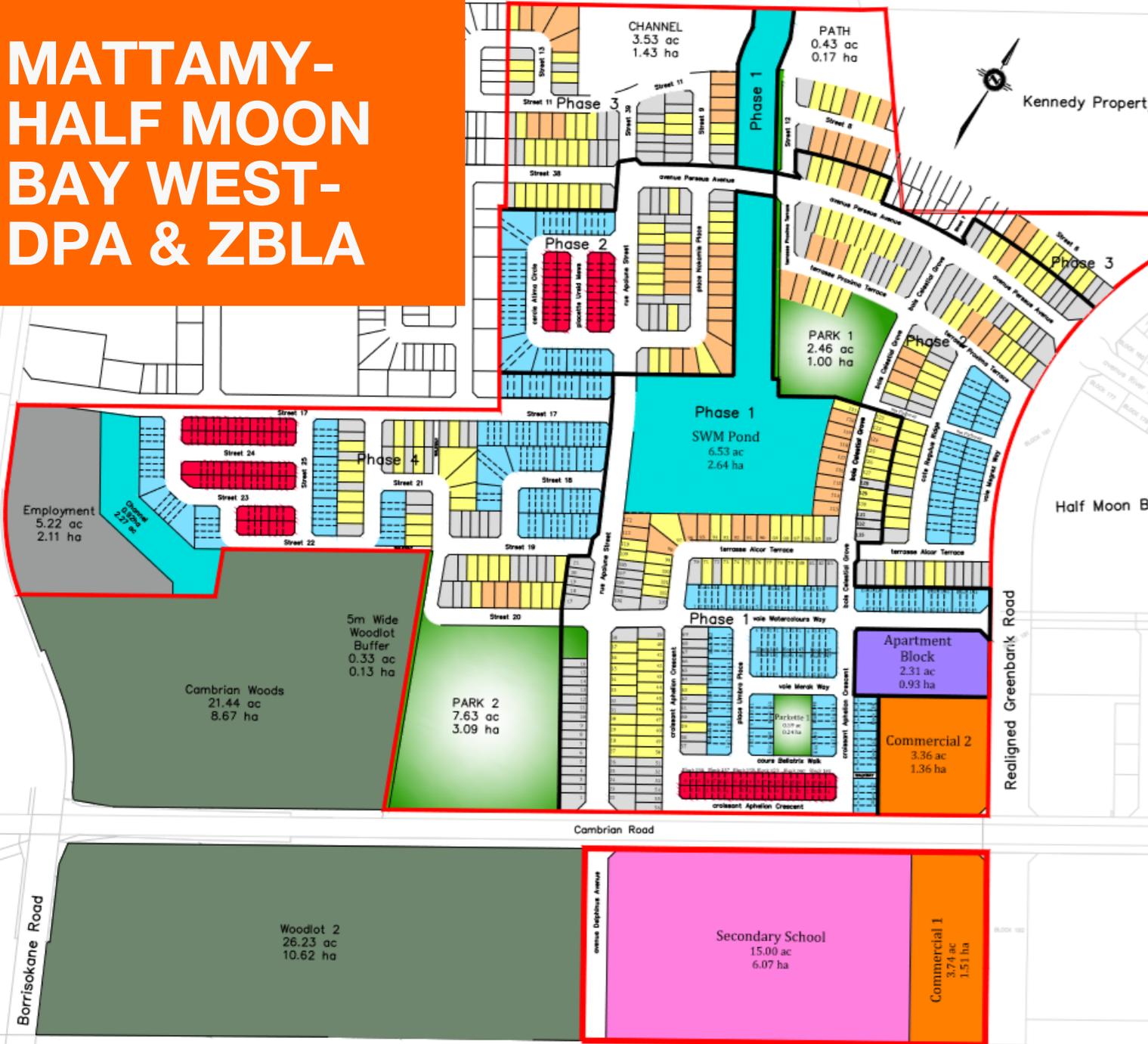


FOTENN

MATTAMY- HALF MOON BAY WEST- DPA & ZBLA



April 15, 2019

Demonstration Report

Draft Plan Amendment
& Zoning By-law
Amendment

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1.1 Overview

Fotenn Consultants Inc. (Fotenn) has prepared this Demonstration Report in support of Draft Plan of Subdivision Amendment and Zoning By-law Amendment applications for Mattamy Homes (Mattamy)'s Half Moon Bay West subdivision (subject lands). Half Moon Bay West is the next phase of Mattamy's Half Moon Bay community, located in Barrhaven South. The subdivision includes residential units at a range of densities, an employment block, a secondary school site, and associated parkland and stormwater management facilities.

The subdivision was originally draft approved (D07-16-16-0023) and zoned (D02-02-16-0112, By-law 2018-116) in March 2018. The current applications are required to address modifications that have been made to the Draft Plan of Subdivision since approval. The primary changes include:

- / The relocation of Park 2 (zoned Open Space (O1)) and several residential blocks (zoned Residential Third Density Zone, Subzone YY, Exception 1627 (R3YY[1627]));
- / Enlarging the apartment block (which requires an extension of the General Mixed Use Exception 1628 (GM [1628]) zone) and applying a site-specific exception to amend setback and landscaped buffer width provisions for the apartment block; and
- / Other slight adjustments, as required, to reflect the amendments to the Draft Plan of Subdivision, such as revised pathway block locations (zoned O1).

The proposed zoning is summarized in Exhibit A of this Demonstration Report.

The revised Concept Plan for the subject lands (Figure 4) proposes 973 units, including 447 detached units, 300 townhouse units, 154 back-to-back townhouse units, and 72 stacked back-to-back townhouse units. The revised Concept Plan and associated revised Plan of Subdivision remain in compliance with the general vision, guidelines and design principles of the Barrhaven South Community Design Plan (CDP), which was approved by Council in September 2006.

The following revised technical studies have been prepared in support of the Draft Plan of Subdivision Amendment and Zoning By-law Amendment applications for Half Moon Bay West. These documents, which are summarized in Section 4 of this report, confirm that the project is based on the principles of good planning, design, and best engineering practices. The reports are identified as follows:

1. Draft Plan of Subdivision, prepared by JD Barnes Surveying Limited, dated April 3, 2019;
2. Functional Servicing and Stormwater Management Report, prepared by David Schaeffer Engineering Ltd., dated March 8, 2019;
3. Geotechnical Investigation, prepared by Paterson Group, dated March 7, 2019;
4. Community Transportation Study Update, prepared by Stantec, dated March 5, 2019;
5. Roadway Traffic Noise Feasibility Assessment, prepared by Gradient Wind Engineering Inc., dated February 28, 2019; and
6. Environmental Impact Statement & Tree Conservation Report, prepared by Kilgour and Associates, dated February 28, 2019.

2.0 SITE BACKGROUND & PLANNING CONTEXT

2.1 The Subject Lands

The subject lands are located within the larger Barrhaven South CDP area, which is generally located south of the Jock River, north of the Barrhaven South Urban Expansion Area CDP (2018), east of Highway 416, and west of Greenbank Road. The subject lands are known municipally as 3345 Borrisokane Road, 3454 & 3508 Greenbank Road, and 3853 & 3900 Cambrian Road. Figure 1 locates the subject lands in the larger regional context. More specifically, the subject lands are located towards the northern end of the CDP study area, south of the Jock River, east of Borrisokane Road (formerly Cedarview Road), west of future re-aligned Greenbank Road and north and east of the City-owned Cambrian Woodlot (Figure 2).

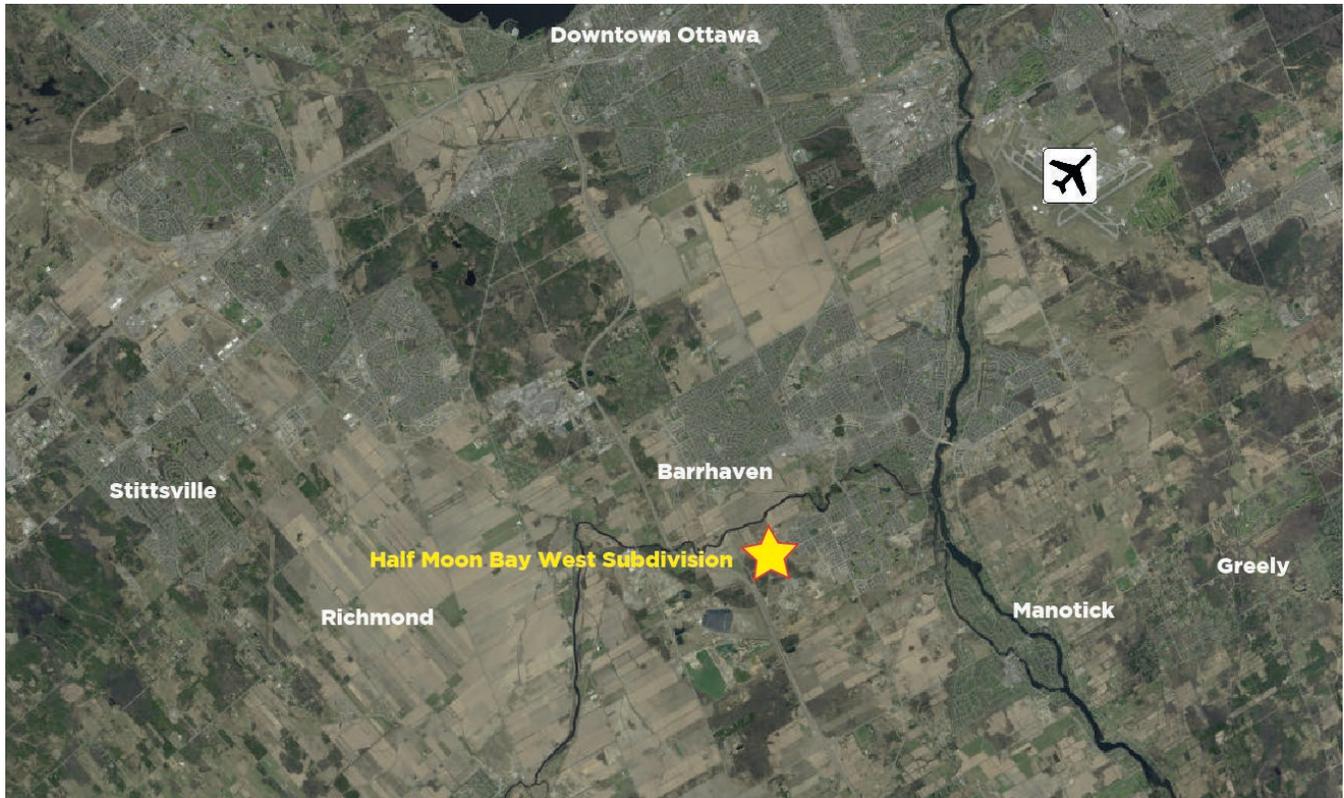


Figure 1: Subject lands in regional context

With an area of just under 60 hectares, the subject lands represent approximately 11% of the Barrhaven South CDP study area. Half Moon Bay West is one of the last subdivisions to be developed within the CDP area. The area is a combination of cleared and graded land, as well as lands formerly used for agricultural purposes.



Figure 2: Subject lands in local context

Land uses surrounding the proposed plan of subdivision include:

NORTH – The Jock River and associated parkland / floodplain are located to the immediate north. Lands to the north and west are owned by Glenview Homes and have been draft approved and zoned.

SOUTH –Cambrian Woods, a City-owned woodlot, is located to the south and west of the subject lands. New phases of Tamarack’s “The Meadows” community, which is in various stages of approval and development, is also located to the south. Further south are two active sand and gravel extraction operations, which are part of the Barrhaven South Urban Expansion Area CDP.

EAST – Future re-aligned Greenbank Road, previous phases of Half Moon Bay, and other recent residential subdivisions by other developers (which consist primarily of mixed-type residential development along with associated parkland, school sites and the Community Core commercial development along New Greenbank Road) are located to the east of the subject lands.

WEST – Borrisokane Road and Highway 416 are located to the west of the subject lands. This area includes undeveloped lands not owned by Mattamy. These lands are designated “Employment” and “100-Year Floodplain” in the CDP. Beyond Highway 416, approximately 1.2 kilometres southwest of Half Moon Bay West, is the City’s Trail Road Waste Disposal Facility.

3.0 DEVELOPMENT PROPOSAL SUMMARY

Mattamy Homes is seeking permission to amend its Draft Plan of Subdivision for the Half Moon Bay West lands. The original Draft Plan of Subdivision, which received approval from the City on March 28, 2018 (D07-16-16-0023), included the following:

- / Detached dwellings (519) – 15.33 ha;
- / Traditional and back-to-back (“village”) townhouse dwellings (427) – 6.96 ha;
- / School block (1) – 6.07 ha;
- / Park blocks (3) – 4.02 ha;
- / Commercial blocks (2) – 2.86 ha;
- / Stormwater management block (1) – 2.64 ha;
- / Employment block (1) – 2.24 ha;
- / Apartment block (1) – 0.76 ha;
- / Streets – 15.95 ha;
- / Other (open space, walkway blocks, streets, and future development lands) – 5.34 ha.

Changes to the Draft Plan of Subdivision include the following:

- / The detached dwellings that were originally proposed in the southwest portion of the Plan of Subdivision (abutting the east side of Cambrian Woods) have been relocated further north and northwest after it was determined that soils in the area are unsuitable for homebuilding. Further, the back-to-back townhouse blocks that are proposed along the south side of Street 17 have been shifted further west and a block of townhouse dwelling units is now proposed abutting the channel that runs between Cambrian Woods and Street 17;
- / In response to the above-noted relocation of several residential blocks, Park 2 has been moved to the southeast and will now abut Cambrian Woods and Cambrian Road. Although the soils in this area are unsuitable for homebuilding, they are able to support the infrastructure required for a park. The park’s area has also been increased from 2.61 ha to 3.09 ha;
- / The apartment block has been increased in size by extending the block to the west, where a block of townhouse units was originally proposed;
- / The streets and pathways have been modified to take into account the revised layout of the subdivision; and
- / The commercial blocks have been removed from the Draft Plan of Subdivision as Mattamy has sold the parcels since Draft Plan of Subdivision and zoning approval.

The breakdown of land uses on the revised Draft Plan of Subdivision is as follows:

- / Detached dwellings (447 units) – 13.81 ha;
- / Townhouse dwellings (300 units)- 6.22 ha;
- / Back-to-back (“village”) townhouse dwellings (154 units) – 1.65 ha;
- / School block (1) – 6.07 ha;
- / Park blocks (4) – 4.58 ha;
- / Stormwater management blocks (2) – 4.07 ha;
- / Employment block (1) – 2.11 ha;
- / Apartment block (72 units) – 0.93 ha;
- / Streets – 13.85 ha;
- / Other (walkways and servicing, channel, future development lands) – 4.13 ha.

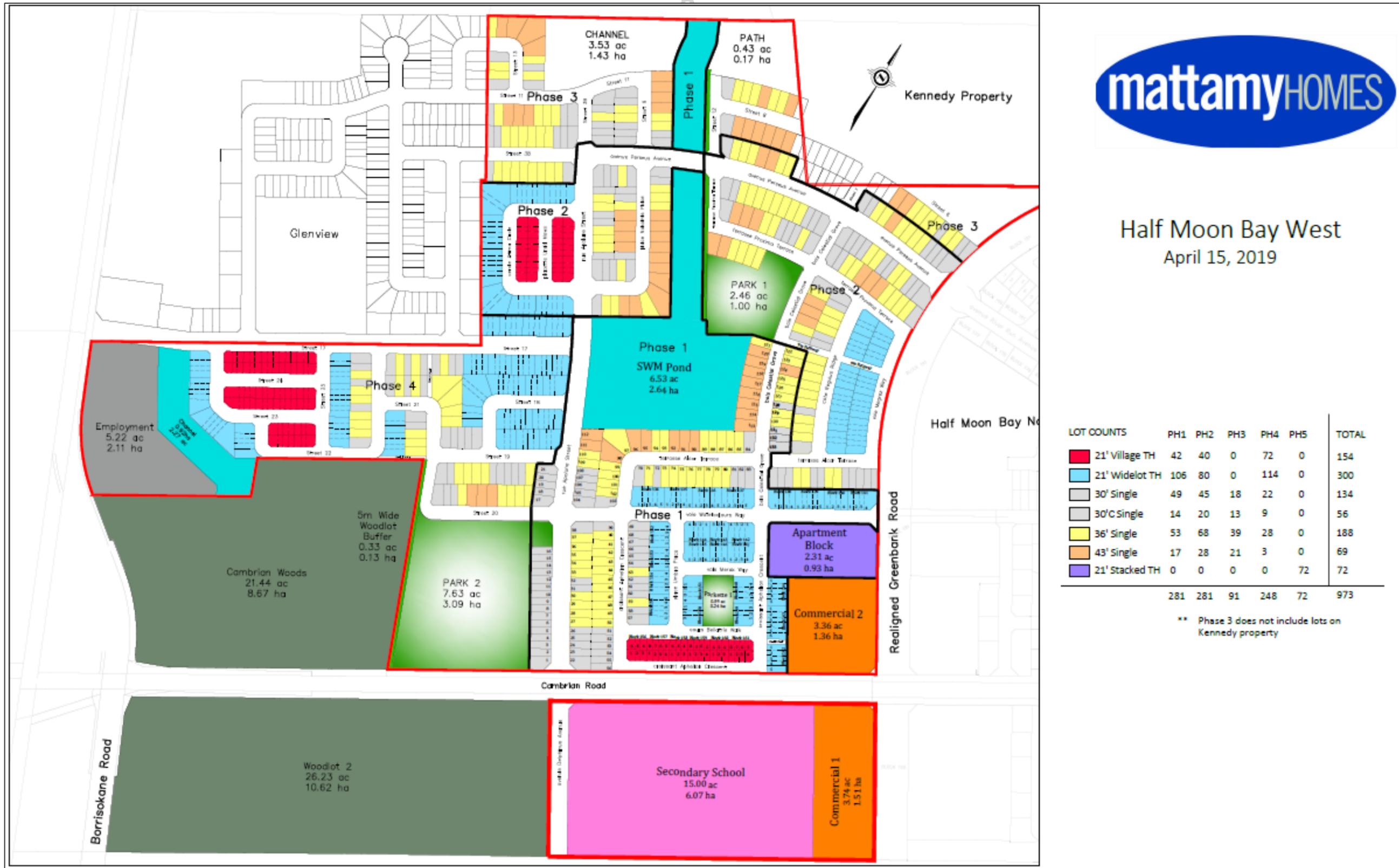


Figure 3: Revised Concept Plan for Mattamy's Half Moon Bay West subdivision

A Headwater Drainage Features Assessment prepared by Kilgour in 2016 provided a management directive of “mitigation” for an existing drain (Drain 2) located near Cambrian Woods. As a result, a 40-metre-wide channel was incorporated into the northwest corner of the original Draft Plan of Subdivision, which allows for the transit of frogs between Cambrian Woods and the Jock River to the north. The size and location of the channel has been maintained on the revised Plan of Subdivision.

Access to the subdivision will continue to be provided via the connections identified in the CDP and original Draft Plan of Subdivision, including Cambrian Road, the future realignment of Greenbank Road, and Borrisokane Road (formerly Cedarview Road), all designated arterials in the Official Plan. In line with the Official Plan (OP) and CDP, three collector streets will traverse the Half Moon Bay West community, including Apolune Street (north-south through the centre of the subdivision), Street 1 (east-west off of realigned Greenbank Road), and Street 17 (east-west off of Borrisokane Road).

The road network in the interior of the subdivision generally follows a modified street grid layout, allowing multiple connections from the local roads to the internal collector streets and limiting direct access onto designated arterial streets. The interface of residential units with adjacent arterials (Cambrian Road and future realigned Greenbank Road) includes window streets and side-fronting units, which minimizes the need for noise walls.

Right-of-way (ROW) widths within the plan range as follows:

- / 14.00, 14.75 and 16.75 metres for single-loaded window streets (local streets);
- / 18 metres for standard local streets; and
- / 24 metres for collector streets.

The roadway cross-sections were approved by the City of Ottawa for use in Mattamy’s previous phases in Half Moon Bay. Sidewalk locations are intended to be finalized during the subdivision review process.

A secondary school is proposed to be located along the southern edge of the subdivision, on the south side of Cambrian Road and west of realigned Greenbank Road. The school block is proposed to be 6.07 hectares in area. Although the location of the school is illustrated on the north side of Cambrian Road in the CDP, correspondence from the Ottawa-Carleton District School Board in September 2016 indicated no objection to the revised location. The relocation results from the requirement for storm drainage of residential development to be directed to the proposed stormwater management pond at the north end of the subdivision. The revised school block location remains in proximity to realigned Greenbank Road, the Community Core commercial area, and a future transit station.

The proposed Draft Plan of Subdivision defines roadways, parks, lots for detached units, and blocks for townhouse and back-to-back townhouse dwellings units (which will be subject to future Part Lot Control applications). Figure 4 depicts the revised Plan of Subdivision prepared by J.D. Barnes.

Proposed parkland within the Plan of Subdivision consists of:

- / Two Neighbourhood Parks of 1.00 hectare (Phase 2) and 3.09 hectares (Phase 4);
- / One parkette of 0.4 hectares (Phase 1); and
- / One pathway along the eastern edge of the stormwater drainage channel of 0.17 hectares (Phases 2 and 3).

As per the City's Building Better and Smarter Suburbs initiative, Park 1 is co-located with the stormwater pond, which allows for the pond to be integrated into the open space system. The park is located at the intersection of Celestial Grove and Street 5.

Park 2 is located adjacent to Cambrian Woods, providing a treed backdrop along the western edge of the park. The park has an area 3.09 hectares and fronts onto Cambrian Road (arterial), Street 20, and a small portion of Apolune Street, facilitating visibility and access from surrounding areas. Geotechnical investigations have determined that the soils in Park 2 are unsuitable for homebuilding but are able to support the infrastructure required for a park.

4.0 POLICY AND REGULATORY CONTEXT

4.1 City of Ottawa Official Plan (2003, as amended)

4.1.1 Official Plan Designation

As illustrated on Figure 5, the subject lands are designated “General Urban Area” on City of Ottawa Official Plan Schedule B- *Urban Policy Plan*. Cambrian Woods, which is located immediately west and south of the subject lands is designated “Urban Natural Features”. Lands along the south side of the Jock River are designated “Major Open Space”.

The General Urban Area designation permits the development of a full range and choice of housing types to meet the needs of all ages, incomes and life circumstances, in combination with conveniently located employment, retail, service, cultural, leisure, entertainment and institutional uses. Development applications for lands within the General Urban Area must be evaluated in accordance with the policies Section 2.5.1, Section 3.6.1 and Section 4.11 of the Official Plan.

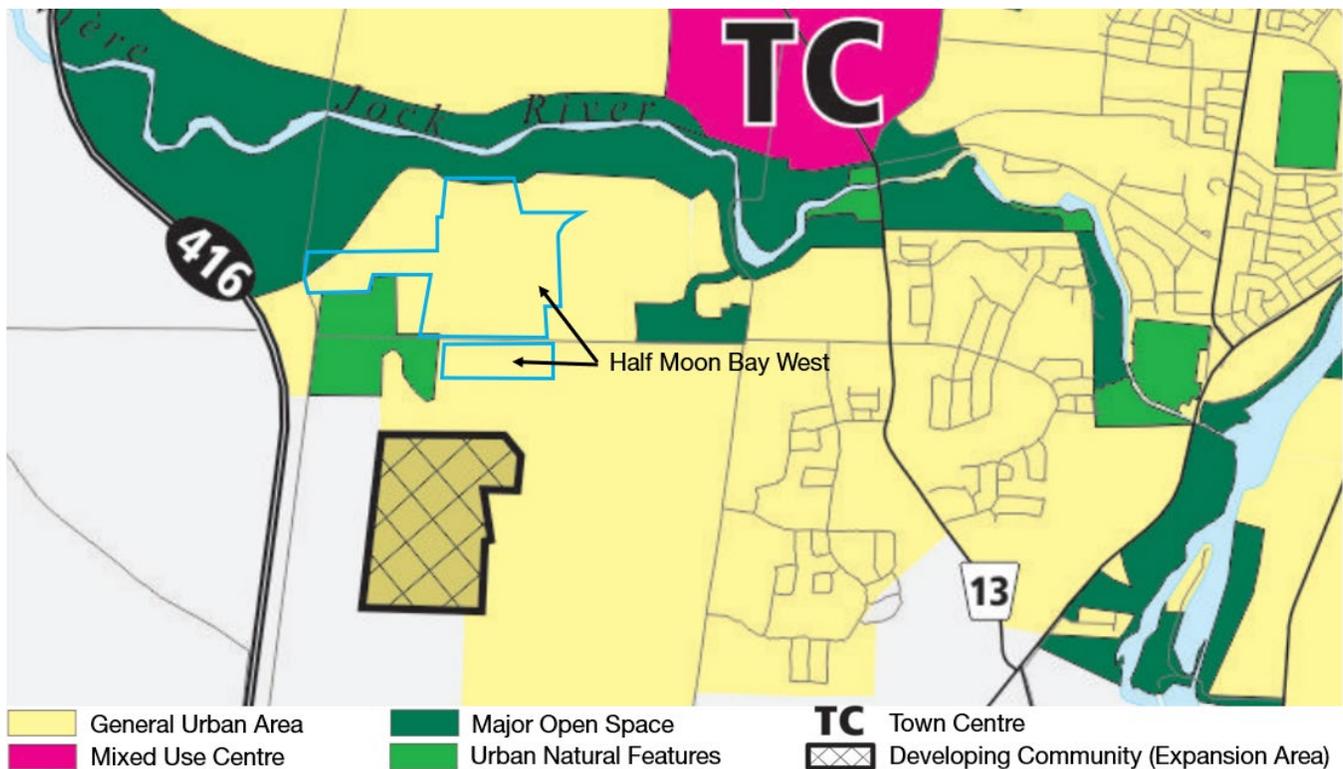


Figure 5: Extract from Official Plan Schedule B (Urban Policy Plan)

4.1.2 Waste Disposal Site

The Trail Waste Facility on the west side of Highway 416 is identified with a Solid Waste Disposal Site symbol on Official Plan Schedule A (Rural Policy Plan). Policy 5 of Section 3.8 restricts uses permitted within 500 metres of an operating or non-operating solid waste disposal site boundary. While the Cambrian Woods and the employment area are located within the 500-metre buffer, no residential uses in the Half Moon Bay West lands are located over 500 metres northeast of the Trail Waste Facility.

4.2 Official Plan Amendment 150 (2013)

In 2013, the City of Ottawa updated its Official Plan, resulting in numerous changes to its land use policies. The Ministry of Municipal Affairs and Housing (now the Ministry of Municipal Affairs) issued approval of Official Plan Amendment (OPA) 150 in April 2014, but the Amendment is currently under appeal before the Ontario Municipal Board (OMB). Some OPA 150 policies are now in full force and effect and others are still under appeal.

The proposed Plan of Subdivision is consistent with the proposed policy changes in OPA 150.

4.3 Urban Design Guidelines for Greenfield Neighbourhoods (2007)

City of Ottawa Council approved a set of Urban Design Guidelines for Greenfield Neighbourhoods in September 2007. The guidelines outline the City's expectations during the development review process for greenfield neighbourhoods. The proposed subdivision meets several of the guidelines, including:

- / Considers natural features in community design, particularly stormwater management and drainage to the Jock River;
- / Locates stormwater management pond along a public road to make a visible contribution to the neighbourhood;
- / Locates parks adjacent to other natural features, such as woodlands and drainage corridors;
- / Provides a five-metre-wide buffer between Cambrian Woods and the subdivision to the east;
- / Concentrates higher-density residential uses in strategic locations, including in proximity to institutional and commercial uses and a future Bus Rapid Transit (BRT) corridor;
- / Incorporates pathways, trails and sidewalks that connect residential areas to commercial areas, schools, and parks;
- / Connects new streets to existing streets in adjacent developments and plans for future connections to land that has yet to be developed;
- / Designs collector streets to be direct and continuous through the neighbourhood;
- / Limits the length of many development blocks to be between 150 and 250 metres;
- / Locates the school site at the intersection of an arterial and a collector street, in consultation with the applicable school board;
- / Locates parks of sufficient size on collector and / or local streets;
- / Includes single-loaded streets adjacent to arterials to avoid sound attenuation walls; and
- / Mixes various types of housing, while considering the relationship between each other.

4.4 Barrhaven South Community Design Plan

CDPs are intended to translate the direction and policies of the Official Plan to the community level. They are comprehensive in nature and incorporate the planning policy context of the Official Plan, infrastructure servicing, transportation, and environmental and economic impacts. Principles, policies and guidelines established in the CDP provide the direction required for the preparation and review of development applications within the community.

The purpose of the Barrhaven South CDP, which was approved by Council in September 2006, is to provide a framework for the development of the Barrhaven South community, which fulfills the policy directions outlined in the City's Official Plan. More specifically, the CDP establishes a wide range of design guidelines and development principles with respect to land uses, street systems, parks and greenspace, the community core, employment area, institutional uses, and residential lot and building configuration. The CDP contains the following four major components:

1. An overview of the lands, the community building process, the planning context, and the development of the plan, including the establishment of guiding principles which are to be followed during the preparation and review of development submissions;
2. The plans and studies for the study area, including the Land Use Plan, Demonstration Plan, Greenspace Plan, and supporting studies including the Transportation Master Plan, Subwatershed Study and Master Servicing Plan;
3. The community design guidelines, which provide direction for the design of the built environment's components; and
4. The implementation strategy, which highlights future actions for the CDP.

The intent of the Land Use Plan in the Barrhaven South CDP is to create a complete residential community with a distinct identity, which contains a full range of housing choices and a broad complement of support services and facilities. Figure 6 identifies the Half Moon Bay West lands on the CDP Land Use Plan. The evaluation below compares the Concept Plan for the Half Moon Bay West subdivision with the principles of the CDP Land Use Plan, with regard to the location of uses and the residential unit mix.

The Half Moon Bay West lands occupy a small portion (approximately 11%) of the greater CDP lands. As illustrated in the CDP Land Use Plan (Figure 6), the planned function for this particular area is primarily low-to-medium residential uses, interspersed with a school, parkland, and stormwater management facilities. Lands along the western edge of the Half Moon Bay West subdivision, at the southeast corner of Borrisokane Road and Street 17, are designated Employment in the CDP.

The lands located to the southeast of Half Moon Bay West, at the four corners of the intersection of Cambrian Road and future realigned Greenbank Road, are designated Community Core in the CDP. The Community Core is intended to be the "heart" of the Barrhaven South community, where commercial activities and services will be concentrated. A variety of commercial/retail and higher-density residential uses are permitted within the Community Core.

Cambrian Woods is indicated as an Urban Natural Area designated woodlot. Figure 7 illustrates the subject lands on the CDP Demonstration Plan.

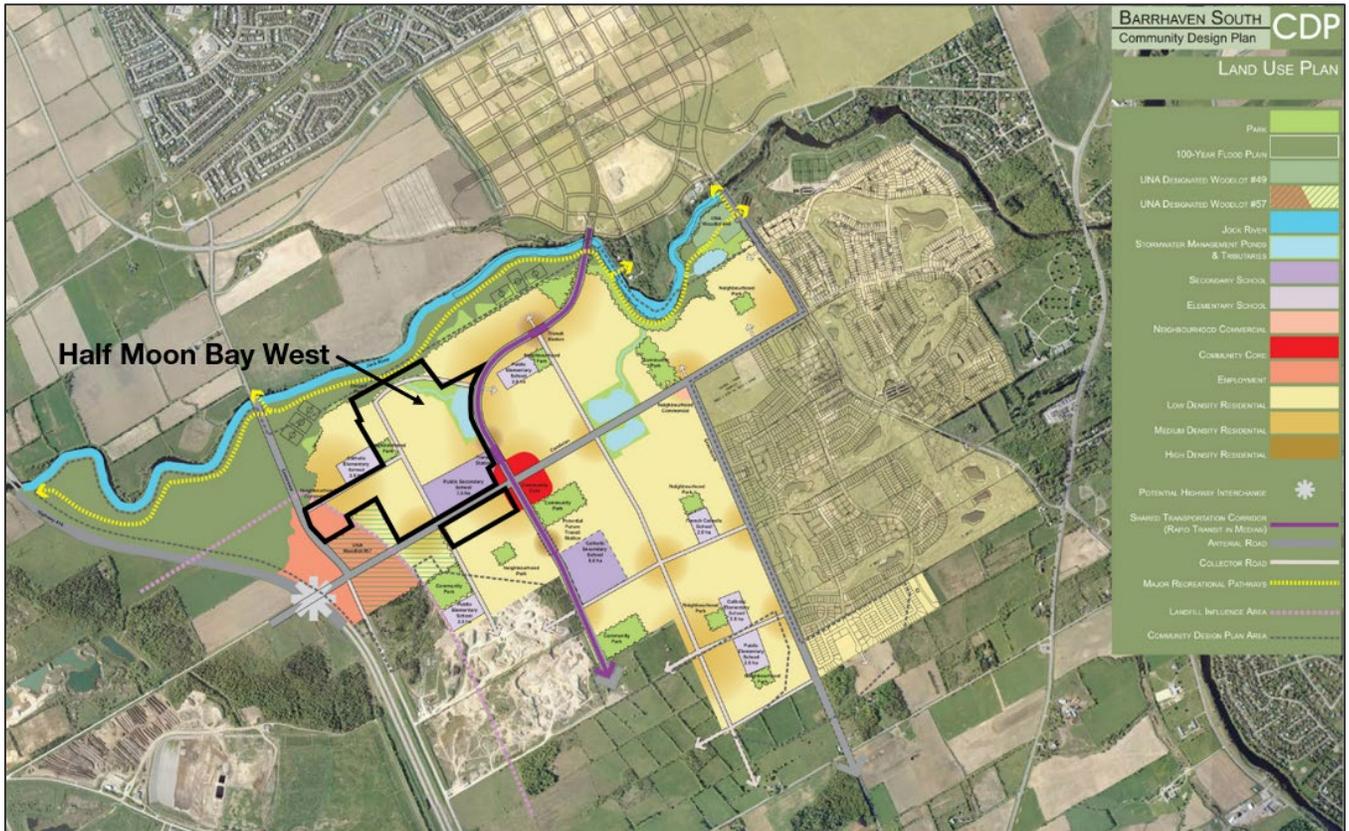


Figure 6: Barrhaven South CDP Land Use Plan (subject lands outlined in black)



Figure 7: Barrhaven South CDP Demonstration Plan

4.4.1 Residential Density

The Barrhaven South CDP includes a Demonstration Plan which illustrates one way in which the Land Use Plan could be implemented. The Demonstration Plan also provides a means of establishing and monitoring the mix of units and density targets in the sub-planning areas over time.

The CDP establishes a target of 6,862 dwelling units for the entire Barrhaven South study area and an overall net residential density for detached, semi-detached and townhouse dwelling types of 34.3 units per hectare. It is expected that development of the CDP lands will generate a total population of 19,215.

The revised Half Moon Bay West subdivision will provide 973 units, with the unit distribution shown in Table 1. The detached dwellings and townhouse dwellings occupy 20.03 hectares of land (13.81 hectares and 6.22 hectares, respectively), representing a proposed density of 37.3 units per net hectare, exceeding the CDP target of 34.3 units per net hectare. With the inclusion of the 2.58 hectares of blocks intended for back-to-back townhouses and stacked back-to-back townhouses, the overall density is increased to 43 units per net hectare.

The proposed unit split for the Half Moon Bay West lands meets the unit distribution requirements established for each residential density category in the City of Ottawa Official Plan and the Barrhaven South CDP. The following subsections identify these targets and describe/discuss how these targets are met in the revised Half Moon Bay West subdivision.

Table 1: Unit Distribution – Half Moon Bay West

Unit Type	Units	Split
Detached	447	46%
Townhouse	300	31%
Back-to-Back Townhouse	154	16%
Back-to-Back Stacked Townhouse	72	7%
TOTAL	973	100%

4.4.1 High Density Residential

The purpose of the High Density Residential land use category is to provide an adequate amount of land for residential dwellings at higher densities and to meet the Official Plan requirement that 10% of all dwelling units in Developing Communities be apartments. The High Density Residential land use category is located at major community focal points, such as along arterial and major collector streets, within and adjacent to the Community Core, and adjacent to, or within close proximity to, transit stations.

The High Density Residential land use category can include products such as stacked townhouses, back-to-back townhouses, as well as low and mid-rise apartments. The 10% of dwelling units to be provided in the form of apartments must be located within the areas designated High Density Residential as shown on the Land Use Plan.

The CDP defines apartments as “units located in a building, which has a minimum of six (6) units, where the units are separated both vertically and horizontally, and where the units are limited to rental or condominium tenure.” Therefore, the stacked back-to-back units proposed in Block 166 (which are subject to a concurrent Site Plan Control application D02-02-19-0034) are considered “apartments” in the CDP, even though they do not meet the definition of apartments in the Comprehensive Zoning By-law (2008-250).

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / The Half Moon Bay West Concept Plan provides 23% of residential housing as back-to-back townhouses (“Village Townhouses”) and stacked back-to-back townhouses (apartment block). As required, these units are located near or adjacent to arterials and collector streets.
- / Higher density residential areas are located in proximity to major focal points, such as schools, parks, commercial areas, and employment areas to ensure accessibility to local amenities and services. They are also located close to the future BRT corridor in the centre of realigned Greenbank Road.

4.4.2 Medium Density Residential

The purpose of the Medium Density Residential land use category is to provide an adequate amount of land to accommodate the majority of the ground-oriented multiple dwellings within the community. The Medium Density Residential land use category is focused along arterials and collector streets, at the intersection of collector streets within neighbourhoods, and adjacent to neighbourhood focal points and major park facilities. The land use category is dispersed throughout the community to provide for a variety in housing types throughout the various neighbourhoods.

All forms of ground-oriented multiple unit dwellings will be permitted within the Medium Density Residential land use category, which may include triplexes, fourplexes and townhouses (block, stacked, back-to-back, and street). Detached, semi-detached and duplex dwellings are also permitted provided the densities established for each of the four sub-planning areas are achieved.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

-
- / As required, the Concept Plan features medium-density residential dwellings in the form of townhouse dwellings. These units are two storeys in height and are street-oriented in lot and building design.
 - / The Mattamy Concept Plan provides 31% of residential housing at a medium density (townhouse units), in excess of the minimum 30% target in the CDP.
 - / The townhouse units are generally located in proximity to neighbourhood focal points, such as parks, commercial and employment uses.
 - / Medium-density residential uses are strategically distributed across the subdivision to balance levels of density across the community and diffuse traffic and parking impacts.

4.4.5 Low Density Residential

The purpose of the Low Density Residential land use category is to provide an adequate amount of land that will accommodate the lowest density residential uses within the community. At the time the CDP was approved, the Official Plan contained a policy restricting detached units to 60% of the total number of dwellings within the community.

Detached, semi-detached and duplex dwellings are permitted uses within the Low Density Residential land use category. Street townhouses and other similar ground-oriented multiple dwellings are also permitted within the Low Density Residential land use category in order to accommodate a variety of housing choices, increase affordability and create interesting streetscapes throughout neighbourhoods.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / The Mattamy Concept Plan provides 46% of housing as low-density residential (detached units), which is less than the maximum of 60% established in the CDP.
- / As indicated in the Land Use Plan, low-density residential uses are dispersed evenly throughout the site and are integrated with high and medium density residential units.
- / The Half Moon Bay West subdivision will include a range of ground-oriented dwelling units including detached, townhouse, and back-to-back townhouse units. This will ensure streetscape diversity and the provision of mixed housing on the same streets and/or blocks.
- / A range of lot sizes are proposed for detached units, including 30-foot, 36-foot, and 43-foot wide lots.

4.4.6 Employment

The purpose of the Employment land use category is to provide enough land for employment generating uses within the community in order to meet the Official Plan's jobs-to-housing balance targets. The Employment Area land use category is located along the western periphery of the community, with good access to the arterial road network and adjacent to Highway 416. These employment lands will complement the mix of land uses within Barrhaven South and will contribute to the balance of jobs and households for the larger South Nepean area. The intent is to establish a range of uses in a high-quality business park setting that serve the interests of Barrhaven South, as well as those of the larger community. Industrial uses, warehouse uses, automotive uses, offices, and retail uses are all permitted within the Employment land use category.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

-
- / A block of land measuring 2.11 hectares in area is reserved for employment uses along Borrisokane Road, along the western edge of the subdivision.

4.4.7 Schools

The purpose of the School land use category is to accommodate sites for future potential school sites to serve the community. Six elementary schools and two secondary schools, as requested by the four area school boards, have been identified within the School land use category. The location and size of these school sites have been shown to demonstrate the need to balance the distribution of schools throughout the community and to reflect the identified interests of the school boards, in terms of number, type, size, configuration and preferred location for these facilities. Only schools and their associated uses, such as day care facilities or parks, are permitted within the School land use category.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / As indicated on the CDP Demonstration Plan, a Secondary School site is planned within the Half Moon Bay West subdivision. In consultation with the Ottawa Carleton District School Board, the 6.07-hectare block has been relocated to the south side of Cambrian Road, in the southeast corner of the subdivision.
- / The location of the proposed school ensures visibility from Cambrian Road (arterial) and the proposed collector street adjacent to the west side of the school block (Delphinus Avenue). The location along an arterial also facilitates access for buses, motor vehicles, and pedestrians.

4.4.8 Parks

The purpose of the Park land use category is to identify lands that accommodate a full range of recreational opportunities, ranging from active spaces such as sportsfields and organized play areas, to more passive leisure areas including pathways, trails and seating areas. Barrhaven South is comprised of a hierarchy of four levels of parks: District, Community, and Neighbourhood level parks, and Parkettes, with the three (3) higher level parks designated on the Land Use Plan. All four levels of parks form the basis for the Barrhaven South Greenspace Plan.

Neighbourhood Parks

Neighbourhood Parks are located within neighbourhoods on either local or collector streets and are generally around 0.8 hectares in size. Neighbourhood parks contain various park elements geared to a variety of users of all ages and will vary from one neighbourhood to the next. The City recognizes the potential and unique opportunity for schools to co-locate and share facilities, such as joint use of sportsfields, shared parking and entrances with each other.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / Two Neighbourhood Parks are located within the Half Moon Bay West development. Park 1 is 1.0 hectare in area and is situated in the northeast area of the subdivision, adjacent to the stormwater management pond. Park 2 is 3.09 hectares in area and is situated adjacent to Cambrian Woods in the southwest area of the subdivision.
- / Both parks are located at the intersection of two roads, facilitating access to users.
- / Mattamy will provide a full range of recreational facilities and amenities as required by the City's Parks and Pathways Manual (2017) to ensure programmable space for the neighborhood parks.

Parkettes

Parkettes are located within neighbourhoods, usually in proximity to higher-density residential uses, and are generally 0.2 to 0.4 hectares in size. A variety of elements- some active, smaller play structure, or leisure type uses, at a scale conducive to the size of the park, will be included in the park design. Parkettes will be designed in a manner that fully integrates the surrounding public realm; as such, single-loaded public streets and higher-density residential uses are encouraged adjacent to, and fronting on the parkette.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / One Parkette is proposed within the Half Moon Bay West subdivision, in the southeast area of the community. The parkette measures 0.24 hectares in size.
- / The parkette abuts two local streets, facilitating access for users.
- / The parkette is located in close proximity (1-2 blocks) to medium- and higher-density residential uses.
- / Mattamy will provide a full range of smaller-scale recreational facilities and amenities as required by the City's Parks and Pathways Manual (2017) at the parkette.

4.4.9 Floodplain

The purpose of the Floodplain land use category is to protect the lands along the Jock River defined through the Rideau Valley Conservation Authority (RVCA) mapping (2005). These lands will be incorporated into the greenspace network of Barrhaven South. The Jock River will be a major element of the greenspace system in Barrhaven South and will provide critical connections to the broader, citywide open space network. Water-related uses, pathways and recreational trails, parks with sportsfields (between the 25- and 100-year flood lines), and passive recreational areas are permitted within the Floodplain land use category.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / The proposed subdivision layout generally respects the 100-year floodplain contours and ensures that no urban uses are proposed within the floodplain.
- / Cut and fill engineering solutions will be completed to compensate for the select lots that are located within the floodplain at the northern end of the subdivision. A permit for this work will be obtained.

4.4.10 Woodlots

The purpose of the Woodlot land use category is to protect two areas identified by the Urban Natural Areas Environmental Evaluation Study as significant woodlots. Urban Natural Area #49 (UNA) is located in the northeast corner of the community, adjacent to the Jock River, and is currently owned by the City of Ottawa. UNA #57 is located along both sides of Cambrian Road near the community's western boundary and is currently in private ownership.

The intent is to retain these two areas in their natural state. Only passive recreation activities such as trails and orientation areas will be permitted in the Woodlot land use category.

As per Part 7 of this CDP, it is anticipated that the City will reach agreement with the owner to acquire the lands within UNA #57. However, if an agreement is not reached, these lands may be developed as per the underlying Medium Density Residential, Low Density Residential, and Employment land use categories in accordance with Sections 5.1.2 and 5.1.3, and 5.1.6.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / Cambrian Woods is located outside of the Plan of Subdivision.
- / A five-metre-wide buffer along the edge of the woodlot is proposed to be dedicated to the City (shown as Block 502 on the revised Draft Plan of Subdivision).

4.4.11 Stormwater Management Ponds and Tributaries

The purpose of the Stormwater Management land use category is to provide land to accommodate the stormwater management infrastructure requirements to control quantity and quality of runoff generated by the development to meet regulatory requirements. It also includes the open tributaries that will be restored to meet fish habitat objectives as determined by the Department of Fisheries and Oceans. This land use category includes three stormwater ponds, one located relatively central to the community that straddles the north and south sides of Cambrian Road, and two others located in each the west quadrant and east quadrant of the CDP planning area, north of Cambrian Road. The general location and pond size are illustrated in the land use plan. However, further technical analysis through the Master Servicing Plan will confirm the sufficient block sizes based upon approved stormwater management design criteria.

In addition to the infrastructure requirements of the stormwater ponds and tributaries, public trails, pedestrian pathways and accessory structures are permitted in the Stormwater Management Pond land use category.

The Half Moon Bay West Concept Plan **meets these objectives as follows:**

- / A stormwater pond is located internal to the proposed subdivision, with a drainage channel north to the Jock River.
- / A pathway is proposed adjacent to the drainage channel in order to provide recreational opportunities and active transportation connections to the Jock River.

4.4.12 Dwelling Unit Targets

Four sub-planning areas have been identified in the CDP in order to identify and track density targets and unit mix over time. The Half Moon Bay West Subdivision is primarily located in Sub-Planning Area 2, with its southern edge located in Sub-Planning Area 3. As only the proposed school and a portion of the Community Core are located in Area 3, Table 2 summarizes the land use projections for Area 2 only. All figures represent projections, rather than targets.

The CDP establishes a total of 1,422 units in Sub-Planning Area 2. In addition to the Mattamy lands, this sub-planning area incorporates the Glenview lands to the northwest of the Half Moon Bay West Subdivision. Table 2 summarizes the densities and unit count for the Half Moon Bay West Subdivision in Area 2.

Table 2: Projected and Planned Dwelling Units

Dwelling Unit Projections CDP Sub-Planning Area 2			
Land Use & Average Densities (net units per hectare)	Hectares	Units	Net Density
Low Density (26)	27.5	715	26
Medium Density (52)	9.8	509	52
High Density 1 (82)	0.0	0	0
High Density 2 (120)	0.9	112	124
Community Core (60)	1.4	86	61
Subtotal	39.6	1,422	-

Dwelling Units & Densities			
Half Moon Bay West Subdivision			
Low Density (Detached units)	13.81	447	32
Medium Density (Townhouse units)	6.22	300	48
High Density 1 (Back-to-back Townhouse and Stacked Back-to-back Townhouse units)	2.58	226	88
High Density 2	0	0	0
Subtotal	22.6	973	-

As demonstrated in Table 2, the proposed residential unit count of 973 for the Half Moon Bay West subdivision approaches the projected density for Sub-Planning Area 2 of 1,422. As the proposed Glenview subdivision is also included in Area 2, the total unit count is expected to meet the projections.

The Barrhaven South CDP states that no more than 60% of units may be detached or semi-detached and at least 30% and 10% of units must be multiple-attached and apartment units respectively. **The Concept Plan proposes 46% detached, 47% townhouse dwellings, and 7% apartments (back-to-back stacked townhouses) within the Half Moon Bay West subdivision.**

The overall density for ground-oriented dwellings in the Half Moon Bay West subdivision is 43 units per net hectare, exceeding the minimum of 29 units per net hectare established in the CDP.

While the overall CDP area is expected to achieve the desired mix of uses, each sub-planning area and each subdivision may not. As outlined in this Demonstration Report, the proposed design aims to meet the intent of the CDP policies, given constraints and limitations.

4.4.2 Community Design Guidelines

The following is a comprehensive overview of the design principles that inform the Barrhaven South CDP. The CDP establishes design guidelines which address a range of land uses, including:

- / Overall community identity
- / Streets
- / Parks and greenspace
- / The community core
- / Residential Areas
- / Employment and Retail Areas
- / Institutional Uses

The Concept Plan for the Half Moon Bay West lands establishes the framework within which these design guidelines can be met. The majority of the design guidelines will be addressed at the detailed design stage.

The italicized portion of each subsection below represents an excerpt from the CDP with regard to the purpose of each major land use within the Half Moon Bay West lands.

Overall Community Identity

The design guidelines established in the CDP speak to the importance of Community Identity. The notion of Community Identity in Barrhaven South is based on the following key development directives:

1. Development should capitalize on the abundant natural features of the site – both existing and proposed.

-
2. Development should create a more urban, intimate environment.

The Mattamy Concept Plan **meets these objectives as follows:**

- / Preserves an existing significant woodland (Cambrian Woods) at the edge of the community.
- / Medium- and high-density residential uses are distributed throughout the subdivision to create appropriate densities at an urban scale and ensure efficiency for urban services and infrastructure.
- / Access to the Jock River is facilitated through the street network and a pedestrian pathway along the drainage channel.
- / The stormwater pond and tributary are sited and designed to be a focal point for the neighbourhood.
- / Window streets are incorporated to limit access to arterials and ensure appropriate interface between buildings and the public realm.
- / Mid-block pathways are incorporated to facilitate pedestrian access to the stormwater management pond and commercial uses.

Streets

Streets are a major element of the public realm in communities. The design of streets with respect to widths, landscaping, and their relationship with buildings are fundamental in establishing the character of a community.

The Mattamy Concept Plan **meets these objectives as follows:**

Arterial Roads

- / Full-movement intersections along arterial roads are appropriately spaced.
- / Single-loaded window streets are incorporated as an alternative to rear-lotting and noise walls.

Collector Roads

The purpose of collector roads is to provide an organizational structure for the internal workings of the community. They establish routes into and between the various neighbourhoods, and provide routes to integrate transit into the community.

The Mattamy Concept Plan **meets these objectives as follows:**

- / Collector streets are designed using 24-metre right-of-way.
- / Rear lotting is not proposed along collector streets.

Local Roads

The purpose of local roads is to distribute traffic from arterials and collector streets to individual properties, generally over short distances. Barrhaven South is a residential community and therefore the majority of its road network consists of local roads.

The Mattamy Concept Plan **meets these objectives as follows:**

-
- / Local roads are designed with 18-metre rights-of-way, with 14 to 16.75-metre rights-of-way proposed for single-loaded roads.

Parks & Greenspace

Greenspace and parkland in Barrhaven West will be easily accessible to residents, provide active recreational space, and enhance north-south and east-west pedestrian connectivity.

The Mattamy Concept Plan **meets these objectives as follows:**

- / Parks are sited along multiple public roads and with dwellings facing the parks on the opposite side of the street to encourage “eyes on the park” for aesthetic and safety reasons;
- / Parks are located with consideration for surrounding uses and are located adjacent to residential uses;
- / Neighbourhood parks are 1.0 hectare and 3.09 hectares and are generally square or rectangular in shape;
- / The proposed parkette is 0.24 hectares in size and has frontage on two streets;
- / Blocks of land utilized to provide linkages will be dedicated to public ownership;
- / Mid-block pathways are 6 to 9 metres in width;
- / A pathway is proposed to be located along the east side of the stormwater drainage channel;
- / The stormwater management pond fronts onto a single-loaded collector street to the west and a neighbourhood park to the east to promote public access to the natural area; and
- / Single-loaded roads are provided along Streets 2, 20, 22, Aphelion Crescent in order to fulfil urban design objectives.

Residential Neighbourhoods

The intent is to create a strong, vibrant, urban community in Barrhaven South, which includes the following elements:

- / Increased densities to sustain transit and a variety of land uses;
- / A variety of housing types and built form to create interesting places;
- / Strong urban design elements that protect and enhance the abundant natural features and create engaging, beautiful places to live.

The Mattamy Concept Plan **meets these objectives as follows:**

- / Select streets and building lots are aligned and oriented to capitalize on view corridors to, and along, the Jock River and Cambrian Woods;
- / All residential development lots front onto public streets and buildings will be oriented to the street; and
- / Townhouses are mixed with other built forms so as to not dominate an entire neighbourhood.

Schools

Schools should address the street with primary entrances oriented to the street, frontage on at least two (2) streets, strong pedestrian linkages to public transit, and appropriate locations at the side of the school for on-site bus lay-bys and car drop-offs. The location and size of school sites are to be finalized based on the needs of the School Boards.

The Mattamy Concept Plan **meets these objectives as follows:**

- / The proposed secondary school has frontage on two streets, including a collector and an arterial; and
- / The school block is appropriately sized for the needs of the school board, as confirmed through direct consultation.

4.5 Comprehensive Zoning By-law (2008-250)

The Half Moon Bay West subdivision is currently zoned as follows (Figure 8):

Land Use	Current Zoning
Low- and Medium-Density Residential	Residential Third Density, Subzone YY, with Exceptions (R3YY[1627])
High-Density Residential	Largely General Mixed Use with Exceptions (GM[1628]), western edge zoned R3YY[1627]
Parks, Stormwater Management Facility, and Mid-Block Pathways	Parks and Open Space (O1)
School block	Dual zoned Minor Institutional and Residential Third Density, Subzone YY, with Exceptions (I1A/R3YY[1627])
Employment block	Light Industrial with Exceptions (IL[304])
Channel and Buffer from Cambrian Woods	Environmental Protection, Subzone 1 (EP1)

The following revisions are required to the existing zoning in order to accommodate the revised Draft Plan of Subdivision (Figure 8):

- / Revision of the GM[1628] zoning for the apartment block to GM[XXXX] in order to address site-specific exceptions required for the apartment block, including:
 - o A reduction of the rear yard setback requirement (for residential uses) from 7.5 metres to 3.0 metres in order to create a comfortable pedestrian streetscape along future Greenbank Road. If the subject property had a residential as opposed to mixed-use zoning, the front yard setback would apply to re-aligned Greenbank Road and a variance would not be required.
 - o A reduction of the required width of landscaped area surrounding a parking lot with 100 or more spaces, where not abutting a street, from 3.0 metres to 1.5 metres for the south side of the parking lot. If one less parking space were proposed, the requirement would be 1.5 metres, which is the width that is currently proposed.

The apartment block is subject to a concurrent Site Plan Control application (D02-02-19-0034).

- / Extension of the GM[XXXX] zoning westwards in order to include the entire apartment block (Block 166);
- / Rezoning of the mid-block pathways (Block 165) between Aphelion Crescent and the future Community Core block from O1 to R3YY[1627] to be consistent with the other mid-block pathways in the subdivision;
- / Relocation of the O1 zoning for Park 2 to the new park location; and
- / Application of the R3YY(1627) zoning to the residential units now proposed in the former location of Park 2.

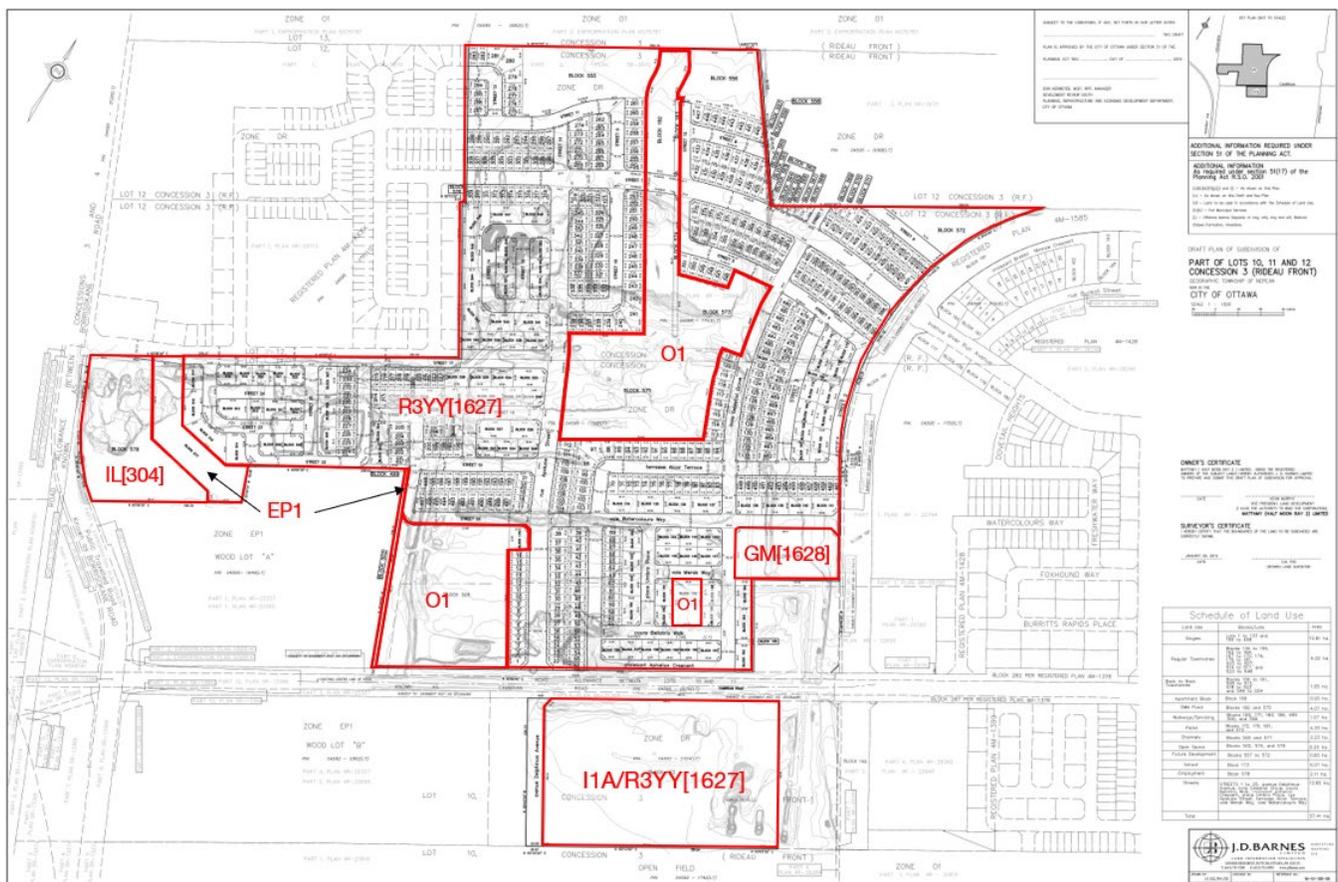


Figure 8. Proposed zoning for revised Draft Plan of Subdivision

5.0 PARKLAND DEDICATION

Parkland dedication for the Half Moon Bay West Subdivision is proposed to be satisfied through land conveyance. The Parkland Dedication requirements, as per the City of Ottawa Parkland Dedication By-law No. 2009-95, are outlined in the table below.

Table 3: Parkland Dedication

Proposed Use	Number of Dwelling Units	Block Area (ha)	Parkland Dedication Rate	Parkland Dedication Required (ha)
Detached	447		1 ha / 300 dwelling units	1.490
Townhomes	454		1 ha / 300 dwelling units	1.513
Apartment Block (Block 166)	72		1 ha / 300 dwelling units	0.24
Employment Lands (Block 578)		2.11	2% of gross land area	0.042
			Subtotal:	3.285
Parkland sharing (Glenview Lands under-dedication)		0.585		0.585
			Total:	3.87

The proposed development will satisfy the above-noted requirement of 3.285 hectares by conveying 4.5 hectares of parkland (represented by Blocks 172, 175, 183, 501, 573, and 574 in the revised Draft Plan of Subdivision).

Geotechnical Considerations

A deep silty clay deposit below the proposed park location, and that the proposed grading at the adjacent housing and roadways to the proposed park location will require an approximately 1 to 1.4 metre grade raise above the original ground surface. Based on these adjacent grades, it is expected that the proposed park grading will be within the permissible grade raise restrictions identified by Paterson for the area. Therefore, it is expected that none of the proposed structures will undergo significant settlement due to the proposed grading.

It is anticipated that the existing fill can be left in place below the proposed settlement sensitive and pavement structures, though it is recommended that the existing fill layer be proof-rolled and approved by the geotechnical consultant at the time of construction. This approach will identify poorly performing areas and allow for their replacement with approved fill material.

Recommendations for the design and construction of the park include but are not limited to:

- / Foundation design for proposed splash pad, fitness pad or shelter structure(s) and baseball backstop posts;
- / Material description and recommended thickness of the pavement structures for pathways, maintenance vehicle access pathways, and a gravel covered parking area;

-
- / Protection against frost action, including incorporating a combination of non-frost susceptible crushed stone granular fill and/or a layer of rigid insulation; and
 - / Geotechnical field review and testing to be completed at the time of construction once final design and development drawings are completed.

6.0

SUMMARY OF REVISED STUDIES IN SUPPORT OF PLANNING APPLICATIONS

6.1 Environmental Impact Statement

An Environmental Impact Statement (EIS) was prepared by Kilgour & Associates in February 2019 for the Half Moon Bay West lands. The EIS summarized existing conditions for water resources, wildlife, and trees on the lands, including a comprehensive tree inventory.

The report concludes that no negative impacts are anticipated to Species at Risk (SAR), SAR habitat, or natural heritage features under the proposed development.

6.2 Geotechnical Investigation

A Geotechnical Investigation was prepared by Paterson Group in March 2019 for the Half Moon Bay West lands. The report summarizes current geotechnical conditions of the lands and contains a list of recommendations and precautions for construction and development of the subdivision.

6.3 Roadway Traffic Noise Feasibility Assessment

A Roadway Traffic Noise Feasibility Assessment was prepared by Gradient Wind Engineering Inc. in February 2019 for the Half Moon Bay West subdivision, which analyzes potential noise impacts from Cambrian Road, Borrisokane Road, Highway 416, realigned Greenbank Road, and the proposed collector streets within the development. As the most significant impacts are anticipated along Cambrian Road and New Greenbank Road, a series of mitigation measures are proposed in the study. The hierarchy of measures includes increased setbacks with vegetation, relocation of noise-sensitive areas, earth berms, and acoustic barriers.

6.4 Functional Servicing and Stormwater Management Report

In March 2019, David Schaeffer Engineering Ltd (DSEL) prepared a Functional Servicing and Stormwater Management Report, which assesses the water, stormwater, and sanitary servicing needs of the proposed Half Moon Bay West development and demonstrates conformance with the design criteria, Master Servicing Study (MSS), Master Servicing Study Addendum (MSS Addendum), and general industry practice.

6.5 Community Transportation Study Update

A Community Transportation Study (CTS) update was prepared by Stantec in March 2019 for the Half Moon Bay West subdivision. The study analyses existing transportation conditions in the area, as well as anticipated future conditions. The update retains the conclusions of the original study that, with some notable exceptions, the study area intersections are expected to operate acceptably under 2029 ultimate conditions. Where warranted, road modifications such as new left-turn lanes are proposed to ensure road capacity is available to service the development.

7.0 CONCLUSIONS

The proposed amendment to the Half Moon Bay West Plan of Subdivision meets the policies of the Official Plan and the Barrhaven South CDP. Additionally, the subdivision meets several Urban Design Guidelines for Greenfield Neighbourhoods.

As noted in the CDP, Mattamy is not required to develop their lands precisely as shown in the Demonstration Plan. The purpose and role of the Demonstration Plan is to:

- / Provide guidance on how these lands *could* develop over time;
- / Demonstrate possibilities and methods for addressing specific development challenges;
- / Illustrate ways to achieve the design guidelines for various land uses;
- / Illustrate some specific objectives the CDP is seeking to achieve; and
- / Provide a means for establishing and monitoring density targets over time.

This Demonstration Report has been prepared in support of applications to amend the Draft Plan of Subdivision and zoning of Half Moon Bay West. This Demonstration Report incorporates the findings of all the required supporting studies undertaken for the land and provides an inventory of compliance and consistency with the planning principles and design guidelines established in the Barrhaven South CDP.

Sincerely,



Nico Church, M.P.I.
Planner



Julie Carrara, MCIP RPP
Senior Planner