedestrian Cross-walks	No	Required	Required	Required	Required
Left Channelisation	No	Required	Required	Required	No
On-street Parking (Possibly Separate or Part of Through Lanes)	No	No	Encourage*	Required	Required
Right Channelisation	No	Required	No	No	No
Tree Planted Median	No	Required	No	No	No
Pedestrian Zone (Pedestrian Zone is 40% of the Public Right-of-Way)					
Correlate Utilities (Provide for Optimal Tree Growth)	No	Required	Required	Required	Required
Pedestrian Scaled Lighting	No	Required	Required	Required	Required
Planters (pedestrian buffer)	No	Encouraged	Encouraged	Avoid	Encourage
Splash Strips/Snow Storage	No	Required	Required	Required	Required
Street Furniture/ Other Infrastructure	No	Required	Required	Required	Required
Transit Station Facility	No	No	Required	Encourage	Encourage*
Transit Stop	No	Encourage	No	Encourage	Avoid*
Tree Planted	Required	Required	Required	Required	Required
Vehicular Scaled Lighting	Required	Required	Required	Required	Required
Wide Sidewalks	No	Required	Required	Required	Required

Development Zone					
Land Use					
Commercial	Required	Required	Required	Required	Required
Industrial	Required	Required	Required	Required	Required
Mix of Uses	No	Encourage	Encourage	Encourage	Required
On-site Parking	Required	Required	Required	Required	Required
Residential	Required	Required	Required	Required	Required
Shared Off-street Parking/Facilities	No	No	Encourage	No	Required
Built Form					
Building Height Needed to Frame or Enclose Public Right-of-Way	No	Required	Required	Required	Required
Face Buildings to Public Right-of-Way	Required	Encourage	Encourage	Encourage	Encourage
Minimal Setbacks	Encouraged**	Encouraged	Required	Required	Required
No Parking or Drive Aisles in the Front Setback (Between the Building and Public Right-of-Way)	Required	Required	Required	Required	Required
Orient Buildings/Entrances to Public Right-of-Way	No	Required	Required	Required	Required
Vehicle Access Management					
Access Properties from a side or rear Public Right-of-Way	No	Required	Required	Required	Required
Avoid New Driveway Access Points	No	Required	Required	Required	Required
Lighted, Full Access Intersections (Minimum 300-400m)	No	Required	Required	Required	Required
. No Direct Access to the Public Right-of-Way (Interchanges Only)	Required	Required	Required	Required	Required
Right In and Out Intersections (Minimum 75-100m)	No	Required	Required	Required	Required

*   In select locations this condition may occur. Design objectives and locations will be identified by Community Planning and Urban Design Section.
**   This condition would not occur on the expressway Public Right-of-Way, but on an adjacent window street or other right-of-way.