



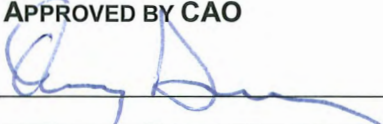


To: Public Works and Transportation Committee **Date:** September 21, 2021
From: Milton Chan, P.Eng.
Director, Engineering **File:** 10-6060-01/2021-Vol
01
Re: **Grant Funded Flood Protection Program Update and 2021 Submissions to the
Disaster Mitigation and Adaptation Fund**

Staff Recommendation

1. That the submissions of the dike improvement and drainage pump station upgrade projects and the commitment to the funding over the project term to the Disaster Mitigation and Adaptation Fund (DMAF), as outlined in the staff report titled “Grant Funded Flood Protection Program Update and 2021 Submissions to the Disaster Mitigation and Adaptation Fund,” dated September 21, 2021 from the Director, Engineering be endorsed;
2. That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to negotiate, modify and execute the funding agreements with the Government of Canada for the above-mentioned projects should they be approved for funding.
3. That, should the above mentioned projects be approved for funding by the Government of Canada, the Consolidated 5 Year Financial Plan (2022-2026) be updated accordingly; and
4. That the construction of the No. 2 Road South Drainage Pump Station project be removed from the work scope of the 2016 Flood Protection Program capital project.

Milton Chan, P.Eng.
Director, Engineering
(604-276-4377)

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department	<input checked="" type="checkbox"/>	
Sewerage & Drainage	<input checked="" type="checkbox"/>	
Intergovernmental Relations	<input checked="" type="checkbox"/>	
Roads & Construction	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

In 2018, the Government of Canada launched the Disaster Mitigation and Adaptation Fund (DMAF), committing \$2 billion over 10 years to invest in structural and natural infrastructure projects to increase the resilience of communities that are impacted by natural disasters triggered by climate change. In 2021, an additional \$1.375 billion in federal funding over 12 years was announced to renew the DMAF program.

This report responds to this announcement and provides an update on the construction projects included in the Emergency Management BC Flood Protection Grant Program and the National Disaster Mitigation Program.

This report supports the following strategies within Council's Strategic Plan 2018-2022:

Strategy #1 A Safe and Resilient City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative sustainable practices and supports the City's unique biodiversity and island ecology.

1.2 Future-proof and maintain City infrastructure to keep the community safe.

Strategy #2 A Sustainable and Environmentally Conscious City:

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

2.1 Continued leadership in addressing climate change and promoting circular economy principles.

Strategy #5 Sound Financial Management:

Accountable, transparent, and responsible financial management that supports the needs of the community into the future.

5.1 Maintain a strong and robust financial position.

5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.

Analysis

As detailed in the City's Flood Protection Management Strategy, Richmond is situated approximately 1.0 meter above sea level and flood protection is integral to protecting the health, safety and economic viability of the City. Richmond is protected from flooding by 49 kilometres

of dikes, 585 kilometres of drainage pipes, 61 kilometres of culverts, 165 kilometres of watercourses and 39 drainage pump stations.

The City's Flood Protection Management Strategy and Dike Master Plans are the guiding framework for continual upgrades and improvements to address climate change induced sea level rise. In addition, the Flood Protection Management Strategy identifies senior government funding partnerships as a top priority.

Emergency Management BC Flood Protection Program (2016) Update

In 2016, the City received a funding commitment from the Province for \$16.63 million to upgrade sections of the City's perimeter dike and rebuild four drainage pump stations, including Shell Road North, Horseshoe Slough, No. 7 Road South, and No. 2 Road South. The provincial funding was based on a 2/3 to 1/3 provincial to municipal share of eligible costs. These projects are part of the amended Consolidated 5 Year Financial Plan. Table 1 outlines the status of these projects.

Table 1 - Current Status of Emergency Management BC Flood Protection Program Projects

Project	Current Status
Shell Road North Drainage Pump Station	Construction complete
Horseshoe Slough Drainage Pump Station	Construction complete
South Dike Upgrade – Gilbert Road to No. 3 Road	Construction complete
No. 7 Road South Drainage Pump Station	Construction substantially complete
No. 2 Road South Drainage Pump Station	Recommend deferring construction

Council endorsed the initial design concept for the No. 2 Road South Drainage Pump Station in June 2017 and an updated design concept in January 2018. Following Council's endorsement, the detailed design and permitting process was completed.

Subsequently, it became evident that the construction costs for this pump station would exceed the original budget due to escalating construction costs and physical site conditions that were not anticipated at the time the initial estimates were prepared. The City issued a Request for Proposals for the procurement of construction services for the No. 2 Road South Drainage Pump Station in March 2021. The bids received were approximately \$4 million over the available project budget.

Staff recommend that the No. 2 Road South Drainage Pump Station project be deferred as the escalated project cost does not represent good value for the City.

The existing No. 2 Road South Drainage Pump Station is in fair condition and is able to meet the anticipated stormwater pumping demands of the near future. Deferring the project also provides the City an opportunity to revisit this project in conjunction with the Steveston Island Dike and Sea Gate project and associated work plan, as the station drains into the area protected by the

proposed sea gate. An updated capital submission will be brought forward for Council's consideration as part of the annual budget process.

Staff were able to pre-purchase some equipment under the existing terms of the provincial grant with Emergency Management BC. The pre-purchased equipment is common and will be utilized in future pump station upgrades throughout the City. Should the construction of the No. 2 Road South Drainage Pump Station be removed from the work scope of the 2016 Flood Protection Program capital project, any remaining funding from the 2016 Flood Protection Program capital project will be returned to the original funding sources upon project completion.

The City will receive the full provincial grant funding amount of \$16.63 million as the scope of work in the agreement with the Province has been amended to only include the design and pre-purchased equipment for the No. 2 Road South Drainage Pump Station.

Disaster Mitigation and Adaptation Fund (2018) Update

In May 2018, Infrastructure Canada announced the DMAF, which is a national, competitive, and merit-based contribution program intended to support infrastructure projects designed to mitigate current and future climate-related risks and disasters triggered by natural hazards.

A funding commitment from Infrastructure Canada for \$13,780,000 (40% of the total project cost) was received in January 2020 for approximately 2.6 kilometers of dike improvements and five drainage pump station upgrades, to be completed by December 2028. Table 2 outlines the status of these projects.

Table 2 - Current Status of 2018 DMAF Program Projects

Project	Current Status
Steveston Highway at Gilbert Road Drainage Pump Station	Construction underway
South dike upgrade between No. 3 Road and 400 metres west of No. 4 Road	Construction underway
South dike upgrade between 200 metres west of No. 9 Road and the Ewen Road Pump Station	Award process underway
No. 6 Road South Drainage Pump Station	Preliminary investigation
No. 9 Road at Westminster Highway (Dog Kennels) Drainage Pump Station	Preliminary investigation
Ewen Road Drainage Pump Station	Preliminary investigation
McCallan Road Drainage Pump Station	Preliminary investigation

National Disaster Mitigation Program (2019) Update

In 2019, the City received \$1 million in funding commitment from the Province to build the Steveston Highway and No. 3 Road Drainage Pump Station, which was approved by Council as a part of the 2019 Capital Program. The construction of the project is currently underway and is expected to be complete in spring 2022.

Disaster Mitigation and Adaptation Fund (2021) Submission

As part of the 2021 Federal Budget, an additional \$1.375 billion in federal funding over a 12-year period was committed to renew the DMAF.

In July 2021, Infrastructure Canada launched a call for applications for the renewed DMAF, with the funding being split between large-scale projects and small-scale projects. Large-scale projects, defined as projects with over \$20 million in eligible costs, have an application deadline of October 15, 2021. Small-scale projects, defined as projects between \$1 million and \$20 million in eligible costs, have an application deadline of November 15, 2021. Each project is eligible to receive up to 40% of eligible project costs and must be completed by December 2032.

Staff have identified a number of flood protection projects that would be ideal for submission to the renewed DMAF. These projects are listed in Table 3 below.

Table 3 – Proposed Projects for 2021 DMAF Application

Project	Proposed Project Stream
South dike upgrade between Queens Road and 285 metres east of Graybar Road	Large-scale
South dike upgrade between 6080 Dyke Road and Gilbert Road Drainage Pump Station	Small-scale
West dike upgrade between west property line of 2411 River Road and east property line of 3011 River Road	Small-scale
South dike upgrade at 14831 Steveston Highway (Riverport Way Park)	Small-scale
No. 3 Road South Drainage Pump Station	Small-scale
Queens Road North Drainage Pump Station	Small-scale
Nelson Road South Drainage Pump Station	Small-scale

No. 3 Road South Drainage Pump Station and Queens Road North Drainage Pump Station were part of the Consolidated 5 Year Financial Plan (2021-2025). The remaining projects will be presented for Council's consideration as part of the annual budget process should Council endorse their submission to DMAF. Additionally, the project list may be optimized as guided by DMAF in order to maximize the grant funding. Any updates to the project list will be captured in future annual budget processes for Council's consideration.

Staff are requesting Council's endorsement of the submissions of the above proposed projects and the commitment to the funding over the project term for up to 40% of the total estimated cost of approximately \$38,720,000. The total cost of the City's share is estimated to be \$58,080,000 (60% of the project cost), which will be presented for Council's consideration through the annual budget process. The recommended projects represent key priorities identified for the capital program over the next 10 years. The total amount of expenditure is consistent with the Council endorsed objective of reaching \$30 million annual capital expenditure from the Drainage and Diking Utility by 2031. Should Council choose not to endorse these submissions to DMAF, staff will withdraw any proposals already submitted by the October 15, 2021 deadline for the large-scale project stream.

Each year, staff review drainage and diking projects and recommend improvement strategies due to ageing infrastructure, growth, and climate change. To accommodate the projects submitted to the DMAF as well as other drainage and diking upgrades, staff will optimize future capital submissions to manage drawdowns of the Drainage Improvement Reserve and to maintain an adequate reserve balance to address any emergencies or take advantage of future grant funding opportunities. If necessary, funding from the Water Utility and Sewer Utility Reserves may be borrowed with interest to fund drainage and diking projects, and this would be brought forward for Council's consideration.

Should the grant applications be successful, the funding sources of the existing approved projects and future years' capital submissions will be adjusted in order to utilize the grant funding and reduce contributions from the Drainage Improvement Reserve.

As discussed in the report titled "Accelerated Flood Protection Program Concept and Flood Protection Rate Structure Review," which was endorsed by Council at the April 12, 2021 Regular Council Meeting, in order to execute Council's direction to accelerate the implementation of dike improvements, an estimated five additional regular full-time and five temporary full-time staff from Engineering, Public Works, Sustainability, Real Estate Services and Law would be required. These resources will be brought forward for Council's consideration as part of the 2022 and future budget processes.

Financial Impact

Should the City be successful with the DMAF grant application, the proposed projects will be presented for Council's consideration as part of the annual budget process. The City's share of funding for these projects will be from the Drainage and Diking Utility.

Removal of the construction of the No. 2 Road South Drainage Pump Station from the work scope of the 2016 Flood Protection Program capital project will prompt the return of any

remaining funds from the 2016 Flood Protection Program capital project to the original funding sources upon project completion.

Conclusion

Staff are seeking Council's endorsement on the submission to the DMAF for various dike improvement and drainage pump station upgrade projects, which total \$38,720,000 in grant contribution (40% of the total estimated project costs).

Staff are also recommending that the construction of the No. 2 Road South Drainage Pump Station be removed from the work scope of the 2016 Flood Protection Program capital project.



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Manager, Engineering Design and Construction
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To: Planning Committee

Date: September 16, 2021

From: John Hopkins
Director, Policy Planning

File: 08-4045-20-20/2021-Vol01

Re: Referral Response: Spires Road Area (City Centre Area Plan)

Staff Recommendations

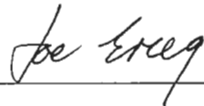

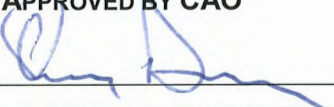
1. That Official Community Plan Bylaw 7100, Amendment Bylaw 10190, which proposes to amend Schedule 2.10 (City Centre Area Plan) by:
 - a) including an area along Spires Road and Cook Crescent in a the Development Permit Special Precinct Key Map ;
 - b) adding a set of Special Precinct Development Permit Guidelines for the Spires Road area;
 - c) updating the road network and pedestrian linkages in the Spires Road area; and
 - d) updating related minor map, text, page numbering, and table of contents amendments to the City Centre Area Planbe introduced and given first reading;
2. That Bylaw 10190, having been considered in conjunction with:
 - the City's Financial Plan and Capital Program;
 - the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;is hereby found to be consistent with said program and plans, in accordance with Section 477(3)(a) of the *Local Government Act*.

- 3. That Bylaw 10190, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.



John Hopkins
Director, Policy Planning

JH:sg/el
Att. 8

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Development Applications Engineering Parks Services Transportation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO 

Staff Report

Origin

The following referral motion was carried at the November 2, 2020 General Purposes Committee meeting:

That the staff report titled “City Centre Area Plan Amendment – Development Permit Guidelines for the Spires Road Area” dated October 5, 2020 from the Director, Policy Planning and the staff report titled “Park Land Use Designation Changes in the Spires Road Neighbourhood” dated October 5, 2020, from the Director, Parks Services, be referred back to staff to examine:

- (1) the provision of pedestrian linkages, including the northeast and southeast corners of the eastern edge of the Spires Road area;*
- (2) other roof options in an effort to maintain the minimum 37 m² area of private outdoor space; and*
- (3) density and the provision of green space options.*

This report includes the following:

1. responses to the November 2, 2020 referral above; and
2. amendments to the Official Community Plan (OCP) to
 - introduce a set of Special Precinct Development Permit Guidelines for the Spires Road area in the City Centre Area Plan (CCAP); and
 - update the road network and pedestrian linkages in the Spires Road area.

This report supports Council’s Strategic Plan 2018-2022 Strategy #3 One Community Together:

Vibrant and diverse arts and cultural activities and opportunities for community engagement and connection.

- 3.1 Foster community resiliency, neighbourhood identity, sense of belonging, and intercultural harmony.*

This report supports Council’s Strategic Plan 2018-2022 Strategy #4 An Active and Thriving Richmond:

An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.

- 4.3 Encourage wellness and connection to nature through a network of open spaces.*

This report supports Council’s Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

Leadership in effective and sustainable growth that supports Richmond's physical and social needs.

- 6.1 Ensure an effective OCP and ensure development aligns with it.*
- 6.3 Build on transportation and active mobility networks.*
- 6.5 Ensure diverse housing options are available and accessible across the housing continuum.*

Background & Context

The Spires Road area is located in the northeast portion of Brighthouse Village in City Centre (Attachment 1) and is designated “General Urban T4” in the City Centre Area Plan (CCAP). The Spires Road area is designated for High-Density Townhouse use in the Sub-Area Guidelines (Sub-Area B.1) of the CCAP. The area is currently in the process of transitioning from a predominately single-family neighbourhood to a neighbourhood of High-Density Townhouses.

Over the last several years, the City has received four development applications for High-Density Townhouses in the Spires Road area. Attachment 2 shows the location of the four development projects; the status of these projects are as follow:

File Numbers	Status
RZ 17-766525 / DP 18-829140	Approved by Council in October 2019 and is under construction
RZ 17-790301 / DP 19-875938	Approved by Council in July 2021
RZ 18-818420 / DP 21- 932383	Rezoning Bylaw at 3 rd Reading and DP application in circulation
RZ 19-870807	Rezoning application in circulation

At the September 3, 2019 Public Hearing, Council passed the following referral motion after reviewing a proposed High-Density Townhouse development (RZ 17-790301), which initiated a discussion regarding design continuity for new developments in the neighbourhood:

That staff be directed to develop design guidelines for the Spires Road area as it develops, and consult with the Advisory Design Panel as required.

In response to the 2019 Council referral, a report titled “City Centre Area Plan Amendment – Development Permit Guidelines for the Spires Road Area” from the Director, Policy Planning, was presented to the General Purposes Committee on November 2, 2020. Through the report, staff proposed the following:

1. A set of Special Precinct Development Permit Guidelines for the Spires Road area;
 - the goal of those guidelines is to ensure overall continuity in neighbourhood design and character within the Spires Road area (including a more traditional pitched roof design). As outlined in the November 2, 2020 General Purposes Committee report, the guidelines were prepared with input and direction from the Advisory Design Panel (ADP); and
2. Additional measures to achieve design continuity in the neighbourhood’s character;
 - updates to the road network and pedestrian linkages to support land assemblies in accordance with the “High-Density Townhouses” land use designation for the area under the current CCAP.

A report titled “Park Land Use Designation Changes in the Spires Road Neighbourhood” from the Director, Parks Services, was also considered by the General Purposes Committee at the same meeting. The report proposed changes to park designations within the Spires Road area based on the City’s minimum park quantity standards under the Parks and Open Space Strategy and the proposed amended road network.

In response to the two reports, the General Purposes Committee passed the November 2, 2020 referral noted in the Origin section of this report.

Staff Response to the November 2, 2020 Referral

In response to the November 2, 2020 referral, staff undertook:

- an assessment of the density proposed for the Spires Road area in the CCAP;
- a review of pedestrian linkages in the northeast and southeast corners of the eastern edge of the Spires Road area;
- an assessment of private open space requirements related to pitched roofs; and,
- a review of open space in the Spires Road area.

This analysis is summarized below.

Neighbourhood Density

To understand how housing density may influence the future neighbourhood character of the Spires Road area, four density scenarios were studied:

1. Low-Rise Residential - High-Density Townhouses (current land use designation);
2. Mid-Rise Residential - 4-Storey Apartments;
3. Mid-Rise Residential - 6-Storey Apartments; and
4. High-Rise Residential.

Detailed analyses of the four density scenarios is provided as Attachment 3.

The scenarios were prepared in order to explore and discuss, at a high level, how different housing types can influence the estimated range of dwelling units and population levels in the Spires Road area. The four density scenarios also examined neighbourhood character, impacts to the provision of utilities, as well as transportation considerations related to traffic flow, internal road capacity, access/egress to/from the area, parking and loading.

Based on the density analyses provided in Attachment 3, staff are recommending that the current CCAP land use designation (High-Density Townhouses) for the area remain in place. High-Density Townhouses are a viable development option for the properties within the Spires Road area because:

- the existing lot and block configuration, and landownership pattern more readily accommodate High-Density Townhouse developments;
- the High-Density Townhouse typology allows for smaller scale developments, which provides opportunities for additional public walkways to be developed throughout the neighbourhood;
- High-Density Townhouses would allow for more flexibility in site planning than other higher density housing typologies, potentially facilitating more tree preservation opportunities;

- significantly larger private outdoor space is required for High-Density Townhouse developments than other higher density housing typologies, which make it well suited to provide housing for families;
- High-Density Townhouse developments in the Spires Road Area provides additional housing choice within walking distance to the Canada Line station; and,
- the built form, massing and scale of High-Density Townhouse developments are compatible with existing single family developments in the area, allowing for a more comfortable transition during redevelopment of the neighbourhood.

Though staff are proposing to maintain the current land use designation for the Spires Road area, to support the provision of affordable housing in City Centre, apartment building forms may be considered, on a case-by-case basis, where additional density is for rental housing and is tied to income thresholds. A recent example of this type of approval is the 149 purpose-built market rental housing units at 8108 Lansdowne Road (formerly 5500 No. 3 Road). These units are secured in perpetuity with a market rental agreement registered on Title. Rental rate and household income restrictions are subjected to the BC Housing's HousingHub Provincial Rental Supply Program.

In addition, there are a number of applications that are considering additional density for rental housing tied to income, including, for example:

- an application at 8880 Cook Road, which proposes 211 market rental units and 17 moderate income rental units;
- an application at 6071 Azure Road, which proposes 212 market rental units and 62 low-end market rental units; and
- an application at Cambie Road and Sexsmith Road, which proposes 171 market rental units and 156 low-end market rental units.

As part of the upcoming OCP update, from an affordability perspective, land use and density will also be reviewed throughout the City; including in City Centre.

Pedestrian Linkages

In order to enhance pedestrian connection to the northeast and southeast corners of the Spires Road area, staff are proposing:

- an additional access point from Garden City Road to the Spires Road area at the northeast corner of the area; and
- realignment of the pedestrian linkage at the southeast corner of the Spires Road area.

A conceptual pedestrian linkage map is presented in Attachment 4. The locations and alignments of the pedestrian linkages at the northeast and southeast corners of the Spires Road area are designed to connect directly to the existing road bends of Spires Road at the northeast and southeast corners of the area. The proposed alignments would compliment the existing and proposed road network in the Spires Road area. The proposal would also provide direct sightlines between Garden City Road and Spires Road through the pedestrian linkages, and contribute to pedestrian safety. The proposed pedestrian network at the east edge of the Spires Road neighbourhood would enhance pedestrian movements and convenience in the area.

Private Outdoor Space & Pitched Roofs

Staff initially proposed to reduce the private outdoor space requirements from 37 m² (398 ft²) to 30 m² (323 ft²) for townhouse units, in part, to accommodate pitched roofs. At the time, it was felt that this roof style could potentially make it difficult to achieve the current minimum 37 m² (398 ft²) requirement for private open space.

Staff have revisited this reduction with architects undertaking townhouse development projects in the area, and have determined that the reduction is not required, as there are a number of design alternatives to accommodate the City's current minimum private outdoor space requirement of 37 m² (398 ft²) while providing pitched roofs. Therefore, staff are no longer proposing a reduction to the current minimum private outdoor space requirement of 37 m² (398 ft²) for townhouse units in the Spires Road area. Further, pitched roof design will be encouraged through the proposed Special Precinct Development Permit Guidelines since this roof style is key to achieving the traditional design character proposed in the guidelines.

Park Designation

Following the discussion at the November 2, 2020 General Purposes Committee, Park Services staff have advised that they do not recommend any changes to existing "Park" designations at 6280 and 6300 Cooney Road as well as 8011 and 8031 Spires Road. These four properties, together with the existing road right of way of Spires Gate (where the existing road is envisioned to be closed in the future when Saba Road extends into the Spires Road area), are all designated as "Park" in the current and proposed *Specific Land Use Plan: Brighthouse Village (2031)* (see Attachment 1 and Attachment 7, respectively). This park area will be connected to the future green spaces at the centre of the Spires Road area through the future pedestrian linkages envisioned for the area. It will also be connected to the existing Lang Neighbourhood Park at the corner of Saba Road and Buswell Street through the future signalized intersection at Saba Road and Cooney Road and along the sidewalk on Saba Road.

Provision of Green Space

The proposed Special Precinct Development Permit Guidelines provide additional opportunities for the creation of additional public green spaces (in the form of public walkways and mews) as part of new High-Density Townhouse developments. As noted in the Land Use and Density Analysis (Attachment 3), due to floor plate sizes and building footprints more public green space may be provided through a series of townhouse developments than through apartment developments on large sites.

Proposed Amendments to the City Centre Area Plan

In response to the September 3, 2019 referral, staff are proposing a set of Special Precinct Development Permit Guidelines and updates to the road network and pedestrian linkages in the Spires Road area. These amendments to the OCP are proposed to ensure overall continuity in neighbourhood design and character within the Spires Road area, and to support redevelopment of the Spires Road area in accordance to the land use and density envisioned in the current CCAP. The proposed OCP amendments are outlined below.

Proposed Special Precinct Development Permit Guidelines

The proposed design guidelines are intended to create a consistent neighbourhood character and will supplement the existing design guidelines in the OCP and CCAP as follows:

- General Guidelines under Section 14 of Schedule 1 of the OCP Bylaw 9000
- General Guidelines under Section 3.1 of the CCAP (Schedule 2.10 of OCP Bylaw No. 7100);
- Multiple Family Guidelines under Section 14 of Schedule 1 of the OCP Bylaw 9000;
- Townhouse Guidelines under Section 14 of Schedule 1 of the OCP Bylaw 9000; and
- Sub-Area Guidelines under Section 3.2.5 (Sub-Area B1) of the CCAP (Schedule 2.10 of OCP Bylaw No. 7100).

The proposed Special Precinct Development Permit Guidelines have been developed with input from the Advisory Design Panel, and are intended to reinforce the urban character of the Spires Road area, as outlined in the CCAP, by:

1. improving pedestrian movement throughout the neighbourhood;
 - public walkways on all sides of each new development are encouraged to create a fine-grained, intimate-scaled pedestrian network in the area;
 - ground-oriented units with private outdoor space fronting onto this pedestrian network are encouraged to enhance sense of pedestrian safety and sense of place in the area;
2. establishing an appealing and intimate streetscape;
 - individual unit front yard character with entry gates is encouraged to distinguish public and semi-public spaces from private spaces and to reinforce a friendly and pedestrian oriented streetscape;
 - low retaining walls, planters, raised decks and landscaped terraces are encouraged to define private space from the public realm, and to ensure an appropriate street interface;
3. encouraging an urban townhouse character that incorporates traditional design references;
 - pitched roof forms with overhangs, traditional character smaller scale window design, traditional character cladding and materials, as well as traditional heritage colours and colour combinations are encouraged to maintain a design continuity with the recently approved townhouse developments in the Spires Road area;
 - through the new guidelines, contemporary building expression and flat roofs will be discouraged in this area.

The proposed Special Precinct Development Permit Guidelines is presented in Schedule B attached to and forming part of proposed OCP Amendment Bylaw 10190.

*Proposed Amendments to Specific Land Use Plan: Brighthouse Village (2031)***Updates to the Road Network**

The current CCAP includes a road circulation network that creates larger and deeper development blocks in the Spires Road area, which was intended to be achieved through lot consolidations and road closures in the central and eastern portions of the Spires Road area at the time of development (Attachment 5). This road network was developed because it was anticipated that the existing lot configurations of the single family properties within the Spires Road area would be too shallow to facilitate High-Density Townhouse developments. However, recent development proposals within the Spires Road area have proven that the existing lot configuration can accommodate High-Density Townhouse development envisioned in the CCAP for the Spires Road area. It is not necessary to consolidate properties backing onto each other or to close sections of existing roads within the area to create deeper lots to facilitate High-Density Townhouse developments.

Staff propose a minor update to the current CCAP conceptual road network to remove a number of planned road closures because:

1. High-Density Townhouses is the recommended housing typology for the Spires Road area based on the Land Use and Density Analysis (Attachment 3) and the existing road network in the Spires Road area would work well with this housing typology; and
2. site assembly involving a larger number of single family lots and/or road closures can be challenging to achieve (as outlined in the Land Use and Density Analysis presented in Attachment 3).

The proposed road network concept is provided as Attachment 6. The proposed revisions to the road network in the Spires Road area are as follows:

- keeping the eastern section of Spires Road open;
- keeping both eastern and western sections of Cook Crescent open, each with a cul-de-sac at the north end; and
- removing the extension of Cook Crescent to Spires Road.

This new road network concept is intended to minimize changes to the existing road circulation pattern. It would allow for smaller scale developers to undertake a project in the area, which may shorten the time needed to redevelop the entire area. In addition, since the existing single lot depth would be maintained in the future development sites throughout the Spires Road area, the character of developments, in terms of massing and scale, would be more consistent within the neighbourhood.

Pedestrian Linkages

Due to the proposed changes to the road network concept, pedestrian linkages in the Spires Road area were reviewed and adjusted to ensure future public walkways, in the area, would tie into the road network. The pedestrian concept maintains one main east-west pedestrian corridor and one north-south pedestrian corridor through the Spires Road area (Attachment 4). The Parks Services Department has reviewed the range of CCAP amendments proposed, and has endorsed the proposed changes. Parks Services supports the changes as the pedestrian linkages will

provide open space within the neighbourhood and improve pedestrian connections to nearby major parks.

The east-west corridor will run through the future parks on the Spires Gate and Cook Crescent road right of way as well as the pedestrian linkages between Spires Road and Garden City Road. The north-south corridor will run through Cook Gate and future pedestrian mews/green links between Spires Road and Westminster Highway. Additional pedestrian access points to the Spires Road area from Garden City Road have been added to provide more direct access to parks in the vicinity.

It is noted that the pedestrian linkages will continue to be conceptually indicated on the land use map. The exact alignment and form of these pedestrian connections will be defined through future Council-approved development applications. The pedestrian linkages indicated on the land use map will provide the spine of the pedestrian circulation network for the Spires Road area. The network will be further enhanced by pedestrian mews as required in the proposed design guidelines, as well as new sidewalks along public roads and vehicular lanes within the neighbourhood. The final alignments of this fine-grained pedestrian network will be determined through future Council-approved development applications.

Consultation

Attachment 8 includes a summary of consultation with respect to the *Local Government Act* and the City's OCP Bylaw Preparation Consultation Policy No. 5043 requirements. Should Council endorse the proposed amendments to the City Centre Area Plan, further to the protocol of a Public Hearing (i.e., item to be published in the *Richmond News* and on the City website in advance of the Public Hearing), a Public Hearing notice will also be forwarded to all owners and residents of properties within the Spires Road area (Attachment 9).

Financial Impact or Economic Impact

None

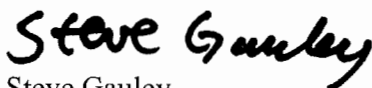
Conclusion

In response to Council's referrals on future development in the Spires Road area, staff have:

1. proposed a set of Special Precinct Development Permit Guidelines for the area to ensure overall continuity in neighbourhood design and character within the Spires Road area;
 - these guidelines are supplementary to the currently applicable Development Permit Guidelines in the OCP; and
 - these guidelines are developed to introduce a highly pedestrian-friendly neighbourhood, establish an appealing and intimate streetscape, and encourage an urban townhouse character that incorporates traditional design references through pitched roof design.

2. adjusted the pedestrian and road network in the Spires Road area to support the implementation of the proposed Special Precinct Development Permit Guidelines, reduced the need for road closures, and improved pedestrian mobility to support redevelopments in the Spires Road area in accordance to the land use and density envisioned (i.e., High-Density Townhouses) in the CCAP. A proposed revised Specific Land Use Plan: Brighthouse Village (2031) is provided as Attachment 7. The proposed amendments include:
 - keeping the eastern section of Spires Road open;
 - keeping both eastern and western sections of Cook Crescent open, each with a cul-de-sac at the north ends;
 - removing the extension of Cook Crescent to Spires Road
 - adjusting the pedestrian linkages to complement with the new road network concept, and to provide more direct connections between walkways and park spaces; and
 - adding an additional pedestrian access point to the Spires Road area at the northeast corner of the area.

It is recommended that Official Community Plan Bylaw 7100, Amendment Bylaw 10190, be introduced and given first reading.



Steve Gauley
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(604-276-4164)



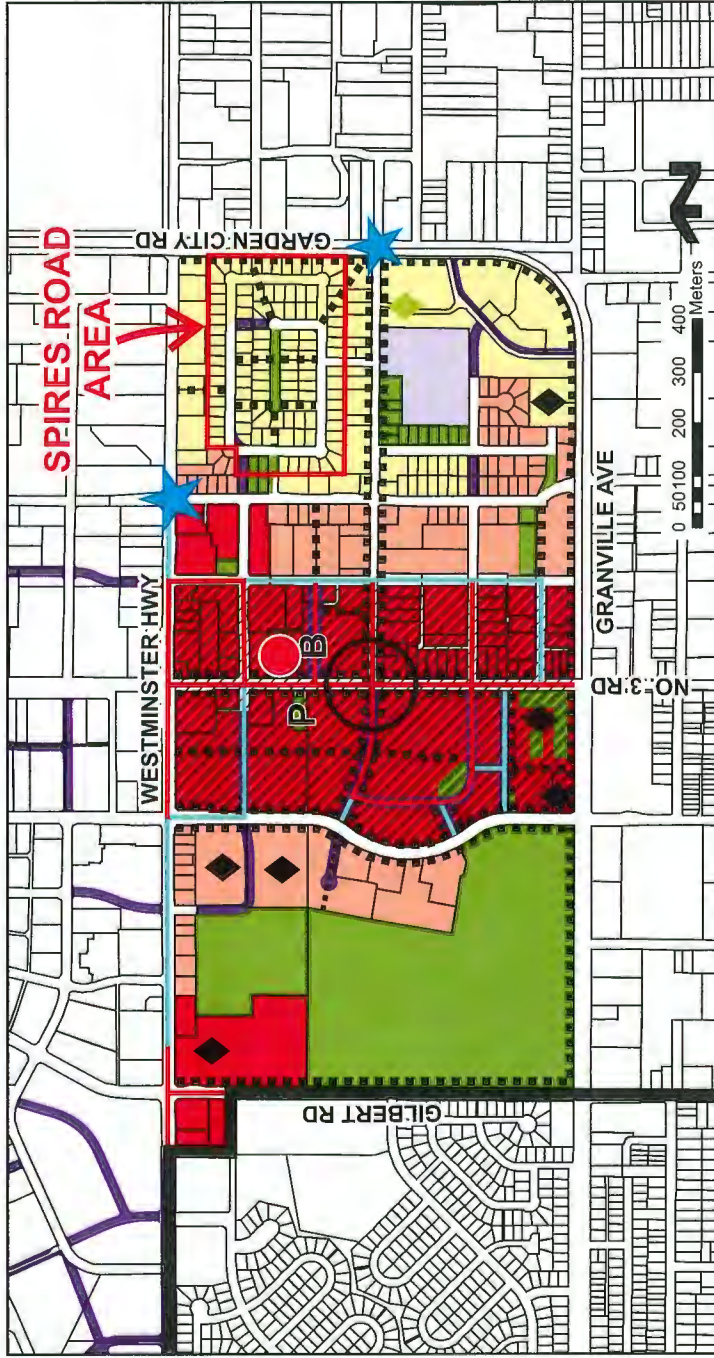
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Planner 2
(604-276-4121)

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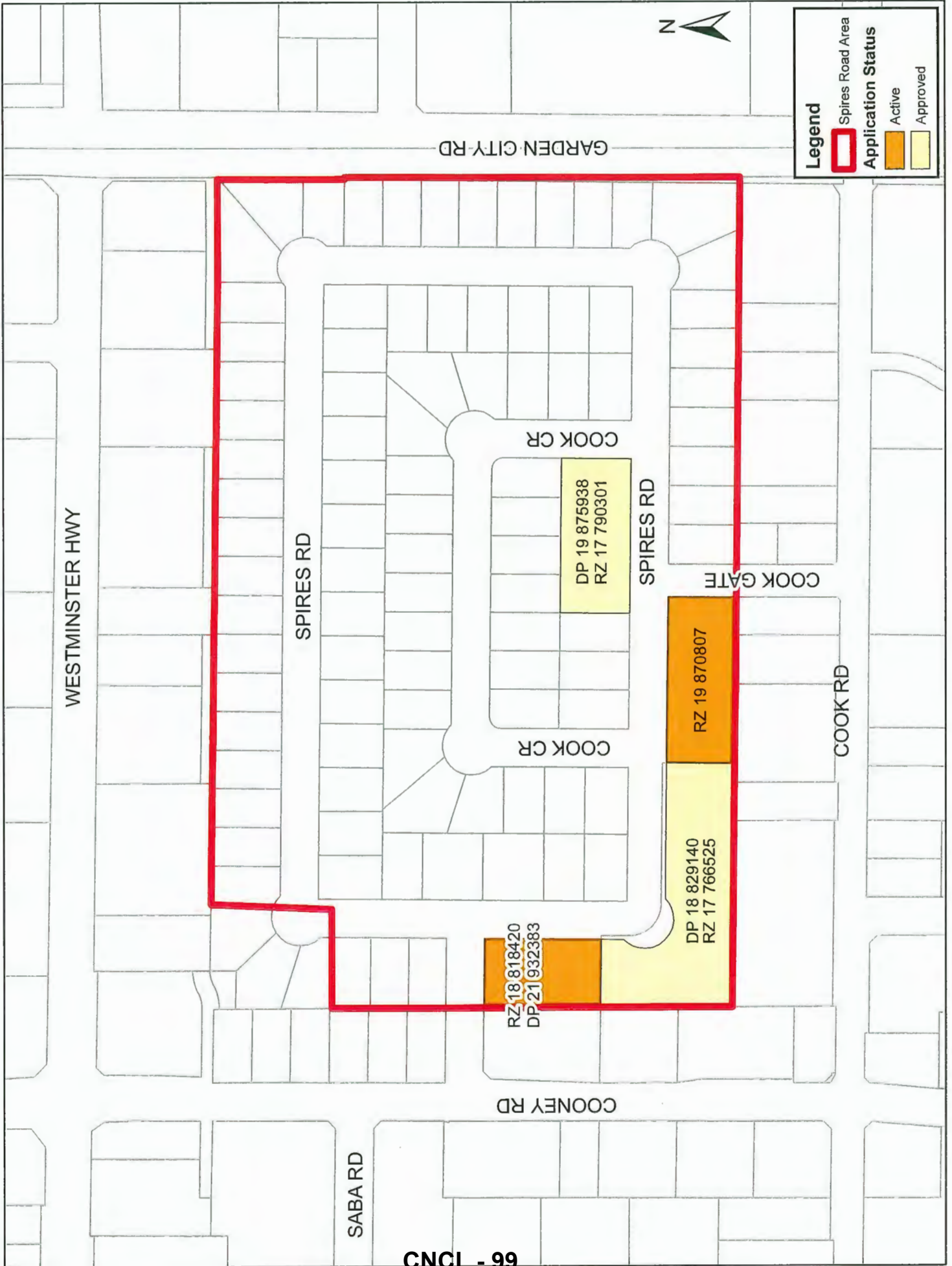
Attachments:

- Attachment 1: Specific Land Use Plan Brighthouse Village (2031) – Spires Road Area
- Attachment 2: Active and Approved Development Applications – Spires Road Area
- Attachment 3: Land Use and Density Analysis
- Attachment 4: Conceptual Pedestrian Linkage Map – Spires Road Area
- Attachment 5: Road Network Map – Spires Road Area – Existing vs. Current CCAP
- Attachment 6: Conceptual Road Network Map – Spires Road Area
- Attachment 7: Proposed Revised Specific Land Use Plan: Brighthouse Village (2031)
- Attachment 8: Public Consultation Summary
- Attachment 9: Notification Area Map – Spires Road Area

Specific Land Use Map: Brighthouse Village (2031)



- General Urban T4 (15m)
- Urban Centre T5 (25m)
- Urban Core T6 (45m)
- Park
- Park-Configuration & location to be determined
- Village Centre: No. 3 Road & Cook Road Intersection
- School
- Village Centre Bonus
- Institution
- Pedestrian Linkages
- Enhanced Pedestrian & Cyclist Crossing
- B Bus Exchange
- P Transit Plaza
- Proposed Streets
- Pedestrian-Oriented Retail Precincts-High Street & Linkages
- Pedestrian-Oriented Retail Precincts-Secondary Retail Streets & Linkages
- Canada Line Station



Land Use and Density Analysis – Spires Road Area

The Spires Road Area (Appendix 1) is located in the northeast portion of Brighthouse Village in City Centre (Appendix 2) and is designated “General Urban T4”. The neighbourhood’s context within City Centre, including surrounding land use designations, are shown on Appendix 3.

Density Scenarios

To understand how housing density may influence the future neighbourhood character of the Spires Road Area, four density scenarios were developed which include:

1. Low-Rise Residential - High-Density Townhouses (existing)
2. Mid-Rise Residential - 4-Storey Apartments
3. Mid-Rise Residential - 6-Storey Apartments
4. High-Rise Residential

The four density scenarios provide an opportunity to explore and discuss, at a high level, how different housing types can influence the estimated range of dwelling units and population levels. The four density scenarios can also influence neighbourhood character and open space needs, and impact the provision of utilities, as well as identify transportation considerations related to traffic flow, parking and loading.

For reference, Appendix 4 provides an overview and Richmond-specific examples of the housing typologies that apply to each of the four density scenarios. A detailed comparison of the four housing scenarios is presented as Appendix 5.

If Council directs staff to amend the OCP to support densities beyond the High-Density Townhouses land use designation for the Spires Road Area, detailed analysis (e.g., traffic generation, parking and loading) of the transportation system will be required as part of the OCP amendment. The existing CCAP Mobility and Access Plan supports the existing High-Density Townhouses designation, as this is the planned land use for the area envisioned in the current CCAP.

As the projected population for the area would increase, an OCP amendment for the higher densities would also include a thorough assessment of the parks requirements for the area, based on City park standards.

Lessons Learned

A number of lessons can be derived from the density analysis outlined in Appendix 5.

Density in Relation to Block Configuration

Both 6-Storey Apartments and High-Rise Residential would allow for a significantly higher number of dwelling units in the Spires Road Area when compared to the High-Density Townhouse and 4-Storey Apartment uses. However, the existing wide and shallow lot and block configuration is not ideal for these higher density housing typologies. It would be challenging to

accommodate all of the permitted floor areas and associated on-site parking and loading spaces of the higher density housing typologies on shallow sites that are approximately 35m deep.

The parking layouts of the multi-level parking podiums would be extremely inefficient on the small shallow sites as significant amount of space would be required for vertical circulation between parking levels. This would increase the massing of the building significantly and adversely impact the design of the development. For example, a four storey parking podium may be required for a six storey apartment building to accommodate the associated parking and loading facilities if the parking podium has to be concealed by non-parking uses.

With the building height restrictions in City Centre, the envisioned density would be difficult to achieve on the shallow sites. In addition, the current Zoning Bylaw provisions and design guidelines related to floorplate size, setbacks, building separation, and heights would make it challenging to situate high-rise building forms within the current block configuration.

Based on the above, larger and deeper development blocks (e.g., greater than 45m in depth) would be required to facilitate these higher density housing typologies (e.g., 6-Storey Apartments and High-Rise Residential). This would result in significant changes to the current road network and road capacity within the Spires Road Area. As redevelopment will occur incrementally in the area, this will be difficult to coordinate.

Site Assembly

The Spires Road Area is currently a predominately single-family neighbourhood; with the typical lot size being in the range of 700 m² to 800 m². Based on the recent development proposals in the area, the majority of development sites consolidate three or four existing single-family lots. Large site assembly (e.g., 10 existing lots or more) is challenging, especially when it involves road closure in an existing single-family neighbourhood, for the following reasons:

- larger scale property assemblies are difficult due to the number of landowners in the area (all of which may have different redevelopment aspirations);
- public road access and services (water, sanitary and storm mains and connections) to all properties that are not being consolidated must be maintained, which impacts the order of property development; and
- fire truck access standards prohibit dead-end roads exceeding 90 m in length (including interim situation), which impacts the sequencing of road closures and redevelopments in the area.

It would be challenging to accommodate 6-Storey Apartment uses in the Spires Road Area as the minimum lot area for 6-Story Apartments is the largest in comparison to the other three housing typologies, and significant changes to the road network will be required to facilitate larger and deeper lots. It is possible to accommodate High-Rise Residential tower on a wide and shallow site but there will be limited flexibility in design (including tower placement) due to the current design guidelines minimum tower separation and maximum floor plate size requirements.

Ease of Development

The minimum site assembly requirement for High-Density Townhouses is 2,000 m², which is approximately the size of three to four existing single-family lots within the Spires Road Area. For 4-Storey Apartment uses, the minimum site size requirements is slightly larger at 2500 m², which is approximately the size of four to five existing single-family lots within the area. These minimum site size requirements are based on precedent sample projects and proposals within the City Centre. These two typologies would fit well into the wide and shallow site configurations of the potential site assemblies within the area. Unlike uses like 6-Storey Apartments and High-Rise Residential, no major road network changes would be required (to create larger and deeper development blocks) to facilitate redevelopment.

Therefore, the smaller minimum development site requirement for High-Density Townhouse and 4-Storey Apartment uses reduce challenges with site consolidation. In addition, the smaller minimum development site requirements would allow for smaller scale developers to undertake a project in the area, which may shorten the time needed to redevelop the entire area.

Road Network Geometry

A narrower 16.0 m wide road cross-section for the Spires Road Area has been established by Transportation, Engineering, Real Estate Services and Development Applications staff to better support the development of High-Density Townhouses (the form of development envisioned for this area under the current CCAP). The basic road cross-section would be reduced from approximately 20.0 m to 16.0 m and the surplus road areas resulting from the reduction would be sold to the developers of adjacent properties (approximately 2.0 m on each side of the street). The plan is to apply this 16 m road cross-section throughout the Spires Road Area for High-Density Townhouse developments. This strategy provides a number of benefits, including:

- the creation of sites that are about 2 m deeper to support more functional and livable townhouse configurations;
- development of more intimate streetscapes lined with residential front doors;
- leveraging of the subdivision and street pattern to create a unique, identifiable and highly urban townhouse neighbourhood in proximity to the Brighthouse skytrain station; and
- funding for and construction of enhanced neighbourhood access, connectivity and public space improvements.

This 16.0 m wide road cross-section has already been applied to three projects along Spires Road and Cook Crescent. A comprehensive transportation study will be required to assess the impacts if higher density land uses (e.g., 4-Storey Apartments, 6-Storey Apartments, or High-Rise Residential) are to be designated within the area. The study would include an analysis to determine the adequacy of the 16 m road cross section and potential need for a wider road to support the anticipated additional traffic that would be generated by higher density housing typologies. Should additional road capacity be required, it would be challenging to widen the sections of road where the 16 m road cross-section has recently been applied.

Ground-Oriented Housing/Pedestrian Friendly Streetscape

A more pedestrian friendly streetscape could be created in both High-Density Townhouse and High-Rise Residential developments since ground-oriented units may be accommodated to conceal the parking podium. Direct access to the units at grade would enhance the streetscape and passive surveillance along the fronting roads and walkways.

In comparison, with 4- and 6-Storey Apartments it would be difficult to achieve the pedestrian friendly streetscape created by High-Density Townhouses due to the typical parking structure design required for these higher density housing typologies. Based on similar development projects in City Centre, the size of the single level parkade at grade would take up almost the entire area of the permitted building envelope (e.g., area on site within all required setbacks to property lines). All residential habitable space will be located on the second floor and above, which is discouraged from a safety and- urban design perspective. This arrangement does not create a pedestrian-friendly street interface between the first living level and the public realm, and reduces opportunities for passive surveillance.

Pedestrian Linkages/Public Green Space

High-Density Townhouses would allow for the development of a fine-grained, intimate-scaled pedestrian network to enhance pedestrian mobility in the Spires Road Area. The draft Special Precinct Development Permit Guidelines for High-Density Townhouse developments in the Spires Road Area, presented to General Purpose Committee on November 2, 2020, identify that public walkways/mews should be provided along the perimeter of each development project. While the same may be provided on the other types of developments in the Spires Road Area, the smaller development site size requirements for High-Density Townhouse developments allow for a fine-grained pedestrian network to be created (e.g., a walkway every 40-80 m between townhouse developments vs. every 100-150 m between large site apartment developments). In order words, more public green space may be provided through a series of townhouse developments than a large site apartment development, when the overall size of development area remains the same.

Private Outdoor Space

The amount of outdoor space required in the High-Density Townhouse use is more than the other housing options reviewed in the analysis. While the communal outdoor amenity space requirements for all multiple-family developments (including townhouse and apartment uses) in the City Centre are the same (e.g., 6 m² per unit plus 10% of the net site area), the minimum private outdoor space required per townhouse unit is significantly larger than the requirements for apartment units. Based on the current design guidelines in the CCAP, the minimum private outdoor space requirement for High-Density Townhouses is 37 m² per unit, and Council had directed staff to keep this requirement in the Spires Road Area based on the November 2, 2020 referral. Private outdoor space may be provided at grade, on top of the parking podium, or on the roof top. In comparison, the minimum private outdoor space requirement for apartment uses is 6 m² (9 m² preferred) per unit. The private outdoor space for an apartment unit is usually provided in the form of a balcony. As a result, High-Density Townhouse developments provide more private open space than the other density scenarios.

Adjacent Land Uses & Building Heights

The Spires Road Area currently consists of single-family homes and a few duplexes, along with some recent development sites for High-Density Townhouses. Adjacent to the area, on properties along Cook Road, Cooney Road and Westminster Highway, there are a number of multiple family developments (up to four storeys including the parking structure) and a 10-storey building located at the corner of Cooney Road and Westminster Highway. An Existing Land Use and Building Height Map is presented as Appendix 6.

The entire neighbourhood bounded by Garden City Road, Cook Road, Cooney Road and Westminster Highway is designated for High-Density Townhouse uses under the CCAP, except for the southeast corner of Cooney Road and Westminster Highway, which is designated for Mid-Rise Residential (4-8 storeys). Properties located across Westminster Highway to the north and located across Cook Road to the south are primarily designated for High-Density Townhouse uses. Properties located across Garden City Road to the east and located across Cooney Road to the west are primarily designated for Mid-Rise Residential (4-8 storeys), except for the area by the southwest corner of Cooney Road and Westminster Highway, which is designated for High-Rise Residential. A CCAP Land Use Designations Map for the immediate area is presented as Appendix 7.

Based on the existing and future land uses and building heights surrounding the Spires Road Area, High-Density Townhouse use envisioned in the CCAP serve as an appropriate land use transition (massing and scale) between existing single-family homes (1-2 storeys) in the Spires Road Area, and:

- the existing townhouse and apartment uses (2-4 storeys) along Cook Road, Cooney Road and Westminster Highway;
- future High-Density Townhouse uses (3-4 storeys) to the north and south of the area; and,
- the existing and future Mid-Rise and High-Rise Residential uses (4-16 storeys) to the east and west of the area.

Four to 6-Storey Apartments (up to 7 storeys tall including the parkade at grade) may also be considered between the existing single-family homes and the future Mid-Rise and High-Rise Residential uses (4-16 storeys) to the east and west of the area, but additional side yard setbacks and/or other building articulations should be required to address potential adjacency concerns (e.g., shadowing).

Housing Diversity

A CCAP Land Use Designation Map for the Brighthouse Village is presented as Appendix 8. Four types of residential uses are envisioned for the Brighthouse Village under the current CCAP:

- Sub Area B1 – High-Density Townhouses;
- Sub Area B2 – Mid-Rise Residential (4-8 storeys);
- Sub Area B3 – High-Rise Residential; and
- Sub Area B4 – High-Rise Commercial & Mixed Use.

The majority of residential units available in the Mid-Rise Residential, High-Rise Residential, and Mixed Uses would be apartment units. Apartment uses are allowed in Sub-Areas B2, B3,

and B4, which accounts for approximately 72.5% of land designated for developments within the Brighthouse Village.

Sub Area	Majority Unit Type	Total Area / % of Total Area	Max. FAR	Total Floor Area / % of Total Floor Area
B1	Townhouse	56.2 m ² / 27.5%	1.2	67.4 m ² / 12.1%
B2	Apartment	31.7 m ² / 15.5%	2.0	63.4 m ² / 11.4%
B3	Apartment	37.9 m ² / 18.6%	3.0	113.7 m ² / 20.4%
B4	Apartment & Commercial	78.3 m ² / 38.4%	4.0	313.2 m ² / 56.1%
<i>Total</i>		<i>204.1 m² / 100.0%</i>		<i>557.7 m² / 100.0%</i>

Section 3.3 of the OCP encourages a variety of housing forms in neighbourhoods to support all ages, income groups, families and household mixes. Therefore, it is important to provide a variety of housing options within Brighthouse Village, within walking distance to Canada Line stations. As the percentage of apartment uses is high within Brighthouse Village, High-Density Townhouse uses in the Spires Road Area provides housing choice for Richmond residents in City Centre.

Townhouses are typically family-oriented housing with three or more bedrooms and private outdoor space. In comparison, only 40% of the units in apartment developments are required to be family units; and those family units are typically two bedrooms, with some two-bedroom-plus-den and three-bedroom units. As noted above, the private outdoor space provided for apartment units is typically significantly smaller than the private outdoor space provided for townhouse units.

In addition, the cost of housing in townhouse developments are typically lower for the same unit size as townhouse units are usually provided in a low-rise wood frame building (except for the parkade portion, where a concrete structure is required), where construction costs are lower than concrete high rise buildings.

Rental Housing

Based on recent townhouse development applications, Council and staff have been encouraging 10% of all new townhouse units to contain a secondary suite; this is on top of the cash-in-lieu Affordable Housing contribution (\$8.5 per residential square foot). The provision of secondary suites provides flexibility for families expecting to expand or downsize in the future, where they have an option to rent out the secondary suite. There is no housing agreement required for the secondary units and the units can be rented out at market rate.

For the 4-Storey Apartment developments in the Spires Road Area, it is expected these developments would typically be smaller developments under 60 units. A cash-in-lieu contribution to the Affordable Housing Reserve (\$10 per residential square foot, wood-frame construction) would be accepted instead of constructed Low End Market Rental (LEMR) units, in accordance with the Affordable Housing Strategy. On the contrary, it is expected that LEMR units (10% of the total residential building area, minimum 4 units) will be required for 6-Storey Apartment and High-Rise Residential developments in the Spires Road Area.

In accordance with the City’s Market Rental Policy, a density bonus may be considered for residential developments in the Spires Road Area that provide market rental housing. The following table summarizes the maximum additional density that may be considered:

Housing Typologies	Maximum Bonus Density for 100% Market Rental Housing	Maximum Bonus Density for Mixed Market Rental and Strata Housing
High-Density Townhouses	0.2 FAR	0.1 FAR*
4-Storey Apartments (wood frame)	0.2 FAR	0.1 FAR*
6-Storey Apartments (wood frame)	0.2 FAR	0.1 FAR*
High-Rise Residential (concrete buildings)	0.25 FAR	0.1 FAR*

* which may be used only for market rental housing units

Accessible housing

All multiple family residential developments in Richmond are required to have aging in place features in all new units. In addition, the OCP and Zoning Bylaw provides an optional incentive for developers to build some apartments as adaptable housing (e.g., Basic Universal Housing (BUH) units). Where this is the case, 1.86 m² per dwelling unit is excluded from the floor area ratio (maximum density) calculations. Furthermore, for townhouse developments, the OCP encourages the provision of Convertible Units (multi-level units) and/or BUH Units (single level units) in at least 10% of the units.

Water

Local water infrastructure improvements will be evaluated through the development application process.

Sanitary

Upgrades to the sanitary system are ongoing, including Eckersley B pump station. Specific upgrades to sanitary infrastructure, including placement and capacity, for High-Density Townhouse developments would be evaluated during the development application process. There are no issues with downstream capacity to Eckersley B Pump Station.

A high level evaluation of the Spires Road Area for Mid-Rise and High-Rise Residential developments showed no issues with downstream capacity to Eckersley B Pump Station. Specific upgrades fronting the development property will need to be evaluated through the development application process.

Drainage

Local drainage infrastructure improvements will be evaluated through the development application process.

Options and Recommendations

Staff identify four options for Council's consideration:

- Option 1 – Continue with High-Density Townhouses. Make no change to land use and density envisioned for the Spires Road Area under the current CCAP
(Recommended)
- Option 2 – 4-Storey Apartments. Develop a new land use plan and amend the CCAP to support Mid-Rise Residential (4-Storey Apartments) in the Spires Road Area.
- Option 3 – 6-Storey Apartments. Develop a new land use plan and amend the CCAP to support Mid-Rise Residential (6-Storey Apartments) in the Spires Road Area.
- Option 4 – High-Rise Residential. Develop a new land use plan and amend the CCAP to support High-Rise Residential in the Spires Road Area.

Option 1 (High-Density Townhouses) (Recommended)

Based on the analysis, staff recommend continuing with the land use and density for the Spires Road Area envisioned in the current CCAP. High-Density Townhouses at 1.2 FAR (max.) is a viable development option for the properties within the Spires Road Area because:

- sizes of individual properties within the Spires Road Area are small and large scale site assembly is challenging. High-Density Townhouses would allow for smaller scaled developments (3-4 lot consolidation), which would be more flexible in terms of site consolidation and may shorten the time needed to redevelop the entire area;
- a narrower road cross-section has been implemented in the area to facilitate High-Density Townhouse Development. The road cross section for higher density development could require additional capacity to manage the anticipate increase in traffic volume. This will result in an inconsistent road geometry in the area;
- smaller scale developments would allow for additional public walkways to be developed throughout the neighbourhood, enhancing pedestrian mobility;
- High-Density Townhouses would allow for more flexibility in site planning than other higher density housing typologies, potentially facilitating more tree preservation opportunities;
- significantly larger private outdoor space is required for High-Density Townhouse developments than other higher density housing typologies, which enhances the livability of the units and the neighbourhood;
- High-Density Townhouse use would allow for more ground-oriented housing units, creating more attractive street/walkway frontages and enhancing pedestrian character of the neighbourhood;
- High-Density Townhouse developments in the Spires Road Area would provide additional choice of housing within the Brighthouse Village within walking distance to the Canada Line station; and

- the built form, massing and scale of High-Density Townhouse developments are compatible with existing single-family developments in the area, allowing for a more comfortable transition during redevelopment of the neighbourhood.

If Council proceeds with this option, Council may consider introducing the Official Community Plan Bylaw 7100, Amendment Bylaw 10190, to

- a) amend the Development Permit Special Precinct Key Map in the CCAP to include an area along Spires Road and Cook Crescent;
- b) introduce a set of Special Precinct Development Permit Guidelines for the Spires Road Area;
- c) update the road network and pedestrian linkages in the Spires Road Area; and
- d) make related minor map, text, page numbering, and table of contents amendments to the City Centre Area Plan.

These amendments are recommended by staff in response to the September 3, 2019 referral to develop a set of design guidelines for the Spires Road Area to ensure overall continuity in neighbourhood design and character within the Spires Road Area.

Option 2 (4-Storey Apartments)

Four-Storey Apartment uses would allow for smaller scaled developments (4-5 lot consolidation), accommodate approximately 20% more residents than High-Density Townhouse uses at built out, and, are considered compatible with existing single-family developments in the area in terms of massing and scale. However, the design of the single level parking structure at grade for 4-Storey Apartments would eliminate the opportunities for ground-oriented housing. Furthermore, development of a multiple level parkade with an internal ramp on small and shallow sites would be a major challenge. Due to the configurations of the building blocks within the Spires Road Area (e.g., shallow lots), it would be challenging to accommodate a separate internal ramp in the parkade as the dimensions are only large enough to accommodate a central drive aisle with parking stalls on either sides when ground-oriented units are provided to conceal the parking podium. A multiple level parkade would only be possible on a larger site with two separate vehicle entrances (one to the ground floor parking and another to the ramp) or on a larger land assembly that creates a deeper site.

In addition, Mid-Rise Residential developments would provide less private outdoor space per unit, lower opportunity for tree retention, secure a lower percentage of family units in a development and reduce the diversity of housing options in Brighthouse Village.

If Council implements this option, staff would conduct a more in-depth study on the potential OCP/CCAP amendment to allow Mid-Rise Residential (4-Storey Apartments) developments in the Spires Road Area. The scope of work includes but not limited to the following:

- a detailed examination of the typology and identify specific zoning requirements, if any, to ensure compatibility with existing single-family and townhouse developments within the Spires Road Area;

- a review of land use designation for properties fronting arterial roads within the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road to ensure appropriate transition between land uses within the area;
- a transportation study to address increased traffic generation, and impacts and requirements for surrounding and internal transportation networks. The study will also assess access and egress capacities to/from the area as well as internal road network geometry and configuration to support associated density implications. Parking and loading requirements will also be reviewed; and
- a review of the park designation and pedestrian linkage plan for the Spires Road Area to ensure compatibility with the new form of housing proposed in the area.

Option 3 (6-Storey Apartments)

Based on the analysis, 6-Storey Apartments would have the potential to create the most units and accommodate the most residents at build out; however, this would only be achievable if the development sites are large (at least 8-10 lots) and on a square shaped lot (instead of a long and narrow site). To accommodate 6-Storey Apartments, the existing road network in the Spires Road Area will need to be amended significantly. A number of existing roads in the area will need to be closed to create much deeper blocks to facilitate redevelopment.

Based on past experience, redevelopment of an area that requires a series of significant road closures typically takes a longer period of time. In addition, 6-Storey Apartments would provide less private outdoor space per unit, reduce the opportunity for tree preservation, lower the percentage of family units in a development, and reduce the diversity of housing options in Brighthouse Village. Furthermore, the built form, massing and scale of the 6-storey buildings would present compatibility challenges (e.g., shadowing).

If Council proceeds with this option, staff would conduct a more in-depth study on the potential OCP/CCAP amendment to allow Mid-Rise Residential (6-Storey Apartments) developments in the Spires Road Area. The scope of work would include the following:

- a detailed examination of the typology and identify zoning requirements, including the minimum site dimensions/configuration, to facilitate developments to meet the population target;
- a review of land use designation for properties fronting arterial roads within the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road to ensure appropriate transition between land uses within the area;
- a transportation study to address increased traffic generation, and impacts and requirements for surrounding and internal transportation networks. The study will also assess access and egress capacities to/from the area as well as internal road network geometry and configuration to support associated density implications. Parking and loading requirements will also be reviewed; and,
- a review of the park designation and pedestrian linkage plan for the Spires Road Area to ensure compatibility with the new form of housing proposed in the area.

Option 4 (High-Rise Residential)

The density analysis shows that High-Rise Residential development may accommodate over two times the population of High-Density Townhouses; however, there are a number of issues that need to be considered with respect to this housing typology in the Spires Road Area. The current CCAP design guidelines related to maximum floor plate area and minimum building separations for towers could significantly restrict the development potentials of High-Rise Residential within the Spires Road Area. This is in part due to the shallow lot and block configuration. In addition, tower placements may pose adverse impacts to the existing adjacent single-family homes and low-rise multiple family developments due to shadowing. As discussed above, significant changes to the existing road network will be required to create larger and deeper development blocks to facilitate efficiently designed High-Rise Residential developments. However, due to the land ownership pattern (e.g., single-family homes), site assembly, road closures, and sequencing of development will be challenging. High-rise residential development also provides less private outdoor space per unit, reduces the opportunity for tree preservation (due to lot coverage), lowers the percentage of family oriented units, and reduces housing choice in Brighthouse Village.

If Council proceeds with this option, staff would conduct a more in-depth study on the potential OCP/CCAP amendment to allow High-Rise Residential developments in the Spires Road Area. Scope of work includes but not limited to the following:

- a detailed examination of the typology and identify zoning and design requirements to ensure a more appropriate transition between existing single-family/townhouse developments and future tower placements;
- a review of land use designations for properties fronting onto the arterial roads within the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road to ensure appropriate transition between land uses within the area;
- a transportation study to address increased traffic generation, and impacts and requirements for surrounding and internal transportation networks. The study will also assess access and egress capacities to/from the area as well as internal road network geometry and configuration to support associated density implications. Parking and loading requirements will also be reviewed; and
- a review of the park designation and pedestrian linkage plan for the Spires Road Area to ensure compatibility with the new form of housing proposed in the area.

Conclusion

This Land Use and Density Analysis outlines four density scenarios for the Spires Road Area. Based on the analysis staff are recommending that the current CCAP land use designation (High-Density Townhouses) for the area remains in place.

High-Density Townhouses is a viable development option for the properties within the Spires Road Area because:

- the existing lot and block configuration, and landownership pattern more readily accommodate High-Density Townhouse developments;
- the High-Density Townhouse typology allows for smaller scale developments, which provides opportunities for additional public walkways to be developed throughout the neighbourhood;
- High-Density Townhouses would allow for more flexibility in site planning than other higher density housing typologies, potentially facilitating more tree preservation opportunities;
- significantly larger private outdoor space is required for High-Density Townhouse developments than other higher density housing typologies. Providing for family-friendly housing;
- High-Density Townhouse developments in the Spires Road Area provide additional housing choice within walking distance to the Canada Line station; and,
- the built form, massing and scale of High-Density Townhouse developments are compatible with existing single-family developments in the area, allowing for a more comfortable transition during redevelopment of the neighbourhood.

Appendixes:

Appendix 1: Location Map – Spires Road Area

Appendix 2: Specific Land Use Plan: Brighthouse Village (2031)

Appendix 3: Context Plan - Generalized Land Uses (2031)

Appendix 4: Overview of Selected Housing Typologies

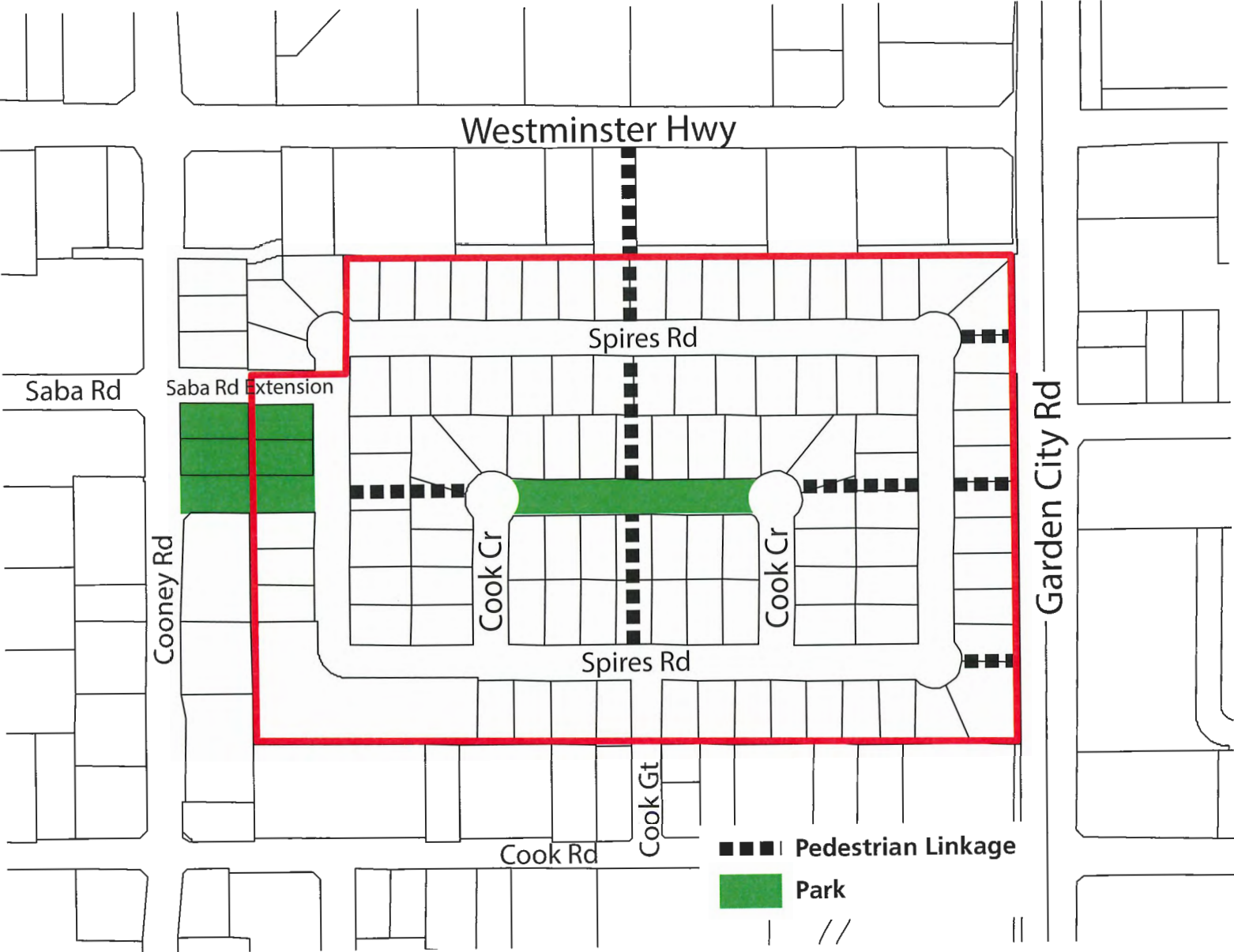
Appendix 5: Comparison of the Housing Typologies

Appendix 6: Existing Land Uses and Building Heights In and Surrounding the Spires Road Area

Appendix 7: CCAP Sub-Area Land Use Designations – Spires Road and Surrounding Area

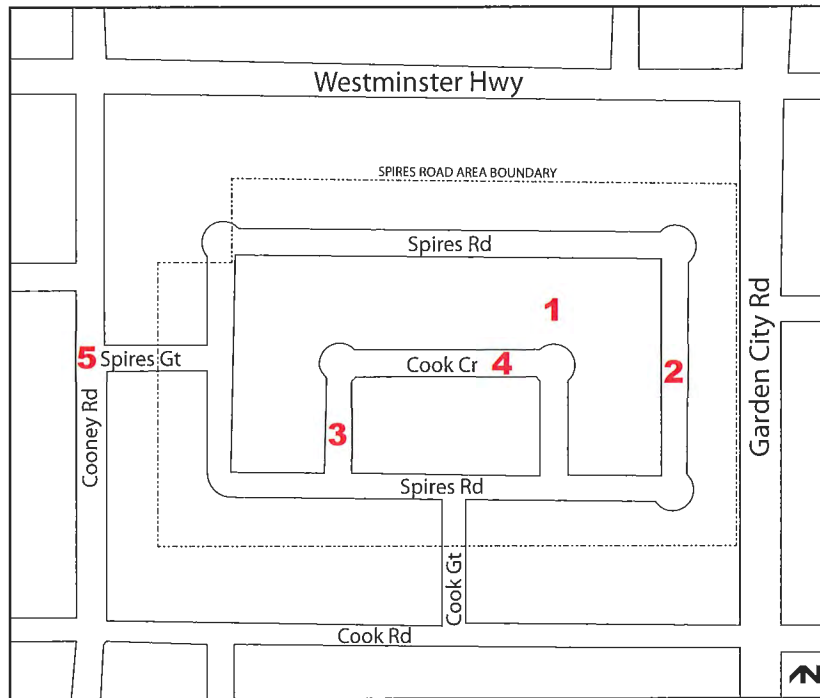
Appendix 8: CCAP Sub-Area Land Use Designations - Brighthouse Village

Conceptual Pedestrian Linkage Map - Spires Road Area

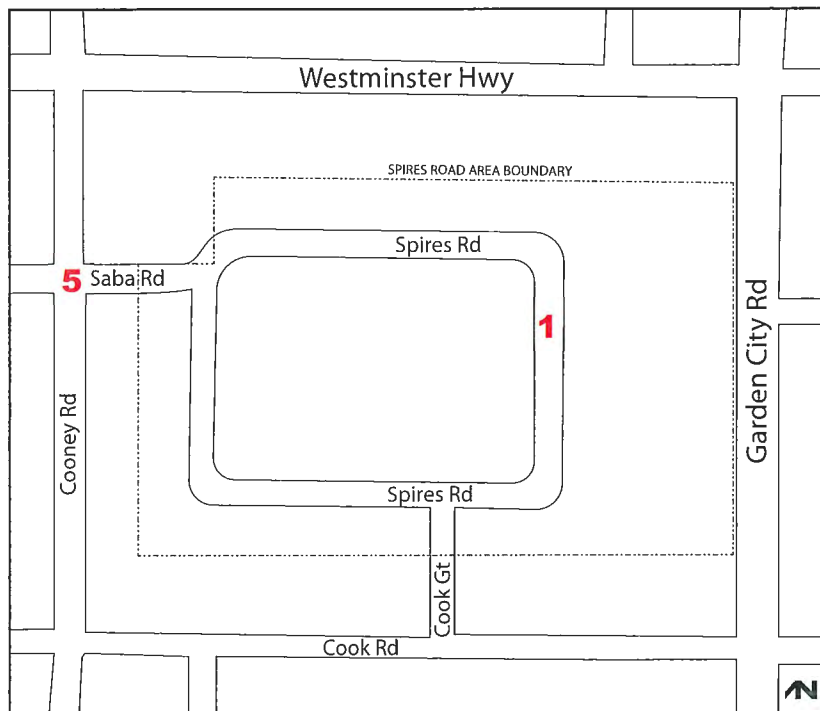


Road Network Map - Spires Road Area

Existing



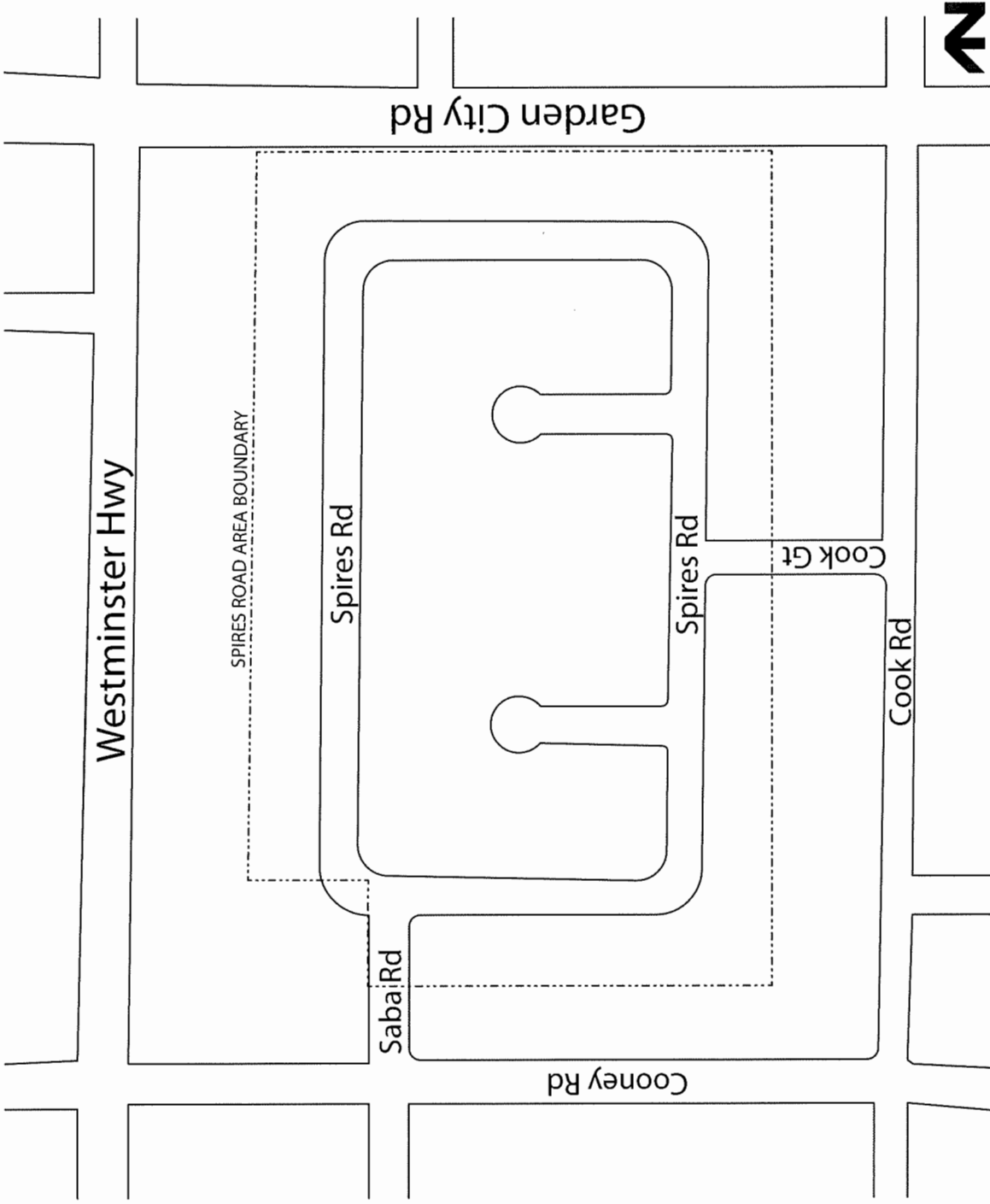
Road Network Identified in the Current CCAP



Notes: The current CCAP identifies the following changes to the existing road network:

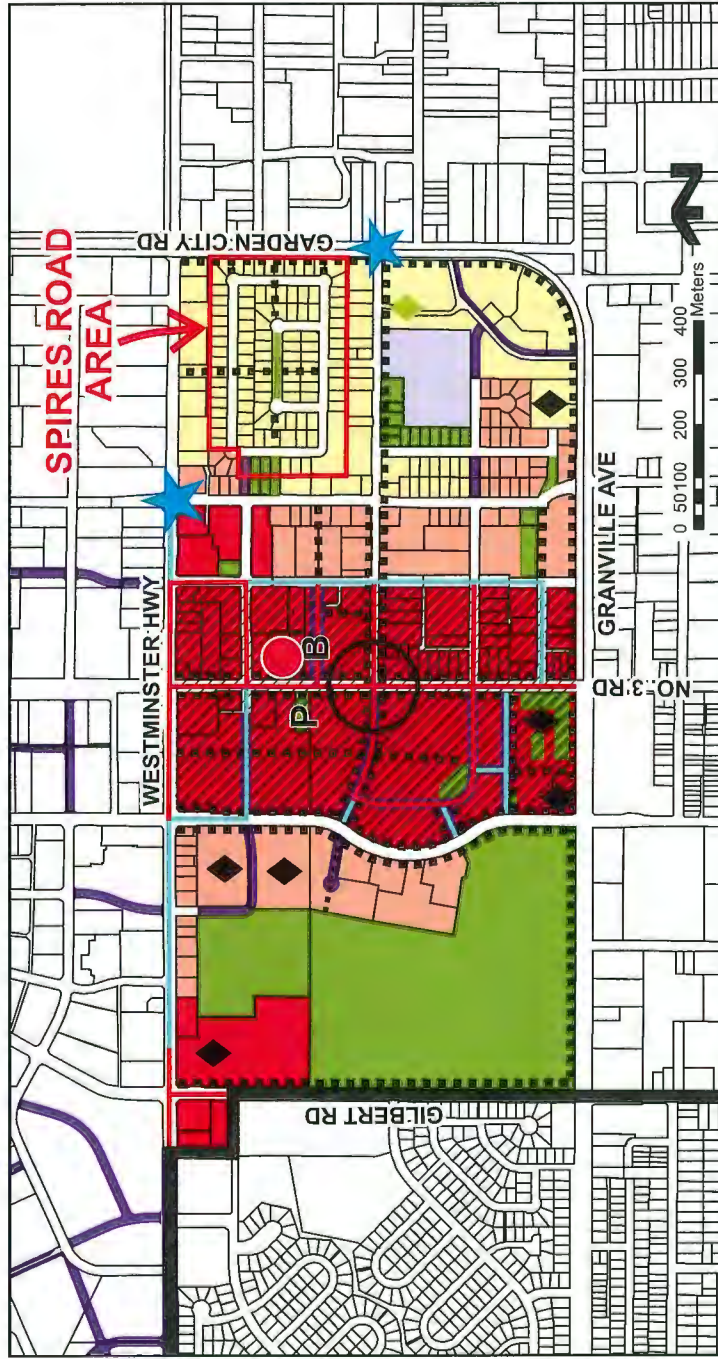
- 1** extension of the eastern leg of Cook Crescent north to Spires Road;
- 2** closure of the eastern section of Spires Road;
- 3** closure of the western leg of Cook Crescent;
- 4** closure of the east-west portion of Cook Crescent; and
- 5** relocation of the western gateway to the north end from Spires Gate to Saba Road.

Conceptual Road Network Map – Spires Road Area



Note: Exact road alignments are subject to developments and traffic studies.

Proposed Revised Specific Land Use Plan: Brighthouse Village (2031)



- | | | | |
|--|---|--|--|
| | General Urban T4 (15m) | | Proposed Streets |
| | Urban Centre T5 (25m) | | Pedestrian-Oriented Retail Precincts-High Street & Linkages |
| | Urban Core T6 (45m) | | Pedestrian-Oriented Retail Precincts-Secondary Retail Streets & Linkages |
| | Park | | Canada Line Station |
| | Park-Configuration & location to be determined | | B Bus Exchange |
| | Village Centre: No. 3 Road & Cook Road Intersection | | P Transit Plaza |
| | School | | Pedestrian-Oriented Retail Precincts-High Street & Linkages |
| | Village Centre Bonus | | Pedestrian-Oriented Retail Precincts-Secondary Retail Streets & Linkages |
| | Institution | | Canada Line Station |
| | Pedestrian Linkages | | B Bus Exchange |
| | Enhanced Pedestrian & Cyclist Crossing | | Proposed Streets |
| | Village Centre: No. 3 Road & Cook Road Intersection | | Pedestrian-Oriented Retail Precincts-High Street & Linkages |

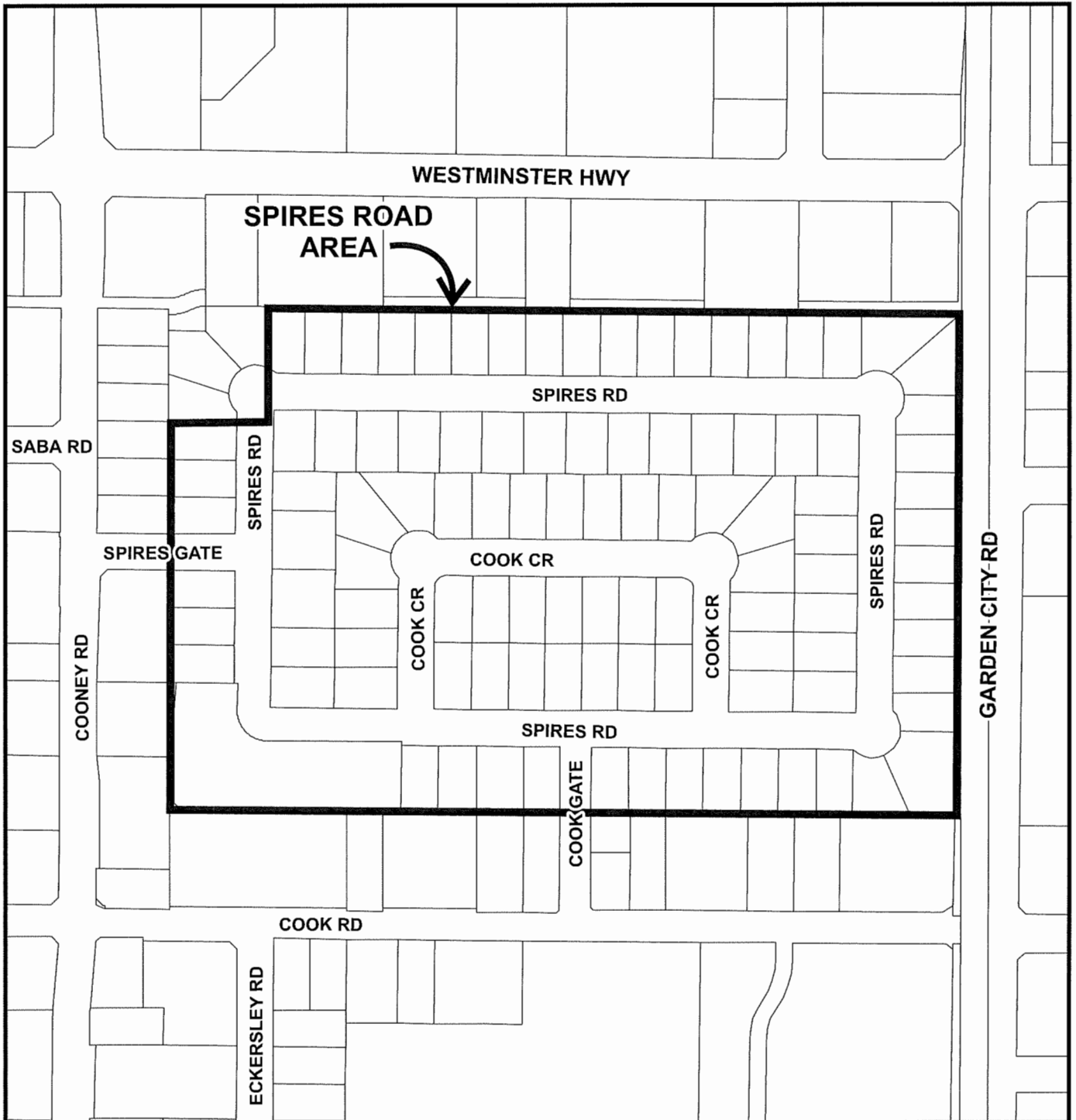
OCP Consultation Policy

Staff have reviewed the proposed OCP amendments, with respect to the *Local Government Act* and the City’s OCP Bylaw Preparation Consultation Policy No. 5043 requirements and recommend that this report does not require referral to external stakeholders. The table below clarifies this recommendation as it relates to the proposed OCP amendment.

Stakeholder	Referral Comment (No Referral necessary)
Agricultural Land Commission (ALC)	No referral necessary because the Land Reserve is not affected.
Richmond School Board	No referral necessary as the School Board is not affected.
The Board of Metro Vancouver	No referral necessary because the Regional District is not affected.
The Councils of adjacent Municipalities	No referral necessary because adjacent municipalities are not affected.
First Nations (e.g. Sto:lo, Tsawwassen, Musqueam)	No referral necessary because First Nations are not affected.
TransLink	No referral necessary because the proposed amendments will not result in significant road network changes.
Port Authorities (Vancouver Port Authority and Steveston Harbour Authority)	No referral necessary because the Port is not affected.
Vancouver International Airport Authority (VIAA) (Federal Government Agency)	No referral necessary because the proposed amendments do not affect Transport Canada’s maximum permitted building height or the OCP Aircraft Noise Sensitive Development (ANSO) Policy.
Richmond Coastal Health Authority	No referral necessary because the Health Authority is not affected.
Community Groups and Neighbours	The Advisory Design Panel was consulted on the proposed Special Precinct Development Permit Area design guidelines. Further, a Public Hearing notice will be sent to all owners and residents in the Spires Road area to comment on the proposed OCP amendment at a Public Hearing.
All relevant Federal and Provincial Government Agencies	No referral necessary because Federal and Provincial Government Agencies are not affected.



City of Richmond



Notification Area Spires Road Area

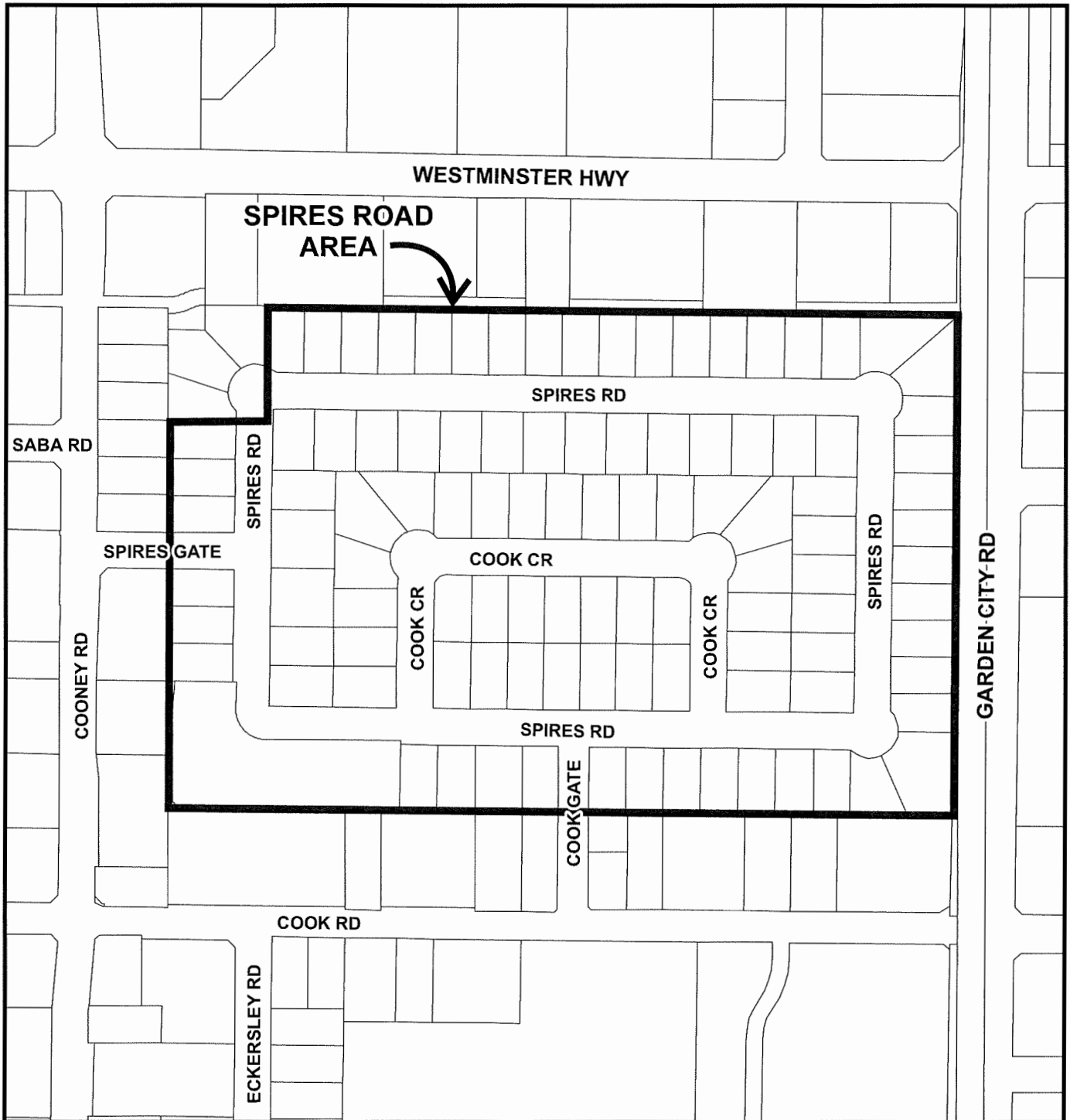
Original Date: 05/20/20

Revision Date:

Note: Dimensions are in METRES



City of Richmond



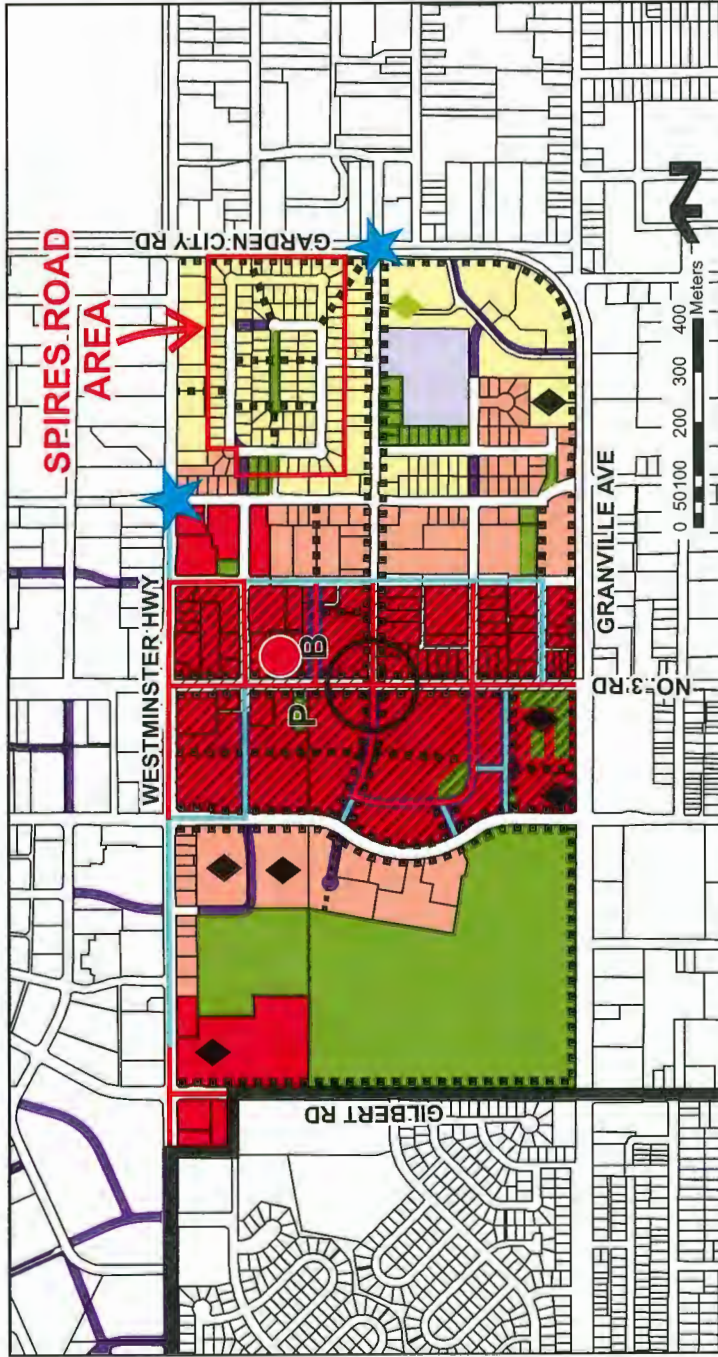
Spires Road Area

Original Date: 05/20/20

Revision Date:

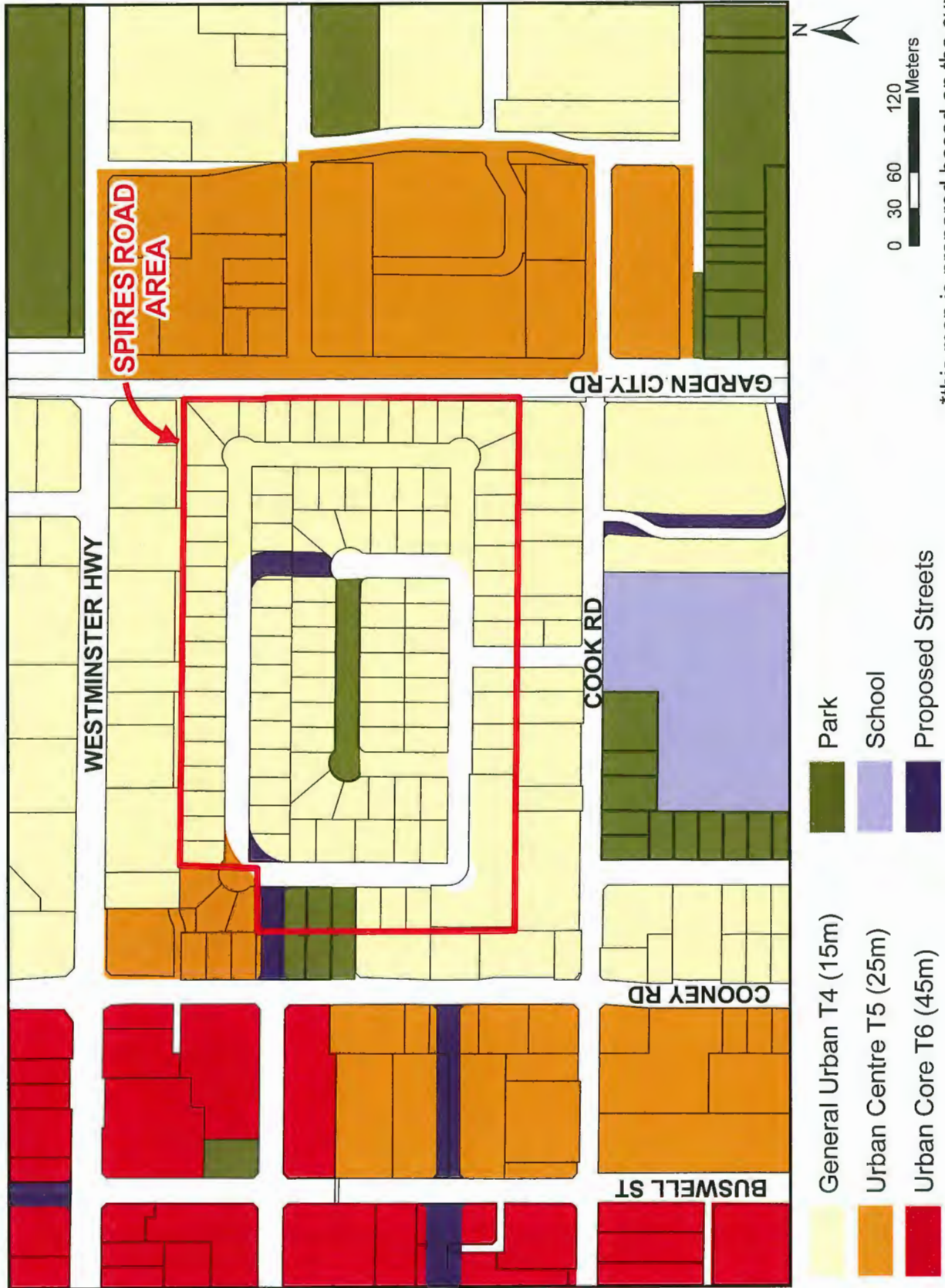
Note: Dimensions are in METRES

Specific Land Use Map: Brighthouse Village (2031)



- General Urban T4 (15m)
- Urban Centre T5 (25m)
- Urban Core T6 (45m)
- Park
- Park-Configuration & location to be determined
- Village Centre: No. 3 Road & Cook Road Intersection
- School
- Village Centre Bonus
- Institution
- Pedestrian Linkages
- Enhanced Pedestrian & Cyclist Crossing
- Bus Exchange
- B
- Proposed Streets
- Pedestrian-Oriented Retail Precincts-High Street & Linkages
- Pedestrian-Oriented Retail Precincts-Secondary Retail Streets & Linkages
- Canada Line Station
- P
- Transit Plaza

Context Plan - Generalized Land Uses (2031)



*this map is prepared based on the current CCAP

Example Images of the Housing Typologies

Current CCAP - T4

Low-Rise Residential: High-Density Townhouses

- This is the housing typology envisioned in the current CCAP for the Spires Road Area.
- While conventional townhouses are characterized by individual garages, High-Density Townhouses feature a common parking structure concealed from public view by non-parking use (e.g., townhouse units and indoor amenity spaces) and a common courtyard amenity area provided on the podium level on top of the parking structure.
- Maximum density: 1.2 floor area ratio (FAR).
- Maximum height: 15 m (typically 4 storeys including a single level parkade).
- Estimated population at built out is approximately 2200 people in approximately 750 units.



6611 Eckersley Rd



8400 Cook Rd

Mid-Rise Residential: 4-Storey Apartments

- Maximum 4 storeys of multiple family units over a single level concrete parkade.
- The parkade is typically at grade and concealed by landscaping and retaining walls along the perimeter of the site.
- Typical density: 1.4 floor area ratio (FAR).
- Typical height: 15 m (5 storeys including a single level parkade).
- Estimated population at built out is approximately 2700 people in approximately 1350 units.



9288 Odlin Rd



8400 Anderson Rd

Example Images of the Housing Typologies

Mid-Rise Residential: 6-Storey Apartments

- Maximum 6 storeys of multiple family units over a concrete parkade.
- The parkades are typically single level on large sites, but multiple-level parkades may be required on smaller sites to accommodate the parking requirements.
- The single level parkade is usually at grade and concealed by landscaping and retaining walls along the perimeter of the site.
- Where multiple levels of above grade parkade are required, the exposed portion of the parkade is concealed by non-parking use (e.g., ground-oriented units and indoor amenity spaces).
- Typical density: 2.0 floor area ratio (FAR).
- Typical height: 25 m (7 storeys including parkade at grade).
- Estimated population at built out is approximately 3900 people in approximately 1950 units.



5311 Cedarbridge Way



9399 Alexandra Rd

High-Rise Residential

- Towers (up to approximately 16 storeys) with podium streetwall bases (up to 3 storeys high).
- Parking located within the building podium and concealed from public view by non-parking uses (e.g., ground-oriented units and indoor amenity spaces).
- Maximum tower floorplate size is limited to 650 m² (above 25 m).
- Minimum tower separation is 35 m (above 25 m).
- Typical density: 3.0 floor area ratio (FAR).
- Maximum height: 45 m.
- Estimated population at built out is approximately 3700 people in approximately 1800 units.



6351 Buswell St



6533 Buswell St

Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Typology				
Built Form	<ul style="list-style-type: none"> Townhouses around and on top of a single level parking structure with stoops and porches. 	<ul style="list-style-type: none"> Apartment block(s) on top of a single level parking structure. 	<ul style="list-style-type: none"> Apartment block(s) on top of a parking structure. 	<ul style="list-style-type: none"> Tower(s) on top of a parking podium.
Typical Distribution of Uses	<ul style="list-style-type: none"> Ground & Upper Floors: high-density townhouses. Parking: within the building (typically at grade, and concealed from public view by non-parking uses. 	<ul style="list-style-type: none"> Ground Floor: parking structure concealed from public view by landscaping. Upper Floors: multiple-family residential. Parking: within the building (typically at grade). 	<ul style="list-style-type: none"> Ground Floor: parking structure concealed by landscaping and/or street-oriented townhouses. Upper Floors: multiple-family residential. Parking: within the building (at grade or slightly below grade). 	<ul style="list-style-type: none"> Ground Floor: street-oriented townhouses. Upper Floors: multiple-family residential. Parking: within the building (parking podium up to 3 storeys high) and concealed by non-parking uses.
Typical Minimum Site Assembly Requirements	<ul style="list-style-type: none"> 2,000 m² Approx. 3-4 existing single-family lots. 	<ul style="list-style-type: none"> 2,500 m² Approx. 4-5 existing single-family lots. 	<ul style="list-style-type: none"> 5,800 m² Approx. 8-10 existing single-family lots. 	<ul style="list-style-type: none"> 3,000 m² Approx. 5-6 existing single-family lots.
Typical Density	1.2 FAR	1.4 FAR	2.0 FAR	3.0 FAR
Maximum Building Height	15 m (49 ft.)	18 m (59 ft.)	25 m (82 ft.)	45 m (148 ft.)
Parking Requirements (Residential + Visitor)	1.4 space per unit	1.4 space per unit	1.4 space per unit	1.4 space per unit
Massing considerations	Typically, max. 6-8 units in each townhouse cluster.	No specific guidelines.	No specific guidelines.	Above 25 m (82 ft.): <ul style="list-style-type: none"> max. floorplate size limited to 650 m² (6,997 ft²); min. tower separation at 35 m (115 ft.).
Private Outdoor Space Requirements	37 m ² per unit	6 m ² minimum; 9 m ² preferred	6 m ² minimum; 9 m ² preferred	6 m ² minimum; 9 m ² preferred
Secondary Suites	10% of all new townhouse units are encouraged to contain a secondary suite.	No specific guidelines.	No specific guidelines.	No specific guidelines.

Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Affordable Housing	<ul style="list-style-type: none"> ▪ Affordable Housing contribution: \$8.5/buildable ft². 	<ul style="list-style-type: none"> ▪ Affordable Housing contribution: \$10/buildable ft² (wood-frame construction). 	<ul style="list-style-type: none"> ▪ Affordable Housing contribution: \$10/buildable ft² (wood-frame construction). ▪ Larger apartment developments containing more than 60 residential units are required to provide at least 10% of the total residential building area as LEMR units instead of cash contribution. ▪ Smaller developments provide a cash-in-lieu contribution to the Affordable Housing Reserve. 	<ul style="list-style-type: none"> ▪ Affordable Housing contribution: \$14/buildable ft² (concrete construction).
Accessible Housing	<ul style="list-style-type: none"> ▪ Aging in place features required in all units ▪ 10% of all new townhouse units are encouraged to meet the Convertible Unit or Basic Universal Housing (BUH) requirements 	<ul style="list-style-type: none"> ▪ Aging in place features required in all units 		
Projections				
Spires Road Area only				
Unit Projections (units)	700-800	1200-1500	1800-2100	1600-2000
Population Projections (people)	2000-2400	2500-2900	3600-4200	3400-4000
All properties bounded by Westminster Hwy, Garden City, Cook and Cooney *including T5 Towers at the NW Corner				
Unit Projections (units)	1300-1500	2300-2400	3100-3400	3000-3300
Population Projections (people)	3700-4000	4600-4900	6300-6800	6800-7500

Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Development Considerations				
Site Configuration	<ul style="list-style-type: none"> ▪ Smaller site assembly. ▪ Fits into existing site configurations (i.e., lot depth) and road network. 	<ul style="list-style-type: none"> ▪ Minimum assembly size is slightly larger than townhouse developments. ▪ Fits into most of the existing site configurations (i.e. lot depth). ▪ Larger site assembly may be required in certain areas due to the existing lot configuration. 	<ul style="list-style-type: none"> ▪ Larger development sites are required to facilitate 6-Storey Apartments. ▪ Site assemblies could result in road closure to create larger and deeper sites that would accommodate all required parking in a single level parkade. 	<ul style="list-style-type: none"> ▪ Larger development sites are required to facilitate tower developments. ▪ Site assemblies would result in significant road closure to create deeper sites to accommodate tower podiums.
Development Sequence	<ul style="list-style-type: none"> ▪ Not a significant issue as the required site configurations would fit with the existing servicing and road networks. ▪ Minor temporary re-routing of sanitary mains may be required depending on the consolidation pattern and phasing of development. 	<ul style="list-style-type: none"> ▪ Not a significant issue for 4-Storey Apartments due to smaller minimum site assembly requirements. ▪ Temporary re-routing of sanitary mains may be required based on the consolidation pattern and phasing of development. 	<ul style="list-style-type: none"> ▪ Sequencing of development would be a significant issue due to potential road closures and the significant re-routing of sanitary mains to facilitate larger site assemblies. 	<ul style="list-style-type: none"> ▪ Sequencing of development would be a significant issue due to road closures and the significant re-routing of sanitary mains to facilitate site assemblies.
Challenges for Site Assembly	<ul style="list-style-type: none"> ▪ Not an issue as the minimum site assembly is approx. 3-4 existing single-family lots. ▪ There are 2 in-stream applications and 2 approved projects; all with site assemblies of 3 to 7 single-family lots. 	<ul style="list-style-type: none"> ▪ Not an issue as the minimum site assembly requirement is approx. 4-5 single-family lots. 	<ul style="list-style-type: none"> ▪ The minimum site assembly is approx. 8-10 existing single-family lots. Larger scale property assemblies are difficult due to the number of landowners in the area (all of which may have different redevelopment aspirations). 	<ul style="list-style-type: none"> ▪ The minimum site assembly is approx. 5-6 single-family lots but building design will be restricted by the wide and shallow lot configuration. ▪ Larger scale property assemblies preferred to create larger and deeper development sites but this will be challenging due to the number of landowners in the area.

Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Ground-oriented housing	<ul style="list-style-type: none"> ▪ Ground-oriented housing required to screen the single level parking podium, which would help create a pedestrian-oriented streetscape 	<ul style="list-style-type: none"> ▪ No ground-oriented housing. The ground floor will be used for parking. ▪ Typically not feasible to have an underground parking garage or a 2 level concrete parking podium in a 4-storey building 	<ul style="list-style-type: none"> ▪ Depending on the size and configuration of the site, ground-oriented housing may be provided around a multi-level parking podium 	<ul style="list-style-type: none"> ▪ Ground-oriented housing will be required to screen the multi-level parking podium, which would help create a pedestrian-oriented streetscape.
Land Use Compatibility/Transition	<ul style="list-style-type: none"> ▪ Massing and scale would 'fit' with existing multiple-family developments adjacent to the Spires Road Area (i.e., older 2-3 storeys townhouses and 3-4 storey apartment buildings). 	<ul style="list-style-type: none"> ▪ Massing and scale would be compatible with existing/proposed developments in the area but larger setbacks or lower building heights at side/rear yard interface with existing single-family development would need to be considered to minimize impact on adjacencies. 	<ul style="list-style-type: none"> ▪ Massing and scale will be larger than the existing/proposed townhouse developments but could be compatible depending on the design. Larger setbacks or lower building heights at side/rear yard interface with single-family homes should be considered to minimize impact on adjacencies. 	<ul style="list-style-type: none"> ▪ Not compatible with the existing/proposed townhouse developments in area or the older 2-3 storeys townhouses and 3-4 storey apartments located adjacent to the Spires Road Area.
Form and Character	<ul style="list-style-type: none"> ▪ The design guidelines developed for the Spires Road Area (in response to Council's referral) refer to a more traditional design character with pitch roofs, which is compatible the existing single-family homes and the new/proposed townhouse developments in the area. 	<ul style="list-style-type: none"> ▪ The form and character of apartments would be significantly different from the more traditional design character of townhouses. 		

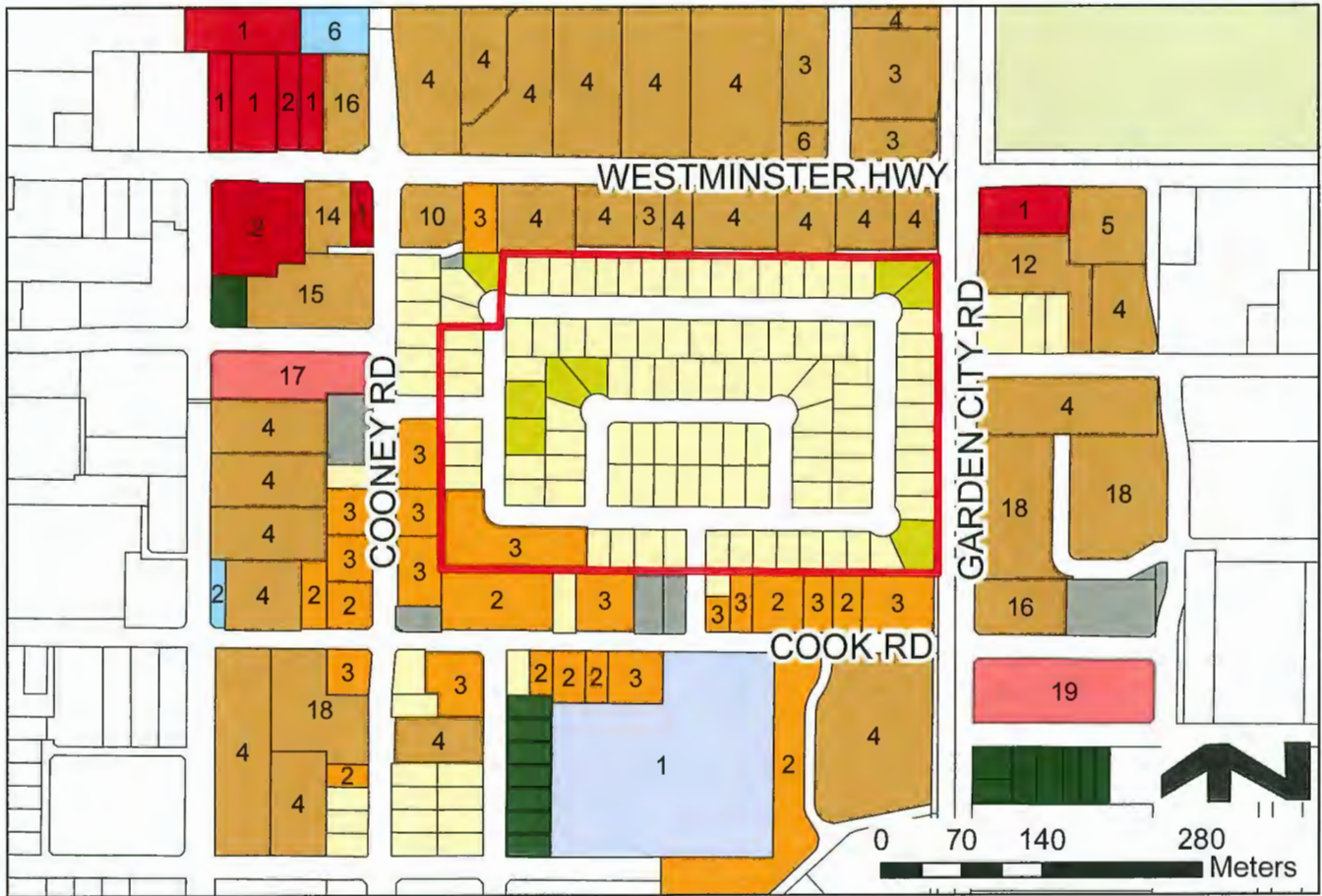
Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Tree Retention	<ul style="list-style-type: none"> ▪ More opportunity for tree retention as there is more flexibility in site planning. 	<ul style="list-style-type: none"> ▪ Less opportunity for tree retention as the single level parkade footprint needs to be maximized to accommodate the required parking. 	<ul style="list-style-type: none"> ▪ Typically less opportunity for tree retention due to parking and building footprint. 	
Engineering/Servicing Considerations				
Water				
Sanitary	<ul style="list-style-type: none"> ▪ Local water infrastructure improvements will be evaluated through the development application process. ▪ Upgrades to the sanitary system are ongoing, including Eckersley B pump station. Specific upgrades to sanitary infrastructure, including placement and capacity, for Townhouse developments would be evaluated during the permit application process. ▪ No issues with downstream capacity to Eckersley B Pump Station. 	<ul style="list-style-type: none"> ▪ No issues with downstream capacity to Eckersley B Pump Station. ▪ Specific upgrades fronting the development property will need to be evaluated through the permit application phase. 		
Storm	<ul style="list-style-type: none"> ▪ Local drainage infrastructure improvements will be evaluated through the development application process. 			
Transportation Networks				
Road Cross Section	<ul style="list-style-type: none"> ▪ The new 16 m road cross section was designed to accommodate townhouses as envisioned in the CCAP. 			<ul style="list-style-type: none"> ▪ Road cross section will be reviewed as part of a Transportation Study. ▪ Road widening may be required due to increased density.

Comparison of the Housing Typologies

	Current CCAP - T4 High-Density Townhouses	Mid-Rise Residential 4-Storey Apartments	Mid-Rise Residential 6-Storey Apartments	High Rise Residential
Lane Standards	<ul style="list-style-type: none"> ▪ The current 6 m wide lane standard was designed to accommodate townhouse development as envisioned in the CCAP. ▪ Pedestrian network was reviewed as part of the development of design guidelines in 2020. Minor revision will be required in response to Council's comments on the design guidelines. 	<ul style="list-style-type: none"> ▪ Lane standards will be reviewed as part of a Transportation Study. ▪ Lane widening may be required due to increased density. 		
Pedestrian linkage	<ul style="list-style-type: none"> ▪ Access points shown in the CCAP were designed to accommodate townhouses as envisioned in the CCAP. 	<ul style="list-style-type: none"> ▪ Pedestrian network will be reviewed to ensure permeability within the neighbourhood with the new form of development. 		
Access and Egress Capacities to/from the Area	<ul style="list-style-type: none"> ▪ Current bylaw parking provisions are satisfactory. ▪ Current bylaw loading provisions are satisfactory. 	<ul style="list-style-type: none"> ▪ A Transportation Study is required to determine if additional access is required to accommodate the higher density. 		
Parking				
Loading	<ul style="list-style-type: none"> ▪ A Parking Study is required to determine the suitability of the current bylaw parking provisions for the higher density and new form of housing. ▪ A review of loading impacts will be required as part of the Transportation Study. 			

Existing Land Uses and Building Heights In and Surrounding the Spires Road Area



 Spires Road Area

Current Land Use

- | | |
|---|--|
| Single Family | Commercial |
| Duplex | Office |
| Townhouse | Park |
| Apartment | School |
| Mixed Use | Empty Lot |
| Agriculture | |

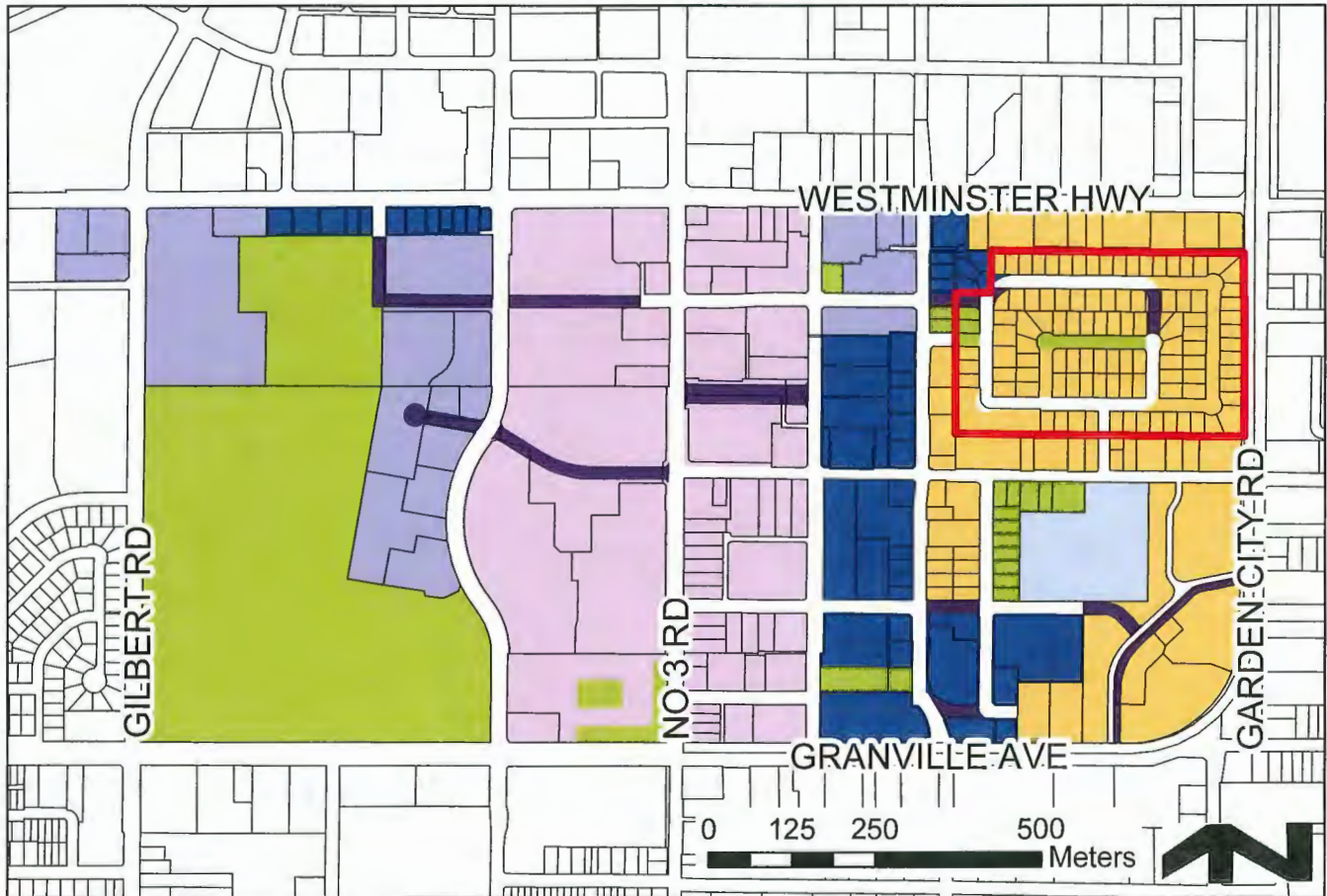
* the numbers on the map represent existing building height (storeys 1-17) for buildings other than single-family homes and duplexes.

CCAP Land Use Designations Map - Spires Road and Surrounding Area



- Spires Road Area
- Sub Area B1 - High Density Townhouses 1.2 FAR 15m Max Height
- Sub Area B2 - Mid-Rise Residential (4-8 storeys) 2.0 FAR 25 m Max Height
- Sub Area B3 - High Rise Residential 3.0 FAR 45 m Max Height
- Sub Area B4 - High-Rise Commercial & Mixed Use 4.0 FAR 45 m Max Height
- Park
- School
- Proposed Streets

CCAP Land Use Designations in Brighthouse Village (2031)



- Spires Road Area
- Sub Area B1 - High Density Townhouses 1.2 FAR 15m Max Height
- Sub Area B2 - Mid-Rise Residential (4-8 storeys) 2.0 FAR 25 m Max Height
- Sub Area B3 - High Rise Residential 3.0 FAR 45 m Max Height
- Sub Area B4 - High-Rise Commercial & Mixed Use 4.0 FAR 45 m Max Height
- Park
- School
- Proposed Streets



**Richmond Official Community Plan Bylaw 7100
Amendment Bylaw 10190**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Official Community Plan Bylaw 7100, Schedule 2.10 (City Centre Area Plan), is amended by:
 - a) Amending the Development Permit Special Precinct Key Map on page 3-4 to identify an area along Spires Road and Cook Crescent, as shown in “Schedule A attached to and forming part of Bylaw 10190”, as a special precinct area and identified as “3.0 Spires Road (Brighthouse Village)”;
 - b) Following section 3.3.2 Special Precinct 2.0, by inserting a new section 3.3.3 Special Precinct 3.0, as shown in “Schedule B attached to and forming part of Bylaw 10190”.
 - c) Replacing page 2-27, including the Street Network Map (2031), with “Schedule C attached to and forming part of Bylaw 10190”;
 - d) Replacing page 2-36, including Pedestrian Environment Map (2031), with “Schedule D attached to and forming part of Bylaw 10190”;
 - e) Replacing page 2-62, including the A Base For Building a Living Landscape Map, with “Schedule E attached to and forming part of Bylaw 10190”;
 - f) Replacing page 2-67, including the Base Level Parks & Open Space Map (2031), with “Schedule F attached to and forming part of Bylaw 10190”;
 - g) Replacing page 2-70, including the Neighbourhood Parks Map, with “Schedule G attached to and forming part of Bylaw 10190”;
 - h) Replacing page 2-73, including the Pedestrian Linkages Map, with “Schedule H attached to and forming part of Bylaw 10190”;
 - i) Replacing page 2-90, including the Public Realm Areas Map, with “Schedule I attached to and forming part of Bylaw 10190”;
 - j) Replacing page 3-3, including the Development Permit Sub-Areas Key Map, with “Schedule J attached to and forming part of Bylaw 10190”;
 - k) Replacing page 3-13, including the Park Frontage Enhancement Areas Map, with “Schedule K attached to and forming part of Bylaw 10190”;

- l) Replacing page 3-16, including the Designated Green Link & Linear Park Location Map, with “Schedule L attached to and forming part of Bylaw 10190”;
 - m) Replacing page 4-11, including the Park & Open Spaces Map (2031), with “Schedule M attached to and forming part of Bylaw 10190”;
 - n) Replacing the Generalized Land Use Map (2031) with “Schedule N attached to and forming part of Bylaw 10190”;
 - o) Replacing the Specific Land Use Map: Brighthouse Village (2031) with “Schedule O attached to and forming part of Bylaw 10190”;
 - p) Making various text and graphic amendments to accommodate the identified bylaw amendments and to ensure consistency with the Generalized Land Use Map (2031) and Specific Land Use map: Brighthouse Village (2031) as amended.
2. This Bylaw may be cited as **“Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190”**.

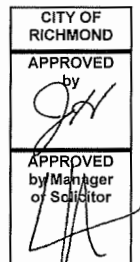
FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED



MAYOR

CORPORATE OFFICER