HOSPITAL DISTRICT STUDY: FINAL REPORT

APPENDIX I: URBAN DESIGN DIRECTION

URBAN DESIGN DIRECTION

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1. PUBLIC REALM

The Hospital District's evolving public and semi-public spaces provide opportunities for creative placemaking. Permeable blocks, fine-grained streets, accessible pedestrian connections, well-designed public spaces, and gateways and public art that reinforce a distinct sense of place will all contribute towards creating a vibrant public realm.

The public realm includes the Hospital District's streets and open spaces along with the street furniture, gateways, public art and pedestrian connections that animate these spaces. The following urban design direction should be considered with respect to the District's:

- Street Design;
- Urban Squares;
- Gateways;
- Public Art; and
- Block Size and Character.

STREET DESIGN

Streets should contribute to an attractive public realm and provide safe and efficient movement for all modes of travel. The design of streets within the Hospital District will be consistent with the Town's Livable by Design Manual.

Bold Streetscapes are comprised of boulevard and roadway elements, and will be designed to:

- Feature cohesive street walls, street trees, sidewalks on both sides, and other design elements to visually enclose the street and define roadway and pedestrian zones.
- Include street trees on both sides of all existing and proposed streets.
- Prioritize pedestrian, cyclist and transit modes of travel by including wide sidewalks, dedicated cycling lanes, and safe and comfortable transit shelters.
- Promote safety for all modes of transportation with tree-lined boulevards and on-street parking creating a visual and physical separation between the

sidewalk and roadway.

Consider the requirements for healthy plant growth when planting trees and other landscaping, and only use native species that are tolerant of urban conditions. Seasonal appeal during the winter months should also be considered. Provide barrier-free access by incorporating universal design principles.

Bold Boulevard Elements are located between the curb edge and property line, functioning as important public spaces for employees, residents and visitors. Boulevards will:

- Strive to create an animated public realm and pedestrian-oriented street character through wide sidewalks (2 to 3 metres), active at-grade uses, street furniture, patio and marketing zones, wayfinding and signage, planters, public art and landscaping.
- Include lighting to improve safety and visibility for pedestrians and cyclists.
- Consider the placement and size of landscaping, wayfinding and signage and street furniture.

• Ensure safe and barrier-free access.

Roadway Elements will be designed based on the following hierarchy: emergency service vehicles, public transit users, cyclists, and private motorized vehicles.

Roadways will:

- Include lane widths that are appropriate for the road hierarchy and surrounding context.
- Help ensure speed limits are followed by implementing design features such as onstreet parking, bump-outs, tree planting, medians, pedestrian crossings.
- Design secondary streets for flexible uses.
- Promote cycling safety through signage, paint, and other features. Separated bike lanes will be provided on Major Arterials and Major Collectors.

Bold Green Connections throughout the District will provide safe movement and access to surrounding open spaces for pedestrians and cyclists. These will:

- Connect and supplement pedestrian and cyclist routes.
- Feature a minimum three-metre wide trail and a minimum five-metre right-of-way.
- Adhere to Crime Prevention Through Environmental Design principles.
- Include landscape buffers and amenities such as seating, lighting, wayfinding features and bike racks.
- Support low impact development stormwater management practices.





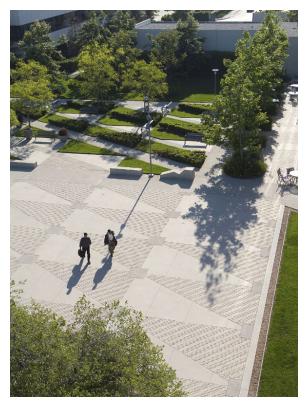
A pedestrian-friendly urban square (top), a lively and safe boulevard streetscape featuring a wide sidewalk, patio and marketing zone, signage, street furniture, cycling infrastructure, planters and landscaping (bottom)

URBAN SQUARES

Urban squares are likely to be provided as privately owned public spaces (POPS) that will complement green connections and active transportation routes. Three potential locations for urban squares are identified within the Hospital District.

- Urban squares will be of high-quality design located near active ground floor uses, and will support a pedestrian-friendly environment.
- Urban squares will be visible from sidewalks, public areas, and/or indoor areas.
- Urban squares should feature a range of uses to support employee, visitor and resident needs.
- Environmental resiliency should be promoted through a combination of hard and soft landscaping.
- Urban squares could take the form of plazas, parkettes or playgrounds.
- Adjacent buildings should define and complement urban squares while

maximizing sun exposure and minimizing micro-climatic impacts.





Integration of hard and soft landscaping through vegetation and unique paving design (top left), circular open space features public furniture (top right), and courtyard provides seamless indoor-outdoor connection (bottom right)





Examples of gateway design features

GATEWAYS

Gateways will create a sense of arrival, supporting a distinct identity for the District. Visual and physical gateways should be located at key intersections including Dundas Street West and Third Line, and Dundas Street West and Hospital Gate.

- Buildings as gateways should present an enhanced architectural design and frame spaces through the use of massing and high-quality facades.
- Gateway elements could include landscaping, feature lighting, street furniture, enhanced paving, wayfinding elements and public art.
- Gateways should be consistent with the North Oakville Urban Design and Open Space Guidelines and Livable by Design Manual.

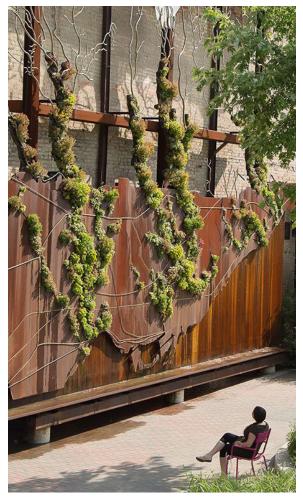
PUBLIC ART

Public art will support the creation of attractive public spaces through the inclusion of sculptures, murals, architectural features, signage, street furniture and high-quality infrastructure.

- Public art should be located in highvisibility areas including urban squares, gateways, and major buildings.
- Public art must have a positive relationship with adjacent buildings and natural spaces.
- Public art should reflect the healthcare focus of the District and use lighting and landscaping to highlight the installation.
- Public art should be consistent with the Livable by Design Manual.



Unique public art that speaks to the District's character



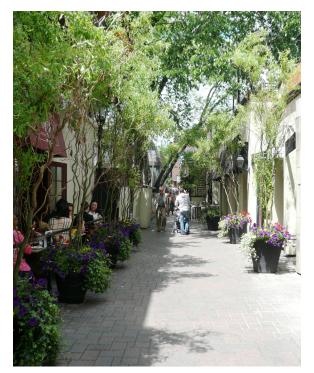
Public art integrates vegetation (Source: Evergreen Brickworks)

BLOCK SIZE AND CHARACTER

A grid-shaped street network will increase permeability and connectivity for all users.

- Mid-block connections should be incorporated into blocks with more than one building to break up larger developments and reinforce a pedestrianfriendly character.
- Smaller blocks should capitalize on opportunities to integrate pedestrian walkways, linear green spaces and separations between built form.
- Mid-block connections will provide pedestrian and cycling paths to connect a variety of uses, and divide larger development blocks.
- Mid-block connections should be provided between buildings to improve permeability in the District and reinforce the feeling of an urban campus.
- Wayfinding features such as signage should be used to support navigation and connectivity along mid-block connections.

Design of mid-block connections should conform to Crime Prevention Through Environmental Design principles.



An intimate mid-block connection with active at-grade uses



Design features enhance the pedestrian and cyclist experience



Mid-block connection integrated within larger block (top), lighting features along path to improve safety (bottom left), and shared public furniture contributing to a sense of place (bottom right)

2. TRANSPORTATION AND CONNECTIVITY

Urban design directions will help shape a cohesive transportation network that provides seamless connections between all modes, while prioritizing the safety of pedestrians, cyclists, and transit users.

TRANSIT NETWORK

Bus routes service the Hospital District via stops on Dundas Street West and within the Oakville Trafalgar Memorial Hospital campus. Priority bus service is planned for Dundas Street West, which will be critical for supporting future office and employment development.

- Transit stops should be integrated into streetscapes, ensure accessibility for pedestrians, provide weather protection, and feature clear signage.
- Active transportation connections will be located near existing and planned transit stops to facilitate direct walking and cycling access.
- New development must make efficient use of existing and planned transit infrastructure through compact built form.

 New development should include transportation demand management strategies.







Transit stops should be integrated into streetscapes (top), pedestrian (left) and cycling (right) networks will increase permeability throughout the Hospital District

PEDESTRIAN NETWORK

Sidewalks, active transportation trails, midblock connections and other walkways within the Hospital District will prioritize pedestrian use, safety and comfort.

- The pedestrian network will provide safe and efficient movement between public spaces, buildings, trails, and other components of the Hospital District.
- All streets will have sidewalks on both sides.
- Walkways and trails will provide yearround pedestrian safety and comfort. Sidewalk surface treatments should be chosen based on function, durability and barrier-free movement. Lighting should be provided along streets to increase safety and visibility.
- Wide sidewalks, active building frontages, and street furniture will animate the public realm and improve the pedestrian experience. Additional pedestrian enhancements should be included along Dundas Street West and Third Line.
- Principal building entrances will front

public sidewalks.

The pedestrian network will align with the Livable Oakville Design Manual, North Oakville Urban Design and Open Space Guidelines, Town of Oakville Transportation Master Plan and Town of Oakville Active Transportation Master Plan.

CYCLING NETWORK

A robust cycling network will encourage active transportation.

- All streets will accommodate cyclists with signage, road markings, and other design features. Separated bike lanes will be developed on Third Line, William Halton Parkway and Hospital Gate.
- Bicycle parking and bike-sharing facilities should be located near transit stops, building entrances and other key destinations. Their location should not impede pedestrian movement.
- New developments should include secure bicycle parking.
- Signage, paving materials and other

design elements should be used to demarcate bicycle and pedestrian zones in shared areas.

 Design and implementation of the cycling network will align with the Town's Transportation Master Plan and its Active Transportation Master Plan.



Sheltered bicycle parking

3. SUSTAINABILITY

Development should incorporate sustainable design practices to reduce ecological impacts, promote innovation, and reinforce resiliency.

SUSTAINABLE DESIGN

Sustainability will be incorporated into the design and function of the public realm, and private and public buildings.

- Outdoor spaces should incorporate low impact development practices such as permeable paving, bioswales, bio-retention planters, and the use of sustainable materials.
- Plant materials should be native and noninvasive, promote biodiversity, and be tolerant of urban conditions.
- Buildings should incorporate sustainable materials and design features to reduce energy needs. For example, buildings should be oriented to optimize sunlight and/or feature massing with extended eaves for shade.
- Developments should be designed for flexibility to facilitate changes to programming, technologies, and tenant

needs over time.

- Lighting is recommended to be energy efficient, use green power sources and automation to control illumination levels.
- All buildings should be designed with regard for the Town of Oakville's Sustainable Design Guidelines and Livable by Design Manual.

ADDITIONAL CONSIDERATIONS

Infrastructure and Energy

Strategic design considerations at the building and community level will maximize energy efficiency in the Hospital District.

- District energy system use will be encouraged, as outlined in the North Oakville West Secondary Plan.
- Development projects should explore renewable energy sources such as wind and solar energy.
- Energy conservation features will be required for new developments, including the use of efficient electrical appliances, water systems, and lighting.

Life Cycle Cost Analysis

The process of life cycle costing should be incorporated into all development proposals to incentivize sustainable design practices.

- Public and private development proposals should include a life cycle cost analysis that compares long-term costs over the expected project life.
- This process should be informed by the Town of Oakville's Sustainable Design Guidelines and its Sustainable Building Design Procedures.

Water

Water management will be considered throughout the design and development process to create efficiencies and minimize environmental impacts.

- Management of water resources will be aligned with the North Oakville Creeks Subwatershed Study, which recommends a hierarchy of storm controls with preference for source-level control with surface retention and storage, as well as stormwater reuse. Two stormwater management facilities are located onsite to provide functional environmental benefits and eventually include open recreational space.
- Buildings and public spaces should be designed and constructed to minimize stormwater runoff with bioswales, green roofs, rain gardens, planters, reuse of grey water, and more.
- Water-saving appliances should be installed in all new developments.



Examples of low impact development practices include permeable paving (top) and bioswales (bottom)

4. BUILDING DESIGN

The Hospital District will feature mixed use developments in a compact urban form. Building design should be sustainable to reduce ecological impacts, promote innovation, and reinforce resiliency. It should also be contemporary, reinforcing the vision of the District as a health-oriented innovation center.

Successful building design will contribute to the creation of a complete community, provide attractive and innovative buildings and spaces, fit the surrounding context, and promote street activity and active transportation.

Building design will have regard for the Livable by Design Manual and North Oakville Urban Design and Open Space Guidelines.

ARTICULATION

Articulation refers to the layout or pattern of building elements including walls, entrances, roofs, windows, and projections or recessions.

 Buildings should be oriented with main entrances that face toward public streets and spaces, and ensure barrier-free accessibility from sidewalks.

- Buildings should help to define the public realm and frame abutting streets, sidewalks and parking areas.
- Buildings should be located near the street line to provide a continuous street wall.
- Passive solar design should be incorporated into the design of block layouts, buildings, and open spaces.



Buildings along secondary streets located at the street edge to provide a continuous street wall

FACADES

Building facades should be visually appealing and address the scale, materials and design features of surrounding buildings and spaces.

- Facades should feature a consistent design that complement its surroundings and incorporate a pattern of transparent glass and solid materials.
- Facades that are visible from the public realm should feature high-quality architectural treatments, such as varied wall planes and roof lines, humanscale proportions, large windows, and entryways.
- A variety of materials and architectural details should be used to break up facades. Materials should be functional, durable, and easily maintained, while also contributing to energy efficiency and sustainability.
- Blank facades and walls are not permitted and finishing materials must be extended to all building sides.

 Facades should include weatherprotective elements to maximize solar orientation and to protect pedestrians. These could include covered walkways, porticos, canopies, and awnings.

ACCESS TO VIEWS AND DAYLIGHT

New buildings should protect views to natural heritage systems and be massed to maximize natural light.

- Buildings should protect and direct views of Sixteen Mile Creek, the West Oakville Sports Park, and the natural heritage system along William Halton Parkway West.
- Building design will optimize natural daylight with attention to building orientation, window design and materiality.
- Any heat-producing machinery for commercial or office uses should face north to reduce heating needs from external sources.
- Mechanical components should be located on the rooftop or back-of-house, far from the public realm.



Buildings feature high-quality architectural treatments and materials to provide visual interest and break up facades, with windows that optimize natural light and protect views to key destinations (parks, urban squares and natural areas)

WINDOWS

Windows act as a bridge between the public and private realms. Creative use of glazing can enhance transparency and safety.

- Windows facing street frontages should be large, enhance the public realm, and occupy a significant portion of the street elevation.
- Clear glazing is preferred as it promotes a high level of visibility. Reflective and tinted glazing should be avoided.
- Windows should be oriented to maximize natural means of cooling, heating, and lighting.

MATERIALS

Building materials should complement surrounding developments and advance sustainability objectives.

 Materials should be functional, durable, and easily maintained, while also contributing to energy efficiency and sustainability.



Large, transparent windows contribute to a safe public realm

- Materials should be consistently applied on all walls of a building and the mechanical penthouse.
- A variety of complementary materials should be used to enhance architectural interest.
- Recycled or locally-sourced materials should be used whenever possible.



Complementary building materials and large windows

GROUND FLOOR DESIGN

The relationship between the ground floors of buildings and the public realm can be strengthened through urban design direction.

- Primary building entrances should face public streets and be accessible from sidewalks.
- Entrances should convey a sense of arrival by using unique design and detailing such as lighting and canopies.
- Ground floor design should include weather protection for pedestrians with features such as awnings and canopies.
- The design and location of entrances should follow Crime Prevention Through Environmental Design principles, including but not limited to lighting, mixture of uses, design clarity, and visibility.
- Ground floor commercial uses should have a minimum floor to ceiling height of 4.5m, a minimum 75% of glazing on facades, and architectural treatments on all non- transparent surfaces.

- At-grade commercial spaces should include public uses such as cafes, retail stores, and restaurants where active street frontages are most needed.
- Ground floor residential units should have floor to ceiling heights between 3.5 and 4.5 metres.





Institutional building entrance with canopy (top), and building entrance facing public street with high ceiling and clear glazing (below)

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MID-RISE BUILDINGS

Buildings between six and twelve storeys in height will be the dominant built form.

The Livable by Design Manual and North Oakville Urban Design and Open Space Guidelines provide specific guidelines for mid-rise buildings. Relevant guidelines for the Hospital District include:

- Mid-rise buildings will fit the context of and minimize impacts on surrounding areas.
- Setbacks from property lines should be established to accommodate urban squares, patio spaces, and public art.
- Building base heights will not exceed 80% of the right-of-way width, up to a maximum of six storeys. Above this height, the remaining building will be stepped back at a 45-degree angle.
- The tower portion of mid-rise buildings should incorporate varied architectural details, reinforce horizontal datum lines of abutting buildings, and minimize shadow and micro-climatic impacts.

- Mid-rise buildings abutting urban squares or open spaces should incorporate a 45-degree angular plane from the shared property line.
- Towers should have a minimum 5 metre step back from the main wall of the building base.
- Mid-rise buildings must ensure privacy, sky views, and sunlight access by incorporating a minimum separation distance of 25 metres between towers.
- Residential buildings with balconies and other projections should be integrated into the structure of the overall building.







Mid-rise buildings with step backs (top) and balconies seamlessly integrated into design

TALL BUILDINGS

Buildings between thirteen and fifteen storeys are permitted in portions of the District. While design direction for tall buildings are similar to those for mid-rise buildings, additional considerations should ensure that massing is human-scaled, provides adequate sunlight access, and does not impact hospital helipad flight paths.

Tall building design should follow guidelines in the Livable by Design Manual and the North Oakville Urban Design and Open Space Guidelines. Relevant guidelines include:

- Tall buildings will mitigate mass and shadow impacts, provide context for surrounding developments, and create visual interest.
- Tall building design will ensure adequate privacy, sky views, and sunlight with siting and minimum tower separation distances of 25 metres.
- Tall ceiling heights with generous glazing will be allocated at-grade to accommodate flexible commercial space and contribute to a pedestrian-oriented streetscape.

- Building base heights will not exceed 80% of the right-of-way width, up to a maximum of six storeys. Above this height, the remaining building will be stepped back at a 45-degree angle.
- Upper floors of tall buildings will feature varied massing with step backs and other architectural elements that create a visually attractive skyline profile.
- Penthouses, mechanical equipment, and other roof amenities will be integrated into the overall building design.
- Tall buildings will incorporate sustainable building features such as water collection and storage, photo-voltaic applications, green roof design, high albedo surfaces, and extended eaves for shade.



Varied massing and step backs (top), and green roof (bottom)