

# DOWNTOWN 21

MASTER PLAN



Creating an Urban Place in the Heart of Mississauga

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Prepared by:

 **GLATTING JACKSON KERCHER ANGLIN**  
we plan and design livable communities

In association with:

The Canadian Urban Institute  
Iain Dobson (Real Estate Research Corporation)  
N. Barry Lyon Consultants  
Ken Greenberg Consultants

# TRANSFORMATION:

## Creating an Urban Place in the Heart of Mississauga



actionable affordable  
multi-cultural sustainable  
urban walkable  
transit-supportive mixed-use  
vibrant valuable inclusive  
accessible predictable

## 1.1 WHY A MASTER PLAN?

The original vision for the City Centre was prepared in 1969 by the McLaughlin Group and established Square One shopping centre as the heart of Mississauga City Centre. It was a developer-driven, idyllic “Modern” vision that sought to separate cars and pedestrians by a series of elevated walkways connecting buildings placed in lush a green landscape. Pedestrians were to move freely without the inconveniences of having to deal with automobile conflicts and noise.

While this vision never fully came to fruition, many principles from this era of city building did work their way into mainstream thinking including buildings set back from the street, surrounded with grade-level parking and the notion that cars and pedestrians must be separated. As a result, many of our streets and buildings were designed with only the automobile in mind, creating a suburban landscape void of vibrant urban life.

In the late 1980’s and early 1990’s, Mississauga, and numerous other cities in North America struggled to find a solution to the problem of how to revitalize main streets and downtown cores. It became universally accepted that main streets and urban downtown areas should be active, vibrant, mixed-use areas that encourage a wide range of pedestrian-oriented activities and that downtowns should have an abundance and diversity of great ‘people places’. Within this context, the City undertook the task of updating the original 1969 vision to create an appropriate framework to achieve a vibrant core. This culminated in the adoption in 1994 of the City Centre Vision.

The current vision for the City Centre was established more than a decade ago. It was intended to promote the development of vibrant pedestrian-oriented streets through architectural and land-use solutions and made great strides in achieving this vision. Official Plan Amendment 20 (OPA20) moved to refine the road pattern, create more of a grid street pattern and to break up super blocks into an urban setting. **Downtown21** builds upon and makes further refinements to the road pattern and block structure of the downtown.

In June of 2007, the City of Mississauga launched the largest community engagement process in its history. The “Our Future Mississauga - Be Part of the Conversation” initiative was designed to set the stage for a new vision and Strategic Plan for Mississauga. Through extensive public engagement, the process was wide-spread in its reach and vast in its collection of ideas. Ways to improve the downtown were consistently at the forefront of conversations with the community, City staff and City Council. The City’s new Strategic Plan, which resulted from this process, established five Strategic Pillars for Change (Developing a Transit-Oriented City, Ensuring Youth, Older Adults and New Immigrants Thrive, Completing our Neighbourhoods, Cultivating Creative and Innovative Businesses and Living Green). Within the “Completing our Neighbourhoods” Strategic Pillar for Change, “Creating a Vibrant Downtown” is one of the City’s key strategic goals. Downtown Mississauga represents the best opportunity to test and implement these “Pillars”.



Mississauga City Centre 1969 Master Plan



Mississauga City Centre 2009

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## 1.2 CREATING AN URBAN PLACE IN THE HEART OF MISSISSAUGA

To achieve the goals of the Strategic Plan will require a significant transformation for Downtown Mississauga - a transformation from suburban to urban. This will entail a Downtown that will be walkable and human-scaled with juxtapositions and surprises, arts and culture, grit and polish, rich in information, convenient, stimulating, flexible, wired, innovative, productive, universally accessible, sensual, and able to do more things in less space. It is the place we want to be. The broad vision for this transformation has been endorsed by the public and City Council in numerous town hall meetings.

More than just a plan, **Downtown21** represents an ongoing endeavor in which virtually the entire community can become involved. Downtown Mississauga is a proven and successful market with over 30,000 residents and 20,000 jobs within walking distance of the major centre of civic government, cultural amenities and an established regional retail facility. Expanding on this substantial base, **Downtown21** is designed to promote the continued evolution of a livable, compact, accessible, sustainable downtown centre for the entire city which will enhance Mississauga's competitive advantage and reputation as a forward looking community.



## Office is Fundamental

A fundamental mission of **Downtown21** is to attract office employment back to Downtown. A vibrant and expanding employment base is a critical component of a thriving and sustainable Downtown. While some office growth has occurred in the past, it has been stalled. Downtown Mississauga cannot compete with lower cost suburban locations and, currently, Downtown locations do not offer the office tenant amenities to offset the cost differential. The best strategy to encourage office employers to locate in the Downtown is to create a “downtown” - a true urban environment that is an urban alternative to suburban locations but with the advantages of competitive suburban rental rates. This urban environment cannot wait another decade to occur – office will go elsewhere – it has to be built now.

## Main Street – A True Urban Environment

The short-term creation of the Main Street District is a critical first step in the development of the larger Downtown area. It is seen as a vital new mixed-use precinct, close to office development sites, which will incubate the transformation of the massive parking lots surrounding one of North America’s pre-eminent shopping centres into the nucleus of a walkable, attractive Downtown community.

When successfully developed through a partnership that includes strategic public investment, Main Street will create an environment that enables Downtown workers to enjoy a higher quality of office life before, during and after working hours and all without being dependent on their cars. It will relocate the currently popular Farmer’s Market giving it higher visibility in an active retail setting. With the additional future advantage of a Light Rail Line circling the Downtown and travelling from Port Credit to Brampton, employers will be able to provide their employees with a realistic and practical alternative to driving to work every day.

The short-term creation of a Main Street, and the long-term development of the overall area, will position Downtown Mississauga for a leadership role in providing a distinct and highly competitive alternative for office employers within the 905 marketplace. Already, the decision to consolidate Sheridan College’s business programs in a Downtown location, made after the announcement of the new Main Street District, is a clear indication of its attraction as an urban destination and location for one of a number of significant educational facilities.



## Leveraging Assets & Resources

The next critical steps in the evolution toward a more sustainable and prosperous future for Downtown involve strategic re-development leveraging existing assets and resources. This requires looking at the next generation of change in the Downtown with fresh eyes, seeking new ways to re-position and adaptively reuse the elements of the previous largely auto-oriented pattern. Among them is the physical opportunity to use the large area of existing surface parking lots to create a more sustainable pattern of transit-oriented growth within a new urban structure. Socially, Mississauga is rapidly becoming one of the most diverse cities in the world with over 50% of its population foreign born. In making the transition to a more urban future Downtown offers a unique opportunity to leverage the diversity and energy of Mississauga’s remarkably diverse population base to create a place that is distinctively of this community.

## Sustainability

“Living Green” is one of the five “Strategic Pillars for Change” in the City’s new Strategic Plan and **Downtown 21** anticipates a greener, more sustainable future for Downtown with a reduced carbon footprint and forms of development that are inherently more environmentally sustainable. This will be accomplished through innovative design approaches to individual buildings and landscapes as well as Downtown as a whole. This will allow for lower energy consumption and alternative energy sources, improved waste management and treatment and new approaches to storm and wastewater management.

As Downtown makes the shift to more sustainable land use patterns and achieves a greater mix and proximity of daily life activities—living, working, shopping, culture, recreation, entertainment, food, theatres and leisure, it will become more self-sufficient through the overlap of different populations and uses – residents, employees, students, shoppers, visitors, library users, etc. A critical component of the new downtown will be the provision of affordable, accessible housing as part of an expanded mix serving the entire population. With substantial new investment in Light Rail Transit (LRT) and Bus Rapid Transit (BRT), Downtown will play a major role in balancing travel patterns and reducing auto dependency as well as creating an environment that makes walking and cycling viable options for daily trips between home and work and for local shopping. Making the transition will require careful management of traffic and incremental steps to rationalize the supply and use of parking.

## Making It Happen

**Downtown21** identifies opportunities for public/private collaborations starting with Main Street as a key area of initial focus, a catalyst for a larger strategy and a convincing demonstration of the potential of the city’s vision for the future of Downtown. It will reflect the new look of Mississauga – multi-cultural, young and old, lifestyle oriented with a focus on food and vibrant streets lined with patios, outdoor merchandising, green-grocers and small merchants with a regional flavour. It will create a significant local destination and Regional draw within the Greater Golden Horseshoe.

## 1.3 DOWNTOWN21 PRINCIPLES

The Downtown21 process has defined a set of guiding principles that drive the plan, future policy decisions and implementation strategies.



### 1 Catalyze Employment

The future of downtown has to strengthen existing office uses and attract new major employment to ensure long-term economic success and urban vitality.

*Recommendations:*

- Make downtown the premier “urban” destination for future office, employment and creative economy growth in Mississauga;
- Build Main Street as an urban demonstration and catalyst for office development;
- Increase access to higher order transit; and
- New solutions and partnerships for parking will be required.

### 2 Build Multi Modal

A successful, vibrant and active downtown will have to support and rely on a range of transportation modes including walking, cycling, transit and the car.

*Recommendations:*

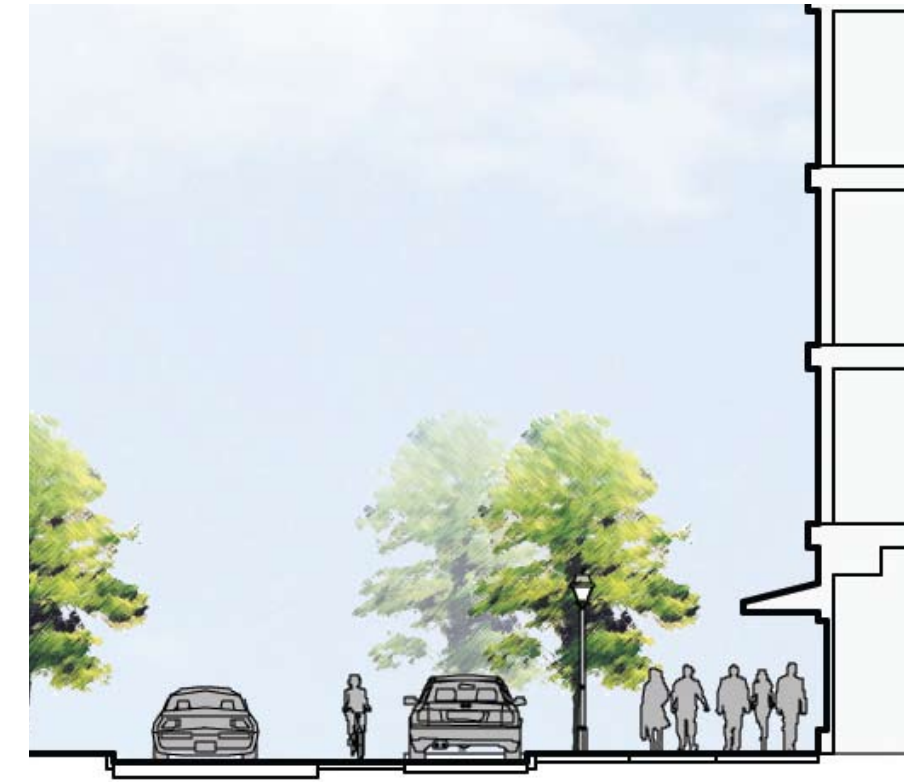
- Design streets to encourage walking and cycling;
- Require future development on small block sizes (400m perimeter) to maximize access and walking;
- Implement higher order transit in a five minute walk of anywhere in the downtown;
- Adopt parking strategies that support urban design excellence, foster economic growth and implement transportation demand management; and
- Promote development patterns that put jobs, housing, and services within a walking distance of each other.

### 3 Create an Urban Place

A downtown cannot be derived from a suburban built form. Developing a walkable, urban downtown is critical to re-branding the downtown as a unique “GTA” location with a high quality-of-place. The multi-cultural diversity of Mississauga demands a downtown that is unique, authentic and memorable.

*Recommendations:*

- Organize the downtown into unique districts with a specific focus and character;
- Celebrate and provide opportunities to showcase the city’s cultural diversity and cultural arts initiatives;
- Continue to invest in new and existing public spaces (squares, parks and streets);
- Provide a wide range of uses, scales and housing choices that support accessibility and universal design;
- Establish “urban” design standards, tools and controls for streets, buildings and site design; and
- Leverage opportunities with colleges and universities to locate in downtown.



## 4 Living Green

Downtown should showcase Mississauga’s commitment to sustainability as both an economic development and resource consumption strategy.

*Recommendations:*

- Develop an area-wide energy approach such as District Energy and ENVAC;
- Employ LEED building practices for new development and neighbourhood design;
- Enhance and protect the existing tree canopy;
- Establish low impact development standards including new storm water management practices such as “green streets” and new storm water treatment areas; and
- Support a focused intensity of jobs and housing that is transit supportive and multi-modal.

## 5 Establish a Focus

The geography of downtown is too large to start just anywhere or everywhere. The limited resources of the City and participation of private stakeholders should be initially focused in a small, intense location.

*Recommendations:*

- Create a new “main street” as a vibrant example of what downtown could be;
- Establish an urban main street district with a mix of jobs, housing, retail, educational and civic uses;
- Link this district to existing public and private investment & surrounding neighbourhoods;
- “Pre-wire” to support higher order transit; and
- Focus (timing and geography) incentives, public investment and private development in this district to leverage economic development sooner rather than later.

## 6 Create a Development Framework with Predictability

The current development policy framework lacks necessary guidance, is an unpredictable planning regime, and does not direct the kind of coordinated urban development necessary to create a vibrant and walkable Downtown.

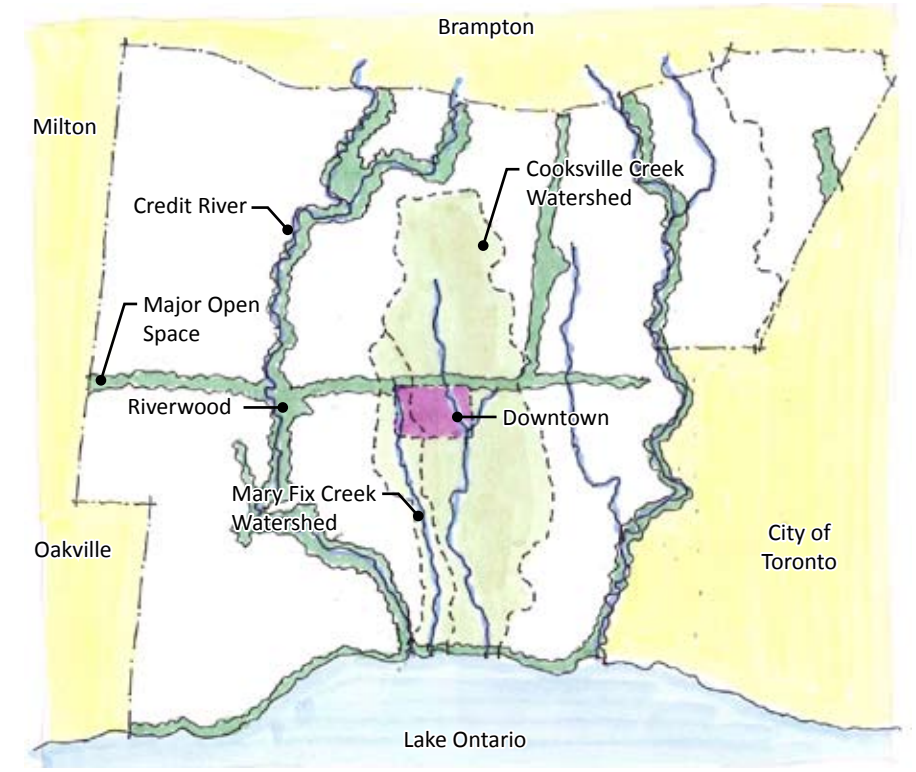
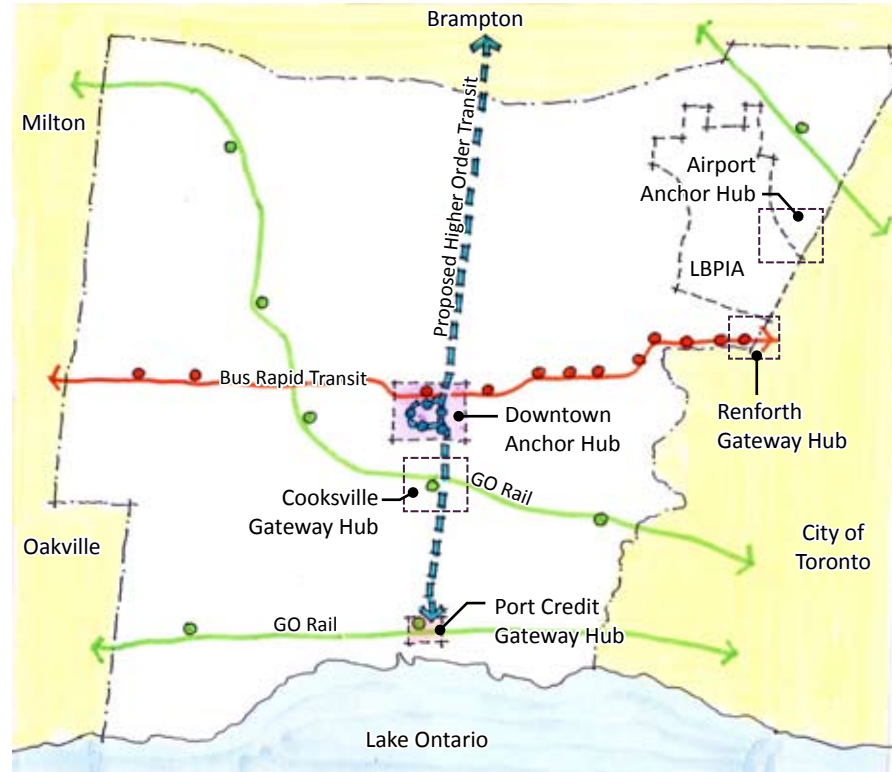
*Recommendations:*

- Establish a Framework Plan that defines future streets and connections that can be incrementally built over time;
- Identify locations for future parks and open spaces;
- Define specific street design standards to guide public and private investment;
- Incent and direct desired land uses (office/employment) in key locations and districts;
- Establish a high quality public realm with regard to securing human comfort (sun, wind); and
- Define new building frontage and urban design standards that strengthen the pedestrian and public realm and which nurture a true urban character.

# 1.4 REGIONAL CONTEXT

## Role of Downtown Mississauga

Mississauga’s downtown is a strong economic and civic centre of the city. This role is reinforced by regional and City policy and downtown’s physical connection to highways, transit, and natural systems.



## City Growth

Downtown Mississauga is identified in Ontario’s “Growth Plan for the Greater Golden Horseshoe – “Places to Grow”, as an Urban Growth Centre - of high density population and employment, supported by transit. Mississauga’s Growth Management Strategy views the downtown as the most intense growth area in the city with supporting nodes of concentrated development.

## Transit

The downtown sits as the “Anchor Hub” of transit in the city, at the crossroads of the BRT and Hurontario Higher Order Transit corridors. The intensification of downtown will support and reinforce this transit investment. Downtown Mississauga can support the most transit-oriented pattern of development in the city and offers the greatest potential for increased development intensity.

## Natural Environment

The downtown is also part of a larger environmental context. Located within the Mary Fix and Cooksville Creek Watersheds, the quantity and quality of storm water run-off in the downtown has an impact on a large portion of Mississauga, extending to the waterfront and Lake Ontario. Future development should respect this impact, protect ecosystem health, promote recreation and link to the city-wide open space systems.



## Area of Influence

The future growth of downtown Mississauga is positioned to be weaved into the context of the city through a framework of new streets, parks and greenways and transit.

### Street Framework:

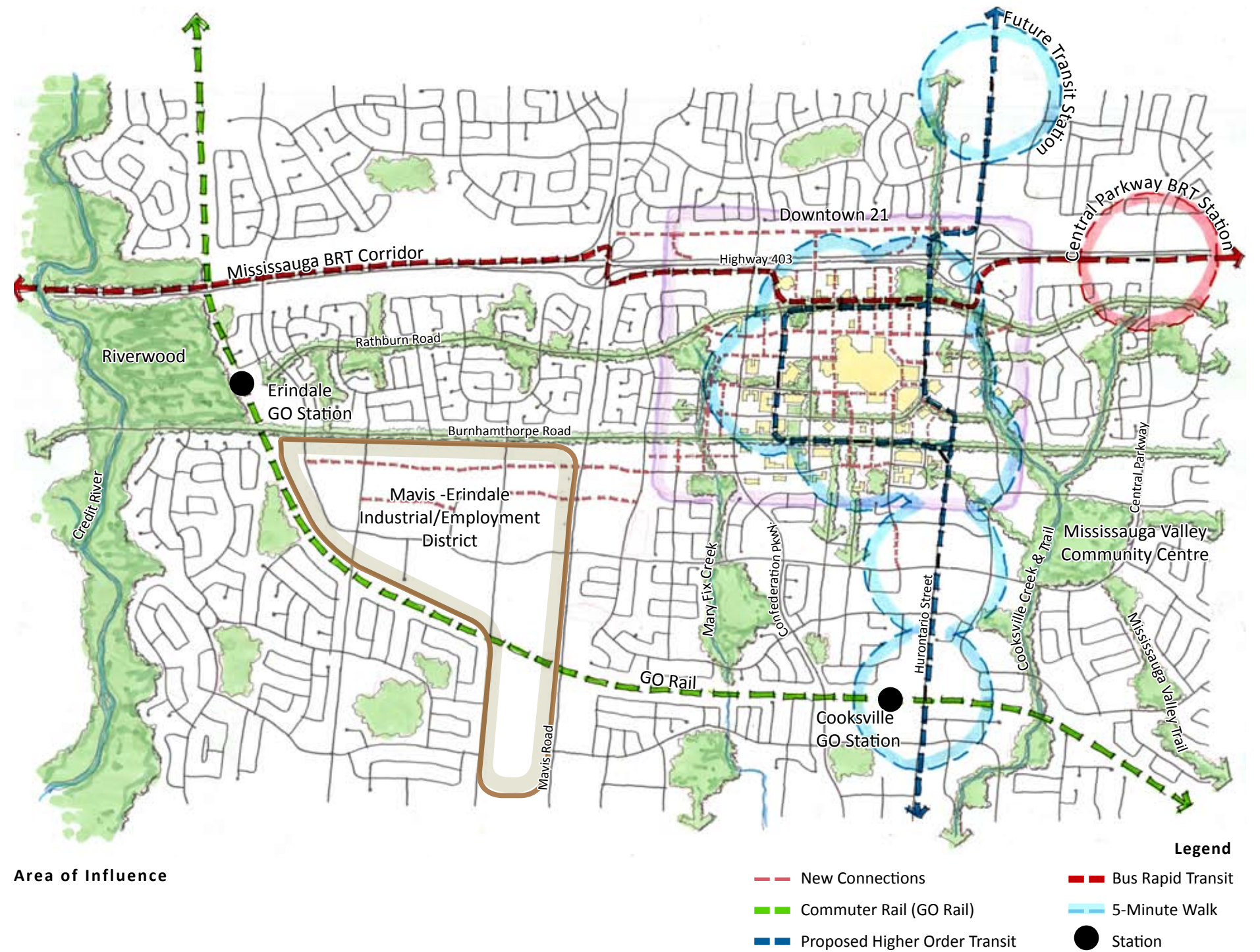
- Establishes future streets and blocks for development;
- Creates new connections to downtown; and
- Identifies and links to new area-wide connections (extension of Webb Drive east and west, as well as a Northern Distribution Road north of Highway 403 between Mavis Road and Hurontario Street).

### Park & Greenways:

- East-west links between the Credit River (Riverwood) to Cooksville Creek via Rathburn Road, Burnhamthorpe Road and City Centre Drive;
- Green connections to surrounding neighbourhoods;
- New north-south connection across Highway 403 via a future transit bridge;
- Connection to Mary Fix Creek.

### Transit:

- Crossroads of the Mississauga BRT corridor and Hurontario Higher Order Transit Corridor; and
- “Downtown” alignment of the Hurontario Transit Corridor locates five (5) stations to put all of downtown within a 5 minute walk of higher order transit.



# 1.5 FRAMEWORK PLAN

## Today

Building upon and refining past work, **Downtown21** builds strategically on existing assets and key investments which have been made to date. The existing City Centre grew up with the automobile in the post WWII burst of growth as new suburban communities were opened up by the QEW and Highway 401. Square One which has defined the Downtown for 30 years draws 23 million visitors annually. Hwy 403 was an additional catalyst for Downtown along with substantial public investments in City Hall, the Central Library, YMCA, Living Arts Centre, Transit Terminal and new infrastructure including the proposed revitalization of the Civic Square, new parks and public streets. The next round of investment in rapid transit, including LRT along the Hurontario Corridor and within the Downtown, as well as the Mississauga Bus Rapid Transit System are critical new ingredients which will provide the infrastructure support for the transformation to an urban Downtown.

## Tomorrow - A Framework Built Incrementally

Anticipating major change, **Downtown21** provides a long range proactive vision and a Strategic Framework to guide future growth in an area of approximately 700 acres (295 hectares) extending roughly from Confederation Parkway to Hurontario Street and Burnhamthorpe Road to Highway 403. The Plan identifies the key forces and elements that are already in play in shaping a more urban future.

Transformation on such a large scale will of necessity be implemented incrementally beginning with some immediate actions and catalytic projects like the introduction of Sheridan College. Successful redevelopment will require ongoing public and private collaboration in a number of critical areas. The framework provides a way to structure that collaboration and to integrate the first critical steps with medium and longer term thinking. A key theme is flexibility, articulating a clear vision which conveys broad themes and outcomes but remains flexible in interpretation to allow for the market dynamic and for inevitable changes to occur over time.

The overall Framework Plan builds upon and refines the work of "OPA20" and establishes a clear foundational structure for Downtown made up of a network of streets and blocks, the integration of new transit, an expanded public realm of parks, squares and trails including city-wide and regional linkages and elements of community infrastructure needed to support an expanded Downtown population. It provides a key focus on place-making with quality public spaces and lays the framework within which individual building projects will contribute to a greater downtown as a whole.



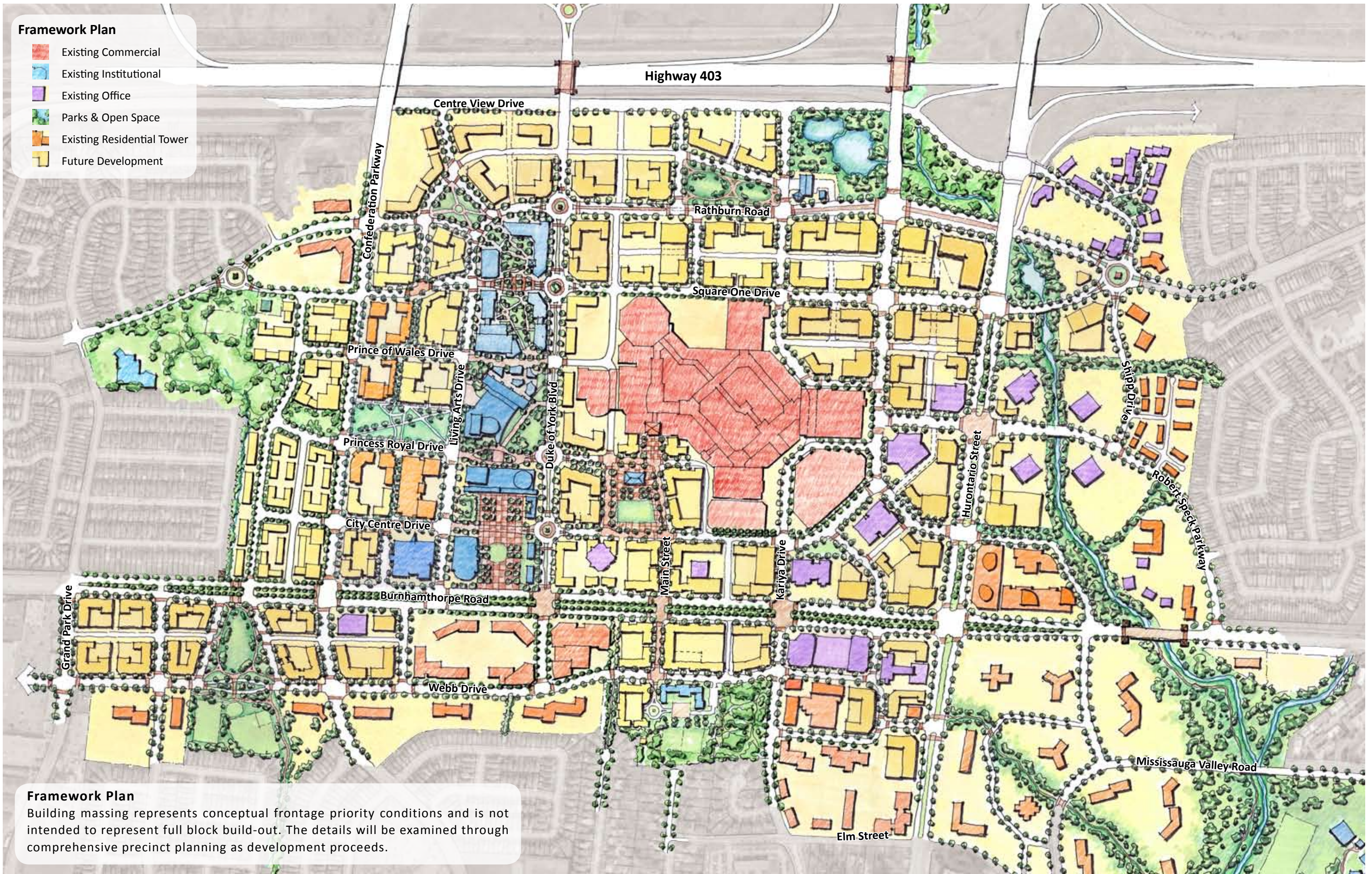
**Downtown21 Study Area**

### Potential Development

	2009 Hemson Growth Forecast	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	34,077	56,565	69,095
Employment	25,071	34,247	71,411
PPJ/Ha	217	333	516

**Framework Plan**

- Existing Commercial
- Existing Institutional
- Existing Office
- Parks & Open Space
- Existing Residential Tower
- Future Development



**Framework Plan**

Building massing represents conceptual frontage priority conditions and is not intended to represent full block build-out. The details will be examined through comprehensive precinct planning as development proceeds.



# SECTION 2 : STREET FRAMEWORK



**21**  
DOWNTOWN  
MASTER PLAN



## 2.1 ROLE OF STREET NETWORK & BLOCK SIZE

Streets are the bones of the city, they provide the primary subdivision of land: the means of transportation and conveyance and the city's largest, most tangible and most accessible public space. For centuries, cities have been created to concentrate trade and the sharing of information. Throughout urban history a variety of factors has influenced the particular arrangement of streets in different cities and towns, including: topography, land ownership, economics, transportation technology, climate and cultural influences. The street network is the skeleton upon which the city grows. The blocks that the streets form are where the land uses are built and, together, the streets and the land uses create places. The street network creates the blocks and the relationships between the blocks and, to a large extent, govern the city's potential to succeed economically, socially, and environmentally.

**Block Size** - in a walkable and urban context, the ideal block size should have a block perimeter of between 400 meters and 650 metres or between a 5 to 10 minute walk. This guideline yields walkable block sizes of between 75 to 100 metres by 150 to 200 metres. While the perimeter can vary among the different block faces, it generally maintains smaller sizes - no more than 120 to 140 metres for square blocks. Compared to suburban-scaled and rural-scaled blocks, ideal blocks for urban cities are relatively small. The advantages of small blocks include:

**City Legibility** — one of the greatest benefits of a well-connected network of streets and small blocks is that it makes a city understandable to residents and visitors. There is order and clarity to a city's organization if its streets connect and allow intelligible ways to conceive the city and to travel in and between places.

**Urban Life** — A pattern of small blocks increases the chances for spontaneity and unplanned encounters with friends and neighbours, discovery of new shops or restaurants or a new route from home to work - experiences that define some of the greatest virtues of urban life.

**Adaptability** — Small blocks offer the distinct advantage of being easily reusable and adaptable. As uses, building patterns and land economics change over time, smaller blocks offer strong access served by a robust street network and infrastructure. The ideal ratio of access to buildable area is provided by small blocks which has been tested throughout history by successful places in Canada and elsewhere.

**On Street Parking** — Small blocks maximize street frontage. Nine blocks of 100 metres on a side results in 3,600 metres of street frontage, accommodating approximately 540 on-street parking spaces. Alternatively, one block of 300 metres on a side results in 1,200 metres of street frontage, accommodating approximately 200 on-street parking spaces.

**Vehicular Movement** — The number of intersections created by small blocks create multiple routing and turning options for vehicles, increasing the capacity of each intersection by spreading the traffic over multiple intersections.

**Traffic Calming** — In an urban pattern of small blocks, each intersection functions as a potential traffic calming measure - it is an event that demands attention. Even and frequent spacing of intersections creates an inducement for motorists to travel at slower and safer speeds.

**Inform Buildings** — Small blocks in urban cities encourages urban buildings. That is, buildings that: address the streets, have a scale that matches the context, have sensible access to light and air, contribute to the value of the neighbouring buildings and the place, create an engaging street wall for pedestrians and are designed with clear definitions of entrances, front, back, service areas, etc. When blocks are too big (i.e. not urban), the attributes of urban buildings become absent, the blocks are accessed in an ad hoc manner and the land uses tend to become relatively introspective and do not necessarily contribute to the street, the neighbouring buildings, or the place.

**Public Safety** — A redundant street network and smaller blocks benefits emergency response by providing multiple routing options to emergencies.

**Pedestrians & Cyclists** — Smaller blocks allow pedestrians and cyclists a greater variety of routes giving them the ability to use routes that are direct and comfortable. In addition, small blocks result in buildings being placed closer to the street, where the pedestrians are, creating an active and vibrant pedestrian environment.

**Transit** — Transit thrives and, indeed, is dependent on a healthy pedestrian realm created by small blocks. The fine-grain and connected street pattern maximizes accessibility to transit stations and provides greater flexibility in transit operations and bus routing.

Street Framework Plan

— Street Framework

Highway 403

Centre View Drive

Confederation Parkway

Rathburn Road

Square One Drive

Prince of Wales Drive

Living Arts Drive

Duke of York Blvd

Princess Royal Drive

City Centre Drive

Huronario Street

Stipp Drive

Robert Speck Parkway

Grand Park Drive

Burnhamthorpe Road

Main Street

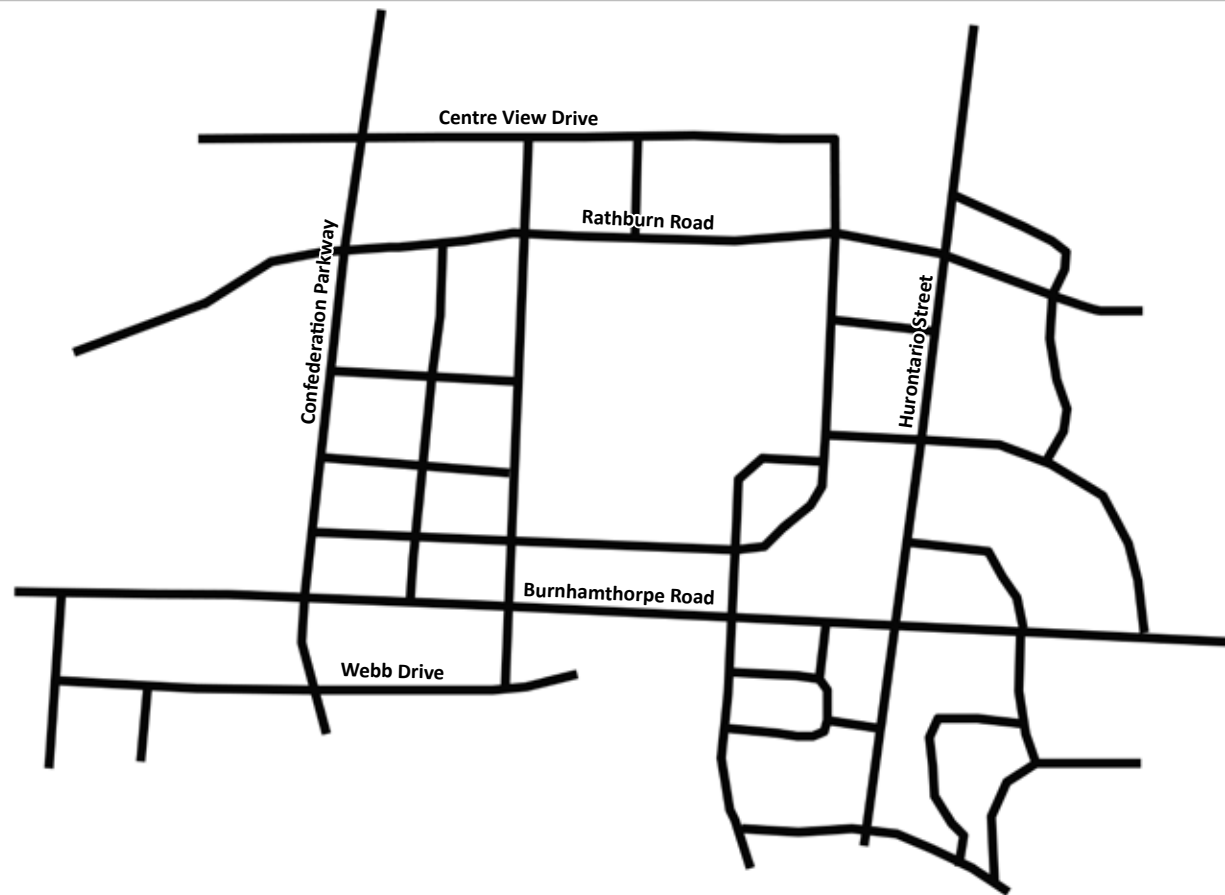
Kariya Drive

Webb Drive

Mississauga Valley Road

Elm Street

## 2.2 NEW STREET FRAMEWORK



### Existing Network

Downtown Mississauga has a relatively limited street network with few continuous north-south or east-west streets that extend beyond the major corridors of Burnhamthorpe Road, Hurontario Street, Centre View Drive and Confederation Parkway. The historically suburban pattern of development has resulted in large “super” blocks that rely on private driveways and access roads that force traffic to a limited set of streets and intersections. Many of the resulting streets are dominated by automobiles and are hostile to pedestrians. If development continues to occur in this pattern, without new streets forming a network, the result will be an ever-growing traffic burden on a limited number of streets. OPA20 moved to refine the road pattern, to create more of a grid street pattern, and to break up super blocks into an urban setting.

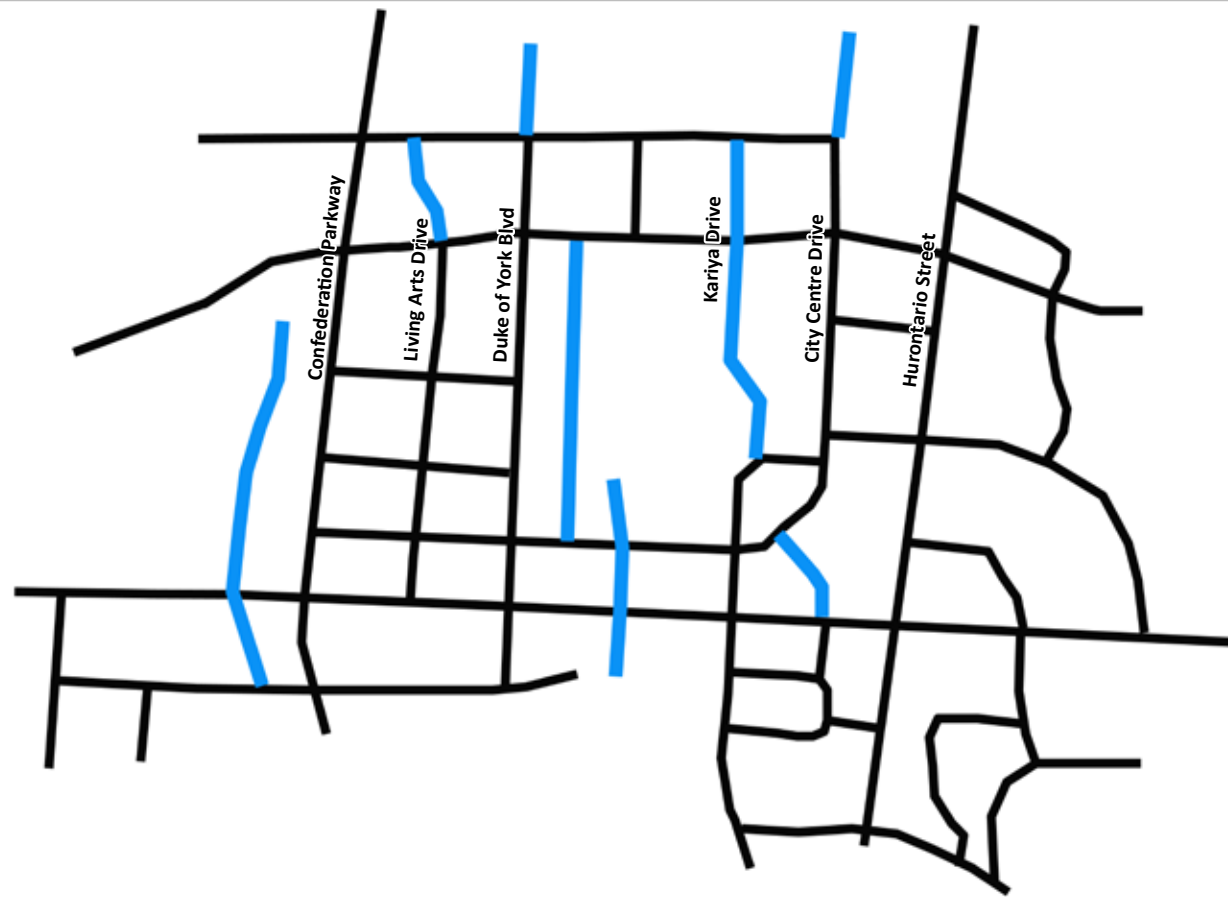


### New East-West Streets

The Plan proposes a series of new east-west connections and street extensions to maximize access in and beyond the Downtown. The result is an increase in net east-west motor vehicle carrying capacity, (for streets that connect or extend beyond Hurontario Street and Confederation Parkway) plus four new transit lanes, while still reducing the number of general purpose lanes on Rathburn Road, City Centre Drive, and Burnhamthorpe Road. These new connections include:

- A Northern Distribution Road, north of Highway 403, that connects from Hurontario Street to Mavis Road;
- The extension of Centre View Drive to Hurontario Street, creating an east-west connection from Rathburn Road east of Hurontario to Mavis Road;
- Extension of Square One Drive (from Rathburn Road west of Confederation Parkway to Rathburn Road east of Hurontario Street);
- Extension of Princess Royal Drive, creating a connection from Hurontario Street to Confederation Parkway; and
- Extension of Webb Drive, east to Kariya Drive and west to Mavis Road.

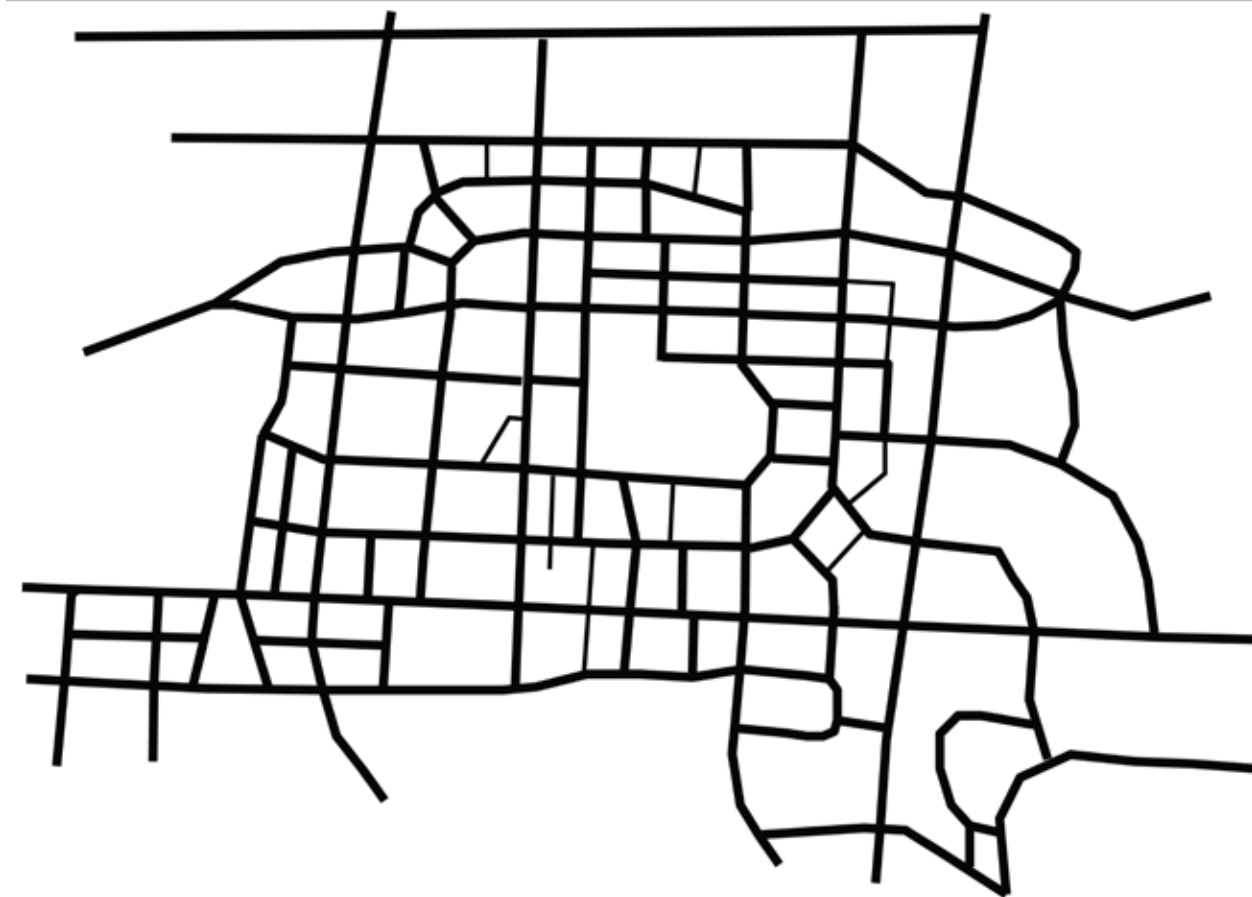




### New North-South Streets

The Plan proposes a series of new north-south connections and street extensions. The result is an increase in net north-south capacity, (for streets that connect or extend beyond Centre View Drive and Burnhamthorpe Road). These new connections include:

- Extension of Living Arts Drive to Centre View Drive;
- Extension of Duke of York over Highway 403 to the Northern Distribution Road;
- Extension of Kariya Drive to Centre View Drive; and
- Extension of City Centre Drive over Highway 403 to the Northern Distribution Road.



### New Street Network

The resulting new street network builds upon the new east-west and north-south connections with a set of additional local streets to create an urban pattern of development blocks that are walkable in scale (+/- 400m around a block, or a 5-minute walk) and well-connected. Some of these new streets may be built as public projects, such as the Northern Distribution Road; while the remainder will be built as private development occurs. This robust future street network allows these roads to be small in scale, (most will be no larger than 2-lanes) while maximizing accessibility for pedestrians, cyclists and the automobile. These new streets result in urban blocks, provide routing options for small trips and provide additional pedestrian and bicycle-friendly routes, all of which helps the other streets by taking up this load.

## 2.3 HIGHWAY 403 INTERCHANGE CONCEPT

As the Downtown and suburban areas around Highway 403 continue to intensify and mix their land uses, the number of trips occurring along, over, onto and off of Highway 403 will increase. However, the average length of the trips will be shorter and demand for accessing land uses will rise as more trips will originate or end in the Downtown. This trend means that the demand on the area's already busy interchanges are going to rise faster than the through volumes along Highway 403.

### The Evolving Role of Highway Interchanges

Highway interchanges are designed to provide "long" motor vehicle trips access to and from arterial roads and the highway system. Highway interchanges are located far apart which concentrates traffic loads at the limited number of crossing and access points. With the effect of further concentrating traffic loads, highway authorities have historically assumed that every available ramp movement had to happen close to the original intersection location. This assumption was born long ago when early highway officials envisioned dendritic road-hierarchy diagrams, (i.e., highways lead to arterials which lead to collectors, which lead to local streets) and the early interchanges.

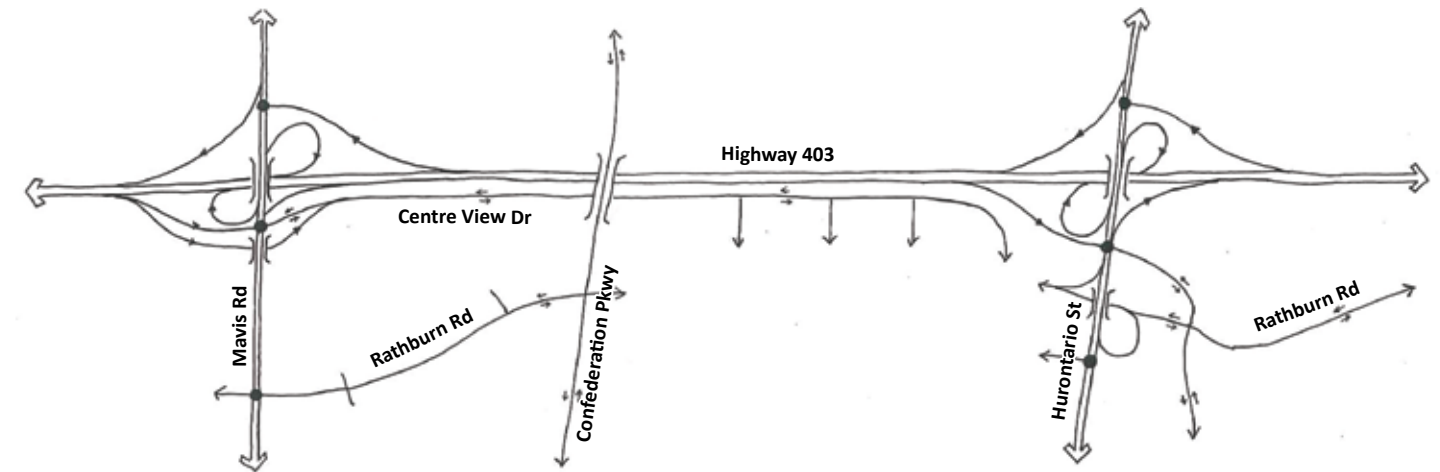
The most popular early interchange, the cloverleaf interchange, had several advantages over the surface street intersections for motorists because of the grade separation. Every turn was effectively a right turn and motorists never had to stop for traffic signals. As these interchanges got busier, weaving issues, safety problems and space demands rendered these interchanges and the related standards obsolete, particularly in urban or urbanizing areas.

Currently, the interchanges at Hurontario Street and Mavis Road are Partial Cloverleaf "Type A" Interchanges (i.e. Parclo A's for short). The two major design deficiencies of the "Parclo A" in a growing urban area include: 1) putting all traffic movements in one spot, and 2) the lack of network/alternative routes. These two interchanges will become increasingly congested as the areas around them urbanize. It's time for the interchange and the related standards to be improved to better meet modern transportation needs.

### The Proposed Solution

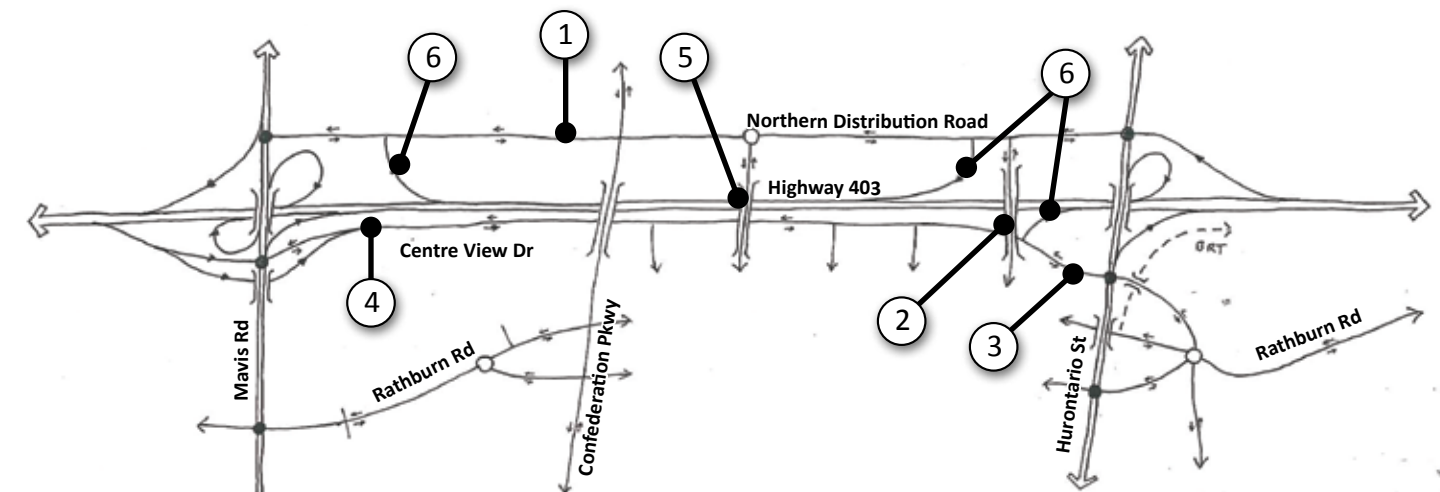
- 1 Create new network north of Highway 403 by extending a 'Northern Distribution Road' to connect Hurontario Street, Confederation Parkway, and Mavis Road;
- 2 Extend City Centre Drive over Highway 403 between the Northern Distribution Road and downtown and locate the LRT route parallel to Hurontario Street on City Centre Drive independent of the Hurontario Street Bridge;
- 3 Extend Centre View Drive to Hurontario Street (creating a complete parallel road between Mavis Road and Hurontario Street);
- 4 Eliminate the eastbound off-ramp at Hurontario Street, relocating its function to the Mavis Road interchange with access to Downtown via the extended Centre View Drive;
- 5 Extend Duke of York Boulevard over Highway 403 between the Northern Distribution Road and the downtown; and
- 6 Locate three "Proximate Interchange Relief Ramps" (i.e., PIRRs for short) that connect Highway 403 directly to the Northern Distribution Road and Centre View Drive, (replacing the SB to WB ramp and the SB to EB ramp, at the Hurontario Street interchange, and the WB to NB ramp at the Mavis Road interchange) in order to improve the capacity of the Mavis and Hurontario interchanges and to reassign significant numbers of local and downtown trips onto the aforementioned new network.

### Existing



Highway 403 Interchange Existing

### Proposed

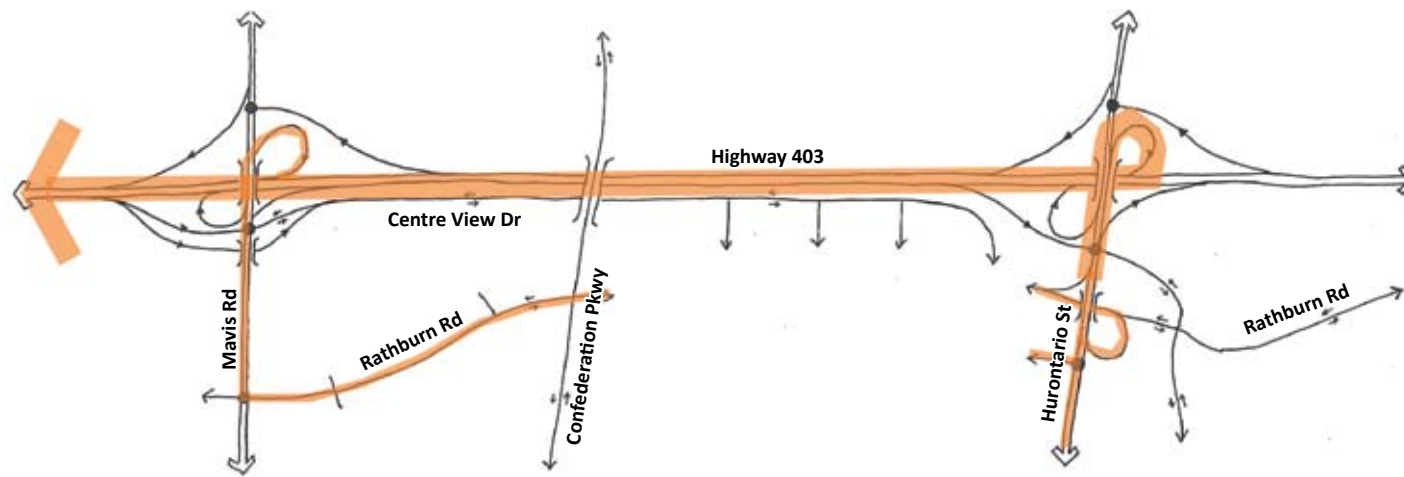


Highway 403 Interchange Proposed

## Resulting Accessibility to Downtown

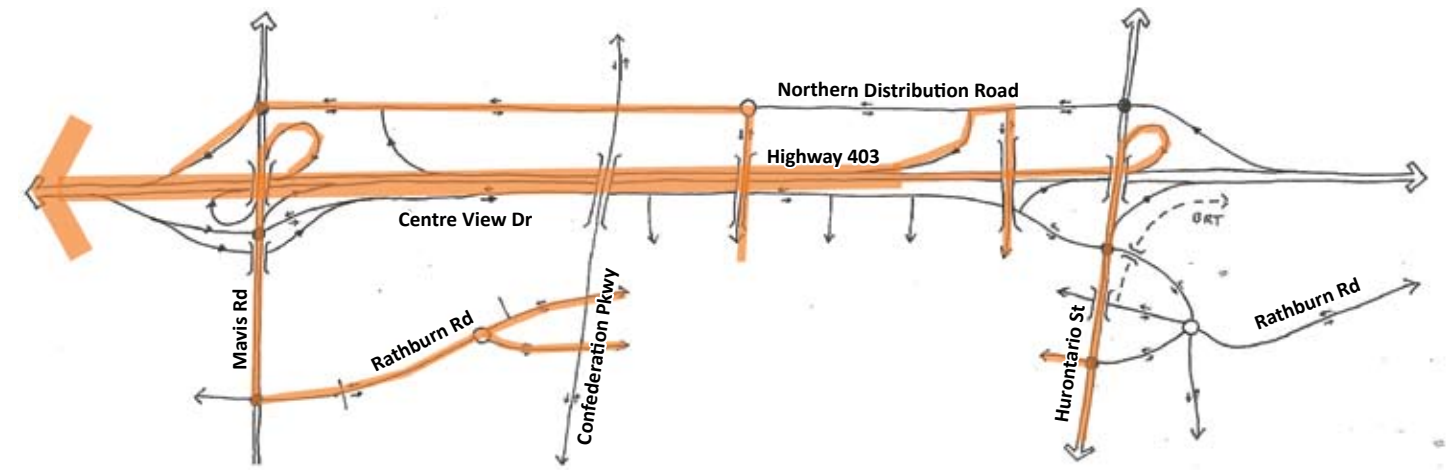
The resulting new network and LRT alignment increases the Downtown's overall north-south and east-west connectivity and maximizes accessibility to Highway 403 in a way that manages congestion at the interchanges. The PIRR's allow motorists to exit or enter Highway 403 from multiple directions (not just Hurontario Street and Mavis Road). Significant volumes of local and downtown traffic that previously used the interchanges are thereby reassigned. This frees up much needed capacity at the interchanges for through traffic, raising levels of service for motorists and extending the life of the interchange.

## Existing

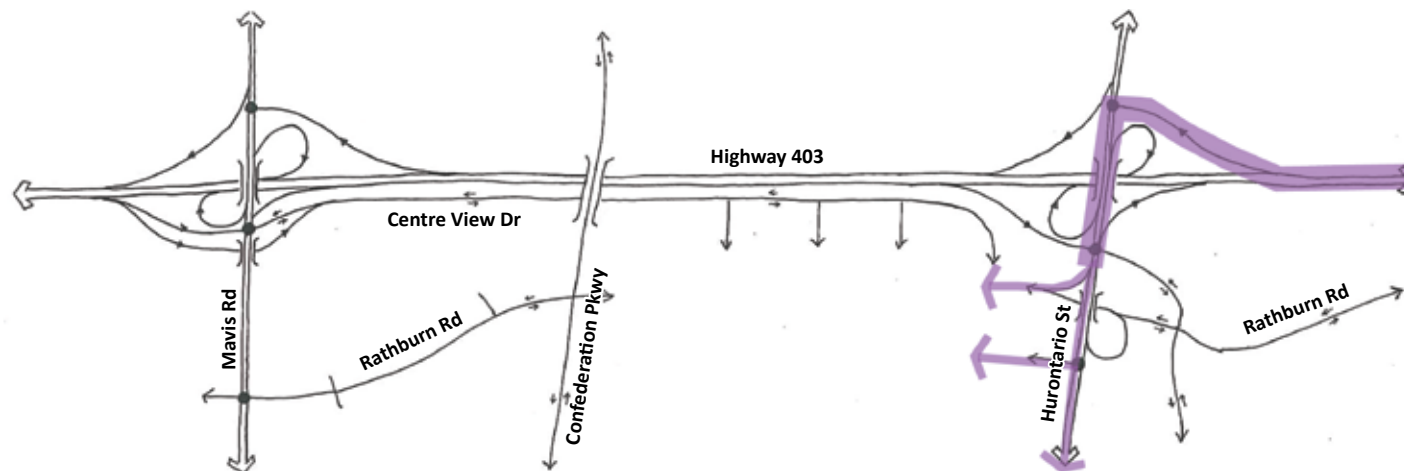


Highway 403 Outbound West Existing

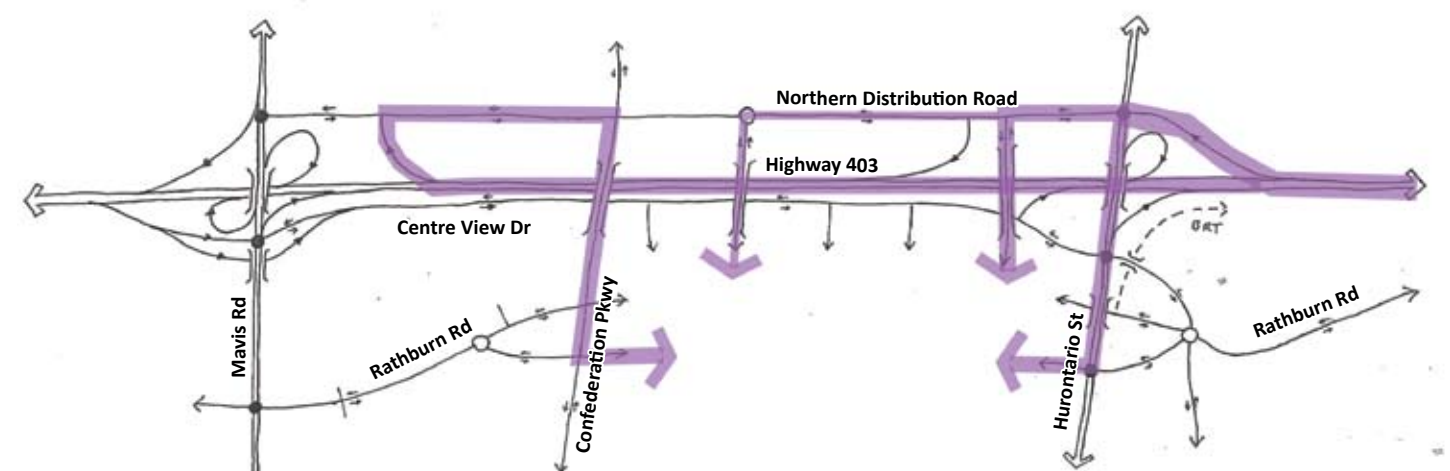
## Proposed



Highway 403 Outbound West Proposed



Highway 403 Inbound East Existing



Highway 403 Inbound East Proposed



# SECTION 3 : TRANSIT



**21**  
DOWNTOWN  
MASTER PLAN



# 3.1 HIGHER ORDER TRANSIT IN DOWNTOWN

The long-term urban intensification of Downtown Mississauga is tied to the ability to serve it with higher order transit. Downtown Mississauga is already a hub for transit with the Transit Terminal on Rathburn Road providing a central bus transfer location for transit service throughout the city and region (GO Transit). The addition of the Mississauga Bus Rapid Transit line and the Hurontario Light Rail Transit line will provide east-west and north-south higher order transit connections between the region and the Downtown.

## Hurontario Light Rail Transit - Stations

The Hurontario Higher Order Transit Study is currently studying corridor alignments and station locations for the overall corridor between Port Credit and Brampton. A number of transit alignments were considered through and within the Downtown. The Downtown21 Plan envisions a future downtown that may ultimately include over 70,000 residents and 70,000 jobs. To best serve these populations and create a truly transit-oriented downtown, Option 8: the Downtown + Hurontario Alignment was chosen. This option places all of Downtown Mississauga within a five-minute walk (400 metres) of a transit station. To accomplish this, five transit stations are proposed within the Downtown:

**Mathews Gate** – This station at Hurontario Street and Mathews Gate serves the concentration of office and residential south of Burnhamthorpe Road at Sussex Centre and Mississauga Valley.

**Main Street** – This station serves the new Main Street at Burnhamthorpe Road, provides transit access to the residential lands south of Burnhamthorpe and is within a five-minute walk of the southern entrance to Square One Mall.

**Civic Centre** – This station serves the concentration of civic uses along Living Arts Drive including City Hall, Central Library, YMCA, Living Arts Centre and the future Sheridan College. It also places the growing residential neighbourhood along Confederation Parkway within a five-minute walk of the transit station.

**Rathburn** – This station serves the LRT and Bus Rapid Transit line, is adjacent to the City Centre Transit Terminal and connects with the future development north of Square One Mall along Rathburn Road.

**Robert Speck** – This station serves the existing concentration of office at Robert Speck Parkway and Hurontario Street and future office development along City Centre Drive.

## Hurontario Light Rail Transit – Alignment

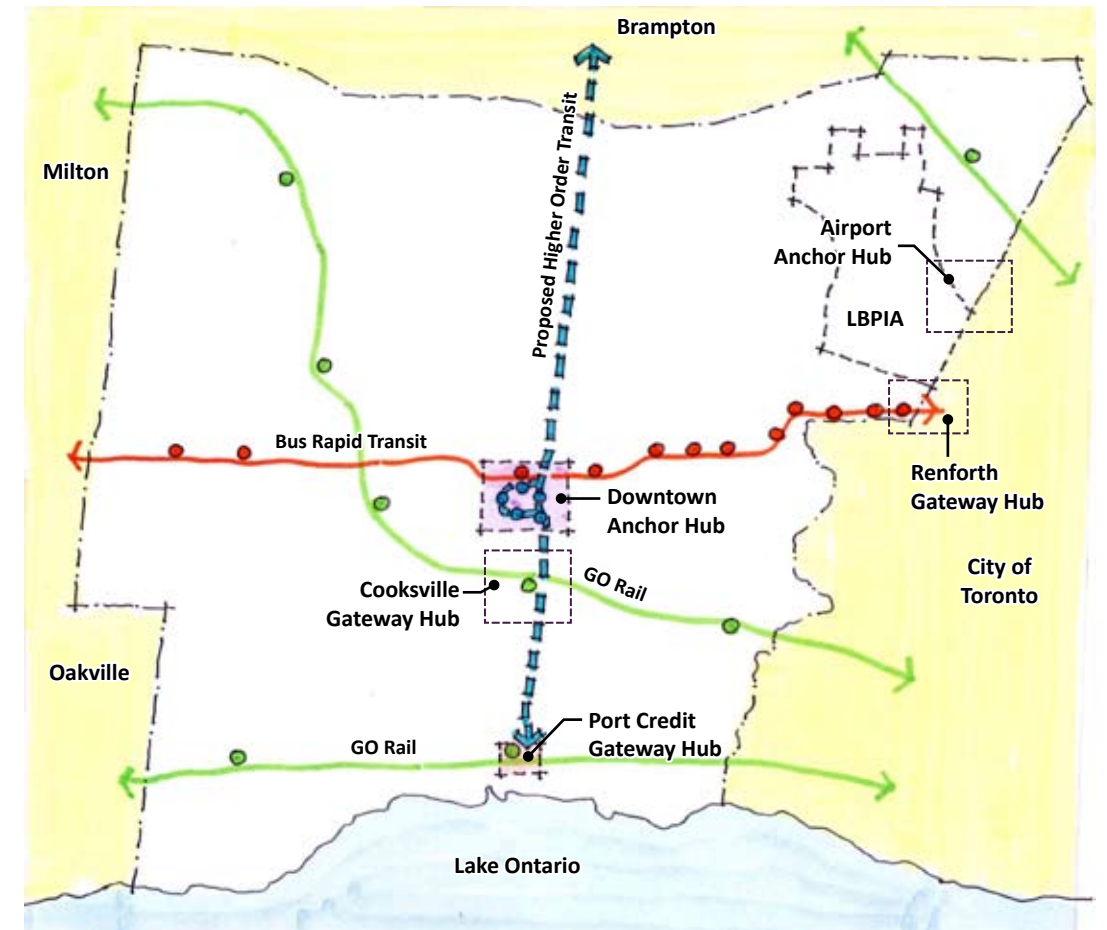
Approaching from the north, the transit route utilizes a new bridge over Highway 403 that aligns with the north-south portion of City Centre Drive. This bridge avoids the Highway 403 interchange at Hurontario Street and provides a valuable pedestrian and bicycle connection across Highway 403, connecting the north and south portions of the Cooksville Creek Greenway. The route then travels west along Rathburn Road to Living Arts Drive, south to Burnhamthorpe Road and then east back to Hurontario Street.

A secondary connection travels south along City Centre Drive via Clarica Drive to Hurontario Street. The resulting downtown system creates routing and operational flexibility. From the south (Port Credit) - LRT can circle the downtown and return south. From the north (Burnhamthorpe) - LRT can circle the downtown and return north. Every second LRT vehicle can be a through trip

If the LRT requires phasing in the vicinity of the downtown, then Phase 1 would include the “downtown route” so that the LRT captures the highest ridership. This would support the Main Street District (important in the 8 to 10-year time-frame), capture the Civic District’s employment, educational, cultural, and substantial residential density and connects to the City Centre Transit Terminal and the upcoming BRT service. Phase 2 would include the north-south link along Hurontario Street, Clarica Drive and City Centre Drive with the station at Robert Speck Parkway.

## Mississauga Bus Rapid Transit

The Mississauga BRT runs east-west along Highway 403 and enters Downtown (from the west) via Centre View Drive to Rathburn Road and the City Centre Transit Terminal. The plan envisions the BRT and LRT lines sharing a transit way in the median of Rathburn Road. However, with the flexibility of BRT and the proposed street network, the BRT line can utilize Centre View Drive if there is not enough transit capacity on Rathburn Road for both LRT and BRT.

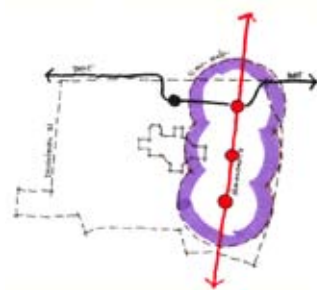


City-wide Higher Order Transit System

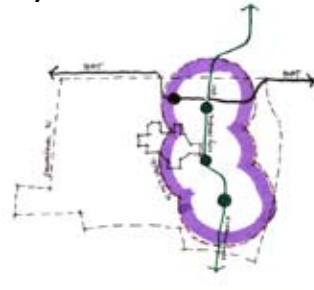
## City Centre Transit Terminal

The Downtown 21 plan envisions the Transit Terminal remaining in its current location on the south side of Rathburn Road for some time. However, the role of the Transit Terminal may evolve as bus routing and transfer needs change once the LRT and BRT systems are in place. Therefore, the plan includes the flexibility to redevelop and integrate the Transit Terminal into an adjacent development project in a block adjacent to the Rathburn Transit Station, north or south of Rathburn Road.

Option 1:  
Hurontario



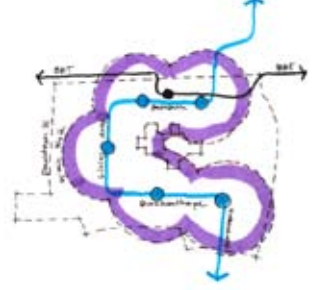
Option 2:  
City Centre



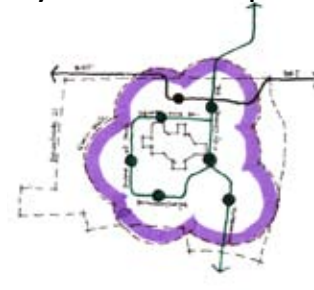
Option 3:  
Duke of York



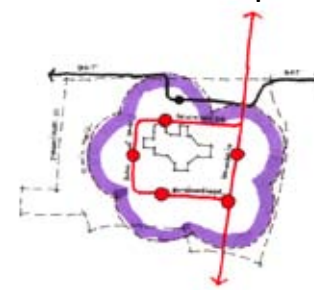
Option 4:  
Downtown



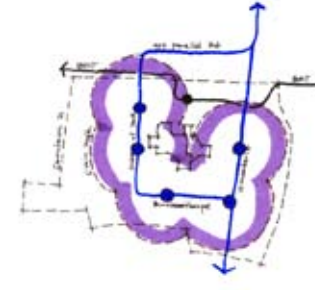
Option 5:  
City Centre + Mall Loop



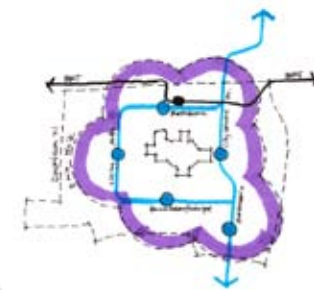
Option 6:  
Hurontario + Mall Loop








Option 7:  
Duke of York + Hurontario

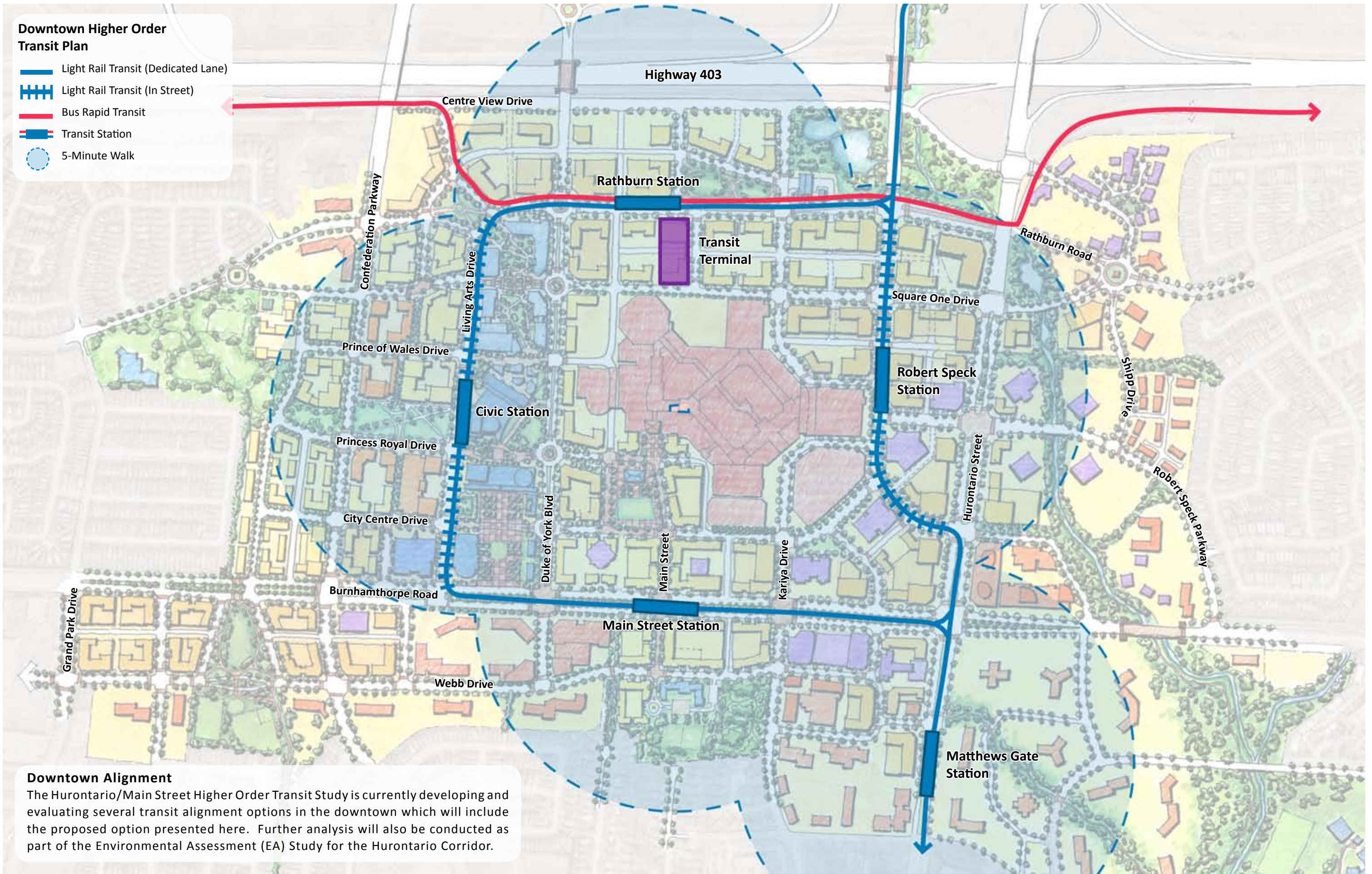


Option 8:  
Downtown + Hurontario



**Downtown Higher Order Transit Plan**

-  Light Rail Transit (Dedicated Lane)
-  Light Rail Transit (In Street)
-  Bus Rapid Transit
-  Transit Station
-  5-Minute Walk

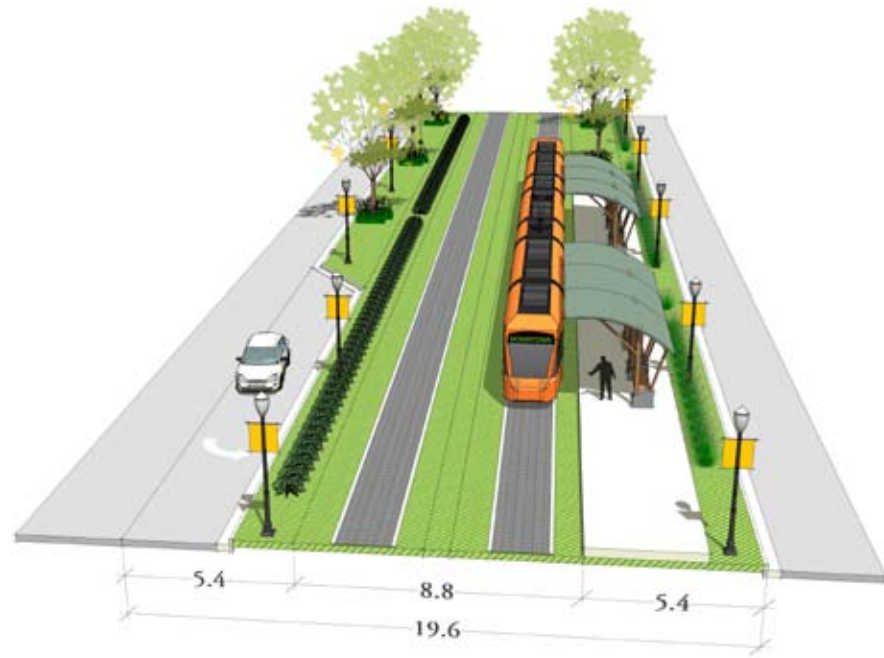


**Downtown Alignment**

The Hurontario/Main Street Higher Order Transit Study is currently developing and evaluating several transit alignment options in the downtown which will include the proposed option presented here. Further analysis will also be conducted as part of the Environmental Assessment (EA) Study for the Hurontario Corridor.

## 3.2 INTEGRATING TRANSIT INTO STREET DESIGN

Successfully integrating transit into the urban pattern of Downtown requires a “complete street” approach that views transit as just one component of a multi-modal and walkable street design. For the Downtown + Hurontario Alignment, higher order transit has been designed into the street system in three ways:

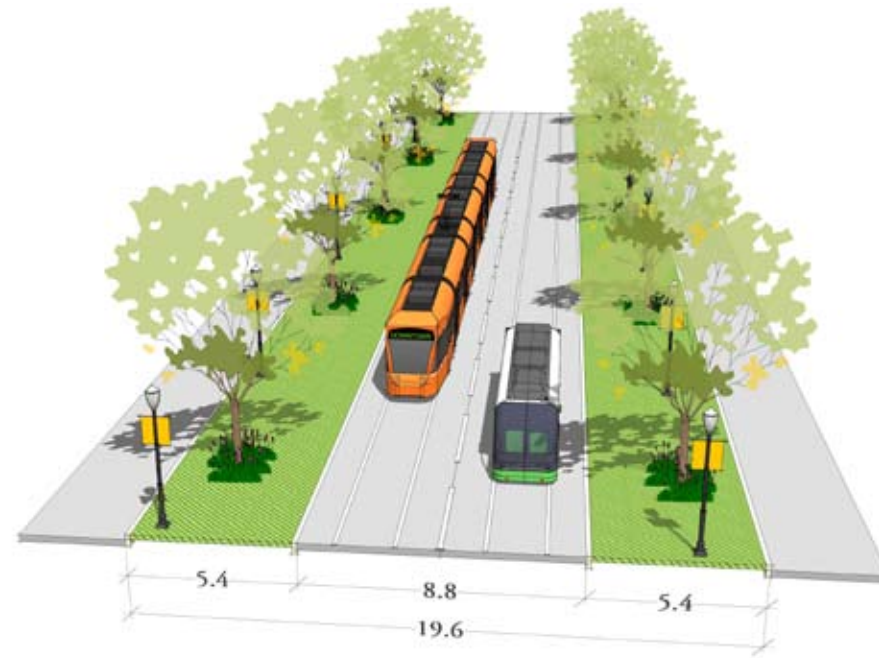


### 1. Dedicated LRT Median

For Burnhamthorpe Road & Hurontario Street (north of Burnhamthorpe), the light rail transit is accommodated in dedicated lanes/tracks located within the centre median. This median’s width is sized to accommodate two LRT tracks, transit stations, left turn vehicle lanes, and street trees. Prior to the light rail transit service coming on line, the median facilities can be used for busses or for additional landscaping.



Burnhamthorpe Road LRT Median



### 2. Shared LRT & BRT Median

For Rathburn Road, the light rail transit and bus rapid transit are accommodated within the shared centre median. This median is designed to fit two sets of LRT tracks/bus lanes, transit stations, left turn lanes for motor vehicles and street trees. The transit lanes are designed with concrete embedded tracks that allow both LRT vehicles and busses.



Rathburn Road Shared BRT/LRT Median



### 3. Shared Travel Lane

For Living Arts Drive and City Centre Drive, the light rail transit is accommodated within shared vehicle lanes (Note that the exception is that the future City Centre Drive Bridge will have dedicated light rail facilities between Rathburn Road and the Northern Distribution Road). The proposed cross-section for these streets includes one travel lane in each direction and a centre left turn lane/median. The left turn lane eliminates the otherwise problematic transit conflicts with turning motorists, allowing a well functioning transit service and street. At mid-block locations, where left turn lanes are unnecessary, the space can be designed as attractive landscaped islands. Stations occur at street intersections and are designed as part of the sidewalk.



Living Arts Drive Shared Through Traffic/LRT Lanes







# SECTION 4 : PARKS & OPEN SPACE



## 4.1 DOWNTOWN PARKS

The Downtown21 Plan envisions a grand and extensive system of parks and open spaces that builds upon existing parks and open spaces, adds new urban parks and plazas and connects the downtown to adjacent greenways, natural systems and neighbourhoods. The open space system is interconnected by a network of pedestrian and bicycle-friendly streets that are tree-lined and traffic calmed as well as creek corridors and trails.

The open space system is a critical component of the Downtown's urban fabric and identity. These public spaces are the platform for a range of community activities and social uses. They are the places for active play, quiet contemplation, public gatherings, festivals and markets. They are also places for utilitarian and recreational non-motorized trip making and they enhance the area's natural habitat and provide a connection to Mississauga's waterways and creek systems.

All park blocks shown are subject to review during the development approval process for individual applications and/or acquisition process, and detailed park concept plans will be developed in conjunction with all stakeholders to identify programming, use, facilities, and detailed design.

### Trails & Cycling Concept Plan

Parks and open spaces are a large part of the public realm. The only larger component is the street network, which also connects many of the parks and open spaces together and to other land uses. The design of streets is important to the success of the overall open space system, ensuring that they extend accessibility to the parks and provide safe and attractive connections for pedestrians and cyclists. The Downtown21 Plan proposes a system associated with the streets to include:

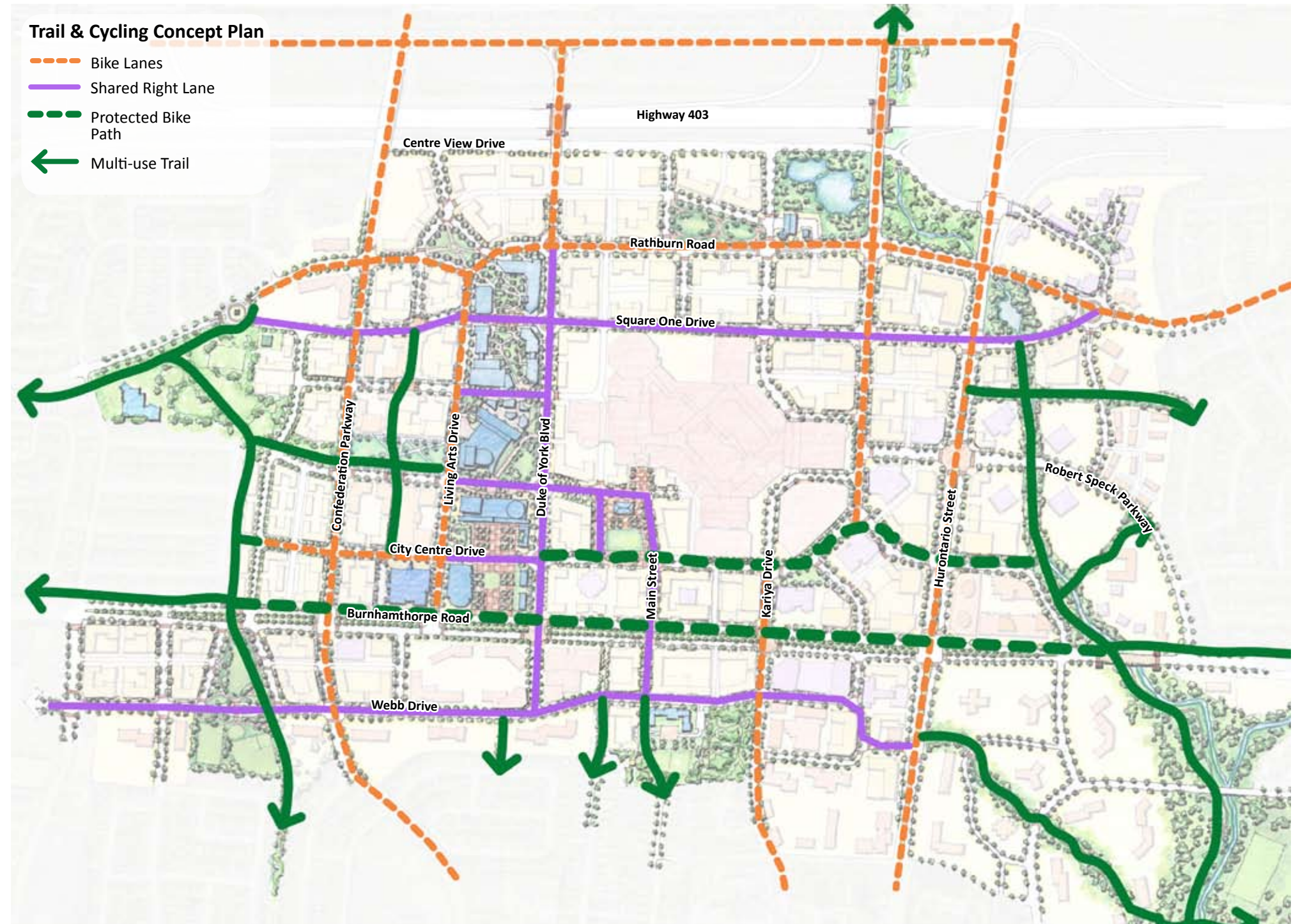
**Sidewalks** – every street in the downtown has sidewalks on both sides, appropriately designed to suit their contexts.

**Dedicated Bike Lanes** - on major connecting streets, providing access from adjacent neighbourhoods to the Downtown.



**Protected Bicycle Paths** – on the two special corridors of Burnhamthorpe Road and City Centre Drive. These protected bicycle paths are separated from the street in mid-block locations (i.e., located between on-street parking and the adjacent sidewalk) but are safe in a downtown environment.

**Shared Right Lanes** – on the small traffic calmed streets within the Downtown, such as Main Street, or on streets with wide right hand lanes such as Webb Drive, where motor vehicles and cyclists can safely share the travel lane.

**Multi-Use Trails** – separated trails along creek systems, within parks and between development, where there are few intersecting streets, providing dedicated pedestrian and bicycle connections to adjacent neighbourhoods and established greenway systems.



**Parks & Open Space Concept Plan**

-  Institutional
-  Parks & Open Space



**Zonta Meadows & Mary Fix Greenway**

**City Centre**

**Main Street**

**Cooksville Creek**

## 4.2 ZONTA MEADOWS & MARY FIX GREENWAY

The western edge of the Downtown is defined by the system of parks and greenway connections that include Zonta Meadows Park, Mary Fix Greenway, and Bud Cleary Park. This system provides a range of large playfields and open spaces, ideal for sports and passive recreational activities. These parks form a transition between the single-family neighbourhoods to the west and the growing high density residential development at the western edge of the Downtown.

**Zonta Meadows Park** – this existing park provides a fully accessible playground, valuable playfields, and is a public gateway to Downtown.

**Mary Fix Greenway** – extending south of Burnhamthorpe Road, Mary Fix Creek provides a multi-use trail connection to Bud Cleary Park and further south along the existing trail. This trail links to the Burnhamthorpe Road Trail, to the west of Downtown, and provides a transition to the protected bike paths on Burnhamthorpe Road in Downtown.

**Confederation Square** – this new park will be built as part of the Amacon development and will provide a link between Zonta Meadows Park and the new Community Common Park.

**Confederation Walk** – this mews provides a mid-block pedestrian walk from Square One Drive to City Centre Drive and connects to Community Common Park.

**Bud Cleary Park & New Mary Fix Green** – this existing park and playfield is connected to the new Mary Fix Green, north of Webb Drive, creating a larger greenspace that extends Bud Cleary Park to Burnhamthorpe Road. This extended space provides a gateway to Downtown and a significant connection north to the Mary Fix Greenway. In order to better link these two parks, Webb Drive is realigned, narrowed, and made into a flush street to slow traffic and accommodate safer pedestrian crossings between the parks.



### Key Projects

- ① Zonta Meadows Park
- ② Confederation Walk
- ③ Confederation Square
- ④ Community Common
- ⑤ Mary Fix Greenway & Trail
- ⑥ Mary Fix Green
- ⑦ Bud Cleary Park
- ⑧ Mary Fix Creek

### Note

Names for city parks are subject to the naming of corporate facilities policies & procedures.



Mary Fix Creek / Zonta Meadows Greenway

## 4.3 CITY CENTRE

City Centre is envisioned as a common and connected civic space that extends over five blocks from Burnhamthorpe Road to Rathburn Road between Living Arts Drive and Duke of York Boulevard. This open space is made up of a collection of existing and future parks and establishes the context for some of Mississauga's most important civic uses: City Hall, the Central Library, the Living Arts Centre and the future Sheridan College Campus.

**The Civic and Library Square** – these existing public spaces are the City's premier gathering and event spaces, serving as the "front yard" to the City Hall and the location for significant civic events.

**Living Arts Park** – this green space, east of the Living Arts Centre, provides important views within the downtown but is currently acting as an underutilized front lawn. The design and programming of this park, including the proposal for a new street through the park, will be considered as part of the Living Arts Centre / Meadowvale Theatre Study.

**Artist Village** – this is a potential outward extension of cultural activity in the Living Arts Centre, envisioned as a collection of small to medium sized artists' studios located along both sides of Prince of Wales Drive. The need, design, and programming of the Artist Village will be reviewed in the context of the Living Arts Centre / Meadowvale Theatre Study.

**Flush Streets** – the east-west streets between Living Arts Drive and Duke of York Boulevard (i.e., City Centre Drive, Princess Royal Drive, Prince of Wales Drive, and Square One Drive) are planned as flush streets which provide added beauty, increased flexibility during festivals and achieve significant traffic calming benefits. They are curbless streets that use material changes and other design techniques to link the surrounding parks together and to glue the civic spaces into one common Civic District.

**Sheridan College Quadrangle** – this is a central green space that is framed by the future educational facilities of Sheridan College. This green space is designed to open up to the surrounding streets and set up views to the College's architecture.

**Rathburn Square** – this is a visual extension of the Sheridan Quad that connects across Rathburn Road and is framed by future mixed-use development. This park creates an important gateway to the northwest quadrant of the Downtown creating a street network with developable blocks and dispersed traffic loads.

**Community Common** – this future park provides a critical link west to Zonta Meadows Park and is framed by the Living Arts Centre and adjacent residential towers.

### Key Projects

- ① Rathburn Square
- ② Sheridan College Entry Plaza
- ③ Artist Village
- ④ Community Common
- ⑤ Living Arts Park
- ⑥ Civic Square
- ⑦ Main Street Common
- ⑧ Library Square



Civic District

## 4.4 MAIN STREET

The Main Street provides a pedestrian-friendly and vibrant retail street and link between Square One Mall and the residential neighbourhoods south of Burnhamthorpe Road. The public space of the Main Street itself is anchored on the north by Main Street Common, and on the south by Kariya Park and the Fairview School.

**Main Street** – the street itself is designed as a public space with a flush (i.e., curbless) street design that utilizes brick paving, is narrow and is traffic calmed. This street will be a focus for significant pedestrian and mixed-use activity including programming such as festivals and open-air markets.

**Main Street Common** – this park anchors the northern end of Main Street. It is a flexible space for people to congregate, socialize, enjoy outdoor entertainment, have meals, play, relax, read, etc. It includes a market pavilion that can house indoor farmers markets or other public events. The park should include a flexible mix of hardscape and green space that can be used for outdoor farmer’s markets, festivals and various sized gatherings of all kinds. The economic vitality of an indoor market will be examined further and tested through a business case.

**Green Corridor** – City Centre Drive will be narrowed and redesigned as a “green street” to include protected bicycle lanes and a linear park that functions as a natural bioswale for stormwater. This Green Corridor creates a link from Cooksville Creek through Downtown to Mary Fix Creek.

**Kariya Park/Fairview School** – the Plan envisions the future redevelopment of the Fairview School to turn around and address Webb Drive, eliminating its current motor vehicle and bus access on the cul-de-sac of Joan Drive. This reconfiguration allows an open space connection to be made behind the school that serves as the southern anchor to the Main Street, it provides access to the adjacent neighbourhoods and links to Kariya Park. Kariya Park itself will extend up to Webb Drive.

### Key Projects

- ① Farmer’s Market Pavilion
- ② Main Street Common
- ③ Fairview School
- ④ Kariya Park



Main Street Common





## 4.5 COOKSVILLE CREEK

The eastern edge of Downtown is defined by the Cooksville Creek whose valley and edges provide a greenway connecting places north of Highway 403 to places south of Burnhamthorpe Road. This existing greenway and trail provides an eastern spine from which the Downtown can further connect and link, resulting in even more valuable connections between the Downtown, the Mississauga Valley Community Centre and places beyond.

**Rathburn Pond** – this is a stormwater management area connected to Cooksville Creek to receive and pre-treat storm water for temperature, speed and quality prior to it reaching the creek. The area provides a pleasant setting and address for the neighbouring buildings and includes a potential civic function in the way of a fire station at the intersection of Rathburn Road and Kariya Drive.

**Station Gate Square** – this park extends along Rathburn Road and creates a passive civic space adjacent to the City Centre Transit Terminal and future Rathburn LRT Station. This park also provides views to a future civic building.

**Mississauga Valley Trail & Greenway** – this new greenway connection extends through the existing apartment towers to connect to Hurontario Street and Matthews Gate. This greenway connection provides another link between the Mississauga Valley Community Centre and the Downtown as well as added connectivity to the future Matthews Gate LRT Station on Hurontario Street.

### Key Projects

- ① Rathburn Pond (Stormwater Management)
- ② Station Gate Square
- ③ Sherwoodtowne Greene
- ④ Bishopstoke Park
- ⑤ Bishopstoke Walk / Greenbelt (Cooksville Creek)
- ⑥ Gordon S. Shipp Memorial Park
- ⑦ Mississauga Valley Greenbelt - Community Park
- ⑧ Mississauga Valley Trail & Greenway
- ⑨ Mississauga Valley Community Centre
- ⑩ Future Civic Building Site (Fire Hall)



Cooksville Creek Greenway





# SECTION 5 : DISTRICTS



**21**  
DOWNTOWN  
MASTER PLAN



## 5.1 DISTRICTS OVERVIEW

The plan defines a collection of districts that together comprise Downtown. Each district will develop with its own character, mix of use, function and scale. The detailed urban design plans presented in this section represent “illustrations” of one way they might develop based on the proposed street framework, parks system, transit system and urban design guidelines.

**Main Street** – Envisioned as a catalytic example of Downtown’s potential to create a vibrant, walkable, mixed-use place. It will include active street-level retail and outdoor cafes with a mix of residential and office uses above.

**Civic Centre**– The five blocks between Duke of York Boulevard and Living Arts Drive create a “Civic Campus” that includes the Central Library, City Hall, Living Arts Centre and the future Sheridan College. Equally important are this District’s public spaces which collectively make up a five-block “civic park”.

**Confederation** – This is a rapidly growing urban residential neighbourhood that will be home to over 20,000 people, centred along Confederation Parkway and a series of new park spaces that will connect Zonta Meadows Park to the Civic District.

**Cleary Park** – This future urban neighbourhood will extend west to Grand Park Drive and forms the western gateway to Downtown. The extension of Bud Cleary Park north to Burnhamthorpe Road completes the Mary Fix greenway connection and links this neighbourhood to the Downtown.

**Square One** – Square One Mall will evolve and adapt over time, continuing to strengthen its retail base while seeking ways to better connect itself to the surrounding Downtown street network.

**Rathburn** – This district will intensify over the long-term with an emphasis on office and employment uses that can take advantage of access to future transit and visibility and access to Highway 403.

**Hurontario** – This district includes Downtown’s highest concentration of existing office uses, forming the foundation for new office development in the short-term.

**Sussex** – This is currently the densest mixed-use district in the downtown (500+ ppj/ha) and includes significant office and residential development.

**Mississauga Valley** – This existing residential neighbourhood is home to over 10,000 people in a collection of high rise residential towers. Greenway connections provide a link to the Downtown and a future transit station on Hurontario and Matthews Gate may provide the catalyst for residential intensification.

### Growth Forecasts & Potential Development

For the purpose of forecasting needed community services, public education facilities, infrastructure requirements, planning for transit and ensuring a jobs and housing balance in the Downtown that is consistent with regional policy, the potential development represented by the physical form of **Downtown21** has been estimated. These numbers represent only one potential physical build out of the Downtown and do not relate to current or future market demands or adopted population and employment forecasts. For comparison purposes the Hemson Growth Forecasts for population and employment are provided for 2009 and 2031.

#### Notes:

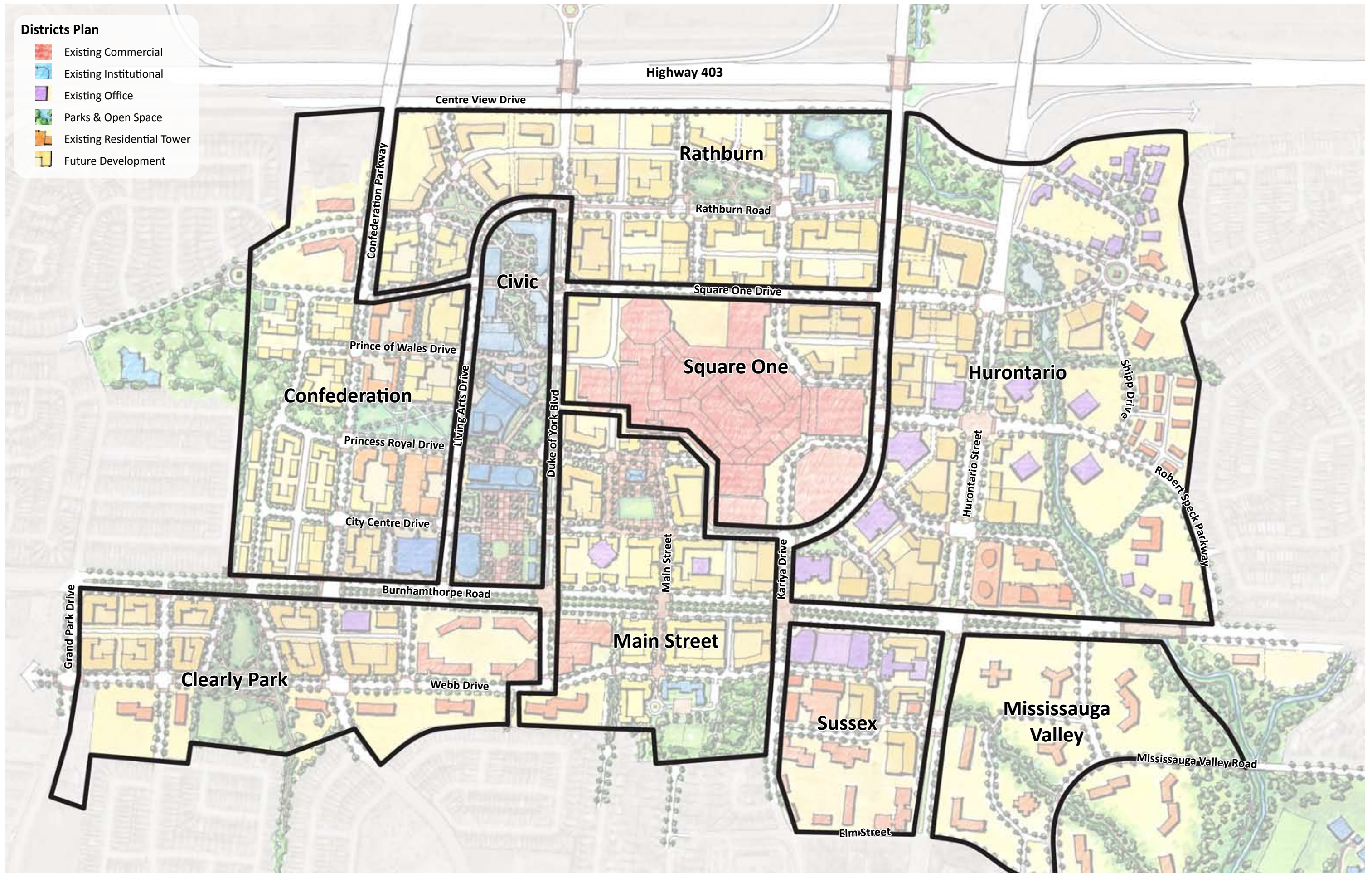
Slight inconsistencies may exist between the 2031 Hemson Growth Forecast and the **Downtown21** Buildout Potential as the DT21 vision has resulted in minor changes to some land use assumptions.

## Downtown21 Potential Development Summary

	2031 Hemson Growth Forecast	DT21 Buildout Potential
<b>Main Street</b>		
Population	5,622	12,316
Employment	2,945	4,221
PPJ/Ha	325	626
<b>Civic</b>		
Population	2,142	(5,500 Students)
Employment	3,549	2,650
PPJ/Ha	347	162
<b>Confederation</b>		
Population	16,738	22,246
Employment	1,544	20
PPJ/Ha	502	612
<b>Cleary Park</b>		
Population	12,288	16,004
Employment	2,841	603
PPJ/Ha	515	565
<b>Rathburn</b>		
Population	932	0
Employment	1,106	28,636
PPJ/Ha	52	727
<b>Hurontario</b>		
Population	7,397	6,057
Employment	13,892	25,423
PPJ/Ha	311	460
<b>Square One</b>		
Population	0	0
Employment	4,683	4,087
PPJ/Ha	209	182
<b>Sussex</b>		
Population	5,383	6,402
Employment	3,488	5,574
PPJ/Ha	576	778
<b>Mississauga Valley</b>		
Population	6,070	6,070
Employment	199	199
PPJ/Ha	348	348
<b>TOTAL</b>		
Population	56,565	69,095
Employment	34,247	71,411
PPJ/Ha	333	516

**Districts Plan**

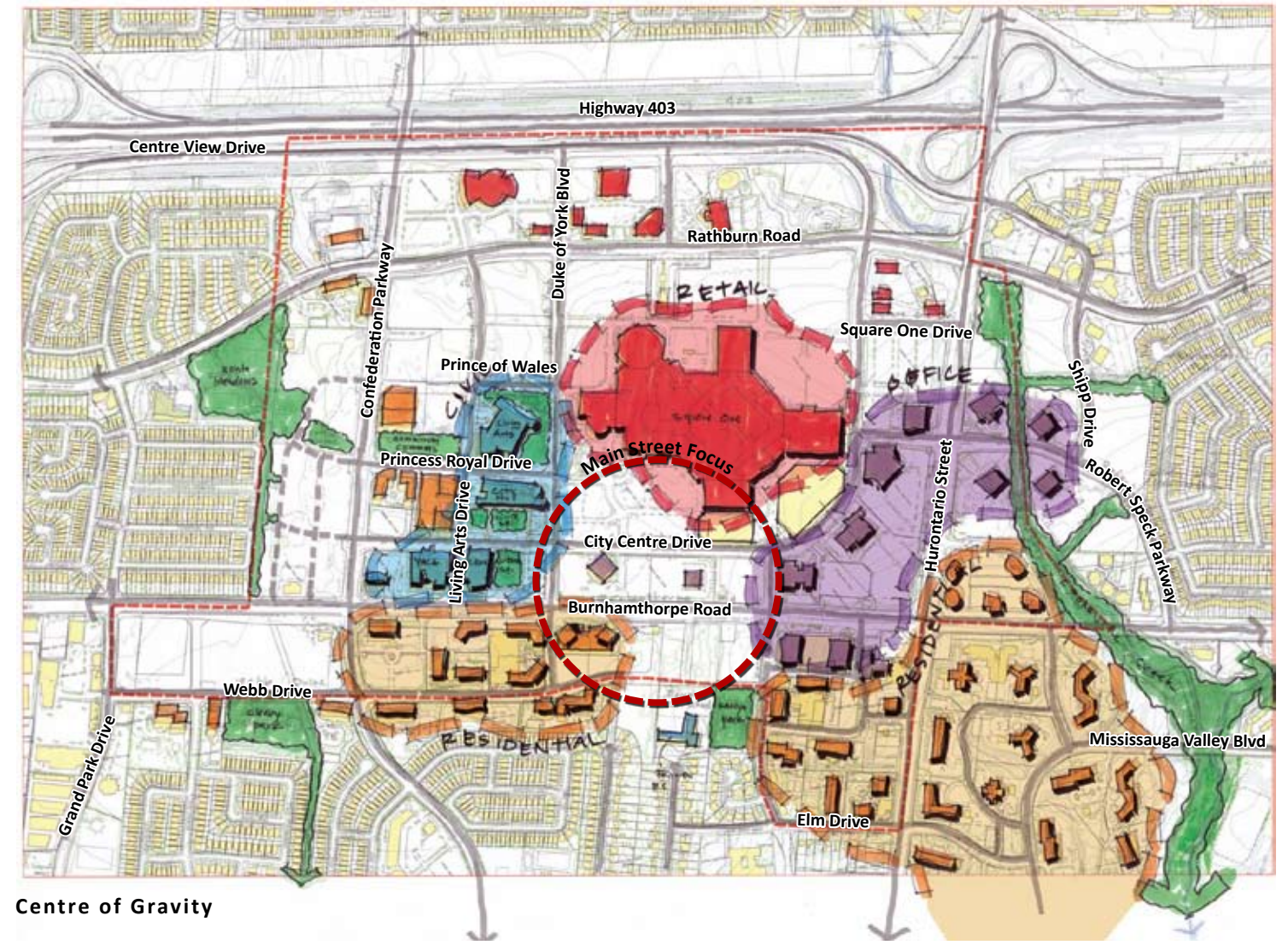
- Existing Commercial
- Existing Institutional
- Existing Office
- Parks & Open Space
- Existing Residential Tower
- Future Development



## 5.2 MAIN STREET DISTRICT



Downtown21 Study Area



Centre of Gravity

### The Need for Focus

The geography of downtown is too large to start just anywhere or everywhere. The area defined as Downtown Mississauga is over 700 acres (295 hectares) and is over two kilometers long. It will take decades to build out Downtown Mississauga. The limited resources of the City and participation of private stakeholders should be initially focused in a small, intense location.

In order to create a cohesive and complete example of its urban future, public and private resources should be targeted to a limited geography that has the greatest potential for success. This focused project will serve as a catalyst for change by providing a built example of a walkable urban form, signaling to potential employers, developers and the Province of Ontario the City's commitment to a sustainable, accessible, and transit oriented urban future for Downtown.

### When To Focus? - Now

The focus area should be built out within the next eight to ten years to show commitment to higher order transit and coincide with the opening of the first phase of the Hurontario LRT service and the Main Street Station in the downtown. At that time, there will be the three necessary ingredients to attract major employment/office to the downtown, including: i) a destination, i.e. a "there" there, a vibrant, urban, heart to the downtown; ii) a green building and development pattern, which is increasingly important to attracting office; and iii) higher order transit.

### Where To Focus?

The pattern of existing development and investment in downtown suggests a logical location to begin. Centred on Burnhamthorpe Road and south of Square One Mall, there is an underdeveloped area that is surrounded by many of the downtown's valuable assets. This "centre of gravity" touches Square One Mall, the City Hall and Living Arts Centre, the concentration of downtown office, new residential development and established neighbourhoods to the south.

This location is important for a number of reasons:

- It is the proposed location for a higher order transit station and the undeveloped area around it is perfectly suited for transit-oriented development and intensity;
- It touches multiple landowners and stakeholders (lots of interests benefit);
- It has the ability to tie together existing public assets (City Hall/Living Arts Centre, the Civic and Central Library Squares, Kariya Park, Cooksville Creek);
- It is scaled to be implemented in a focused timeframe (six blocks); and
- It has prominent visibility on Burnhamthorpe Road and connects to the neighbourhoods on the south side.

## The Main Street District Vision

To create a true piece of active lively pedestrian-oriented urban fabric in the heart of the emerging “downtown” that would serve as a model, catalyst and attractor for ongoing investment in the larger area.

- To create at its heart a “main street” that bridges from Square One Mall across Burnhamthorpe Road to the larger residential communities to the south;
- To introduce into this concentrated area a broad mix of uses and users that would contribute to make this a real piece of 24/7 city fabric;
- To create a critical mass of at least 5,000 residents, 5,000 employees, and neighbourhood-oriented retail/restaurant uses; and
- To make this come together in a relatively short time horizon as a coherent place that can demonstrate the real potential of Downtown Mississauga.



## Main Street – The Place

The role of the Main Street is to provide the beating heart of the downtown or, in other words, to maximize social and economic exchange. The street succeeds in this role by providing pedestrian-oriented, smaller scale retail and entertainment opportunities; maximizing access and walkability; having engaging, inviting, and aesthetically pleasing buildings and being supported by higher order transit, public spaces, residences, and nearby educational, office and mall uses. Motorists are required, through “self-enforcing design” to drive slowly. The role and the design of the entire street is uncompromisingly oriented to provide a vibrant and safe pedestrian-oriented place that attracts a diversity of people.

The major components of the district plan include:

### Housing - Wide range of housing types, tenures and pricing:

- Market housing above retail along Main Street;
- Condominium, rental and live/work;
- Affordable/Assisted/Accessible housing;
- Family, Older Adults; and
- Student housing.

### Retail – street level, pedestrian oriented:

- Small stores on Main Street - largely independents, reflecting the multicultural community (live music pubs, cafes, restaurants, etc);
- Located on both sides of the street and wrapping corners;
- Multi-cultural urban grocery store (potentially at Webb Drive and Main Street with residential tower above);
- Spill-out provision on sidewalks – cafés, merchandise, vendors, produce, flowers, etc.;
- Diverse architecture (more eclectic feeling);
- On-street parking; and
- ability to close street for festivals, events.

### Offices/Employment:

- Free-standing for large and mid-sized users;
- Also above stores – small users, business investors; and
- Provision for expansion of City of Mississauga’s municipal offices.

### College/University – in the district or adjacent - depending on fit, expansion plans, land area:

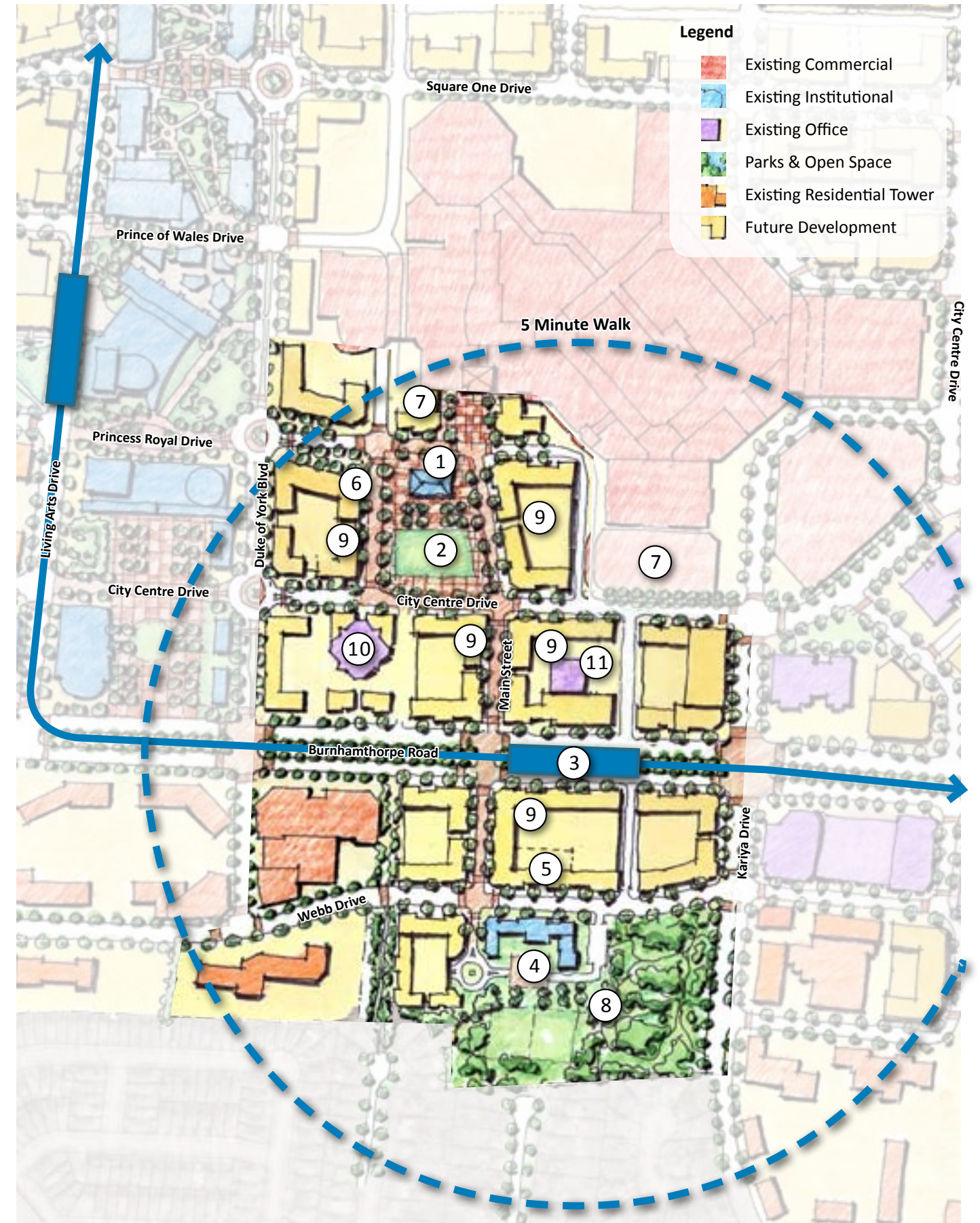
- Animate uses on ground floor;
- Opportunities to lease/expand in existing office buildings;
- Proximity to transit and existing community uses (i.e. library).

## Potential Development

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	5,622	12,316
Employment	2,945	4,221
PPJ/Ha	325	626

### Key Projects

- 1 Farmer’s Market
- 2 Main Street Common
- 3 Main Street Transit Station
- 4 Re-oriented Fairview School
- 5 Neighbourhood Grocery Store
- 6 “Green” Corridor with Protected View to LAC
- 7 Street-level Uses in Parking Deck
- 8 Kariya Park
- 9 Main Street Retail
- 10 201 City Centre Drive (Morguard)
- 11 151 City Centre Drive (Desjardins)



District Plan



**Parks** - Urban, active edges, gathering places, multi-use, all-season, central focus:

- Main Street Common as a flexible public green space for markets and events;
- Permanent location for Farmers Market with pavilion in park;
- A key marketing advantage and image for new “Main Street” approach;
- “Green Corridor” woven throughout City Centre.

**Cultural Arts** – Places and spaces for the arts community.

- Integrated artist studios on ground floor of parking deck on City Centre Drive;
- Public art opportunities woven into the street and public space design; and
- Opportunities for street-festivals and special events in the park.

**Community Services** – providing the needs of a growing and changing residential population:

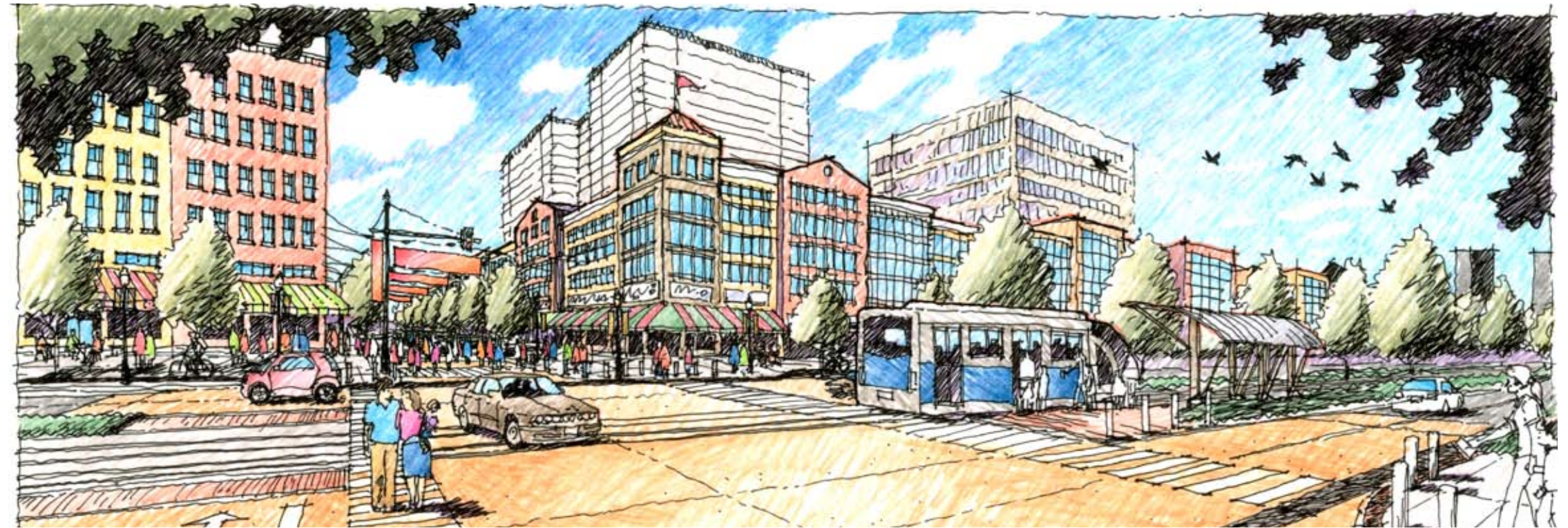
- Medical/Healthcare - Hospital satellite/clinic facility, Medical/healing arts building;
- Day Care Centre - In conjunction with another community resource, serving office workers and residents;
- Redevelopment and potential expansion of the Fairview School to better serve a growing student population; and
- Religious worship, multi-denominational facility.

**Parking** – creating a shared public and private resource:

- On-street parking on all new and existing streets;
- Public structured and/or underground parking as a shared resource for the district; and
- Long-term parking reduction as a result of future transit service.

**Sustainability** – building a sustainable future:

- Streets and buildings that protect sun access on sidewalks and which mitigate the effects of wind and precipitation through design;
- District Energy for heating and cooling;
- LEED Silver building standards and LEED ND district plan;
- Potential ENVAC district waste system; and
- Universal accessible design.



**Main Street & Burnhamthorpe**

This view of the “main street” looking north from Burnhamthorpe Road illustrates a vision of a pedestrian-oriented, vibrant place that includes: a redesigned Burnhamthorpe Road with transit that links the main street north and south, a small-scaled and active main street as a place for festivals and street-level retail and urban scaled mixed-use development that is both dense and human-scaled.



## 5.3 CIVIC DISTRICT

The Civic Centre District is a five block public campus and open space that is home to the City's premiere public institutions including the City Hall, Central Library, Living Arts Centre and Sheridan College Campus. This campus is envisioned as a singular civic space comprised of smaller parks and plazas and institutional uses, linked together by the pedestrian street design of Duke of York Boulevard, Living Arts Drive and the flush street design of City Centre Drive, Princess Royal Drive, Prince of Wales Drive and Square One Drive.

### Key Components:

**Sheridan Quadrangle** – this public space is both enclosed by the Sheridan Campus buildings while remaining open and accessible to the greater Downtown. Square One Drive is designed as a flush street so as to create a seamless link between the parks and calm traffic through the campus.

**Artist Village** – a potential outward extension of the Living Arts Centre could include active artist studio spaces designed in a “village” setting along Prince of Wales Drive. This village would activate the space between the Living Arts Centre and the Sheridan College Campus and bring cultural arts “to the street” in a very literal way. The need, design, and programming of the Artist Village will be reviewed in the context of the Living Arts Centre / Meadowvale Theatre Study.

**Living Arts Park** – this could include a redesigned green space that is connected to the larger Civic Centre Campus and may include a new street connection along the front of the Living Arts Centre. These recommendations will be more fully considered as part of the Living Arts Centre/Meadowvale Theatre Study.

**Duke of York Boulevard** – this is Downtown's primary civic street, serving as the front door and address for many of the Civic District's buildings and uses. To reflect this civic role, the Boulevard's key intersections have been redesigned as roundabouts. These roundabouts provide clear transition to the District's flush streets, calm and slow traffic, provide a place for civic monuments or landscape design and allow the Boulevard to be narrowed by converting the outside lanes to on-street parking.

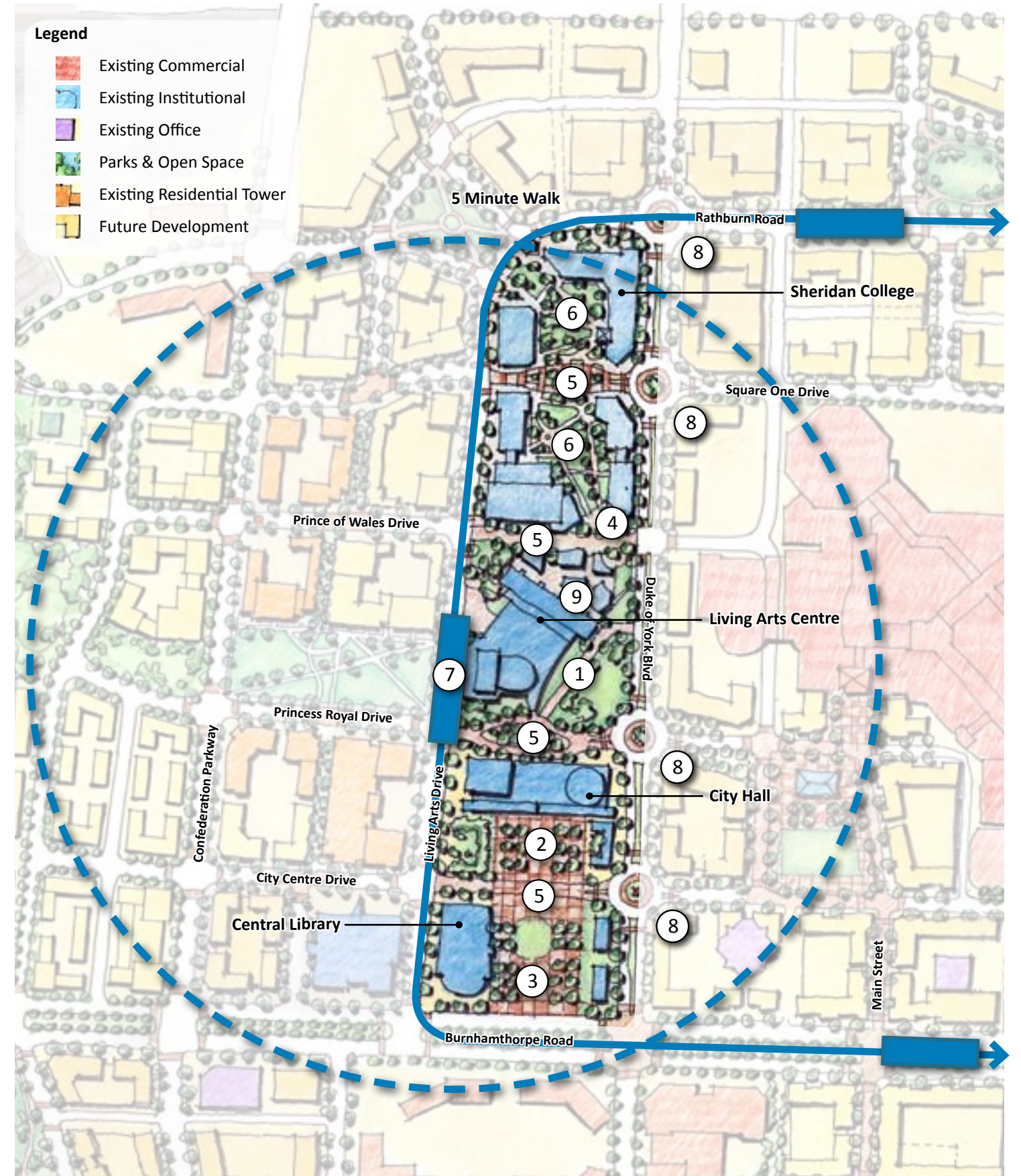
**Flush Streets** – all of the streets between Duke of York Boulevard and Living Arts Drive are envisioned as “flush” streets where curbs are eliminated and the street is redesigned through paving materials and alignment to calm traffic and make it safer and easier for pedestrian activity. In this way these streets become part of the public space of the Civic Centre Campus.

### Potential Development

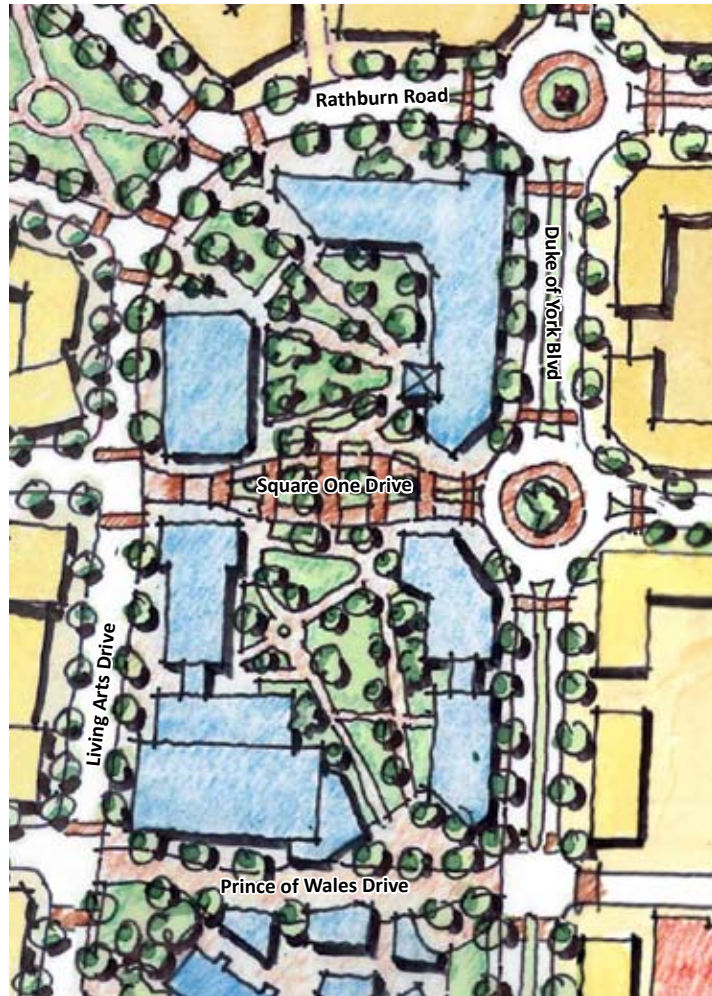
	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	2,142	5,500 (students)
Employment	3,549	2,650
PPI/Ha	347	162

### Key Projects

- ① Living Arts Park (The design and programming of this park, including the proposal for a new street through the park, will be considered as part of the Living Arts Centre / Meadowvale Theatre Study.)
- ② Civic Square
- ③ Library Square
- ④ Sheridan College Entry Plaza
- ⑤ “Flush Street”
- ⑥ Sheridan College Quad
- ⑦ Civic Transit Station
- ⑧ Roundabout
- ⑨ “Artist Village”



District Plan



Sheridan College Campus Master Plan

### Sheridan College – A New Downtown Campus

The introduction of the Sheridan Institute of Technology & Advanced Learning (Sheridan) in Downtown Mississauga fulfills many of the objectives in the City’s recently adopted Strategic Plan. The Sheridan Campus bookends the Civic Centre District and will be a critical catalyst for development in the downtown. The introduction of a post-secondary education campus in downtown will draw a new population of talented youth and new Canadians, serve to catalyze economic and business development and play a strong role in promoting a “green” culture.

The Sheridan Campus will be built in phases over time, ultimately framing the street edges and forming an interior quadrangle public park that will become a valuable part of the Downtown’s open space system.



Perspective View of Sheridan College Campus at Intersection of Rathburn Road & Living arts Drive



**Phase 1**  
Phase One Building on the South Block with Interim Surface Parking

**Phase 2**  
Phase Two Buildings on the North & South Blocks; Includes a Parking Garage

**Phase 3**  
Full Build-Out and Quad / Open Space Completion

**Phase 4**  
Potential Re-alignment of Rathburn Road & Living Arts Drive for BRT / LRT



View Looking North Along Duke of York Boulevard

# 5.4 CONFEDERATION DISTRICT

This is a rapidly growing urban residential neighbourhood that will be home to over 20,000 people, centred along Confederation Parkway and a series of new park spaces that will connect Zonta Meadows Park to the Civic District.

**Key Components:**

**Community Common & Confederation Square** – these two new parks will create a central public space that links Zonta Meadows Park into the Downtown and is framed by high density residential towers.

**“Confederation Walk”** – this pedestrian walkway provides a mid-block link between Square One Drive and City Centre Drive and connects through the Community Common Park.

**Square One Drive Extension** – this is a critical new street connection that provides additional network capacity into and through the Downtown. The missing link is the connection from Confederation Parkway, west to Rathburn Road. This connection is created via a roundabout at Rathburn Road and a new road alignment that runs along the north side of the Amacon development.

**Potential Development**

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	16,738	22,246
Employment	1,544	20
PPJ/Ha	502	612

**Key Projects**

- ① Community Common
- ② Confederation Square
- ③ Civic Transit Station
- ④ YMCA
- ⑤ “Confederation Walk”
- ⑥ Mary Fix Greenway & Trail
- ⑦ Roundabout at Rathburn Road & Square One Drive
- ⑧ Square One Drive Extension to Rathburn Road



View Looking Down Zonta Meadows Park Along Princess Royal Drive



District Plan

## 5.5 CLEARY PARK DISTRICT

This future urban neighbourhood will extend west to Grand Park Drive and forms the western gateway to Downtown. The extension of Bud Cleary Park north to Burnhamthorpe Road completes the Mary Fix Greenway connection and links this neighbourhood to the Downtown.

### Key Components:

**Mary Fix Green** – this new park connects and extends Bud Cleary Park to Burnhamthorpe Road and creates a central open space for surrounding future residential development.

**Webb Drive Extension** – the extension of Webb Drive west as redevelopment occurs will over time create a parallel road to Burnhamthorpe Road, from Hurontario Street to west of Mavis Road.

**Burnhamthorpe Trail Connection** – the Burnhamthorpe Trail connects to the Mary Fix Creek Trail and Greenway while transitioning to the protected bicycle paths of Burnhamthorpe Road in the Downtown.

**Land Use and Development** – future development is primarily high density residential on new streets and blocks.



District Plan

### Potential Development

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	12,288	16,004
Employment	2,841	603
PPJ/Ha	515	565

**Note:** The DT21 buildout projections for employment are lower than the Hemson 2031 forecasts because DT21 assumes predominantly residential development in this district.

### Key Projects

- ① Bud Cleary Park
- ② Mary Fix Greenway & Trail
- ③ Flush Street
- ④ "Mary Fix Green"
- ⑤ Extension of Webb Drive West to Mavis Road & Beyond
- ⑥ Burnhamthorpe Trail Crossing



View Looking North Along Mary Fix Greenway & Bud Cleary Park

## 5.6 RATHBURN DISTRICT

The Rathburn District is currently a pattern of suburban retail and surface parking lots. This district will intensify over the long-term with an emphasis on office and employment uses with the potential for a limited amount of residential development primarily to the west of Living Arts Drive that can take advantage of access to future transit and visibility and access to Highway 403.

### Key Components:

**Station Gate Square** – this park will provide needed open space for future development. It is located to be a civic address for the future Rathburn LRT/BRT Station, City Centre Transit Terminal and future civic site (potential fire station) at Karya Drive.

**Square One Drive Extension** – the extension of Square One Drive provides an important east-west street for the Downtown and parallel route to Rathburn Road.

**Duke of York & City Centre Bridges** - these new bridges over Highway 403 provide much needed north-south connectivity and connect to the Northern Distribution Road with access to the Highway 403 interchanges at Hurontario Street and Mavis Road.

**Land Use & Development** – future development in this district is envisioned to be primarily office and employment uses with active uses and retail along Rathburn Road and around parks and open spaces.

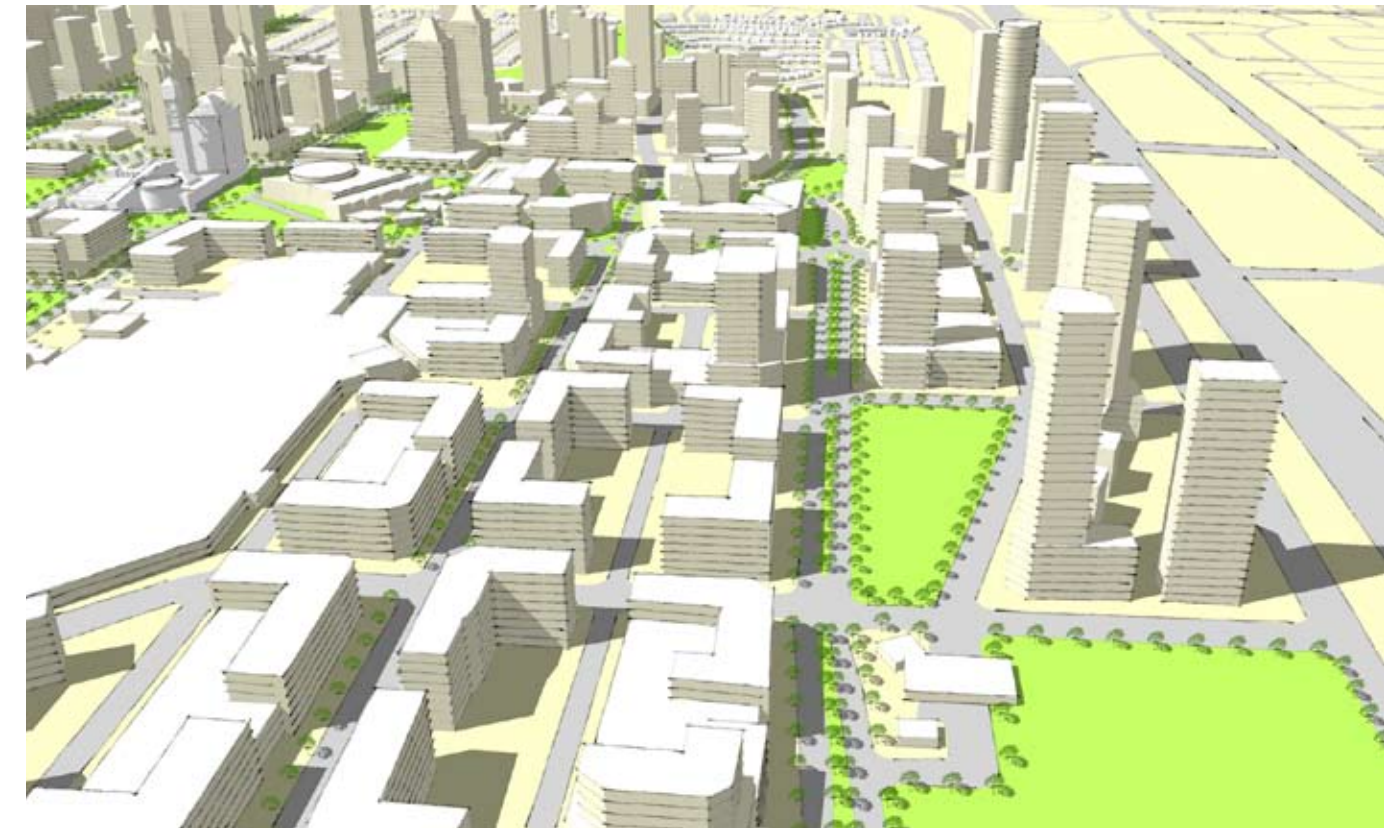
### Potential Development

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	932	0
Employment	1,106	28,636
PPJ/Ha	52	727

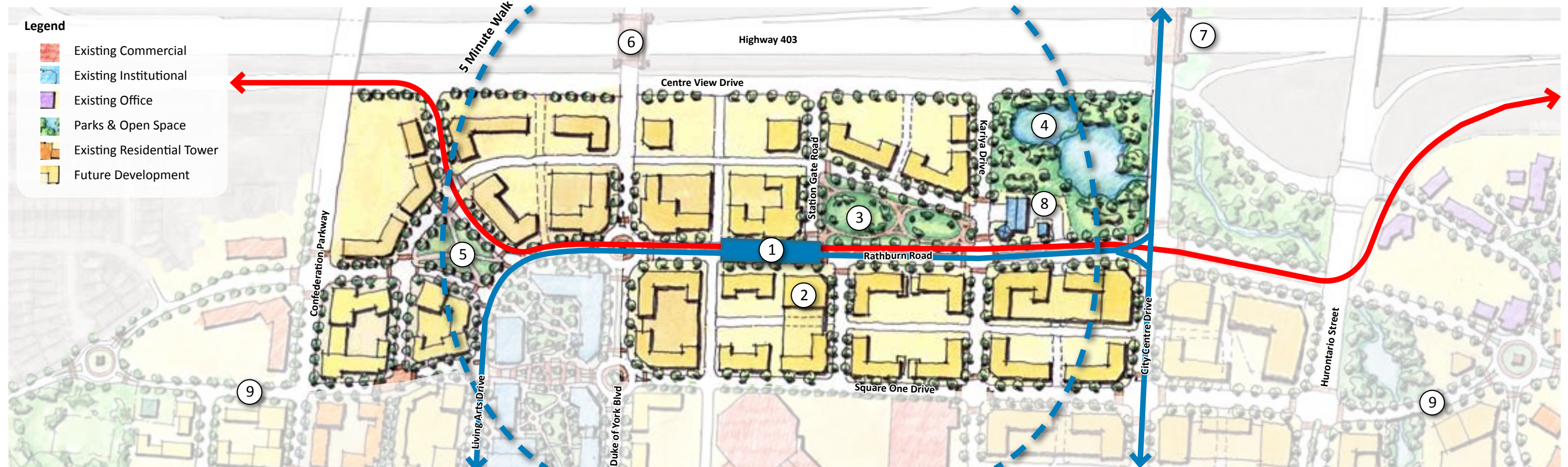
**Note:** The Hemson Growth Forecasts for 2031 assume some residential development, while DT21 assumes predominately employment uses in this district.

### Key Projects

- ① Rathburn Transit Station
- ② Transit Terminal
- ③ Station Gate Square
- ④ Stormwater Management Area & Open Space
- ⑤ Rathburn Square
- ⑥ Duke of York Bridge to Northern Distribution Road
- ⑦ City Centre Bridge over 403 (Transit/Auto/Pedestrian)
- ⑧ Civic Site at End of Park (Potential Fire Station Site)
- ⑨ Extension of Square One Drive to Rathburn Road



View Looking West Along Rathburn Road



District Plan

# 5.7 HURONTARIO DISTRICT

This district includes Downtown's highest concentration of existing office uses, providing the foundation for new office development in the short-term.

### Key Components:

**Robert Speck Transit Station** – this station serves the existing and future office development along Hurontario Street and City Centre Drive.

**Land Use & Development** – office intensification and development with street-level retail along Robert Speck Parkway and City Centre Drive.

### Potential Development

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	7,397	6,057
Employment	13,892	25,423
PPJ/Ha	311	460

**Note:** The Hemson Growth Forecasts assume some residential intensification on existing office sites, while DT21 assumes employment intensification.

### Key Projects

- ① Bishopstoke Walk / Greenbelt (Cooksville Creek)
- ② Gordon S. Shipp Memorial Park
- ③ Bishopstoke Park
- ④ Sherwoodtowne Green
- ⑤ Robert Speck Transit Station
- ⑥ Square One Drive Extension
- ⑦ Executive Centre Office Park
- ⑧ City Centre Plaza (GWL)
- ⑨ 33 City Centre Drive (Morguard)
- ⑩ 55 City Centre Drive (Morguard)
- ⑪ 77 City Centre Drive (Morguard)
- ⑫ Roundabout at Rathburn Road & Square One Drive



View South Along City Centre Drive



District Plan

# 5.8 SQUARE ONE DISTRICT

This district includes Downtown’s highest concentration of existing office uses, providing the foundation for new office development in the short-term.

### Key Components:

**Robert Speck Transit Station** – this station serves the existing and future office development along Hurontario Street and City Centre Drive.

**Land Use & Development** – office intensification and development with street-level retail along Robert Speck Parkway and City Centre Drive.

**Employment Intensification** – the plan envisions how intensification could happen in the long term adjacent to Square One Mall while preserving and enhancing the heart of the mall.

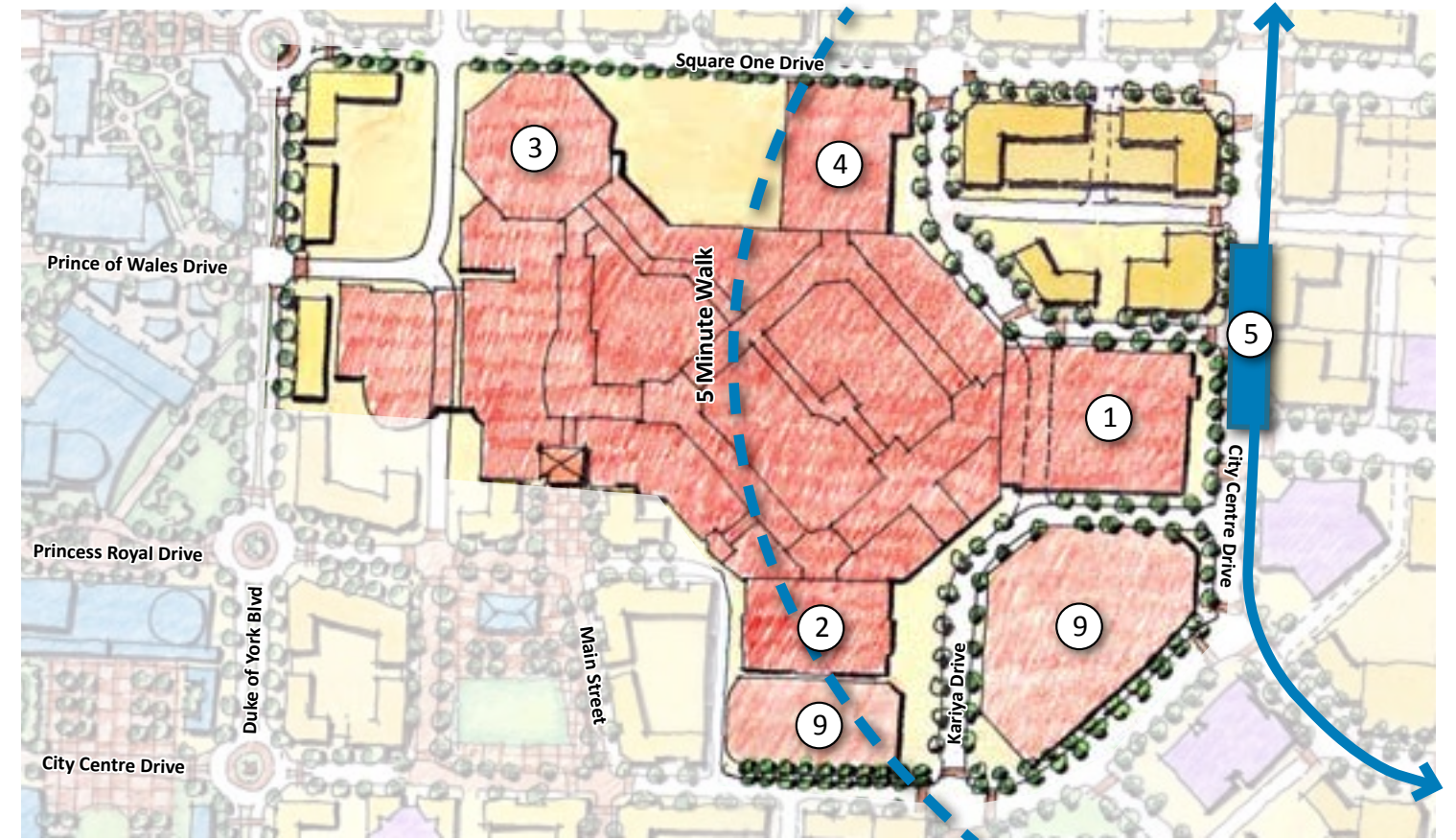
## Potential Development

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	0	0
Employment	4,683	4,087
PPJ/Ha	209	182

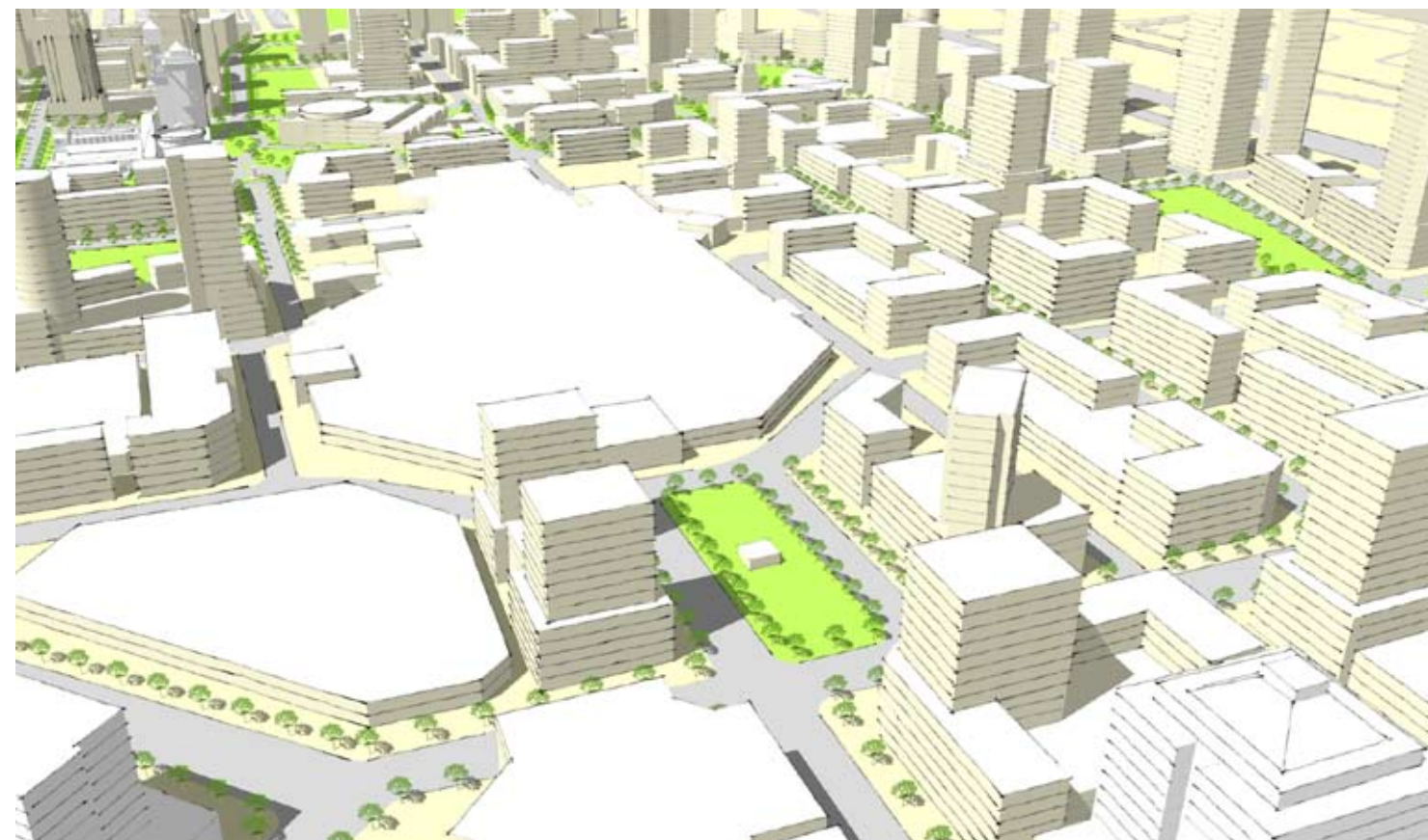
**Note:** The Hemson Growth Forecasts assume some retail growth and expansion of Square One Mall, while DT21 assumes retail growth in other districts.

## Key Projects

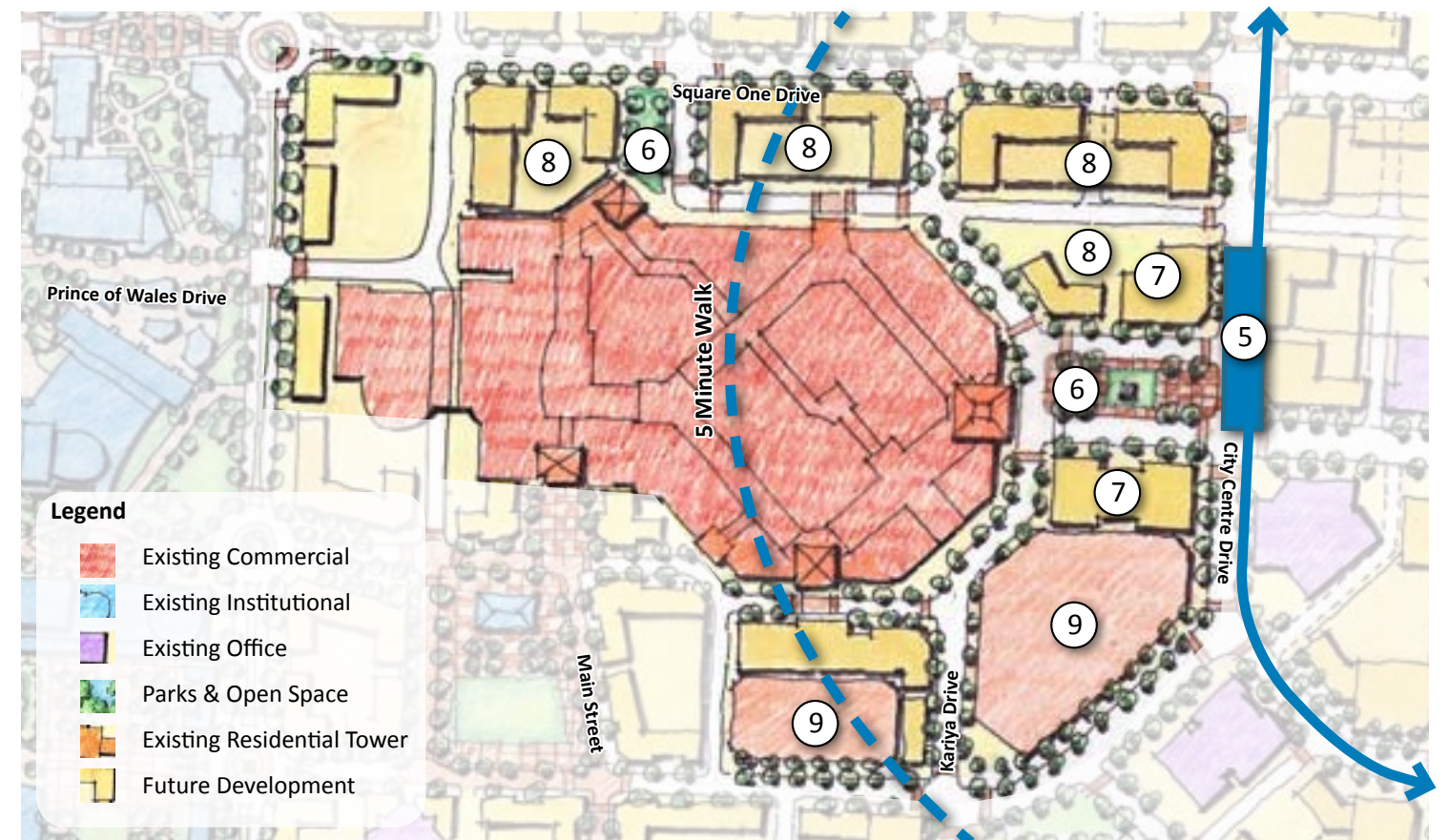
- ① Wal-Mart
- ② The Bay
- ③ Zeller’s
- ④ Sears
- ⑤ Robert Speck Transit Station
- ⑥ New Plaza at Square One Entrance
- ⑦ Potential Office Development with Street Level Retail
- ⑧ Replacement Parking in Decks (part of Redevelopment)
- ⑨ Existing Square One Mall Structured Parking



District Plan



View Looking West Along Robert Speck Parkway to New Mall Entrance



Potential Scenario with Redeveloped Anchors



# 5.9 SUSSEX & MISSISSAUGA VALLEY DISTRICT

## Sussex District

This is currently the densest, mixed-use district in the downtown (500+ ppj/ha) and includes significant office and residential development. Small infill opportunities exist for additional office, ancillary uses, and residential development.

## Mississauga Valley District

This existing residential neighbourhood is home to over 10,000 residents in a collection of high rise residential towers. Greenway connections provide a link to the Downtown and a future transit station on Hurontario Street and Matthews Gate may provide the catalyst for intensification with mixed-use, community amenities, and residential along the edges.

### Key Components:

**Residential Intensification** – in Mississauga Valley, the provision of Higher Order Transit on Hurontario Street may catalyze mixed-use and residential intensification at the periphery of sites. The Plan illustrates one scenario by which a series of new street connections create better connectivity to the transit station and a range of mixed-use and residential development can occur over time, thereby knitting the community into the overall fabric of the downtown and city as a whole.



District Plan



Potential Scenario with Intensified Residential Development

### Potential Development (Sussex)

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	5,383	6,402
Employment	3,488	5,574
PPJ/Ha	576	778

### Potential Development (Mississauga Valley)

	2031 Hemson Growth Forecast	DT21 Buildout Potential
Population	6,070	6,070
Employment	199	199
PPJ/Ha	348	348

### Key Projects

- ① Main Street Transit Station
- ② Matthews Gate Transit Station
- ③ Sussex Centre (GWL)
- ④ Kariya Park
- ⑤ Fairview School
- ⑥ Novotel Hotel
- ⑦ Mississauga Valley Trail & Greenway
- ⑧ Mississauga Valley Community Centre
- ⑨ Mississauga Valley Greenbelt - Community Park
- ⑩ New Street Connection
- ⑪ Infill Townhomes
- ⑫ Infill Residential Towers



# SECTION 6 : URBAN DESIGN GUIDELINES



## 6.1 CURRENT POLICY FRAMEWORK

Mississauga’s Official Plan (Mississauga Plan) is the policy document that sets out the basic goals, objectives and direction for long term growth and development in the City. The Official Plan is divided into planning districts – including the City Centre. Within each district, specific policies and land use maps define the long range plan for the road system, parks, environmental lands to be protected and land use development.

The Zoning By-laws are the City’s precise legal regulations that implement the land use policies of the Official Plan. The Zoning By-laws regulate in detail the specific use of land, height, bulk, size, and location of buildings, lot sizes, density of development and parking.

With the passage of OPA 281 in 1980, Council began to articulate a vision and special planning policy regime to make City Centre (the City’s) “downtown”. The (1990) passage of OPA 90 furthered this quest and in 2002, following an almost 5 year consultation process, Council further refined its vision of the City Centre from a suburban/office campus development style to a much more “downtown” urban built form. The vehicle for this latest iteration of planning policy was Amendment 20 (OPA 20) to City Plan, the City’s overall Official Plan. OPA 20 designates most of City Centre, outside of ‘Square One’, for ‘mixed use’ (office or residential). Zoning By-law 0005-2001 implements OPA policy by removing any limits to density or height.

The current City Centre District Policies and implementing Zoning By-law were adopted by City Council on January 17, 2001. A “three-pronged” approach was introduced for the City Centre which included revised District Policies, an implementing Zoning By-law and Urban Design Guidelines. The City Centre District Policies define the broad-based policy framework, the Zoning By-law specifies zoning standards relating to use and a limited number of physical design parameters for built-form and the Urban Design Guidelines outline the intended urban design objectives for City Centre based upon principles established in the City Centre District Policies.

The previous update to the City Centre Planning District was different from past reviews in the following ways:

- There was an emphasis on urban design as a foundation for the District Policies, as well as the promotion of high quality urban design to reinforce and enhance the image of City Centre as a destination and a major regional centre;
- Land use requirements became more flexible to better respond to the dynamic growth and change of the City Centre as it matures;
- The City Centre District Policies, Zoning By-law and Design Guidelines were prepared and approved by City Council to facilitate the approval process so that the City would be able to respond in a timely manner to development initiatives and market considerations; and

- Special attention was given to the “edge areas” of the district where development in City Centre would be located adjacent to low-rise residential development. As a result, transitional policies were introduced which restricted the type and form of development on lands located on the east side of Wallenberg Crescent and on lands on the east side of Shipp Drive.

### Why An Update?

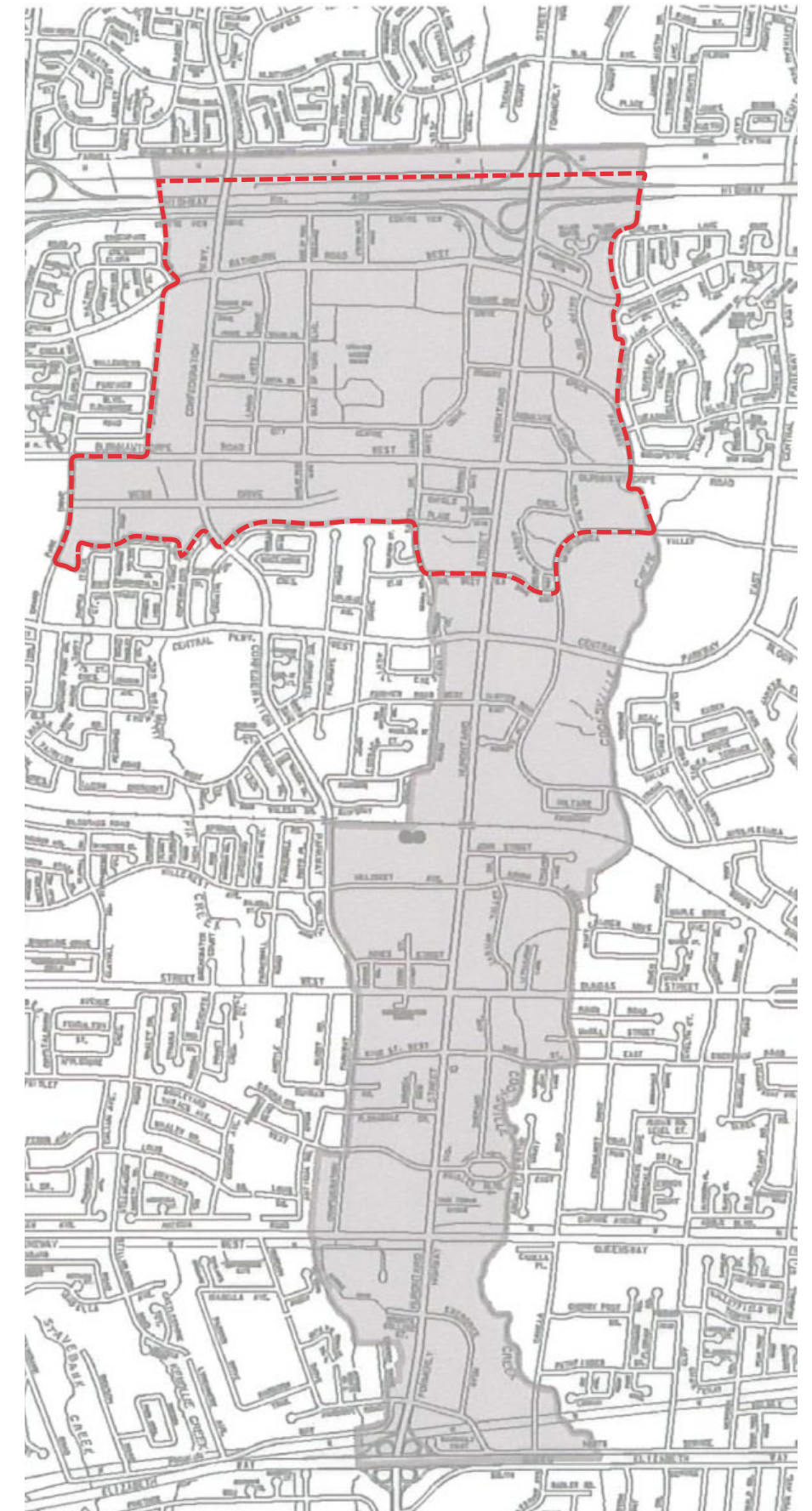
There are a number of basic policy areas that do not reflect the **Downtown21** Plan or anticipated current development conditions and initiatives. Amendments to the Zoning By-law and updates to the Official Plan for the Downtown should be undertaken simultaneously and in accordance with the statutory requirements of the Ontario Planning Act. These updates include:

1. **Amending the City Centre District Boundary** – The **Downtown21** boundary enlarges the existing City Centre District boundary to:
  - Be consistent with the established Urban Growth Boundary (UGC);
  - Include the Highway 403 right-of-way, a critical transportation component of the Downtown;
  - Incorporate the high density residential development south of Webb Drive which is part of the UGC and is oriented and in character with the intensity of Downtown; and
  - Include a portion of the Mississauga Valley area at the corner of Burnhamthorpe Road and Hurontario Street which will have direct access to Higher Order Transit and should intensify over time as part of the Downtown.

The proposed boundary of **Downtown21** is a subset of the Urban Growth Centre boundary, including the northern portion of the UGC from Highway 403 to south of Burnhamthorpe Road. By policy, the Urban Growth Centre is planned to achieve a minimum gross density of 200 residents and jobs per hectare by 2031 with an ultimate goal of 300 to 400 residents and jobs per hectare. It is also planned to achieve an average population to employment ratio of 1:1.

The **Downtown21 Plan** is consistent with these goals. The proposed development build out of the **Downtown21 Plan** has the potential to achieve a 1:1 population to employment ratio with an estimated 70,000 jobs and 70,000 residents resulting in a 400 to 500 residents and jobs per hectare.

2. **Anticipating the role and impact of higher order transit.** The development of a balanced approach to alternative modes of transportation, with a particular emphasis on higher order transit and walkability, must be a priority and influence the design of streets and urban form. The future higher order transit alignment and station locations should be reflected in the Official Plan as a fundamental and integral part of the Vision.



Urban Growth Centre Boundary & Downtown21 Study Area

**3. Reflecting a block structure that can achieve a vibrant pedestrian-oriented downtown.** Without a master plan to refer to, the City has been taking a reactive and ad hoc position to securing roads in the City Centre through the planning and development process. The new street network needs to be reflected on the Land Use Map, including the proposed changes to the Highway 403 interchange and Northern Distribution Road.

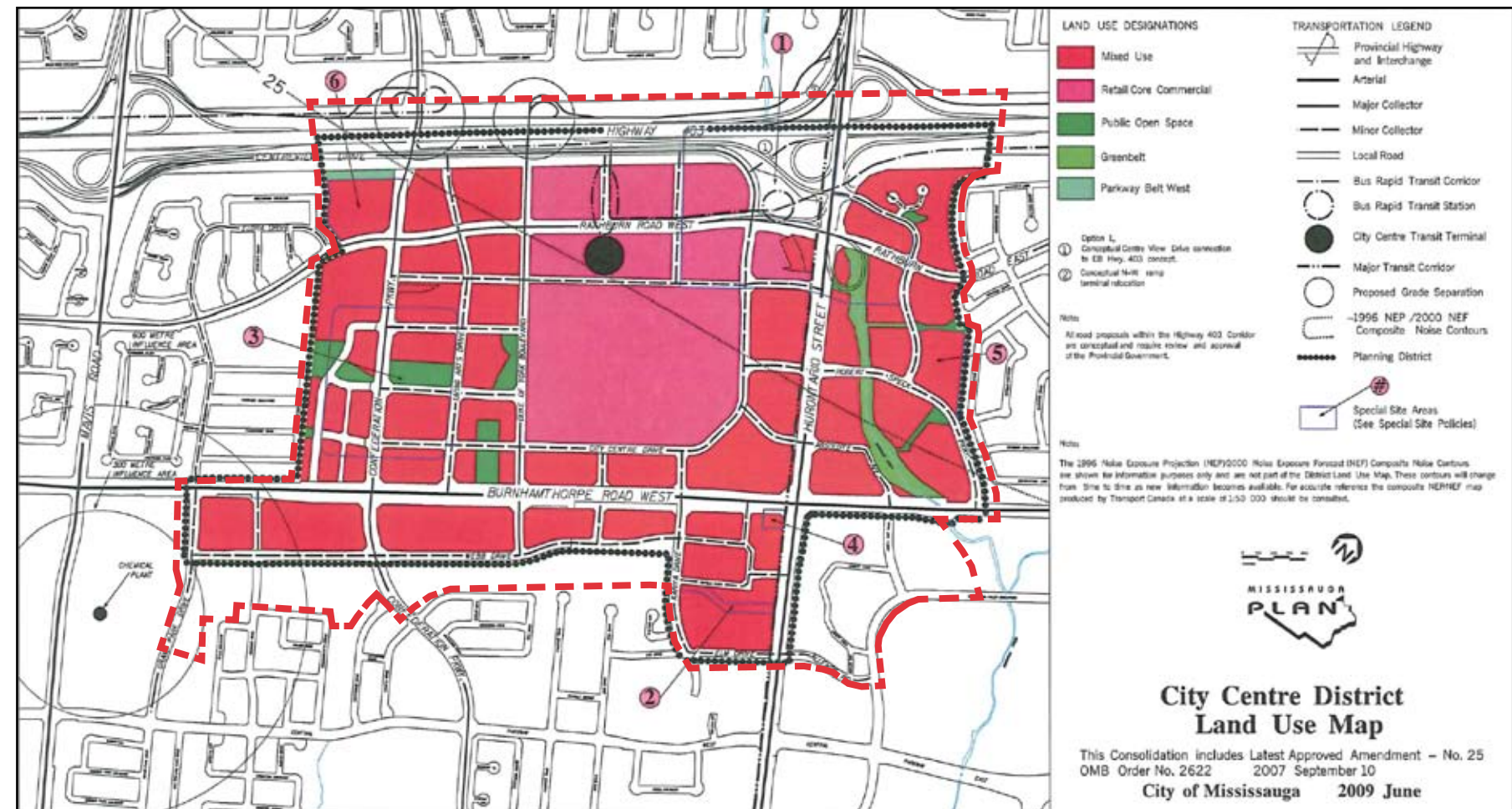
**4. Articulating the design of streets.** Street design is fundamental to the character and function of urban form. The current policies are silent to street design, leaving too many critical decisions to be made incrementally and without the context of the larger vision for Downtown. The proposed street design should show regard for street infrastructure, identifying where existing and future utilities are located and coordinated with streetscape elements. The road classification system should be revised to reflect the unique and detailed character defined for each street by the **Downtown21 Plan**.

**5. Utilizing new powers to influence urban design.** The Province, through Bill 51, has recently delegated more authority to municipalities with respect to design control. With these additional powers, the City can now explore using Bill 51 to improve the quality of urban design and the public realm in the City Centre through design controls and proactive incentives for the development industry.

**6. Establishing greater development predictability.** While the current Zoning By-law and Design Guidelines attempt to achieve a walkable urban form, their separation leaves too much for interpretation. The Zoning By-law should be updated to incorporate the urban design guidelines in a clearer and more enforceable structure such as a form-based approach.

**7. Promoting a more balanced mix of use.** Over the past decade, the City Centre has experienced explosive residential condominium development, yet most of the office development in Mississauga has occurred in suburban office parks located outside of the core. The **Downtown21 Plan** explores the encouragement and incentivizing of more office development in the core to achieve a better mix of land-uses.

- **Character Areas** – The districts defined by the **Downtown21 Plan** should be used to update and refine the Character Areas defined in the Official Plan. These designations establish the foundation for land use and character policy and ultimately the Zoning By-law.
- **Land Use** – The current land use designations should be modified to reflect the district plans, designate key areas with a focus on office, target the Retail Core Commercial Areas and include the high density residential areas south of Webb Drive and in Mississauga Valley.



City Centre District Land Use Map & Downtown21 Study Area

**Legend**

--- Downtown21 Study Area Boundary

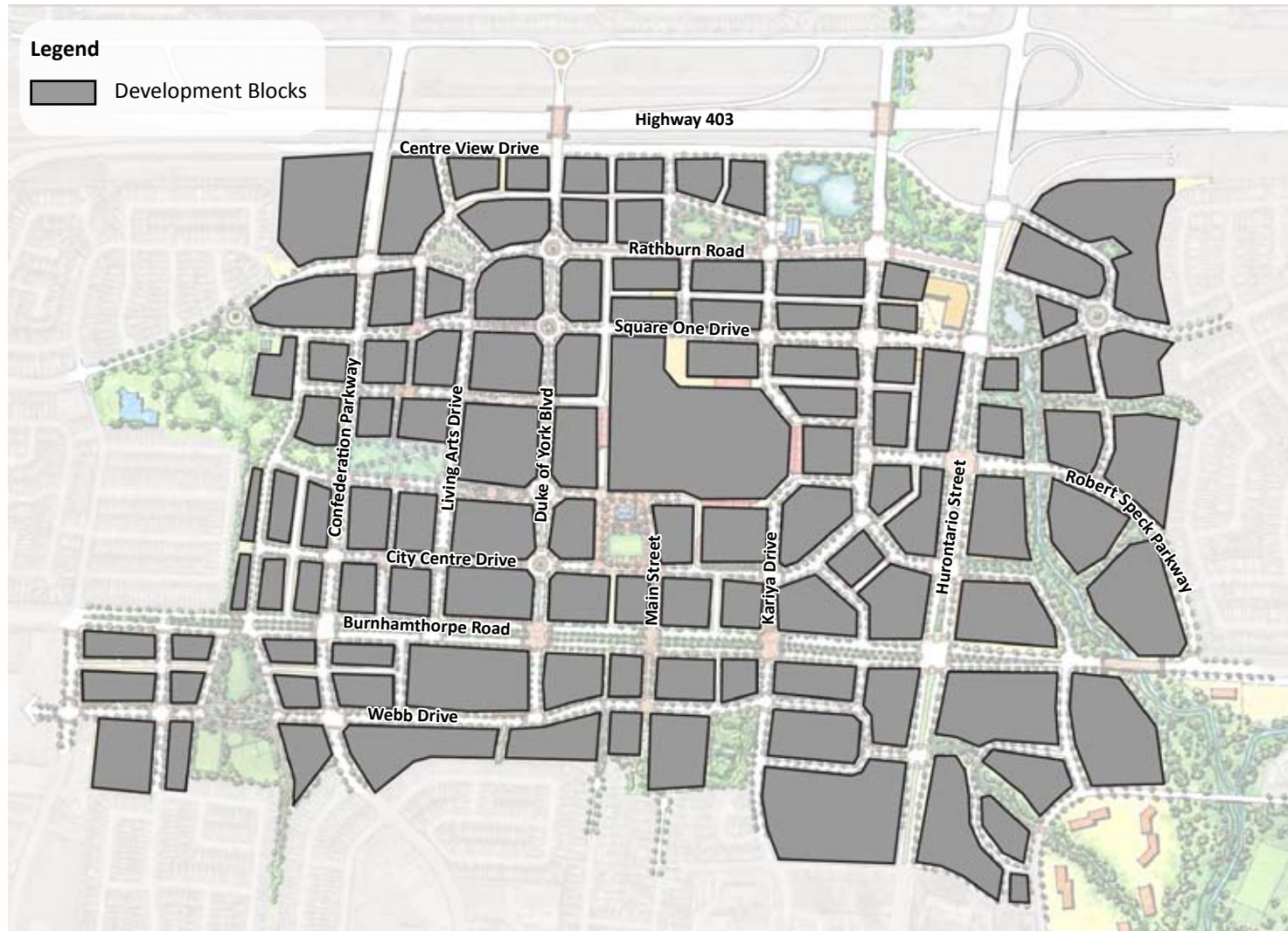
**8. Establishing a parks and open space vision.** Providing for adequate parks and open space as the Downtown develops is critical to the area's livability and vitality. This system should be comprehensive and interconnected, providing a range of passive and active spaces accessible to residents, workers and visitors. Having a plan in place allows for proactive development coordination, ensuring that parks and open spaces are integrated into development as it occurs.

**9. Ensuring sustainability.** Building a sustainable Downtown is important from an environmental, energy and economic perspective. Every aspect of development in Downtown should be aligned to support sustainable goals, from development form and intensity, to building design, to transportation choice. Policy and development guidelines should be updated to support Downtown's long-term sustainable vision.

**Urban Design Guidelines**

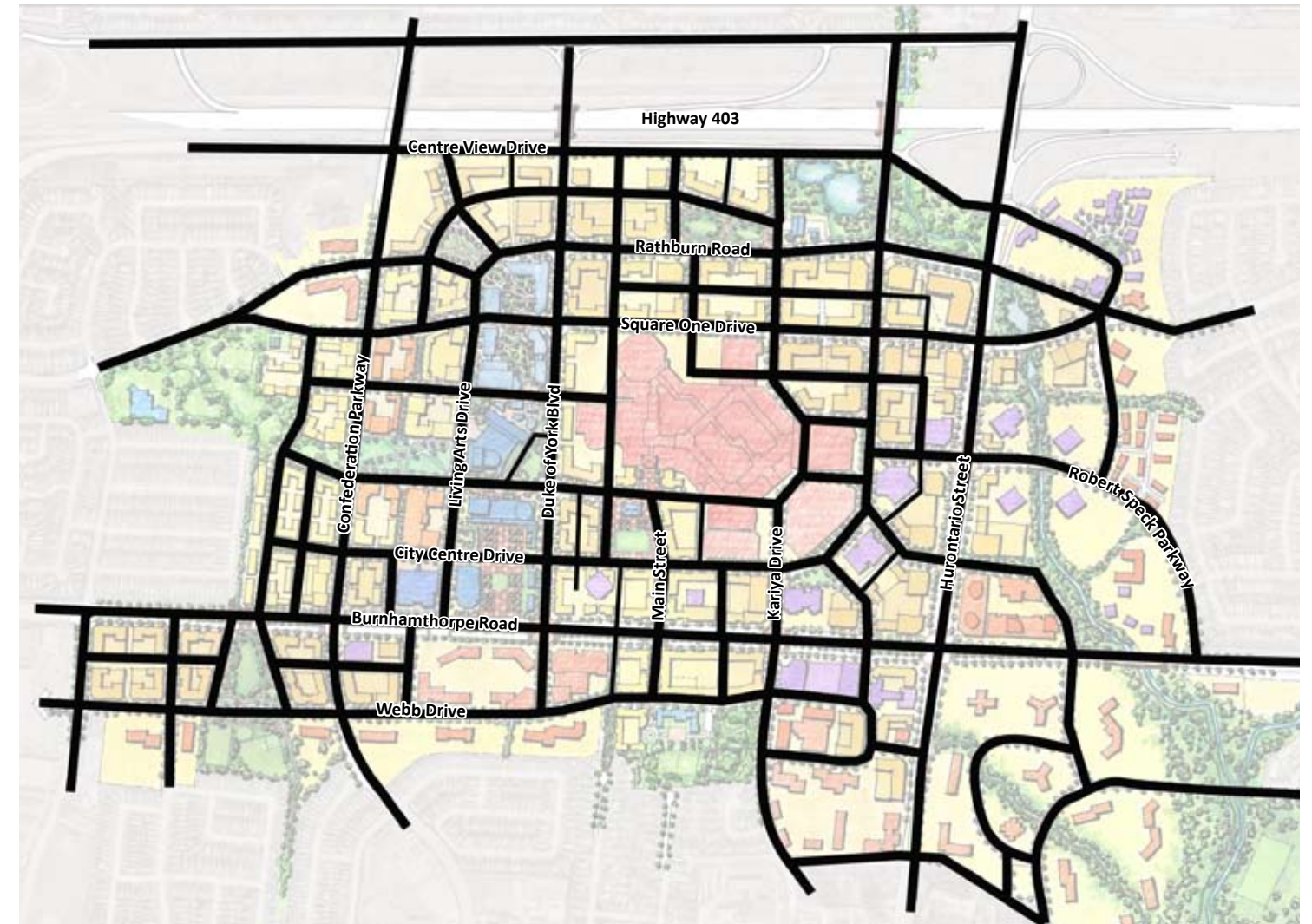
The following Urban Design Guidelines have been developed in conjunction with the **Downtown21 Master Plan**. These guidelines apply across the Downtown and offer a general approach to design and built form issues while allowing flexibility in their application. They serve as a framework for providing a level of design direction for proposed development in the interim, and moreover, as a basis for generating comprehensive design guidance and urban design controls that will be evaluated and further examined through the implementation phases of the **Downtown21 Master Plan**.

## 6.2 URBAN DESIGN FRAMEWORK



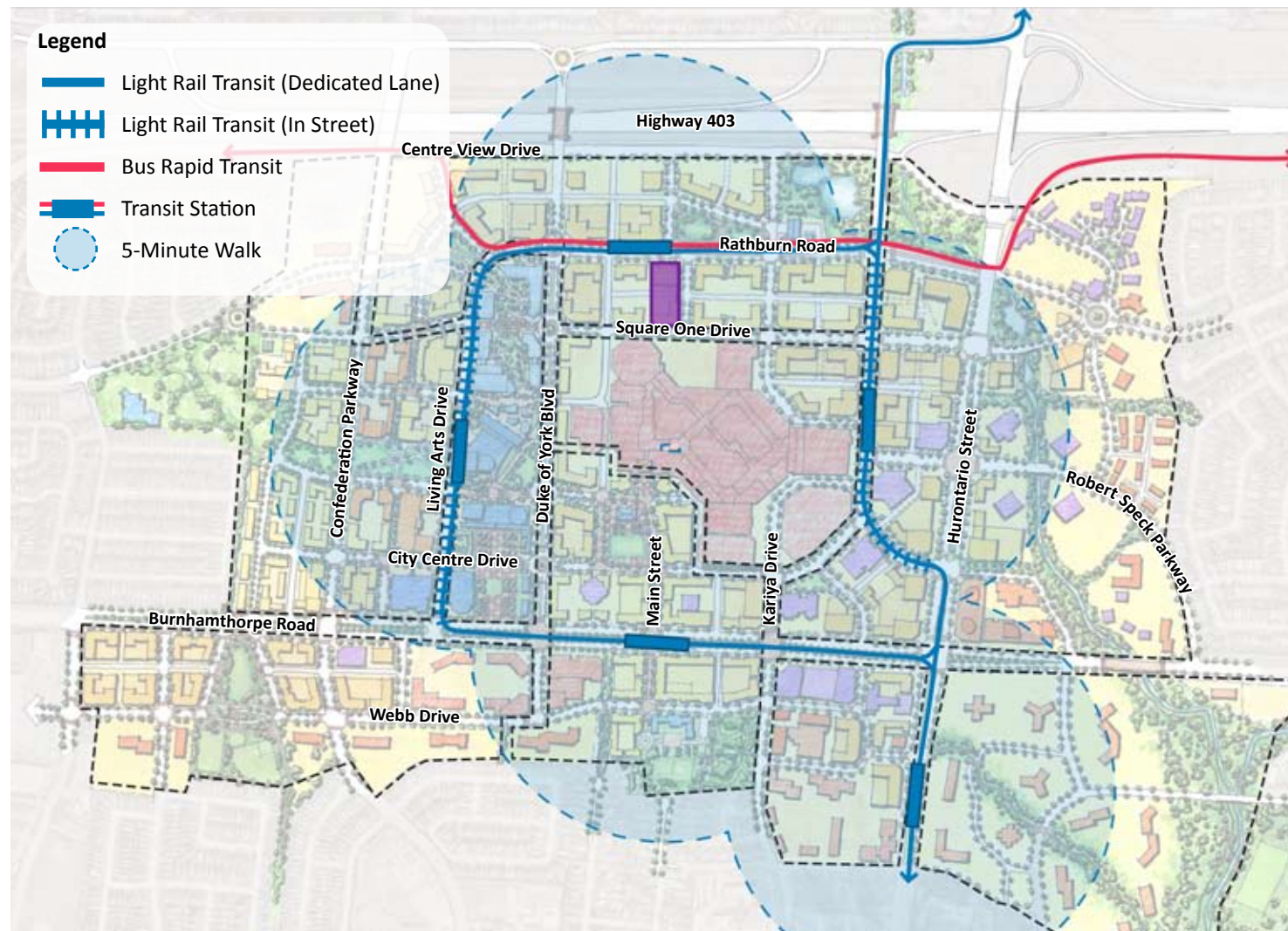
### Block Structure

The fundamental pattern of the Downtown is defined by the urban block. The Plan envisions the incremental subdivision of the Downtown into smaller development blocks that provide a predictable pattern of development while allowing a range of flexible development and land use patterns. The blocks are sized to encourage walking and pedestrian activity with a maximum outside dimension of +/- 400 meters, or about a 5-minute walk around the block. The pattern can occur incrementally as one block or several blocks at a time connecting to the adjacent streets and blocks.



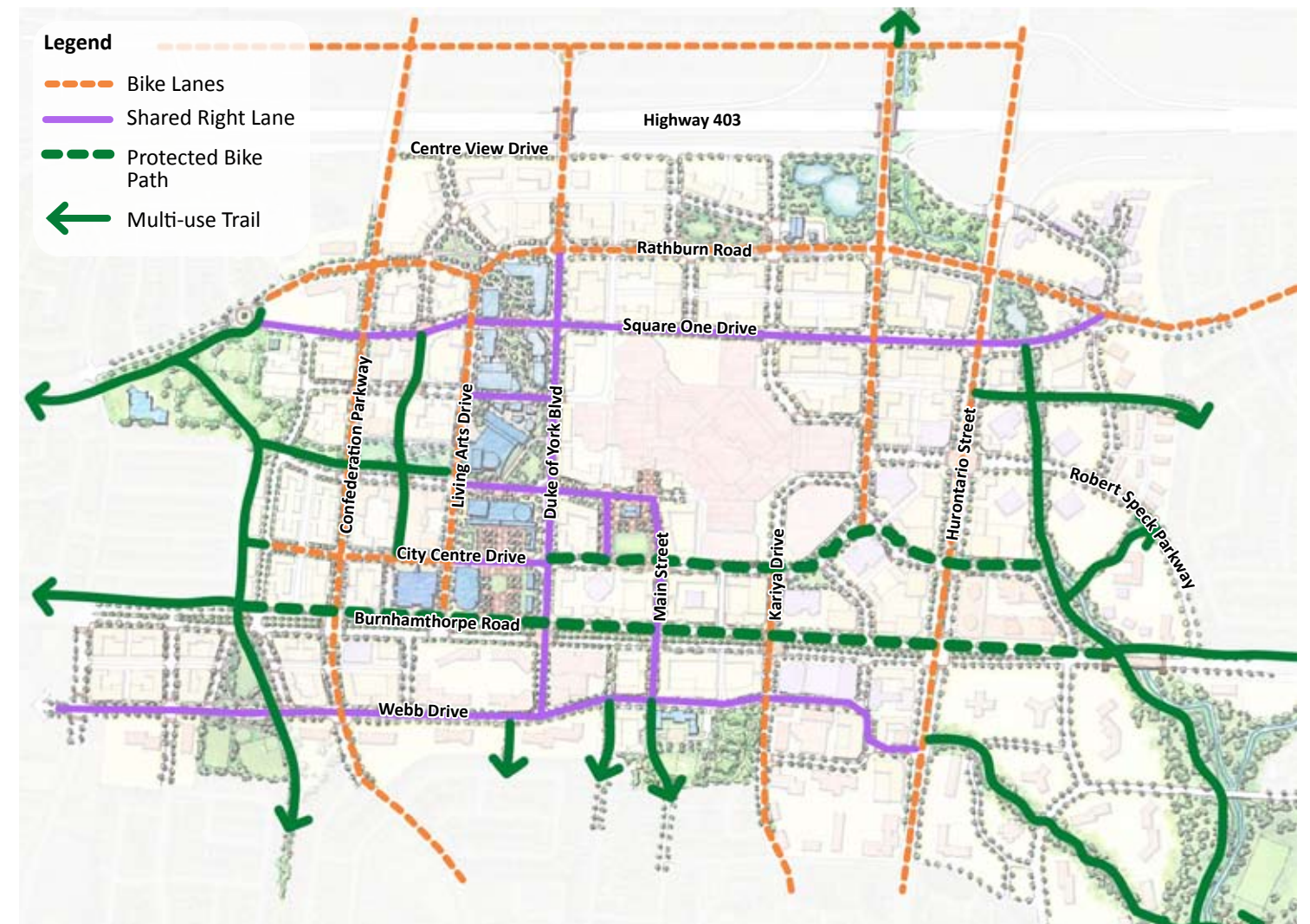
### Street Network

The Street Network Plan is the structure that defines the blocks and establishes the alignment and connection of critical streets. This network of streets will include a range of unique street designs tailored to their context, urban design role, and function. The fine grain structure of streets results in a transportation network that provides multiple routing options for vehicles, distributing traffic over many streets and intersections. This also allows each street to be small in scale (most are not more than 2-lanes wide) creating a comfortable and intimate pedestrian environment.



## Transit

The Downtown's future higher order transit service completes the multi-modal system. The alignment and station location is integrated into the streets and blocks, supporting transit-oriented development in five station areas that place 90% of the Downtown (60,000 -70,000 people) within a 5-minute walk of transit. The transit system is envisioned as a seamless component of the urban environment, incorporated as an integrated feature of the street design of Burnhamthorpe Road, Living Arts Drive, Rathburn Road and Hurontario Street.



## Trails & Cycling

The parks and open spaces are a large part of the public realm. The only larger component is the street network, which also connects many of the parks and open spaces together and to other land uses. The design of the streets is an important to the success of the overall open space system, ensuring that they extend accessibility to the parks and provide safe and attractive connections for pedestrians and cyclists.

## Districts & Land Use

The plan defines a collection of districts that together comprise the Downtown (see Districts diagram in Section 5.0). Each district will develop with its own character, mix of use, function and scale. The land use recommendations for each district should form the foundation for directing and incentivizing land use policy in the Official Plan and Zoning By-law.

**Main Street District** – Envisioned as a catalytic example of Downtown’s potential to create a vibrant, walkable, mixed-use place. It will include active street-level retail and outdoor cafes with a mix of residential and office uses above.

- **Retail** - Street-level activation with retail to include: cafes, restaurants, coffee shops, bars/pubs, grocery store, outdoor merchandising, working artist studios, neighbourhood serving businesses, specialty shops and services.
- **Office** – building on existing office development in the district, office uses should be incorporated above street level retail on the Main Street and/or on adjacent development blocks. These office uses may take the form of smaller, local serving businesses and professional services that will be attracted to the vibrant urban environment, access to higher order transit and adjacency to the Civic District.
- **Residential** – The Main Street should incorporate a full range of housing options and tenures including: market-rate housing above retail along Main Street, condominium towers in select locations, rental apartments, live/work with potential artist studios on Main Street, affordable and assisted housing, family and older adults, etc.

**Civic Centre District** – The five blocks between Duke of York Boulevard and Living Arts Drive create a “Civic Campus” that includes the Central Library, City Hall, Living Arts Centre, and the future Sheridan College.

- **Retail** – Some street-level retail and related ancillary uses (i.e. cafes, food services, supply/bookstores) should be encouraged as part of the college campus and potential street-level programming of the Living Arts Centre and City Hall. This would include the “artist village” concept on Prince of Wales Drive that is envisioned as a collection of live/work studios.
- **College/University** – Future expansion of Sheridan College or other post-secondary institutions which may include additional/supporting office uses.

**Confederation District** – This is a rapidly growing urban residential neighbourhood that will be home to over 20,000 people.

- **Residential** - This is an existing high density residential neighbourhood that includes neighbourhood-serving retail and commercial uses at the street level primarily along Confederation Parkway.
- **Office** – Office uses are allowed, however they are more likely (and should be encouraged and incentivized) to occur in the Main Street, Hurontario, Rathburn, and Sussex Districts.

**Cleary Park District** – This future urban residential neighbourhood will extend west to Grand Park Drive and forms the western gateway to Downtown.

- **Residential** – High density residential uses should be encouraged, creating an urban neighbourhood centred on Cleary Park.
- **Office** – There is existing office development on Burnhamthorpe Road and additional office uses should be allowed, however, they are more likely (and should be encouraged) to occur in the Main Street, Hurontario, Rathburn, and Sussex Districts.
- **Retail** – Neighbourhood-serving retail and commercial uses should be allowed focused along Burnhamthorpe Road and adjacent to public open spaces.

**Square One District** – Square One Mall is the commercial heart of Downtown and is a valuable asset for the future. It can adapt over time, continuing to strengthen its retail base while seeking ways to better connect it to the surrounding Downtown.

- **Retail** – This is the retail core of Downtown and a regional retail destination. New retail uses should be encouraged within the form of the Street Framework and within mixed-use buildings. New street-level retail uses should be focused along Square One Drive and Station Gate Road (connecting to the future Rathburn Road Transit Station).
- **Residential** – High density residential uses should be encouraged as part of mixed-use redevelopment of the mall.
- **Office** – Office uses should be encouraged particularly along the edges of the district relating to Duke of York (Sheridan College), Square One Drive and City Centre Drive.

**Rathburn District** – This district will intensify over the long-term with an emphasis on office and employment uses that can take advantage of access to future higher order transit and visibility and access to Highway 403.

- **Office** – This district is targeted for major office and employment uses which will be critical for achieving a 1:1 population to employment ratio in the Downtown as a whole.
- **Retail** – District-serving retail and commercial uses should be allowed and focused along Rathburn Road, around transit stations and adjacent to public open spaces.
- **Residential** – Residential uses should be restricted in this district unless they form a part of a mixed-use office development. Given current market dynamics, this district may need policy protection to ensure that short-term residential demand does not eliminate long-term office opportunities.

**Hurontario District** – This district includes Downtown’s highest concentration of existing office uses, forming the foundation for new office development in the short-term.

- **Office** – This district is targeted for major office and employment uses which will be critical for achieving a 1:1 population to employment ratio in the Downtown as a whole.
- **Retail** – District-serving retail and commercial uses should be allowed focused along Robert Speck Parkway, City Centre Drive, Hurontario Street, around transit stations, and adjacent to public open spaces.
- **Residential** – Residential uses should be restricted in this district unless they form a part of a mixed-use office development. Given current market dynamics, this district may need policy protection to ensure that short-term residential demand does not eliminate long-term office opportunities.

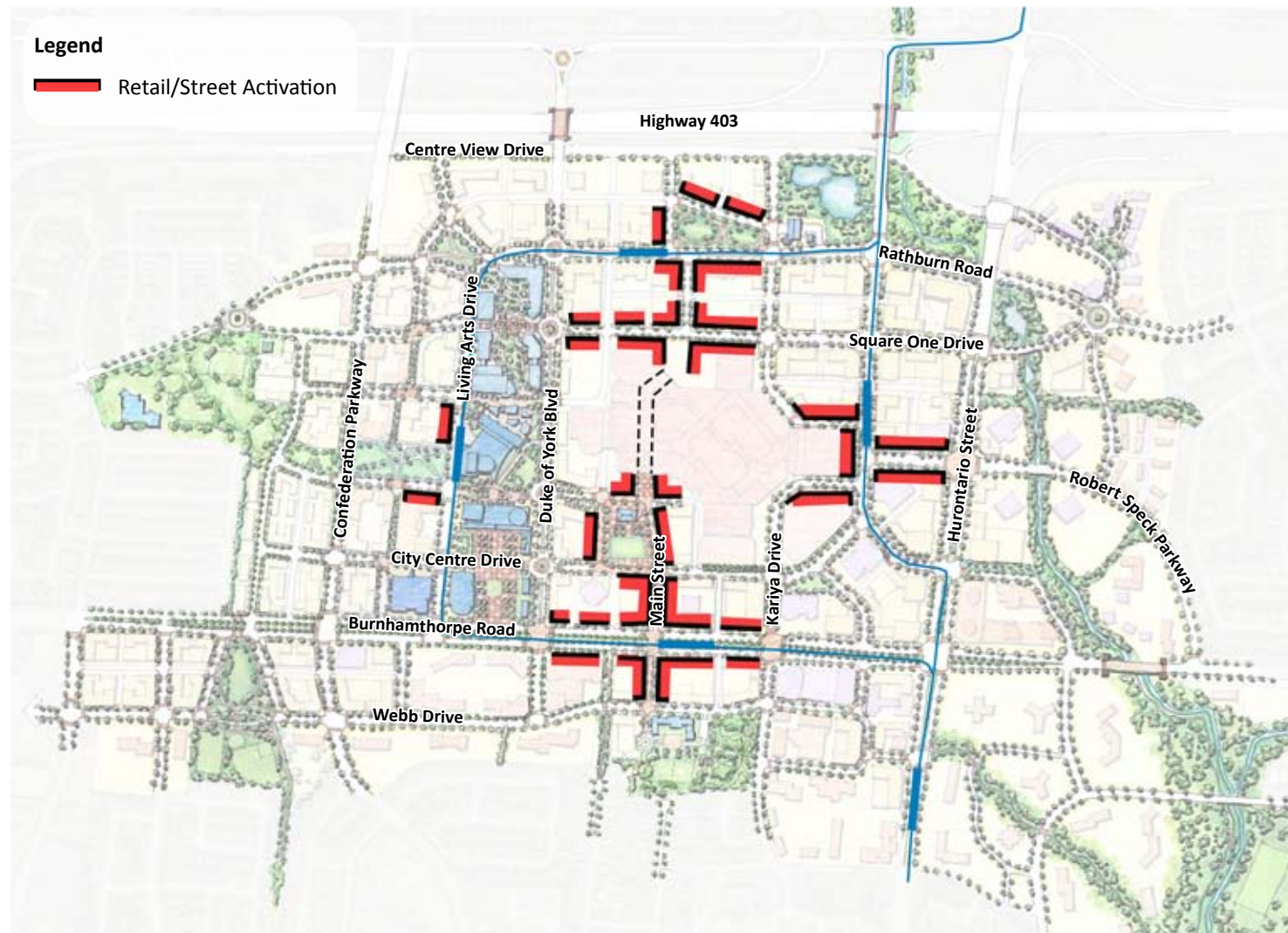
**Sussex District** – This is currently the highest density mixed-use district in the downtown and includes significant office and residential development.

- **Office** – This district includes an existing concentration of office that can be expanded.
- **Retail** – Neighbourhood -serving retail and commercial uses should be allowed as accessory uses to mixed-use developments.
- **Residential** – High density residential uses should be allowed.

**Mississauga Valley District** – This existing residential neighbourhood is home to over 10,000 people in a collection of high rise residential towers. Greenway connections provide a link to the Downtown and a future transit station on Hurontario Street may provide the catalyst for residential intensification.

- **Residential** – Infill residential development should be encouraged with the goal of intensifying the underutilized areas into a pattern of finer-grained streets and blocks and knitting into the larger urban fabric of the Downtown. These residential uses may include everything from high density residential buildings to smaller townhome development, depending on site constraints and availability.
- **Retail** – Neighbourhood-serving retail should be allowed at street-level along Hurontario Street and adjacent to the transit station. Mixed-use at the edges should also be considered as a means to provide much needed amenities and services to the existing high density residential towers including opportunities for programmed open space.

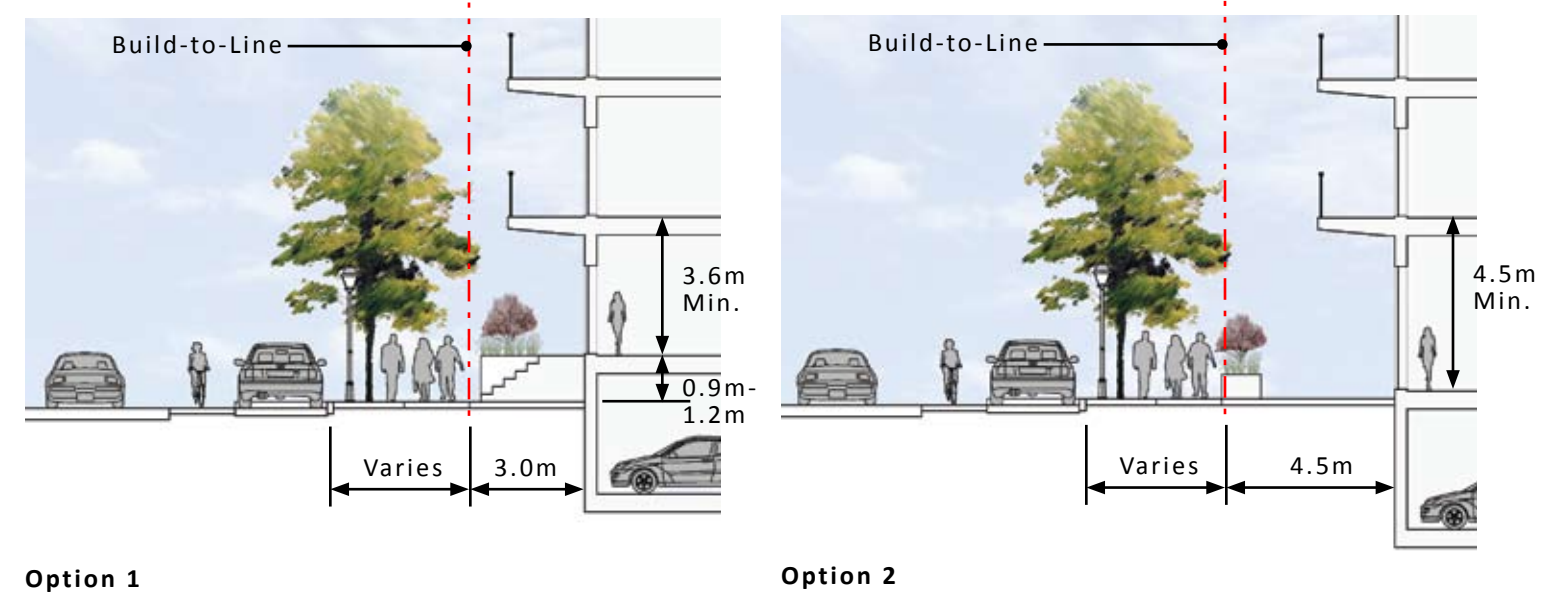




## Retail / Street Activation

There are locations in the Downtown that should have required street-level retail activation to ensure focused nodes of activity. These locations should have retail and/or commercial activity along 80% of the identified street frontage and have ground floor transparent vision glazing of 50%-80%.

All ground floor frontages in the Downtown require a 4.5m minimum floor height which allow for anticipated retail adaptability and street activation throughout the Downtown in the long term.



## Residential / Street Activation

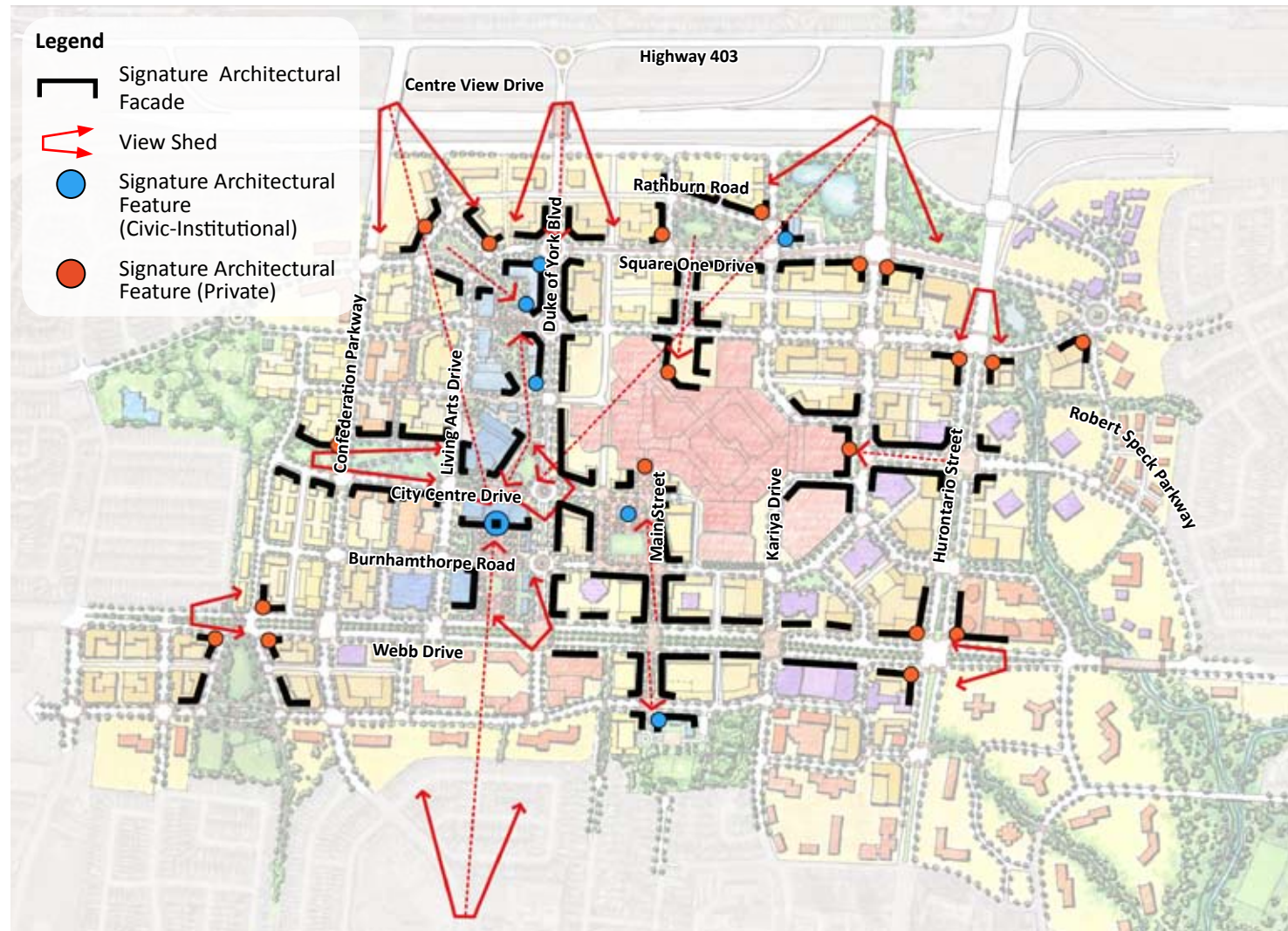
There are many streets in the Downtown that will have residential uses at-grade. The interface between private uses and the public sidewalk needs to be designed to create adequate separation and frontage treatment to create a transition from the public sidewalk to private residential units, landscaping within the transition/setback zone, and ensure that ground floor residential uses can transition to commercial uses in the future.

### Option 1: (preferred design solution)

- Individual unit entrances from the sidewalk;
- Minimum setback of 3.0 metres, which includes front steps, raised planter and porch;
- Ground floor residential uses raised between 0.9 – 1.2 metres from the sidewalk level;
- Minimum floor-to-floor height (ground floor to second floor) is 3.6 metres.

### Option 2: (where a raised ground floor cannot be provided)

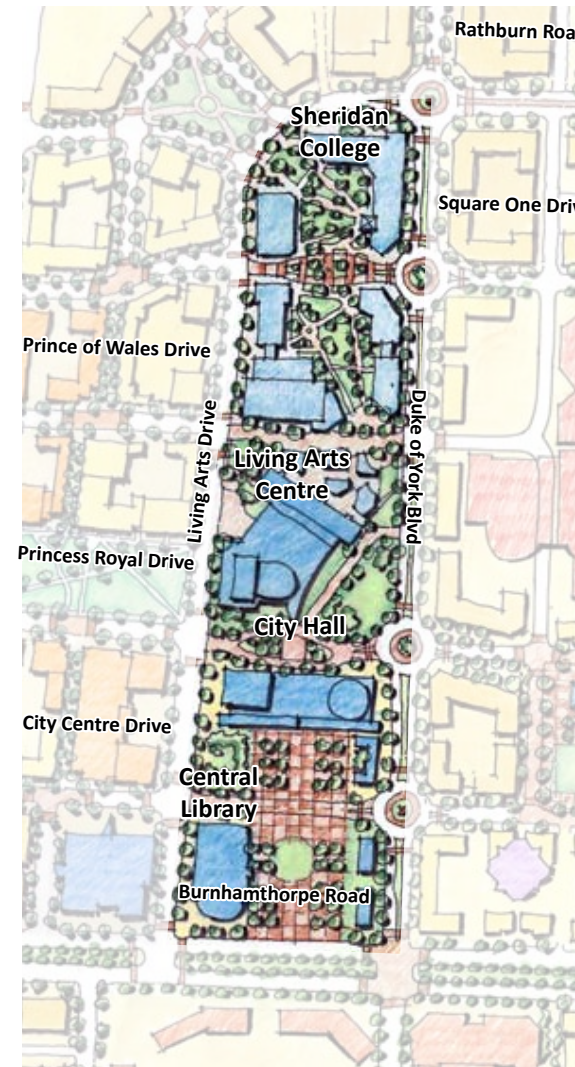
- Individual unit entrances from the sidewalk and can be level with the sidewalk;
- Minimum setback of 4.5 metres, which includes a raised planter and/or low fencing, and landscape buffer;
- Minimum floor-to-floor height (ground floor to second floor) is 4.5 metres.



## View Sheds & Key Sites

The evolving urban form of Downtown needs to protect and enhance important views and urban “rooms” (key streets and parks that are framed by built form).

- **Signature Architectural Facades** – The spaces around important parks and streets should have the highest level of design excellence and materials. These facades should feature innovative use of materials, articulation, and increased transparency at street level.
- **View Sheds** – There are important view sheds that should be considered and evaluated as development occurs. These include gateway views along Burnhamthorpe Road and Hurontario Street, civic views to City Hall, Living Arts Centre, and Sheridan College, and urban views down key streets terminated by signature architectural features. In addition there are longer vistas to the City Hall Clock Tower from the bridges over Highway 403 and from Confederation Parkway that should be protected as development occurs.
- **Signature Architectural Features & Landmarks** – The envisioned urban form of streets and blocks is intentionally setup to frame special corners and terminating views to future development sites. The architectural expression at these locations should consider articulation of built form that visually establishes these sites through towers, gateways, and special massing.



View Looking North Along Duke of York Boulevard

## Legend

- Existing Commercial
- Existing Institutional
- Existing Office
- Parks & Open Space
- Existing Residential Tower
- Future Development

## Civic District

The Civic District is a clearly defined precinct and institutional anchor to the Downtown. The Sheridan College Campus will complete a five-block public campus and open space that includes City Hall, the Central Library, Living Arts Centre, and the Civic and Library Squares. The character and prominence of this district should be protected. Key guidelines should include:

- The placement and height of buildings fronting the Civic District should protect key views to the district’s prominent buildings, and architecture features (i.e. City Hall Clock Tower).
- New buildings within the Civic District shall be a maximum of 4 storeys in order to protect views and prominence of established civic buildings such as City Hall.
- Buildings along Duke of York Boulevard should include active street level uses to support a vibrant civic boulevard.
- Open spaces, pedestrian connections and streets within the Civic District should be designed to prioritize the pedestrian and create a seamless open space through the use of flush streets, roundabouts, pedestrian pathways, and accessible green spaces, plazas and parks.



## Parks & Open Space Frontage

The envisioned system of parks and open spaces creates a connected public realm of green spaces, plazas, squares and streets. This system should be reinforced by a consistent and vibrant urban form that activates the public space.

- Building frontage along parks and open spaces shall have active uses (both retail and/or residential) at street level.
- Street level residential uses shall have individual unit entrances in order to activate the street environment.
- Parking structures or surface parking lots shall not front directly on parks and open spaces.
- Building facades fronting on parks and open spaces shall have the highest level of design through the innovative use of materials, articulation, and increased transparency.
- Building massing shall protect sun exposure to parks. Buildings fronting along parks and open spaces shall establish a maximum base building height and point tower location/massing that maintains a minimum 5 hours of sunlight (mid-morning to mid-afternoon, between March 21st and September 21st) over 75% of the adjacent park area.



## 6.3 BUILT FORM STANDARDS

### Architectural Massing

The built form standards divide the basic massing and form of buildings in the Downtown into two components; 1) base building (street level to midrise) and 2) point towers (midrise and above). The standards for base buildings are tied to the specific street design and dimensions for each street in the Downtown and are illustrated in the Street and Building Design Standards. The guidelines for point towers establish basic performance standards covering size, orientation, location and relationship.

Key Terms:

**Build-to-line** – A designated line along the length of a street measured from the right-of way that designates the placement and orientation of buildings. Depending on the Street Frontage type a percentage of the build-to-line must be occupied by building façade. The build-to-line is designated in the Street Design Standards for each street.

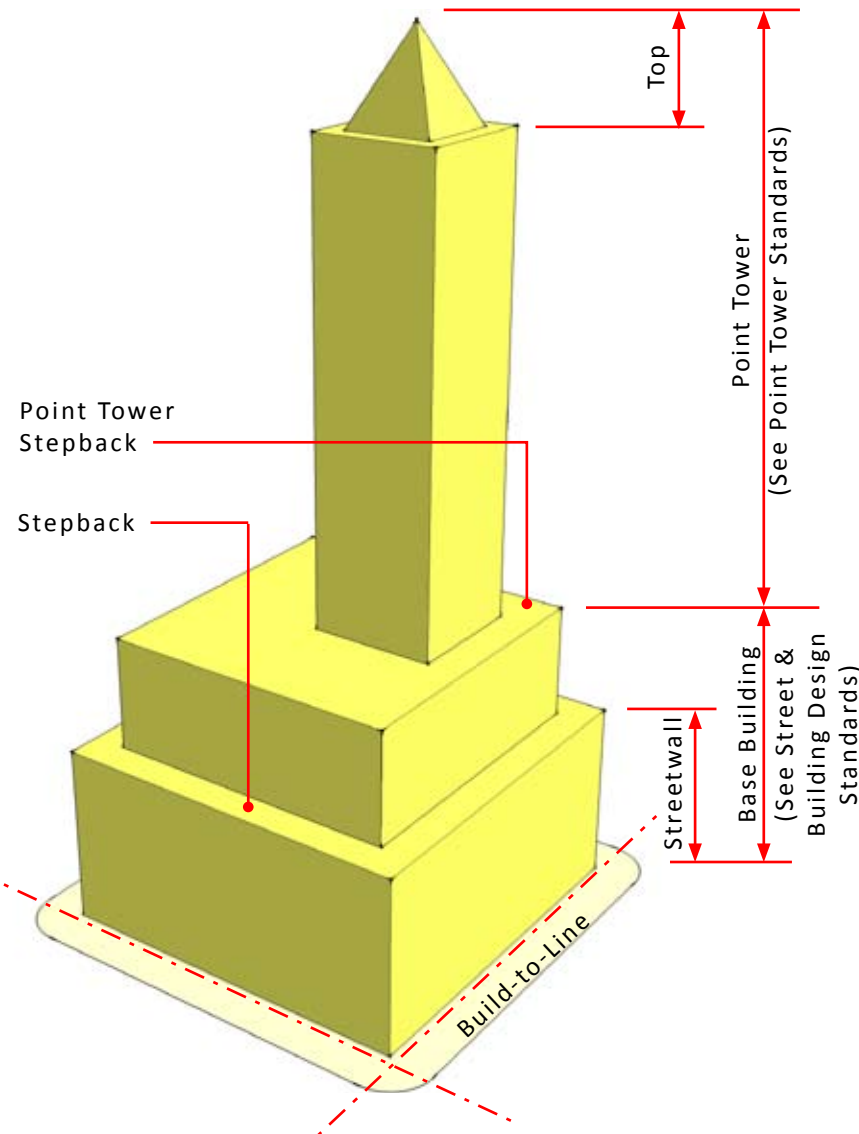
**Streetwall** – The façade of the building that defines the enclosure of the public space or street. The streetwall will typically vary between 3 to 5 storeys depending on the street. It is defined through the use of a required stepback that articulates the building massing and establishes a consistent architectural line along a street frontage.

**Base Building** – The street level to midrise building frontage which includes the streetwall and midrise storeys of a building consistent with the Street and Building Design Standards.

**Point Tower** – Building towers above the base building height governed by design standards that direct slenderness, orientation and separation.

**Top** – The architectural treatment of the top of point towers. These should be designed to provide variety and architectural interest in terms of views of the Downtown from near and far.

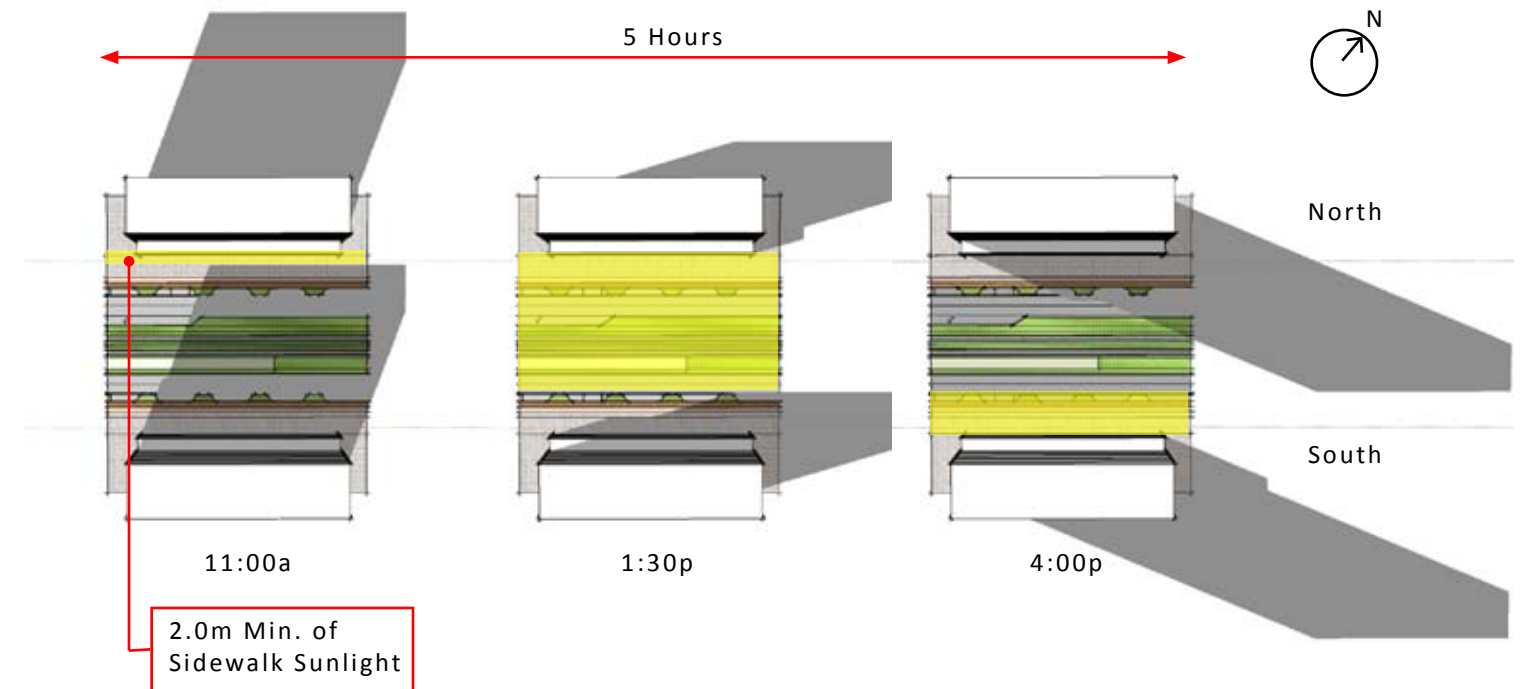
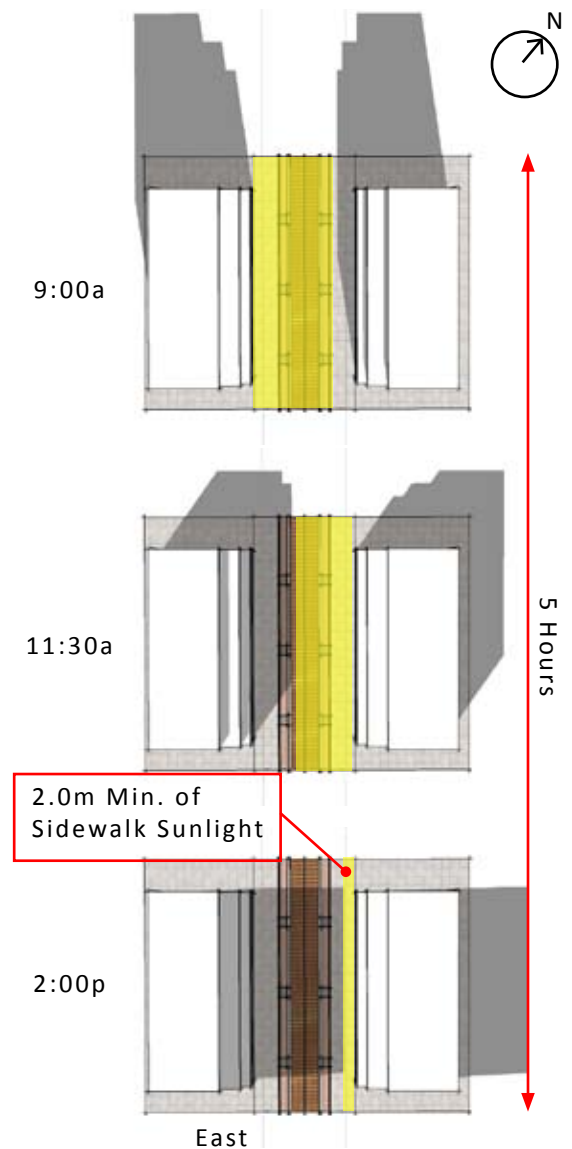
**Stepback** – A required articulation of the building massing that helps establish the streetwall, reduce the appearance and bulk of midrise buildings, reduce shadow and wind impacts, and mitigate the perception of height from the street.



### Sunlight Standards & Base Building Height

Protecting sunlight exposure at the street and sidewalk level is an important part of ensuring vibrant and active streets and street-level activity. Tall buildings can affect the environmental quality of surrounding areas by overshadowing adjacent streets and public spaces and the loss of sky view. Access to direct sunlight is a measurable quality of a space. In the Mississauga climate, access to direct sunlight is important in order to extend the season during which pedestrians can comfortably use an open space. To achieve this goal, built form shall be designed to maintain minimum standards of sunlight.

- Buildings on A-street frontages (see Section 6.4) shall establish a maximum base building height and massing that maintains a minimum of 5 hours of sunlight (mid-morning to mid-afternoon, between March 21st and September 21st) on at least one side of the street. To achieve this goal in Downtown Mississauga, an angular plane of 43-degrees is applied to east-west streets (i.e. Burnhamthorpe Road) 38-degrees on north-south streets (i.e. Main Street).
- Buildings on B-street frontages (see Section 6.4) shall establish a maximum base building height and massing that maintains a minimum of 3 hours of sunlight (mid-morning to mid-afternoon, between March 21st and September 21st) on at least one side of the street.



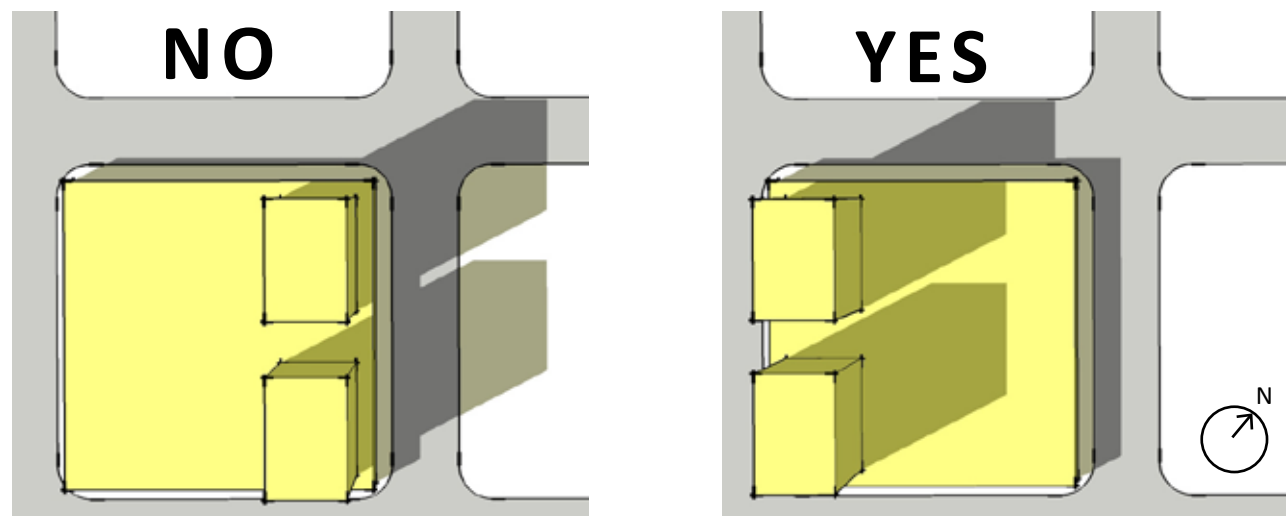
## Residential Point Tower Standards

Point towers are an important part of the Downtown skyline and if designed well, can become a significant feature of Downtown Mississauga's character and image. Point towers are allowed above the base building height, yet their scale and design needs to consider the impact of shade, wind and views in the Downtown. These design guidelines are for residential towers and are intended to provide flexibility while also ensuring the overall pedestrian character of the Downtown is enhanced and protected.

### Pedestrian Level Wind Effects

The ultimate built form of the Downtown will affect wind patterns. The pedestrian level wind affects of tall buildings include down drafts off buildings and/or accelerated winds through tunnelling of wind between buildings. The building massing and orientation can be used to mitigate these affects. Basic guidelines include:

- **Stepbacks** – When wind meets a building, wind flowing down a face causes accelerated wind speeds. The required stepbacks for both the point towers and base buildings are intended to both guide architectural massing and mitigate the impact of down-flowing wind at the street.
- **Point Tower Slenderness & Orientation** – Orienting the widest point tower building face away from the prevailing winds, and minimizing the size of the point tower floor plate will minimize the affects of down-flowing wind.
- **Point Tower Separation** – Wind is funnelled between buildings causing acceleration or “wind tunnel” affects. Creating a minimum separation of point towers will mitigate the affects and intensity of wind tunnelling.

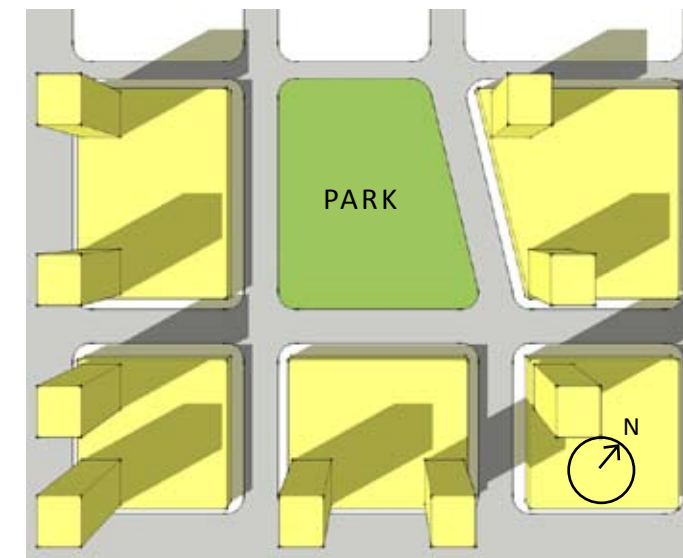
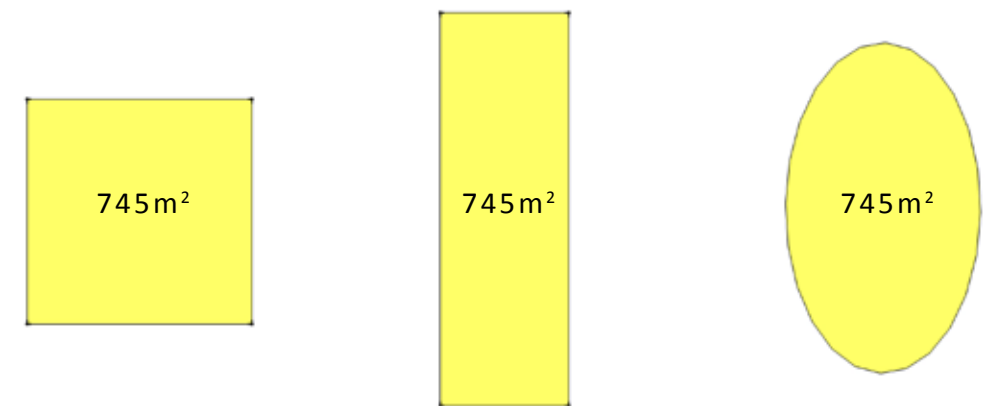


### Site Orientation

Point towers should be located on the southeast and southwest sides of a block or development site so the shadows will fall primarily within the block rather than on the street. Point towers with elongated floor plates should be oriented north-south in order to minimize shadow impacts.

### Slenderness / Floor Plate

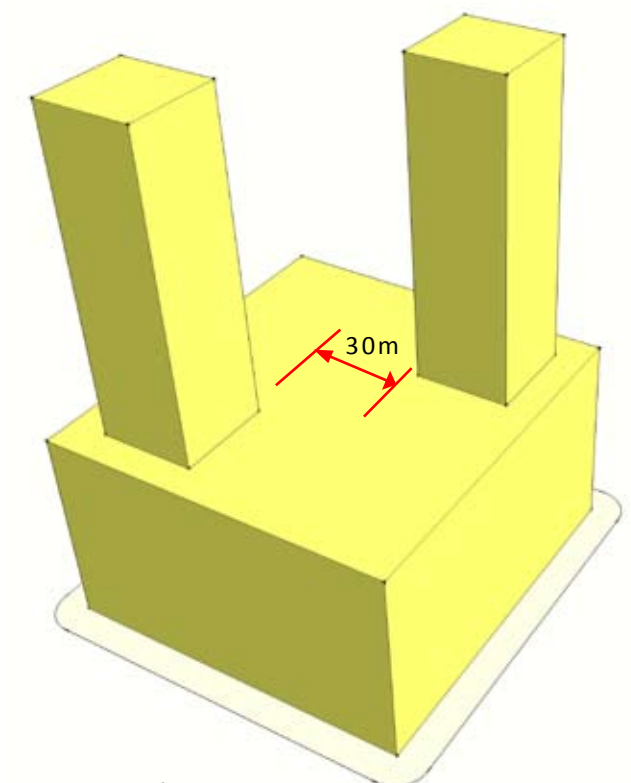
Point towers are visible from many directions and collectively can have a significant impact on shade and shadow at the street level. To assure slenderness and minimize the shade impact, residential tower floor plates above the base building height, shall be a maximum area of 745 m<sup>2</sup> (gross floor).



### Park Orientation

Point towers should be located to minimize shadow impacts on adjacent parks and open spaces. For blocks on the southeast and southwest sides of a park, point towers should be located on the farthest side of the block from the park. For blocks on the northeast and northwest sides of a park, point towers should be located on the southeast and southwest sides of the block.

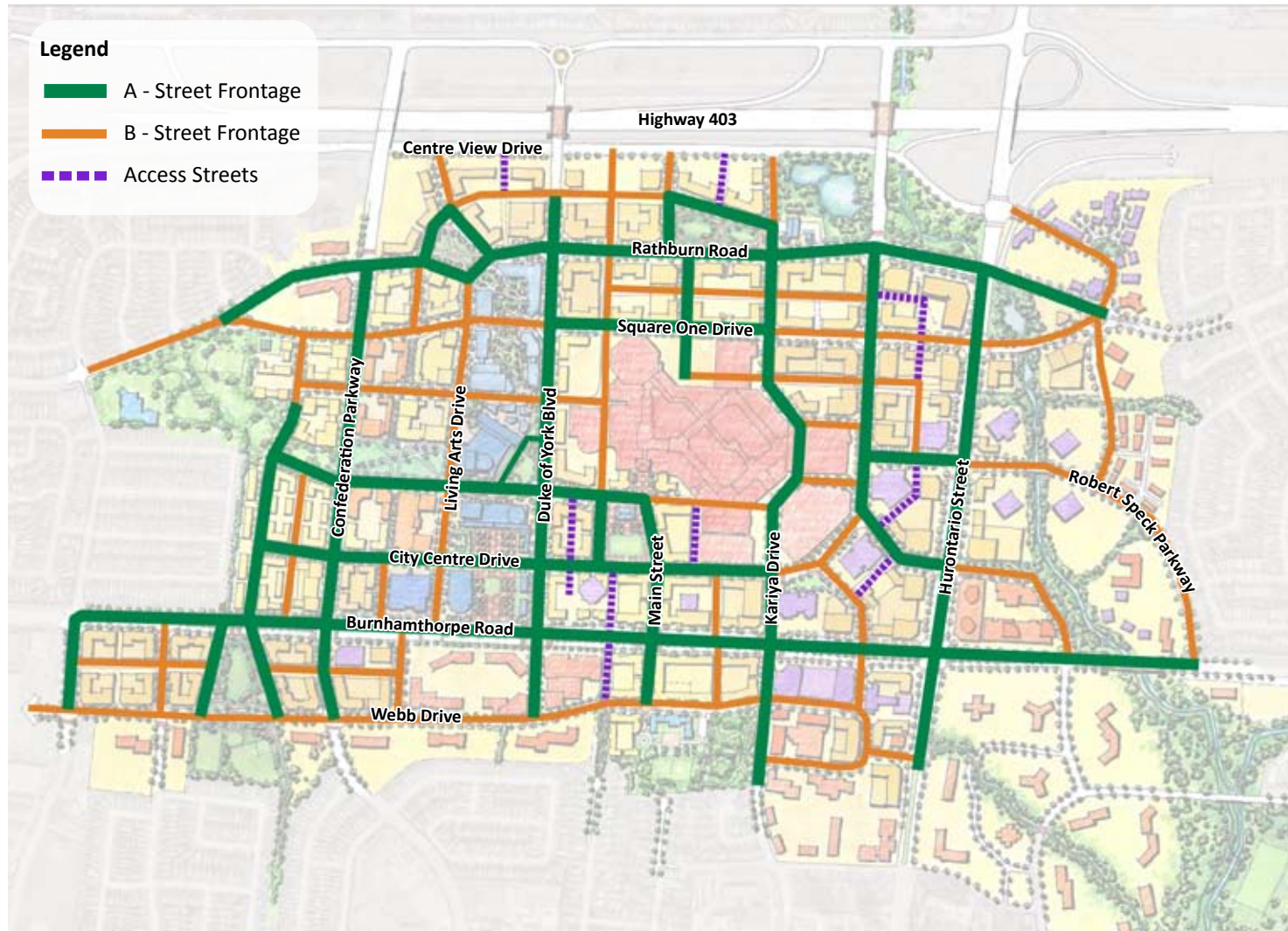
- Buildings fronting along parks and open spaces shall establish a maximum base building height and point tower location/massing that maintains a minimum 5 hours of sunlight (mid-morning to mid-afternoon, between March 21st and September 21st) over 75% of the adjacent park area.



### Tower Separation

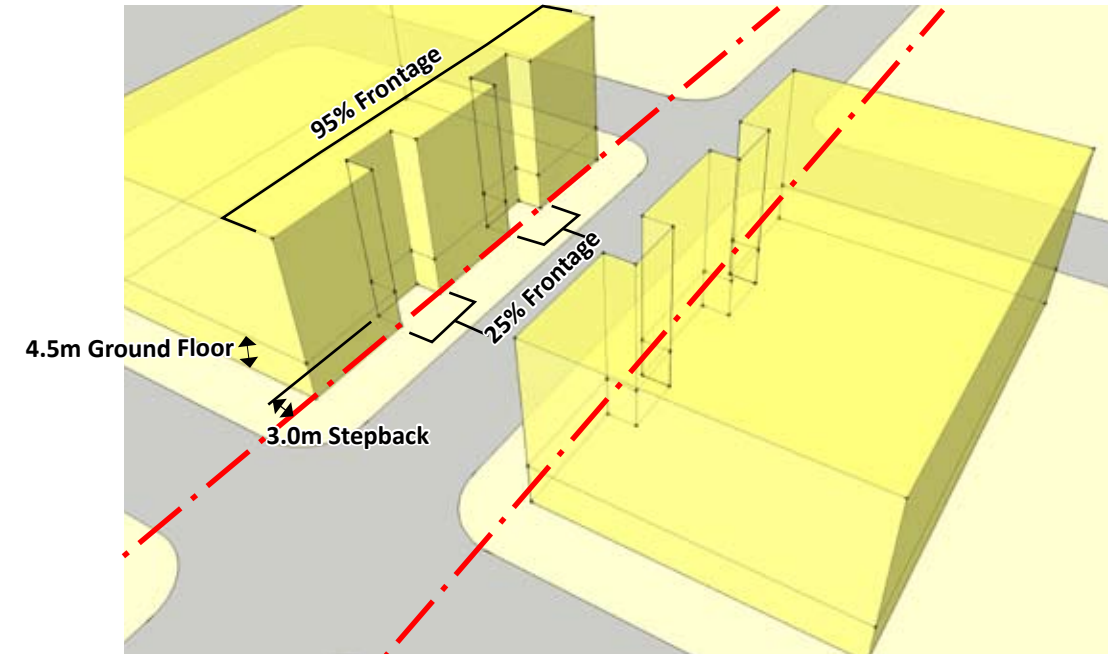
Spacing towers with minimum separation will minimize collective shade and sunlight impacts of closely-spaced towers on streets, parks and adjacent residential buildings. This will also achieve increased access to sky views and natural lighting as well as increased privacy. The minimum spacing between point towers should be 30m.

## 6.4 STREET & BUILDING DESIGN STANDARDS



### Street Frontage Plan

The Street Frontage Plan designates the street frontage type for all existing and new streets in the Downtown. There are three basic street frontage types in the Downtown (A-Street Frontage, B-Street Frontage, and Access Street Frontage).

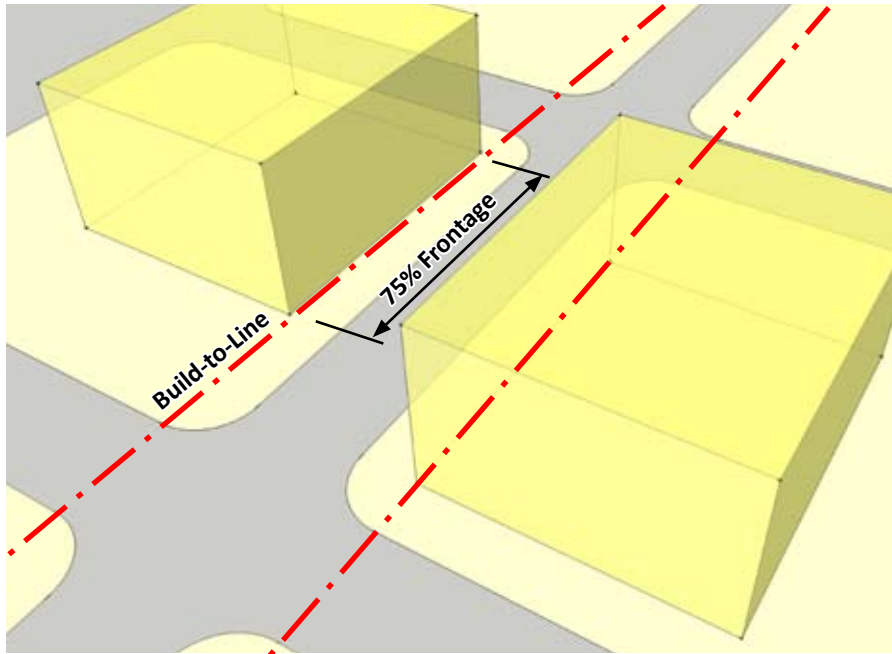


A-Street Frontage Diagram

### A-Street Frontages

A-Streets are the primary streets in the Downtown and are the most important streets for pedestrian comfort, activity and downtown character.

- Build-to-line: A minimum of 95% of a property's build-to-line frontage is required to be occupied by the principal building façade. Of the property's build-to-line frontage, 25% shall be allowed to stepback a maximum of 3.0m in order to accommodate unique program conditions (e.g. lobby entrance, outdoor cafe/patio, etc).
- Building facades should be parallel to the edge of curb or right-of-way, following curved or angled street configurations.
- A minimum 4.5m floor-to-floor height shall be required for ground floor retail and residential frontages.
- Functioning and principal building entries (pedestrian entrances) and doors shall be located on A-Street frontages.
- Main pedestrian entries must be at sidewalk elevation. Entries must be flush with the sidewalk elevation.
- For buildings that are open to the public (including retail and office uses), the doors shall be open during normal business or operating hours.
- Doors must be designed and constructed such that maximum door swing meets but does not cross the build-to line (i.e., the doors must be inset so that they do not cross the build-to line).
- A-Street frontages shall have ground floor elevations with a minimum of 80% transparent vision glazing with views into the building or display windows which are completely accessible only from the inside of the building.
- Curb cuts, driveways and alleys are prohibited on A-Street frontages.
- Driveways on adjacent B-Street frontages cannot be within 20m of a designated A-Street.
- Exceptions for driveways on A-Street frontages are; 1) if the site or block does not have access to a B-Street or Access Street or, 2) if the building were to have a functional health and safety requirement such as a driveway to an emergency room at a hospital.
- Parking structures shall be screened by "liner" buildings.



**B-Street Frontage Diagram**

## B-Street Frontages

B-Streets are secondary streets, connecting A-Streets to each other and providing motor vehicle access to private property in the Downtown. They provide development blocks with vehicular access for off-street parking, deliveries, and servicing. Standards of B-Street frontages are less restrictive than A-Street frontages.

- Build-to-line: A minimum of 75% of a property's build-to-line frontage is required to be occupied by building façade. Of a property's build-to-line frontage, 15% shall be allowed to setback a maximum of 3.0m in order to accommodate unique program conditions (e.g. lobby entrance, outdoor cafe/patio, etc).
- Building facades should be parallel to the edge of curb or right-of-way, following curved or angled street configurations.
- Functioning and prominent building entries and doors shall be located on B-Street frontages. If a building has both A and B-Street frontages, then the most prominent building entrances shall be located on the A-Street frontage.
- Main pedestrian entries must be flush with the sidewalk elevation.
- For buildings that are open to the public (including retail and office uses), the doors shall be open during normal business or operating hours.
- Doors must be designed and constructed such that maximum door swing meets but does not cross the build-to line (i.e., the doors must be inset so that they do not cross the build-to line).
- B-Street frontages shall have ground floor elevations a minimum of 75% transparent vision glazing (unless otherwise specified) with views into the building or views to display windows which are completely accessible only from the inside of the building.

- Two adjacent driveways must have no less than 30m of space between them, measured at the right-of-way line. Driveway widths may not exceed 6.0m in width.

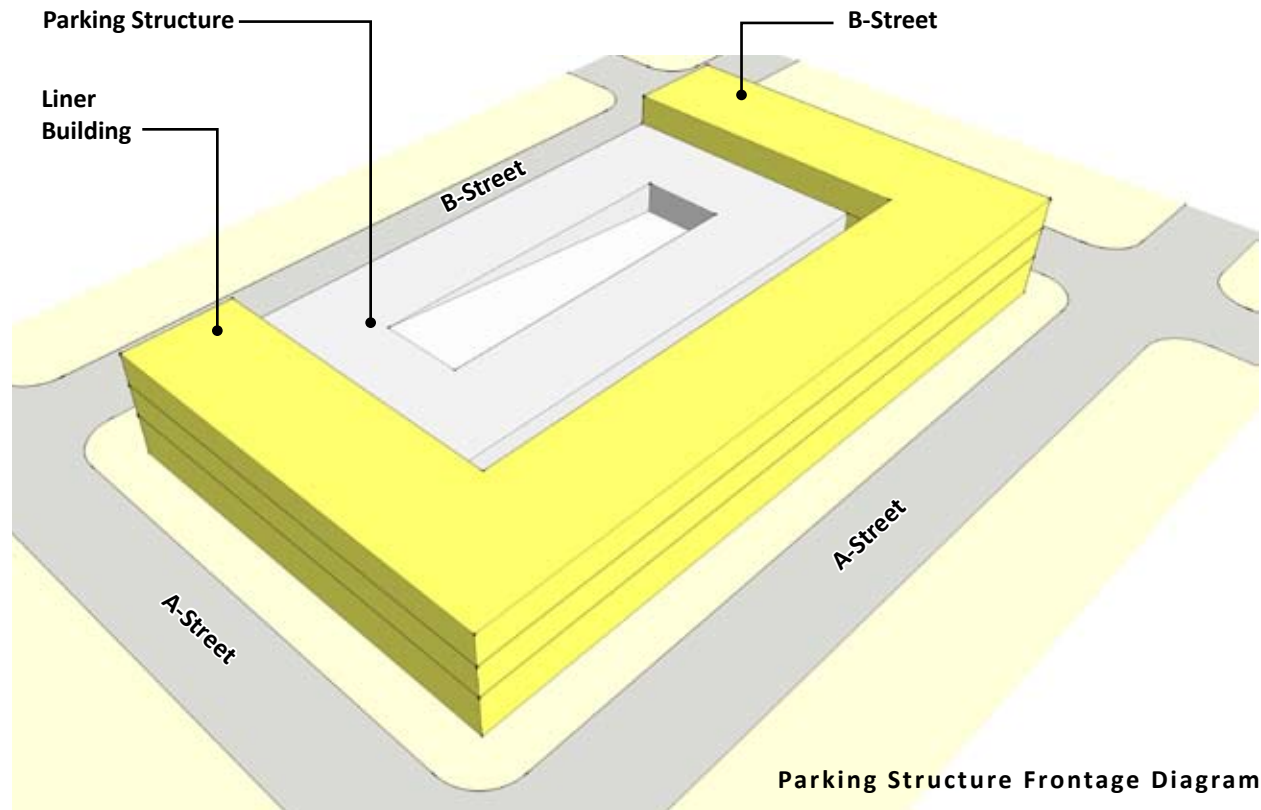
## Other Frontage Conditions

- Exceptions to the frontage requirements and build-to-line requirements may be allowed for: 1) civic & public buildings such as City Hall, court houses, fire stations, public schools, and community centers, 2) park buildings and pavilions.
- If the build-to-line is not indicated for a particular street frontage, then the default is that the build-to-line is the right-of-way line (i.e., the maximum setback is zero feet).
- Buildings that share a block with a publically owned park or publically owned square, shall face the edges of the park or square following A-Street frontage standards, where the build-to-line is the edge of the park.

## Access Streets

Access streets provide the tertiary connections, and service and parking access to development sites. They are the least public of all the street frontage types and are the most utilitarian.

- Access Streets do not have frontage requirements or build-to lines.
- Access Streets must be freely available for public use 24 hours per day.
- Access Streets require a minimum of a 9m right-of-way, a travel surface that is between 6 and 7m wide, and employ two-way operation.



### Parking Structure Frontage

The design and placement of above-grade parking structures will have a significant impact on the character and vitality of the pedestrian street environment. Parking structures shall be designed to minimize the negative visual impact of blank walls and loss of activity on the street.

#### A-Street Frontages:

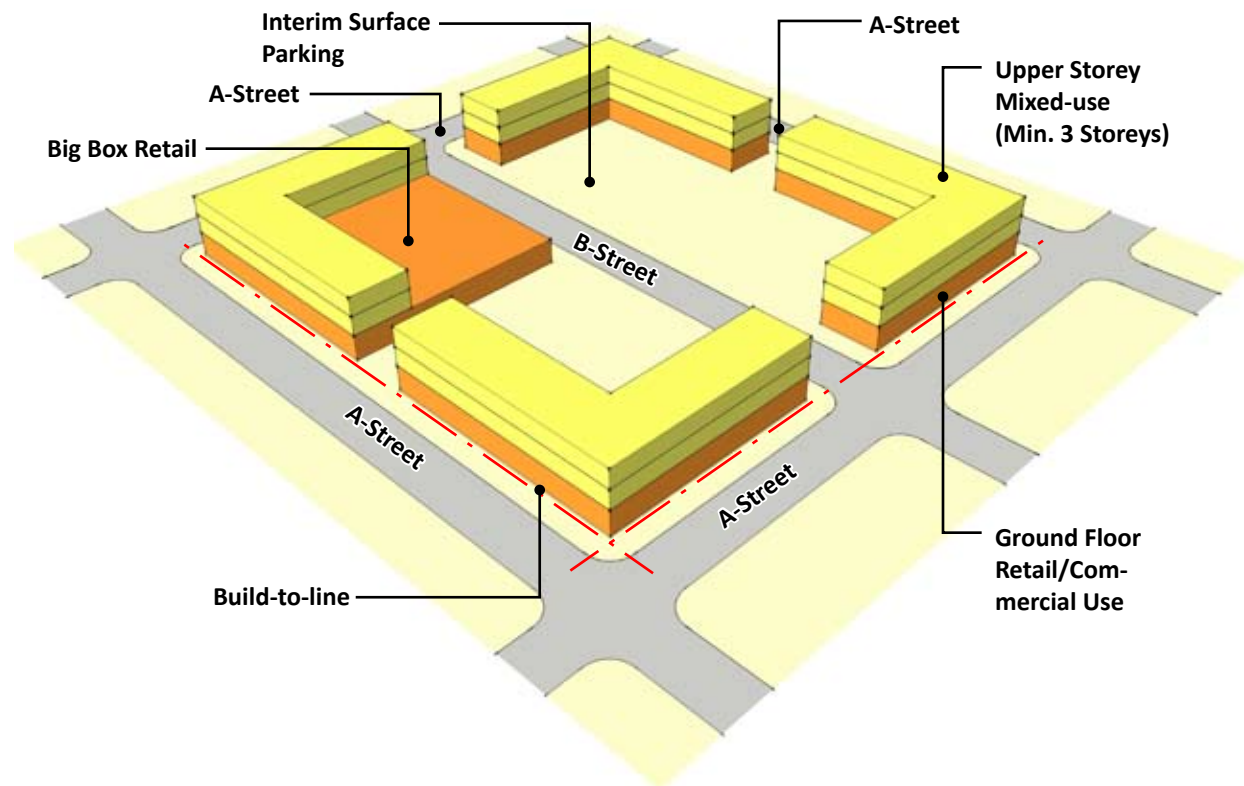
- Parking structures cannot front directly on the street but shall be screened by “liner” buildings. The liner buildings place active uses between the parking structure and the street, and screen the parking structure from view.

#### B-Street Frontages:

- Parking structures may only front directly on one B-street frontage per block.
- All parking structures shall have active uses (retail/services) on the ground floor with a minimum ground floor ground floor height of 4.5 metres in order to accommodate active, street level uses.
- Parking structure facades above the ground floor shall be designed with high-level architectural treatment and façade animation (screening, “green walls”, façade treatment similar to building) to mask the parking and screen views to the interior.







Interim Retail Block Frontage Diagram

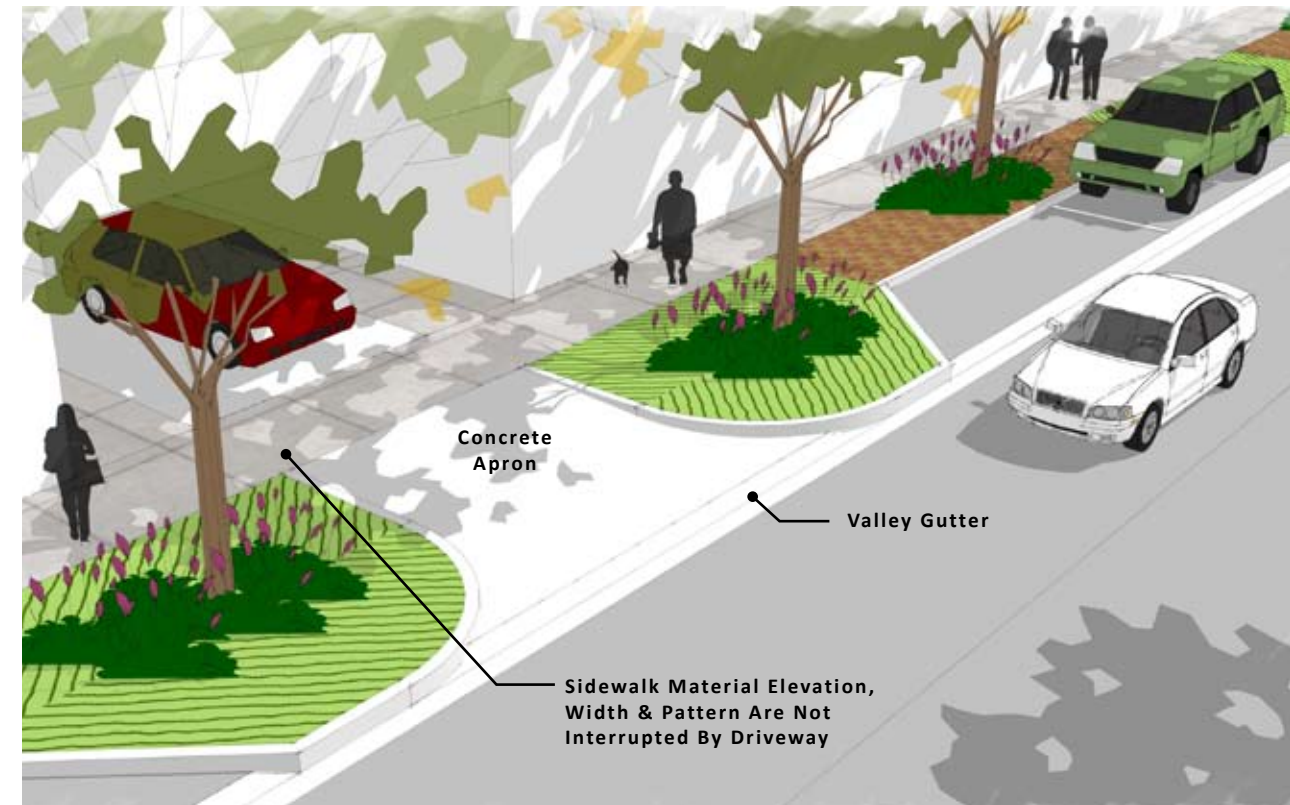
### Interim Retail Block Frontage

Some areas in the Downtown may develop initially as low intensity retail blocks with surface parking and intensify over time as the market changes. To allow for this interim development pattern, A-street frontage requirements apply but, B-street frontage requirements may be relaxed to eliminate the minimum build-to-line frontage requirement. The result of this, with A-street frontage requirements remaining, is an interim built form block pattern that fronts A-streets and leaves the interior of the block for surface parking. The B-street is still required to connect through the block and be designed according to the Street Design Standards, but in the interim is a street that provides access to interior parking lots. Over time this block pattern can be intensified within the established structure of A and B-streets.

### Interim Side Property & Party Wall Conditions

As the Downtown incrementally urbanizes with mid-rise and taller buildings, new buildings may be adjacent to smaller existing structures or undeveloped property resulting in blank sidewalks. While exposed blank sidewalks are to be expected during this transition period, design guidelines are required to mitigate the appearance and height of blank walls.

- Blank sidewalks should be designed as an architecturally finished surface and large expanses of blank sidewalks should be avoided.
- To mitigate the impact of blank sidewalks they should be designed with a material finish that complements the architectural character of the main building façade.
- Side setback walls should be a minimum of 5.5 metres from the property line to allow for sufficient glazing and building separation.



Laneway & Driveway Diagram

### Laneways & Driveways

Laneways provide the secondary service access off of Access Street and B Streets.

- Laneways require a maximum of 6.1m right-of-way with a travel surface that is a minimum of 3.66 m wide, except within 15m of a corner, where the minimum travel surface is 6.1m wide (i.e. the entire width of the laneway).
- If two laneways intersect at 90 degrees, then a 45-degree corner clip is required 3.1 m along each corner.
- The design vehicle for laneways is a SU9m (SU30') single unit truck; in this way, a garbage truck can access laneways.

### Intersection Design

The design and scale of intersections in the Downtown should strive to minimize the width of pedestrian crossings while providing safe, traffic-calmed turning movements.

- The standard corner radius, for all non-roundabout intersections, for all street types, in the downtown, is 7.6m (25'). The design vehicle for downtown is the WB12m (WB40') tractor trailer. In this way, delivery trucks, busses, and emergency vehicles will be able to reasonably access the downtown; motorists will be encouraged to make turns at reasonably safe speeds, and pedestrians will have reasonably short crossing distances.
- Intersections, involving one or more streets, with more two or more lanes in one direction, may use smaller corner radii than 7.6m (25').
- Intersections involving streets with medians and one lane on each side of the median, will use the smallest corner radius that permits the WB12m (WB40') tractor trailer to turn.
- The utilization of adjacent travel lanes to accommodate turning movements is permitted on any street in the downtown, except on corners around which bus routes, LRT routes, and official truck routes turn. However, if the bus, LRT, or official truck route is turning onto, or off of, a street with two or more lanes, going in the same direction as the route, then encroachment is permitted into those lanes.

## Street Design Summary

This chart delineates and summarizes the key components of the street design, which are described and illustrated in greater detail in the following pages. Streetscape principles are preliminary in nature and detailed study is required to formalize the streetscape design.

	Main Street	Burnhamthorpe Road	City Centre Drive Along Green Corridor	Square One Outside of College	Square One At College
<b>Minimum Right-of-Way</b>	22m wide	60m wide	25m wide	Flexible	23m wide @ ends; Up to 40m at @ center
<b>Sidewalk</b>	5.5 wide; Brushed concrete	7.3m wide; Brushed concrete; Tree row 5.5m from R.O.W. line @ 17.5m spacing	3.0m wide; Brushed concrete	1.8m wide minimum	See park plan
<b>Bicycle Accomodation</b>	Shared, slow street	1.7m wide protected bicycle path on both sides	1.5m wide protected bicycle path on both sides	Shared, either slow street or wide right-hand lane	Shared, slow street
<b>Furniture Zone</b>	None	2.0m wide with street trees @ 17.5m spacing	Swale edges 2.1m wide on the south side and 4.0m wide on north side	Flexible (fuction of future development proposals)	See park plan
<b>Street Lighting</b>	3.1m height maximum	4.5m height maximum	3.1 height maximum	Flexible (fuction of future development proposals)	Park lighting
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.1m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>	None	Parallel and/or back-in angled on both sides <sup>2</sup>	None
<b># of Parking Spaces between bulbouts with street trees</b>	2	4	Edges planted with native trees and ground cover to pretreat runoff	4 maximum with parallel; 5 maximum with back-in angled	Not applicable
<b>Driving Lanes</b>	3.4m wide <sup>3</sup> ; Brick	3.4m wide <sup>3</sup>	3.4m wide	Flexible (fuction of future development proposals)	3.6m wide
<b># of through lanes per direction</b>	1	2	1	1	1
<b>Right turn lane</b>	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
<b>Left turn lane</b>	Prohibited	Permitted up to 3.4m wide	Permitted up to 3.0m wide; Coloured & textured	Permitted up to 3.0m wide; Coloured & textured	Permitted at west end up to 3.0m wide
<b>Median</b>	None	19.6m wide; Can accommodate city bus, BRT, and/ or LRT; Tree row on both sides @ 8.75m spacing	None	None	Variable width, see park plan
<b>Design Speed<sup>4</sup></b>	30 km/h	50 km/h	40 km/h	30 or 40 km/h	25 km/h
<b>Traffic Control Devices</b>	Minimal (use as few as feasible); No center line	Regular Practice	Minimal (use as few as feasible); No center line	Minimal (use as few as feasible)	Minimal (use as few as feasible)
<b>Parking Control</b>	Multimeter/pay-on-foot kiosks; NO regular parking meters	None/Multimeter/pay-on-foot kiosks/ regular parking meters	None	None/Multimeter/pay-on-foot kiosks/ regular parking meters	Not applicable
<b>Build-to Line</b>	0.25m	0.25m	0.25m	0.25m	Not applicable
<b>Driveways</b>	Prohibited	Prohibited	Prohibited	Flexible (fuction of future development proposals)	Shared spaces (see below)

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.

Rathburn Road	Duke of York Boulevard	Hurontario Street	Living Arts Drive	Webb Drive	Typical B-Street
40m wide	27.5m plus corner clips at roundabouts	50m wide	27.5m wide	26.4m wide	23m wide
2.7m wide; Brushed concrete	1.8m wide maximum	2.3m wide; Brushed concrete	1.95m wide; Brushed concrete	1.5m wide minimum; Brushed concrete	1.8m wide minimum
1.7m wide lane (i.e. an extra wide left flange of the valley gutter)	Shared, wide right-hand lane	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)	Shared, wide right-hand lane	Shared
None	Varies with street trees @ 8.75m spacing	2.0m wide	2.0m wide with street trees @ 17.5m spacing	2.0m wide with street trees @ 17.5m spacing	3.7m wide with street trees @ 17.5m spacing
3.1m height maximum	4.5m height maximum	3.1m or 4.5m height maximum	4.5m height maximum	4.5 height maximum	3.1m height maximum
Parallel, both sides, 2.4m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>	Parallel, both sides, 2.4m wide <sup>2</sup>
2	4	4	4	4	4
3.4m wide	4.35m wide	3.4m wide <sup>3</sup>	4.0m wide; Will accommodate LRT in the future	4.25m	3.6m wide <sup>3</sup>
1 + 1 for transit vehicles	1	2	1	1	1
Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited
Permitted up to 3.4m wide	Permitted up to 3.0m wide	Permitted up to 3.4m wide	Permitted up to 3.4m wide	Permitted up to 3.4m wide	Permitted up to 3.4m wide
19.6m wide; Can accommodate city bus, BRT, and/or LRT; Tree row on both sides @ 10.5m spacing	6.75m wide	19.6m wide; North of Absolute Ave with native trees, ground cover, and flumes to accept and pretreat storm water runoff in the median; South of Absolute Ave can accommodate city bus, BRT, and/or LRT; Tree spacing on both sides @ 8.75m spacing.	3.4m wide, between left turn lanes; No tapers; One row of street trees @ 8.75m spacing	3.4m wide, between left turn lanes; No tapers; One row of street trees @ 8.75m spacing	None
40 km/h	40 km/h	50 km/h	40 km/h	40 km/h	40 km/h
Regular Practice	Regular Practice	Regular Practice	Regular Practice	Regular Practice	Regular Practice
None/Multimeter/pay-on-foot kiosks/ regular parking meters	None/Multimeter/pay-on-foot kiosks; NO regular parking meters	None/Multimeter/pay-on-foot kiosks/ regular parking meters	None/Multimeter/pay-on-foot kiosks/ regular parking meters	None/Multimeter/pay-on-foot kiosks/ regular parking meters	None/Multimeter/pay-on-foot kiosks/ regular parking meters
2.0m <sup>5</sup>	2.0m <sup>5</sup>	2.2m <sup>5</sup>	2.0m <sup>5</sup>	4.0m	0.25m
Prohibited	Prohibited	Prohibited	Permitted	Permitted	Permitted

## Main Street

<b>Minimum Right-of-Way</b>	22m wide
<b>Sidewalk</b>	5.5 wide; Brushed concrete
<b>Bicycle Accomodation</b>	Shared, slow street
<b>Furniture Zone</b>	None
<b>Street Lighting</b>	3.1m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.1m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	2
<b>Driving Lanes</b>	3.4m wide <sup>3</sup> Brick
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Prohibited
<b>Median</b>	None
<b>Design Speed<sup>4</sup></b>	30 km/h
<b>Traffic Control Devices</b>	Minimal (use as few as feasible); No center line
<b>Parking Control</b>	Multimeter/pay-on-foot kiosks; NO regular parking meters
<b>Build-to Line</b>	0.25m
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	The intersections of Princess Royal Drive, City Centre Drive, Burnhamthorpe Road, and Webb Drive are “raised intersections.”



Proposed Main Street

## Main Street

The proposed cross-section for Main Street includes the following:

- Wide sidewalks are on both sides of the street. The sidewalks are sized to provide space for outside seating and displays of merchandise while still allowing two couples to walk past each other in opposite directions;
- Weather protection is provided via a generous tree canopy and awnings. The soil under the parking rows and sidewalks is designed to accommodate tree roots such that the trees are healthy and develop a significant canopy;
- The street is flush (i.e., no vertical curbs) in order to provide a barrier-free experience and to provide the ability to use all or parts of the street for festivals or other events;
- The driving surface is decorative to provide a texture and colour contrast with the sidewalks, add character, provide longevity and result in a slowing effect on motorists;
- The flush street includes the intersections and results in the intersections appearing as “raised intersections” from the perspective of the side streets. There are gentle, shallow ramps on the east and west sides of the intersections to transition vehicles down between the elevation of the Main Street and the elevation of the side streets; and
- The raised intersections provides several advantages, including: i) pedestrians are effectively about 10 centimeters taller as they cross the street and, thus, can see and be seen better by motorists and cyclists; ii) the intersections are conspicuous such that the expectation of pedestrian traffic is clearly evident; and iii) there is a slowing effect on motorists which increases safety.

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

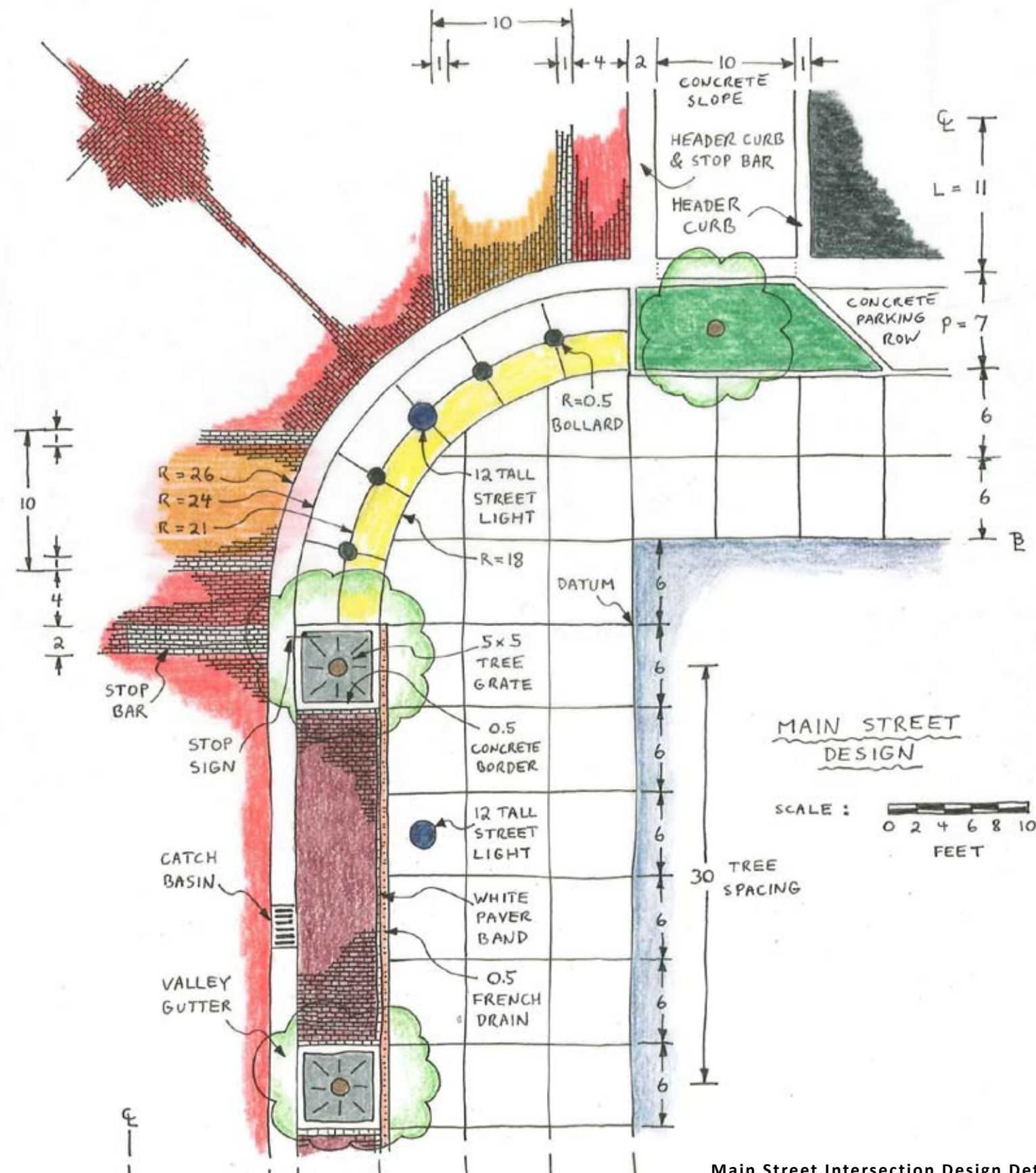
<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

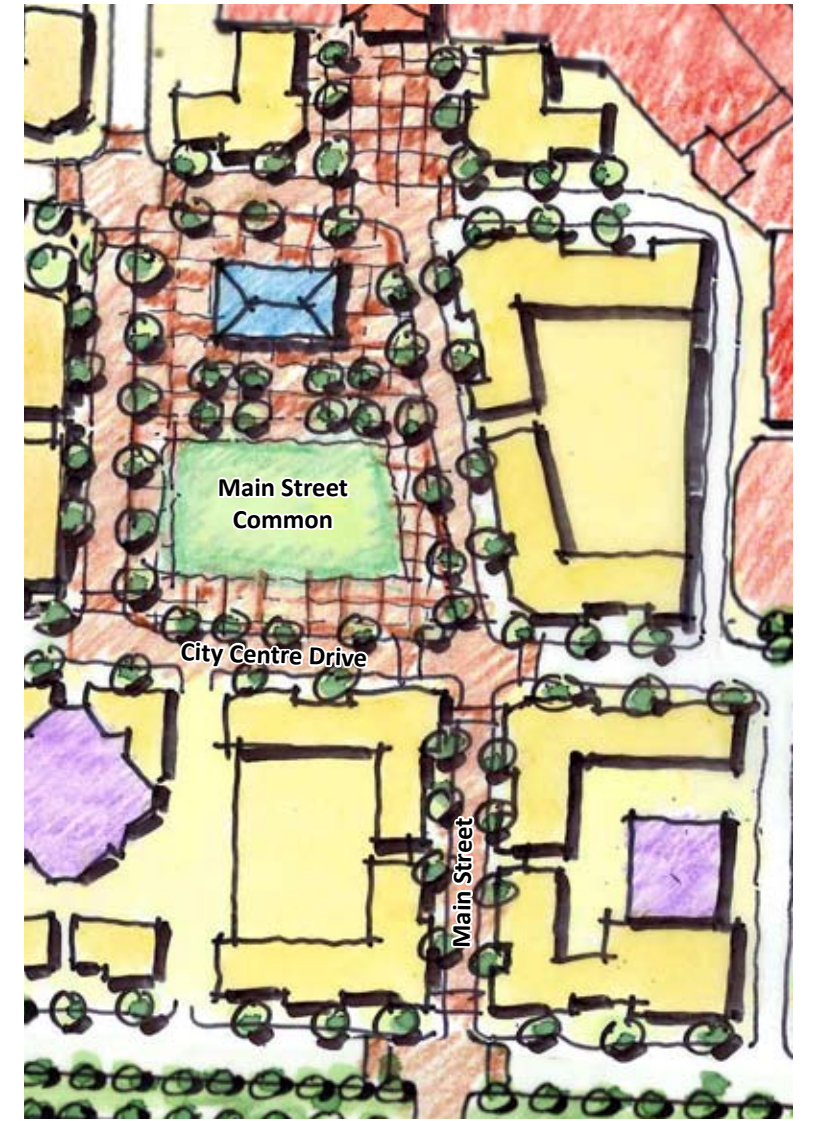
<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

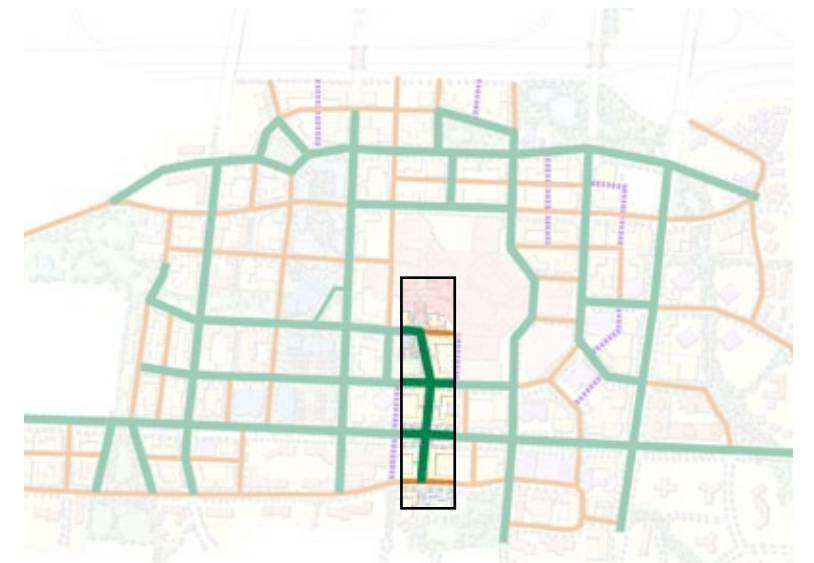
**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



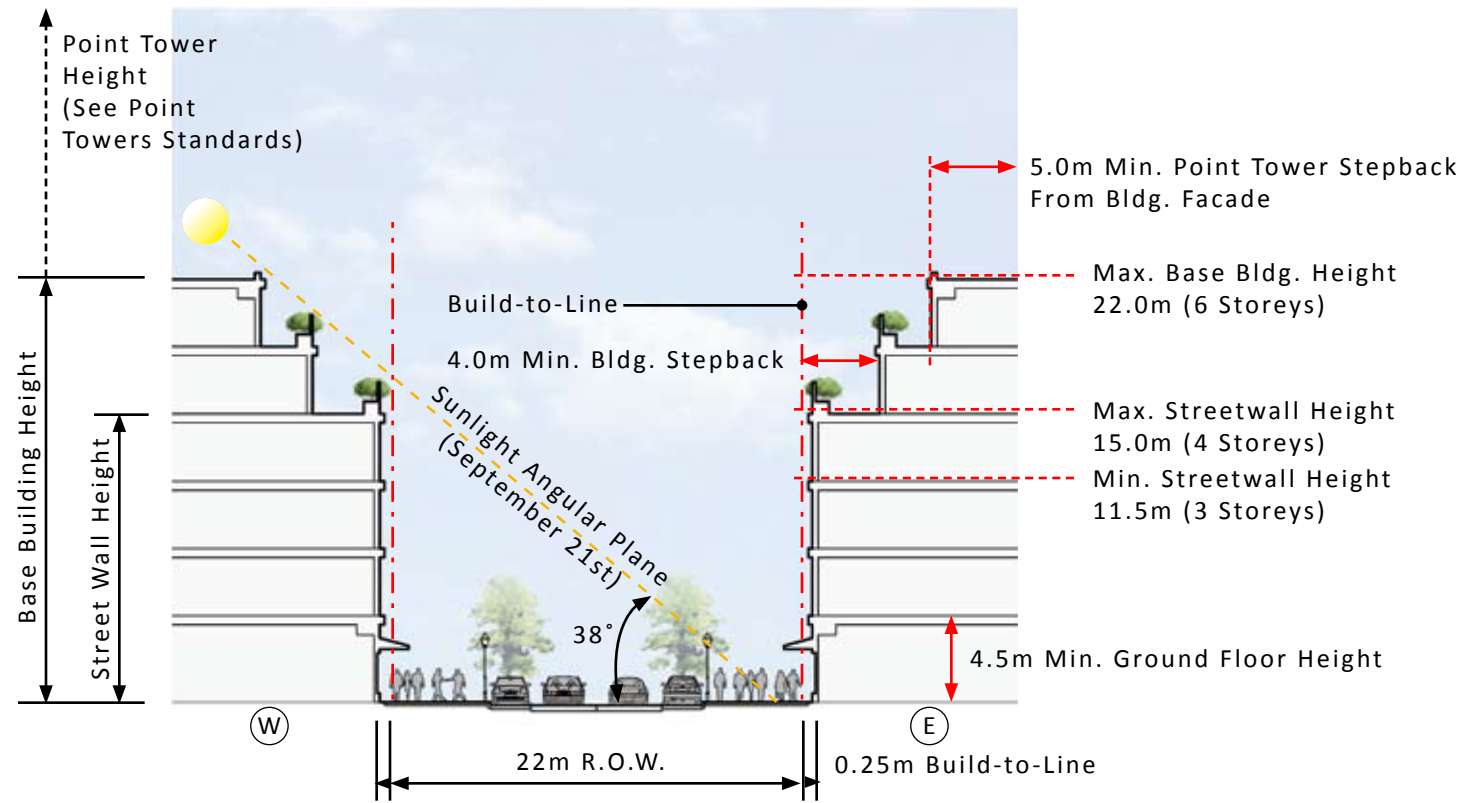
Main Street Intersection Design Detail



Main Street Concept Plan



Key Plan



**Main Street Building Massing Guidelines**



**Main Street Sidewalk Detail**

## Main Street Building Design Guidelines

The built form, urban design, and land use of the Main Street should be guided to create a truly unique pedestrian environment that is reflective of Mississauga and its Downtown context. The retail uses on the street should complement but not compete with Square One Mall. The stores should be focused on smaller entrepreneurs and local businesses in Mississauga, with few if any national or international chains. The type of retail should be active and vibrant featuring cafes, restaurants, shops that feature food, daily life needs, and neighbourhood shopping. Retail uses should extend out onto the street making use of patios and outdoor displays of goods.

**Street-Level Use** – Ensure an active and vibrant street.

- **Frontage Activation** - Retail only on the ground floor, 100% of street frontage (excluding lobbies and entrances).
- **Land Use**—Retail uses should include cafes, restaurants, coffee shops, bars/pubs, neighborhood services.

**Street-Level Transparency** – The uses on the street should be open to view and transparent, creating an inviting and vibrant atmosphere.

- **Ground floor glazing** – 80% - 90% of ground floor façade area between 0.6m and 2.4m from the finished floor must be glazing.
- **Glazing** - No tinting is permitted. Must be able to see at least 0.9 m past the glazing. Three dimensional displays may be within 0.9 m of glazing. Posters, boards, signs, decals, and other flat or near-flat objects or visual obstacles cannot cover more than 20% of the glazed area.

**Storefront Design** – Create a street-level experience with frequent doors on the street and a variety of small shops and enterprises.

- **Width** – Storefronts and buildings should be designed to articulate a rhythm of different buildings at intervals of every 6 to 10m wide (with the exceptions for a larger grocery store), created through the subdivision of retail space, the use of changing building materials and/or façade articulation. The purpose of this is to create actual separate buildings (or the appearance of separate buildings) at regular intervals to create visual interest along the street.
- **Height** – Ground floor height of 4.5m minimum to ensure flexible retail and/or commercial space.
- **Depth** – Retail space depth of 12 to 15m minimum to ensure reasonable operations.

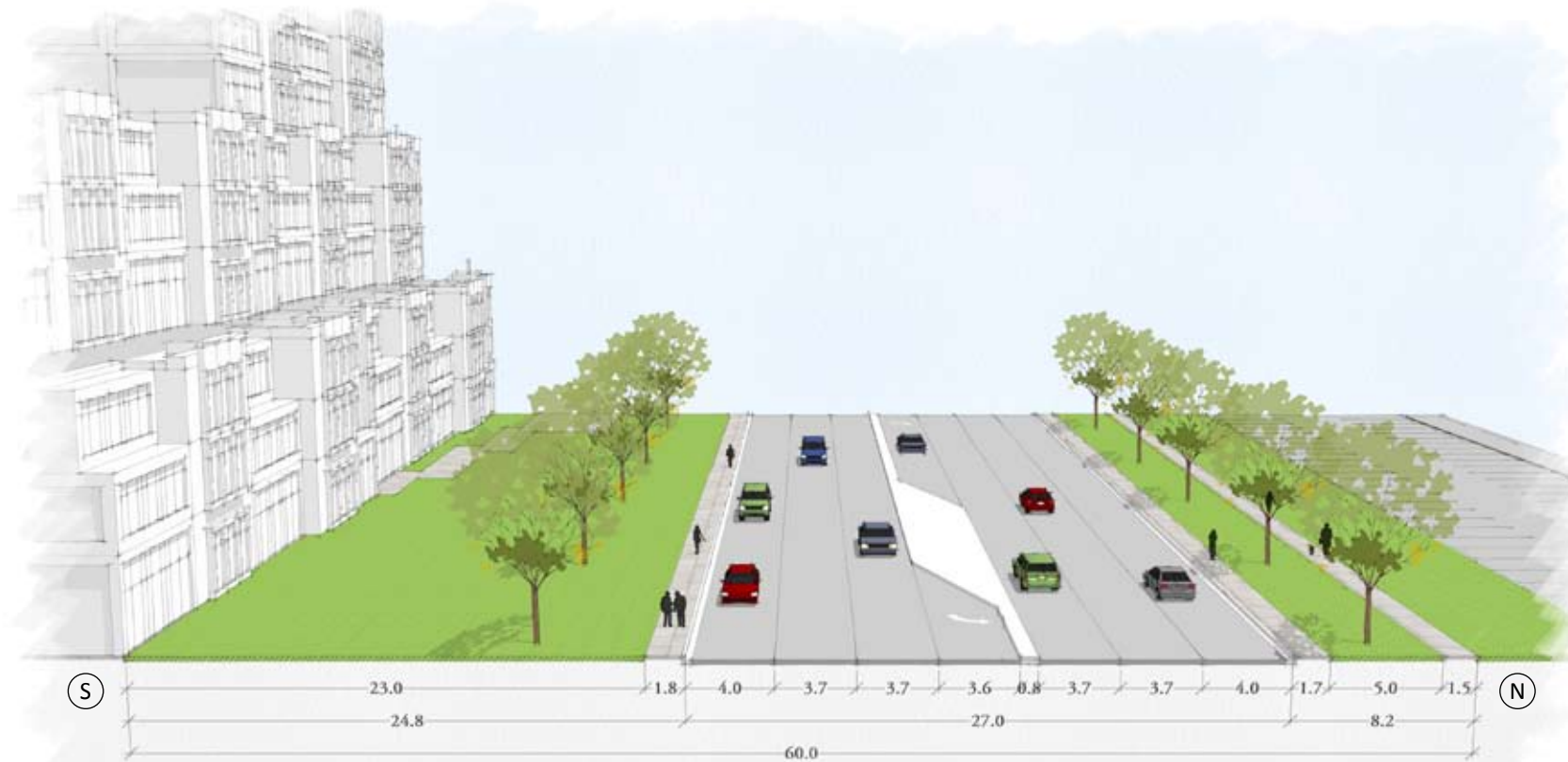
### Building Details

- **Awnings** - Shed type only, across 100% of building façade. 2.25m minimum to 2.75m maximum, protrusion into the right-of-way.
- **Front door** - For buildings that are open to the public, the front doors must be unlocked and usable for normal access to and from the building by the public during normal business hours. Door function should not employ space beyond the face of the building in order to maximize the use of the sidewalk and pedestrian space.
- **Finished floor elevation** - Within 5cm of the sidewalk elevation on the right-of-way line in front of the front door.
- **Streetwall** - Parapet wall required at the streetwall setback in order to articulate a clear top/cornice to the street, minimum 0.6m, maximum 1.5m high.
- **Window shape** - Individual windows should perceptibly taller than they are wide.



## Burnhamthorpe Road

<b>Minimum Right-of-Way</b>	60m wide
<b>Sidewalk</b>	7.3m wide; Brushed concrete; Tree row 5.5m from R.O.W. line @ 17.5m spacing
<b>Bicycle Accomodation</b>	1.7m wide protected bicycle path on both sides
<b>Furniture Zone</b>	2.0m wide with street trees @ 17.5m spacing
<b>Street Lighting</b>	4.5m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces be- tween bulbouts with street trees</b>	4
<b>Driving Lanes</b>	3.4m wide <sup>3</sup>
<b># of through lanes per direction</b>	2
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	19.6m wide; Can accommodate city bus, BRT, and/ or LRT; Tree row on both sides @ 8.75m spac- ing
<b>Design Speed<sup>4</sup></b>	50 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/ regular parking meters
<b>Build-to Line</b>	0.25m
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	None



Existing Burnhamthorpe Road



Proposed Burnhamthorpe Road

<sup>1</sup> Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

<sup>2</sup> Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

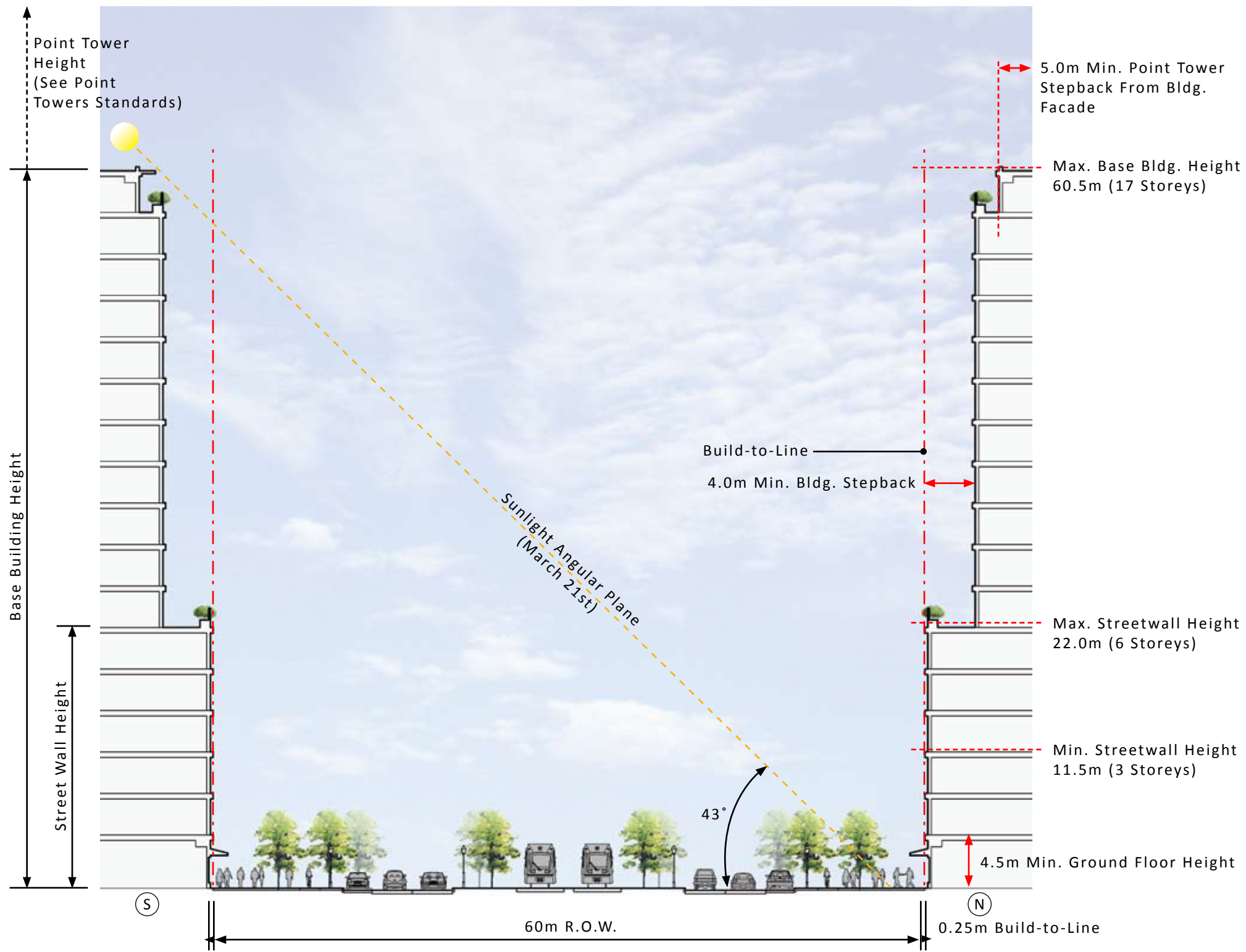
<sup>3</sup> For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup> For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup> The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.





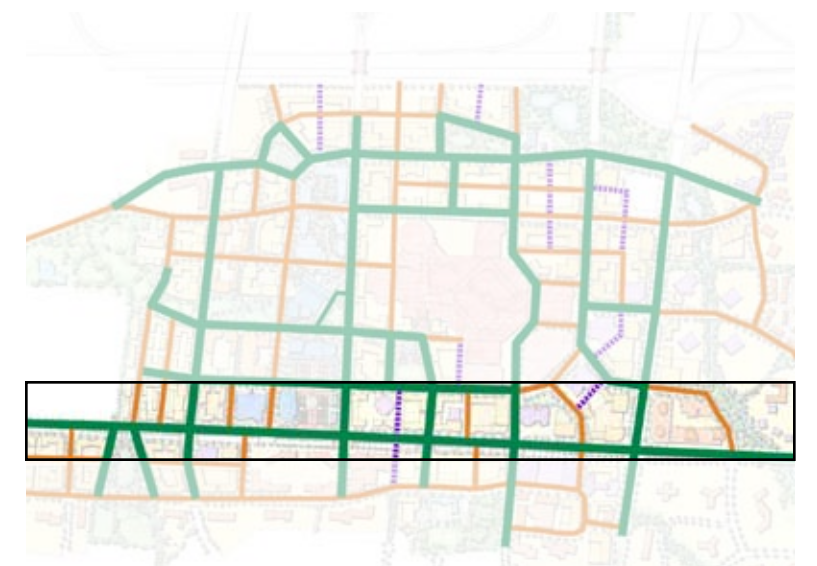
**Burnhamthorpe Road Building Massing Guidelines**

## Burnhamthorpe Road

Burnhamthorpe Road has the most ambitious design of all of the streets in the downtown. It will be the downtown’s “grand street of significant beauty” that provides great addresses, access to the land uses along it, as well as access to the balance of downtown. Symbolically, the street provides key entrances into the downtown to the east and west. It is the site for Main Street’s transit station and is the seam between downtown and neighbourhoods to the south.

The proposed cross-section for Burnhamthorpe Road includes the following:

- Wide tree-lined sidewalks, protected bicycle lanes, and on-street parking are on both sides of the street to provide direct, safe, and comfortable access to the land uses;
- Higher order transit is provided down a beautiful tree-lined median with one transit station at the junction with Main Street;
- Two motor vehicle lanes are provided in each direction with left turn lanes at the intersections; and
- The intersections of Burnhamthorpe with Kariya Drive, Main Street and Duke of York are raised to: demarcate the Main Street District, help self-enforce slower motorist speeds in the Main Street District and to help better connect the north and south sides of Burnhamthorpe for pedestrians.



**Key Plan**



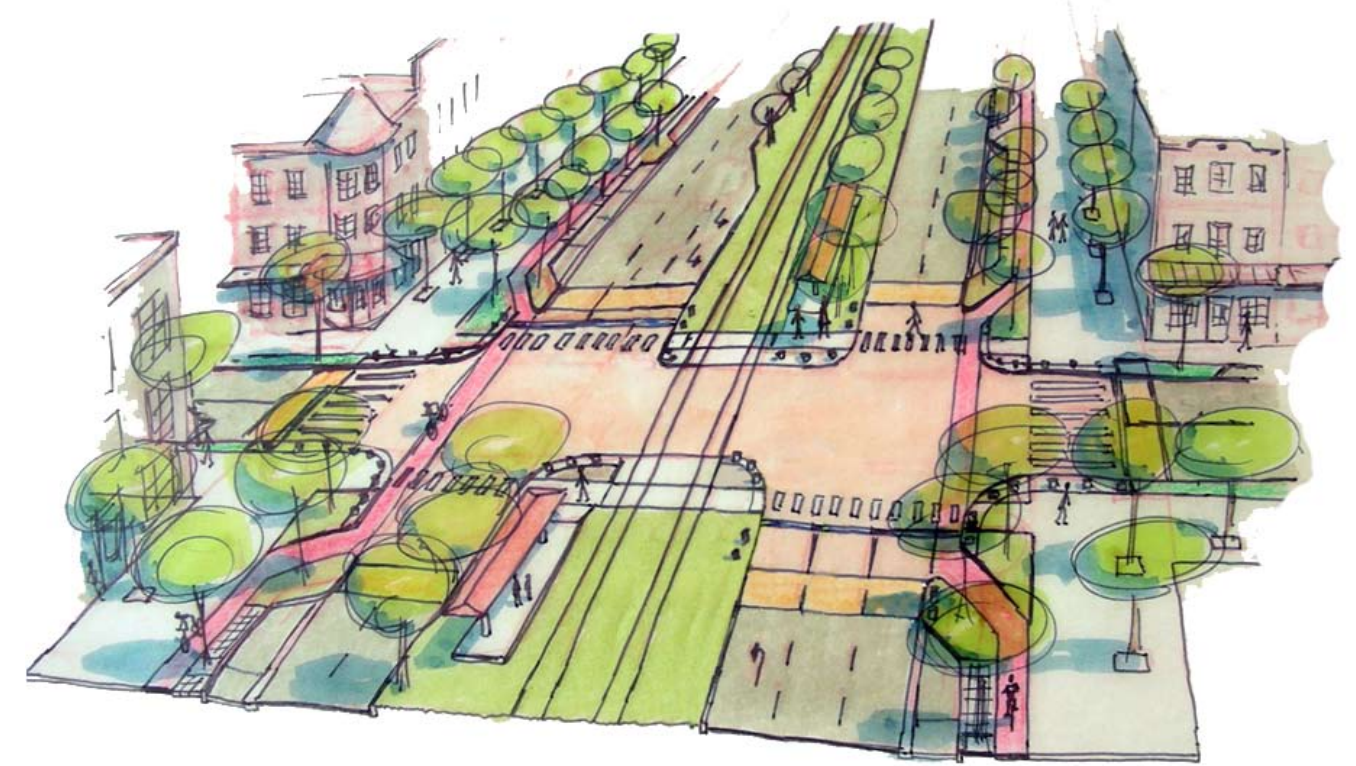
Existing Burnhamthorpe Road



Proposed Burnhamthorpe Road



Burnhamthorpe Road Sidewalk Detail



Burnhamthorpe Road Intersection Detail

## Burnhamthorpe Road Intersection

The Burnhamthorpe Road intersections are a critical part of creating a stronger pedestrian connection north and south. The following are key components of the intersection design:

- **Transit Median** – Provides a wide landscaped refuge for pedestrian crossings and access to the transit station at Main Street. The intended transit stations are “split” with a platform on each side of the intersection which accommodates left turn vehicle lanes and a consistent pattern of street trees.
- **Raised Intersection** – The intersections are raised to help slow motorist speeds through the intersection and put the sidewalk and street at the same level, maximizing accessibility and elevating pedestrians for a safer connection north and south.
- **Protected Bike Path** – For safety and clarity the protected bicycle paths are located in the intersection in order to create the most visibility and least conflicts for cyclists.
- **Bulb-outs** – The on-street parking transitions to bulb-outs at the intersections in order to narrow the pedestrian crossing distance and traffic calm right turning vehicles.

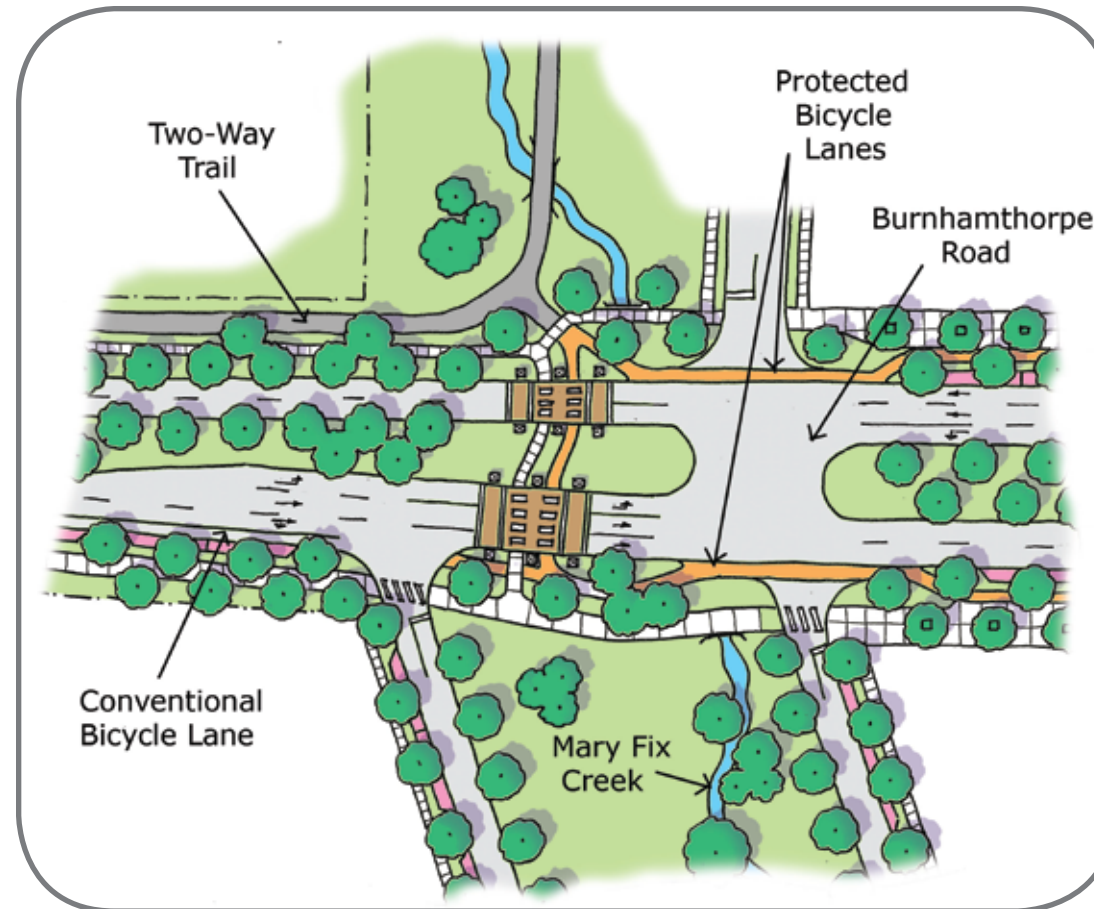
## Burnhamthorpe Road Transition

The proposed design of Burnhamthorpe in downtown intentionally contrasts greatly with its design outside of the downtown, where it is a conventional, suburban, arterial road with long block lengths and a boulevard bike trail. The transition, or entrance, of Burnhamthorpe Road into downtown is an important place to inform motorists that they are indeed entering a more urban place and need to pay more attention to their environment which includes a different cross-section and more activity such as people walking, people shopping, people crossing the street, motorist parking and unparking, cyclists riding around, etc.

The eastern and western entrance features are located at the crossings of Cooksville Creek and Mary Fix Creek under Burnhamthorpe Road. These locations mark the edge of the downtown, but they have added symbolism because they celebrate water and, through their design, demonstrate the city's values and commitment to water conservation, storm water treatment, recreation, non-automobile modes of transportation, open spaces, and habitat preservation.

### West Entrance Feature

The western entrance feature occurs at Mary Fix Creek, which can be wet or dry depending on the season and the weather. Consequently, a bridge does not make sense. Instead, an enhanced pedestrian crossing is proposed to connect the north-south trail and linear park system that crosses Burnhamthorpe Road and links several larger parks together. The enhanced crossing does have a vertical deflection, making it a "raised crossing," with bridge architecture design elements. The raised crossing has all the same safety advantages as a raised intersection and the bridge architecture acknowledges the creek in an obvious way and causes the entrance feature and pedestrian crossing to be conspicuous.



Western Entrance Feature

The two-way trail along Burnhamthorpe is connected to the "Green Corridor" on City Centre Drive, north via the trail system along Mary Fix Creek. This will be the most popular route for cyclists considering that the Green Corridor provides access to the largest number of destinations in the downtown. The boulevard bike trail is not adequately safe or contextually appropriate along Burnhamthorpe Road, in the downtown, due to the close intersection spacing and need to service both sides of the street. Consequently, the trail needs to transition to context-sensitive bicycle facilities. The entrance features provide appropriate and safe locations to make the transitions and to connect the trail or other bicycle facilities as well. The transition between the westbound protected bicycle lane and the two-way trail is straightforward because it is a simple matter of the westbound protected bicycle lane connecting to the two-way bicycle trail.

The eastbound transition is almost as simple. The eastbound part of the trail makes a turn to the south and then employs the same crossing as the park system, at the entrance feature. Cyclists use a parallel path to cross Burnhamthorpe Road, after which the path simply becomes the eastbound protected bicycle lane.

At the crossing, both the pedestrians and the cyclists have their own push buttons to actuate the crossing signals. The only difference is that the cyclists also have a railing so they have something to hold onto if they wish. The median refuge for the cyclists and pedestrians is slightly angled so that the people crossing the street have a more direct view of oncoming traffic than they would if the refuge were designed to be perpendicular and vice versa.

### The Western Narrowing of Burnhamthorpe Road

At Mavis Road, Burnhamthorpe Road's section changes from a six-lane street to a four-lane street. The narrowing is achieved to the east of the intersection by replacing each outside lane with a tree lawn; no change is made to the median, yet. There are two through lanes in each direction



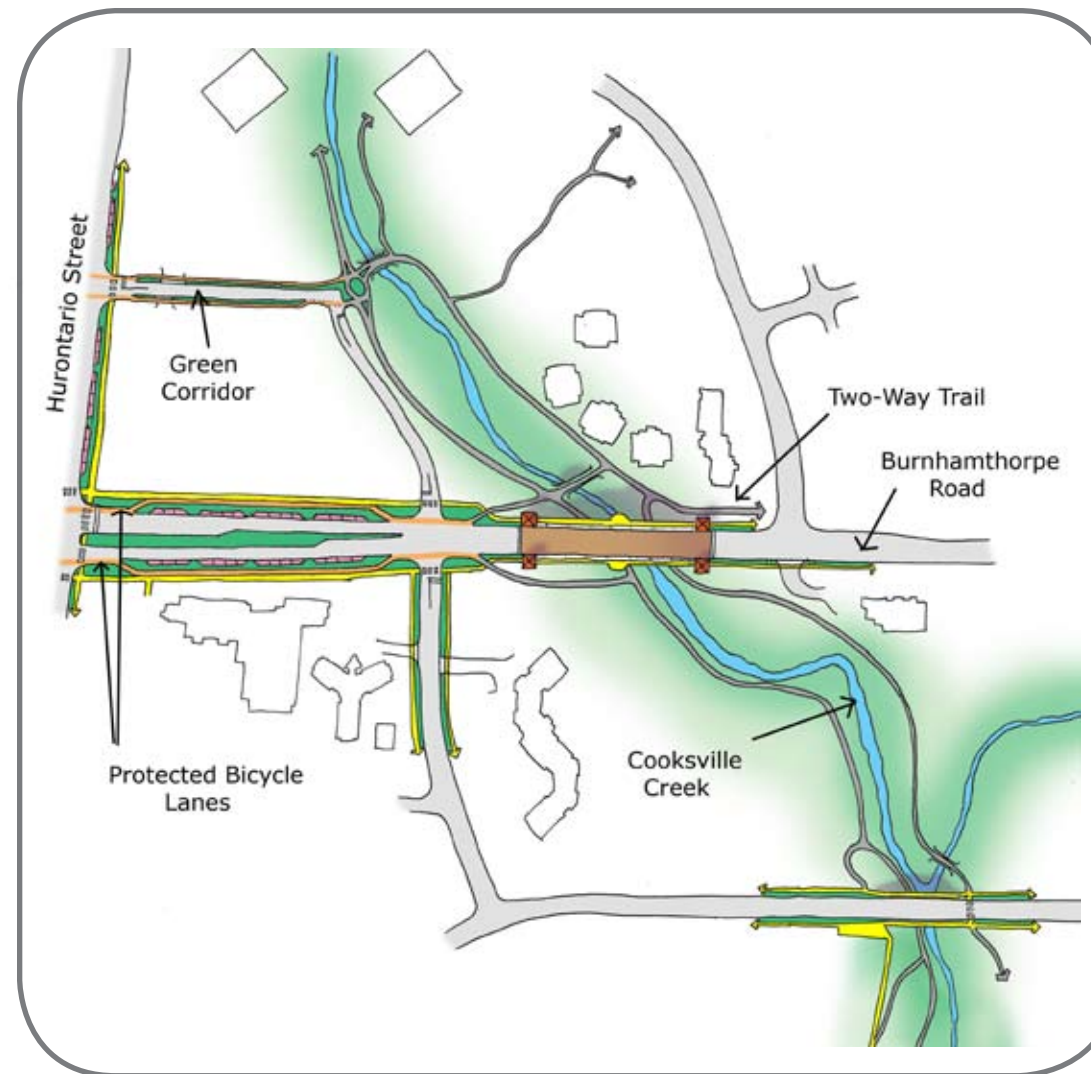
to the east of Mavis Road. In addition, there is an eastbound, in-street, conventional bicycle lane. There is no westbound equivalent due to the presence of the two-way trail on the north side of the street. The eastbound bicycle lane allows cyclists originating from the south on Mavis Road, and from other southern origins, to the east of Mavis Road, the ability to access the downtown via a bicycle lane without having to cross Burnhamthorpe Road to get to the two-way bicycle trail.

East of the Grand Park Drive intersection, the landscaped median begins, fairly narrow at first, and then wider as the width of the right-of-way widens. Then, the street transitions, at the western entrance feature, to the downtown cross-section for Burnhamthorpe Road.

### Eastern Entrance Feature

The eastern entrance feature is intended to be an architecturally beautiful, humped bridge over the Cooksville Creek. This new bridge will do the following:

- Provide a vertical deflection in the street and draw attention to the presence of the creek and to the bridge;
- Help slow the speeds of motorists;
- Provide a transition to the new cross-section and protected bicycle lanes;
- Allows the trail system, as well as wild life along the Cooksville Creek to pass under it. This is an important connection to link downtown south to the creek and Mississauga Valley Community Centre;
- Contribute aesthetically to the downtown;
- Match the quality of design of the street in the downtown;
- Provide a comfortable place for pedestrians to view the creek valley; and
- Provide a conspicuous entrance feature



Eastern Entrance Feature

The bridge over Cooksville Creek provides a grade-separated transition between the protected bicycle lanes and the two-way bicycle trail. In addition to providing an excellent transition, the bridge connects the two-way trail to an uninterrupted trail system along the creek and to the “Green Corridor” along City Centre Drive, which is the main and busiest bicycle route into, out of, and through the downtown.

### Burnhamthorpe Bicycle Facility Transition

The bicycle routes to and from the downtown, from the east and west along Burnhamthorpe Road, are in the form of two-way bicycle trails on the north side of the street. In general, a two-way trail is a very good design choice when two conditions are met: i) where there are few street crossings along the way such as along railway tracks, along riverfronts, or through large parks, and ii) where access to and from the trail can safely occur.

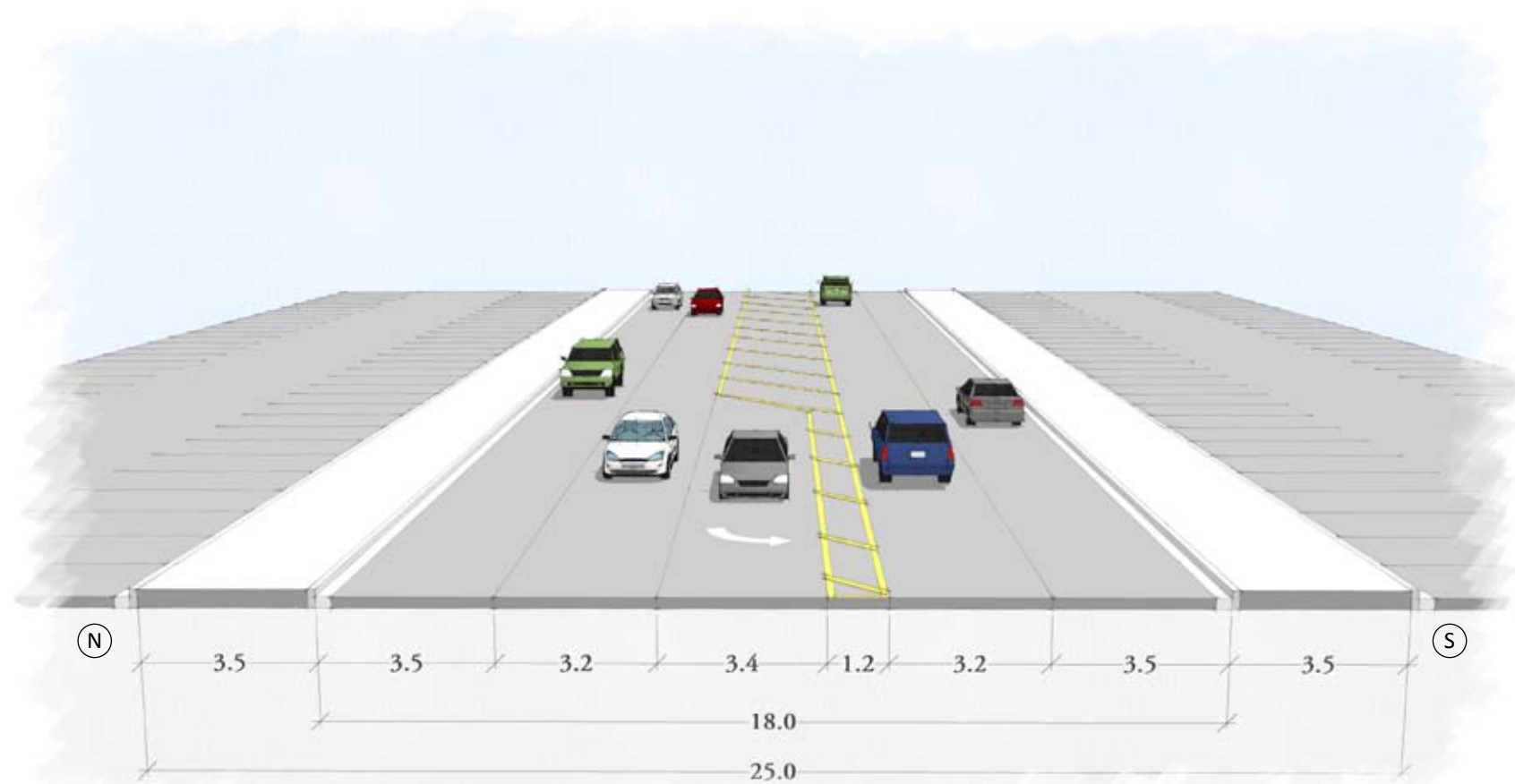
By contrast, in the downtown there are many closely spaced intersections, the intersections are busy, and the asymmetric nature of the two-way trail makes it unsuitable for accessing buildings and land uses on the south side of Burnhamthorpe Road. The intersection safety problem of having a two-way trail on the north side of the street involves cyclists crossing perpendicular streets unexpectedly and quickly from the “wrong way” as perceived by drivers using the perpendicular streets. The proposed protected bike lane design is safer and more suitable for the downtown and safety and access shortcomings of the two-way trail are avoidable.

Gracefully and safely transitioning between the two-way trails, outside of the downtown and the protected bike lanes in the downtown, is important. This was achieved at the ends of the downtown in conjunction with the entrance features where the conventional section of Burnhamthorpe changes to the downtown section.



## City Centre Drive Along Green Corridor

<b>Minimum Right-of-Way</b>	25m wide
<b>Sidewalk</b>	3.0m wide; Brushed concrete
<b>Bicycle Accomodation</b>	1.5m wide protected bicycle path on both sides
<b>Furniture Zone</b>	Swale edges 2.1m wide on the south side and 4.0m wide on north side
<b>Street Lighting</b>	3.1 height maximum
<b>Parking<sup>1</sup></b>	None
<b># of Parking Spaces between bulbouts with street trees</b>	Edges planted with native trees and ground cover to pretreat run- off
<b>Driving Lanes</b>	3.4m wide
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.0m wide; Coloured & textured
<b>Median</b>	None
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Minimal (use as few as feasible); No center line
<b>Parking Control</b>	None
<b>Build-to Line</b>	0.25m
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	None



Existing City Centre Drive



Mid-block City Centre Drive

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

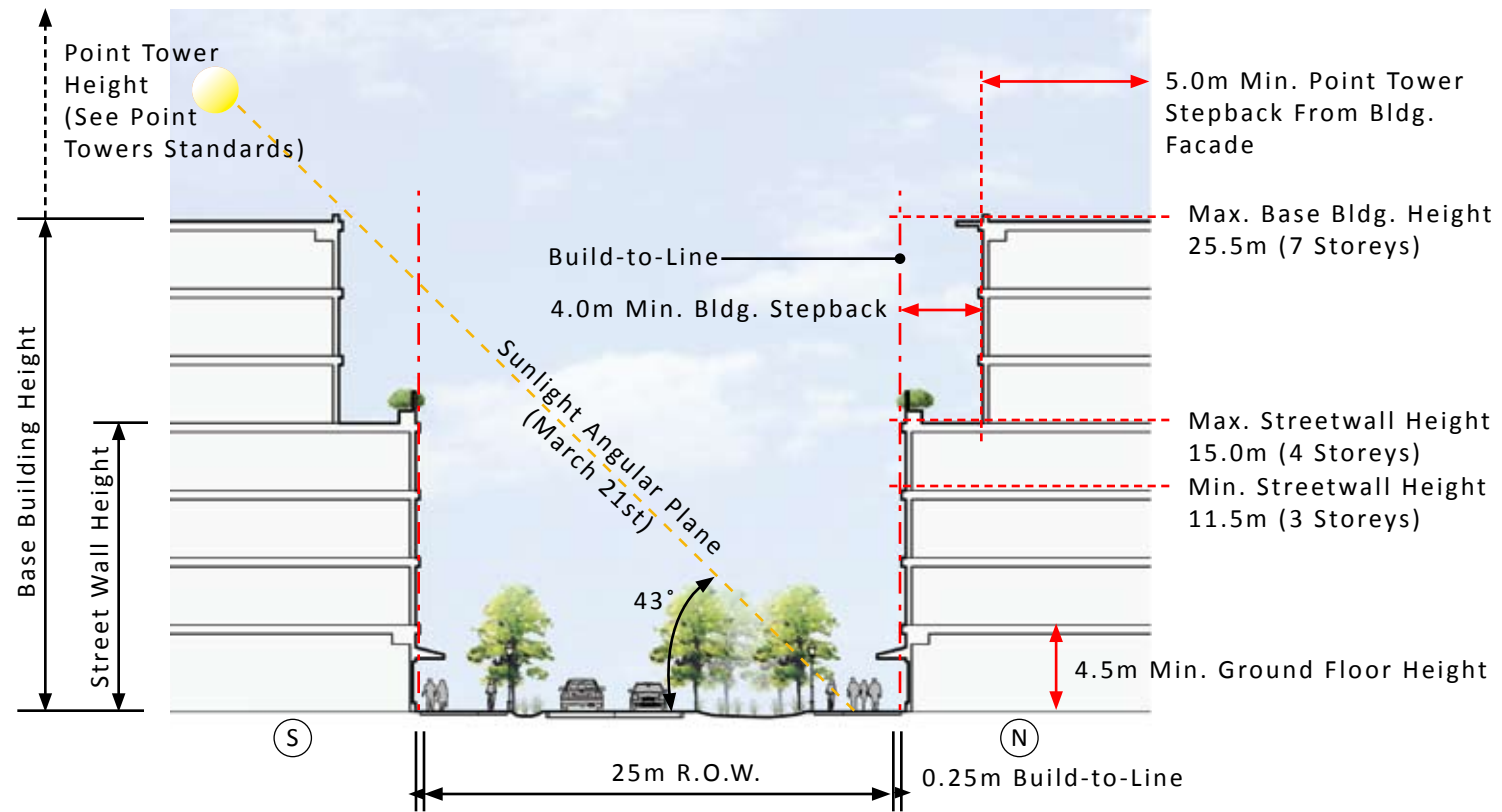
<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



City Centre Drive Building Massing Guidelines

## City Centre Drive - Green Corridor

City Centre Drive has several roles. In the Confederation District, it is a residential street. In the Civic District it is a flush street designed with City Hall's plaza and the Library's plaza to form a large outdoor event space. From Duke of York Boulevard to the future Clarica Drive it is a "green corridor".

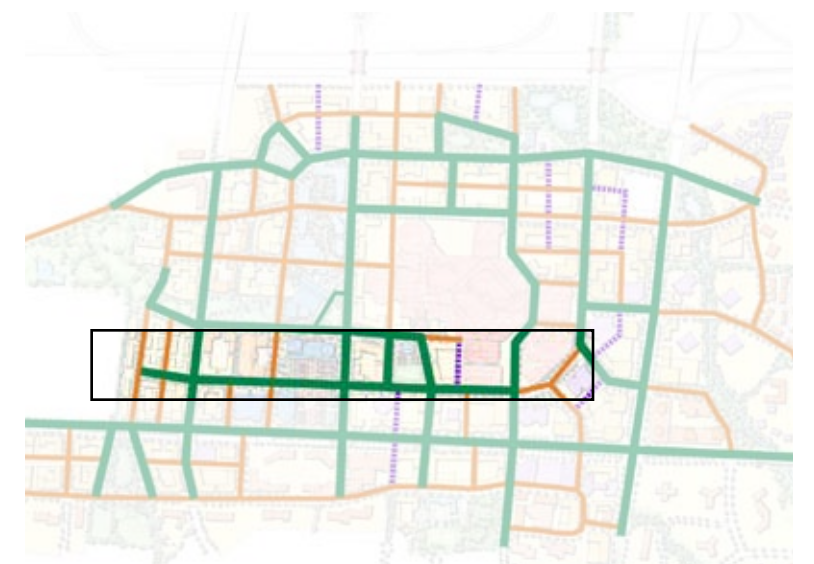
This green corridor provides a valuable east-west link through the centre of the Main Street District. It serves as the spine of the downtown's bicycle network, connecting the heart of the downtown east to the Cookville Creek Trail System, and west to the Mary Fix Creek Trail System.

The proposed cross-section for City Centre Drive along the Green Corridor includes:

- Wide sidewalks are on both sides of the street;
- Bioswales are on both sides of the street with flush curbs to allow storm water direct access. A significantly wider bioswale is located on the north side of the street where it can get more sunshine as compared to the south side of the street;
- Relatively closely spaced street trees and native plant material are planted in the bioswales;
- Seating areas are provided occasionally along the northern bioswale for resting, contemplation, and social activity; and
- Protected bicycle paths on both sides.



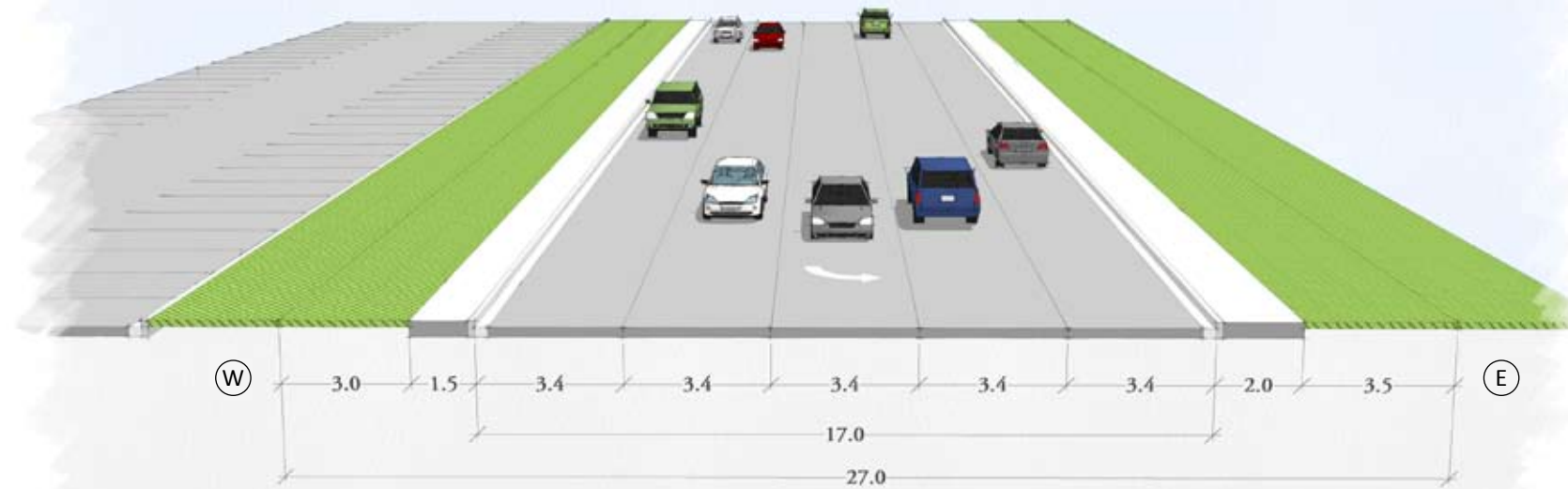
City Centre Drive Intersection Transition



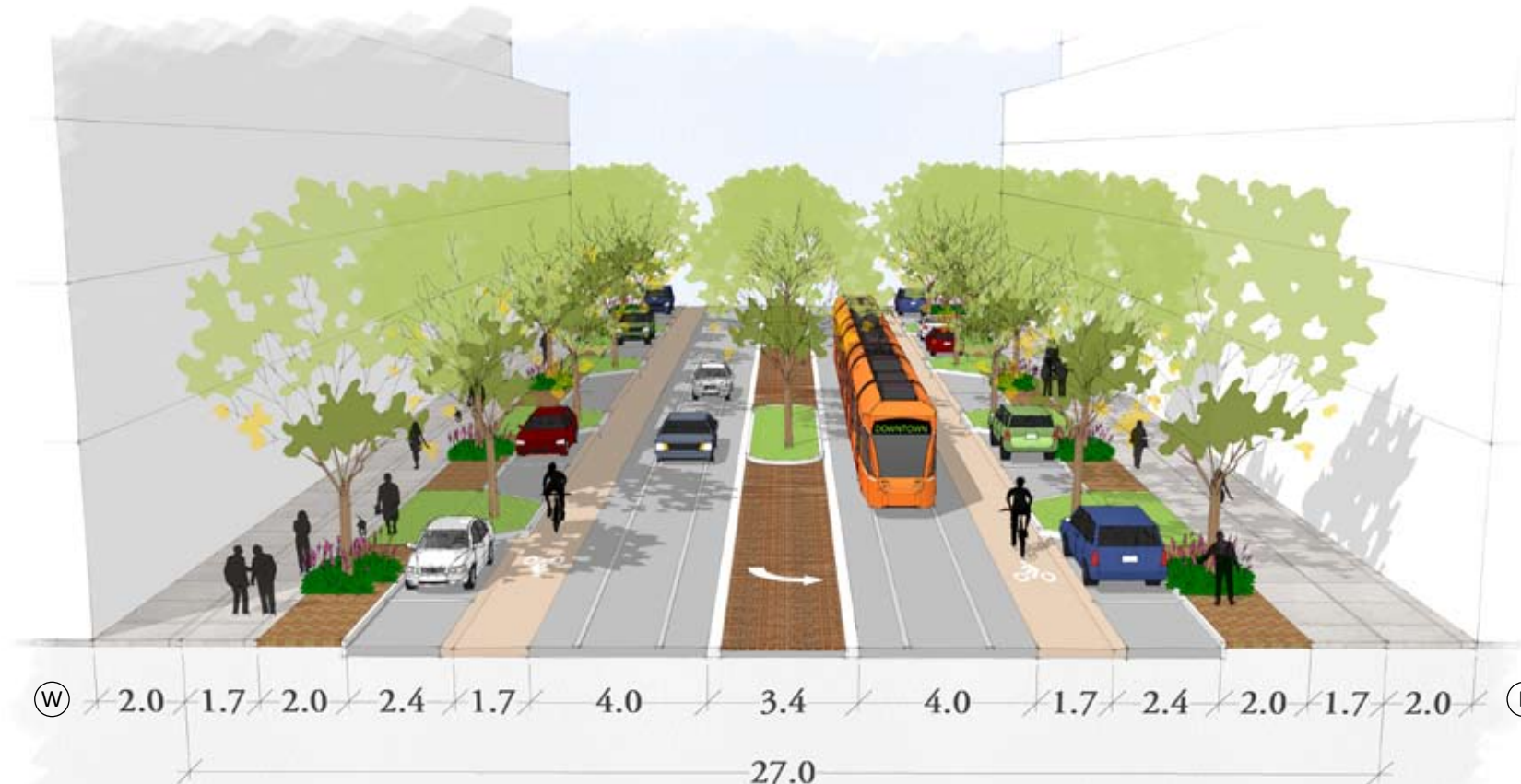
Key Plan

## City Centre Drive Along Transit Corridor

<b>Minimum Right-of-Way</b>	27.0m wide
<b>Sidewalk</b>	1.7m wide; Brushed concrete
<b>Bicycle Accomodation</b>	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)
<b>Furniture Zone</b>	2.0m wide with street trees @ 17.5m spacing
<b>Street Lighting</b>	4.5m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	4.0m wide; Will accommodate LRT in the future
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	3.4m wide, between left turn lanes; No tapers; One row of street trees @ 8.75m spacing
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/ regular parking meters
<b>Build-to Line</b>	2.0m <sup>5</sup>
<b>Driveways</b>	Permitted
<b>Miscellaneous Notes</b>	LRT stops will be on extruded bulbouts.



Existing City Centre Drive Along Transit Corridor



Proposed City Centre Drive Along Transit Corridor

<sup>1</sup> Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

<sup>2</sup> Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

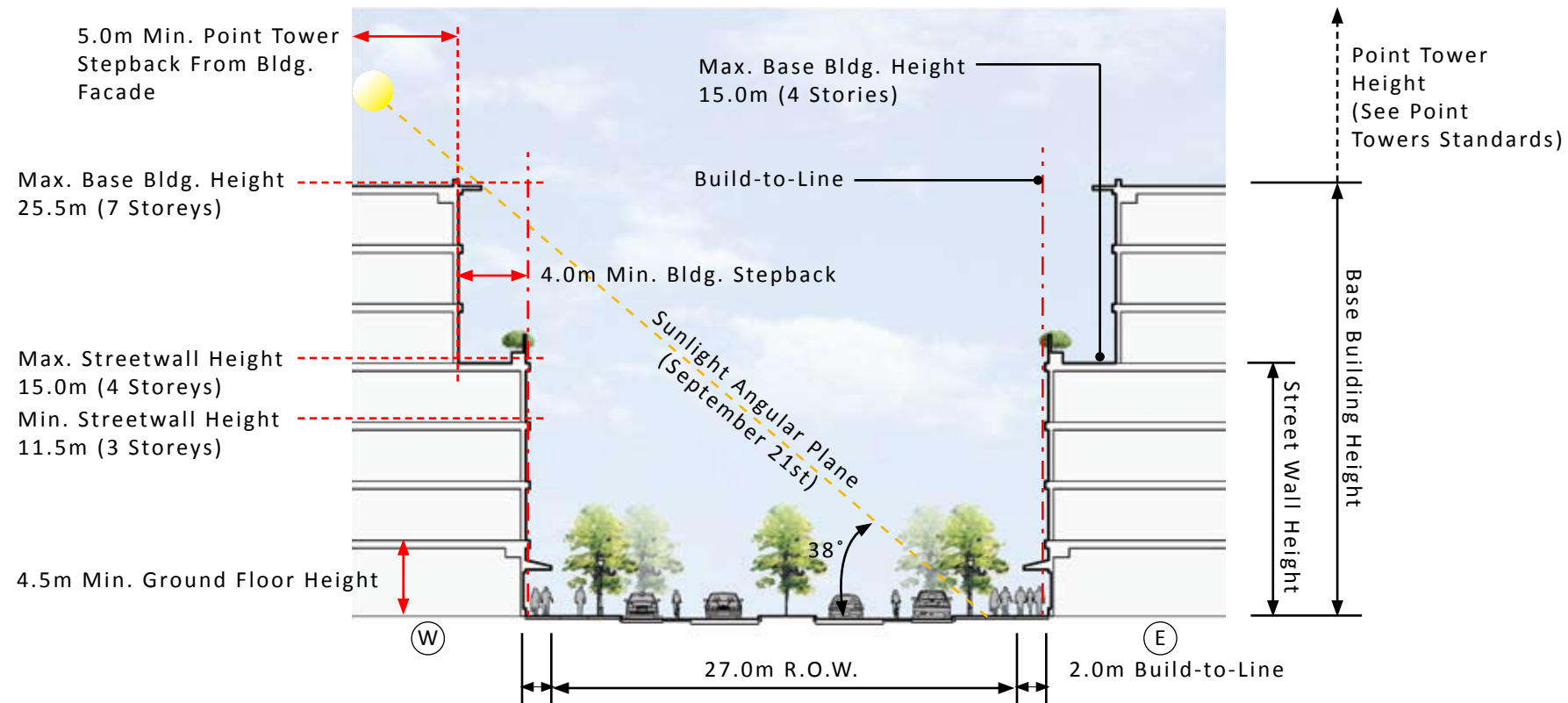
<sup>3</sup> For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup> For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup> The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.

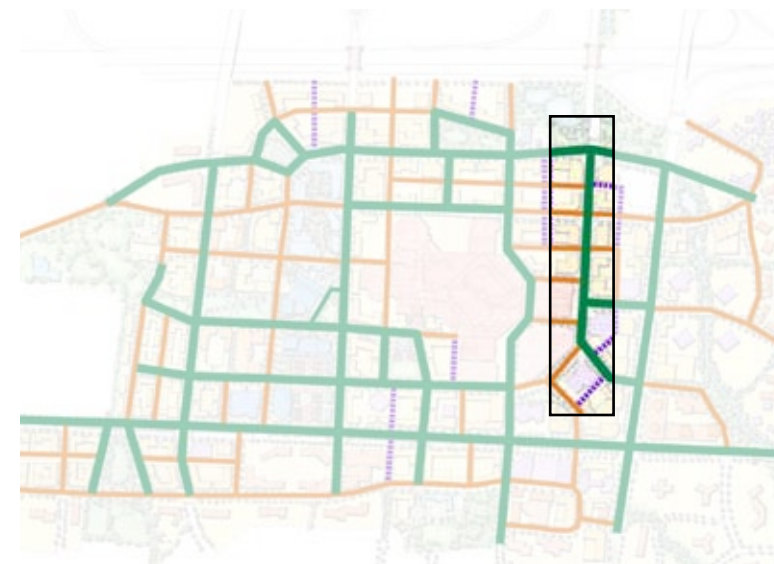




**City Centre Drive Building Massing Guidelines**

### City Centre Drive - Transit Corridor

City Centre Drive from Rathburn Road to (and including) Clarica Drive to Hurontario Street, is a part of the proposed transit corridor. Future light rail transit is accommodated within shared vehicle lanes except for the City Centre Drive Bridge over Highway 403 which will have dedicated light rail facilities from Rathburn Road north. This creates a “complete street” that accommodates transit, cycling, motor vehicles, on-street parking, and pedestrian sidewalks within the constraints of the existing right-of-way. The proposed cross-section includes one travel lane in each direction and a centre left turn lane/median. The left turn lane eliminates the otherwise problematic transit conflicts with turning motorists, allowing a well functioning transit service and street. At mid-block locations, where left turn lanes are unnecessary, the space can be designed as attractive landscaped islands. Stations occur at street intersections and are designed as part of the sidewalk.



**Key Plan**



**City Center Transit Corridor Concept Plan**

## Rathburn Road

<b>Minimum Right-of-Way</b>	40m wide
<b>Sidewalk</b>	2.7m wide; Brushed concrete
<b>Bicycle Accomodation</b>	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)
<b>Furniture Zone</b>	None
<b>Street Lighting</b>	3.1m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	2
<b>Driving Lanes</b>	3.4m wide
<b># of through lanes per direction</b>	1 + 1 for transit vehicles
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	19.6m wide; Can accommodate city bus, BRT, and/or LRT; Tree row on both sides @ 10.5m spacing
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/regular parking meters
<b>Build-to Line</b>	2.0m <sup>5</sup>
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	Bus stops and shelters placed on bulbouts. Timed bus stops on Rathburn are prohibited (use of terminal for timed stops required).

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

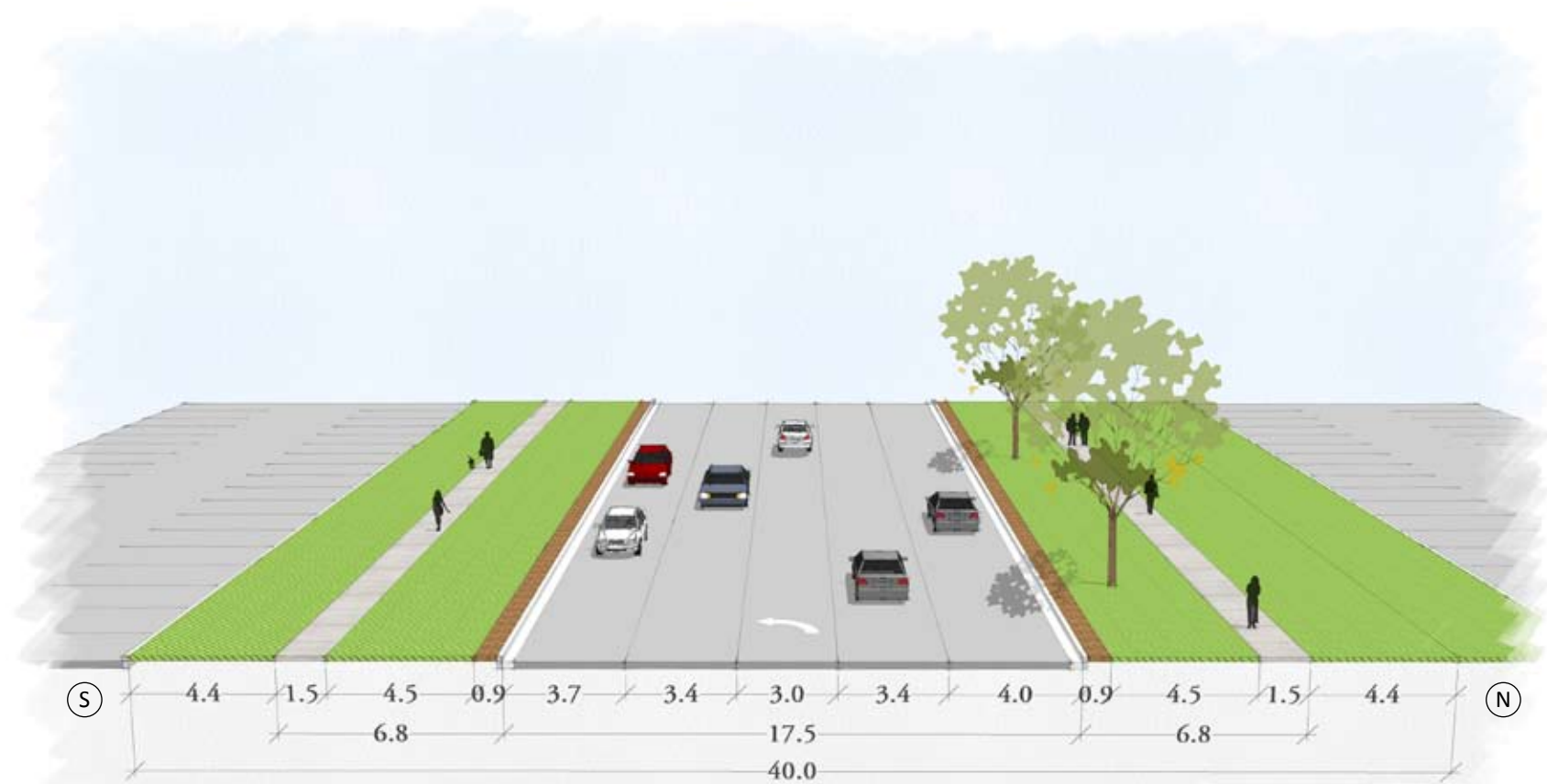
<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for medians measured from the vertical curb to the edge of the adjacent lane.

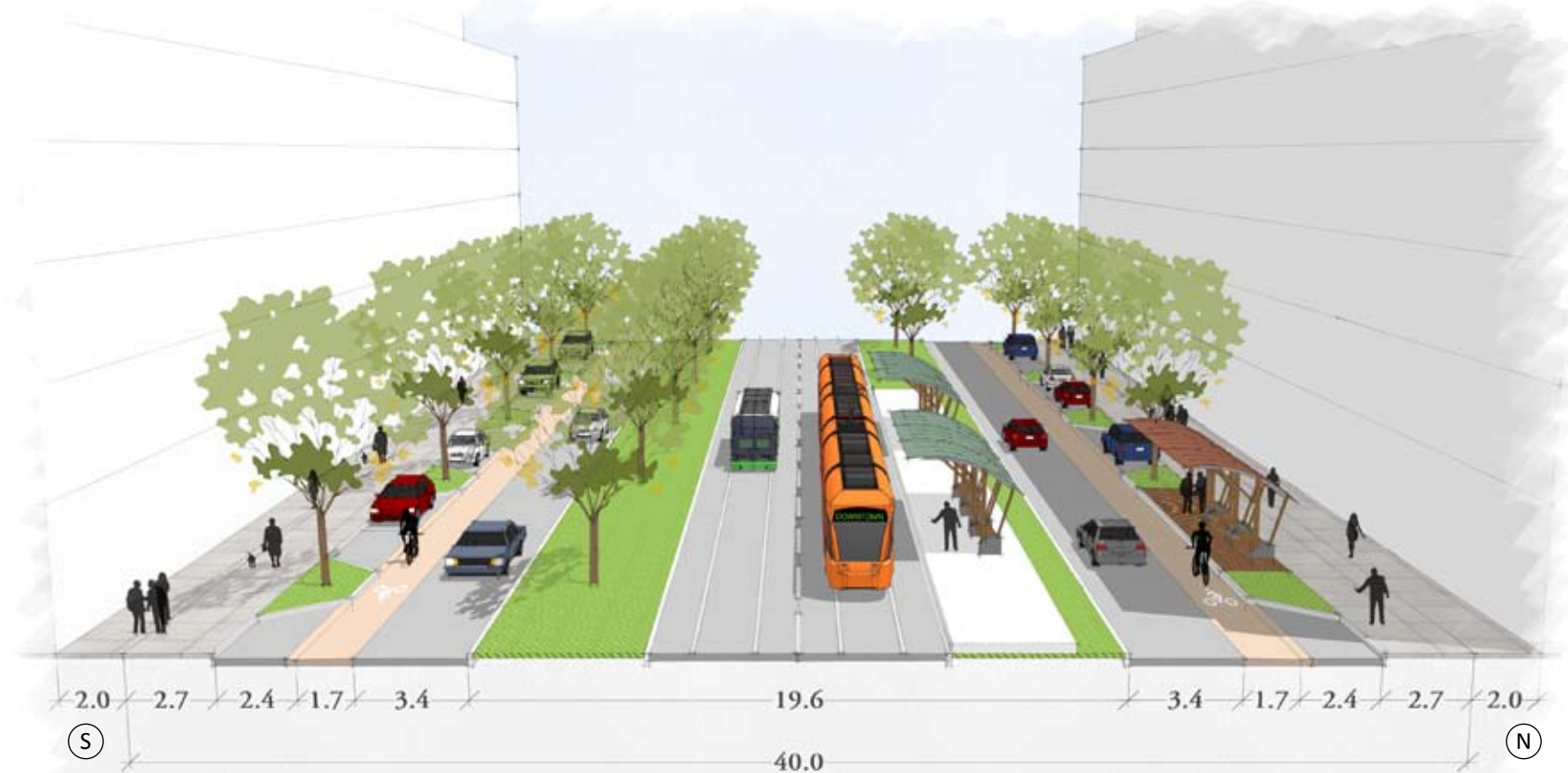
<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

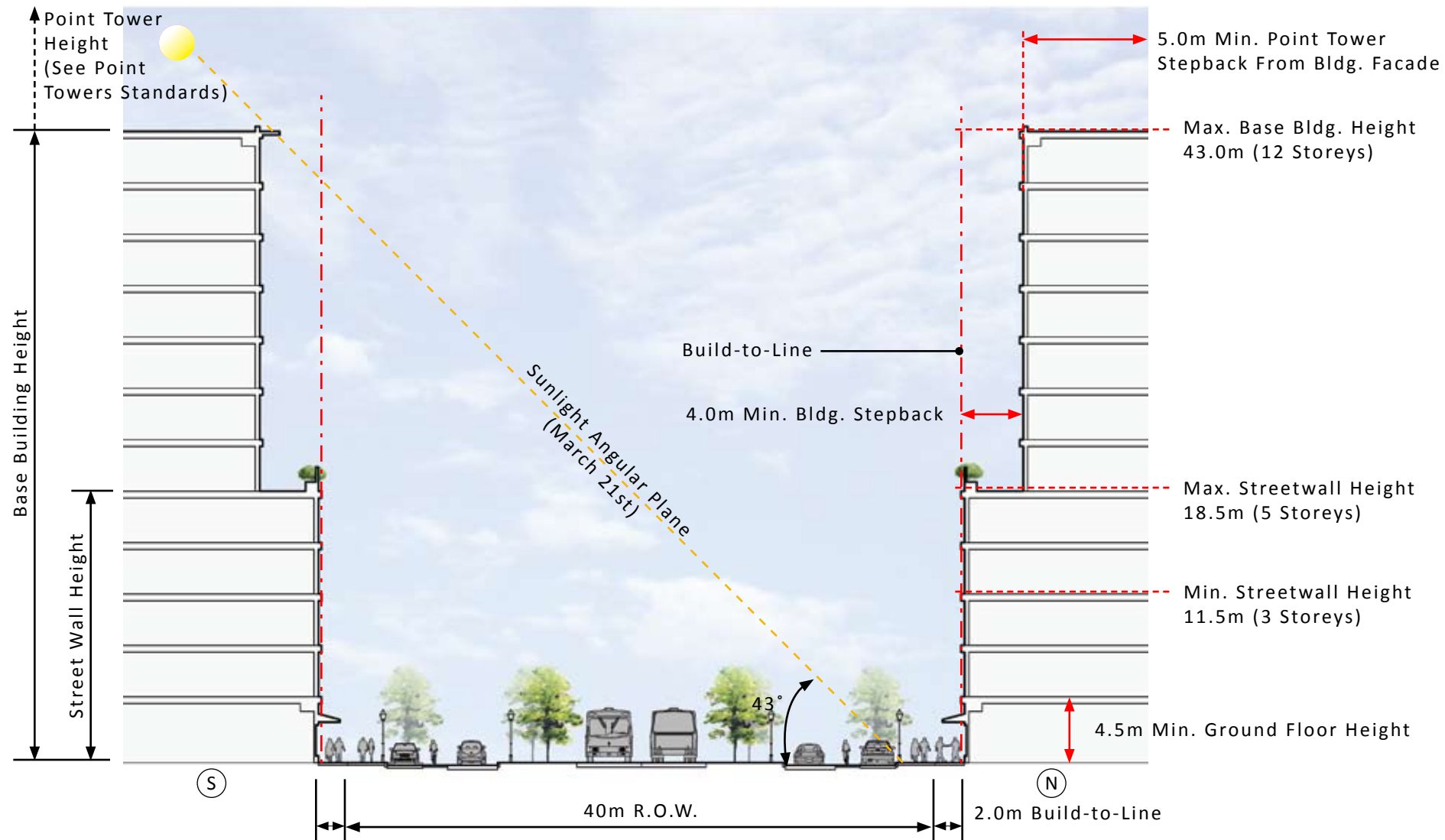
**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



Existing Rathburn Road



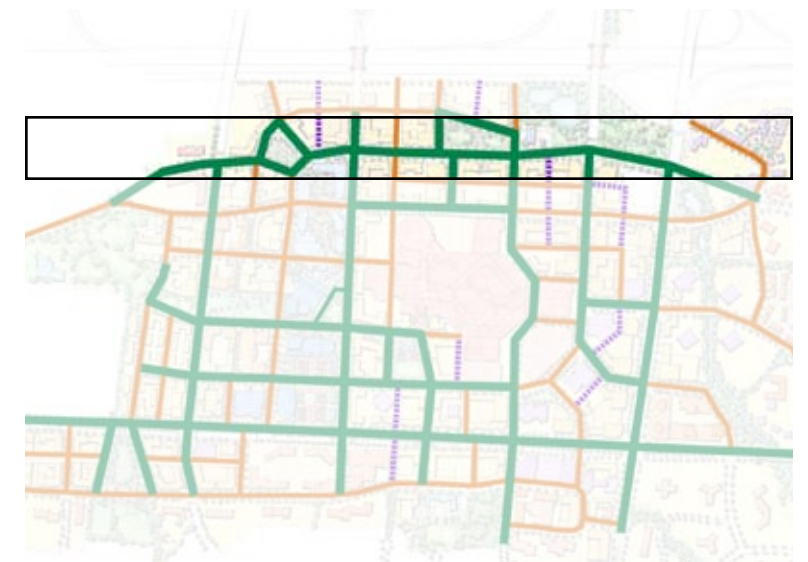
Proposed Rathburn Road



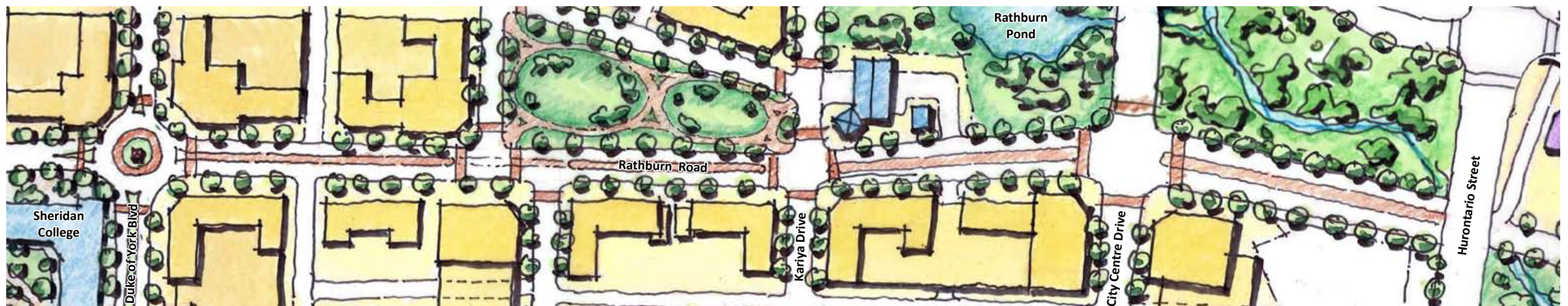
Rathburn Road Building Massing Guidelines

## Rathburn Road

Rathburn Road is an important east-west street that provides access to the northern part of the Downtown. In the Downtown, it will serve an important transit role with light rail transit and bus rapid transit accommodated within the shared centre median. This median is designed to fit two sets of LRT tracks/bus lanes, transit stations, left turn lanes for motor vehicles, and street trees. The transit lanes are designed with concrete embedded tracks that allow both LRT vehicles and busses. The "complete street" includes one motor vehicle travel lane in each direction, on-street parking, bicycle lanes, and wide sidewalks, all accommodated within the existing right-of-way.



Key Plan



Rathburn Road Concept Plan

## Duke of York Boulevard

<b>Minimum Right-of-Way</b>	27.5m plus corner clips at roundabouts as necessary
<b>Sidewalk</b>	1.8m wide maximum
<b>Bicycle Accomodation</b>	Shared, wide right-hand lane
<b>Furniture Zone</b>	Varies with street trees @ 8.75m spacing
<b>Street Lighting</b>	4.5m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	4.35m wide
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.0m wide
<b>Median</b>	6.75m wide
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	Multimeter/pay-on-foot kiosks; NO regular parking meters
<b>Build-to Line</b>	2.0m <sup>5</sup>
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	Most intersections will have roundabouts such that the street can go from four to two lanes. The intent is to preserve the existing median and curb-to-curb dimension. Valley gutter is desired but not mandatory.



Proposed Duke of York Boulevard



Proposed Duke of York Boulevard at Roundabout

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

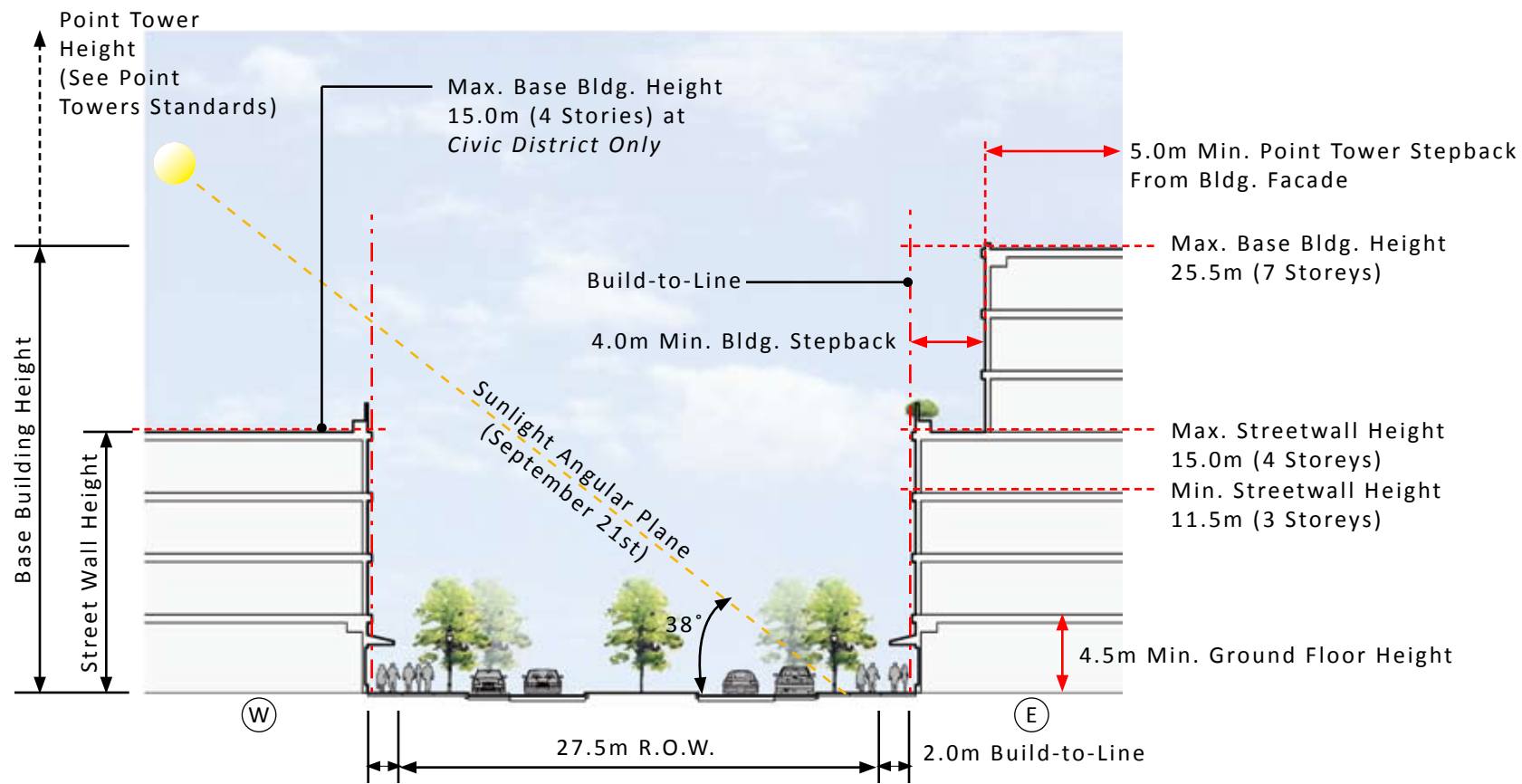
<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



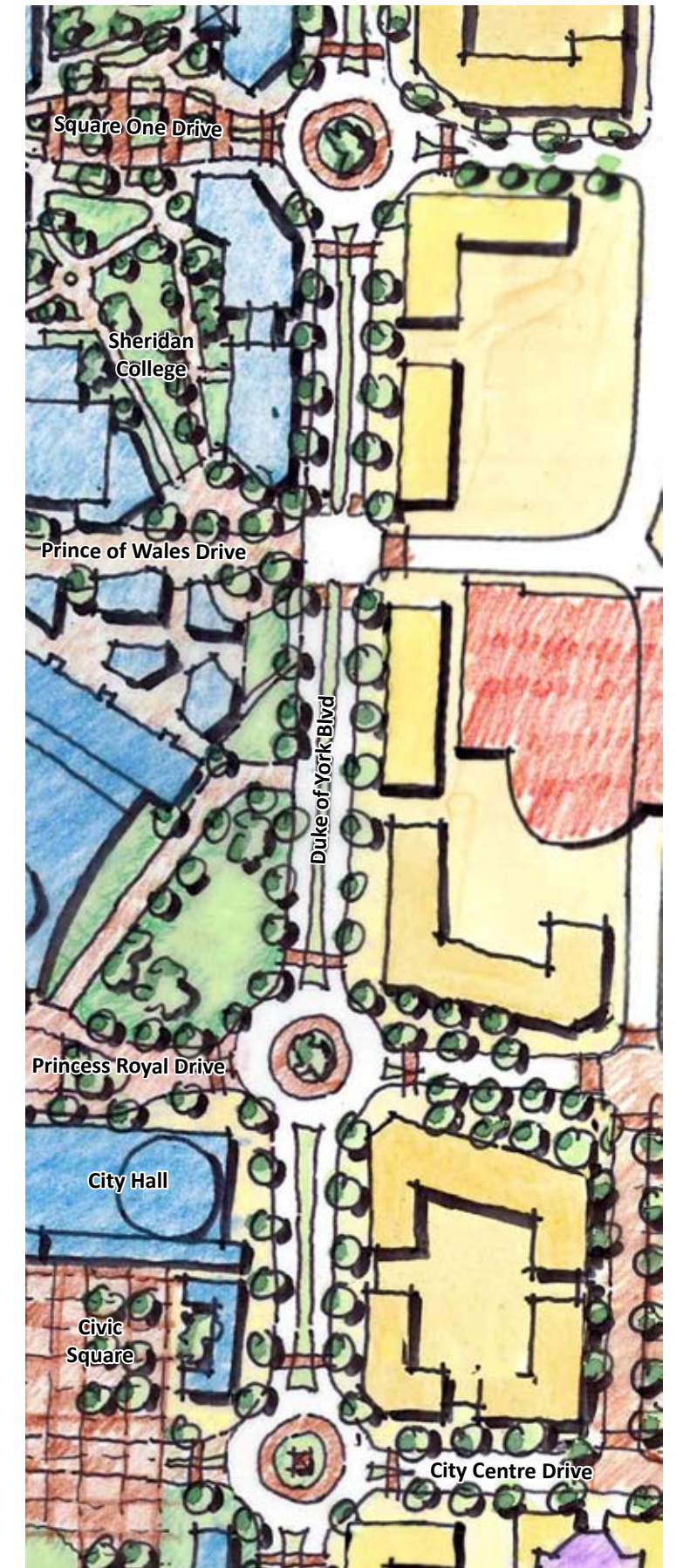
**Duke of York Blvd Building Massing Guidelines**  
 (Note: Duke of York Blvd between Rathburn Road & Burnhamthorpe Road)

## Duke of York Boulevard

This is Downtown's primary civic street, serving as the front door and address for many of the Civic District's buildings and uses. To reflect this civic role, the Boulevard's key intersections have been redesigned as roundabouts. These roundabouts provide clear transition to the District's flush streets, calm and slow traffic, provide a place for civic monuments or landscape design and allow the Boulevard to be narrowed by converting the outside lanes to on-street parking.



Key Plan



Duke of York Boulevard Concept Plan

## Hurontario Street

<b>Minimum Right-of-Way</b>	50m wide
<b>Sidewalk</b>	2.3m wide; Brushed concrete
<b>Bicycle Accomodation</b>	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)
<b>Furniture Zone</b>	2.0m wide
<b>Street Lighting</b>	3.1m or 4.5m heigh maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	3.4m wide <sup>3</sup>
<b># of through lanes per direction</b>	2
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	19.6m wide; North of Absolute Ave with native trees, ground cover, and flumes to accept and pre-treat storm water runoff in the median; South of Absolute Ave can accommodate city bus, BRT, and/or LRT; Tree spacing on both sides @ 8.75m spacing.
<b>Design Speed<sup>4</sup></b>	50 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/regular parking meters
<b>Build-to Line</b>	2.2m <sup>5</sup>
<b>Driveways</b>	Prohibited
<b>Miscellaneous Notes</b>	Due to Hurontario's proximity to the Cooksville Creek, the northern median is designed to accommodate storm water pretreatment.



<sup>1</sup> Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

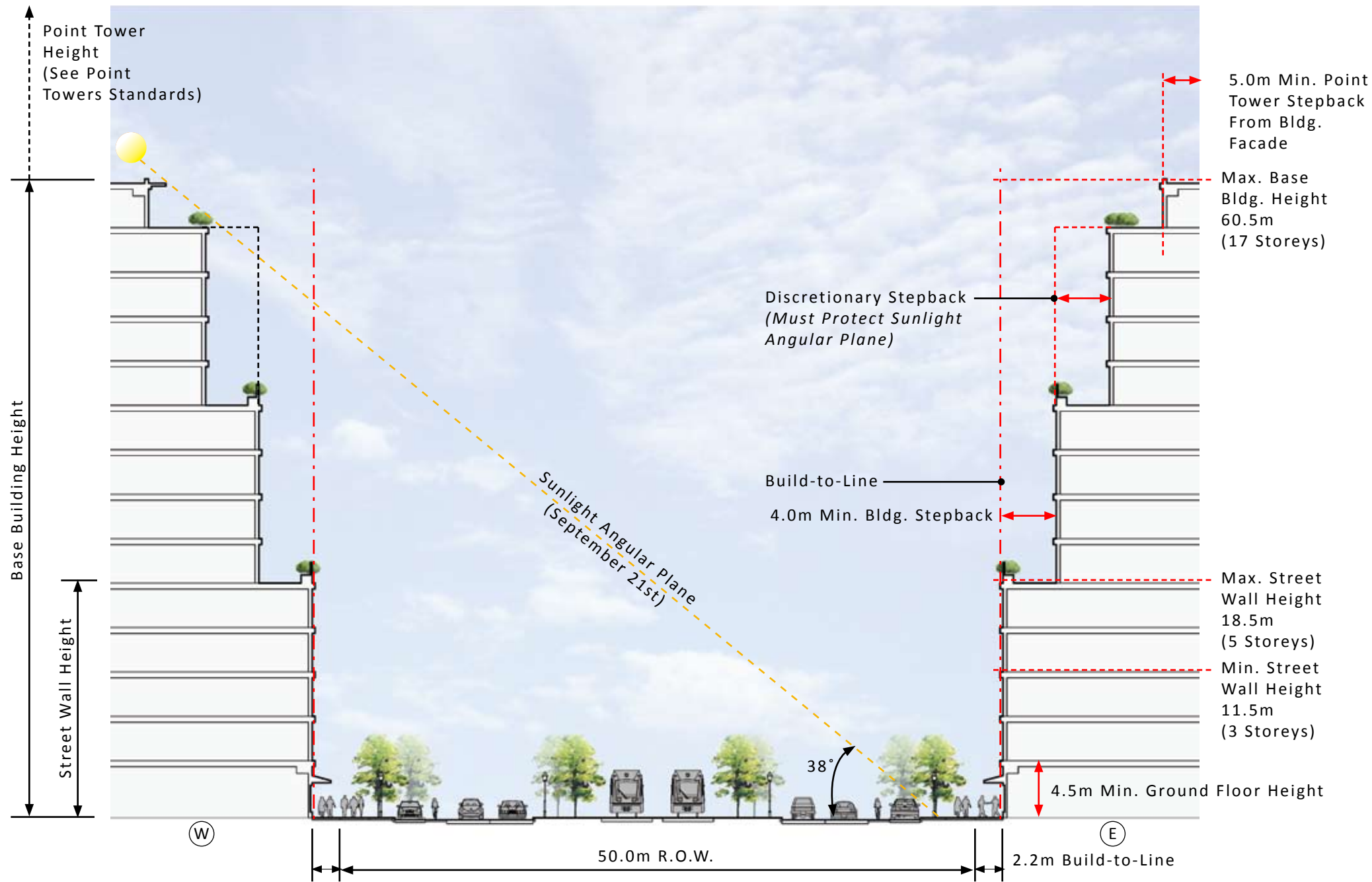
<sup>2</sup> Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup> For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup> For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup> The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

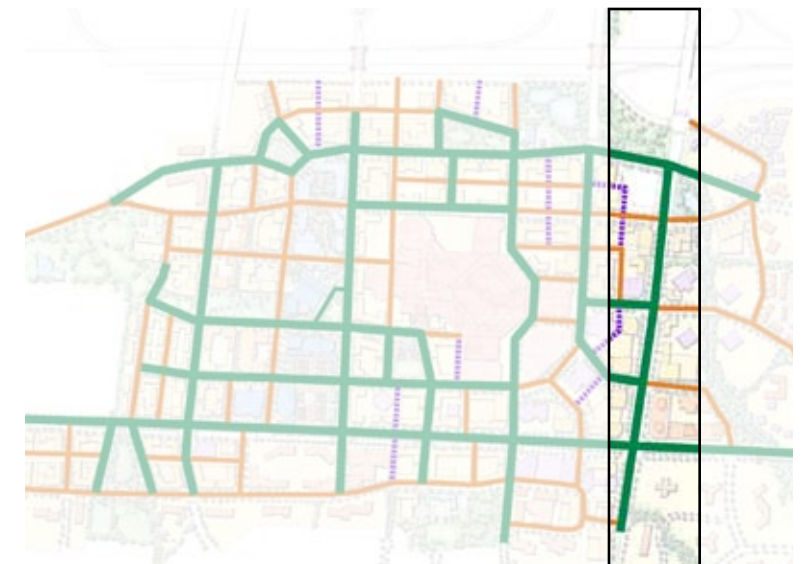
**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



Hurontario Street Building Massing Guidelines

### Hurontario Street

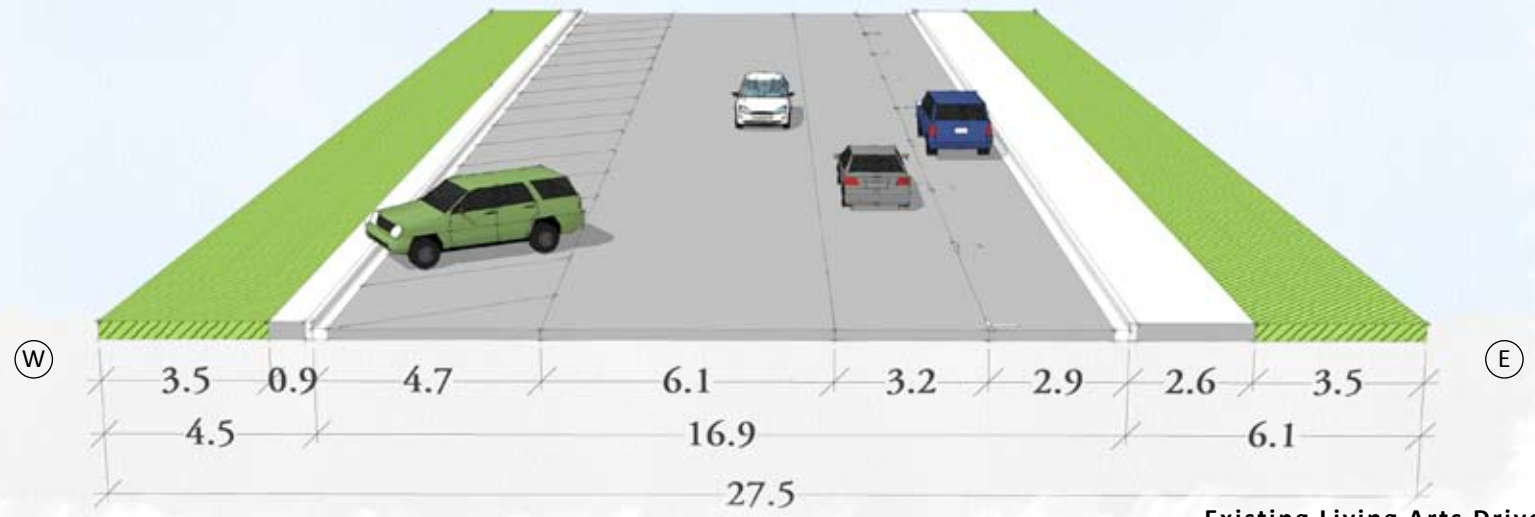
Hurontario Street is an important regional north-south transportation corridor that will in the future include higher order transit. It is a recognizable “address” for future office development and an important gateway for Downtown. The proposed design creates a “complete” street that balances the role of all modes of travel by incorporating transit, cycling facilities, and wider pedestrian-friendly sidewalks.



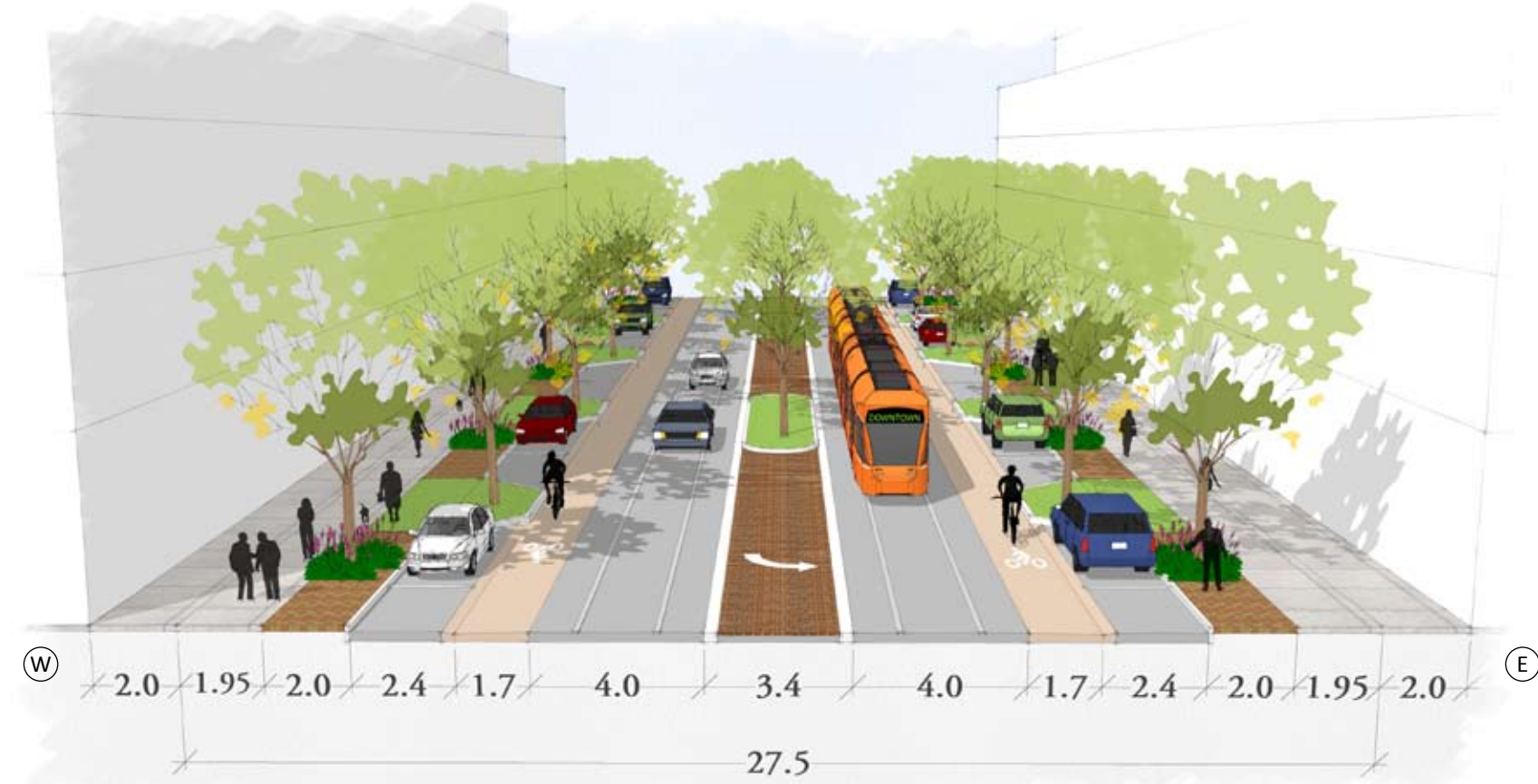
Key Plan

## Living Arts Drive

<b>Minimum Right-of-Way</b>	27.5m wide
<b>Sidewalk</b>	1.95m wide; Brushed concrete
<b>Bicycle Accomodation</b>	1.7m wide lane (i.e. an extra wide left flange of the valley gutter)
<b>Furniture Zone</b>	2.0m wide with street trees @ 17.5m spacing
<b>Street Lighting</b>	4.5m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	4.0m wide; Will accommodate LRT in the future
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	3.4m wide, between left turn lanes; No tapers; One row of street trees @ 8.75m spacing
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot ki- osks/ regular parking meters
<b>Build-to Line</b>	2.0m <sup>5</sup>
<b>Driveways</b>	Permitted
<b>Miscellaneous Notes</b>	LRT stops will be on extruded bul- bouts.



Existing Living Arts Drive



Proposed Living Arts Drive

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

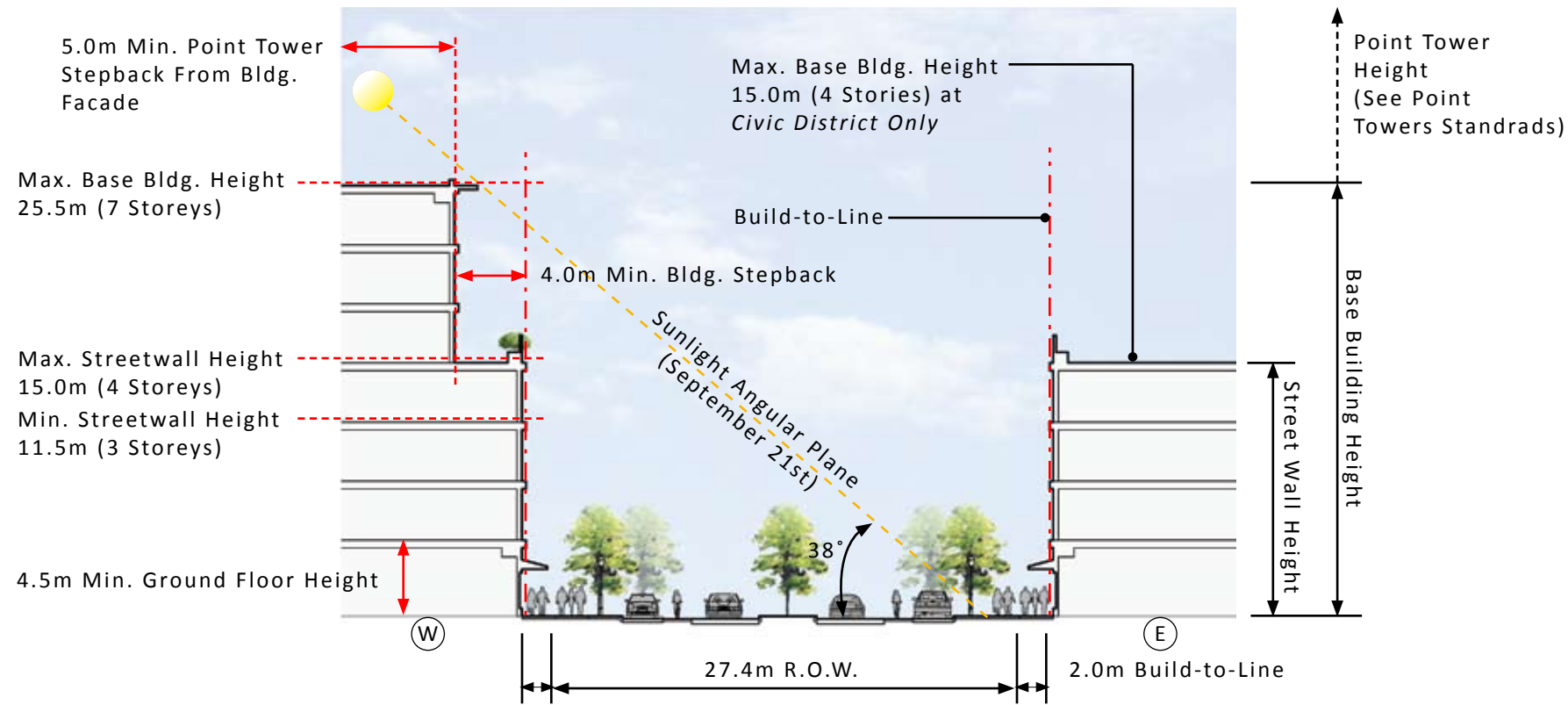
<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.

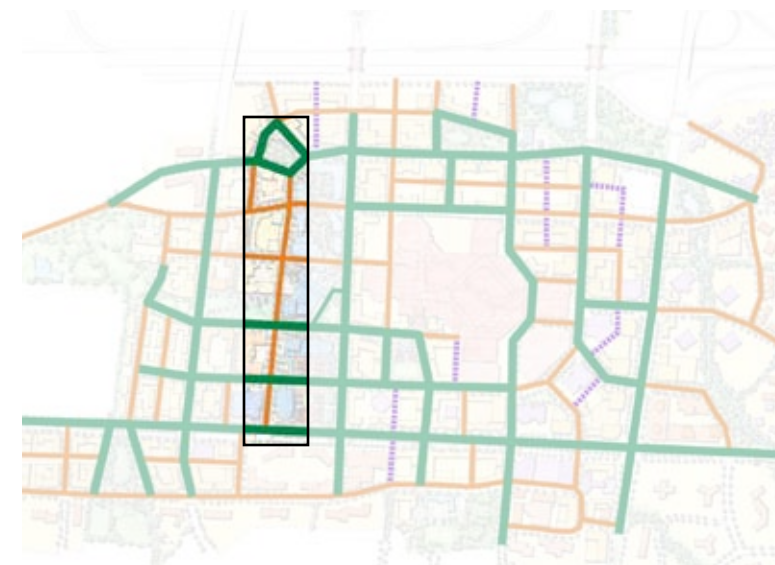




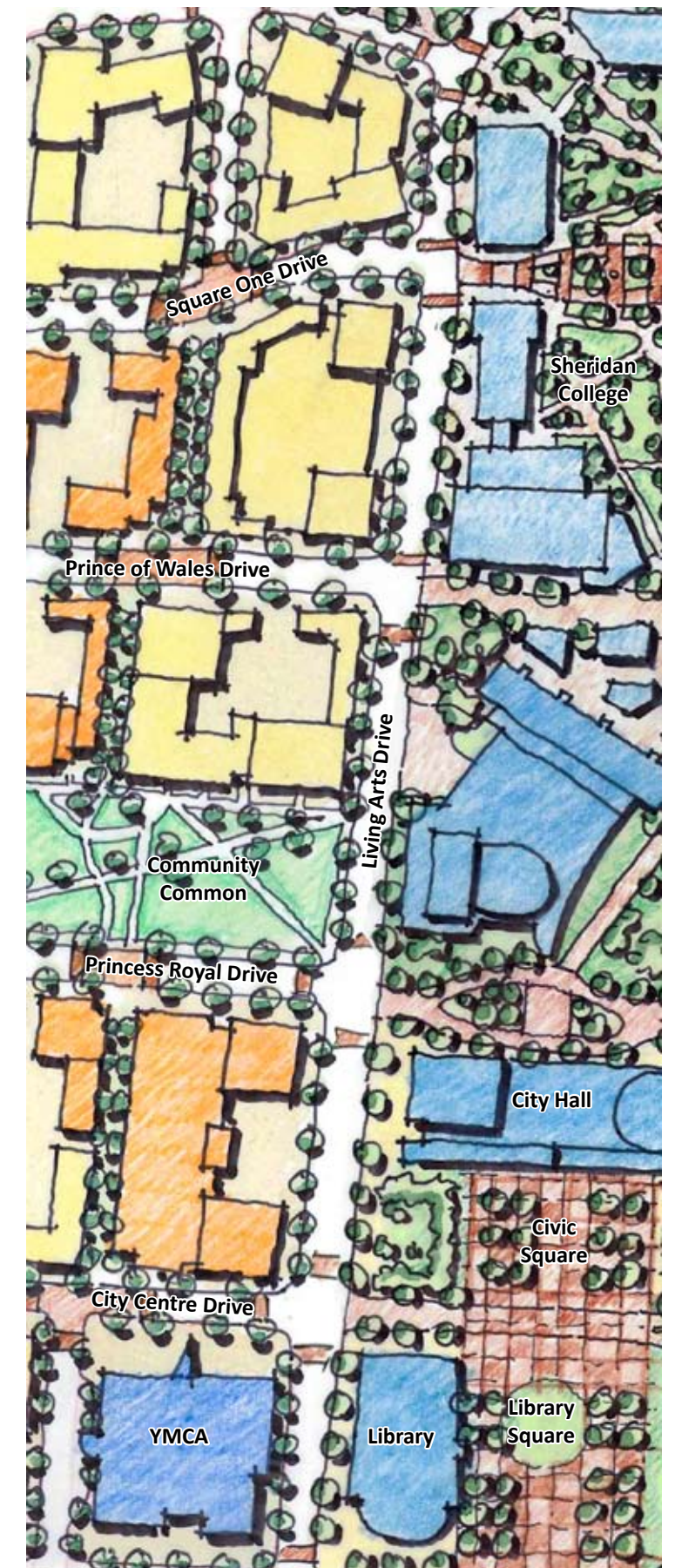
Living Arts Drive Building Massing Guidelines

## Living Arts Drive

Living Arts Drive from Burnhamthorpe Road to Rathburn Road is a part of the proposed transit corridor. Future light rail transit is accommodated within shared vehicle lanes. This creates a “complete street” that accommodates transit, cycling, motor vehicles, on-street parking, and pedestrian sidewalks within the constraints of the existing right-of-way. The proposed cross-section includes one travel lane in each direction and a centre left turn lane/median. The left turn lane eliminates the otherwise problematic transit conflicts with turning motorists, allowing a well functioning transit service and street. At mid-block locations, where left turn lanes are unnecessary, the space can be designed as attractive landscaped islands. Stations occur at street intersections and are designed as part of the sidewalk.



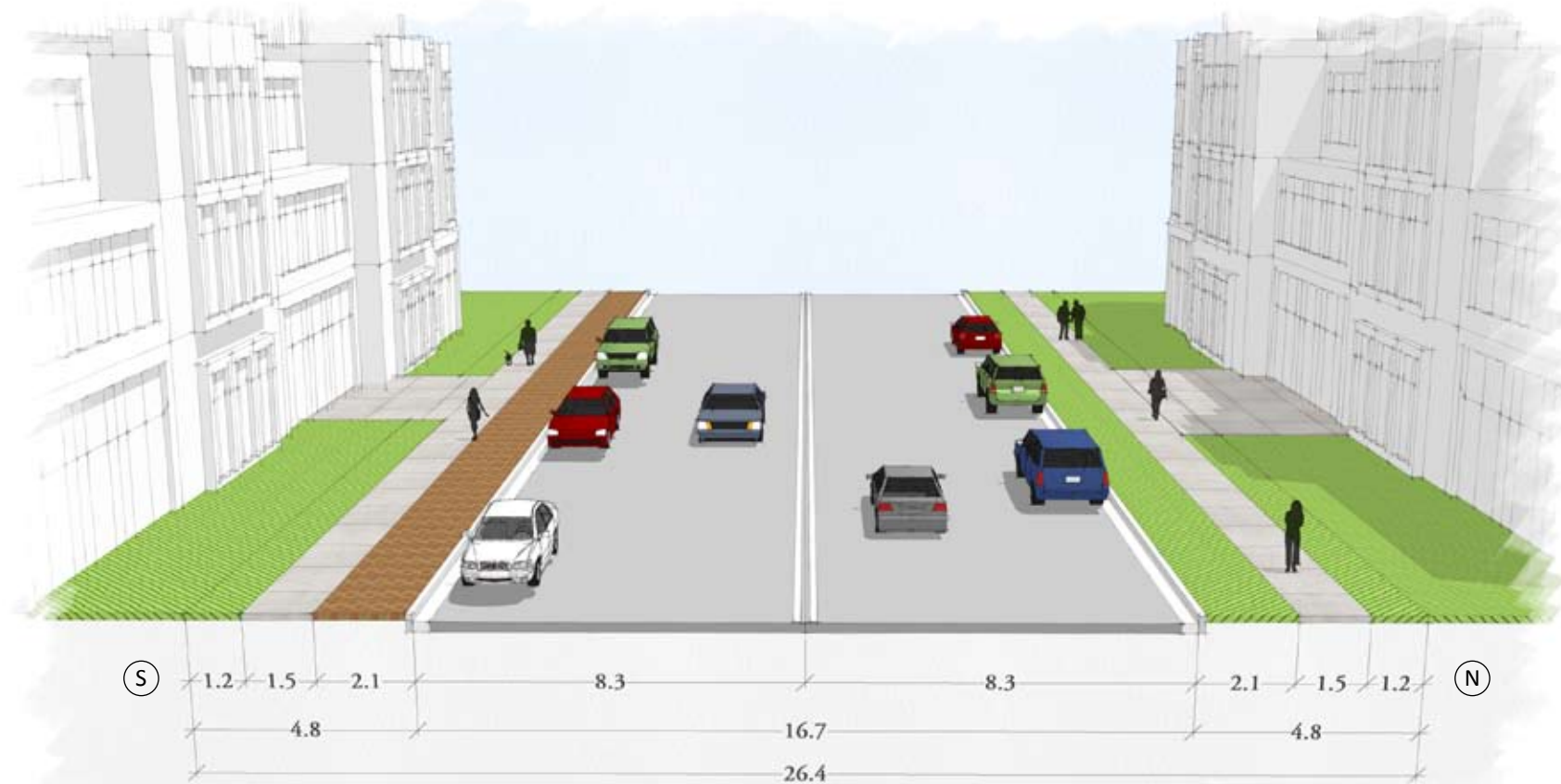
Key Plan



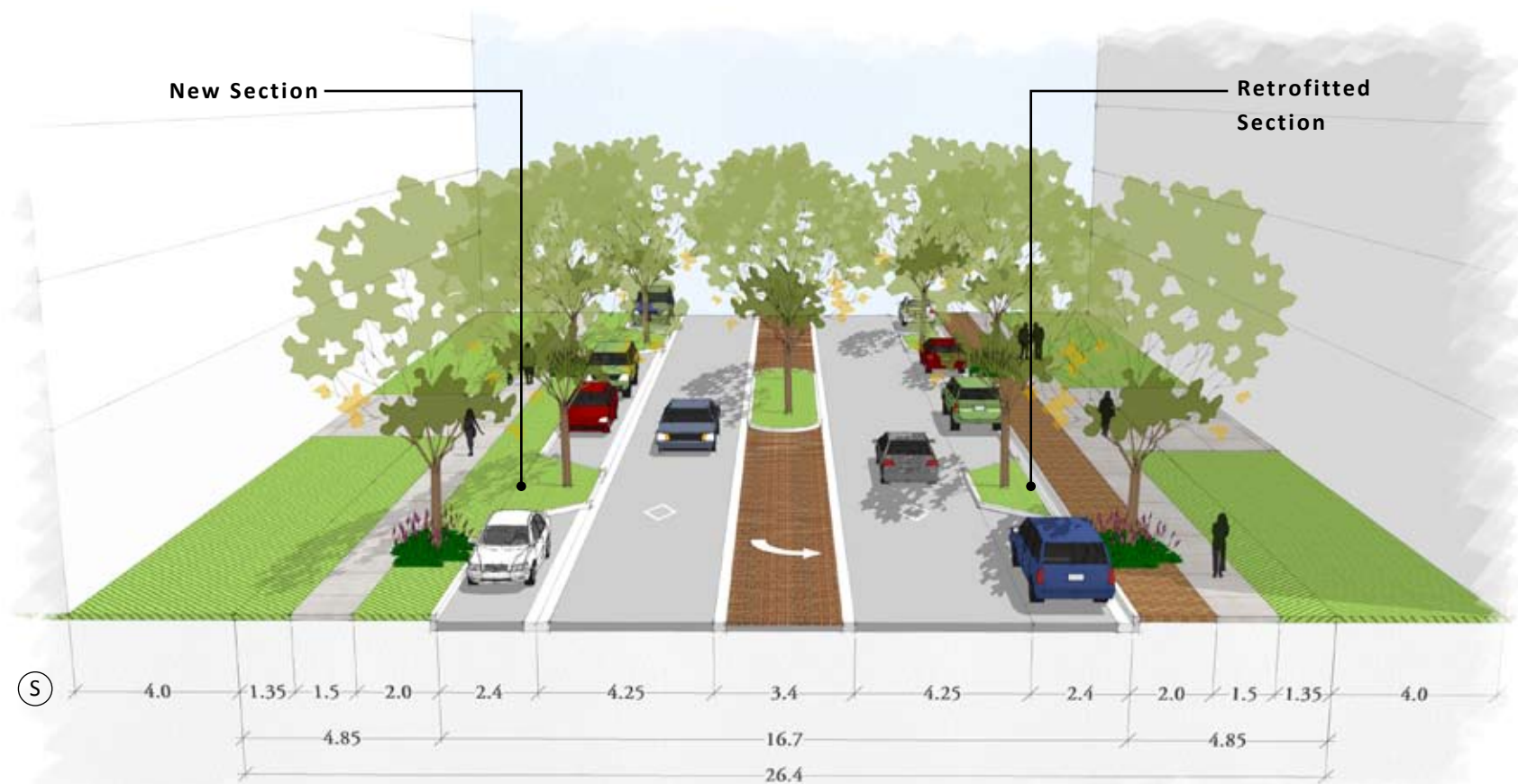
Living Arts Drive Concept Plan

## Webb Drive

<b>Minimum Right-of-Way</b>	26.4m wide
<b>Sidewalk</b>	1.5m wide minimum; Brushed concrete
<b>Bicycle Accomodation</b>	Shared, wide right-hand lane
<b>Furniture Zone</b>	2.0m wide with street trees @ 17.5m spacing
<b>Street Lighting</b>	4.5 height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	4.25m
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	3.4m wide, between left turn lanes; No tapers; One row of street trees @ 8.75m spacing
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/ regular parking meters
<b>Build-to Line</b>	4.0m
<b>Driveways</b>	Permitted
<b>Miscellaneous Notes</b>	For retrofitting the existing sections, drainage channels are permitted behind the bulbouts except at intersections (left). New sections require valley gutters (right).



Existing Webb Drive



Proposed Webb Drive

<sup>1</sup> Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

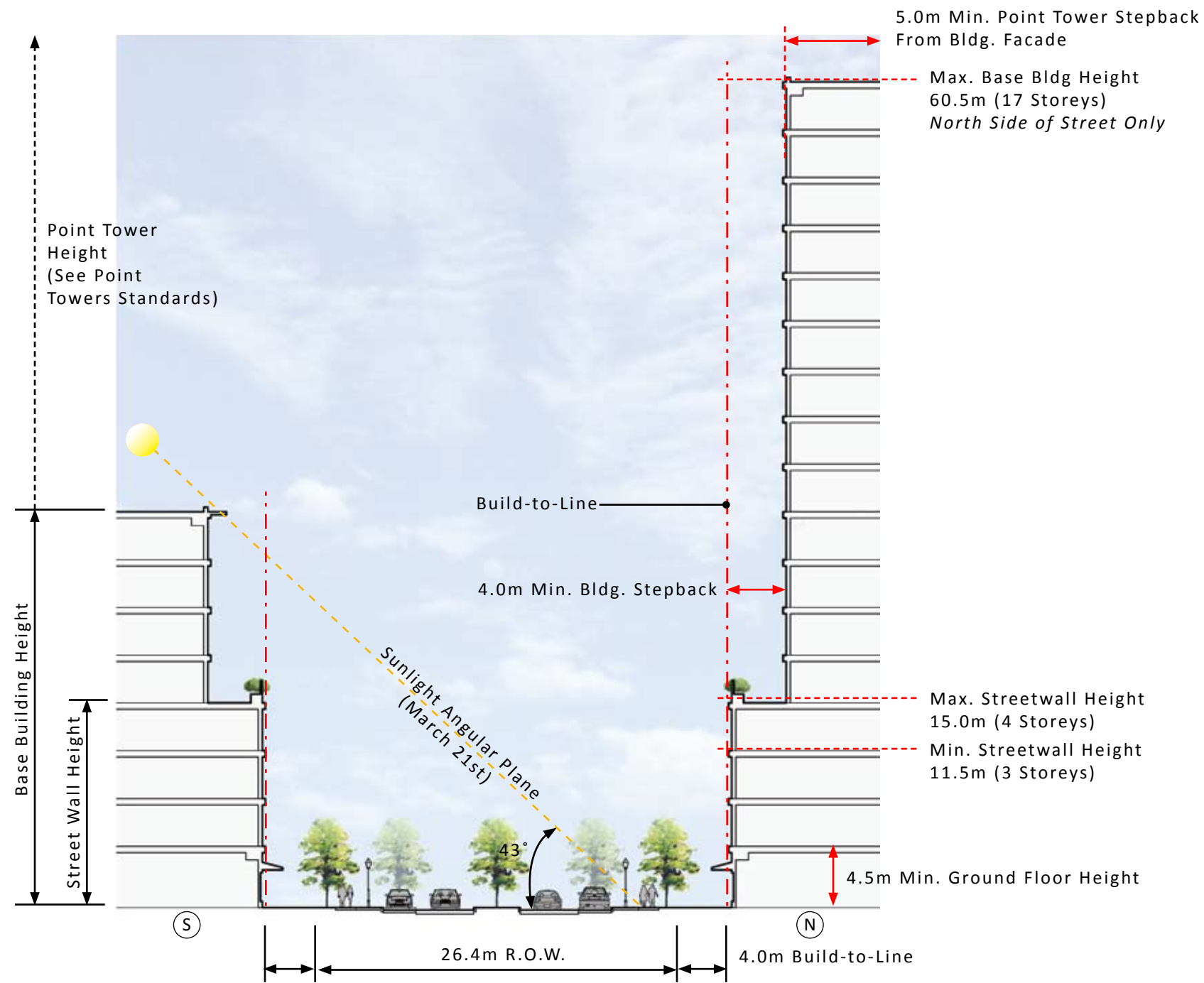
<sup>2</sup> Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup> For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup> For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup> The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



**Webb Drive Building Massing Guidelines**

## Webb Drive

Webb Drive is a two-lane, east-west street, south of Burnhamthorpe Road, which provides a parallel and important connection between the downtown, the Mavis-Erindale industrial/employment district to the west and Hurontario Street. It is an important seam between the residential neighbourhoods to the south and the emerging downtown and Main Street District.

The proposed cross-section for Webb Drive includes:

- A double row of street trees (i.e., one row on each side of the sidewalk) is provided on both sides of the street;
- Retrofitted bulb outs are placed to protect the end parking rows and provide occasional narrowings mid-block, but without the need to change the original drainage regime for the street. The new extensions of the street east and west should employ a valley gutter between the parking row and the adjacent travel lane;
- A wide right lane is used that is shared by motorists and cyclists;
- A textured, flush, median is used for left turn lanes and to reduce the otherwise large expanse of asphalt. At the midblock locations, short landscaped medians are developed to enhance the appearance of the street, help with traffic calming and separate the eastbound and westbound left turn lanes.



**Key Plan**

## Typical B-Street

<b>Minimum Right-of-Way</b>	23m wide
<b>Sidewalk</b>	1.8m wide minimum
<b>Bicycle Accomodation</b>	Shared
<b>Furniture Zone</b>	3.7m wide with street trees (2.0m wide where left turn lane is present) @ 17.5m spacing
<b>Street Lighting</b>	3.1m height maximum
<b>Parking<sup>1</sup></b>	Parallel, both sides, 2.4m wide <sup>2</sup>
<b># of Parking Spaces between bulbouts with street trees</b>	4
<b>Driving Lanes</b>	3.6m wide <sup>3</sup>
<b># of through lanes per direction</b>	1
<b>Right turn lane</b>	Prohibited
<b>Left turn lane</b>	Permitted up to 3.4m wide
<b>Median</b>	None
<b>Design Speed<sup>4</sup></b>	40 km/h
<b>Traffic Control Devices</b>	Regular Practice
<b>Parking Control</b>	None/Multimeter/pay-on-foot kiosks/regular parking meters
<b>Build-to Line</b>	0.25m
<b>Driveways</b>	Permitted
<b>Miscellaneous Notes</b>	None

<sup>1</sup>Valley gutters between the parking row, travel lane, and bulbouts at the ends of the parking rows are mandatory in the downtown on rebuilt and new streets.

<sup>2</sup>Measured from the center of the valley gutter to the edge of the stall or, where a vertical curb currently exists, from the center of the valley gutter to the face of the vertical curb.

<sup>3</sup>For right hand lanes measured from the center of the valley gutter; for center lanes measured between the edges of the adjacent lanes; for lanes next to medians measured from the vertical curb to the edge of the adjacent lane.

<sup>4</sup>For all streets in the downtown the design speed is equal to the posted speed.

<sup>5</sup>The space between the build-to-line and the right-of-way must be at the same elevation as the sidewalk and use the same material choices and pattern as the sidewalk, effectively increasing the width of the sidewalk.

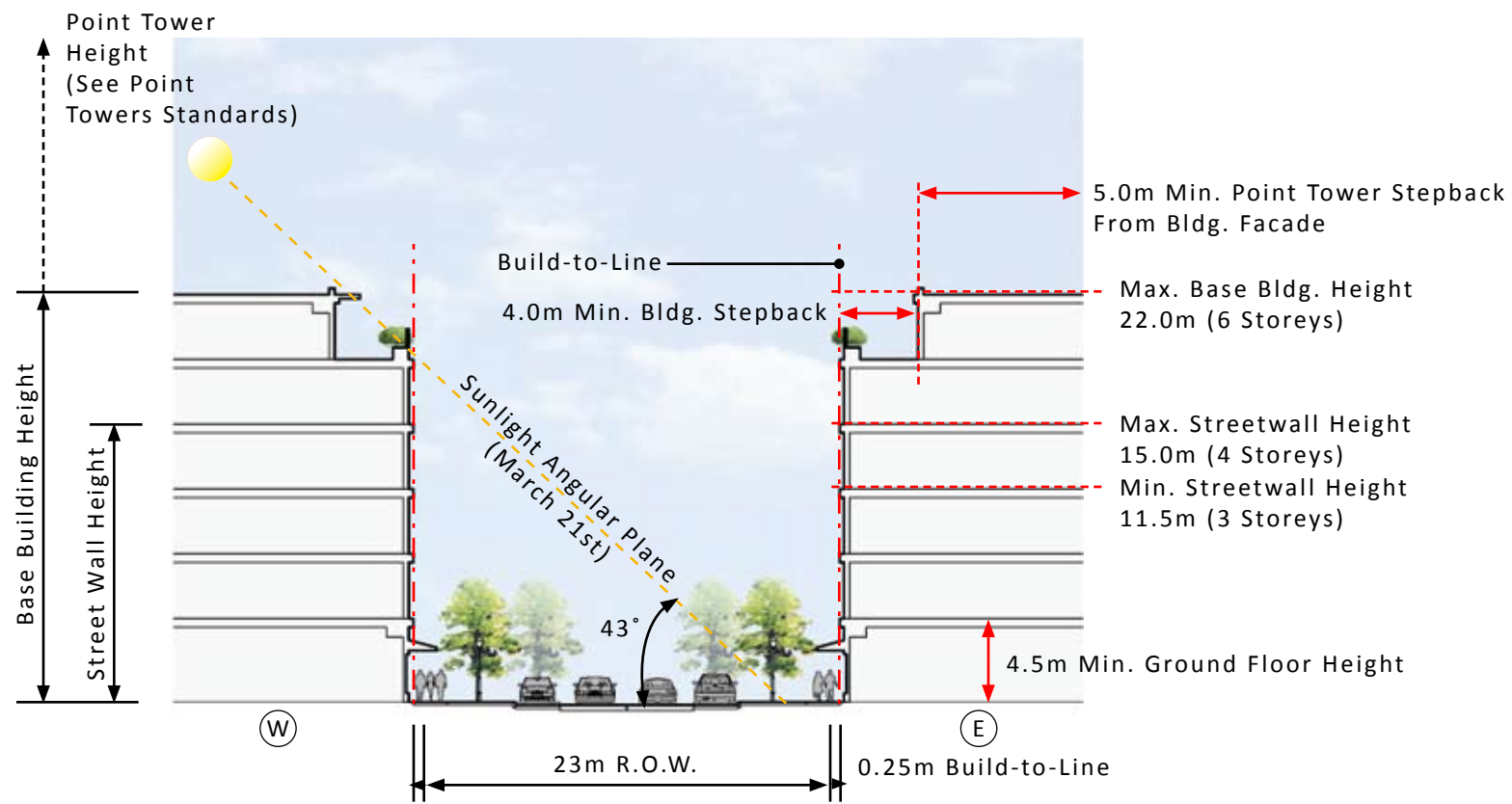
**Note** that the sun angle is measured from 2.0m inside the right-of-way, not the build-to-line.



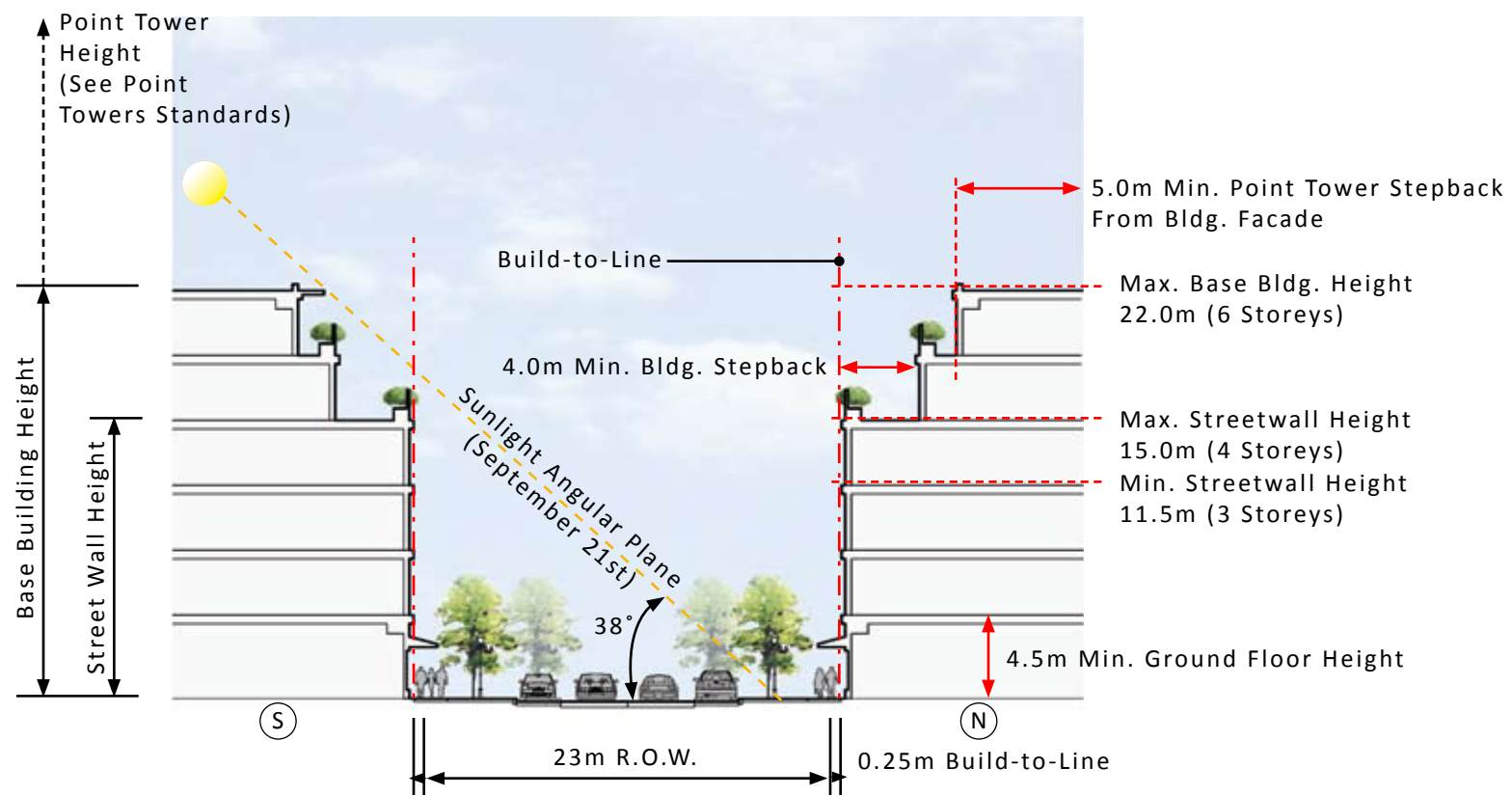
Proposed Typical B-Street Mid-block



Proposed Typical B-Street Intersection



**Typical B-Street Building Massing Guidelines (East-West Street Orientation)**



**Typical B-Street Building Massing Guidelines (North-South Street Orientation)**

## Typical B-Street

B-Streets are narrow, pedestrian-friendly streets that accommodate one travel lane in each direction, on-street parking and sidewalks.



**Key Plan**

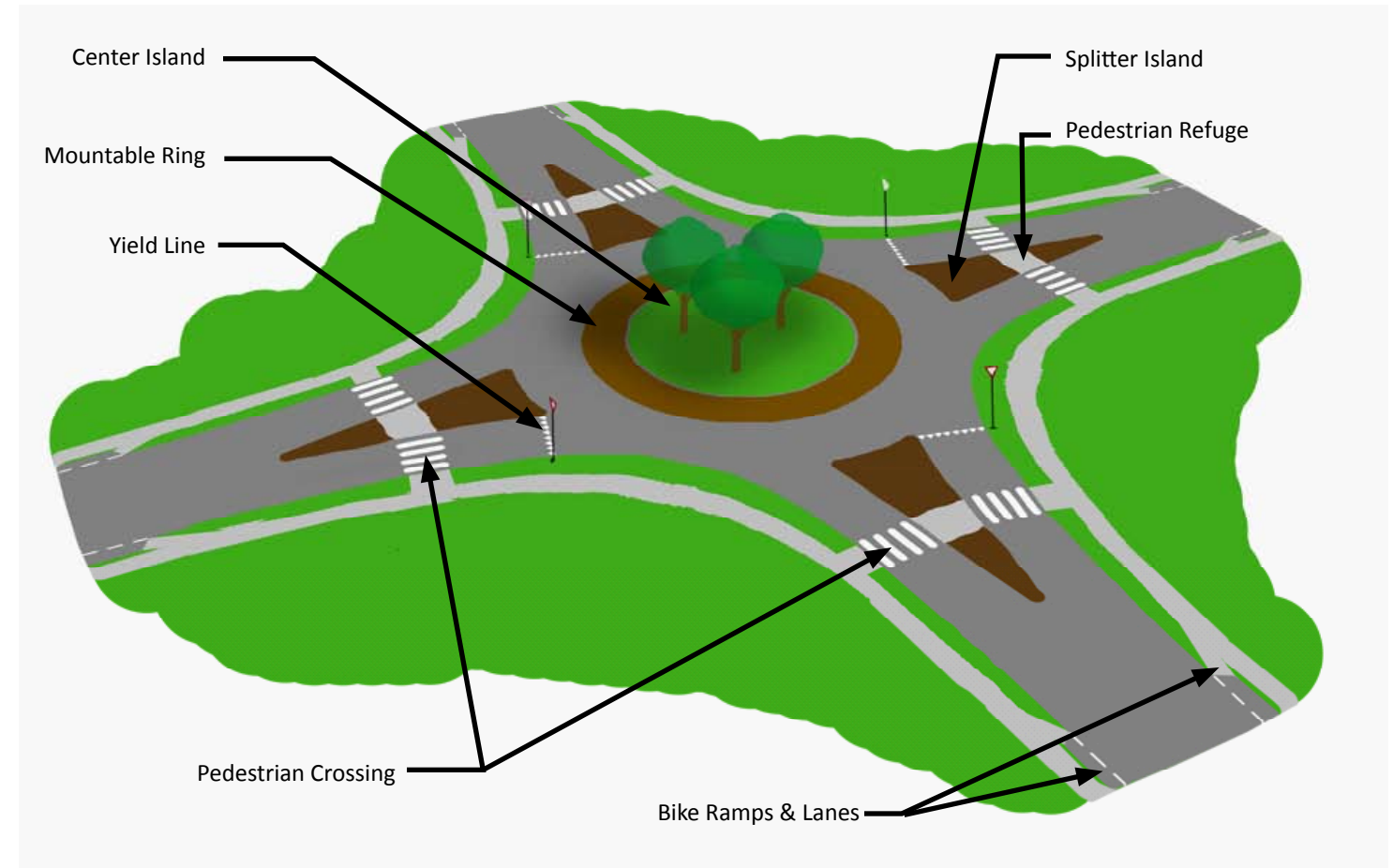
## Roundabouts

The Master Plan includes five roundabouts along Duke of York Boulevard to: i) facilitate safe pedestrian and vehicle access between the Civic District and places east; ii) result in a beautiful and unique street; iii) allow on-street parking; iv) and facilitate smooth, steady, and safe traffic flow in the north and south directions. Additional roundabouts may be necessary at Prince of Wales Drive and at Burnhamthorpe Road pending further analysis.

Roundabouts are included at the two intersections of Rathburn Road and Square One Drive, at the east end and west end of the downtown. These roundabouts will transition the four-lane Rathburn Road, to the east and west of downtown, to the two-lane street network, within the downtown.

In general, roundabouts will help the downtown for the six reasons below. For these reasons, it is recommended that roundabouts be considered first, before traffic signals, for other intersections in the downtown.

- 1. Function:** Traffic signals are designed to stop traffic, allowing various turn movements to proceed, one phase at a time, causing motorists delays throughout the day and during peak times. Roundabouts are about flow. With roundabouts, there are no signals to unduly delay motorists. Roundabouts are sized to accommodate trucks, fire trucks, buses, etc. The bonus is that, unlike traffic signals, the roundabouts do not need the storage lanes and turn lanes to operate efficiently. Thus, the roundabouts free up this significant space for other important purposes such as on-street parking and pedestrian accommodation. Roundabouts generate lower maintenance costs than signalized intersections and do not need to be timed. Plus, roundabouts are aesthetically pleasing while traffic signals are ugly.
- 2. Safety:** Roundabouts are safer than traffic signals for motorists, cyclists, and pedestrians. The number of collisions drops. Plus, the severity of the collisions drops even more. The reasons include: i) drivers slow down for roundabouts, unlike signals, where many drivers speed up to make a stale green light or yellow lights; ii) safer pedestrian crossings; and iii) simplicity of use.
- 3. Pedestrian Friendly:** It is easier and safer to cross the street at a roundabout than at a signalized intersection. A pedestrian looks to the left, crosses one lane (4.0m) to the splitter island (refuge), looks right, and then crosses the other lane (4.0m). The signalized intersection requires the pedestrian to cross 15m to 22m at once, exposing them for longer periods of time to traffic.
- 4. Design:** Roundabouts employ less asphalt than signalized intersections and, therefore, offer more opportunities for landscaping. The center islands are ideal for planting beds of flowers, trees, and/or art. The sides of the street can have additional parking, street trees, landscaping, and seating areas. Furthermore, the aerial clutter, poles, and control boxes associated with traffic signals are removed.
- 5. Environmental:** Roundabouts use less pavement compared to large signalized intersections and, thus, result in less storm water runoff. Noise and air pollution are reduced due to less idling, accelerating, and braking. Roundabouts do not require electricity to operate, which is great in general, but also makes them indifferent to power outages.
- 6. Economic Development:** The space, in front of the Downtown businesses, that was previously used for storage lanes and left turn lanes can be used to increase supply of on-street parking supply which benefits customers and businesses. Coupled with superior esthetics and pedestrian accommodation, the roundabouts are hugely beneficial for economic development.



Roundabout Diagram



## Flush Streets

The Master Plan proposes that Square One Drive will be a two-way flush street through the Civic District (specifically through Sheridan College). In order to provide the safest walkable and drivable environment for the students, faculty, the public, and bicyclists, the street is conceived with curbless edges giving a continuous flush surface from building face to building face and continuity of the parkland space. It is envisioned that the parkland is a single open space with a street through it, as opposed to two parkland spaces separated by a street. The flush street must take into account various design elements including:

- Pavement texture differences at crossings and ramps (at ends)
- Flush street design
- Provide views towards architecture and public art
- Open space located between the travel lanes to break up scale of street
- Multiple pedestrian crossing points
- A barrier free environment for the pedestrian
- Strategically placed street furniture and bicycle parking
- Incorporation of art and nature
- Sustainable stormwater management
- A sense of enclosure through trees and other means to focus the driver on the near and middle distance

The flush street will encourage slow and safe speeds, while maintaining similar volumes as a conventional street, therefore performing better due to its safer pedestrian environment. This street design is an intended departure from conventional practices. This unique space and the roundabout at Square One Drive & Duke of York Boulevard may be the subject of an Environmental Assessment in accordance with related regulations. This shared plaza between the street and the buildings will benefit many different kinds of users, as well as provide flexible space for college needs such as loading for the buildings. Loading facilities must be designed in a way that minimizes design and operational conflicts associated with the public parkland.



Square One Drive - Shared Street Concept

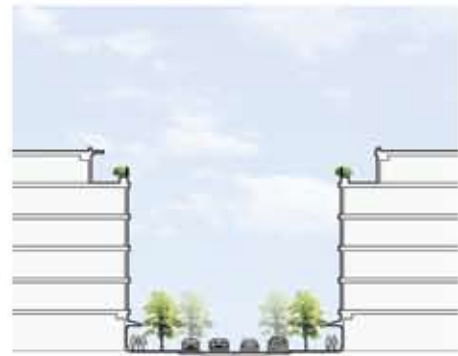


### Legend

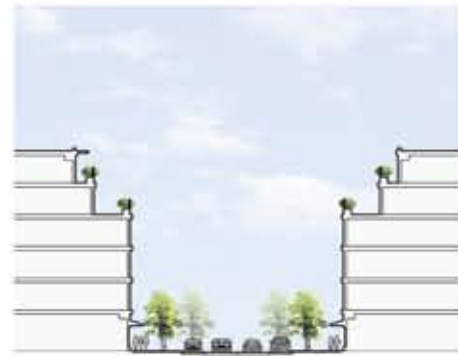
- ① 3.6m Textttured Lanes
- ② 3.6m Pedestrian Crossing
- ③ Detectable Strip (Typical)
- ④ Belgian Block Edge (Typical)
- ⑤ Mountable Corner for Truck Access (Typical)

## Built Form Summary

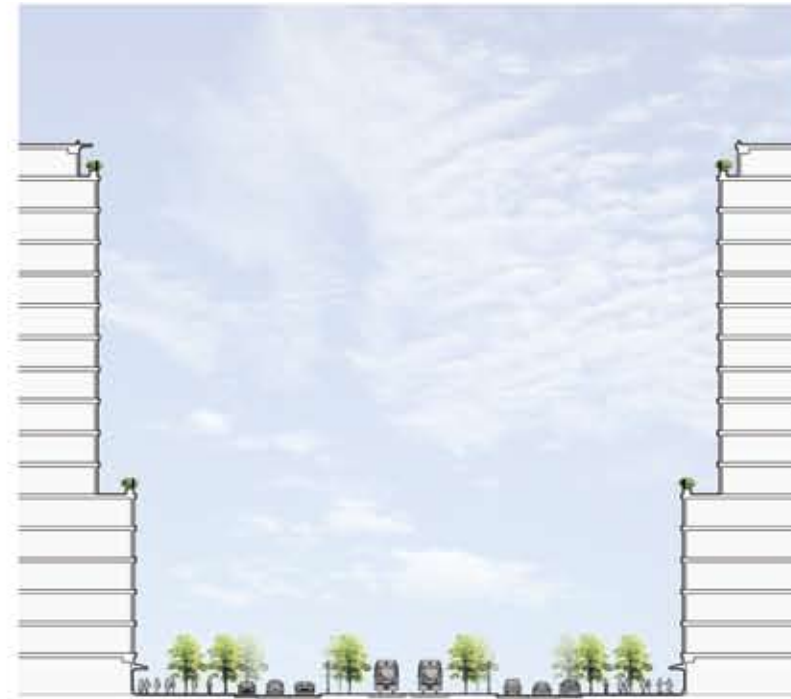
The Urban Design Guidelines detail the design of specific streets and their associated architectural frontage based on the built form, frontage and street design standards. Provided here is a comparison of the resulting built form for the key streets in the Downtown.



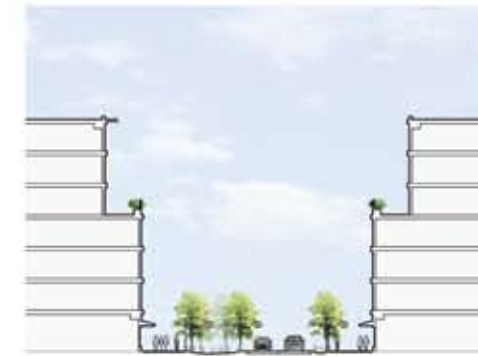
East-West B-Street



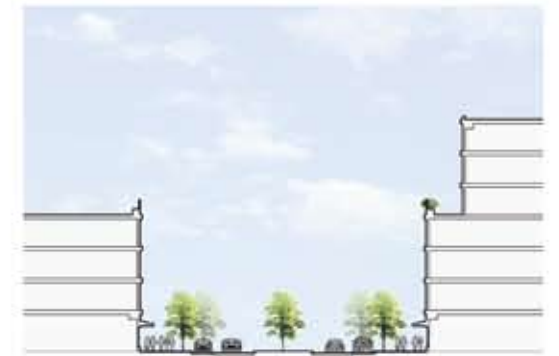
North-South B-Street



Burnhamthorpe Road



City Centre Drive



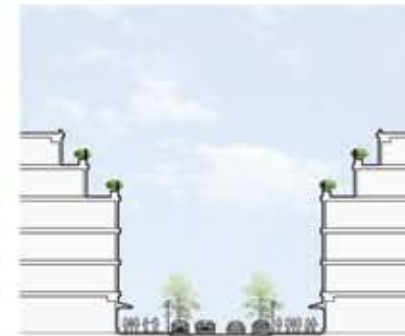
Duke of York Boulevard



Hurontario Street



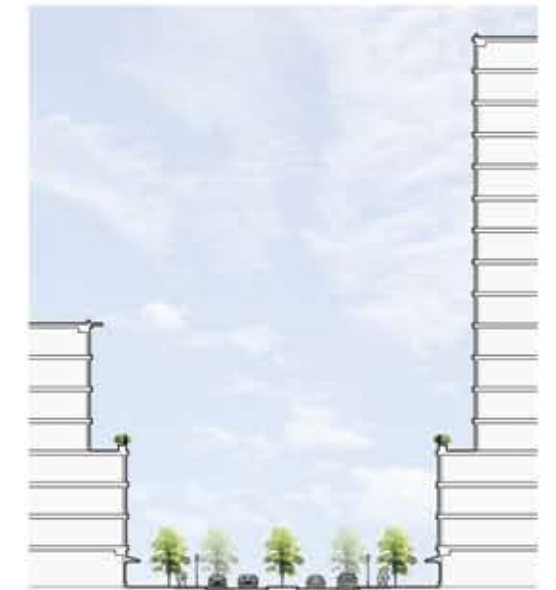
Living Arts Drive



Main Street



Rathburn Road



Webb Drive



