URBAN DESIGN STUDY

MISSISSAUGA

PREPARED FOR DEZEN REALTY COMPANY

4 ARCHITECTURE INC.

65 - 95 JOYMAR DRIVE

PREPARED BY 4 ARCHITECTURE INC.
MARCH 28, 2019
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INTRODUCTION

DeZen Realty Company is proposing to develop a new infill residential neighbourhood approximately 2.77 hectares. It is comprised of 239 back to back stacked townhouses units in the Streetsville Area in the city of Mississauga. The site at 65-95 Joymar Drive are existing two 1-storey and one 2-storey industrial buildings, including auto repair and body shops.

This Urban Design Study has been prepared to explain the design rationale for the proposed residential development and thoroughly outlines the context and objectives of this development organized in two sections as follows:

Section 1 – Site introduction and objectives including;
- a) Contextual Analysis,
- b) Goals and Objectives,
- c) Response to Town Documents.

Section 2 – Design Goals and Design Principles for the development of this proposed site.
- a) Conceptual Design and Concept Plans,
- b) Architectural Elements,
- c) Sustainability Techniques,

1.0 - SECTION 1

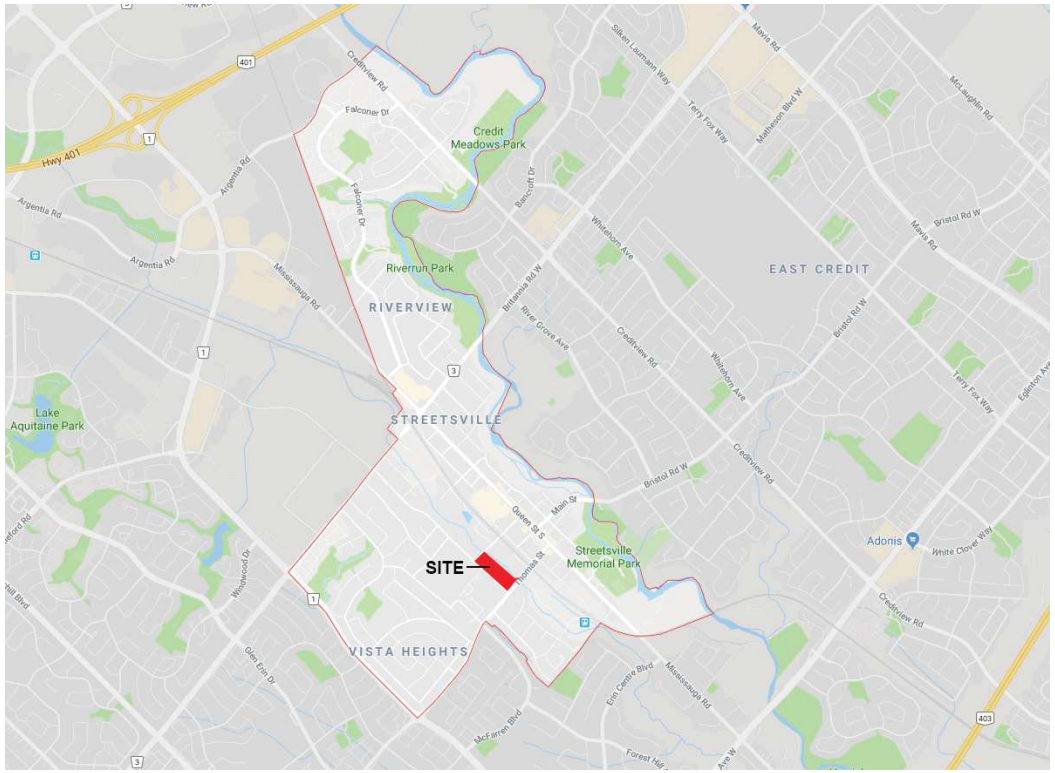
1.1 - CONTEXTUAL ANALYSIS

1.1.1 - LOCATION & SITE DESCRIPTION

This proposed development is located within Streetsville Area in the southwestern corner of the city of Mississauga, Ontario. The subject site is located northeast of Joymar Drive, southeast of Tannery Street and northwest of Thomas Street. It's also backing to the southwest of Mullet Creek.

It accumulates a total street frontage of approximately 293 metres (962 feet wide), on the northeast side of Joymar Drive.

The proposed development is comprised of 239 3-storey back to back stacked townhouse units, on a 7.0m side condo road. There are 8 blocks ranging from 24 to 34 units each.



1.1.1- STREETSVILLE MAP, CITY OF MISSISSAUGA, ONTARIO.

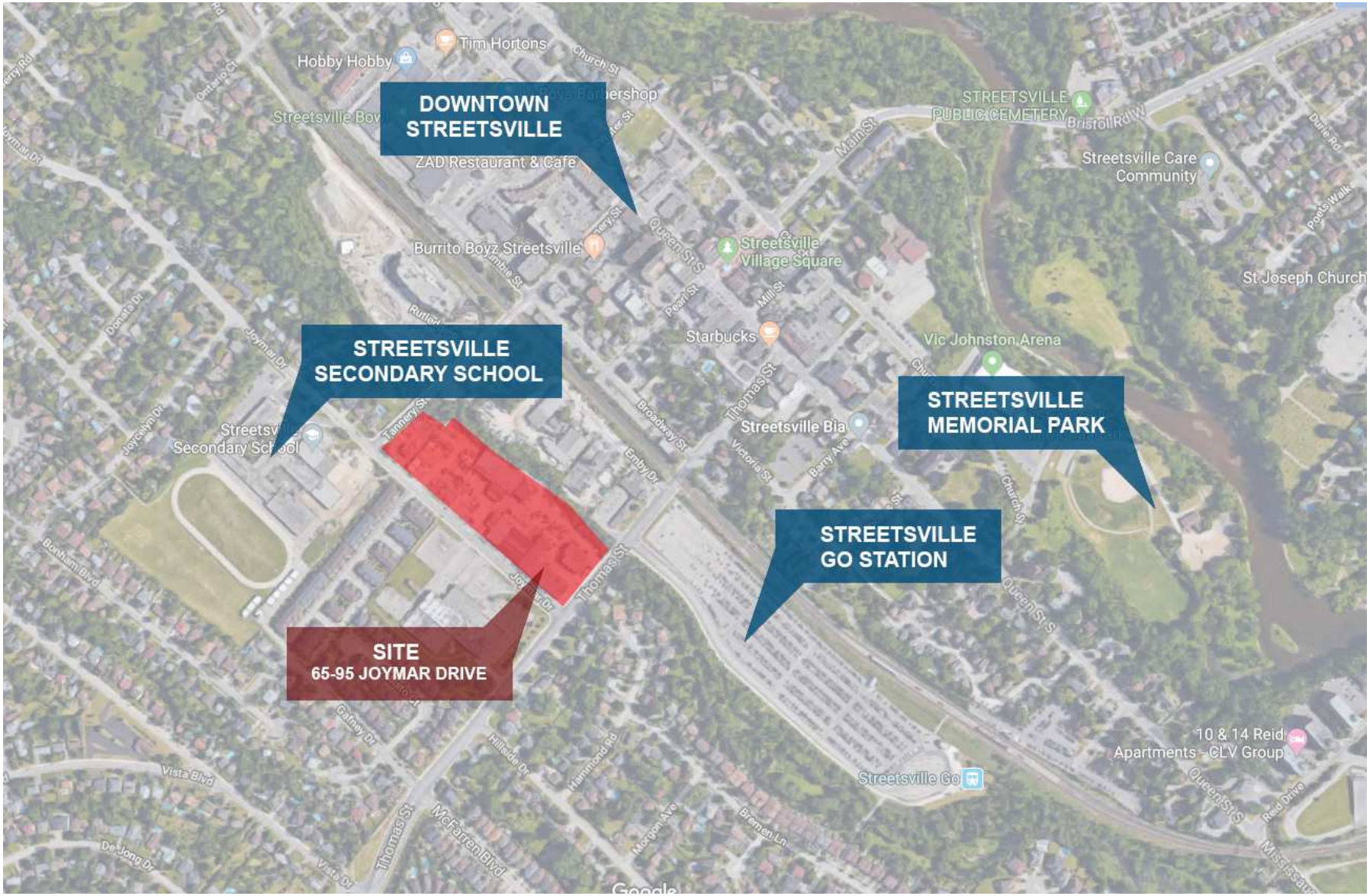
1.1.2 - NEIGHBOURHOOD

The site is on the west side of the central area of Historic Streetsville area. Within this locality, the surrounding dwellings include townhouses and single detached dwellings. Streetsville Go Station is on the southeast side across Thomas Street.

The neighbourhood also includes commercial and retail stores fronting along Queen Street servicing the community. It serves the neighbourhood, providing access to many different public facilities within Streetsville area.

1.1.2.A - QUEEN STREET

1.1.2.B - STREETSVILLE GO STATION



1.1.2.C - SITE AND SURROUNDINGS

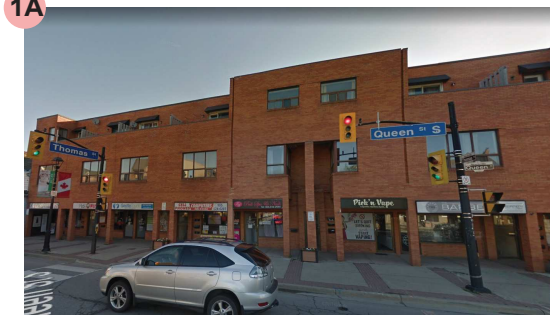
1.1.3 - SITE CHARACTERISTICS

1.1.3.1 – Commercial Core Character

The commercial core of Historic Streetsville along Queen Street South and Main Street, which is about 350 metres east of the site, is typified by two and three storey buildings on narrow lots and consistent with the heritage character of Historic Streetsville in building style.

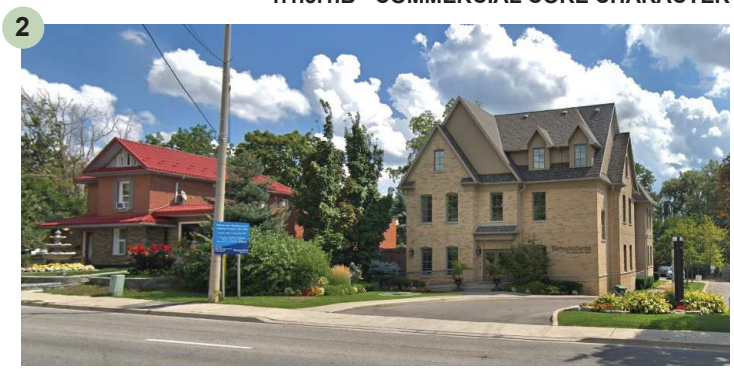
1.1.3.2 – Residential Character (Adjacent to the Commercial Core)

Area between the site and adjacent to the commercial core along Queen Street South has retain small residential scale and the generously landscaped to typify these areas of Historic Streetsville.

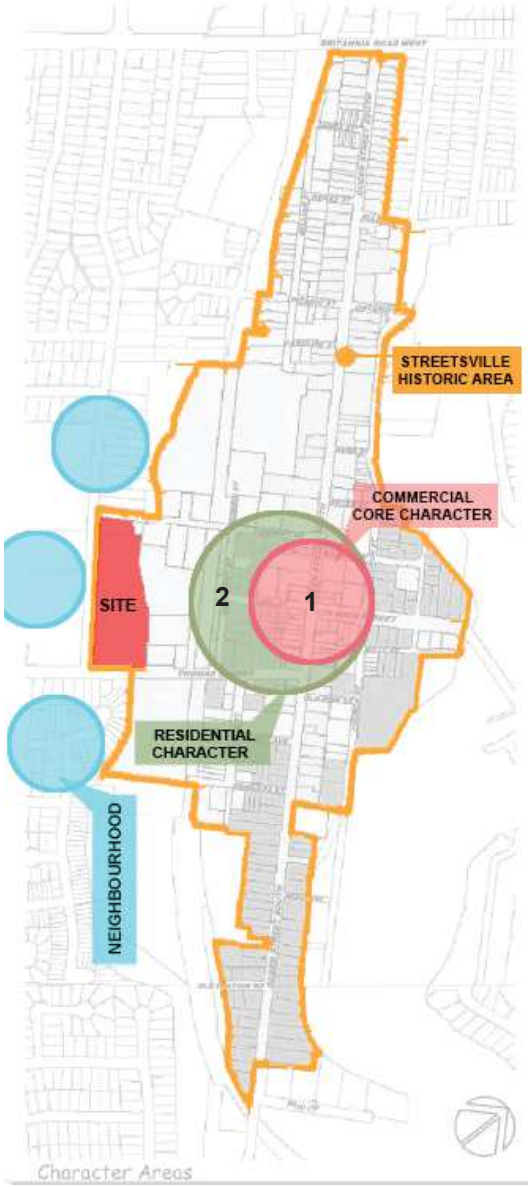


1.1.3.1.A - COMMERCIAL CORE CHARACTER

1.1.3.1.B - COMMERCIAL CORE CHARACTER



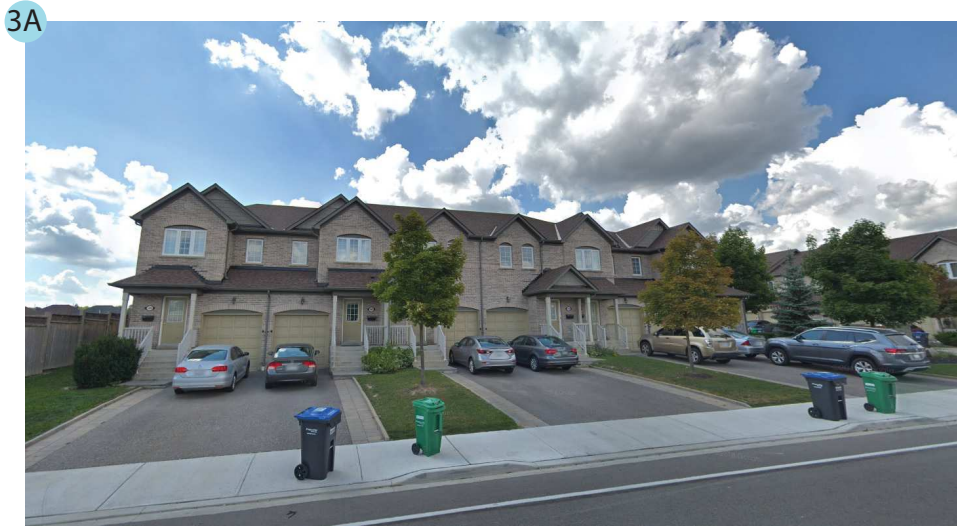
1.1.3.2 - RESIDENTIAL CHARACTER (AREA ADJACENT TO COMMERCIAL CORE)



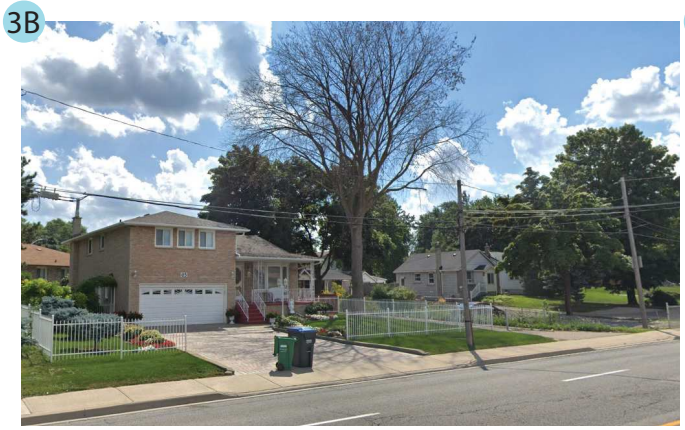
1.1.3 - HISTORIC STREETSVILLE AREA

1.1.3.3 - Neighbourhood Character

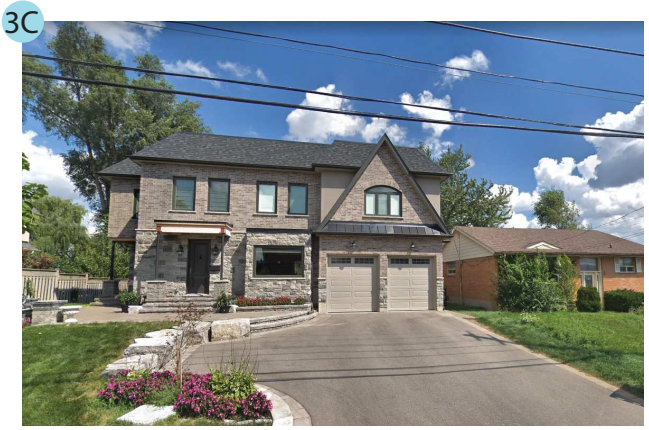
The predominate neighbourhood homes, which do not belong to the Historic Streetsville Character Area, consist of single detached dwellings and two storey townhomes.



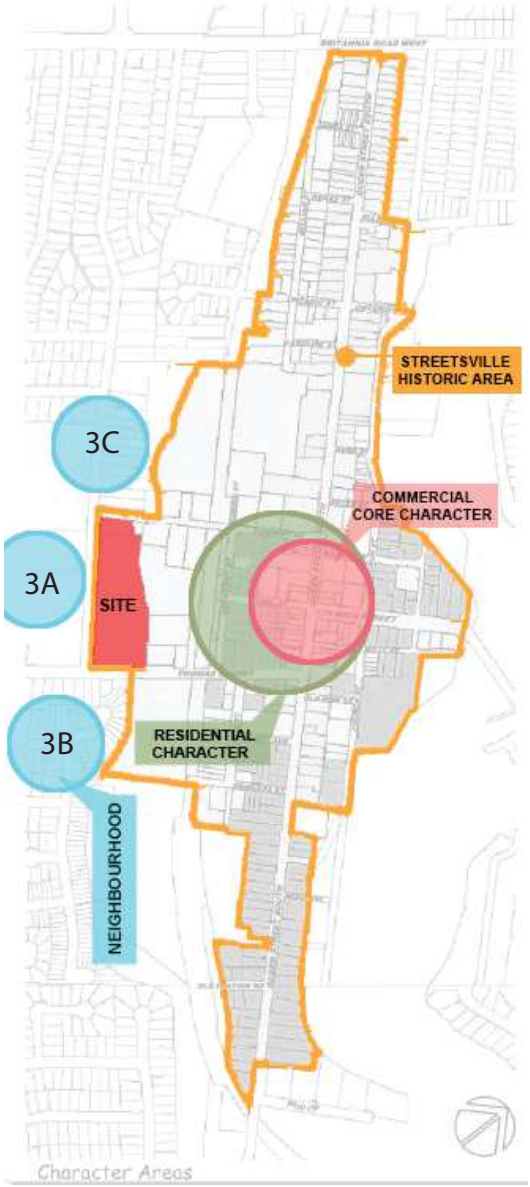
1.1.3.3.A - SOUTHWEST OF JOYMAR DRIVE- CROSS STREET OF SITE



1.1.3.3.B -SOUTHEAST OF THOMAS STREET



1.1.3.3.C - NORTHWEST OF TANNERY STREET



1.1.3 - HISTORIC STREETSVILLE AREA

1.2 - GOALS AND OBJECTIVES

The focus of the development is to create a balanced, yet intensified project, which is inspired by the surrounding neighbourhood and that provides modern, medium-density housing to the wider community.

Three major goals of this development are:

1) CONTEXT

- Designing with sensitivity in scale of surrounding areas.
- Compliment and maintain a neighbourhood character that relates to the existing network of street patterns, pedestrian linkages, and open spaces.
- Creating a pleasant pedestrian friendly environment.
- Providing a transit oriented development focused around Go Station.

2) ACHIEVING LIVABLE SPACES

- Provide housing that is conducive to the needs of current market demands.
- Creating a safe, comfortable and functional living space.
- Introducing high quality living environments.

3) COMPLYING TO CURRENT TOWN POLICIES

- Building strong communities.
- Intensifying the urban area that currently exists.
- Providing built forms that enhance and increase community's identity.
- Introducing diversity within architectural elements and expression.

These listed goals and objectives will evolve into a development concept by

- Respect and intensify the existing neighbourhood's character.
- Reflect the City of Mississauga's current policies.
- Embrace the City's future vision and goals.

1.3 RESPONSE TO TOWN DOCUMENTS

The City of Mississauga Official Plan sets the policy framework for amending the development and use of land. The proposed site is within the Streetsville Community Node Character Area in Mississauga.

1.3.1 Land Use

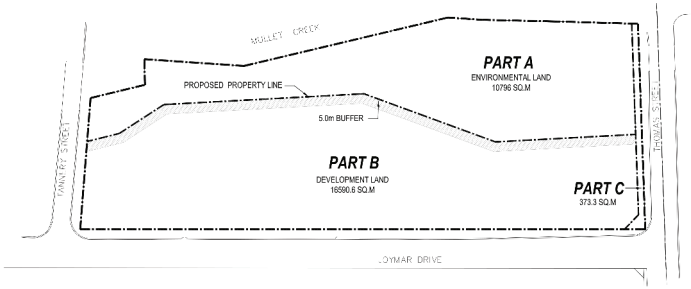
The Official Plan enforces the established vision of the Town, which intends that the area will develop as Residential Medium Density neighbourhood. It will permit land uses as townhouse dwelling and all forms of horizontal multiple dwellings.

The allowed FSI ranges for the site is 0.3 to 1.0 while we are proposing a higher FSI to approximately 1.45, which will help to meet the growing demand for housing units in the neighborhood.

1.3.2 Special Site Policies (OP-14.10.6.2)

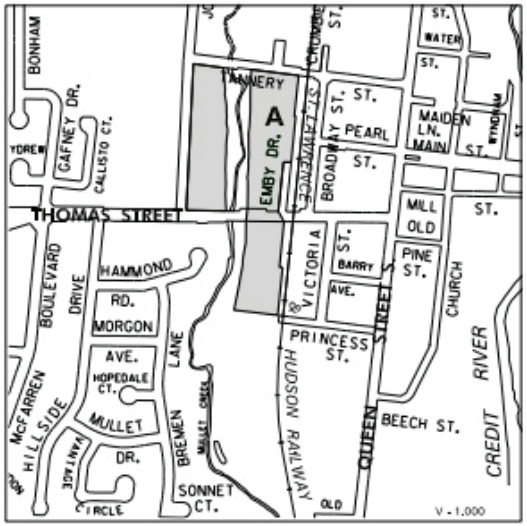
a) Respecting the Town's policies, proposed regional floodline and development limits has set back from top of the slope. Area from north of the proposed floodline will be renaturalized. New property line is proposed according to the regional floodline and a 5m buffer is provided to limit site development.

b) Buildings are low profile as three storeys to meet the requirement of vertical height limit near Mullet Creek.



1.3.2.C - PROPOSED CONTEXT PLAN

14.10.6.2 Site 2



1.3.2.A - MISSISSAUGA OFFICIAL PLAN - 14.10.6.2

a. the determination of the area suitable for redevelopment will have regard for the extent of the "regulatory storm" floodplain and the erosion hazards associated with Mullet Creek, whichever is greater. The extent of areas required for conservation purposes will be determined to the satisfaction of Credit Valley Conservation and the City; and

b. building forms should consist of low profile buildings ranging in height from three storeys near Mullet Creek to six storeys near the railway tracks.

1.3.2.B - MISSISSAUGA OFFICIAL PLAN - 14.10.6.2

2.0 - SECTION 2

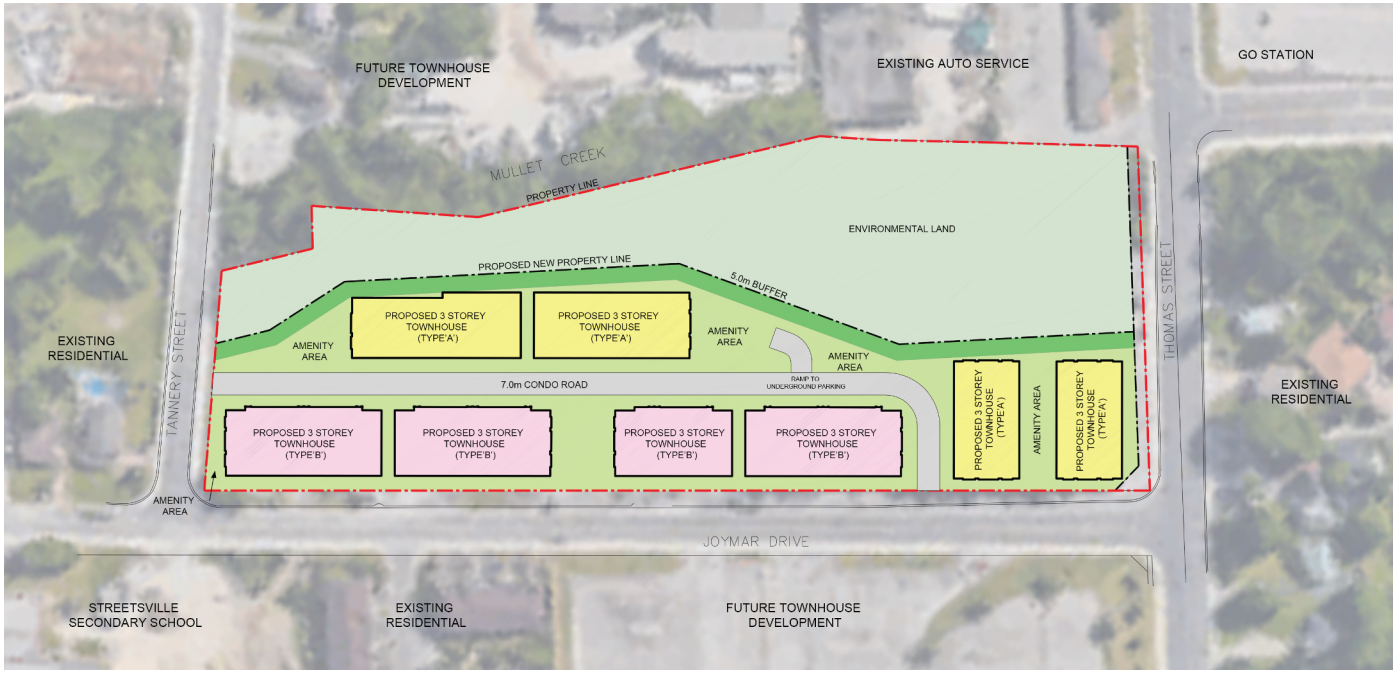
CONCEPT DESIGN PRINCIPLES AND PLANNING

2.1 - SITE DESIGN

2.1.1 Overall

The proposed development concept has been designed to respect the existing neighbourhood's character. The design development is integrated in such a way to enrich the greater neighbourhood.

The proposed development comprises 8 3-storey back to back stacked townhouse blocks,239 units in total, on a 7.0m wide condominium road. Buildings will have facades in varying planes creating visual interest. The proposed private road will allow traffic flow for the new residents to tie into the minor/major arterial for an "ease of commute."



NOTE: THIS SITE PLAN IS SOLELY FOR CONCEPTUAL PURPOSES. ®

2.1 - 65-95 JOYMAR DRIVE, MISSISSAUGA, ONTARIO - PROPOSED SITE PLAN

2.1.2 Zoning by law

2.1.2.1 Current Zone

• The current zoning for the subject site is D (Development Zone) along Joymar and G1 (Greenlands Zone) along Mullet Creek.

• The application is proposed a rezoning from D and G1 to RM9/RM10 to permit 239 back to back stacked townhouses.

2.1.2.1 - Current Zoning Map

2.1.2.2 Proposed Design Standards

• The proposed development plan for the subject site balances the urban design goals and principles outlined in the Back to Back and Stacked Townhouses Urban Design Guidelines with development viability reflecting the unique site condition.

• Appropriate building setbacks have been considered for each of the principle street edges. A front yard setback of about 4m on Joymar Street and 3m on Thomas Street is recommended. When added to the road widening and city sidewalk, a total distance about 10.5m is provided from curb to nearest building wall. This appropriate setback allows for the creation of semi-private transition zone in front of each townhouse.

2.1.2.2 - CONCEPTUAL FRONT YARD

2.2 RESIDENTIAL STREETSCAPES

2.2.1 Building Relationship to Street

A well defined street edge contributes to the pedestrian-oriented goals of the community. Attractive streetscapes typically consist of a landscaped (sodded and treed) boulevard adjacent to a defining edge of front yards and carefully placed, well-designed buildings. The following design guidelines shall apply:

- Buildings should be designed to suit the site topography conditions.

- The scale, height and massing of buildings within the streetscape should seamlessly connect to the adjacent street, creating a well-balanced, human-scale massing which encourages pedestrian activity. The primary façade of the building should relate directly to the street and be sited generally parallel to it.

- Publicly exposed elevations shall incorporate adequate massing, proportions and fenestration (i.e. window, doors, porches, etc.) and architectural detailing to avoid large blank facades. Dwelling facades exposed to lot conditions which are highly visible within the public realm shall be upgraded to create visual interest.

- Appropriately designed main entries encourage social interaction among residents and opportunities for ‘eyes on the street’.

2.2.1- BUILDING RELATIONSHIP TO STREET

- Building setbacks should define the street edge and create a visually ordered streetscape.

- It is generally recommended that buildings be placed close to the street line.

2.2.2 Variety in the Streetscape

Townhouse Unit widths are 6.0m/7.0m typical with varying lengths and home sizes which will be highly desirable in an attractive and affordable family area. Attractive, harmonious streetscapes are essential in creating a vibrant, livable community with a positive identity. Variety of massing and architectural expression among publicly exposed building elevations should occur through the use of alternative façade treatments, massing, rooflines, materials, colours and architectural style.

- The proposed buildings fronting Joymar Drive are compatible providing variety in the streetscape. Building elements, such as building massing and cladding materials should be taken into consideration to ensure that the overall building form is harmonious with other homes in the neighbourhood.

- Building elevations will be evaluated on their ability to contribute to a distinct character. It is important that individual buildings combine to create harmony when sited together within the streetscape in order to avoid cluttered or disorganized streetscape appearance. This can be reinforced by use of complementary building materials, colours, details and architectural elements.

2.2.3 Pedestrian Connection

The below strategies will contribute to creating a human scaled and pedestrian friendly environment.

- With a highly articulated building massing and with living spaces of the home closer to the road, an attractive and safe pedestrian scaled character is created.

- Porches close to the road will encourage interaction with passing neighbours.

- The road pattern will allow views through the site so as to not make it feel exclusive but integrate the site into the community.

2.2.2 - CONCEPTUAL STREETSCAPE - FACING JOYMAR DR.

2.3 BUILDING DESIGN

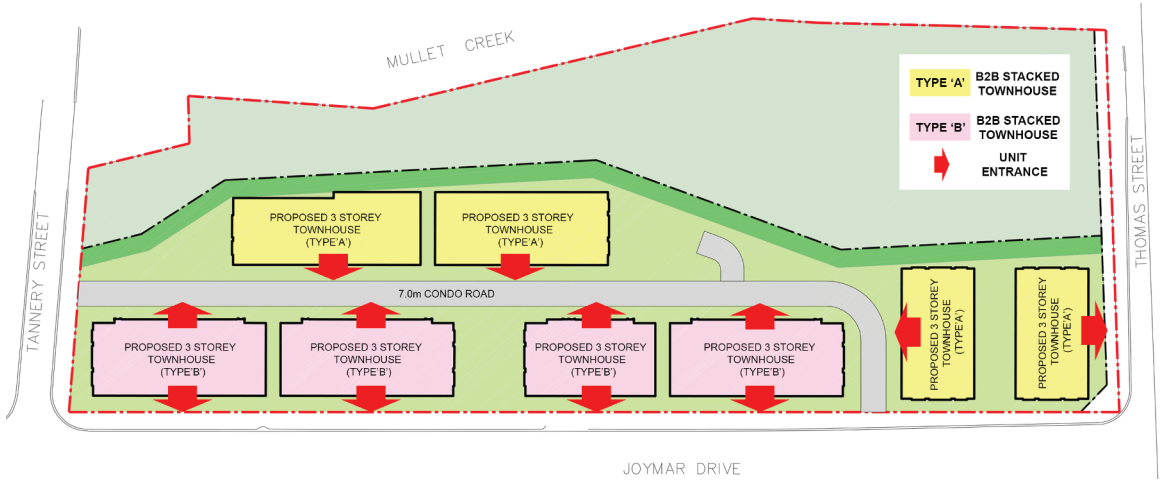
2.3.1 Building Type

There are two types of Townhouse Blocks proposed:

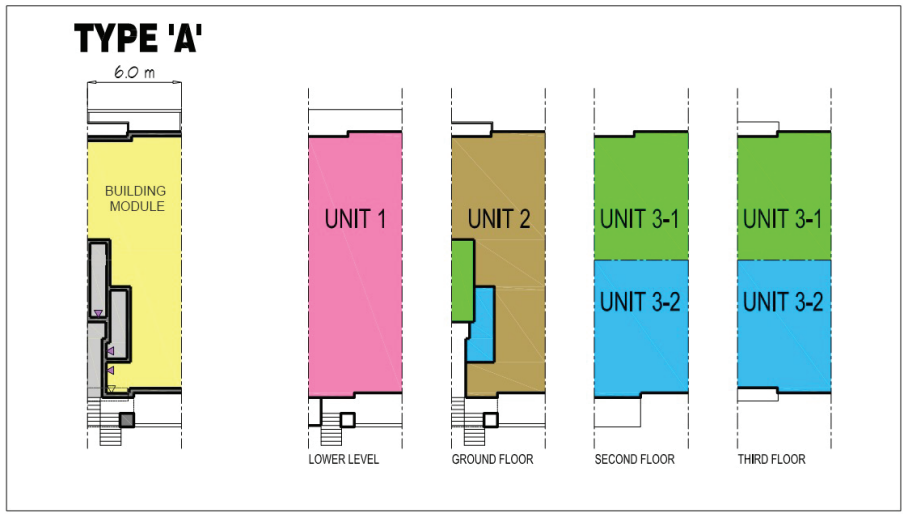
• Type ‘A’ Building Blocks have all units access from one side of the building face.

• Type ‘B’ Building Blocks have all above ground units access from one side and few lower level units access from the other side along condo road.

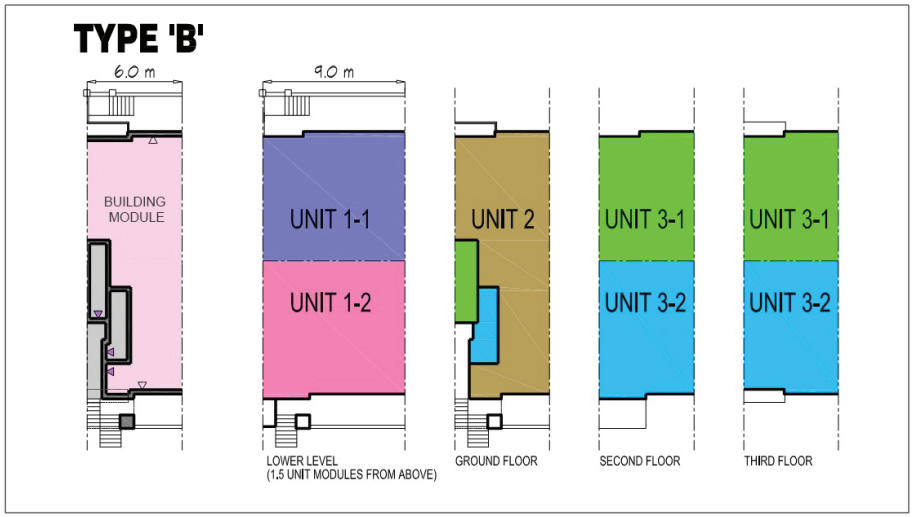
• Layout of building blocks have been placed to allow views to amenity spaces.



2.3.1.C - PROPOSED SITE PLAN - BUILDING TYPE LAYOUT



2.3.1.A - TOWNHOUSE BUILDING TYPE ‘A’



2.3.1.B - TOWNHOUSE BUILDING TYPE ‘B’

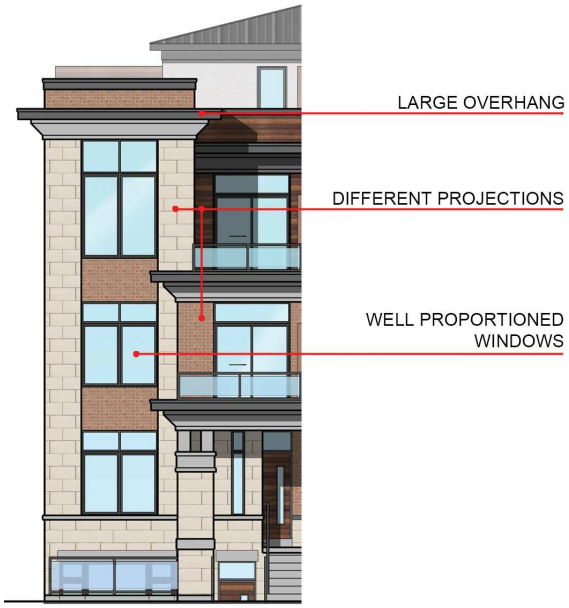
2.3.2 Built Form and Massing

• The development concept proposes three storeys back to back stacked townhouses. The surrounding neighbourhood is predominantly two storey residential dwellings. As such, the massing and width of the proposed buildings are compatible with of the existing neighbourhood.

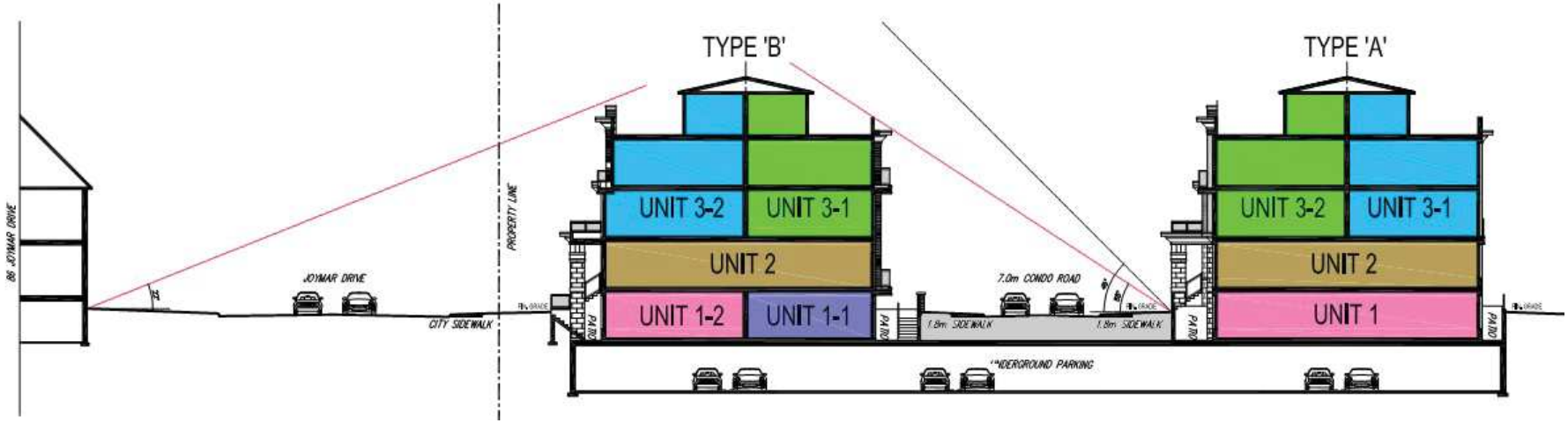
• The built form demonstrates strategically designed interiors and facades to elaborate well proportioned windows facing the street.

• Adding different projections walls and large overhang elements to minimize large unbroken expanses of both wall and roof.

• Provide less than 45 degree angular plane between buildings.



2.3.2.A - BUILT FORM



2.3.2.B - BUILDING MASSING COMPARE TO ADJACENT BUILDING

2.3.3 Building Facades Design Principle

• The stacked townhouses are traditional inspired to reflect the heritage character and embraced a contemporary approach to the architectural design. It will not only respect the rhythm and pattern of surrounding buildings but also provide visual interest and contrast to the neighbourhood.

• Building Elevations are designed to individually and collectively contribute to the character of the surrounding community.

• Each building has appropriate façade detailing, materials and colours consistent with its architectural style.

• Building elevations visible from public areas should incorporate appropriate massing, proportions, wall openings and plane variation to avoid uninteresting facades.

2.3.3 - CONCEPTUAL BUILDING ELEVATION - FACING JOYMAR DR.

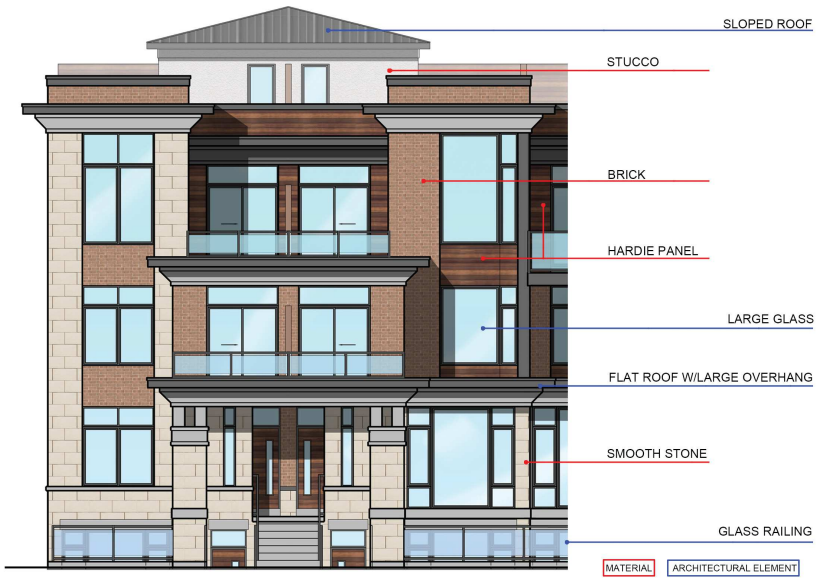
• The detailing of the front and exposed side elevations will provide a high level of interest by incorporating elements such as large glass, flat roofs with large overhangs.

• A variety of building materials such as brick, smooth stone and hardie panel are proposed to provide elevations with their own character and identity.

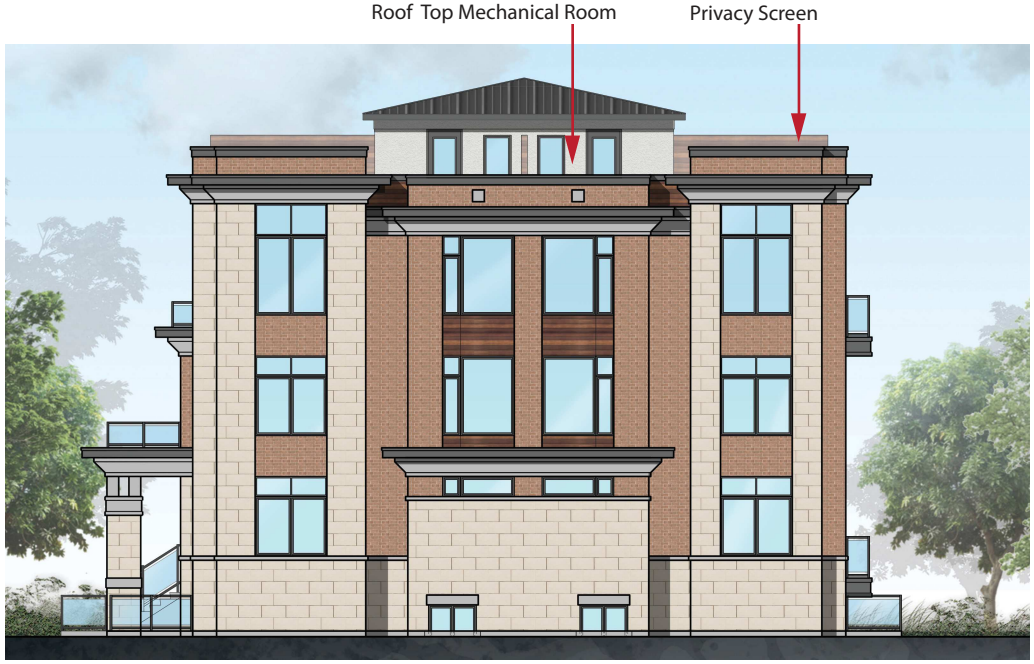
• High quality and durable materials are designed to reduce maintenance cost

• Exposed side elevations to public areas in the community will be detailed to match their front elevations. The high architectural treatment will provide the neighbourhood with a rich character.

• The roof top mechanical structure is setback min. 3m away from the exterior edges of the building to reduce visual impact.



2.3.3.B - BUILDING FACADES DESIGN



2.3.3.C - EXPOSED SIDE ELEVATION

2.3.4 Unit Design

2.3.4.1 Above Grade Units

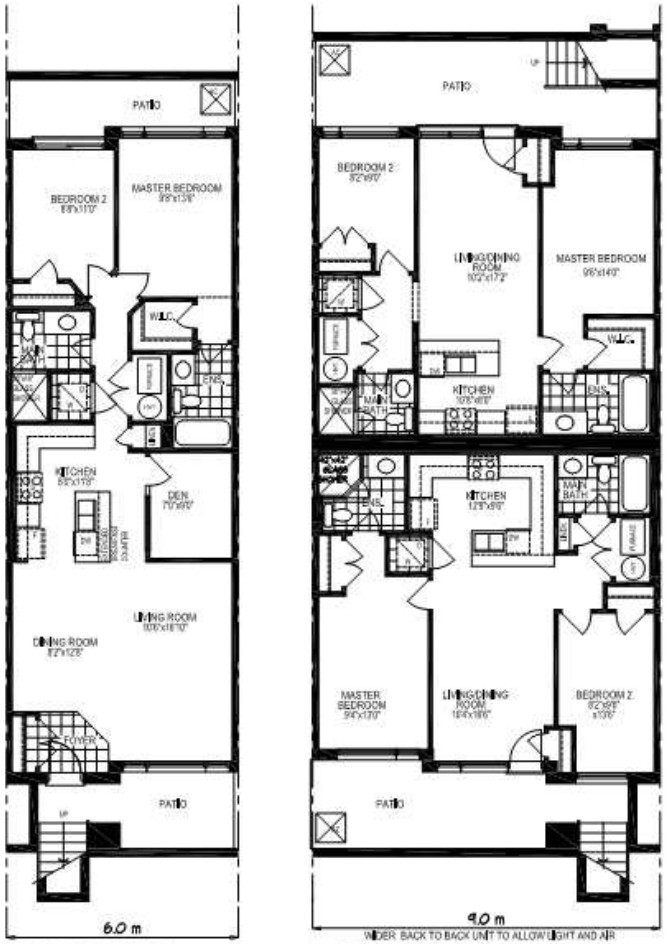
• Type ‘A’ & Type ‘B’ unit module share the same unit design from ground floor to terrace.

2.3.4.1.A - CONCEPTUAL UNIT DESIGN-ELEVATIONS

2.3.4.1.B - CONCEPTUAL UNIT DESIGN-FLOOR PLANS

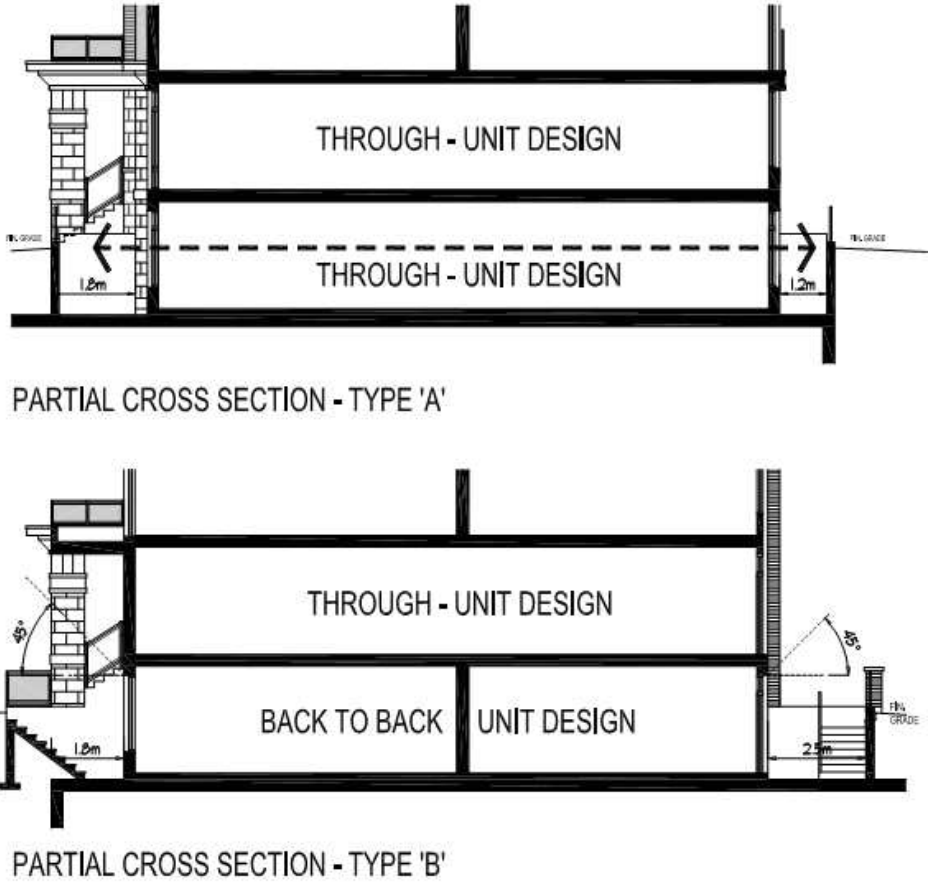
2.3.4.2 Below Grade Units

• Type ‘A’ design is proposed with a through-unit with windows on both front and rear of the building.



2.3.4.2.A - LOWER LEVEL FLOOR PLAN - TYPE ‘A’ & ‘B’

• Type ‘B’ design is proposed to have a wider back to back unit width (9m) to allow light and air. They are also designed to have bigger private outdoor space to allow access to daylight.& view.



2.3.4.2.B - PARTIAL UNIT CROSS SECTION - TYPE ‘A’ & ‘B’

2.3.5 Private Amenity Space

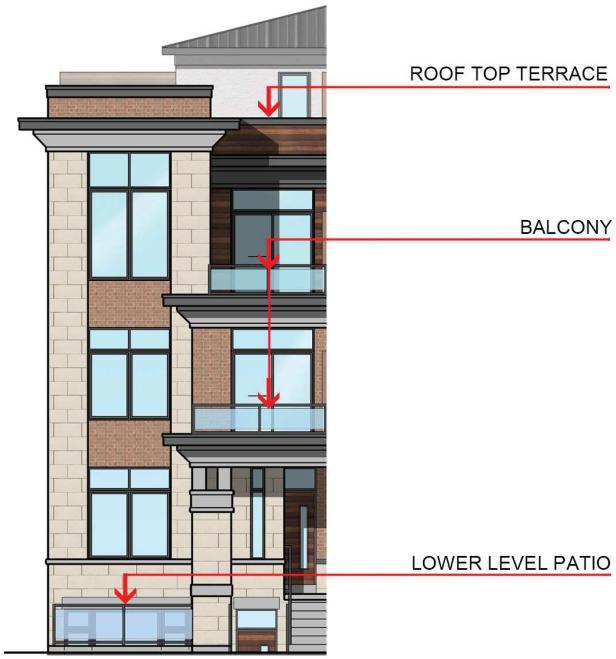
The building is designed to ensure there are good amount of private amenity space is provided for every dwelling to benefit from an appropriate degree of privacy and appropriate levels of natural light and outlook.

• Regardless of the size and type, private amenity space is incorporated to every dwelling into the building.

• Direct access is provided from individual dwellings to it's own private amenity space.

• Type of the private amenity space including balcony, lower level patio and upper lever terrace.

• Lower level patio and roof top terrace have provided large amenity space for passive recreational activity such as sitting out, play space for children and gardening.



2.3.5.A - LOCATION FOR PRIVATE AMENITY SPACE - ELEVATION

2.3.5.B - LOCATION FOR PRIVATE AMENITY SPACE - FLOOR PLAN

2.4 ARCHITECTURAL ELEMENTS

2.4.1 Architectural Character

It is important to recognize that the urban form proposed is inspired from the existing historic Streetsville area.

- Architecture should suit the building's use and location within the community and complement the landscape design of the public realm.

- The use of high quality, durable building materials, such as brick, smooth stone and hardie panel should be elected to support the intended architectural character of the building.

2.4.2 Entrances & Porches

- Entrances are directly visible from the street and well lit.

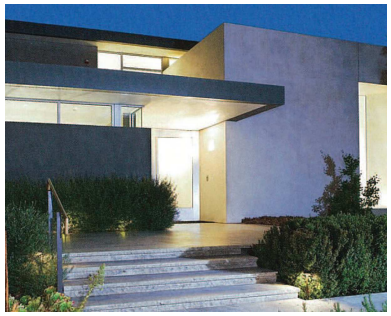
- Weather protection at entrance is provided through the use of covered porches, overhangs.

- Entrances & Porches design and detail should be consistent with the character of the building.

- Front porches, courtyards and/or patios help to promote safe, socially interactive and pedestrian-friendly residential streets by providing an outdoor amenity area, shelter from inclement weather, and a linkage between the public and private realm.

- Porches are generally be located closer to the sidewalk/street creates a comfortable pedestrian environment.

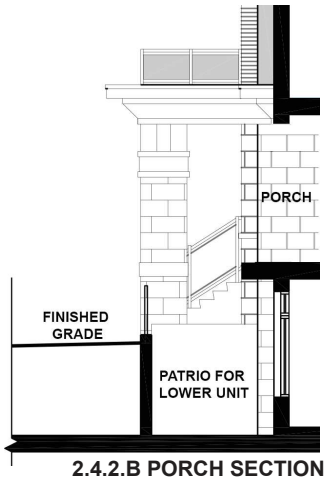
- Where hand railings are used, they are consistent with the character of the building. Maintenance-free, pre-finished glass aluminum railings are provided.



Conceptual Main Entrance

Conceptual Porch

2.4.2.A MAIN ENTRANCE



2.4.2.B PORCH SECTION

2.4.3 Windows

• Ample fenestration, in a variety of styles consistent with the building's architecture, is required for all publicly exposed façade to enhance the building's appearance and to promote "eyes on the street."

• All windows should be maintenance-free, thermally-sealed, double glazed.

• Large ground floor windows are encouraged.

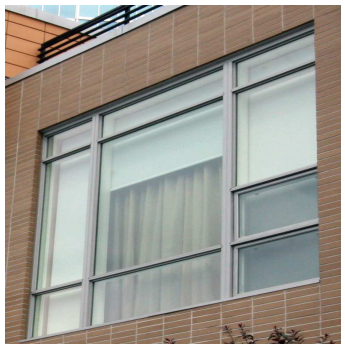
• Window mullions and muntin bars should be used when appropriate with the building's style.

• Basement windows located on front and flanking elevations facing the street should match the main floor windows. Large basement windows are encouraged, where feasible.

• The use of black glass (false glazing) should be minimized; its use may be permitted above the eaves line only; where used it shall be of a high quality.

• The use of prefinished coloured window frames is desired on the majority of building to add variety when appropriate to the buildings' exterior colour scheme.

• Window acoustic performance must meet or exceed the noise attenuation requirements of any applicable noise reports.



LARGE FEATURE WINDOW

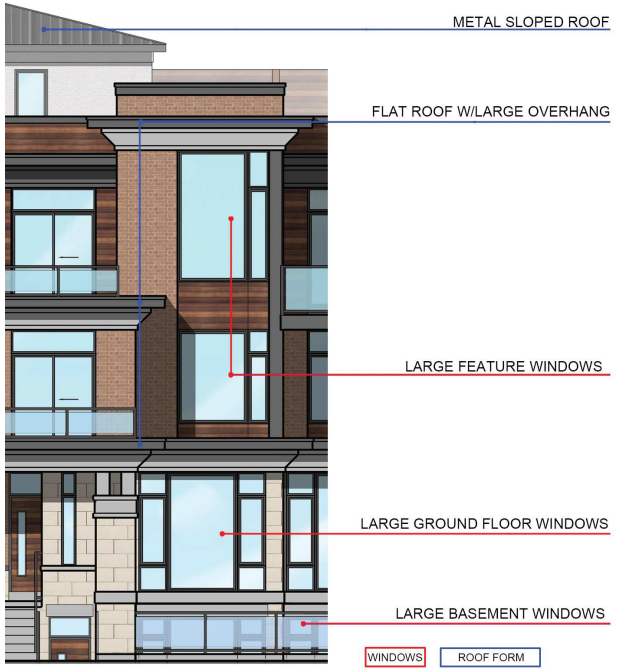
METAL ROOF

2.4.4 Roof Form

• Roofs play a significant role in the massing of the individual dwelling and in the overall built form character of a neighborhood. Within the design of a streetscape, attention shall be paid to the relationships of adjacent roof forms to ensure appropriate transitions.

• A combination of flat and sloped roofs are encouraged in order to achieve the architectural style.

• Where metal accent roofs are used, they should be of a heavy gauge with a standing seam. They shall be prefinished in a dark tone complementary to the main roof colour.



2.4.3 & 2.4.4 WINDOWS AND ROOF FORM

2.4.5. Exterior Materials and Colours

2.4.5.1 - Materials

The use of high quality exterior building materials reflective of the architectural style of the dwelling will be required to contribute to the established character of the community.

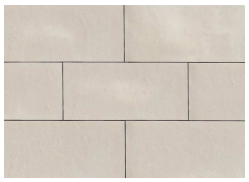
• Materials will predominantly comprise of Brick, Hardie Panels, and Smooth Stone, in keeping with the architectural design. The use of brick masonry is an important historical element in the built form of Streetsville.

• The use of accent materials such as brick, stone, precast, or prefinished panelling is encouraged where consistent with the architectural style of the dwelling. Its use shall be complementary to the primary cladding materials.

• Material changes which help to articulate the transition between the base, middle and top of the building are appropriate. Where changes in materials occur they should happen at logical locations such as a change in plane, wall opening or downspout.

• The main wall cladding material shall be within 200mm-300mm (8”-12”) of finished grade. Foundation walls must be check-stepped along sloping grade to allow masonry veneering to be installed. Special care shall be taken for sides of projecting garages, porches/porticos, front and flanking dwelling elevation.

Brick Veneer



Renaissance Stone

Hardie Panel

2.4.5.2 - Colours

Colour themes should unify the flavour of the proposed Architectural style and will complement the surrounding architectural styles.

The use of the colour scheme to this infill development that shall blend with the existing neighbourhood. A detailed materials schedule will be provided when appropriate to the approval process.

Exterior colours shall display the following design criteria:

• Compatible material colours are required within each individual colour scheme.

• The use of trim colours which are the same or discretely similar to the dominant wall cladding colour is discouraged.

• All flashing is to be prefinished to match the roof or adjacent wall cladding colour.

2.4.5.2 - CONCEPTUAL COLOUR THEMES

2.5 - SUSTAINABILITY

The project will be developed with a variety of sustainable features in the built form and the landscape treatment.

The homes will be built to the new energy standards to the new edition of the Ontario Building Code. Some elements to reduce the carbon footprint of the homes may include:

- Low flow toilets,
- Low flow taps and shower heads,
- Energy star appliances,
- High efficiency combination water and space heating systems,
- Energy star rated fans,
- Energy star rated windows and doors,
- Electronic ignited gas fireplace,
- Energy Star Certification or Equivalent.

Sustainable Landscaping component and practices may include:

- Native species for planting materials
- Drought tolerant species

Sustainable construction practices can include:

- A construction waste management reduction program.

2.6 - LIGHTING, UTILITIES AND SERVICING

2.6.1 - Lighting

Site street lighting and exterior house lighting will be coordinated to be:

- Consistent throughout the site.
- Complimentary to the architecture.
- Not shine onto adjoining properties.
- Not contribute to light pollution.
- Provide safety for the residents.

2.6.2 - Signage

Site signage will be designed for clear and easy reading, in accordance with municipal engineering standards and designed in such a way so as to reinforce the character of the site.

2.6.3 - UTILITIES, SERVICE AND PARKING

2.6.3.1 - Utilities & Servicing

The visual impact of the utility meters or service connections (i.e. hydro and natural gas) shall be minimized by locating them on a side wall perpendicular to the street facing an interior side yard. If it is an interior unit it shall be incorporated in the porch of the dwelling. If located on a side wall that is exposed to the street edge or public view they are to be hidden with architectural elements or landscaping.

2.6.3.2 - Waste Collection and Storage

All waste should be stored in the concealed waste collection point. It is centrally located within the site for easy access by homeowner.

2.6.3.3 - Parking

Parking space is provided to meet the requirement of the city's zoning by law.

- Few visitor parkings spaces (including accessible parking spaces) are located on grade for easy acces. Most of the parking located underground to allow maximize the amentity space on grade.

- Underground parking is accessed by a concealed ramp entered off proposed condo road.

CONCLUSION

The analysis of the neighbourhood context has yielded an understanding of the local built and natural environment which can assist in developing the proposed site design.

The proposed developement realizes the policy goals and principles set out in the Design Guidelines for Historic Streetsville, the Official Plan for Mississauga and its Strategic Plan. It balances respect for the Streetsville local neighbourhood character and implementation of the City's Council Planning for Mississauga. It introduces a type of housing needed in the area allowing residents to age and stay in their community.

This proposal offers an appropriate design approach for the development of this site in terms of urban fit, scale and architectural execution. It will be in keeping with the local neighbourhood and the City's vision of its future.