INTRODUCTION

1.1 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 affect 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. It is our hope that the Urban Design Compendium will assist proponents and designers in creating vibrant and dynamic neighbourhood places within our community.

1.2 PURPOSE

The purpose of the Compendium is to help equip project applicants, funding bodies and interested third parties with guidance on achieving quality urban design in preparing development proposals. This document is not a guideline document adopted by Council, but is intended to be reference material that identifies core design principles. It is principally about the substance of urban design in creating the product. In other words, how do we change the urban landscape to create places where people want to live, work and socialise, from the street corner to the brand new neighbourhood.

The material within the Compendium reflects good urban design practice both in London, North America and internationally, relying on the stream of new and rediscovered approaches to urban design that have emerged over the last decade. The urban design movement has been at the forefront of producing a new wave of thinking about how design can position development in the market, change perceptions of place and create value.

1.3 HOW IS IT ORGANISED

The Urban Design Compendium is divided into three sections, each providing a different level of detail. The first section is the introduction, which provides background to the document and a small synopsis on relevant city policies related to urban design. Section two identifies the principles of urban design and how these principles relate to urban structure, streets and the built form. Section three provides design details for specific elements of site layout and development. Throughout the entire document the text is supplemented by graphics and photographs to illustrate principles and the details being conveyed.
1.4 CITY WIDE POLICIES

The City of London has a variety of policies and guidelines that seek to implement urban design initiatives throughout the community.

The Official Plan, particularly through Chapter 11, outlines Council’s policy direction on urban design. These policies help to support the creation of an attractive city amongst other objectives, such as:

- Economic competitiveness;
- Connectivity and walking;
- Compact urban form;
- Healthy neighbourhoods;
- Use of green building technologies;
- Efficient use of municipal infrastructure; and,
- Fostering a distinct community identity.

The aforementioned policies and objectives, along with the Compendium, should be used as a tool in the preparation of any development application in the City of London. It is the intent of this document to illustrate these policies.

To further supplement the above noted Official Plan policies, there are urban design guidelines for various districts within the City. These guidelines provide design details for development so as to establish a distinct identity for the district where they are to be applied.

Another project to note that has City-wide application is the Creative Cities Taskforce. Over the past decade, the City of London has directed resources towards the Creative City Movement. In its most prominent endeavour, the City established the Creative Cities Taskforce, which prepared a report on how to ensure London is amongst the leaders of this Movement. The report placed a high emphasis on creating an attractive city, with further recommendations for the inclusion of urban design initiatives to promote this objective.
2.1 URBAN DESIGN OBJECTIVES

1. Legibility
   A clear and simple development pattern within a city and neighbourhood enables residents and visitors to understand how an area is organised and to make their way around. This type of development pattern is generally delivered through a grid or modified grid network of streets. The 'grid' allows for easy navigation and provides a block pattern that creates increased connectivity, which also encourages alternative transportation modes to the car. In turn, the block pattern sets the parameters for the type of built form that can be achieved. It is highly desirable that the built form be both transit and pedestrian oriented.

2. Character
   A recognisable image can identify a city or neighbourhood to its residents or visitors. This image can include historic buildings, village precincts, buildings with a distinct architecture, public art and public spaces to name a few. Also, a development pattern created by a regular grid of streets and blocks reinforced by buildings that form a continuous, enclosing streetwall, creates a strong foundation for establishing such a recognisable image.

3. Diversity
   Successful neighbourhoods within a city provide for diversity and choice through a mix of compatible housing and building types and land uses. Through these measures residents of a neighbourhood have the opportunity to age in place; going through all of their various lifecycles without having to leave their original neighbourhood and breaking the social networks they have formed.

4. Continuity and Enclosure
   A continuous built form street frontage is needed throughout an area of the city or neighbourhood to allow users to easily understand where they are, directions to where they need to go and the purpose of the street (ie is the street a village mainstreet or is it a residential arterial). In doing this, development will assist in creating the proper enclosure of space and delineate the private and public realms.

5. Ease of Movement
   Older neighbourhoods within cities are usually configured for maximum convenience as the area has high connectivity and it is a place for pedestrians. A compact urban form, a legible urban structure (ie grid network of streets), short blocks, pedestrian priority and a built form that is transit and pedestrian oriented ensures an area has maximum convenience for movement. In newer neighbourhoods, the street systems are usually curvilinear in nature with larger blocks, which reduces overall convenience and frustrates ease of movement for pedestrians.

6. Adaptability
   Cities and neighbourhoods are constantly changing. The success of these places are directly related to the ability of the form and pattern of development to adapt over time to changing social, technological and economic conditions.

7. Quality Public Realm
   The public realm is one of the most important components of any city or neighbourhood. As such, the built form and streetscape treatments should provide an attractive, safe and comfortable pedestrian environment, while maintaining the overall visual cohesiveness of the area. This can be achieved through a variety of design responses, which include, but are not limited to, ground level facade treatments (ie transparent glass that shares the interior activities with the street), architectural details, paving patterns, shade, seating, adequate sidewalk widths and other features.
2.2 URBN STRCTURE PLN

The urban structure of a city or neighbourhood is a network of connected spaces and routes for pedestrian, 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, which excludes public access.

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 unhindered, 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.
2.3 STREETS

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. Its main functions are:

• Circulation, for pedestrians, cyclists and vehicles;
• Transit access;
• Access to buildings, and the provision of light and ventilation for buildings;
• A route for utilities;
• Storage space, especially for vehicles;
• Public space for human interaction; everything from parades and gatherings to chance encounters.

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 main indicators of quality, which are the test of a successful streetscape, can be listed under six headings:

• Comfortable and safe for pedestrians and the disabled;
• A street designed to accommodate all sorts of functions, not dominated by any one function;
• Visually simple, and free of clutter. Regardless of whether a street is a straightforward or complex space, what matters is the simplicity and clarity of its paving, street furniture, lighting and landscaping;
• Well cared for, and where utilities or advertising/signage are subordinate to all other street functions;
• The design and detail of a street is sympathetic to local character and the activities in the right of way (eg village mainstreet – the street should not be designed to move cars at high speeds);
• Making appropriate provision for access, deliveries and storage of vehicles.

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 outweigh 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.

“If we can develop and design streets so that they are wonderful, fulfilling places to be – community building places, attractive for people - then we will have successfully designed about one-third of the city directly and will have had an immense impact on the rest.”

Allan Jacobs
2.4 BUILT FORM

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 (i.e. massing, rhythm and materiality) responds directly to the type of street environment/configuration that exists or is to be created over time.

The design of the built form can be categorised into three components, base, middle and top:

1. **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;

2. **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;

3. **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.

Through each of these categories, massing and scale is very important to delivering an enhanced streetscape and pedestrian environment. To this end, the built form design should be at a human scale, one which integrates with the street environment and does not dominate the pedestrian experience and the overall streetscape.

**Massing** is the combined effect of the arrangement, volume and shape of a building or group of buildings in relation to other buildings and spaces. It is the three-dimensional expression of the amount of development on a given piece of land.

**Scale** is the size of a building in relation to its surroundings, or the size of parts of a building or its details, particularly in relation to the size of a person. Height determines the impact of development on views, vistas and skylines.

To ensure a quality pedestrian environment 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. The height to width ratio is shown below in both table and chart format.

The space between the road and the front of the building, part of the public realm, needs to be carefully designed and managed as it marks the transition from the public to the private realm. Continuous building lines are preferred as they provide definition to, and enclosure of, the public realm.
3.1 FACADE AND INTERFACE

It is important that all sections of a building contribute to the continuity of the public realm and create a consistent streetwall. Elements such as corners, main entrances, unit entrance, balconies, porches, patios, appropriate signage, awnings and lighting are important in the design of a building. All of these elements reinforce the public realm (pedestrian environment), are aesthetically pleasing and adds to the pedestrian experience.

3.2 BUILDING SETBACKS

For mixed use, retail or commercial buildings, the built form should normally be located at or near the property line to reinforce the streetscape and create a quality pedestrian experience. With residential built form, the setback is dependant on the building’s type. For apartment and townhouse forms, the building should be located at or near the property line to ensure the proper proportions are created for the public realm (as discussed in the previous section). Opportunities should be sought to create forecourts or front gardens to soften the hardscape condition along the street. For single family dwellings, the built form should be located between 2-4m from the property line. This setback ensures there is a proper growing space for trees, reinforces the streetscape and creates a quality pedestrian environment.

3.3 PARKING

Parking is integral to the success of a project; however, its location on the site is also important to the success of achieving a sense of place for the neighbourhood and the subsequent public realm. For larger building type (ie apartments, office buildings or mixed use buildings) the parking should be situated underground or at the rear of the site in a surface or structured format. By placing the parking in these locations, it allows for the built form to be at or near the property line ensuring both a positive streetscape and pedestrian environment are created. Coupled with the building location noted above, parking underground or to the rear of the site also permits active uses at grade; this further assists with creating a vibrant and dynamic public realm.

In smaller building type (ie single family dwellings and townhouses), parking or garages should not be situated in front of the built form line, parking at the rear or side of the house is appropriate. Rear laneway situations could be considered for these type, in order to move the parking components to the rear of the property; this allows for an enhanced public realm and pedestrian experience.

3.4 MASSING AND SCALE

The massing of a proposed development, as noted above, is contextual in nature and should maintain a human scale. In infill situations, the urban character already exists and the massing should be consistent with the surrounding built form. This includes detailed design elements, such as, windows, ornamentation, materials and visual bulk. For more suburban situations, the massing should encourage a more urban character and may not contextually fit in the immediate term, but will over time as the area shifts from a suburban character to one with urban qualities.

On taller buildings, stepbacks and roof treatments are desirable to help achieve a better scale and visual appeal for the public realm. Buildings with a height greater than four storeys should use stepbacks to reduce the impact on the pedestrian experience. The stepbacks allow for greater sunlight into the street, a built form with a human scale and a reduction of wind effects on pedestrians. In addition to stepbacks, roof top treatments are desirable as they cap the building and provide an architectural finish to overall composition. Exposed mehcnical penthouses and other devices do not help to create high quality city skyline.
3.5 Site Layout

The layout of the site is heavily influenced by the characteristics of the site itself. Influences on the layout include, but are not limited to: topography; existing and potential routes (pedestrian, cycle, transit and vehicular); parks and open spaces; natural features; view corridors; and site access. The overall site layout needs to successfully integrate with the surrounding land forms and foster a positive relationship with the surrounding built form and provide a quality streetscape to enhance the routes that intersect the site for pedestrians, cyclists, transit users and vehicles.

3.6 Building Type

Along with massing and scale, building type has an important role in creating a quality public realm. Building type includes a variety of characteristics, such as the size of the building’s floorplate, its storey heights, means and location of access and the building’s relationship to external spaces at grade. All of these elements are influential in creating a quality public realm that is enjoyable for all user types. On larger building typologies (i.e., apartments and office buildings), smaller floorplates are desirable as they permit sunlight into the street and breaks down the visual bulk of the large mass that is usually created by this built form type. The building’s relationship to the external spaces at ground level is also important (such as, where are the entrances? What is the means of access to the site?). To ensure a quality public realm, entrances to the ground floor units, whether commercial or residential, should front the street; otherwise, the building will be backing onto or flanking the street. Vehicular access to the site should be integrated with the overall built form; this access should not be pronounced or dominate the streetscape.

3.7 Density and Mix

The density and mix of a building influences a variety of characteristics within a neighbourhood, such as, people’s transportation choices (i.e., walking or driving), one’s ability to age in place and the community’s ability to support retail and commercial uses within walking distance; density and mix are also influential on building type, site layout and neighbourhood character. The intensity of activity should be relative to the place’s accessibility and proximity to a range of uses.

3.8 Materials

The materials chosen for a project are the skin of the building; it is what ties all of the urban design elements together. Materials can “make or break” the success of a project. When choosing materials, it is important to understand scale. The size and repetition of a material can add a dimension to the built form and assist in creating a positive streetscape. Materials such as stucco and concrete, which can be applied as a solid material with no relief, is not a desirable design response.