



City of Richmond
Planning and Development Department

Report to Committee

To: Planning Committee

Date: March 12, 2009

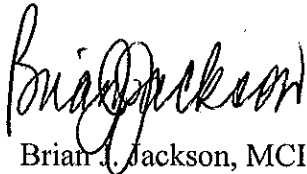
From: Brian J. Jackson, MCIP
Director of Development

File: 12-8060-20-8370

Re: Proposed Amendments to Single-Family Housing District (R1-0.6)

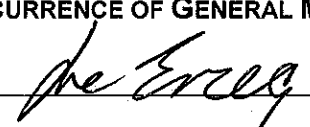
Staff Recommendation

That Bylaw No. 8370, which amends Zoning and Development Bylaw 5300 by replacing the existing Single-Family Housing District (R1-0.6), be introduced and given first reading.



Brian J. Jackson, MCIP
Director of Development

EL:blg
Att.

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO:		CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Law		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Building Approvals		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> <i>K</i>	NO <input type="checkbox"/>	REVIEWED BY CAO
			YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

On September 6, 2006, Council passed the following referral motion:

"That staff, with regard to smaller sized lots, examine the square footage of each home to be constructed on those lots, and the maximum usage, and prepare a report to the Planning Committee on these matters."

A report dated December 3, 2007 (**Attachment 1**) was presented to Planning Committee on January 8, 2008 in response to this motion. This report identified eight (8) recommendations on proposed changes to the Single-Family Housing District (R1-0.6) zone.

On January 14, 2008, Council passed the following referral motion:

"That staff bring forth final recommendations on the "Single-Family Housing District (R1-0.6)", based on the input from the GVHBA and UDI."

A report dated July 2, 2008 (**Attachment 2**) that summarized the input from the development industry and proposed seven (7) amendments to the R1-0.6 zone was presented to Planning Committee on July 22, 2008. Three (3) local builders attended the meeting and requested clarification on the potential impact of the proposed amendments to the Single-Family Housing District (R1-0.6) zone on small lot developments. Planning Committee passed the following referral motion:

"That Bylaw No. 8370, which amends Zoning and Development Bylaw 5300, be referred back to staff for further consultation with local builders."

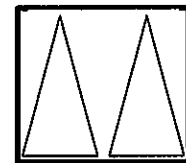
This report provides a summary on the latest consultation with the development industry and recommends amendments to the Single-Family Housing District (R1-0.6) zone.

Consultation

In response to latest referral motion, staff met with the local builders in December, 2008 to clarify the purpose of each of the proposed amendments to the Single-Family Housing District (R1-0.6) zone and potential impact to the small lot developments. The local builders have the following concerns:

1. Reduction of density exemption for accessory building (i.e. from 50 m² to 45 m²) – it would eliminate the possibility to have a third parking space and reduce the amount of storage space within the garage.

(Three-car garage was never envisioned for the compact lots. The size of a typical double-car garage (side-by-side) is approximately 36 m², the size of a triple-car garage (2



Typical Double Car Garage
20 ft. x 19 ft.

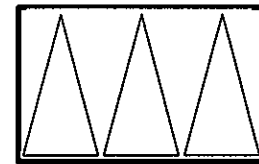
standard and 1 small car, side-by-side) is approximately 48 m², and the size of a three-car garage in tandem arrangement (2 standard and 1 small car) is approximately 53 m². A third parking space is only required when there is a secondary suite on a lot fronting on an arterial road. There is no provision in the zoning Bylaw that parking spaces have to be provided within a garage).

2. Limited width on the enclosed area between the principal building and the detached garage (i.e. 40% of the width of the principal building) - it would eliminate the possibility to have a three-car garage in a tandem arrangement.

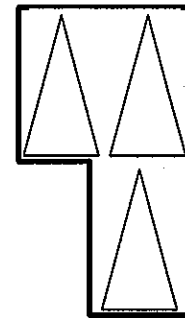
(The width of a typical single car garage is approximately 3.6 m. In the case of a 9 m wide lot, the enclosed area would be 2.64 m wide (40% of the maximum width of the principal building). The main purpose of the enclosed area between the principal building and the detached garage is to provide a weatherproof linkage between the two (2) structures).

3. Limited height for the enclosed area between the principal building and the detached garage (i.e. single-storey) – it would reduce the size of the master bedroom, which is partially located above the enclosed area in the current typical house design.

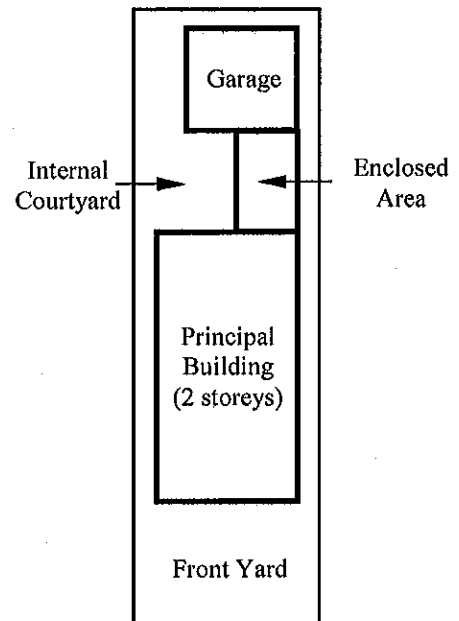
(Due to the proposed private outdoor space requirement, an internal courtyard surrounded by structures on three (3) sides would be created if the developers opt to build an enclosed area between the principal building and the detached garage. The purpose of the single storey height limit on the enclosed area and accessory building is to allow for better sun penetration into the internal courtyard. This is particularly important for south facing units where the internal courtyards will be located to the north of the principal buildings.)



Triple Car Garage
29 ft. x 19 ft.



Three-car garage in tandem arrangement – the 3rd parking space located within the enclosed area



Typical Site Layout on a Compact Lot

Staff Comments

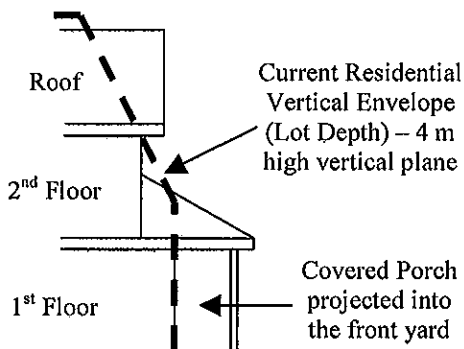
Pursuant to the meetings with the local builders and a tour to a recently-completed single-family dwelling on a compact lot on an arterial road, staff understand that the demands for additional on-site parking spaces on properties along arterial road is high and a three-car garage is very

important to this type of compact lot single-family residential development. Therefore, staff recommend:

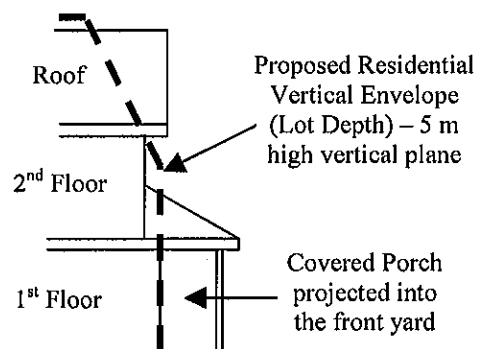
- to maintain the 50 m² exemption for accessory buildings; and
- to allow the "enclosed area" to have a width up to 50% of the width of the principal building (up to 3.6 m) in order to accommodate a possible third parking space within the garage.

However, staff recommend that the enclosed area between the principal building and the detached garage be limited to a single-storey to allow for better sun penetration into the internal courtyard and to reduce the bulk of the structures.

Staff understand local builders' concern on reduced floor area that could be allocated on the second floor. The local builders suggested that the provision of Residential Vertical Envelope (Lot Depth) be amended to increase design flexibility. Staff have reviewed the provision of Residential Vertical Envelope (Lot Depth) and examined the impact of the provision on compact lot development. Staff agree that an amendment to increase the height of the vertical plane at the front setback line would allow for a smaller setback on the second floor from the first floor. This amendment would provide a greater flexibility on housing design including floor area allocation between the two (2) floors.



Current Residential Vertical Envelope (Lot Depth)
– large setback on the 2nd floor from the 1st floor



Proposed Residential Vertical Envelope (Lot Depth)
– smaller setback on the 2nd floor

Analysis

Staff have originally recommended eight (8) amendments to the Single-Family Housing District (R1-0.6) zone in 2007. Based on the input from the Greater Vancouver Home Builders Association (GVHBA), Urban Development Institute (UDI), and the local builders, staff have revised the recommendations. A summary of the revisions to the eight (8) original recommendations is as follows:

Recommendation #1: Reduce the area of the lot that the 0.6 floor area ratio (FAR) applies to from 464.5 m² (5,000 ft²) to 360 m² (3,875 ft²)
(Discarded based on local builders' comments.)

- Recommendation #2:** Reduce the FAR exemption for garage and accessory buildings from 50 m² (538 ft²) to 45 m² (485 ft²)
(Discarded based on local builders' request.)
- Recommendation #3:** Restrict the additional 10% of the maximum FAR for covered areas open to two (2) or more sides to ground-oriented porches
(Kept since the development industry understands and agrees that this amendment would improve streetscape by encouraging ground oriented porches without increasing the building mass as originally envisioned.)
- Recommendation #4:** Change rear yard setback provisions to clarify that if the garage is attached to the principal building, the minimum rear yard setback shall be 6.0 m (20 ft.)
(Amended to allow a weatherproof linkage between the principal building and a detached garage provided that the linkage is single-storey and no wider than 50% of the width of the principal building, up to a maximum width of 3.6 m. In addition, to provide greater design flexibility, amendment to the Residential Vertical Envelope is proposed.)
- Recommendation #5:** Reduce the lot coverage for buildings, structures and non-porous surfaces from 80% to 70% and increase the coverage of live plant material from 20% to 25%
(Amended to maintain the coverage of live plant material at 20% based on comments from the development industry.)
- Recommendation #6:** Restrict the maximum driveway width to 6 m (20 ft.)
(Kept since the development industry understands and agrees that this maximum driveway width would be adequate to provide side-by-side parking for 2 vehicles.)
- Recommendation #7:** Require a small private outdoor space with a minimum area of 20 m² (215 ft²) and a minimum depth and width of 3 m (10 ft.) outside the front yard setback
(Kept since this recommendation promotes landscaping within the backyard and improves site permeability and livability.)
- Recommendation #8:** Increase the minimum building separation from 1.2 m (3.9 ft.) to 3 m (10 ft.)
(Kept since the development industry understands and agrees that this amendment would avoid tunnel effect and over-shadowing as well as provide an opportunity for a private outdoor space on site.)

Staff believe that the revised recommendations address both Council's referral and local builders' concerns. Staff understand that the revised recommendations may preclude some of the current house designs from being built on certain lots; however, staff feel that the bylaw amendment, if approved by Council, would still provide a high level of flexibility for utilization of land and house design. A summary of the proposed changes to the R1-0.6 zone is as follows:

Item	Proposed Amendments	Purpose of Amendments
Agriculture Use	Delete Agriculture use from this zone.	Clarify that this is a single-family residential zone. Agriculture use as an accessory use to residential use would be permitted.
Additional 10% of the Maximum Floor Area Ratio (FAR) for Covered Area	Limit the additional density to ground-oriented porches that open to two (2) or more sides only.	Encourage use of ground floor porches to improve streetscape without increasing the building mass.
Lot Coverage of Non-Porous Area	Reduce the lot coverage of non-porous area from 80% to 70%.	Increase site permeability, livability, and sustainability. Reduce runoffs to the storm sewer system. Lot coverage for buildings maintained at 50%.
Enclosed Area between Principal Building and Accessory Building	Restrict the width of the connected room to a maximum of 50% of the width of the principal building (up to 3.6 m) and the height to single-storey.	Allow a weatherproof linkage between the principal building and a “detached” accessory building larger than 10 m ² . The linkage would be wide enough to accommodate a parking stall and the one (1) storey height limit would allow better sun penetration into the internal courtyard.
Rear Yard Setback	Rewritten to clarify the rear yard setback requirements.	To clarify that, on a typical lot, rear yard setback for a dwelling with an attached garage is 6.0 m. Rear yard setback for a totally detached garage and a “detached” garage that is linked to the principal building with an enclosed area (single-storey and no wider than 50% of the principal building or 3.6 m) is 1.2 m.
Residential Vertical Envelope (Lot Depth)	Increase the height of the plane at the required front yard setback from 4.0 m to 5.0 m.	To allow a smaller setback on the second floor from the first floor on the front façade to provide greater design flexibility.
Building Separation	Increase the building separation from 1.2 m to 3.0 m.	Improve liveability on dwellings with detached garage. The required building separation would be wide enough to accommodate the required private outdoor space. This would increase the level of privacy and livability of the dwelling.

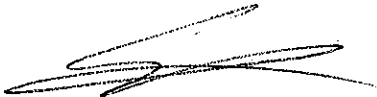
Item	Proposed Amendments	Purpose of Amendments
Screening and Landscaping	Introduce a new section on screening and landscaping.	Include provisions on screening and landscaping for single-family developments on arterial roads.
Private Outdoor Space	Require a small private outdoor space with a minimum area of 20 m ² and a minimum depth and width of 3 m outside the front yard setback.	Improve site permeability, landscaping opportunities, and livability.
Driveway Width	Restrict the width of the driveway between the lane and an attached garage to 6.0 m.	Reduce the paved area (non-porous) in the back yard and improve landscaping opportunities.

Financial Impact or Economic Impact

None.

Conclusion

Planning Committee and Council have asked staff to examine compact lot single-family zoning regulations with specific focus on the maximum size of homes and maximum lot coverage permitted on those lots. Staff have completed a study and have made a series of recommendations to reduce the massing of the dwellings and increase the livability and permeability of those lots while keeping the floor area and lot coverage for building and structures unchanged. Staff have consulted the Greater Vancouver Home Builders Association (GVHBA) and Urban Development Institute (UDI) and have conducted two (2) rounds of consultation with local single-family homebuilders. Staff believe the proposed amendments to the Single-Family Housing District (R1-0.6) zone address both Council's concerns and developers' preferences on compact lot developments. On this basis, staff recommend that the proposed amendments be approved.


 Edwin Lee
 Planning Technician – Design
 (Local 4121)


 Wayne Craig
 Program Coordinator - Development
 (Local 4625)

EL:blg

Attachment 1: Small Lot Residential Zoning Report dated December 3, 2007 (report only)

Attachment 2: Small Lot Residential Zoning – Single-Family Housing District (R1-0.6) Report dated July 2, 2008 (report only)



City of Richmond

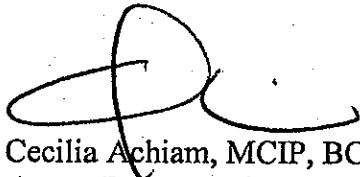
Report to Committee

To: Planning Committee
From: Cecilia Achiam
Acting Director of Development
Re: Small Lot Residential Zoning

Date: December 3, 2007
File: 08-4430-01/2007-Vol 01

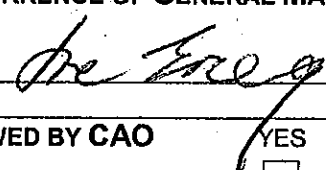
Staff Recommendation

1. That the Staff Report dated December 3, 2007, from the Director of Development regarding Small Lot Residential Zoning, be referred to the Greater Vancouver Home Builders Association (GVHBA) and the Urban Development Institute (UDI) for comment and discussion; and
2. That staff bring forth final recommendations on the "Single-Family Housing District (R1-0.6)", based on the input from the GVHBA and UDI.



Cecilia Achiam, MCIP, BCSLA
Acting Director of Development

EL/WC:blg

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ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Engineering/Planning.....		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>			
REVIEWED BY TAG		YES <input type="checkbox"/>	NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

At the September 6, 2006 Public Hearing, the following referral motion was made:

- "(1) That staff examine and set a standard for the types of soil to be used for infill on properties, and*
- (2) That staff, with regard to smaller sized lots, examine the square footage of each home to be constructed on those lots, and the maximum usage, and*
prepare a report to the Planning Committee on these matters."

The purpose of this report is to respond to these two referral motions.

PART I – Residential Fill Deposit Quality

Finding of Facts

At the present time, City staff does not have the ability to enforce any standards regarding the quality or quantity of fill material that may be deposited onto Richmond properties. It was identified in a recent Report to the Community Safety Committee regarding the Revised Soil Removal and Fill Deposit Regulation Bylaw No. 8094 that the City is not legislatively permitted to prohibit the deposit of soil or other material by reference to its quality.

Recent experience with the Revised Soil Removal and Fill Deposit Bylaw, adopted by Council on November 13, 2007, has made it readily apparent that neither the Minister of the Environment or the Minister of Energy, Mines and Petroleum Resources will endorse any City of Richmond bylaw which attempts to regulate the deposits of soil fill based on its quality.

Analysis

Upon adoption of the recently endorsed Flood Plain Management Bylaw (granted Third Reading on November 26, 2007) and in response to the on-going issues related to perimeter drainage, tree retention and residential building heights, the Building Approvals Department will be requesting and reviewing a Lot Grading Plan as part of the Building Permit review process. Requiring a Lot Grading Plan will enable staff to determine the average finished site grade and control the quantity of fill being placed on a property.

Recommendation

The Building Approvals Department will be requiring a Lot Grading Plan as part of the Building Permit review process for single-family homes where fill is being utilized to manipulate existing site grades. This lot grading plan review will enable Building Approvals staff to monitor the amount and location of fill deposited on residential lots.

Should City staff become aware of any potential soil quality issues during the redevelopment phase, that information will be forwarded to the Province for appropriate action since legislative authority regarding the quality of fill material rests within provincial jurisdictions.

PART II – Small Lot Residential Zoning

This part of the report will focus on Single-Family Housing District (R1-0.6) since the referral motion was initiated as part of a single-family redevelopment application along an arterial road and the Single-Family Housing District (R1-0.6) zone is the most commonly applied zone for this type of development. Similar amendments for other single-family zoning districts will be investigated should the concept be accepted by Council.

Background

Single-Family Housing District (R1-0.6) was created in 2003 under the provision of the Arterial Road Redevelopment Policy so that single-family housing could be built with a density of 0.6 Floor Area Ratio (FAR) for properties along arterial roads where lanes are required.

The Single-Family Housing (R1-0.6) zoning district is modelled after Single-Family Housing District (R1). However, R1-0.6 permits a higher density (0.60 maximum FAR vs. 0.55 maximum FAR in R1) and higher maximum lot coverage (50% vs. 45% in R1). R1-0.6 also differs from the R1 district in that it:

- permits porches and verandas to encroach into the front yard setback;
- allows bay windows, fire places, and chimneys forming part of the principal building to encroach into the front, rear, and side yard;
- permits dormers within the building height envelope;
- allows a garage accessed from the rear lane and located within 1.2 m (4 ft.) of the rear property line. This garage may be connected to the principal building through an enclosed room; and
- permits crawl spaces under 0.914 m (3 ft.) in height to be excluded from the FAR calculations.

The intent of Single-Family Housing District (R1-0.6) is to accommodate infill single-family housing developments along arterial roads where lane dedications are required. The purpose of the additional density (from 0.55 to 0.60 FAR) was to improve the feasibility of the redevelopment given the required lane dedication and smaller lot sizes. More flexible development regulations were established to allow for better utilization of land, to encourage design variety and pedestrian-oriented streetscapes while attempting to avoid construction of sterile box houses. Recently, many concerns have been raised regarding these compact lot developments. Both Council and staff feel that the intent of the R1-0.6 zoning district may not be achieved under the current approach.

Analysis

Staff have reviewed a number of recently completed compact single-family residential developments and the information received from public in response to rezoning applications on sites along arterial roads with lane access. Staff feel the perceived problem areas within the Single-Family Housing (R1-0.6) zoning district may be grouped into the following categories:

House Size and Building Massing

Through an examination of recent building permits for Single-Family Housing District (R1-0.6) zoned lots, staff have identified the following R1-0.6 zoning provisions as key contributors to overall house size and building mass.

- *Floor Area Ratio (FAR)* – The FAR regulates the overall size of building by specifying a maximum ratio of building floor area to lot area. The R1-0.6 district permits a 0.6 FAR applied to a maximum of 464.5 m² (5,000 ft²) of lot area with a 0.3 FAR applied to the balance of the lot area in excess of 464.5 m² (5,000 ft²). The increased FAR permitted in the R1-0.6 district (0.60 FAR vs. 0.55 FAR in R1) is intended to off-set the loss of land area associated with lane dedication and the smaller lot sizes. The current FAR provisions warrant review in light of the revised Arterial Road Redevelopment Policies adopted by Council in June, 2006 and concerns related to overall house size.
- *Garage Size* – The R1-0.6 zoning district permits a garage area up to a maximum of 50 m² (538 ft²) to be excluded from the calculation of FAR. The 50 m² (538 ft²) garage FAR exemption is intended to enable a single-family home to provide for enclosed storage for two (2) vehicles without adversely impacting the habitable area of a single-family house. The 50 m² (538 ft²) garage exemption is consistent with that provided in the R1 district. This clause is consistently being used to facilitate garages built to the maximum FAR exemption.
- *Covered Porches and Decks* – An additional 10% of the maximum FAR is allowed, provided that it is used exclusively for covered areas open on one or more sides (i.e. covered entry porches, sun decks or patios). The intent of permitting this additional FAR was to encourage the provision of covered entry porches, which enhance building articulation and streetscape appearance. Designers are currently using this clause to build covered decks above the ground floor of the dwellings, which increases the bulk of the building. Designers are also using this clause to build covered patio on the side of the dwelling. These areas are usually very dark as it is only open to the narrow side yard and used for outdoor storage. Furthermore, these two types of covered areas can also be designed to be easily enclosed at a later date.

- *Building Setbacks* -- The R1-0.6 district permits a single storey detached garage to be located a minimum 1.2 m (4 ft.) from the rear property line abutting the lane. An additional setback provision intended to enable an enclosed room between a detached garage and the house is now being used by designers to build houses that extend along the ground floor from the 6 m (20 ft.) front yard setback to within 1.2 m (4 ft.) of the rear property line. The reduced rear yard setback for a detached garage was intended to enable a small rear yard between the house and the garage to be provided. As this is not being achieved, the rear yard setback provisions need to be revisited.

Lot Coverage

The lot coverage provisions within the Single-Family Housing District (R1-0.6) enable 50% of the lot area to be covered by buildings and structures and 80% of the lot area to be covered by a combination of buildings, structures and non-porous surfaces. These two (2) provisions are intended to limit a building footprint and the amount of hard surfacing on a lot. Staff have recently received concerns on the current lot coverage provisions as they relate to the amount of hard surfacing on a lot, which effectively reduces landscaping opportunities.

Landscaping & Private Outdoor Space

Site landscaping has numerous benefits, including improving site aesthetics and water permeability while also providing ecological benefits to the City as a whole. The Arterial Road Redevelopment Policies contained within the Official Community Plan (OCP) require that a landscape plan for the front yard be provided as part of the approval process for single-family rezoning applications along arterial roads. While the landscape plan requirement addresses streetscape appearance along the arterial road, an additional requirement for private outdoor space outside front yard warrants consideration.

Some of the house designs currently being built on compact lots have no private back yards. Where space is available for a private backyard, this area is often entirely paved with hard surfaces. A private outdoor space, outside the front yard setback, would increase the liveability of compact lots by providing a secure private outdoor space.

Recommendations

The City's Lane Establishment and Arterial Road Redevelopment Policies encourage single-family residential and coach house developments on properties along arterial roads where access to an existing, fully operational municipal lane is available. Staff have identified the potential locations for compact lot developments throughout the City and have studied the possible configurations of these compact lots (**Attachment 1**). The anticipated average size of the future compact lots is approximately 360 m² (3,875 ft²). The anticipated lot widths range from 9.05 m (30 ft) to 10.67 m (35 ft.). Based on the analysis and the findings on the potential compact lot configurations, staff have examined the implications of the potential problem areas on the future compact lots and propose the following changes to the Single-Family Housing District (R1-0.6):

House Size and Building Massing

- **Floor Area Ratio (FAR) - Reduce the area of the lot that the 0.6 FAR applies to from 464.5 m² (5,000 ft²) to 360 m² (3,875 ft²)**

Based on an examination of where R1-0.6 lots would potentially be permitted (through a rezoning application) 360 m² (3,875 ft²) represents the anticipated average lot area (**Attachment 1**). A 0.3 FAR density would be applied to the balance of the lot area exceeding 360 m² (3,875 ft²). This will primarily only effect the larger R1-0.6 lots and the density reduction would only take effect after a house size of approximately 260 m² (2,800 ft²) including garage, has been achieved.

- **Garage Size - Reduce the FAR exemption for garage and accessory buildings from 50 m² (538 ft²) to 45 m² (485 ft²)**

The reduced garage area will accommodate side-by-side parking of two (2) vehicles and some limited storage space. A 45 m² (485 ft²) garage FAR exemption is consistent with that provided in the Comprehensive Development (CD/61) district used in the Odlin Area. A small outdoor shed (maximum 10 m² [107 ft²]) would also be permitted.

- **Covered Porches and Decks - Restrict the additional 10% of the maximum FAR for covered areas open to two or more sides to ground-oriented porches**

Ground oriented porches enhance the streetscape and liveability of a lot while not adversely effecting the massing of the house. Restricting this bonus FAR to the ground floor of a building would be consistent with the original intent to encourage the provision of covered entry porches. Restricting the covered areas open to two or more sides will encourage a more liveable patio design. Restricting the bonus FAR to the ground floor will not prohibit a house design that provides a covered deck on the upper floor of the building, but will require that such a deck is included in the calculation of FAR. Including these types of covered areas in the FAR calculation is appropriate since these types of covered areas influence the overall building massing.

- **Building Setbacks - Change rear yard setback provisions to clarify that if the garage is attached to the principal building the minimum rear yard setback shall be 6.0 m (20 ft.)**

The reduced rear yard setback for a detached garage was intended to enable the provision of a yard between the garage and the house. This intent is not being achieved under the current approach.

Lot Coverage

- **Reduce the lot coverage for buildings, structures and non-porous surfaces from 80% to 70%**

The maximum lot coverage for buildings permitted in Single-Family Housing District (R1-0.6) is 50%. The rest of the permitted lot coverage would accommodate driveways, pathways, open decks, outdoor parking spaces, etc. The lower "hard surfaces" lot coverage will not adversely impact house construction, but may not be able to accommodate all of the 6 m wide driveway, large open deck or patio, and concrete walkway along one side of the dwelling at once on a smaller compact lot. Alternatives include building a detached garage, reducing the size of open deck or patio, use of stepping stones or gravels on walkways, and use of permeable paving on driveways, parking pads, and patios. The lower lot coverage along with the other recommendations in this report will collectively improve site permeability, landscaping opportunities, and aesthetic appearance of compact residential lots.

The lot coverage calculations for both buildings and non-porous surfaces would be checked during the Building Permit process to ensure compliance. Staff also recommend adding criteria to the zoning bylaw to clearly establish what constitutes non-porous surfaces and a minimum of 25% of the lot be restricted to landscaping with live plant material.

- **Restrict the maximum driveway width to 6 m (20 ft.)**

A 6 m wide driveway is adequate to park two (2) vehicles side by side. Restricting the maximum driveway width will improve site permeability and landscaping opportunities.

Landscaping & Private Open Space

- **Require a small private outdoor space with a minimum area of 20 m² (215 ft²) and a minimum depth or width of 3 m (10 ft.) outside the front yard setback**

Provision of private outdoor amenity space is encouraged by the Official Community Plan (OCP). Providing a private outdoor space outside the front yard setback will improve site permeability, landscaping opportunities, and liveability of these lots. The Comprehensive Development (CD/61) zoning district used in the Odlin Area requires 40 m² (430 ft²) of a private outdoor space free of accessory buildings, structures, covered walkways, and non-porous surfaces. Staff understand that 20 m² (215 ft²) is small but feel that it is adequate for the compact lots fronting on arterial roads with a front yard setback of 6 m (20 ft.).

- **Increase the minimum building separation from 1.2 m (3.9 ft.) to 3 m (10 ft.)**

The provision of a minimum building separation was included in the zoning district to satisfy building code requirements. With the eaves of the roofs usually projected 0.3 m (1 ft.) to 0.6 m (2 ft.) beyond the building faces, the gap between the principal dwelling and the detached garage is often minimal. Increasing the building separation between the principal dwelling and the detached garage will open up this area and encourage private outdoor space be located between the two buildings, instead of on the side yard next to the detached garage and abuts the rear lane. On the deeper lots, this area may be expanded and become more usable. This restriction will not be applied to accessory buildings which have an area of 10 m² (107.64 ft²) or less.

The 0.6 FAR base density and the maximum 50% lot coverage for buildings are maintained because the above recommendations together should address the concerns related to house size and maximum usage of the compact lots in an effective and a more flexible manner than by reducing the base FAR and maximum lot coverage. The above recommendations have been reviewed by the Building Approvals Department, and no concerns were raised. The proposed amendments to R1-0.6 will not impede the ability of these compact lots to accommodate secondary suites. A copy of the draft, "revised: Single-Family Housing District (R1-0.6) details" is attached (**Attachment 2**).

Next Steps

1. Forward the revised Single-Family Housing District (R1-0.6) details to the Greater Vancouver Home Builders Association (GVHBA) and Urban Development Institute (UDI) for comment and discussion;
2. Bring a final Staff Report to Planning Committee, with recommendations regarding amendment to the Single-Family Housing District (R1-0.6); and
3. Review all other standard single-family residential zoning districts and bring forward a Staff Report to Planning Committee with recommendations regarding amendments to these single-family housing districts.

Financial Impact

None.

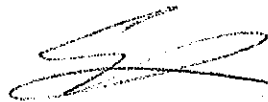
Conclusion

Planning Committee and Council have asked staff to examine:

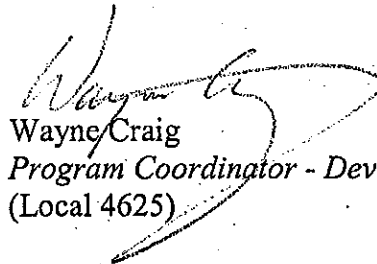
- Set standards for the types of soil to be used for infill on residential properties; and
- Compact lot single-family zoning regulations with specific focus on the maximum size of homes and the maximum lot coverage permitted on those lots.

To control the amount of fill being placed on single-family residential lots, the Building Approvals Department will be requesting and reviewing lot grading plans as part of the Building Permit process. Since fill quality is within provincial jurisdictions, staff recommend that any concerns regarding quality of the soil being deposited on a Richmond property be forwarded to the appropriate Provincial Ministry for review.

Staff have reviewed the Single-Family Housing District (R1-0.6) zone created in 2003, and have identified some zoning provisions that should be revisited at this time. Based on the studies prepared by staff, eight (8) amendments to the R1-0.6 zoning district are proposed. However, prior to implementing the proposed amendments, it is recommended that this Staff Report be referred to the Greater Vancouver Home Builders Association (GVHBA) and Urban Development Institute (UDI) for comment and discussion. Once comments from GVHBA and UDI have been received, staff will bring forward a Staff Report detailing the proposed Zoning Bylaw revisions.



Edwin Lee
Planning Technician – Design
(Local 4121)



Wayne/Craig
Program Coordinator - Development
(Local 4625)

EL/WC:blg

Attachment 1: List of Potential Compact Lot Locations and Possible Configurations

Attachment 2: Draft Revised Single-Family Housing District (R1-0.6) Zoning



City of Richmond
Planning and Development Department

Report to Committee

To: Planning Committee
From: Brian J. Jackson, MCIP
 Director of Development
Re: Small Lot Residential Zoning – Single-Family Housing District (R1-0.6)

To Planning - July 22, 2008
Date: July 2, 2008
File: 12-0000-20-8370
 XR: 08-4430-01

Staff Recommendation

That Bylaw No. 8370, which amends Zoning and Development Bylaw 5300, be introduced and given first reading.

Brian Jackson

Brian J. Jackson, MCIP
 Director of Development

EL/WC:blg
 Att.

FOR ORIGINATING DEPARTMENT USE ONLY			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Building Approvals	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>[Signature]</i>	
REVIEWED BY TAG	YES <input checked="" type="checkbox"/> <i>GT</i> NO <input type="checkbox"/>	REVIEWED BY CAO	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

Staff Report

Origin

On September 6, 2006, Council passed the following referral motion:

"That staff, with regard to smaller sized lots, examine the square footage of each home to be constructed on those lots, and the maximum usage, and prepare a report to the Planning Committee on these matters."

A report on Small Lot Residential Zoning (**Attachment 1**) was presented to Planning Committee on January 8, 2008 in response to this motion. This report identified eight (8) recommendations on proposed changes to the R1-0.6 zone.

On January 14, 2008, Council passed the following referral motion:

"That staff bring forth final recommendations on the "Single-Family Housing District (R1-0.6)", based on the input from the GVHBA and UDI."

This report responds to the second referral by bringing forward an amendment to Single-Family Housing District (R1-0.6).

Analysis

The Small Lot Residential Zoning Report and the recommended amendments to the Single-Family Housing District (R1-0.6) (**Attachment 1**) were referred to the Greater Vancouver Home Builders Association (GVHBA) and Urban Development Institute (UDI) for comment and discussion. The comments from GVHBA and UDI are similar in content and can be found in **Attachment 2** and **Attachment 3** respectively.

Staff also met with representatives for the local single-family homebuilders who are not members of either GVHBA or UDI to discuss the proposed amendments to the Zoning and Development Bylaw 5300. A copy of the correspondence received in response to this meeting can be found in **Attachment 4**.

The initial staff report recommended eight (8) amendments to the existing R1-0.6 zoning district. The following section of this report outlines these original recommendations, the comments received from the stakeholder groups (*in italic*) and a final staff recommendation (*in bold italic*).

Recommendation #1: Reduce the area of the lot that the 0.6 FAR applies to from 464.5 m² (5,000 ft²) to 360 m² (3,875 ft²)

GVHBA & UDI: An affordable product will not be possible if the FAR is reduced. The FAR allocation of 464.5 m² (5,000 ft²) was originally granted to compensate for the higher costs to build in Richmond due to long rezoning and subdivision application processes, and the required laneway dedication.

Local Builders: The additional FAR is used to offset the loss of land for lane establishment. The Neighbourhood Improvement Charges (NIC charge) is exempted when the builder is required to construct the lane. In the case that a municipal lane already exists there is no need to build a new one and NIC charge should not

be required. Builders would agree to reduce FAR if the NIC charge requirement is eliminated.

Staff Comments: *The increased FAR permitted in the R1-0.6 district (0.60 FAR vs. 0.55 FAR in R1 zone) is intended to off-set the loss of land area associated with lane dedication, the construction cost of the laneway, and the smaller lot sizes. No NIC charges are required when a new laneway is to be constructed by the developer. NIC charges are required for future upgrades when a municipal lane is already in place as most laneways in redevelopment areas (along arterial roads) require upgrades to adequately service the added density.*

Staff understand that builders would like to maintain the existing FAR provisions and feel that the other recommended changes will result in improved house designs without adversely impacting the total house size.

Staff recommend keeping the maximum lot area that the 0.6 FAR could apply to at the current maximum of 464.5 sq.m (5,000 sq.ft.).

Recommendation #2: Reduce the FAR exemption for garage and accessory buildings from 50 m² (538 ft²) to 45 m² (485 ft²)

GVHBA & UDI: *No specific concern.*

Local Builders: *With the inclusion of mandatory secondary suites (and extra parking space for the secondary suite) on properties along arterial roads (i.e. no street parking), the extra garage size is needed to accommodate a 3-car garage (2 tandem parking space with one on the side).*

Staff Comments: *A secondary suite is not mandatory for small lot developments. Under the Interim Affordable Housing Strategy for Single Family Developments, developers have an option to provide either a secondary suite on all lots that are being rezoned but not subdivided and at least 50% of any lots that are being rezoned and subdivided, or a cash contribution based on \$1 per square foot of building area for the developments to the Affordable Housing Reserve.*

Should a developer opt to provide a secondary suite on lot fronting an arterial road (where no street parking is available), a third parking stall is required for the exclusive use of the secondary suite. However, there are no provisions in the bylaw to require this parking stall be provided within a garage. Therefore, this parking space can be provided on the driveway (leading to an attached garage) or beside a detached garage (when the lot is wider than 10.05 m).

Staff recommend the FAR exemption for garage and accessory building be reduced to 45 m² (485 ft²) as the reduced garage area will still accommodate side-by-side parking of two vehicles.

Recommendation #3: Restrict the additional 10% of the maximum FAR for covered areas open to two (2) or more sides to ground-oriented porches

Staff Comments: No concerns are raised by the land development industry.

Staff recommend this additional FAR be limited to ground-oriented porches, which improve streetscape without increasing the building mass.

Recommendation #4: Change rear yard setback provisions to clarify that if the garage is attached to the principal building, the minimum rear yard setback shall be 6.0 m (20 ft.)

GVHBA & UDI: Garage setback from the rear lane should be maintained at 1.2 m. A connection between the principal building and the detached garage should be allowed provided that the width of the connection is not wider than 40% of the lot width.

Local Builders: Garage setback to rear lane should be maintained at 1.2 m.

Staff Comments: Rear yard setback for a detached garage is maintained at 1.2 m. Rear yard setback for an attached garage is maintained at 6.0 m.

Staff feel that the main purpose of the connection between the principal building and the detached garage is to provide a weatherproof linkage between the 2 structures and staff have no objection to such a connection.

Staff feel that a connection with a maximum width of 40% of the principal building width would achieve this physical connection while still enable a private rear yard to be provided. In the case for a 9 m wide lot, the connection would be 2.64 m (8.66 ft.) wide.

The height of this connection will also be restricted to a single storey. Therefore, the second floor of the principal building would be setback more than 6 m from the rear property line (i.e. 1.2 m rear yard setback + length of detached garage + length of connection). Staff understand that the Single-Family Home builders have no objections to this restriction.

Recommendation #5: Reduce the lot coverage for buildings, structures and non-porous surfaces from 80% to 70%

GVHBA & UDI: The minimum lot coverage for landscaping with live plant materials should be maintained at 20% due to sustainability of plant material within the narrow side yards.

Local Builders: The reduction in hard surface could also be achieved through the design of the homes.

Staff Comments: Staff understand the concern regarding sustainability of live plant material on the side yards and recommend that the minimum lot coverage for landscaping with live plant material be maintained at 20%. However, the lot coverage for buildings, structures, and non-porous surfaces will be reduced to 70%. This reduction would encourage the use of permeable pavers instead of asphalt driveway, gravels with stepping stone instead of

concrete walkway along the sides of the dwelling, and landscaped courtyard instead of deck and paved patio to increase lot permeability and liveability.

Recommendation #6: Restrict the maximum driveway width to 6 m (20 ft.)

Staff Comments: *No concerns are raised by the land development industry.*

Staff recommend the maximum driveway width be restricted to 6 m (20 ft.) which is adequate to provide side-by-side parking of two vehicles.

Recommendation #7: Require a small private outdoor space with a minimum area of 20 m² (215 ft²) and a minimum depth and width of 3 m (10 ft.) outside the front yard setback

GVHBA & UDI: *Front yard setback should be reduced to 3.0 m provided that no projections into the setback are permitted. With the garage setback at 1.2 m from the rear yard, private outdoor amenity space in the rear yard should be increased to 30 m².*

Local Builders: *We understand the need for more green space; however, these lots are very small. The front yards are landscaped well; to require a space like that in the rear yard just might not be possible without adversely impacting the home and the design.*

Staff Comments: *R1-0.6 applies to properties along sectional line roads. Reducing the front yard setback of the principal building to 3 m (10 ft.) would degrade the liveability of these dwelling. Eliminating all projections (i.e. porches, verandas, bay windows, etc. forming part of the principal building) into the front yard setback would discourage design variety and pedestrian-oriented streetscapes. Therefore, staff do not support the recommendation to reduce the front yard setback.*

The Private Open Space maybe located between the principal building and the detached garage, beside a detached garage, beside the driveway leading to an attached garage, or on a courtyard wrapped around by the building.

The Comprehensive Development (CD/61) zoning district used in the Odlin Area requires 40 sq.m of private outdoor space free of accessory buildings, structures, covered walkways, and non-porous surfaces on the back yard of a similar sized lot (min. 270 sq.m) since June 2002. Staff anticipate this requirement would trigger a new housing design along arterial road which will improve site permeability, landscaping opportunities, and liveability of these lots.

Staff recommend a private outdoor space with a minimum area of 20 m² (215.3 ft²) and a minimum width and depth of 3.0 m (9.8 ft.), unobstructed by any buildings, structures, projections, and off-street parking, and located outside of the front yard be required.

Recommendation #8: Increase the minimum building separation from 1.2 m (3.9 ft.) to 3 m (10 ft.)

GVHBA & UDI: Separations between principal buildings and detached garages should be required in order to avoid tunnel effect and over-shadowing.

Local Builders: We would like staff to show us exactly how this would work.

Staff Comments: *Building Separation is recommended to be 3.0 m between the principal building and any accessory buildings of more than 10 m² (107.6 ft²) (i.e. a detached garage). This area should be unoccupied and unobstructed by buildings except for cantilevered roofs, balconies, unenclosed fireplaces and chimneys which may project into the building separation space for a combined total distance of 1 m (3.281 ft.) or one-half the width of the required building separation space, whichever is the lesser.*

Financial Impact

None.

Conclusion

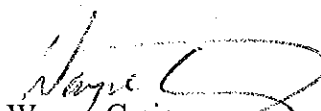
Planning Committee and Council have asked staff to examine compact lot single-family zoning regulations with specific focus on the maximum size of homes and the maximum lot coverage permitted on those lots. A study has been completed and staff recommendations have been reviewed by the Greater Vancouver Home Builders Association (GVHBA) and Urban Development Institute (UDI) as well as the representatives of local single-family homebuilders who are not members of either GVHBA or UDI.

Staff have examined the implications of the recommendations by the land development industry and propose to amend the provisions of the Single-Family Housing District (R1-0.6).



Edwin Lee
Planning Technician – Design
(Local 4121)

EL/WC:blg



Wayne Craig
Program Coordinator - Development
(Local 4625)

Attachment 1: Small Lot Residential Zoning Report dated December 3, 2007

Attachment 2: E-mail from Urban Development Institute (UDI)

Attachment 3: Letter from Greater Vancouver Home Builders Association (GVHBA)

Attachment 4: E-mail from Raman Kooner – Richmond Single-Family Home Builder



**Richmond Zoning and Development Bylaw 5300
Amendment Bylaw 8370**

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

1. Richmond Zoning and Development Bylaw 5300 is amended by repealing the existing "Single-Family Housing District (R1-0.6)" in Section 202(A) and replacing it with the following:

"202(A) SINGLE-FAMILY HOUSING DISTRICT (R1 – 0.6)"

The intent of this zoning district is to accommodate single-family housing where provisions have been made for vehicle access to be provided from a lane.

202(A).1 PERMITTED USES

RESIDENTIAL, limited to **One-Family Dwelling**;
BOARDING & LODGING, limited to two persons per dwelling unit;
HOME OCCUPATION;
ACCESSORY USES, including one **Secondary Suite** subject to Section 201.09.

202(A).2 PERMITTED DENSITY

.01 Maximum Number of **Dwelling Units**: One.

.02 Maximum **Floor Area Ratio**:

0.60 applied to a maximum of 464.5 m² (5,000 ft²) of the lot area, together with 0.30 applied to the balance of the lot area in excess of 464.5 m² (5,000 ft²); plus

- (i) 10% of the floor area total calculated above for the lot in question, which area must be **used** exclusively for covered areas of the principal **building**, which are open on two or more sides. These covered areas must be located not more than 0.6 m (2 ft.) above the floor system of the ground floor; and
- (ii) 50 m² (538 ft²) which may be **used** only for **accessory buildings** and off-street parking.

PROVIDED THAT

- (i) any portion of floor area which exceeds 5 m (16.4 ft.) in height, save and except an area of up to 10 m² (107.6 ft²) **used** exclusively for entry and staircase purposes, shall be considered to comprise two floors and shall be measured as such; and
- (ii) **floor area ratio** limitations are not applicable to one **accessory building** less than 10 m² (107.6 ft²) in area.

202(A).3 MAXIMUM LOT COVERAGE

- .01 For the purpose of this subsection only, a *non-porous surface* is any constructed surface on, above, or below ground that does not allow precipitation or surface water to penetrate directly into the underlying soil.
- .02 The maximum **lot coverage** for **buildings** only shall be 50%; and the maximum **lot coverage** for **buildings** and any *non-porous surfaces* or **structures** inclusive shall be 70%.
- .03 A minimum of 20% of the **lot** area is restricted to landscaping with live plant material.

202(A).4 MINIMUM SETBACKS FROM PROPERTY LINES

- .01 **Front Yard:** 6 m (19.7 ft.) EXCEPT THAT:
 - (i) porches and verandas which form part of the principal **building**, are less than 5 m (16.4 ft.) in height, and are open on those sides which face a **public road** may be located within the **front yard** setback, but shall be no closer to the **front property line** than 4.5 m (14.8 ft.);
 - (ii) bay windows, fire places and chimneys forming part of the principal **building** may project into the **front yard** for a distance of not more than 1 m (3.3 ft.); and
 - (iii) the ridge line of a front roof dormer may project horizontally up to 0.914 m (3 ft.) beyond the *residential vertical envelope (lot depth)*, as defined in Section 202(A).5.01, but no further than the **front yard** setback.
- .02 **Side Yard:** 1.2 m (3.9 ft.) EXCEPT THAT:
 - (i) where a **side property line** abuts a **public road**, the minimum **side yard** to that property line shall be 3 m (9.8 ft.);
 - (ii) bay windows, fire places and chimneys which form part of the principal **building** may project into the **side yard** for a distance of not more than 0.6 m (2 ft.); and

- (iii) the ridge line of a side roof dormer may project horizontally up to 0.914 m (3 ft.) beyond the **residential vertical envelope (lot width)** but no further than the **side yard setback**.

.03 **Rear Yard: 6 m (19.7 ft.) EXCEPT THAT**

- (i) for a **corner lot** where a **side yard setback** abutting a **public road** is maintained at a minimum of 6 m (19.7 ft.) the minimum **rear yard setback** shall be 1.2 m (3.9 ft.);
- (ii) a detached **accessory building** of more than 10 m² (107.6 ft²) may be located within the **rear yard setback** area but no closer than 3.0 m (9.8 ft.) to a **property line** abutting a **public road**, or 1.2 m (3.9 ft.) to any other **property line**;
- (iii) an **accessory building** as described in subsection 202(A).4.03(ii) that is **used** exclusively for off-street parking may be linked to the principal **building** by an enclosed area, provided that:
 - (a) the width of the enclosed area that links the **accessory building** to the principal **building** does not exceed the lesser of:
 - a. 50% of the width of the principal **building**; or
 - b. 3.6 m (11.8 ft.);
 - (b) the **building height** of the **accessory building** and the enclosed area that links the **accessory building** to the principal **building** are limited to a single-storey no greater than 5.0 m (16.4 ft.);
- (iv) bay windows which form part of the principal **building** may project into the **rear yard setback** for a distance of 1 m (3.3 ft.) or one-half of the **rear yard**, whichever is the lesser.

.04 There is no **property line setback** requirement for an **accessory building** that has an area of 10 m² (107.6 ft²) or less.

202(A).5 MAXIMUM HEIGHTS

- .01 For the purpose of this subsection only, *residential vertical envelope (lot depth)* means a vertical envelope located at the minimum **front yard** setback requirement for the lot in question. It is calculated from the **finished site grade**, and is formed by the plane rising vertically 5 m (16.4 ft.) to a point and then extending upward and away from the required yard setback at a rate of two units of vertical rise for each single unit of horizontal run to the point at which the plane intersects to the maximum **building height**.
- .02 **Buildings:** 2½ storeys, but in no case above the **residential vertical envelope (lot width)** or the *residential vertical envelope (lot depth)*.
- .03 **Structures:** 9 m (29.5 ft.).
- .04 **Accessory Buildings:** 5 m (16.4 ft.).

202(A).6 MINIMUM LOT SIZE AND DIMENSIONS

- .01 A **one-family dwelling** shall not be constructed on a lot of less than 270 m² (2,906.4 ft²) in area.
- .02 A parcel to be created by subdivision and intended for use as the site of a **one-family dwelling** shall have a minimum **frontage and width of lot** of 9 m (29.5 ft.) and a minimum **depth of lot** of 24 m (78.7 ft.). For **corner lots**, an additional 2 m (6.6 ft.) is required for the minimum **frontage or width of lot**.

202(A).7 MINIMUM BUILDING SEPARATION SPACE

- .01 The minimum **building separation space** shall be 3.0 m (9.8 ft.), except that an enclosed area, as described in Section 202(A).4.03(iii), may be located within the **building separation space**.

202(A).8 OFF-STREET PARKING

- .01 Off-street parking shall be developed and maintained in accordance with Division 400 of this bylaw.

202(A).9 SCREENING AND LANDSCAPING

- .01 Fences shall be located and maintained in accordance with Division 500 of this bylaw, EXCEPT THAT:
 - (i) **fence**, when located within 3.0 m (10 ft.) of a **side property line** abutting a **public road** or 6.0 m (20 ft.) of a **front property line** abutting a **public road**, shall not exceed 1.2 m (4 ft.) in height; and



**Richmond Zoning and Development Bylaw 5300
Amendment Bylaw 8370**

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

1. Richmond Zoning and Development Bylaw 5300 is amended by repealing the existing "Single-Family Housing District (R1-0.6)" in Section 202(A) and replacing it with the following:

"202(A) SINGLE-FAMILY HOUSING DISTRICT (R1 – 0.6)

The intent of this zoning district is to accommodate single-family housing where provisions have been made for vehicle access to be provided from a lane.

202(A).1 PERMITTED USES

RESIDENTIAL, limited to **One-Family Dwelling**;
BOARDING & LODGING, limited to two persons per dwelling unit;
HOME OCCUPATION;
ACCESSORY USES, including one **Secondary Suite** subject to Section 201.09.

202(A).2 PERMITTED DENSITY

.01 Maximum Number of **Dwelling Units**: One.

.02 Maximum **Floor Area Ratio**:

0.60 applied to a maximum of 464.5 m² (5,000 ft²) of the lot area, together with 0.30 applied to the balance of the lot area in excess of 464.5 m² (5,000 ft²); plus

- (i) 10% of the floor area total calculated above for the lot in question, which area must be **used** exclusively for covered areas of the principal **building**, which are open on two or more sides. These covered areas must be located not more than 0.6 m (2 ft.) above the floor system of the ground floor; and
- (ii) 50 m² (538 ft²) which may be **used** only for **accessory buildings** and off-street parking.

PROVIDED THAT

- (i) any portion of floor area which exceeds 5 m (16.4 ft.) in height, save and except an area of up to 10 m² (107.6 ft²) **used** exclusively for entry and staircase purposes, shall be considered to comprise two floors and shall be measured as such; and
- (ii) **floor area ratio** limitations are not applicable to one **accessory building** less than 10 m² (107.6 ft²) in area.

202(A).3 MAXIMUM LOT COVERAGE

- .01 For the purpose of this subsection only, a *non-porous surface* is any constructed surface on, above, or below ground that does not allow precipitation or surface water to penetrate directly into the underlying soil.
- .02 The maximum **lot coverage** for **buildings** only shall be 50%; and the maximum **lot coverage** for **buildings** and any *non-porous surfaces* or **structures** inclusive shall be 70%.
- .03 A minimum of 20% of the **lot** area is restricted to landscaping with live plant material.

202(A).4 MINIMUM SETBACKS FROM PROPERTY LINES

- .01 **Front Yard:** 6 m (19.7 ft.) EXCEPT THAT:
 - (i) porches and verandas which form part of the principal **building**, are less than 5 m (16.4 ft.) in height, and are open on those sides which face a **public road** may be located within the **front yard** setback, but shall be no closer to the **front property line** than 4.5 m (14.8 ft.);
 - (ii) bay windows, fire places and chimneys forming part of the principal **building** may project into the **front yard** for a distance of not more than 1 m (3.3 ft.); and
 - (iii) the ridge line of a front roof dormer may project horizontally up to 0.914 m (3 ft.) beyond the *residential vertical envelope (lot depth)*, as defined in Section 202(A).5.01, but no further than the **front yard** setback.
- .02 **Side Yard:** 1.2 m (3.9 ft.) EXCEPT THAT:
 - (i) where a **side property line** abuts a **public road**, the minimum **side yard** to that property line shall be 3 m (9.8 ft.);
 - (ii) bay windows, fire places and chimneys which form part of the principal **building** may project into the **side yard** for a distance of not more than 0.6 m (2 ft.); and

- (iii) the ridge line of a side roof dormer may project horizontally up to 0.914 m (3 ft.) beyond the **residential vertical envelope (lot width)** but no further than the **side yard setback**.

.03 **Rear Yard: 6 m (19.7 ft.) EXCEPT THAT**

- (i) for a **corner lot** where a **side yard** setback abutting a **public road** is maintained at a minimum of 6 m (19.7 ft.) the minimum **rear yard** setback shall be 1.2 m (3.9 ft.);
- (ii) a detached **accessory building** of more than 10 m² (107.6 ft²) may be located within the **rear yard** setback area but no closer than 3.0 m (9.8 ft.) to a **property line** abutting a **public road**, or 1.2 m (3.9 ft.) to any other **property line**;
- (iii) an **accessory building** as described in subsection 202(A).4.03(ii) that is **used** exclusively for off-street parking may be linked to the principal **building** by an enclosed area, provided that:
 - (a) the width of the enclosed area that links the **accessory building** to the principal **building** does not exceed the lesser of:
 - a. 50% of the width of the principal **building**; or
 - b. 3.6 m (11.8 ft.);
 - (b) the **building height** of the **accessory building** and the enclosed area that links the **accessory building** to the principal **building** are limited to a single-storey no greater than 5.0 m (16.4 ft.);
- (iv) bay windows which form part of the principal **building** may project into the **rear yard** setback for a distance of 1 m (3.3 ft.) or one-half of the **rear yard**, whichever is the lesser.

.04 There is no **property line** setback requirement for an **accessory building** that has an area of 10 m² (107.6 ft²) or less.

202(A).5 MAXIMUM HEIGHTS

- .01 For the purpose of this subsection only, *residential vertical envelope (lot depth)* means a vertical envelope located at the minimum **front yard** setback requirement for the lot in question. It is calculated from the **finished site grade**, and is formed by the plane rising vertically 5 m (16.4 ft.) to a point and then extending upward and away from the required yard setback at a rate of two units of vertical rise for each single unit of horizontal run to the point at which the plane intersects to the maximum **building height**.
- .02 **Buildings:** 2½ storeys, but in no case above the **residential vertical envelope (lot width)** or the *residential vertical envelope (lot depth)*.
- .03 **Structures:** 9 m (29.5 ft.).
- .04 **Accessory Buildings:** 5 m (16.4 ft.).

202(A).6 MINIMUM LOT SIZE AND DIMENSIONS

- .01 A **one-family dwelling** shall not be constructed on a lot of less than 270 m² (2,906.4 ft²) in area.
- .02 A parcel to be created by subdivision and intended for use as the site of a **one-family dwelling** shall have a minimum **frontage and width of lot** of 9 m (29.5 ft.) and a minimum **depth of lot** of 24 m (78.7 ft.). For **corner lots**, an additional 2 m (6.6 ft.) is required for the minimum **frontage or width of lot**.

202(A).7 MINIMUM BUILDING SEPARATION SPACE

- .01 The minimum **building separation space** shall be 3.0 m (9.8 ft.), except that an enclosed area, as described in Section 202(A).4.03(iii), may be located within the **building separation space**.

202(A).8 OFF-STREET PARKING

- .01 Off-street parking shall be developed and maintained in accordance with Division 400 of this bylaw.

202(A).9 SCREENING AND LANDSCAPING

- .01 Fences shall be located and maintained in accordance with Division 500 of this bylaw, EXCEPT THAT:
 - (i) **fence**, when located within 3.0 m (10 ft.) of a **side property line** abutting a **public road** or 6.0 m (20 ft.) of a **front property line** abutting a **public road**, shall not exceed 1.2 m (4 ft.) in height; and