

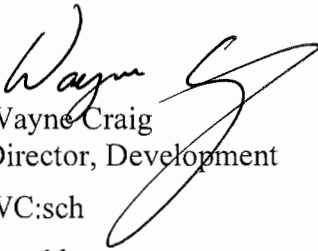



To: Planning Committee
From: Wayne Craig
Director, Development
Date: September 10, 2018
File: CP 16-752923
Re: **Application by GBL Architects for an Official Community Plan (City Centre Area Plan) Amendment at 6551 No. 3 Road (CF Richmond Centre South)**

Staff Recommendation

1. That Official Community Plan Amendment Bylaw 9892, including:
 - a) In Schedule 1 of Official Community Plan Bylaw 9000, to redesignate a portion of 6551 No. 3 Road from “Downtown Mixed Use” to “Park” in Attachment 1; and
 - b) In Schedule 2.10 (City Centre Area Plan) of Official Community Plan 7100, to:
 - i. amend the existing land use designation in the Generalized Land Use Map (2031), Specific Land Use Plan: Brighthouse Village (2031), and reference maps throughout the Plan to change the locations of roads, park, pedestrian-oriented retail precincts, pedestrian linkages, greenways, bike routes, and related features specific to 6551 No. 3 Road;
 - ii. add a new policy encouraging multi-modal mobility hubs in the City Centre;
 - iii. add new Development Permit Guidelines specific to 6551 No. 3 Road; and
 - iv. make related minor map, text, page numbering, and table of contents amendments to the City Centre Area Plan;be introduced and given first reading.
2. That Bylaw 9892, 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 882(3)(a) of the *Local Government Act*.

- 3. That Bylaw 9892, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.


Wayne Craig
Director, Development
WC:sch
Att. 11

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Policy Planning	<input checked="" type="checkbox"/>	
Affordable Housing	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	

Staff Report

Origin

GBL Architects has applied to the City of Richmond to amend the Official Community Plan (OCP), Schedule 2.10 (City Centre Area Plan) at 6551 No. 3 Road to permit a high-rise, mixed use project on roughly 50% of 6551 No. 3 Road at the south end of the CF Richmond Centre shopping centre. (Attachments 1 & 2)

The CF Richmond Centre shopping centre occupies three lots: the subject site at 6551 No. 3 Road; 6060 Minoru Boulevard (under separate ownership, but the same operator); and 6253 No. 3 Road (a City-owned lot under long-term lease to the shopping centre operator). The subject development is limited to roughly 60% of 6551 No. 3 Road. (Attachment 3) Neither 6253 No. 3 Road (City lot) nor 6088 Minoru Boulevard is proposed for redevelopment.

Key features of the subject development proposal include the:

- Demolition of 26,905 m² (289,601 ft²) of the existing mall, including 24,487 m² (263,571 ft²) of retail shops (e.g., former Sears), together with the demolition of the existing multi-storey parkade at the lot's south end and adjacent surface parking; and
- Construction of a high-rise, urban neighbourhood including approximately 2,000 dwellings, new public streets and outdoor spaces, parking for 4,000 cars (including two levels of underground parking), and 38,937 m² (419,114 ft²) of new commercial space, comprising 35,197 m² (378,861 ft²) of retail shops, which represents a net commercial increase of 12,032 m² (129,513 ft²).

To facilitate the subject development, the applicant proposes to amend Schedule 2.10 (City Centre Area Plan) of Official Community Plan 7100 to permit changes to various mobility features (e.g., roads, bike routes, and connectivity enhancements), public open space features (e.g., new plaza), and form and character features.

Engineering, road, public open space, District Energy Utility (DEU), affordable housing, public art, and related community amenities and City infrastructure required with respect to the subject development are proposed to be secured by legal agreements prior to OCP Amendment bylaw adoption and delivered on a phase-by-phase basis through the City's standard Servicing Agreement, Development Permit, and Building Permit processes.

Findings of Fact

A Development Application Data Sheet providing details about the development proposal is attached. (Attachment 4)

No Rezoning Required

In the late 1980s, the City rezoned CF Richmond Centre and nearby properties to "Downtown Commercial (C7)", later renamed "Downtown Commercial (CDT1)", to encourage densification of Richmond's downtown core. The CDT1 zone permits high-rise, mixed use development to a maximum height of 45 m (148 ft.) and 3.0 floor area ratio (FAR), together with bonus density for the provision of affordable housing. The subject development complies with the CDT1 zone's

maximum permitted height and the combined total floor area of proposed and existing mixed use development on 6551 No. 3 Road equals approximately 70% of the zone's maximum permitted density on the lot. (Under the CDT1, the owner would be permitted to undertake additional development in the future to utilize the remaining 30% of the zone's permitted floor area. In addition, the City Centre Area Plan designates the subject site for a maximum density of 4.0 floor area ratio, so the owner may give future consideration to rezoning.)

	Height (Max)	FAR (Max)	Buildable Floor Area
CDT1 Zone	45 m (148 ft.)	3.15 FAR*	339,106 m ² (3.65 million ft ²) max. permitted
Proposed	45 m (148 ft.)	2.1 FAR**	232,258 m ² (2.5 million ft ²) = +/-70% of max. permitted

* Includes 0.15 FAR Affordable Housing bonus (5% Affordable Housing) applicable to applications, like the subject application, that were received prior to July 24, 2017 and considered by Council prior to July 24, 2018. (The subject application was first considered by Council on April 9, 2018.)

** The subject development proposal includes 5% Affordable Housing.

Developments that comply with existing zoning typically proceed directly to Development Permit (DP) review. When that occurs, the City's ability to secure community amenities is limited because Council does not have the discretionary power of a rezoning application. However, as the subject developer has made application to amend Schedule 2.10 (City Centre Area Plan) of Official Community Plan 7100, staff have worked with the developer to address community objectives.

Subject Site Existing Housing Profile

There are no dwelling units on 6551 No. 3 Road or the City-owned lot at 6253 No. 3 Road. The shopping centre's north lot (6088 Minoru Boulevard) includes the "Horizons", a twin-tower, 16-storey, 29,000 m² (312,000 ft²), residential development constructed in the late 1990s and comprising 248 dwellings. No changes are proposed to this existing residential use.

Surrounding Development

6551 No. 3 Road is a roughly 11 ha (28 ac) lot, located in the middle of the City Centre's Brighthouse Village area, and occupied by the south part of CF Richmond Centre, a low-rise, low density, automobile-oriented shopping centre and associated parking. Existing development surrounding 6551 No. 3 Road includes the following:

To the North: CF Richmond Centre's north portion, including "Horizons" residential towers;

To the South: Richmond City Hall and annex;

To the West: Minoru Boulevard, beyond which is a mix of low- and high-rise residential buildings, the Richmond Cultural Centre, and Minoru Park; and

To the East: No. 3 Road, beyond which is a mix of older, low-rise, auto-oriented commercial buildings, existing mixed use and residential towers, the Canada Line's terminus station (Richmond-Brighthouse) and proposed bus mall, and several recent development applications, including:

- 6390 No. 3 Road (RZ 17-773703 / DP 18-822743 / Keltic) comprising three residential towers, one office tower, an Early Childhood Development Hub, and retail uses at grade (pending rezoning adoption);
- 6840 and 6860 No. 3 Road and 8061 Anderson Road (RZ 14-678448 / DP 15-708092 / iFortune) comprising a mid-rise residential building, one office tower, and retail uses at grade (pending rezoning adoption); and
- 6560, 6600, 6640 & 6700 No 3 Road (RZ 15-694855 / DP 16-754761 / Bene Richmond) comprising a mixed residential-office tower and retail uses at grade (pending rezoning adoption).

Related Policies & Studies

Official Community Plan/City Centre Area Plan

City Centre Area Plan (CCAP)

The subject site is located in the middle of Brighthouse Village (Attachment 5). The CCAP identifies this area as the traditional heart and civic focus of Richmond's downtown and supports its revitalization with a high density, high-rise, mix of commercial, residential, and civic uses centred on No. 3 Road and the Brighthouse Station transit exchange. More specifically:

- 1) The subject site and properties to its north, south (e.g., City Hall), and east (beyond No. 3 Road) generally share the same high density, high-rise, mixed use designations, including:
 - "Urban Core T6 (45 m)", which permits mixed use or commercial development to a maximum of 3.0 FAR and 45 m (148 ft.) in height;
 - "Village Centre Bonus", which permits additional commercial floor area to a maximum of 1.0 FAR; and
 - "Pedestrian-Oriented Retail Precinct – High-Street & Linkages", which encourages a high concentration of pedestrian-oriented retail, restaurant, and complementary activities at grade along No. 3 Road and other public streets and open spaces; and
- 2) West of the subject site, near Minoru Park, the CCAP encourages medium and high density, mid- and high-rise residential uses, generally designated as:
 - "Urban Centre T5 (25 m)", which permits residential and other uses to a maximum of 2.0 FAR and 25 m (82 ft.) in height; and
 - "Institution", which permits bonus density and increased height for developments that provide community amenity-type uses (e.g., Kiwanis Senior Citizens Housing Society); and
- 3) Mobility improvements are encouraged on and around 6551 No. 3 Road, including:
 - The extension of Park Road westward from No. 3 Road to Minoru Boulevard;
 - A new bike lane along No. 3 Road; and
 - Greenway improvements along No. 3 Road and Minoru Boulevard.

Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.

Public Consultation

It is Council policy (OCP Bylaw Preparation Consultation Policy 5043) that staff consider consultation with persons, organizations, and authorities that may be affected by the enactment, repeal, or amendment of the Official Community Plan bylaw where the other parties' land use, programming, servicing, transportation, and/or environmental interests may be impacted.

Community Consultation

- 1) Council-Supported Developer-Led Consultation Process: On April 9, 2018, Council endorsed a developer-led community consultation process regarding the CF Richmond Centre South Development Plan and proposed changes to the CCAP. The process included:
 - **Public Display**: A public display was set up in the shopping centre's galleria from May 22 to June 3, 2018. The Community Consultation – Public Display Boards are attached. (Attachment 6)
 - **Open Houses**: Developer and City representatives attended the public display to answer questions on May 27 (1 – 4 p.m.) and May 31 (5 – 8 p.m.).
 - **Online**: The public display boards were available to view on the City's website and at LetsTalkRichmond.ca from May 22 to June 3, 2018.
 - **Feedback Forms**: Interested parties were able to complete a feedback form by:
 - a) Logging onto LetsTalkRichmond.ca; or
 - b) Completing a paper form (available at the open houses, or on request).
 - **Advertising**: Advertisements included:
 - a) Print ads in the Richmond News and Richmond Sentinel;
 - b) City social media postings on Facebook and Twitter; and
 - c) News releases sent to local media and posted on the City's website.
 - **Direct Mail-Outs**: Direct mail-outs (3,000 letters) were sent to tenants and owners of properties within 100 m (328 ft.) of the subject site to notify them of the public display, open houses, and opportunity to provide feedback.
- 2) Open House Attendance: Each of the two public open houses was attended by approximately 300 people (i.e. 600 in total).
- 3) Community Feedback: The feedback form included ten questions regarding the developer's proposed CCAP amendments and related voluntary developer contributions. The questions were included in the Public Display Boards, together with supportive diagrams and photographs, in the form of "Objective #1" to "Objective #10" (on the last ten pages of Attachment 6).

The City received a total of 164 feedback forms through LetsTalkRichmond.ca, by mail, and in person. Respondents primarily identified themselves as Richmond residents and CF Richmond Centre shoppers. A summary of the feedback form results is attached.

(Attachment 7) In brief, the feedback indicated that:

- 65% liked the proposed street network;
- 81% liked the proposed improvements to Canada Line access, including public access through the mall's galleria outside regular business hours;
- 75% liked the proposed streetscape improvements for pedestrians and cyclists;
- 60% liked the proposed underground parking and features aimed at enhancing access by shoppers and the general public;
- 68% like the proposed outdoor retail precinct;
- 71% liked the proposed public plaza and other public open space features;
- 51% liked the proposed form of development;
- 64% liked the proposed affordable housing (i.e. 5% of total residential floor area in the form of 150 low-end-of-market-rental (LEMR) units);
- 66% liked the proposed housing mix (i.e. 50% 2- and 3-bedroom, family-friendly units and 25% Basic Universal Housing (BUH) units for people with mobility challenges); and
- 66% liked the proposed use of a low-carbon heating/cooling system to help reduce greenhouse gas.

Respondents who did not like the proposed changes at CF Richmond Centre primarily expressed concern regarding:

- **Growth:** Too much growth in the Richmond's downtown is changing the area's character and placing pressure on existing infrastructure, transit, schools, and other services.

Staff comments: Richmond, like most of Metro Vancouver, is growing. Since 1995, the City's OCP has aimed to direct 50% of Richmond's growth to the City Centre to support the establishment of a high-amenity urban core, protect farmland, and reduce development pressure on stable residential neighbourhoods outside the downtown. This OCP direction has been adopted in consultation with the Richmond School District, Vancouver Coastal Health, TransLink, and other stakeholders. In addition, through the City's capital plan and developer-funded contributions, the City seeks to ensure that the implementation of amenity and infrastructure improvements is coordinated with growth and minimizes taxpayer impacts. (Note that the subject development does not propose any increase in permitted density or change in permitted land uses.)
- **Shopping:** Shopping centre redevelopment could undermine the downtown as Richmond's central shopping district, displace small businesses, force

people to shop outdoors (without weather protection), and result in expensive and/or empty street-facing storefronts.

Staff comments: *The subject developer is the owner of 6551 No. 3 Road and is committed to the long-term commercial viability of CF Richmond Centre and Richmond's downtown. The proposed development will increase the shopping centre's existing commercial floor area by 12,032 m² (129,513 ft²), most of which will be located in street-fronting retail space along No. 3 Road and the extension of Park Road. This approach will enable the developer to maintain the existing indoor mall, while better connecting it with the Canada Line, providing a broader range of shopping options (which may include grocery and other local-serving retailers), and contributing towards a more walkable downtown.*

- **Transportation:** Traffic congestion. Not enough parking. Overcrowding on the Canada Line. Impracticality of cycling in our climate.

Staff comments: *The CCAP supports the establishment of a well-connected downtown community that provides for an expanding range of sustainable travel options with an emphasis on walking, cycling, and transit. This is consistent with TransLink's 10-Year Vision, which includes, among other things, the acquisition of 24 new Canada Line cars and increased Canada Line frequency during rush hours, evenings, and weekends. The proposed CF Richmond Centre development complies with City parking bylaws and includes features that are supportive of the City's mobility objectives including:*

- a) *Secure public access through the mall's galleria outside regular business hours to be consistent with the Canada Line's operating hours to improve access to the Canada Line and future bus mall;*
- b) *Smaller blocks and a more connected and attractive network of pedestrian sidewalks and off-street bike paths;*
- c) *Wider sidewalks and crosswalk upgrades, including enhanced pedestrian access between the subject site and the Canada Line station; and*
- d) *Two multi-modal mobility hubs (one in each phase of development) that will be designed and operated to seamlessly integrate multiple travel modes, supportive infrastructure, and placemaking strategies with the aim of creating two pedestrian-oriented centres that will help maximize first-to-last kilometre connectivity. Each mobility hub will be comprised of an integrated suite of pedestrian-friendly, transportation and related features such as bike- and car-share facilities, taxi and ride-hailing services, secure bike storage for the public and repair services, electric vehicle charging stations, and weather protected public transit stops all conveniently located near shops, services, and public amenities. (Legal agreements, securing the developer's commitment to the construction and operation of the mobility hubs, at the developer's*

sole cost, will be registered on title prior to OCP amendment adoption.)

- **Housing:** The amount of affordable housing (too much or too little), whether the proposed units will really be affordable or family-friendly, and the amount of accessible Basic Universal Housing units were questioned.

Staff comments: *Access to livable, appealing, and varied housing options that meet the needs of the City Centre's changing downtown population is a core value of the CCAP. In recognition of this, while the City's ability to require developer-funded community amenities from pre-zoned properties (like the subject site) is limited, staff have worked with the developer to achieve key City housing objectives, including the developer's construction (at the developer's sole cost) of:*

 - a) *150 low-end-of-market-rental (LEMR) units secured with a Housing Agreement registered on title prior to OCP bylaw adoption;*
 - b) *Family-friendly residential buildings designed to include 50% 2- and 3-bedroom units (including 50% of the LEMR units), large outdoor amenity spaces equipped with children's playgrounds (on the podium rooftops), and various indoor family-friendly amenities (e.g., party rooms, swimming pools, multi-purpose recreation rooms); and*
 - c) *Accessible residential buildings containing universally accessible lobbies, circulation, and indoor/outdoor amenity spaces throughout, together with accessible unit features (secured with legal agreements registered on title prior to OCP bylaw adoption) including:*
 - i. *25% of total units will be constructed to Basic Universal Housing (BUH) standards suitable for people with mobility challenges (including 100% of LEMR units); and*
 - ii. *100% of units will include aging-in-place features (e.g., lever handles and blocking in walls for grab bars).*

- **Built Form:** Too many high-rises in the City Centre. Soil conditions, especially with respect to underground parking.

Staff comments: *The developer's proposal is consistent with the CCAP, which encourages a variety of building types and housing options across the downtown ranging from high-rise, high density development in locations, like the subject site, that are within 400 m (1,312 ft.) of a Canada Line station and low-rise buildings in less accessible locations. In addition, the developer's proposal is consistent with CCAP policies that encourage developers of high density developments to include features (such as underground parking) that help to free up the ground plane for active public use. The design and construction of all buildings and underground parking structures in Richmond must comply with provincial and municipal*

legislation (e.g., BC Building Code) to ensure that, among other things, they appropriately address local soil conditions. Based on engineering work undertaken by the developer's consultants, the developer has confirmed that construction standards and requirements related to local soil conditions and the project's proposed underground parking will be fully satisfied.

- Construction: Noise, dirt, and other construction impacts on nearby residents.

Staff comments: *The developer will be required to submit a Construction Traffic Management Plan for City approval prior to Building Permit issuance. City bylaws limit the hours when noisy construction activities may be undertaken (i.e. 7 a.m. to 8 p.m. from Monday to Friday and shorter hours on Saturdays) and require that public streets and sidewalks are kept clean and accessible.*

- 4) Correspondence: At the time of writing this report five emails/letters have been received by the City regarding the subject OCP amendment application. (Attachment 8) In brief:
- Item #1: Supports the proposed public route through the mall's Galleria to outside regular business hours, but expresses concern that the area is already too dense and unaffordable.
 - Item #2: Expresses concern that the area currently lacks a supermarket, may not have adequate elementary school capacity, and has only 2 electric vehicle charging stations.
 - Item #3 and #4: Seek information regarding the proposed energy plant, potential airspace parcel subdivision, and transit planning. (Staff responses are included in Attachment 6.)
 - Item #5: Supports the proposed development and suggests that the developer gives consideration to including a multi-purpose indoor stadium for sports and cultural events.

Staff comments: *For the most part, the concerns expressed in the correspondence mirrors those conveyed through the feedback forms and have been addressed above. Regarding the inquiry into a new sports and cultural events venue, it is City policy to support the continued use and enhancement of the Richmond Cultural Centre, Minoru Park, the Richmond Olympic Oval, and other City facilities for this purpose.*

Developer Consultation with Existing Shopping Centre Tenants

The shopping centre owner shared information about the proposed development and sought feedback from current retail tenants on several occasions, including:

- 1) Memo announcing the construction of the project's marketing Centre on January 29, 2018;
- 2) Town Hall style meeting (40-50 attendees) on February 20, 2018;
- 3) Drop-in session at the public display in the mall (4 attendees) on May 30, 2018; and
- 4) Various one-on-one meetings with tenants (focussing on those near the development).

Tenant feedback has been positive and there has been interest from some retailers in relocating to the new development. Concerns and questions have generally fallen into two categories:

- 1) Parking availability during construction.

- The development will be phased to ensure that adequate parking and vehicle access from both No. 3 Road and Minoru Boulevard are maintained throughout construction.
- 2) Relocation strategies for long-term retailers within the construction/demolition area.
- The former Sears building will be used to temporarily house retailers during Phase 1 until they can be relocated to units in the new development.

The developer is committed to working with retailers to ensure that the mall is pleasant and attractive for customers and well managed for tenants throughout the construction process.

Advisory Design Panel

The CF Richmond Centre South Development Plan was presented to the Advisory Design Panel on March 7, 2018 (Attachment 9). The Panel voted unanimously in support of the application and commended the applicant on the Plan's features (e.g., affordable, family-friendly, and accessible housing, smaller blocks defined by new streets and pedestrian linkages, underground parking, and a more vibrant public realm). ADP recommended that, at Development Permit stage, the applicant undertakes design development with respect to detailed public realm design, sun/shade impacts, and architectural expression.

Richmond School District

According to OCP Bylaw Preparation Consultation Policy 5043, adopted by Council and agreed to by the School District, OCP amendment applications must be referred to the School District if they have the potential to generate 50 or more additional school-aged children (i.e. equivalent to 295 or more additional multiple-family housing units) over and above the existing OCP. As the subject application does not propose any increase in permitted residential units, it is not required to be referred to the School District. The subject OCP amendment application was presented at the Council/School Board Liaison Committee meeting on April 25, 2018. City staff will continue to keep School Board staff apprised of the development of the property.

TransLink

No referral is necessary because the subject OCP amendment application does not include streets identified as part of TransLink's Major Road Network (MRN) or involve significant road network changes. The subject OCP amendment application and related transportation impact study prepared by the applicant will be provided to TransLink as a courtesy.

Other Stakeholders

Staff have reviewed the proposed OCP amendments with respect to the *Local Government Act* and the requirements of the City's OCP Bylaw Preparation Consultation Policy 5043 and recommend that this report does not require referral to any other external stakeholders, as indicated in the table below.

Stakeholder	Referral Comment (No Referral necessary)
BC Land Reserve Co.	No referral necessary because the Land Reserve is not impacted.
The Board of Metro Vancouver	No referral necessary because the Regional District is not impacted.

Stakeholder	Referral Comment (No Referral necessary)
The Councils of adjacent Municipalities	No referral necessary because adjacent Municipalities are not impacted.
First Nations (e.g., Sto:lo, Tsawwassen, Musqueam)	No referral necessary because First Nations are not impacted.
Port Authorities (Vancouver Port Authority and Steveston Harbour Authority)	No referral is necessary because the Port Authorities are not impacted.
Vancouver International Airport Authority (VIAA) (Federal Government Agency)	No referral is necessary because VIAA is not impacted.
Richmond Coastal Health Authority	No referral is necessary because the Richmond Coastal Health Authority is not impacted.
All relevant Federal and Provincial Government Agencies	No referral is necessary because no Federal or Provincial Government Agencies are impacted.

Additional Comments

OCP amendment application signage has been installed on the subject site.

Should the Planning Committee endorse this application and Council grant first reading to the OCP amendment bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment.

Public notification for the Public Hearing will be provided as per the *Local Government Act*.

Analysis

The origin of the subject City Centre Area Plan (CCAP) amendment application is the developer's proposal to vary street and development features set out in the Plan. Through the CCAP amendment application review process, staff have worked with the developer towards satisfying City and Area Plan objectives through various proposed developer contributions and development features. The CF Richmond Centre development plan's proposed revisions to the CCAP are generally illustrated in the Community Consultation – Public Display Boards. (Attachment 6) The proposed Area Plan amendments, including community feedback highlights the developer's response, and the proposed OCP amendment implementation approach are summarized below.

Proposed CCAP Amendments

1) Mobility Network:

- **Existing CCAP:** The Plan currently requires the extension of Park Road from No. 3 Road to Minoru Boulevard (at Minoru Gate) and the extension of on-street bike lanes along No. 3 Road and Minoru Boulevard.
- **Proposed CCAP Amendment:** The subject development proposes to:
 - a) Satisfy the Plan's existing requirements with respect to the extension of Park Road to Minoru Gate (in the form of a statutory right-of-way secured for public access, constructed at the developer's sole cost to the City's satisfaction, and owned/maintained by the developer); and

- b) Provide additional community benefits, including:
- i. A new City-owned street and multi-use pathway (secured as a road dedication), together with special landscape features, along the south edge of the subject property (adjacent to the City Hall site);
 - ii. Smaller, more pedestrian-friendly blocks, which will be achieved by extending Park Road beyond Minoru Gate to Murdoch Avenue and adding a new north-south connection between Park Road and the new City-owned street (in the form of additional “private road” owned/maintained by the developer and secured for public access with a statutory right-of-way);
 - iii. Enhanced street design standards, including wider sidewalks and special landscape features;
 - iv. Off-street bike paths along Minoru Boulevard and No. 3 Road, shared off-street bike access via the new City-owned street’s broad multi-use pathway, and future off-street bike paths along the CCAP’s designated Cook-Murdoch connector;
 - v. Improved access to/from Brighthouse Station and the future bus mall via:
 - A secured public route across the subject site between Minoru Boulevard and No. 3 Road, including access through CF Richmond Centre’s galleria outside normal shopping mall business hours (during transit operating hours); and
 - Sidewalk widening, upgraded crosswalks, and related improvements along the entire No. 3 Road frontage of CF Richmond Centre (including the subject site and the portion of the mall located north of 6551 No. 3 Road);
 - vi. End-of-trip cycling facilities for commercial tenants and employees; and
 - vii. Two multi-modal mobility hubs incorporating pedestrian-friendly, transportation-related features (e.g., bike- and car-share, taxi and ride-hailing pick-up/drop-offs, secure public bike storage, electric vehicle charging stations, transit stops) co-located with shops, services, and public amenities (Attachment 11, Schedule J “Mobility Hub Vision”).
- **Community Feedback Highlights:** Support was expressed for the proposed street network (65%), cross-mall access outside regular business hours (81%), streetscape improvements (75%), and parking features (60%).
 - **Developer Response:** Following the community consultation process, the developer undertook design development regarding the proposed mobility hubs (Attachment 11, Schedule J) to further enhance pedestrian bicycle, transit, and vehicle connectivity, features, and operations. The developer also proposes to provide transit passes for residents for one year (i.e. 25% of market units and 100% of affordable housing units) and retail employees/customers (\$100,000 value). The developer’s commitment to provide the mobility hubs, transit passes, and other mobility features will be secured by legal agreements registered on title prior to OCP amendment adoption. Additional design development will be undertaken through CF Richmond Centre’s Development Permit processes.

2) Public Open Space Network:

- **Existing CCAP:** The Plan currently requires greenway improvements (e.g., street tree planting, decorative paving, pedestrian lighting and furnishings) along the subject site’s No. 3 Road and Minoru Boulevard frontages.

- **Proposed CCAP Amendment:** The subject development proposes to:
 - a) Satisfy the Plan's existing requirements with respect to greenway improvements along the site's No. 3 Road and Minoru Boulevard frontages; and
 - b) Provide additional community benefits in the form of:
 - i. A central plaza (to be designated as park in the OCP and CCAP) secured for public use, approximately 0.2 ha (0.5 ac) in size (i.e. roughly twice the size of Lang Park); and
 - ii. Improved pedestrian and cycling linkages with Minoru Park and the Richmond Cultural Centre.
- **Community Feedback Highlights:** Support was expressed for the proposed public plaza and other public open space features (71%).
- **Developer Response:** Following the community consultation process, the developer undertook design development with respect to the private building frontages along the new City street (adjacent to City Hall) to increase the proposed size of the development's fronting gardens and enhance the ability to plant large trees on the subject site. The developer's commitment to provide the public plaza and other public open space features will be secured by legal agreement registered on title prior to OCP amendment adoption. Additional design development will be undertaken through the Development Permit process.

3) Form and Character:

- **Existing CCAP:** As the subject site is located within 400 m (1,312 ft.) of a Canada Line station, the Plan encourages high-rise, high density, mixed use, transit-oriented development, generally in the form of towers up to 45 m (148 ft.) in height, mid-rise streetwall buildings with landscaped roof decks (for use as residential outdoor amenity space), and a combination of ground floor, pedestrian-oriented retail and public amenities such as greenways (i.e. low-rise, lower density buildings are discouraged in key downtown transit nodes). Parking is encouraged to be screened from view (e.g., located underground or behind residential or commercial uses). The overall form of development is encouraged to contribute to a livable urban environment and a visually distinct and appealing urban village.
- **Proposed CCAP Amendment:** The subject development proposes to meet or exceed the Plan's existing requirements by:
 - a) Locating most of the development's required parking in two underground levels so as to screen it from public view and free up the ground plane for public open space, retail, restaurant, residential, and other non-parking uses;
 - b) Extending pedestrian-oriented commercial uses along No. 3 Road and the extension of Park Road, with links to the east and west ends of the mall's existing galleria, to provide for a connected outdoor/indoor pedestrian shopping (loop) precinct;
 - c) Designing the proposed public street and multi-use path along the subject site's south edge as a "civic promenade" framed by City Hall on its south and complementary architectural and landscape features on its north;
 - d) Providing opportunities for slim slab-type tower forms with large floorplates, wide tower spacing, and large podium-level landscaped outdoor amenity spaces; and

- e) Supporting the development of a distinctive public realm characterized by high quality, pedestrian-oriented retail and residential frontages and enhanced public spaces.
- **Community Feedback Highlights:** Support was expressed for the proposed outdoor shopping precinct (68%) and form of development (51%). Concerns expressed regarding the form of development were focussed on the number of towers and the potential impact of soil conditions on underground parking.
 - **Developer Response:** Following the community consultation process, the developer undertook design development with respect to the proposed:
 - a) Tower massing with the aim of refining measures intended to minimize the project's total number of towers, improve the development's ability to meet the needs of families with children, and enhance views from neighbouring existing residential towers. Features of the proposed development include:
 - i. Increasing the CCAP's maximum recommended mid-rise building height from 25 m (82 ft.) (8 storeys) to 30.5 m (100 ft.) (9 storeys) and increasing the CCAP's maximum recommended tower floorplate size on the subject site from 650 m² (7,000 ft²) to 1,200 m² (13,000 ft²), which together, as generally illustrated in Attachment 10:
 - Effectively cuts in half the number of towers that would otherwise be built under the existing CCAP; and
 - Increases the achievable tower spacing along all City street frontages (i.e. No. 3 Road, Minoru Boulevard, and the new City street adjacent to City Hall) to 35 m (115 ft.), as compared with the CCAP minimum recommended spacing (i.e. 24 m / 79 ft.) or the spacing that would potentially result if smaller, CCAP-size towers were constructed on the site (i.e. spacing of 20 m / 66 ft. or less, as shown in Attachment 10);
 - ii. Reducing tower width (i.e. narrow dimension of the slab) to 20 m (66 ft.) as compared with the width of Richmond's typical point towers, which are generally 35 m (115 ft.) or wider;
 - iii. Varying tower heights, shapes, and orientation to provide visual interest; and
 - iv. Creating large podium-level outdoor residential amenity spaces (co-located with indoor amenities) that are able to accommodate a variety of children's play opportunities suitable for a range of age groups and needs;
 - b) Increasing landscaping and terracing along the development's Minoru Boulevard frontage to enhance its interface with nearby residential buildings and Minoru Park; and
 - c) Providing greater façade articulation and incorporating special streetscape features along the north portion of Park Road (e.g., murals, public art, catenary lighting suspended over the roadway) to enhance the exposed portions of the existing mall, screen above-grade parking, and provide for a lively shopping environment.

Staff are supportive of the developer's proposed built form strategy because it effectively responds to the site's special constraints while respecting key urban design objectives of the CCAP. More specifically, while the net site is unusually large (109,353 m² / 28 ac.), 37% of the net site is occupied by the portion of the existing mall and surface parking that the owner wants to remain operational throughout and after construction and 18% is occupied by proposed publicly accessible streets and open spaces (which will be secured

with statutory right-of-ways prior to OCP Amendment adoption). As a result, the above-grade portion of the proposed development occupies just 45% of the net site. The developer's proposed underground parking, increased tower floorplate size, increased tower spacing, public and private open space amenities, and pedestrian-oriented streetscapes will help enable the lot's pre-zoned density to be accommodated on the site in a manner that is attractive, livable, and distinctive. The adoption of site-specific Development Permit (DP) Guidelines for the subject site is recommended to guide the developer's 2-phase development and define the boundaries of this distinct mixed use, urban precinct. (Proposed site-specific DP Guidelines are included in the attached OCP Amendment bylaw.)

Additional design development will be undertaken through CF Richmond Centre's Development Permit processes.

4) Housing:

- **Existing CCAP:** The Plan encourages affordable housing, a diversity of unit types, and accessible housing options; however, as the subject site is pre-zoned site, the developer would not be obligated to provide for these features through a stand-alone Development Permit process.
- **Proposed CCAP Amendment:** The subject development proposes to provide:
 - a) 5% affordable, low-end-of-market rental (LEMR) housing in the form of two purpose-built rental buildings (one per phase) comprising a total of 150 units (secured in perpetuity with a Housing Agreement prior to adoption of the OCP amendment bylaw);
 - b) 50% family-friendly, 2- and 3-bedroom (market and LEMR) units; and
 - c) 25% Basic Universal Housing (BUH) units (including 100% of LEMR units), together with aging-in-place features (e.g., lever handles and blocking in walls for grab bars) in all units.

The developer's proposed 5% affordable housing contribution is consistent with the CDT1 zone, which permits a density bonus (0.15 FAR) for applications containing 5% LEMR units (secured with a Housing Agreement registered on title) that were submitted to the City prior to July 24, 2017 and presented for consideration by Council prior to July 24, 2018. The subject OCP amendment application was submitted on November 25, 2016 and first presented to Council on April 9, 2018.

The developer's proposed affordable housing contribution will be taken into account with respect to the Zoning Bylaw's permitted parking reduction applicable to pre-zoned CDT1 sites (i.e. from 1.5 spaces/unit to 1.0 space/unit). This is consistent with the Affordable Housing Strategy, which supports parking reductions in transit-oriented locations where it will help to facilitate increased affordable housing developer contributions.

- **Community Feedback Highlights:** Support was expressed for the proposed affordable housing units (64%) and family-friendly housing mix and accessibility features (66%).
- **Developer Response:** Following the community consultation process, the developer has engaged a non-profit affordable housing provider to be involved in the design and management of the LEMR units proposed for the development's first phase.

The developer's commitment to provide the proposed affordable housing (i.e. 150 units), family-friendly unit mix (i.e. 50% 2- and 3-bedroom market and LEMR units), and BUH and aging-in-place features (including 100% of LEMR units built to BUH standards) will be secured by legal agreements registered on title prior to OCP amendment adoption.

Additional design development will be undertaken through the Development Permit process.

5) District Energy Utility (DEU) Network:

- **Existing CCAP:** The Plan aims to support the development of a cleaner, greener, and healthier downtown and reductions in greenhouse gas (GHG) emissions, but does not set specific directions or targets for the City Centre.
- **Proposed CCAP Amendment:** To implement a low-carbon (i.e. low/zero GHG emissions) system to heat/cool the subject development with consideration being given to a City District Energy Utility (DEU).
- **Community Feedback Highlights:** Support was expressed for a low-carbon system that would help reduce GHG (66%).

Developer Response: Following the community consultation process, staff and the developer worked cooperatively to ensure that the subject development will contribute towards City objectives for the implementation of a low carbon system capable of meeting the heating/cooling needs of the subject development and providing for future network connections to Richmond's emerging City Centre DEU system. More specifically, the developer has proposed and staff have agreed that:

- a) As required under City policy for new City Centre development, the development (excluding commercial portions of the enclosed mall) will be designed and constructed, at the developer's sole cost, with the ability to connect to and be serviced by a City DEU system; and
- b) In addition, if prior to Development Permit issuance Council adopts a DEU service area bylaw that provides for the owner's construction of an energy generation plant on the subject site, the developer shall, at the developer's sole cost:
 - i. Design and construct a low carbon energy plant(s) capable of supplying at least 70% of the development's annual space heating, space cooling, and domestic hot water needs (excluding commercial portions of the enclosed mall) from a renewable (non-carbon) energy source;
 - ii. Transfer ownership of the low carbon energy plant(s), distribution system, and all ancillary components to the City or its DEU service provider prior to building occupancy; and
 - iii. Work with the City to explore opportunities for heat recovery from the enclosed mall and its integration with a City DEU system.

The developer's commitment to design, construct, and transfer a low carbon energy plant to the City's DEU service provider is consistent with that achieved through recent City Centre rezoning applications.

A separate staff report recommending a DEU service area bylaw with respect to the subject site will be presented for Council consideration.

The developer's commitment to implement the proposed low-carbon energy system will be secured by legal agreements registered on title prior to OCP amendment adoption.

Additional design development (e.g., energy modelling report, low carbon energy system detail design and configuration) will be undertaken through CF Richmond Centre's Development Permit and Building Permit processes.

CCAP Amendment Implementation Approach

Implementation of the subject development as proposed would require a combination of site-specific amendments to the City Centre Area Plan (i.e. OCP Amendment Bylaw) and various related voluntary developer commitments towards specific development features and amenities secured through legal agreements registered on title to the property, as set out in the attached OCP Amendment Considerations (Attachment 11).

- 1) OCP Amendment Bylaw addresses items specific to the City Centre Area Plan, generally including amendments to:
 - Maps throughout the Plan, including changing in the locations of road, park, pedestrian-oriented retail precincts, pedestrian linkages and greenways, cycling linkages, and related features on and around the subject site;
 - The mobility section to add a mobility hub policy and related information;
 - The arts and culture section to revise the location of pedestrian-oriented retail street in response to the new street pattern;
 - The parks and open space section to add the central plaza and multi-modal route along the new City street (adjacent to City Hall);
 - The public realm and public life section to increase permitted tower floorplate sizes from 650 m² (7,000 ft²) to 1,200 m² (13,000 ft²) and revise recommended frontage conditions in response to the new street pattern; and
 - The Development Permit (DP) Guidelines section to add DP Guidelines specific to the subject site.
- 2) OCP Considerations address items to be secured via legal agreements for implementation by the developer, at the developer's sole cost. Development and the developer's delivery of community amenities and voluntary contributions will be undertaken in two phases, beginning with the site's west half (fronting Minoru Boulevard) and followed by the site's east half (fronting No. 3 Road). This includes:
 - Subdivision to create three fee-simple lots (i.e. Phase 1/west lot, Phase 2/east lot, and a remainder/north lot), as determined to the City's satisfaction, together with road widening (dedication) along the site's No. 3 Road and Minoru Boulevard frontages;
 - Statutory right-of-ways and related legal agreements securing:
 - a) A new publicly-accessible, privately-owned/maintained central plaza;
 - b) A new publicly-accessible, privately-owned/maintained street network (e.g., extensions of Park Road, Cook Road, Murdoch Avenue, and Minoru Gate); and
 - c) A future City-owned street and multi-use pathway along the site's south side (adjacent to City Hall), which right-of-way area will be:

- i. On an interim basis, occupied by the shopping centre's existing multi-storey parkade; and
 - ii. Prior to Building Permit, on a phase-by-phase basis (i.e. two phases), dedicated as City street (and the developer will enter into Servicing Agreements for the street's design and construction at the developer's sole cost).
- Transit access improvements, including:
 - a) Public access through the mall's galleria outside business hours to be consistent with Canada Line operating hours (to be secured with legal agreements); and
 - b) Upgrades to pedestrian crossings and sidewalks in proximity to the Richmond-Brighthouse Station, including in Phase 1, widening of the shopping centre's No. 3 Road sidewalk to 3 m (10 ft.) from the pedestrian crossing at the transit station to the mall's north property line (i.e. north of Shopper's Drugmart);
 - Transportation demand management (TDM) measures including, among other things, two multi-modal mobility hubs and transit passes for residents and commercial tenants/employees;
 - Servicing Agreement requirements for the design and construction of new and upgraded streets, intersections, engineering infrastructure, public open space, greenways and bike paths, and related improvements (to be secured with Letters of Credit and, as applicable, statutory right-of-ways);
 - Electric vehicle and bike charging infrastructure and secure bike storage for the use of residents and, at the mobility hubs, for the general public;
 - Restrictions regarding driveway access along City-owned streets and tandem parking (i.e. permitted for market residential use and commercial valet parking only);
 - Affordable housing comprising at least 5% of total residential floor area (e.g., 150 units constructed to Basic Universal Housing standards, including 50% family-friendly 2- and 3-bedroom units);
 - 50% family-friendly 2- and 3-bedroom units;
 - 25% Basic Universal Housing units;
 - DEU-ready buildings and, upon Council's adoption of a DEU service area bylaw, the developer's commitment to the design, construction, and transfer of a low carbon energy plant to the City's DEU service provider;
 - Public art voluntary developer contribution (i.e. phase-by-phase, based on the City policy in effect at the time of Development Permit issuance);
 - Various construction traffic management requirements, including connectivity across the subject site for vehicles and pedestrians throughout demolition and construction;
 - Compliance with standard Richmond development requirements (e.g., covenants with respect to flood construction, aircraft noise, the Canada Line, view blockage, and other potential development impacts);
 - Tree retention, removal, and replacement in compliance with City bylaws;

- Submission and processing of a Development Permit application for the development's first phase to the satisfaction of the Director of Development prior to OCP Amendment bylaw adoption; and
- Various Development Permit, Building Permit, and occupancy holds and a development staging legal agreement (in the form of covenants and a no-separate-sales agreement registered on title to the lots) to ensure that community amenities and infrastructure improvements are delivered concurrently with the developer's proposed commercial and market residential uses.

Proposed Development Schedule

The developer anticipates the subject 2-phase development to proceed generally as follows:

2018	Sales centre construction and demolition of the former automotive shop (near the former Sears building)
2019	Opening of the sales centre and the start of Phase 1, including demolition (i.e. west half of the existing multi-storey parkade and a portion of the mall), excavation, and site preparation followed near year-end by the start of construction
2021-2022	Building-by-building completion and occupancy of Phase 1, beginning with the proposed underground parking and new retail space connected to the existing mall
2022-2025	Phase 2 demolition (including the former Sears building, the east half of the multi-storey parkade, and a portion of the mall), excavation, site preparation, construction, and occupancy

Financial Impact or Economic Impact

As a result of the proposed development, the City will take ownership of developer contributed assets such as road works, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals. The anticipated operating budget impact for the ongoing maintenance of these assets is \$33,000.00. This will be considered as part of the 2020 Operating budget.

Conclusion

GBL Architects has applied to the City of Richmond to amend the Official Community Plan (OCP), Schedule 2.10 (City Centre Area Plan), at 6551 No. 3 Road to permit a 2-phase redevelopment of the south end of the CF Richmond Centre shopping centre with approximately 2,000 dwellings, new public streets and outdoor spaces, two levels of underground parking, and 38,937 m² (419,114 ft²) of new commercial space, the latter of which represents a net commercial increase of 12,032 m² (129,513 ft²). Rezoning is not required. However, the Richmond Centre South Development Plan includes new streets, public spaces, and building features that are not identified in the City Centre Area Plan (CCAP). To rectify this situation, the developer was required to make an application to amend the CCAP. Through the CCAP amendment review process, developer-led community consultation was undertaken (overseen by staff) and staff have worked with the developer to address community objectives, including ones that may not be readily achievable through a stand-alone Development Permit application process. An analysis of the subject development and proposed OCP amendments shows them to

be consistent with Richmond's objectives for development, livability, sustainability, and urban design in the downtown. On this basis, it is recommended that Official Community Plan Bylaw 7100, Amendment Bylaw No. 9892, be introduced and given first reading.



Suzanne Carter-Huffman
Senior Planner/Urban Design

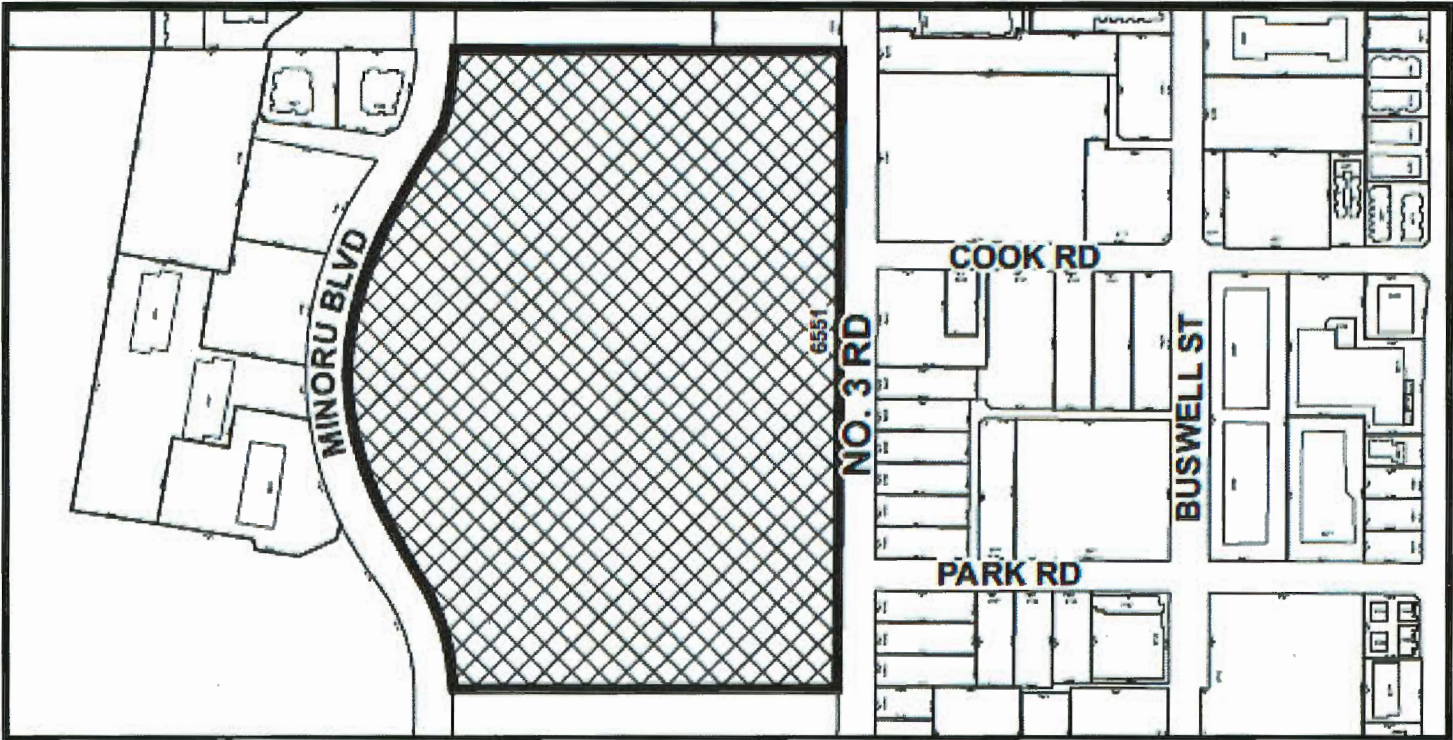
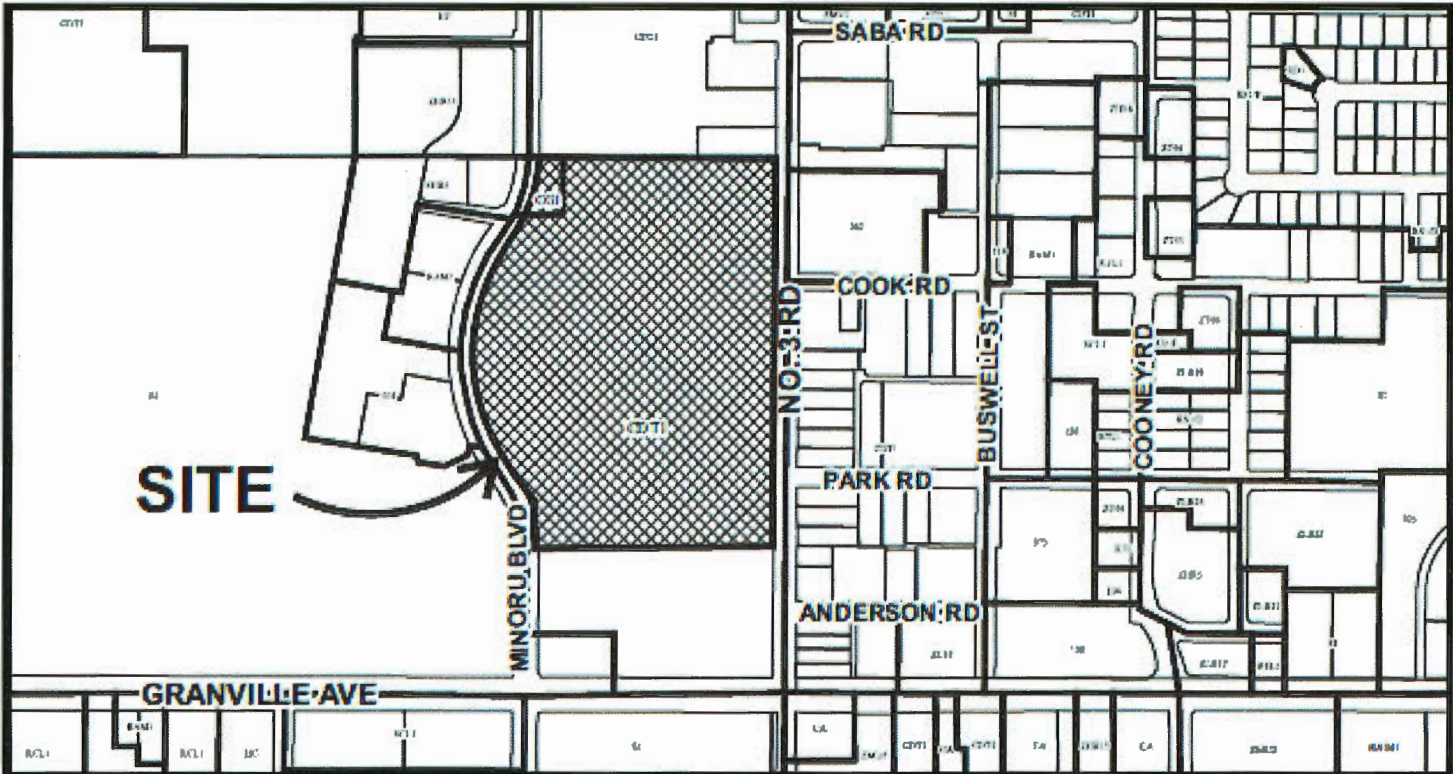
SPC:cas

Attachments:

1. Location Map
2. Aerial Photograph
3. Site Location & Proposed Phasing Boundaries
4. Development Application Data Sheet
5. City Centre Area Plan – Specific Land Use Map: Brighthouse Village (2031)
6. Community Consultation – Public Display Boards
7. Community Consultation – Feedback Form Summary
8. Correspondence (5 items)
9. Excerpt of the Advisory Design Panel (ADP) Meeting Minutes Held on March 7, 2018
10. Built Form Comparison
11. OCP Amendment Considerations

ATTACHMENT 1

Location Map



CP 16-752923

Original Date: 03/19/18

Revision Date:

Note: Dimensions are in METRES

ATTACHMENT 2
Aerial Photograph



CP 16-752923

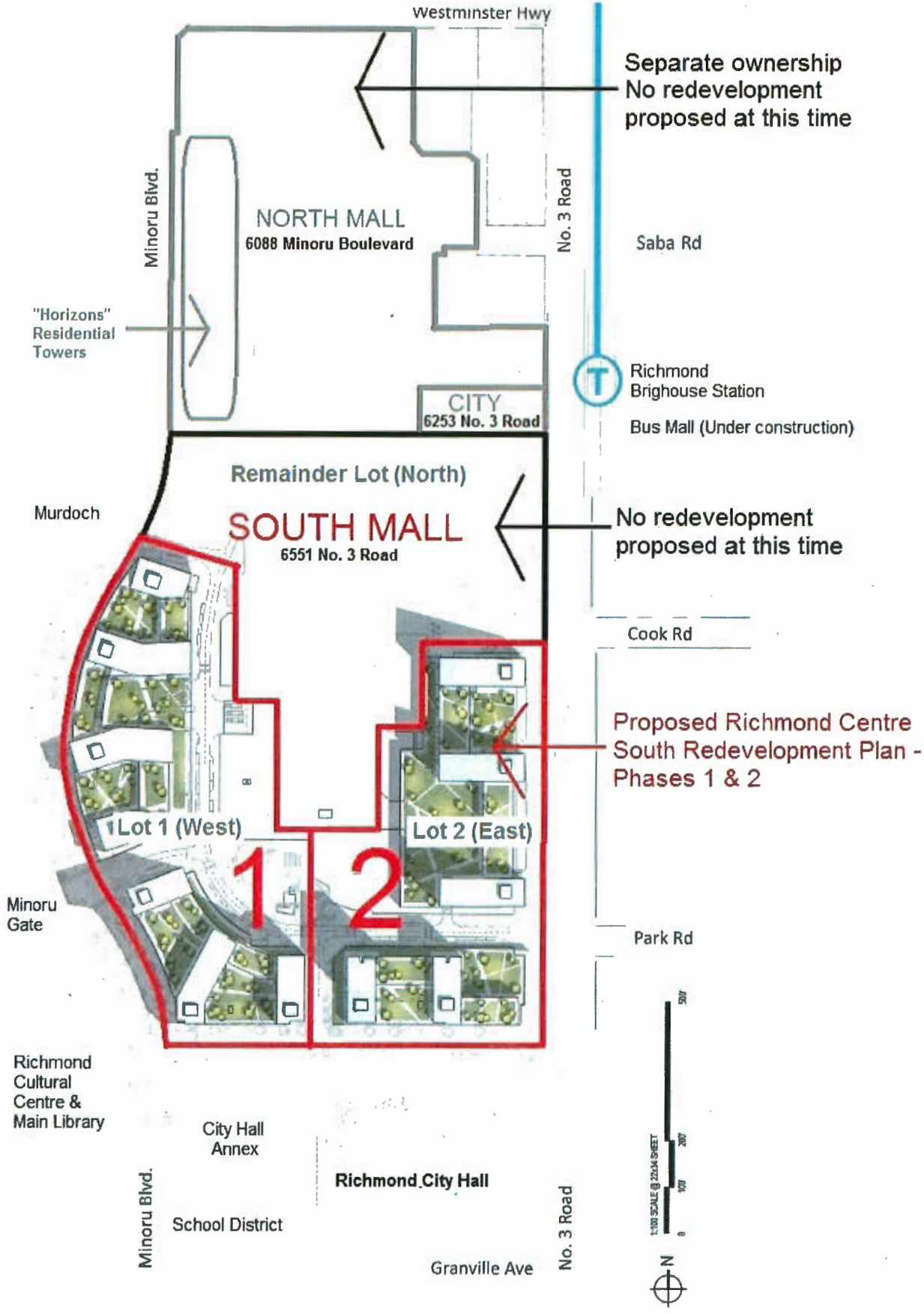
Original Date: 03/19/18

Revision Date:

Note: Dimensions are in METRES

ATTACHMENT 3

Site Location & Proposed Phasing Boundaries





CP 16-752923

Address: 6551 No. 3 Road (Richmond Centre / South Mall)

Applicant: GBL Architects

Owner: RC (South) Inc. & 7904185 Canada Inc.

Planning Area(s): City Centre (Brighthouse Village)

Existing		Proposed
Site Area	<ul style="list-style-type: none"> 112,283.2 m² (1,208,605.8 ft² / 27.7 ac) 	<ul style="list-style-type: none"> Road dedication: 2,930.4 m² (31,542.6 ft² / 0.7 ac) <ul style="list-style-type: none"> Minoru Blvd widening: 1,315.7 m² (14,162.1 ft²) No 3 Rd widening: 1,614.7 m² (17,380.5 ft²) Net site: 109,352.7 m² (1,177,062.7 ft² / 27.0 ac) <ul style="list-style-type: none"> Proposed development site: 66,932.1 m² (16.5 ac) <ul style="list-style-type: none"> Lot 1 (West): 36,497.7 m² (392,858.0 ft²) Lot 2 (East): 30,434.4 m² (327,593.2 ft²) Remainder Lot (North): 42,420.6 m² (456,611.5 ft²)
Land Uses	<ul style="list-style-type: none"> Auto-oriented commercial 	<ul style="list-style-type: none"> High-rise, mixed use
OCP Designation	<ul style="list-style-type: none"> Downtown Mixed Use 	<ul style="list-style-type: none"> No change
CCAP Designation	<ul style="list-style-type: none"> Urban Centre T6 (45 m) Village Centre (commercial) Bonus Pedestrian-Oriented Retail Precinct – "High Street" & "Secondary" Proposed Streets Pedestrian Linkages 	<ul style="list-style-type: none"> As existing, EXCEPT: <ul style="list-style-type: none"> Revised street network to create smaller blocks Revised pedestrian network Expanded "High Street" designation New "Park" Related DP Guideline changes
Aircraft Noise Sensitive Development	<ul style="list-style-type: none"> Aircraft Noise Notification Area "Area 4" – All uses may be considered. (Covenant, acoustic report & noise mitigation as required) 	<ul style="list-style-type: none"> As required
Zoning	<ul style="list-style-type: none"> Downtown Commercial (CDT1) Gas & Service Stations (CG1) 	<ul style="list-style-type: none"> No change (Rezoning is NOT proposed)
Number of Dwellings	<ul style="list-style-type: none"> Nil 	<ul style="list-style-type: none"> +/-2,000 units, including: <ul style="list-style-type: none"> Market housing: +/-1,850 Affordable (LEMR) housing: +/-150, based on 5% of total residential floor area on Lot 1 (West) & Lot 2 (East)
Dwelling Unit Types	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> 50% Bachelor & 1-BR (+/-1,000 units) 50% 2-BR & 3-BR (+/-1,000 units)
Accessible Dwellings	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> 25% Basic Universal Housing units (+/-500 units), including 100% of affordable (LEMR) units 100% of units shall include aging-in-place features (e.g., handrails, lever handles & blocking in walls for future grab bar installation)

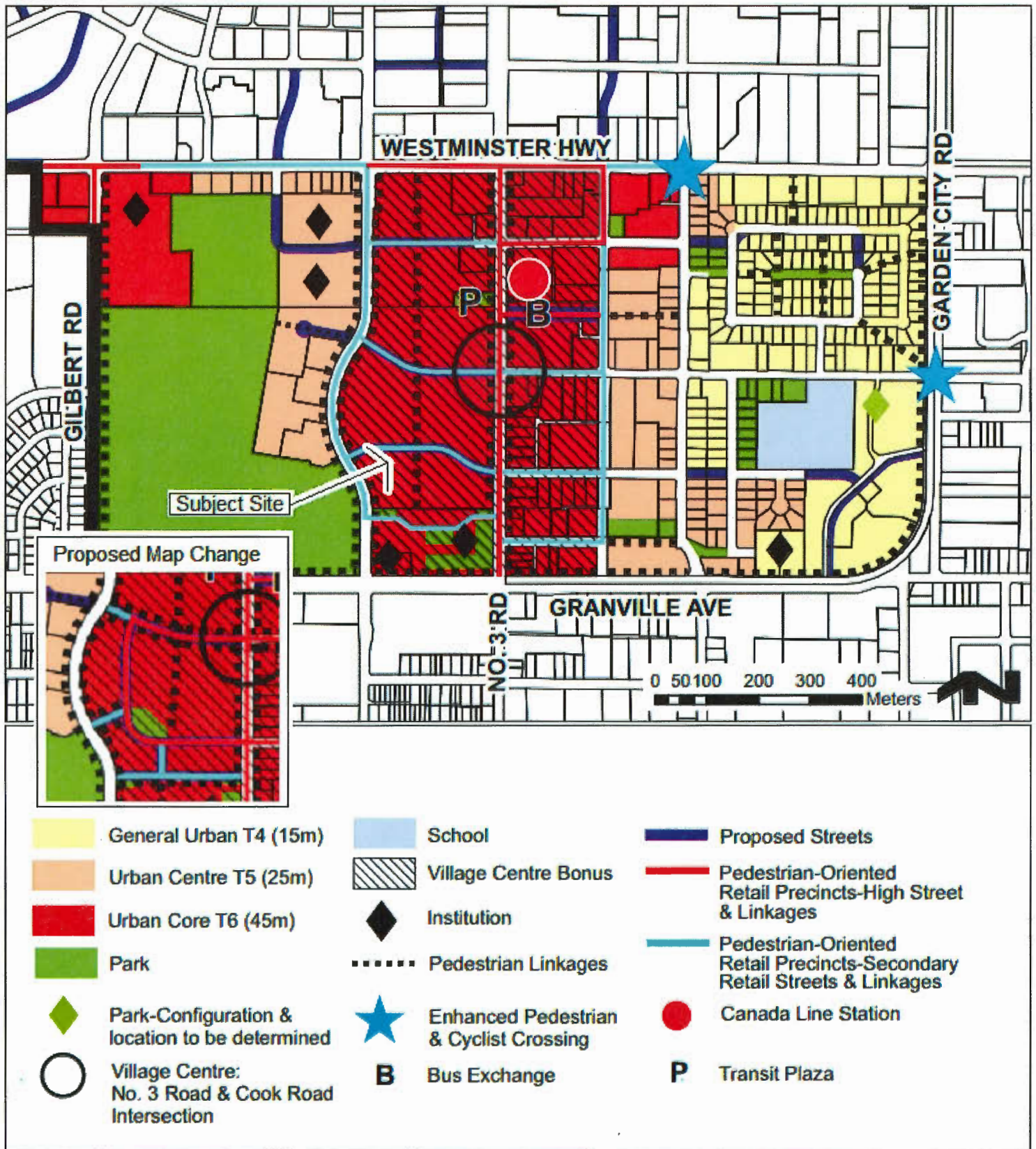
Existing CDT1 Zone Requirement	Proposed (No Rezoning Required)	Variance
Floor Area Ratio (Max.) <ul style="list-style-type: none"> 3.15 FAR, including a 0.15 FAR Affordable Housing bonus (as per City policy for applications considered prior to July 24, 2018) 	<ul style="list-style-type: none"> +/-2.1 FAR, including new construction & remaining portion of the mall building on the subject site 	None permitted
Buildable Floor Area (Max.)* <ul style="list-style-type: none"> Based on site area net of road dedications: 339,106 m² (3.65 million ft²), including: <ul style="list-style-type: none"> Lot 1 (West): 114,968 m² (1.24 million ft²) Lot 2 (East): 95,868 m² (1.03 million ft²) Remainder Lot (North), excluding CG1 zoned site: 128,270 m² (1.38 million ft²) 	<ul style="list-style-type: none"> 232,258 m² (2.5 million ft²), including: <ul style="list-style-type: none"> Lot 1 (West): 105,259 m² (1,133,000 ft²) Lot 2 (East): 93,023 m² (1,001,290 ft²) Remainder Lot (North): 32,168 m² (346,257 ft²) 	None permitted

Existing CDT1 Zone Requirement		Proposed (No Rezoning Required)	Variance
Height (Max.)	<ul style="list-style-type: none"> 45.0 m (148 ft.) to finished grade 	<ul style="list-style-type: none"> 45.0 m (148 ft.) max. to finished grade 	None
Lot Coverage (Max.)	<ul style="list-style-type: none"> 90% for buildings and landscaped roofs over parking spaces 	<ul style="list-style-type: none"> 90% for buildings and landscaped roofs over parking spaces 	None
Lot Size (Min.)	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Lot 1 (West): 36,497.7 m² (392,858.0 ft²) Lot 2 (East): 30,434.4 m² (327,593.2 ft²) Remainder Lot (North): 42,420.6 m² (456,611.5 ft²) 	None
Setbacks (Min.)	<ul style="list-style-type: none"> City Street: Min. 6 m (20 ft.), but may be reduced to 3 m (10 ft.) with a proper sidewalk interface Private Street (SRW): N/A Publicly-Accessible Open Space (SRW): 1.5 m (5 ft.) Interior Property Line: Nil 	<ul style="list-style-type: none"> City Street: 3 m (10 ft.) or greater, except: <ul style="list-style-type: none"> Underground parking: Nil New City street: 0.5 m (1.6 ft.) Private Street: Nil to SRW Publicly-Accessible Open Space: 1.5 m (5 ft.) to SRW Interior Property Line: Nil 	Reduce from 3 m (10 ft.) to: Nil @ underground parking & 0.5 m (1.6 ft.) @ new City street
Off-Street Parking – Rates (Min.)	<ul style="list-style-type: none"> Based on the provision of Affordable Housing & Transportation Demand Management (TDM) Measures: <ul style="list-style-type: none"> Market Housing: 0.9/unit Affordable Housing: 0.81/unit Commercial Uses: 3.375/100 m² GLA 	<ul style="list-style-type: none"> Market Housing: 0.9/unit Affordable Housing: 0.81/unit Commercial Uses: 3.375/100 m² GLA 	None
Off-Street Parking – Number of Spaces (Min.)	<ul style="list-style-type: none"> 3,896 spaces, including: <ul style="list-style-type: none"> Market Housing: 1,665 Affordable Housing: 122 Commercial Uses: 2,109 	<ul style="list-style-type: none"> 4,000 spaces, including: <ul style="list-style-type: none"> Market Housing: 1,769 Affordable Housing: 122 Commercial Uses: 2,109 	None
Tandem Parking Spaces	<ul style="list-style-type: none"> Market Housing: Maximum of 50% of required spaces Affordable Housing: Nil Commercial Uses: Limited to valet parking, as per legal agreement on title 	<ul style="list-style-type: none"> Market Housing: Less than 50% of required spaces Affordable Housing: Nil Commercial Uses: Limited to valet parking, as per legal agreement on title 	None
Amenity Space – Indoor (Min.)	<ul style="list-style-type: none"> Rate: 2 m² (22 ft²) / unit Rate x 2,000 units = 4,000 m² (43,056 ft²) 	<ul style="list-style-type: none"> 4,000 m² (43,056 ft²) 	None
Amenity Space – Outdoor (Min.)	<ul style="list-style-type: none"> Rate: 6 m² (65 ft²) / unit Rate x 2,000 units = 12,000 m² (3 acres) 	<ul style="list-style-type: none"> 12,000 m² (3 acres) 	None
CCAP Additional Landscaped Space (Min.)	<ul style="list-style-type: none"> 10% of net site 6,693 m² (1.7 acres), including: <ul style="list-style-type: none"> Lot 1 (West): 3,650 m² (0.9 acres) Lot 2 (East): 3,043 m² (0.8 acres) 	<ul style="list-style-type: none"> 6,693 m² (1.7 acres), including: <ul style="list-style-type: none"> Lot 1 (West): 3,650 m² (0.9 acres) Lot 2 (East): 3,043 m² (0.8 acres) 	None

Other: Tree replacement compensation required for loss of significant trees.

* Preliminary estimate, not including enclosed parking. The exact building size will be determined through zoning bylaw compliance reviews at Development Permit and Building Permit stages.

Specific Land Use Map: Brighthouse Village (2031)





Proposed CF Richmond Centre South Development Plan

Here's your opportunity to share your input

You are invited to share your input on the proposed redevelopment of the south portion of the CF Richmond Centre shopping centre located at 6551 No. 3 Road.

The property owner has applied to the City to construct a two-phase redevelopment of the south end of the existing mall including an outdoor retail precinct, approximately 2,000 dwellings, and new streets and public spaces.

Public Display & Open Houses

Residents and interested parties are invited to visit the public display at CF Richmond Centre, at the No. 3 Road entrance to the Galleria, from Tuesday, May 22 to Sunday, June 3, 2018.

The developer and City staff will be at the display to answer questions at two **Open House** events:

Sunday, May 27, 2018
1 p.m. to 4 p.m.

Thursday, May 31, 2018
5 p.m. to 8 p.m.

Have your say!

LetsTalkRichmond: 3 easy steps



- Step 1: Go to LetsTalkRichmond.ca
- Step 2: Click on 'CF Richmond Centre South Development Plan'
- Step 3: Tap on 'TAKE SURVEY'

Not registered with LetsTalkRichmond?

- Tap the register button
- Enter your name, email & postal code
- Enjoy the display while you wait for a confirmation email
- Respond to the email & you are ready to go!

No cell phone? No problem!

- Fill in the survey on LetsTalkRichmond.ca at home
- At the Open House events, fill in a paper survey

Be sure to submit your survey no later than 11:59 p.m. on Sunday, June 3, 2018.



For more information

Visit: www.letstalkrichmond.ca/richmond-centre-south-development-plan

Contact: Suzanne Carter-Huffman, Senior Planner/Urban Design

Phone: 604-276-4228

Email: communityplanning@richmond.ca

INTRODUCTION OVERVIEW & DESCRIPTION

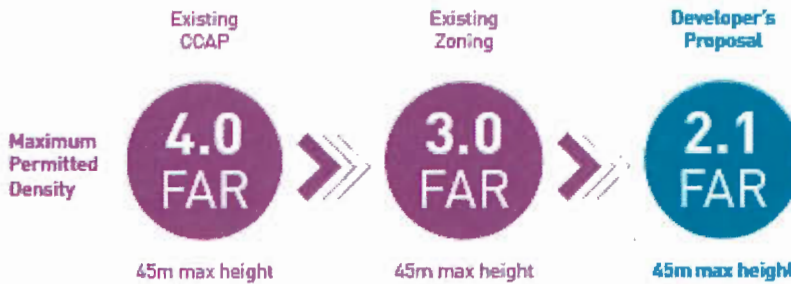
CF RICHMOND CENTRE SOUTH

CF Richmond Centre is proposing a 2-phase redevelopment of a horseshoe-shaped portion of the south end of the existing mall, "CF Richmond Centre South."

The proposed Development Plan includes the replacement of the former Sears building, nearby shops, the existing multi-storey parkade, and adjacent surface parking with a high-rise, urban neighbourhood comprising:

- approximately 2,000 dwellings;
- new public streets and outdoor spaces;
- two levels of underground parking;
- 40,900 m² (440,000 ft²) of new retail space, which represents a net retail increase of approximately 9,290 m² (100,000 ft²).

The proposed high-rise, mixed use buildings are permitted under the mall's existing zoning and Richmond's City Centre Area Plan (CCAP), the long-range development plan for Richmond's downtown (approved in 2009).



What does FAR mean?

FAR (floor area ratio) is a measure of building density. For example, 2.1 FAR means that a building's floor area equals 2.1 times the size of the property on which it is located.

As the property is pre-zoned to permit high-rise, high density development, no rezoning is required and the City's ability to secure development features, such as affordable housing, is compromised. Nevertheless, the developer has submitted an application to amend the City Centre Area Plan (CCAP) to permit changes to various circulation, public realm, and building design requirements of the Plan. Through this CCAP amendment review process, City staff are working with the developer to address community objectives and secure amenities, including ones not generally achievable through the development application processes applicable to pre-zoned sites.

PROPOSED FOCUS OF CCAP CHANGES

Circulation

- Streets
- Bike paths
- Transit access
- Innovative parking

Public Realm

- Retail precinct
- Central plaza
- Greenways

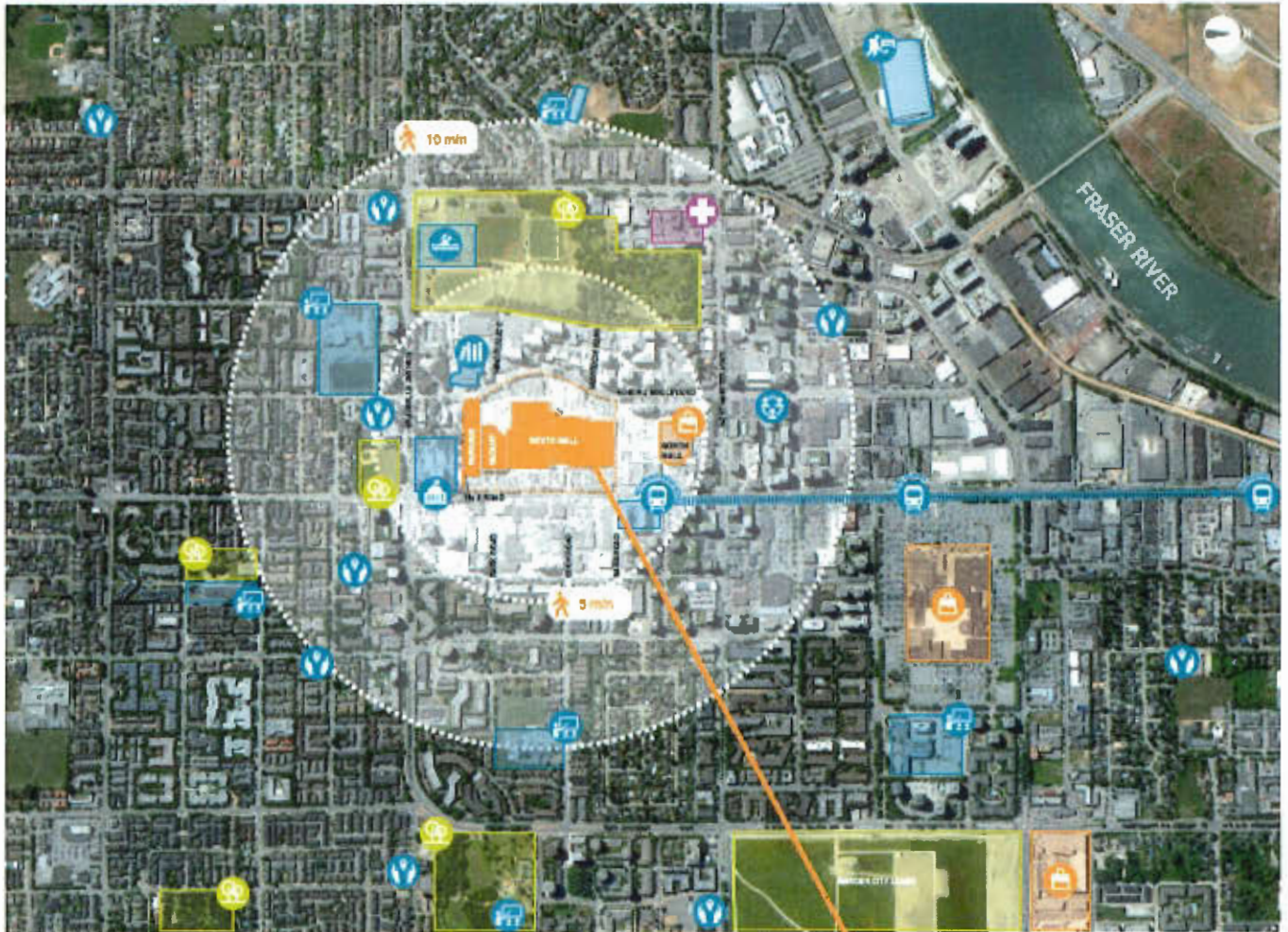
Buildings

- Affordable housing
- Family housing
- Accessible housing
- Innovative design
- Reduced greenhouse gas



INTRODUCTION

CURRENT CONTEXT PLAN



- | | |
|--|------------------|
| The Oval | School |
| Richmond Library & Cultural Centre | Place of Worship |
| Richmond City Hall | Shopping Centre |
| City Centre Community Centre | Park |
| Canada Line Station | Hospital |
| Minoru Centre for Active Living Under construction | |



Existing South Mall & Development Area

RE-CONNECTING TO OUR CITY KEY COMMUNITY INITIATIVES

RE-CONNECTING TO OUR CITY

CF Richmond Centre has been a key part of Richmond’s core for decades. As it evolves, the Centre is poised to bring new life to Richmond’s downtown and to reconnect key elements of the city. With its retail expansion, its mix of uses, and its public space additions, the CF Richmond Centre South Redevelopment aims to connect our streets, connect to transit, and connect to our open space network.

Most importantly, it will connect our people . . . inviting everyone to come together and experience the new heart of Richmond.

KEY COMMUNITY INITIATIVES

The vision for the redevelopment plan of CF Richmond Centre South focuses on **six key community initiatives**.

<p>1 EVOLVE WITH THE GROWING RICHMOND COMMUNITY</p> 	<p>2 CONNECT THE CITY CENTRE GRID</p> 	<p>3 EXPAND RICHMOND’S OPEN SPACE AMENITIES</p> 
<p>4 REVITALIZE A CITY CENTRE RETAIL DESTINATION</p> 	<p>5 INTEGRATE A VARIETY OF HOUSING OPTIONS</p> 	<p>6 CONTINUE TO SERVE THE COMMUNITY DURING CONSTRUCTION</p> 



1 EVOLVE WITH THE GROWING RICHMOND COMMUNITY



1964 RICHMOND POPULATION APPROXIMATELY 50,000
Richmond Square opens to public



1966 RICHMOND POPULATION APPROXIMATELY 50,000
Hudson's Bay plans a location for site north of Richmond Square



1973 RICHMOND POPULATION APPROXIMATELY 75,000
View across Richmond Square from the south west



1974 RICHMOND POPULATION APPROXIMATELY 75,000
Photos taken from Minaru Blvd. Park Towers - Richmond's first high-rise buildings. The Twin Theatres and Municipal Hall are shown in the image farthest right.



1989 RICHMOND POPULATION 115,000
Hudson's Bay and Richmond Square combine into Richmond Centre



1996 RICHMOND POPULATION 143,000
Construction of Horizons Towers brings residential units to Centre



2009 RICHMOND POPULATION 149,000
Brighthouse Station on new Canada Line opens in advance of 2010 Olympic Games



2012 RICHMOND POPULATION 190,000
Dining Terrace opens

TODAY RICHMOND POPULATION 219,000

- 180+** Retail stores
- 12 million** Annual visitors
- 8** Average visits per month
- 1.5** Average hours spent per visit
- 50%** Visitors arriving from Canada Line
- 25%** Visitors living in Richmond
- 17%** Visitors who are tourists

Statistics are for entire CF Richmond Centre Mall (North & South)



2 CONNECT THE CITY CENTRE GRID



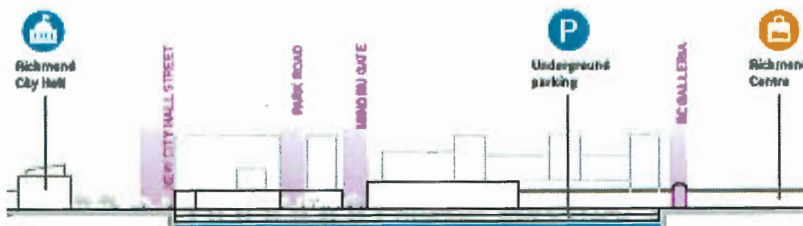
1 New City Hall Street



2 Off Street Bike Lanes



3 The Park Road extension connects the West and East side of the Development



CONNECT THE CITY CENTRE GRID

Relocating the parking below ground allows for expanded development and new connections to be established between No. 3 Road to Minoru through a new street next to City Hall and an extension of Park Road. A new road will also connect Park Road to the new City Hall Street, while Minoru Gate and Murdoch Road will tie into the new street grid. New off street bike paths will be created on No. 3 Road, Minoru Boulevard, and the New City Hall Street. The existing mall Galleria will stay open during transit hours to create more permeability from Brighthouse Station.

- Richmond Brighthouse Station
- Richmond City Hall
- Richmond Library & Cultural Centre
- Minoru Park
- Park Plaza
- Existing Streets
- New Public Streets
- On Street Bike Lane
- Off Street Bike Lane



3 EXPAND RICHMOND'S OPEN SPACE AMENITIES



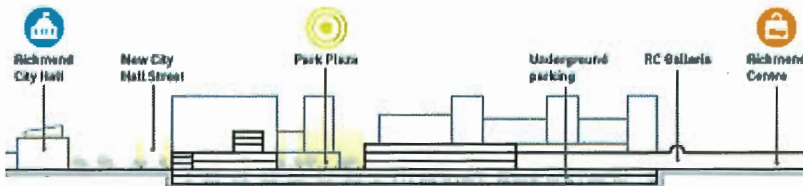
1 Transit Station Crosswalk



2 No. 3 Road Plaza



3 Park Plaza



EXPAND RICHMOND'S OUTDOOR SPACE

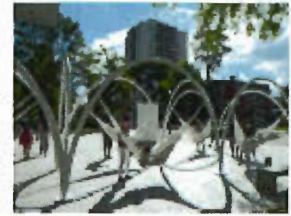
A network of open spaces of varying scales provide a variety of places to relax, socialize, and be entertained throughout the public realm, strengthening the connectivity of the City Centre.



- 1** Transit Station Crosswalk
Weather-protected connection from No. 3 Road to Galleries
- 2** No. 3 Road Plaza
Provides a green respite with outdoor seating along No. 3
- 3** Park Plaza
Premier gathering place & center of activity
- 4** Public Art
Public art will be located in key locations to engage visitors
- 5** Additional Public Art
Artworks and artistic infrastructure will enhance and animate the public realm
- 6** Residential Entry Court
Rest areas along the townhouses and lobby frontage that delineate residential entries



3 EXPAND RICHMOND'S OPEN SPACE AMENITIES



PUBLIC AMENITIES

CF Richmond Centre will provide a wide array of public amenities, enriching the retail and residential experience of the place. It includes landmark public art, enhanced sidewalks, crosswalks, and outdoor seating. A new plaza will become the heart of the City Centre, offering outdoor dining, events, and moments of relaxation.



4 REVITALIZE A CITY CENTRE RETAIL DESTINATION



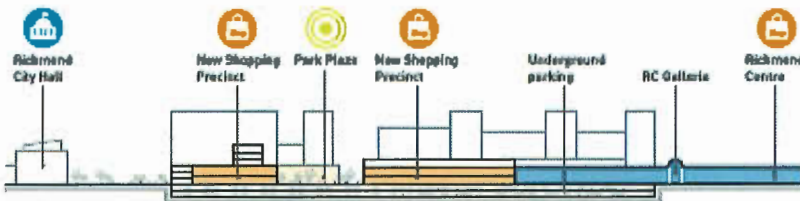
1 Over 100,000 ft² of new retail



2 New retail high street on Park Road



3 Strong retail presence on No. 3 Road



CITY CENTRE RETAIL DESTINATION

An expanded Commercial Centre creates a more connected, walkable, and attractive indoor/outdoor shopping experience characterized by pedestrian-scaled streets lined with shops, small plazas, continuous weather protection, street furnishings, public art, and special architectural and landscape features. The parkades are located for convenient access and can be entered from multiple locations to allow for better flow.

- 1 Over 100,000 ft² of new retail
 - Food & Beverage
 - Entertainment
 - Fashion & Services
- 2 New retail high street on Park Road
- 3 Strong retail presence on No. 3 Road
- 4 New mall entry on Park Plaza

- New Outdoor Shopping Precinct
- Richmond Centre Mall



4 REVITALIZE A CITY CENTRE RETAIL DESTINATION



OUTDOOR SHOPPING PRECINCT

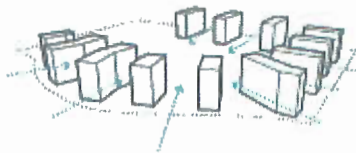
The new additions along No. 3 Road & the new Park Road extension will transform CF Richmond Centre into a vibrant outdoor shopping precinct. To enliven the sidewalk activity, the shops and restaurants will spill their spaces to sidewalk seating, entries, and displays. The amenities of weather coverage, landscaping, lighting, and sidewalk furnishings will also add to the pedestrian shopping experience of those passing through on their commutes.

NEW RETAIL

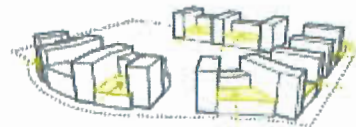
The retail expansion looks to integrate new restaurants, entertainment, fashion & service retail into the existing mall experience. The variety of retail choices will help support a true Live, Shop, Play environment for CF Richmond Centre's visitors & inhabitants.



5 INTEGRATE A VARIETY OF HOUSING OPTIONS



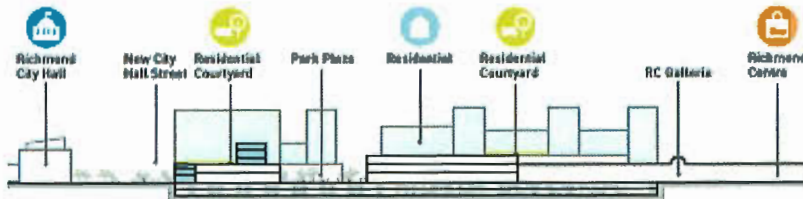
1 Slender tower design maximizes daylight into Park Plaza and Retail streets.



2 Amenity roof gardens integrate private patios & semi-public outdoor spaces.



3 Over 2,000 new homes



HOUSING VARIETY

The redevelopment of CF Richmond Centre South will bring over 2,000 new homes spread across 12 towers. The towers take on a courtyard form that is unique to the City Centre. This slender form allows more sunlight into Richmond Centre and creates large amenity roof gardens. The new homes will meet a diverse range of demands for housing in the City Centre, including affordable rental, family homes, and accessible housing for people in wheelchairs and with mobility challenges.

1 Courtyard building form contributes to a varied streetscape and public realm.

2 Amenity roof gardens enhance livability and complement public outdoor spaces

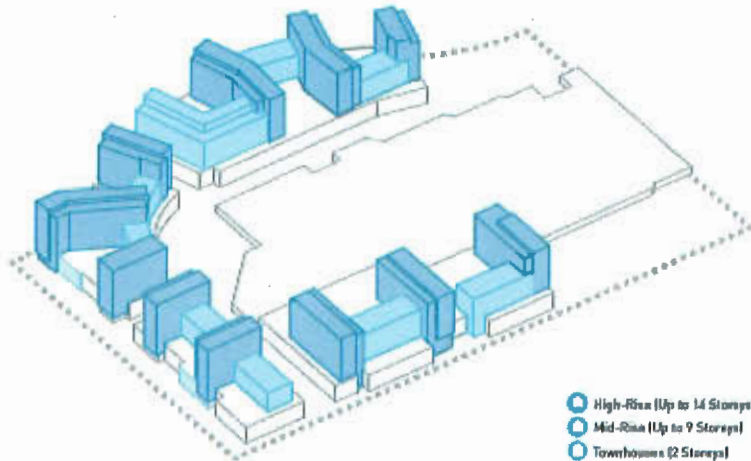
- Over 150,000 sq ft of roof gardens

3 Over 2,000 new homes

- Approximately 150 homes to be secured as affordable rental
- 55% of homes designed for families two & three bedrooms & townhomes
- 25% of homes designed to Basic Universal Housing standards for enhanced accessibility



5 INTEGRATE A VARIETY OF HOUSING OPTIONS



HOUSING FORM

Townhouses wrap the buildings at street level along Minoru Blvd and New City Hall street.

Mid-rise buildings line the new retail street, Minoru Blvd, and No. 3 Road to help define these important routes and soften the transition to high-rise forms.

High-rise towers are thin and elongated to visually connect with the mid-rises and create courtyard building forms. The slender courtyard building form creates a variety of architectural expressions while increasing tower separation and daylight. Large balconies wrap the exterior of the towers and provide residents with a true sense of indoor/outdoor living.



PRIVATE AMENITIES

Residents will be able to enjoy over 42,000 ft² of indoor amenities and 130,000 ft² of outdoor facilities distributed throughout the proposed residential buildings.

Facilities include fitness areas, outdoor lounges, guest suites, community gardens, outdoor barbecues and more.



6 CONTINUE TO SERVE THE COMMUNITY DURING CONSTRUCTION



PHASE 1 CONSTRUCTION

The CF Richmond Centre South Development Plan will take a number of years to complete, starting with the Minoru Boulevard side of the mall (Phase 1) and ending with the No. 3 Road side of the mall (Phase 2).

CONSTRUCTION OF PHASE 1
BEGINS SPRING 2019

PRESENTATION CENTRE
OPENS FALL 2018



PHASE 2 CONSTRUCTION

NEW PARKING ENTRY
LATE 2022

PHASE 1 SHOPS & STREETS OPEN
LATE 2022

NEW PLAZA & MALL ENTRY
LATE 2022

CONSTRUCTION OF PHASE 2
BEGINS LATE 2022

PRESENTATION CENTER DEMOLITION AND PARKING RECONFIGURATION
LATE 2023



DEVELOPMENT COMPLETION

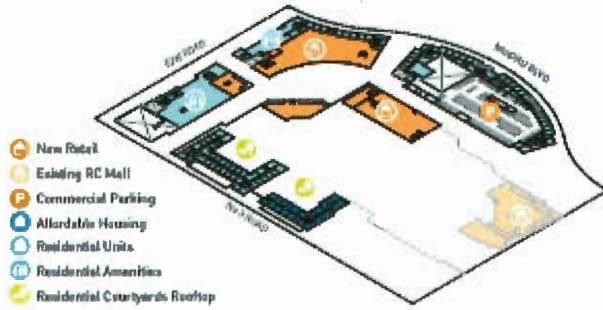
LATE 2026

Public pedestrian and vehicle access to the mall's shops and services will be maintained throughout both phases of the redevelopment process. Noise, dirt, worker parking, and other things related to the mall's demolition and construction must comply with City Bylaws.

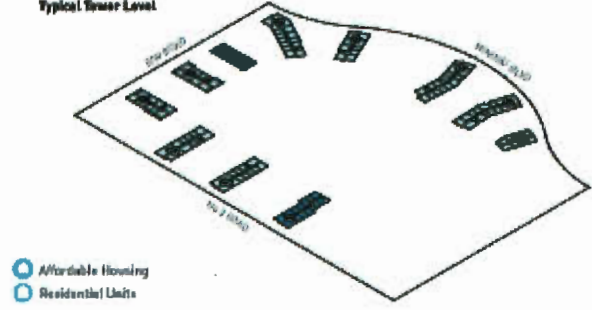


REDEVELOPMENT OVERVIEW

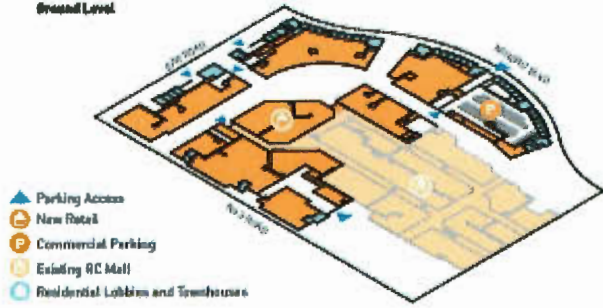
LEVEL 2



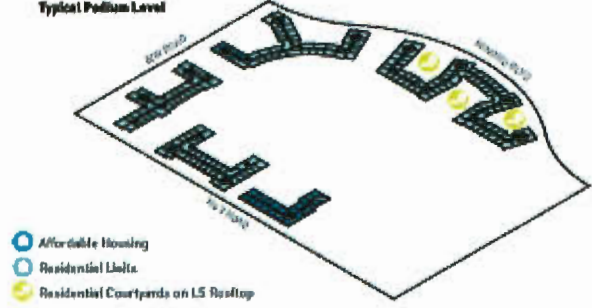
LEVEL 12
Typical Tower Level



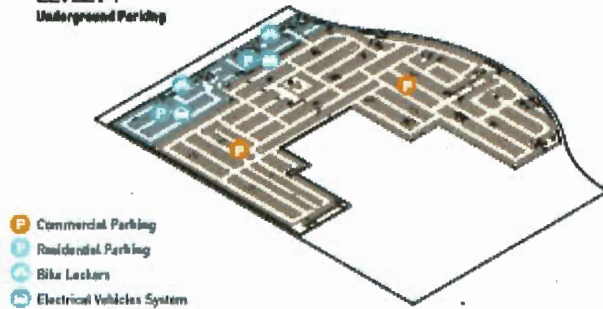
Level 1
Ground Level



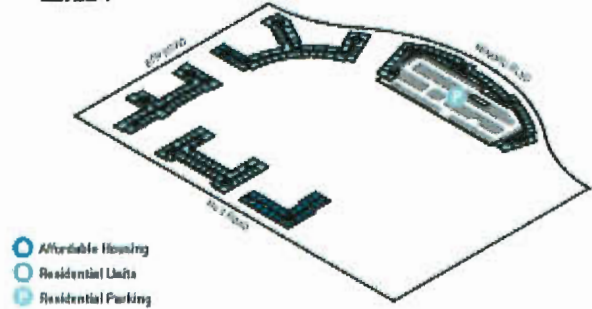
LEVEL 6
Typical Podium Level



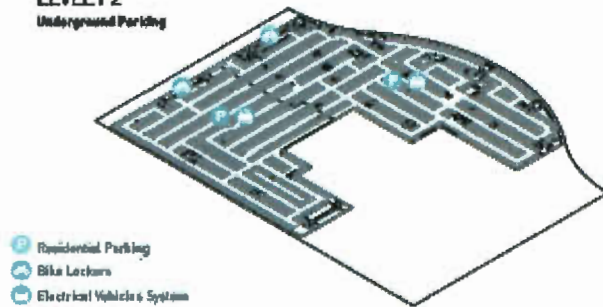
LEVEL P1
Underground Parking



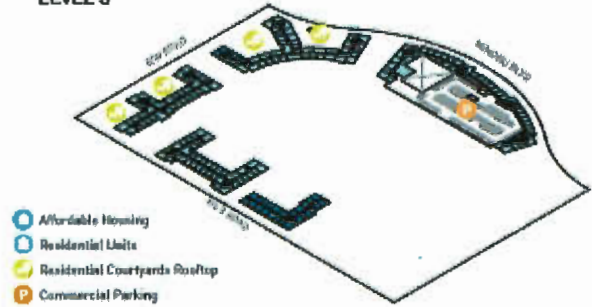
LEVEL 4



LEVEL P2
Underground Parking



LEVEL 3



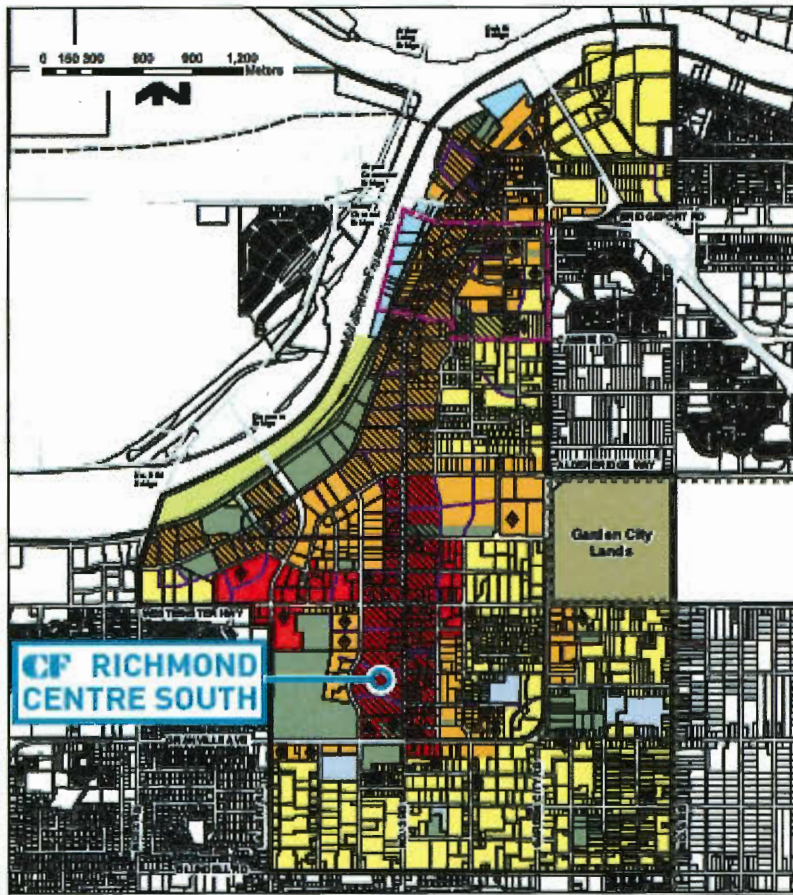
CITY CENTRE AREA PLAN: PROPOSED CHANGES

Over the next 100 years, Richmond's City Centre population is expected to triple to 120,000 and its jobs may more than double to 80,000. To accommodate this growth, Richmond's City Centre Area Plan (CCAP), adopted in 2009, proposes that the downtown develops as a connected network of urban villages focused on the Canada Line's 4 existing stations, the future Capstan Canada Line station, and the Richmond Olympic Oval.

The CF Richmond Centre South Development Plan is consistent with the CCAP's goals, but proposes changes to how those goals will be achieved (e.g., new street locations).

Through this CCAP amendment process, City staff are working with the developer to address **10 key community objectives** and secure amenities, including ones not generally achievable through the development application processes applicable to pre-zoned sites.

City Centre Area Plan (CCAP) Generalized Land Use Map



What does FAR mean?

FAR (floor area ratio) is a measure of building density. For example, 2.1 FAR means that a building's floor area equals 2.1 times the size of the property on which it is located.

Typical Characteristics:

- High Density/High-Rise**
 Density: 3 - 4 FAR max
 Height: 45m max
 Use: Mixed
- Medium Density/Mid-Rise**
 Density: 2 - 2.5 FAR max
 Height: 25m - 35m max
 Use: Residential
- Low Density/Low-Rise**
 Density: 1.2 FAR max
 Height: 15m max
 Use: Residential
- Park**
- New Streets**

Residential is not permitted in some locations due to precinct rules



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #1: A More Connected Street Network

TODAY

The CCAP aims to reduce the barrier posed by the existing mall by requiring the developer extend Park Road west from No. 3 Road to Minoru Boulevard.

PROPOSED CHANGE

In addition to extending Park Road to Minoru Boulevard, the CF Richmond Centre South Development Plan proposes to create a more walkable neighbourhood comprised of smaller city blocks by establishing a connected network of local streets and off-street bike paths.



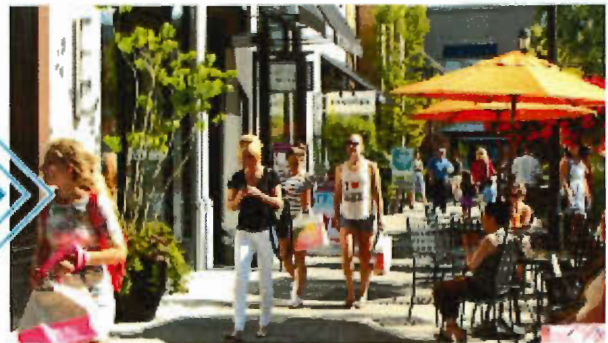
On-street bike lanes



New off-street bike lanes



No. 3 Road Sidewalk



New sidewalks & pedestrian seating areas

CITY CENTRE AREA PLAN: PROPOSED CHANGES

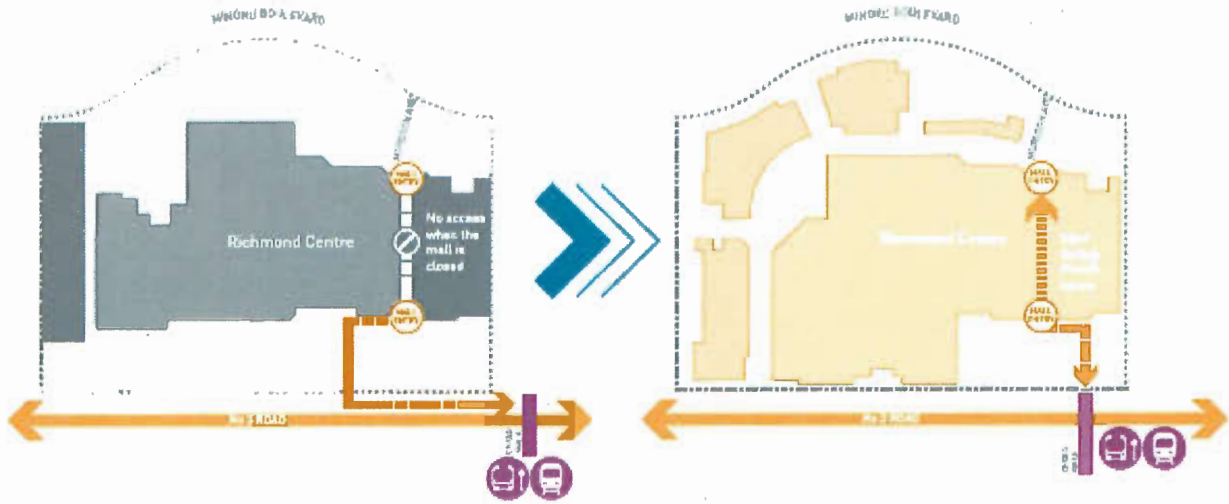
Objective #2: Better Transit Access

TODAY

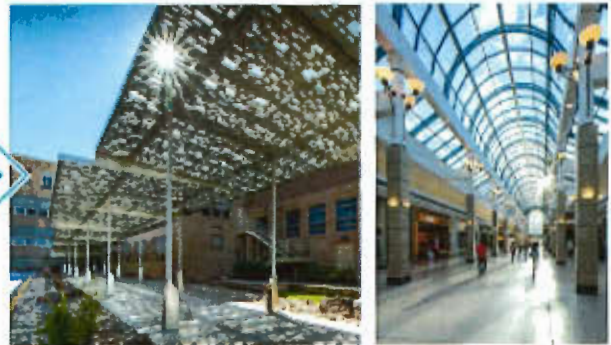
Pedestrian access to/from Brighthouse Station can be inconvenient when the mall is closed and the No. 3 Road crosswalk near the station is congested.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes to improve public access to/from buses and the Canada Line by keeping the mall's Galleria open during transit hours, installing rain protection between the Galleria and No. 3 Road, upgrading the No. 3 Road crosswalk, and widening the No. 3 Road sidewalk along the entire frontage of the mall.



No. 3 Road Crosswalk



Weather protection from No. 3 Road to RC Galleria open during transit hours



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #3: Friendlier Streets for Pedestrians & Cyclists

TODAY

In the City Centre, sidewalks and boulevards occupy no more than 40% of a typical local street and even less of a major street, like No. 3 Road or Minoru Boulevard.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan aims to create more pedestrian- and bike-friendly streets by providing wider sidewalks, off-street bike paths, special landscape features, lighting, and seating.



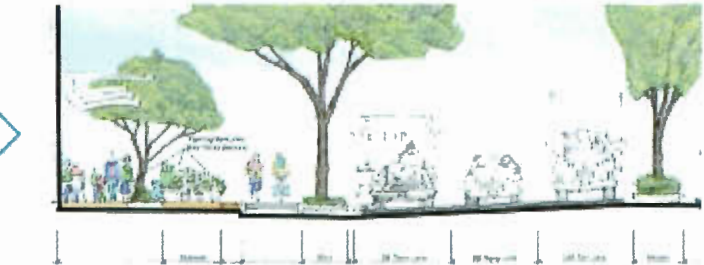
Minoru Blvd - Existing condition



MINORU GREENWAY: Minoru Blvd - Future



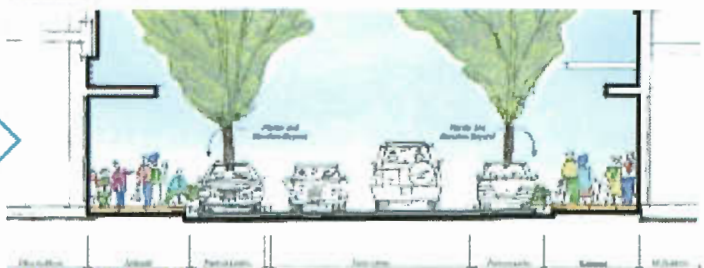
No 3 Road - Existing condition



COMMERCIAL HIGH STREET: No 3 Road - Future



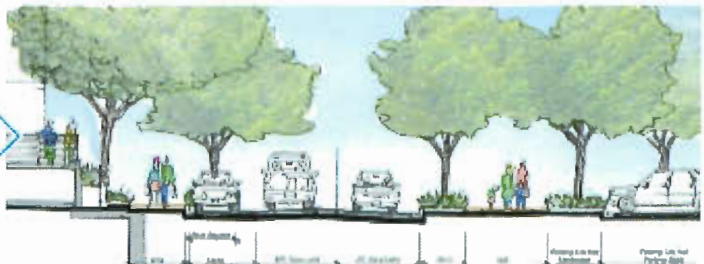
Park Road - Existing condition



OUTDOOR SHOPPING PRECINCT: Park Road - Future



City Hall Street - Existing condition



CIVIC GREENWAY: New City Hall Street - Future



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #4: A More Connected Parking Strategy

TODAY

Unattractive parking lots ring the mall and are a barrier to pedestrians and cyclists, unpleasant in bad weather, and, at times, inconvenient.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes to improve on the current situation with a 2-level underground parking structure with direct vehicle access to No. 3 Road and Minoru Boulevard and "mobility hubs" designed to provide easy access for shoppers and the general public, linking the existing mall and new retail with parking, electric vehicle (EV) charging stations, secure bike storage, and car- and bike-share facilities.



P Parking
A1 Richmond Library & Cultural Centre
B Richmond Brighouse Station
A Richmond City Hall



P Main Underground Parking Entry
A1 Richmond Library & Cultural Centre
A Richmond City Hall
B Richmond Brighouse Station
M Mobility Hub



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #5: A New Outdoor Shopping Precinct

TODAY

The mall is inwardly focused and contributes little to the amenity or vitality of the downtown's public realm.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes to create a more connected, walkable, and attractive indoor/outdoor shopping precinct characterized by pedestrian-scaled streets lined with shops, small plazas, continuous weather protection, street furnishings, public art, and special architectural and landscape features.



Interior Mall



Future Outdoor Shopping Precinct



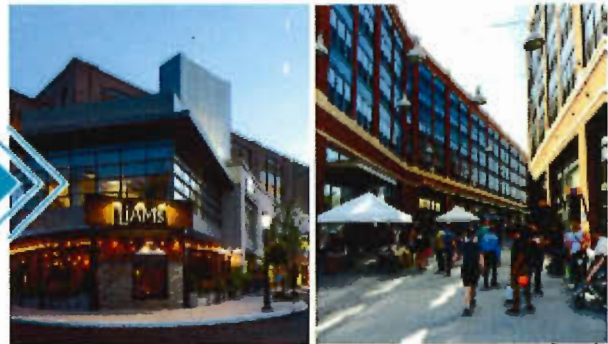
Existing Park Road



Future Park Road



Existing Surface Parking



Future Outdoor Shopping Precinct



CITY CENTRE AREA PLAN: PROPOSED CHANGES

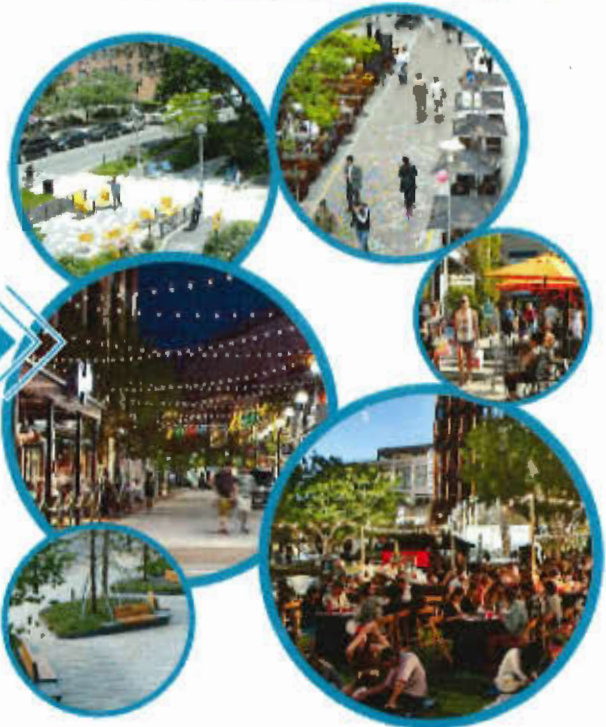
Objective #6: New Outdoor Public Spaces

TODAY

The mall provides no outdoor public space.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes to enhance the proposed outdoor shopping precinct with special landscape treatments along No. 3 Road and a central public plaza (roughly 0.5 acres in size or twice Lang Park), for relaxation, public gathering, and seasonal events and activities.



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #7: A New Architectural Character

TODAY

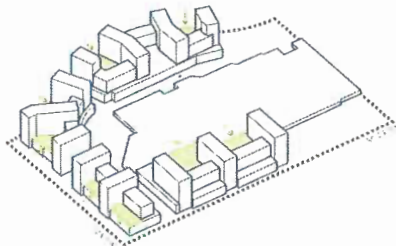
Much of the high-rise area surrounding the existing mall can be characterized as one- and two-tower residential and mixed-use developments with varied, individual identities.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes a cohesive neighbourhood identity characterized by a series of slim towers framing rooftop courtyards that fan out along the edges of the mall property like spokes on a wheel to frame the proposed public plaza and shopping precinct, provide for attractive commercial and residential streetscapes, allow sunlight and views through to public and private spaces, and create sunny rooftop courtyards for residents.

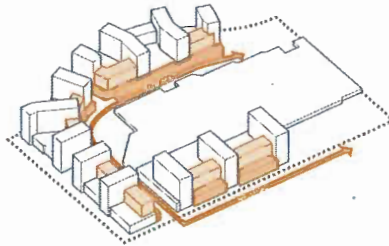


DAYLIGHT & OPEN SPACE



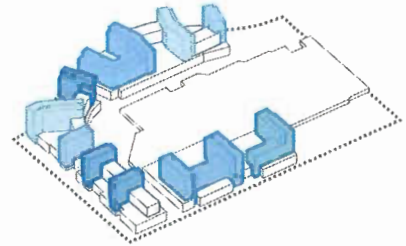
Towers optimize solar orientation & form large courtyards

RETAIL INTEGRATION



Strong street walls line retail streets & integrate a mix of uses

MASSING VARIETY



Long slender tower forms step around the skyline and form a unique variety of spaces



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #8: New Affordable Housing

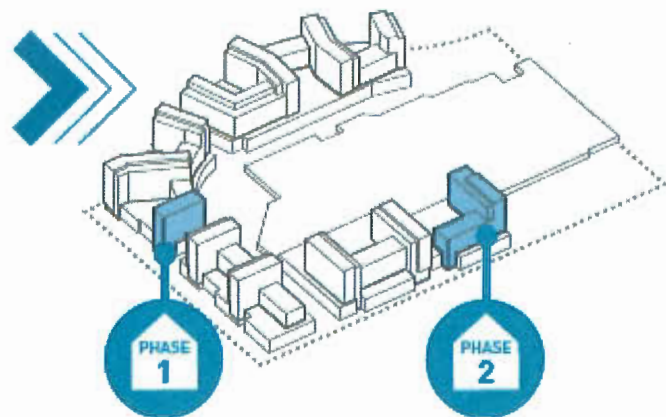
TODAY

The mall and other pre-zoned sites that do not require a change to their existing zoning are not obligated to provide affordable housing.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes approximately 150 dwellings for low-income, workforce households (e.g., retail sales employees, teachers, nurses, etc.) in 2 purpose-built rental buildings suitable for operation by non-profit housing providers.

RICHMOND HOUSEHOLDS ON SOCIAL HOUSING WAIT-LISTS, BY NEED (2017)



EXAMPLES OF AFFORDABLE HOUSING DESIGN QUALITY & SCALE



Jubilee House (Yaletown, Vancouver)
162 units



McLaren House (Downtown, Vancouver)
110 units



First Place (Mt Pleasant, Vancouver)
129 units



CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #9: Housing for a Diverse Downtown Community

TODAY

There is a growing need for new housing near transit, schools, and services that is designed to meet the needs of families with children, seniors, and people with disabilities.

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes that roughly 50% of dwellings will be family-friendly, 2- or 3-bedroom units and at least 25% of dwellings will meet Richmond's Basic Universal Housing standards (making them suitable for people with wheelchairs and mobility challenges).



50% FAMILY FRIENDLY DWELLINGS



25% BUH UNITS



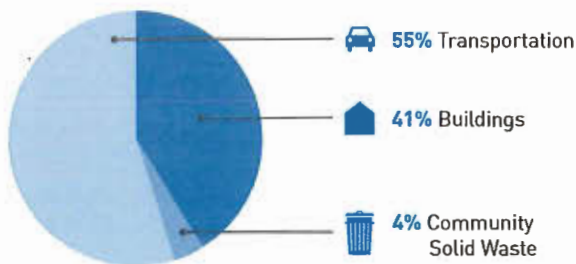
- Richmond City Hall
- School
- Place of Worship
- Park
- Canada Line Station
- Library & Cultural Centre
- The Oval
- Hospital
- Minoru Centre for Active Living Under construction
- City Centre Community Centre
- Shopping Centre

CITY CENTRE AREA PLAN: PROPOSED CHANGES

Objective #10: Reduced Greenhouse Gas (GHG)

TODAY

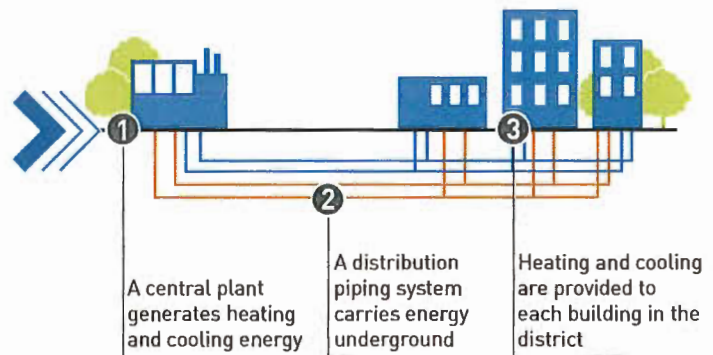
Richmond's Official Community Plan (OCP) aims to support the development of a cleaner, greener, and healthier community by reducing greenhouse gas (GHG) emissions, but does not set specific directions or targets for the City Centre.



Richmond Community GHG Emission by Sector (2010).

PROPOSED CHANGE

The CF Richmond Centre South Development Plan proposes to adopt specific strategies supportive of the City's GHG reduction objectives, which may include the fast-tracking of the City's District Energy (DEU) plans by constructing a central energy plant on the mall property to heat/cool the proposed development and connect to a future City system.



Example of possible rooftop DEU installation on the mall



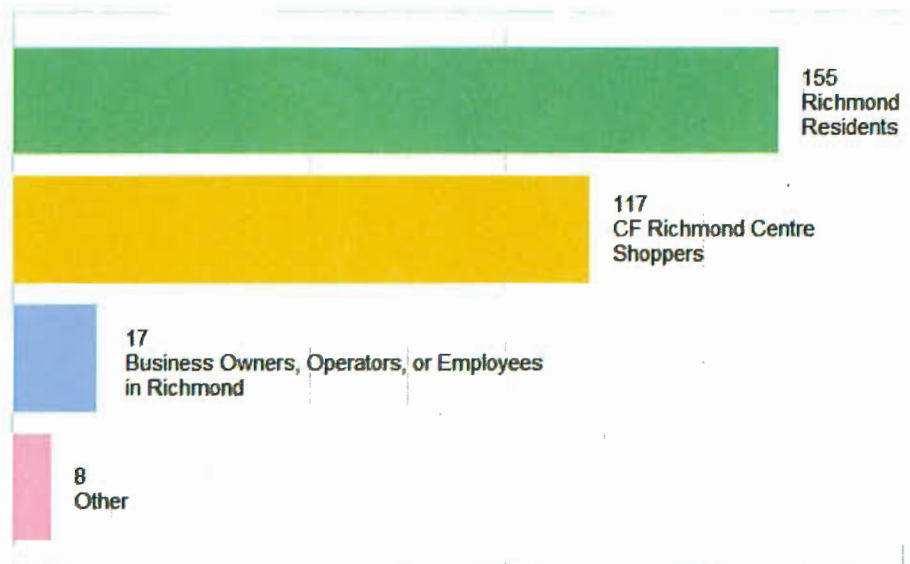
Rooftop will be screened from view from nearby towers



Proposed CF Richmond Centre South Development Plan
COMMUNITY CONSULTATION – FEEDBACK FORM SUMMARY
 Tuesday, May 22nd to Sunday, June 3rd, 2018

164 feedback forms were submitted to the City via LetsTalkRichmond.ca, mail, and in person.

Respondents primarily identified themselves as Richmond residents and/or CF Richmond Centre shoppers.

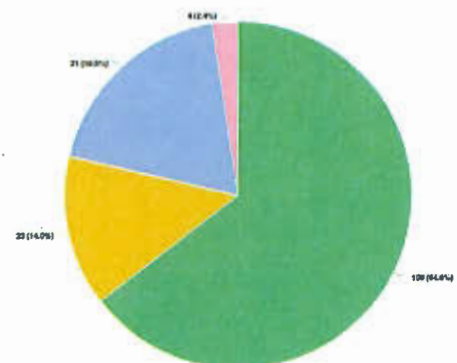


Objective #1: A More Connected Street Network

- **Today:** The CCAP aims to reduce the barrier posed by the existing mall by requiring the developer to extend Park Road west from No. 3 Road to Minoru Boulevard.
- **Proposed Change:** In addition to extending Park Road to Minoru Boulevard, the CF Richmond Centre South Development Plan proposes to create a more walkable neighbourhood comprised of smaller city blocks by establishing a connected network of local streets and off-street bike paths.

#1 Public Response Overview:

- a) Number of Responses: 164
- b) How did respondents feel about the proposed change:
 - ❖ **65% liked the change (106 responses)**
 - ❖ **14% were neutral (23 responses)**
 - ❖ **19% did not like the change (31 responses)**
 - ❖ **2% did not know (4 responses)**
- c) Respondents who did **NOT** like the proposed change expressed concern regarding:
 - Increased traffic congestion & delays
 - New roads not needed
 - Not enough parking
 - Skeptical that people will walk & bike
 - Need a transit priority lane on No. 3 Road
 - Growth will further strain infrastructure, transit & hospital
 - City Centre is overcrowded & has too many high-rises
 - City is losing doctors & small businesses
 - Soil conditions

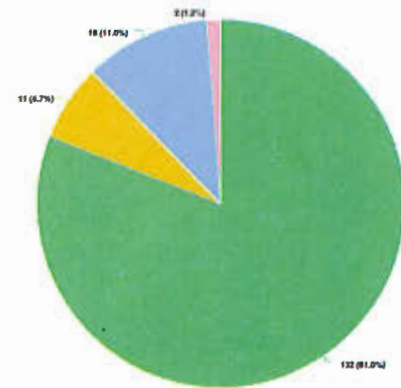


Objective #2: Better Transit Access

- **Today:** Pedestrian access to/from Brighthouse Station can be inconvenient when the mall is closed and the No. 3 Road crosswalk near the station is congested.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes to improve public access to/from buses and the Canada Line by keeping the mall's Galleria open during transit hours, installing rain protection between the Galleria and No. 3 Road, upgrading the No. 3 Road crosswalk, and widening the No. 3 Road sidewalk along the entire frontage of the mall.

#2 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **81% liked the change (132 responses)**
 - ❖ **7% were neutral (11 responses)**
 - ❖ **11% did not like the change (18 responses)**
 - ❖ **1% did not know (2 responses)**
- Respondents who did **NOT** like the proposed change expressed concern regarding:
 - Canada Line is too busy
 - Wider sidewalks are needed
 - Bus mall & other transit improvements are needed
 - Will add to traffic congestion on No. 3 Road
 - Need cars & trucks (not transit) to do business
 - May increase panhandling

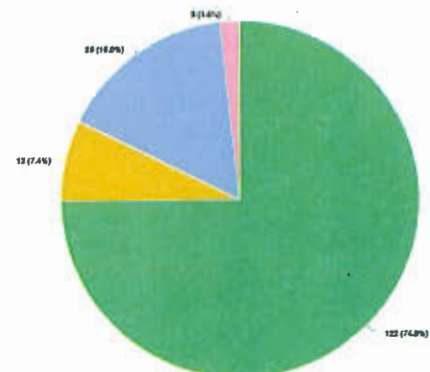


Objective #3: Friendlier Streets for Pedestrians & Cyclists

- **Today:** In the City Centre, sidewalks and boulevards occupy no more than 40% of a typical local street and even less of a major street, like No. 3 Road or Minoru Boulevard.
- **Proposed Change:** The CF Richmond Centre South Development Plan aims to create more pedestrian- and bike-friendly streets by providing wider sidewalks, off-street bike paths, special landscape features, lighting, and seating.

#3 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **75% liked the change (122 responses)**
 - ❖ **7% were neutral (12 responses)**
 - ❖ **16% did not like the change (26 responses)**
 - ❖ **2% did not know (3 responses)**
- Respondents who did **NOT** like the proposed change expressed concern regarding:
 - Skeptical that people will ride bikes
 - Skeptical that there is enough space for multiple modes
 - More bike lanes/paths are not needed
 - Widen sidewalks for shared pedestrian/bike use
 - Features will only benefit the development's residents

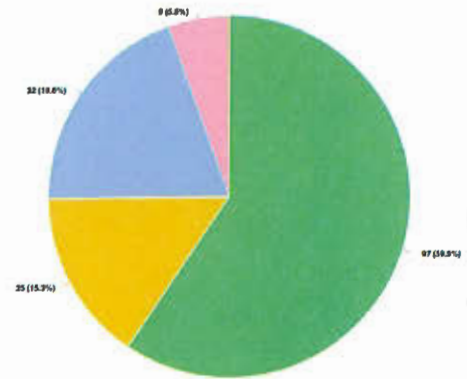


Objective #4: A More Connected Parking Strategy

- **Today:** Unattractive parking lots ring the mall and are a barrier to pedestrians and cyclists, unpleasant in bad weather, and, at times, inconvenient.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes to improve on the current situation with a 2-level underground parking structure with direct vehicle access to No. 3 Road and Minoru Boulevard and "mobility hubs" designed to provide easy access for shoppers and the general public, linking the existing mall and new retail with parking, electric vehicle (EV) charging stations, secure bike storage, and car- and bike-share facilities.

#4 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **60% liked the change (97 responses)**
 - ❖ **15% were neutral (25 responses)**
 - ❖ **20% did not like the change (32 responses)**
 - ❖ **6% did not know (9 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - City Centre is overcrowded
 - Traffic congestion
 - Difficulty finding parking
 - Bikes are for California
 - Electric vehicles are for the rich

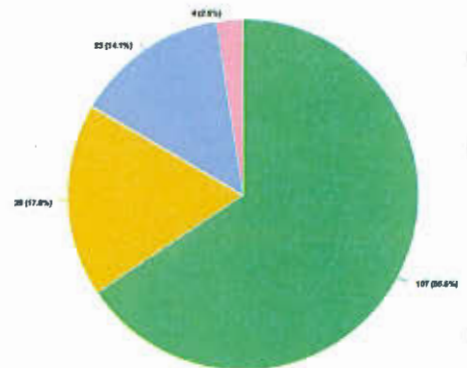


Objective #5: A New Outdoor Shopping Precinct

- **Today:** The mall is inwardly focused and contributes little to the amenity or vitality of the downtown's public realm.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes to create a more connected, walkable, and attractive indoor/outdoor shopping precinct characterized by pedestrian-scaled streets lined with shops, small plazas, continuous weather protection, street furnishings, public art, and special architectural and landscape features.

#5 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **66% liked the change (107 responses)**
 - ❖ **18% were neutral (29 responses)**
 - ❖ **14% did not like the change (23 responses)**
 - ❖ **2% did not know (4 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Prefer a weather protected indoor mall
 - Mall fitness groups (seniors) will be displaced
 - Potential empty street-fronting storefronts ("slum")
 - Richmond Centre is unaffordable for normal tenants
 - Should be a shopping centre, not a gathering place

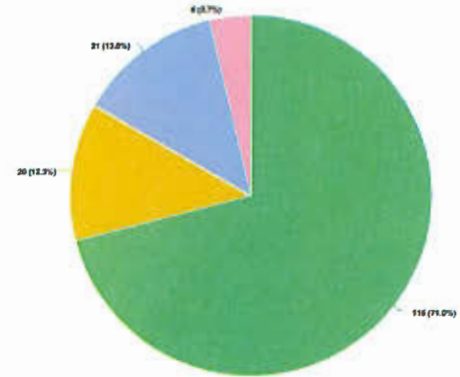


Objective #6: New Outdoor Public Spaces

- **Today:** The mall provides no outdoor public space.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes to enhance the proposed outdoor shopping precinct with special landscape treatments along No. 3 Road and a central public plaza (roughly 0.5 acres in size or twice Lang Park) for relaxation, public gathering, and seasonal events and activities.

#6 Public Response Overview:

- Number of Responses: 162
- How did respondents feel about the proposed change:
 - ❖ **71% liked the change (115 responses)**
 - ❖ **12% were neutral (20 responses)**
 - ❖ **13% did not like the change (21 responses)**
 - ❖ **4% did not know (6 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Skeptical that public space will be provided
 - Plaza is good, but would prefer a large park
 - Plaza will be noisy
 - Plaza is not needed (People should use Minoru Park)
 - Costly for taxpayers

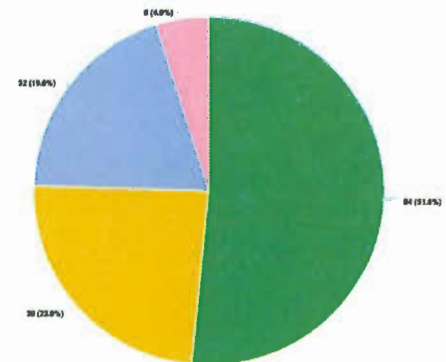


Objective #7: A New Architectural Character

- **Today:** Much of the high-rise area surrounding the existing mall can be characterized as one- and two- tower residential and mixed-use developments with varied, individual identities.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes a cohesive neighbourhood identity characterized by a series of slim towers framing rooftop courtyards that fan out along the edges of the mall property like spokes on a wheel to frame the proposed public plaza and shopping precinct, provide for attractive commercial and residential streetscapes, allow sunlight and views through to public and private spaces, and create sunny rooftop courtyards for residents.

#7 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **51% liked the change (84 responses)**
 - ❖ **24% were neutral (39 responses)**
 - ❖ **20% did not like the change (32 responses)**
 - ❖ **5% did not know (8 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Do not like high-rises
 - Too many high-rises in City Centre
 - Tall buildings will block views & sunlight
 - Existing units are vacant / New units not needed
 - Form is unattractive
 - Rationale needed for large tower floorplates
 - Buildings do not mean "neighbourhood"
 - Allow public access to podium-level outdoor spaces
 - Need for master plan for entire mall

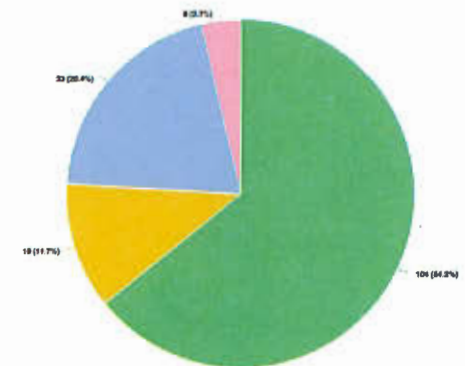


Objective #8: New Affordable Housing

- **Today:** The mall and other pre-zoned sites that do not require a change to their existing zoning are not obligated to provide affordable housing.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes approximately 150 dwellings for low-income, workforce households (e.g., retail sales employees, teachers, nurses, etc.) in 2 purpose-built rental buildings suitable for operation by non-profit housing providers.

#8 Public Response Overview:

- Number of Responses: 162
- How did respondents feel about the proposed change:
 - ❖ **64% liked the change (104 responses)**
 - ❖ **12% were neutral (19 responses)**
 - ❖ **20% did not like the change (33 responses)**
 - ❖ **4% did not know (6 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Skeptical that units will be affordable
 - More affordable housing is needed
 - Affordable housing is not needed
 - Something like Storeys should be included
 - Affordable units should be dispersed
 - Teachers & nurses are not low income earners
 - Too dense
 - Shopping centre will not be able to expand

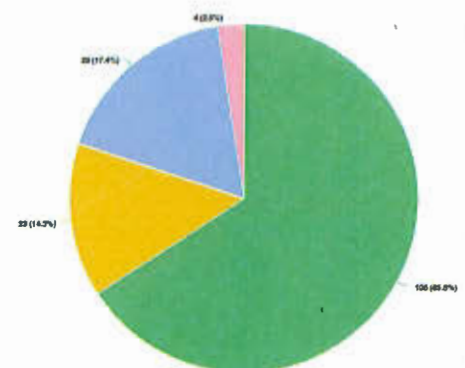


Objective #9: Housing for a Diverse Downtown Community

- **Today:** There is a growing need for new housing near transit, schools, and services that is designed to meet the needs of families with children, seniors, and people with disabilities.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes that roughly 50% of dwellings will be family-friendly, 2- or 3-bedroom units and at least 25% of dwellings will meet Richmond's Basic Universal Housing standards (making them suitable for people with wheelchairs and mobility challenges).

#9 Public Response Overview:

- Number of Responses: 161
- How did respondents feel about the proposed change:
 - ❖ **66% liked the change (109 responses)**
 - ❖ **14% were neutral (23 responses)**
 - ❖ **17% did not like the change (28 responses)**
 - ❖ **3% did not know (4 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Skeptical that units can be family-friendly
 - Basic Universal Housing standards throughout
 - Too much development / Too much traffic
 - Too expensive
 - School & child care capacity
 - Housing is replacing Richmond's shopping precinct

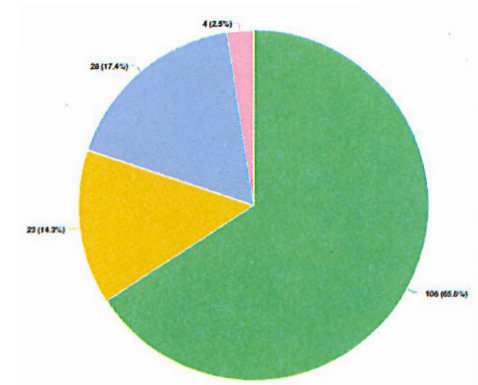


Objective #10: Reduced Greenhouse Gas (GHG)

- **Today:** Richmond's Official Community Plan (OCP) aims to support the development of a cleaner, greener, and healthier community by reducing greenhouse gas (GHG) emissions, but does not set specific directions or targets for the City Centre.
- **Proposed Change:** The CF Richmond Centre South Development Plan proposes to adopt specific strategies supportive of the City's GHG reduction objectives, which may include the fast-tracking of the City's District Energy Utility (DEU) plans by constructing a central energy plant on the mall property to heat/cool the proposed development and connect to a future City system.

#10 Public Response Overview:

- Number of Responses: 163
- How did respondents feel about the proposed change:
 - ❖ **66% liked the change (108 responses)**
 - ❖ **20% were neutral (33 responses)**
 - ❖ **8% did not like the change (13 responses)**
 - ❖ **6% did not know (9 responses)**
- Respondents who did NOT like the proposed change expressed concern regarding:
 - Skeptical that GHG levels will be reduced
 - Why not geo-thermal?
 - What will be the DEU energy source?
 - Higher building standards encouraged (e.g., LEED-ND)
 - Install green roofs on the mall
 - Increased noise pollution
 - Costly for taxpayers



Additional Comments

- Growth/Change Impacts
 - Richmond Centre is great now, but the proposed development will ruin / over-populate it.
 - I don't like how Richmond is changing. It is too busy already.
 - More density doesn't mean a better place to live.
- Shopping Impacts
 - Redevelopment of Richmond Centre and Lansdowne is threatening Richmond's centralized shopping.
- Transportation Impacts
 - Too much congestion.
 - Not enough parking.
- Built Form Impacts
 - I expect bland streetscapes and over-priced and empty shops.
 - Don't allow towers along No. 3 Road. Limit No. 3 Road to 4-6 storeys.
 - Need more green space for families and children, not towers.
- Construction Impacts
 - As a nearby resident, I object to the noise, dirt, and other construction impacts the development will bring.

Item #1

From: Bill Sorenson [mailto:billmel36@gmail.com]
Sent: Friday, 13 April 2018 21:33
To: MayorandCouncillors
Subject: Richmond City Centre South Redevelopment Plan

I read in the Richmond News, April 12, 2018 edition, that what was the Sears Building and mall parkade will be demolished as well as the southern-most parking lots. In their place will be a dozen new towers and about 2,000 new dwellings adding to the almost intolerable density that has been, and continues to be fostered by the City. To suggest these changes are not subject to usual City demands, because the enabling zoning was put in place in the 1980's is beyond belief! The owners of this site were allowed to build two large residential towers in the vicinity of The Bay some years ago, which had to equate to a significant financial windfall at that time, but nothing compared to what is now going forward.

In January 2011 Richmond Centre applied for a Development Permit to undertake renovations to add second floor space to house their food court, and free up valuable ground floor space to be converted into retail stores. This had to represent yet another significant windfall, given the lease rates being charged to their store operators. The only good news I can see in all of this, is a commitment to keep the malls galleria open to the public during transit hours to allow residents to flow easily between Minoru Blvd. and No. 3 Road. I would hope the City will get a covenant registered to cover this, so it can't be changed in the future without the City's approval.

The average Richmond resident could not be faulted for thinking someone is getting a kick back or compensation in some form for letting this proceed unchallenged.

We've already lost the liveability of Richmond, our children can't afford to live here and there is a crisis whereby employees, clerks, waiters and waitresses can't afford to live here, and are seeking work elsewhere. When is it all going to stop? When will someone step forward to inject some common sense into the situation?

Respectfully,

Bill Sorenson
604-278-9770

Item #2

From: Nadine Iwata [mailto:nadineiwata@gmail.com]
Sent: Saturday, 7 July 2018 21:21
To: MayorandCouncillors
Subject: CF Richmond Centre South Development Proposal

Please consider:

There is no major supermarket on this end of town. (At #3 Rd and Granville) There is no elementary school that will have to accommodate all those new condos.

There are only TWO electric car plug ins for this area of town.

From: Elizabeth Purves [mailto:burroug@telus.net]
Sent: Monday, 28 May 2018 3:08 PM
To: Community Planning
Subject: CF Richmond Centre South Development Plan

Dear Madam,

2 aspects of the above Development Plan are lacking answers:

1. Is the project being built on 'airspace'?
2. Where is the location of the proposed 'geothermal' plant?

Your response will be much appreciated!

Elizabeth Purves

City Response

From: "Carter-Huffman,Suzanne" <SCarter@richmond.ca>
To: "Elizabeth Purves" <burroug@telus.net>
Sent: Monday, May 28, 2018 5:39:12 PM
Subject: RE: CF Richmond Centre South Development Plan

Hello.

Thanks for your interest in the Richmond Centre redevelopment. In answer to your questions:

- 1) Cadillac Fairview (CF) proposes to utilize an "air space subdivision" to create multiple legal parcels within the existing south mall property, including:
 - Several air space parcels containing the development's proposed market residential buildings (which buildings will be divided multiple strata units);
 - Two air space parcels containing the development's proposed affordable housing buildings, which will be owned by Cadillac Fairview; and
 - The remainder of the site, which will include the remaining portion of the existing south mall, together with the development's proposed new shops and parking, all of which will be owned by Cadillac Fairview.
- 2) A central energy plant is proposed for the roof of the mall, generally in the vicinity of Sportchek. The central energy plant is proposed to be part of a District Energy System operated by the Lulu Island Energy Company (LIEC). The Lulu Island Energy Company is a wholly-owned City of Richmond corporation (established to operate district energy utility systems in Richmond) that is fully supported by user fees, and has no impact on Richmond property taxes. Current service areas include the Alexandra area (geothermal) and Oval Village (currently natural gas with plans to change over to sewer heat recovery). Additional City Centre areas (including the CF Richmond Centre site) will be added to the system as development occurs. For more information about District Energy or LIEC, please contact Alen Postolka, Manager – District Energy (apostolka@luluslandenergy.ca or 604-276-4283).

If you have any other questions, please let me know.

Suzanne Carter-Huffman | Senior Planner/Urban Design | Planning & Development
City of Richmond | 6911 No. 3 Road, Richmond, BC, V6Y 2C1 | www.richmond.ca

General Comments, Compliments and Questions**Category:** Question**Comment/Compliment/Question:**

Right now in Richmond Centre there is a show on the plan for the future development. There will be more than ten high-rise buildings to be built within the centre area. And right now the sky trans are getting full all the time. I wonder whether the city has any plan for such a growth of the population in Richmond?

Personal Information:

Ray Wong

778-384-1233

RWong218@hotmail.com

Tech Information:

Submitted By: 172.29.0.6

Submitted On: Jun 04, 2018 06:26 PM

City Response

Operation of the Canada Line is the responsibility of TransLink (regional transportation authority) not the City of Richmond. TransLink's 10-Year Vision for transportation upgrades across the region (<https://tenyearvision.translink.ca/>) identifies a number of Canada Line and bus improvements including:

Phase 1 (2017-2019)

- increase of passenger capacity on the Canada Line during peak periods by 11% in January 2017 via increased frequency of trains
- acquisition of 24 new Canada Line cars to allow further frequency of service improvements
- upgrade of selected Canada Line stations to enhance passenger access/egress

Phase 2 (2020-2021)

- new B-Line service between Richmond-Brighthouse Station and Metrotown Station
- increased service on Canada Line during rush hours, evenings and weekends

Should you wish to contact TransLink directly, you can use the online feedback form at <https://feedback.translink.ca/>.

CANADIAN STYLE BASKETBALL

205-7388 Gollner Ave., Richmond, BC, V6Y 0H4, Tel. No. 604-241-1271, Email: jypestano181@gmail.com

May 27, 2018

Ms. Suzanne Carter-Huffman
Senior Planner / Urban Design
Planning and Development Division
City of Richmond
6911 No. 3 Road
Richmond, BC V6Y 2C1

Subject: Public Consultation for the Proposed CF Richmond Centre South Development Plan

Dear Ms. Huffman,

Thank you very much for this opportunity to present my thoughts and ideas for the "Proposed CF Richmond Centre South Development Plan" as follows:

- **I agree** with the proposed Development Plan that includes the removal and replacement of the former Sears building, nearby shops, the existing multi-storey parkade, and adjacent surface parking with high-rise, urban neighborhood comprising approximately 2,000 dwellings, new public streets and outdoor spaces, two levels of underground parking, and 40,900 sq. m. (440,000 sq. ft.) of new retail space, the latter of which represents a net retail increase of approximately 9,290 sq. m. (100,00 sq. ft.).
- **In addition** may I suggest and include construction of multipurpose indoor stadium and arena for concerts, cultural shows, and indoor sports like basketball, ice hockey, volleyball, boxing, wrestling, martial arts and gymnastics tournaments with retail facilities for fast food restaurants, cafes, boutiques and gift shops concessionaires to serve spectators and at the same attract more shoppers to Richmond Centre.

Thank you and more power to you and your staff. Best regards,

Yours truly,


Jaime Y. Pestano

1. **CP 16-752923 - OCP AMENDMENT TO PERMIT MIXED USE REDEVELOPMENT OF THE SOUTH PART OF RICHMOND CENTRE SHOPPING CENTRE**

ARCHITECT: GBL Architects

PROPERTY LOCATION: 6551 No. 3 Road

Applicant's Presentation

Joey Stevens, GBL Architects, David Chamness, Callison RTKL, and Kris Snider, Hewitt Landscape, presented the project and answered queries from the Panel.

Panel Discussion

Comments from Panel members were as follows:

- appreciate the applicant's intention to incorporate public art into the project; applicant needs to pay attention to the future location of public art and how it facilitates the pedestrian aspect of the project, e.g. wayfinding and differentiation between public versus private realms;
- No. 3 Road is the main public road in Richmond; consider locating public art at the Park Road entrance along No. 3 Road or widening up the area of the pedestrian space to emphasize the publicness of this important corner;
- appreciate the different textures of paving on each block in the proposed development;
- the project will improve the current street network connection; however, controlling the speed of vehicles in the proposed internal streets is a concern; consider installing clearly marked crosswalks in busy areas to enhance pedestrian safety;
- opening of the mall Galleria during transit hours will significantly improve public access to transit;
- applicant should address and not underestimate wayfinding concerns in the underground parkade as it is more challenging to navigate in the parkade than on the ground;
- not supportive of the outdoor sidewalks for the proposed outdoor shopping precinct as it may not provide adequate weather protection for pedestrians during the rainy season;
- appreciate the provision for a public plaza; however, it may not be adequate to serve the needs of the proposed development;
- east-west orientation of some proposed buildings will not provide protection from the cold west winds for pedestrians walking in the vicinity of these buildings;
- appreciate the proposed location of affordable housing units;

- proposed diverse mix of dwellings is well thought out and meets the needs of families with children, seniors and people with mobility challenges;
- the applicant is encouraged to look into the thermo-energy demand of the proposed building forms in order to meet the energy-efficiency requirements of the BC Energy Step Code (as Step Code requirements may make it necessary to reconsider the proposed residential built form concept);
- significant size of the proposed development requires a District Energy Utility (DEU) plant; however, the applicant is advised that advance planning is needed in terms of the plant's location, serviceability, gas connections, location of cooling towers, and other important considerations;
- review proposed floor to floor height of the underground parking levels as it appears too low to accommodate necessary services for the buildings; also ensure adequate provision for space for service corridor considering that a DEU system is proposed for the project;
- required service connections for the size of the project would be massive; two service connections will not be adequate; water stagnation may also pose a challenge due to the magnitude of required services for the proposed towers;
- appreciate the comprehensive package provided by the applicant; however, a sustainability section could have been included in the package considering the size of the project;
- commend the applicant for the package provided to the Panel;
- proposed project has many positives, e.g., replacing the expansive surface parking lots with high-rise towers and amenity roof gardens;
- building lay-out is good in terms of solar aspect; outdoor amenity spaces are well done and usable to residents;
- larger scale plans would be useful for the public presentation of the project; families would be interested to see the project's site context in terms of its location relative to transit, schools, parks and other community amenities;
- proposed towers on the subject site will overlook the north portion of Richmond Centre; consider introducing green treatment to the existing roof;
- appreciate the permeability of the connected street network; hope that the richness of the design and materials of the proposed development will not be lost through the detailing; appreciate the open mall strategy; hope that the applicant will devote necessary resources for public spaces and public interface;
- appreciate the applicant's presentation of the project which is located in an important and central part of Richmond;
- a larger context plan would be helpful for the project's public presentation; statistical data included in the applicant's submission regarding visitors coming to Richmond Centre Mall are useful for designing the project;

- Minoru Park is a major regional destination for people coming from Brighthouse Canada Line station through Richmond Centre; the applicant is advised to acknowledge more the Park destination and give more attention to wayfinding from the northeast surface parking lot to Minoru Park through the Galleria;
- hope that the City's Parks Department will respond to the proposed development through programming Minoru Park in order to serve the broader needs of visitors/users in addition to current active sports uses;
- appreciate the proposed weather protected connection from No. 3 Road to the Galleria; ensure that the canopies along the building face are generous and consider making the weather-protected walkway through the parking lot more ample, e.g., widening it if possible to five meters to provide a more public feel to it;
- appreciate the provision for bicycle parking in the project as there is huge demand for it; will complement bicycle parking at Brighthouse Canada Line station; also appreciate the proposed off-street bicycle paths along No. 3 Road and Minoru Boulevard;
- appreciate the proposed on-site at grade planting and proposed structures to support large trees;
- the applicant is encouraged to install as much as possible a continuous row of street trees along the internal streets especially at the Park Plaza area;
- notice that there are no sight lines to the proposed Park Plaza from public streets, e.g. from the new City Hall street, Minoru Gate and No. 3 Road; applicant is advised not to oversell the Park Plaza as a public space if it is intended to be a commercial space rather than a public/civic space;
- shadow diagrams could have been helpful in determining the extent of park area that will be in shade; concerned that the southwest edge of the park will be in shade for a significant period; applicant could consider locating the gathering space on the northeast side of the plaza where there would be more sun exposure;
- notice that the proposed affordable housing units are segregated in individual buildings/blocks; consider distributing the affordable housing units in different places throughout the residential component of the project to make them less conspicuous;
- agree with comment from the Panel for the applicant to introduce roof planting on the north portion of Richmond Centre; applicant may also consider the alternative of hiring a graphic designer to introduce design/colour on the roof to make it more visually appealing for residents of adjacent high-rise towers on the south side;
- appreciate the applicant having a public art consultant on board for the project; a public art plan is more critical at this stage of the project rather than identifying public art location as all other public art decisions will flow from the public art plan;

- suggest that the applicant clarify the presentation board for public consultation Question 1 (i.e., More Connected Street Network) and break out vehicular, bicycle and pedestrian movements along the proposed network of internal streets;
- consider asking neutral as opposed to leading questions for public consultation;
- for public consultation Question 3 (i.e., Friendlier Streets for Pedestrian and Cyclists), the applicant needs to correct the image and section drawing for new City Hall Street as the photograph is looking east while the section drawing is looking west;
- commend the applicant's presentation of the project which will transform an existing development with vast expanse of surface parking to a pedestrian-friendly community;
- proposed street connections for vehicular and pedestrian circulation are logical from an urban design point of view;
- scale of the main and connecting streets are pedestrian-friendly;
- appreciate the proposed Park Plaza; support the proposal to externalize the shopping experience which is becoming the norm in North America;
- selection of retailers in terms of type and scale is crucial for the proposed development; activating the second floor is important for animating the whole street;
- the northeast corner of the subject development is not well resolved; has the potential to become a gateway into the site from Brighthouse Canada Line station; consider creating a mini plaza to focus attention to this corner and connect to the Galleria; also consider creating a mini plaza at the northwest corner of the site and connect the two mini-plazas through the Galleria to create a loop rather than a destination to the main plaza;
- incorporate images of precedents for the proposed Park Plaza in the presentation board for public display/consultation to help the public visualize the design of the future plaza and its public amenities; also incorporate the connection of the two mini-plazas with the main plaza (i.e, showing a loop) and their connection to transit and other public amenities;
- the proposed Park Plaza lacks visual connection from external public streets; consider shifting the location of the plaza to provide visual connection to the corner of the plaza from City Hall through the north-south connector road (connecting the new City Hall Street to Park Road extension) to encourage more pedestrian traffic from City Hall to the plaza and making it more of a public than a mainly commercial space;
- support the proposed underground parking considering the challenges associated with such proposal in Richmond; the approach is in the right direction towards Richmond becoming a more sustainable city;
- commend the design team and the developer for a significant and well thought out project;

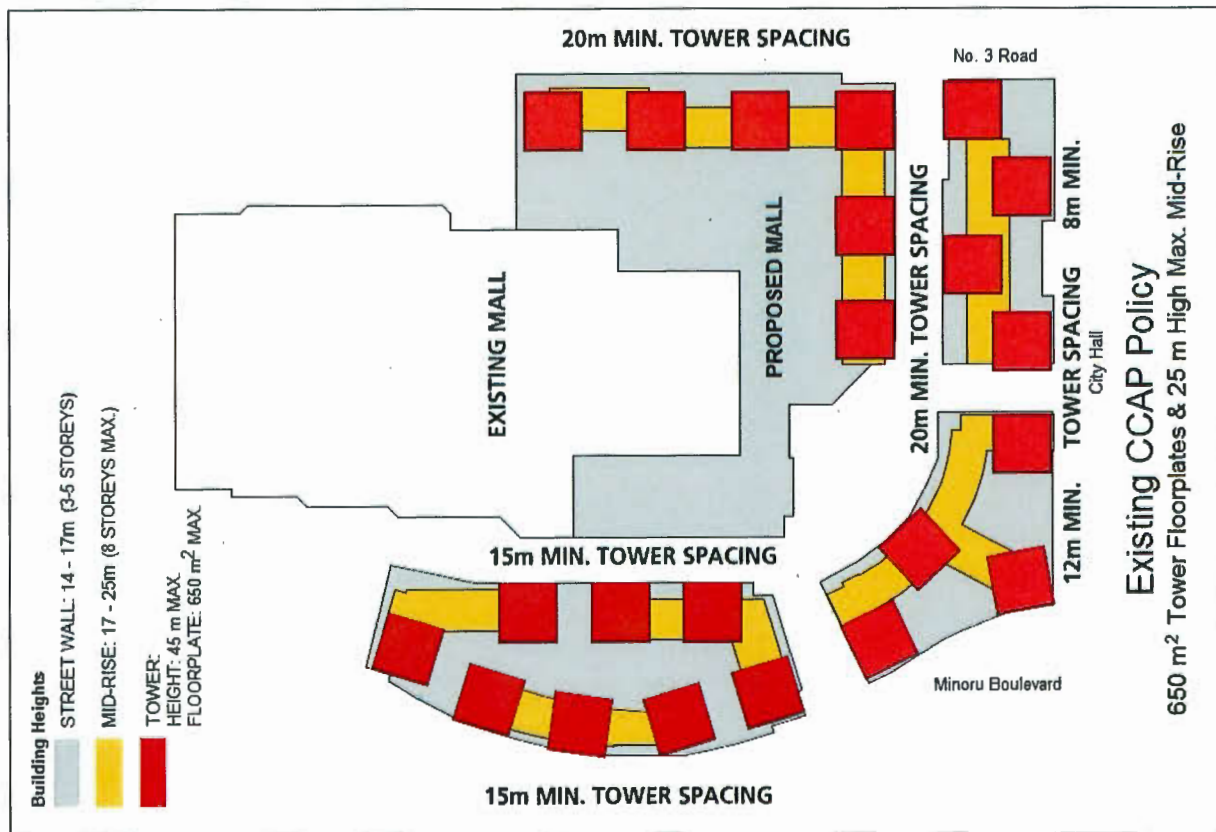
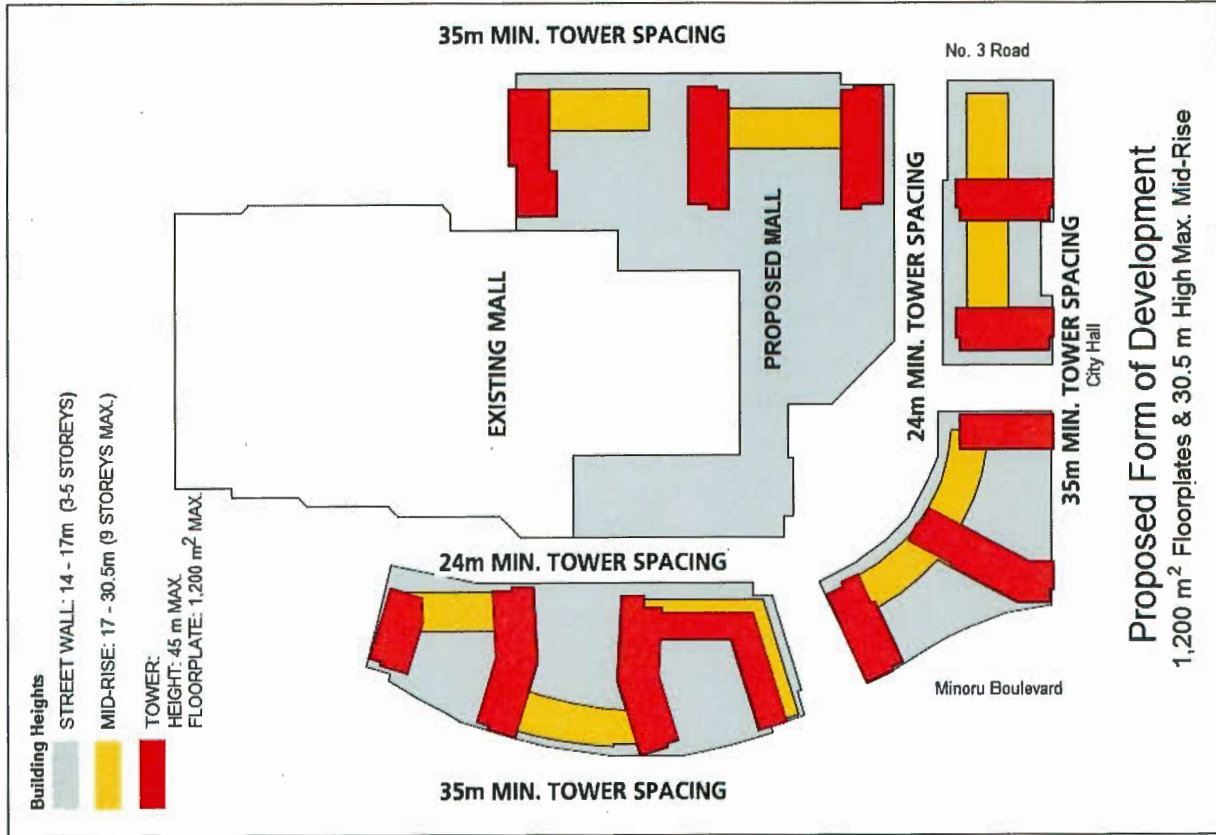
- appreciate the provision for affordable housing in the proposed development; also appreciate the applicant working within the existing City Centre Area Plan (CCAP) guidelines in terms of density and height of towers;
- support Panel comments for the applicant to address the overlook from the proposed high-rise towers onto the north portion of Richmond Centre; consider introducing appropriate architectural and landscaping treatments to the roof of the existing north portion of Richmond Centre;
- appreciate the applicant addressing the pedestrian movement to transit through the Galleria;
- package provided by the applicant lacks details regarding the public realm; significant amount of work and details still needs to be done (e.g., in terms of public realm details, loading, and architectural design) which the Panel would look forward to see when the applicant comes back to the Panel;
- consider larger and more detailed plans for public presentation/consultation for the project and also for future presentation to the Panel;
- recommend a small portion of parking should be used for park-and-ride;
- applicant is advised to give attention to the interface between City Hall and the proposed development; review the proposed location of the loading area and other things happening at the southern edge of the development;
- suggest that the applicant provide more presentation boards and details for the public consultation; agree with Panel comment that vehicular, bicycle and pedestrian circulation on the site should be demonstrated more graphically; applicant is also advised to provide more presentation boards for the public realm; also integrate architectural and landscaping precedents; and
- applicant and City staff are advised to consider installing an iconic art piece at the northeast corner of the site similar to the one at Brentwood Town Centre considering the huge number of people coming into the site from Brighthouse Canada Line station.

Panel Decision

It was moved and seconded

That CP 16-752923 be supported to move forward to the Planning Committee subject to the applicant giving consideration to the comments of the Panel.

CARRIED





OCP Amendment Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 6551 No 3 Road

File No.: CP 16-752923

Prior to final adoption of Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9892, the developer is required to satisfy the following requirements:

1. Site Contamination:

- 1.1. Development Approval Requirements: Submission to the City of a contaminated sites legal instrument from the Ministry of Environment and Climate Change Strategy (e.g. Certificate of Compliance (COC) or Final Site Determination (FSD)) showing no contamination within the subject site or an alternative notification from the Ministry confirming that the City may approve the owner's OCP amendment, development, subdivision, and demolition applications.
- 1.2. Road Dedication Requirements: Submission to the City of a contaminated sites legal instrument from the Ministry of Environment and Climate Change Strategy (e.g., COC or FSD) showing no contamination within the portion of the lands required to be dedicated to the City for road or an alternative form of assurance satisfactory to the City, in the City's sole discretion; which alternative assurance shall include, but may not be limited to, registration of a legal agreement on title to the lands requiring that:
 - 1.2.1. Prior to Building Permit* issuance for the first building to be constructed on the lands (i.e. excluding existing buildings), in whole or in part, the owner shall submit:
 - a) Evidence that the environmental condition of the required road dedication is satisfactory, as determined at the sole discretion of the City; and
 - b) A contaminated sites legal instrument from the Ministry of Environment and Climate Change Strategy (e.g., COC or FSD) with respect to the required road dedication; and
 - 1.2.2. The owner will release and indemnify the City from and against any and all claims or actions that may arise in connection with any environmental contamination upon the lands, in whole or in part, including the required road dedication.

2. Subdivision: Registration of a Subdivision Plan to the satisfaction of the City.

Prior to the registration of a Subdivision Plan, the following conditions shall be satisfied:

- 2.1. Road Dedication: Dedication of 2,930.45 m² (31,542.6 ft²) for road and related purposes, as per the Preliminary Subdivision Plan (**Schedule A**), including:
 - 2.1.1. **Minoru Boulevard Widening:** "Road A", comprising 1,315.7 m² (14,162.1 ft²) in the form of a 3.2 m (10.5 ft.) wide strip of land along the subject site's entire Minoru Boulevard frontage, excluding the portion north of the Murdoch Avenue intersection, together with an additional 5.0 m (16.4 ft.) wide strip of land and 4.0 m by 4.0 m (13.1 ft. by 13.1 ft.) corner cuts at the Murdoch Avenue intersection; and
 - 2.1.2. **No. 3 Road Widening:** "Road D", comprising 1,614.7 m² (17,380.5 ft²) in the form of a 3.55 m (11.7 ft.) wide strip of land along the subject site's entire No. 3 Road frontage, together with an additional 5.0 m (16.4 ft.) wide strip of land and 4.0 m by 4.0 m (13.1 ft. by 13.1 ft.) corner cuts at the Cook Road intersection.

NOTE: The required Minoru Boulevard and No. 3 Road dedications shall not be used for density calculation purposes and are not eligible for Development Cost Charge (road acquisition) credits.

Initial: _____

- 2.2. Lot Subdivision: The creation of three (3) lots for development purposes, as per the Preliminary Subdivision Plan (**Schedule A**), including:
- 2.2.1. **Lot 1 (West)**: 36,497.7 m² (392,858.0 ft²), including future “Road B”;
- 2.2.2. **Lot 2 (East)**: 30,434.4 m² (327,593.2 ft²), including future “Road C”; and
- 2.2.3. **Remainder Lot (North)**: 42,420.6 m² (456,611.5 ft²).
- 2.3. Coordination with Existing Uses & Structures:
- 2.3.1. **General Requirements**: Completion of requirements necessary to facilitate the owner’s proposed subdivision, as determined to the satisfaction of City of Richmond Building Approvals Division, which may include, but may not be limited to, registration of a restrictive covenant(s), registration of a blanket Statutory Right-of-Way(s), and/or submission of a Building Demolition Bond(s).
- 2.3.2. **Cross-Access**: Delivery of a registered cross-access easement(s) and/or other legal agreement(s), as determined to the satisfaction of the Director of Development, Director of Transportation, and the City Solicitor, over the internal drive-aisles, pedestrian circulation, utilities, and related linkages between Lot 1 (West), Lot 2 (East), and Remainder Lot (North), as applicable.
- 2.4. Future City Street: Measures to secure the lot-by-lot dedication of the Future City Street across Lot 1 (West) and Lot 2 (East) and related improvements, to the satisfaction of the City. The City agrees that the owner’s dedication of the Future City Street may occur after adoption of the subject OCP Amendment to facilitate the interim retention of the owner’s existing multi-storey parking structure and its lot-by-lot (phase-by-phase) demolition as part of necessary enabling works (i.e. clearing, excavating, and related site preparation) for the development of Lot 1 (West) and Lot 2 (East) respectively. Measures required to facilitate the proposed process shall include the following items, as determined to the satisfaction of the City.
- 2.4.1. **Demolition Covenant**: Registration of a restrictive covenant and blanket Statutory Right-of-Way (SRW) over Lot 1 (West) and Lot 2 (East) to ensure that the lot-by-lot demolition of the owner’s existing multi-storey parking structure is completed, at the sole cost of the owner, prior to the lot-by-lot issuance of any Building Permit* for Lot 1 (West) or Lot 2 (East), in whole or in part, that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion. For clarity, demolition of the portion of the existing parking structure on:
- a) Lot 1 (West) shall occur prior to Building Permit* issuance for Lot 1 (West); and
 - b) Lot 2 (East) shall occur prior to Building Permit* issuance for Lot 2 (East).
- If the owner does not demolish the existing parking structure according to the provisions of the agreement, the covenant and SRW shall allow the City to enter the property and demolish the structure.
- 2.4.2. **Demolition Bond**: Provision of a Building Demolition Bond for the owner’s existing multi-storey parking structure located on Lot 1 (West) and Lot 2 (East), the value of which Building Demolition Bond shall be 105% of the estimated cost or as otherwise determined to the satisfaction of the City of Richmond Building Approvals Division.
- 2.4.3. **Public Rights of Passage**: Registration of a Statutory Right-of-Way (SRW) to provide for the establishment of the Future City Street between No. 3 Road and Minoru Boulevard, along the south side of Lot 1 (West) and Lot 2 (East), as per the Preliminary Statutory Right-of-Way Plan (**Schedule B**), together with an option for the City to dedicate the SRW area on a lot-by-lot basis (at a nominal cost to the City) following the demolition of the owner’s existing multi-storey parking structure on the subject site.

The SRW shall, as determined to the satisfaction of the City:

- a) Be at least 3,487.6 m² (37,540.2 ft²) in size, in the form of a 14.7 m (48.2 ft.) wide strip of land along the entire south edge of Lot 1 (West) and Lot 2 (East), together with 4.0 m by 4.0 m (13.1 ft. by 13.1 ft.) corner cuts at No. 3 Road and Minoru Boulevard, and shall include, as per the Preliminary Subdivision Plan (**Schedule A**) and Preliminary Statutory Right-of-Way Plan (**Schedule B**):
 - i) Lot 1 (West): "Road B", comprising an area of 1,518.7 m² (16,347.2 ft²); and
 - ii) Lot 2 (East): "Road C", comprising an area of 1,968.9 m² (21,193.0 ft²);
- b) Provide for unrestricted, 24-hour-a-day, public access including, but not limited to, pedestrians (universally accessible), bicycles, emergency and service vehicles, and general purpose traffic, together with related uses, features, City and private utilities, and City bylaw enforcement, as typically required in respect to the design, construction, and operation of a public road, except as otherwise permitted through a City-approved Construction Traffic Management Plan;
- c) Prohibit building encroachments above, at, or below the finished grade of the SRW area;
- d) Require the owner to be solely responsible for maintenance of the SRW area;
- e) Require the owner to be solely responsible for design and construction of the SRW, as determined via the City's standard permitting* and Servicing Agreement (SA)* processes; and
- f) Restrict the City's ability to exercise its right to unrestricted public access until, on a lot-by-lot basis, demolition of the owner's existing multi-storey parking structure on the subject site is complete.

2.4.4. **No Development Covenant:** Registration of a restrictive covenant(s) on title to Lot 1 (West) and Lot 2 (East) securing that "no development" will be permitted and restricting Development Permit* issuance, on a lot-by-lot basis, in whole or in part, for any Development Permit* that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, until the following is complete to the satisfaction of the City:

- a) For Lot 1 (West), the Development Permit* includes the "Road B" SRW area, complies with the SRW agreement, and, as applicable, satisfies requirements with respect to the developer's future dedication, design, and construction of the SRW area as City road; and
- b) For Lot 2 (East), the Development Permit* includes the "Road C" SRW area, complies with the SRW agreement, and, as applicable, satisfies requirements with respect to the developer's future dedication, design, and construction of the SRW area as City road.

NOTE: For clarity, site area for density calculation purposes for a Development Permit for:*

- Lot 1 (West) shall include "Road B"; and
- Lot 2 (East) shall include "Road C".

2.4.5. **No Build Covenant:** Registration of a restrictive covenant(s) on title to Lot 1 (West) and Lot 2 (East) securing that "no building" will be permitted and restricting Building Permit* issuance, on a lot-by-lot basis, in whole or in part, for any Building Permit* that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, until the following is complete to the satisfaction of the City:

- a) The developer must:
 - i) For Lot 1 (West), dedicate the "Road B" portion of the Future City Street; and
 - ii) For Lot 2 (East), dedicate the "Road C" portion of the Future City Street;

NOTE: The dedication of "Road B" and "Road C" shall not be eligible for Development Cost Charge credits for road acquisition or construction purposes.

- b) The developer must enter into a Servicing Agreement (SA)* for the design and construction, at the developer's sole cost, of the Future City Street along the frontage of the applicable lot, including all related transportation, engineering, and parks works;
 - c) Prior to Building Permit* issuance, all works identified via the SA* with respect to the applicable lot must be secured via a Letter(s) of Credit, to the satisfaction of the Director of Development, Director of Engineering, Director of Transportation, and Director, Parks Services.
- 2.4.6. **No Occupancy Covenant:** All SA* works identified by the City with respect to the Future City Street shall be completed prior to final Building Permit* inspection granting occupancy for the first building, in whole or in part, on the applicable lot (excluding parking and commercial uses that can be accessed directly from the inside of the existing shopping centre) or as otherwise determined at the sole discretion of the City (i.e. via the Development Permit*, Building Permit*, and/or SA* processes) and specifically provided for via "no build" covenant(s) and/or other legal agreement(s) registered on title.
- 2.4.7. **East-West Connectivity During Construction:** Registration of a restrictive covenant and blanket Statutory Right-of-Way (SRW) over Lot 1 (West) and Lot 2 (East) to ensure that a publicly-accessible route for vehicles and pedestrians is provided and maintained, at the developer's sole cost, providing continuous public access (with limited temporary interruptions) between Minoru Boulevard and No. 3 Road to the south of the retail portion of the existing CF Richmond Centre mall throughout pre-construction, construction, and post-construction stages, as determined to the City's satisfaction.
- a) The required east-west vehicle and pedestrian connectivity shall provide for two (2) vehicle travel lanes, designed and operated to provide for simultaneous two-way traffic movements in a form consistent with City standards, together with a designated, safe, universally-accessible path for pedestrians with a minimum clear width of at least 1.5 m (4.9 ft.). (Note that the vehicle and/or pedestrian route may vary over the course of their operation to accommodate various construction-related activities, provided that such changes do not compromise required connectivity and are pre-approved by the City.)
 - b) "No building" will be permitted, restricting Building Permit* issuance, on a lot-by-lot basis, in whole or in part, until the developer submits a Construction Traffic Management Plan that provides for the required east-west vehicle and pedestrian connectivity, to the City's satisfaction. The Plan shall include, among other things, strategies for maintaining safe, continuous operation of the required access throughout all stages of construction, except in the case of emergencies, temporary interruptions pre-approved by the City through the Plan, or, in the case of other temporary interruptions, with the written pre-approval of the City.
- 2.4.8. **Discharge:** Discharge of the agreement(s) may occur on a lot-by-lot basis upon the lot-by-lot completion of the Future City Street and Private (SRW) Streets, as determined to the City's satisfaction.
- 2.5. **Statutory Right-of-Way (SRW) – Public Rights of Passage:** Registration of Statutory Right-of-Ways (SRW), as per the Preliminary Statutory Right-of-Way Plan (**Schedule B**), to facilitate public access and open space uses, together with related landscaping and infrastructure (which may include, but may not be limited to, vehicle travel lanes, parking, bike facilities, street furnishings, street lighting, decorative paving, trees and plant material, public art, special mobility features, recreation amenities, innovative storm water management measures, and City utilities), to the satisfaction of the City. The specific location, configuration, design, and related terms of the SRWs shall be confirmed via the development's Development Permit*, Servicing Agreement*, and/or other City approval processes, to the satisfaction of the City, taking into account the following items.

Any works essential for public access within the required SRW areas are to be included in the Servicing Agreement*. The SRW agreement must clearly describe responsibilities with respect to maintenance and

liability. Moreover, the design of the SRW areas must be prepared in accordance with good engineering practice with the objective of optimizing public safety. After completion of the SRW works, the owner is required to provide a certificate of inspection for the works or equivalent, prepared and sealed by the owner's engineer, architect, and/or landscape architect, as determined to the City's satisfaction, in a form and content acceptable to the City, certifying that the works have been constructed and completed in accordance with the accepted design.

Prior to OCP Amendment application adoption, the agreements shall be registered as blanket SRWs (accompanied by sketch plans) and shall include provisions for replacement agreements at Development Permit*, Building Permit*, and/or occupancy, as determined to the satisfaction of the City, at the owner's cost, for the purpose of accurately reflecting the City-approved permits and replacing the sketch plans with survey plans (which may be volumetric).

2.5.1. General SRW Requirements:

- a) The right-of-ways shall provide for:
 - i) 24 hour-a-day, universally accessible, public access in the form of vehicle route(s), paved walkway(s), off-street bike path(s), and/or related landscape features, which may include, but may not be limited to, lighting, furnishings, street trees and planting, decorative paving, and storm water management measures, to the satisfaction of the City;
 - ii) Public art;
 - iii) Public access to fronting commercial, residential, public open space, and other on-site uses;
 - iv) Emergency and service vehicle access, City bylaw enforcement, and any related or similar City-authorized activities;
 - v) City utilities, such as streetlights, traffic control infrastructure (e.g., signals, detector loops, equipment kiosks), and related and/or similar features;
 - vi) The owner-developer's ability to close a portion of the SRW area to public access to facilitate maintenance, repairs, or construction to the SRW area or the fronting uses, provided that adequate public access is maintained and the duration of the closure is limited, as determined through the applicable Development Permit* process and specified in the SRW agreement(s) or approved by the City in writing in advance of any such closure;
 - vii) The owner-developer's ability to close a portion of the SRW area to public access for the purpose of hosting special events, provided that adequate public access is maintained and the duration of the closure is limited, as determined through the applicable Development Permit* process and specified in the SRW agreement(s) or approved by the City in writing in advance of any such closure;
 - viii) Design and construction of the SRW area, via a Servicing Agreement* (undertaken in coordination with a Development Permit*), at the sole cost and responsibility of the developer, as determined to the satisfaction of the City;
 - ix) Maintenance of the SRW area at the sole cost of the owner-developer, except for City utilities and any other City property to be maintained by the City following the expiry of the Servicing Agreement* maintenance period;
 - x) Existing site features (e.g., parking, driveways, signage, utilities, furnishings) where such features are not required to be removed or altered through an approved Development Permit*, Servicing Agreement*, and/or other City approval process; and
 - xi) Encroachments, provided that such features do not conflict with the design, construction, operation, or intended quality or public amenity of the right-of-way area (e.g., tree planting, accessible grades, underground utilities) or, as applicable, potential future road dedication, as determined to the satisfaction of the City, and the encroachments are included in a Development Permit*, Servicing Agreement*,

and/or other permit approved by the City and specified in the applicable SRW agreement(s), including:

- Permanent encroachments in the form of:
 - Parking concealed below the finished grade of the SRW area;
 - Driveway crossings;
 - Weather protection, architectural appurtenances, and building projections, typically located at least 2.5 m (8.2 ft.) clear above the finished grade of the SRW area; and
 - Signage; and
- Temporary encroachments in the form of:
 - Outdoor restaurants (e.g., food trucks, coffee kiosks, café seating);
 - Commercial uses (e.g., pop-up shops, sidewalk sales); and
 - Special event and recreation features (e.g., amusement rides, tents and shelters, event signage); and
 - Movable furnishings, planters, displays, railings, partitions, and similar features.

NOTE: Outdoor space(s) designated for the exclusive year-round use of restaurant and/or commercial use(s) shall not be considered to be a "temporary encroachment(s)" and will not be permitted within the SRW area.

- b) "No development" shall be permitted, on a lot-by-lot basis, on Lot 1 (West), Lot 2 (East), or Remainder Lot (North) that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, restricting Development Permit* issuance for any such building on the lot, in whole or in part, unless the Development Permit* and Servicing Agreement* include the design of the SRW area, to the City's satisfaction.
- c) No Building Permit* shall be issued, on a lot-by-lot basis, for a building on Lot 1 (West), Lot 2 (East), or Remainder Lot (North) that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, in whole or in part (excluding parking intended as an ancillary use to non-parking uses), unless the permit includes the design of the SRW area, to the City's satisfaction.
- d) "No occupancy" shall be permitted, on a lot-by-lot basis, for a building on Lot 1 (West), Lot 2 (East), or Remainder Lot (North) that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, restricting final Building Permit* inspection granting occupancy for any such building on the lot, in whole or in part except:
- i) For Lot 1 (West), parking and commercial uses that can be directly accessed from the inside of the existing shopping centre; and
 - ii) For Lot 2 (East), parking,
- until the SRW area is completed to the satisfaction of the City, the owner has provided a certificate of inspection for the works or equivalent, prepared and sealed by the owner's engineer, architect, and/or landscape architect, as determined to the City's satisfaction, in a form and content acceptable to the City, certifying that the works have been constructed and completed in accordance with the accepted design, and ~~has received, as applicable,~~ if required by the City, a Certificate of Completion and/or final Building Permit* inspection granting occupancy have been issued.

2.5.2. **Private Streets:**

- a) **Park Road, Minoru Gate & New North-South Street:** At least 10,038 m² (108,047 ft²), in the form of an irregular, linear strip with a minimum width of 18.0 m (59.1 ft.), for the purpose of seamlessly extending the City road network between Minoru Boulevard and No. 3 Road to facilitate unrestricted public access (as if this was a City road), together with related

landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. Permitted encroachments shall be confirmed, on a lot-by-lot basis, through the Development Permit* and Servicing Agreement* approval processes for Lot 1 (West) and Lot 2 (East).

- b) **Cook Road:** At least 1,395 m² (15,016 ft²), in the form of a linear strip with a minimum width of 31.0 m (101.7 ft.), for the purpose of seamlessly extending Cook Road west of No. 3 Road to facilitate unrestricted public access (as if this was a City road), together with related landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. Permitted encroachments shall be limited to weather protection, architectural appurtenances, building projections, and temporary encroachments within the sidewalk portion of the SRW area, the specifics of which shall be confirmed through the Development Permit* and Servicing Agreement* approval processes for Lot 2 (East).

NOTE: Cook Road shall be designed and constructed to City standards, to the satisfaction of the City, to facilitate its future potential dedication as a City road. In addition, prior to OCP amendment bylaw adoption, a covenant shall be registered on title to the Remainder Lot (North) securing the owner's commitment to dedicate the Cook Road SRW area prior to any future subdivision of the lot and/or issuance of a Development Permit for the lot, in whole or in part, that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion.*

- c) **Murdoch Road:** At least 1,422 m² (15,308 ft²), in the form of a linear strip with a minimum width of 25.0 m (82.0 ft.), for the purpose of seamlessly extending Murdoch Avenue east of Minoru Boulevard to facilitate unrestricted public access (as if this was a City road), together with related landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. Permitted encroachments shall be limited to parking below finished grade, weather protection, architectural appurtenances, building projections, and temporary encroachments within and a 2.5 m (8.2 ft.) wide strip along the north and south sides of the SRW area, the specifics of which shall be confirmed through the Development Permit* and Servicing Agreement* approval processes for Lot 1 (West).

NOTE: The central 20.0 m (65.6 ft.) wide portion of Murdoch Avenue (that is unencumbered by permitted encroachments) shall be designed and constructed to City standards, to the satisfaction of the City, to facilitate its future potential dedication as a City road. In addition, prior to OCP amendment bylaw adoption, a covenant shall be registered on title to the Remainder Lot (North) securing the owner's commitment to dedicate the central 20.0 m (65.6 ft.) wide portion of the Murdoch Avenue SRW area prior to any future subdivision of the lot and/or issuance of a Development Permit for the lot, in whole or in part, that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion.*

2.5.3. **Sidewalk Widening:**

- a) **Minoru Boulevard:** At least 804 m² (8,654 ft²), in the form of a linear strip with a minimum width of 2.5 m (8.2 ft.), for the purpose of a City sidewalk, together with related landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. Permitted encroachments shall be limited to parking below finished grade, weather protection, architectural appurtenances, and building projections, the specifics of which shall be confirmed through the Development Permit* and Servicing Agreement* approval processes for Lot 1 (West).
- b) **Future City Street:** At least 102 m² (1,094 ft²), in the form of a linear strip with a minimum width of 0.5 m (1.6 ft.), for the purpose of a City sidewalk, together with related landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. Permitted encroachments shall be limited to parking below finished grade, weather protection, architectural appurtenances, and building projections, the specifics of which shall be

confirmed, on a lot-by-lot basis, through the Development Permit* and Servicing Agreement* approval processes for Lot 1 (West) and Lot 2 (East).

2.5.4. **Park Road Plaza:** At least 1,996.0 m² (0.5 acres), in the form of an irregular area fronting Park Road along approximately 50% of its perimeter, for the purpose of public open space uses, together with related landscaping, street furnishings and lighting, City utilities, mobility hub, and other features as determined to the satisfaction of the City. Permitted encroachments shall be confirmed, on a lot-by-lot basis, through the Development Permit* and Servicing Agreement* approval processes for Lot 1 (West) and Lot 2 (East).

2.6. **Statutory Right-of-Way (SRW) – Canada Line Connectivity Improvements:** Registration of a statutory right-of-way(s) on Remainder Lot (North), 6253 No. 3 Road, and 6060 Minoru Boulevard, together with restrictive covenants on Lot 1 (West), Lot 2 (East), and Remainder Lot (North) and/or other legal agreement(s) or measures, as determined to the satisfaction of the Director of Development, Director of Transportation, and the City Solicitor, for the purpose of securing the owner's commitment to improving public access across the owner's property to improve public pedestrian access to/from the Canada Line and proposed bus mall along No. 3 Road.

2.6.1. **No. 3 Road Sidewalk Widening:** A linear strip with a minimum width of 3.55 m (11.7 ft.) along the entire No. 3 Road frontage of 6253 No. 3 Road and 6060 Minoru Boulevard for the purpose of a City sidewalk, together with related landscaping, street furnishings and lighting, City utilities, and other features as determined to the satisfaction of the City. The SRW area shall provide for public access and related activities and uses generally as per a City street (as generally set out in the "General SRW Requirements" in the previous section).

Prior to OCP Amendment application adoption, registration of this SRW agreement(s) shall include a survey plan(s).

- a) Permitted encroachments shall be confirmed through the Servicing Agreement* and related permit* approval processes required with respect to the development of Lot 1 (West) and may include, but may not be limited to, signage.
- b) Implementation of the required public access shall be completed via the City's standard Servicing Agreement* process, to the satisfaction of the City, prior to final Building Permit inspection granting occupancy of the first building on Lot 1 (West) (excluding parking and commercial uses that can be directly accessed from the inside of the existing shopping centre).

NOTE: The SRW agreement shall have no financial or other impacts on the City with respect to the terms of the existing lease over the City-owned lot at 6253 No. 3 Road.

2.6.2. **Cross-Mall Public Pedestrian Access:** A continuous route across the Remainder Lot (North), providing convenient, universal, public pedestrian access, during transit operating hours within 400 m (1,312.3 ft.) of the subject site, between the Murdoch Avenue SRW area and No. 3 Road (at the signalized pedestrian crossing at the bus mall), which route shall include passage through the owner's existing retail building and across the outdoor spaces surrounding the existing retail building (e.g., surface parking lots and walkways) via a generally weather protected route, as determined to the satisfaction of the City.

Prior to OCP Amendment application adoption, this agreement shall be registered as blanket SRW accompanied by a sketch plan.

- a) Maintenance of the SRW area shall be at the sole cost of the owner-developer.
- b) Encroachments shall be permitted, provided that they do not conflict with public access, as determined to the mutual satisfaction of the City and the owner as set out in the SRW.
- c) Implementation of the required public access shall be completed in two stages:
 - i) **Interim Connection:** Prior to final Building Permit inspection granting occupancy of the first building on Lot 1 (West), the required public access shall be complete, EXCEPT that the outdoor portion between the existing retail building and No. 3

Road shall be permitted to be in an interim form to coordinate with the owner's temporary sales centre; which interim form shall be confirmed, to the City's satisfaction, through the Lot 1 (West)/Phase 1 Development Permit* and related Servicing Agreement*; and

- ii) Ultimate Connection: Prior to final Building Permit inspection granting occupancy of the first building on Lot 2 (East), the required public access shall be completed in its final form, which shall be confirmed to the City's satisfaction through the Lot 2 (East)/Phase 2 Development Permit* and related Servicing Agreement*.

- 2.7. Statutory Right-of-Way (SRW) – City Utilities: Registration of right-of-ways for the purpose of securing City utilities, together with the City's ability to access, install, replace, alter, remove, operate, and maintain such utilities and related features, all as determined to the satisfaction of the City.

Prior to OCP Amendment application adoption, the agreements may be registered as blanket SRWs (which may be accompanied by sketch plans) and shall include provisions for replacement agreements at Development Permit*, Building Permit*, and/or occupancy, as determined to the satisfaction of the City, at the owner's cost, for the purpose of accurately reflecting the City-approved permits and attaching survey plans.

- 2.7.1. ***Parkade Driveway Traffic Signal Infrastructure (Minoru Boulevard)***: Traffic signal infrastructure (e.g., signal poles, lights, detector loops, and traffic signal kiosks) and related features on Lot 1 (West) in the vicinity of the developer's proposed Minoru Boulevard parkade driveway;
- 2.7.2. ***Existing Sanitary Sewer (Minoru Boulevard)***: The existing City sanitary sewer serving the existing CF Richmond Centre mall, in the form of a 6.0 m (19.7 ft.) wide strip of land generally extending the length of the existing sewer line, which right-of-way shall be discharged (at the developer's sole cost) upon the developer's removal of the existing sewer and the installation of new (replacement) City services in an alternative location, together with the registration of right-of-ways and/or other legal agreements, as required to accommodate the subject development and existing mall; and
- 2.7.3. ***Additional City Utilities (No. 3 Road)***: An additional utility SRW on Lot 2 (East) and Remainder Lot (North) to facilitate the developer's installation, at the developer's sole cost, of a new City sanitary sewer along approximately 330 m (1,083 ft.) of the lots' No. 3 Road frontages, as determined to the satisfaction of the City. The SRW area may include the required sanitary sewer, other City utilities, and/or related features, as determined to the City's sole satisfaction, to provide for the developer's installation of the required sanitary sewer. For clarity, as determined to the City's satisfaction the SRW agreement shall include, among other things:
 - a) ***No Development Covenant***: Registration of a restrictive covenant(s) on title to Lot 2 (East) and Remainder Lot (North) securing that "no development" will be permitted and restricting Development Permit* issuance, in whole or in part, for any Development Permit* that includes any residential use, increase in gross leasable floor area on the lot, and/or structure (including underground parking) along the No. 3 Road frontage of one or both lots, as determined in the City's discretion, until the blanket SRW is replaced with a survey plan (registered on both lots), to the satisfaction of the Director of Engineering; and
 - b) ***No Build Covenant***: Registration of a restrictive covenant(s) on title to Lot 2 (East) and Remainder Lot (North) securing that "no building" will be permitted and restricting Building Permit* issuance, in whole or in part, for any Building Permit* that includes any residential use, increase in gross leasable floor area on the lot, and/or structure (including underground parking) along the No. 3 Road frontage of one or both lots, as determined in the City's discretion, until the developer enters into a Servicing Agreement* for the design and construction of the City utilities (on both lots), to the satisfaction of the City Director of Engineering.

- 2.8. Driveway Crossings: Registration of a restrictive covenant(s) and/or alternative legal agreement(s) on title to limit vehicle access to/from the subject site along City-owned streets. Requirements shall be confirmed to the satisfaction of the City, on a lot-by-lot basis, prior to Development Permit* and Servicing Agreement* issuance.
- 2.8.1. *Lot 1 (West)*: Six (6) driveway crossings, including along:
- Minoru Boulevard: Three (3) permanent crossings, including those at the Murdoch Avenue SRW, Minoru Gate SRW, and one on-site parking access between Murdoch Avenue and Minoru Gate, and one (1) interim crossing at the Future City Street SRW; and
 - Future City Street: Two (2) crossings, including the North-South Street SRW and one on-site parking access;
- 2.8.2. *Lot 2 (East)*: Three (3) driveway crossings, including along:
- No. 3 Road: One (1) permanent crossing at the Park Road SRW and one (1) interim crossing at the Future City Street SRW; and
 - Future City Street: One (1) on-site parking access; and
- 2.8.3. *Remainder Lot (North)*: Four (4) driveway crossings, including:
- Minoru Boulevard: Two (2) crossings, including one (1) at the Murdoch Avenue SRW and one (1) on-site parking access; and
 - No. 3 Road: Two (2) crossings, including one (1) at the Cook Road SRW and one (1) on-site parking access.
- 2.9. No Separate Sale: Registration of legal agreements on title on Lot 1 (West), Lot 2 (East), and the Remainder Lot (North), as per the Preliminary Subdivision Plan (**Schedule A**), requiring that the lots may not be sold or otherwise transferred separately without prior approval of the City, to ensure that legal agreements and business terms related to financial, legal, development, and other obligations assigned to each lot as a result of the subject OCP Amendment application are transferred and secured to the satisfaction of the Director of Development and the City Solicitor. The City acknowledges that (i) a limited partnership for each lot will be created to facilitate the funding/financing of the development; (ii) following the initial subdivision, each lot will be transferred to a related limited partnership; (iii) following the registration of an airspace subdivision for the applicable lot, the remainder will be transferred back to the owners of the enclosed shopping centre; and (iv) one or more nominees may be used as registered owners in connection with the aforementioned transfers. The City approves in advance the noted transfers and the developer will cause each new owner to assume the legal agreements and obligations in respect of the applicable lot(s).
3. Affordable Housing: The City's acceptance of the developer's offer to voluntarily contribute affordable housing, in the form of low-end market rental (LEMR) units, constructed to a turnkey level of finish on Lot 1 (West) and Lot 2 (East) at the sole cost of the developer, the terms of which voluntary contribution shall include, but will not be limited to, the registration of the City's standard Housing Agreement and Covenant on title to each lot to secure the affordable housing units. The form of the Housing Agreements and Covenants shall be agreed to by the developer and the City prior to final adoption of the subject OCP Amendment application; after which time, only the Housing Covenants may be amended or replaced and any such changes will only be permitted for the purpose of accurately reflecting the specifics of the Development Permit* for Lot 1 (West) and Lot 2 (East) and other non-materials changes resulting thereof and made necessary by the Lot 1 (West) and Lot 2 (East) Development Permit* approval requirements, as determined to the satisfaction of the Director of Development and Manager of Community Social Development. The terms of the Housing Agreements and Covenants shall indicate that they apply in perpetuity and provide for, but will not be limited to, the requirements set out in **Schedule C**.
4. District Energy Utility (DEU): Registration of a restrictive covenant and statutory right of way and/or alternative legal agreement(s) on title to Lot 1 (West) and Lot 2 (East), to the satisfaction of the City, securing the owner's commitment to connect to District Energy Utility (DEU) and granting the statutory right of way(s) necessary for

supplying the DEU services to the building(s), which covenant and statutory right of way and/or legal agreement(s) will include, at minimum, the terms and conditions set out in **Schedule D**.

5. No Development Omnibus: Registration of a restrictive covenant(s) and/or alternative legal agreement(s) on title to Lot 1 (West) and Lot 2 (East) securing that “no development” will be permitted and restricting Development Permit* issuance, on a lot-by-lot basis, in whole or in part, for any Development Permit* that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion, (together with various Building Permit* and occupancy restrictions, as determined to the satisfaction of the City), until the following is complete to the satisfaction of the City:
 - 5.1. Development Staging: Development of Lot 1 (West) and Lot 2 (East) shall comprise a maximum of two (2) stages or phases (i.e. one per lot), the comprehensive design and development of which shall be approved through two (2) Development Permits* (i.e. one for each lot), unless otherwise determined to the satisfaction of the Director of Development. Moreover:
 - 5.1.1. Development Permit* issuance for the entirety of Lot 1 (West), shall:
 - a) Comprise a single Development Permit*, generally as per the Lot 1 Development Permit (DP) Scope Diagram (**Schedule M**) (exclusive of Development Permits that do not include any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion);
 - b) Include, among other things, Canada Line Connectivity Improvements (e.g., No. 3 Road Sidewalk Widening, Cross-Mall Public Pedestrian Access “Interim Connection”, pedestrian crossing improvements at the No. 3 Road/Bus Mall intersection); and
 - c) Occur prior to Development Permit* issuance for the first building on Lot 2 (East);
 - 5.1.2. Development Permit* issuance for the entirety of Lot 2 (East), which shall:
 - a) Comprise a single Development Permit* (exclusive of Development Permits that do not include any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion); and
 - b) Include, among other things, Canada Line Connectivity Improvements (e.g., Cross-Mall Public Pedestrian Access “Ultimate Connection”);
 - 5.1.3. Building Permit* issuance for the entirety of Lot 1 (West) (exclusive of Building Permits that do not include any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion), which may include multiple Building Permits*, shall occur prior to issuance of the first Building Permit* for Lot 2 (East);
 - 5.1.4. Final Building Permit(s)* inspection granting occupancy for the entirety of Lot 1 (West) (exclusive of Building Permits that do not include any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion) shall occur prior to final Building Permit* inspection granting occupancy for the first building, in whole or in part, on Lot 2 (East); and
 - 5.1.5. Notwithstanding the above, the City will permit occupancy of the building on Lot 1 (West) and/or Lot 2 (East) to proceed in stages (e.g., tower-by-tower), provided that "no occupancy" shall be permitted of any stage except as expressly provided for with legal agreements registered on title and other measures (e.g., security), for the purpose of ensuring that the completion of affordable housing, publicly-accessible streets and open spaces, residential amenities, City utilities, public art, parking, end-of-trip facilities, mobility hubs, off-site transportation improvements, and other features are appropriately coordinated with the completion of the developer’s market residential and non-residential uses, as determined to the satisfaction of the Director of Development, Director of Transportation, Director, Parks Services, Director of Arts, Culture, and Heritage, Manager of Community Social Development, Manager of Environmental Sustainability, Director of Engineering, and City Solicitor.

- 5.2. Remainder Lot (North): “No development” shall be permitted on the Remainder Lot (North), restricting Development Permit* issuance for any building on the lot, in whole or in part, that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion, unless, as determined to the sole satisfaction of the City:
- 5.2.1. The Development Permit* and any related permit(s) include the design of any required SRW area on the lot, to the City’s satisfaction;
 - 5.2.2. The owner provides road dedications in compliance with the Murdoch Avenue and Cook Road SRW agreements, as determined to the City’s satisfaction; and
 - 5.2.3. The required “Canada Line Connectivity Improvements” are complete or as otherwise determined to the City’s satisfaction.
- 5.3. Servicing Agreement (SA)* Requirements:
- 5.3.1. Prior to Building Permit* issuance for the first building to be constructed on a lot (that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion), in whole or in part, the owner shall:
- a) For Lot 1 (West), enter into Servicing Agreement #1* for the design and construction, at the developer’s sole cost, of full upgrades across the Lot 1 (West) street frontages, together with other engineering, transportation, and parks works, as determined to the satisfaction of the City, which shall include, but shall not be limited to:
 - i) Road widening along Minoru Boulevard, together with various intersection improvements;
 - ii) Construction of the portion of the Future City Street along the south side of Lot 1 (West);
 - iii) Interim improvements with respect to Murdoch Avenue on the Remainder Lot (North);
 - iv) Canada Line connectivity enhancements in the form of frontage improvements across the Remainder Lot (North), 6253 No. 3 Road, and 6060 Minoru Boulevard;
 - v) Construction of the portion of Park Road and related private (SRW) streets located on Lot 1 (West);
 - vi) Construction of the Park Road Plaza; and
 - vii) Various utility upgrades; and
 - b) For Lot 2 (East), enter into Servicing Agreement #2* for the design and construction, at the developer’s sole cost, of full upgrades across the Lot 2 (East) street frontages, together with other engineering, transportation, and parks works, as determined to the satisfaction of the City, which shall include, but shall not be limited to:
 - i) Road widening along No. 3 Road, together with various intersection improvements;
 - ii) Construction of the portion of the Future City Street along the south side of Lot 2 (East);
 - iii) Construction of Cook Road on the Remainder Lot (North);
 - iv) No. 3 Road frontage improvements across Lot 2 (East) and the Remainder Lot (North);
 - v) Construction of the portion of Park Road and related private (SRW) streets located on Lot 2 (East); and
 - vi) Pump station improvements and various utility upgrades.
- 5.3.2. Except as expressly provided for and in compliance with the subject development’s approved “*Development Staging*”, related legal agreement(s), and security, to the satisfaction of the Director of Development, Director of Transportation, Director, Parks Services, and Director of Engineering:
- a) Prior to Building Permit* issuance, all Servicing Agreement (SA)* works must be secured via a Letter(s) of Credit;

- b) Except as expressly determined in the sole discretion of the City and secured with legal agreement(s) registered on title to the lot(s), all works shall be completed, on a stage-by-stage (phase-by-phase) basis, prior to final Building Permit* inspection granting occupancy of the first building in the stage (phase) (excluding parking intended as an ancillary use to non-parking uses), in whole or in part; and
 - c) Development Cost Charge (DCC) credits may apply.
- 5.3.3. Servicing Agreement (SA)* works will include, but may not be limited to, the following:
- a) Parks: The developer shall be responsible, at the developer sole cost, for the design and construction of the Park Road Plaza SRW area, based on a developer-prepared/City-approved functional program for the plaza (completed as part of the Lot 1 (West) Development Permit* design review process prior to preparation of the Development Permit* staff report), as determined to the satisfaction of the Director of Development, Director, Parks Services, Director of Arts, Culture, and Heritage Services, and Director of Engineering. For clarity, the Parks SA* works shall only include the Park Road Plaza, EXCEPT if otherwise determined by the Director of Development through the Development Permit* process for Lot 1 (West) or Lot 2 (East);
 - b) Engineering Servicing: Requirements as set out in **Schedule E** and **Schedule F**; and
 - c) Transportation: Requirements as set out in **Schedule G** and the Preliminary Functional Road Plan (**Schedule H**).
- 5.4. City Centre “Parking Zone 1” & TDM Strategy Requirements: Prior to Development Permit* issuance for Lot 1 (West) and Lot 2 (East), on a lot-by-lot basis, legal agreements shall be registered on title to Lot 1 (West), Lot 2 (East), and Remainder Lot (North) securing the developer’s voluntary commitment to provide, at the developer’s sole cost, various transportation-related improvements and transportation demand management (TDM) measures for the purpose of satisfying Zoning Bylaw requirements for reducing the development’s required parking rates (i.e. from CDT1 rates to Parking Zone 1 rates) and permitting a further parking reduction of up to 10% for the provision of TDM measures, as determined to the satisfaction of the Director of Transportation..
- 5.4.1. Actual parking rates shall be confirmed prior to Development Permit* issuance, on a lot-by-lot basis, to the satisfaction of the Director of Transportation.
- NOTE: Required parking may be provided collectively (i.e. the required need may be determined and satisfied across two or more lots) provided that the affected parking facilities are located not more than 150 m (492 ft.) from any building or use being served and use of the parking facilities is secured with legal agreements to the satisfaction of the City.
- 5.4.2. The development’s required transportation-related improvements and TDM measures shall include, but may not be limited to those items set out in **Schedule I** and the Mobility Hub Vision (**Schedule J**).
- 5.5. Additional Development Requirements: Prior to Development Permit* issuance for Lot 1 (West) and Lot 2 (East), on a lot-by-lot basis, the developer shall satisfy the following items, as set out in **Schedule K**, to the satisfaction of the City:
- 5.5.1. *NAV Canada Building Heights*;
 - 5.5.2. *Family-Friendly Housing Unit Mix*;
 - 5.5.3. *Public Art*;
 - 5.5.4. *Electric Vehicle (EV) Charging Infrastructure for Vehicles & “Class 1” Bicycle Storage*; and
 - 5.5.5. *Tree Removal and Replacement*.

5.6. Standard City Legal Requirements: Prior to Development Permit* issuance for Lot 1 (West) and Lot 2 (East), on a lot-by-lot basis, the developer shall satisfy the following items, as set out in **Schedule L**, to the satisfaction of the City:

5.6.1. *Flood Construction Covenants*;

5.6.2. *Aircraft Noise Covenants*;

5.6.3. *Canada Line Covenants*;

5.6.4. *View Blockage & Other Development Impacts Covenants*; and

5.6.5. *Tandem Parking Covenants*.

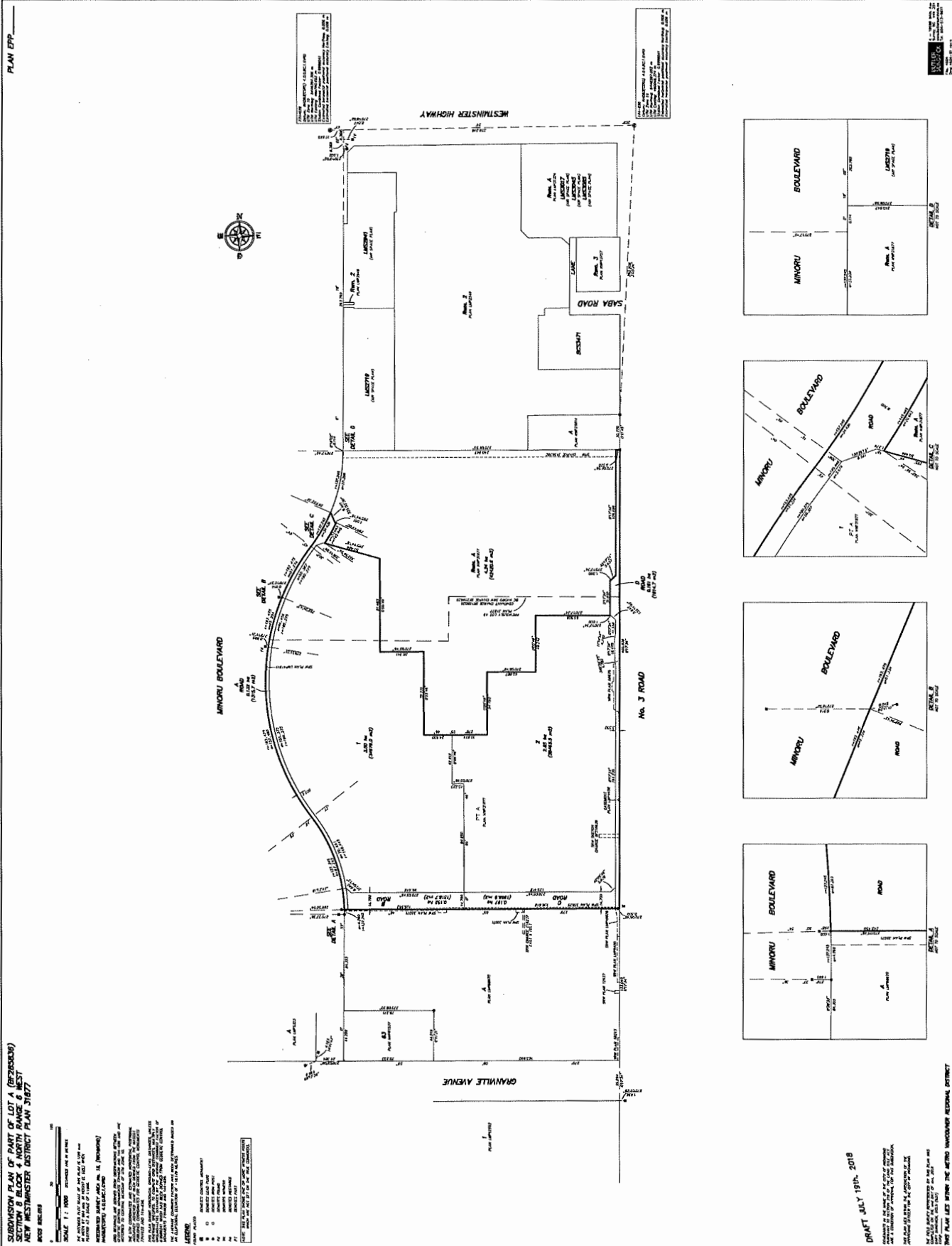
6. Development Permit* Readiness for Lot 1 (Phase 1): The submission and processing of a Development Permit* for Lot 1 (West), generally as per the Lot 1 Development Permit (DP) Scope Diagram (**Schedule M**), shall be completed to a level deemed acceptable by the Director of Development, which shall include, among other things, the non-redeveloping portion of the existing shopping centre (e.g., walls, roof, ground plane, landscape, and/or related features) where the City determines that its form and character will impact the character, quality, and/or livability of the redeveloping portion of the site due to, for example, its prominence along proposed private-owned, publicly-accessible streets.

SIGNED COPY ON FILE

Signed

Date

SCHEDULE A
Preliminary Subdivision Plan



SUBDIVISION PLAN OF PART OF LOT 1 (REFERRING TO SECTION 8 BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN 31677)

SCALE 1:1000

DATE OF PLAN 17 JULY 2018

PREPARED BY MARY JACOBS INC. (18-10000000)

REGISTERED PROFESSIONAL ENGINEER

REGISTERED PROFESSIONAL LAND SURVEYOR

REGISTERED PROFESSIONAL CIVIL ENGINEER

REGISTERED PROFESSIONAL ARCHITECT

REGISTERED PROFESSIONAL ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL MECHANICAL ENGINEER

REGISTERED PROFESSIONAL CHEMICAL ENGINEER

REGISTERED PROFESSIONAL AERONAUTICAL ENGINEER

REGISTERED PROFESSIONAL AGRICULTURAL ENGINEER

REGISTERED PROFESSIONAL METALLURGICAL ENGINEER

REGISTERED PROFESSIONAL MINING ENGINEER

REGISTERED PROFESSIONAL CIVIL ENGINEER

REGISTERED PROFESSIONAL ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL MECHANICAL ENGINEER

REGISTERED PROFESSIONAL CHEMICAL ENGINEER

REGISTERED PROFESSIONAL AERONAUTICAL ENGINEER

REGISTERED PROFESSIONAL AGRICULTURAL ENGINEER

REGISTERED PROFESSIONAL METALLURGICAL ENGINEER

REGISTERED PROFESSIONAL MINING ENGINEER

REGISTERED PROFESSIONAL CIVIL ENGINEER

REGISTERED PROFESSIONAL ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL MECHANICAL ENGINEER

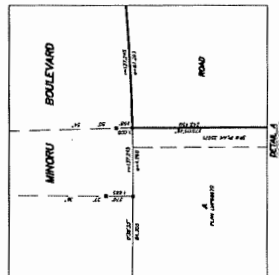
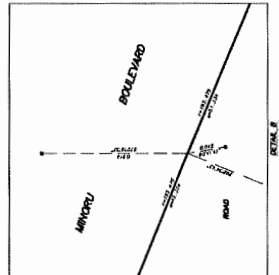
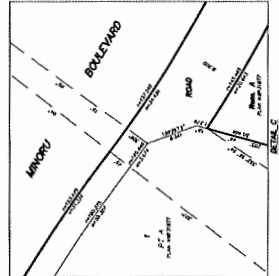
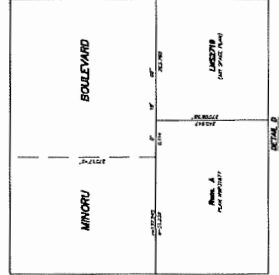
REGISTERED PROFESSIONAL CHEMICAL ENGINEER

REGISTERED PROFESSIONAL AERONAUTICAL ENGINEER

REGISTERED PROFESSIONAL AGRICULTURAL ENGINEER

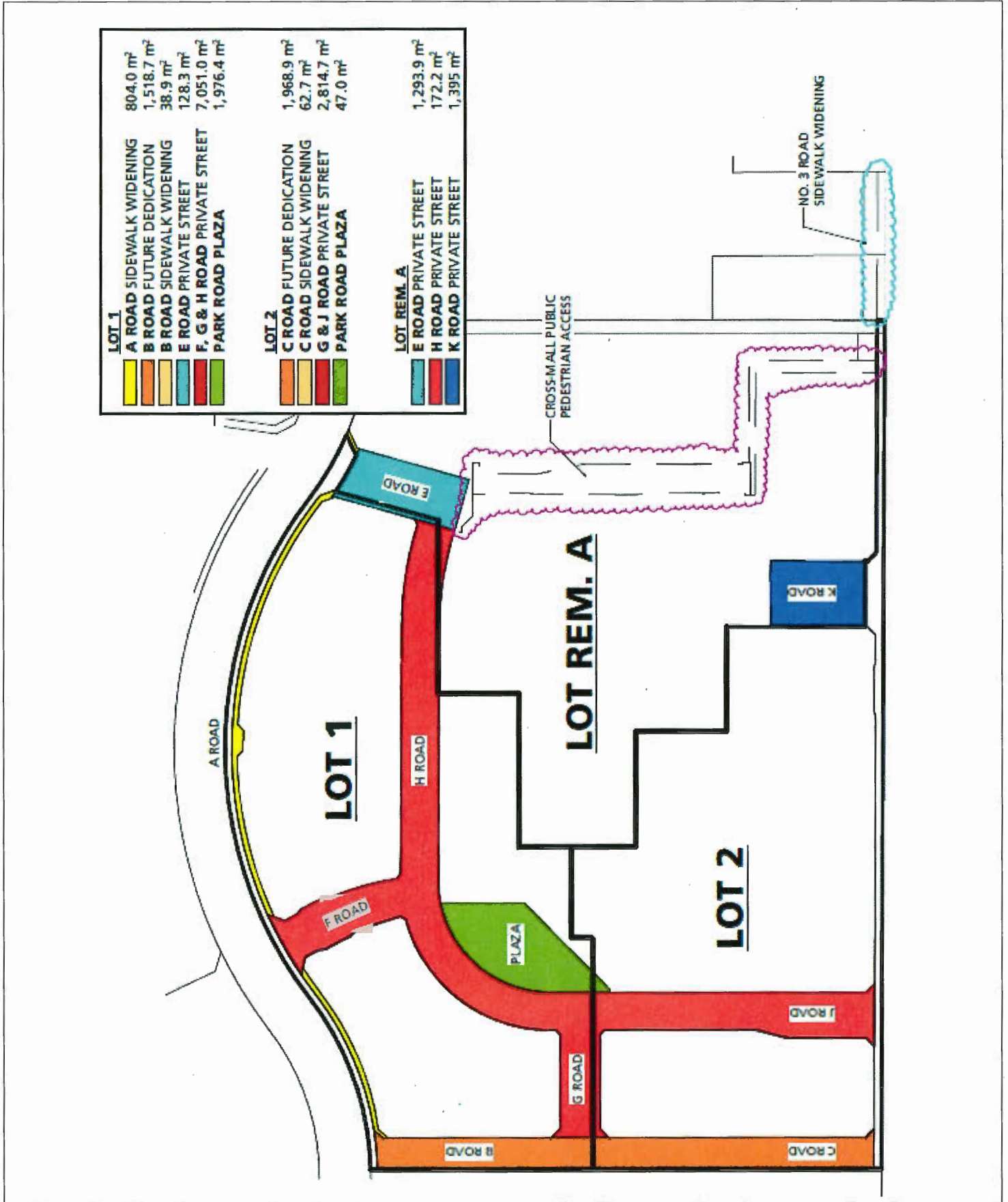
REGISTERED PROFESSIONAL METALLURGICAL ENGINEER

REGISTERED PROFESSIONAL MINING ENGINEER



DRAFT JULY 19th, 2018

THIS PLAN LIES WITHIN THE METRO WINDSOR REGIONAL DISTRICT



Affordable Housing
Terms & Conditions

The City's acceptance of the developer's offer to voluntarily contribute affordable housing, in the form of low-end market rental (LEMR) units, constructed to a turnkey level of finish on Lot 1 (West) and Lot 2 (East) at the sole cost of the developer, the terms of which voluntary contribution shall include, but will not be limited to, the registration of the City's standard Housing Agreement and Covenant on title to each lot to secure the affordable housing units. The form of the Housing Agreements and Covenants shall be agreed to by the developer and the City prior to final adoption of the subject OCP Amendment application; after which time, only the Housing Covenants may be amended or replaced and any such changes will only be permitted for the purpose of accurately reflecting the specifics of the Development Permit* for Lot 1 (West) and Lot 2 (East) and other non-materials changes resulting thereof and made necessary by the Lot 1 (West) and Lot 2 (East) Development Permit* approval requirements, as determined to the satisfaction of the Director of Development and Manager of Community Social Development. The terms of the Housing Agreements and Covenants shall indicate that they apply in perpetuity and provide for, but will not be limited to, the following requirements.

NOTE: In accordance with Richmond's Affordable Housing Strategy, effective July 24, 2017, the subject OCP amendment application shall be grandfathered under the City's built unit requirement of 5% of total residential building area on the basis that it was (i) submitted prior to July 24, 2017, and (ii) presented for consideration by Council prior to July 24, 2018 (i.e. April 9, 2018). For clarity, the developer's affordable contribution and the grandfathering of City's built unit (5%) requirement applies only to Lot 1 (West) and Lot 2 (East) and does not apply to any future development of Remainder Lot (North).

1. **Stand-Alone Buildings & Non-Profit Operator:** The applicant has indicated to the City that it plans to pursue an agreement with a non-profit organization(s) to manage the development's required LEMR units on Lot 1 (West) and Lot 2 (East). To support this partnership, the City is willing to accept lot-by-lot clustering of the required units in the form of stand-alone buildings, together with the clustering of other building features intended for the exclusive use of the affordable housing tenants (e.g., parking, Class 1 bike storage, waste management features).
 - a) The affordable housing shall occupy two (2) stand-alone buildings, including:
 - i) One near the southeast corner of Lot 1 (West), fronting the Future City Street; and
 - ii) One near the northeast corner of Lot 2, fronting Cook Road.
 - b) Both stand-alone buildings shall be integrated with the development's underground parking structure, roof deck, and related features, but will be designed to function as independent buildings that do not share common circulation (e.g., lobbies, hallways, elevators, stairs) or indoor residential amenity spaces with the market-residential or commercial uses on Lot 1 (West) or Lot 2 (East).
 - c) The affordable housing shall be distributed such that a proportional share of the required habitable space for the affordable housing units will be located on each of Lot 1 (West) and Lot 2 (East).
2. **Minimum Required Floor Area:** The required minimum floor area of the affordable housing buildings, exclusive of parking, bike storage, and ancillary uses not intended for the exclusive use of the affordable housing occupants (e.g., visitor parking, waste management areas, any amenity spaces or other uses shared with the market residential dwelling occupants, landscaping) shall comprise the combined total area of the following, as determined to the satisfaction of the Director of Development and Manager of Community Social Services and set out in an approved Development Permit*:
 - a) 5% of the subject development's total residential building area, calculated on a lot-by-lot basis, on Lot 1 (West) and Lot 2 (East), as specified in the Development Permit* approved by the City for each lot, all of which area is to be allocated for the net floor area of the affordable housing dwelling units;
 - b) Circulation (e.g., lobbies, hallways, elevators, stairs) intended for the exclusive use of the affordable housing occupants;
 - c) Indoor amenity space within and around the affordable housing building, designed and secured for the exclusive use of the affordable housing occupants, the size of which space shall comply, on a lot-by-lot basis,

with standard City OCP and City Centre Area Plan (CCAP) policy as applicable to a “stand alone” building without access to amenities shared with another building; and

- d) All walls, mechanical, electrical, and similar spaces required to facilitate the owner’s provision of the proposed “stand alone” affordable housing building on each lot.

3. **Housing Requirements:** The developer shall, on a lot-by-lot basis, as generally indicated in the table below:

- a) Ensure that the types, sizes, rental rates, and occupant income restrictions for the affordable housing units are in accordance with the City’s Affordable Housing Strategy and guidelines for Low End Market Rental (LEMR) housing, unless otherwise agreed to by the Director of Development and Manager, Community Social Development; and
- b) Achieve the Project Targets for unit mix and Basic Universal Housing (BUH) standard compliance or as otherwise determined to the satisfaction of the Manager, Community Social Development through an approved Development Permit*.

Unit Type	Minimum Unit Area	Maximum Monthly LEMR Unit Rent***	Total Maximum Household Income**	Project Targets	
				Unit Mix**	BUH Units*
Bachelor	400 ft2	\$811	\$34,650 or less	10%	100%
1-Bedroom	535 ft2	\$975	\$38,250 or less	30%	100%
2-Bedroom	741 ft2	\$1,218	\$46,800 or less	30%	100%
3-Bedroom	980 ft2	\$1,480	\$58,050 or less	30%	100%

* BUH units means those units that are designed and constructed to satisfy the Zoning Bylaw’s Basic Universal Housing standards. (NOTE: The Zoning Bylaws permits a floor area exemption of 1.86 m² / 20 ft² per BUH unit.)

** The unit mix will be confirmed to the satisfaction of the City, on a lot-by-lot basis, through the Development Permit* processes for each lot. The recommended unit mix is indicated in the table; however, based on approved design, which may take into account non-profit housing operator input, the unit mix may be varied provided that at least 50% of total affordable housing units are some combination of “family friendly”, 2- and 3-bedroom units.

NOTE: The targeted unit mix is intended to apply to each lot on a stand-alone basis; however, the City, in its sole discretion, may apply the targeted unit mix to the comprehensive development of Lot 1(West) and Lot 2 (East) such that, for example, one lot may have a lesser percentage of family-friendly units and the other may have a higher percentage, provided that, as determined to the City’s satisfaction, through the Development Permit* approval processes:

- A non-profit housing provider(s) is involved (e.g., memorandum of understanding);
- The Housing Covenant on each lot is revised to accurately reflect the specifics of the affordable housing units and ancillary spaces and uses, as per the approved Development Permit* for each lot; and
- Additional legal agreement(s) are registered on title to the lot(s) to secure the developer’s commitment to the phased (lot-by-lot) implementation of City-approved unit mix across the comprehensive development of Lot 1(West) and Lot 2 (East).

*** Rate shall be adjusted periodically as provided for under adopted City policy.

- c) Occupants of the affordable housing units shall, on a lot-by-lot basis, to the satisfaction of the City (as determined prior to Development Permit* approval), enjoy full and unlimited access to and use of all on-site indoor and outdoor amenity spaces provided with respect to the affordable housing building as per OCP, City Centre Area Plan, and Development Permit* requirements, at no additional charge to the affordable housing tenants (i.e. no monthly rents or other fees shall apply for the casual, shared, or exclusive use of any amenities).
- d) On-site parking, “Class 1” bike storage, and related electric vehicle (EV) charging stations shall be provided, on a lot-by-lot basis, for the use of affordable housing occupants as per the OCP, Zoning Bylaw, and approved Development Permit* at no additional charge to the affordable housing tenants (i.e. no monthly rents or other fees shall apply for the casual, shared, or exclusive use of the parking spaces, bike storage, EV charging stations, or related facilities by affordable housing tenants), which features may be secured via legal agreement(s) on title prior to Development Permit* issuance or as otherwise determined to the satisfaction of the City. (For clarity, those occupants of the affordable units who utilize the vehicle EV charging stations may be required to pay for the cost of their utility usage, but not for their use of the EV charging equipment or associated parking.)

4. **Building Features:** The affordable housing units, related uses (e.g., parking, garbage/recycling, hallways, amenities, lobbies), and associated landscaped areas shall be completed, on a lot-by-lot basis, to a turnkey level of finish, at the sole cost of the developer, to the satisfaction of the Director of Development and Manager, Community Social Development. Building features shall include, but may not be limited to the following items.
- a) Indoor amenity space shall be provided, on a lot-by-lot basis, within and around the affordable housing buildings; which spaces shall be designed and secured for the exclusive use of the affordable housing occupants and satisfy standard City OCP and City Centre Area Plan (CCAP) policies with respect to minimum amenity size, which for clarity shall:
 - i) Be calculated based on a rate of at least 100 m² (1,076 ft²) per affordable housing building or 2.0 m² (21.5 ft²) per affordable housing unit, whichever is greater, for some combination of social, recreational, cultural, and/or educational purposes; and
 - ii) In addition to the above, include at least 19 m² (200 ft²) per building for as administrative (e.g., office) space for the use of the housing operator.
 - b) Outdoor residential amenity space shall be provided for the shared use of the affordable housing occupants, on a lot-by-lot basis, in compliance with standard City OCP and City Centre Area Plan (CCAP) policies (e.g., at least 6 m² / 65 ft² per affordable housing unit, together with additional landscaped space).
 - c) The affordable housing buildings, including their housing units and common areas (e.g., circulation, lobbies, indoor/outdoor amenity spaces, parking, bike storage, and waste management areas), shall be accessible to people with disabilities, in compliance with the BC Building Code or as otherwise determined to the satisfaction of the Manager of Community Social Development and Manager of Building Approvals.
 - d) The affordable housing buildings, including their common areas and housing units, shall be equipped with an audio/visual alarm systems.
5. “No development” shall be permitted on Lot 1 (West) or Lot 2 (East), restricting Development Permit* issuance on a lot-by-lot basis for a building on Lot 1 (West) and Lot 2 (East), in whole or in part, that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City’s discretion (excluding parking intended as an ancillary use to non-parking uses), until the developer, to the City’s satisfaction:
- a) Submits, for consideration by the City, a memorandum of understanding with a non-profit operator demonstrating, among other things, support for the developer’s proposed clustered affordable housing unit arrangement and unit mix on the lot; and
 - b) Designs the lot to provide for the affordable housing units and ancillary spaces and uses;
 - c) Amends or replaces the Housing Covenant to accurately reflect the specifics of the affordable housing units and ancillary spaces and uses as per the approved Development Permit*; and
 - d) As required, registers additional legal agreements on title to the lot(s) to facilitate the detailed design, construction, operation, and/or management of the affordable housing units and/or ancillary spaces and uses (e.g., parking) as determined by the City via the Development Permit* review and approval processes.
6. No Building Permit* shall be issued for a building on Lot 1 (West) or Lot 2 (East) that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, in whole or in part (excluding parking intended as an ancillary use to non-parking uses), until, on a lot-by-lot basis, the developer provides for the required affordable housing units and ancillary spaces and uses to the satisfaction of the City.
7. “No occupancy” shall be permitted on Lot 1 (West) or Lot 2 (East), restricting final Building Permit* inspection granting occupancy for any residential uses on Lot 1 (East Lot) and /or Lot 2 (West Lot), in whole or in part (except for parking), until, on a lot-by-lot basis, the required affordable housing units and ancillary spaces and uses are completed to the satisfaction of the City and have received final Building Permit* inspection granting occupancy.

District Energy Utility (DEU)
Terms & Conditions

Registration of a restrictive covenant and statutory right of way and/or alternative legal agreement(s) on title to Lot 1 (West) and Lot 2 (East), to the satisfaction of the City, securing the owner's commitment to connect to District Energy Utility (DEU) and granting the statutory right of way(s) necessary for supplying the DEU services to the building(s), which covenant and statutory right of way and/or legal agreement(s) will include, at minimum, the following terms and conditions:

1. No Building Permit will be issued for a building on the subject site (excluding any commercial portions of the existing enclosed mall) unless;
 - a) the building is designed with the capability to connect to and be serviced by a DEU; and
 - b) the owner has provided an energy modelling report satisfactory to the Director of Engineering.
2. If a district energy utility service area bylaw which provides for owner construction of an energy generation plant (a "DEU Bylaw"), and which applies to the site, has been adopted by Council prior to the issuance of the development permit for the subject site, no building permit will be issued for a building on the subject site unless:
 - a) the owner designs, to utility grade specification and the satisfaction of the City and the City's DEU service provider, Lulu Island Energy Company Ltd. (LIEC), a low carbon energy plant(s) which provides a minimum 70% of space heating, space cooling and domestic hot water annual energy use from a renewable (non-carbon) energy source, to be constructed and installed on the site, with the capability for the low carbon energy plant(s) and the building side HVAC systems for the site (excluding any commercial portions of the enclosed mall) to connect to and be serviced by a DEU; and
 - b) the owner enters into an asset transfer agreement with the City and/or the City's DEU service provider on terms and conditions satisfactory to the City, which provides, without limitation:
 - i) that the owner will transfer ownership of the low carbon energy plant(s), the distribution piping system, and all other ancillary components on the subject site used to generate or convey space heating, space cooling and domestic hot water heating up to and including energy transfer stations, to the City or as directed by the City, including to the City's DEU service provider, at no cost to the City or City's DEU service provider, LIEC, on a date prior to final building inspection permitting occupancy of the first building on the site; and
 - ii) that the City and/or the City's DEU service provider will have final approval of all design elements, equipment specifications, construction inspections and work approvals for the low carbon energy plants.
3. The owner agrees that the building(s) (excluding any commercial portions of the enclosed mall) will connect to a DEU when a DEU is in operation, unless otherwise directed by the City and the City's DEU service provider, LIEC.
4. If a DEU is available for connection and the City has directed the owner to connect, no final building inspection permitting occupancy of a building will be granted unless, and until:
 - a) the building (excluding any commercial portions of the enclosed mall) is connected to the DEU;
 - b) the owner enters into a Service Provider Agreement for that building with the City and/or the City's DEU service provider, LIEC, executed prior to depositing any Strata Plan with LTO and on terms and conditions satisfactory to the City which provides, without limitation, that the City or the City's DEU service provider will be the exclusive provider of space heating and domestic hot water heating, and when available space cooling, services for the building (excluding any commercial portions of the enclosed mall), unless otherwise agreed to by the City Engineer and set out in the Service Provider Agreement; and
 - c) prior to subdivision (including Air Space parcel subdivision and Strata Plan filing, but excluding the subdivision to create the Lot 1(West) and Lot 2 (East)), the owner grants or acquires, and registers, all Statutory Right-of-Way(s) and/or easements necessary for supplying the DEU services to the building.

5. If a DEU is not available for connection, but a DEU Bylaw which applies to the site has been adopted by Council prior to the issuance of the development permit for the subject site, no final building inspection permitting occupancy of a building will be granted unless and until:
 - a) the City receives a professional engineer's certificate stating that the building (excluding any commercial portions of the enclosed mall) has the capability to connect to and be serviced by a DEU;
 - b) the building (excluding any commercial portions of the enclosed mall) is connected to a low carbon energy plant(s) supplied and installed by the owner, at the owner's sole cost, to provide space heating, space cooling and domestic hot water heating to the building(s), which energy plant(s) will be designed, constructed and installed on the subject site to the satisfaction of the City and the City's service provider, LIEC;
 - c) the owner transfers ownership of the low carbon energy plant(s), the distribution piping system, and all other ancillary components on the subject site used to generate or convey space heating, space cooling and domestic hot water heating up to and including energy transfer stations, to the City or as directed by the City to the City's DEU service provider, LIEC, at no cost to the City or the City's DEU service provider, LIEC, on terms and conditions satisfactory to the City;
 - d) prior to depositing a Strata Plan, the owner enters into a Service Provider Agreement for the building with the City and/or the City's DEU service provider, LIEC, on terms and conditions satisfactory to the City which provides, without limitation, that the City or the City's DEU service provider will be the exclusive provider of space heating, space cooling and domestic hot water heating services for the building (excluding any commercial portions of the enclosed mall), unless otherwise agreed to by the City Engineer and set out in the Service Provider Agreement; and
 - e) prior to subdivision (including Air Space parcel subdivision and Strata Plan filing, but excluding the subdivision to create the Lot 1(West) and Lot 2 (East)), the owner grants or acquires, and registers, all additional Covenants, Statutory Right-of-Way(s) and/or easements necessary for supplying the services to the building and the operation of the low carbon energy plant(s) by the City and/or the City's DEU service provider, LIEC.
6. If a DEU is not available for connection, and a DEU Bylaw which applies to the site has not been adopted by Council prior to the issuance of the Development Permit for the subject site, no final building inspection permitting occupancy of a building will be granted until:
 - a) the City receives a professional engineer's certificate stating that the building (excluding any commercial portions of the enclosed mall) has the capability to connect to and be serviced by a DEU; and
 - b) the owner grants or acquires any additional Statutory Right-of-Way(s) and/or easements necessary for supplying DEU services to the building, registered prior to subdivision (including Air Space parcel subdivision and strata plan filing).
7. The City, at the City's sole discretion can elect to exclude all of the commercial floor space of the buildings (including the common HVAC system of the commercial floor space of the residential buildings) from the conditions set out in sections 1 to 6 above, provided that:
 - a) the owner agrees that, subject to any exceptions agreed to by the City, the HVAC system(s) of all such excluded new commercial floor space in the buildings and the entirety of the southern portion of the enclosed mall (comprising of approximately 440,00ft² existing space plus new construction area (the "South Commercial HVAC Loop") will connect to a DEU to provide available heat rejection, at no cost to the City or the City's service provider, for the benefit of the City's service provider, LIEC, to utilize in its DEU, when a DEU is in operation, unless otherwise directed by the City and the City's DEU service provider, LIEC. For clarity, all mechanical equipment for commercial space will remain the property of the owner, and the owner will not be required to transfer ownership of same.
 - b) no building permit will be issued for a building on the subject site unless the South Commercial HVAC Loop is designed with the capability to reject heat to a DEU system (which includes, without limitation, the low carbon energy plant(s) in each of the residential buildings on the site) to the satisfaction of the City and the City's DEU service provider, LIEC;

- c) if a DEU Bylaw which applies to the site has been adopted by Council prior to the issuance of the development permit for the subject site, no building permit will be issued for a building on the subject site unless the owner designs, to the satisfaction of the City and the City's DEU service provider, LIEC, a heat rejection system from the South Commercial HVAC Loop. Connection points from the South Commercial HVAC Loop will be provided by the owner to enable the City or the City's service provider to capture and transfer the available commercial rejected heat to a DEU system(s) (which includes, without limitation, the low carbon energy plant(s) in residential buildings on the site);
- d) if a DEU is available for connection and the City has directed the owner to connect, no final building inspection permitting occupancy of a building will be granted unless, and until:
- i) the South Commercial HVAC Loop is connected to a DEU (which includes, without limitation, the low carbon energy plant(s) in residential buildings on site) to provide available rejected heat to the DEU;
 - ii) the owner enters into a Service Provider Agreement for such excluded commercial floor space in the building and the entire enclosed mall with the City and/or the City's DEU service provider, LIEC, executed prior to depositing any Strata Plan with LTO and on terms and conditions satisfactory to the City which provides, without limitation, that the City or the City's DEU service provider will be the exclusive recipient of available rejected heat, at no cost to the City or the City's DEU service provider, from the South Commercial HVAC Loop; and
 - iii) prior to subdivision (including Air Space parcel subdivision and Strata Plan filing, but excluding the subdivision to create the Lot 1(West) and Lot 2 (East)), the owner grants or acquires, and registers, all Statutory Right-of-Way(s) and/or easements necessary for the City or the City's DEU service provider to receive available rejected heat from the South Commercial HVAC Loop;
- e) if a DEU is not available for connection, but a DEU Bylaw which applies to the site has been adopted by Council prior to the issuance of the Development Permit for the subject site, no final building inspection permitting occupancy of a building will be granted unless and until:
- i) the City receives a professional engineer's certificate stating that the South Commercial HVAC Loop has the capability to, and will immediately, connect to and provide rejected heat to a DEU (which includes, without limitation, the low carbon energy plant(s) in residential buildings on the site);
 - ii) prior to depositing a Strata Plan, the owner enters into a Service Provider Agreement for such excluded commercial floor space of the building and the entire enclosed mall with the City and/or the City's DEU service provider, LIEC, on terms and conditions satisfactory to the City which provides, without limitation, that the City or the City's DEU service provider will be the exclusive recipient of available rejected heat, at no cost to the City or the City's DEU service provider, from the South Commercial HVAC Loop; and
 - iii) prior to subdivision (including Air Space parcel subdivision and Strata Plan filing, but excluding the subdivision to create the Lot 1(West) and Lot 2 (East)), the owner grants or acquires, and registers, all Statutory Right-of-Way(s) and/or easements necessary for the City or the City's DEU service provider to receive available rejected heat from the South Commercial HVAC Loop; and
- f) if a DEU is not available for connection, and a LCDEU service area bylaw which applies to the site has not been adopted by Council prior to the issuance of the Development Permit for the subject site, no final building inspection permitting occupancy of a residential building will be granted until:
- i) the City receives a professional engineer's certificate stating that the South Commercial HVAC Loop has the capability to, and will immediately, connect to and provide available rejected heat to a DEU (which includes, without limitation, the low carbon energy plant(s) in residential buildings on the site); and
 - ii) the owner grants or acquires, and registers, all Statutory Right-of-Way(s) and/or easements necessary for the City or the City's DEU service provider to receive available rejected heat from the South Commercial HVAC Loop.
8. The owner may on notice to the City elect to opt out of Section 7 above, and in such case, sections 1 through 6 above shall govern.

Servicing Agreement Requirements – Engineering Servicing Terms & Conditions

These requirements were written with the intention of being constructed in two phases, with phase 1 (generally located on the west side of the site) preceding phase 2 (generally located on the east side of the site). The developer is required to enter into Servicing Agreement 1 (outlined below) prior to the Building Permit for phase 1 being issued. The works under Servicing Agreement 1 must be completed prior to the occupancy of the first building of phase 1 unless otherwise determined to the City's sole satisfaction and secured with legal agreement(s) on title. Similarly, the developer is required to enter into Servicing Agreement 2 (outlined below) prior to the Building Permit for phase 2 being issued. The works under Servicing Agreement 2 must be completed prior to the occupancy of the first building of phase 2 unless otherwise determined to the City's sole satisfaction and secured with legal agreement(s) on title.

Servicing Agreement #1

1) Water Works:

- a) Using the OCP Model, there is 326.0 L/s of water available at a 20 psi residual at the Minoru Boulevard frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- b) The Developer is required to:
 - i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
 - ii) Upgrade the existing 250 mm AC water main to 300 mm PVC along the entire Minoru Boulevard frontage of the development site, approximately 450 m.
 - iii) Install approximately 135 m of new 300 mm water main along the new east-west road, complete with fire hydrants to achieve City spacing requirements, from the proposed water main in Minoru Boulevard to the extent of the phase 1 roadworks, complete with blow-off.
 - iv) Review hydrant spacing on all road frontages and install new fire hydrants as required to meet City spacing requirements for commercial land use.
 - v) Install one new water service connection, complete with meter and meter box, for each new parcel. Meters to be located onsite (i.e. in a mechanical room).
 - vi) Confirm which existing service connections are not required to serve the existing mall that is to remain and cut, cap, and remove unused connections.
- c) At Developer's cost, the City is to:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

2) Storm Sewer Works:

- a) The Developer is required to:
 - i) Perform a drainage analysis to the major conveyance along Murdoch Avenue at Minoru Boulevard. Upgrade the existing storm sewer along the Minoru Boulevard frontage as necessary to address OCP flows, and reconnect all existing connections. The drainage analysis shall be included in the servicing agreement drawing set.
 - ii) Install approximately 140 m of minimum 600 mm or OCP size storm sewer along the new east-west road, complete with catch basins, from the proposed storm sewer in Minoru Boulevard to the extent of the phase 1 roadworks.
 - iii) Install one new storm service connection, complete with inspection chamber, for each new parcel.
- b) At Developer's cost, the City is to:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

3) Sanitary Sewer Works:

- a) The Developer is required to:
 - i) Install approximately 175 m of new 250 mm sanitary sewer, 195 m of new 300 mm sanitary sewer, and 25 m of new 375 mm sanitary sewer along the Minoru Boulevard frontage from approximately the new east-west road to tie-in to the existing main along Murdoch Avenue. The main shall be designed to accommodate for the future sanitary flows from lots 6551/6631/6651 Minoru Boulevard, the City Hall, and 7811 Granville Avenue, based on OCP densities. The upstream invert shall be designed so that an extension of the main to service

7811 Granville Avenue & the City Hall, with adequate slopes and cover, is possible. (Development Cost charge credits may apply.)

- ii) Design the Murdoch Road extension to accommodate the future relocation of the sanitary forcemain from the north property line of the development site.
 - iii) There is an existing City sanitary sewer onsite near the Murdoch Road extension that will need to be removed to facilitate site preparation. Prior to start of site preparation (including but not limited to soil densification, excavation, and DSM wall construction), the developer is required to do the following:
 - A. Provide, as part of the phase 1 development permit application, a construction sequence plan for the installation of the new sanitary sewer in Murdoch, relocation of onsite sanitary service, and the removal/abandonment of the existing City sanitary sewer, for City review/approval.
 - B. Ensure that the existing mall remains serviced during and after the removal of the onsite City-owned sanitary sewer.
 - C. Provide a manhole and capped stub at the property line to serve the existing mall on the remainder lot. The sanitary sewer within the Murdoch Road extension required to connect to the existing mall is to be owned and maintained by the developer (i.e. private onsite service)..
 - D. Cut, cap, and remove the existing 200 mm AC sanitary main and manholes located within the development site, and legally dispose offsite. The extents of the removal shall be from manhole SMH587 to SMH588.
 - E. Enter into a legal agreement to transfer ownership, maintenance, and liability from the City to the property owner for any portion of the sanitary sewer that cannot be removed due to proximity to the existing mall.
 - F. Provide a signed and sealed letter from the developer's civil consultant stating that the AC sanitary main and related appurtenances have been removed and properly and legally disposed offsite.
 - iv) Install one new sanitary service connection, complete with inspection chamber, for each new parcel.
- b) At Developer's cost, the City is to:
- i) Complete all tie-ins for the proposed works to existing City infrastructure.

4) Frontage Improvements:

- a) The Developer is required to:
 - i) Design the new east-west road to accommodate for a future 4.38 m-wide District Energy Utility corridor. The DEU corridor shall be within the roadway and clear of all other underground utilities.
 - ii) Incorporate future District Energy Utility corridors within the design of the No 3 Road and Minoru Boulevard cross-sections. The Minoru Boulevard DEU corridor width shall be 4.38 m, and the No 3 Road DEU corridor width shall be 4.2 m. The DEU corridors shall be clear of trees and all other underground utilities.
 - iii) Coordinate with BC Hydro, Telus and other private communication service providers:
 - A. To pre-duct for future hydro, telephone and cable utilities along all road frontages.
 - B. When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
 - C. To locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). The locations of the proposed & relocated infrastructure shall be shown on the development permit drawings. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the architectural plans/functional plan, the servicing agreement drawings, and registered prior to SA design approval:
 - a. BC Hydro PMT – 4.0 x 5.0 m
 - b. BC Hydro LPT – 3.5 x 3.5 m
 - c. Street light kiosk – 1.5 x 1.5 m
 - d. Traffic signal kiosk – 2.0 x 1.5 m
 - e. Traffic signal UPS – 1.0 x 1.0 m
 - f. Shaw cable kiosk – 1.0 x 1.0 m
 - g. Telus FDH cabinet – 1.1 x 1.0 m

- iv) Provide street lighting along all road frontages according to the following street light types:
- B. City Streets
- a. Minoru Boulevard
- i. Pole colour: Blue
 - ii. Roadway lighting @ median: City Centre Type Roadway/Pedestrian Luminaire Pole (LED) – Drawing L12.3 **INCLUDING** 2 street luminaires (set perpendicular to the direction of travel), banner arms, 1 flower basket holder, 1 duplex receptacle, and irrigation, but **EXCLUDING** pedestrian luminaires.
 - iii. Pedestrian lighting between sidewalk & bike path: City Centre Type Laneway Luminaire Pole (LED) – Drawing L12.1 **INCLUDING** 2 pedestrian luminaires (set perpendicular to the direction of travel), duplex receptacle, and flower basket holder, but **EXCLUDING** banner arms and irrigation.
- b. Murdoch Avenue (South side)
- i. Pole colour: Grey
 - ii. Roadway lighting @ back of curb (Both sides of street): Type 7 (LED) **INCLUDING** 1 street luminaire, banner arms, and 1 duplex receptacle, but **EXCLUDING** any pedestrian luminaires, flower basket holders, or irrigation.
 - iii. Pedestrian lighting @ back of ultimate bike path: Type 8 (LED) **INCLUDING** 1 pedestrian luminaire, but **EXCLUDING** any duplex receptacle, banner arms, flower basket holders, or irrigation.
 - iv. *NOTE: Murdoch & Cook will be constructed within SRWs; however, both streets shall be constructed to City standards to facilitate potential future dedication (as per the CCAP). Staff must confirm the streetlight requirements in coordination with cross-section & landscape design. Requirements may change.*
- c. New City Hall Street (Both sides of street)
- i. Pole colour: Grey
 - ii. Roadway lighting @ back of curb (Both sides of street): Type 7 (LED) **INCLUDING** 1 street luminaire, banner arms, and 1 duplex receptacle, but **EXCLUDING** any pedestrian luminaires, flower basket holders, or irrigation.
 - iii. Pedestrian lighting @ back of multi-use path (South side of street only): Type 8 (LED) **INCLUDING** 2 pedestrian luminaires and 1 duplex receptacle, but **EXCLUDING** any banner arms, flower basket holders, or irrigation. (NOTE: "Pedestrian luminaire" arms shall be set perpendicular to the direction of travel to light both the multi-use path and the adjacent City property.)
- NOTE: Staff must confirm the New City Hall Street streetlight requirements in coordination with cross-section & landscape design. Requirements may change.*
- C. Off-Street Publicly-Accessible Walkways & Open Spaces
- a. Park Road Plaza (SRW): To be determined through the Development Permit & SA processes (Note: Lighting to be privately owned & operated)
- D. Traffic Signals
- a. Minoru Boulevard @ Parkade Entrance, and Minoru Gate
 - i. Pole colour: Blue
 - ii. Style: To match City Centre Type Roadway/Pedestrian Luminaire Pole (LED) – Drawing L12.3
- E. Private Streets (Secured via SRW) – Developer owned/maintained
- a. Pole colour: Grey
 - b. Roadway lighting: Type 7 (LED) **INCLUDING** 1 street luminaire and **MAY INCLUDE** banner arms, duplex receptacles, pedestrian luminaires, flower basket holders, and/or irrigation.
 - c. Pedestrian lighting: Type 8 (LED) **INCLUDING** 1 or 2 pedestrian luminaires and **MAY INCLUDE** duplex receptacles, flower basket holders, and/or irrigation, but **EXCLUDING** banner arms.)
- NOTE: Staff must confirm the Private Street streetlight requirements in coordination with cross-section & landscape design through the Development Permit & SA approval processes. Requirements may change.*

5) General Items:

- a) The Developer is required to:
 - i) Relocate all private onsite infrastructure outside of the proposed road dedication/utility SRWs and into the development site.
 - ii) Provide, prior to start of site preparation works or within the first servicing agreement submission, whichever comes first, a geotechnical assessment of site preparation (including excavation, preload, dewatering, and soil densification) impacts on the existing utilities fronting the development site and provide mitigation recommendations.
 - iii) Conduct pre- and post-site preparation elevation surveys of all surrounding roads, utilities, and structures. Any damage, nuisance, or other impact to be repaired at the developer's cost. The post-site preparation elevation survey shall be incorporated within the servicing agreement design.
 - iv) Monitor the settlement at the adjacent utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts to the City for approval.
 - v) Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

Servicing Agreement #2**1) Water Works:**

- a) Using the OCP Model, there is 755.0 L/s of water available at a 20 psi residual at the No 3 Rd frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- b) The Developer is required to:
 - i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
 - ii) Review hydrant spacing on all road frontages and install new fire hydrants as required to meet City spacing requirements for commercial land use.
 - iii) Install a new water service connection, complete with meters and meter boxes, for each new parcel. Meters to be located onsite (i.e. in a mechanical room). Note that the service connections and fire hydrant lead are to tie in to the existing 300 mm water main on the east side of No 3 Road. Service connections are not to tie in to the large diameter water mains (i.e. the 550 mm water main on the west side of No 3 Road), per the Engineering Design Specifications.
 - iv) Install approximately 120 m of new 300 mm water main along the new east-west road, complete with fire hydrants to achieve City spacing requirements, from the new water main built in phase 1 to the existing 300 mm water main in No 3 Road.
 - v) Confirm which existing service connections are not required to serve the existing mall that is to remain and cut, cap, and remove unused connections.
- c) At Developer's cost, the City is to:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

2) Storm Sewer Works:

- a) The Developer is required to:
 - i) Install approximately 140 m of minimum 600 mm or OCP size storm sewer along the new east-west road, complete with catch basins, from the new storm sewer built in phase 1 to the existing storm sewer in No 3 Road.
 - ii) Install one new storm service connection, complete with inspection chamber, for each new parcel.
- b) At Developer's cost, the City is to:
 - i) Complete all tie-ins for the proposed works to existing City infrastructure.

3) Sanitary Sewer Works:

- a) The Developer is required to:
- i) Install approximately 330 m of new sanitary sewer along No 3 Road in the roadway. The sizes shall range between 250-375 mm based on the existing & future catchment of the pipe, to be confirmed at the servicing agreement stage.
 - ii) Upgrade the Richmond Centre Sanitary Pump Station to accommodate the increased flows from this development, including but not limited to the following:
 - A. A new electrical kiosk and all related appurtenances, including conduits and SCADA antenna. The electrical kiosk shall be located close to the wet well.
 - B. A back-up generator and all related appurtenances, including conduits and exhaust.
 - C. Upgrades to the power supply as required by the upgraded kiosk, including but not limited to new conduits.
 - D. A parking area for the service vehicles (crane truck, vector truck, etc.) in front of the wet well. The parking area must be located such that the pumps can be removed from the wet well via the crane mounted on the service vehicle. The parking area must provide safe and adequate traffic and pedestrian flow during weekly maintenance, maintaining southbound traffic in the two-way lane, without requiring traffic control.
 - E. An approximately 13 m by 10 m utility right-of-way for the pump station and related equipment and parking area as described above and as shown in **Schedule F**.
 - F. A secondary designated parking stall designed for LSU vehicles, as shown in **Schedule F**, secured by a legal agreement.
 - iii) Design the Cook Road extension and No 3 Road cross-sections, and pump station configuration, to accommodate the future relocation of the sanitary forcemain from the north property line of the development site.
 - iv) Install a new sanitary service connection off of the proposed mains, complete with inspection chambers, for each new parcel.
 - v) Expose and locate all utilities in No 3 Road west of the median, to confirm that there is a suitable alignment available for the proposed sanitary sewer. If the utility locate determines that there is no suitable alignment within the roadway to the satisfaction of Engineering, the developer must either provide an additional right-of-way to accommodate the sanitary sewer as identified under section 2.7.3 *Additional City Utilities (No. 3 Road)*, or relocate such utilities that conflict with the proposed sanitary sewer (as identified by the required utility locate) so that the proposed sanitary sewer can be installed to meet the applicable standards and specifications (particularly in regards to clearance and cover).
- b) At Developer's cost, the City is to:
- i) Complete all tie-ins for the proposed works to existing City infrastructure.

4) Frontage Improvements:

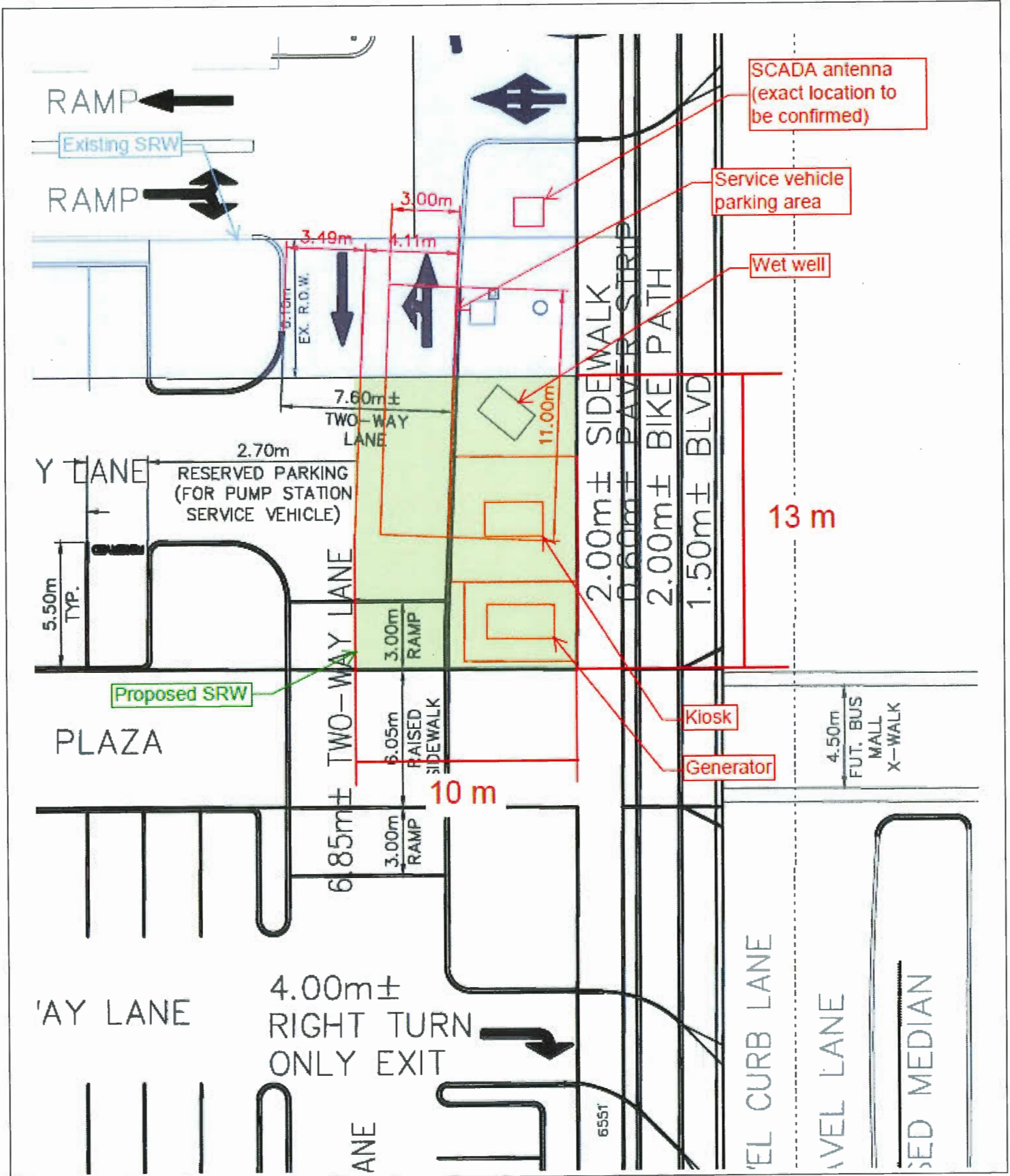
- a) The Developer is required to:
- i) Incorporate future District Energy Utility corridors within the design of the No 3 Road and Minoru Boulevard cross-sections. The Minoru Boulevard DEU corridor width shall be 4.38 m, and the No 3 Road DEU corridor width shall be 4.2 m. The DEU corridors shall be clear of trees and all other underground utilities.
 - ii) Coordinate with BC Hydro, Telus, and other private utility companies to relocate the existing structures (including, but not limited to, the Telus cabinets and LPT near the bus shelter) along No 3 Road out of the ultimate frontage improvements and into a suitable location onsite (i.e. outside of the public realm). The proposed locations shall be shown on the development permit plans.
 - iii) Coordinate with the City's Traffic and Engineering departments, and the project's lighting and traffic signal consultants, to relocate the existing traffic and street light kiosks located along No 3 Road out of the ultimate frontage improvements and into a suitable location onsite (i.e. outside of the public realm). The proposed locations shall be shown on the development permit plans.
 - iv) Coordinate with BC Hydro to relocate the existing structures (including, but not limited to, Vista Switch and LPT) located within the proposed intersection of the new east-west road and No 3 Road, into the ultimate location within the development site. The estimated BC Hydro right-of-way for the existing above-ground equipment is 14.0 m by 6.0 m; actual dimensions to be provided by BC Hydro following their detailed design. Please note that this does not include the above-ground structures (i.e. Vista Switches, PMTs, etc.) that are required to service the proposed development. The new location should be coordinated with BC Hydro and the City's Planning Department early to avoid future conflicts with the building design, delays, or other expenses for the Developer.

- v) Coordinate with BC Hydro, Telus and other private communication service providers:
- A. To pre-duct for future hydro, telephone and cable utilities along all road frontages.
 - B. When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
 - C. To locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the development's site (see list below for examples). The locations of the proposed & relocated infrastructure shall be shown on the development permit drawings. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the architectural plans/functional plan, the servicing agreement drawings, and registered prior to SA design approval:
 - a. BC Hydro PMT – 4.0 x 5.0 m
 - b. BC Hydro LPT – 3.5 x 3.5 m
 - c. Street light kiosk – 1.5 x 1.5 m
 - d. Traffic signal kiosk – 2.0 x 1.5 m
 - e. Traffic signal UPS – 1.0 x 1.0 m
 - f. Shaw cable kiosk – 1.0 x 1.0 m
 - g. Telus FDH cabinet – 1.1 x 1.0 m
- vi) Provide street lighting along all road frontages according to the following street light types:
- A. City Streets
 - a. No 3 Road (West side of street)
 - i. Pole colour: Grey
 - ii. Roadway lighting: N/A (No change to existing lighting in centre median)
 - iii. Pedestrian lighting between sidewalk & bike path: Type 8 (LED) INCLUDING 2 pedestrian luminaires set perpendicular to the roadway, flower basket holders, and 1 duplex receptacle, but EXCLUDING any banner arms or irrigation.
 - b. Cook Road (Both sides)
 - i. Pole colour: Grey
 - ii. Roadway lighting @ back of curb (Both sides of street): Type 7 (LED) INCLUDING 1 street luminaire, banner arms, and 1 duplex receptacle, but EXCLUDING any pedestrian luminaires, flower basket holders, or irrigation.
 - iii. Pedestrian lighting @ back of ultimate bike path: Type 8 (LED) INCLUDING 2 pedestrian luminaires and 1 duplex receptacle, but EXCLUDING any banner arms, flower basket holders, or irrigation. (NOTE: "Pedestrian luminaire" arms shall be set perpendicular to the direction of travel to light both the ultimate bike path and the adjacent sidewalk.)
 - iv. *NOTE: Murdoch & Cook will be constructed within SRWs; however, both streets shall be constructed to City standards to facilitate potential future dedication (as per the CCAP). Staff must confirm the streetlight requirements in coordination with cross-section & landscape design. Requirements may change.*
 - c. New City Hall Street (Both sides of street)
 - i. Pole colour: Grey
 - ii. Roadway lighting @ back of curb (Both sides of street): Type 7 (LED) INCLUDING 1 street luminaire, banner arms, and 1 duplex receptacle, but EXCLUDING any pedestrian luminaires, flower basket holders, or irrigation.
 - iii. Pedestrian lighting @ back of multi-use path (South side of street only): Type 8 (LED) INCLUDING 2 pedestrian luminaires and 1 duplex receptacle, but EXCLUDING any banner arms, flower basket holders, or irrigation. (NOTE: "Pedestrian luminaire" arms shall be set perpendicular to the direction of travel to light both the multi-use path and the adjacent City property.)
 - iv. *NOTE: Staff must confirm the New City Hall Street streetlight requirements in coordination with cross-section & landscape design. Requirements may change.*
 - B. Traffic Signals
 - a. No. 3 Road @ Cook Road & Park Road
 - i. Pole colour: Grey
 - ii. Style: To match Type 7

- C. Private Streets (Secured via SRW) – Developer owned/maintained
 - a. Pole colour: Grey
 - b. Roadway lighting: Type 7 (LED) INCLUDING 1 street luminaire and MAY INCLUDE banner arms, duplex receptacles, pedestrian luminaires, flower basket holders, and/or irrigation.
 - c. Pedestrian lighting: Type 8 (LED) INCLUDING 1 or 2 pedestrian luminaires and MAY INCLUDE duplex receptacles, flower basket holders, and/or irrigation, but EXCLUDING banner arms.)
NOTE: Staff must confirm the Private Street streetlight requirements in coordination with cross-section & landscape design. Requirements may change.

5) General Items:

- a) The Developer is required to:
 - i) Relocate all private onsite infrastructure outside of the proposed road dedication/utility SRWs and into the development site.
 - ii) Provide, prior to start of site preparation works or within the first servicing agreement submission, whichever comes first, a geotechnical assessment of site preparation (including excavation, dewatering, and soil densification) impacts on the existing utilities fronting the development site and provide mitigation recommendations.
 - iii) Conduct pre- and post-site preparation elevation surveys of all surrounding roads, utilities, and structures. Any damage, nuisance, or other impact to be repaired at the developer's cost. The post-site preparation elevation survey shall be incorporated within the servicing agreement design.
 - iv) Monitor the settlement at the adjacent utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts to the City for approval.
 - v) Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.



Servicing Agreement Requirements – Transportation
Terms & Conditions

Developer is responsible for the design and construction of the following frontage improvements and transition between those improvements and the existing condition outside the development site frontage (at a minimum 30:1 taper rate for No. 3 Road and a minimum 20:1 taper rate for all other roads) to the satisfaction of the City. Note that while the list below provides a general description of the minimum frontage work requirements (which are schematically shown in the Preliminary Functional Road Plan (**Schedule H**), the exact details and scope of the frontage works to be completed by the developer shall be confirmed via the detailed design (SA) process to the satisfaction of the City.

1) New City Hall Street Cross-Sections:

- a. Minoru Boulevard, from Murdoch Avenue to the proposed East/West Street (from west to east):
 - Maintain two existing southbound traffic lanes
 - 5.6m wide area for:
 - 1) 3.3m wide intersection turning lanes; and
 - 2) 2.3m wide landscaped/treed median with curb and gutter on both sides
 - 6.6m wide driving surface for two northbound traffic lanes
 - 0.15m wide curb and gutter
 - 2.4m wide grassed/treed boulevard
 - 1.8m wide asphalt bike path
 - 1.1m wide buffer/lighting strip
 - 2.5m wide concrete sidewalk
- b. Proposed East/West Street, from Minoru Boulevard to No. 3 Road (from south to north):
 - 3.0m wide concrete sidewalk
 - 1.4m wide grassed/treed boulevard
 - 0.15m wide curb and gutter
 - 7.0m wide driving surface for traffic lanes (one in each direction)
 - 0.15m wide curb and gutter
 - 1.5m wide grassed/treed boulevard (a portion of the area would be used as a parking/loading layby)
 - 2.0m wide concrete sidewalk
- c. No. 3 Road, from Saba Road to the proposed East/West Street (from east to west):
 - Maintain two existing southbound traffic lanes
 - 0.15m wide curb and gutter
 - 1.5m wide grassed/treed boulevard
 - 2.0m wide asphalt bike path
 - 0.6m wide buffer/lighting strip
 - 2.0m wide concrete sidewalk
 - Note that the above may be refined in the context of the building setback SRW review to further enhance the pedestrian realm

Note: Interim works as described below along No. 3 Road, from northern limit of the site to approximately 30m south of the future Bus Mall intersection shall be required prior to 1c) being completed:

- Widen the sidewalk along west side of No. 3 Road to min. 3.0m wide;
- As necessary, removal of the existing hedge and fence at the northern property line to provide a continuous min. 3.0m wide sidewalk to the neighbouring site to the north;
- Modify the existing vehicular access off the parkade ramp to physically restrict egress traffic movements onto No. 3 Road; and
- Install a new vehicular access approximately 30m south which will only allow right-out traffic movement onto No. 3 Road.

2) Private (SRW) Street Cross-Sections:

- a. Cook Road, from No. 3 Road to the western limit (from north to south):
 - 2.0m wide concrete sidewalk
 - 0.5m wide buffer/lighting strip
 - 1.8m wide concrete bike path
 - 3.0m wide grassed/treed boulevard

- 0.15m wide curb and gutter
- 16.1m wide pavement width
- 0.15m wide curb and gutter
- 3.0m wide grassed/treed boulevard
- 1.8m wide concrete bike path
- 0.5m wide buffer/lighting strip
- 2.0m wide concrete sidewalk

b. Murdoch Avenue, from Minoru Boulevard to the eastern limit (from north to south):

Ultimate cross-section

- 2.5m wide concrete sidewalk
- 0.5m wide buffer/lighting strip
- 1.8m wide concrete bike path
- 2.5m wide treed boulevard
- 0.15m curb and gutter
- 9.25m pavement width
- 0.15m curb and gutter
- 2.5m wide treed boulevard (including parking lay-by)
- 0.85m wide buffer
- 1.8m wide concrete bike path
- 0.5m wide buffer/lighting strip
- 2.5m wide concrete sidewalk

Interim cross-section shall be permitted to maintain the existing sidewalk along the street's north side and determine the pavement width based on required traffic operations, as determined to the City's satisfaction.

c. All other internal SRW streets: Generally shown in the preliminary road functional plan attached, with varying pavement widths to accommodate two-way traffic, curb and gutter, on-street parking, on-street lay-bys, treed/grassed boulevards and min. 2.0m wide sidewalk as appropriate.

3) Intersection Upgrades:

- a. Upgrade of the existing traffic signals / special crosswalks at the following locations to accommodate the road enhancements noted above. Work to include but not limited to: Install new, upgrade and/or replace signal pole, controller, base and hardware, pole base, detection, conduits (electrical & communications), signal indications, communications cable, electrical wiring, service conductors, APS (Accessible Pedestrian Signals) and illuminated street name sign(s).
- Minoru Boulevard/Minoru Gate: Upgrade of the existing traffic signal
 - Minoru Boulevard/Proposed parkade entrance: Install a new traffic signal (and removal of the existing special crosswalk)
 - Minoru Boulevard/Murdoch Avenue: Upgrade of the existing traffic signal
 - No 3 Road/Park Road: Upgrade of the existing traffic signal
 - No 3 Road/Cook Road: Upgrade of the existing traffic signal
 - No 3 Road/future Bus Mall access: Upgrade of the traffic signal (DCC credits will apply.)
- b. At each of the intersections, all existing pedestrian crosswalks should be upgraded to meet City Centre standards (min. 4.5m wide) as necessary with universal accessibility features (e.g., tactile treatments or equivalent) installed on all wheelchair ramps.

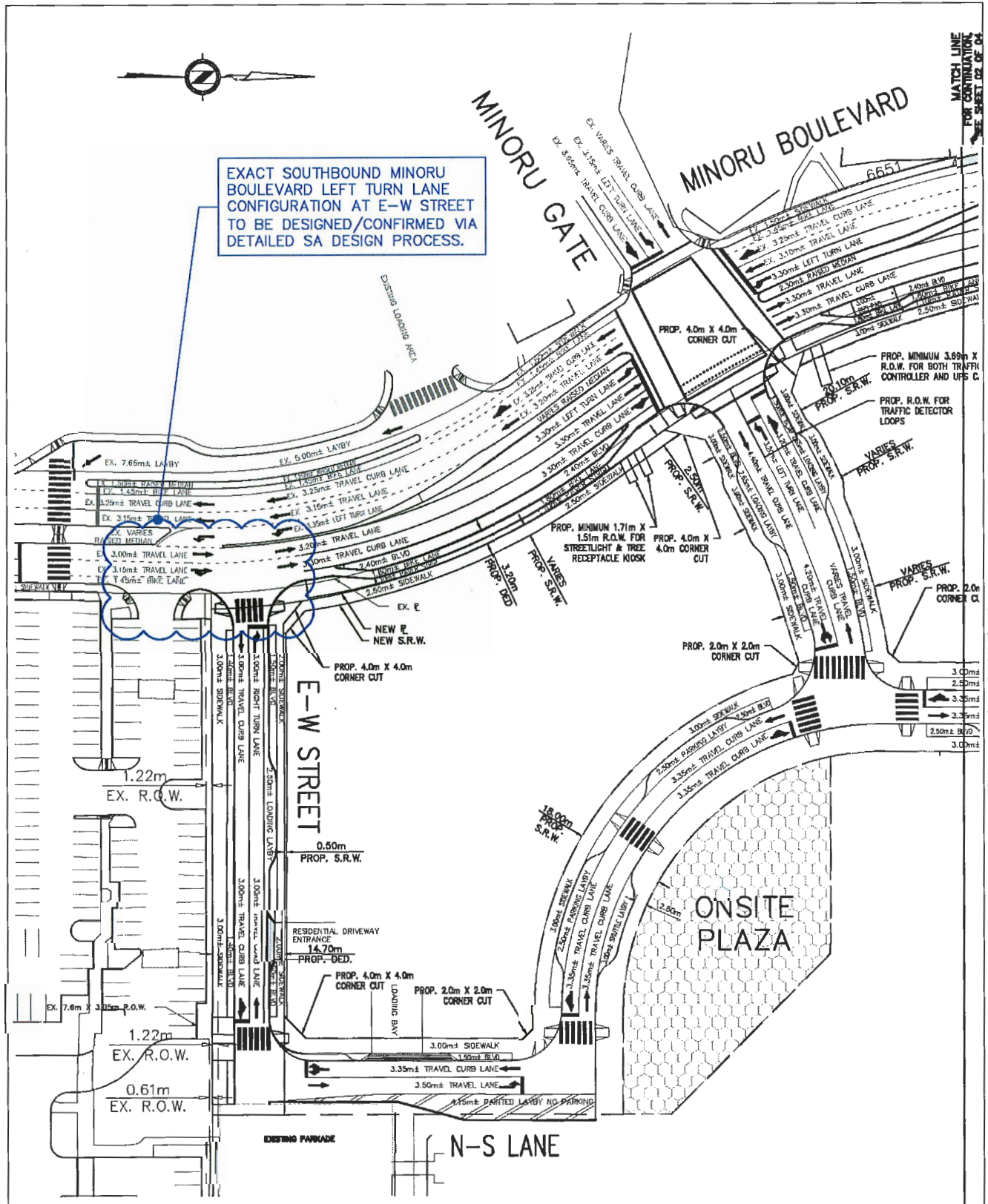
4) Timing of Works:

In general, the improvements noted above shall be completed on a phase-by-phase basis as follows:

- a. Servicing Agreement #1 (generally works within the western portion of the site):
- Minoru Boulevard, from Murdoch Avenue to the proposed East/West Street (as described in 1a)
 - Western ½ of the proposed East/West Street, from Minoru Boulevard to No. 3 Road (as described in 1b)
 - Murdoch Avenue, from Minoru Boulevard to the eastern limit (as described in 1e)
 - All other internal SRW streets within the western ½ of the site (as described in 1f)
 - Intersection upgrades, all intersections along Minoru Boulevard (as described in 1g)
 - Interim works along No. 3 Road, from northern limit of 6088 Minoru Boulevard to approximately 30m south of the future Bus Mall intersection:

- Widen the sidewalk along west side of No. 3 Road to min. 3.0m wide;
 - As necessary, removal of the existing hedge and fence at the northern property line to provide a continuous min. 3.0m wide sidewalk to the neighbouring site to the north;
 - Modify the existing vehicular access off the parkade ramp to physically restrict egress traffic movements onto No. 3 Road; and
 - Install a new vehicular access approximately 30m south which will only allow right-out traffic movement onto No. 3 Road.
- b. Servicing Agreement #2 (generally works within the eastern portion of the site):
- Eastern ½ of the proposed East/West Street, from Minoru Boulevard to No. 3 Road (as described in 1b)
 - No. 3 Road, from northern limit of the site to the proposed East/West Street (as described in 1c)
 - Cook Road, from No. 3 Road to the western limit (as described in 1d)
 - All other internal SRW streets within the eastern ½ of the site (as described in 1f)
 - Intersection upgrades, all intersections along No. 3 Road (as described in 1g)

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



EXACT SOUTHBOUND MINORU BOULEVARD LEFT TURN LANE CONFIGURATION AT E-W STREET TO BE DESIGNED/CONFIRMED VIA DETAILED SA DESIGN PROCESS.

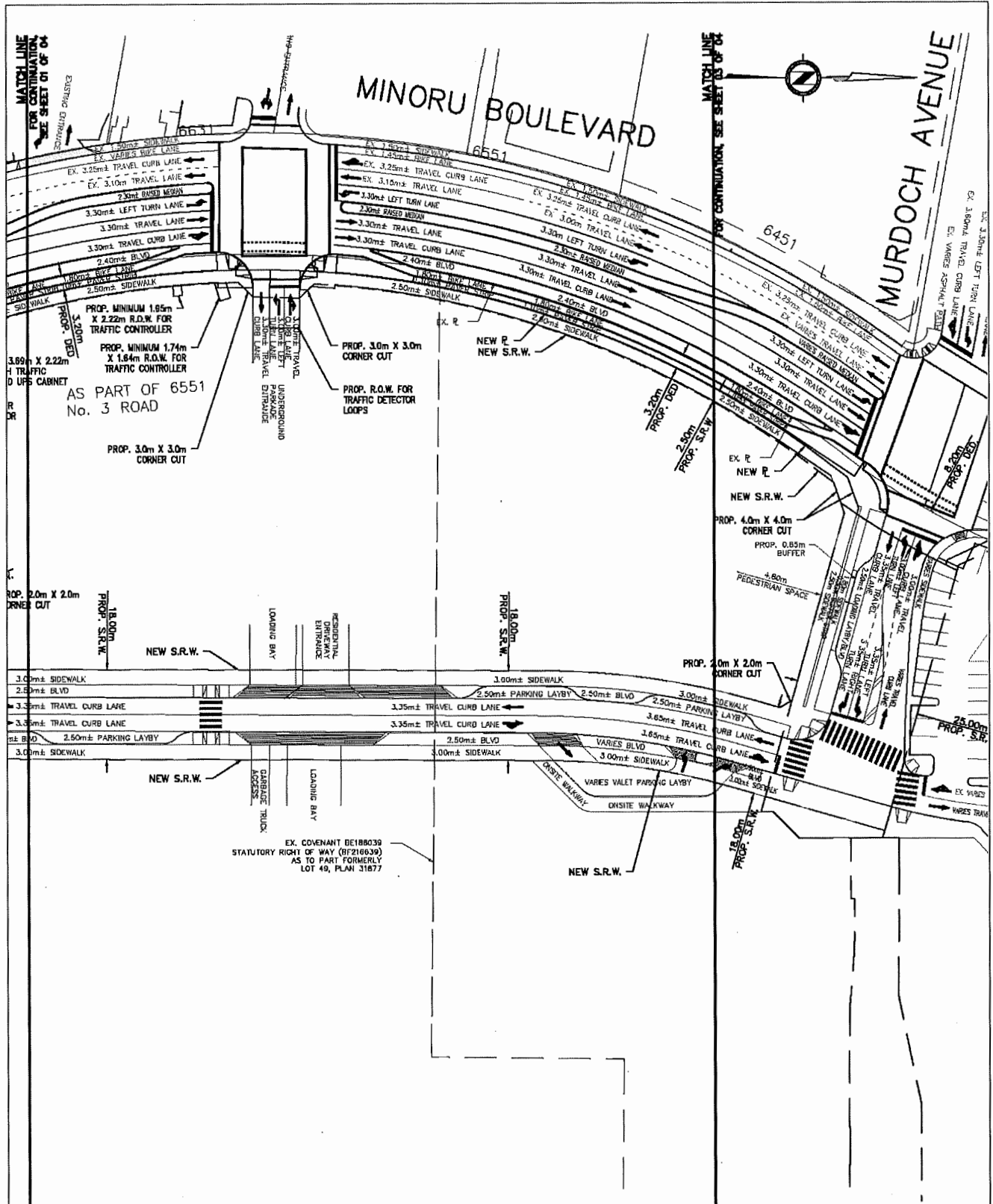
City of Richmond <small>8811 No. 3 Road Richmond B.C. V6Y 3C1</small>				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

APLIN MARTIN
 ENGINEERING ARCHITECTURE PLANNING SURVEYING
1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E 2H0
 Tel: (604) 679-9424, Fax: (604) 597-9061, Email: general@aplinmartin.com

CITY FILE #:	CP 16-752923	ABM PROJECT No:	15-954B-PH1-OCP-FP-02
PRELIMINARY FUNCTIONAL PLAN PHASE 1			
DESIGN: MY/RM	CHECK: MY	DATE: SEP/18	PROJECT ADDRESS:
DRAWN: RM	APPR: MY	SCALE: 1:1000	6551 No. 3 ROAD
			SHEET No. 01 OF 04

No. 201515-954B-PH1 ENGINEERING, D.M.C. OFFSITE JUNCTIONAL PLAN 15-954B-PH1 FUNCTIONAL PLAN DESIGN MASTER.dwg/FP-02-PH1 (6.5x11) 1 M.Yeung
 Sep 11, 2018 - 10:09am

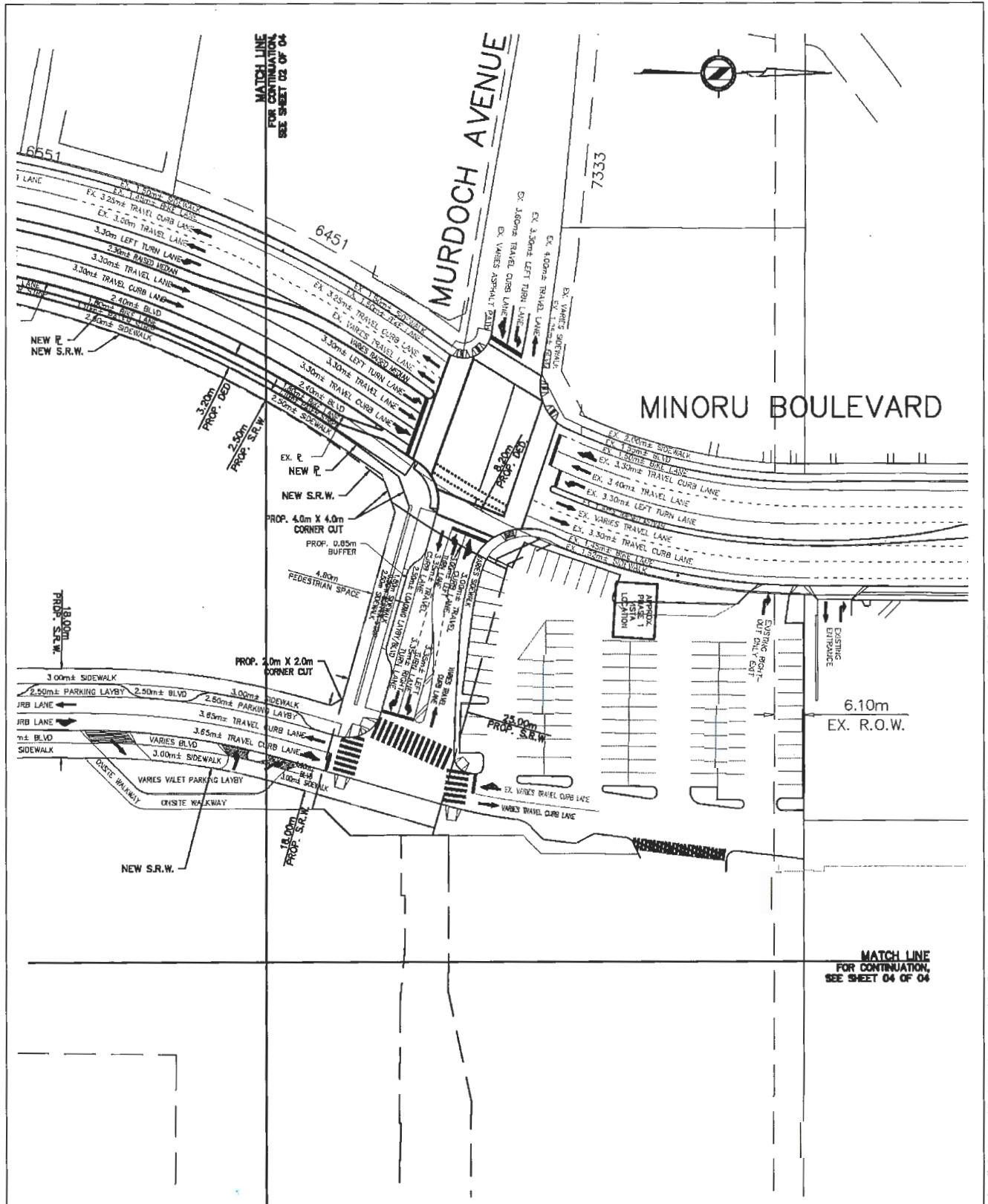
SCHEDULE H
 Preliminary Functional Road Plan (Phase 1 & Phase 2)



City of Richmond <small>8811 No. 3 Road Richmond B.C. V6Y 3C1</small>					CITY FILE #: CP 16-752923		A&M PROJECT No: 15-954B-PH1-OCP-FP-03											
APLIN MARTIN <small>ENGINEERING ARCHITECTURE PLANNING SURVEYING</small>					PRELIMINARY FUNCTIONAL PLAN PHASE 1													
#1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E 2K3 Tel: (604) 678-9424, Fax: (604) 597-9061, Email: general@aplinmartin.com					DESIGN: MY/RM CHECK: MY DATE: SEP/18		PROJECT ADDRESS: 6551 No. 3 ROAD											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ISSUE</th> <th>DESCRIPTION</th> <th>DR</th> <th>CH</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>ISSUED FOR OCP AMENDMENT CONSIDERATIONS</td> <td>RM</td> <td>MY</td> <td>10 SEP/18</td> </tr> </tbody> </table>					ISSUE	DESCRIPTION	DR	CH	DATE	A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18	DRAWN: RM APPR: MY SCALE: 1:1000		SHEET No. 02 OF 04	
ISSUE	DESCRIPTION	DR	CH	DATE														
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18														

W:\2015\15-954B-PH1-FUNCTIONAL_PLAN\15-954B-PH1-FUNCTIONAL_PLAN.DWG (PT SITE) FUNCTIONAL PLAN DESIGN MASTER.dwg (P1-O3-PH1) 2 Myong
 Sep 11, 2018 - 10:32am

SCHEDULE H
 Preliminary Functional Road Plan (Phase 1 & Phase 2)



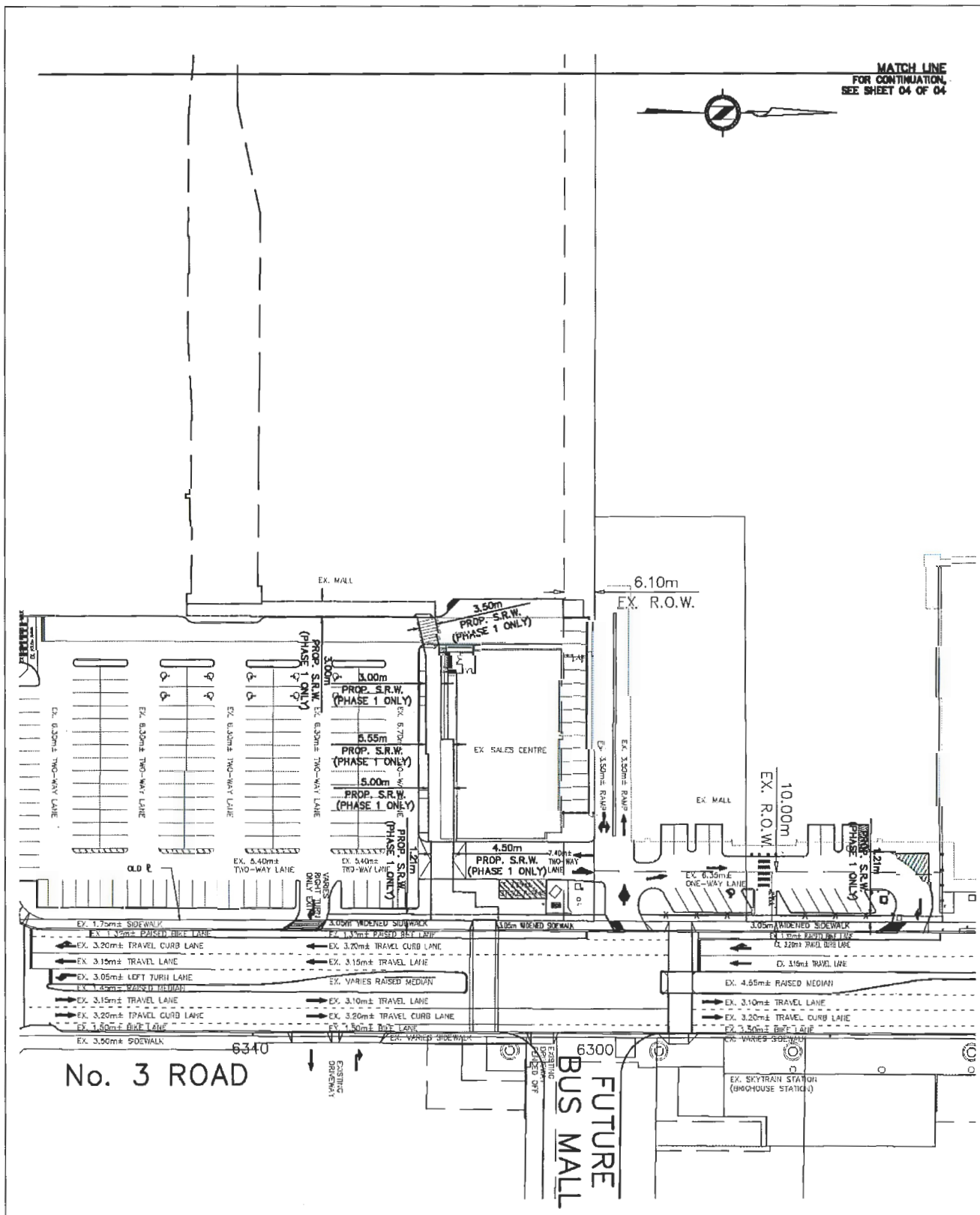
City of Richmond 8911 No. 3 Road Richmond B.C. V6Y 5E1				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18


APLIN MARTIN
 ENGINEERING ARCHITECTURE PLANNING SURVEYING
 #1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E 2H0
 Tel: (604) 678-6434, Fax: (604) 597-9061, Email: general@aplinmartin.com

CITY FILE #: CP 16-752923	A&M PROJECT No: 15-954B-PH1-OCP-FP-04
TITLE: PRELIMINARY FUNCTIONAL PLAN PHASE 1	
DESIGN:MY/RM CHECK:MY DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 ROAD
DRAWN:RM APPR: MY SCALE: 1:1000	SHEET No. 03 OF 04

W:\2015\15-954B-PH1\ENGINEERING\DWG\GTSITE\FUNCTIONAL PLAN\15-954B-PH1-FUNCTIONAL PLAN DESIGN MASTER.dwg/FP-04-PH1 (6,5x41) 3 M.Yeung
 Sep 11 2018 10:14am

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



<p>City of Richmond 8811 ROAD RD-ROAD R.C. WY 301</p>				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

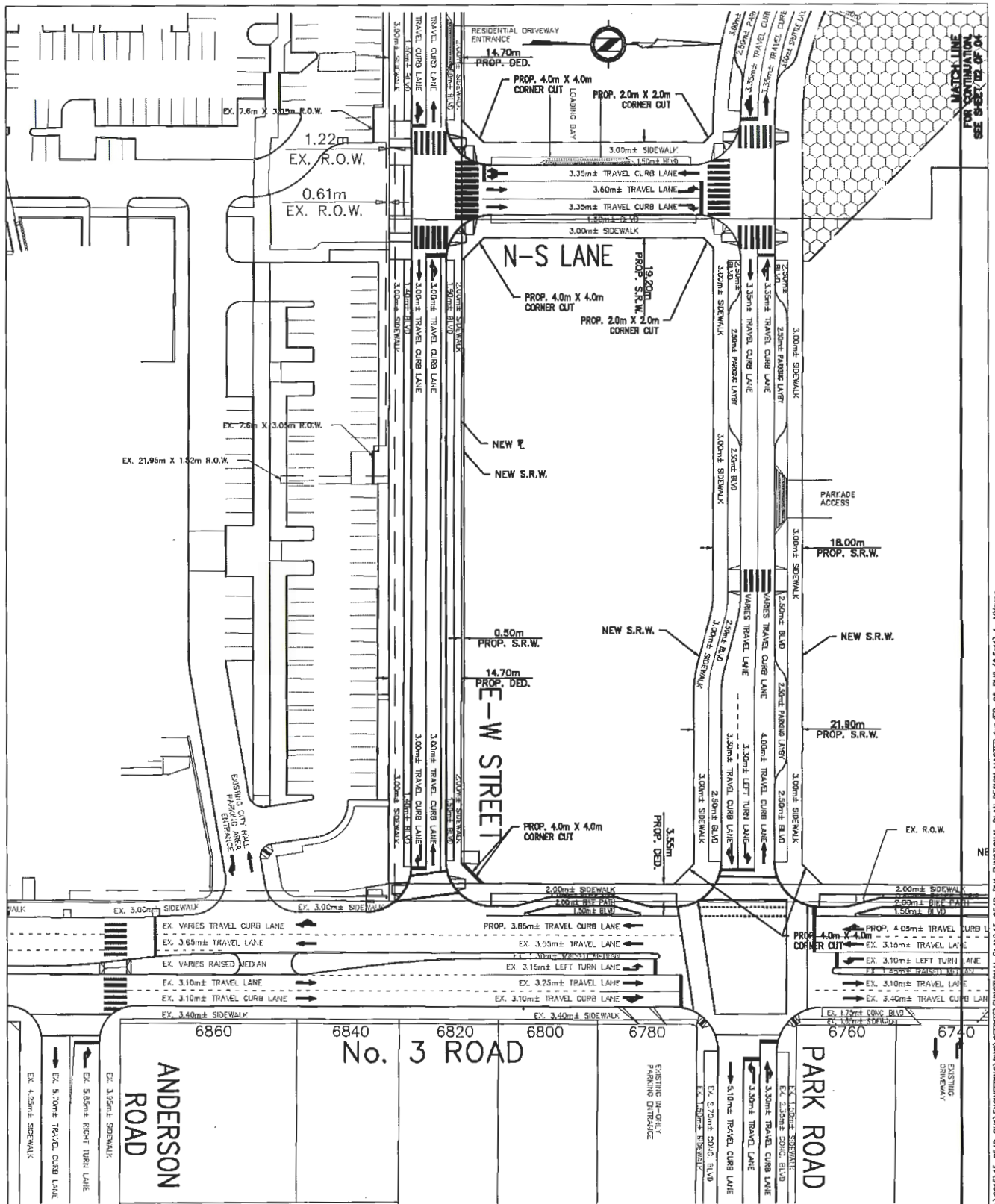
APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

#1810 - 1177 West Havelock Street, Vancouver, B.C. Canada V5E2K3
Tel: (604) 678-9424, Fax: (604) 597-9061, Email: general@aplinmartin.com

CITY FILE #:	CP 16-752923	A&M PROJECT No:	15-954B-PH1-OCP-FP-05
TITLE:	PRELIMINARY FUNCTIONAL PLAN PHASE 1		
DESIGN:MY/RM	CHECK:MY	DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 ROAD
DRAWN:RM	APPR: MY	SCALE: 1:1000	SHEET No. 04 OF 04

Sep 11 2018 - 10:14am M:\2015\15-954B-PH1\ENGINEERING\DWG\OFFSITE\FUNCTIONAL PLAN\DESIGN MASTER\DWG\15-954B-PH1-05-PH1 (6.5x11) 4 Myung

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



City of Richmond <small>9811 No. 3 Road Richmond B.C. V6V 3C1</small>				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

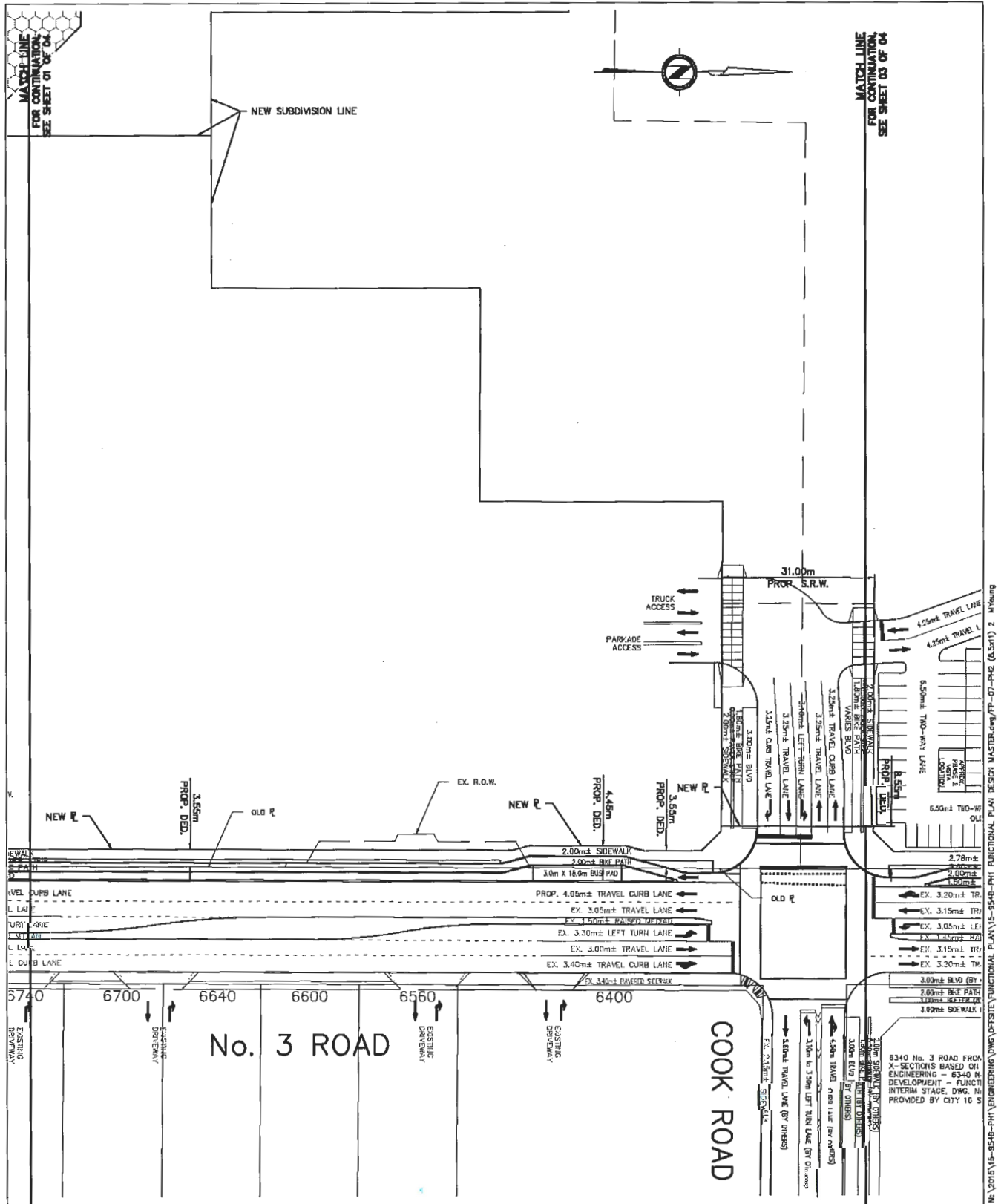
APLIN MARTIN
 ENGINEERING ARCHITECTURE PLANNING SURVEYING

#1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E 2K0
 Tel: (604) 678-8434, Fax: (604) 597-9051, Email: general@aplinmartin.com

CITY FILE #: CP 16-752923	AM PROJECT No: 15-954B-PH1-OCF-FP-06
TITLE: PRELIMINARY FUNCTIONAL PLAN PHASE 2	
DESIGN:MY/RM CHECK:MY DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 ROAD
DRAWN:RM APPR: MY SCALE: 1:1000	SHEET No. 01 OF 04

IN:\2015\15-954B-PH1-ENGINEERING\DWG\OFFSITE\FUNCTIONAL PLAN\15-954B-PH1-FUNCTIONAL PLAN DESIGN MASTER.dwg/FP-06-RHC (A5x11) 1 MYking
 Sep 11 2018 - 10:27am

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



City of Richmond				
8811 No. 3 Road Richmond B.C. V6Y 3E1				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

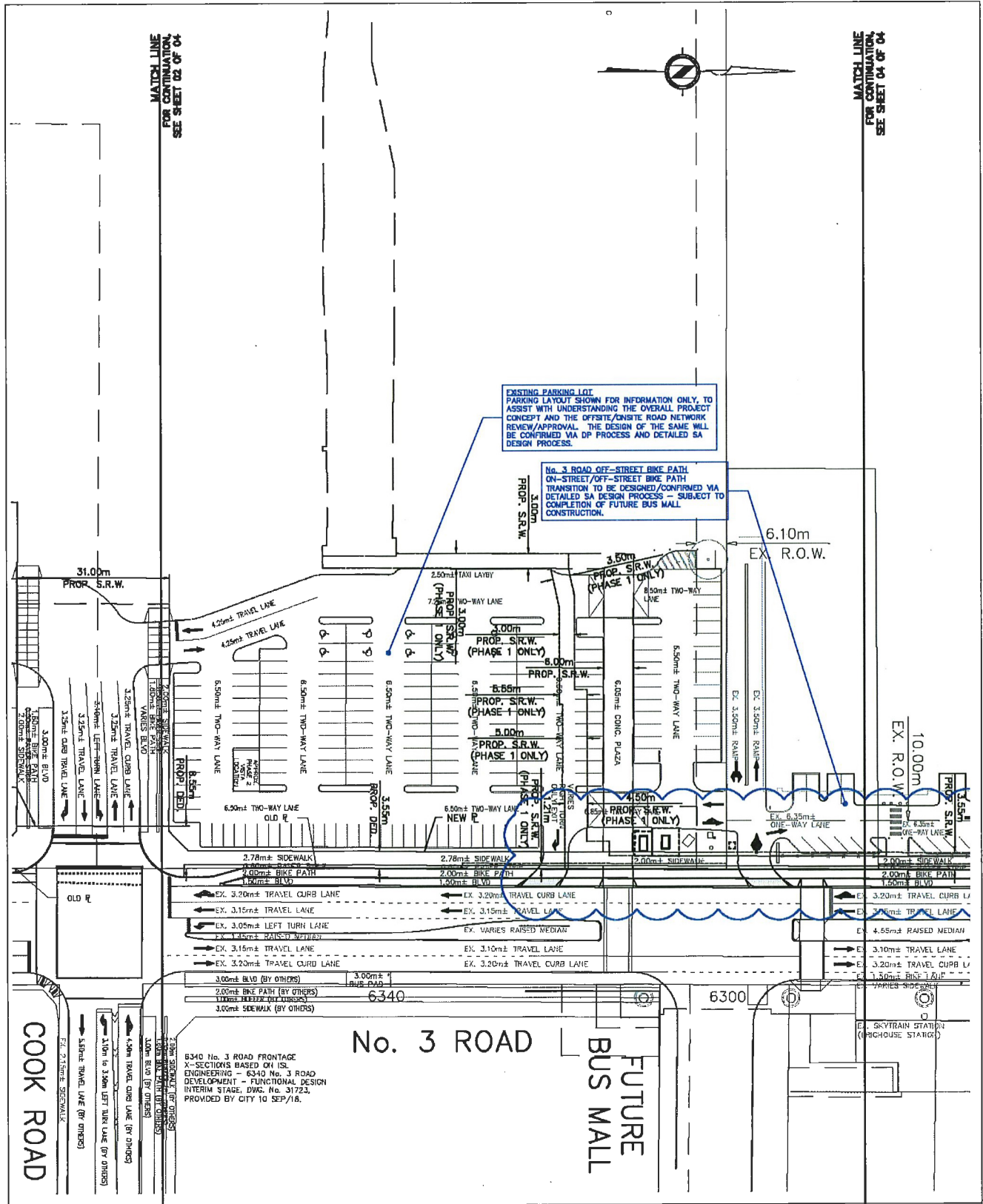
APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

#1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E 2K3
Tel: (604) 670-9414, Fax: (604) 257-9061, Email: general@aplinmartin.com

CITY FILE #: CP 16-752923	ARM PROJECT No: 15-954B-PH1-OCP-FP-07			
TITLE: PRELIMINARY FUNCTIONAL PLAN PHASE 2				
DESIGN: WY/RM	CHECK: MY	DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 ROAD	SHEET No. 02 OF 04
DRAWN: RM	APPR: MY	SCALE: 1:1000		

Sep 11 2018 10:20am N:\2016\15-954B-PH1\ENGINEERING\DWG\OFFSITE\FUNCTIONAL PLAN\15-954B-PH1-FUNCTIONAL PLAN DESIGN MASTER.dwg/FP-07-PH2 (A5x11) 2 MyYoung

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



City of Richmond
6311 No. 3 Road Richmond B.C. V6V 3C1

ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

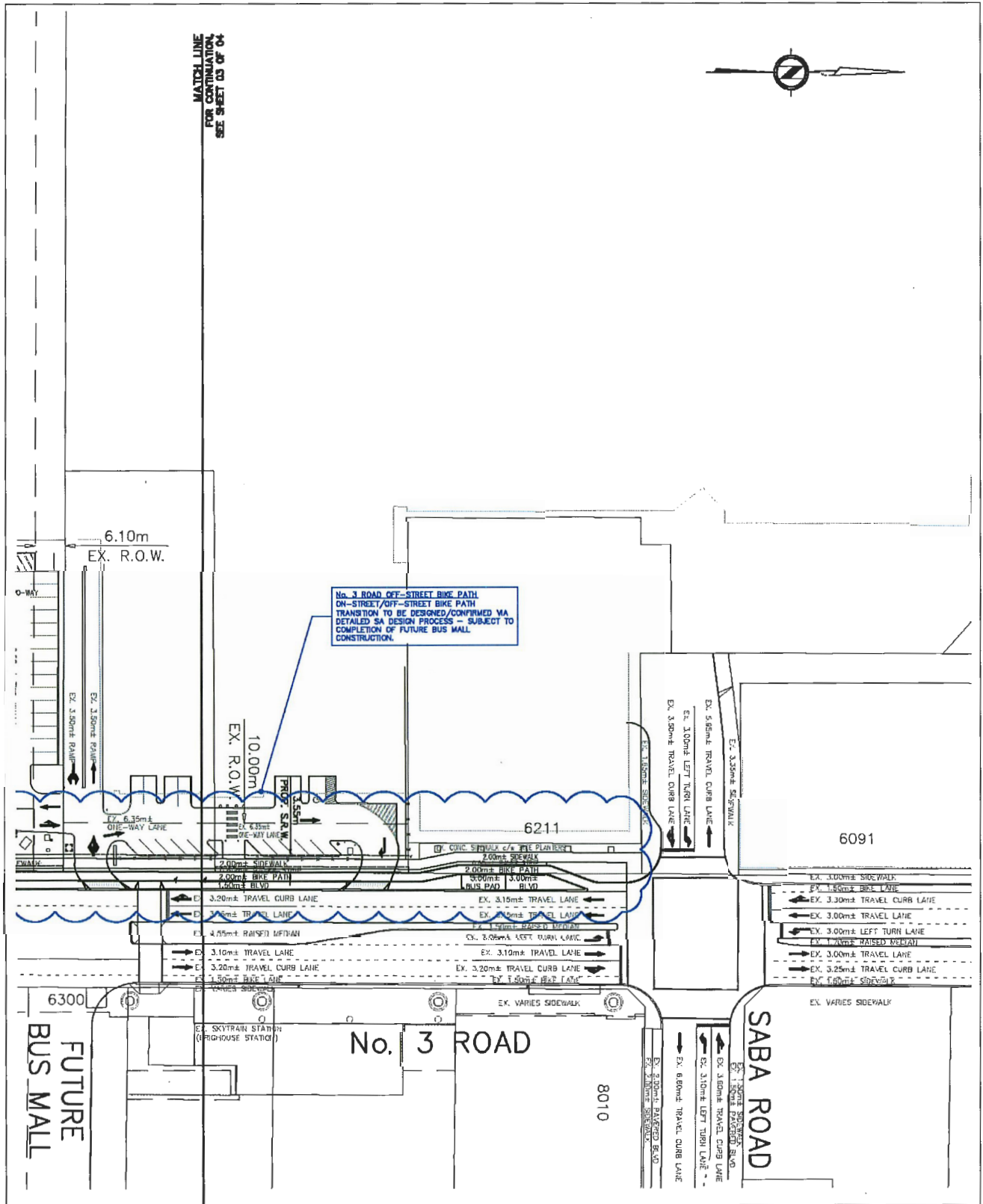
APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

#1818 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E2K3
Tel: (604) 679-8424, Fax: (604) 597-9061, Email: general@aplinmartin.com

CITY FILE #: CP 16-752923	A&M PROJECT No: 15-954B-PH1-OCF-FP-08
TITLE: PRELIMINARY FUNCTIONAL PLAN PHASE 2	
DESIGN:MY/RM CHECK:MY DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 Road
DRAWN:RM APPR: MY SCALE: 1:1000	SHEET No. 03 OF 04

M:\2015\15-954B-PH1-ENGINEERING\DWG\OFFSITE\FUNCTIONAL PLAN\15-954B-PH1-FUNCTIONAL PLAN DESIGN MASTER.dwg/FP-08-PH2 (A5x41) 3 Working
 Sep 11 2018 - 10:20am

SCHEDULE H
Preliminary Functional Road Plan (Phase 1 & Phase 2)



No. 3 ROAD OFF-STREET BIKE PATH
ON-STREET/OFF-STREET BIKE PATH
TRANSITION TO BE DESIGNED/CONFIRMED VIA
DETAILED SA DESIGN PROCESS - SUBJECT TO
COMPLETION OF FUTURE BUS MALL
CONSTRUCTION.

City of Richmond 6111 No. 3 Road Richmond B.C. V6V 3C1				
ISSUE	DESCRIPTION	DR	CH	DATE
A	ISSUED FOR OCP AMENDMENT CONSIDERATIONS	RM	MY	10 SEP/18

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

#1010 - 1177 West Hastings Street, Vancouver, B.C. Canada V6E2K3
Tel: (604) 678-9434, Fax: (604) 597-9061, Email: gsaerra@aplinmartin.com

CITY FILE #: CP 16-752923	ABM PROJECT No: 15-954B-PH1-OCF-FP-10
TITLE: PRELIMINARY FUNCTIONAL PLAN PHASE 2	
DESIGN:MY/RW CHECK:MY DATE: SEP/18	PROJECT ADDRESS: 6551 No. 3 ROAD
DRAWN:RM APPR:MY SCALE: 1:1000	SHEET No. 04 OF 04

Sep 11, 2018 - 10:21am M:\2015\15-954B-PH1\ENGINEERING\DWG\OFFSITE\FUNCTIONAL PLAN\15-954B-PH1-FUNCTIONAL PLAN DESIGN MASTER.dwg/TP-08-PH2 (B.ark1) + Myung

City Centre “Parking Zone 1” & TDM Strategy Requirements
Terms & Conditions

The following Transportation Demand Management (TDM) measures shall be provided in support of the developer's proposed reduction in parking, as provided for in the Zoning Bylaw (i.e. maximum 10% reduction, based on City Centre Parking Zone 1 rates):

1) TDM Measures:

- a. Mobility hubs, including:
 - Mobility Hub 1 (Local Hub) within the western portion of the site, with typical elements/features summarized in the Mobility Hub Vision (**Schedule J**), with exact details to be finalized as part of the Phase 1 DP application.
 - Mobility Hub 2 (Regional Hub) within the eastern portion of the site, with typical elements/features summarized in the Mobility Hub Vision (**Schedule J**), with exact details to be finalized as part of the Phase 2 DP application.
- b. For each Phase 1 and Phase 2, provide an end of trip bicycle facilities (showers and changing rooms for retail uses) and maintenance tools located in the bicycle storage area. (Sizes and features to be confirmed through the DP approval processes.)
- c. Bicycle maintenance and repair facilities in each of the residential towers. (Sizes and features to be confirmed through the DP approval processes.)
- d. Transit passes:
 - Residential: monthly transit passes (2-zone for one year) offered to 25% of the market units and 100% of affordable units
 - Retail: \$100,000 for the purchase of 2-zone transit passes or equivalent for use by the employees and customers
- d. Complete off-site improvements to enhance pedestrian walkability at the following locations:
 - Minoru Boulevard/Granville Avenue: Upgrade/enhance existing pedestrian crosswalks and upgrade of the existing traffic signal
 - Minoru Boulevard/Library Crossing: Upgrade of existing pedestrian crosswalk to include stamped and coloured asphalt pavement surface with Duratherm or equivalent
 - No. 3 Road/ Granville Avenue: Upgrade/enhance existing pedestrian crosswalks and upgrade of the existing traffic signal
 - No. 3 Road/ Anderson Road: Upgrade of existing pedestrian crosswalk to include stamped and coloured asphalt pavement surface with Duratherm or equivalent

Note: Pedestrian crosswalk enhancements/upgrades include a wider crosswalk (i.e., min. 4.5m wide) and universal accessibility features installed on all wheelchair ramps. Traffic signal upgrades include the following works but not limited to: install new, upgrade and/or replace signal pole, controller, base and hardware, pole base, detection, conduits (electrical & communications), signal indications, communications cable, electrical wiring, service conductors, APS (Accessible Pedestrian Signals) and illuminated street name sign(s).

2) Timing of TDM Implementation:

- a. Phase 1:
 - Mobility Hub 1- Local Hub
 - Minoru Boulevard/Granville Avenue: Upgrade/enhance existing pedestrian crosswalks and upgrade of the existing traffic signal
 - Minoru Boulevard/New City Hall Street: Upgrade of existing pedestrian crosswalk to include stamped and coloured asphalt with Duratherm or equivalent
- b. Phase 2:
 - Mobility Hub 2- Regional Hub
 - No. 3 Road/ Granville Avenue: Upgrade/enhance existing pedestrian crosswalks and upgrade of the existing traffic signal
 - No. 3 Road/ Anderson Road: Upgrade of existing pedestrian crosswalk to include stamped and coloured asphalt pavement surface with Duratherm or equivalent

CF Richmond Centre

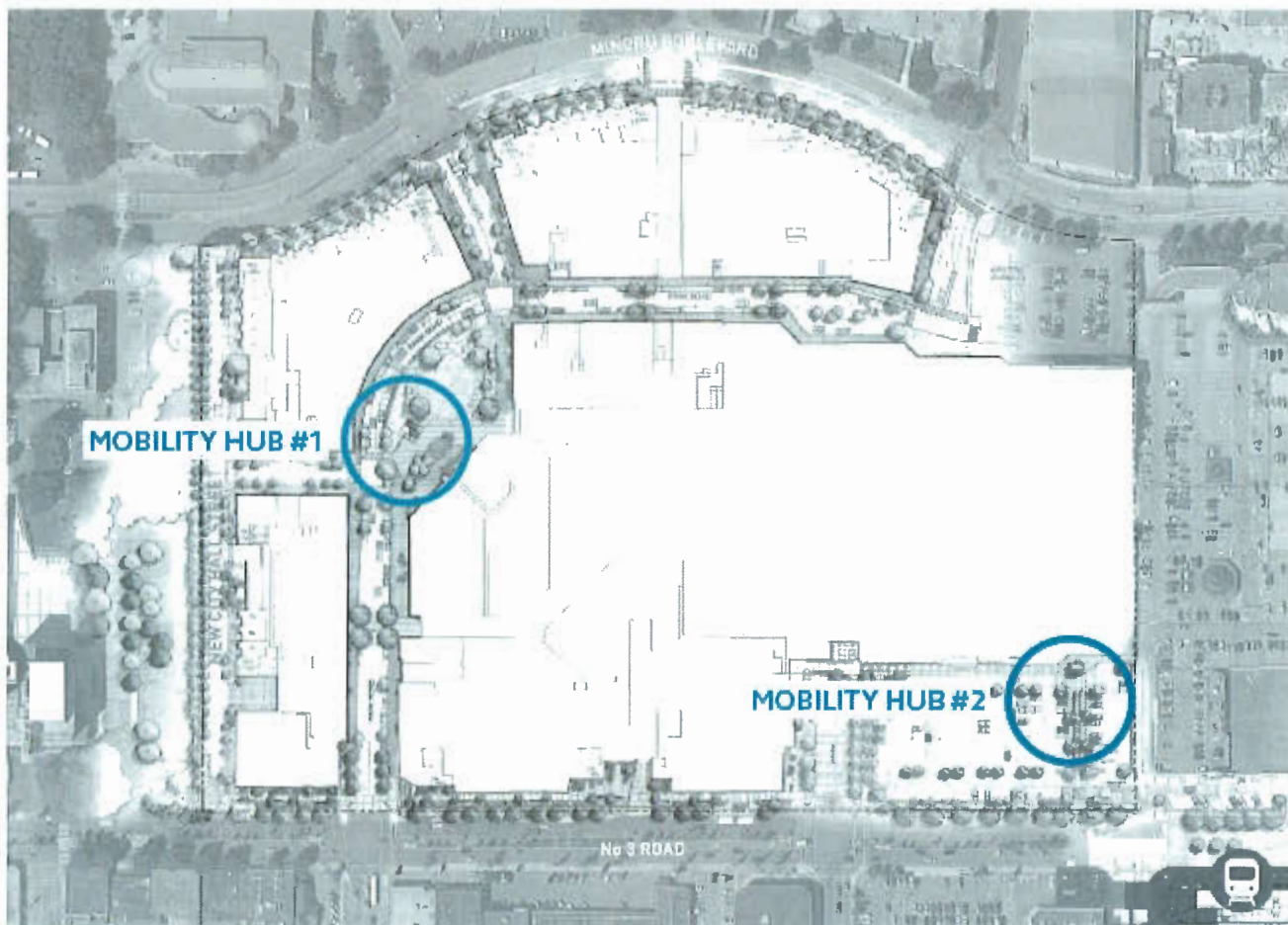
MOBILITY HUB VISION

- PEDESTRIAN CONNECTIONS
- BICYCLE CONNECTIONS
- TRANSIT CONNECTIONS
- VEHICLE CONNECTIONS

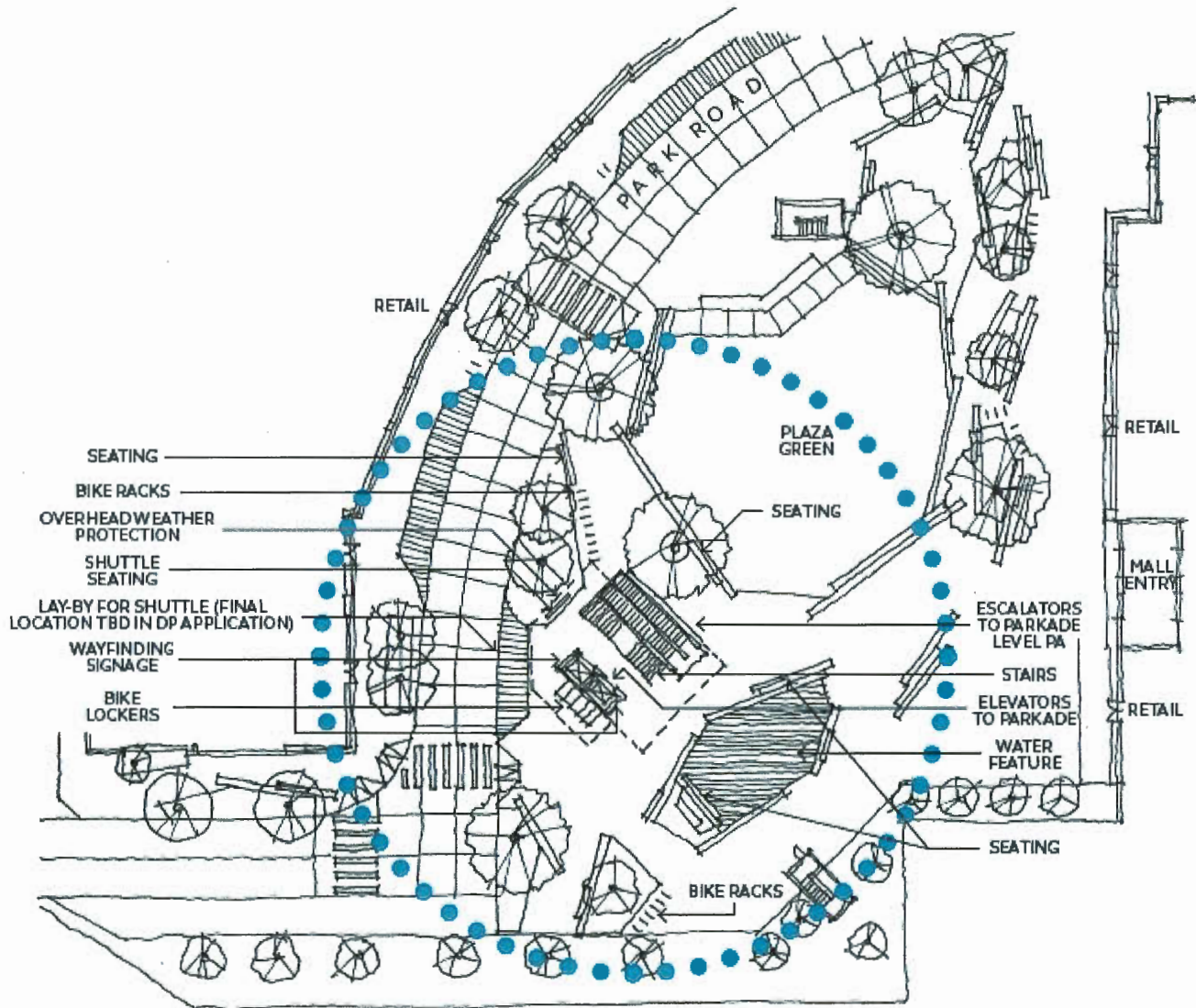
19 June 2018



CF RICHMOND CENTRE SITE PLAN



MOBILITY HUB #1 (LOCAL HUB) CONCEPTUAL PLAN



PLAZA LEVEL PLAN

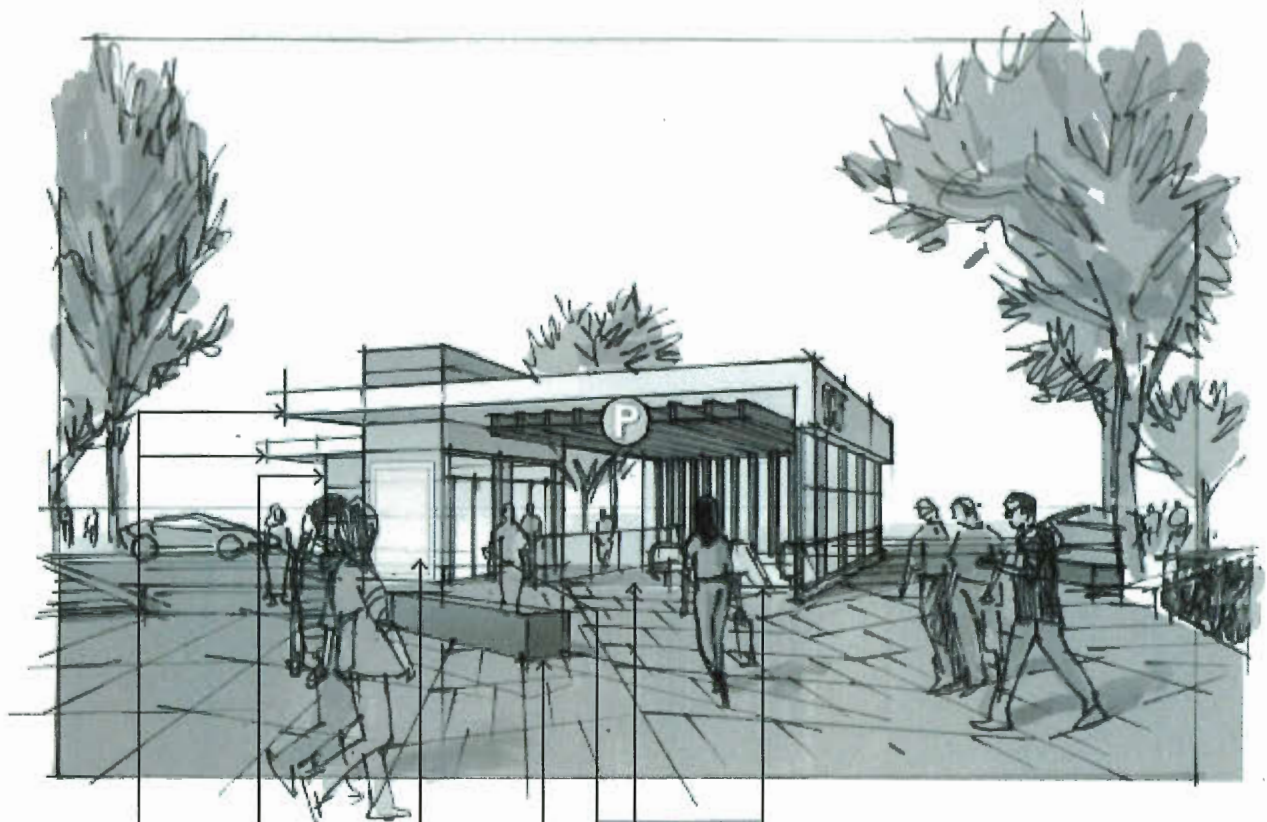


MOBILITY HUB FEATURES @ GROUND LEVEL

1. SHUTTLE LAY-BY
2. SHUTTLE SEATING AREA
3. BIKE LOCKERS (4-5)
4. BIKE RACKS
5. OVERHEAD WEATHER PROTECTION
6. LIGHTING
7. WAY-FINDING SIGNAGE

*PRELIMINARY ESTIMATE OF MOBILITY MODES AND FEATURES; FINAL PROGRAM TO BE DETERMINED WITH PHASE 1 DP APPLICATION

MOBILITY HUB #1 (LOCAL HUB) CONCEPTUAL VISION



ILLUSTRATIVE VISION

WEATHER
PROTECTION

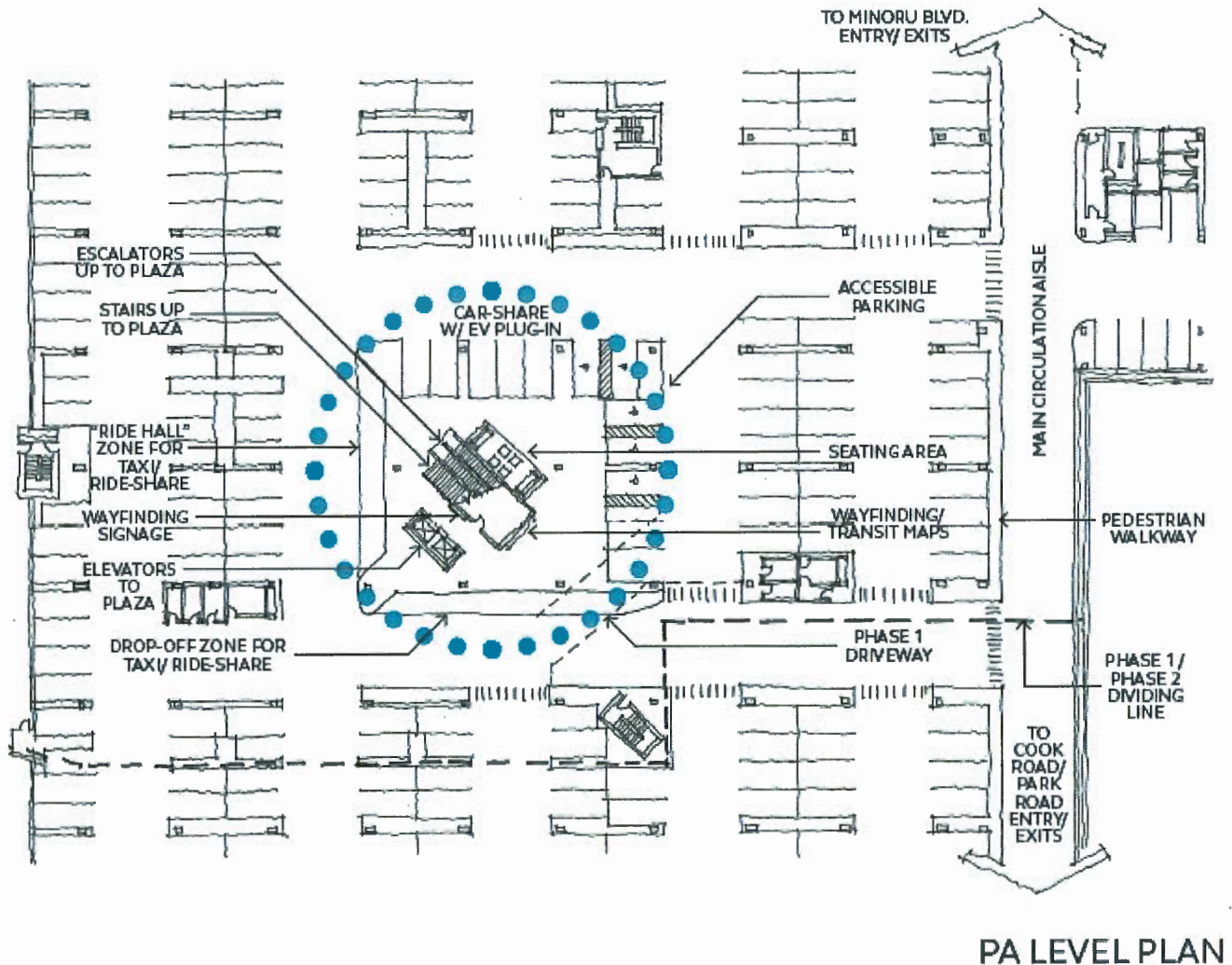
BIKE
LOCKERS

WAYFINDING
SIGNAGE

SEATING

ELEVATORS/ STAIRS/
ESCALATORS/
DOWN TO PA LEVEL
PARKING

MOBILITY HUB #1 (LOCAL HUB) CONCEPTUAL PLAN



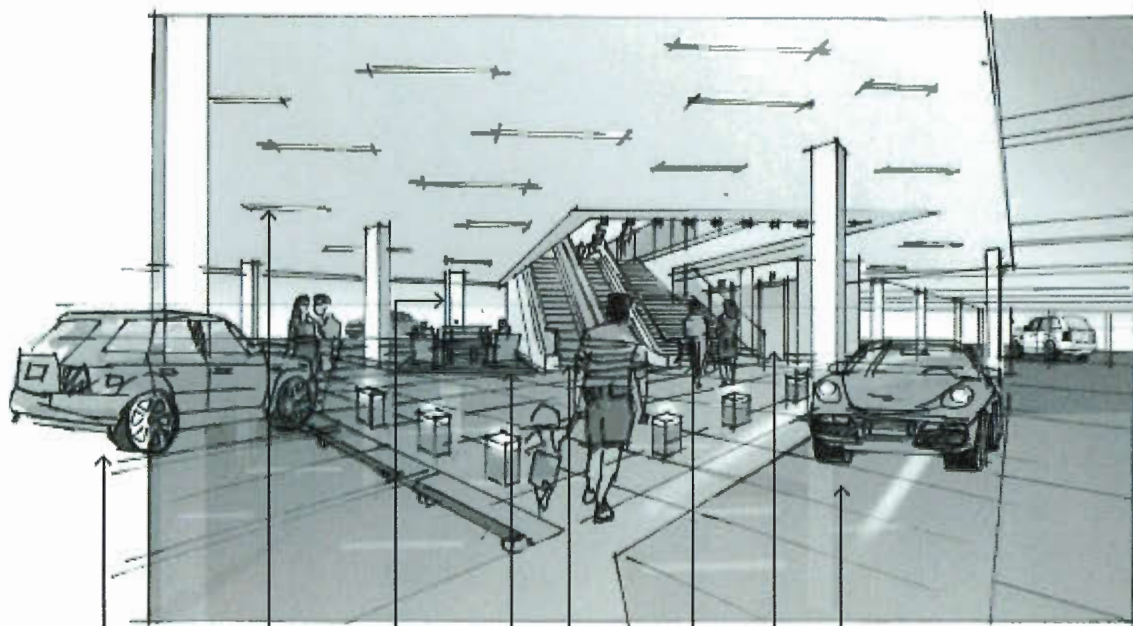
PA LEVEL PLAN

MOBILITY HUB FEATURES UNDERGROUND @ LEVEL PA

1. CAR SHARE VEHICLES (3-4)
2. CAR SHARE PARKING SPACES (W/ EV PLUG-IN) (RESERVED PARKING FOR CAR-SHARE VEHICLES) (3-4)
3. TAXI PARKING / PICK-UP / DROP-OFF (4-5)
4. SEATING / WAITING AREA
5. WAY-FINDING SIGNAGE
6. TRANSIT MAPS / SCHEDULES
7. LIGHTING

*PRELIMINARY ESTIMATE OF MOBILITY MODES AND FEATURES; FINAL PROGRAM TO BE DETERMINED WITH PHASE 1 DP APPLICATION

MOBILITY HUB #1 (LOCAL HUB) CONCEPTUAL VISION



CAR-SHARE
PARKING
(W/ EV)

QUALITY
LIGHTING

WAYFINDING
SIGNAGE

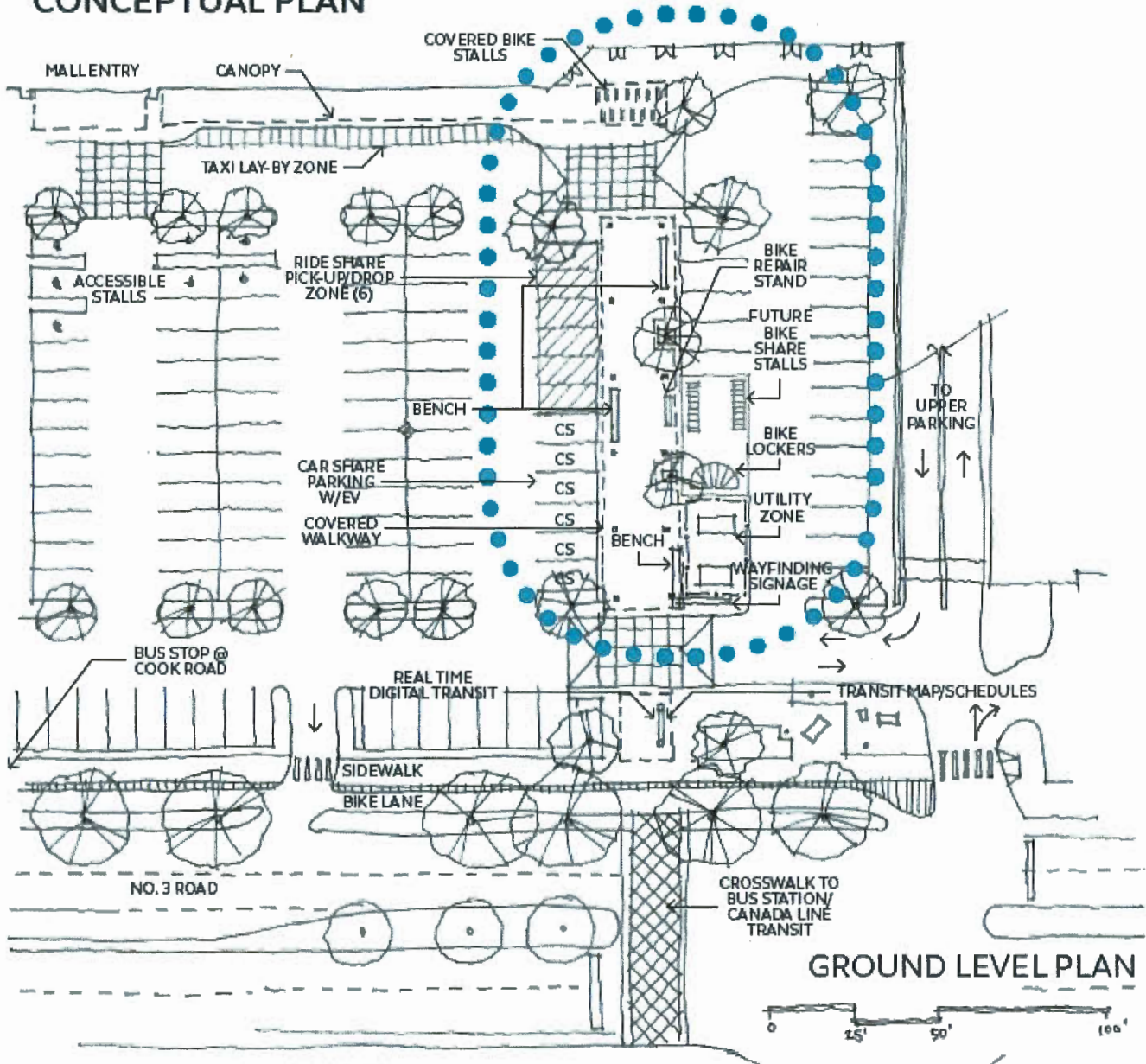
SEATING
AREA

ESCALATORS/
STAIRS/ ELEVATORS
UP TO PLAZA LEVEL/
MALL ENTRY

"RIDE HALL"
ZONE FOR
TAXI/ RIDE-
SHARE

ILLUSTRATIVE VISION

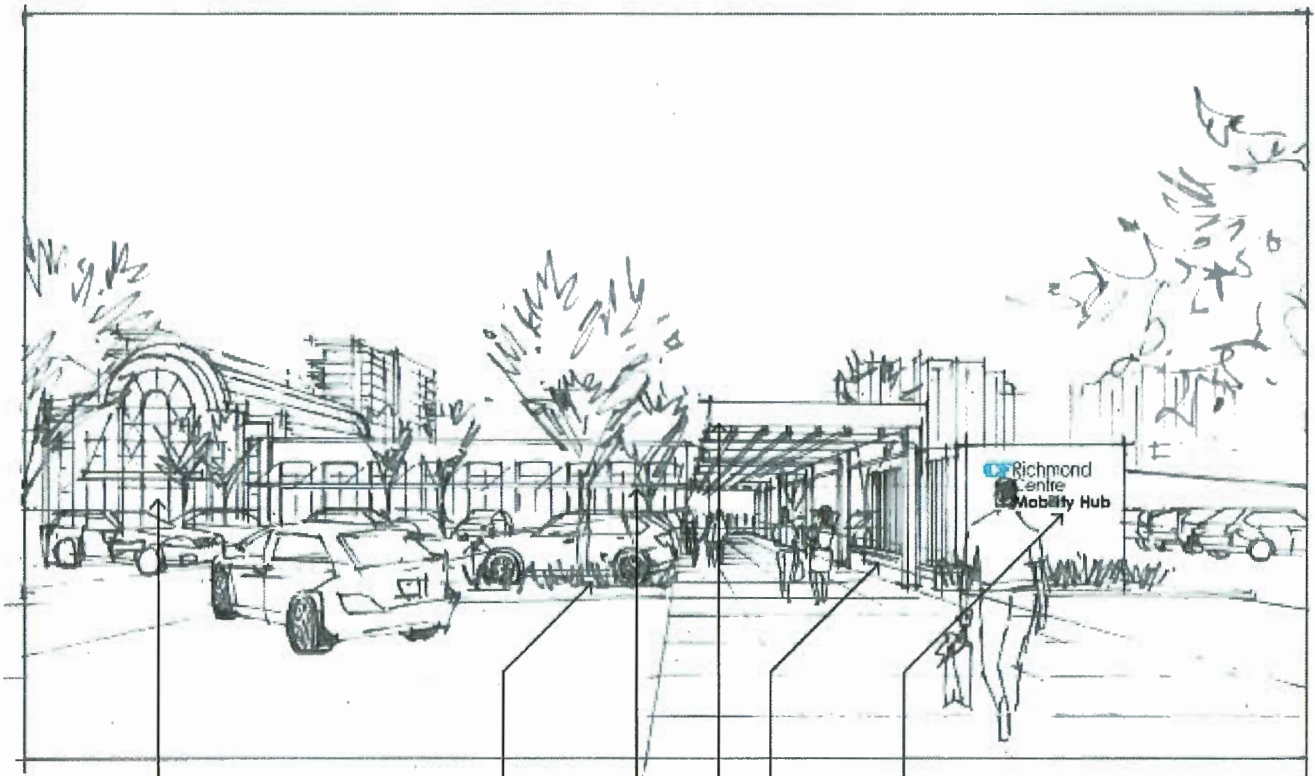
MOBILITY HUB #2 (REGIONAL HUB) CONCEPTUAL PLAN



MOBILITY HUB FEATURES

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. RIDE SHARE VEHICLES (5-6) 2. CAR SHARE PARKING SPACES (W/ EV PLUG-IN) (RESERVED PARKING FOR CAR-SHARE VEHICLES) (5-6) 3. TAXI PARKING / PICK-UP / DROP-OFF (4-5) 4. COVERED BICYCLE STALLS (20-25) 5. BICYCLE LOCKERS (4-5) 6. BIKE SHARE SPACES DOCKED SYSTEM OR IF DOCKLESS; PROVIDE "PARKING ZONE" (10-12) 7. BICYCLE REPAIR STAND (TOOLS: I.E. WRENCHES, PUMP, ETC) (1) | <ol style="list-style-type: none"> 8. WATER FOUNTAIN / BOTTLE FILL STATION 9. COVERED WALKWAYS 10. BENCHES / SEATING AREA 11. LIGHTING 12. WAY-FINDING SIGNAGE 13. MAP / TRANSIT MAP / SCHEDULES 14. REAL TIME DIGITAL TRANSIT MESSAGE BOARD 15. BUS SHELTER W/ BENCHES (ADJACENT @ COOK ROAD AND AT BUS STATION) | <p>*PRELIMINARY ESTIMATE OF MOBILITY MODES AND FEATURES; FINAL PROGRAM TO BE DETERMINED WITH PHASE 1 DP APPLICATION</p> |
|--|---|---|

MOBILITY HUB #2 (REGIONAL HUB) CONCEPTUAL VISION



ILLUSTRATIVE VISION

MALL ENTRY

CAR-SHARE
PARKING
(W/ EV)

COVERED
WALKWAY

BENCH
SEATING

WAYFINDING
SIGNAGE

Additional Development Requirements
Terms & Conditions

1. **NAV Canada Building Heights:** Prior to Development Permit* issuance, on a lot-by-lot basis, the developer shall submit a letter of confirmation from a registered surveyor assuring that the proposed building heights are in compliance with Transport Canada regulations.
2. **Family-Friendly Housing Unit Mix:** Prior to Development Permit* issuance, on a lot-by-lot basis, in whole or in part, the developer shall demonstrate that the development provides for a housing unit mix that includes at least 50% 2- and 3-bedroom, "family-friendly" units (in some combination of market-ownership, market rental, and affordable housing units) or as otherwise determined to the satisfaction of the Director of Development and Manager of Community Social Services through the Development Permit* approval processes. Prior to Development Permit* issuance, the developer may be required to register legal agreement(s) on title to one or both lots to secure the developer's commitment to designing and constructing the approved housing unit mix, as determined to the City's satisfaction.
3. **Public Art:** Prior to Development Permit* issuance, on a lot-by-lot basis, covenant(s) and/or alternative legal agreement(s) shall be registered on title to Lot 1 (West) and Lot 2 (East), to the satisfaction of the City, securing the owner's commitment to voluntarily contribute towards public art, on a lot-by-lot basis, in compliance with the Council-approved private development public art program policy and/or related requirements in effect at the time of development approval. The covenant and/or alternative legal agreement(s) shall include various development holds for the purpose of securing the developer's public art contribution in accordance with City policy and shall include, but may not be limited to, the preparation of a detailed public art plan for each lot, Council and/or advisory committee approval(s), the delivery of the developer's contribution in some combination of cash and/or security (Letter of Credit), and the installation and maintenance of the public art on City property and/or within statutory rights of way(s) on the lots, all at the developer's/owner's sole cost. More specifically:
 - 3.1. "No development" shall be permitted on Lot 1 (West) and/or Lot 2 (East), restricting Development Permit* issuance, on a lot-by-lot basis, for any building on Lot 1 (West) and Lot 2 (East) that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, until the developer:
 - 3.1.1. Submits a Detailed Public Art Plan for the lot, to the satisfaction of the City, that:
 - a) Includes the entirety of the lot, together with related public open space and public road, as determined to the City's satisfaction;
 - b) Is prepared by an appropriate professional and based on the Richmond Public Art Program, City Centre Public Art Plan, and any relevant supplementary public art and heritage planning undertaken by the City for Brighthouse Village, to the satisfaction of the Director of Development and Director, Arts, Culture, and Heritage Services (including review(s) by the Public Art Advisory Committee and presentation for endorsement by Council, as required by the Director, Arts, Culture, and Heritage Services); and
 - c) Account for the full value of the developer's voluntary public art contribution for the lot, which value shall be based on:
 - i) The maximum buildable floor area approved under the Development Permit* for the lot, excluding standard floor area ratio (FAR) exemptions and affordable housing; and
 - ii) Minimum rates of:
 - For Lot 1 (West): \$0.83 per buildable square foot of residential uses and \$0.44 per buildable square foot of non-residential uses; and
 - For Lot 2 (East): The applicable Council-approved rate(s) in effect at the time of Development Permit* issuance;
 - 3.1.2. Registers legal agreement(s) on title to facilitate the implementation of the City-approved Detailed Public Art Plan for the lot, to the City's satisfaction; and

- 3.1.3. Submits a Letter of Credit and/or cash (as determined at the sole discretion of the City) to secure the developer’s implementation of the City-approved Detailed Public Art Plan for the lot, the value of which shall be at least the full value of the developer’s voluntary public art contribution for the lot as set out in the City-approved Public Art Plan.
- 3.2. “No occupancy” shall be permitted on Lot 1 (West) or Lot 2 (East), restricting final Building Permit* inspection granting occupancy, on a lot-by-lot basis, for any building on the lot that includes any residential use and/or increase in gross leasable floor area on the lot, as determined in the City's discretion, in whole or in part (excluding parking intended as an ancillary use to non-parking uses), for which the City-approved Detailed Public Art Plan requires the developer’s implementation of a public artwork(s) until:
 - 3.2.1. The developer, at the developer’s sole expense, commissions an artist(s) to conceive, create, manufacture, design, and oversee or provide input about the manufacturing of the public artwork, and causes the public artwork to be installed on City property, if expressly permitted by the City, or within a statutory right-of-way on the developer’s lands (which right-of-way shall be to the satisfaction of the City for rights of public passage, public art, and related purposes, in accordance with the City-approved Detailed Public Art Plan);
 - 3.2.2. The developer, at the developer’s sole expense and within thirty (30) days of the date on which the public art is installed, executes and delivers to the City a transfer of all of the developer’s rights, title, and interest in the public artwork to the City if on City property or to the subsequent Strata or property owner if on private property (including transfer of joint world-wide copyright) or as otherwise determined to be satisfactory by the City Solicitor and Director, Arts, Culture, and Heritage Services; and

NOTE: It is the understanding of the City that the artist’s rights, title, and interest in the public artwork will be transferred to the developer upon acceptance of the artwork based on an agreement solely between the developer and the artist. These rights will in turn be transferred to the City if on City property, subject to approval by Council to accept the transfer of ownership of the artwork.
 - 3.2.3. The developer, at the developer’s sole expense, submits a final report to the City promptly after completion of the installation of the public art in respect to the City-approved Detailed Public Art Plan, which report shall, to the satisfaction of the Director of Development and Director, Arts, Culture, and Heritage Services, include:
 - a) Information regarding the siting of the public art, a brief biography of the artist(s), a statement from the artist(s) on the public art, and other such details as the Director of Development and Director, Arts, Culture, and Heritage Services may require;
 - b) A statutory declaration, satisfactory to the City Solicitor, confirming that the developer’s financial obligation(s) to the artist(s) have been fully satisfied;
 - c) The maintenance plan for the public art prepared by the artist(s); and
 - d) Digital records (e.g., photographic images) of the public art, to the satisfaction of the Director of Development and Director, Arts, Culture, and Heritage Services.
- 4. **Electric Vehicle (EV) Charging Infrastructure for Vehicles & “Class 1” Bicycle Storage:** Prior to Development Permit* issuance, on a lot-by-lot basis, covenant(s) and/or alternative legal agreement(s) shall be registered on title to Lot 1 (West) and Lot 2 (East), to the satisfaction of the City, securing the owner's commitment to voluntarily provide, install, and maintain EV charging infrastructure within the building on Lot 1 (West), Lot 2 (East), and Remainder Lot (North) for the use of the building’s residents, commercial tenants, and others as determined to the satisfaction of the City through an approved Development Permit*. More specifically, the minimum permitted rates for EV charging infrastructure shall be as indicated in the following table or as per the Official Community Plan or Zoning Bylaw rates in effect at the time of Development Permit* approval , whichever is greatest.

User/Use	Energized Outlet – Minimum Permitted Rates	
	Vehicle Parking (1)	“Class 1” (Secured) Bike Storage (2)
Market Residential (i.e. resident parking & bike storage)	1 per parking space (for exclusive use)	1 per each 10 bikes or portion thereof in a bike storage room or locker (which Energized Outlet shall be located to facilitate shared use with bikes in the room/locker)
Affordable Housing (i.e. resident parking & bike storage)	1 per parking space (for exclusive use)	
Non-Residential (i.e. tenant/employee bike storage)	N/A	1 per each 10 bikes or portion thereof in a bike storage room or locker (which Energized Outlet shall be located to facilitate shared use by bikes when secured in the room/locker)

- (1) “Vehicle Parking” “Energized Outlet” shall mean all the wiring, electrical equipment, and related infrastructure necessary to provide Level 2 charging (as per SAE International’s J1772 standard) or higher to an electric vehicle.

NOTE: Richmond’s Electric Vehicle Charging Infrastructure Bylaw provides that, where an electric vehicle energy management system is implemented, the Director of Engineering may specify a minimum performance standard to ensure a sufficient rate of electric vehicle charging. For the purposes of the Bylaw, electric vehicle energy management system means a system to control electric vehicle supply equipment electrical loads comprised of monitor(s), communications equipment, controller(s), timer(s), and other applicable devices.

- (2) “Class 1 (Secured) Bike Storage” “Energized Outlet” shall mean an operational 120V duplex outlet for the charging of an electric bicycle and all the wiring, electrical equipment, and related infrastructure necessary to provide the required electricity for the operation of such an outlet.

5. **Tree Retention, Removal & Replacement:** Prior to Development Permit* issuance, on a lot-by-lot basis, as per standard City policy and procedures, the developer shall, based on a Certified Arborist’s Report approved by the City, register legal agreement(s) on title to the lot, submit security and/or cash-in-lieu compensation, and/or implement other measures, to the satisfaction of the City, with respect to the retention, removal, and replacement of on-site and off-site (City) trees impacted by the proposed development.

Standard City Legal Requirements
Terms & Conditions

1. **Flood Construction Covenants:** Registration of flood indemnity covenants on title to Lot 1 (West), Lot 2 (East), and Remainder Lot (North), as per Flood Plain Designation and Protection Bylaw, Area “A” (i.e. minimum flood construction level of 2.9 m GSC).
2. **Aircraft Noise Covenants:** Registration of the City’s standard aircraft noise sensitive development (ANSD) covenants on title to Lot 1 (West), Lot 2 (East), and Remainder Lot (North). The owner-developer shall notify all initial purchasers of the potential aircraft noise impacts. Furthermore, on a phase-by-phase basis, prior to each Development Permit* and Building Permit* issuance, the owner-developer shall submit a report(s) and/or letter(s) of assurance prepared by an appropriate registered professional, which demonstrates that the interior noise levels and thermal conditions comply with the City’s Official Community Plan and Noise Bylaw requirements. The standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard and subsequent updates as they may occur.

Maximum interior noise levels (decibels) within dwelling units must achieve CMHC standards follows:

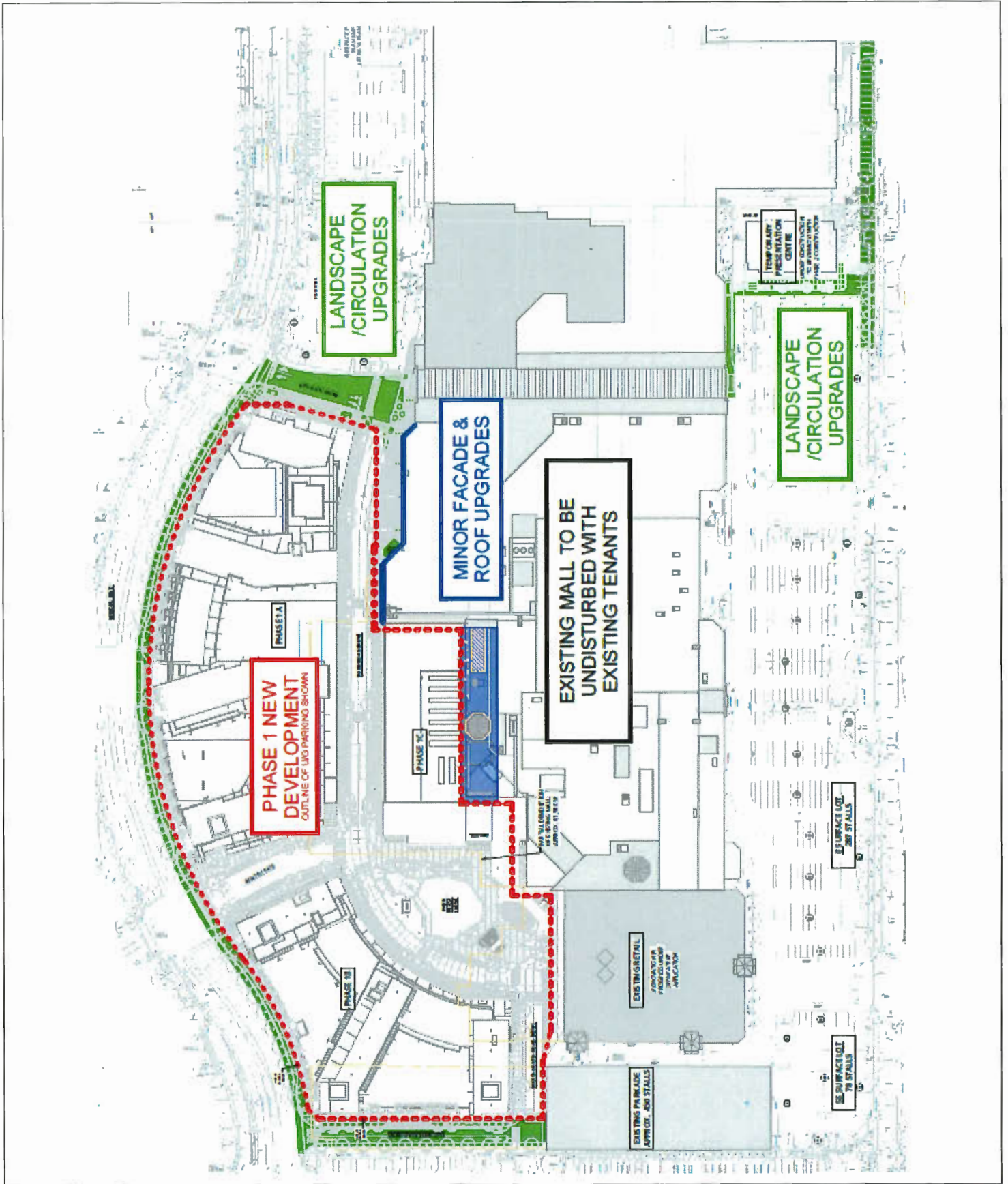
Portions of Dwelling Units	Noise Levels (decibels)
Bedrooms	35 decibels
Living, dining, recreation rooms	40 decibels
Kitchen, bathrooms, hallways, and utility rooms	45 decibels

Applicable ANSD covenants shall include:

- a) Lot 1 (West): Mixed use covenant;
 - b) Lot 2 (East): Mixed use covenant; and
 - c) Remainder Lot (North): Non-sensitive use covenant.
3. **Canada Line Covenants:** Registration of a legal agreement(s) on title to Lot 2 (East) and Remainder Lot (North) requiring that the proposed development on the lots must be designed and constructed in a manner that mitigates potential Canada Line impacts (e.g., noise from trains and public areas, vibration, overlook, light spillage) on proposed adjacent dwelling units and other potential sensitive uses. The owner-developer shall notify all initial purchasers of the potential Canada Line impacts. Furthermore, on a phase-by-phase basis, prior to each Development Permit* and Building Permit* issuance, the owner-developer shall submit a report(s) and/or letter(s) of assurance prepared by an appropriate registered professional, which demonstrate that, among other things, for residential uses the interior noise levels and thermal conditions comply with City objectives including, for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting), compliance with the ASHRAE 55-2004 “Thermal Environmental Conditions for Human Occupancy” standard and subsequent updates as they may occur and, for maximum interior noise levels (decibels) within dwelling units, CMHC standards as per the above table with respect to the “Aircraft Noise” agreement.
 4. **View Blockage & Other Development Impacts Covenants:** Registration of a restrictive covenant(s) on title to Lot 1 (West) and Lot 2 (East), to the satisfaction of the City, requiring that development on the lots must be designed and constructed in a manner that mitigates potential development impacts including without limitation view obstruction, increased shading, increased overlook, reduced privacy, increased ambient noise, increased ambient night-time light, and increased public use of fronting streets, sidewalks, and open spaces caused by or experienced as a result of, in whole or in part, development on the lands and future development on or the use of surrounding properties. In particular, the covenant shall notify residential tenants in mixed use buildings of potential noise and/or nuisance that may arise due to proximity to retail, restaurant, other commercial, and community uses and activities. The owner-developer shall notify all initial purchasers of the potential development impacts. Through the Development Permit* approval processes, the developer shall submit a report(s) to the City, to be attached to the legal agreement(s), prepared by an appropriate registered professional, which demonstrates that adequate development impact mitigation measures will be incorporated into the building design. Prior to Building Permit* issuance and final Building Permit* inspection granting occupancy, on a lot-by-lot basis, in whole or in part, the developer shall submit letter(s) of

confirmation prepared by an appropriate registered professional, which confirms that the building design and construction comply with the report(s) approved at Development Permit* stage.

5. **Tandem Parking Covenants:** Registration of a legal agreement(s) on title to Lot 1 (West) and Lot 2 (East) for the purpose of ensuring that:
- a) For Valet Commercial Parking: Where the owner operates a valet parking service, to the satisfaction of the City, two parking spaces may be provided in a tandem arrangement for the use of commercial business owners, tenants, employees, and/or customers and/or the general public as determined to the satisfaction of the City and approved through a Development Permit*, which may include the registration of legal agreement(s) on title if required by the City;
 - b) For Market-Ownership Residential Parking: Where two parking spaces are provided in a tandem arrangement for the use of the occupants of residential dwellings (excluding affordable housing and market rental dwellings), as per the Zoning Bylaw, both parking spaces must be assigned to the same dwelling unit; and
 - c) Elsewhere: Tandem parking shall be prohibited for all other purposes including, but not limited to, parking for residential visitors, affordable housing and market rental dwellings, commercial uses (except those commercial uses served by Valet Commercial Parking, as determined to the satisfaction of the City and approved through a Development Permit*), child care, community amenity uses, and car-share spaces.





**Richmond Official Community Plan Bylaw 7100 and Bylaw 9000
Amendment Bylaw 9892 (CP 16-752923)
6551 No. 3 Road**

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

1. Richmond Official Community Plan Bylaw 9000 is amended at Attachment 1 to Schedule 1, 2041 OCP Land Use Map, for the area marked as “A” on “Schedule A attached to and forming part of Bylaw 9892”, by replacing the existing land use designation of area “A” with “Park”.
2. Richmond Official Community Plan Bylaw 7100, in Schedule 2.10 (City Centre Area Plan), is amended by:
 - 2.1. Replacing page 2-20, including the Pedestrian-Oriented Retail Precincts Map, with “Schedule B attached to and forming part of Bylaw 9892”;
 - 2.2. On page 2-24, entitled 2.3 Mobility & Access – Objective, replacing the last bullet with “Car-Free Measures: encourage measures that support car-free lifestyles through enhanced first-to-last kilometre connectivity, alternative transportation options, and home delivery services and facilities.”
 - 2.3. On page 2-25, entitled 2.3 Mobility & Access, Policies, following 2.3.8(a), inserting the following as 2.3.8(b): “Multi-Modal Mobility Hubs – Establish transportation network nodes that seamlessly integrate multiple travel options, supportive infrastructure, and placemaking strategies to create pedestrian-friendly centres that help to maximize first-to-last kilometre connectivity without need for private motor vehicles.”
 - 2.4. Replacing page 2-27, including the Street Network Map (2031), with “Schedule C attached to and forming part of Bylaw 9892”;
 - 2.5. Replacing page 2-36, including Pedestrian Environment Map (2031), with “Schedule D attached to and forming part of Bylaw 9892”;
 - 2.6. Replacing page 2-38, including the Cycling Network Map (2031), with “Schedule E attached to and forming part of Bylaw 9892”;
 - 2.7. Replacing page 2-42, including the Goods Movement & Loading Map (2031), with “Schedule F attached to and forming part of Bylaw 9892”;

- 2.8. Replacing page 2-44, entitled 2.3.8 Fostering a Car-Free Lifestyle, with “Schedule G attached to and forming part of Bylaw 9892”;
- 2.9. Replacing page 2-46, including the Arts & Culture Map (2031), with “Schedule H attached to and forming part of Bylaw 9892”;
- 2.10. Replacing page 2-50, including the Public Spaces & Places Map (2031), with “Schedule I attached to and forming part of Bylaw 9892”;
- 2.11. Replacing page 2-65, including the Base Level Parks & Open Space Map (2031), with “Schedule J attached to and forming part of Bylaw 9892”;
- 2.12. Replacing page 2-68, including the Neighbourhood Parks Map, with “Schedule K attached to and forming part of Bylaw 9892”;
- 2.13. Replacing page 2-71, including the Pedestrian Linkages Map, with “Schedule L attached to and forming part of Bylaw 9892”;
- 2.14. Replacing page 2-88, including the Public Realm Areas Map, with “Schedule M attached to and forming part of Bylaw 9892”;
- 2.15. Replacing page 2-113, including the Tower Spacing & Floorplate Size Map, with “Schedule N attached to and forming part of Bylaw 9892”;
- 2.16. Replacing page 2-116, including the Preferred Frontage Conditions Map, with “Schedule O attached to and forming part of Bylaw 9892”;
- 2.17. On page 3-1 (3.0 Development Permit Guidelines), following the Sub-Area Guidelines bullet, inserting a new bullet as follows: “Special Precinct Guidelines: Special development standards intended to contribute towards placemaking by encouraging distinct identities supportive of local mobility, ecology, culture, and urban form opportunities”;
- 2.18. On page 3-4, inserting a new Development Permit Special Precinct Key Map as shown in “Schedule P attached to and forming part of Bylaw 9892”;
- 2.19. Following section 3.2 Sub-Area Guidelines, inserting section 3.3.1 Special Precinct 1.0 – Richmond Centre South (Brighthouse Village) as shown in “Schedule Q attached to and forming part of Bylaw 9892”;
- 2.20. Replacing the Generalized Land Use Map (2031) with “Schedule R attached to and forming part of Bylaw 9892”;
- 2.21. Replacing the Specific Land Use Map: Brighthouse Village (2031) with “Schedule S attached to and forming part of Bylaw 9892”; and

- 2.22. 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.
- 3. This Bylaw may be cited as **“Richmond Official Community Plan Bylaw 7100 and Bylaw 9000, Amendment Bylaw 9892”**.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

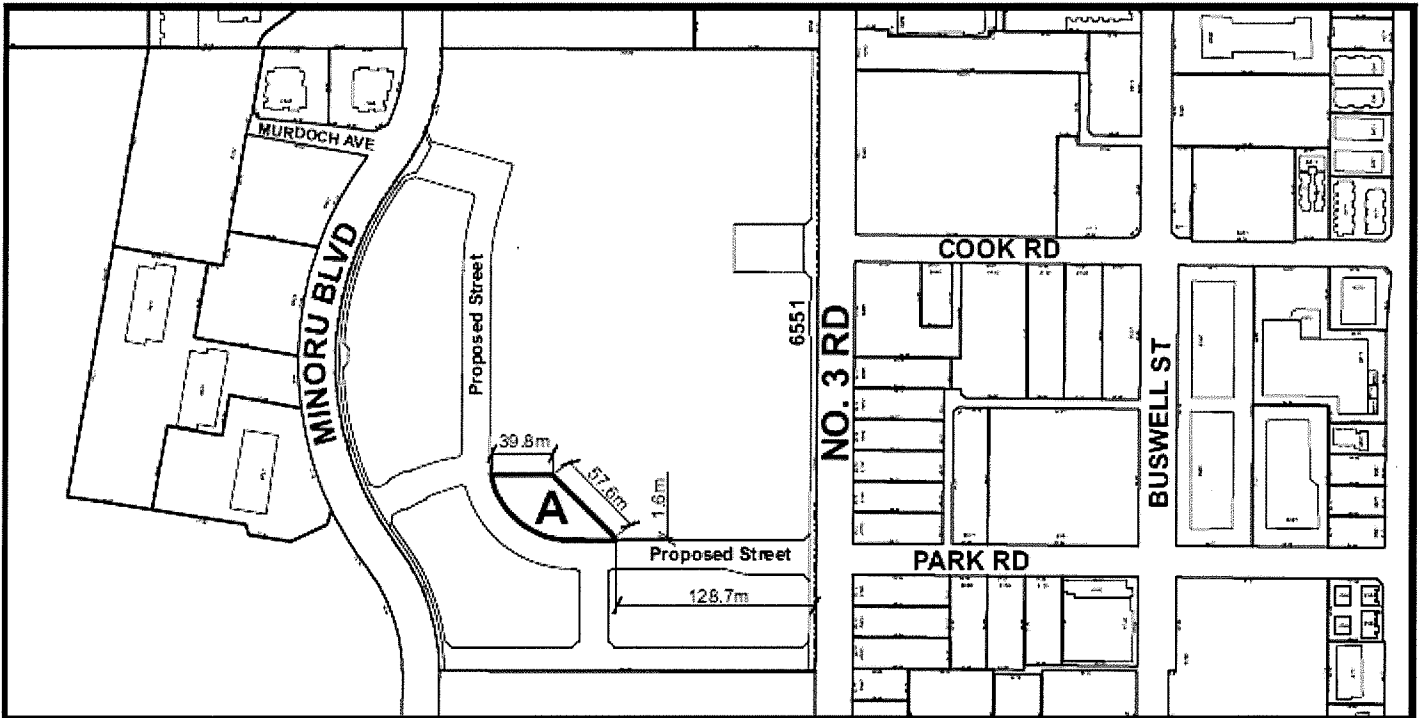
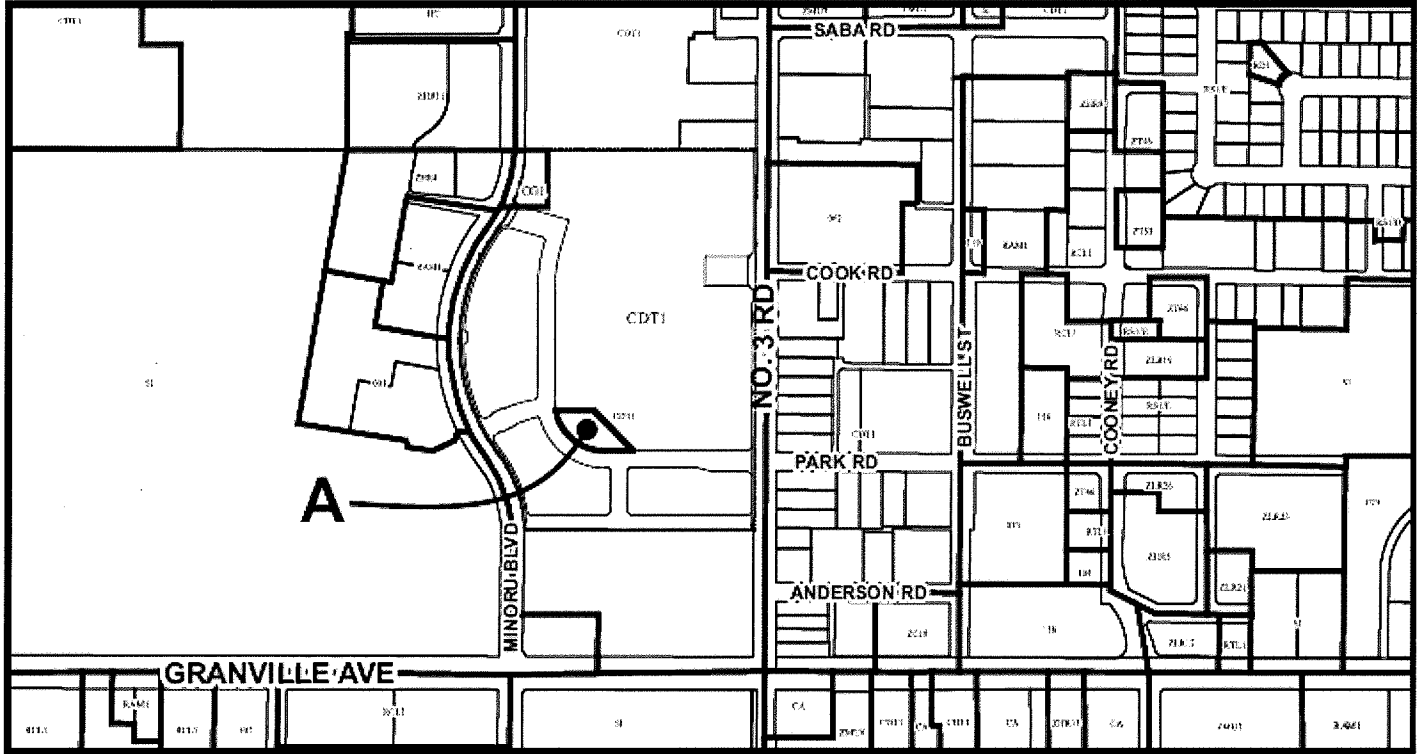
SEP 24 2018



MAYOR

CORPORATE OFFICER

"Schedule A attached to and forming part of Bylaw 9892"



OCP Amendment Bylaw 9892
(CP 16-752923)

Original Date: 09/12/18

Revision Date:

Note: Dimensions are in METRES

2.2.3(d) Pedestrian-Oriented Retail Precincts

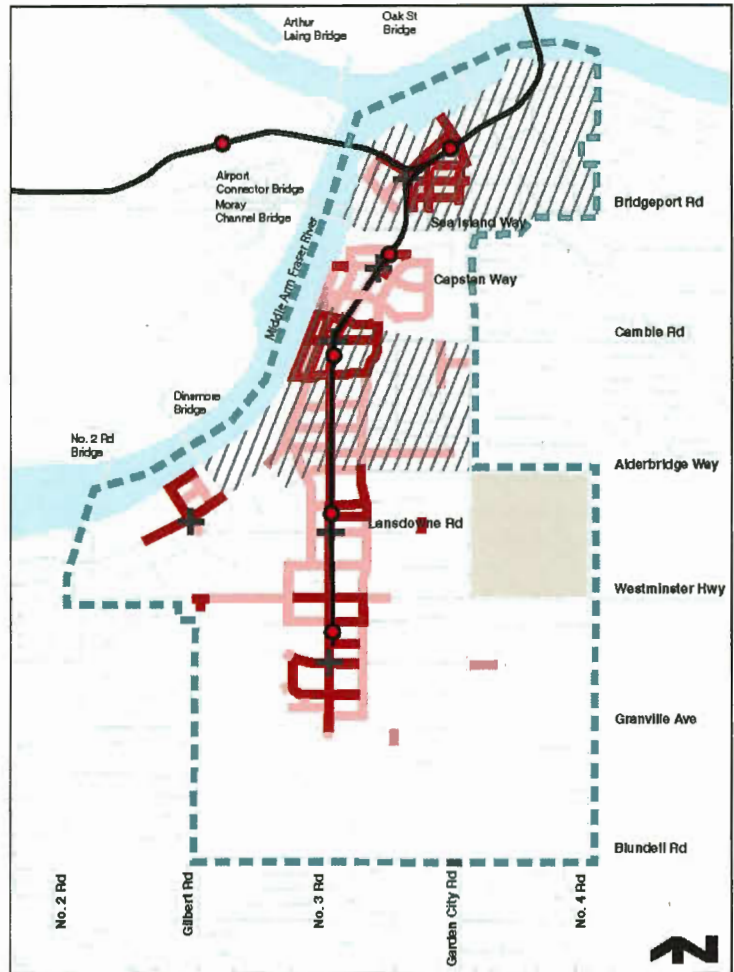
Lively, urban retail areas require “retail continuity”: the continuity of a substantial amount of ground floor frontages that are attractive, pedestrian-oriented, rich in detail, and engaging – in other words, frontages that encourage people to walk and linger, and include:

- a diversity of activities (e.g., shops and restaurants);
- a high degree of transparency enabling interaction between activities inside the building and the fronting sidewalk or open space (e.g., display windows and views into shop interiors);
- small unit frontages, typically no more than 10 m (33 ft.) wide, each with its own entry;
- multi-tenant building entries, hotels, and large commercial units with ground floor frontage widths of no more than 10 m (33 ft.), unless special measures are employed to maintain retail continuity;
- office and similar uses situated above the ground floor;
- pedestrian weather protection;
- pedestrian-oriented and scaled signage and lighting;
- public art, seating, and other public amenities;
- quality, durable materials and construction.

In addition, a successful retail area requires commercial units that can accommodate and adapt to the needs of a variety of businesses over time. To help achieve this, commercial retail units should have a depth of:

- **typical** - 18 m (59 ft.) or more;
- **minimum** - 9 m (30 ft.).

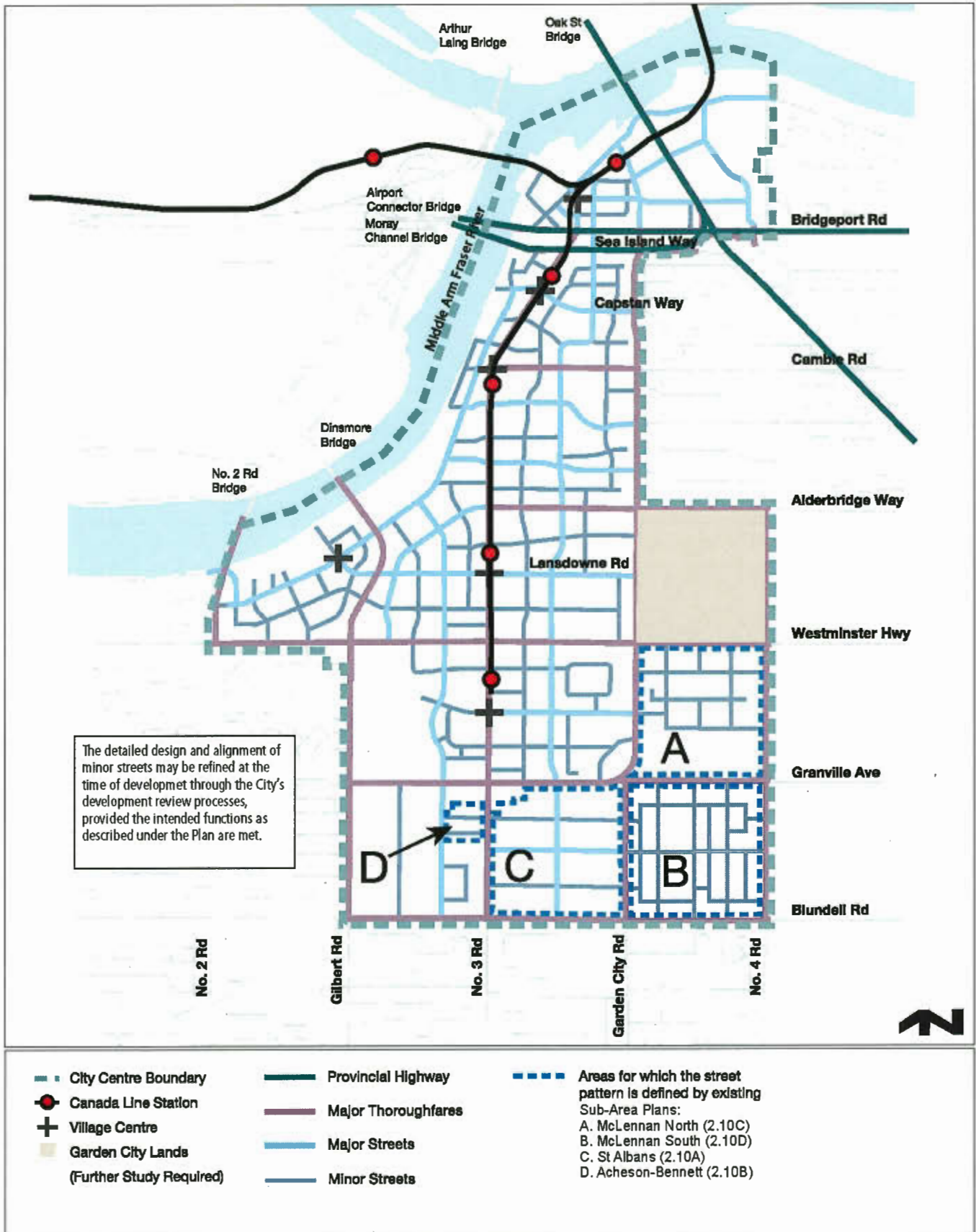
Pedestrian-Oriented Retail Precincts Map



	City Centre Boundary		Housing Restricted due to Aircraft Noise, Traffic & Other Impacts
	Canada Line		Retail High Streets & Linkages
	Village Centre		Secondary Retail Streets & Linkages (Further Study Required)
	Garden City Lands		

Area	Key Locations Where Retail Continuity is Encouraged on the Ground Floor of Buildings Along Publicly-Accessible Street & Open Space Frontages
	Retail High Streets & Linkages <ul style="list-style-type: none"> • “Retail continuity” strongly encouraged. • Live/Work Dwellings discouraged.
	Secondary Retail Streets & Linkages <ul style="list-style-type: none"> • “Retail continuity” encouraged. • Live/Work Dwellings permitted (provided that residential uses are permitted).

Street Network Map (2031)



Walking Features

Street Network

- Every street is walkable and has a sidewalk, a minimum of 2.0 m (6.5 ft.) wide and preferably 2.5 m (8.2 ft.) wide, with street trees, boulevards and pedestrian lighting.
- Shorter city blocks, narrower street crossings and conveniently timed pedestrian signals.
- Increased curbside parking on minor streets acts as a buffer from adjacent vehicle traffic.
- A wayfinding system to guide pedestrians to key destinations.
- An enhanced pedestrian-cyclist crossings at selected locations, particularly near schools.

Streetscape

- A creative, fun and welcoming environment for pedestrians via landscaping, artwork, attractive street furniture, open spaces, gathering places, and resting areas.
- Orient ground level businesses to pedestrian access from the sidewalk.
- Continuous store awnings provide weather protection.

Transit Villages & Connections

- Transit schedules and route information available at transit stations and bus stops.
- Fully accessible transit stops conveniently located and easily recognizable with sufficient space for waiting passengers.
- Covered walkways provided between transit stops and village centres.

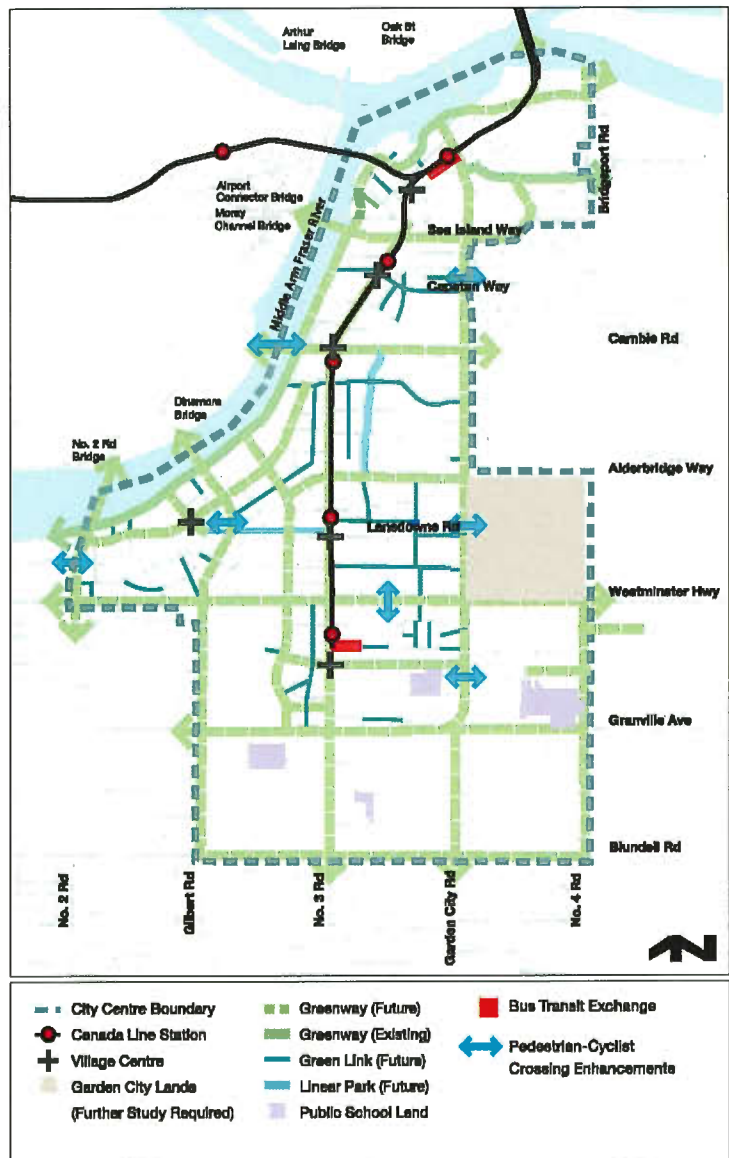
Urban Greenways & Trails

- Enhanced streetscape features along urban greenways and within pedestrian precincts around transit villages.
- Improved trails along the dyke and new links across water boundaries (e.g., Middle and North Arms of the Fraser River).

Accessibility

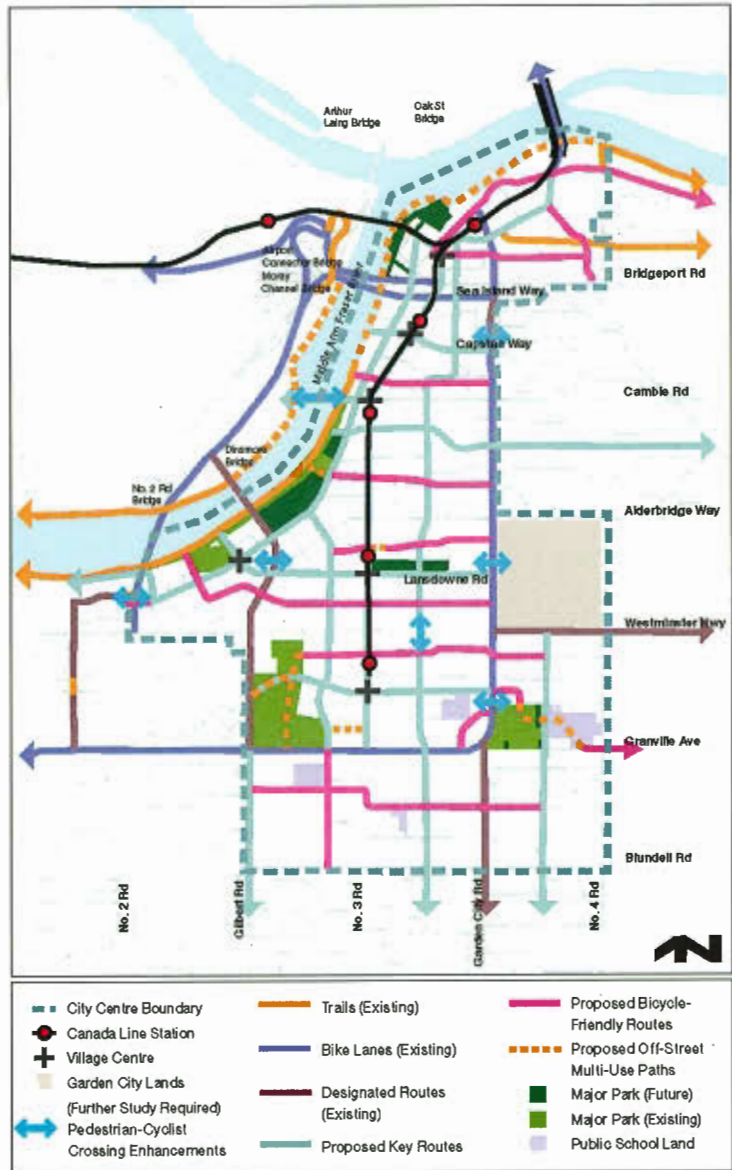
- Enhanced use of universal accessible design features such as accessible pedestrian signals and tactile wayfinding.
- Lighting along trail networks where feasible.
- Priority given to pedestrian access and safety through parking lots.
- Installation of ramps at all intersections.

Pedestrian Environment Map (2031)



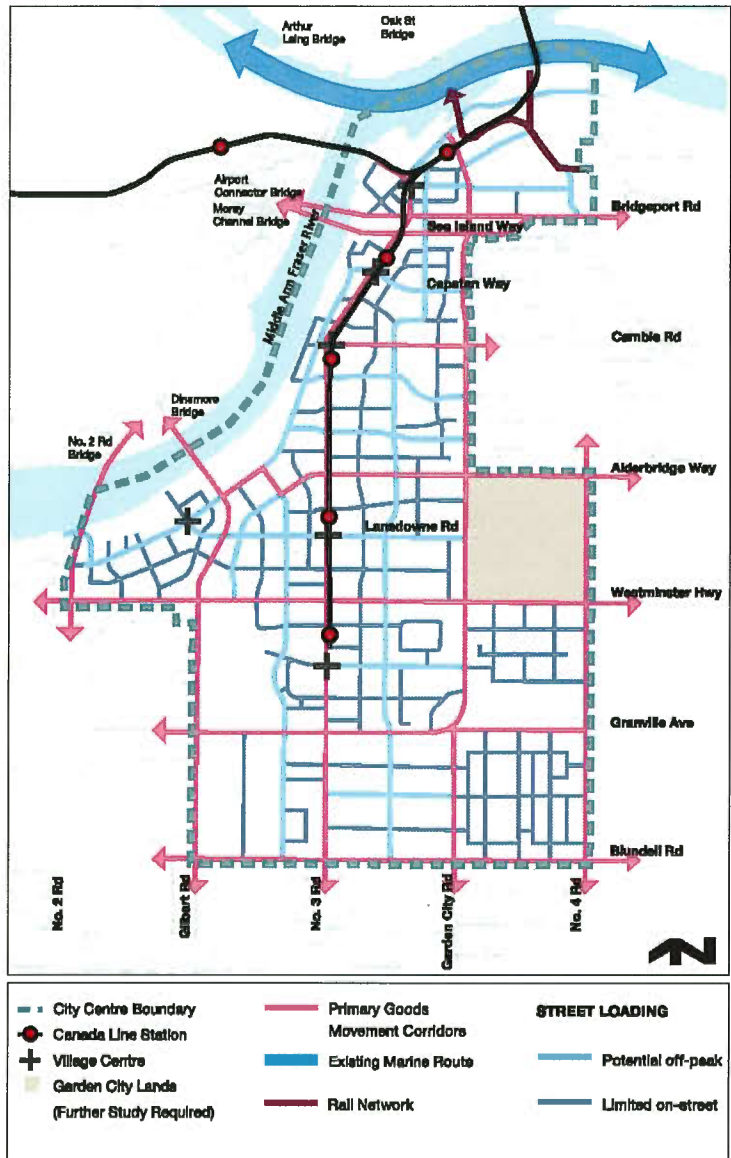
Cycling Network Features	
Accommodation on Street Network	<ul style="list-style-type: none"> • Provide signage and pavement markings to clearly delineate cycling facilities from other street components. • Minimize potential conflicts and safely accommodate multiple road users such as transit service and cycling. • Enhanced pedestrian-cyclist crossings at selected locations, particularly near schools.
Designated Cycling Routes	<ul style="list-style-type: none"> • Designated routes feature signage, pavement markings and bicycle-friendly traffic signals. • Designated bike lanes on major thoroughfares and some major streets with a typical width of 1.5 m to 1.8 m (5 ft. to 6 ft.). • Cycling routes are physically separated from vehicle traffic on major thoroughfares and major streets where feasible. • Shared wide curb lanes on some major streets and on minor streets with typical width of 4.3 m (14.1 ft.). • Bicycle-friendly routes feature pavement markings, signage and signal loop detectors but road is not widened.
Trails & Bridges	<ul style="list-style-type: none"> • Integration of on-street cycling network with off-street trails and pathways including the Canada Line Bridge over the North Arm of the Fraser River. • Off-street pathways have typical width of 3.0 m to 4.0 m (10 ft. to 13.1 ft.). • Proposed new pedestrian/cycling bridge from the west end of Cambie Road to Sea Island.
End-of-Trip Facilities	<ul style="list-style-type: none"> • Secure end-of-trip facilities (bike racks, lockers, cages) at civic sites, parks, transit villages, and activity centres. • Bylaw requirement for all new developments to provide short-term and long-term secure bicycle parking.
Integration with Transit	<ul style="list-style-type: none"> • Bicycle accommodation on the Canada Line and all buses during all hours of operation. • Bike racks and bike lockers at all rapid transit stations and transit exchanges.
Promotion & Education	<ul style="list-style-type: none"> • Safe cycling courses for adults and children. • Area-wide event to promote cycling for all trips. • Education and enforcement programs to encourage sharing the road among motorists and cyclists.

Cycling Network Map (2031)



<p>Goods Movement & Emergency Services Features</p> <p>Goods Movement Corridors</p> <ul style="list-style-type: none"> Major thoroughfares and streets act as the primary goods movement corridors with minor streets and lanes providing access for local deliveries and loading. Support other modes of goods movement such as rail in the Bridgeport area and the potential for short-sea shipping routes along the Fraser River.
<p>Loading Locations</p> <ul style="list-style-type: none"> Provide off-street loading docks within parking areas for zones of high trucking activity. Construction loading zones provided where feasible to facilitate pick up and drop off of construction materials and minimize traffic disruption. Service lanes and mews are the preferred on-street locations. Limited to areas adjacent to on-street parking on minor streets. Available on some major streets in off-peak periods but not permitted on major thoroughfares.
<p>Emergency Services</p> <ul style="list-style-type: none"> Priority is given to emergency service access and timely response. Major thoroughfares and some major and minor street intersections incorporate traffic signal pre-emption capability. Parking regulations ensure that lanes and mews are kept accessible for emergency vehicles. Consider response time requirements for emergency services when identifying priority routes.
<p>Planning & Policy</p> <ul style="list-style-type: none"> Maintain liaison with the Provincial Emergency Program to protect local disaster response routes as part of the regional network. Restrict unnecessary dangerous goods movement in City Centre. Seek to minimize response times when planning the site of future emergency service facilities. On-going liaison with stakeholders (e.g., trucking industry) to enhance goods movement.

Goods Movement & Loading Map (2031)



2.3.8 Fostering a Car-Free Lifestyle

The key success indicator for fostering a car-free lifestyle is:

An improved shift to sustainable travel modes resulting from the enhanced convenience, flexibility, attractiveness, and integration of alternative transportation options within the urban fabric.

Challenges

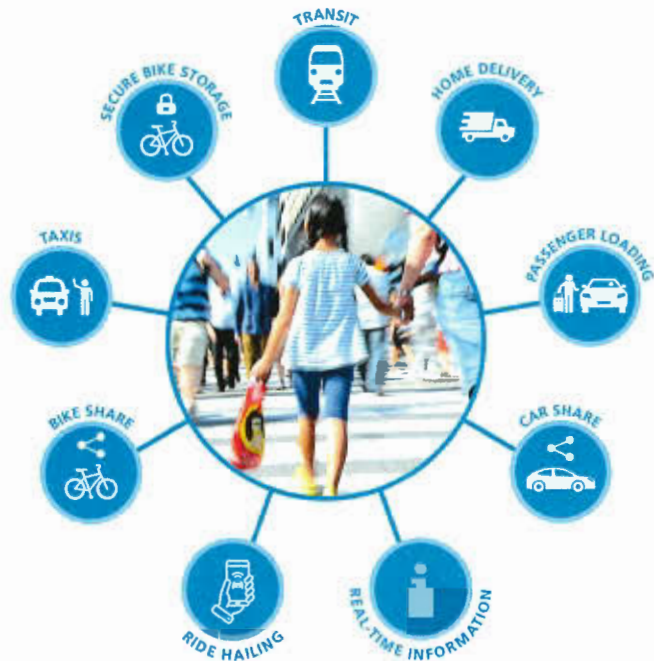
- People often make multi-purpose trips or need to carry bulky items, which can make giving up a car difficult.
- People may need their cars for work.
- Some activities can be difficult to access without a car (e.g., skiing, team sports, child care).
- It can be challenging to introduce new travel options in developed, high density areas.

The principles of transit-oriented development and complete communities together with the complementary policies and key directions for each component of the transportation system jointly seek to foster a “car-free” lifestyle as a viable option for City Centre households over time.

Ideally, with more choices, it will be possible and even desirable for residents to have only one or perhaps no private car at all. If an effective range of mobility choices, infrastructure, services, and supporting initiatives are in place, the car-free lifestyle becomes feasible and public investments in the Canada Line and the transit system, as well as the City’s commitment to sustainability, are maximized.

Strategies

- Implement measures, such as multi-modal mobility hubs, to encourage people to walk, cycle, and take transit.
- Foster attractive, pedestrian-friendly, transit-orient, urban villages.
- Ensure convenient access to alternative travel options and superior first-to-last kilometre connectivity.
- Encourage customer service and residential development models that make it easier to shop and do day-to-day activities without a car.



Checklist for a Car-Free Lifestyle	
Transit Villages	<ul style="list-style-type: none"> • Compact, mixed use development that enables easy walking to convenient transit linkages. • The daily needs of City Centre residents and workers are within reach of walking and transit.
Access to Transportation Options	<ul style="list-style-type: none"> • Enable people to conveniently access multiple travel modes when needed so that owning a motor vehicle is not necessary. • Encourage all developments to support car-free lifestyles by supporting transit, car- and bike-share, ride hailing, taxis, autonomous cars, and multi-modal mobility hubs. • Encourage retail and other destination-type uses to provide priority space for travel modes that support car-free lifestyles.
Access to Retail Goods and Services	<ul style="list-style-type: none"> • Encourage retail uses to provide home pick-up and delivery services, ideally at no or minimal cost. • Encourage retailers to schedule delivery and pick-up at times when residents are most likely to be at home and traffic volumes are low (e.g., evenings). • Encourage retailers and other service providers (e.g., furniture movers) to avoid the use of large vehicles that are difficult to accommodate in dense urban areas. • Encourage co-ordinated delivery services for multi-tenant retail developments. • Ensure that sidewalks and pathways have sufficient width to accommodate pedestrian modes including scooters and handcarts.
Home Delivery & Pick-Up Services	<ul style="list-style-type: none"> • Encourage residential developments to provide spaces for concierge services to enable home deliveries and pick-up (e.g., groceries, drycleaning, etc.). • Ensure sufficient common space/secure areas for the temporary storage of goods to be picked-up and deliveries until the owner arrives home. • Ensure that loading areas are publicly accessible for larger delivery trucks and publicly accessible. • Provide on-street loading zones, where feasible, to allow for home delivery/pick-up in higher density projects without off-street parking or service lanes are not readily available.

Multi-Modal Mobility Hubs

Purpose: multi-modal mobility hubs are key transportation network nodes designed to seamlessly integrate multiple travel modes, supportive infrastructure, and placemaking strategies with the aim of creating pedestrian-oriented centres that help to maximize first-to-last kilometre connectivity.

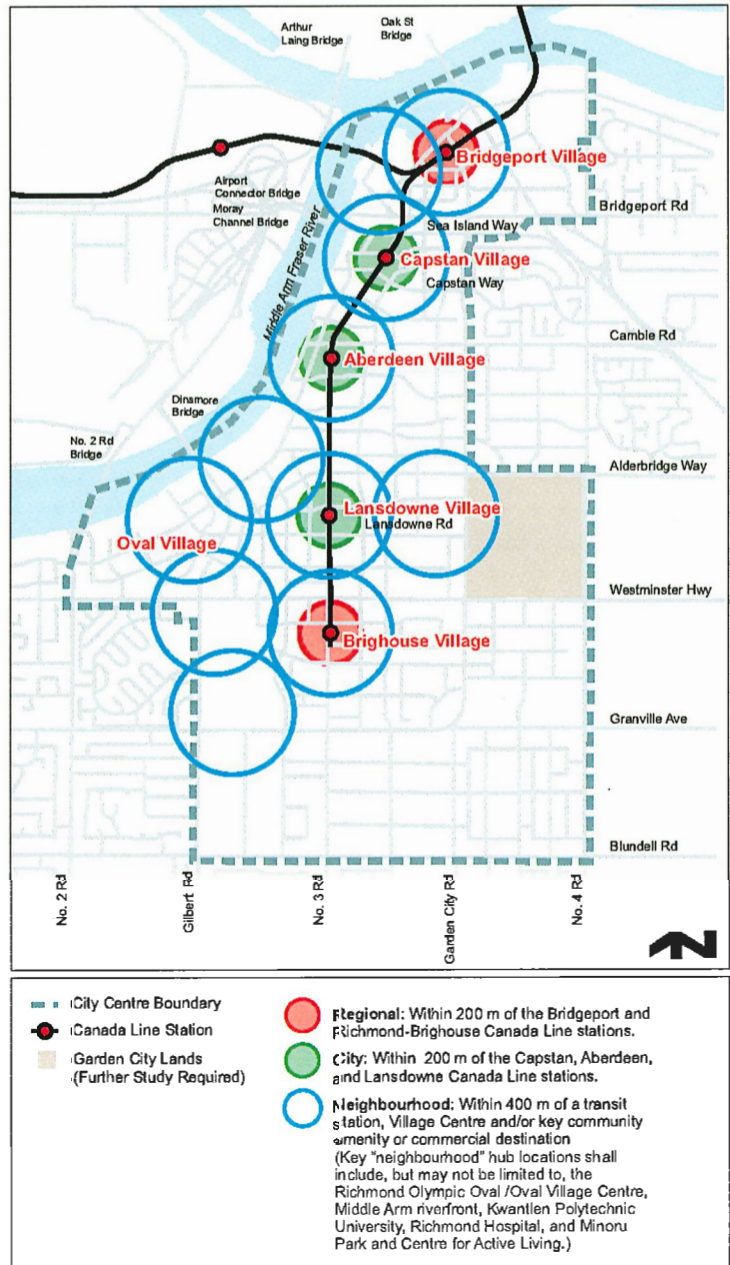
Features: effective mobility hubs require an integrated suite of pedestrian-friendly, transportation and related features, which may include, but may not be limited to:

- public transit stops for rail, bus, community shuttle, and HandyDart with supporting amenities such as shelters and real-time arrival information;
- bike- and car-share facilities;
- taxi and ride-hailing services;
- secure bike storage and repair services;
- kiss-and-ride;
- shops and services;
- Wi-Fi, weather protection, seating, wayfinding signage, public washrooms, and special features such as public art;
- personal safety and security features (e.g., Crime Prevention through Environmental Design measures).

Development Approach: successful mobility hubs are integrated with the urban fabric and responsive to surrounding land uses and evolving community needs. This requires a strategic development approach that:

- encourages site-specific mobility programming tailored to the distinct needs of users in “regional”, “city”, and “neighbourhood” locations;
- offers flexible, cost-effective design options that support the establishment of hubs in high-demand, high density locations;
- can readily adapt to growth and increasing demands for new and emerging technologies and travel options (e.g., bike-share, ride hailing, and autonomous vehicles);
- employs placemaking strategies supportive of attractive, safe, and pedestrian-friendly facilities that complement the quality and character of the public realm.

Multi-Modal Mobility Hub Map



Alternative Mobility Hub Strategies

Multi-modal mobility hubs are places of connectivity that help to bridge the gap between high-frequency transit and each person’s origin and destination by co-locating an integrated suite of mobility services, amenities, and technologies with a concentration of employment, housing, shopping, and/or recreation uses.

Mobility hub designs may vary based on user needs and location-specific opportunities. Development strategies may include, but may not be limited to:

- the street-level clustering of transportation amenities and complementary urban uses on one or several adjacent sites;
- a stand-alone hub that concentrates transportation amenities in a purpose-built facility in proximity to complementary urban uses; or
- a hybrid approach that integrates transportation amenities with complementary urban uses in the form of a high-amenity, transit-oriented, mixed use development.



Clustered, street-level transportation amenities.
Source: Hamburger Hochbahn AG



CF Richmond Centre – Proposed mobility hub integrated with underground parking and convenient public access to grade.



Marine Gateway and the Marine Drive Canada Line Station, Vancouver. Photo: Andrew Latreille / Courtesy: Perkins+Will

OBJECTIVE:

Provide a framework for the City Centre as a **“thriving and creative community”** that is empowered, engaged and diverse, and where arts, culture, and heritage are inextricably linked with and support:

- **a strong community voice and engaged community** that enhances the relevance and responsiveness of urban and economic development, planning, and governance;
- **placemaking**, with a mosaic of appealing, lively, and distinctive urban villages, vibrant public spaces, festivals, events, and activities;
- **an increased creative capacity** which enriches the quality of life and attracts progressive business opportunities which support:
 - the arts, heritage and cultural practitioners;
 - the identification, conservation, and interpretation of heritage resources;
 - spaces for residents and visitors to work and participate in arts, culture and heritage activities;
- **an enhanced enjoyment** of the urban realm and respect for and connectivity among citizens and cultures.

Arts & Culture Map (2031)



2.4.1(b) Places to Gather & Celebrate

Public open space and streetscape will play a key role in supporting interaction within the City Centre linking people, buildings & activities. Public spaces are important “mixing places” for community residents, artists & visitors and serve as “stages” for showcasing the work of local artists.

Celebrations form an important part of vibrant urban living & provide opportunities for residents & visitors to come together bringing understanding and a sense of belonging. Many celebrations are intentionally small and community focused. In other cases however, the intent is to invite the City, the region and the world, which requires special accommodation and co-location with City facilities and private developments.

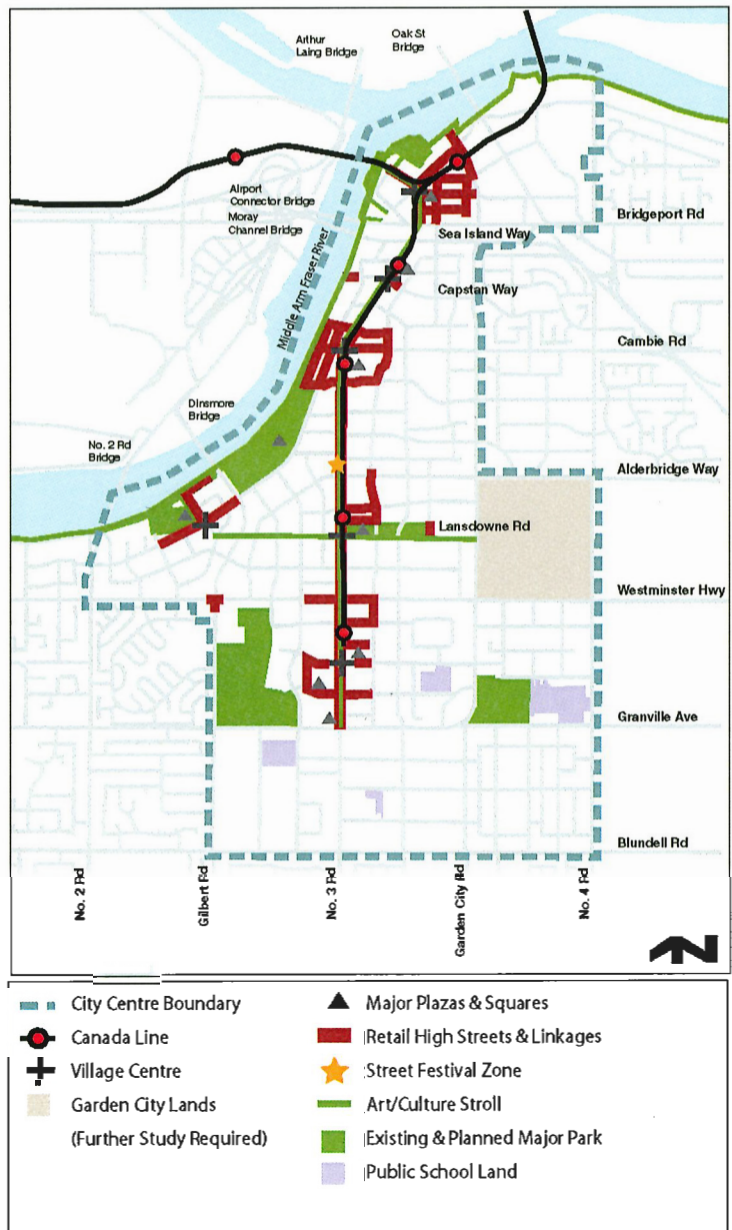
Challenges/Opportunities

With the Canada Line, the Oval Plaza & the Middle Arm Park in the development phase, the infrastructure to provide facilities to host events can be built into the design of the spaces instead of having to adapt spaces and bring in infrastructure for each event.

Proposed Strategy

- Prepare a festival/events plan including appropriately designed spaces and parade routes.
- Design spaces that ensure staging, view corridors, seating areas, power supply & lights that can flexibly accommodate events of different sizes & styles of community gatherings and festivals.
- Ensure the provision of public and private open spaces that are designed as people gathering and mixing spaces including elements such as conversation areas, public art, busker and performance space and informal play areas.

Public Spaces & Places Map (2031)



OBJECTIVE:

Provide a framework for a **complete parks and open space system** that will:

- provide the quantity of park and open space required to address social, recreational, and cultural needs;
- incorporate a rich diversity of experiences and landscapes that reflect the identity of the community and are rooted in local culture and environment;
- ensure an equitable distribution of parks and open space of each type;
- mitigate the environmental impacts of increasing urbanization and continually support the health of the urban environment;
- respond to the higher densities in the City Centre with a greater diversity of programming in each park and appropriate design and materials.

Strategic Investment for City Acquisition of Open Space

In order to optimize public resources, the strategic approach to the acquisition of City owned parks and open space is to secure investments rapidly. In the period ending in 2031, when the greatest growth and the greatest increase in land values is anticipated, 75% of the total land required to build-out will have been acquired.

Base Level Parks & Open Space Map (2031)



* The Base Level Open Space Standard will be augmented in Capstan Village by publicly accessible areas secured for public park and related uses in respect to the Capstan Station Bonus.

	Year 2006	Year 2031	Build-out
Population	40,000	90,000	120,000
Quantity of Open Space	76.5 ha (189 ac.)	118.4 ha (292.5 ac.)	157.8 ha (390 ac.)
Ratio of Acreage to Population	4.75/1,000	3.25/1,000	3.25/1,000
Quantity of Additional Open Space	0	41.9 ha (103.5 ac.)	39.5 ha (97.5 ac.)

2.6.1 Neighbourhood Parks

Neighbourhood parks comprise 40% of the open space system and primarily serve the local needs of the immediate residential or commercial neighbourhood. Parks will determine the types which include:

Residential Village Parks

Location: To serve residents within a 400 m (1,312 ft.) radius without crossing arterial roads or major streets.

Program: Social gatherings, informal recreation, environmental features &/or local storm water management features.

Site Features: 0.6 to 3.2 ha (1.5 ac. to 8 ac.), 40% urban forest &/or eco-amenity, 50% frontage on streets, south exposure with access to sunlight, outdoor fitness amenities, sport courts, playgrounds, community gardens, seating/gathering area.

Commercial Village Parks

Location: To serve businesses within a 400 m (1,312 ft.) radius without crossing arterial roads or major streets.

Program: Daytime & evening gathering, social & cultural programming, informal recreation, urban character.

Site Features: 0.2 to 1.6 ha (0.5 ac. to 4 ac.), 30% urban forest, 50% frontage on streets, south exposure with access to sunlight, hard surface and seating areas, sport courts, soft landscape areas.

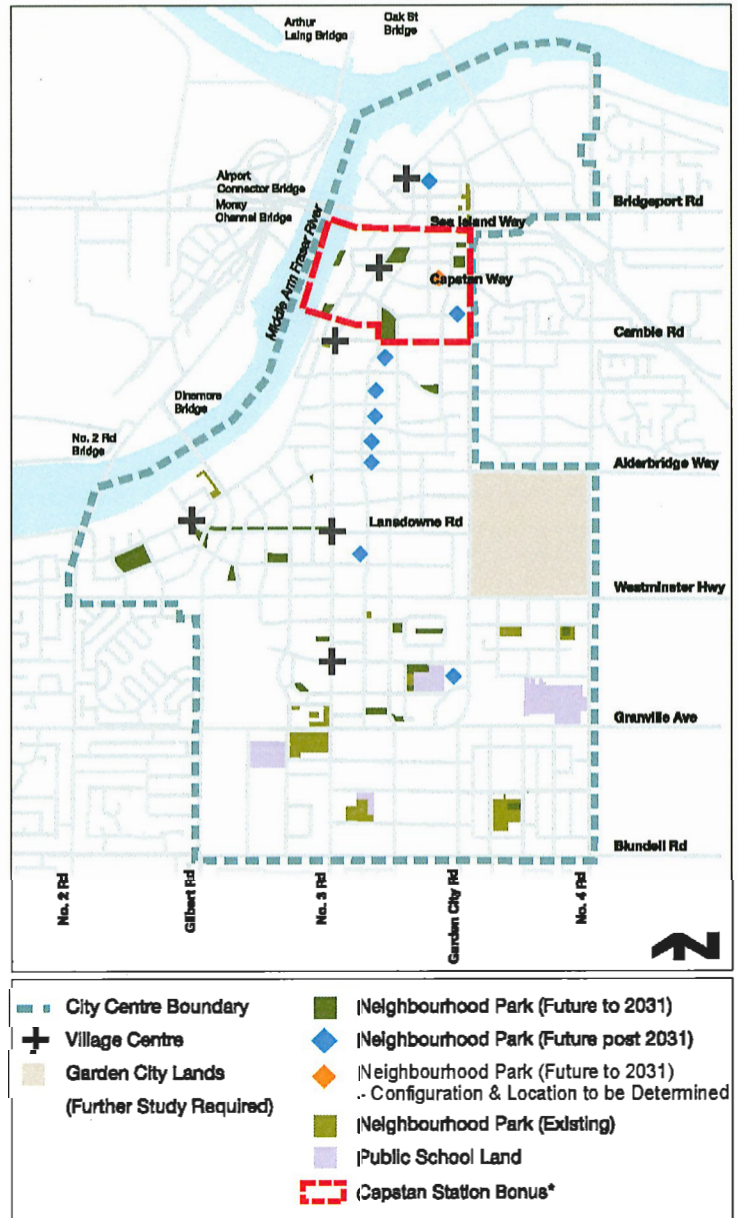
Urban Plazas

Location: At prominent cross-roads within a village.

Program: Daytime & evening gathering, social & cultural programming, urban character.

Site Features: Less than 0.2 ha (0.5 ac.), 50% frontage on streets, south exposure with access to sunlight, hard surface and seating areas, soft landscape features.

Neighbourhood Parks Map



* The Base Level Open Space Standard will be augmented in Capstan Village by publicly accessible areas secured for public park and related uses in respect to the Capstan Station Bonus.

Additional Study

Urban Agriculture Strategy – to better understand effective ways of integrating urban agriculture within public open spaces and on private property.

2.6.3(c) Pedestrian Linkages

The 2010 Richmond Trail Strategy provides the vision to guide continued development of the greenway system in City Centre. The intent is to “provide a variety of exciting opportunities for walking, rolling and cycling that will link people to each other, to their community, and to Richmond’s unique natural and cultural heritage”.

Greenways

Location: Along major streets and important recreational corridors.

Program: Link multiple destinations (e.g. between major open spaces and other significant destinations) and connect natural areas.

Site Features: Min. 10 m (33 ft.) wide, separate pedestrian and cycling paths, rest areas with street furnishings, public art, signage & wayfinding, integrated with wetlands & storm water features, hedgerows, significant tree planting.

Linear Parks

Location: Along key streets to create significant recreational and environmental corridors linking the waterfront to the heart of the downtown.

Program: Combined neighbourhood park and greenway functions to encourage movement through the neighbourhood (walking, jogging) and incorporating social and physical activity nodes.

Site Features: 30 to 40 m (100 to 131 ft.) wide, high quality landscape, broad pedestrian promenade, playgrounds, sports courts, water features, significant tree planting and multi-layered planting, site furnishings, public art.

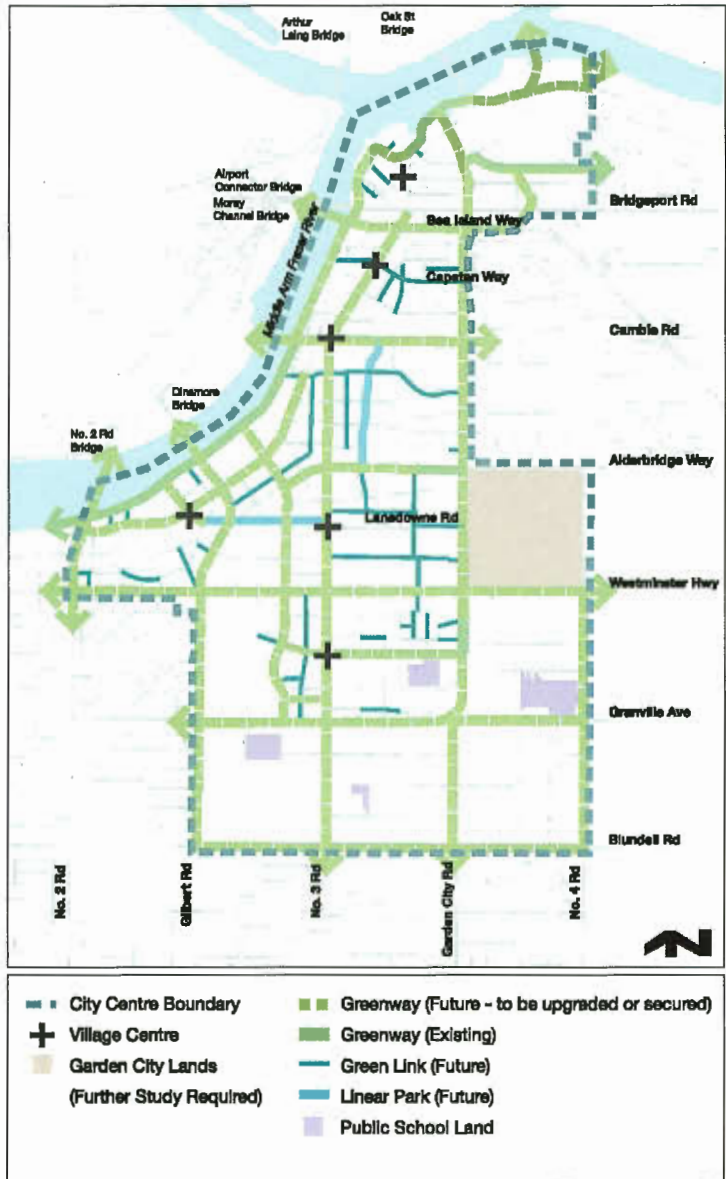
Green Links

Location: Along lanes and mews, through or between developments (which may include indoor routes).

Program: Provide connections within neighbourhoods to support a walkable urban environment, and to support ecological areas.

Site Features: Min. 6 m (20 ft.) to 20 m (65 ft.) wide, broad sidewalks with special paving at nodes and intersections, rest areas with street furniture, street trees and multi-layered planting, pedestrian scale street lighting, wayfinding, community art.

Pedestrian Linkages Map



Additional Study

Storm Water Management Strategy – to develop methods to better address stormwater and permeability in parks, greenways and streets.

OBJECTIVE:

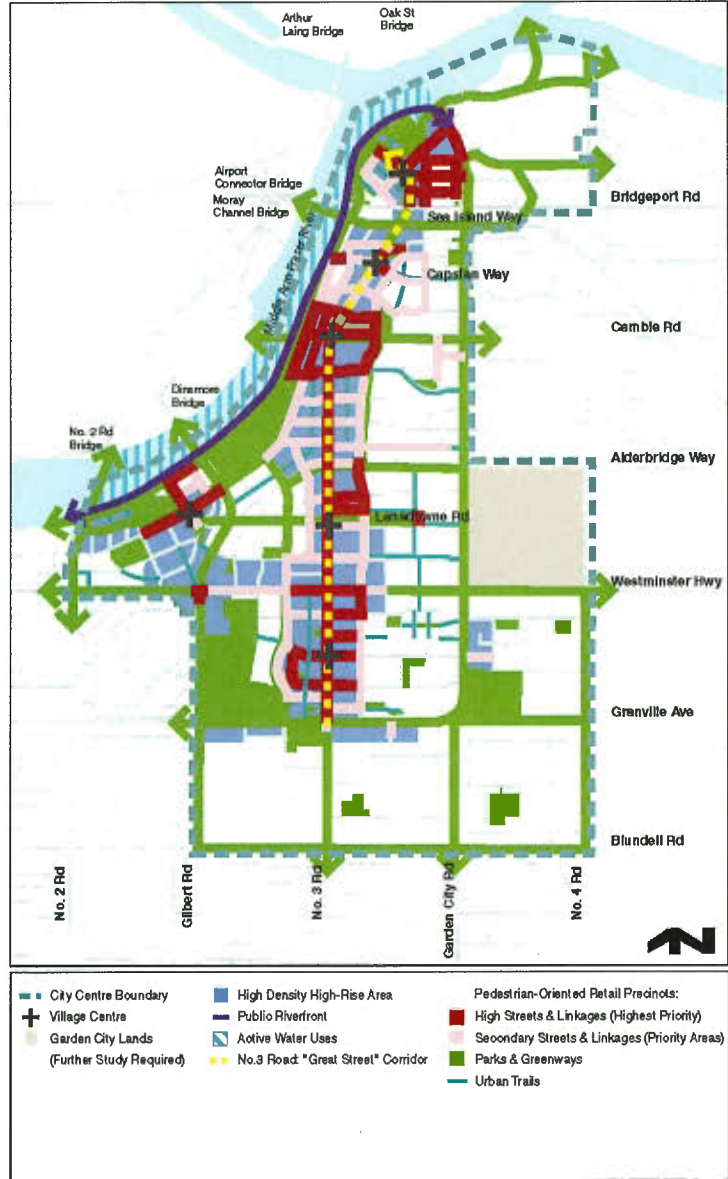
Provide a framework for a “**lively community**” that is rooted in a “culture of walking and cycling” and a collaborative, interdisciplinary approach to city building that is:

- diverse;
- engaging;
- attractive;
- safe;
- healthy;
- human-scaled.

“... A good city can be compared to a good party-people stay for much longer than really necessary because they are enjoying themselves.”

Public Spaces and Public Life, City of Adelaide:
2002. City of Adelaide, Gehl Architects ApS, 2002.

Public Realm Areas Map



**“Taming Tall Buildings”: Part 2
Tower Spacing, Floorplate Size &
Development Site Size**

Richmond’s OCP encourages a maximum tower floorplate size of 600 m² (6,459 ft²) and a minimum distance between towers of 24 m (79 ft.).

While these guidelines have been effective in encouraging a staggered distribution of point tower forms, new challenges are emerging, including a need for:

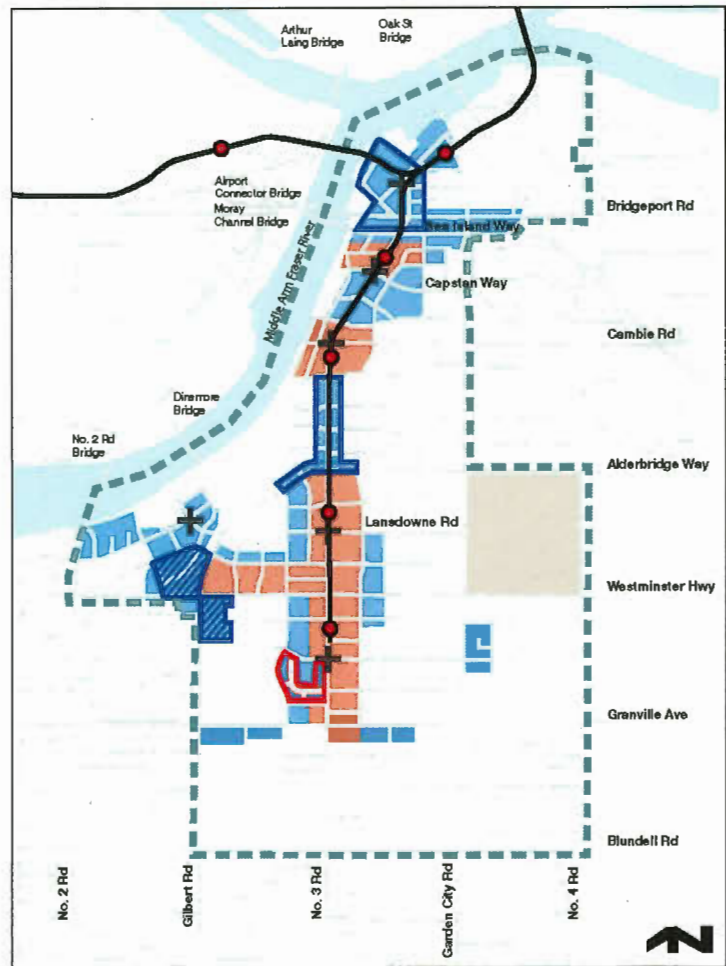
- larger floorplates that better reflect actual City Centre residential development practices (i.e., typically 650 m² (6,997 ft²)) and anticipated non-residential market needs;
- larger gaps between towers in some areas to reduce private view blockage, sunlight blockage, and the impression of a “wall” of buildings.

In addition, a minimum development site size for tower development is encouraged. This is intended to make clear that while a development site may be designated for building heights greater than 25 m (82 ft.) (i.e., towers), this form is discouraged where it may impact adjacent sites or affects the livability or attractiveness of the public realm.

Minimum tower development site size (i.e., for buildings taller than 25 m (82 ft.):

- Width: 45 m (148 ft.);
- Depth: 40 m (131 ft.);
- Area:
 - a) For less than 3 FAR: 4,000 m² (1 ac.);
 - b) For 3 FAR or more: 2,500 m² (0.6 ac.).

Tower Spacing & Floorplate Size Map



	City Centre Boundary		Village Centre
	Canada Line Station		Garden City Lands (Further Study Required)

Tower Spacing: Typical Minimum*			
Above 25 m (82 ft.)		Above 30.5 m (100 ft.)	
	24 m (79 ft.)		24 m (79 ft.)
	35 m (115 ft.)		35 m (115 ft.)

* Between towers on a single development site or adjacent development sites. Towers setbacks to interior property lines or to the centre line of abutting dedicated City lanes should be a minimum of 50% of the Typical Minimum Spacing, except where it can be demonstrated to the satisfaction of the City that a reduced setback will not impact the livability of a neighbouring site or its ability to develop.
NOTE: If tower development occurs outside the areas indicated here, the minimum spacing shall be 35 m (115 ft.).

Tower Floorplate Size: Typical Maximum	
	For office: 1,800 m ² (19,376 ft ²) above 25 m (82 ft.) For other uses: 650 m ² (6,997 ft ²) above 25 m (82 ft.)
	For hospital: 1,800 m ² (19,376 ft ²) above 25 m (82 ft.) For other uses: 650 m ² (6,997 ft ²) above 25 m (82 ft.)
	650 m ² (6,997 ft ²) above 25 m (82 ft.), EXCEPT may be increased to 1,200 m ² (13,000 ft ²) above 30.5 m (100 ft.) where the Typical Minimum Tower Spacing is provided
Elsewhere	650 m ² (6,997 ft ²) above 25 m (82 ft.)

2.10.2(a) Attractive, Accessible Street Frontages

The frontage of a development site is the area between the building and the curb of the fronting public street (or the boundary of a park). How this area is designed is critical to the pedestrian experience and the liveliness of the public realm –but in the City Centre, the design of this space is complicated by Richmond’s flood management policy that generally requires a minimum habitable floor elevation of 2.9 m (9.5 ft.) geodetic – which in many places is as much as 1.5 m (4.9 ft.) above the grade of the fronting street.

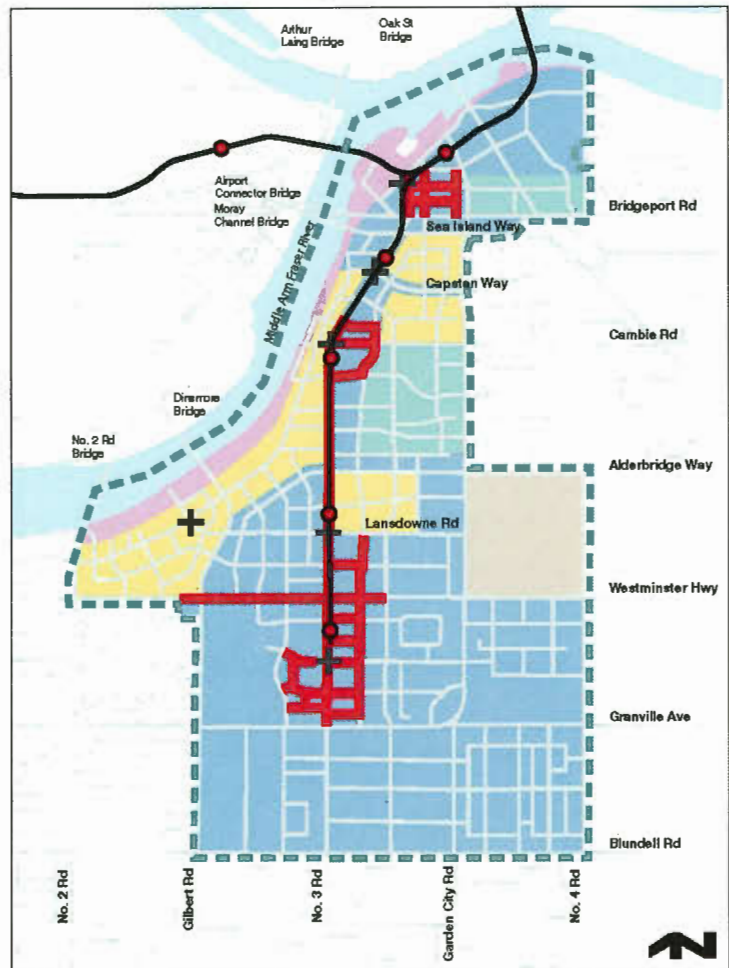
Challenge/Opportunity

The grade differential between the street and the minimum habitable floor elevation can enhance privacy for street-fronting dwellings; however, it can also impede pedestrian access, impair retail viability, and present other urban design challenges (e.g., concealing parking).

Proposed Strategy

- Raise riverfront areas to the level of the dyke or higher.
- Raise grades to 2.6 m (8.5 ft.) geodetic or higher wherever possible (e.g., transit plazas, new streets and parks, large sites).
- Relax minimum habitable floor elevations for select retail and industrial areas to 0.3 m (1.0 ft.) above the crown of the fronting street.
- Elsewhere, employ a variety of alternative frontage treatments, alone or in combination.

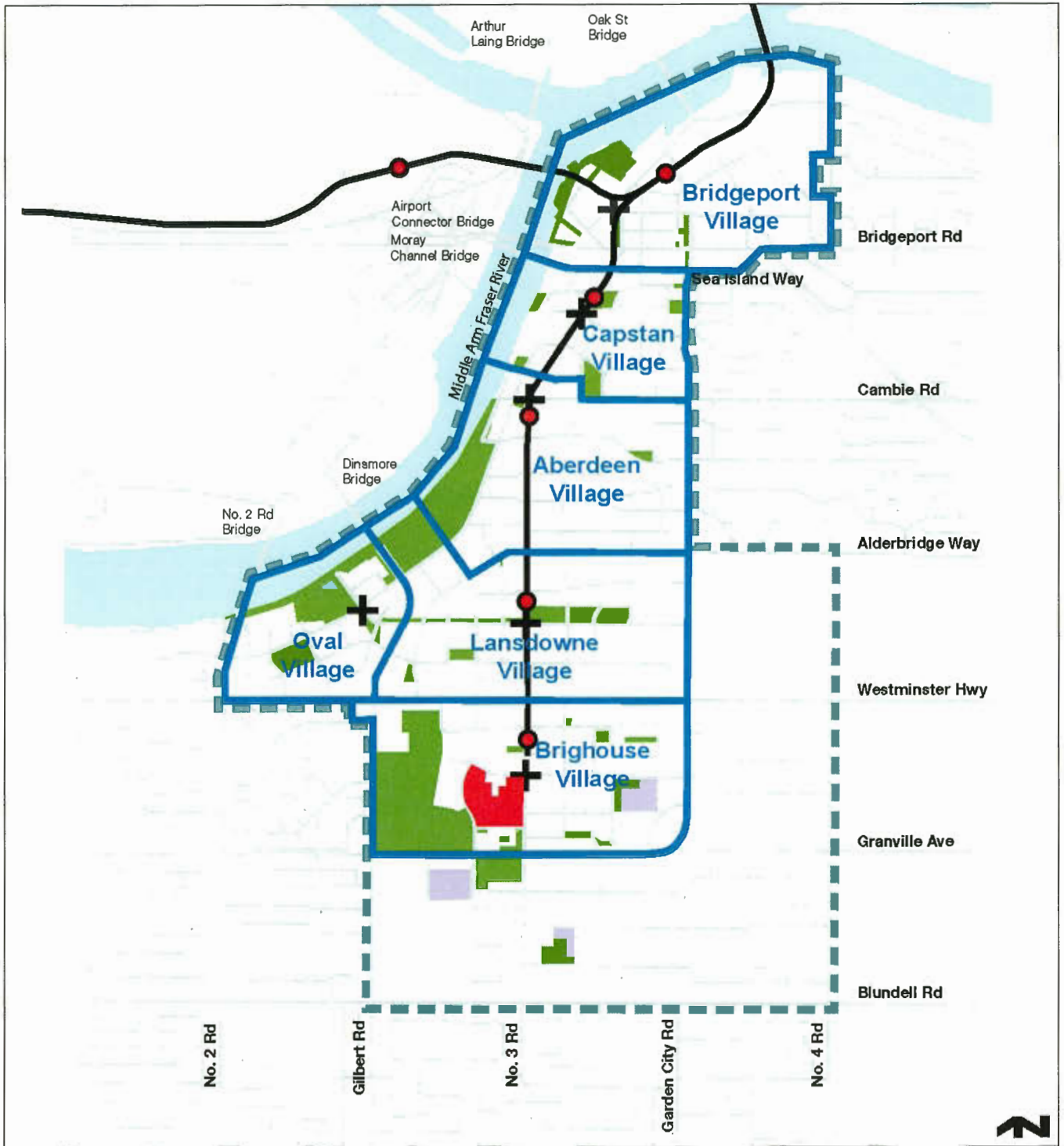
Preferred Frontage Conditions Map



City Centre Boundary	Riverfront
Canada Line	Major Redevelopment Areas
Village Centre	Key Retail Exempt Areas
Garden City Lands (Further Study Required)	Industrial Exempt Areas
	General

Typical Area Descriptions & Minimum Recommended Elevations (Geodetic)	
	Riverfront <ul style="list-style-type: none"> • Parks & Streets: 4 m (13.1 ft.) (i.e., dyke crest). • Habitable Floor Elevation: 4 m (13.1 ft.).
	Major Redevelopment Areas <ul style="list-style-type: none"> • Parks & Streets: 2.6 m (8.5 ft.). • Habitable Floor Elevation: 2.9 m (9.5 ft.) minimum.
	Key Retail Exempt Areas <ul style="list-style-type: none"> • Parks & Streets: Existing grade maintained. • Street-Fronting Commercial Habitable Floor Elevation: 0.3 m (1.0 ft.) above the crown of the fronting street. • Residential Habitable Floor Elevation: 2.9 m (9.5 ft.).
	Industrial Exempt Areas <ul style="list-style-type: none"> • Parks & Streets: Existing grade maintained. • Industrial Habitable Floor Elevation: 0.3 m (1.0 ft.) above the crown of the fronting street. • Non-Industrial Habitable Floor Elevation: 2.9 m (9.5 ft.).
	General <ul style="list-style-type: none"> • Parks & Streets: Existing grade maintained, but may be raised where this is feasible and it enhances livability, form of development, etc. • Habitable Floor Elevation: 2.9 m (9.5 ft.).

Development Permit Special Precinct Key Map

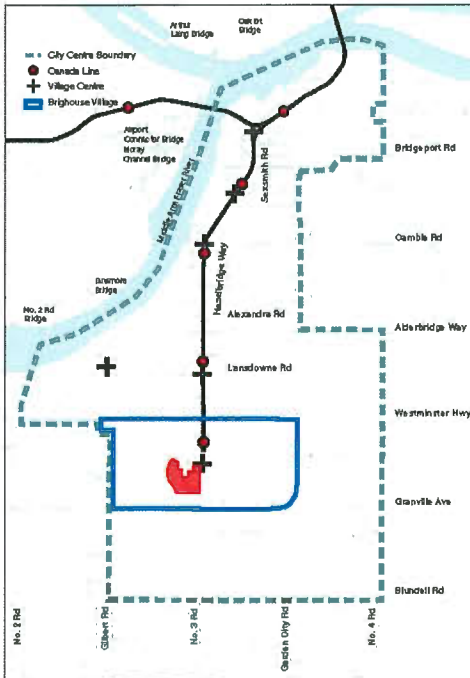


- City Centre Boundary
- Canada Line
- + Village Centre
- Parks
- School
- 1.0 Richmond Centre South (Brighthouse Village)

3.3 Special Precinct Guidelines

3.3.1 Special Precinct 1.0

Richmond Centre South (Brighthouse Village)



This special precinct is envisioned as an animated, high density, high-rise, mixed use, urban place comprised of four distinct character areas:

- Two commercial “High Streets” offering a lively mix of pedestrian-friendly, public/private, outdoor/indoor, places to shop and play; and
- Two “Green Streets” bridging between the busy downtown and adjacent residential, civic, and park uses.

Predominant Land Uses:

- Mixed Residential/Commercial, including stand-alone affordable housing buildings

Key Land Use Restrictions:

- Pedestrian-Oriented Retail
Precinct designation requires small commercial units along designated frontages

Maximum Net Density:

- 3.15 FAR, including affordable housing

Maximum Typical Height:

- 45 m (148 ft.)

High Streets



A. No. 3 Road



B. Park Road

Green Streets



C. Minoru Boulevard

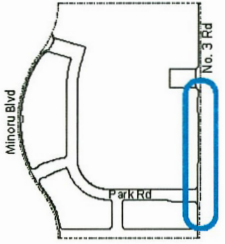
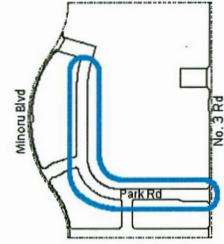
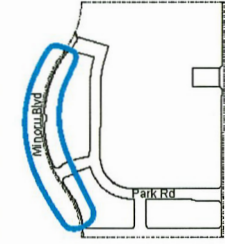
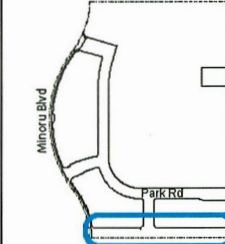


D. Civic Promenade



Possible massing at 3.15 FAR (including affordable housing) showing the precinct’s distinctive high-rise courtyards, accommodating large, family-friendly rooftop outdoor spaces, framed by slim towers that fan out from an animated pedestrian-oriented retail high street and central public plaza.

“Schedule Q attached to and forming part of Bylaw 9892”

Special Precinct 1.0	High Streets		Green Streets	
	A. No. 3 Road	B. Park Road	C. Minoru Boulevard	D. Civic Promenade
Richmond Centre South (Brighthouse Village)				
A. Typical Distribution of Uses	<ul style="list-style-type: none"> Underground: Parking. Ground: Pedestrian-oriented retail & limited lobbies. Above: Residential. 		<ul style="list-style-type: none"> Underground: Parking. Ground: Townhouses & limited lobbies. Above: Residential. 	<ul style="list-style-type: none"> Underground: Parking. Ground: Lobbies & limited pedestrian-oriented retail. Above: Residential.
B. Maximum City Block Size	As defined by the Plan's proposed public street and pedestrian linkages networks, together with lanes and mews as required to achieve a roughly 100 m (328 ft.) circulation grid.			
C. Minimum Net Development Site	2.8 ha (7.0 ac).			
D. Net Development Site Coverage	90% max. exclusive of streets & open spaces secured for public access with Statutory Right-of-Ways (SRW).			
E. Maximum Building Height	45 m (148 ft.).			
F. Towers:	<ul style="list-style-type: none"> • Tower Spacing 	<ul style="list-style-type: none"> • Tower Spacing 	<ul style="list-style-type: none"> • Tower Spacing 	<ul style="list-style-type: none"> • Tower Spacing
• Tower Width	20.0 m (65.6 ft.) max. (across the tower's narrow dimension) above 30.5 m (100 ft.).			
• Tower Floorplate	650 m ² (6,997 ft ²) above 25 m (82 ft.), EXCEPT may be increased to 1,200 m ² (13,000 ft ²) above 30.5 m (100 ft.) where (i) the recommended Tower Spacing is provided, (ii) larger floorplates do not impact key public spaces, and (iii) larger floorplates contribute towards larger, more family-friendly, rooftop (outdoor) amenity spaces.			
G. Habitable Floor Elevation	<ul style="list-style-type: none"> • Retail & Lobbies: 0.3 m (1.0 ft.) above the crown of the fronting street. 	<ul style="list-style-type: none"> • Retail & Lobbies: 0.3 m (1.0 ft.) above the crown of the fronting street. 	<ul style="list-style-type: none"> • Lobbies: 0.3 m (1.0 ft.) above the crown of the fronting street. 	<ul style="list-style-type: none"> • Retail & Lobbies: 0.3 m (1.0 ft.) above the crown of the fronting street. • Other residential: 2.9 m (9.5 ft.) GSC.
H. Minimum Setbacks	<ul style="list-style-type: none"> • Underground: Nil • Elsewhere: 6.0 m (19.7 ft.) to lot line & greater at lobbies/primary entrances • Flex Zone: Setbacks may be reduced by: <ul style="list-style-type: none"> i) 1/3 for 50% of the ground floor frontage if compensated for with public plaza of equivalent size; ii) 1/2 for 50% of the upper floor frontage. 	<ul style="list-style-type: none"> • Underground: Nil. • Plaza: 1.5 m (4.9 ft.) to SRW boundary. • Street: 7.5 m (24.6 ft.) east of plaza & 5.5 m (18.0 ft.) elsewhere measured to curb face (i.e. setback includes sidewalk & parking). • Flex Zone (east of plaza only): Setbacks may be reduced by 2.0 m (6.6 ft.) for 20% of ground floor & 50% of upper floor frontages. 	<ul style="list-style-type: none"> • Underground: Nil. • Elsewhere: 4.5 m (14.8 ft.) to the lot line or 2.0 m (6.6 ft.) to the back of the sidewalk (whichever is greater), EXCEPT greater at lobbies & primary entrances. 	<ul style="list-style-type: none"> • Underground: Nil. • Tower: 2.0 m (6.6 ft.) to lot line, EXCEPT setback may be reduced to 0.5 m (1.6 ft.) above the ground floor. • Pedestrian-Oriented Retail: 0.5 m (1.6 ft.) to lot line. • Elsewhere: 6.0 m (19.7 ft.) to lot line. • Note: Sidewalk SRW encroaches into lot by 0.5 m (1.6 ft.).
I. Build-to-Lines	<ul style="list-style-type: none"> • Setbacks should typically be treated as build-to-lines. • High Street "Flex Zones" are intended to contribute towards more varied & animated public spaces & built forms. 			
J. Preferred Frontage Treatments	<ul style="list-style-type: none"> • "Shopfront & Awning". 	<ul style="list-style-type: none"> • "Shopfront & Awning". 	<ul style="list-style-type: none"> • "Stoops & Porches". • "Lawn & Garden". 	<ul style="list-style-type: none"> • "Lawn & Garden".
K. Landscape Considerations	<ul style="list-style-type: none"> • A broad sidewalk framed by large trees, public seating, and amenities enhance No. 3 Road as premier retail avenue & key civic space. 	<ul style="list-style-type: none"> • Narrow sidewalks, a public plaza & special boulevard & Flex Zone features confer an intimate scale & vibrant retail character. 	<ul style="list-style-type: none"> • A park-like street is enhanced & expanded with terraced planting & landscape features that convey a garden-like character to the built form. 	<ul style="list-style-type: none"> • A narrow, pedestrian-oriented City street lined with lushly-planted courtyard gardens.
L. Built Form Considerations	<ul style="list-style-type: none"> • Continuous retail enhanced by a bold, articulated & diverse architectural expression creates a signature image for No. 3 Road. 	<ul style="list-style-type: none"> • Intimate scale & articulated mixed-use buildings contribute towards a distinct local retail experience. 	<ul style="list-style-type: none"> • Dynamic, terraced streetwall buildings punctuated by widely spaced, slim towers & gateway features. 	<ul style="list-style-type: none"> • Recessed streetwall buildings punctuated by widely spaced, slim towers set close to the sidewalk.
	<ul style="list-style-type: none"> • Form & character of stand-alone affordable housing buildings must be to the same level of quality as other uses. 			

3.3.1 Special Precinct 1.0

Richmond Centre South (Brighthouse Village)

Development Features:

1. **Streetwalls:** Layered streetwalls, ranging in height from 5.0 m (16.4 ft.) to 30.5 m (100 ft.), break down the building mass vertically and horizontally and, together with variations in articulation, colour, materials, and fenestration, impart a vibrancy and fine grain to the streetscape.
2. **Flex Zone:** Varied setbacks and upper floor projections add to the street’s visual interest and define large/small outdoor spaces and plazas for public/private uses (e.g., dining), socializing, play, public art, seating, and public amenities.
3. **Towers:** Slim, regular tower slabs set perpendicular to the street imparts an order to the streetscape.
4. **Gateway Features:** An articulated tower at the Cook Road corner visually reinforces this location as the Village centre, while reduced building height at the site’s south end opens up views to Richmond City Hall and its significant trees.
5. **Retail Ground:**
 - Permeability and legibility are enhanced with a hierarchy of building entrances and transparent storefront glazing to active retail interiors.
 - A continuous animated retail frontage lines the high street, including frequent individual shop entrances, varied styles of fixed/operable display windows, and multi-tenant retail entrances enhanced with forecourts and pedestrian amenities.
 - Residential lobbies must be limited and must enhance the retail street with landscaped features and amenities.
6. **Landscape:** A high quality, elegant hardscape is enhanced with trees, planters, street furniture, public art, and special features.

High Streets

A. No. 3 Road

Richmond Centre South (Brighthouse Village) is intended to contribute towards No. 3 Road’s development as a “great street” and Richmond’s preeminent retail avenue through the combination of a bold streetwall, varied architectural expression, landmark features, and continuous pedestrian-oriented shops, amenities, public art, and landscaping.



Regular Pattern of Slim Towers



Active Retail Flex Zone & High-Amenity Landscape



Varied Heights & Setbacks

3.3.1 Special Precinct 1.0

Richmond Centre South (Brighthouse Village)

Development Features:

1. **Streetwalls:** A stepped form unifies Park Road and ties together 3 sub-areas:
 - *South Leg:* A 2-storey façade lines both sides of the street, stepping up to mid-rise and tower forms behind.
 - *Plaza:* The south leg’s streetwall is extended in a bold arc that defines the plaza’s south side, reinforced by horizontal balconies and articulations.
 - *North Leg:* As the street narrows the streetwall rises, creating a sense of enclosure that is reinforced by the building’s lively vertical expression.
2. **Flex Zone:** Along the South Leg, the public sidewalk is expanded with a public/private zone suitable for café seating and retail displays, while upper floor projections add visual interest.
3. **Towers:** Slim towers fan out around the high street and plaza to enhance daylight and create a distinctive skyline feature.
4. **Retail Ground:** Continuous small-scale shops line the high street. Residential lobbies are limited and provide small forecourts and public amenities (e.g., art, seating) that enhance the high street.
5. **Community “Living Room”:** A flexible, year-round, outdoor space for dining, shopping, socializing, relaxing, entertaining, and playing, comprising:
 - At least 2,023.4 m² (0.5 ac) in size;
 - Hard/soft landscaping and special features supporting year-round use;
 - Multi-modal mobility hub integrated with underground parking/services;
 - Animated retail/restaurant edges; and
 - Public art, seating, and amenities.
6. **Back-of-House:** Necessary service uses and above-grade parking along the North Leg are made pedestrian-friendly and visually engaging with high quality materials, artful design features, and special street design features (e.g., catenary lighting, curb-less design).

High Streets

B. High Streets: Park Road

Richmond Centre South (Brighthouse Village) is intended to contribute towards the establishment of a distinct downtown marketplace through a combination of intimate streetscapes, small-scaled shops, residential above, and a vibrant community “living room” in the form of a large central plaza.



Community “Living Room” Plaza



Dynamic Back-of-House Uses along North Leg



South Leg with Cafe-Friendly Flex Zone

3.3.1 Special Precinct 1.0

Richmond Centre South (Brighthouse Village)

Development Features:

1. **Streetwall:** A highly articulated, low-rise streetwall (4 storeys typical) enhances the distinctive arc of Minoru Boulevard. Mid-rise forms are generally set well back from the street. Townhouses with stoops, in combination with tower lobbies, forecourts, and special entry features (e.g., public seating, glass canopies, and water features) provide for an appealing, pedestrian-friendly streetscape.
2. **Towers:** Slim, widely spaced towers punctuate the streetwall and extend to grade to vary the rhythm of the streetwall.
3. **Vertical Garden:**
 - Building articulations, podium and mid-rise rooftops, balconies, and terraces support a varied and visually appealing pattern of trees, planting, and landscape features that impart a “vertical garden” character and can be enjoyed by building occupants and from nearby buildings and the street.
 - A varied palette of trees and plants provides for year-round colour and visual interest, contributes towards the downtown’s urban forest, and offers wildlife and pollinator habitat.
 - Garden designs provide for ease of maintenance (to avoid overburdening building residents and ensure the health and longevity of the landscape) by including features that allow for lower maintenance and easy access and upkeep.
4. **Gateway Features:** Entrances to the precinct’s Park Road high street are marked at Murdoch Avenue and Minoru Gate with broad walkways framed by a double row of trees and special architectural features that take into consideration, among other things, views along Minoru Boulevard.

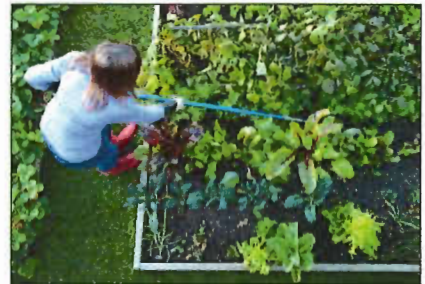
Green Streets

C. Minoru Boulevard

Richmond Centre South (Brighthouse Village) is intended to enhance Minoru Boulevard as a key route linking the public and neighbours with park and civic amenities by making the landscape the predominant feature of the development’s architectural expression.



Family-Friendly Rooftop Courtyards



Vertical Gardens



Pedestrian-Oriented Urban Townhouses



Slim Towers & Gateway Features

3.3.1 Special Precinct 1.0

Richmond Centre South (Brighthouse Village)

Development Features:

1. **Streetwalls:** An elegant, low-rise streetwall (3 storeys typical) is recessed to provide a backdrop for public gardens. Mid-rise forms are set well back from the street.
2. **Towers:** Slim, “light”, refined towers:
 - Are widely spaced to maximize views and daylight towards the north;
 - Pull close to the sidewalk (in front of the recessed streetwall) to vary the rhythm of the streetscape and frame the garden spaces;
 - Extend to grade on slim columns and/or in the form of glassy lobbies that are designed to visually blur the line between indoors and out; and
 - Are articulated above grade with projecting balconies, cantilevered roofs, and similar features above the sidewalk (secured by SRW) to impart texture, varied expression, and a finer grain.
3. **Public Gardens:** A variety of planting forms, including informal groupings of trees and indigenous plants and shrubs, changes in grade, water, and related landscape features complement the adjacent City Hall landscape, visually expand the public realm, make the gardens and fronting walkways attractive year-round, contribute towards the downtown’s urban forest, and provide for wildlife/pollinator habitat.
4. **Ground Floor Uses:**
 - Lobbies and public gardens preferred.
 - Restaurant/retail uses are encouraged near No. 3 Road, together with outdoor seating/dining within the “public garden” area.
 - Townhouses and amenity space are discouraged. Parking entrances and services uses must be minimized and are discouraged near City Hall.

Green Streets

D. Civic Promenades

Richmond Centre South (Brighthouse Village) is intended to enhance Richmond’s civic precinct, including City Hall, its plaza, significant trees, and linkages with Minoru Park, by contributing towards the street’s development as a park-like, pedestrian promenade.



Public Promenade & Amenities

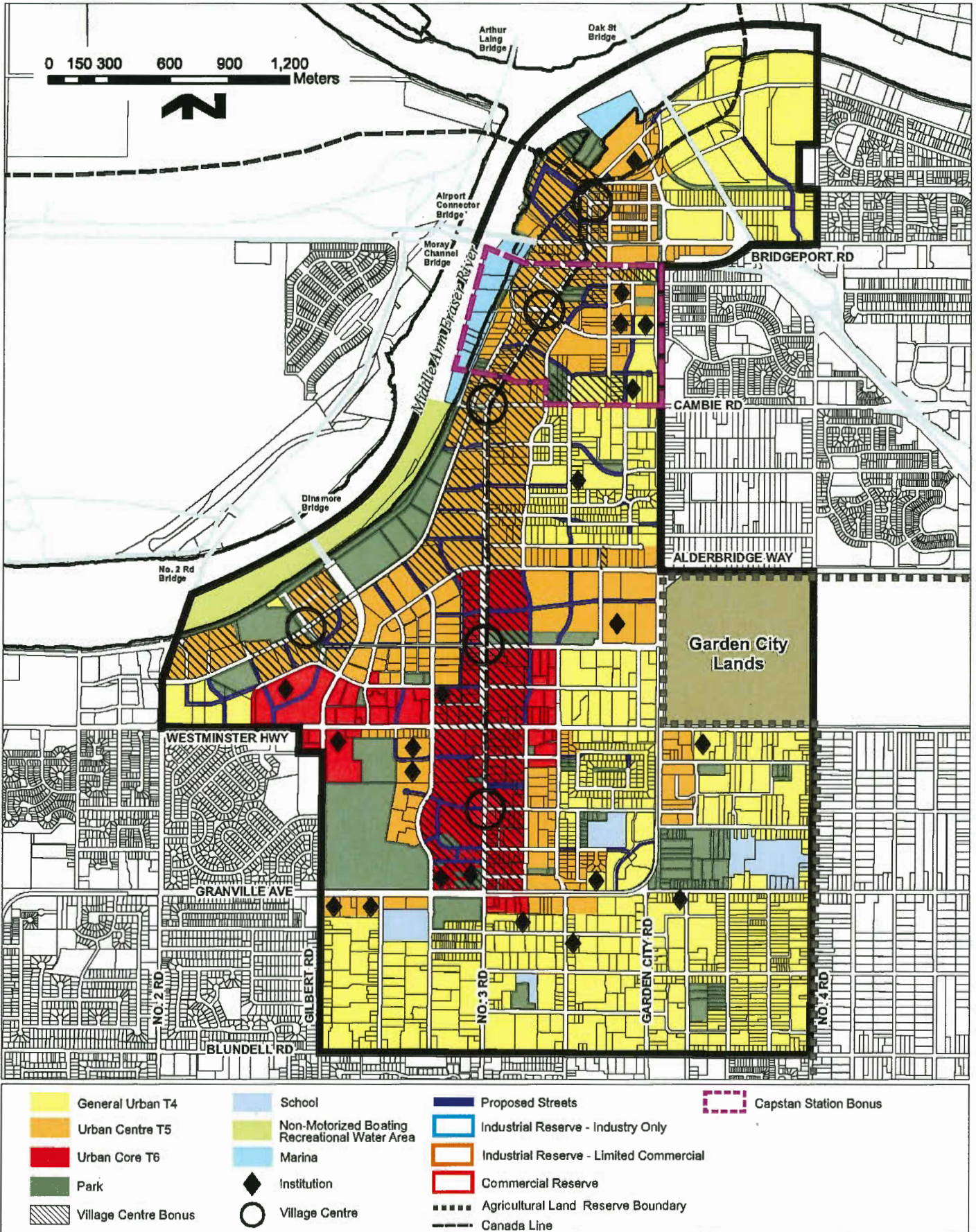


Slim Towers & Indoor/Outdoor Lobbies

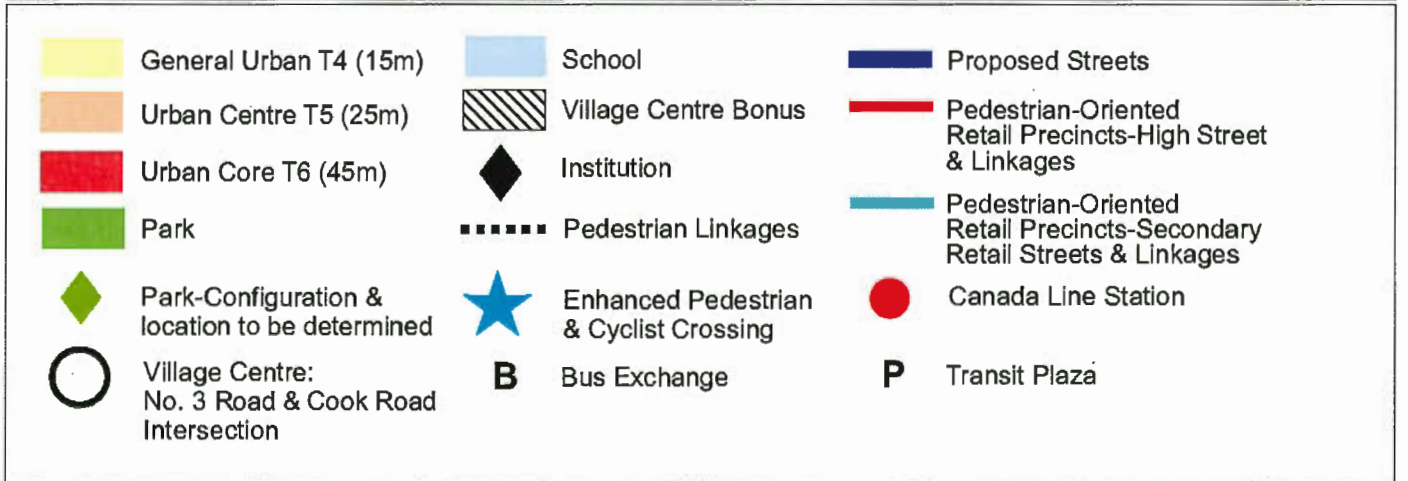
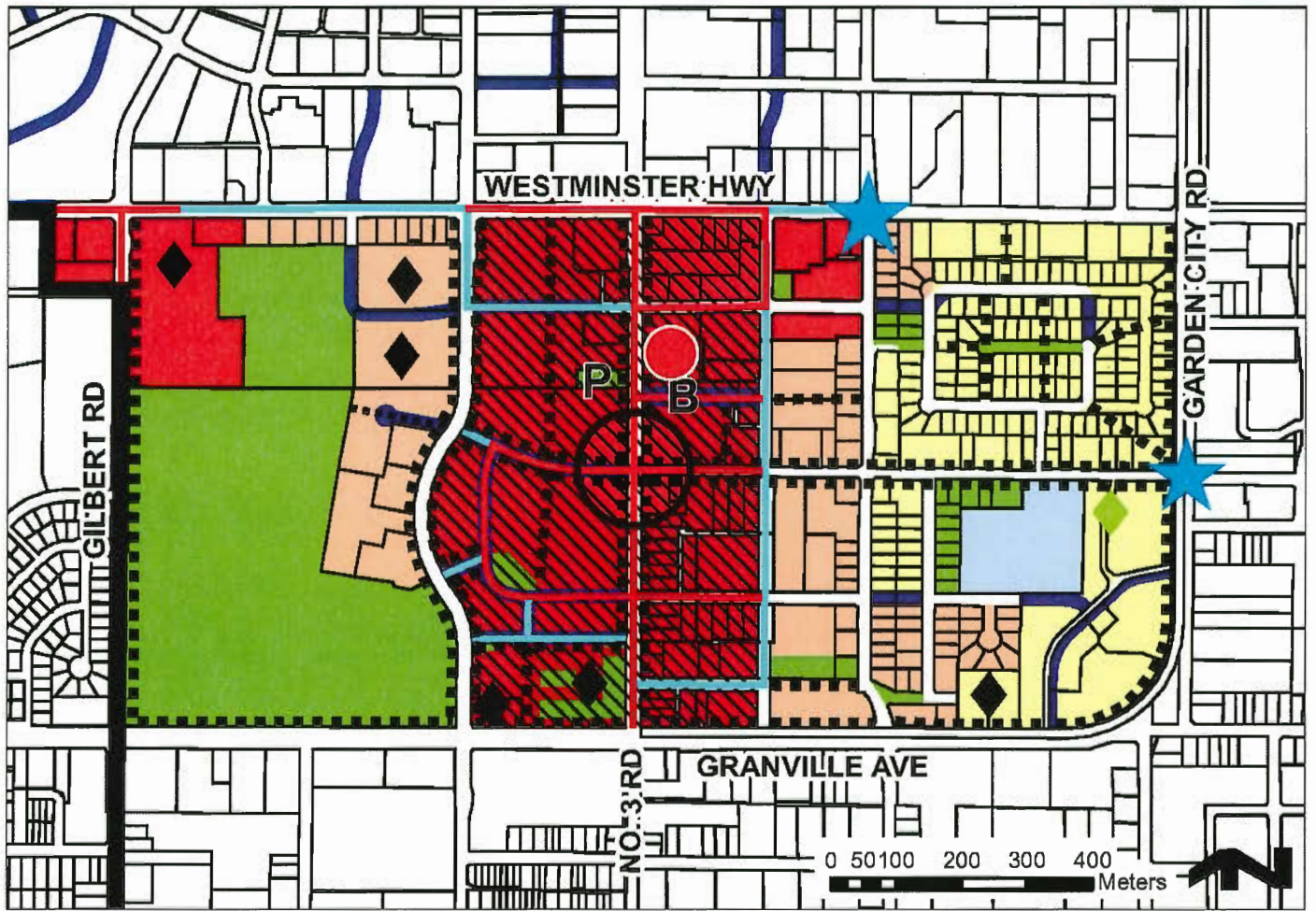


Low-Rise Streetwall set back along the Promenade

Generalized Land Use Map (2031)



Specific Land Use Map: Brighthouse Village (2031)



CANADIAN STYLE BASKETBALL

205-7388 Gollner Ave., Richmond, BC V6Y 0H4, Tel. No.604-241-1271, Email: jypestano181@gmail.com

October 3, 2018

Ms. Suzanne Carter-Huffman
Planning and Development Division
Richmond City Hall
6911 No. 3 Road
Richmond, BC V6Y 2C1

Subject: Construction of Multi-Purpose Coliseum for Organized Canadian Style Basketball League and Hockey Tournaments, Musical Shows and Concerts at Designated Location at 6551 No. 3 Road, Richmond City, BC.

Dear Ms. Carter-Huffman,

Thank very much for the invitation to attend and make a presentation or written comments about above subject.

Please allow me first to present manuscript copy of my handbook entitled **“Canadian Style Basketball”** that contains data I gathered, collated, and cited properly from credible sources and presented as indisputable proofs and evidences to support my findings and justify recommendations about the current rules of playing the game of basketball as not anymore safe but dangerous and unfair to play by amateur and professional players alike with differences in height and size.

The book has been approved, recommended and endorsed for adoption by the Ministry of Sports Carla Qualtrough on January 18, 2017 to Canada Basketball. I

expect the new rules and regulations of play will revolutionize the game of basketball to unprecedented heights of improving safety standards, health and performance of the players, popularity, entertainment and business potential of the sport and at the same time greatly enhanced the impeccable values and spirit of sportsmanship among players and fans in Richmond, BC.

I was inspired and strongly motivated to write this handbook after I learned the game has evolved from a non-contact sport as originally intended by Canadian inventor James Naismith became very rough and played by aggressive players unmindful of each other's safety that has caused a lot of serious career-ending and some tragic injuries to amateur and professional players due to flagrant fouls, collisions, charging and blocking violations that in some instances resulted to riots, fights and brawls among players and fans.

These horrible injuries are basically due to current lack of respect and fear by players and coaches to commit flagrant fouls, playing within congested space in the front court and complacent attitude of FIBA and NBA to enforce more effective rules to improve safety standards of the game that collectively caused a lot of serious and tragic injuries to the players that made the **Product Safety Commission of the United States ranked basketball as "the number one most dangerous and hazardous game to play in America today"** that inspired me to propose and prescribe the following rule:

- **Increase the penalty on fouls from 1 point to 2 points for every free throw attempt made as deterrent for players to commit personal, flagrant and technical fouls.**

In fact, the tragic incident that happened due to lack of respect and fear by some players to commit flagrant fouls happened in 1957-58 season to NBA All-Star Maurice Stokes with the Cincinnati Royals when he injured his head and neck and became paralyzed after he landed on the hard court head first due to being run under by his opponent while leaping high towards the goal for a layup shot. He later died on April 6, 1970 of a heart attack after 10 years of extreme suffering.

While I was writing this book on February 26, 2016, a 16-year old kid named Noah Lear member of the Bucyrus Redmen high school basketball team for the 2015-16 season, tried to slam dunk the ball like NBA players. The strong force and impact of the dunk broke the support pole of the goal that crashed and fractured his head and neck. He died later after a few days in the hospital. These tragic incidents should never happen again by prescribing the following rule:

- **Ban dunking attempts and make it mandatory for players to wear head bands specially designed to protect the players from serious head and brain injuries in case they fall on the hard floor head first.**

In basketball today, **“height is might”**. The current FIBA and NBA field goals scoring rules and specifications for 2-point and 3-point field goals are more favourable to taller players because the area and distances which are nearer to the basket are easier to defend and score by taller players versus shorter players and vice versa extremely difficult to defend and score by shorter players. This is unfair and the solution to make it fair and at the same time more exciting to watch and play is to add 4-point and 5-point long shots specified farther from the basket that will be more advantageous to shorter players who are naturally more superior in agility, speed, quickness, ball handling and long field goal shooting skills. This will make the game equally competitive and fair to play by all players with differences in height and size by prescribing the following rule:

- **Prescribe new 4-point and 5-point field goal scoring rules specified farther from the basket in order to make it fair for all players to play with differences in height and size as explained below:**
 1. **Shorter players** have natural superior talent and advantage in agility, speed, quickness, ball handling and long-shooting skills than taller players. The additional 4-point and 5-point field goal scoring rules will create wider space in the whole front court by attracting taller players to move forward from the key, 2-point and 3-point areas to defend. Thus, creating wider space and more options for shorter players to move quickly, evade, take long shots, drive in for layups or pass to more open teammates.

2. **In addition to faster speed and better ball handling skills**, shorter players should practice and work hard to become more accurate 3, 4, and 5-point long field goal shooters that I consider and envision as the most potent weapons that will make shorter players equally compete versus taller and bigger players even if they play according to FIBA and NBA rules because if shorter players become good 4-point and 5-point long field goal shooters under CSB rules specified farther from the basket, they are going to be definitely better 2-point and 3-point field goal shooters under FIBA and NBA rules which are specified nearer to the basket.

To make the game of basketball very entertaining and more exciting, widen the playing field to prevent potentially damaging collisions, and allow offensive players more time to accurately set plays to take spectacular long shot attempts, the following new rule changes should be adopted:

- **Discontinue backing violation to allow offensive players to play the whole front and back courts to set and execute plays to be able to take long field goal attempts or drive in nearer to the basket for layups and at the same time widen the playing area to minimize and prevent potentially harmful collisions among players.**
- **Discontinue the 8-second mandatory offensive rule to bring the ball to the front court in order to allow offensive players more time to set and execute plays to shoot 3-point, 4-point and 5-point long shots or drive in for layups and jump shots nearer to the basket and at the same time use the whole back court and front court in order to widen the playing area in order to minimize and prevent potentially harmful collisions among players.**
- **Increase the shot clock time from 24 seconds to 30 seconds in order to allow offensive players more time to set and execute plays to attempt 2, 3, 4, and 5-point field goals and at the same minimize disruptive turnovers due to time pressure and shot clock violations.**

Our plan is to organize Canadian Style Basketball League (CSBL) and apply for Business Permit with the City of Richmond to operate, host and sponsor local and international tournaments for the following purposes:

- Teach, train and develop young basketball players in Richmond the new and better CSB way of playing the game in order make them superior candidates and qualify as student athlete scholars to get a good college education, get a good job after graduation, or become highly paid professional basketball players for CSBL.
- Host, sponsor and operate high school, college, commercial and professional tournaments in order to provide Richmond basketball players realistic competitive environment and development opportunities to become more effective CSBL players.
- Make City of Richmond the birth place of the Canadian Style Basketball of playing the game, the capital and head office of the CSBL organization like Mies, Switzerland as the FIBA capital and New York as the NBA capital.
- We will expand and promote CSBL with the sole power and authority to grant franchises to basketball leagues and associations worldwide willing to pay franchise fees and royalties. Thus, this way CSBL will be able to contribute immensely more taxes and revenues for the economic benefits to the City of Richmond, BC.

May I therefore request the City Council of Richmond to include and construct the multi-purpose indoor arena and allow us to commercially lease the facility for our plan to organize and operate Canadian Style Basketball League (CSBL) in order to host and sponsor local and international tournaments not only for the best interest of CSBL but most of all for the best interest, entertainment, satisfaction and pride of fans and residents in Richmond, BC.

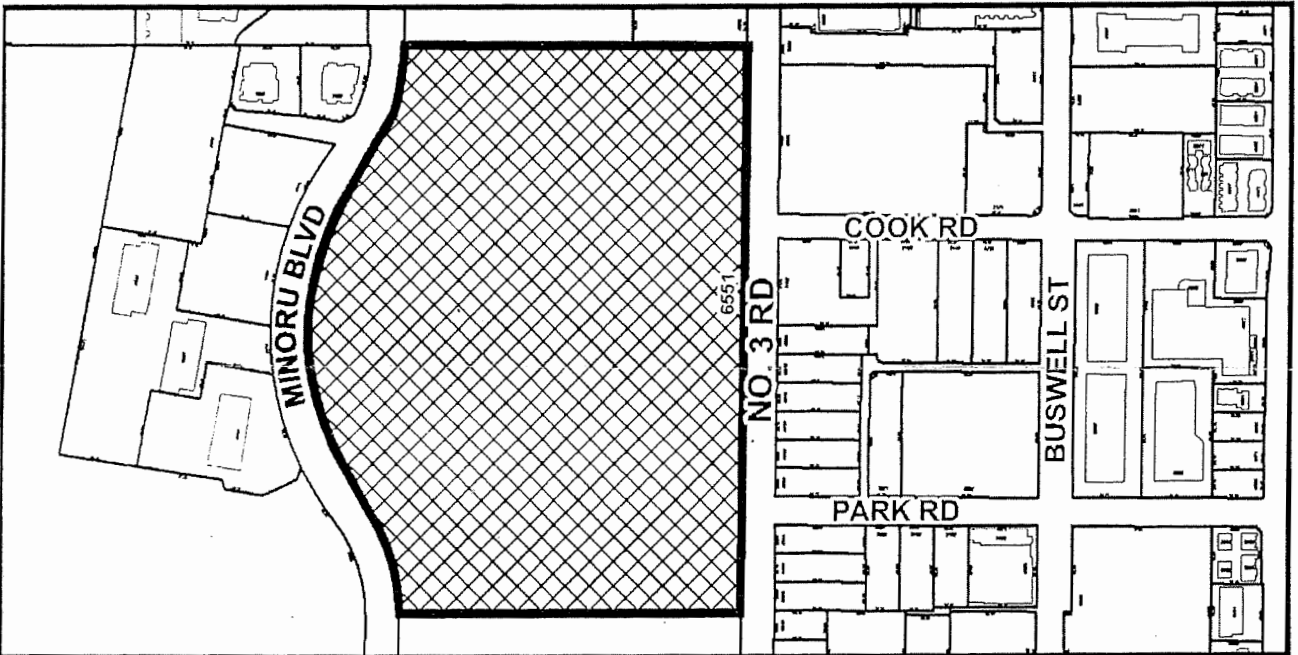
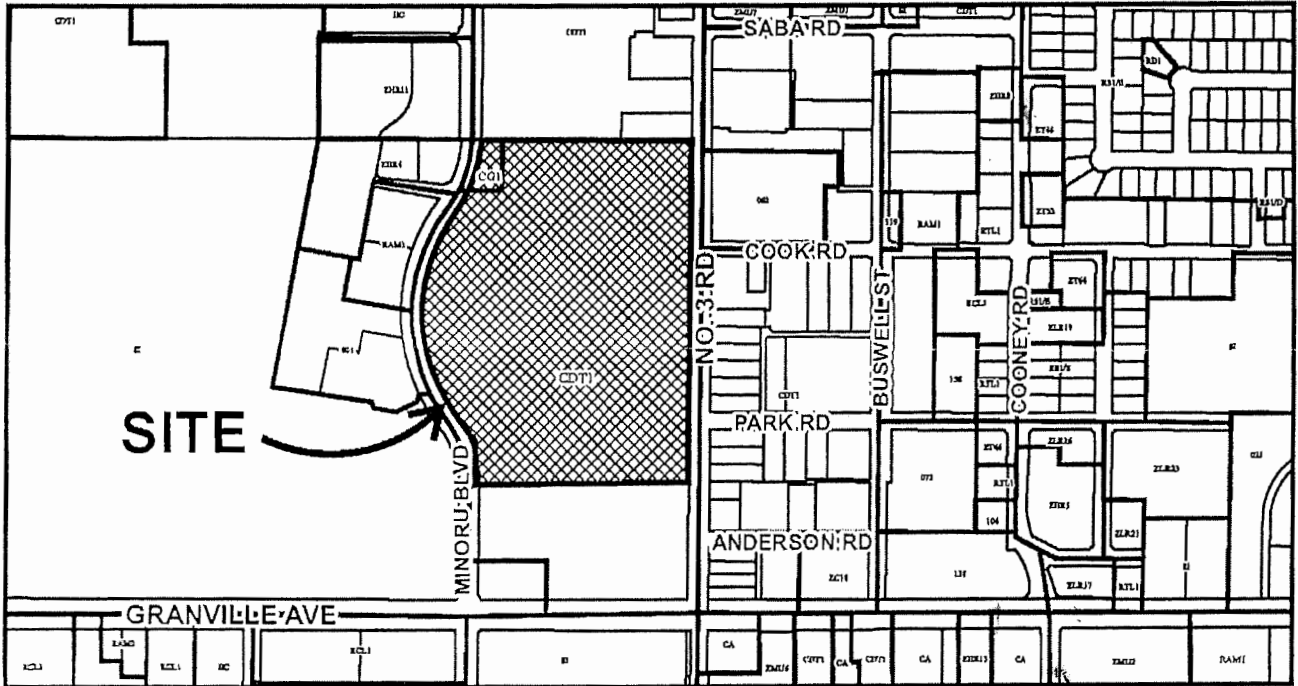
Thank you very much for your valuable time and attention. Your reply and comments will be greatly appreciated.

Respectfully yours,


Jaime Y. Pestano



City of Richmond



CP 16-752923

Original Date: 03/19/18

Revision Date:

Note: Dimensions are in METRES



CANADIAN STYLE BASKETBALL

Safer - More Exciting - Fair

-

Jaime Y. Pestano

SPECTACULAR



CANADIAN STYLE BASKETBALL (CSB)

Safer

More Exciting

Fair

By: Jaime Y. Pestano

Copyright Notice

© 2016 Jaime Y. Pestano.

All rights reserved. No part of this presentation, publication, concepts and ideas in whole or in part, should be used, reproduced, distributed, transmitted, filmed and broadcasted in any form or by any means for the purpose of business for profit activities and enterprises without prior written consent of the author. However, all private and public schools arenas, gymnasiums, and playgrounds are free to use new rules of the game anytime without any prior permits and fees.

DEDICATION

This book is dedicated to the inventor of the game of basketball

Canadian James Naismith

To Canada, the land of opportunities, home of the brave and free

To beloved Philippines

Land of my birth

Home of the Ateneo Blue Eagles and Santo Nino Toreros

Basketball champions

Mission Statement

- **Create and present new set of rules to improve the game of basketball and make it more exciting, entertaining for fans to watch and at the same time safer for players to play in order to minimize serious, career-threatening and tragic injuries on players currently plaguing the sport of basketball.**
- **Create and present new set of rules and new way of playing the game to replace existing rules that are more favorable to taller and bigger players against shorter and smaller opponents in order to make the game equally competitive and fair to play for all players.**
- **Present and encourage the sport of basketball entertainment industry to organize new professional basketball leagues and let them adopt the new set of rules and version of playing the game in order to create more employment opportunities for Canadian basketball players and basketball-related jobs and businesses.**

FOREWORD

I presented manuscript copy of my book to Joseph Newman, founder of American Basketball Association, The Honourable Carla Qualtrough, P.C., M.P., Canada Minister of Sport and Persons with Disabilities, Anne Marie Owens, Editor-in-Chief, National Post, and Roque "Bodeng" Juatco, Publisher and Editor-in-Chief, Philippine Asian Chronicle, and Jordi Bertomeu, President and CEO, Euroleague Basketball for evaluation. They favorably replied as follows:

"The research is excellent, a quality piece of work and reservoir of valuable information. You should be commended for the effort. Congratulations on all the effort and I certainly wish you well. Good luck".

Joseph Newman

"Thank you for your correspondence enclosing a copy of your book entitled Canadian Style Basketball (CSB): Safer - More Exciting - Fair. I appreciate your taking the time to send your presentation to me".

"Canadians take legitimate pride in our country's contribution to the history of basketball, which was invented by Canadian James Naismith. If you have not already done so, I would encourage you to share your manuscript with Canada Basketball, our national sport organization for basketball. Canada Basketball is responsible for leading the growth and development of the game and for providing leadership and direction in the administration of the sport in Canada, including the implementation of rules and regulations. You will find enclosed for your reference the contact information for Canada Basketball".

"I would like to commend you for your proposal to have basketball leagues adopt new rules of play, and for your plan's focus on safety. Please accept my best wishes".

Carla Qualtrough

"Thank you for your letter and a copy of your book. It is very well written and obviously by someone very passionate about the game. I am also going to encourage you to reach out to Canada Basketball. I am sure that a book like yours will be of interest to them. Canada Basketball is a non-profit organization and the governing body for Basketball in Canada. This national federation was founded in 1923".

Anne Marie Owens

"Ateneo Hall of Famer writes on how to make Canadian basketball enjoyable and safer to play. His mission in writing the book is to boost the country's interest in the game and inspire investors to organize a truly Canadian professional basketball league to provide lucrative employment opportunities to Canadian players and basketball-related jobs and businesses."

Roque "Bodeng" Juatco

“On behalf of Mr. Jordi Bertomeu, we would like to thank you for sending us copy of your book “CANADIAN STYLE BASKETBALL”. This is an interesting piece of work that will be shared amongst our experts in our future competition commissions.”

“One of the Euroleague Basketball main concerns has always been caring about the evolution of this sport in order to make it more and more attractive for our fans. In that sense, since the year 2000 when Euroleague Basketball was created, we have developed many different competition systems as well as adopted very significant technical rules changes always with the benefit of basketball in our minds, trying to make it more dynamic and catching for the worldwide basketball followers.”

“Once again, we would like to thank you for the dedicated time and efforts. Euroleague Basketball very much appreciates receiving interesting and innovative proposals that may help this sport to be even more appealing in the future. Especially, if this proposals come from passionate basketball people with a relevant basketball background. Warm regards,”

Inma Rodriguez Solan / Assistant to the President and CEO

TABLE OF CONTENTS

PREFACE	1
PART 1 – HISTORY OF BASKETBALL	10
Invention of the Game.....	10
Original Rules	10
The Name “Basketball”	11
YMCA, U.S. Army Spread Development	11
Professional Leagues, Teams, and Organizations	11
American Colleges Lead the Way	12
First International Games	13
Formation of FIBA	13
NBA	13
American Basketball Association	13
African Americans in Basketball	14
Basketball at the Summer Olympics	15
Basketball in the Philippines	15
The 3 Most Famous and Popular Basketball Players in the Philippines	16
• Carlos Loyzaga y Matute	16
• Edgardo Luciano Ocampo	17
• Luis “Lou” Salvador, Sr.	18
TOP 10 GREATEST PBA PLAYERS OF ALL TIME.....	19
Modern-Day NBA	21
PART 2 – THE AMAZING NBA PLAYERS IN HISTORY	22
Top 10 Greatest Canadian NBA Players of All Time	22

Top 10 Greatest NBA Point Guards of All Time	24
Top 10 Greatest NBA Shooting Guards of All Time	25
Top 10 Greatest NBA Small Forward of All Time	26
Top 10 Greatest NBA Power Forwards of All Time	27
Top Greatest NBA Centers of All Time	28
The Top Greatest NBA Players of All Time	29
Top 15 Greatest NBA International Players of All Time	30
Top 10 Greatest NBA Scorers of All Time	32
Top 25 Greatest Point Leaders in NBA History	33
Top 10 Greatest NBA 3-Point Shooters of All Time	35
Top 10 NBA 3-Point Shooters in 2015-16 Season	36
How Crucial Are Three-Point Scores to Winning NBA Championship	37
Half Court Shots	39
Season-By-Season Breakdowns of Shots From Beyond Half-Court	40
Top 8 Longest Shots Made in NBA History	40
Top 10 Greatest NBA Coaches of All Time	41
Top NBA Executives of All Time	45
Fouls in Basketball	49
Top 10 Greatest NBA Free Throw Shooters of All Time	53
Vital Skills in Basketball	54
• Assist	54
• Rebound	55
• Blocking	56
• Steals	57
• Ball Handling	60
• Top 10 NBA Ball Handlers Today	60

PART 3 – PLAGUING INJURIES IN BASKETBALL	63
• The 30 Best NBA Careers Ruined By Injury	63
• The Season’s (2014 - 2015) Most Devastating Injuries	69
• Top 5 Most Devastating Playoff Injuries	71
• The Eight Most Important NBA Playoff Injuries	73
• 10 Most Devastating Injuries in NBA History	75
• NBA Season 2014 - 2015 Team Injury Report	77
• Common Basketball Injuries	80
• Basketball Head Injuries Rising Among Kids	82
• In Basketball Danger of Head Trauma	83
• Basketball-Related Injuries in School-Age Children and Adolescents	85
• Bucyrus Teen Dies After Basketball Injury	86
• Men’s Basketball Team Plagued with Injuries	87
• LSU Women’s Basketball Team Plagued with Injuries	88
• Top 10 Sports with the Most injuries to High School Athletes.....	89
• Top 15 Most Dangerous Sports in America.....	90
• Impact of Injuries on NBA Teams.....	91
PART 4 – THE PROFITABLE BUSINESS of BASKETBALL	92
• The NBA’s Business Model	92
• NBA Basketball Business Financial Highlights	95
• NBA Value Gain Per Team	96
• Ranking NBA Teams Current Value	97
PART 5 – ACHIEVEMENTS AWARDS	99
• 2014-15 NBA Season	99
• 2014-15 NBA Awards	101
• 2014 -15 Season NBA Champion – Golden State Warriors Roster and Stats	103
• 2015 -16 Season NBA Champion – Cleveland Cavaliers Roster and Stats	104
• 2015 – 16 NBA Season	105
• 2015 – 16 NBA Awards	107
• NBA Most Valuable Player Award Winners in NBA History	109
• Bill Russell NBA Finals Most Valuable Player Award in NBA History	113
• Stokes’ Life A Tale of Tragedy and Friendship	117
• Twyman – Stokes Teammate of the Year Award	120

PART 6 – CANADIAN STYLE BASKETBALL 121

- **Free Throw Scoring 121**
- **Field Goals Scoring – Professionals 121**
- **Field Goals Scoring – College 122**
- **Field Goals Scoring – High School 122**
- **30-Second Timing Shot Clock 123**
- **Penalties of Fouls 123**
- **Basketball Head Guard 123**
- **Slam Dunks Not Allowed in CSB..... 124**
- **Charging and Blocking Not Allowed in CSB 124**
- **CSB Tournament Formats and Schedule 124**
- **New Free Throw Scoring Rule 125**
- **High Incidence of Accidental Physical Contacts 125**
- **High Incidence of Personal Hard Fouls 126**
- **High Incidence of Flagrant Fouls 126**
- **Understanding the Impact of the New Free Throw Scoring
While in the Act of Shooting 126**
 - 1.0 **If Fouls are Committed Inside the 2-Point Field Goal Area 126**
 - 2.0 **If Fouls are Committed Inside the 3-Point Field Goal Area 126**
 - 3.0 **If Fouls are Committed Inside the 4-Point Field Goal Area 127**
 - 4.0 **If Fouls are Committed Inside the 5-point Field Goal Area 127**
- **Understanding the Benefits of Adopting New Scoring System
on Free Three Throws 127**
- **Understanding the Benefits of Adopting CSB Long Shots Rules 128**
 - 1.0 **The 3-Point Shot Phenomenon 128**
 - 2.0 **The Spectacular 4-Point and 5-Point Long Shots 128**
- **Great Equalizer of Differences in Height and Size 129**
- **Understanding the Benefits of Adopting the New 30-Second Time Shot Clock,
No Backing and 8-Second Violation Rule..... 129**
- **Understanding the Benefits of New CSB Leagues 130**

PART 7 – ILLUSTRATIONS AND GRAPHICS

- 1.0 **Exhibit 1 131**
 - Field Goals & Free Throw Length & Scoring Specifications for
Professional Players**
- 2.0 **Exhibit 2 132**
 - Field Goals & Free Throw Length & Scoring Specifications for College
Players**

3.0 Exhibit 3	133
Field Goals & Free Throw Length & Scoring Specifications for High School Players	
4.0 Exhibit 4	134
Canadian Style Basketball Court Indoor Arena	
5.0 Exhibit 5	135
Canadian Style Basketball Outdoor Playground Court	
6.0 Exhibit 6	136
Offensive and Defensive Positions Under Current FIBA Rules	
7.0 Exhibit 7	137
Offensive and Defensive Positions Under CSB Rules	
8.0 Exhibit 8	138
Basketball Arenas in Canada	
9.0 Exhibit 9	139
Canadian Style Basketball Rainbow Shots	
10.0 Exhibit 10	140
Tournament Formats	
PART 8 - LETTERS of COMMENDATIONS and ENDORSEMENTS	
• The Honourable Carla Qualtrough, P.C., M.P.....	141
Canada Minister of Sport and Persons with Disabilities	
• Anne Marie Owens.....	142
Editor-in-Chief	
National Post	
• Jordi Bertomeu.....	143
President & CEO	
Euroleague Basketball	
About the Author	144
Canadian Certificate of Registration of Copyright #1124421	146

PREFACE

My handbook is based on actual events about what is going on and how the game of basketball is being played according to current rules of play that caused a lot of serious and tragic injuries to players from children to adults and from amateurs to professionals that made it according to the **American Product Safety Commission the “most dangerous and hazardous game to play in America today.”**

As former player and passionate lover of the game, I am very concerned about the evolution of the game which was invented and originally intended by the Canadian inventor James Naismith as **“non-contact sport and fair for all players to play.”** If this will continue as it is being played today, there will be more serious and career-ending injuries to players. The only way to show that this is actually happening is to report and present what is currently going on through diligent research work that took me almost three years to complete and at the same period of time used the information and data I gathered and collated support my observations and findings, and **recommend some changes on the rules of play in order to make the game more exciting for fans to watch, a lot safer, and fair and fun to play by all players with differences in height and size as explained below:**

- **Safer to play** by increasing penalty on fouls and free throws made from 1 point to 2 points as deterrent that will discourage players to play physically rough and commit flagrant fouls that are causing serious injuries and at the same time make them mindful always of their opponents safety. In addition, instill discipline on players and coaches to stop committing intentional fouls on poor free throw shooters as tactic to secure ball possession after missed free throws which I consider a mockery, lack of respect and fear on the current penalty rule on fouls. Another good benefit from increasing penalty on fouls and free throws made from 1 point to 2 points will be to highly encourage and motivate all players to train and practice hard in order to be more accurate in shooting free throws.
- **More exciting to watch and play** by adding 4-point and 5-point long shots specified relatively farther from the basket that will highly encourage more players to make instead of driving in, jumping and leaping high closer to the basket to take layups and dunk shots which usually are always strongly defended by opponents. Thus, decongesting the playing area near the basket that will greatly minimize blocking, charging, and collisions that are currently happening and causing injuries to the players. The new 4-point and 5-point field goals scoring rules are created not only to make the game spectacular to watch but at the same time decongest, widen, and increase the current offensive playing area of the half-court from 2,350 sq. M. (50 ft x 47 ft) up to the maximum standard size of the full court of 4,750 sq. Ft. (50 ft. X 94 ft.) in order to provide more options to set plays for 4-point and 5-point long shots or find clear paths to drive in for layups, dunks and short jump shots in the key area of the front court.

- **Fair to play** because the current rules are physically more favorable and advantageous to taller and bigger players that usually are positioning nearer to the basket where they are offensively more dominant and defensively more effective to play versus shorter and smaller opponents. With the addition of 4-point and 5-point shots farther from the basket and at the same time remove the 8-second violation rule to bring the ball to the front court, the shorter and smaller players will be encouraged to take long shots which will at the same time force the taller and bigger players to go after them and defend farther from the basket. Consequently, opening more space for shorter players who are naturally superior and better ball handlers, quicker, faster, and more agile than taller and bigger players to evade and out-manuever them and drive in for layups or attempt short jumps shots nearer the basket. Thus this way, make the game fair and equally competitive to play by all players with differences in height and size.
- **Slam dunks and collisions** are two most dangerous and hazardous moves and situations that are causing the most serious and career-ending injuries to the players in basketball today as explained below:

Slam dunks is an offensive move by leaping and jumping high up for the arms to go over the basket in order to slam the ball hard into the basket and score 2-point field goal. Then, momentarily hold and hang on to the rim of the basket in order to slowdown and stop their forward and downward momentum and maintain their balance to make sure falling and landing on the hard floor with their two feet. Every time players execute this type of shots increases the probability injurious to the player's body parts due to severe strain and stress on the legs of the players upon landing on the hard floor after leaping and jumping high up to slam the ball into the basket as explained below:

1. The most common are injuries to ankles and knees of the players by leaping and jumping high up to the highest level possible and landing on the hard floor that will surely create a lot of strain and stress on the ankles and knees most especially upon landing off balance with one leg only due to collisions with other players.
2. Serious head and brain injuries if the falling player land on the hard floor head first after being "run under" and "under cut" by a defending player like what happened to Maurice Stokes, the Cincinnati Royals all-star pro who became paralyzed and died after 10 years.
3. Players holding and hanging on to the rim could break the backboard from the post and hit the players underneath and get seriously injured and fatal like what happened to 16-year old student Noah Lear from Bucyrus Secondary School when a dunk shot attempt snapped the support pole and got hit by the crashing backboard on Noah's head and neck and died after 18 days.
4. Players while slamming the ball hard into the basket, then hold and hang on to the rim of the basket could break and shatter the glass backboard that will surely hit and sprinkle broken sharp glasses on the players underneath the basket like what happened to the famous backboard breakers Shaquille O'Neal and Darryl Dawkins.

Collisions of players usually and commonly happen when an offensive player drives in forcefully toward the basket and at the same time defensive player blocks the path to prevent the offensive player to attempt and score a 2-point field goal near the basket. Every time these types of collisions happen, it could be damaging to both players depending on the force inflicted and location of the body parts described below:

1. The most excruciating and painful is being hit by a knee on the groin and genitals.
2. The most damaging is collision of heads that might cause serious injuries to head and brain to both players.
3. Collision of head and face that might damage nose, eyes and teeth.
4. The most damaging is colliding with a much bigger player at high speed that might slam the smaller player hard to the hard floor and injure some vital body parts like the head, neck, shoulders and hip.
5. The most common damaging injury is due to stepping on the other player's foot that twisted and sprain the ankle of the player who stepped on the player.
6. Getting hit hard by an elbow on the head and face could knock out cold the player for a few minutes or out of the game with a broken nose, fractured face and jaw.
7. Most career-ending injury of all is falling hard on the butt that might injure and dislocate the spine that could be very painful for the rest of the player's life.

The Game is changing

During the last 6 NBA seasons from 2011 – 2017, winning games and championships were attributed to teams with the best 3-point shooters scoring statistics. The exciting 3-point shot was invented by the American Basketball Association (ABA) and inherited by the National Basketball Association (NBA) after their merger in 1976. It became the most potent offensive weapon that currently makes the difference of winning NBA Championships.

Miami Heat won back-to-back NBA titles in 2011 – 2012 and 2012 – 2013 by recruiting 3-point long shot makers led by LeBron James, Chris Bosh and Dwayne Wade who collectively scored an average of 21 points from 3-point shots per game in 2011 -2012 season and in 2012 -2013 season with the addition of 3-point champion Ray Allen increased it to 28 points per game. In game 6 of the 2013 Finals, Ray Allen hit a 3-point clutch shot with 5.2 seconds left to send the game to overtime at 95 all and won game 6 103 – 100 against San Antonio Spurs. With all of the momentum going their way, Miami won game 7 95 -88 to win the 2012 – 2013 NBA Championship from San Antonio.

In 2013 -2014 season, Miami Heat lost the NBA title to San Antonio Spurs who were able to form a formidable team of long shooters that contributed an average of 36 points per game from 3-point distance combined with fast breaks and savvy passing strategies to create more open shots and at the same time wearing out opponents. According to Basketball Reference, "San Antonio wasn't the only franchise to recognize that sharing the ball and shooting 3s was a model for success. In 2014 -2015 season, the league average 3-point attempt was a record 44.8 per game. For comparison purposes, just three seasons earlier, the league averaged 36.8 attempts a game. Five of the top teams that have taken

the most 3-point shot in a season in NBA history did so in 2014 -2015, led by Houston Rockets (32.7 3-point attempt a game). The two teams in the finals, Cleveland (27.5 attempts) and Golden State (27.0 attempts), were in the top five in 3s attempted this season.”

As for passing, according to NBA.com data, “the raw numbers indicate there were roughly 733,164 passes in the 2013 -2014, the year the Spurs won the championship. In the past season, that number increased by roughly 5,418 passes which is an average of about 4.5 passes per game.” According to Phoenix Suns general manager Ryan McDonough, “it’s a copycat league, it was a good strategy, making extra passes and flying down the floor in transition and shooting 3s before defense could get set. Defenses are so good today that, if you give them time to settle in, it’s almost impossible to score.”

In 2014 -2015 season Golden State Warriors won the NBA title led by new long shot scoring champion Stephen Curry, together with Klay Thompson and Draymond Green with 5 other long shooters from “downtown” contributed 35 points per game or 35% out of the total team score average per game of 110 points. The Cleveland Cavaliers with a healthy line-up of accurate long shooters led by Lebron James, Kevin Love and Kyrie Irving with 11 other 3-point shooting specialists, contributed 49 points per game average from “downtown” shots or 47% out of the total team score average of 104 points per game, beat the Golden State Warriors in game 7 finals 4-3 with a 3-point shot by Kyrie Irving on the last 3 minutes and 39 seconds of the game and won their 1st title in franchise history 93 -89.

In 2016 -2017 season Golden State Warriors knew exactly what must be done to win back the NBA title from Cleveland Cavaliers. They acquired one of the greatest NBA all-around players and deadly long shot artist of all time Kevin Durant from Oklahoma City Thunder. Kevin Durant with Stephen Curry, Klay Thompson, Draymond Green and Andre Iguodala and 7 other deadly snipers greatly contributed 44 points average per game from “downtown” or 38% of total team average per game of 116 points that swept all their opponents on the playoffs and almost swept the Cavaliers from the finals 4-1 with Kevin Durant as the Finals MVP.

Ball handling now is considered one of the most important and necessary skills in basketball for any levels of play from high school, college and professional teams. Teams must have at least one good ball handler as point guard to be able to dribble, move quickly, evade opponents, and pass the ball to open teammates to take the shot and score or take the shot himself and score like the greatest NBA point guard of all time Earvin “Magic” Johnson. According to college basketball coach Herb Sendek once said: “It’s like having a running back play quarterback, and no matter how well your line blocked, the ball isn’t going to get where it needs to go.” Ball handling skill has become more important to be able to layup or take jump shots and score 2-point field goals popularized by the “king of crossover and ankle breaker moves” Allen Iverson of Philadelphia 76ers.

Crossover move is a basketball maneuver by a player dribbling the ball and quickly switching the ball left-to-right and at the same time faking and changing directions to find an open space to drive in to shoot the ball nearer the basket for 2-point field goal attempts. Latest development of crossover moves by some players using it to shoot 3-point field goals like James Harden, Stephen Curry, Kevin Durant, Klay Thompson, Russell Westbrook, Kyrie Irving, Lebron James, Kevin Love, Chris Paul, Jamal Crawford,

Dwayne Wade, Kyle Lowry, DeMar DeRozan, Dirk Nowitzki, Kyle Korver, Vince Carter and Manu Ginobili to name a few still playing in the NBA today and some greatest NBA players that ever played the game like Oscar Robertson, Jerry West, Elgin Baylor, Julius Irving, Pete Maravich, Magic Johnson, Michael Jordan, Larry Bird , Isiah Thomas, Allen Iverson, Steve Kerr, Steve Nash, Reggie Miller and Ray Allen.

Unlimited Development Potential

This phenomenal trend will continue long term. NBA and NCAA team owners through their scouts will be eagerly looking and drafting for players who can accurately shoot 3-point and foul shots and at the same time very good ball handlers to execute crossover moves. The more players they have in their team who are really good in ball handling, crossover and long shooting skills, the stronger the team. Assuming of course that they have also the big men and muscles to take care defense, rebound and offensive scoring near the basket like some of the greatest tall and big NBA players that ever played the game of all time like Wilt Chamberlain, Bill Russell, Kareem Abdul Jabbar, Shaquille O'Neal, Hakeem Olajuwon, Charles Barkley, Karl Malone, Patrick Ewing, Yao Ming, David Robinson and Tim Duncan to name a few. If Canada Basketball will approve and adopt the new Canadian Style Basketball rules of play, Canada will become the primary supplier of top 3-point shot scorers, high-percentage free throw makers with excellent ball handling and passing abilities like Steve Nash and also extraordinary fast and quick defensive and offensive-oriented tall and big players as explained below:

- **The Canadian Style Basketball (CSB) basketball court** is designed and specified to provide players 4 options to score 2-point, 3-point, 4-point, and 5-point field goals. As the players regularly practice and play according to the new scoring rules, they become accustomed and get used to playing and enjoy shooting the ball to the basket from different distances nearer and farther from the basket. The farther the distance from the basket, the bigger points they score. The more they try and shoot the ball into the basket, the better shooter they become. As the players continue to practice and play regularly and repetitively take the shots as specified and making them, the shots becomes a routine and easier to make. Thus, Canadian Style Basketball players who are accurately accustomed in hitting 4-point shots which is 25 feet distance from the basket will find it easier to hit 3-point shots 22 – 23 feet from the basket specified by FIBA and NBA respectively. Similarly, Canadian Style Basketball players who are accustomed to making 3-point shots and 4-point shots farther from the basket will find it a lot easier to make 2 – 3 point field goals specified nearer to the basket by FIBA and NBA.
- **CSB players who are accustomed** to making 3-point and 4-point long shots farther from the basket are expected to become excellent free throw shooters specified 15 feet from the basket. Undisputedly, this has been proven by some of the greatest NBA free throw shooters that ever played the game like Steve Nash, Mark Price, Rick Barry, Peja Stojakovic , Ray Allen, Chauncy Billups, Calvin Murphy, Scott Skiles, Reggie Miller, Jerry West, Elgin Baylor, Larry Bird, Stephen Curry, and Klay Thompson to name a few of the best long shot and free throw makers in the NBA. What make CSB better players in free throw shooting is their more positive attitude and strong psychological motivation developed by the thought that every free throw is worth a lot more and going to be credited with 2 points instead of 1 point.

- **Under current NBA and FIBA rules**, taller and bigger players usually position and play near the basket and up to 3-point arc line of the court to defend against 3-point shooters. With the additional scoring options like 4-point and 5-point field goals specified farther from the basket, taller and bigger players will be forced to defend up to the mid-court line. Consequently, leaving their post near the basket and creating an open space for their opponents to drive in to take 2-point layups and jump shots near the basket. The new 4-point and 5-point field goals will not only motivate shorter players to take in order to lure the taller players farther from the key area up to the 4-point arc line and 5-point arc line to create open space to drive in for layups and jump shots near the basket but also motivate the tall players to shoot 3-point, 4-point and 5-point long shots themselves like center (7' 1" 255 lbs.) Marc Gasol, his brother power forward (7' 0" 250 lbs) Pau Gasol and center Brook Lopez (7' 0" 268 lbs) are considered the best seven footers and 3-point shooters in the NBA today. Thus, transform the role of big men as centers and power forwards from their traditional positions inside the key area by moving up to the mid-court line not only to defend but also offense in order to shoot and score 4-point and 5-point long shots.

Adopt Canadian Style Basketball (CSB) Scoring Rule and Regulations

The best achievement of Canada Basketball national team in international basketball tournament was a silver medal in 1936 Berlin Summer Olympics and 6th place finish in 1994 FIBA World Cup as host here Canada. Considering so many raw talents of players with superior height and size with modern technology and facilities available, Canada should be winning gold medals in Summer Olympics and FIBA World Cup international tournaments. What is needed is to adjust and adopt new rules of play to create an inspiring and challenging playing field that at the same time safe, fair, more exciting and fun to watch and play as explained below:

- **Basketball game is all about scoring.** The team with the highest total score at the end of the regulation period wins. The current rules in FIBA and NBA are 1 point for every free throw made, 2 points for every field goal within the front line and 3-point arc line and 3-points for every field goal made outside the arc line 22 – 23 feet distance from the basket according to FIBA and NBA rules respectively.

For CSB, the scoring rules are as follows:

1. 2 points for every free throw made.
 2. 2 points for every field goal made inside the 22 feet arc line, sidelines, and frontline.
 3. 3 points for every field goal made inside 22 feet arc line, 25 feet arc line and sidelines.
 4. 4 points for every field goal made inside 25 feet arc line, 47 feet midcourt line and sidelines.
 5. 5 points for every field goal made from inside the whole backcourt area.
- **Timing rules:**
 1. The 24-second shot clock rule should be increased from 24 seconds to 30 seconds.

2. The current 8-second and 10-second rule to bring the ball to the front court should be cancelled.
 3. The current backing violation by stepping on the mid-court line should be cancelled.
- **Mandatory head band rule:**
 1. Players should be required to wear customized and fashionably designed head bands or head caps to protect the head and brain from serious injuries due to hitting the hard floor head first after collisions and undercut situations while leaping and jumping high above other players usually while driving in for layups, dunks and rebounding near and under the basket.
 - **Slam dunks are not allowed in CSB:**

Offensive and defensive players should be deterred and discourage to execute and shoot by slamming and dunking the ball into the basket. All players should not be allowed to touch, hold and hang on to any part of the backboard, rim and basket. In case offensive players violate this rule, the field goal should be nullified and award possession of the ball to the opponent, In case, defensive players violate this rule, it should be considered as technical foul and should be penalized with 2 free throws. If the field goal attempt is successful, the field goal should be counted plus 1 free throw.
 - **Charging and blocking are not allowed in CSB:**

Charging moves by offensive player forcibly attempting to drive towards the basket and at the same time defensive player firmly blocking the path of the offensive player usually results to harmful collision of the players involved. In case this kind of move and situation happens, both the offensive and defensive players should be penalized with double foul. The possession of the ball should be determined by a jump ball of players directly involved on the foul line area of the court where the incident happened.

CSB Tournament Formats and Schedule

Every calendar year, CSB shall have two 5-month playing seasons and two months vacation and rest for the players as follows:

1. **First season** - January to May playing period and the whole month of June for vacation and rest period for the players.
2. **Second season** – July to November playing period and the whole month of December for vacation and rest period for the players.

The two CSB Tournament Formats are as Follows:

- **First Season - Traditional total points system based on:**
 1. Four 12-minute quarter per game.
 2. 5-minute overtime after the 4th quarter to break tie.
 3. Team with the highest total points after regulation and overtime periods wins the game.
 4. All teams shall play two games based on home and visitor arrangement every season.

5. The top four teams shall play in the playoffs based on best-of-five games to determine the two finalists.
6. The two finalists shall play best-of-five games to determine the champion.

- **Second Season – Best-of-Seven Match Play System Based on:**

1. The whole game is divided into 7-match periods.
2. Each match period is equivalent to 8 minutes of playing time.
3. The teams should play to win each match period.
4. The team that wins the 1st four match periods wins the game.
5. In case of tie after each period, team plays 2-minute overtime to break the tie.
6. All teams shall play two games based on home and visitor arrangement every season.
7. The top four teams shall play in the playoffs based on best-of-five games to determine the two finalists.
8. Two finalists shall play best-of-five games to determine the champion.

Economic Mission

The success and greatest attraction in any sport professional leagues depends on the availability of good players. No professional leagues will survive and prosper without good players playing the game that spectators will pay to watch in the arenas and in televisions at home to be entertained. After a certain period of time when highly qualified CSB players are available, Canada Basketball should lead and inspire prospective investors and team owners to organize the first Canadian Professional Basketball League (CPBL). This is necessary and will not take a long time to organize and less costly to develop because there are currently basketball arenas and facilities available nationwide at the following locations:

Name and Location	Seating Capacity
1. Centre Bell, 1909 Canadiens-de-Montreal, Quebec	22,114
2. Air Canada Centre, 40 Bay Street, Toronto, Ontario	20,511
3. Canadian Tire Centre, 1000 Palladium Drive, Ottawa, Ontario	20,500
4. Rogers Arena, 800 Griffiths Way, Vancouver, British Columbia	19,700
5. PEPS, Rue Du, Quebec	19,500
6. Montreal Forum, 2313 St. Catherine Street, Montreal, Quebec	18,575
7. Maple Leaf Gardens, 60 Carlton Street, Toronto, Ontario	16,382
8. MTS Centre, 300 Portage Avenue, Winnipeg, Manitoba	15,750
9. Scotiabank Centre, 1800 Argyle Street, Halifax, Nova Scotia	11,093
10. Harbour Station, 99 Station Street, Saint John, New Brunswick	7,305

Considering that basketball is currently the second most popular sport in Canada after Ice Hockey, I expect that if CPBL will be organized and operated consistent with NBA business model, it will become very successful and profitable as the NBA. Thus, contribute greatly to the economic development of the

country by providing employment for Canadian players, revenues and taxes from basketball-related jobs and businesses with immeasurable national gains in sense of pride, prestige and goodwill that will surely project a wonderful and favorable image for anything Canadian.

PART 1

HISTORY OF BASKETBALL

(Source: Wikipedia, the free encyclopedia)

Invention of the Game

The game of basketball as it is known today was created by Dr. James Naismith in December 1891 in Springfield, Massachusetts, to condition young athletes during the cold months. It consisted of peach baskets and a soccer style ball. He published 13 rules for the new game. He divided his class of eighteen into two teams of nine players each and set about to teach them the basics of his new game. The objective of the game was to throw the basketball into the fruit baskets nailed to the lower railing of the gym balcony. Every time a point was scored, the game was halted so the janitor could bring out a ladder and retrieve the ball. After a while, the bottoms of the fruit baskets were removed. The first public basketball game was played in Springfield, Massachusetts, on March 11, 1892.

Original Rules

There were only thirteen original rules of "basketball":

1. The ball may be thrown in any direction with one or both hands.
2. The ball may be batted in any direction with one or both hands.
3. A player cannot run with the ball, the player must throw it from the spot on which he catches it, allowance to be made for a man who catches the ball when running at good speed.
4. The ball must be held in or between the hands, the arms or body must not be used for holding it.
5. No shouldering, holding, pushing, tripping or striking in any way the person of an opponent shall be allowed. The first infringement of this rule by any person shall count as a foul, the second shall disqualify him until the next goal is made, or if there was evident intent to injure the person, for the whole of the game, no substitute.
6. A foul is striking the ball with the fist, violation of rules 3 and 4, and such as described in rule 5.
7. If either side makes three consecutive fouls it shall count as a goal for opponents.
8. A goal shall be made when the ball is thrown or batted from grounds into the basket and stays there. If the ball rests on the edge and the opponent moves the basket it shall count as a goal.
9. When the ball goes out of bounds it shall be thrown into the field and played by the person first touching it. In case of a dispute, the umpire shall throw it straight into the field. The "thrower-in" is allowed five seconds. If he holds it longer it shall go to the opponent. If any side persists in delaying the game, the umpire shall call a foul on them.
10. The umpire shall be the judge of the men and shall note the fouls, and notify the referee when three consecutive fouls have been made.
11. The referee shall be the judge of the ball and shall decide when the ball is in play, in-bounds, and to which side it belongs, and shall keep the time. He shall decide when a goal has been

made and keep account of the goals with any other duties that are usually performed by a referee.

12. The time shall be fifteen –minute halves, with five-minute rests between.
13. The side making the most goals in that time shall be declared the winner. In case of a draw, the game may, by agreement of the captains, be continued until another goal is made.

The Name “Basketball”

On December 21, 1891, James Naismith published rules for a new game using five basic ideas and thirteen rules. That day, he asked his class to play a match in the Armory Street court: 9 versus 9, using a soccer ball and two peach baskets. Frank Mahan, one of his students, wasn't so happy. He just said: “Harrump, another new game!” However, Naismith was the inventor of the new game. Someone proposed to call it “Naismith Game”, but he suggested “We have ball and a basket: why don't we call it **basketball?**”

The eighteen players were John G. Thompson, Eugene S. Libby, Edwin P. Ruggles, William R. Chase, T. Duncan Patton, Frank Mahan, Finlay G. MacDonald, William H. Davis and Lyman Archibald, who defeated George Weller, Wilbert Carey, Ernest Hildner, Raymond Kaighn, Genzabaro Ishikawa, Benjamin S. French, Franklin Barnes, George Day and Henry Gelan 1-0.

The first and only goal was scored by William R. Chase. There were other differences between Naismith's first idea and game played today. The peach baskets were closed, and the balls had to be retrieved manually, until a small hole was put in the bottom of the peach basket to poke the ball out using a stick. Only in 1906 were metal hoops nets and backboards introduced. Moreover, earlier the soccer ball was replaced by a **Spalding ball**, similar to the one used today.

YMCA, U.S. Army Spread Development

The YMCA had a major role in spreading basketball throughout the United States, Canada, and the world. In 1893, Mel Rideout arranged the first European match in Paris, in Montmartre. At the same time, Bob Gailey went to Tientsin, China, Duncan Patton to India, Genzabaro Ishikawa to Japan, and C. Hareek to Persia.

The First World War broke out in 1914, and the U.S. Army started fighting in Europe in 1917. During World War I, the American Expeditionary Force took basketball wherever it went. Together with the troops, there were hundreds of physical education teachers who knew basketball. Naismith also spent two years with the YMCA in France in that period.

Professional Leagues, Teams, and Organizations

The first professional league was founded in 1898. Six teams took part in the National Basketball League, and the first champions were the Trenton Nationals, followed by the New York Wanderers, the Bristol Pile Drivers and the Camden Electrics. The league was abandoned in 1904. Then, many small

championships were organized, but most of them were not as important as some teams who played for money against challengers.

The Original Celtics for instance, are considered the “fathers of basketball” and were presented as “World’s Basketball Champions”, the players had to sign a contract to play with them, Jim Purey organized matches as a circus, moving daily from town to town. The Celtics became the strongest team, and their successes lasted from 1922 until 1928, when the team disbanded due to ownership problems.

The Original Celtics are sometimes incorrectly thought of as forebears of the current Boston Celtics of the NBA: in reality, they share only a name, as today’s Celtics were not founded until 1946, nearly two decades after the demise of the Original Celtics. In 1922, the first all-African American professional team was founded: the Rens (also known as New York Renaissance or Harlem Renaissance). The Rens were the Original Celtics usual opponent, and for their matches a ticket cost \$1. They took part in some official championships and won the first World Professional Basketball Tournament in 1939. The team disbanded in 1949.

In the 1920s and 1930s, Eastern Basket Ball League (founded in 1909), Metropolitan Basketball League (founded in 1921 and American Basketball League (founded in 1925) were the most important leagues.

American Colleges Lead the Way

The greatest level of early basketball activity outside of YMCA was seen in American colleges. The first known U.S. College to field a basketball team against an outside opponent was Vanderbilt University, which played against the local YMCA in Nashville, Tennessee, on February 7, 1893. The second recorded instance of an organized college basketball game was Geneva College’s game against the New Brighton YMCA on April 8, 1893, in Beaver Falls, Pennsylvania, which Geneva won 3-0.

The first recorded game between two college teams occurred on February 9, 1895, when Hamline University faced Minnesota A&M (which later became a part of the University of Minnesota). Minnesota A&M won the game, which was played under rules allowing nine players per side, 9-3. The first intercollegiate match using the modern rule of five players per side is often credited as a game between the University of Chicago and the University of Iowa, in Iowa City, Iowa, on January 18, 1896. The Chicago team, which was organized by Amos Alonzo Stagg, who had learned the game from James Naismith at the Springfield YMCA, won the game 15-12. Some sources state the first “true” five-on-five intercollegiate match was a game in 1897 between Yale and Penn, because the Iowa team, that played Chicago in 1896, was composed of University of Iowa students, but did not officially represent the University of Iowa – rather being organized through YMCA. By 1900 the game of basketball had spread to colleges across the country.

By 1897 the U.S. Amateur Athletic Union (AAU) had taken over oversight of basketball activity from YMCA. In April 1905, representatives of fifteen colleges separately took over control of the college game, creating the collegiate “Basket Ball Rule Committee.” The Committee was in turn absorbed into the

predecessor of the National Collegiate Athletic Association (NCAA) in 1909. The extremely popular NCAA Men's Basketball Tournament was started in 1939.

First International Games

After its arrival in Europe, basketball developed very quickly. In 1909 the first international match was held in Saint Petersburg. Mayak Saint Petersburg beat a YMCA American team. The first great European event was held in Joinville-le-Pont, near Paris, during the Inter-Allied Games. United States led by Hall of Fame player Max Friedman, won against Italy and France, and then Italy beat France.

Basketball soon became popular among French and Italians. The Italian team had a white shirt with House of Savoy shield and the players were: Arrigo, Marco, Muggiani, Baccarni, Giuseppe Sessa, Palestra, Pecollo and Bagnoli.

Formation of FIBA

World basketball was growing, but it was on June 18, 1932 that a real international organization was formed, to coordinate tournaments and teams: that day, Argentina, Czechoslovakia, Greece, Italy, Latvia, Portugal, Romania and Switzerland founded the International Basketball Federation (Federation Internationale de Basketball Amateur, FIBA) in Geneva. Its work was fundamental for the first inclusion of basketball in the Berlin Olympic Games in 1936. The first Olympic title was won by the U.S. national team: Sam Balter, Ralph Bishop, Joe Fortenberry, Tex Gibbons, Francis Johnson, Carl Knowles, Frank Lubin, Art Mollner, Donald Piper, Jack Ragland, Willard Schmidt, Carl Shy, Duane Swanson, Bill Wheatley and trainer James Needles. Canada was runner-up; the games were played on an outdoor clay court. The first World Championship was held in Argentina in 1950.

NBA

The Basketball league was founded in New York City on June 6, 1946 as the Basketball Association of America (BAA). The league adopted the name National Basketball Association (NBA) in 1949 after merging with the rival National Basketball League (NBL). As of the early 21st century, the NBA is the most significant professional basketball league in the world in terms of popularity, salaries, talent, and level of competition.

American Basketball Association

The American Basketball Association (ABA) was founded as an alternative to the NBA in 1967 at a time when the NBA was experiencing a lot of popularity. The ABA offered an alternative ethos and game style as well as some changes in the rules. Julius Erving was the leading player in the league, and helped launch a modern style of play that emphasizes leaping and play above the rim. His playing strength helped legitimize the American Basketball Association. The league emphasized excitement and liveliness, be it in color of the ball (red, white and blue), the manner of play, wild promotions, or the three-point shot. National recognition and earnings were low, leading the league to look for a way out of its

problems. Merger with the more established and very successful NBA was seen as a solution. The ABA was folded into the NBA in summer of 1976, its four most successful franchises (the New York Nets, Denver Nuggets, Indiana Pacers, and San Antonio Spurs) being incorporated into the older league. The aggressive, loose style of play and the three-point shot were taken up by the NBA.

African Americans in Basketball

The Smart Set Athletic Club of Brooklyn and the St. Christopher Club of New York City were established as the first fully organized independent all-black basketball teams in 1906. These teams were amateur.

In 1907 the amateur, all-black Olympian Athletic League was formed in New York City consisting of the Smart Set Athletic Club, St. Christopher Club, Marathon Athletic Club, Alpha Physical Culture Club, and the Jersey City Colored YMCA. The first inter-city basketball game between two black teams was played in 1907 when the Smart Set Athletic Club of Brooklyn travelled to Washington, DC to play the Crescent Athletic Club.

In 1908 Smart Set Athletic Club of Brooklyn, a member of the Olympian Athletic league was named the first Colored Basketball World's Champions.

In 1910 Howard University's first varsity basketball team began.

In 1922 the Commonwealth Five, the first all-black professional team was founded. The New York Renaissance was founded in 1923.

In 1939 the all-black New York Renaissance beat the all-white Oshkosh All-Stars in the World Pro Basketball Tournament (WPBT).

From the late 1920s the African American Harlem Globetrotters were a successful touring team, winning the WPBT in 1940.

The all-white National Basketball League began to racially integrate in 1942 with 10 black players joining two teams, the Toledo Jim White Chevrolets, and the Chicago Studebakers. The NBA integrated in 1950-51 seasons, just two years after its founding, with three black players each achieving a separate milestone in that process. In the draft held immediately prior to that season, Chuck Cooper became the first black player to sign an NBA contract. Finally, Earl Lloyd became the first black player to appear in an NBA game as his team started its season before either Cooper's or Clifton's.

After the integration of the NBA, the Harlem Globetrotters started to focus on international touring and exhibition performances, including comic routines. These tours helped to popularize basketball internationally, and gave the Globetrotters the reputation as Basketball's goodwill ambassadors.

Basketball at the Summer Olympics

Basketball at the Summer Olympics has been a sport for men consistently since 1936. Prior to its inclusion as a medal sport, basketball was held as a demonstration event in 1904. Women's basketball made its debut in the Summer Olympics in 1976.

The United States is by far the most successful in Olympic Basketball, with United States Men's teams having won 15 of 18 tournaments in which they participated, including seven consecutive titles from 1936 through 1968. United States women's teams have won 8 titles out of 10 tournaments in which they competed, including six in a row from 1996 to 2016. Besides the United States, Argentina is the only nation still in existence who has won either the men's or women's tournament. The Soviet Union, Yugoslavia and the Unified Team are the countries no longer in existence who had won the tournament. The United States are the defending champions in both men's and women's tournaments.

On June 9, 2017, the Executive Board of the International Olympic Committee announced that 3x3 basketball would become an official Olympic sport as of the 2020 Summer Olympics in Tokyo, Japan, for both men and women.

Basketball in the Philippines

Basketball was introduced in the Philippines during the American colonial period with the American teachers teaching the sport along with baseball through the YMCA and the school system. Basketball was first introduced to the Philippine public school system by the Americans as a women's sport in 1910 and was played in interscholastic meets in 1911 until 1913. Women's basketball met opposition from conservative groups, particularly the Catholic Church who blew bloomers worn by women basketball players as inappropriate. By the time skirts were allowed to be worn above bloomers as a compromise, women's basketball is already in the decline and is only played in provincial and local interscholastic meets. Indoor softball and as well as volleyball became more preferred sport for Filipino women.

The first men's national team was organized in the 1910s which won the first Far Eastern Championship Games in 1913. In all but one of the ten editions of games, the national team won the gold medal.

The National Collegiate Athletic Association (NCAA) which has basketball as its main sport was established in 1924.

The Philippines became a member of FIBA through Basketball Association of the Philippines in 1936. The Philippines made their debut in the Olympic Games in 1936 where they finished fifth, the best result of an Asian team in Olympic basketball history. On the same year the first basketball stamp in the world was released by the country. The first commercial league was the basketball tournament of the Manila Industrial and Commercial Athletic Association (MICA) which was established in 1938.

The Philippines became an independent country in 1946, and in the 1950s, the national team did well in international tournaments. The Philippine team won the gold medal at the Asian Games in 1951, the first time basketball was played. The Philippine basketball team dominated the Asian Games until in

1962. In 1954 FIBA World Championship, the Philippines placed third, winning the bronze medal, the best performance by an Asian team in the World Championship.

Despite missing the first FIBA Basketball World Cup (known through 2010 as the FIBA World Championship) held in 1950 in Argentina, the Philippines participated in the 1954 FIBA World Championship held at Rio de Janeiro, Brazil. The Philippines finished with a 5-2 win-loss record in the Final Round games, and captured the bronze medal. The third place-finish is still currently the best by an Asian country in the World Cup. Carlos Loyzaga finished as the world tournament's third leading scorer (148 points/16.4 points per game) and was named in the FIBA World Mythical Five Selection.

In the 1960s, the first FIBA Asia Championship was won by the Philippines with Carlos Badion as the tournament's Most Valuable Player.

The commercial league model pioneered by the MICAA continued with the Philippine Basketball Association (PBA) in 1975 and the Philippine Amateur Basketball League (PABL) in 1983. The PBA is the first professional basketball league in Asia and the second oldest in the world after the NBA. The league's regulations are hybrid of rules from FIBA and the NBA. The league was founded in Quezon City on April 9, 1975. The PABL was established to fill the void brought about by the collapse of the MICAA in 1981.

In 1978, the Philippines hosted the FIBA World Championship which marks the first time that the international tournament was held in Asia.

The Philippines was suspended by FIBA in 2005 due to a leadership crisis which affected the former national basketball association of the country, the Basketball Association of the Philippines. In 2007, the Samahang Basketbol ng Pilipinas became the new recognized national basketball body for the Philippines by FIBA.

The 3 Most Famous and Popular Basketball Players in the Philippines

Carlos Loyzaga y Matute

(August 29, 1930 – January 27, 2016) was a Filipino basketball player and coach. He was considered the most dominant basketball player of his era in the Philippines and is considered as the greatest Filipino basketball player of all time. Loyzaga was a two-time Olympian (1952 and 1956), as member of the Philippines men's national basketball team.

He helped the Philippines become one of the best in the world at the time, winning four consecutive Asian Games gold medals (1951, 1954, 1958, and 1962) and two consecutive FIBA Championships (1960 and 1963). His finest moment was at the 1954 FIBA World Championship where he led the Philippines to a bronze medal finish. It was the best finish by an Asian country and the Philippines remained the only Asian medalist in the tournament. He finished as one of the tournament's leading scorers with 16.4 points-per-game average and was named in the tournament's All-Star selection.

During his college days, he played in the NCAA for San Beda Red Lions and successfully helped San Beda capture the prestigious Zamora trophy for winning 3 NCAA titles in 1951, 1952, and 1955 that earned him the legendary title as the “The Big Difference.” After college, he joined the fabled YCO Painters and helped the team achieve an unbelievable 49 games winning streak from 1954 to 1956, including several MICA titles and ten straight National Open titles.

After retiring in 1964, Lozaga became a very successful head coach of the YCO Painters, Manila Bank Golden Bankers in the MICA and head coach of the Philippines national team that won the 1967 ABA Championship (now known as the FIBA Asia Championship). In the Philippine Basketball Association, he coached UTEX (1975-1976) and Tanduay (1977-1979).

As a posthumous commemoration, the San Beda Red Lions officially retired the # 14 jersey used by Lozaga during the opening ceremonies of the NCAA Season 92 basketball tournament on June 25, 2016 at the Mall of Asia Arena. Members of the Lozaga family attended the jersey retirement ceremony.

Edgardo Luciano Ocampo

(October 5, 1938 – July 29, 1992) was an exceptionally good and talented Filipino athlete as an all-star basketball, football and track and field player and coach. Ocampo was born in Pampanga, Philippines as one of four children of renowned architect Fernando H. Ocampo and Lourdes Luciano. He was educated at the Ateneo de Manila (GS 1951, HS 1955, BSBA 1959).

He was only player ever awarded by the Philippine Sportswriter Association as “Mr. Football” and Mr. Basketball for extraordinary achievements in football and basketball respectively.

Ocampo became interested in basketball and football. He tried out for the grade school basketball team but did not pass the height requirement. Instead, he made it to the football squad where his brilliance in the field became much apparent. By the age of seventeen, Ocampo was acclaimed and awarded as “Mr. Football”. He was a member of the national football team that toured Korea and Spain in 1956 and led Ateneo win NCAA football titles during his college and high school years.

As basketball player he led the team as captain of the Ateneo Blue Eagles won back-to-back NCAA championships in 1957 and 1958 and was named the “King Eagle” for this achievement. After graduation from college he joined and played for YCO Painters in MICA from 1960 to 1974.

Ocampo was a regular member of the Philippines men’s national basketball team from 1959 to 1972 and 3-time member of the Philippines national team to the Summer Olympics in 1960 (11th place), 1968 (13th place) and 1972 (13th place). He first joined the Philippine team that placed 8th at the 1959 FIBA World Championship held in Chile and was a member of three Philippines teams that won the Asian Basketball Confederation championships – 1960, 1963, and 1967.

As guard in basketball, he was the most effective and intimidating defensive player in spite of his lack of height (5’ 9”) due to the following reasons:

- 1.0 He usually applies a pressing and leech-like man-to-man defense to prevent the player he is guarding to receive the ball. He explained: "He cannot shoot and score without the ball."
- 2.0 He does not allow the player he is guarding dribbling the ball facing the basket. He explained: "He cannot shoot and score if he cannot see the basket." If the player he is guarding is dribbling the ball in front of him, he is so fast and quick to steal the ball.
- 3.0 He keeps on pressing and harassing the player he is guarding to tire him out. He explained: "If he gets tired he cannot do anything right anymore and give up."

Ocampo was mentioned in Jose Ma. Bonifacio Escoda's book, *Basketball History: Philippines*, as **one of the finest guards** the country has ever produced and a gentleman in and outside the court. Though not a scorer, leech-like guarding helped the national team of 1967 to regain the ABC crown by limiting Shin Dong-pa, South Korea's six-foot-one scoring machine to just 12 points.

Ocampo began his coaching career with the YCO Painters in 1975, winning the MICAA championship that year against Manila Bank in July. He Became head coach of Royal Tru-Orange in the Philippine Basketball Association in 1978 and won his first professional PBA championship during the 1979 PBA Open Conference. This was the first PBA championship of the San Miguel franchise, currently the franchise with the most number of PBA championships (22). In 1981, Ocampo became head coach of Toyota and won three more PBA championships. He later coached Manila Beer (1985), Shell (1986 - 1987), and Pepsi (1990).

Luis "Lou" Salvador, Sr.

(July 7, 1905 – March 1, 1973) was a Filipino basketball player, stage actor, and talent manager. As player for the Philippines national basketball team member during the 1923 Far Eastern Games, he scored 116 points in a single game. He later became a leading figure in Philippine show business as talent manager and stage show impresario. Salvador was born in Tacloban, Leyte, to a Spanish father and a German mestiza mother.

Salvador first played for the Philippine men's national basketball team at the age of seventeen, in the 1921 Far Eastern Games held in Shanghai. He also represented the Philippines in the 1923 and the 1925 Far Eastern Games, where his team in both instances won the gold medal. Salvador also played collegiate basketball for the Jose Rizal College, Heavy Bombers, leading them to national championship in 1924.

Salvador's most notable basketball achievement came in May, 1923, during the Far Eastern Games in Osaka, Japan when he scored 116 points during a match against China. With this feat, he became one of only few basketball players to have scored over 100 points in a single game. Salvador could later attribute his achievement to excellent conditioning, recounting that for a whole year prior to that game, he had practiced daily at the YMCA compound in Manila, using a medicine ball which he would throw repeatedly to acclimatize his body. He confessed to finding ease at his achievement during the game itself, owing to his daily practice routine.

TOP 10 GREATEST PBA PLAYERS OF ALL TIME

(Source: PHL SPORTS NEWS by Gardo Baybayan, December 9, 2017)

Who are the top 10 greatest PBA players of all time? In a long history of Philippine basketball, there are numbers of players throughout the archipelago who became household names. Some created the long impression that etched in the minds of the fans. Others cemented themselves as the best in the league and can be remembered forever. With the vast players who played in the PBA, it would be difficult to rank the players and to place them on the top 10 list of this website without criteria.

Based on the players career accomplishments as criteria, the top 10 greatest PBA players of all time are:

NAME

1.0 RAMON FERNANDEZ

Career Accomplishments: 4 x PBA Most Valuable Player (1982, 1984, 1986, 1988), 6 x PBA All-Star (1989-1994), 13 x PBA Mythical First Team Selection (1976-1982, 1984, 1986, 1988, 1989, 1991, 1992), 3 x PBA Mythical Second Team Selection (1985, 1987, 1990), 19 x PBA Champion.

2.0 ROBERT JAWORSKI

Career Accomplishments: Most Valuable Player (1978), 6 x Mythical First Team Selection (1977, 1978, 1980, 1981, and 1986), 2 x Mythical Second Team Selection (1985 and 1988), All Defensive Team (1985 and 1988), 4 x PBA All-Star, Holds PBA Record in Assists with 5,825.

3.0 ABET GUIDABEN

Career Accomplishments: 2 x PBA Most Valuable Player (1983 and 1987), 15 x PBA Champion, No.2 All-time Leading Scorer with 15,775 points, No. 2 All-Time in Total Rebounds with 8,570, No. 1 in Offensive Rebounds with 2,373, No. 1 in Games Played with 1,081, 5 x PBA Mythical First Team (1983-1985, 1987, 1988), 3 x PBA All-Star.

4.0 ALVIN PATRIMONIO

Career Accomplishments: 4 x PBA Most Valuable Player (1991, 1993-1994, 1997), 10 x PBA Mythical First Team (1989-1994, 1996-1998), 5 x PBA Champion, 3 x Best Player of the Conference (1994 Commissioner's Cup, 1996 All-Filipino Cup, 1997 Governor's Cup), PBA Press Corps Newsmaker of the Year (1993), PBA All-Star Game Most Valuable Player (1991), 12 x PBA All-Star (1989-1993, 1995-2001).

5.0 ASI TAULAVA

Career Accomplishments: PBA Most Valuable Player (2003), PBA Finals Most Valuable Player (2003 Reinforced), 15 x PBA All-Star (1999, 2001, 2003-2012, 2014-2017), 2 x PBA All-Star MVP (2004, 2006), 4 x PBA Mythical First Team (2003, 2008, 2009, 2014), 4 x PBA Mythical Second Team (2002, 2010, 2015, 2016), PBA Best Player of the Conference (2003 All-Filipino), 3 x PBA All-Defensive Team (2003, 2008, 2009), PBA Comeback Player of the Year (2014).

6.0 JOHNNY ABARRIENTOS

Career Accomplishments: PBA Most Valuable Player (1996), 12 x PBA Champion, 7 x PBA All-Star, PBA All-Time Leader in Steals (1,302), 6 x PBA Mythical First Team (1994-1999), 5 x PBA All-Defensive Team (1994, 1996, 1997, 1999, 2004-2005), 2 x PBA Governor's Cup Finals MVP (1996 and 1997), 1997 PBA Commissioner's Cup Best Player of the Conference.

7.0 BENJIE PARAS

Career Accomplishments: The Only PBA Player to Win the Most Valuable Player and Rookie of the Year at the Same Time. 2 x PBA MVP (1989 and 1999), PBA Rookie of the Year (1989), 5 x PBA Mythical First Team (1989-1991, 1995, 1999), 3 x PBA Mythical Second Team (1992, 1984, 1996), 8 x PBA All-Star (1989-1992, 1994-1999), 2 x PBA All-Star Most Valuable Player (1994 and 1999), PBA Comeback Player of the Year (1999), 4 x PBA Champion.

8.0 ALLAN CAIDIC

Career Accomplishments: PBA MVP (1990), 5 x PBA Champion, Rookie of the Year (1987), Three-Point Shootout Champion (1992), All-Star Game Most Valuable Player (1993), 2 x Mythical Second Team (1993 and 1991), Governor's Cup Best Player of the Conference ((1995, 6 x Mythical first Team (1987-1991 and 1995), 7 x PBA All-Star (1989-1995), 2 x Asian Games Basketball Mythical Five Selection, Considered the Best PBA Shooter of All time with 79 points and 17 three-point field goals made in a single game.

9.0 NELSON ASAYTONO

Career Accomplishments: 6 x PBA Champion, 5th in PBA All-Time Leading Scorer with 12,268 total Points in 796 Games Played, 3 x PBA Mythical First Team (1992, 1993, and 1997), 4 x PBA Mythical Second Team (1994-1996, 1998), 2 x PBA Best Player of the Conference (1997 All-Filipino Cup, 1998 All-Filipino Cup), 10 x PBA All-Star (1989-1993, 1995-1999).

10.0 JIMMY ALAPAG

Career Accomplishments: PBA Most Valuable Player (2011), 6 x PBA Champion, 11 x PBA All-Star (2003-2011, 2014, 2015), 2 x PBA Finals MVP (2011 Philippine Cup and 2011 Commissioner's Cup), PBA Best Player of the Conference (2011 Commissioner's Cup), PBA All-Star Game MVP (2004), 3 x PBA Mythical First Team (2003, 2005, 2011), PBA Order of Merit (2010), PBA Rookie of the year (2003), PBA 3-point Shootout Champion (2003), Best PBA Record of 1,250 3-point Field Goals Made.

Modern-day NBA

The NBA has helped popularize basketball all over the world. A large part of this is due to the transcendent stars that have played the game through the years. It was because of the play of Michael Jordan that basketball started to reach international audiences, especially on the 1992 United States men's Olympic basketball team, known as the Dream Team.

After his final championship and second retirement in 1998, there was a void as in who would be the face of basketball. Soon after with the helped of Shaquille O'Neal, Kobe Bryant, would go on to win three straight championships from 2000 – 2002 with the Los Angeles Lakers, helping make basketball more popular in many places around the world, most noticeably China. Further championships in 2009 and 2010 raised Kobe Bryant's popularity. In 2015, he announced the following season would be his last. He played in 20 seasons by then.

Another player who revolutionized the game of basketball was LeBron James. He was taken as the first overall pick in the 2003 NBA Draft by the Cleveland Cavaliers, and has worked his way to become the face of the NBA and basketball around the world. He left the Cavaliers in 2010 to join Miami Heat along with fellow stars Dwayne Wade and Chris Bosh in what became known as the controversial decision, winning back-to-back championships in 2012 and 2013 before returning to the Cavaliers in 2014 where he won a third championship in 2016.

There have been many international players who helped globalize the game. The most noticeable would be Yao Ming. He was the first ever Chinese player to be selected with the number one overall pick in 2002 by the Houston Rockets. His play and presence in the NBA brought attention to basketball in Asian countries.

The style of basketball has evolved over time as well. Basketball, especially in the 90s and 2000s, used to give importance to big men. Games were slow-paced and very defense-oriented. Now because of teams like the San Antonio Spurs and the Golden State Warriors, ball movement and team play is more common. The game has slowly moved away from this type of play. The game now is up-tempo and teams are starting to involve a lot more three-point shooting in their offenses. Stephen Curry of the Golden State Warriors has been a trendsetter with his shooting abilities. In a way he has popularized and re-energized the notion of shooting among the youth.

PART 2

THE AMAZING NBA PLAYERS IN HISTORY

TOP 10 GREATEST CANADIAN NBA PLAYERS

(Source: Wikipedia, the free encyclopedia)

Steve Nash (1996 – 2014) was a first round pick out of Santa Clara. He is a sharp shooting point guard who has played most of his career in Phoenix after starting in Dallas. He won two MVPs with the Phoenix Suns in 2005 and 2006 and is the first and only Canadian to win the honor. He grew up in British Columbia.

Rick Fox (1993 – 2003) has three championship rings with the Lakers. He started his career with the Celtics after a first round pick out of North Carolina. Fox was born in Toronto, and moved to the Bahamas with his family when was three years old.

Bill Wennington (1985-2000) played at St. Johns and had a solid career. He was on three championship teams while playing with Chicago Bulls. He was born and raised in Montreal, and played on two Canadian Olympic teams.

Joel Anthony (2007-present) a solid role player for the Miami Heat (2007-2014), Boston Celtics (2014), and Detroit Pistons (2014-present). He helped Miami Heat won 2 back-to-back NBA championship titles (2012-2013). Anthony was born and raised in Montreal.

Mike Smrek (1985-1992) played mostly a backup role as a center, but has 2 back-to-back championship rings with the Los Angeles Lakers (1987-1988). He played with six teams over eight seasons. He grew up in Port Robinson, Ontario.

Jamaal Magliore (2000 – 2012) another first round pick from Kentucky, has had a solid career and played for several teams. He was born and raised in Toronto.

Bob Houbregs (1953 – 1958) was a first round draft choice out of Washington State and played for four teams, and later served as general manager of the Seattle Supersonics. He was elected to the NBA Hall of Fame in 2000. He was born and raised in Vancouver, British Columbia.

Corey Joseph (2011-2015) San Antonio and Toronto Raptors (2015-present). He is an excellent point guard and represents Canada in international competition. He helped San Antonio Spurs won NBA championship in 2013-2014 and Toronto Raptors as runner-up in 2015-2016 East Conference final.

Tristan Thompson (2011-present) was drafted fourth overall by Cleveland Cavaliers. He plays center/power forward position and member of the Canadian national team. He was awarded NBA All-

Rookie Second Team and greatly helped Cleveland Cavaliers reached the NBA Finals in 2014-2015 and winning an NBA title 2015-2016. Thompson was born in Toronto, Ontario.

Kelly Olynyk (2013-present) was a Canadian All-American player in the NCAA for Gonzaga Bulldogs. He strongly plays center/power forward for the Canadian national team. He was 13th overall draft pick and helped Boston Celtics reached the playoffs in 2015-16 NBA season. Olynyk was born in Toronto, Ontario.

TOP 10 GREATEST NBA POINT GUARDS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

The Point Guard is the floor general and playmaker. He directs, initiates plays and creates open shots for his teammates to shoot and score. He is usually the best ball handler, excellent passer and assist leader in the team. He is the most agile and the best long shot maker of the team from 2-point area and 3-point arc line. The top 10 greatest NBA point guards of all time are:

ACHIEVEMENTS & AWARDS

	PPG	RPG	APG	SPG	BPG	All-Star	NBA	MVP	MVP	MVP	NBA
							NBA	FINALS	ALL-STAR	TITLE	
Magic Johnson	19.5	7.2	7.2	1.9	0.4	12	3	3	2	5	
Oscar Robertson	25.7	7.5	9.5	-	0.4	12	-	-	3	1	
Isiah Thomas	19.2	4.7	9.3	1.9	0.3	12	-	1	2	2	
Bob Cousy	18.4	5.2	7.3	-	-	13	1	-	2	6	
Walt Frazier	18.9	5.9	6.1	1.9	0.2	7	-	-	2	2	
Tony Parker	16.9	2.9	5.9	0.9	0.1	6	-	1	-	4	
Gary Payton	18.1	3.9	6.7	2.2	0.2	9	-	-	-	1	
Jason Kidd	12.6	6.3	8.7	1.9	0.3	10	-	-	-	1	
Steve Nash	14.3	3.0	8.5	0.7	0.1	8	2	-	-	-	
John Stockton	13.1	2.7	10.5	2.2	0.2	10	1	-	1	-	

TOP 10 GREATEST NBA SHOOTING GUARDS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

Shooting Guard is the marksman and best shooter on the team with consistency all around the court close or far from the basket. He is an excellent ball handler, dribbler and moves all over the court in order to create his own open shots and at the same time acts as point guard to create openings for his teammates to shoot and score. He is also the most physically athletic to be able to defend, grab offensive and defensive rebounds and usually play the longest time in the game. Michael Jordan is considered to be the greatest basketball player that ever played the game as shooting guard. The top 10 greatest NBA shooting guards of all time are:

	ACHIEVEMENTS & AWARDS									
	PPG	RPG	APG	SPG	BPG	NBA All-Star	MVP NBA	MVP FINALS	MVP All-Star	NBA TITLE
Michael Jordan	30.1	6.2	5.3	2.3	0.8	14	5	6	3	6
Kobe Bryant	25.4	5.3	4.8	1.5	0.5	17	1	2	4	5
Jerry West	27.0	5.8	6.7	2.6	0.7	14	1	1	1	1
John Havlicek	20.8	6.3	4.8	1.2	0.3	13	-	1	-	8
Dwayne Wade	24.1	4.9	5.9	1.7	0.9	11	-	1	1	3
Allen Iverson	26.1	3.7	6.2	2.2	0.2	11	1	-	2	-
Ray Allen	18.9	4.1	3.4	1.1	0.2	10	-	-	-	2
Clyde Drexler	20.4	6.1	5.6	2.0	0.7	10	-	-	-	1
George Gervin	25.1	5.3	2.6	1.2	0.8	9	-	-	1	-
Pete Maravich	24.2	4.2	5.4	1.4	0.3	5	-	-	-	-

TOP 10 GREATEST NBA SMALL FORWARDS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

Small forward is the most versatile and all-around player who can also play as power forward and shooting guard anytime in court. He is an all purpose player who is very good both in offense and defense. He is physically tall, big and strong to mix it up against taller and bigger opponents and at the same time quick and more agile in getting in and out tight and difficult situations. He is usually accurate shooting the ball from 3-point and 2-point areas as well as driving in for layups and jump shots. The top 10 greatest NBA small forwards of all time are:

	ACHIEVEMENTS & AWARDS									
	PPG	RPG	APG	SPG	BPG	NBA All-Star	MVP NBA	MVP FINALS	MVP All-Star	NBA TITLE
Larry Bird	24.3	10.0	6.3	1.7	0.8	12	3	2	1	3
LeBron James	27.3	7.1	6.9	1.7	0.8	11	4	2	2	3
Elgin Baylor	27.4	13.5	4.6	-	-	11	-	-	1	-
Julius Irving	24.2	8.5	4.2	2.0	1.7	16	-	-	-	3
Scottie Pippen	16.1	6.4	5.2	2.0	0.8	7	-	-	1	6
Rick Barry	24.8	6.7	5.1	2.0	0.5	8	-	1	1	2
Dominique Wilkins	24.8	6.7	2.5	1.3	0.6	9	-	-	-	-
Adrian Dantley	24.3	5.7	3.0	1.0	0.2	6	-	-	-	-
James Worthy	17.6	5.1	3.0	1.1	0.7	7	-	1	-	3
Vince Carter	19.4	4.8	3.6	1.1	0.6	8	-	-	-	-

TOP 10 GREATEST NBA POWER FORWARDS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

Power forward is the “enforcer” that provides height and might to the team that operates effectively and can be highly intimidating to the opponents inside the key and 2-point perimeter areas of the court. He is usually a consistent high-percentage scorer, top rebounder, and fearsome shot blocker. Since they are usually taller and bigger they are very difficult to defend and get a lot of offensive rebounds to follow up missed shots or pass the ball to open teammates to make the shots. The top 10 greatest NBA power forwards of all time are:

	ACHIEVEMENTS & AWARDS									
	PPG	RPG	APG	SPG	BPG	NBA All-Star	MVP NBA	MVP FINALS	MVP All-Star	NBA TITLE
Tim Duncan	21.2	11.7	3.1	0.7	2.2	15	2	3	1	5
Bob Pettit	26.4	16.2	3.0	-	-	11	2	-	4	1
Karl Malone	25.0	10.1	3.5	1.4	0.8	14	2	-	2	-
Dirk Nowitzki	22.2	7.9	2.6	0.9	0.9	13	1	1	-	1
Elvin Hayes	21.0	12.5	1.8	1.0	2.0	12	-	-	-	1
Charles Barkley	22.1	11.7	3.9	1.5	0.8	11	1	-	-	-
Kevin McHale	17.9	7.3	1.7	0.4	1.7	7	-	-	-	3
Kevin Garnett	18.2	10.2	3.8	1.3	1.4	15	1	-	1	1
Chris Bosh	19.3	8.6	2.0	0.8	1.1	10	-	-	-	2
Pau Gasol	18.5	11.8	3.2	0.5	1.7	5	-	-	-	2

TOP 10 GREATEST NBA CENTERS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

Center is usually the tallest, biggest and most intimidating player in the team. He works most effectively in the key area and considered the security guard, gatekeeper and last line of defense of the team. Top centers are usually good at it plus a lot more making shots mostly close to be basket through unstoppable means by lay-ups, alley-oops, hook shots, jump hooks, and at the same time drop passing to more open teammates. But, the most fearsome is their advantage to use their long reach, big size, and strength to grab rebounds, blocking shots, and offensively snatch the bouncing ball again from missed shots for follow-ups or pass to open teammates to reset the offense again. The top 10 greatest NBA centers of all time are:

ACHIEVEMENTS & AWARDS

	PPG	RPG	APG	SPG	BPG	NBA All-Star	NBA MVP	MVP Finals	MVP All-Star	NBA TITLE
Wilt Chamberlain	30.1	22.9	4.4	-	-	13	4	1	-	2
Kareem Abdul Jabbar	24.6	11.2	3.6	0.9	2.6	19	6	2	-	6
Bill Russell	16.1	22.5	4.3	-	-	12	5	-	1	11
Shaquille O'Neal	23.7	10.9	2.5	0.6	2.3	15	1	3	3	4
George Mikan	23.1	13.4	2.8	-	-	4	1	-	-	7
Hakeem Olajuwon	21.8	11.1	2.6	1.7	3.1	12	1	2	-	2
David Robinson	21.1	10.6	2.5	1.4	3.0	10	1	-	-	2
Moses Malone	20.8	12.2	1.4	0.8	3.1	12	7	1	-	1
Willis Reed	18.7	12.9	1.8	0.6	1.1	7	1	2	1	2
Bill Walton	13.3	10.5	3.4	0.8	2.2	2	1	1	-	2

THE TOP 10 GREATEST NBA PLAYERS OF ALL TIME (Source: Bleachers Report)

Based on number of NBA Championships won, Bill Russell should be the number one Greatest NBA Players of All time with 11 Championships won for the Boston Celtics compared to Michael Jordan with 6 and Wilt Chamberlain with only 2. Bill Russell is a defensive specialist and considered the best defense-oriented basketball player of all time. He said “good offense wins games but good defense wins championships”. However, the ranking is based on overall performance as shown below:

1.0. Michael Jordan-Chicago Bulls	6FT 6IN	216 lbs.	Shooting Guard	6	NBA Championships
2.0. Wilt Chamberlain- LA Lakers -	7FT 1IN	275 lbs.	Center	2	“ “
3.0. Magic Johnson-LA Lakers -	6FT 9IN	220 lbs.	Point Guard	5	“ “
4.0. Tim Duncan – San Antonio Spurs -	6FT 11IN	255 lbs.	Power Forward	5	“ “
5.0. Kareem Abdul-Jabbar-LA Lakers	7FT 3IN	225 lbs.	Center	6	“ “
6.0. Larry Bird- Boston Celtics	6FT 9IN	220 lbs.	Small Forward	3	“ “
7.0. Kobe Bryant- LA Lakers	6FT 6IN	212 lbs.	Shooting Guard	5	“ “
8.0. Shaquille O’Neal- Lakers/Heat	7FT 1IN	325 lbs.	Center	4	“ “
9.0. Bill Russell – Boston Celtics	6FT 10IN	220 lbs.	Center	11	“ “
10.0. Hakeem Olajuwon-Houston	7FT	255 lbs.	Center	2	“ “

Based on achievements, the top 10 greatest NBA players of all time should be increased to 12 by adding 2 more players namely John Havlicek- 6 ft 5 in, 203 lbs, shooting guard and small forward with 8 NBA Championships (1963-1966, 1968-1969, 1974-1976), and 13 x NBA All-Star (1966-1978) and Scottie Pippen- 6 ft 8 in, 228 lbs, with 6 NBA Championships (1991-1993, 1996-1998), and 7 x NBA All-star (1990, 1992-1997).

TOP 15 GREATEST NBA INTERNATIONAL PLAYERS OF ALL TIME

STATISTICS & ACHIEVEMENTS

	PPG	% PPG	RPG	APG	SPG	BPG	NBA	NBA	MVP	MVP	MVP
							Title	All Star	NBA	All Star	Finals
Luc Longley Australia-Center	7.2	46.2	4.9	1.5	0.5	1.0	3	-	-	-	-
Manu Ginobili Argentina-Guard	14.7	45.1	3.8	4.0	1.4	0.3	4	2	-	-	-
Leandro Barbosa Brazil- S.Guard	11.0	46.0	2.1	2.2	0.8	0.1	1	-	-	-	-
Steve Nash Canada- P. Guard	14.3	49.9	3.0	8.5	0.7	0.1		8	2	-	-
Yao Ming China-Center	19.0	52.4	9.2	1.6	0.4	1.9	-	8	-	-	-
Dikembe Mutombo Congo-Center	9.8	51.8	11.3	1.0	0.4	2.8	-	-	-	-	-
Tony Kukoc Croatia- S. Forward	11.6	44.7	4.2	3.7	1.0	0.3	3	-	-	-	-
Tony Parker France- P. Guard	17.1	49.5	3.0	6.0	0.9	0.1	4	6	-	-	1
Dirk Nowitzki Germany- P. Forward	22.5	47.7	8.1	2.6	0.8	0.9	1	13	-	-	1
Peja Stojakovic Greece- S. Forward	17.0	45.0	4.7	1.8	0.9	0.1	1	3	-	-	-
Marco Belinelli Italy- S. Forward	9.5	42.4	2.0	1.6	0.6	0.1	1	-	-	-	-
Jonas Valanciunas Lithuania- Center	11.3	55.6	8.2	0.6	0.4	1.1	-	-	-	-	-

Hakeem Olajuwon Nigeria-Center	21.8	51.2	11.1	2.5	1.7	3.1	2	12	-	-	2
Pau Gasol Spain-Center	18.3	51.5	9.2	3.3	0.5	1.7	2	6	-	-	-
Hedo Turkoglu Turkey- S. Forward	11.1	42.6	5.4	2.8	0.8	0.3	-	-	-	-	-

TOP 10 GREATEST NBA SCORERS OF ALL TIME (Source: Wikipedia, the free encyclopedia)

In basketball tournaments, the team that scored more points at the end of the regulation period wins the game. The objective therefore of the 5 players playing offense with ball possession inside the court is to work as a team and help each other score within 24 seconds of the shot clock while the 5 opponents playing defense will also work as a team and help each other to prevent their opponents to score. The process is reverse right after the defensive team gets possession of the ball after opponents scored or if the opponents missed the shot and defense get the rebound or steal the ball from their opponents possession or if the opponents committed a turnover and awarded ball possession by the referee. All basketball players are capable of making scores. However, some are better scorers and exceptionally good. The top 10 greatest NBA scorers of all time that ever played the game are:

1.0. Wilt Chamberlain	PGA = 30.1 pts.	FGM = 31,419 pts	FGM %= 54.0 %
2.0. Michael Jordan	" = 30.1 "	" = 32,292 "	" = 49.0 %
3.0. Kareem Abdul-Jabbar	" = 24.6 "	" = 38,387 "	" = 55.9 %
4.0. Kobe Bryant	" = 25.3 "	" = 25,790 "	" = 46.0 %
5.0. Jerry West	" = 27.0 "	" = 25,192 "	" = 47.0 %
6.0. George Gervin	" = 25.1 "	" = 25,595 "	" = 50.0 %
7.0. Oscar Robertson	" = 25.7 "	" = 26,710 "	" = 48.5 %
8.0. Rick Barry	" = 24.8 "	" = 25,279 "	" = 45.6 %
9.0. Julius Irving	" = 24.2 "	" = 30,026 "	" = 50.0 %
10.0. Dominique Wilkins	" = 24.8 "	" = 26,668 "	" = 46.1 %

TOP 25 NBA GREATEST POINTS LEADERS IN NBA HISTORY (Source: Wikipedia, free encyclopedia)

Rank	Player	Position	Height	Weight Lbs	Playing Years	Total Points	Ave./Year
1	Kareem Abdul-Jabbar	C	7' 2"	225	20	38,387	1,919.4
2	Karl Malone	PF	6' 9"	256	19	36,928	1,944.6
3	KOBE BRYANT	SG/SF	6' 6"	212	19	33,243	1,747.6
4	Michael Jordan	SG/SF	6' 6"	216	14	32,292	2,206.6
5	Wilt Chamberlain	C	7' 1"	275	14	31,419	2,244.2
6	DIRK NOWITZKI	PF	7' 0"	245	21	28,979	1,380.0
7	Shaquille O'Neal	C	7' 1"	325	19	28,596	1,505.1
8	Moses Malone	C	6' 10"	260	21	27,409	1,305.2
9	Elvin Hayes	C/PF	6' 9"	235	16	27,313	1,707.1
10	Hakeem Olajuwon	C	7' 0"	255	18	26,946	1,497.0
11	Oscar Robertson	G	6' 5"	220	14	26,710	1,907.9
12	Dominique Wilkins	SF	6' 8"	224	17	26,668	1,568.7
13	John Havlicek	SF/SG	6' 5"	203	16	26,395	1,649.7
14	TIM DUNCAN	PF/C	6' 11"	250	18	26,309	1,461.6
15	LEBRON JAMES	SF/PW	6' 8"	250	12	26,213	2,184.4
16	PAUL PIERCE	SF	6' 7"	235	17	26,184	1,540.2
17	KEVIN GARNETT	PF/C	6' 11"	240	20	26,071	1,303.6
18	Alex English	SF	6' 7"	190	16	25,613	1,600.8
19	Reggie Miller	SG	6' 7"	195	18	25,279	1,404.4
20	Jerry West	G	6' 4"	185	14	25,192	1,799.4
21	Patrick Ewing	C	7' 0"	240	17	24,815	1,459.7

22	Ray Allen	SG	6' 5"	205	18	25,505	1,361.3
23	Allen Iverson	G	6' 0"	165	14	24,368	1,740.6
24	Charles Barkley	PF	6' 6"	252	16	23,757	1,484.8
25	VINCE CARTER	SG/SF	6'6"	220	17	23,719	1,395.2

Total					425	41,421.1	
-------	--	--	--	--	-----	----------	--

Average					17	1,656.8	
---------	--	--	--	--	----	---------	--

*ACTIVE PLAYERS IN CAPS.

TOP 10 GREATEST NBA 3-POINT SHOOTERS OF ALL TIME (Source: Sportskeeda.com)

The most dangerous and feared players in the game of basketball are the 3-point shooters that can quickly change the outcome of the game from losing to winning or increasing the lead to secure more the outcome of winning the game. They belong to exceptionally a select breed of talented players that all NBA teams want and willing to pay top salaries possible for their services.

Rank	Player	Height	Weight Lbs	Position	3-Point Shots Made	Playing Years	Ave./Year
1.0.	Ray Allen –	6' 5"	205	SG	2,973	18	165.2
2.0.	Reggie Miller –	6' 7"	195	SG	2,560	18	142.2
3.0.	Jason Terry –	6' 2"	185	SG/PG	2,076	16	129.8
4.0.	Paul Pierce –	6' 7"	235	SF	2,053	17	120.8
5.0.	Jason Kidd –	6' 4"	210	PG	1,988	19	104.6
6.0.	Vince Carter –	6' 6"	220	SG/SF	1,878	17	110.5
7.0.	Chauncey Billups –	6' 3"	210	PG/SG	1,830	17	107.6
8.0.	Jamaal Crawford –	6' 5"	200	SG/PG	1,816	15	121.1
9.0.	Peja Stojakovic -	6' 10"	220	SF	1,760	19	92.6
10.0.	Dale Ellis –	6' 7"	205	SG/SF	1,719	17	101.1

TOP 10 NBA 3-POINT SHOOTERS in 2015-16 SEASON (Source: Sportskeeda.com)

Players	Team	3-Point Rating
• Stephen Curry	Golden State Warriors	92
• James Harden	Houston Rockets	91
• Jose Calderon	Dallas Mavericks	90
• Steve Novak	Toronto Raptors	90
• Klay Thompson	Golden State Warriors	90
• Steve Nash	Los Angeles Lakers	89
• Kevin Martin	Minnesota Timberwolves	88
• Brandon Rush	Utah Jazz	88
• Ersan Ilyasova	Milwaukee Bucks	88
• Mike Dunleavy	Chicago Bulls	88

How Crucial Are Three-Point Scores to Winning NBA Championship (Source: Basketball Insiders)

2014 Champion: San Antonio Spurs

Regular Season:	1,757 3PA (16 th)	698 3PM (12 th)	%3PM = 39.7% (1 st)	21.4 PPG
Playoffs:	496 " (1 st)	203 " (1 st)	" = 40.9% (1 st)	21.6 "

2013 Champion: Miami Heat

Regular Season:	1,809 " (6 th)	717 " (3 rd)	" = 39.6% (2 nd)	21.1
Playoffs:	465 " (1 st)	177 " (1 st)	" = 38.1% (2 nd)	20.2 "

2012 Champion: Miami Heat

Regular Season	1,030 " (23 rd)	370 " (20 th)	" = 35.9% (10 th)	15.6
Playoffs:	452 " (1 st)	157 " (1 st)	" = 34.7% (5 th)	19.7 "

2011 Champion: Dallas Mavericks

Regular Season:	1,768 " (5 th)	645 " (8 th)	" = 36.5% (11 th)	21.6
Playoffs:	467 " (1 st)	184 " (1 st)	" = 39.4% (2 nd)	22.2 "

2010 Champion: Los Angeles Lakers

Regular Season	1,562 " (10 th)	532 " (13 th)	" = 34.1% (13 th)	19.0
Playoffs:	476 " (1 st)	157 " (1 st)	" = 33.0% (11 th)	20.7 "

2009 Champion: Los Angeles Lakers

Regular Season:	1,516 " (15 th)	547 " (17 th)	" = 36.1% (19 th)	18.5
Playoffs:	424 " (2 nd)	160 " (2 nd)	" = 37.7% (4 th)	18.4 "

2008 Champion: Boston Celtics

Regular Season:	1,564 " (12 th)	596 " (23 rd)	" = 38.1% (8 th)	19.1
Playoffs:	417 " (1 st)	137 " (2 nd)	" = 32.6% (13 th)	16.9 "

2007 Champion: San Antonio Spurs

Regular Season:	1,561 " (7 th)	595 " (6 th)	" = 38.1% (3 rd)	19.0
Playoffs:	393 " (1 st)	151 " (1 st)	" = 38.4% (1 st)	19.7 "

2006 Champion: Miami Heat

Regular Season	1,441 " (12 th)	497 " (13 th)	" = 34.5 % (20 th)	17.6
Playoffs:	439 " (2 nd)	146 " (2 nd)	" = 33.3% (8 th)	19.1 "

2005 Champion: San Antonio Spurs

Regular Season:	1,395 " (13 th)	507 " (12 th)	" = 36.3% (8 th)	17.0
Playoffs:	422 " (1 st)	164 " (1 st)	" = 38.9% (4 th)	18.3 "

According to the above data, 3-point shots are definitely crucial and the difference between winning or losing championships. This has been proven again after the 2014-2015 regular season and playoffs won by Golden State Warriors that showed terrific performance in the finals 4-2 by making 67 3-point shots made out of 186 attempts or 36% compared to Cleveland Cavaliers 49 3-point shots made out of 167 attempts or 29.4%.

Half Court Shots (Source: Wikipedia, the free encyclopedia)

Half court is a term used in basketball for the middle line of the court. A shot taken from half court is referred to as a half court shot. It is a shot taken from beyond the middle line. It is the most commonly used shot as a buzzer beater. The most common backcourt shot style is known as the “runner”. If the shooter has a few seconds to spare, the “runner” can be used to shorten the distance to the rim while also adding extra power to the shot. Since NBA game court is 94 feet long, the midcourt line is 47 feet away from each baseline.

Half court shots are widely considered to be the lowest percentage shot in basketball. Collectively, NBA players try shots from beyond half-court a few hundred times each season, approximately 1 in 100 of those shots are made. A half court shot is attempted roughly 25% of the time to finish the first, second, or third quarter, though, it’s much rarer in the fourth. In some instances, NBA players will intentionally avoid shooting a half court shot before the buzzer. Such players are more interested in protecting their field goal percentage than providing an opportunity for the team to acquire 3 more points. Since field goal percentage is accounted for during contract negotiations, some players think it is an intelligent business decision to refuse to toss a low percentage shot at the rim. As a result, some believe that half court shots should not be included in field goal percentage.

The record for most half-court shots made in a single NBA season – by all NBA players combined – was set in the 2014-2015 season at 13. The longest buzzer beater shot in NBA history was 92 feet by Jerry Harkness of New York Knicks versus Dallas Chaparrals on November 13, 1967. Next longest was 89 feet made by Baron Davis on February 17, 2001 of Charlotte Bobcats versus Milwaukee Bucks. He shot it with 0.7 seconds remaining in the third quarter while a defender closely guarded him. Baron Davis is second player to have hit a shot from at least 85 feet in a game since the year 1967. Baron Davis went 2-for-43 from beyond half court. 2010 and 2012 are the only seasons when two half court shots were made on the same night. During Jason Kidd’s career, he has made 4 Of 44 attempts (9%) from beyond half-court.

Season-By-Season Breakdowns of Shots From Beyond Half-Court (Source: Wikipedia, the free encyclopedia)

Season	Field Goals Made	Field Goals Attempts	% FGM
• 2001	10 FGM	258 FGA	3.9 %
• 2002	6 "	284 "	2.1 %
• 2003	7 "	319 "	2.2 %
• 2004	8 "	299 "	2.7 %
• 2005	2 "	331 "	0.6 %
• 2006	8 "	343 "	2.3 %
• 2007	9 "	343 "	2.6 %
• 2008	9 "	422 "	2.1 %
• 2009	8 "	404 "	2.0 %
• 2010	12 "	426 "	2.8 %
• 2011	10 "	417 "	2.4 %
• 2012	6 "	256 "	2.3 %
• 2013	7 "	361 "	1.9 %
• 2014	13 "	331 "	3.9 %
Total	115 "	4,794 "	2.4 %

Top 8 Longest Shots Made in NBA History (Source: Wikipedia, the free encyclopedia)

• Jae Crowder	95 Feet	Nov. 4, 2015	Team – Boston Celtics	vs.	Indiana Pacers
• Jerry Harkness	92 "	Nov. 13, 1967	" Indiana Pacers	"	Dallas Chaparrals
• Baron Davis	89 "	Feb. 17, 2001	" Charlotte Bobcats	"	Milwaukee Bucks
• Norm Van Lier	84 "	Jan. 19, 1977	" Chicago Bulls	"	San Antonio Spur
• LeBron James	83 "	Jan. 3, 2007	" Cleveland Cavaliers	"	Boston Celtics
• Vince Carter	82 "	Feb. 19, 2016	" Memphis Grizzlies	"	Minnesota Wolves
• Herb Williams	81 "	Jan. 8, 1986	" Indiana pacers	"	Sacramento Kings
• Zoran Planinic	77 "	Nov. 9, 2005	" New Jersey Nets	"	Utah Jazz

TOP 10 GREATEST NBA COACHES OF ALL TIME

Phil Jackson

- Number of NBA Championships won = 11
Chicago Bulls (1991, 1992, 1993, 1996, 1997, 1998)
Los Angeles Lakers (2000, 2001, 2002, 2009, 2010)
- Games coached regular season = 1,640
Wins = 1640 Losses = 486 Win % = 70.4
- Games coached playoffs = 333
Wins = 229 Losses = 104 Win % = 68.8
- 4 x NBA All-Star Game head coach (1992, 1996, 2000, 2009)
- NBA Coach of the Year (1996)
- Top 10 Coaches in NBA History
- Basketball Hall of Fame as coach

Red Auerbach

- Number of NBA Championships won = 9
Boston Celtics (1957, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966)
- Games coached regular season = 1,417
Wins = 938 Losses = 479 Win % = 66.2
- Games coached playoffs = 168
Wins = 99 Losses = 69 Win % = 58.9
- NBA Coach of the Year (1965)
- 11 x NBA All-Star Game head coach
- Top 10 Coaches in NBA History
- Basketball Hall of Fame as coach

Pat Riley

- Number of NBA championships won = 5
Los Angeles Lakers (1982, 1985, 1987, 1988)
Miami Heat (2006)
- Games coached regular season = 1,904
Wins = 1,210 Losses = 694 Win % = 63.6
- Games coached playoffs = 282
Wins = 171 Losses = 111 Win % = 60.6
- 3 x NBA Coach of the Year (1990, 1993, 1997)
- 9 x NBA All-Star Game head coach (1982-1983, 1985-1990, 1993)
- Top 10 Coaches in NBA History

- Basketball Hall of Fame as coach

John Kundla

- Number of championships won = 5
Minneapolis Lakers (1949, 1950, 1952, 1953, 1954)
- Games coached regular season = 725
Wins = 423 Losses = 302 Win % = 58.3
- Games coached playoffs = 95
Wins = 60 Losses = 35 Win % = 63.2
- Basketball Hall of Fame as coach
- College Basketball Hall of Fame

Gregg Popovich

- Number of NBA championships won = 5
San Antonio Spurs (1999, 2003, 2005, 2007, 2014)
- Games coached regular season = 1,492
Wins = 1,022 losses = 470 win % = 68.5
- Games coached playoffs = 243
Wins = 151 Losses = 92 win % = 62.1
- 3 x NBA Coach of the Year (2003, 2012, 2014)
- 3 x All-Star Game head coach (2005, 2011, 2013)

Chuck Daly

- Number of NBA championships won = 2
Detroit Pistons (1989, 1990)
- Games coached regular season = 1,075
Wins = 638 Losses = 437 Win % = 59.3
- Games coached playoffs = 126
Wins = 75 Losses = 51 Win % = 59.5
- Top 10 Coaches in NBA History
- Basketball Hall of Fame as coach
- College Basketball Hall of Fame Inducted in 2006
- Head Coach for the United States Olympic Games in Barcelona 1992

Red Holzman

- Number of NBA championships won = 2
New York Knicks (1970, 1973)
- Games coached regular season = 1,300

- Wins = 696 Losses = 604 Win % = 53.5
- Games coached playoffs = 106
- Wins = 58 Losses = 48 Win % = 54.7
- NBA Coach of the Year (1970)
- 2 x NBA All-Star Game Coach (1970, 1971)
- 3 x BSN Champion (1964-1966)
- Top 10 Coaches in NBA History (1996)
- No. 613 retired by New York Knicks (1990)
- Basketball Hall of Fame as coach

K. C. Jones

- Number of NBA championships won = 2
Boston Celtics (1984, 1986)
- Games coached regular season = 774
- Wins = 522 Losses = 252 Win % = 67.4
- Games coached playoffs = 138
- Wins = 81 Losses = 57 Win % = 58.7
- 2 x NBA champion as assistant coach (1972, 1981)
- 6 x NBA All-Star Game head coach (1975, 1977, 1984, 1985, 1986, 1987)
- Basketball Hall of Fame as player
- College Basketball Hall of Fame Inducted in 2006
- Men's Basketball Competitor for the United States Summer Olympic Games in Melbourne 1956

Tom Heinsohn

- Number of NBA championships won = 2
Boston Celtics (1974, 1976)
- Games coached regular season = 943
- Wins = 427 Losses = 263 Win % = 61.9
- Games coached playoffs = 90
- Wins = 47 Losses = 33 Win % = 58.8
- NBA Coach of the Year (1973)
- Basketball Hall of Fame as Player
- Basketball Hall of Fame as coach
- College basketball Hall of Fame Inducted in 2006

Rudy Tomjanovich

- Number of NBA championships won = 2
Houston Rockets (1994, 1995)
- Games coached regular season = 943
Wins = 572 Losses = 416 Win % = 59.9
- Games coached playoffs = 90
Wins = 51 Losses = 39 Win % = 56.7
- NBA All-Star Game head coach (1997)

NBA Executives of All Time (Source: Bleachers Report)

1.0 Red Auerbach

- After guiding the Boston Celtics to 938 victories and nine championships as head coach, Auerbach took over as the team's General Manager in the late 1960s.
- He drafted stars such as Dave Cowens and Jojo White, who helped lead the Celtics to titles in both 1974 and 1976.
- In addition, Auerbach drafted Larry Bird in 1978 and then brilliantly turned Joe Barry Carroll and Rickey Brown into Kevin McHale and Robert Parish in 1980.
- The "Big Three" of Bird, McHale and Parish led Boston 3 championships

2.0 Jerry West

- West won the Executive of the Year Award twice during his days as General Manager.
- He played a huge role in creating the Lakers dynasty that won five championships in the 1980s, led by All-Stars Magic Johnson and Kareem Abdul-Jabbar.
- In the summer of 1996, West gambled by trading away players in order to free up cap space to sign prized free agent Shaquille O'Neal.
- He shipped Anthony Peeler and George Lynch to Vancouver for future second-round picks and sent Vlade Divac to Charlotte for Kobe Bryant, who was the 13th overall pick in the draft.
- And luckily, O'Neal decided to sign with the Lakers and the team won three consecutive titles from 2000 – 2002.
- As the Memphis Grizzlies GM in 2003, West barely missed winning the lottery, which would have landed LeBron James.

3.0 R. C. Buford

- Currently the General Manager of the San Antonio Spurs, Buford drafted two players that teams foolishly passed up.
- He selected Manu Ginobili in the second round in 1999 and later took Tony Parker with a late first-round pick in 2001.
- The two draft steals teamed with former No. 1 pick Tim Duncan to win titles in 2003, 2005, and 2007.
- And each year, Buford continues to build around the talented trio with cheap but productive veterans who help the Spurs remain competitive.

4.0 Jack McCloskey

- "Trader Jack" impressively built the "Bad Boy" Detroit Pistons teams that won back-to-back championships in 1989 and 1990.

- After taking Isiah Thomas in 1981 in the 1981 NBA Draft, McCloskey selected backcourt mate Joe Dumars with the 18th overall pick in 1985. And in 1986, he drafted both Dennis Rodman and John Salley.
- McCloskey also hired Hall of Fame coach Chuck Daly, and traded for key veterans such as Bill Laimbeer, Vinnie Johnson, Mark Aguirre, Rick Mahorn, and James Edwards.

5.0 Jerry Krause

- No, Krause didn't draft Michael Jordan. However, he is responsible for surrounding Jordan with the supporting cast that helped the Chicago Bulls capture six titles in eight years.
- He struck gold in the 1987 NBA Draft by trading Olden Polinics for Scottie Pippen, and selecting Horace Grant with the 10th pick.
- Krause also drafted B.J. Armstrong with the 18th overall pick in 1989 and found European sensation Toni Kukoc in the second round of the 1990 draft.
- And before the 1995 – 1996 season, he dealt backup center Will Perdue to San Antonio for Dennis Rodman, who replaced Grant as the starting power forward.
- Unfortunately, Krause broke up the Bulls after the 1997 – 1998 season. He has since struggled to rebuild with young talents such as high schools Eddy Curry and Tyson Chandler.

6.0 Pat Riley

- Following an illustrious NBA coaching career in which he guided the Los Angeles Lakers to four titles and the New York Knicks to a finals appearance, Riley joined the Miami Heat in 1995 as the team's president and head coach.
- Riley went on to trade from stars like Shaquille O'Neal, Alonzo Mourning, Tim Hardaway, and Eddie Jones, and draft guard Dwayne Wade with overall pick in the 2003 NBA Draft.
- The Heat won a title in 2006, led by Wade, O'Neal, and a few other players who were acquired by Riley such as Antoine Walker, Jason Williams, and James Posey.
- Perhaps Riley's greatest moves as an executive was when he signed two-time MVP LeBron James and All-Star forward Chris Bosh to join forces with a re-signed Wade that won two championships for Miami.

7.0 Joe Dumars

- Dumars front office career got off to a bad start.
- The Detroit Pistons General Manager failed to keep superstar free agent Grant Hill and was forced to trade him to Orlando for little known players Ben Wallace and Chucky Atkins in 2000.
- The trade, however, would end up making Dumars look like a genius as Hill became hampered with injuries, and Wallace turned one of the league's top defenders.
- Dumars later signed Chauncey Billups, traded for Rasheed Wallace, Rip Hamilton, and Corliss Williamson, and drafted Mehmet Okur and Tayshaun Prince.

- The Pistons went on to reach the Eastern Conference Finals five consecutive years, including their 2004 championship run.

8.0 Jerry Colangelo

- Colangelo became the first General Manager for the expansion Phoenix Suns in 1968. The team went on to qualify for the playoffs in 24 of the 36 years that Colangelo was in the front office.
- In addition, Colangelo was named the league's Executive of the Year four times (1976, 1981, 1989, and 1993).
- The current USA Basketball director pulled off a trade for Kevin Johnson midway through the 1987-88 season, which resulted in the Suns completing one of the biggest turnarounds in league history the following season (going from 28 wins to 55).
- Colangelo later made one of the most lopsided trades ever in 1992 by sending Jeff Hornacek, Tim Perry, and Andrew Lang to Philadelphia for Hall of Fame forward Charles Barkley. The trade helped Phoenix reach the finals in 1993.

9.0 Mitch Kupchak

- Kupchak trade of Shaquille O'Neal in 2004 offseason didn't quite go over well with Lakers fans. The deal sent Shaq to the Miami Heat for Lamar Odom, Caron Butler, and Brian Grant.
- In 2006, while Shaq led the Heat to a title, the Lakers were knocked out of the first round of the playoffs by the Phoenix Suns.
- Kupchak later angered fans again by trading Butler to Washington for one of the biggest draft busts in NBA history - Kwame Brown – and his decision to not deal Andrew Bynum for Jason Kidd didn't help either.
- However, things got better, much better for Kupchak as he ended up dealing Brown, among others, to Memphis for All-Star big man Pau Gasol midway through the 2007 –2008 season.
- The trade helped the Lakers reach the Finals in 2008 and win back-to-back titles in 2009 and 2010.
- Other smart moves made by Kupchak include bringing back Derek Fisher, taking a gamble on Ron Artest, and trading for Trevor Ariza and Shannon Brown.

10.0 Donnie Walsh

- In 1987, Walsh, then with the Indiana Pacers, made a very wise choice by drafting UCLA guard Reggie Miller over fan favorite Steve Alford of Indiana University.
- Alford turned out to be a huge bust, while Miller emerged as one of the NBA's greatest shooters and clutch performers of all time.
- Walsh also drafted Rik Smits, Dale Davis, Antonio Davis, Al Harrington, and Danny Granger, and traded for Mark Jackson, Jalen Rose, Chris Mullin, Jermaine O'Neal, and Ron Artest.

- In addition, Walsh hired solid head coaches like Larry Brown, Larry Bird, and Isiah Thomas.
- The Pacers never won a championship during Walsh's 22 years in the front office, however, the team reached the playoffs 17 times, including six trips to the Eastern Conference Finals and one trip to the NBA Finals in 2000.
- Walsh became president of operations for New York Knicks in 2008. The Bronx native failed to land free agents LeBron James, Dwayne Wade, or even Chris Bosh this summer, but he did a fantastic job in clearing up cap space, something the Knicks needed desperately.

FOULS IN BASKETBALL (Source: Wikipedia, the free encyclopedia)

Understanding the Rule on Fouls

In basketball, a foul is an infraction of the rules more serious than a violation. Most fouls occur as a result of illegal personal contact with an opponent and/or unsportsmanlike behavior. Fouls can result in one or more of the following penalties:

- The team whose player committed the foul loses possession of the ball to the other team.
- The fouled player is awarded one or more free throws.
- The player committing the foul “fouls out” of the game.
- The player committing the foul is suspended from some number of subsequent games.

Some of the penalties listed above are assessed only if a player or a team commits a number of fouls above a specified limit.

Ordinary fouls are routine because of the constant motion inherent in the sport and are not viewed as bad sportsmanship. The penalty imposes a cost on violating the rules but does not disparage the player committing the foul. A player intending never to commit a foul might play so cautiously to become defensively ineffective. More serious fouls are regarded as bad sportsmanship, and the penalties are designed to be disciplinary.

Personal Foul

A “personal foul” is the most common type of foul. It results from personal contact between two opposing players. Basketball features constant motion, and contact between opposing players is unavoidable, but significant contact that is the fault of illegal conduct by one opponent is a foul against that player. Most personal fouls are called against a defensive player. A personal foul against a player of the team in possession of the ball is called an “offensive foul” or “charging foul” that occurs when a player makes significant contact with a defender that has established position. A “defensive foul” or “blocking foul” is charged to a defender when the offensive player makes significant contact with a defender who is not stationary, fails to give proper space and/or is in the restricted area. When neither team is in clear possession of the ball, a foul is called a “loose-ball foul”.

Flagrant Foul

A “flagrant foul” is a violent player contact that the official believes is not a legitimate to directly play the ball within the rules.

- FIBA calls excessive or unjustified contact between opponents an “unsportsmanlike foul”.
- The NBA and NCAA define a “Flagrant-1 foul” as unnecessary contact, and two such penalties leads to ejection of the player. A “Flagrant-2 foul” is contact that is both unnecessary and excessive, and requires immediate ejection.

Technical Foul

A “technical foul” is a foul unrelated to physical contact during the game play. The foul may be called on a player in the game, another player, a coach, or against the team general. This class of foul applies to all of the following:

- Unsportsmanlike conduct outside the scope of the game, such as taunting, profanity, or bad conduct toward an official.
- A personal foul committed by a player who has fouled out of the game but is readmitted to the game because of the lack of substitutes.
- Illegal gamesmanship, such as delay of game.
- A variety of other situations, such as arranging the players in an illegal defense.

Other Terms

A “player foul” is any foul, but typically personal and flagrant fouls, by reference to the count of fouls charge against a given player. A “team foul” is any foul by reference to the count against a given team.

When Free Throws Are Awarded

There are many situations when free throws can be awarded as follows:

- The first and most common is when a player is fouled while in the act of shooting. If the player misses the shot during the foul, the player receives either two or three free throws depending on whether the shot was taken in front of or behind the three-point line. If, despite the foul, the player still makes the attempted shot, the number of free throws is reduced to one, and the basket counts. This is known as a three-point or four-point play, depending on the value of the made basket.

- The second is when the fouling team is in the team bonus (or foul penalty) situation. This happens when, in a single period, a team commits a set number of fouls whether or not in the act of shooting. In the NBA, starting with the fifth foul (4th in overtime), or the second in the final 2 minutes if the team has less than 5 fouls (4 in overtime), the opposing team gets two free throws. The number of fouls that triggers a penalty is higher in college men's basketball because the game is divided into two 20-minute halves, as opposed to quarters of 12 minutes in the NBA or 10 minutes in the WNBA, college women's basketball, or FIBA play (note that college women's game was played in 20-minute halves before 2015-16). As in professional play, a foul in the act of shooting is a two- or three-shot foul, depending on the value of the shot attempt, with one free throw being awarded if the shot is good.
- Thirdly, if a player is injured upon being fouled and cannot shoot free throws, the offensive team may designate any player from the bench to shoot in the place of the injured player in college. In the NBA, the opposing team designates the player to shoot, and the injured player can't return, unless the foul committed was a flagrant-2, in which case the player's own team also gets to pick the replacement shooter. If a player fouled takes exception to the foul, and starts or participates in a fight, and gets ejected, he or she is not allowed to take his or her free throws, and the opposing team will choose a replacement shooter. In all other circumstances, the fouled player must shoot his or her own fouls.
- Fourthly, if a player, coach, or team staff (e. g. doctor, statistician) shows poor sportsmanship, which may include arguing with a referee, that person may get charged with a more serious foul called a technical foul. In the NBA, a technical foul results in one free throw attempt for the other team. In FIBA play, technical fouls results in two free throws in all situations. Under NCAA rules, technical fouls are divided into "Class A" (violent or serious unsportsmanlike conduct) and "Class B" less egregious violations such as hanging on the rim or delay of game). Class A technical fouls result in two free throws, and Class B technical fouls result in one. At all levels, the opposing team may choose any player who is currently on the court to shoot the free throws, and is the awarded possession of the ball after the free throws. Since there is no opportunity for a rebound, these free throws are shot with no players on the lane.
- Fifthly, if a referee deems a foul extremely aggressive, or that it did not show an attempt to play the ball, the referee can call an even more severe foul, known as an unsportsmanlike foul in international play or a flagrant foul in the NBA and NCAA basketball. This foul is charged against the player (and depending on the severity, can even be ejected), and the opponent gets two free throws and possession of the ball afterwards. Unlike technical fouls, the player fouled must shoot the awarded free throws.

- Lastly, fouls “away from the ball” (fouls that do not occur on the shooter or near the ball) are handled like the second case above in most situations. Many times defenders hold their opponent to prevent them from catching an in-bound pass or fight through screens and thus are called foul. These fouls are almost always treated as normal personal fouls. In the NBA, when there are only two minutes left on the clock of either half, off-ball fouls when the fouling team is over the limit are rewarded with one free throw and possession of the ball. It is therefore common for a losing team to deliberately single out its opponent’s poor free throw shooters, regardless of their dominance in other aspects of the game (as in the cases of Ben Wallace and Shaquille O’Neal), as the targets of deliberate fouls until the two-minute mark, after which the losing team plays intense defense for the rest of the game. It is believed that this rule was instituted because of Wilt Chamberlain. Previously teams had been allowed to foul any player on the court regardless of whether that player had possession of the ball, with only two free throws awarded to the fouled player. This motivated teams to chase poor free throw shooters, such as Chamberlain, around the court in attempt to foul him in an effort to extend the game. To discourage this practice, the NBA changed the rule to award one free throw and possession of the ball to a player who is fouled away from the ball in the last two minutes of the fourth quarter. This rule does not apply in international or NCAA plays and in fact plays a very vital strategic role in the NCAA Tournament.

Procedure

Free throws are organized in procession. The shooter takes his place behind the free throw line (19 feet from the base line and 15 feet from the basket). All other players must stand in their correct places until the ball leaves the shooter’s hands.

Up to four people from the defensive team and two people from the shooting team lie up along the sides of the restricted area (keyhole, paint, lane) . These players are usually the ones that rebound the ball. Three line up on each side. A defensive player always takes the place closest to the basket.

The remaining players must remain behind the three point line and the free throw line extended (an imaginary line extended from the free throw line in both directions to the sidelines).

Leaving their designated places before the ball leaves the shooter’s hands, interfering with the ball, are all violations. In addition, the shooter must release the ball within five seconds (ten seconds in the United States) and must not step on or over the free throw line until the ball touches the ring. Players are, however, permitted to jump while attempting the free throw, provided they do not leave the designated area at any point. A violation by the shooter cancels the free throw; a violation by the defensive team results in a substitute free throw if the shooter missed; a violation by the offensive team or a shot that completely misses the ring results in the loss of possession to the defensive team (only if it is on the last free throw). Under the FIBA rules, if the shooter does not commit a violation and the ball goes in the basket, the attempt is successful regardless of violations committed by any non-shooter.

TOP 10 GREATEST NBA FREE THROW SHOOTERS OF ALL TIME

(Source: Wikipedia, the free encyclopedia)

	FREE THROW ATTEMPS	FREE THROWS MADE	% MADE
Steve Nash	3,378	3,054	90.4
Mark Price	2,382	2,135	90.3
Rick Barry	4,243	3,818	89.9
Peja Stojakovic	2,500	2,237	89.5
Ray Allen	4,911	4,391	89.4
Chauncy Billups	5,029	4,496	89.4
Calvin Murphy	3,864	3,445	89.2
Scott Skiles	1,741	1,548	88.9
Reggie Miller	7,026	6,237	88.8
Larry Bird	4,471	3,960	88.6

VITAL SKILLS IN BASKETBALL (Source: Wikipedia, the free encyclopedia)

Assist

In basketball, an assist is attributed to a player who passes the ball to a teammate in a way that leads to a score by field goal, meaning that he or she was “assisting” in the basket. There are some situations involved in deciding whether a passer should be credited with assist. An assist can be scored for the passer even if the player who receives the pass makes a basket after dribbling the ball. However, the original definition of an assist did not include such situations, so the comparison of assist statistics across eras is a complex matter.

Only the pass directly before the score may be counted as an assist, so no more than one assist can be recorded per field goal (unlike in other sports, such as ice hockey). A pass that leads to a shooting foul and scoring by free throws does not count as an assist in the NBA, but does in FIBA play (only one assist is awarded per set of free throws in which at least one free throw is made).

Point guards tend to get the most assists per game (apg), as their role is primarily that of a passer and ball handler. Centers tend to get fewer assists, but centers with good floor presence and court vision can dominate a team by assisting. Being inside the key, the center often has the best angles and the best position for “dishes” and other short passes in the scoring area. Center Wilt Chamberlain led the NBA in assists in 1968. A strong center with inside-scoring prowess, such as former NBA center Hakeem Olajuwon, can also be an effective assister because the defense’s double-teaming tends to open up offense in the form of shooters.

The NBA single assist record is 30, held by Scott Skiles of the Orlando Magic against the Denver Nuggets on December 30, 1990.

The NBA record for most career assists is held by John Stockton with 15,806.

The top 10 NBA assist leaders of all time are (Source: Bleachers Report)

1.0. John Stockton	6Ft 1In 175 lbs	Point Guard	15,806	Total Assists
2.0. Jason Kidd	6Ft 4In 210 lbs	“ “	12,091	“ “
3.0. Steve Nash	6Ft 3In 180 lbs	“ “	10,335	“ “
4.0. Mark Jackson	6Ft 4In 180 lbs	“ “	10,334	“ “
5.0. Magic Johnson	6Ft 9In 220 lbs	“ “	10,141	“ “
6.0. Oscar Robertson	6Ft 5In 220 lbs	“ “	9,887	“ “
7.0. Isaiah Thomas	6Ft 1In 180 lbs	“ “	9,061	“ “
8.0. Gary Payton	6Ft 4In 180 lbs	“ “	8,966	“ “
9.0. Andre Miller	6Ft 2In 200 lbs	“ “	8,437	“ “
10.0. Rod Strickland	6Ft 3In 175 lbs	“ “	7,987	“ “

Rebound

A rebound in basketball is a “statistic” awarded to a player who grabs a missed shot that bounces off the backboard or the rim” after a missed field goal or free throw. Rebounds are also given to a player who tips in a missed shot on his team’s offensive end. Rebounds in basketball are a routine part of the game, as all possessions change after a shot is successfully made, or the rebound can be grabbed by either an offensive player or a defensive player.

Rebounds are divided into two main categories: “offensive rebounds”, in which the ball is recovered by the offensive side and does not change possession, and “defensive rebounds”, in which the defending team gains possession. The majority of rebounds are defensive because the team on defense tends to be in better position (i.e., closer to the basket) to recover missed shots. Offensive rebounds give the offensive another opportunity to score whether right away or by resetting the offense. A block is not considered a rebound.

A ball does not need to actually “rebound” off the rim or backboard for a rebound to be credited. Rebounds are credited after any missed shot, including air balls. Although not credited as a rebound, a ball that falls to the ground after a shot is unsuccessfully taken by another player on the same team can be classified as a recovery.

Rebounds are credited to the first player that gains clear possession of the ball or to the player that successfully deflects the ball into the basket for a score. A rebound is credited to a team when it gains possession of the ball after any missed shot that is not cleared by a single player (e.g., deflected out of bounds after the shot, blocked out of bounds, bounced directly off the rim out of bounds). A team rebound is never credited to any player, and is generally considered to be a formality as according to the rules of basketball, every missed shot must be rebounded whether a single player control the ball or not.

Great rebounders tend to be tall and strong. Because height is so important, most rebounds are made by centers and power forwards, who are positioned closer to the basket. The lack of height can sometimes be compensated by the strength to box out taller players away from the ball to capture the rebound. For example, Charles Barkley once led the league in rebounding despite usually being much shorter than his counterpart. However, some shorter guards can be excellent rebounders as well as such as point guard Jason Kidd who led the New Jersey Nets in rebounding for several years. Great rebounders must also have a keen sense of timing and positioning. Great leaping ability is an important asset, but not absolutely necessary. Players such as Larry Bird and Moses Malone were excellent rebounders, but were never known for their leaping ability. Bird has stated, “Most rebounds are taken below the rim, that’s where I get mine”.

Players position themselves in the best spot to, get the rebound by “boxing out”-i.e., by positioning himself between an opponent and the basket, and maintaining body contact with the player he is guarding. The action can also be called “blocking out”. A team can be boxed out by several players using this technique to stop the other team from rebounding. Because fighting for a rebound can be very physical, rebounding is often regarded as “grunt work” or a “hustle” play. Overly aggressive boxing out or preventing being boxed out can lead to personal fouls

The Top 10 Greatest NBA Rebounders of All Time (Source: Bleachers Report)

1.0. Wilt Chamberlain - Center	7Ft 1In	275 lbs	23,924 Rebounds	22.9 Ave./Game
2.0. Bill Russell – Center	6Ft 10In	220 lbs	21,620	“ “ “
3.0. Kareem Abdul-Jabbar – Center	7Ft 2In	225 lbs	17,440	“ “ “
4.0. Elvin Hayes – Center/Power Forward	6Ft 9In	235 lbs	16,279	“ “ “
5.0. Moses Malone – Center/Power Forward	6Ft 10In	215 lbs	16,279	“ “ “
6.0. Karl Malone – Power Forward	6Ft 9In	256 lbs	14,968	“ “ “
7.0. Robert Parish – Center	7Ft	230 lbs	14,715	“ “ “
8.0. Tim Duncan – Center/Power Forward	6Ft 11In	250 lbs	14,644	“ “ “
9.0. Kevin Garnett – Center/Power Forward	6Ft 11In	253 lbs	14,512	“ “ “
10.0. Nate Thurmond – Center	6Ft 11In	225 lbs	14,464	“ “ “

Blocked Shots

In basketball, a “blocked shot” occurs when a defensive player legally deflects a field goal attempt from an offensive player. A player with the ability to block shots is a great asset to a team’s defense, as they can make it difficult for opposing players to shoot the ball into the basket and score field goals. To be a good block player requires great court sense, timing, tall height, and high jumping ability. A good shot blocker can intimidate opponents to alter their shots, resulting in a miss. In order to be legal, the block must occur while the ball is travelling upward or at its apex. If the ball is going downward when the defender hits it, it is ruled as goaltending and counts as a successful basket. Goaltending is also called if the block is made after the ball bounces on the backboard.

The Top Ten Greatest NBA Blockers of All Time (Source: Bleachers Report)

1.0. Hakeem Olajuwon – 7Ft	275 lbs	Center	3,830 Blocks	3.1 Blocks/game
2.0. Dikembe Mutombo – 7Ft 2In	260 lbs	“	3,289	“ 2.8
3.0. Kareem Abdul-Jabbar – 7Ft 2In	244 lbs	“	3,189	“ 2.5
4.0. Mark Eaton – 7Ft 4In	290 lbs	“	3,064	“ 3.5
5.0. David Robinson – 7Ft 1In	235 lbs	“	2,954	“ 3.0
6.0. Patrick Ewing – 7Ft	240 lbs	“	2,894	“ 2.4
7.0. Shaquille O’Neal – 7Ft 1In	325 lbs	“	2,690	“ 2.3
8.0. Tree Rollins – 7Ft 1In	235 lbs	“	2,542	“ 2.2
9.0. Robert Parish – 7Ft	230 lbs	“	2,361	“ 1.6
10.0. Alonzo Mourning -6Ft 10In	240 lbs	“	2,356	“ 2.8

Nicknames for blocked shots include “rejections”, “stuffs”, “facials”, “swats”, “denials”, and “packs”. Blocked shots were first officially recorded during the 1973-1974 NBA season.

Largely due to their height and position near the basket, centers and forwards tend to record the most blocks, but shorter players with good jumping ability can also be blockers, an example being Dwayne Wade, at 6’4”, to record 100 blocked shots in a single season. A player with the ability to block shots can be a positive asset to a team’s defense, as they can make it difficult for opposing players to shoot near

the basket and by keeping the basketball in play, as opposed to swatting it out of bounds, a blocked shot can lead to a fast break, a skill Bill Russell was notable for. To be a good shot-blocker, a player needs great court sense and timing, and good height or jumping ability. One tactic is that a shot-blocker can intimidate opponents to alter their shots, resulting in a miss.

A chase-down block occurs when a player pursues an opposing player who had run ahead of the defense (as in a fast break), and then blocks their shot attempt. Often, the block involves hitting the ball into the backboard as the opponent tries to complete a lay-up. One of the most recognized chase-down blocks was then-Detroit Piston's Tayshaun Prince's game saving block on Reggie Miller in game 2 of the 2004 NBA Eastern Conference Finals against the Indiana Pacers. Piston's announcer Fred Mcleod, who first witnessed this style of blocks from Prince, created the "chase-down" term later with the Cleveland Cavaliers. During the 2008-09 NBA season, the Cavaliers began tracking chase-down blocks, crediting LeBron James with 23 that season and 20 the following season.

Steals

In basketball, a steal occurs when a defensive player legally causes a turnover by his positive, aggressive actions. This can be done by deflecting and controlling, or by catching the opponent's pass or dribble of an offensive player. The defender must not touch the offensive player's hands or otherwise a foul is called.

Steals are credited to the defensive player who first causes the turnover, even if he does not end up with the possession of the live ball. To earn a steal, the defensive player must be the initiator of the action causing the turnover, not just the benefactor. Whenever a steal is recorded by a defensive player, an offensive player must be credited as a turnover.

Stealing the ball requires the good anticipation, speed and fast reflexes, all common traits of good defenders. However, like blocked shots, steals are not always a perfect gauge of a player's defensive abilities. An unsuccessful steal can result in the defender being out of position and unable to recover in time, allowing the offensive to score. Therefore, attempting a steal is a gamble. Steals, though risky, can pay off greatly, because they often trigger a fast break for the defensive team.

There is no prototypical position from which a player may get many steals. While smaller, quicker guards tend to accumulate the most steals, there are many exceptions. For example, forward Rick Barry led the NBA in steals in 1974-75, and for many years center Hakeem Olajuwon led his team in the category, consistently ranking among the league's leaders, and is the only center ranked in the top 10 all-time in steals. Karl Malone, a power forward, was number ten.

NBA Steals records

Steals were first recorded in the 1973-74 season, while the rival ABA league first recorded steals during the same season.

Kendall Gill and Larry Kenon are tied for most steals in a regular season NBA game with eleven. Kenon's was recorded on December 26, 1976, Gill's recorded his on April 3, 1999. The most steals by a player in an NBA season is 301 by Alvin Robertson in 1985-86. The NBA's all-time leader for steals is John Stock with 3,265 in his career. The NBA leader in steals per game is Alvin Robertson with an average of 2.71 (career, 1250 steals minimum) and 3.67 (season, 125 minimum).

Notable steal players in the NBA

- Walt Frazier – renowned for his masterful defense, which culminated around his ability to deflect dribbling and passes using his incredibly quick hands. Steals were not recorded during the early part of his career. Reportedly, he once picked off 8 consecutive steals during a third quarter against Atlanta in 1971.
- Allen Iverson – led the league in steals three times (consecutively); most steals in a playoff game.
- Michael Jordan – led the league in steals and steals per game three times, #3 all-time career steals and #3 all-time in steals per game. #2 all-time in career steals in the playoffs behind Scottie Pippen.
- Chris Paul – holds the NBA record for most consecutive games with a steal, led the league in steals and steals per game six times.
- Michael Ray Richardson – led the league in steals three times; #2 all-time in steals per game.
- Alvin Robertson – led the league in steals and steals per game three times, #9 all-time in career steals and #1 all-time in steals per game.
- John Stockton – led the league in steals twice, #1 all-time in career steals and #6 in steals per game.
- Jerry West – is widely known for his ability to execute steals, but the statistics was not recorded until his final season. West was the first player to officially record 10 steals per game.
- Clyde Drexler – Drexler had 2,207 steals in his 15-year career with the Portland Trail Blazers and Houston Rockets. He is #7 all-time in career steals.

Other notable steal players

	Average/game	Total Steals	Seasons	Games Played
• Gus Williams	1.99	1,638	11	825
• Scottie Pippen	1.96	2,307	17	1,178
• Nate McMillan	1.94	1,544	12	796
• Jason Kidd	1.93	2,684	19	1,391
• Magic Johnson	1.90	1,724	13	906
• Isiah Thomas	1.90	1,861	13	979
• Doug Christie	1.88	1,555	15	827
• Quinn Buckner	1.86	1,337	10	719
• Gary Payton	1.83	2,445	17	1,335

• Baron Davis	1.83	1,529	13	835
• Doc Rivers	1.81	1,563	13	864
• Julius Erving	1.80	1,508	11	836
• Meta World Peace	1.79	1,702	16	949
• Hakeem Olajuwon	1.75	2,162	18	1,238
• Larry Bird	1.73	1,556	13	897

IMPORTANCE OF BALL HANDLING (Source: Tews School of Basketball)

Ball handling is the most important part of the game of basketball. Included in this skill is both dribbling and passing. Because it is one of the most basic, it is often overlooked in importance; however, without ball handling, the ball could not be advanced up the front court or offenses could not be run effectively.

A misconception of ball handling has often been that the point guard is the only one who should be skilled in ball handling. While the point guard handles the ball often, they should not be considered the sole ball handler. According to dictionary.com, the definition of a point guard is the “guard who directs the team’s offense from the point.” Nowhere does it say that the point guard handles the ball all of the time. Responsibility should be placed on the other players, such as the shooting guards and posts, to also develop skills to be good ball handlers.

Basketball has changed over the last several years. Previously, posts could do their jobs around the basket, such as shooting shots off of post, or boxing out and rebounding, and that would be enough. Today, taller players who are called “posts,” are found dribbling the ball up the front court against multiple defenders, shooting jump shots from behind the three-point line, and making offensive moves that require good ball handling.

To become more valuable to the team, all players, regardless of height or position, should develop good ball handling skills. Often, the difference between good teams and great teams is in the depth of their ability to handle the ball well.

The List: Top 10 NBA Ball Handlers Today (Source: NBA.com)

There is no real statistics to quantify how good a player is at ball handling, until someone like Stephen Curry makes you leap from your couch after making one of the best perimeter defenders in the NBA look silly. Killer crossovers, behind-the-back dribbles and general wizardry with the ball are beautiful things to watch, and the NBA has several guys that are magicians with the ball in their hands.

Sure, for the sake of winning basketball games, limiting turnovers is the aspect of ball handling that is most important. But for this list, style points count too. With that in mind, here are the best ball handlers in the NBA today.

10. Mike Conley, Memphis Grizzlies-

Flash isn’t in Conley’s vocabulary, and quite literally, Conley might be the best person at taking care of the ball on this list. He averages just 2.2 turnovers per game, an outstanding mark for someone who handles the ball as often as Conley. But style points matter, and though the savvy floor general likely has a bag of dribbling tricks in his arsenal, he’s not one to show those off in games. There’s a reason Conley is

one of the more unheralded point guards those in the league: he's not in it for the fame; he's in it for the victories.

9. Ty Lawson, Denver Nuggets

Ty Lawson may be the fastest player in the league. Combine that with his low center of gravity and tricky maneuver with the ball, and he is one killer ball handler.

8. Kemba Walker, Charlotte Hornets

Kemba Walker belongs higher on this list of extraordinary ball handlers because as the Hornets lead guard, he has consistently shown complete control, directing plays, and creating open shot opportunities for his teammates to score.

7. Tony Parker, San Antonio Spurs

Parker is a master of deception, and while Walker, it's hard not to show off those gifts. He's not as prone to embarrass a defender as some of his peers are and his array of dribbling moves is up there with anyone. His crossover is simple yet effective, and he gets into the paint at will for the Spurs.

6. Rajon Rondo, Sacramento Kings

Rondo is an interesting case here, as he's not necessarily as good of a dribbler as the other folks on this list. But some of the passes he dishes out are just crazy entertaining, as seen above. Rondo also makes the most fundamental of basketball plays, the bounce pass, look cool. There aren't many guys in the NBA who can yo-yo the ball around and find an open teammate as quickly and effectively as Rondo, which makes him an exquisite ball handler.

5. Jamal Crawford, Los Angeles Clippers

The dude's nickname is J Crossover, and quite often, he lives up to it. Crawford is an outstanding ball handler, and he knows it. Killer crossover, behind-the-back, hesitation dribble...you name it, Crawford has it in his repertoire. He's getting near the end of his NBA career and he's still very good at it.

4. Chris Paul, Los Angeles Clippers

Paul is an outstanding blend of caretaker and style, as he can make a fool of an opposing point guard with the best of them. But he also understands that sometimes, less is more. The Clippers are a machine on offense for a reason, and rather than showcasing his own dribbling powers, Paul is more interested in limiting turnovers and making the right basketball play whenever possible.

3. James Harden, Houston Rockets

To put it kindly, Harden is not nearly as shy as Paul in showcasing his dribbling abilities. He'll take entire possessions dribbling out the shot clock multiple times per game, usually a recipe for a terrible shot attempt. But you know what usually happens with Harden? He'll hit a ridiculous step back jumper,

pull up for a 3 or, most commonly, get into the paint and draw a foul. Harden is the champion of the through-the-legs dribble, and the Rockets have given him complete control of their offense.

2. Kyrie Irving, Cleveland Cavaliers

The reference source of my research showed that his choice as the no. 1 ball handler in the game of basketball today is Kyrie Irving. They are both really very talented. However, Stephen Curry is better based on their actual achievements that showed Stephen Curry helped his team win more games and a championship.

1. Stephen Curry, Golden State Warriors

He is the best of the best ball handlers today and most probably of all time in NBA history precisely because his ball handling abilities and skills are amazingly helping him scoring threes and layups as well as leading the team and setting up plays for his teammates to score. In basketball, scoring is really what the game is all about in order to win games and championships.

PART 3 – PLAGUING INJURIES IN BASKETBALL

The 30 Best NBA Careers Ruined By Injury (Source: Uproxx.com)

The NBA sees a lot of talent come in and out at a rapid pace. Some players make it and become legends, but others are not as fortunate. Throughout the history of the league, there have been players that have an unlimited amount of skill and potential, but constant injuries slow them down.

Here is a list of 30 former NBA players that suffered from career-altering and career-ending injuries. Some of the players on this list, at one point in their careers, reached a high level; others were expected to become stars, but deplorable circumstances took their careers along a different path and they are:

1.0 Grant Hill (1991-2013)

Grant Hill was a versatile player with solid rebounding skills and a nice midrange game, a Scottie Pippen clone. But continuous ankle injuries thwarted Hills career.

2.0 Bob McAdoo (1972-1993)

Bob McAdoo was a rebounding and scoring machine. He had an immediate impact on the league when he was drafted. He was awarded Rookie of the Year honors, and in his second season, he won the first of three scoring titles. McAdoo kept adding to his extensive collection of accolades when he won an MVP award and two NBA championships. After his rise to fame, injuries slowed down McAdoo's progression as a player.

3.0 Maurice Stokes (1955- 1958)

Maurice Stokes injury is one the most tragic in the history of the NBA. In the final game of the 1957-1958 season, Stokes was fouled while attempting a layup. He fell to the ground and struck his head, immediately losing consciousness. A couple of days after his accident, Stokes had a seizure and went into a coma, and was diagnosed with post traumatic encephalopathy. His motor skills diminished rapidly, and he became paralyzed. Maurice Stokes died 12 years later at the age of 36. In his short NBA career, Stokes was a multifaceted player. It was easy for Stokes to score at a high and efficient rate, and he was also a monster on the glass. The injury stopped him from teaming up with Oscar Robertson, which might have been the makings of a dynasty.

4.0 Pete Maravich (1970-1980)

Pete Maravich was always an amazingly productive player. Scoring was never an issue for him, but he was never surrounded by talented players. Maravich's inadequate help forced him to carry the majority

of the offensive duties for every team he played for; this style of play eventually caught up with him, and forced him to retire due to a plethora of knee injuries.

5.0 Bill Walton (1974-1987)

Bill Walton was drafted by the Portland Trail Blazers in 1974. He is just another story in the Blazers book of injury nightmares. His NBA tenure started great, he was a rebounding animal and led the Blazer to the title in 1977. Walton also won a regular season Finals MVP award. But like most big-bodied centers, Walton suffered from constant foot and ankle injuries. He had a stretch in his career where he stopped playing due to injury at age 27, and did not play again with Boston Celtics until he was 30 years old. Bill Walton still managed to help Boston Celtics win NBA championship in 1986 and secured a spot in the Basketball Hall of Fame, but fans will always wonder how dominant he could have been.

6.0 Amare Stoudamire (2002 – 2005)

Amare Stoudamire had it all. He was quick, powerful and a hard worker. He was also in a perfect situation with the Phoenix Suns. Steve Nash was willing to feed Amare the ball consistently. In 2005, it was discovered Amare had cartilage damage in his knee. He underwent micro-fracture surgery and was able to regain most of his explosiveness that made him such a threat. After he left Phoenix for New York, Amare was still a productive player, but more injuries followed him. A main concern with Stoudamire is that it is unclear if he can recover like he did when he was younger.

7.0 Larry Johnson (1991- 2001)

Larry Johnson was a stud at the power forward position. He was a versatile scoring option for the Hornets and a fantastic rebounder. Back injuries forced him to change his style of play from aggressiveness on the block to a savvy perimeter specialist before retiring after a 10 year career.

8.0 Penny Hardaway (1993 – 2007)

Penny Hardaway did have a lengthy career in the NBA. The only problem was he could not stay healthy. Everyone knew the talent Hardaway possessed. To the dismay of many NBA fans, Hardaway suffered a devastating knee injury and missed the majority of the 1997 –1998 season. Penny Hardaway only managed to play a full 82-game season twice in his 14-year career.

9.0 Chris Webber (1993 – 2008)

Chris Webber was a special talent, dunking on anyone who dared to challenge him at the rim and passing was with flair. He was not limited to being a scoring option on the block. He could hit midrange jump shot very well. But in 2003, with Sacramento looking like a possible Finals team, Chris Webber suffered a career-altering knee injury that required micro-fracture surgery to repair the damage. When he returned, he was nowhere near the player he once was. He decided to retire in 2008.

10.0 Tracy McGrady (1997 – 2014)

If Tracy McGrady was always healthy, he might have been one of the best scorers the NBA league has ever seen. He was spectacular. He made the game look easy and exciting. However, back and shoulder injuries slowed him down very much and the micro-fracture surgery did not help at all. He could have been one of the greatest players of all time without his injuries.

11.0 Arvydas Sabonis (1981- 2005)

Sabonis was a great international player with huge talent and size standing at 7' 3". He was a team player and had an effective midrange game. Rebounding of course was his biggest contribution to the team wherever he played. In 1985, he tore his Achilles tendon. Sure, he got well but was not able to fully recover his dominating form.

12.0 Jermaine O'Neal (1996 – 2008)

Jermaine O'Neal in his prime was a five-time All-Star and important player to the Indiana Pacers most wins during the time he was healthy. He was a very good all-around player and difficult to defend. There was a time in his career when he was at the top of his health he was averaging 20 points and 10 rebounds per game. After a series of shoulder, ankle, and foot injuries, he was sidelined for significant duration from 2005-2008.

13.0 Brandon Roy (2006 – 2011)

Brandon Roy was quickly improving into one of the best shooting guards in NBA. He scored 52 points in a game was selected to three All-Star game before his knee condition became worse. He tried arthroscopic surgery and even the platelet-rich plasma procedure like Kobe Bryant had done. However nothing seemed to work, so he decided to announce his retirement from the game of basketball in 2011. He tried to comeback after a year, but lasted only for five games.

14.0 Ralph Sampson (1983 – 1991)

Ralph Sampson was thought to be the next Wilt Chamberlain. His agility and size made him impossible to contain in the lane. He was averaging 19 points and 10 rebounds during his first three seasons before he was hampered by back injury and three knee surgeries.

15.0 Yao Ming (2002 – 2011)

Yao Ming became very effective after he learned how to use his big body and height to his advantage. He was not able to reach his full potential after he suffered devastating injuries like osteomyelitis in his big toe, foot injuries, broken foot bone and broken knee cap.

16.0 Sam Bowie (1984 – 1995)

Portland Trail Blazers selected Sam Bowie ahead of Michael Jordan in the 1984 NBA Draft. The pick appeared to be the right choice because at that time Portland had already Clyde Drexler and they needed very much a good true center. However, Sam Bowie had always health issues with his legs and carried these problems to the NBA.

17.0 Baron Davis (1999 – 2012)

Baron Davis was one of the most exciting and unforgettable players in the NBA. He is permanently enshrined in the records book for making the longest 89 feet shot in NBA history for Charlotte Bobcats versus Milwaukee Bucks on February 17, 2001. His playing career was tragically cut when he tore his ACL and patellar tendon in his right knee.

18.0 Jamal Washburn (1993 – 2004)

Jamal Washburn was one of the best scoring forward in the NBA and the fourth youngest player to score 50 points in a game. His career was ultimately brought to an end when he injured his knee. If he was able to stay healthy, he could have been one of the better forwards in the league for a long time.

19.0 Bobby Hurley (1993 – 1998)

Bobby Hurley's story is very unfortunate one. He was a talented guard at Duke University, and helped them win two national championships. Early in his NBA career, he was involved in a car accident where he was ejected out form his car because he was not wearing his seat belt. Hurley suffered several career ending injuries, and was only able to play five years in the league.

20.0 Brad Daugherty (1986 – 1994)

Brad Hurley was the all-time leader in points and rebounds for the Cavaliers before LeBron James took over the scoring and Ilgauskas took over the team's top rebounder. Brad Daugherty was a true and outstanding center until back problems limited his full potential. He could have been one of the better scoring and rebounding big men the league has ever seen.

21.0 Fat Lever (1982 – 1994)

Fat Lever was a sensational point guard and awesome rebounder, considering his size. There was a time in his career where he averaged 19 points and nine rebounds per game. After his great display of offensive excellence, Lever suffered a knee injury that kept him out of action for the majority of the next three seasons.

22.0 Allan Houston (1993 – 2005)

Allan Houston was a great scoring player for the Knicks. He could create offense from anywhere on the floor including shooting three pointers. He retired early in his career due a knee injury that was not properly cared for.

23.0 Gilbert Arenas (2001 -2012)

Gilbert Arenas was an offensive powerhouse. He was a player who showed like playing basketball was easy to play and fun to watch for the fans. He effortlessly scored 60 points in L.A, versus the Lakers. Arenas led the Wizards to a few playoff appearances, averaging close to 29 points per game. In 1997, he suffered torn MCL, and was never able to play a full 82 game season again.

24.0 Jay Williams (2002 – 2006)

Jay Williams was an amazing player in College. The Chicago Bulls drafted him second overall in the 2002 Draft. In 2003, Jay Williams was involved in a severe motorcycle accident. He tore three ligaments in his knee and severed a main nerve in his leg. He never recovered from his injuries and the Bulls release him shortly after the news that Williams might not be able to play basketball ever again.

25.0 Danny Manning (1988 – 2003)

Danny Manning, was a former No. 1 pick, but hampered with injuries for the majority of his career. He tore his ACL in his rookie year and nagging knee injuries for the remainder of his career. He was never able to play through a full season for the rest of his time in the NBA.

26.0 LaPhonso Ellis (1992 – 2003)

LaPhonso Ellis had a solid performance during his first season in the league. Some NBA analyst said he had the potential to be one of the best forwards in the game. A stress fracture in his right knee kept him out of action for the larger part of his third season. Later in his career, a hernia and another knee injury greatly affected his career until he decided to retire in 2003.

27.0 Jonathan Bender (1999 – 2010)

Bender was a rare athlete. He is 7' 0" tall and weighing 230 pounds. He had the body and size of a center, but with the quickness to move around the rim to score a two-pointer or rebound, and just as quickly play like a forward and knock down a three-point shot. He suffered knee problems and was not able to perform according to his potential and retired in 2010.

28.0 T. J. Ford (2003 – 2012)

T. J. Ford was once compared to Magic Johnson and Larry Bird, and really looked very promising until he was fouled and suffered a contusion on his spinal cord. Doctors called this a career-ending injury. He tried to come back with San Antonio Spurs, but was not able to fully recover and retired in 2012.

29.0 Shaun Livingston (2004 – 2014)

On February 26, 2007, Shaun Livingston suffered one of the most horrifying injuries in NBA history. He dislocated his knee cap, laterally snapped his left leg, and tore his ACL and PCL. He also sprained his MCL and dislocated his tibia-femoral joint. He miraculously recovered and currently signed to be back-up for Deron Williams in Brooklyn.

30.0 Zydrunas Ilgauskas (1996 – 2011)

Ilgauskas displayed a unique and versatile skills set. He was blocking shots, rebounding and shooting well around the perimeter area. Like most big men, Ilgauskas suffered from nagging foot injuries. He missed the entire season 1996-1997 campaign due to a broken bone in his foot that affected and slowed down his movements.

NBA PM: The Season's (2014 – 2015) Most Devastating Injuries (Source: Basketball Insiders)

1.0 Jabari Parker, Milwaukee Bucks

Only 25 games into a season in which Parker looked like a shoe-in for Rookie of the Year, he tore his ACL, which is unbelievably disappointing considering how well the Bucks have played under Jason Kidd.

2.0 Serge Ibaka, Oklahoma City Thunder

Perennially one of the best defenders in the league, Ibaka had been through knee pain in Kevin Durant's absence all season long, but like all lingering pains, this one eventually caught up to him in a big way.

3.0 Chris Bosh, Miami Heat

The day Miami made the trade for Goran Dragic, there was a lot of talk in the media that the trio of Bosh, Wade and Dragic will bring back Miami for another NBA title. But the day after the trade, positive hopes faded after Bosh was diagnosed with a blood clot in his lung that would keep him out of the season.

4.0 Wesley Matthews, Portland Trail Blazers

Matthews had been leading the league in three-pointers at the time he horribly injured his Achilles heel. This was a knock-out punch to the Blazers who looked like title contenders before Matthews got injured.

5.0 Kevin Durant, Oklahoma City Thunder

Ibaka's injury hurts the thunder, worst of all, their top players Westbrook and Durant missed the first few weeks of the season due foot injuries. Westbrook recovered but Durant's bum foot continued to hurt. Thunder GM decided to keep Durant on the injured list "indefinitely" until the injured foot completely healed.

6.0 Derrick Rose, Chicago Bulls

Derrick Rose's ACL injury three years ago was devastating to the Bulls. Last year, his meniscus tear was just too much to take. This year, he hurt his knee again. This time, they are saying that Rose's career as a superstar may be over.

7.0 Kobe Bryant, Los Angeles Lakers

At his age and many long years of grueling practices and playing hard-fought games for the Lakers that won five NBA Championships, finally has affected Kobe's battered body. No Kobe means more losing, and if ever there was one more year for that in Los Angeles, this would be the one needed to get one of the top five pick, a step necessary toward rebuilding the team.

8.0 Carmelo Anthony, New York Knicks

The knee injury of Carmelo Anthony was not devastating to the Knicks considering their anemic performance the whole season. Anthony decided to stop playing for the rest of the season to rest and fully recover from the injury in preparation for the next season's challenges and high expectations for the Knicks franchise under new President Phil Jackson.

9.0 Blake Griffin, Los Angeles Clippers

Blake Griffin missed 13 games due to leg injury and in his absence put a huge dent in the Clippers production. However, the Clippers were able to adjust without him and posted 9W and 4L during his absence, which could have been better if he was around.

10.0 Jared Sullinger, Boston Celtics

This young player can't seem to stay healthy, and there was a lot to get excited about because this season he was averaging 14.4 PPG and 8.1 RPG in only 28.7 minutes a night. His broken foot and prolonged health matters to the future of Boston Celtics.

11.0 Julius Randle, Los Angeles Lakers

Randle, the fifth player taken in last June's draft, was injured in his very first game, which is frustrating because he was supposed to be the team's beacon of optimism in what a lot of people agreed was looking like a lost season. Even had the Lakers been terrible, Randle would've gotten a lot of floor time to develop as an essential building block for the future of this team.

NBA PM: Top 5 Most Devastating Playoff Injuries (Source: Basketball Insiders)

The playoffs are supposed to be the most enjoyable and exciting time of the year for NBA fans, but when a major injury takes down an integral part of a championship-caliber team, things stop being enjoyable and exciting very quickly. That's what Cavaliers fans are going through right now after injuries to superstars Kevin Love and Kyrie Irving. Injuries are part of the game. It's always been that way. You just hope and pray that, if there has to be some big ones, they don't come at the worst possible time:

1.0 Karl Malone, 2004 L. A. Lakers

Everybody expected the L.A. Lakers to win the championship in 2004 after adding Gary Payton and Karl Malone to a core already included Kobe Bryant and Shaquille O'Neal. However, they fell short, in large part due to Malone's nagging knee injury. The Detroit Pistons, a team without a superstar, surprisingly won the title instead.

2.0 Derrick Rose, 2012 Chicago Bulls

After missing about a third of the season with ailments to five completely different parts of his body, Rose damaged a sixth body part as the Bulls were gearing up for what looked to be a pretty promising 2012 postseason run. Chicago, the top-ranked team in the Eastern Conference, won game 1 of their first-round series against the eighth-seeded Philadelphia 76ers, but lost Rose for the season due to an ACL tear and allowed the 76ers to win the next three games of the series.

3.0 Kendrick Perkins, 2010 Boston Celtics

Perkins isn't a star these days, and he wasn't really one back then, but his loss in Game 6 of the NBA Finals was perhaps one of the most painful playoff injuries in the history of the game. The Celtics went into that game up 3-2 in that series against the Los Angeles Lakers, and were cruising right along when Perkins tore his MCL and PCL. Perkins was Boston's best defensive weapon against the Lakers two seven-footers, and his loss helped drive the Lakers to Game 6 win and also Game 7 and the NBA title.

4.0 Dirk Nowitzki, 2003 Dallas Mavericks

The 2003 playoffs included arguably the most impressive individual stretch of Dirk Nowitzki's career. And frankly, had he not sprained his knee in the Western Conference Finals, he might have two championship rings now instead of one. Nowitzki started the playoffs that year with a 46-point outburst in Game 1 of round one against Portland Trail Blazers. Then, in the second round, he

pushed the Mavericks to a win in Game 7 over the Sacramento Kings with a monster 30-point, 19 rebound game. In the very next game, the first of the Conference Finals against San Antonio Spurs, he dropped 38 points and 19 rebounds on the road in San Antonio. In game 3, Dirk had a badly sprained knee that kept him out of the rest of the series, giving Dallas no chance to a tough Spurs team in its prime. San Antonio went on to beat the New Jersey Nets in the Finals, while Nowitzki had to wait eight more years before finally getting his first ring.

5.0 Magic Johnson/Byron Scott, 1989 L.A. Lakers

The Lakers had already won the 1987 and 1988 championships and had just swept every Western Conference opponent they faced in the first three rounds of the playoffs. They were 11-0 heading into the Finals, but starting shooting guard Byron Scott pulled a hamstring in practice before Game 1 had started. Couple that with Magic Johnson's pulled hamstring (exactly the same injury as Scott) in Game 2, and we have two very unfortunate injuries early in the series. The backcourt rotation just wasn't deep enough to pick up the slack, and the Lakers lost to Detroit Pistons who played very well all the way up to the Finals.

The Eight Most Important NBA Playoff Injuries (Source: NBA.com):

In an atmosphere where NBA coaches monitor their players' minutes more than ever, it seems odd that the injury bug has plagued so many teams this postseason. An injury to a key role player can swing a game, which can swing a series, which can swing the entire playoffs. Star players injuries can influence multiple games. Derrick Rose, Paul Pierce, and LeBron James highlighted an epic weekend of bank shots and buzzer beaters in the NBA playoffs, but injuries continued to serve as a crucial subplot. Here are eight injury setbacks that have and will continue to affect the rest of the playoffs:

1.0 Chandler Parsons, Dallas Mavericks (knee)

Parsons dealt with a cartilage issue in his knee towards the end of the season was able to suit up for just one game in the first round against the Rockets. Simply put, the Mavericks could have used him against his former team. Matchups are extremely important in a playoff series, and Parsons' absence was a huge blow for Dallas on both sides of the ball. Forcing James Harden to work on the defensive end by guarding Parsons or Monta Ellis may have helped slow down the bearded one. It certainly couldn't have hurt. Instead, Houston's worst offensive performance was a 103-point outing in the Game 5 clincher.

2.0 Pau Gasol, Chicago Bulls (hamstring)

Chicago's offense went cold in its Game 4 loss to Cleveland. Specifically, big men Joakim Noah, Taj Gibson and Nikola Mirotic combined to shoot 7-for-28 from the field on Sunday. Had he been available, Gasol's pick-and-pop talents and ability to post up could have been a major difference in the game. Gasol injured his hamstring in Game 3 and thinks it's just a mild strain. He's hopeful for Game 5. For the Bull's sake, they need those aspirations to come to fruition.

3.0 Chris Paul, Los Angeles Clippers (hamstring)

Paul's injury actually affected the Clippers. Their star's injury gave Austin Rivers a chance to hit his stride. In this Rockets series, Rivers is averaging 16 points per game on 56 percent shooting from distance. Doc's kid is emerging as a legitimate rotation at the perfect time, and Paul looks like he is close to 100 percent. Clearly, this exactly how the Clippers drew it up.

4.0 Mike Conley, Memphis Grizzlies (face)

Watching Game 1 against the Warriors, it looked like the Grizzlies chances to even be competitive in the series were slim. Steve Kerr's bunch handled them with relative ease, and when Conley was interviewed on the sideline, he could hardly see out one of his eyes. Then Tony Allen on Klay Thompson, and Conley returned to outplay MVP Stephen Curry as the Grizzlies won the next two

and seized a surprising 2-1 series lead. Conley is still getting his conditioning back and had a much tougher time in Game 4, but there's no question Memphis is much better with him than without him.

5.0 Tiago Splitter, San Antonio Spurs (back)

First-round opponents Clippers and Spurs were two of the most evenly matched teams you'll ever see in a playoff series, and that's what why Splitter not being himself was so damning for San Antonio. In last year's playoff, he slowed down the likes of LaMarcus Aldridge and Dirk Nowitzki. This year, with apologies to Aron Baynes, the Spurs had no answer for Blake Griffin, who averaged 24.1 points, 13.1 rebounds and 7.4 assists in the series.

6.0 Kyrie Irving, Cleveland Cavaliers (foot)

Cavaliers head coach David Blatt revealed that Irving was dealing with a sore foot after Game 3 against the Bulls. He played 41 minutes in Game 4 but clearly was off. He limped up and down the court all afternoon, but Blatt struggled to find hiding places for his point guard on the defensive end. Barring a drastic improvement, it seems that Irving is best served as a spot-up shooter for Cleveland at this point. He can still help the Cavaliers, but it's a far cry from what one of the league's best offensive players is capable of when healthy.

7.0 Kevin Love, Cleveland Cavaliers (shoulder)

Speaking of Cavaliers, Love dislocated his shoulder battling for a rebound against Boston's Kelly Olynyk in the first round. Love had his ups and down with Cleveland all season, as Irving and James stole most of the positive headlines, but he still opens up an offense in ways that few others in the league can. He is the gold standard of stretch 4's in the NBA, and though he often struggled defensively, his elite rebounding would have helped Cleveland on the glass against a big Chicago front line.

8.0 John Wall, Washington Wizards (hand)

Due to the several fractures in his left hand, Wall might not return for the Wizards this postseason. With Otto Porter's emergence and Pierce renaissance, the Wizards have sometimes looked like the East's best team. But without Wall, they cannot go very far.

10 Most Devastating Injuries in NBA History (Source: Bleachers Report)

1.0 Josh Howard Knee Wobble

Sometimes the worst part about seeing an injury video isn't how unbearably gruesome an injury is, but how it reminds you of how bad simple things like your knee going the wrong way can feel. That's why when Josh Howard sprained his knee in Chicago back in 2010 it was easy to feel his pain. Even though most of us have never had a knee sprain bad enough to require surgery, we've all felt a bit of knee wobble that leaves us on the ground for a few minutes.

2.0 Steve Nash Pops Nose Back In

Sometimes the worst part about an injury isn't watching it happens. It's watching a player after it happens. That's just the case when Steve Nash got popped in the nose by Derek Fisher, leaving him with a nose dangling from his face. Instead of stepping over to the sidelines, taking his seat and allowing it to get back into place – like, you know, a normal person would – Nash grabs his nose and pops it back in himself, just as cameras are getting a close-up of him.

3.0 Tony Allen Shouldn't Have Dunked

Sometimes there are poor decisions, and then there are decisions that haunt someone for the rest of their lives. This is one of the latter. Tony Allen decides that he's going to do a bit of showboating here and what happens is really something that he'll remember forever. His momentum takes him a little too far forward and he lands awkward on his knee, leading to that knee folding under him. What happens as a result was a torn ACL and months of rehab just to get back on the court, and the result was a huge loss of motion and flexibility in that knee.

4.0 Allan Ray's Eye

There are some injuries that look worse, and don't give you the full effect until you see it in close up HD video. That's the way it felt about this classic Allan Ray eye injury. This one was so gross you can actually see his eye bulging out of the socket as it got dislocated.

5.0 Andrew Bogut's Elbow

This is one of the most recent and most painful-looking injuries in recent years, coming as Andrew Bogut's arm gets folded up underneath him awkwardly and fell to the ground in a heap. The result was a dislocated elbow, a broken hand and a sprained wrist. It sidelined him for the season.

6.0 Jamal Crawford's Neck Breaks His Fall

It was one of those injuries where everyone just goes silent for a second until they see him actually move again. Any time you see a guy go off in a stretcher, you know something bad just happened,

but when they land directly on their neck, it's even worse. Lucky for Jamal, all that happened to him was a sprained neck as he was released from the hospital the next day. It was just one of those cases where it looked so bad that you couldn't help but feel bad for him.

7.0 Marquis Scares Us All

Marquis Daniels' head whips around after an awkward collision and he goes straight to the ground. No rolling. No wincing. No grabbing, - nothing, just stillness. Minutes passed like molasses running and commentators get that somber, "something terrible is happening" tone as it seems like everyone feared the worst for Daniels. Finally, after what seems like the entire length of Titanic, Daniels makes a few movements, at least showing us that he's alive. What resulted was a bruised spine for Daniels and a hell of a scare for everyone in attendance.

8.0 The Punch

This is the punch that legends are made out of, and whether it was fair or not, it was one that would follow Kermit Washington around for the rest of his life. During the game between the Los Angeles Lakers and Houston Rockets, Washington was hanging around the main fight, just protecting his guys when Rudy Tomjanovich comes sprinting in. A split-second decision leads to Washington rearing back and unloading on Tomjanovich's face, leading to his head bouncing off the court. Tomjanovich was bleeding like crazy, and once he was taken to the hospital, the only term that I can use to describe what happened to him without four years at Johns Hopkins is that Kermit broke Rudy's face. There have rarely been punches as devastating as this in all history of sports.

9.0 Shaun Livingston's Knee

Livingston knee completely bends in the opposite direction that knees should, and to make it all worse, the damn thing folds up underneath him. And just like that, a promising career is taken down in its early stages. The injury took Livingston back in 2007 up to late in the 2009 season to play again. He would play his first near-full season in 2011 with the Charlotte Bobcats, a time when even he was happy to wear that uniform.

10.0 Joel Przybilla's Knee

This one isn't one that you can see the seriousness of through what the knee does, but only through the reaction of Joel Przybilla. Przybilla landed in a way that looked uncomfortable, as his knee seems completely locked when he hits the ground. However, it doesn't look too serious. Quickly, however, we realized that it was. Pain shoots through his body as he was sent off his feet and he had nowhere to go but down as he then landed on his right leg. The impact of that landing ruptured and dislocated his patella.

NBA Season 2014 – 2015 Team Injury Report (Source: Rotoworld)

	Position	Status	Date	Injury	Returns	
• Atlanta Hawks						
1.0	Walter Tavares	Center	Sidelined	July 18	Finger	Day-to-day
2.0	Shelvin Mack	Guard	Sidelined	May 27	Shoulder	August –September
3.0	Kyle Korver	Guard	Sidelined	May 22	Elbow	Training camp
4.0	Thabo Sefolosa	Forward	Sidelined	April 8	Ankle	October-November
• Brooklyn Nets						
1.0	Bojan Bogdanovic	Guard	Sidelined	Aug. 27	Ankle	Day-to-day
2.0	Juan Vaulet	Forward	Sidelined	Aug. 11	Ankle	Out until December
3.0	Quincy Miller	Forward	Sidelined	July 4	Nose	August
4.0	Thomas Robinson	Forward	Sidelined	June 26	Knee	Day-to-day
5.0	Sergey Karasev	Forward	Sidelined	Mar. 10	Knee	Training camp
• Boston Celtics						
1.0	Kelly Olynyk	Center	Sidelined	Apr. 27	Knee	2015-16 opener
• Charlotte Hornets						
1.0	Al Jefferson	Forward	Sidelined	Apr. 3	Knee	cleared for B-ball
2.0	M. Kidd-Gilchrist	Forward	Sidelined	Mar. 27	Ankle	August
3.0	Cody Zeller	Center	Sidelined	Mar. 21	Shoulder	August
• Chicago Bulls						
1.0	Taj Gibson	Forward	Sidelined	Jun. 18	Ankle	Questionable
• Cleveland Cavaliers						
1.0	Timofey Mozgov	Center	Sidelined	Jul. 3	Knee	Out for 6 weeks
2.0	Kyle Irving	Guard	Sidelined	Jun. 9	Knee	? Opening night
3.0	Anderson Varejao	Center	Sidelined	Dec. 23	Achilles	August
• Dallas Mavericks						
1.0	JaVale McGee	Center	Sidelined	Aug. 14	Knee	Training camp
2.0	Chandler Parsons	Forward	Sidelined	Apr. 2	Knee	Training camp
3.0	Wesley Mathews	Guard	Sidelined	Mar. 5	Achilles	Opening night 2015
• Denver Nuggets						
1.0	Jusuf Nurkic	Center	Sidelined	May 20	Knee	Training camp
• Detroit Pistons						
1.0	Brandon Jennings	Guard	Sidelined	Jan. 24	Achilles	? Training camp
• Golden State Warriors						
1.0	Kevon Looney	Forward	Sidelined	Jun. 25	Hip	January 2016
• Houston Rockets						
1.0	Dwight Howard	Center	Sidelined	May 29	Knee	? Opening night
2.0	K.J. McDaniels	Guard	Sidelined	Apr. 16	Elbow	training camp
3.0	Don Motiejunas	Forward	Sidelined	Mar. 26	Back	Training camp

	4.0 Patrick Beverley	Guard	Sidelined	Mar. 25	Wrist	July
•	Indiana Pacers					
	1.0 Paul George	Forward	Sidelined	Apr. 15	Calf	Training camp
•	Los Angeles Lakers					
	1.0 Kobe Bryant	Forward	Sidelined	Jan. 22	Shoulder	August
•	Memphis Grizzlies					
	1.0 Jordan Adams	Guard	Sidelined	Aug. 8	Knee	Day-to-day
	2.0 Beno Udriin	Guard	Sidelined	May 27	Ankle	Training camp
•	Miami Heat					
	1.0 Tyler Johnson	Guard	Sidelined	Jul. 9	Mouth	Training camp
	2.0 Chris Bosh	Center	Sidelined	Feb. 18	Sickness	Training camp
	3.0 Josh McRoberts	Center	Sidelined	Dec. 9	Knee	Training camp
•	Minnesota Timberwolves					
	1.0 Ricky Rubio	Guard	Sidelined	Mar. 10	Ankle	August
	2.0 Nikola Pekovic	Center	Sidelined	Mar. 11	Ankle	Training camp
•	Milwaukee Bucks					
	1.0 G. Antetokounmpo	Forward	Sidelined	May, 2	Knee	? Opener
	2.0 Jabari Parker	Forward	Sidelined	Dec. 15	Knee	Training camp
•	New Orleans Pelicans					
	1.0 Anthony Davis	Forward	Sidelined	Aug. 11	Ankle	Training camp
	2.0 Quincy Pondexter	Guard	Sidelined	Jul. 28	Knee	training camp
	3.0 Omer Asik	Center	Sidelined	Jul. 25	Back	Day-to-day
	4.0 Jrue Holiday	Guard	Sidelined	May 6	Leg	Training camp
•	New York Knicks					
	1.0 Jose Calderon	Guard	Sidelined	Feb. 25	Achilles	Start 2015-16
	2.0 Carmelo Anthony	Forward	Sidelined	Feb. 9	Knee	Start 2015-16
•	Oklahoma City Thunder					
	1.0 Cameron Payne	Guard	Sidelined	Jun. 25	Finger	Training camp
	2.0 Nick Collison	Forward	Sidelined	Apr. 30	Knee	Training camp
	3.0 Serge Ibaka	Forward	Sidelined	Mar. 13	Knee	Training camp
	4.0 Kevin Durant	Forward	Sidelined	Feb. 20	Foot	Training camp
•	Orlando Magic					
	1.0 Aaron Gordon	Forward	Sidelined	Jul. 17	Face	Training camp
•	Philadelphia 76ers					
	1.0 Nik Stauskas	Guard	Sidelined	Jul. 10	Ankle	Day-to-day
	2.0 Richaun Holmes	Forward	Sidelined	Jul. 10	Elbow	Training camp
	3.0 Carl Landry	Forward	Sidelined	Jun. 2	Wrist	November
	4.0 Tony Wroten	Guard	Sidelined	Jan. 13	Knee	? Training camp
	5.0 Joel Embiid	Center	Sidelined	Apr. 9	Foot	? 2015-16
	6.0 Brandon Knight	Guard	Sidelined	Aug. 15	Ankle	Training camp

- **Portland Trail Blazers**

1.0 Moe Harkless	Guard	Sidelined	Aug. 26	Ankle	September
2.0 Allen Grabbe	Guard	Sidelined	Jul 15	Ankle	? Training camp
3.0 Gerald Henderson	Forward	Sidelined	Jul. 7	Hip	? Training camp
- **Sacramento Kings**

1.0 David Stockton	Guard	Sidelined	Jul. 10	Ankle	Day-to-day
--------------------	-------	-----------	---------	-------	------------
- **Toronto Raptors**

1.0 Terrence Ross	Forward	Sidelined	May 23	Ankle	Training camp
-------------------	---------	-----------	--------	-------	---------------
- **Utah Jazz**

1.0 Dante Exum	Guard	Sidelined	Aug. 4	Knee	out indefinitely
2.0 Rodney Hood	Forward	Sidelined	Jul. 9	Shoulder	Day-to-day
3.0 Grant Jerrett	Forward	Sidelined	Jul. 6	Shoulder	Out indefinitely
4.0 Carrick Felix	Guard	Sidelined	Nov. 26	Knee	? Training camp
- **San Antonio Spurs**

No injury to report
- **Los Angeles Clipper**

No injury to report

COMMON BASKETBALL INJURIES

(Source: Patrick O'Connell, M.D., Virginia Beach, Virginia)

Basketball is one of the most popular sports in the United States and throughout the world. Millions of people participate in the sport at all levels of competition. Whether you are playing for the neighborhood championship or the NBA title, you can get injured. Basketball injuries can be separated into two general categories: overuse injuries and traumatic injuries.

Overuse injuries

Injuries caused by stressing an area over and over until it is damaged and begins to hurt are described as overuse injuries. One such injury is patellar tendinitis, or "jumper's" knee, which is characterized by pain in the tendon just below the kneecap.

Achilles tendinitis is another common overuse injury in basketball players. This injury of the tendon connecting the muscles in the back of the calf to the heel bone causes pain in the back of the leg just above the heel. Occasionally, the Achilles tendon can tear. To treat a torn Achilles tendon, the doctor might tell you to keep the area immobilized for some time so the tendon can heal, or you might need surgery to repair the damage.

Some basketball players overuse the tendons in their shoulders. The rotator cuff of the shoulder is composed of four muscles. The tendons that attach these muscles to the shoulder bones can become inflamed and painful, particularly when you do repetitive overhead activities, such as shooting the basketball.

Traumatic injuries

Traumatic injuries are those caused by a sudden forceful injury. Some of the more common traumatic injuries in basketball are jammed fingers. The severity of a jammed finger can range from a minor injury of the ligaments, which connect bones, to a broken finger. Splinting may be needed to allow the injured finger to heal. Another type of traumatic injury is a muscle pull or tear. In basketball players, these injuries occur primarily in the large muscles of the legs. To prevent them, stretch your thighs and calves well and do warm-up exercises before playing.

The most common basketball injury is the ankle sprain. This injury often occurs when a player lands on another player's foot or the ankle rolls too far outward. When this happens, the ligaments connecting bones and supporting the ankle are stretched and torn. The ligaments can tear partially or completely. To treat your sprain, your doctor prescribes a short period of immobilization, keeping the joint still, so the ligaments can heal. After immobilization, you begin special exercises to strengthen the muscles that help your ankle in place. If your muscles and ligaments are not strong enough to prevent re-injury, you might need surgery to repair the damage and to help stabilize your ankle.

Knee injuries

Knee injuries are some of the most serious basketball injuries. One type of knee injury is a sprain. A knee sprain is a small tear in the ligaments or joint capsule that is not severe enough to cause your knee to give way. To help the tear heal, you must protect your knee for a short time by immobilizing it. After the tear heals, your doctor will prescribe stretching and strengthening exercises for the muscles that help hold the knee in place.

If you twist your knee, you can tear a meniscus, which is a tissue that acts as a cushion between the bones of the upper and lower leg at the knee. To repair or remove a torn meniscus, you might need arthroscopic surgery. The surgeon inserts a camera and instruments into the knee joint through small skin incisions. With the instruments, the surgeon can see and treat the damaged meniscus.

A more severe injury is a complete tear of one or more of the ligaments that support the knee. The anterior cruciate ligament (ACL) is one of the more commonly torn ligaments in the knee. This ligament connects the upper and lower leg bones and helps hold the knee in place. If you damage your ACL, your knee will probably hurt and give way persistently. After an ACL injury, some players can participate in sports again without surgery. But they must do special exercises to strengthen their thigh muscles, and they must wear a brace on their knee. Strong thigh muscles give stability to the knee that the torn ACL cannot.

Basketball is an exciting sport for all ages and skill levels, but watch out for basketball injuries caused by overuse and trauma.

BASKETBALL HEAD INJURIES RISING AMONG KIDS

(Source: Live Science by Rachael Rettner, September 13, 2010)

An increasing number of children are admitted to hospital emergency departments for traumatic brain injuries sustained while playing basketball, the most popular team sports for kids, a new study suggests.

The number of cases of basketball-related traumatic brain injury, which include concussions, head fractures and internal head injuries, has increased by 70 percent among children over the last decade, the researchers say.

The increase occurred despite a 22 percent decline in the total number of basketball-related injuries over the same period'

The increase might be due to increased recognition, and therefore treatment of traumatic brain injuries, the researchers say. However, factors such as the increased intensity and competitiveness of the game, along with the fact that children are starting to play at younger ages, might have also contributed to the rise.

The findings are similar to those of an early study, published last month, which found an overall increase in children's emergency visits for concussions sustained while playing team sports. Concussions and other injuries to the head can pose a significant health risk to youngsters, the researchers say.

"Traumatic brain injury can have long-term impacts on young athletes. It can affect their health, their memory, their learning and their survival", said author Lara McKenzie, principal investigator at the Center for Injury Research and Policy at Nationwide Children's Hospital in Columbus, Ohio.

Basketball injuries

McKenzie and her colleagues analyzed data from the National Electronic Injury Surveillance System, a nationally representative sample of about 100 hospital emergency departments in the United States.

They examined cases of basketball-related injuries from 7,030 in 1997 to 11,948 in 2007. However, traumatic brain injuries might be underestimated because studies have shown that around a third of athletes do not recognize concussions symptoms, or continue to play after they experience dizziness, the researchers said. And basketball-related injuries as a whole might be underestimated, since the researchers only considered injuries treated at the emergency departments, not other care centers.

Overall, more than 4 million basketball-related injuries were estimated to occur during this period. On the average, there were 375,350 injuries per year. The most common injuries were strains and sprains to the lower limbs, particularly the ankles. Fractures and dislocations were also common in the arms and hands, particularly the fingers.

IN BASKETBALL, DANGER OF HEAD TRAUMA

(Source: New York Times by Tara Parker-Pope, September 13, 2010)

During the basketball practice last year, 12-year old Nicole Dehart was shooting the ball when a defender tried aggressively to block her shot. The two players made contact, and Nicole hit the floor head first.

“The way she was hit took her whole body out from under her, and she landed directly on her head”, said her mother, Christine White, of Pataskala, Ohio. “We immediately knew this was serious. She was very confused and looking at people like she didn’t know who they were.”

At the hospital, doctors diagnosed a concussion – an increasingly common injury in youth basketball, particularly among girls, yet one that has yet to gain widespread attention.

In fact, Ms. White said, she knew enough to worry about concussions – but when Nicole played soccer, not basketball, “I worried more about broken bones, being that it is hard floor”, she said. “But the physical contact of basketball is a lot like football inside”.

On Monday, the medical journal *Pediatrics* reported that about 375,000 children and teenagers are treated in hospital emergency rooms each year for basketball-related injuries. Notably, the proportion related to head trauma is on the rise.

In 2007, the last year of the study, about 4 percent of youth basketball injuries were to the head, about double the number of such injuries reported by emergency rooms in 2007.

Over all, about 109,000 children and teenagers were treated for basketball-related injuries during the 11-year study period, including nearly 12,000 in 2007. Boys were most likely to experience cuts, fractures, and dislocations; girls were most likely to suffer head or knee injuries. Among boys, the percentage of head injuries doubled over the period, but among girls, it tripled.

Although all youth sports carry some risk of injury, the data on basketball injuries are particularly important because of the sheer numbers involved. Basketball is the country’s most popular youth sport, played by one million – 550,000 boys and 450,000 girls – each academic year. And the injury numbers, which are gathered by researchers at the Nationwide Children’s Hospital in Columbus, Ohio, reflect only emergency room visits, leaving out many thousands of injuries treated by clinics, athletic trainers, family doctors and pediatricians.

“A lot of kids play basketball, both organized and unorganized”, said an author of the study, Lara McKenzie, principal investigator at the Columbus Hospital’s Center for Injury Research and Policy. “We probably need to do a better job of educating coaches, athletes and parents. Preventing traumatic brain injuries is going to be pretty challenging”.

A separate report in Pediatrics found that basketball accounted for more than 9 percent of athletic concussions among 8-to-19-year olds, placing it second among youth sports, behind only football (22 percent), soccer ranks third at 7.7 percent, followed by hockey and baseball of just under 4 percent.

Basketball's numbers are inflated, of course, by the large numbers of participants; in terms of individuals risk, concussion rates among 12-to-17-year olds are the highest for ice hockey (29 per 10,000 players), followed by football (27), soccer (8), basketball (4) and baseball (3).

Still, the growing proportion of head injuries is troubling. Dr. McKenzie said there were several likely explanations. The data may reflect increasing levels of competitiveness in youth sports, as well as children playing at younger ages.

Parents and coaches are now much more aware of head injury risks in all sports, so they may be more likely to seek medical treatment. News media attention to the risks of concussion for youth and professional basketball players (including a series of articles in the New York Times) has raised the level of discussion. And some states have passed or are considering laws aimed at curbing concussions in scholastic sports, including mandated education for coaches and immediate removal from play when an athlete suffers a head injury.

"Although we don't think of basketball as a contact sport in the true sense of the word, there is a lot of banging going on". Said Mark Hyman, author of "Unfit It Hurts: America's Obsession with Youth Sports and How It Harms Our Kids" (Beacon Press, 2009). Generally, there's an increased awareness that has been slowly building over the past five years or six years that when kids complain about symptoms that might seem benign, there may be more going on than we thought".

It's not clear why basketball-related head injuries are rising faster among girls than boys. It may be that the style of play is different. Or it could be that girls and their parents are simply more likely to seek medical attention for an injury than boys are.

Ms. White says that her daughter, now 13, has fully recovered but that it took some time. After the injury, she complained about headaches and feeling lightheaded whenever she was active.

"Even after the doctor had released her to go back playing, the high school trainer and I worked together and watched her closely", Ms. White said, "kids play rougher and tougher than they ever have".

BASKETBALL-RELATED INJURIES IN SCHOOL-AGE CHILDREN AND ADOLESCENTS (Source: Pediatrics – October 10, 2010 Volume 126/4)

Abstract Report

Objective: The objective was to determine national patterns of basketball-related injuries treated in emergency departments in the United States among children and adolescents below 20 years of age.

Methods: A retrospective analysis was conducted with data from the National Electronic Injury Surveillance System of the US Consumer Product Safety Commission from 1997 to 2007. Sample weights provided by the Consumer Product Safety Commission were used to calculate national estimates of basketball-related injuries. The trend significance of the numbers and rates of basketball-related injuries over time was analyzed by using linear regression.

Results: An estimated 4,128,852 pediatric basketball-related injuries were treated in emergency departments. Although the total number of injuries decreased during the study period, the number of traumatic brain injuries (TBIs) increased by 70%. The most common injury was a strain or sprain to the lower extremities (30.3%), especially the ankle (23.8%). Boys were more likely to sustain lacerations and fractures or dislocations. Girls were more likely to sustain TBIs and knee injury. Older children (15-19 years of age) were 3 times more likely to injure the lower extremities. Younger children (5-10 years of age) were more likely to injure the upper extremities and sustain TBIs and fractures or dislocations.

Conclusions: Although the total number of basketball-related injuries decreased during the 11-year study period, the large number of injuries in this popular sport is cause for concern.

What's known on this subject: Basketball is the most common team for girls and boys in the United States. Although increased athletic participation has undeniable health benefits, most physical activities have some inherent risk of injury.

What this study adds: More than 4 million basketball-related injuries were treated in EDs in the United States during an 11-year period. The large number of injuries in this popular sport is cause for concern.

BUCYRUS TEEN DIES AFTER BASKETBALL INJURY

(Source: Jake Furr, Reporter EDT March 16, 2016)

BUCYRUS – Noah Lear, the 16-year old student of Bucyrus Secondary School, who was injured in a pickup basketball game 18 days ago, succumbed to his injuries Wednesday morning.

Lear was playing basketball with three of his friends at the Calvary Baptist Church on Marion Road when a dunk shot attempt snapped the support pole, causing the pole, the backboard and hoop to come crashing down on Lear's head and neck.

He was flown to Nationwide Children's Hospital and later moved to hospice care. He succumbed to his injuries Wednesday morning. According to a post on the face book page Monday, Lear suffered damage to the portion of his brain that controls his heartbeat and blood pressure, leading to a decision to move him into hospice care. Lear is a registered organ donor.

"This is an incredibly challenging time for our students and staff", Bucyrus Secondary School Principal said in a news release. "The Bucyrus City School District is a family, and we will do whatever is necessary to help each student and staff member deal with losing a classmate, student and friend. Noah and his family are in our thoughts and prayers".

The release said the district informed students of Noah's passing prior to classes Wednesday. The Crawford County Trauma Team has provided grief counseling to students and staff since Monday.

"The loss of life is never easy, and it's even more difficult when it's a child", Superintendent Kevin Kimmel said. "As the father of three children, my heart goes out to Noah's family.

Lear was a member of the Bucyrus Redmen basketball team for the 2015-16 season. Head coach Tony Rose released a statement via email saying:

"Very sad day as you can expect in the halls of the Redmen house. Death is never easy, but Noah has brought this community very close and his school seems a bit closer as well. I did meet with the most of the players this morning and we plan to attend the funeral together.....I am sure we will have many things in the coming weeks and months related to the memory of Noah, for now they are just ideas being thrown out as a group as we will continue to remember him and keep him in a special place with the Redmen basketball program now and forever".

A benefit is planned for the family at 4 p.m. April 2 at Bucyrus High School. A GoFundMe page has been set up for Lear's family to help with the unexpected medical costs. This page can be found by searching, "Battle of the Lear Fundraiser" at gofundme.com.

MEN'S BASKETBALL TEAM PLAGUED WITH INJURIES

(Source: <http://www.uvureview.com/author/brad-curnow/> Dec.11, 2015)

Seven games into the 2015-16 season, the Utah Valley University men's basketball team has been an unprecedented amount of bad luck when it comes to player health. Before the season started the Wolverines saw forward Zach Nelson out for the season with complications from knee surgery and guard Hayes Garrity aggravated a knee injury during rehabilitation.

Things haven't looked much better since the season began with guards Ivory Young sustaining an ankle injury, Telly Davenport injuring his shoulder, and center Andrew Bastien missing a stint with a minor knee injury. Despite the long list of injuries to his players, head coach Mark Pope remains optimistic about where his team is headed.

"We're not working with the guys we thought we'd be working with right now", Pope said. "But this is great for our team and great for our staff, and this is an unbelievable opportunity for us to grow. One thing my guys are doing that I'm really proud of is, when you play as hard as they're playing right now, you grow".

With many key players going down with injuries, it has given some of the players further down the bench a chance to step in and fill larger roles. Walk-on forward Konner Frey has taken the opportunity for leadership and leads UVU in scoring at 17.7 points per game, and rebounding, 7.1 per game.

"We're going to have some hard times, obviously", Pope said. "I actually don't mind building a foundation of a program on some hard times because that's something that guys never forgot. The when things get going right, you savor it in a way a lot of people don't recognize".

Growing pains are normal for a team like UVU with a new coach and system, but the quantity of injuries is an unusual case of bad luck. With first month of the season out of the way, the Wolverines will look to get healthy as conference play draws closer.

LSU WOMEN'S BASKETBALL TEAM PLAGUED WITH INJURIES

(Source: Cecil Rucker Jr. – The Daily Reveille, November 30, 2015)

The LSU women's basketball team is down to seven active players after a one win, two loss performance at the Gulf Coast Showcase in Estero, Florida over the weekend.

The Lady Tigers (4-4, 0-0 Southeastern Conference) – without junior guard Raigyne Moncrief – dropped their first game of the tournament to the Purdue Boilermakers on Friday night before defeating Marist College without freshman forward Ayana Mitchell on Saturday. Junior Alexis Hyder scored 13 points and grabbed 11 rebounds in the Tigers' 52-41 loss to the University of Maine on Sunday.

LSU coach Nikki Fargas said two of the team's three injured players are nursing season-ending injuries, leaving the Tigers with seven active players heading into the Tuesday's game against Texas Southern University.

"Anne Pedersen went down during the game on Saturday against Marist, and we will not have her for tomorrow's competition", Fargas said. "We hope to get her back. We go into the finals and exam week so she is going to be able to recover from that. Her injury is one that she will be able to come back from".

"At this point, we have two young ladies that have season-ending injuries in Raigyne Moncrief and Ayana Mitchell. Both of them will be undergoing surgery in the next week. We hope for both to have speedy recoveries and we'll be ready for them to come back and compete next season".

Fargas acknowledge injuries are a part of the game of basketball, but the ones at the beginning of the season hurt more than usual because players don't get a chance to gain valuable playing experience before stepping into new roles.

Late in the 2013-2014 season, Jeanne Kenny suffered a season-ending concussion, but Rina Hill and Jasmine Rhodes performed well after seeing increased minutes because of their seasoned experience. Sophomore guard Jenna Deemer stepped into her role as the team's sharpshooter after it lost three starters this year. She scored 10 points, knocking down two threes in LSU's last game against Maine.

Fargas said Deemer will also see an increased role as a ball handler to placate the loss of Moncrief. "Jenna Deemer has shown that she can step up offensively and really be that punch that we need from the perimeter", Fargas said. "She's someone who we are going to rely on to assist Rina Hill in running the offense. We've been playing her periodically at the point position to give Rina a breather away from the basket".

TOP 10 SPORTS WITH THE MOST INJURIES TO HIGH SCHOOL ATHLETES

(Source: Kevin Hoffman, <http://www.livescience.com>, March 9, 2016 and Sabrina Perry, March 8, 2016 <https://graping-stories.com>)

HealthGrove.com recently compiled statistics from Consumer Product Safety Commission showing which sports are responsible for most trips to the emergency room for athletes ages 13 to 17 years old. The honor goes to basketball.

The list provides some perspective, but it doesn't show the number of injuries per player, so sports with greater participation will naturally climb higher up the list. Discounting injuries that do not send athletes to the emergency room also creates room for scrutiny.

Here is the list, along with the average number of injuries each year between 2002- 2014 together with most body part injured and most common diagnosis per sport:

Rank	Sport	No. of Injuries	% Male	% Female	Most Body Part Injured	Most Common Diagnosis
1	Basketball	119,589	74.0	26.0	Ankle	Strain, sprain
2	Football	118,886	95.7	4.3	Finger	" "
3	Soccer	45,475	52.0	48.0	Ankle	" "
4	Baseball	27,308	88.8	11.2	Face	Contusions, abrasions
5	Gymnastics	22,671	10.0	90.0	Ankle	Strain, sprain
6	Wrestling	18,174	90.6	9.4	Shoulder	" "
7	Softball	18,119	7.9	92.1	Ankle	" "
8	Volleyball	14,204	21.1	78.9	Ankle	" "
9	Ice Hockey	12,336	88.5	11.5	Head	Contusions, abrasions
10	Snowboarding	9,608	75.9	24.1	Wrist	Fracture

TOP 15 MOST DANGEROUS SPORTS IN AMERICA

(Source: Bjorn Carey, June 14, 2006, <http://www.livescience.com>)

Pietro Tonino, director of the division of sports medicine at Loyola University Health System, said “Athletes, youngsters and weekend warriors alike can wind up in hospital emergency rooms for injuries related to sports. So before people run to the basketball court, they need to take steps to reduce their injury risk”.

Tonino used data from the U.S. Consumer Product Safety Commission that showed that playing basketball and riding bicycles sent more Americans to the emergency room in 2005 as shown below:

Rank	Sport	Total Injuries	Percentage
1	Basketball	512,213	20.7
2	Bicycling	485,669	19.6
3	Football	418,260	16.9
4	Soccer	174,686	7.1
5	Baseball	155,898	6.3
6	Skateboard	112,544	4.6
7	Trampolines	112,029	4.5
8	Softball	106,884	4.3
9	Swimming/Diving	82,354	3.3
10	Horseback riding	75,576	3.0
11	Weightlifting	65,716	2.7
12	Volleyball	52,091	2.1
13	Golf	47,360	1.9
14	Roller Skating	35,003	1.4
15	Wrestling	33,734	1.3

IMPACT OF INJURIES ON NBA TEAMS

(Source: <http://instreetclothes.com>)

Impact of injuries on NBA teams could be devastating and disastrous financially and missing the playoffs and chance of winning an NBA title. In addition, more serious injuries could be career-ending to some players and force them to retire early long before their normal retirement age. As shown in the chart, the total NBA season games missed with injured players has been going on for a long time and may worsen unless national authorities change some rules of play recommended by the Canadian Style Basketball.

SEASON	TOTAL NBA REGULAR SEASON GAMES MISSED DUE TO INJURY
2005- 2006	4,750
2006- 2007	4,739
2007- 2008	4,483
2008- 2009	4,628
2009- 2010	4,499
2010- 2011	4,420
2011- 2012 (Prorated due to lockout)	4,400
2012- 2013	4,272
2013- 2014	4,989
2014- 2015	4,665
Total	45,845.0
Average per season	4,584.5
Average per team	152.8

SEASON	TOTAL SALARY LOST TO INJURY	AVERAGE SALARY LOST PER TEAM
2013- 2014	\$359.8 M	\$12.0 M
2014- 2015	\$344.3 M	\$11.5 M

PART 4 – THE PROFITABLE BUSINESS OF BASKETBALL

THE NBA'S BUSINESS MODEL

(Source: Trevir Nath, July 7, 2015)

Not only a popular pastime, basketball is a multi-billion dollar operation, and it's growing. With popularity waning in the MLB due to slow paced games and safety issues plaguing the NFL, the National Basketball Association (NBA) continues to shine. Contributing to its growth, the NBA has focused on expanding basketball viewership overseas to Europe and China.

On the world stage, basketball is one of the most popular sports, trailing only soccer. With expanding viewership, revenue in the NBA has significantly grown. In fact, in the 2013-14 season all basketball related income generated by the NBA amounted to \$4.8 billion. Basketball related income includes broadcast rights, advertising, merchandising, and concessions, among other things. A recent TV deal worth \$24 billion is expected to significantly increase basketball related income, affecting team operations like player salary caps. Consequently, the average NBA team is now valued at \$1.1 billion, representing a 74% increase from the prior year.

Basketball Related Income

A majority of revenue generated by the NBA and its subsidiaries is classified as Basketball Related Income (BRI). This includes ticket purchases and concessions, TV deals, which deliver the game to viewers' homes, and merchandising rights from Jersey and apparel sales. Not included in BRI are proceeds towards expansion teams, fines levied throughout the season, and revenue sharing.

Because BRI contributes to calculating the salary cap, revenue sharing must be excluded from BRI because it would present an economic advantage to big market teams. Hypothetically, a high revenue generating team such as the Los Angeles Lakers or New York Knicks would drive the salary cap up, forcing small market teams to spend exorbitant amounts to retain players. This leads to an unsustainable system and economic disparity among franchises. As a result, revenue sharing is not designated as basketball related income.

Television Deal

Over the past 10 years, TV viewership has declined due to various technological advancements, including streaming services and DVRs. However, live sports have remained largely immune to this trend. As a result, networks are paying exorbitant amounts to televise these games. Recently, the NBA agreed on a nine year deal with ESPN and Turner Sports. When the deal takes effect for the 2016-17 season, ESPN and Turner Sports will combine to pay the NBA \$2.6 billion annually. Putting this in perspective, the current deal signed in 2007 costs both networks \$930 million annually. The new media rights deal represents a 180% increase from the previous deal.

Coincidentally, when this deal comes into effect, the current collective bargaining agreement (CBA) is set to expire. While this new deal will certainly increase the wealth of owners, player contracts will also increase. Since TV and media rights are a large portion of basketball related income, the salary cap is expected to increase from its current \$63 million to \$108 million for the 2016-17 season.

Ticket Sales and Concessions

Due to the increasing popularity of basketball, attendance for the 30 NBA teams has grown. The Chicago Bulls, who continually have the highest attendance in the league, saw cumulative \$72 million in gate receipts at an average ticket price of \$82. New York Knicks who operate in a large market, have the highest gate receipts of \$128 million at the average price per ticket of \$130. Cheapest tickets are sold by the Charlotte Hornets at \$31. This represented a 4.5% increase from the prior year.

This report defines a Fan Cost Index (FCI), which is the cost of taking a family of four to an NBA game. This metric includes the cost of tickets, concessions and parking. On the average, the cost of bringing the family to an NBA game is \$333.58, but can be as expensive as \$676.42.

Licensing Agreements and Sponsorships

Among the four major sports in the United States, royalty grew to \$698 million on \$12.8 billion in merchandise sales. Recently, the NBA decided to end its partnership with Adidas and signed an eight year, \$1 billion contract with Nike (NKE). This represents a 24% annual increase from its previous deal. Nike, which had previously produced replica jerseys, will carry official uniforms at the start of the 2017-18 season. Prior to this deal, Nike had played a large role in basketball shoes and apparel. It is estimated that Nike brands control 90% of U.S. basketball shoe sales. Likewise, many of the NBA's biggest stars have lucrative endorsement deals with the world's largest shoes and apparel companies.

When you attend an NBA game, you will notice a number of sponsors and brands located around the arena. In 2013, the NBA generated approximately \$679 million in revenue from corporate sponsors. These sponsors include recognizable brands like Anheuser-Busch (BUD), State Farm and Gatorade. Recently, Pepsi (PEP) replaced Coca-Cola (KO) as the official food and beverage brand of the NBA. Included in sponsorships, are naming rights for NBA arenas. For example, the home of the Golden State Warriors, Oracle Arena, is named after the computer technology company.

Revenue Sharing

Like the MLB and NFL, the NBA operates with a revenue sharing system. As stated above, revenue from the system is not a part of the basketball related income. Revenue sharing in the NBA addresses the inequitable circumstances between small and big markets. As a result, all teams pool their annual revenue together and redistribute it from high grossing teams to low grossing ones. By these means, each team will receive revenue equal to the salary cap that year. In order to receive the full revenue sharing benefits, the revenue structure requires small market teams to generate revenue equal to at least 70% of the league average.

International Growth

With a growing number of international players and countries represented on the NBA rosters, worldwide growth has shined. On the opening night of the 2014-15 season, the NBA recorded 101 international players from 37 countries. As this number continues to grow, the NBA will look to international markets to promote media broadcast and merchandise sales. In the near future, we may also see a number of European-based NBA teams. Currently, the NBA generates \$350 million from overseas operation, an 18% increase from the previous year.

The Bottom Line

Drawing interest domestically and abroad, the NBA has seen its popularity and revenue streams rapidly increase over the past few years. With a new TV deal valued at \$24 billion, a \$1 billion Nike deal, increasing number of corporate sponsors and rapid international growth, the average NBA team is now valued at over \$1 billion. This also comes at a cost to the fans as average ticket prices and concessions have also increased.

NBA BASKETBALL BUSINESS FINANCIAL HIGHLIGHTS

(Source: Forbes January 2016)

Team	NBA Title	Price Paid	Current Value	Revenue	Operating Income	Player Expenses	Gate Receipts	Metro Area Population
1. N. Y. Knicks	2	\$300 M	\$3.0 B	\$307 M	\$108.9 M	\$88 M	\$128 M	20.0 M
2. L. A. Lakers	16	\$288 M	\$2.7 B	\$304 M	\$133.4 M	\$76 M	\$98 M	13.1 M
3. Chicago Bulls	6	\$16 M	\$2.3 B	\$228 M	\$67.6 M	\$87 M	\$72 M	9.5 M
4. Boston Celtics	17	\$360 M	\$2.1 B	\$181 M	\$57.4 M	\$69 M	\$56 M	4.6 M
5. L. A. Clippers	0	\$2.0 B	\$2.0 B	\$176 M	\$20.6 M	\$92 M	\$59 M	13.1 M
6. G. S. Warriors	4	\$450 M	\$1.9 B	\$201 M	\$57.6 M	\$80 M	\$77 M	4.3 M
7. Brooklyn Nets	0	\$365 M	\$1.7 B	\$220 M	-\$5.7 M	\$99 M	\$63 M	20.0 M
8. Houston Rockets	2	\$85 M	\$1.5 B	\$237 M	\$74.6 M	\$85 M	\$75 M	6.3 M
9. Dallas Mavericks	1	\$280 M	\$1.4 B	\$177 M	\$24.3 M	\$90 M	\$45 M	6.9 M
10. Miami Heat	3	\$33 M	\$1.3 B	\$180 M	\$20.8 M	\$89 M	\$67 M	5.6 M
11.0 S. A. Spurs	5	\$76 M	\$1.2 B	\$170 M	\$31.9 M	\$76 M	\$59 M	2.4 M
12. C. Cavaliers	0	\$375 M	\$1.1 B	\$191 M	\$24.8 M	\$87 M	\$52 M	2.1 M
13. Phoenix Suns	0	\$404 M	\$1.0 B	\$154 M	\$21.8 M	\$76 M	\$48 M	8.6 M
15. P. Trail Blazers	1	\$70 M	\$975 M	\$157 M	\$4.1 M	\$94 M	\$42 M	2.3 M
16. W. Wizards	1	\$551M	\$960 M	\$146 M	\$2.9 M	\$89 M	\$31 M	6.0 M
17. O. C. Thunder	1	\$325 M	\$950 M	\$157 M	\$20.9 M	\$87 M	\$48 M	1.5 M
18. S. Kings	1	\$534 M	\$925 M	\$141 M	\$4.2 M	\$81 M	\$29 M	2.2 M
19. O. Magic	0	\$85 M	\$900 M	\$143 M	\$35.4 M	\$66 M	\$34 M	2.3 M
20. U. Jazz	0	\$24 M	\$875 M	\$146 M	\$27.5 M	\$67 M	\$36 M	1.2 M
21. D. Nuggets	0	\$202 M	\$855 M	\$140 M	\$26.3 M	\$64 M	\$26 M	2.8 M
22. D. Pistons	3	\$325 M	\$850 M	\$154 M	\$16.0 M	\$71 M	\$22 M	4.3 M
23. I. Pacers	0	\$11 M	\$840 M	\$138 M	\$19.0 M	\$75 M	\$20 M	1.8 M
24. A. Hawks	1	\$730 M	\$825 M	\$142 M	\$7.0 M	\$67 M	\$30 M	5.5 M
25. M. Grizzlies	0	\$377 M	\$780 M	\$147 M	\$10.3 M	\$81 M	\$27 M	1.3 M
26. C. Hornets	0	\$175 M	\$750 M	\$142 M	\$3.7 M	\$82 M	\$24 M	2.4 M
27. Timberwolves	0	\$89 M	\$720 M	\$146 M	\$15.1 M	\$76 M	\$19 M	3.5 M
28. P. 76ers	3	\$287 M	\$700 M	\$124 M	\$13.9 M	\$60 M	\$21 M	6.0 M
29. M. Bucks	1	\$550 M	\$675 M	\$126 M	\$11.6 M	\$71 M	\$24 M	1.6 M
30. N. O. Pelicans	0	\$340 M	\$650 M	\$142 M	\$19.7 M	\$80 M	\$30 M	1.2 M
Totals		\$ 10,107 M	\$37,410 M	\$5,180 M	\$898.6 M	\$2,395 M	\$1,397 M	166.9 M

NBA VALUE GAIN PER TEAM (Source: Forbes January 2016)

Team	Price Paid	Year Paid	Sport Value	Market Value	Stadium Value	Brand Value	Total Value	Value Gain
1. N. Y. Knicks	\$300 M	1997	\$240 M	\$1,456 M	\$907 M	\$447 M	\$3,050 M	\$2,750 M
2. L. A. Lakers	\$288 "	1998	\$38 "	\$1,629 "	\$537 "	\$546 "	\$2,750 "	\$2,462 M
3. C. Bulls	\$16 "	1985	\$430 "	\$954 "	\$629 "	\$313 "	\$2,326 "	\$2,310 M
4. B. Celtics	\$360 "	2002	\$554 "	\$907 "	\$352 "	\$312 "	\$2,125 "	\$1,765 M
5. L. A. Clippers	\$2,000 "	2014	\$588 "	\$779 "	\$387 "	\$263 "	\$2,170 "	\$170 M
6. G. S. Warriors	\$450 "	2010	\$452 "	\$766 "	\$455 "	\$252 "	\$1,926 "	\$1,476 M
7. B. Nets	\$365 "	2010	\$361 "	\$611 "	\$554 "	\$190 "	\$1,716 "	\$1,351 M
8. H. Rockets	\$85 "	1993	\$250 "	\$669 "	\$408 "	\$186 "	\$1,135 "	\$1,050 M
9. D. Mavericks	\$280 "	2000	\$409 "	\$481 "	\$352 "	\$174 "	\$1,416 "	\$1,136 M
10. M. Heat	\$33 "	1988	\$360 "	\$472 "	\$308 "	\$176 "	\$1,316 "	\$1,283 M
11. S. A. Spurs	\$76 "	1996	\$316 "	\$413 "	\$301 "	\$132 "	\$1,162 "	\$1,086 M
12. C. Cavaliers	\$375 "	2005	\$282 "	\$429 "	\$248 "	\$159 "	\$1,118 "	\$743 M
13. P. Suns	\$404 "	2004	\$362 "	\$332 "	\$201 "	\$113 "	\$1,008 "	\$604 M
14. T. Raptors	\$400 "	2012	\$322 "	\$307 "	\$259 "	\$101 "	\$989 "	\$589 M
15. P. TrailBlazers	\$70 "	1988	\$346 "	\$309 "	\$207 "	\$122 "	\$984 "	\$914 M
16. W. Wizards	\$551 "	2010	\$395 "	\$289 "	\$186 "	\$101 "	\$971 "	\$420 M
17. O. C. Thunder	\$325 "	2006	\$332 "	\$323 "	\$195 "	\$110 "	\$960 "	\$635 M
18. S. Kings	\$534 "	2013	\$379 "	\$298 "	\$156 "	\$98 "	\$931 "	\$397 M
19. O. Magic	\$85 "	1991	\$371 "	\$284 "	\$155 "	\$99 "	\$909 "	\$824 M
20. U. Jazz	\$24 "	1986	\$364 "	\$255 "	\$168 "	\$97 "	\$884 "	\$860 M
21. D. Nuggets	\$202 "	2000	\$402 "	\$219 "	\$153 "	\$89 "	\$863 "	\$661 M
22. D. Pistons	\$325 "	2011	\$313 "	\$310 "	\$145 "	\$90 "	\$858 "	\$533 M
23. I. Pacers	\$11 "	1983	\$415 "	\$206 "	\$152 "	\$76 "	\$849 "	\$838 M
24. A. Hawks	\$730 "	2015	\$346 "	\$199 "	\$198 "	\$87 "	\$830 "	\$100 M
25. M. Grizzlies	\$377 "	2012	\$412 "	\$175 "	\$140 "	\$59 "	\$786 "	\$409 M
26. C. Hornets	\$175 "	2010	\$404 "	\$163 "	\$132 "	\$56 "	\$755 "	\$580 M
28. P. 76ers	\$287 "	2011	\$307 "	\$245 "	\$80 "	\$72 "	\$704 "	\$417 M
27. Timberwolves	\$89 "	1995	\$357 "	\$185 "	\$118 "	\$63 "	\$723 "	\$634 M
29. M. Bucks	\$550 "	2014	\$391 "	\$151 "	\$76 "	\$61 "	\$679 "	\$129 M
30. N. O. Pelicans	\$340 "	2012	\$319 "	\$160 "	\$117 "	\$59 "	\$650 "	\$310 M
Totals	\$10,107 M		\$10,817 M	\$13,976 M	\$8,276 M	\$4,704 M	\$37,773 M	\$27,666 M

RANKING NBA TEAMS CURRENT VALUE

(Source: Forbes, January 2016)

VALUATION BREAKDOWN

Team	Current Value	Sport	Market	Stadium	Brand	Revenue	Income
New York Knicks	\$3,050 M	\$240 M	\$1,456 M	\$907 M	\$447 M	\$307 M	\$108.9 M
Los Angeles Lakers	\$2,750 M	\$38 M	\$1,629 M	\$537 M	\$546 M	\$304 M	\$133.4 M
Chicago Bulls	\$2,326 M	\$430 M	\$954 M	\$629 M	\$313 M	\$228 M	\$67.6 M
Boston Celtics	\$2,125 M	\$554 M	\$907 M	\$352 M	\$312 M	\$181 M	\$57.4 M
Los Angeles Clippers	\$2,017 M	\$588 M	\$779 M	\$387 M	\$263 M	\$176 M	\$20.6 M
Golden State Warriors	\$1,926 M	\$452 M	\$766 M	\$455 M	\$252 M	\$201 M	\$57.6 M
Brooklyn Nets	\$1,716 M	\$361 M	\$611 M	\$554 M	\$190 M	\$220 M	\$-5.7 M
Houston Rockets	\$1,513 M	\$250 M	\$669 M	\$408 M	\$186 M	\$237 M	\$74.6 M
Dallas Mavericks	\$1,416 M	\$409 M	\$481 M	\$352 M	\$174 M	\$177 M	\$24.3 M
Miami Heat	\$1,316 M	\$360 M	\$472 M	\$308 M	\$176 M	\$180 M	\$20.8 M
San Antonio Spurs	\$1,162 M	\$316 M	\$413 M	\$301 M	\$132 M	\$170 M	\$31.9 M
Cleveland Cavaliers	\$1,118 M	\$282 M	\$429 M	\$248 M	\$159 M	\$191 M	\$24.8 M
Phoenix Suns	\$1,008 M	\$362 M	\$332 M	\$201 M	\$113 M	\$154 M	\$21.8 M
Toronto Raptors	\$989 M	\$322 M	\$307 M	\$259 M	\$101 M	\$163 M	\$23.5 M
Portland Trail Blazers	\$984 M	\$346 M	\$309 M	\$207 M	\$122 M	\$157 M	\$4.1 M
Washington Wizards	\$971 M	\$395 M	\$289 M	\$186 M	\$101 M	\$146 M	\$2.9 M
Oklahoma Thunder	\$960 M	\$332 M	\$323 M	\$195 M	\$110 M	\$157 M	\$20.9 M
Sacramento Kings	\$931 M	\$379 M	\$298 M	\$156 M	\$98 M	\$141 M	\$4.2 M
Orlando Magic	\$909 M	\$371 M	\$284 M	\$155 M	\$99 M	\$143 M	\$35.4 M
Utah Jazz	\$884 M	\$364 M	\$255 M	\$168 M	\$97 M	\$146 M	\$27.5 M

Denver Nuggets	\$863 M	\$402 M	\$219 M	\$153 M	\$89 M	\$140 M	\$26.3 M
Detroit Pistons	\$858 M	\$313 M	\$310 M	\$145 M	\$90 M	\$154 M	\$16.0 M
Indiana Pacers	\$849 M	\$415 M	\$206 M	\$152 M	\$76 M	\$138 M	\$19.0 M
Atlanta Hawks	\$830 M	\$346 M	\$199 M	\$198 M	\$87 M	\$142 M	\$7.0 M
Memphis Grizzlies	\$786 M	\$412 M	\$175 M	\$140 M	\$59 M	\$147 M	\$10.3 M
Charlotte Hornets	\$755 M	\$404 M	\$163 M	\$132 M	\$56 M	\$142 M	\$3.7 M
M. Timberwolves	\$723 M	\$357 M	\$185 M	\$118 M	\$63 M	\$147 M	\$15.1 M
Philadelphia 76ers	\$704 M	\$307 M	\$245 M	\$80 M	\$72 M	\$124 M	\$13.9 M
Milwaukee Bucks	\$679 M	\$391 M	\$151 M	\$76 M	\$61 M	\$126 M	\$11.6 M
New Orleans Pelicans	\$655 M	\$319 M	\$160 M	\$117 M	\$59 M	\$142 M	\$19.7 M
	_____	_____	_____	_____	_____	_____	_____
TOTAL	\$37,773 M	\$10,817 M	\$13,976 M	\$8276 M	\$4,704 M	\$5,181 M	\$899.1 M

PART 5 – ACHIEVEMENTS AND AWARDS

2014-15 NBA SEASON (Source: Wikipedia, the free encyclopedia)

The **2014-15 NBA season** was the 69th season of the National Basketball Association (NBA). The NBA draft took place on June 26, 2014, at Barclays Center in Brooklyn, where Andrew Wiggins was selected first overall. The regular season began on Tuesday, October 28, 2014, when the defending NBA champions San Antonio Spurs hosted the first game against the Dallas Mavericks. Christmas games were played on Thursday, December 25, 2014. The 2015 NBA All-Star Game was played on Sunday, February 15, 2015, at Madison Square Garden in New York City, with the West defeating the East 163-158. Oklahoma's Russell Westbrook won the NBA All-Star Game Most Valuable Player Award. The regular season ended on Wednesday April 15, 2015 and the playoffs began on Saturday, April 18, 2015 and ended with the 2015 NBA Finals on June 16, 2015, after the Golden State Warriors defeated the Cleveland Cavaliers in six games to win their fourth NBA title.

Statistics Leaders

Individual Statistic Leaders

Category	Player	Team	Statistics
Points per game	Russell Westbrook	Oklahoma City Thunder	28.1
Rebounds per game	DeAndre Jordan	Los Angeles Clippers	15.0
Assists per game	Chris Paul	Los Angeles Clippers	10.2
Steals per game	Kawhi Leonard	San Antonio Spurs	2.31
Blocks per game	Anthony Davis	New Orleans Pelicans	2.94
Turnovers per game	Russell Westbrook	Oklahoma City Thunder	4.4
Fouls per game	DeMarcus Cousins	Sacramento Kings	4.1
Minutes per game	Jimmy Butler	Chicago Bulls	38.7
FG%	DeAndre Jordan	Los Angeles Clippers	71.0%
FT%	Stephen Curry	Golden State Warriors	91.4%

3FG%	Kyle Korver	Atlanta Hawks	49.2%
Efficiency per game	Anthony Davis	New Orleans Pelicans	30.89%
Doubles-doubles	Pau Gasol	Chicago Bulls	54
Triple-doubles	Russell Westbrook	Oklahoma City Thunder	11

Individual Game Highs

Category	Player	Team	Statistics
Points per game	Kyrie Irving	Cleveland Cavaliers	57
Rebounds	DeAndre Jordan	Los Angeles Clippers	27
	Andre Drummond	Detroit Pistons	27
Assists	Brandon Jennings	Detroit Pistons	21
Steals	Mario Chalmers	Miami Heat	8
Blocks	Hassan Whiteside	Miami Heat	8
Three Pointers	Klay Thompson	Golden State Warriors	11
	Kyrie Irving	Cleveland Cavaliers	11

Team Statistics

Category	Team	Statistics
Points per game	Golden State Warriors	110.0
Rebounds per game	Oklahoma City Thunder	47.5
Assists per game	Golden State Warriors	27.4
Steals per game	Milwaukee Bucks	9.6
	Philadelphia 76ers	9.6

Blocks per game	New Orleans Pelicans	6.2
Turnovers per game	Philadelphia 76ers	17.7
FG%	Golden State Warriors	47.8%
FT%	Portland Trail Blazers	80.1%
3FG%	Golden State Warriors	39.8%
+/-	Golden State Warriors	10.1

Awards

Yearly Awards

- **Most Valuable Player:** Stephen Curry, Golden State Warriors
- **Defensive Player of the Year:** Kawhi Leonard, San Antonio Spurs
- **Rookie of the Year:** Andrew Wiggins, Minnesota Timberwolves
- **Sixth Man of the Year:** Louis Williams, Toronto Raptors
- **Most improved player:** Jimmy Butler, Chicago Bulls
- **Coach of the Year:** Mike Budenholzer, Atlanta Hawks
- **Executive of the Year:** Bob Myers, Golden State Warriors
- **Sportsmanship of the Year:** Kyle Korver
- **J.Walter Kennedy Citizenship Award:** Joakim Noah, Chicago Bulls
- **Twyman-Stokes Teammate of the Year Award:** Tim Duncan, San Antonio Spurs

All-NBA First Team

All-NBA Second Team

All-NBA Third Team

Anthony Davis-Forward
New Orleans Pelicans

LaMarcus Aldridge-Forward
Portland Trail Blazers

Blake Griffin-Forward
Los Angeles Clippers

LeBron James-Forward
Cleveland Cavaliers

Pau Gasol-Forward
Chicago Bulls

Tim Duncan-Forward
San Antonio Spurs

Marc Gasol-Center
Memphis Grizzlies

DeMarcus Cousins-Center
Sacramento Kings

DeAndre Jordan-Center
Los Angeles Clippers

James Harden-Guard
Houston Rockets

Russell Westbrook-Guard
Oklahoma City Thunder

Kyrie Irving-Guard
Cleveland Cavaliers

Stephen Curry-Guard
Golden State Warriors

Chris Paul-Guard
Los Angeles Clippers

Klay Thompson-Guard
Golden State Warriors

NBA All-Defensive First Team

Kawhi Leonard-Forward
San Antonio Spurs

Draymond Green-Forward
Golden State Warriors

DeAndre Jordan-Center
Los Angeles Clippers

Tony Allen-Guard
Memphis Grizzlies

Chris Paul-Guard
Los Angeles Clippers

NBA All-Defensive Second Team

Anthony Davis-Forward
New Orleans Pelicans

Tim Duncan-Forward
San Antonio Spurs

Andrew Bogut-Center
Golden State Warriors

Jimmy Butler-Guard
Chicago Bulls

John Wall-Guard
Washington Wizards

NBA All-Rookie First Team

Nikola Mirotic, Chicago Bulls

Andrew Wiggins, Minnesota Timberwolves

Nerlens Noel, Philadelphia 76ers

Jordan Clarkson, Los Angeles Lakers

Elfrid Payton, Orlando Magic

NBA All-Rookie Second Team

Bojan Bogdanovic, Brooklyn Nets

Jusuf Nurkic, Denver Nuggets

Zach LaVine, Minnesota Timberwolves

Langston Galloway, New York Knicks

Marcus Smart, Boston Celtics

2014-15 SEASON NBA CHAMPION – GOLDEN STATE WARRIORS ROSTER AND STATS (Source: Basketball-Reference.com)

RK	Player	AGE	POS	HT	WT	PTS	FG%	3P%	FT%	AST	TRB	STL	BLK
1	Stephen Curry	26	PG	6-3	194	23.8	.487	.443	.914	7.7	4.3	2.0	0.2
2	Klay Thompson	24	SG	6-7	205	21.7	.463	.439	.879	2.9	3.2	1.1	0.8
3	Draymond Green	24	PF	6-7	230	11.7	.443	.337	.660	3.7	8.2	1.6	1.3
4	Harrison Barnes	22	SF	6-8	210	10.1	.482	.405	.720	1.4	5.5	0.7	0.2
5	Andre Iguodala	31	SG	6-6	207	7.8	.466	.349	.596	3.0	2.8	1.2	0.3
6	Andrew Bogut	30	C	7-0	260	6.3	.563	-	.524	2.7	8.1	0.6	1.7
7	Shaun Livingston	29	PG	6-7	182	5.9	.500	-	.714	3.3	2.3	0.6	0.3
8	David Lee	31	PF	6-9	245	7.9	.511	-	.654	1.7	5.2	1.7	0.5
9	Marreese Speights	27	PF	6-10	255	10.4	.492	.278	.843	0.9	4.3	0.3	0.4
10	Leandro Barbosa	32	SG	6-3	194	7.1	.474	.384	.784	1.5	1.4	0.6	0.1
11	Justin Holiday	25	SG	6-6	185	4.3	.387	.321	.822	0.8	1.2	0.7	0.2
12	Festus Ezeli	25	C	6-11	255	4.4	.547	-	.628	0.2	3.4	0.2	0.9
13	James McAdoo	22	PF	6-9	230	4.1	.545	-	.560	0.1	2.5	0.3	0.6
14	Brandon Rush	29	SG	6-6	210	0.9	.204	.111	.455	0.4	1.2	0.2	0.4
15	Ongjin Kuzmic	24	C	6-11	251	1.3	.667	-	1.000	0.4	1.1	0.1	0.1

Head Coach – Steve Kerr

Assistant Coaches and Staff:

- Alvin Gentry – Assistant Head Coach
- Ron Adams – Assistant Coach
- Luke Walton – Assistant Coach
- Jarron Collins – Player Development
- Bruce Fraser – Player Development
- Johan Wang – Trainer

2015-16 SEASON NBA CHAMPION – CLEVELAND CAVALIERS ROSTER AND STATS (Source: Basketball-Reference.com)

RK	PLAYER	AGE	POS	HT	WT	PTS	FG%	3P%	FT%	AST	TRB	STL	BLK
1	LeBron James	31	SF	6-8	250	25.3	.520	.309	.731	6.8	7.4	1.4	0.6
2	Kyrie Irving	23	PG	6-3	193	19.6	.448	.321	.885	4.7	3.0	1.1	0.3
3	Kevin Love	27	PF	6-10	251	16.0	.419	.360	.822	2.4	9.9	0.8	0.5
4	J R Smith	30	SG	6-6	225	12.4	.415	.400	.634	1.7	2.8	1.1	0.3
5	Tristan Thompson	24	PF	6-9	238	7.8	.588	-	.616	0.8	9.0	0.5	0.6
6	Mo Williams	33	PG	6-1	198	8.2	.437	.353	.905	2.4	1.8	0.3	0.1
7	Channing Frye	32	C	6-11	255	7.5	.441	.377	.786	1.0	3.6	0.3	0.3
8	M. Dellavedova	25	PG	6-4	198	7.5	.405	.410	.864	4.4	2.1	0.6	0.1
9	Timothy Mozgov	29	C	7-1	275	6.3	.565	.143	.716	0.4	4.4	0.3	0.8
10	Iman Shumpert	25	SG	6-5	220	5.8	.374	.295	.784	1.7	3.8	1.0	0.4
11	Richard Jefferson	35	SF	6-7	233	5.5	.458	.382	.667	0.8	1.7	0.4	0.2
12	James Jones	35	SF	6-8	218	3.7	.408	.394	.808	0.3	1.0	0.2	0.2
14	Jordan McRae	24	PG	6-6	185	4.1	.442	.636	.692	1.0	0.8	-	0.1
15	Dahntay Jones	35	SF	6-6	225	13.0	.429	.500	-	2.0	5.0	1.0	2.0
15	Sasha Kaun	30	C	6-11	260	2.5	.529	-	.455	0.3	0.1	0.1	0.1

Tyronn Lue – Head Coach

Jim Boylan – Assistant Coach, Bret Brielmater – Assistant, Coach, Larry Drew – Assistant Coach, Phil Handy – Assistant Coach, James Posey – Assistant Coach, Stephen Spiro – Trainer, Derek Millender- Strength and Conditioning

2015-16 NBA SEASON (Source: Wikipedia, the free encyclopedia)

The **2015-16 NBA** season was the 70th season of the National Basketball Association. The regular season began on Tuesday, October 27, 2015 at the United Center, home of the Chicago Bulls, with their game against the Cleveland Cavaliers. The 2016 NBA All-Star Game was played at the Air Canada Centre in Toronto, Ontario, Canada on February 14, 2016. The regular season ended on April 13, 2016. The playoffs started on April 16, 2016 and ended with the 2016 NBA Finals on June 19, 2016 with the Cleveland Cavaliers defeating the Golden State Warriors in seven games to win their first NBA title.

Statistics Leaders

Individual Statistics Leaders

Category	Player	Team	Statistics
Points per game	Stephen Curry	Golden State Warriors	30.1
Rebounds per game	Andre Drummond	Detroit Pistons	14.8
Assists per game	Rajon Rondo	Sacramento Kings	11.7
Steals per game	Stephen Curry	Golden State Warriors	2.4
Blocks per game	Hassan Whiteside	Miami Heat	3.68
Turnovers per game	James Harden	Houston Rockets	4.6
Fouls per game	DeMarcus Cousins	Sacramento Kings	3.6
Minutes per game	James Harden	Houston Rockets	38.1
FG%	DeAndre Jordan	Los Angeles Clippers	70.3%
FT%	Stephen Curry	Golden State Warriors	90.8%
3PG%	J. J. Redick	Los Angeles Clippers	47.5%
Efficiency per game	Stephen Curry	Golden State Warriors	31.56
Doubles-doubles	Andre Drummond	Detroit Piston	66
Triple – Doubles	Russell Westbrook	Oklahoma City Thunder	18

Individual Game Highs

Category	Player	Team	Statistics
Points	Kobe Bryant	Los Angeles Lakers	60
Rebounds	Andre Drummond	Detroit Pistons	29
Assists	Rajon Rondo	Sacramento Kings	20
Steals	Robert Covington	Sacramento Kings	8
	Ricky Rubio	Minnesota Timberwolves	8
	Pablo Prigiona	Los Angeles Clippers	8
	James Harden	Houston Rockets	8
Blocks	Hassan Whiteside	Miami Heat	11
Three Pointers	Stephen Curry	Golden State Warriors	12

Team Statistics Leaders

Category	Team	Statistics
Points per game	Golden State Warriors	114.9
Rebounds per game	Oklahoma City Thunder	48.6
Assists per game	Golden State Warriors	28.9
Steals per game	Houston Rockets	10.0
Blocks per game	Miami Heat	6.5
Turnovers per game	Phoenix Suns	16.6
FG%	Golden State Warriors	48.7%
FT%	New York Knicks	80.5%
3FG%	Golden State Warriors	41.6%
+/-	Golden State Warriors	10.8

Awards

Yearly Awards

- **Most Valuable Player: Stephen Curry, Golden State Warriors**
- **Defensive Player of the Year: Kawhi Leonard, San Antonio Spurs**
- **Rookie of the Year Karl-Anthony Towns, Minnesota Timberwolves**
- **Most Improved Player: C. J. McCollum, Portland Trail Blazers**
- **Sixth Man of the Year: Jamal Crawford, Los Angeles Clippers**
- **Coach of the Year: Steve Kerr, Golden State Warriors**
- **Executive of the Year: R. C. Bufford, San Antonio Spurs**
- **Sportsmanship Award: Mike Conley, Memphis Grizzlies**
- **J. Walter Kennedy Citizenship Award: Wayne Ellington, Brooklyn Nets**
- **Twyman-Stokes Teammate of the Year Award: Vince Carter, Memphis Grizzlies**

All-NBA First Team

All-NBA Second Team

All-NBA Third Team

Kawhi Leonard-Forward
San Antonio Spurs

Kevin Durant-Forward
Oklahoma City Thunder

Paul George-Forward
Indiana Pacers

LeBron James-Forward
Cleveland Cavaliers

Draymond Green-Forward
Golden State Warriors

LaMarcus Aldridge-Forward
San Antonio Spurs

DeAndre Jordan-Center
Los Angeles Clippers

DeMarcus Cousins-Center
Sacramento Knigs

Andre Drummond-Center
Detroit Pistons

Russell Westbrook-Guard
Oklahoma City Thunder

Chris Paul-Guard
Los Angeles Clippers

Kyle Lowry-Guard
Toronto Raptors

Stephen Curry-Guard
Golden State Warriors

Damian Lillard-Guard
Portland Trail Blazers

Klay Thompson-Guard
Golden State Warriors

NBA All-Defensive First Team

Kawhi Leonard-Forward
San Antonio Spurs

Draymond Green-Forward
Golden State Warriors

DeAndre Jordan-Center
Los Angeles Clippers

Avery Bradley-Guard
Boston Celtics

Chris Paul-Guard
Los Angeles Clippers

NBA All-Defensive Second Team

Paul Mishap-Forward
Indiana Pacers

Paul George-Forward
Indiana Pacers

Hassan Whiteside-Center
Miami Heat

Tony Allen-Guard
Memphis Grizzlies

Jimmy Butler-Guard
Chicago Bulls

NBA All-Rookie First Team

Karl-Anthony Towns
Minnesota, Timberwolves

Kristaps Porzingis
New York Knicks

Devin Booker
Phoenix Suns

Nikola Jokic
Denver Nuggets

Jahlil Okafor
Philadelphia 76ers

NBA All-Rookie Second Team

Justice Winslow
Miami Heat

D'Angelo Russell
Los Angeles Lakers

Emmanuel Mudiay
Denver Nuggets

Myles Turner
Indiana Pacers

Willie Cauley-Stein
Sacramento Kings

NBA MOST VALUABLE PLAYER AWARD WINNERS IN NBA HISTORY

(Source: Wikipedia, the free encyclopedia)

The **National Basketball Association Most Valuable Player Award (MVP)** is an annual National Basketball (NBA) award given since the 1955-56 season to the best performing player of the regular season. The winner receives the Maurice Podoloff Trophy, which is named in honor of the first NBA commissioner (then president) of the NBA who served from 1946 until his retirement in 1963. Until the 1979-80 season, the MVP was selected by a vote of NBA players. Since the 1980-81 season, the award is decided by a panel of sportswriters and broadcasters throughout the United States and Canada, each of whom casts a vote for first to fifth place selections. Each first-place vote is worth 10 points; each second-place vote is worth seven; each third-place vote is worth five, fourth-place is worth three and fifth-place is worth one. Starting from 2010, one ballot was cast by fans through online voting. The player with the highest point total wins the award. As of May 2016, the current holder of the award is Stephen Curry, who won both the 2015 and 2016 awards.

Every player who has won this award is eligible for the Naismith Memorial Basketball Hall of Fame has been inducted. Kareem Abdul-Jabbar won the award a record six times. Both Russell and Michael Jordan won the award five times, while Wilt Chamberlain and LeBron James won the award four times in their respective careers. Russell and James are the only players to have won the award four times in five seasons. Moses Malone, Larry Bird and Magic Johnson each won the award three times, while Bob Pettit, Karl Malone, Tim Duncan, Steve Nash and Stephen Curry have each won it twice. Only two rookies have won the award: Wilt Chamberlain in the 1959-60 season and Wes Unseld in the 1968-69 season.

Hakeem Olajuwon of Nigeria, Tim Duncan of the U.S. Virgin Islands, Steve Nash of Canada, and Dirk Nowitzki of Germany are the only international MVP winners. Duncan is an American citizen by birth, but is considered an international player by the NBA. Of these four players, only Nowitzki was trained outside the United States – the other three all played U.S. college basketball (Olajuwon at Houston, Duncan at Wake Forest, and Nash at Santa Clara).

Stephen Curry in 2015 – 16 is the only player to have won the award unanimously. Shaquille O’Neal in 1999 – 2000 and LeBron James in 2012-13 are the only players to have fallen one shy of a unanimous selection, both receiving 120 of 121 votes. Since the 1982 - 83 season, every winner was from a team that won at least 50 games in the regular season that year.

The Winners

Season	Player	Position	Nationality	Team
1955 – 56	Bob Pettit	Forward	United States	St. Louis Hawks
1956 – 57	Bob Cousy	Guard	United States	Boston Celtics

1957 – 58	Bill Russell	Center	United States	Boston Celtics
1958 – 59	Bob Pettit	Forward	United States	St. Louis Hawks
1959 – 60	Wilt Chamberlain	Center	United States	Philadelphia Warriors
1960 – 61	Bill Russell	Center	United States	Boston Celtics
1961 – 62	Bill Russell	Center	United States	Boston Celtics
1962 – 63	Bill Russell	Center	United States	Boston Celtics
1963 – 64	Oscar Robertson	Guard	United States	Cincinnati Royals
1964 – 65	Bill Russell	Center	United States	Boston Celtics
1965 – 66	Wilt Chamberlain	Center	United States	Philadelphia 76ers
1966 – 67	Wilt Chamberlain	Center	United States	Philadelphia 76ers
1967 – 68	Wilt Chamberlain	Center	United States	Philadelphia 76ers
1968 – 69	Wes Unseld	Center/Forward	United States	Baltimore Bullets
1969 – 70	Willis Reed	Center/Forward	United States	New York Knicks
1970 – 71	Lew Alcindor	Center	United States	Milwaukee Bucks
1971 – 72	Kareem Abdul-Jabbar	Center	United States	Milwaukee Bucks
1972 – 73	Dave Cowens	Center	United States	Boston Celtics
1973 – 74	Kareem Abdul-Jabbar	Center	United States	Milwaukee Bucks
1974 – 75	Bob McAdoo	Forward/Center	United States	Buffalo Braves
1975 – 76	Kareem Abdul-Jabbar	Center	United States	Los Angeles Lakers
1976 – 77	Kareem Abdul-Jabbar	Center	United States	Los Angeles Lakers
1977 – 78	Bill Walton	Center	United States	Portland Trail Blazers
1978 – 79	Moses Malone	Center	United States	Houston Rockets
1979 – 80	Kareem Abdul-Jabbar	Center	United States	Los Angeles Lakers
1980 – 81	Julius Irving	Forward	United States	Philadelphia 76ers
1981 – 82	Moses Malone	Center	United States	Houston Rockets

1982 – 83	Moses Malone	Center	United States	Houston Rockets
1983 – 84	Larry Bird	Forward	United States	Boston Celtics
1984 – 85	Larry Bird	Forward	United States	Boston Celtics
1985 – 86	Larry Bird	Forward	United States	Boston Celtics
1986 – 87	Magic Johnson	Guard	United States	Los Angeles Lakers
1987 – 88	Michael Jordan	Guard	United States	Chicago Bulls
1988 – 89	Magic Johnson	Guard	United States	Los Angeles Lakers
1989 – 90	Magic Johnson	Guard	United States	Los Angeles Lakers
1990 – 91	Michael Jordan	Guard	United States	Chicago Bulls
1991 – 92	Michael Jordan	Guard	United States	Chicago Bulls
1992 – 93	Charles Barkley	Forward	United States	Phoenix Suns
1993 – 94	Hakeem Olajuwon	Center	United States	Houston Rockets
1994 – 95	David Robinson	Center	United States	San Antonio Spurs
1995 – 96	Michael Jordan	Guard	United States	Chicago Bulls
1996 – 97	Karl Malone	Forward	United States	Utah Jazz
1997 – 98	Michael Jordan	Guard	United States	Chicago Bulls
1998 – 99	Karl Malone	Forward	United States	Utah Jazz
1999 – 00	Shaquille O’Neal	Center	United States	Los Angeles Lakers
2000 – 01	Allen Iverson	Guard	United States	Philadelphia 76ers
2001 – 02	Tim Duncan	Forward/Center	United States	San Antonio Spurs
2002 – 03	Tim Duncan	Forward/Center	United States	San Antonio Spurs
2003 – 04	Kevin Garnett	Forward/Center	United States	Minnesota Timberwolves
2004 – 05	Steve Nash	Guard	Canada	Phoenix Suns
2005 – 06	Steve Nash	Guard	Canada	Phoenix Suns
2006 – 07	Dirk Nowitzki	Forward	Germany	Dallas Mavericks

2007 – 08	Kobe Bryant	Guard	United States	Los Angeles Lakers
2008 – 09	Lebron James	Forward	United States	Cleveland Cavaliers
2009 – 10	Lebron James	Forward	United States	Cleveland Cavaliers
2010 – 11	Derrick Rose	Guard	United States	Chicago Bulls
2011 – 12	LeBron James	Forward	United States	Miami Heat
2012 – 13	Lebron James	Forward	United States	Miami Heat
2013 – 14	Kevin Durant	Forward	United States	Oklahoma City Thunder
2014 – 15	Stephen Curry	Guard	United States	Golden State Warriors
2015 – 16	Stephen Curry	Guard	United States	Golden States Warriors

Multiple-Time Winners

Rank	Player	Teams(s)	No.	Years
1	Kareem Abdul-Jabbar	Milwaukee Bucks/L. A. Lakers	6	1971, 1972, 1974, 1976, 1977, 1980
2	Bill Russell	Boston Celtics	5	1958, 1961, 1962, 1963, 1965
	Michael Jordan	Chicago Bulls	5	1988, 1991, 1992, 1996, 1998
3	Wilt Chamberlain	Philadelphia Warriors/76ers	4	1960, 1966, 1967, 1968
	LeBron James	Cleveland Cavaliers/Miami Heat	4	2009, 2010, 2012, 2013
4	Moses Malone	Houston Rockets/Phil. 76ers	3	1979, 1982, 1983
	Larry Bird	Boston Celtics	3	1984, 1985, 1986
	Magic Johnson	Los Angeles Lakers	3	1987, 1989, 1990
5	Bob Pettit	St. Louis Hawks	2	1956, 1959
	Karl Malone	Utah Jazz	2	1997, 1999
	Tim Duncan	San Antonio Spurs	2	2002, 2003
	Steve Nash	Phoenix Suns	2	2005, 2006
	Stephen Curry	Golden State Warriors	2	201

BILL RUSSELL NBA FINALS MOST VALUABLE PLAYER AWARD

(Source: Wikipedia, the free encyclopedia)

The Bill Russell NBA Finals Most Valuable Player Award is an annual National Basketball Association (NBA) award given since the 1969 NBA Finals. The award is decided by a panel of nine media members, who cast votes after the conclusion of the finals. The person with the highest votes wins the award. In at least one NBA Finals, fans balloting on NBA.com accounted for the tenth vote. The award was originally a black trophy with a gold basketball-shaped sphere at the top, similar to the Larry O'Brien Trophy, until a new trophy was introduced in 2005.

Since its inception, the award has been given to 30 different players. Michael Jordan is a record six-time award winner. Magic Johnson, Shaquille O'Neal, Tim Duncan and LeBron James won the award three times in their careers. Jordan and O'Neal are the only players to win the award in three consecutive seasons (Jordan accomplished the feat on two separate occasions). Johnson is the only rookie of the year to win the award, as well as the youngest at 20 years old. Andre Iguodala is the only winner to have not started every game in the series. Jerry west, the first winner, is the only person to win the award while being on the losing team in the NBA finals. Willis Reed, Kareem Abdul-Jabbar, Larry bird, Hakeem Olajuwon and Kobe Bryant won the award twice. Olajuwon, Bryant and James have won the award in two consecutive seasons. Abdul-Jabbar and James are the only players to win the award for two different teams. Olajuwon of Nigeria, who became a naturalized U.S. citizen in 1993, Tony Parker of France, and Dirk Nowitzki of Germany are the only international players to win the award. Duncan is an American citizen, but is considered an "international" player by the NBA because he was not born in one of the fifty states or Washington, D.C.. Parker and Nowitzki are the only winners to have been trained totally outside the U.S.; Olajuwon played college basketball at Houston and Duncan at Wake Forest. Cedric Maxwell is the only Finals winner eligible for the Hall of Fame who has not been voted in.

On February 14, 2009, during the 2009 NBA All-Star Weekend in Phoenix, then-NBA Commissioner David Stern announced that the award would be renamed the "Bill Russell NBA Finals Most Valuable Player Award" in honor of 11-time NBA champion Bill Russell.

The Winners

Year	Player	Position	Nationality	Team
1969	Jerry West	Guard	United States	Los Angeles Lakers
1970	Willis Reed	Center/Forward	United States	New York Knicks
1971	Lew Alcindor	Center	United States	Milwaukee Bucks
1972	Wilt Chamberlin	Center	United States	Los Angeles Lakers
1973	Willis Reed	Center/forward	United States	New York Knicks

1974	John Havlicek	Forward/Guard	United States	Boston Celtics
1975	Rick Barry	Forward	United States	Golden State Warriors
1976	Jojo White	Guard	United States	Boston Celtics
1977	Bill Walton	Center	United States	Portland Trail Blazers
1978	Wes Unseld	Center/Forward	United States	Washington Bullets
1979	Dennis Johnson	Guard	United States	Seattle SuperSonics
1980	Magic Johnson	Guard	United States	Los Angeles Lakers
1981	Cedric Maxwell	Forward	United States	Boston Celtics
1982	Magic Johnson	Guard	United States	Los Angeles Lakers
1983	Moses Malone	Center	United States	Philadelphia 76ers
1984	Larry Bird	Forward	United States	Boston Celtics
1985	Kareem Abdul-Jabbar	Center	United States	Los Angeles Lakers
1986	Larry Bird	Forward	United States	Boston Celtics
1987	Magic Johnson	Guard	United States	Los Angeles Lakers
1988	James Worthy	Forward	United States	Los Angeles Lakers
1989	Joe Dumars	Guard	United States	Detroit Pistons
1990	Isiah Thomas	Guard	United States	Detroit Pistons
1991	Michael Jordan	Guard	United States	Chicago Bulls
1992	Michael Jordan	Guard	United States	Chicago Bulls
1993	Michael Jordan	Guard	United States	Chicago Bulls
1994	Hakeem Olajuwon	Center	Nigeria	Houston Rockets
1995	Hakeem Olajuwon	Center	Nigeria	Houston Rockets
1996	Michael Jordan	Guard	United States	Chicago Bulls
1997	Michael Jordan	Guard	United States	Chicago Bulls
1998	Michael Jordan	Guard	United States	Chicago Bulls

1999	Tim Duncan	Forward/Center	United States	San Antonio Spurs
2000	Shaquille O'Neal	Center	United States	Los Angeles Lakers
2001	Shaquille O'Neal	Center	United States	Los Angeles Lakers
2002	Shaquille O'Neal	Center	United States	Los Angeles Lakers
2003	Tim Duncan	Forward/Center	United States	San Antonio Spurs
2004	Chauncy Billups	Guard	United States	Detroit Pistons
2005	Tim Duncan	Forward/Center	United States	San Antonio Spurs
2006	Dwayne Wade	Guard	United States	Miami Heat
2007	Tony Parker	Guard	France	San Antonio Spurs
2008	Paul Pierce	Forward	United States	Boston Celtics
2009	Kobe Bryant	Guard	United States	Los Angeles Lakers
2010	Kobe Bryant	Guard	United States	Los Angeles Lakers
2011	Dirk Nowitzki	Forward	Germany	Dallas Mavericks
2012	LeBron James	Forward	United States	Miami Heat
2013	LeBron James	Forward	United States	Miami Heat
2014	Kawhi Leonard	Forward	United States	San Antonio Spurs
2015	Andre Iguodala	Forward/Guard	United States	Golden State Warriors
2016	LeBron James	Forward	United States	Cleveland Cavaliers

Multiple-Time Winners

Player	Team(s)	No.	Years
Michael Jordan	Chicago Bulls	6	1991, 1992, 1993, 1996, 1997, 1998
Magic Johnson	Los Angeles Lakers	3	1980, 1982, 1987
Shaquille O'Neal	Los Angeles Lakers	3	2000, 2001, 2002

Tim Duncan	San Antonio Spurs	3	1999, 2003, 2005
LeBron James	Miami Heat, Cleveland Cavaliers	3	2012, 2013, 2016
Willis Reed	New York Knicks	2	1970, 1973
Kareem Abdul-Jabbar	Milwaukee Bucks, Los Angeles Lakers	2	1971, 1985
Larry Bird	Boston Celtics	2	1984, 1986
Hakeem Olajuwon	Houston Rockets	2	1994, 1995
Kobe Bryant	Los Angeles Lakers	2	2009, 2010

STOKES' LIFE A TALE OF TRAGEDY AND FRIENDSHIP

(Source: Special to ESPN.com by Bob Carter)

“To see the way he conducted himself, I just stood in awe of him. It got so bad, when I would be having a bad day myself, I would go to see Maurice, selfishly, to say I want to get pumped up. And he never failed to pump me up”, says Jack Twyman.

In the 1950s, his ability to beat opponents to rebounds with his muscular body, quickness and positioning was nearly unparalleled. He averaged more than 20 rebounds per game in college, more than 17 in the NBA. He passed well too, good enough to be among the NBA's assist leaders and averaged double figures in scoring.

Maurice Stokes was one of basketball's best forwards then, one of its least-known stars now. Stokes 6' 7" and 240 pounds, wasn't around long enough to be remembered like many of his peers. In the final regular-season game of the 1957-58 season, his third year as a pro, the Cincinnati Royals all-star fell to the floor, hit his head and was knocked out unconscious.

Three days later, the 24 year-old went into coma and was permanently paralyzed, his career over. His life, however, wasn't over, thanks mostly to teammate Jack Twyman, who helped to raise money for his medical expenses and became his legal guardian. Twyman started exhibition game in Stokes' honor and established the Maurice Stokes Foundation to defray hospital costs.

In 1973, three years after Stokes' death, his story was told in the film “Maurie”, which starred former football player Bernie Casey. Though few of today's NBA stars know much about Stokes, mid-century players appreciated his game. Bobby Wanzer, who coached and played with him, said, “If things had worked out differently, Maurice would have become one of the top 10 players of all time.”

“No one had seen a guy that combination of strength, speed and size,” said Twyman.

Stokes who was born on June 17, 1933 in Rankin, Pa., just outside Pittsburgh, and both showed late development on the court.

The Stokes family – Maurice, his parents, two brothers and twin sister – moved to the Homewood section of Pittsburgh when he was eight. At Westinghouse High School, Stokes was a two-year starter and the team won back-to-back city championships, but he often was overshadowed by teammates. Though he received 10 basketball scholarship offers, some college coaches thought he was too slow.

Twyman, during the same span, failed to make his Central Catholic High School Team three times and played only one season before going on to the University of Cincinnati, where he turned into a superb shooter.

At St. Francis College in Loretto, Pa., Stokes became a small-college All-American. He averaged 23.3 points and 22.2 rebounds in his junior as St. Francis went 22-9 and played in the National Invitation Tournament. As a senior, he led the Frankies to fourth place at the 1955 NIT, where he scored 43 points

in a 79-73 overtime loss in the semi-finals to Dayton and was named the tournament's MVP. In 1997, a media panel voted him to the all-time NIT team.

The NBA, Harlem Globetrotters and industrial teams pursued Stokes after his senior season. The Rochester Royals chose Stokes No. 2 overall in the 1955 NBA draft- after Milwaukee picked Dick Ricketts of Duquense- selected Twyman in the second round. Along with Niagara's Ed Fleming, the Royals' No. 3 pick who was a Westinghouse teammate of Stokes, they drove from Pittsburgh for their first pro training camp.

Stokes made an immediate impact, getting 32 points, 20 rebounds and eight assists in his NBA debut. He went on to average 16.8 points in 1955-56 and league-best 16.3 rebounds, snatching a franchise-record 38 in one game, and was voted the NBA's Rookie of the Year.

"The first great, athletic power forward", Bob Cousy said years later. "He was Karl Malone with more finesse."

Twyman also became a rookie starter for the Royals and averaged 14.4 points and 6.5 rebounds.

Stokes' second season, he set an NBA record by grabbing 1,256 rebounds (17.4 per game), ranked third in the league in assists with 331 (4.5 average) and scored 15.6 points per game.

The Royals moved to Cincinnati before the 1957- 58 season, and Stokes finished second in rebounding average (18.1) to Bill Russell, third again in assists (6.4), behind only to Bob Cousy and Dick McGuire, and scored 16.9 per game.

A 35-percent shooter in his three seasons, he averaged 16.4 points, 17.3 rebounds and 5.3 assists. Playing 37 minutes a contest in his 202-game career, he was named second-team all-league each year.

"Competitive, hard-nosed, tough," former NBA player and coach Gene Shue described Stokes in 1992. "He was a coach's dream".

The dream career ended tragically on March 12, 1958 in Minneapolis when Stokes drove to the basket against the Lakers, drew contact and fell awkwardly to the floor, hitting his head. He was knocked out for several minutes. He was revived with smelling salts and returned to the game.

Three days later, the Royals lost their playoff opener at Detroit, and after a 12-point, 15-rebound performance, Stokes became ill on the team's flight back to Cincinnati, Ky., "I feel like I'm going to die," he told a teammate.

When the plane landed, he was taken to a nearby hospital in Covington, Ky., where he remained unconscious for weeks, a quadriplegic. He later was moved to a Cincinnati hospital, his home for six years.

Stokes' illness was first diagnosed as encephalitis. Soon, it was traced to the head injury he suffered against the Lakers. The final diagnosis: post-traumatic encephalopathy, a brain injury damaged his motor control center.

When Stokes' family could not afford the medical bills, stepping up to take charge was Twyman, who lived in Cincinnati. "Things had to be done immediately," he said, "and no one was there to do them but me".

Twyman worked feverishly. He applied to become his friend's legal guardian and a judge granted the request, enabling Twyman to control Stokes' \$9,000 bank account and pay some bills. He filed applications so that Stokes received work compensation, which helped his hospitalization, care and medicine.

Later in 1958, Twyman worked to organize an exhibition doubleheader that raised \$10,000 for Stokes' expenses. He handled Stokes' mail, including his bills. Even though he had a family of his own, Twyman spent countless hours at the hospital with Stokes, who after regaining consciousness could not speak.

Twyman communicated by going through the alphabet, letter by letter, until Stokes, who was mentally alert, blinked in recognition. Slowly, the process spelled out words.

The brain injury had robbed Stokes of his speech, mobility and independence, but not his spirit. He took on a painful regimen of physical therapy, gradually gaining minimal movement in his limbs and joints. His body sweating, Stokes spent hours receiving treatment from therapists and eventually took small steps down the hospital hallway in braces, his large frame supported by nurses.

Though his body suffered spasms and his fingers didn't always go where he wanted, Stokes learned how to type again and how to paint. In a wheelchair, he accompanied Twyman to some of the annual exhibition games in his honor, an event kept alive by Milt Kutsher, who offered up his Catskills resort as a game site. Somehow, after accepting his situation Stokes kept his sense of humor.

"Stokes lived as a symbol of the best that a man is, despite the terrible things which can happen to him," wrote New York Post columnist Milton Gross. "He was a beautiful man who believed that surrender was not the way, even though he couldn't walk, couldn't talk except agonizingly, and he laughed when should have cried".

On April 6, 1970, Stokes died of a heart attack. At his request, he was buried at St. Francis. Maurice Stokes was 36.

In September 2004, he was inducted into the Basketball Hall of Fame.

TWYMAN – STOKES TEAMMATE of the YEAR AWARD

(Source: Wikipedia, the free encyclopedia)

The **Twyman – Stokes Teammate of the year Award** is an annual National Basketball Association (NBA) award that recognizes the league's "ideal teammate" who exemplifies "selfless play and commitment and dedication to his team. The award is named after Jack Twyman and Maurice Stokes. The two played together on the Rochester Cincinnati Royals from 1955 to 1958 until Stokes' career was cut short after he suffered a head injury from a fall during a game against the Minneapolis Lakers. Stokes would later become paralyzed due to post-traumatic encephalopathy; a brain injury that damages the motor-control center. Twyman then became Stokes' legal guardian and advocate until Stokes died in 1970.

Every year, 12 players, six from each conference, are selected by a panel of NBA legends as nominees. NBA players then cast votes for the award, with ten points given for each first-place vote, seven for a second-place vote, five points for third, three points for fourth, and one point for each fifth-place vote received. The player with the highest point total, regardless of the number of first-place votes, wins the award. The winner of this award is presented with Twyman – Stokes Trophy. As a part of the award, the NBA also makes a \$25,000 donation to the charity of the recipient's choice.

Los Angeles Clippers guard was the inaugural winner of the award in 2013. That year, Miami Heat forward Shane Battier finished second and New York Knicks guard Jason Kidd placed third.

Shane Battier would then win the award for the 2013-14 season. Al Jefferson came in second and Dirk Nowitzki finished third.

Tim Duncan went on to win the award for the 2014-15 season. Vince Carter came in second and Elton Brand finished third. After coming in at second the previous year, Carter won the award for the 2015-16 season.

Winners

Year	Player	Position	Nationality	Team
2012- 13	Chauncey Billups	Guard	United States	Los Angeles Clippers
2013-14	Shane Battier	Forward	United States	Miami Heat
2014-15	Tim Duncan	Forward	United States	San Antonio Spurs
2015-16	Vince Carter	Forward	United States	Memphis Grizzlies

Part 6

CANADIAN STYLE BASKETBALL (CSB)

Safer More Exciting Fair

By: Jaime Pestano

CSB SHALL BE PLAYED BASED ON MODERN RULES CURRENTLY BEING ADOPTED BY NBA, NCAA, AND FIBA LEAGUES RESPECTIVELY EXCEPT THE FOLLOWING:

CSB free throw scoring rule – for professional, college and high school players:

- The free throw line should be 15' from the backboard and 19' from the baseline.
- Foul throw attempts should be outside the 15' line.
- For every free throw shot made, should be credited two points.

CSB field goals scoring and length specifications rule – professional players (Exhibit 1):

- The two-point field goal area in the front court is located inside the baseline, sideline, and the 22' three-point arc line which is exactly 22' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited two points.
- The three-point field goal area in the front court is located inside the 22' three-point arc line and the 25' four point arc line which is exactly 25' from the mid-point of an 18"-diameter basket rim. For every field goal made inside this area should be credited three points.

- The four-point field goal area in the front court is located inside the 25' four-point arc line, sideline, and the 47' mid-court line which is exactly 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited four points.
- The five-point field goal area is located inside the whole backcourt bounded by the sideline, baseline, and mid-court line which is 47' from the baseline and 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited five points.

CSB field goals scoring and length specifications rule – for college players (Exhibit 2):

- The two-point field goal in the front court is located inside the baseline, sideline, and the 21' three-point arc line which is exactly 21' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited two points.
- The three-point field goal area in the front court is located inside the 21' three-point line and the 25' four-point arc line which is exactly 25' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited three points.
- The four-point field goal area in the front court is located inside the 25' four-point arc line, sideline, and the 47' mid-court line which is exactly 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited four points.
- The five-point field goal area is located inside the whole backcourt bounded by the sideline, baseline and the mid-court line which is 47' from the front court line and 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited five points.

CSB field goals scoring and length specifications rule – for high school players (Exhibit 3):

- The two-point field goal area in the front court is located inside the baseline, sideline, and the 20' three-point arc line which is exactly 20' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited two points.
- The three-point field goal area in the front court is located inside the 20' three-point arc line and the 25' four-point arc line which is exactly 25' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited three points.
- The four-point field goal area in the front court is located inside the 25' four-point arc line, sideline, and the 47' mid-court line which is exactly 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited four points.
- The five-point field goal area is located inside the whole backcourt bounded by the sideline, baseline, and mid-court line which is 47' from the front baseline and 43' from the mid-point of an 18"-diameter basket rim. For every field goal made from inside this area should be credited five points.

Timing rules:

- The 24-second shot clock timing rule should be increased to 30 seconds. Offensive team must attempt a field goal within 30 seconds while is possession of the ball. The 30-second time is reset every time a field goal attempt hits the rim of the basket. In case of violation, it is considered a turnover and the ball is awarded to the opponent team.
- The 8-second or 10 second rule to bring the ball to the front court is cancelled and not applicable under CSB rule because it restricts and prohibits the execution of 5-point plays.
- Under CSB rule on timing, there shall be no more backcourt violation in order to allow offensive plays to shoot the ball anywhere inside the front court and backcourt within 30 seconds.

CSB penalties on fouls:

- In case of personal fouls committed while in the act of shooting and the field goal attempt is made, the field goal should be counted plus one free throw.
- In case of personal fouls committed while in the act of shooting and the field goal attempt is a missed, the penalties are as follows:
 - 1.0 Two free throws, if the foul was committed inside the 2-point field goal area.
 - 2.0 Three free throws, if the foul was committed inside the 3-point field goal area.
 - 3.0 Four free throws, if the foul was committed inside the 4-point field goal area.
 - 4.0 Five free throws, if the foul was committed inside the 5-point field goal area.

CSB head guard requirement rule:

- Players are required to wear specially designed head caps or head bands.
- The purpose of this rule is to protect players from head injuries and at the same time use it as advertising tool for the players and teams earn additional income from advertisers and endorsers to promote their product brands and services like professional golfers in the PGA.
- The shape, design and materials specifications of the head guard caps and bands should be as follows:
 1. It should be able to comfortably cover and protect the forehead, side and back of the head.
 2. It should be fashionably and attractively designed distinctively for male, female and children use.
 3. It should be manufactured and adjustable to fit different sizes for larger, medium and small customers head with Velcro custom-fit fastener.
 4. The shock absorber should be tested and thick enough to be able to absorb hard impact to the head preferably at least 1-inch thick for adults and ½-inch thick for children and made of elastic lightweight foam rubber or equivalent material with interior and exterior lining made of terry cloth fabric to absorb sweat and perspiration from the head.

Slam dunks are not allowed in CSB:

Offensive and defensive players should be deterred and discouraged to execute and shoot by slamming and dunking the ball into the basket. All players should not be allowed to touch, hold and hang on to any part of the backboard, rim and basket. In case, offensive players violate this rule, the field goal should be nullified and award possession of the ball to the opponent. In case, defensive players violate this rule, it should be considered as technical foul and should be penalized with 2 free throws. If the field goal attempt is successful, the field goal should be counted plus 1 free throw.

Charging and blocking are not allowed in CSB:

Charging moves by offensive player forcibly attempting to drive towards the basket and at the same time defensive player firmly blocking the path of the offensive player usually results to harmful collision of the players involved. In case this kind of move and situation happens, both the offensive and defensive players should be penalized with double foul. The possession of the ball should be determined by a jump ball of players directly involved on the foul line area of the court where the incident happened.

CSB Tournament Formats and Schedule:

Every calendar year, CBS shall have two 5-month tournament seasons and two months vacation, rest and recreation schedule for the players described below:

- First season-January to May playing period and the whole month of June for vacation, rest and recreation schedule.
- Second season- July to November playing period and the whole month of December for vacation, rest and recreation schedule.

The two CSB Tournament Formats are as follows:

- First Season – Traditional total points system based on:
 1. Four 12-minute quarter per game.
 2. 5-minute overtime after 4th quarter to break tie.
 3. Team with the highest total points after the 4th quarter and overtime periods wins the game.
 4. All teams shall play two games based on home and visitor arrangement every season.
 5. The top four teams shall in the playoffs games series based on best-of-five games to determine the finalists.
 6. The two finalists shall play best-of-five games to determine the champion.
- Second Season – Best-of-Seven Match Play System
 1. The whole game is divided into 7-match periods.
 2. Each match period is equivalent to 8 minutes of playing time.
 3. The team should play to win each match period.
 4. The team that wins the 1st four match periods win the game.

5. In case of tie after each period, team plays 2-minute overtime to break the tie.
6. All teams shall play two games based on home visitor arrangement
7. The top four teams shall play in the playoffs based on best-of-five games to determine the two finalists.
8. Two finalists shall play best-of-five games to determine the champion.

UNDERSTANDING THE BENEFITS AND ADVANTAGES

New free throw scoring rule:

The purpose of this new rule is to discourage players to commit personal fouls because some of these fouls tend to be harmful to other players.

This new rule will also discourage players and coaches to use the old rule as strategy to intentionally commit personal fouls to prevent opponents from scoring high percentage field goal attempts and hack-a-foul on poor foul shooters that will most likely miss the free throws-thus preventing scoring field goals and at the same time get ball possession in case of most likely missed foul shot. This kind of strategy is disruptive to the smooth flow of the game that spectators and fans dislike very much.

The game of basketball has evolved and developed into an intensely competitive, entertaining, and at the same time physically demanding sport to play. So physically demanding that it has caused a lot of serious career-threatening and life-threatening types of injuries that might continue to increase in the near future unless new rule on penalty on fouls are adopted to at the very least minimize is not completely prevent these injuries.

Base on my researched and observations there are primarily three main causes of serious injuries as follows:

- High incidence of accidental physical contacts.
- High incidence of personal hard fouls.
- High incidence of flagrant fouls.

High incidence of accidental physical contacts:

The current scoring rule encourages players to play, move and shoot closer to the basket to score at least 2 points with higher chances of making it because if the shots are attempted closer to the basket, the higher the percentage of making the shot. Most of the actions and movements are usually within the key area inside 1,100 sq. ft. (50' x 22') of space. The type of shots are usually lay-ups, dunks, alley-oops and jump shots near the basket where most players converge, play and perform their respective roles to score and defend inside a limited space of 1,100 sq. ft. of playing space. This limited space is prone to create tight situations where some accidental but harmful physical contacts and collisions are unavoidable. The solution to this kind of tight situation is to increase the playing space from 1,100 sq. ft. to 2,350 sq. ft. (50' x 47') by adding 25' 4-point arc line and 47' 5-point line as shown in Exhibit 1.

High incidence of personal hard fouls:

There are situations players get carried away by their emotions and temper they intentionally commit hard fouls against each other that maybe harmful if the players involved are leaping in mid-air or running at fast speed and then awkwardly land off balance or off their feet after colliding with their opponents. These kind of harmful foul-situations are difficult to control. However, they can be minimized if the players themselves behave carefully and exercise restraint of their actions knowing that the penalty on fouls could be game-changing depending on where and how the fouls were committed.

High incidence of flagrant fouls:

As we are all aware of and especially the players, there two types of flagrant fouls and they are:

- Flagrant foul 1 – is unnecessary hard contact committed by a player on the opponent.
- Flagrant foul 2 – is unnecessary and excessive contact committed by a player against an opponent. It is considered an unsportsmanlike act and the offender is ejected immediately and subject to fine and suspension.

The current penalties for flagrant fouls are adequate. However, it will add more serious message to the players, if in addition to the current penalties, scoring of free throw shall be increased from one point to two points for every free throw made, which could be game-changing to win or lose the game and important depending on the standing of the team during the season. Since penalty on flagrant fouls is two free throws plus ball possession, the immediate impact could be a 4-point swing in favor of the opponent and could be more if the opponent in addition scores a field goal.

Understanding the Impact of the New Free Throw Scoring While in the Act of Shooting

If fouls are committed inside the 2-point field goal area:

- If the 2-point field goal attempt is good, the penalty is one free throw. If the free throw is good, the play is credited as 2 points for the field goal plus 2 points for the free throw or total of 4 points.
- If the 2-point field goal is a missed, the penalty is two free throws. If both free throws are good, it is credited as 4 points. If only one free throw is good, it is credited as 2 point.

If fouls are committed inside the 3-point field goal area:

- If the 3-point field goal attempt is good, the penalty is one free throw. If the free throw is good, the play is credited as 3 points for the field goal plus 2 points for the free throw made or total of 5 points.

- If the 3-point field goal is missed, the penalty is three free throws. If the three free throws are good, it is credited as 6 points. If only two free throws are good, it is credited as 4 points. If only one free throw is good, it is credited only as 2 points.

If fouls are committed inside the 4-point field goal area:

- If the 4-point field goal attempt is good, the penalty is one free throw. If the free throw is good, it is credited as 4 points for the field goal plus 2 points for one free throw made or total of 6 points.
- If the field goal is missed, the penalty is four free throws. If the four free throws are good, it is credited as 8 points. If three free throws are made, it is credited as 6 points. If two free throws are good, it is credited as 4 points. If only one free throw is good, it is credited as 2 points.

If fouls are committed inside the 5-point field goal area:

- If the 5-point field goal attempt is good, the penalty is one free throw. If the free throw is good, it is credited as 5 points for the field goal plus 2 points for the free throw or total of 7 points.
- If the 5-point field goal attempt is missed, the penalty is five free throws. If all the five free throws are good, it is credited as 10 points. If 4 free throws are good, it is credited as 8 points. If three free throws are good, it is credited as 6 points. If 2 free throws are good, it is credited as 4 points. If only one free throw is good it is credited as 2 points.

Understanding the benefits of adopting new scoring system on free throws:

- It is definitely a strong deterrent to commit intentional personal and flagrant fouls that may harm and inflict serious, career-threatening and life-threatening injuries on players.
- Discourage unsportsmanlike conduct of players and non-playing members of the team to discredit the integrity and credibility of the league and officials.
- Discourage committing intentional “hack-a-foul” strategy on poor foul shooters in order to get ball possession.
- Highly motivate and encourage poor foul shooters to work hard and practice more to improve their foul-shooting skills.
- An effective reminder to all players to be always aware and mindful to each other’s safety and welfare while playing the game.
- Most if not all the players will continue to play well, fair and clean because they know the healthier they are the more effective they will be long term which will considerably extend their retirement age.

Understanding the Benefits of Adopting CSB Long Shots Rules

The 3-point shot phenomenon:

- We all know that ABA was the first league to include 3-point shots that basketball fans and players like very much to watch and play. After the merger of NBA and ABA in 1976, NBA inherited and continued using the 3-point shot that later became the most popular and fearsome play of the game that fans are attracted and looking forward to see every basketball game is played.
- There are more players now shooting three-pointers than it was a long time ago that upgraded and enhanced the quality level of competition and entertainment value of the game. It has been proven as the most potent weapon of winning games and championships like the 3-point tying clutch shot of Miami Heat's Ray Allen against San Antonio Spurs that extended the game and won after overtime and the next final game and 2013 NBA championship.
- Golden State Warriors beat Cleveland Cavaliers at 4-2 during the last 2014-2015 NBA Finals series by overwhelmingly making 67 3-point shots out of 186 attempts compared to 49 3-point shots out of 167 attempts by Cleveland.
- Cleveland Cavaliers beat Golden State Warriors in game 7 of 2015-16 NBA Finals after Kyrie Irving hit a 3-pointer during the last 10 seconds of the fourth quarter and won their first NBA title after 50 years and the only team to win it after being down 3-1 in the history of the league.

The spectacular 4-point and 5-point shots:

- At present, the playing area is concentrated inside a limited space in between the baseline and inside the 22' 3-point arc line. The new additional features to include a 4-point and 5-point shooting areas from outside the 25' 4-point arc line up to 47' 5-point midcourt line and the whole backcourt will increase and open up more floor playing space for players to move around, lessen incidental and accidental collisions with other players, and at the same time create more open shot opportunities inside and outside the 2-point perimeter area. Thus, making full use of the front court, enlarging the playing field area of the court for players to maneuver, move around the ball and set up plays to shoot 3, 4, and 5-pointer long shots.
- We have seen the most spectacular shots in sports like the long touchdown pass in football they call the "Hail Mary" pass, hole-in-one shot in golf they call an "Ace", and in baseball they call a "Grand Slam" by batting the ball out of the park with fully-loaded bases. The 4-point shots are going to be as spectacular as batting the baseball balls out of the park, while the 5-point shots will be more spectacular like making a "hole-in-one" in golf with a single shot in par 3 hole or a "double eagle" by hitting the ball into the cup on the second shot from the fairway in a par 5 hole.
- Under CSB scoring rules - no big lead is safe, boring "garbage time" will not happen anymore because of so many scoring options to make in order to rally and catch up. This new scoring system is definitely a better and more exciting version of playing the game that will revolutionize the sport of basketball and at the same time greatly minimize injuries. In addition,

the new scoring rules will certainly improve the overall quality and entertainment value of the game that will attract more fans and increase attendance and TV ratings. Basketball Related Income (BRI) from TV deals, ticket sales, advertising, endorsements, concessions and from other related products and services will greatly increase revenue and profits to unprecedented levels of the teams.

- CSB was created, designed and intended primarily for the benefit of the players who are truly the real performers that makes basketball the most entertaining, popular and fastest growing sport in the world by making it a lot safer and more fun for them to play. Consequently, the safer the game to play, the healthier and longer they can play the game to entertain the fans and at the same time earn more money for themselves and the teams they play for which ultimately will benefit the league, the sport business industry and the country.

CSB great equalizer of differences in height and size:

- Under current rules, taller and bigger players have big advantage over shorter and smaller players because most of the actions and plays are concentrated near the basket where they can shoot high-percentage 2-pointer shots and at the same time effectively defend and grab more rebounds over shorter players.
- Under CSB rules, shorter and smaller players who are naturally quicker, faster, more agile, better ball handlers and more accurate in long shots can equalize the difference and disadvantage by taking more rewarding 3, 4, and 5-point long shots.
- Most of the collisions among players occur within the key area of the court. In case of collisions between bigger and smaller players, the smaller players usually get hurt. Under CSB rules, smaller players are encouraged by playing, moving, shooting and scoring farther from the key area. Thus, avoiding collisions against bigger players in order to avoid potential injuries.
- Shorter and smaller players from Asian countries should therefore improve their long shot shooting skills in order to effectively compete in international tournaments against taller and bigger players from USA, Canada, Europe and Africa.

Understanding the benefits of adopting the new 30-second time shot clock rule:

- This new 30-second shot clock rule will provide more time compared to the current 24-second time shot clock rule for players to set plays and create openings to take 3, 4, and 5-point field goal attempts. Thus, widen the whole court for players to move around and minimize physical contacts and collisions that maybe harmful to the players.
- The current NBA 8-second rule, NCAA 10-second rule and backcourt violation rule limits the playing space, restricts player movements and set plays inside the front court area that tends players to hurry up, become careless and pressured that may cause turnovers and collisions against other players. Under the CSB system, these rules are not necessary and should be cancelled.

- The new CSB 30-second time clock rule will provide players more time to play cautiously and encourage them to move and execute set plays to improve their chances of scoring and at the same time mindful of other offensive and defensive players inside the court. Thus evade and avoid accidental body contacts that may cause serious injuries like blocking, charging, “stepping on other players foot” and “running under” offensive players leaping high up near the basket to attempt layups or dunk shots to score or grabbing rebounds or blocking shots that are usually happening while playing basketball today.

Understanding the benefits of new CSB leagues:

- Provides fans new rules and better version of playing the game that is safer to play, more exciting for fans to watch, fair and equally competitive for all teams with differences in height and size of players.
- Provides employment opportunities to increasing numbers of new young and talented professional players and related office staff members.
- Fully utilized existing leagues infrastructures of facilities which are vacant during the off season. Thus, no need to invest new and expensive investment for acquisition of land, construction of new arenas, and buying new equipment.
- Basketball Related Income (BRI) from lucrative TV deals, concessions, ticket sales, sponsors, advertising, merchandising, endorsements, apparel sales, parking, licensing, naming rights and related products and services will greatly increase.
- CSB games with the latest “Ball Flight-Tracking” TV technology is going to be like a made for “TV Production Special” that will be able to show more spectacularly long shots from 3-point, 4-point, and 5-point areas of the court which will really delight and entertain fans watching the games in televisions at homes, pay-per-view TV channels, bars, theatres, and arenas worldwide.
- CSB leagues will not only make the game of basketball a lot safer and healthier for players to play and more fun for fans to watch but also greatly contribute to the improvement of the sports business industry, the economy and unity of the country.
- CSB leagues can easily, happily, commercially and complementary co-exist with NBA and FIBA basketball leagues just like PGA stroke play and Ryder Cup match play that is really going to great for basketball and sport entertainment industry together with basketball-related jobs and businesses.
- The commercial development potential is huge for NBA and could double its revenue and income by using CSB rules on their NBA Development League without additional capital-intensive investment for new infrastructures and at the same time apply their highly successful and profitable business model.

Exhibit 1 CANADIAN STYLE BASKETBALL

FIELD GOALS & FREE THROW LENGTH & SCORING SPECIFICATIONS PROFESSIONAL

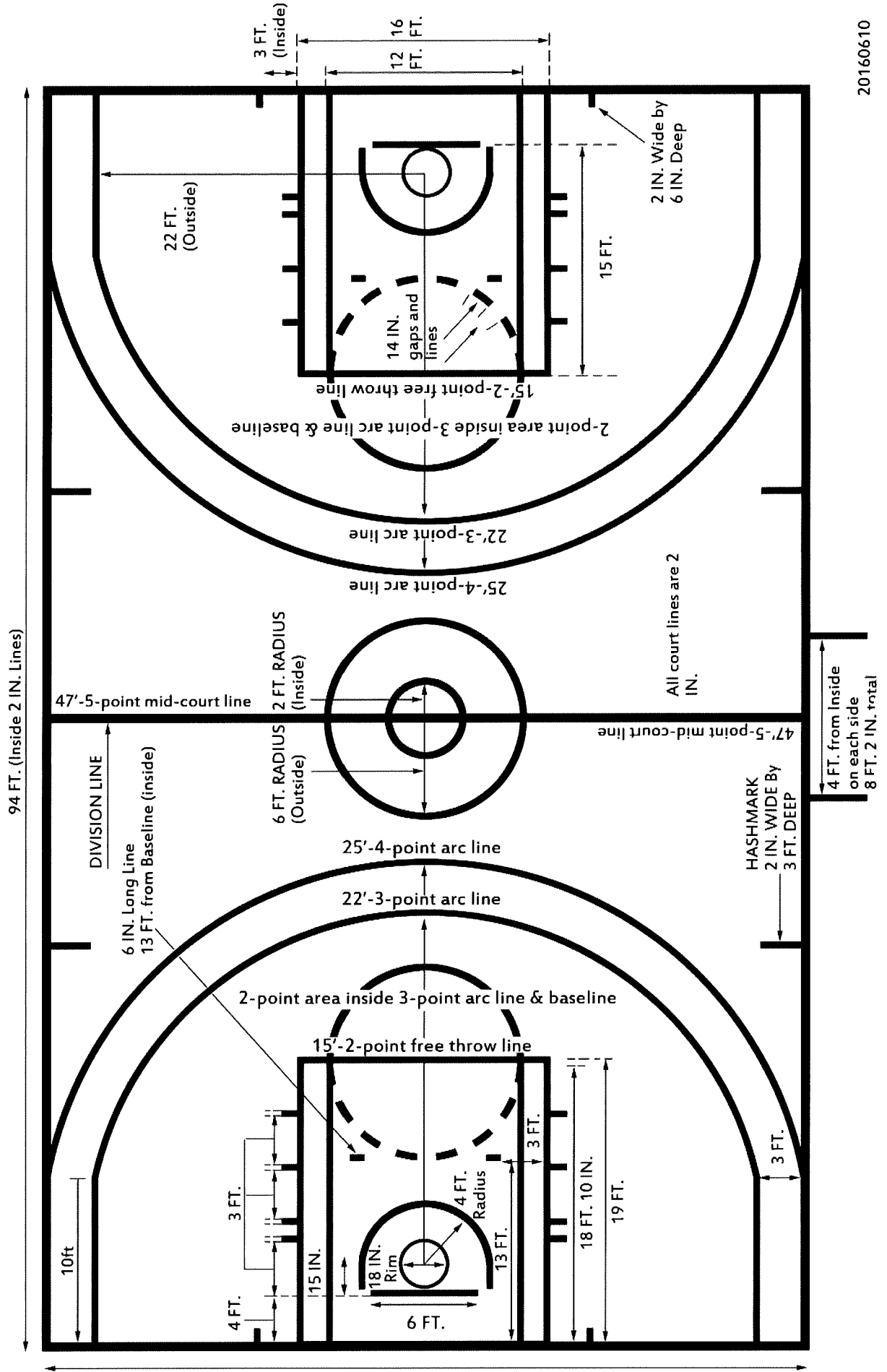


Exhibit 2 CANADIAN STYLE BASKETBALL

FIELD GOALS & FREE THROW LENGTH & SCORING SPECIFICATIONS

COLLEGE

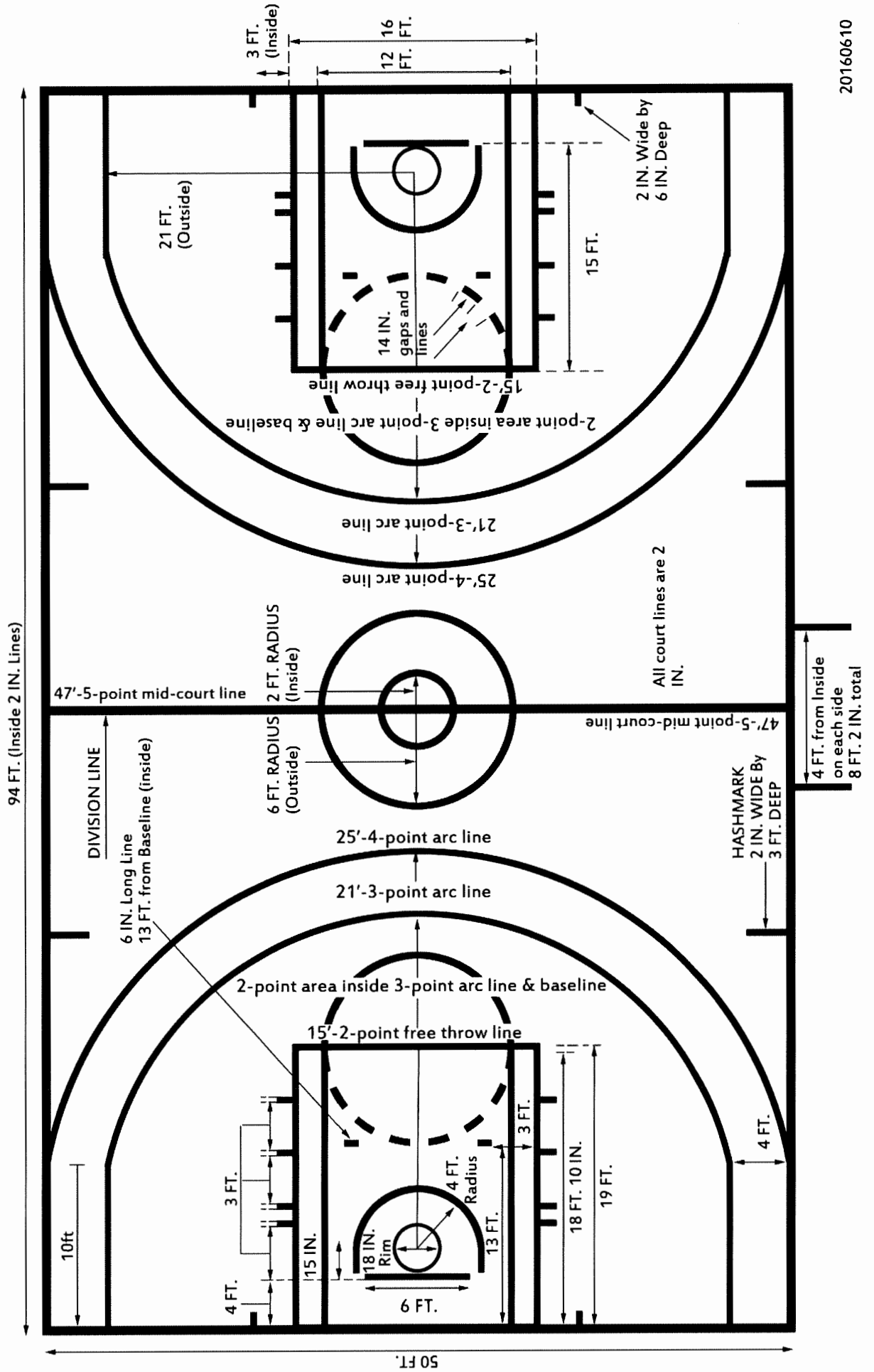


Exhibit 3 CANADIAN STYLE BASKETBALL

FIELD GOALS & FREE THROW LENGTH & SCORING SPECIFICATIONS HIGH SCHOOL

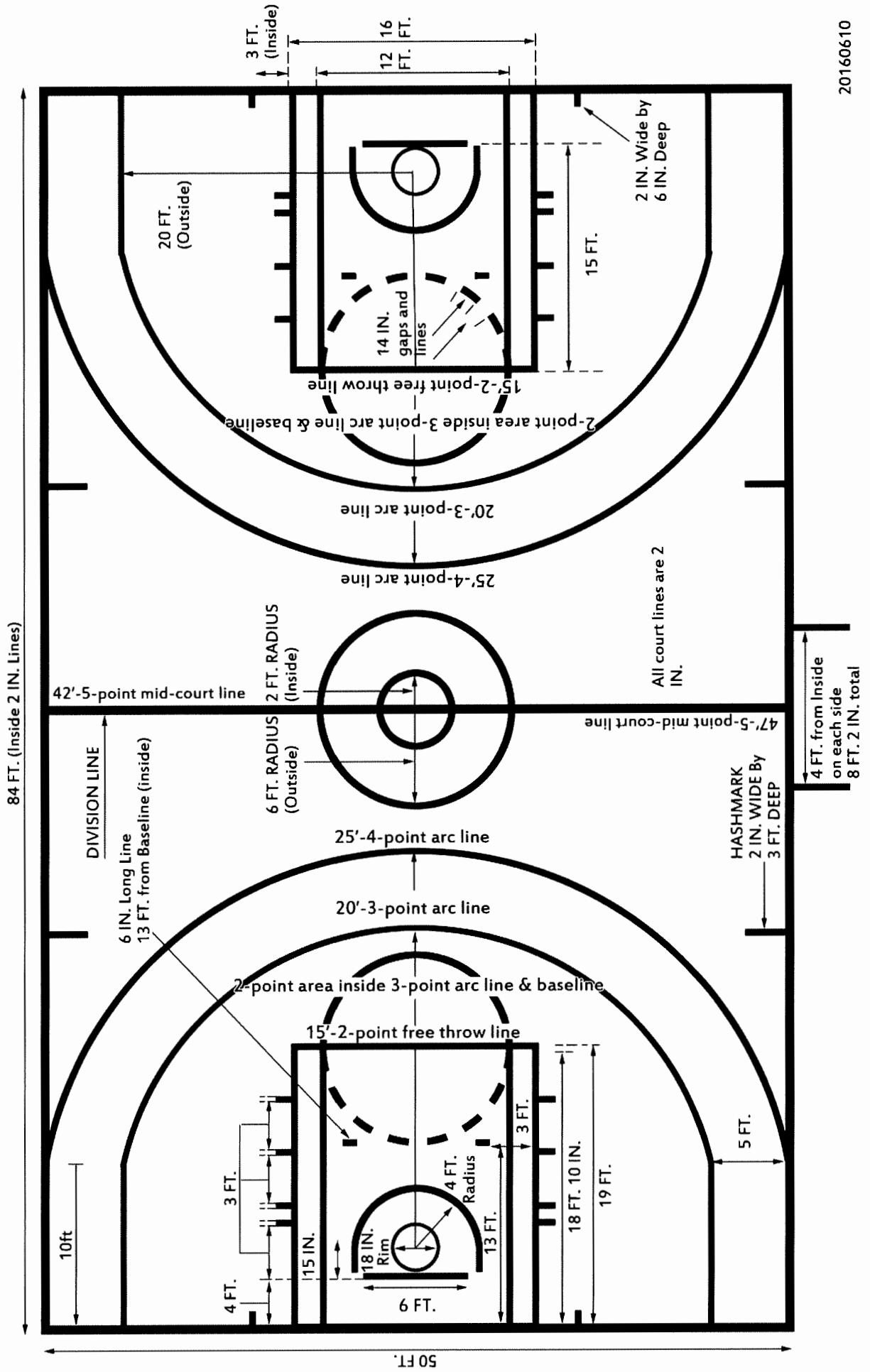
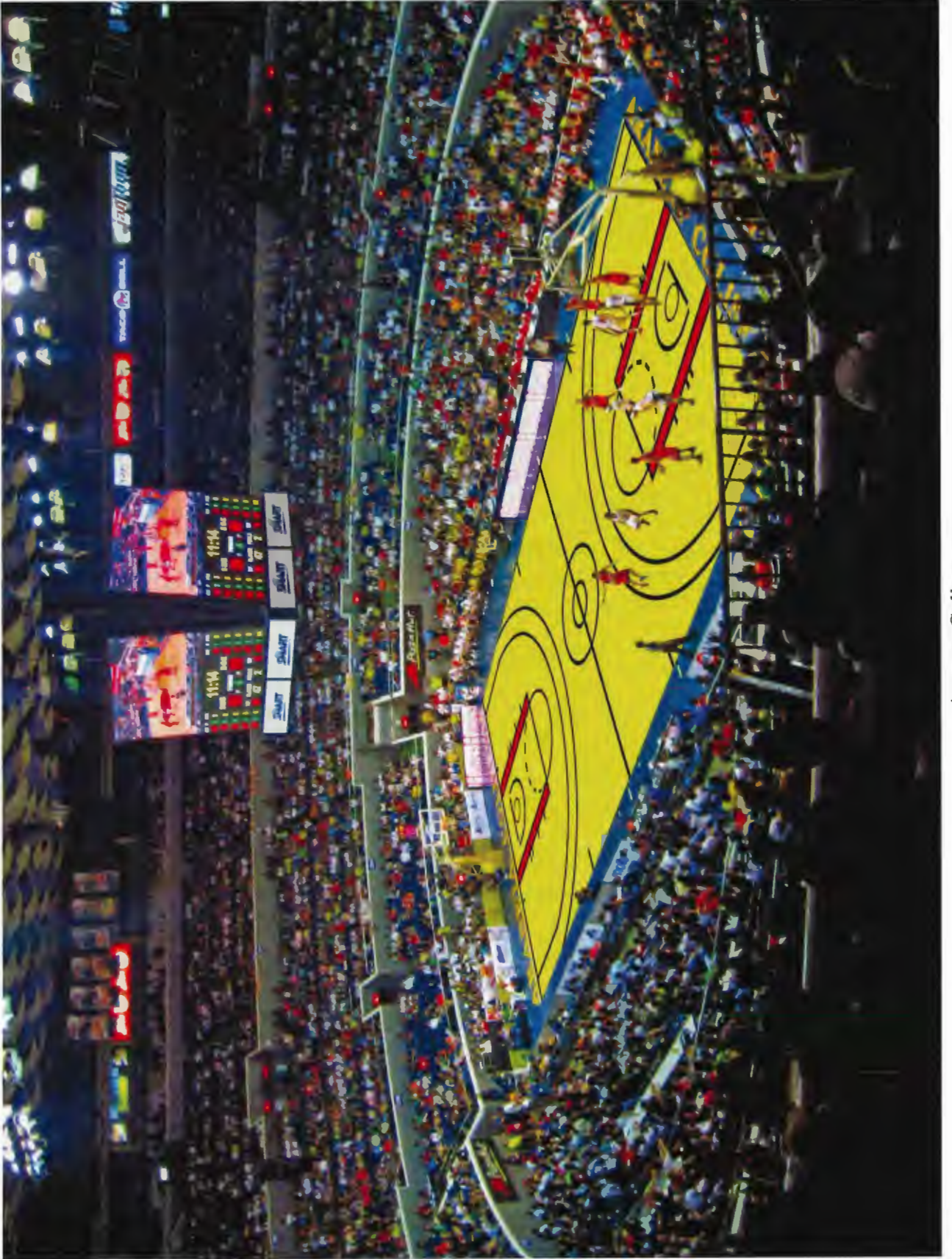


Exhibit 4
CANADIAN STYLE BASKETBALL



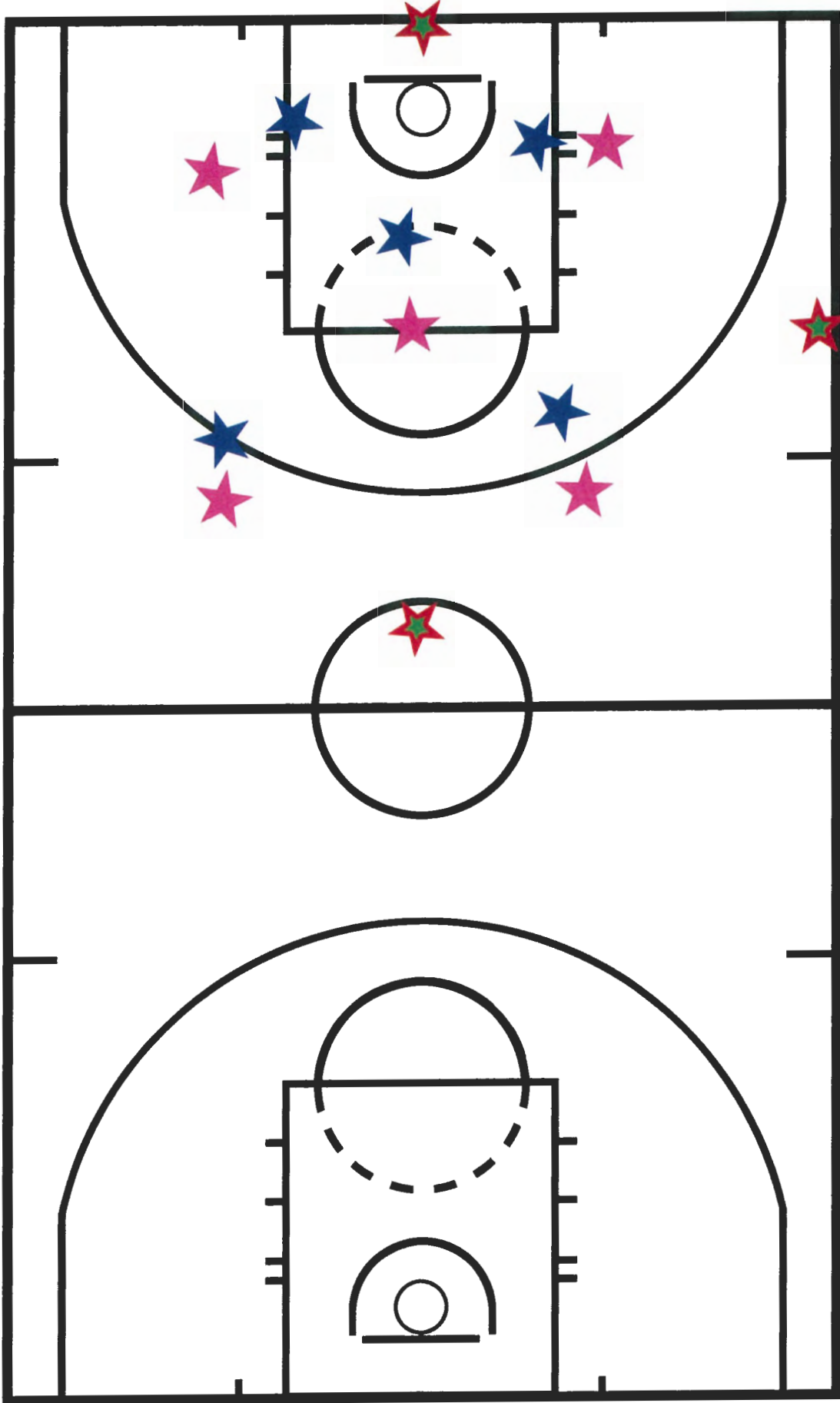
Araneta Coliseum

20160610

Exhibit 5
CANADIAN STYLE BASKETBALL

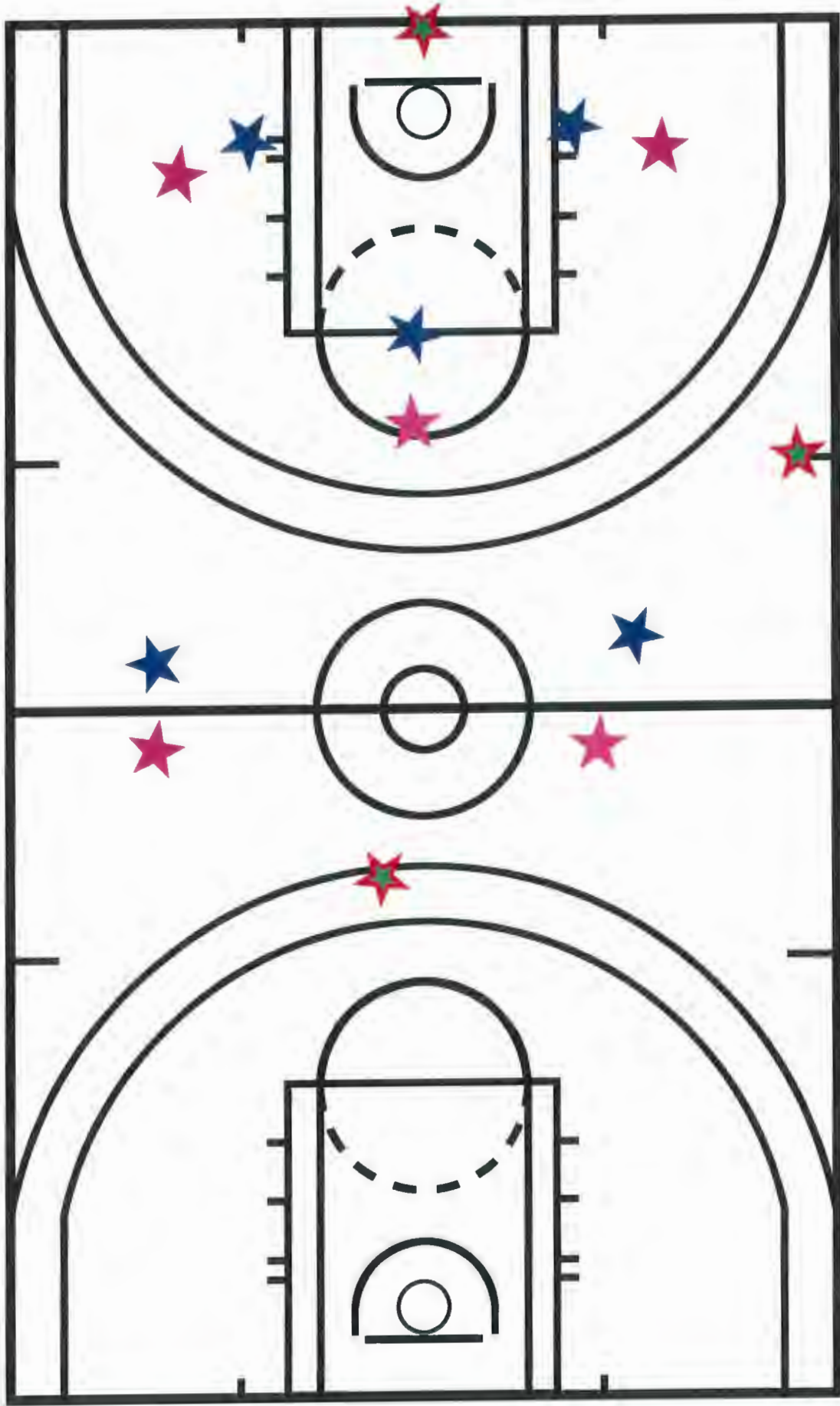


EXHIBIT 6
OFFENSIVE AND DEFENSIVE POSITIONS AND FORMATIONS
TEN PLAYERS AND THREE REFEREES UNDER CURRENT FIBA RULES



The current FIBA rules of the game encourages taller offensive players to play and drive in nearer to the basket within a limited space of 1,250 sq. ft. (50 ft. x 25 ft.) in order to shoot high-percentage layups and dunk shots while at the same time defensive players aggressively try to prevent that sometimes causes hard contacts and collisions resulting in some instances to serious injuries on the players involved.

EXHIBIT 7
OFFENSIVE AND DEFENSIVE POSITIONS AND FORMATIONS
TEN PLAYERS AND THREE REFEREES UNDER CSB RULES



The CSB rules of the game encourages shorter players to play the whole court of 4,700 sq. ft. (94 ft. x 50 ft.) in order to set plays to shoot more exciting 3, 4, and 5 points long shots that will draw defending players farther from the goal and open up space in the front court for naturally faster and more agile shorter players to maneuver and evade colliding with taller and bigger players defending the area and safely drive in for high-percentage layups and jump shots nearer to the basket.

Exhibit 8

Basketball Arenas in Canada

NAME AND LOCATION	CAPACITY
Air Canada Centre, 40 Bay Street, Toronto, ON	20,511
Maple Leaf Gardens, 60 Carlton Street, Toronto, ON	16,382
Canadian Tire Centre, 1000 Palladium Drive, Ottawa, ON	20,500
Rogers Arena, 800 Griffiths Way, Vancouver, BC	19,700
Centre Bell, 1909 Canadiens-de-Montreal Avenue, Quebec	22,114
PEPS, Rue Du PEPS, Quebec	19,500
Montreal Forum, 2313 St. Catherine Street, Montreal	18,575
MTS Centre, 300 Portage Avenue, Winnipeg, Manitoba	15,750
Scotiabank Centre, 1800 Argyle Street, Halifax, NS	11,093
Harbour Station, 99 Station Street, Saint John, NB	7,305

Recommendation

Canada Basketball should initiate and lead the country to organize the first Canadian professional basketball league based on the very successful and profitable NBA business model in order to provide lucrative employment opportunities for Canadian professional basketball players, basketball-related jobs and businesses that will greatly contribute to the economic development, pride and goodwill of the country.

There is no need for Canada to heavily invest and construct on new expensive facilities because there are currently 10 existing big basketball arenas that are available, ready and can accommodate at least 10 professional basketball teams and more if necessary based on sharing arrangement.

The biggest and most attractive feature of the games are going to be Canadian teams and players playing the new rules of play that will be more exciting for fans to watch, safer and fair to play by players with differences in height and size which is a very distinctive Canadian Style to play basketball.

Exhibit 9
CANADIAN STYLE BASKETBALL
RAINBOW SHOTS

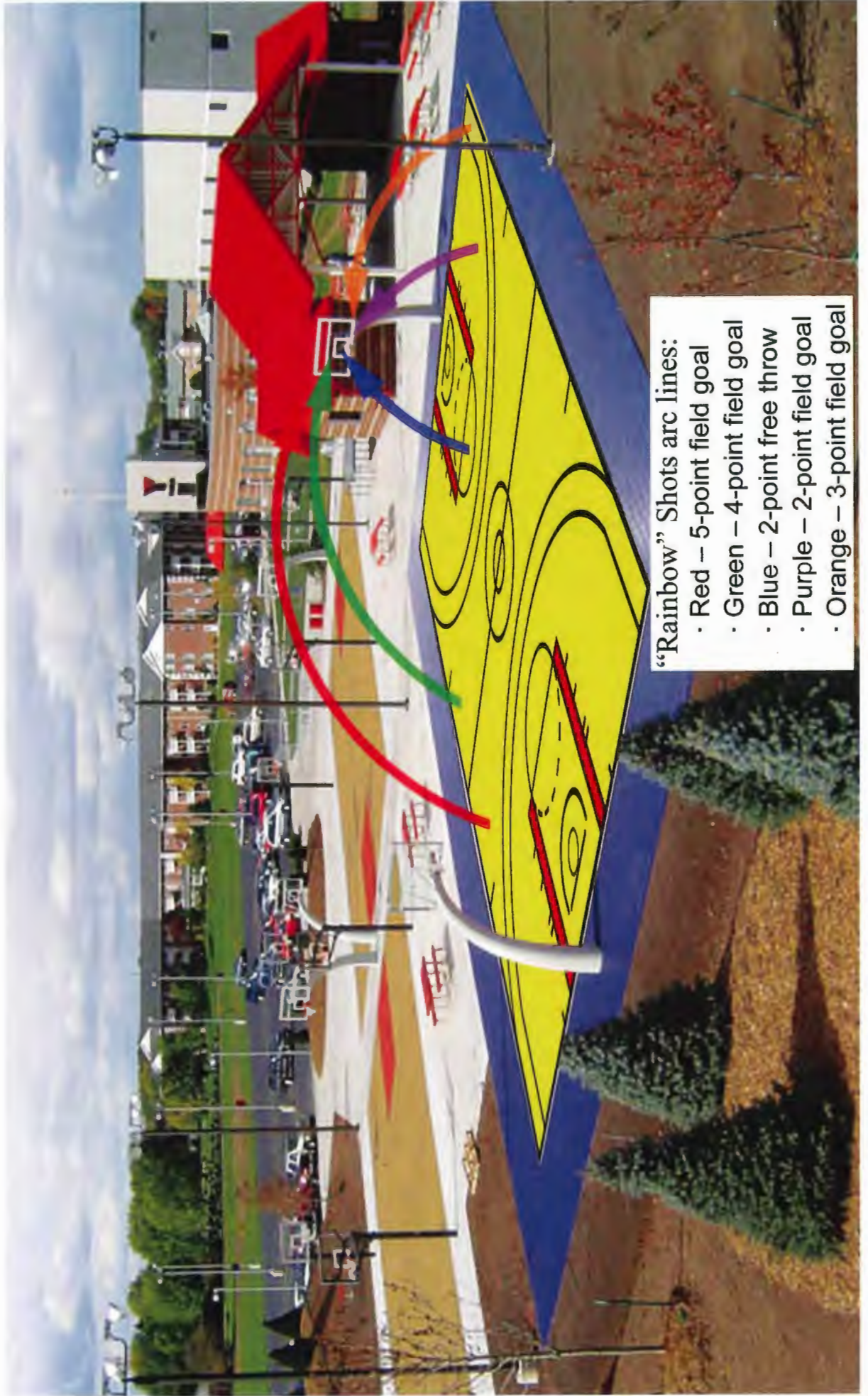


EXHIBIT 10

TOURNAMENT FORMATS

Formats

Justification & benefits

Canadian Style Basketball (CSB) shall have 2 playing seasons per year with different formats:

1.0 January to May Season using the Total Points System (TPS) format with the following rules:

- Four 12-minute quarters per game.
- 5-minute overtime after 4th quarter to break tie.
- Team with the highest total points after the end of the 4th quarter regulation period wins the game.
- Change court after 2 quarters.

2.0 July to November Season using Match Play System (MPS) format with the following rules:

- One game is equivalent to seven 8-minute match periods to play.
- The highest total score per period wins the match.
- 2-minute overtime per period to break tie.
- The first team to win 4 matches wins the game.
- Change court after every period.

1.0 Currently, a universal tournament format.

2.0 For CSB season tournaments, the length should not exceed 5 months.

3.0 The 1st season of the year January to May should play under TTPS format.

4.0 This is less grueling and less physically stressful per season for players. Thus, minimize injuries.

5.0 Allows 2-month rest and recreation starting December (Prior year) and June (Current year).

6.0 For better long term health and quality of life benefits for players.

1.0 Intensely competitive to play every match period.

2.0 Each match period is considered singularly vital and game changing to win or lose the game.

3.0 A blowout in one period does not affect the whole game but only one period and can recover on succeeding periods.

4.0 Eliminates the boring "garbage time" conditions after blowouts.

5.0 Highly motivating for players to play at highest level every match period of the game.

6.0 Greatly enhanced the entertainment value of the game that fans will like very much to watch.

Minister of Sport
and Persons with Disabilities



Ministre des Sports
et des Personnes handicapées

Ottawa, Canada K1A 0M5

Mr. Jaime Y. Pestano
205 – 7388 Gollner Avenue
Richmond, British Columbia
V6Y 0H4

JAN 18 2017

Dear Mr. Pestano:

Thank you for your correspondence enclosing a copy of your book entitled *Canadian Style BasketBall (CSB): Safer & More Exciting*. I appreciate your taking the time to send your presentation to me.

Canadians take legitimate pride in our country's contributions to the history of basketball, which was invented by Canadian James Naismith. If you have not already done so, I would encourage you to share your manuscript with Canada Basketball, our national sport organization for basketball. Canada Basketball is responsible for leading the growth and development of the game and for providing leadership and direction in the administration of the sport in Canada, including the implementation of rules and regulations. You will find enclosed for your reference the contact information for Canada Basketball.

I would like to commend you for your proposal to have basketball leagues adopt new rules of play, and for your plan's focus on safety. Please accept my best wishes.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carla'.

The Honourable Carla Qualtrough, P.C., M.P.

Enclosure

May 10, 2017

Jaime Y. Pestano
Canadian Style Basketball
205-7388 Gollner Avenue
Kiwanis Towers
Richmond, BC V6Y 0H4

Dear Mr. Pestano:

Thank you for your letter and a copy of your book.

It is very well written and obviously by someone very passionate about the game.

I am also going to encourage you to reach out to Canada Basketball. I am sure that a book like yours will be of interest to them. Canada Basketball is a non-profit organization and the governing body for basketball in Canada. This national federation was founded in 1923.

I wish you much success.

Sincerely,



Anne Marie Owens
Editor-in-Chief
National Post

AMO:fs




Jaime Pestano <jypestano181@gmail.com>

Canadian Style Basketball

3 messages

Inma Rodriguez <inma.rodriguez@euroleague.net>
To: "jypestano181@gmail.com" <jypestano181@gmail.com>
Cc: Xavi Puyada <xavi.puyada@euroleague.net>

Thu, Nov 23, 2017 at 9:33 AM

 Inma Rodriguez (inma.rodriguez@euroleague.net) added themselves to your Guest List | Remove them | Block them

Dear Mr Pestano,

On behalf of Mr Jordi Bertomeu, we would like to thank you for sending us copy of your book "CANADIAN STYLE BASKETBALL". This is an interesting piece of work that will be shared amongst our experts in our future competition commissions.

One of the Euroleague Basketball main concerns has always been caring about the evolution of this sport in order to make it more and more attractive for our fans. In that sense, since the year 2000 when Euroleague Basketball was created, we have developed many different competition systems as well as adopted very significant technical rules changes always with the benefit of basketball in our minds, trying to make it more dynamic and catching for the worldwide basketball followers.

Once again, we would like to thank you for the dedicated time and efforts. Euroleague Basketball very much appreciates receiving interesting and innovative proposals that may help this sport to be even more appealing in the future. Especially, if this proposals come from passionate basketball people with a relevant basketball background.

Warm regards,

Inma Rodriguez Solán / Assistant to the President and CEO

inma.rodriguez@euroleague.net



Quatre Camins, 9-13 - 08022 Barcelona (Spain)

Phone +34 933 278 427 | Mobile +34 676 99 29 79 | Website euroleague.net

Help protect our environment by only printing this email if absolutely necessary.

This email contains confidential and/or privileged information intended solely for the person to whom it is addressed.

If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution of the contents of this email is strictly

About The Author

Jaime Y. Pestano



205-7388 Gollner Ave., Richmond, BC V6Y 0H4, Tel. 604 241-1271, Email: jypestano181@gmail.com

Personal:

- Born in Cebu City, Philippines, September 11, 1937
- Religion – Roman Catholic
- Listed height – 6 ft
- Listed weight – 175 lbs.
- Languages - Fluent in English, Pilipino, Cebuano, and Ilongo

Education:

- Colegio del Santo Nino, Grade School, Cebu City, Philippines, 1947 - 1952
- Colegio del Santo Nino, High School, Cebu City, Philippines, 1952 - 1955
- Ateneo de Manila University, Bachelor of Science in Business Administration (BSBA) Major in Accounting, Katipunan Ave., Loyola Heights, Quezon City, Philippines, 1955 - 1959
- University of the Philippines, Master in Business Administration (MBA), Diliman, Quezon City, Philippines, 1969 – 1971

Athletic Achievements:

- High School Varsity Basketball Player – Colegio del Santo Nino (1953 – 1954, 1954 – 1955)
- 2 x Cebu City Athletic Association High School (CCAA) champion (1953 – 1954, 1954 – 1955)
- 2 x CCAA First Five All-Star High School Selection (1953 – 1954 & 1954 -1955)
- 2 x Top Four High School Varsity Team National Inter-Secondary Championship (1953 & 1954)
- College Basketball Varsity Player – Ateneo de Manila University (1955 – 1959)
- National Collegiate Athletic Association (NCAA) Runner-up (1955 – 1956)
- 2 x National Collegiate Athletic Association (NCAA) champion (1957 – 1958, 1958 – 1959)
- Best Team Player Award (1958 – 1959)
- 1 x All-Star NCAA Selection vs. UAAP All-Star Selection Goodwill Games (1958)
- 1 x All-Star NCAA Selection vs. Japan Goodwill Games (1958)
- Ateneo Sports Hall of Fame as Basketball Player (2000)

Work Experience:

- **Caltex Philippines (Inc.) – An oil company jointly owned by Chevron and Texaco. I started working as service station salesman after college graduation in 1959 and worked my way up to become General Manager in 1984 – 1989. I retired early and immigrated with my family to Canada in 1989.**
- **Faculty Member - MBA Program, La Salle University, Bacolod City, Negros Occidental, Philippines (1972 – 1975)**
- **Faculty Member – MBA Program, Ateneo de Manila University, Quezon City, Philippines (1976 – 1983).**

Business Experience:

- **President & CEO – Carephil Industries of Canada Limited, as retailer of two Chevron Service Stations in Tsawwassen and Vancouver, British Columbia (1990 – 1994), Starmart Convenience Store and Carephil Money Remittance Agency (1994 – 1997).**
- **President and CEO – Pesgon Ventures (Philippines) Inc., as manufacturer, distributor, and retailer of bottled purified drinking water stations in Metro Manila, Philippines 1997 – 2008).**
- **President – Motorist Haven network of 16 Caltex, Shell, and Petron gasoline service stations in Metro Manila Philippines (2001 – 2002).**

Author:

- **UNDERSEA OIL SPILL
CONTAINMENT and RECOVERY SYSTEM
(Copyright 2010)**
- **CANADIAN STYLE BASKETBALL
(CSB)
SAFER MORE EXCITING FAIR
(Copyright 2016)**



*Certificat d'enregistrement du
Droit d'auteur*

*Certificate of Registration of
Copyright*

Certificat de correction / Certificate of Correction

Ce certificat d'enregistrement est émis conformément aux articles 49 et 53 de la Loi sur le droit d'auteur. Le droit d'auteur sur l'oeuvre décrite ci-dessous, a été enregistré à la date d'enregistrement comme suit :

This Certificate of Registration is issued pursuant to sections 49 and 53 of the Copyright Act. The copyright in the work described below was registered on the date of registration as follows:

Date d'enregistrement - Date of Registration : **September 14, 2015**

Numéro d'enregistrement - Registration No. : **1124421**

Première publication - First Publication : **Unpublished**

Titre - Title : **Canadian Style Basketball**

Catégorie - Category : **Literary**

Titulaire(s) - Owner(s) : **Jaime Pestano
205-7388 Gollner Ave
Richmond, British Columbia
Canada, V6Y 0H4**

Auteur(s) - Author(s) : **Jaime Pestano**

Corrigé le - Corrected on : **June 2, 2016**

Date d'émission du certificat - Date of Issuance of Certificate : **June 2, 2016**

Registraire des droits d'auteur / Bureau du droit d'auteur
Registrar of Copyright / Copyright office