## City of

 Richmond
## Report to Development Permit Panel

To: Development Permit Panel
From: Wayne Craig
Director of Development

Date: September 5, 2018
File: DP 18-822743

Re: Application by GBL Architects Ltd. for a Development Permit at 6340 No. 3 Road

## Staff Recommendation

That a Development Permit be issued which would permit the construction of a 15 -storey, $53,794 \mathrm{~m}^{2}\left(579,027 \mathrm{ft}^{2}\right.$ ), mixed-use development at 6340 No. 3 Road on a site zoned "High Density Mixed Use and ECD Hub (ZMU37) - Brighouse Village (City Centre)".


WC:jhd
Att. 7

## Staff Report

## Origin

GBL Architects Ltd., on behalf of Keltic (Brighouse) Developments Ltd., has applied to the City of Richmond for permission to develop a 15 -storey, $53,794 \mathrm{~m}^{2}\left(579,027 \mathrm{ft}^{2}\right)$, mixed-use development at 6340 No. 3 Road on a site zoned "High Density Mixed Use and ECD Hub (ZMU37) - Brighouse Village (City Centre)". Key components of the proposal include:

- A maximum floor area ratio (FAR) of 4.007 and a maximum height of 47.0 m geodetic.
- A podium and tower form of development with:
- Four levels of parking including two below-grade levels.
- Ground-level commercial uses.
- A podium-level Early Childhood Development Hub (ECD Hub).
- One office tower and three residential towers.
- Floor area including approximately:
- $2,656 \mathrm{~m}^{2}\left(28,588 \mathrm{ft}^{2}\right)$ of commercial space.
- $9,906 \mathrm{~m}^{2}\left(102,622 \mathrm{ft}^{2}\right)$ of office space.
- $39,871 \mathrm{~m}^{2}\left(429,168 \mathrm{ft}^{2}\right)$ of residential space.
- $1,765 \mathrm{~m}^{2}\left(19,000 \mathrm{ft}^{2}\right)$ of Early Childhood Development Hub (ECD Hub) space.
- Residential units including:
- 533 market strata units.
- 27 secured low end market rental units.
- LEED Silver equivalent design with LEED ID+C Gold certification for the ECD Hub.
- An on-site low-carbon energy plant with pre-ducting for future DEU system connectivity.

The site is being rezoned from "Land Use Contract 062 " to "High Density Mixed Use and ECD Hub (ZMU37) - Brighouse Village (City Centre)" under Richmond Zoning Bylaw 8500, Amendment Bylaw 9859 (RZ 17-773703). As considerations of rezoning, the developer will:

- Design, construct and transfer ownership of the Early Childhood Development Hub (ECD Hub) to the City.
- Design, construct and transfer ownership of the on-site low carbon energy plant to the City.
- Design and construct infrastructure improvements through a Servicing Agreement (SA) including:
- New and upgraded City utilities.
- Preducting for and/or undergrounding of private utility lines.
- Relocation of all private utility equipment on site.
- Road dedications to provide for an enhanced back-of-curb public realm on No. 3 Road.
- Road dedications to provide for new travel lanes and an enhanced back-of-curb public realm on Cook Road.
- Public right of passage statutory rights of way for enhanced pedestrian access along both the north and east edges of the site.
- Provision of a kiss and ride facility adjacent to the future TransLink Bus Mall.
- Frontage and PROP SRW improvements on all sides of the development.


## Development Information

Please refer to attached Development Application Data Sheet (Attachment 1) for a comparison of the proposed development data with the relevant Bylaw requirements. Please refer to Development Permit Conditions of Approval (Attachment 2) for additional DP requirements.

## Site and Context

Existing Site and Development: The subject site is located in the City Centre's Brighouse Village on the east side of No. 3 Road between Cook Road and the future Bus Mall site at the foot of the Canada Line. It is comprised of a single lot. The property was previously developed with low-scale commercial uses and surface parking. It is currently undergoing demolition and site preparation.
Surrounding Development: Development surrounding the subject site is as follows:
To the North: Adjacent, an undeveloped City lot subject to an application (DP 11-593871) to construct a Bus Mall adjacent to the Brighouse Canada Line Station in keeping with the City Centre Area Plan (CCAP). This application is in process and will be the subject of a separate report. To the north of the Bus Mall site, a recentlyconstructed mixed commercial and residential use development on a site zoned "Downtown Commercial (CDT1)" (DP 11-584010).
To the East: Across the north-south City lane, at 6411 Buswell Street, an existing, low scale commercial and office use development. This site is part of the Bus Mall development application noted above. Adjacent to the subject site, at 8171 Cook Road, is an existing, low scale commercial and office use development.
To the South: Across Cook Road, existing, low-scale commercial buildings with surface parking.
To the West: Across No. 3 Road, the Richmond Centre Mall site, which is zoned "Downtown Commercial (CDT1)" and is subject to an Official Community Plan (OCP) amendment application (CP 16-752923), as well as a Development Permit application (DP 17-768248) for the first phase of mall redevelopment and new mixed use building development. This application is in process and will be the subject of a separate report.

## Rezoning and Public Hearing Results

The Public Hearing for the rezoning of this site was held on July 16, 2018. There were no concerns expressed about the proposed rezoning.

## Staff Comments

The proposed scheme attached to this report satisfactorily addresses urban design, form and character and other City objectives identified as part of the review of the subject Development Permit application. In addition, the proposed scheme complies with the intent of the applicable sections of the Official Community Plan and is generally in compliance with the zone "High Density Mixed Use and ECD Hub (ZMU37) - Brighouse Village (City Centre)".

## Advisory Design Panel Comments

The Advisory Design Panel was supportive of the proposed scheme subject to Panel comments. The applicant has addressed significant comments including:

- Enhancing the identity of the ECD Hub entrance.
- Enhancing and distinguishing the expression of the different uses at the ground level (e.g. retail units and residential and office lobbies).
- Reducing the impacts of ventilation equipment on the north-south pedestrian mews and enhancing the façade treatment along the mews at the second to fourth level.
A copy of the relevant excerpt from the Advisory Design Panel Minutes from July 5, 2018 is attached for reference (Attachment 3). The applicant's detailed design responses are provided in 'bold italics' immediately following each Design Panel comment.


## Analysis

## Urban Design

Public Realm: The proposed development contributes to urban connectivity and public open space through a combination of widened back-of-curb cross-sections, Public Right of Passage Statutory Rights of Way (PROP SRWs) and publicly-accessible building setback areas. These include:

- On No. 3 Road and Cook Road, back-of-curb cross-sections ( 9.0 m and 7.3 m wide respectively) with treed and planted boulevards, off-street bike lanes, buffer strips and sidewalks.
- On No. 3 Road, a deep building setback on the ground level ( 8.3 m and greater) that will widen the sidewalk area leading to and from Brighouse Station.
- On Cook Road, enhanced ground level building setbacks ( 3.0 m and greater) that will be geared toward south-facing patio use.
- At the No. 3 Road and Cook Road intersection, an additional building setback, set diagonal to the intersection, to create a generous, public open space on one corner of the Brighouse Village Centre.
- Mid-block on Cook Road and aligned with the eastern edge of the site, a 6.0 m northsouth PROP SRW pedestrian mews, along with additional minor building setbacks, to connect Cook Road with the eastern end of the Bus Mall.
- In the north-east corner of the site, a "kiss and ride" PROP SRW area.
- Along the north property line, a 4.0 m PROP SRW, along with additional minor building setbacks, to add depth to the Bus Mall's adjacent sidewalk, provide access to the development's storefronts and residential lobbies and provide to connect No. 3 Road with the north-south pedestrian mews and "kiss and ride" area.

Design co-ordination between these areas will be important to ensuring a functional and seamless public realm experience that addresses: pedestrian loads; the need for direct and meandering pedestrian travel; transitions between public, semi-public and private site areas; integration with the Bus Mall design; enhanced hard and soft landscape materials; tree, lighting and street furniture placement; highlighting of the Brighouse Village Centre intersection; and, the overall continuity of the public realm along both No. 3 Road and Cook Road.

Design development of the public realm plan will occur through the Servicing Agreement process. Minor adjustments of the approved Development Permit ground level landscape plan (e.g. building setback areas) may be recommended. Changes will be subject to a General Compliance application, if warranted.
Public Art: As a consideration of rezoning, the applicant has offered to make a cash-in-lieu contribution to the City's Public Art Program. Public Art staff have proposed that part of the contribution be used to install an art work on the building façade to celebrate the Brighouse Village Centre. The applicant is supportive of this proposal, which dovetails well with a significant building design feature proposed through the DP and located at the corner of No. 3 and Cook Roads. This design feature, as well as its potential to be adapted for Public Art purposes, is described in more detail in the Architectural Form and Character section of this report.

In order to further explore this Public Art opportunity, Public Art staff are preparing a Public Art Plan and Terms of Reference for presentation to the Public Art Advisory Committee in the fall of 2018. Should the proposal move forward, the artist and art concept selection process is expected to be completed in the winter of 2019. Once the art concept is determined and the technicalities of its implementation within the facade are fully understood, a General Compliance application will be required to modify the approved Development Permit and a general compliance report will be brought forward to the DP Panel for consideration.
Public Adjacencies: The development concept provides for street-animating commercial uses at the ground level on the No. 3 Road, Cook Road and Bus Mall frontages. These commercial uses wrap into the pedestrian mews running along the east side of the site, which is further enhanced with lighting, seating, soft landscaping and decorative façade finishing. The massing of the proposed development intersperses podium and tower forms and provides for low podium heights on the No. 3 Road and Cook Road frontages to improve scale and light conditions on these streets. All frontages are overlooked by residential uses providing for 'eyes on the street'.

Private Adjacencies: Because the proposed development has public open space on all four sides, it is well separated from existing and future development on nearby private properties. Further, the subject site towers are located to support appropriate tower separations. The applicant has provided a viability study for the property at 8171 Cook Road that demonstrates the property may be developed in accordance with the Official Community Plan (OCP). Through the provision of the pedestrian mews on the subject site, the design opportunities for the adjacent site are improved for both commercial uses at grade and residential uses above.
Grade Relationships and Flood Construction Level: To address the City's flood construction level requirements in the context of deeper building setbacks, disabled access requirements and comfortable patio seating slopes, a relaxation of the Flood Plain Designation and Protection Bylaw provisions is required along part of the Cook Road frontage. The applicant has reviewed the circumstances with Building Approvals staff, which have provided support for the proposed ground floor elevations.

## Community Amenities

Early Childhood Development Hub (ECD Hub): The proposed development includes a $1,765 \mathrm{~m}^{2}$ $\left(19,000 \mathrm{ft}^{2}\right)$ ECD Hub facility that will house child care and child and family development services. The Hub will be designed and constructed by the developer and will be provided to the City at no cost at the completion of the project. Consistent with the considerations of rezoning, the Hub is proposed to be located on the third level of the development and has frontages on No. 3 Road, Cook Road and the podium rooftop. It is accessed by elevator and stair from its own entry lobby on No. 3 Road, as well as from various internal parkade levels (Attachment 4). The applicant team has been working with City Child Care and Project Management staff to develop the internal layout of the facility along with the layout and finishing of the outdoor spaces. Prior to issuance of the DP, the final indoor and outdoor designs must be accepted by staff and a preliminary construction cost estimate provided. Where relevant, details of the ECD Hub are discussed in the various report sections.
Affordable Housing: A total of 27 Low End Market Rental Housing (LEMR) units is proposed. These are clustered on Levels 3 and 4 of the north wing of the residential building, have a combined floor area of $2,013 \mathrm{~m}^{2}\left(21,667 \mathrm{ft}^{2}\right)$ and include a range of unit types (studio to three bedroom). The LEMR units face either the Bus Mall or the podium. Those with frontage on the Bus Mall will be subject to the recommendations of an acoustic consultant with respect to noise mitigation.

| Unit Type | Affordable Housing Strategy Requirements |  |  | Project Targets |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Min. Permitted <br> Unit Area | Current LEMR Maximum <br> Rents (1) (2) | Total Maximum Household <br> Income (1) (2) | Unit <br> Mix | \# of <br> Units |
| Bachelor | $37 \mathrm{~m}^{2}\left(400 \mathrm{ft}^{2}\right)$ | $\$ 811$ | $\$ 34,650$ or less | $15 \%$ | 4 |
| 1-BR | $50 \mathrm{~m}^{2}\left(535 \mathrm{ft}^{2}\right)$ | $\$ 975$ | $\$ 38,250$ or less | $33 \%$ | 9 |
| 2-BR | $69 \mathrm{~m}^{2}\left(741 \mathrm{ft}^{2}\right)$ | $\$ 1,218$ | $\$ 46,800$ or less | $26 \%$ | 7 |
| 3-BR | $91 \mathrm{~m}^{2}\left(980 \mathrm{ft}^{2}\right)$ | $\$ 1,480$ | $\$ 58,050$ or less | $26 \%$ | 7 |
| TOTAL |  | N/A | N/A | $\mathbf{1 0 0 \%}$ | $\mathbf{2 7}$ |

## Site and Functional Planning

Site Access: Proposed pedestrian access to the site includes storefront entries on three frontages, an office lobby at the No. 3 Road and Cook Road intersection and residential lobbies on Cook Road and the Bus Mall. A separate and exclusive lobby is provided for the ECD Hub on No. 3 Road.

Vehicle and truck access is proposed to be provided from Cook Road, where there will be a new traffic signal to manage the vehicle and pedestrian movements at the crossing. A second car and truck entry will be located on the east side of the site and will be accessed via the existing City lane that runs west from Buswell Street. This lane will be realigned and widened in the future.
Fire access has been vetted by Fire and Building Approvals staff based on the preliminary code analysis provided by the applicant. Access will be provided to the office, residential and ECD Hub lobbies, as well as the commercial retail units, from the fronting streets and the Bus Mall.

Parking and Loading: The proposed bicycle, vehicle and truck spaces are consistent with the site-specific bylaw (ZMU37) provisions.

Commercial, office and ECD Hub Class 1 bicycle parking, as well as end-of-trip facilities, are provided on the grade level of the parkade. Residential bicycle parking and bike maintenance facilities are provided in the below-grade parking areas close to the residential tower vertical circulation. Class 2 bicycle spaces are distributed around the site on grade.
Vehicle parking for the ECD Hub is provided on the ground and upper levels of the parkade and is located close to ECD Hub access points. Parking for commercial, office and visitor use is provided on three parkade levels and is separated from the residential parking which is located on the two below-grade levels. Two car share spaces, secured by SRW, are provided within the parkade at the east end of the site.
Truck and waste management loading spaces are proposed to be grouped near the Cook Road access and are visually and physically separated from the parking areas of the parkade. Large size truck loading is not required for this site.
Waste Management: The waste management system includes waste management collection facilities for the office and residential uses located on the first below-grade parking level at the base of each tower. A separate waste management collection facility is provided for the ECD Hub at the base of the ECD Hub vertical circulation system. Waste management for the ground level commercial uses is provided within the parkade ground level. The proposed system includes collection from all these facilities to a central pickup point within the combined truck and waste management loading area located on the ground level in the parkade structure. The Waste Management Plan is provided in the Development Permit drawings.

District Energy Utility: The low-carbon, central energy plant provided for the development will be transferred to the City to be integrated with the overall DEU system. The equipment is located on the top of the office tower as well as in various connection, equipment and transfer rooms throughout the development. Sustainability staff have reviewed and signed off on the Development Permit drawings.

Third-party Utilities: All third party utility equipment will be located on site. A significant "neighbourhood" BC Hydro VISTA box will be located adjacent to the kiss and ride at the north east corner of the site. The applicant has undertaken a detailed design review with BC Hydro to ensure that the location, layout and access are acceptable.
Indoor Amenity Space: A total of $1,133 \mathrm{~m}^{2}\left(12,196 \mathrm{ft}^{2}\right)$ of residential indoor amenity space is provided, which meets the CCAP objective of $2 \mathrm{~m}^{2} /$ unit ( $22 \mathrm{ft}^{2} / \mathrm{unit}$ ). The space is divided into a number of functional areas including a fitness room, a yoga studio, a large party room, a multipurpose room, a private dining room, a small guest suite, a children's playroom, and a business centre. Most of the indoor amenity spaces are oriented toward the residential outdoor open space on the podium roof level.
Outdoor Amenity Spaces: The proposed development includes a variety of outdoor open spaces, as outlined below, all of which meet or exceed the OCP DP Guideline area expectations. All of the spaces are located to optimize design values, such as sun access and noise reduction.

- Public open space is provided around the base of the development and is designed to support connectivity and casual gathering. The total area is $2,861.1 \mathrm{~m}^{2}\left(30,796.4 \mathrm{ft}^{2}\right)$, which significantly exceeds the CCAP DP Guidelines expectation of $1,342 \mathrm{~m}^{2}(14,445$ $\left.\mathrm{ft}^{2}\right)(10 \%$ of the net development site area).
- An outdoor space of $725 \mathrm{~m}^{2}\left(7,800 \mathrm{ft}^{2}\right)$ is provided for the child care component of the ECD Hub on the parkade podium. It has been located, sized and configured to meet the sun access requirements for child care. It has also been located to be sheltered from the traffic noise of No. 3 Road.
- Outdoor space of $65 \mathrm{~m}^{2}\left(704 \mathrm{ft}^{2}\right)$ is provided for the community services component of the ECD Hub on west facing deck overlooking No. 3 Road. This will provide break out space and community gathering opportunities for users of the facility, which will include a multi-purpose room and commercial kitchen. An additional break out area of $91 \mathrm{~m}^{2}$ ( $979 \mathrm{ft}^{2}$ ) is provided on the podium side of the multi-purpose room.
- Approximately $2,440 \mathrm{~m}^{2}\left(26,264 \mathrm{ft}^{2}\right)$ of residential common outdoor space is provided on the podium roof. Smaller common outdoor amenity spaces areas totalling $1,049 \mathrm{~m}^{2}$ ( $11,291 \mathrm{ft}^{2}$ ) are provided over the midrise portions of the residential building. The combined area of outdoor space is $3,488 \mathrm{~m}^{2}\left(37,545 \mathrm{ft}^{2}\right)$, which slightly exceeds the OCP/CCAP outdoor open space expectations (minimum 3,360 m${ }^{2} / 36,167 \mathrm{ft}^{2}$ ). Staff note that the area would typically be greater; however, a significant portion of the podium roof is devoted to the ECD Hub open space. All open spaces are accessible from all residential units (e.g. market and LEMR) and from much of the indoor amenity space.
- The residential common open space includes two play zones (on L3 and L7) with a combined area of $720 \mathrm{~m}^{2}\left(7,750 \mathrm{ft}^{2}\right)$. This exceeds the OCP/CCAP expectations calculated as $3 \mathrm{~m}^{2} / \mathrm{unit}$ ( $32 \mathrm{ft}^{2} / \mathrm{unit}$ ) to a maximum of $600 \mathrm{~m}^{2}\left(6,458 \mathrm{ft}^{2}\right)$.

Private Outdoor Space: The applicant has provided either a patio or balcony for each residential unit, generally consistent with the expectations noted in the CCAP. The balconies range in depth from 1.5 m to $1.8 \mathrm{~m}(5 \mathrm{ft}$. to 6 ft .) and, in most cases, span the whole frontage of the unit.

## Architectural Form and Character

Massing: A podium and tower form of development is proposed. As a result of the site size, configuration and frontage opportunities (in part created by the applicant), a four tower concept is possible. The four towers are located to mark each of the corners of the site and are connected on three frontages with varied height streetwall forms. The towers and streetwall forms sit on a double height commercial base.
The proposed massing and floor area allocation generally address the design objectives of the CCAP DP Guidelines. The double height retail on three sides of the development contributes positively to both the spatial scale and day and night animation of the public realm. As well, it creates a strong base for the remainder of the building. The office uses are located in a distinct tower form on the No. 3 Road and Cook Road corner, which reinforces the identity of the No. 3 Road commercial spine and marks the Brighouse Village Centre. The residential uses are located in the remaining midrise and tower forms and are arrayed around the podium level courtyard. To provide appropriate light access for the ECD Hub spaces located on the podium level, residential floor area has been relocated from the midrise masses to the tower masses.
Articulation: The proposed development addresses the building articulation objectives of the DP Guidelines in a variety of ways.

- The office tower has a unique angled massing that distinguishes it from the more rectilinear residential midrise and tower massing. Further, the office tower has unique angled façade patterns on three sides that accentuate its angled form. The angled massing and facade language are also carried down to the street level with an angled column colonnade.
- The residential midrise and tower masses are articulated with the use of two façade styles - one with deep frame elements and the other with continuous balcony banding. These are used to break up the massing and scale impact, to create both horizontal and vertical expression and to provide differing identities to the residential towers.
- The ground level retail uses are articulated with a combination of deeper and shallower setback areas, the office tower colonnade, and the enhanced building lobby entries, which include heavy frame elements in the case of the residential lobbies and a dramatic sloped façade over the office entry.
- Articulation of the east massing/façade distinguishes the residential floor area from the parkade and service room uses that are located on the lower three levels of the development. A combination of landscaping and a decorative façade treatment will provide visual interest when viewed from within the north-south pedestrian mews. The view of the overall building face will be obscured by current and future development on adjacent sites to the east.
- The proposed towers are all of a similar height and sit slightly below 47.0 m geodetic. This accommodates the elevator overruns on the residential towers and the screened onsite, low carbon energy plant equipment which is located on the office tower. Because of the variations in tower plans and roofline detailing, adequate visual interest is provided when viewed from the street.
Character: The character of the proposed development is focussed around the CCAP Development Permit Guideline theme of "green building expression". The office tower façades are designed with sun shading devices that are located, sized and oriented to optimize solar heat gain reduction. This results in different designs on each façade and adds significant dynamism to the building. The residential buildings address solar heat gain by insetting the outer walls to provide for shading via either a deep frame façade system or a continuous balcony façade system. These two systems are used and interlocked in various ways to ensure both a cohesive character and visual interest across the development.
Materials and Colour: Storefront, window wall and curtain wall glazing are all used and each is provided with its own framing and/or colour detailing to achieve specific design objectives. The proposed ground level commercial frontages combine clear glazing and dark grey framing to draw attention to the commercial uses and to establish a 'heavier' base for the building. The upper office and residential facades have a more subtle and refined material and colour palate that is intended to diminish the scale impact of the development. This palette includes glass, aluminum composite panels, architectural concrete and aluminum framing in clear, white and bronze finishes. Through relative weighting of the colours (e.g. more emphasis on white or more emphasis on bronze), the scale impact is further diminished and visual interest is provided across the development.

Special Design Features: The proposed development includes special design features intended to reinforce the development's contribution to the civic life of Richmond. The special features are provided on the building: in an area on the office tower façade where it faces the Brighouse Village Centre; on the frontages associated with the ECD Hub; and, in an area of the façade adjacent to the north-south pedestrian mews.

Brighouse Village Centre: As mentioned in the Urban Design section of this report, the office tower form has been sculpted to create a more generous public open space at the intersection of No. 3 Road and Cook Road. The building includes a large triangular area of curtain wall (approximately $88 \mathrm{~m}^{2}$ ) that is canted back from tower Levels 8 to 3 to highlight the two storey entry lobby on the ground level. This adds significant spatial interest to the public realm in addition to creating weather protection for the entry and the general public.
The applicant has also identified the canted area for a special façade treatment in order to mark and celebrate the Brighouse Village Centre. It is proposed to be finished with uniquely coloured and patterned glass to differentiate it from the remainder of the facades. This canted area is the subject of the Public Art Plan proposal discussed in the Urban Design section of this report, which, if approved through the Public Art and General Compliance processes, would see the applicant's decorative glass treatment replaced with a commissioned art work.
$E C D H u b$; The ECD Hub is provided with its own identity and celebrated as a community facility through the use of coloured glass on all of its facades. The coloured glass, which will include both vision and spandrel areas, is purposely co-ordinated with the glass colours used in the façade area over the office tower entry. In addition to its placement around the third level facility, the coloured glass is proposed to be carried down to the ground level ECD Hub entry on No. 3 Road to further assist with facility identity and wayfinding. Should the Public Art proposal move forward, the ECD Hub glass design may require modification to ensure an appropriate relationship with the public art work colours and design. If so, it would be included in the General Compliance application for the public art.

North-South Pedestrian Mews: The north-south pedestrian mews is bordered on its lower levels by the development's parkade and service rooms. To enliven the pedestrian experience along the mews, the applicant is intending to install an artist-designed decorative finish. The work to develop the decorative finish is underway and, once established, will be advanced for consideration in the General Compliance report along with the proposed Public Art and ECD Hub façade changes, if applicable.
Signage: The application proposes two signage approaches: around the base of the office tower, where the storefronts and ECD Hub entry sit behind the colonnade, horizontal signage bands are provided over the entry doors, and, in the remainder of the commercial frontage, vertical signage bands are provided. A separate Sign Permit Application is required for proposed signage.

## Landscape and Open Space Design

Ground Plane: As noted in the Urban Design/Public Realm section of this report, a functional and seamless public realm experience that combines back-of-curb, PROP SRW and building setback areas is important to the public experience of the city and the project. Consistent with the Rezoning Considerations, most of the landscape area around the base of the development will be subject to design development through the Servicing Agreement. This includes the northsouth pedestrian mews, the east-west Bus Mall pedestrian mews, the Kiss and Ride and the TransLink SRW area on No. 3 Road.

The remaining areas of the ground plane design, which are located primarily in the building setbacks along No. 3 Road and Cook Road, are governed by the DP. In these areas, the applicant has proposed large planters adjacent to the property line. The planters include integrated bench seating, trees and shrubbery. These are intended to buffer the more direct movement of pedestrians using City sidewalks from the more meandering movement of pedestrians that are window shopping, enjoying the public seating and accessing building entries. Benches are also integrated with the angled columns of the office tower colonnade.

The proposed paving pattern at the base of the office tower is angled in order to reinforce the angled façade treatment of the tower and to draw attention to the No. 3 and Cook Road corner open space. Paving along the No. 3 and Cook Road frontages also include perpendicular pattern transition areas and smaller grain pattern areas at the building entries.
ECD Hub Open Space: The ECD Hub facility open space design has undergone detailed design development, with the input of City staff. For the Child Care open space, key design considerations included the size, configuration, sun access, programming, equipment areas, and hard and soft landscaping materials necessary to meet the needs of the users and address applicable child care standards and approvals. The ECD Hub community services area of the facility is also provided with outdoor space. It is located adjacent to the multi-purpose room, on both sides of the facility and is designed with hard surfaces to accommodate group use. Both the child care and multi-purpose outdoor areas on the podium have been provided with treed landscape buffers to both define the spaces and create visual screening for the adjacent residential open space and units. The ECD Hub outdoor space design is shown on the landscape plans.
Residential Open Space: The residential open space is distributed between the podium and two mid-rise roof top areas. The podium level space is divided into private and common areas. The private areas are separated from the common areas with a combination of water feature and landscape mounds with trees. The programme areas for the common outdoor space include a west facing patio associated with the indoor amenity space (with lounging and barbeque functions), a sod games area, a children's play area and a series of paths, boardwalks and more private trellised seating areas. An urban agriculture and farm table entertaining area is proposed over the north wing on Level 9. A contained parent and tot area is provided over the east wing on Level 9.

Tree Retention and Replacement: All thirteen bylaw-sized trees have been removed from the site. A total of 138 new trees are provided through the landscape plan, far exceeding the 2:1 replacement requirement.

Green Roof: A small, sloped, extensive, green roof area is provided over the ECD Hub multipurpose room. In addition to its sustainability values, this area improves the outlook from the nearby offices and residential units.

## Sustainability

$L E E D$ : As considerations of rezoning, the facility will target LEED Silver for the overall development and with certify as LEED Gold for the ECD Hub interiors (Attachment 5).
$D E U$ : The DEU low carbon energy plant equipment is located primarily on the office tower roof and is provided with screening. A preliminary layout of the rooftop equipment is included in the DP drawings.

## Livability

Accessibility: The proposed development includes 403 units with Aging-in-Place features (stairwell hand rails; lever-type handles for plumbing fixtures and door handles; and solid blocking in washroom walls to facilitate future grab bar installation beside toilets, bathtubs and showers). It also includes 157 units that are further enhanced with Basic Universal/Adaptable housing features (including all of the accessibility provisions listed in the Basic Universal Housing Features section of the City's Zoning Bylaw).

Noise Mitigation: The applicant has provided a preliminary opinion from an acoustical consultant indicating that the residential component of the development will not require redesign, although upgrades to the façade details may be required to meet acoustic requirements (Attachment 6). Submission of the final consultant report is a condition of DP issuance.

Crime Prevention through Environmental Design: The applicant has provided a list of CPTED features to be incorporated into the development that address Section 14.2.11 of the OCP (Attachment 7).

## Conclusions

As the proposed development would meet applicable policies and Development Permit Guidelines, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.
Janet DigbyPlanner 3
JD: rg
Attachments:
Attachment 1 Development Application Data Sheet
Attachment 2 Development Permit Conditions of Approval
Attachment 3 Advisory Design Panel Minutes (annotated)
Attachment 4 ECD Hub Plans
Attachment 5 LEED Checklists
Attachment 6 Preliminary Acoustic Report
Attachment 7 CPTED Checklist

## Development Application Data Sheet

Development Applications Department

## DP 18-822743

Address:
6340 No. 3 Road
Applicant:
GBL Architects Ltd.
Owner: Keltic (Brighouse) Development Ltd.
Planning Area(s): City Centre - Brighouse Village

| DP 18-822743 | Required | Proposed |
| :--- | :---: | :---: |
| Site Area: | $12,600 \mathrm{~m}^{2}$ | $12,999 \mathrm{~m}^{2}$ |
| Net Development Site Area: | $13,424.8 \mathrm{~m}^{2}$ | $13,424.8 \mathrm{~m}^{2}$ |
| Land Uses: | Mixed Use | Mixed Use |
| OCP Designation: | Downtown Mixed Use | Downtown Mixed Use |
| Area Plan Designation: | Urban Core T6 $(45 \mathrm{~m})$ | Urban Core T6 (45 m) |
| Zoning: | ZMU37 | ZMU37 |
| Number of Residential Units: | $\mathrm{n} / \mathrm{a}$ | 546 |


| DP 18-822743 | Bylaw Req't | Proposed | Variance |
| :--- | :---: | :---: | :---: |
| Floor Area Ratio (FAR): | Max. 4.007 | 4.007 | $\mathrm{n} / \mathrm{a}$ |
| Floor Area per FAR: | Max. $53,794 \mathrm{~m}^{2}$ | $53,794 \mathrm{~m}^{2}$ | $\mathrm{n} / \mathrm{a}$ |
| Non-residential Floor Area: | Min. $13,519 \mathrm{~m}^{2}$ | $13,922 \mathrm{~m}^{2}$ | - |
| Residential Floor Area: | Max. $40,274 \mathrm{~m}^{2}$ | $39,871 \mathrm{~m}^{2}$ | - |
| Lot Coverage: | Max. $90 \%$ | $74 \%$ | - |
| Lot Size: | Min. $12,600 \mathrm{~m}^{2}$ | $12,999 \mathrm{~m}^{2}$ | - |
| Lot Dimensions: | $\mathrm{n} / \mathrm{a}$ | $\mathrm{n} / \mathrm{a}$ | - |
| Setback - No. 3 Road: | Min. 4.0 m | 5.5 m | - |
| Setback - Cook Road: | Min. 3.0 m | 3.0 m | - |
| Setback - Interior Side Yard (north): | Min. 4.0 m | 4.0 m | - |
| Setback - Rear Yard (east): | Min. 6.0 m | 7.5 m | - |
| Height Dimensional (geodetic): | Max. 47.0 m | 46.9 m | - |
| Off-Street Parking Spaces - Residential Unit: | 533 | 561 | - |
| Off-Street Parking Spaces - Affordable Housing Unit: | 24 | 24 | - |
| Off-Street Parking Spaces - Visitor: | 112 | $112(112$ shared) | - |
| Off-Street Parking Spaces - Commercial: | 83 | $83(83$ shared) | - |
| Off-Street Parking Spaces - Office: | 135 | $135(34$ shared) | - |
| Off-Street Parking Spaces - ECD Hub Overflow: | 8 | $8(8$ shared) | - |
| Off-Street Parking Spaces - ECD Hub: | 41 | 41 | - |
| Off-Street Parking Spaces - Car Share Spaces: | 2 | 2 | - |
| Off-Street Parking Spaces - Total: | 818 | 844 | - |
| Loading Space - ECD Hub: | 1 | 1 | - |
| Loading Spaces - Medium Size: | 6 | 6 | - |
| Bicycle Parking Spaces - Class 1: | 739 | 742 | - |
| Bicycle Parking Spaces - Class 2 (shared): | 70 | 70 | - |

## City of Richmond

## Development Permit Conditions of Approval <br> Development Applications Department

The following conditions are to be met prior to forwarding this application to Council for approval:

1. Receipt of a Letter-of-Credit for landscaping in the amount of $\$ 3,104,407.90$ which includes the cost of construction and a $10 \%$ contingency amount for landscape in the ground level setback areas, the podium and rooftop areas, including the ECD Hub areas.
2. Provision of an acoustic report and recommendations by a professional acoustic consultant with respect to sound mitigation measures required as a consideration of rezoning as well as for the commercial and residential uses adjacent to the Bus Mall.
3. Provision of a copy of the draft contract between the owner and the car share operator describing the terms of the provision of car sharing services.
4. Receipt of a Letter of Credit in the amount of $\$ 42,240$ to secure the owner's commitment to provide transit passes based on $110 \%$ of transit pass costs (including $100 \%$ for transit pass purchases and $10 \%$ for future transit pass cost increases and administration).
5. Completion of the ECD Hub facility design to the satisfaction of the City, per the rezoning consideration, and provision of a preliminary construction cost estimate, verified by an independent quantity surveyor that is acceptable to the City, for facility proper, ancillary facilities and outdoor space.
6. Revision of the Transportation Impact Analysis to reflect the final DP statistics and other revisions resulting from design development of the transportation aspects of the proposal.

# Annotated Excerpt of the Minutes Advisory Design Panel Meeting 

Wednesday, July 18th - 4:00 p.m.<br>Rm. M.1.003<br>Richmond City Hall

Comments from the Panel were as follows:
commend the applicant for integrating public art into the project;
RESPONSE: Noted;
appreciate the proposed widened sidewalk which accommodates a three-meter wide landscaped boulevard along the No. 3 Road frontage; provides variation to the City's streetscape and enhances the overall pedestrian experience;

RESPONSE: Noted;
support the overall landscaping for the project;

## RESPONSE: Noted;

appreciate the use of black mullions to differentiate the ground level retail units from the office and residential units on the upper levels; consider further differentiation for the ground level retail units, e.g. installing a different material for the soffits; also consider further differentiating the retail spaces at the southeast and northwest corners, e.g. through installing canopies and introducing different colours and lighting;

RESPONSE: The design team further developed the design of the residential frames on ground level and the treatment of the residential lobbies. The residential lobbies are enhanced through the extrusion of the residential angled frame element. This, together with the use of the white angled frame panels will give the lobby a greater residential character. Integrated lighting is proposed for the residential lobbies in order to achieve a unique language and differentiate them from the retail. Vertical residential signage will help to demarcate the location of the residential lobbies.
appreciate the overall architecture of the building which is different from other developments in Richmond; helps differentiate the character of the area;

## RESPONSE: Noted;

massing of the towers could still be further visually broken to help reduce their scale, e.g. introducing variations in materials and colours for privacy screening;

RESPONSE: After developing the design of a further broken massing, we found that the simplicity of the overall project language is compromised. The approach is to have two clear residential languages (frames vs white/glazed language) and introducing variations makes a difficult reading of the massing;
consider further differentiating the residential entries, e.g. in terms of colour and scale, to delineate them from retail/commercial spaces;

RESPONSE: Refer to above note - the residential frames and lobbies have been accentuated;
support the proposed locations for public art in the project; also consider incorporating public art along No. 3 Road; a series of public art features along No. 3 Road would help the terminus of TransLink Canada Line and enhance the character of the street as a public space;

## RESPONSE: Noted;

the project's design team could coordinate with the City's Public Art Planner to investigate opportunities for (i) integrating large scale, bold artwork at high level on the building façade facing No. 3 Road, and (ii) integrating public art along the coloured glazed panels in the ECD Hub;

RESPONSE: The design team will be coordinating closely with City's Public Art Planner for locations and/or types of public art for project building and site. The intent is for the major piece of public art to be located on Tower 4 facing the intersection of Cook and No. 3 Road. This public art will be approximately 5 stories high and 900 SF in area;
in general, consider not only enhancing the pedestrian experience in incorporating public art in the project but also providing a visually prominent public art presence in a key/central location in the City to help differentiate it from other areas;
RESPONSE: refer to above response;
appreciate the applicant's presentation of the project and its potential to enhance the area;

## RESPONSE: Noted;

the proposed ECD Hub will add success to the project;

## RESPONSE: Noted;

consider embellishing the courtyard through further landscaping to enhance the visual experience from the ground level, e.g. incorporating landscaping steps almost reaching the ground;
RESPONSE: Incorporating access to the podium/courtyard from grade will involve significant re-design and create possible security concerns considering the area best suited for this type of step is where the ECDH outdoor space is;
the viewing deck along No. 3 Road should express the richness of the courtyard;
RESPONSE: The west viewing deck to incorporate landscape elements which are visible from No. 3 Road;
the more urban edge of the plaza space along No. 3 Road are more successful; the proposed three-meter wide boulevard along No. 3 Road could be reduced to increase the plaza space;
RESPONSE: Noted - refer to ADP comment \#2;
applicant is advised to review the proposed locations for staging events around the plaza area as one of them is located in close proximity to the building doors at the main corner;
RESPONSE: This comment was about parking intake and exhaust locations. The exhaust of the parkade is proposed along the pedestrian mews wall, in order to avoid any impact to the landscape on the ground. The fresh air intake openings are proposed under the benches along the No. 3 Road boulevard, minimizing the impact in the public realm;
consider a more significant and identifiable entrance to the ECD Hub on No. 3 Road; also consider shifting the proposed ECD Hub entrance and vestibule farther to the north;
RESPONSE: The ECDH lobby will be moved further north to separate and demarcate it from the office tower entrance. The ECDH entrance is reflected though a frame that follows the
angled column arcade under the office building. This appears as a unique and remarkable element in the project. The use of the colored glass serves to relate the entrance to the $2^{\text {nd }}$ level ECDH skin achieving a consistency for the program. The importance of this lobby has been enhanced through the integration of coloured signage in the inside faces of the entrance frame that will be easily visible and identifiable from No. 3 Road. We replaced the closed staircase with feature open stairs that will achieve a lighter and more prominent lobby space for the ECDH;
ensure that the residential corridor areas have adequate access to natural light, particularly in the long internal corridors in the podium level to enhance the livability of residential units;
RESPONSE: Because of the layouts of the corridors and units, providing natural light in the corridors is very difficult. To address this issue, lighting, colours, materiality, and interior design features will be carefully considered to increase comfort and livability for the resident;
overall, appreciate the strong scheme for the project;

## RESPONSE: Noted;

appreciate the inclusion of a significant number of Basic Universal Housing (BUH) and Low-End Market Rental units in the project;

## RESPONSE: Noted;

consider providing ensuite access from bedrooms into washrooms for BUH units; also consider reducing the size of hanging closets;

## RESPONSE: Noted;

dens are a nice feature in some BUH units; however, consider replacing inward-swinging with outward-swinging doors for more efficient use of floor space; also consider installing pocket or barn doors;

RESPONSE: Provided - additional LEMR BUH units were added (up from 14 of 27 to 22 of 27);
some bedrooms in the BUH units require residents to go through the living room or dining room to access the washrooms; consider a more direct access to the washrooms from bedrooms to address the needs of people with mobility issues;

## RESPONSE: Provided;

ensure the smoothness of the surface paving treatment of the walkways on the podium level to enhance the pedestrian experience of people using strollers and mobility equipment; look at the design of the separation of slab;
RESPONSE: Design team will ensure thresholds between spaces are minimized as well as material choices for the ground to enhance pedestrian experience for all people
the site's four "frontages", each having a different character and feel to it, is an encouraging feature of the site; allows pedestrians to experience the building in different ways; location of planters and benches along No. 3 Road enhances the pedestrian experience;

## RESPONSE: Noted;

review the proposed location of some mechanical rooms in the east side of the building which is adjacent to the pedestrian mews, e.g. the generator room, to mitigate the acoustic and air quality along the pedestrian mews;

RESPONSE: Service rooms are re-arranged to achieve a more localized louvered area (reduced in scale) on the lane parking entrance;
investigate opportunities for switching the three-lane parkade exit on Cook Road and the twolane parkade exit on the pedestrian mews; if not possible, consider design development of the driveway to the parkade entry/exit off Cook Road to provide continuity of pedestrian circulation along the Cook Road sidewalk in order to enhance pedestrian experience and safety, e.g. installing an island;

RESPONSE: although switching parking entrance conditions is not feasible, additional measures will be added to increase safety and public experiences in front of parking entrances on both Cook Road and Pedestrian Mews:

Coloured and textured pavement
Green pavement parking will be provided for proposed bike path crossing and will increase driver awareness and visibility of crossing pedestrians and bicyclist.
Textured pavement could be provided for pedestrian crosswalk to increase driver awareness of crosswalk.
Pedestrian Crossing Ahead Warning Sign
Can provide WC-2 (Pedestrian Crossing Ahead Sign) in advance of the crosswalk (north leg) warning drivers of the pedestrian crossing ahead.
No Right-Turn on Red
Add signage restricting right-turn on red from the access (southbound and westbound rightturns to minimize vehicles conflicting with pedestrian crossings across the access).
Advance Yield to Pedestrian Line (Pavement Markings)
Provide pavement marking in advance of the pedestrian crossing at the access leg (north leg) of the access to improve driver awareness of the crossing and yield compliance. consider design development of the building façade fronting the future TransLink Bus Mall to differentiate it from other facades of the building; review the provision of weather protection along the north side of the building;

RESPONSE: The canopy along the Bus Mall was extended to 10 '-0'’ deep in order to provide a greater weather protection. We further developed the retail storefronts, adding a rhythm to the retail frontage. Refer to sheet A3.04_Noth Elevation of the Architectural plan set;
appreciate the strong design of the building, particularly the office tower; commend the applicant for tying in the main building with the other buildings in the subject development; details provided by the applicant were helpful in the Panel's review of the project;

## RESPONSE: Provided;

applicant needs to carefully consider the design and materials for the fences in the building to ensure long-term maintenance by the strata;

RESPONSE: Maintenance will be considered during the design development stages;
applicant has successfully integrated public art into the building façade; applicant is encouraged to continue with the public art process;
RESPONSE: Understood - will work closely with the City of Richmond Public Art Board moving forward to craft design brief, select artist, and work with artist for the project. Refer to previous comment regarding Public Art;
appreciate the treatment of the southwest corner of the building which addresses a prominent corner;

## RESPONSE: Noted;

consider an HVAC for a potential restaurant space below the residential towers to control odours and avoid complaints from residents;
RESPONSE: Retail CRU's containing a commercial kitchen (with grease laden vapours) will be required to be equipped with an ecologizer in the ceiling plenum. The mechanical louvers over the retail canopies will be used for the HVAC intake/exhaust.
appreciate the clean design of the residential towers; like the differentiation between the vertical elements; large and small balconies enhance the architecture of the residential towers;

## RESPONSE: Noted;

applicant and City staff are advised that the project needs to be done in phases as doing it all at once would be difficult to achieve;
RESPONSE: The intention with the ownership group and pre-construction manager is that entire project will be in one phase;
consider softening the parkade entries to make them more pedestrian-friendly; concerned with the lack of alignment of the parkade in the east side which is expected to experience a substantial amount of vehicular traffic;
RESPONSE: Refer to previous comment regarding the safety concerns for parking entrances. investigate opportunities for signage in the ECD Hub that is thoughtfully done and integrated into the architecture of the building;

## RESPONSE: Refer to previous comment about ECDH entrance;

provision of large stroller parking space as well as large elevators in the lobby are a necessity in the ECD Hub;
RESPONSE: The ECDH elevator is designed as an oversized elevator with an interior cabin of 5'-6'x7'-6'. The ECDH stroller parking areas at L2 comply with the specifications of the Brighouse Village ECDH technical requirements;
the ECD Hub outdoor area is well-programmed; investigate opportunities for incorporating a large contiguous grassed area;
RESPONSE: Natural grass areas are challenging to maintain in an on-slab daycare setting due to high level of daily use. For the purpose of unstructured play, we incorporated areas of artificial turf and resilient surface instead;
the pedestrian mews is a key element of the project; consider design development as it currently appears as a beautified alley rather than a mews; applicant could return the retail a bit more on the southeast corner; investigate opportunities for integrating some of the mechanical equipment into the double height space on ground level to soften the pedestrian mews and make it more pedestrian-friendly;
RESPONSE: The pedestrian mews has been softened through the removal of the louvers at $L 2 / L 3$. This creates a large amount of wall area where colourful panels can be utilized to activate and lighten the pedestrian mews. The retail on the corner has been improved by creating a full-double height space by relocating several service rooms on L2;
look at the venting of garbage enclosure inside the parkade; and
RESPONSE: The venting for the garbage rooms are included in the plans - Refer to A2.03;
consider introducing gating between the multiple uses of the building at different hours due to the complex and intense use of the site.

RESPONSE: The use of multiple gates in the parkade will reduce the overall effectiveness of the public parking and will result in a less flexible parking utilization (the non-residential parking is to be shared).

## Panel Decision

* Please note that as a quorum was not present, these notes do not constitute a record of decisions made by the Advisory Design Panel, rather a record of the discussions held.



A5.31


## ATTACHMENT 5



July 22, 2018

Planning and Development Services
City of Richmond

## Re: $\quad 6340$ No. 3 Road- Summary of Proposed Sustainability Measures

The applicant and design team are committed to incorporating green building principles into the design and long term operations of the proposed residential development at 6340 No. 3 Road. The project has been registered with the Canada Green Building Council's LEED v4 for Core and Shell rating system under the number 19735. To demonstrate its environmental performance and will target a sufficient number of credits to be equal to Silver level LEED certification strategy. The following list, along with a preliminary LEED Checklist, highlights the prominent sustainable features which will meet the intent of 51 points, which is above the minimum threshold for LEED Silver certification. Beyond these targets, several other strategies are potentially available including the LEED Gold certification of the Early Childhood Development Hub (ECDH) under the LEED for Commercial Interiors rating system

This development will demonstrate environmentally responsible building construction though the following:

## Location and Transportation

The project is located on a previously developed infill site, avoiding sensitive habitats and taking advantage of existing infrastructure and surrounding amenities which promote a walkable community. The development's design densifies the existing site to maximize land usage. The site is located within a short walking distance of No. 3 Road. This location provides optimum connectivity to pedestrian, bicycle and public transit options. The connection to No. 3 Road offers immediate connection to over 6 different bus lines and the Richmond-Brighouse Skytrain station within 800 m of the site. This encourages building occupants to utilize alternative transportation opportunities, reducing dependence on single occupancy vehicles. The location along these transit corridors combined with secured storage for bicycles and bicycle networks accessible along No. 3 Road, Garden City Road, and Buswell Street affords a distinct advantage for carless commuters.

## Sustamable Sites

Landscaping on the roof and ground surfaces will utilize a selection of vegetation to be native and adaptive vegetation best suited to the long term durability and aesthetic of the project. A combination of vegetation and accessible space will offer occupants a positive outdoor space to encourage time outside of the built environment. The development's hardscapes and green spaces will be considerate of urban heat island effect and support the project's larger irrigation and water use reduction targets.

An erosion and sedimentation control plan will be implemented to minimize erosion and sedimentation during demolition, site preparation and throughout construction. Best practices will be implemented during construction to optimize air quality for site workers and the surrounding area, and provide a clean and healthy building for future residents.

## Water Use Eficiency

The project's management of rainwater runoff will be done in such a fashion as to minimize where feasible the volume of stormwater released to the City of Richmond's stormwater system. The project will address water management through two design approaches. Firstly, water conservation through low flow plumbing fixtures, the project will be targeting a $40 \%$ reduction in the use of potable water through selection of plumbing fixtures. Secondly, given the scale of the plantings proposed the project irrigation demand will be a major focus. The project has established a target of reducing irrigation demand for potable water by $50 \%$ for the irrigation of the project's landscaping. This will be done using combination of water efficient planting selections, water efficient irrigation systems, and demand based irrigation control systems.
Finally, the project will aim to increase accountability for water consumption by metering major water end uses. In this way, water intensive building operations can be better monitored and maintained to ensure ongoing water reductions. The combined indoor
and outdoor water use strategies support an integrated approach to reduce demand on the City of Richmond's water services, while limiting the waste of potable treated water supplies.

Energy Performance
The project will be designed to satisfy the LEED minimum energy efficiency of a $3 \%$ reduction in energy cost relative to an ASHRAE 90.1-2010 baseline. High performance systems will be considered throughout design to ensure the project's energy performance is met.
To maximize the envelope efficiency of the building, moderate window to wall ratios will be utilized to manage solar heat gains through the exterior glazing while retaining energy to maintain thermal comfort. Windows will likely be double-glazed to optimize energy retention and will consider a variety of solar heat gain coefficients to best maximize solar gains. The opaque wall systems for the building will be specified to support the window assemblies in their performance and be well insulated to eliminate energy transfer between the interior and exterior spaces.

In addition to a high efficiency envelope, the development will further reduce energy and carbon emissions through high efficiency HVAC design. Of the mechanical systems under consideration, the building is likely to utilize a four-pipe hydronic system with fan coils to provide specific thermal controllability to each zone.

To meet the City of Richmond's requirements for central plant efficiency (that plants use a minimum of $70 \%$ renewable energy), the project has elected to use a combination of heat pumps to meet the base heating and cooling load for the building. For the base heating and cooling load, the project will utilize Air Source Heat Pumps (ASHP) which utilizes the electricity to move and increase heating energy through the refrigerant cycle. In the context of the goal for $70 \%$ of the central plant to utilize renewable energy, this system utilizes low carbon electricity sourced from renewable hydroelectricity which meets the criteria for renewable energy. For domestic hot water, waste heat rejected from the building's ASHPs will be captured and upgraded to domestic hot water temperatures using a Water to Water Heat Pump (WSHP) which functions in the same way as an ASHP to use renewable electricity to generate domestic hot water for the building. Finally where heat pump technology is no longer viable for the heating of the building or its domestic hot water, high efficiency natural gas using condensing boilers will be used.

In addition to high performance system design, the project's mechanical, electrical, and envelope systems will be commissioned, ensuring the ongoing performance and energy management of the entire development through to building operations.

## Building Materials

Through the use of a building lifecycle impact analysis and innovative material product disclosures the project will aim to demonstrate building lifecycle impact reductions in overall Co2 emissions, depletion of non-renewable energy resources, eutrophication and other global impact categories. Materials will be selected to provide industry regulated ingredient declarations, and identify the environmental impacts associated with each material. Where feasible, materials will be selected from organizations with $3^{\text {rd }}$ party materials reporting through initiatives like the Global Reporting Initiative (GRI), OECD, and U.N. Global Impact. Materials with bio-based materials, FSC certified wood content, reused materials, and recycled content will be of priority.

Construction waste management will be an integral part of the building process, firstly through source minimization, smart product selection, packaging and transport, Recycled content and regionally sourced materials will be preferred through the selection process, focusing on steel, concrete and glass components, reducing the impact of extracting of virgin resources. These materials retain their high value in the recycling chain and so once the service life of the proposed building comes to an end, re-use and integration into new building materials is a viable option. Furthermore, waste generated on site during construction will be addressed through a comprehensive waste management plan, detailing recycling facilities and documenting the diversion of standard debris from landfill.

## Indoor Environment

Ventilation air will be delivered to each space by means of rooftop air handling units and in suite fancoils. Outdoor air ventilation will be implemented and adhere to ASHRAE 62.1-2010 to reduce occupant exposure to indoor pollutants by ventilating with outdoor air. Indoor pollutants will be further managed by utilizing building entryway systems and MERV 13 filtration where feasible to minimize the introduction of exterior contaminates into the indoors space.

To further improve the indoor air quality of the building, interior finishes and coatings will be specially selected to limit the quantities of harmful volatile organic compounds (VOCs) which would be off-gassed after installation. The selection of low emitting materials will also include the project's insulation in addition of the traditional scope of paints, sealants, flooring and formaldehyde free woods.

Given the unique shape of the floorplate, the opportunities for daylight autonomy and views access will be maximized. To improve the indoor environment for occupants, the design team will be considerate of daylighting design strategies and encourage to

implement them where feasible. The project will also aim to demonstrate reasonable visual access to the outdoors from over $75 \%$ of the regularly occupied floor space.

## Conclusion

The above noted strategies support a holistic approach to addressing the requirements of the City of Richmond and the goal of LEED Silver level equivalency. Implementing these strategies through design and construction will produce an intelligently designed project capable of delivering enhanced building performance while also improving indoor environmental quality for tenants. A Rezoning LEED checklist is included with the application for review.

May 24, 2018

Planning and Development Services
City of Richmond
Re: ECDH - Summary of Proposed Sustainability Measures


#### Abstract

The applicant and design team are committed to incorporating green building principles into the design and long term operations of the proposed ECDH fit out of the 6340 No. 3 Road. The project will be registered with the Canada Green Building Council's LEED v4 rating system for Interior Design and Construction (ID+C) rating system and will utilize a $60+$ point strategy to be equal to a Gold level of design. The following list, along with a LEED checklist, highlights prominent sustainable features which will achieve a preliminary 60 points.


The development will support a Gold level of performance for the ECDH through the following strategies.

## Sustanable Stes

The development's design densifies the existing site to maximize land usage. The site is located within a short walking distance $(50 \mathrm{~m})$ of No. 3 Road and the good variety of amenities at the Richmond Center. This location also provides optimum connectivity to pedestrian, bicycle and public transit options. The No. 3 Road roads offer access to the Canadaline, 301, and 340 encouraging building occupants to utilize alternative transportation opportunities, reducing dependence on single occupancy vehicles. The location along transit corridors combined with secured storage for bicycles and electric vehicle charging within the proposed building affords a distinct advantage for carless commuters.

## Water Use Efficiency

The project will address water management through two design approaches. Firstly, water conservation through low flow plumbing fixtures, the project will be targeting a $35 \%$ reduction in the use of potable water through selection of plumbing fixtures.
The fixture flows proposed for the targeted $35 \%$ reduction include the following:

$$
\text { 4.2/ } 3 \text { LPF Dual Flush Water Closet }
$$

1.3 LPM Lavatory (Non-metering)

### 5.7 LPM Kitchen Faucet

5.7 LPM Shower

## Energy Perfomance

The project's goal is to satisfy as many of the prescriptive energy performance criteria as possible. This will be done through a combined effort by both the design team and the daycare provider to identify and implement the necessary measures. At an early stage of design the following measures are proposed to save energy in the ECDH space.

HVAC Systems and Zoning- The space will be designed to identify and provide thermal comfort control to each anticipated thermal zone in the space. This will ensure the thermal comfort can be met for each space type without having to waste energy also conditions other spaces which may not need the same space conditioning.
Interior Lighting Power- The space will be designed to utilize lighting which can demonstrate a minimum reduction of $25 \%$ from the ASHRAE 90.1-2010 baseline values.
Interior Lighting Controls- The space will include daylight responsive controls at the perimeter to reduce electrical lighting power when the daylighting is sufficient for the space. The lighting controls will also be fitted with occupancy sensors to ensure spaces not in use will have the lighting turned off to avoid energy waste.

Equipment and Appliances- The spaces appliances (fridges, dishwashers, etc.) and applicable IT equipment (computers, printers, AV equipment, etc.) will be selected to be EnergyStar certified to ensure they are the most energy efficient equipment available on the market.

In addition to high performance system design, the development will introduce an energy metering scheme for the space to be used in the performance based commissioning of the space to make sure all systems are operation according the performance assumptions targeted for the project.

## Building Materials

Construction waste management will be an integral part of the building process, firstly through source minimization, smart product selection, packaging and transport. Recycled content and regionally sourced materials will be preferred through the selection process, focusing on steel, concrete and glass components, reducing the impact of extracting of virgin resources. These materials retain their high value in the recycling chain and so once the service life of the proposed building comes to an end, re-use and integration into new building materials is a viable option. Furthermore, waste generated on site during construction will be addressed through a comprehensive waste management plan, detailing recycling facilities and documenting the diversion of standard debris from landfill.

To reduce the impacts of the materials used in the fit out of the ECDH, products with Environmental Product Declarations will be used to help disclose and inform the selection of the most environmentally products possible. This will extend beyond the construction of the space and include the selection of the furniture and fittings in the space. The fit out will also be encouraged to consider flexibility and adaptive design to minimize the increased use of materials should the space undergo renovation years after occupancy.

Indoor Enviroment

Outdoor air ventilation will be implemented, adhering to ASHRAE 62.1-2007 to reduce occupant exposure to indoor pollutants by ventilating with outdoor air. Airflow supplied to the space will be monitored to ensure ongoing compliance with the ASHRAE $62.1-2010$ ventilation requirements. In densely occupied spaces CO 2 monitoring will be provided to alert occupants when CO2 concentrations become too high.

To further improve the indoor air quality of the building, interior finishes and coatings will be specially selected to limit the quantities of harmful volatile organic compounds (VOCs) which would be off-gassed after installation.

Lighting design and views will be optimized in the proposed fit-out of the space.

The above noted strategies support a holistic approach to addressing the requirements of the City of Richmond's sustainability requirements for the ECDH space. Implementing these strategies through design and construction will produce an intelligently designed project capable of delivering enhanced building performance while also improving indoor environmental quality for occupants. A LEED checklist is included with the application for review.
LEED v4 for ID+C: Commercial Interiors
6340 No. 3 Road ECDH- Preliminary LEED Checklist








Project: 368.171
July 30, 2018
GBL Architects
139 East 8th Avenue
Vancouver, BC V5T 1R8
Attention: Mr. Imanol Lopez-Ortega
Dear Mr. Lopez-Ortega:

## Re: 6340 No. 3 Road. Richmond

Further to your email of 25 July 2018 and a review of the project drawings, we confirm that the residential component of the proposed mixed-use development at 6340 No. 3 Road can be designed to satisfy the City of Richmond design requirements for exterior noise, without changes to the architectural design.

The City's design requirements for exterior noise are specified in the Official Community Plan (OCP), e.g. Sections 3.6.3 Noise Management and 14.4.7 Acoustics (appended). Where our evaluation indicates acoustical facade upgrades are necessary to satisfy the OCP design criteria, recommended upgrades will be limited to facade details only.

We are in the process of collecting aircraft, traffic, SkyTrain \& bus mall data for our acoustical report, which is normally completed on receipt of the development permit prior-to conditions.

Please call if you have any questions.
Yours very truly,

## BROWN STRACHAN ASSOCIATES



Andrew R. Fawcett, Eng.L., AScT.
Encl. ARF/sb/18Jul/GBL2.let


## ATTACHMENT 7

## CPTED CHECKLIST

CPTED for Parking Facilities

|  | CPrentervinemin | Pememinvinesturse |
| :---: | :---: | :---: |
| A | Pedestrian routes within and to/from parking facilities must be clearly delineated, logical in terms of directness, and easy to remember. | YES |
| B | Pay particular attention to the design and operation of parking facilities, both surface and multi-level, to ensure their convenient and safe use. For example, locate parking control personnel within visual range of the entire parking areas, wherever possible. | YES - although parking to be automated Ino parking control personnel). |
| C | Design exits and interior spaces within parking structures to ensure maximum visibility within the parking areas. Avoid hidden spaces or alcoves. | YES - well lit and light colours to be utilized to maximize visibility within the parking areas. |
| D | Use glassed stairwells, elevators, and "open" ramping systems to enhance visibility and aesthetics. | Although glassed stairs and elevators will not be utilized, glazed sidelites at lobbies and vestibules will be provided to enhance visibility, security and aesthetics. |
| E | Provide adequate lighting to enhance security. Avoid "dark distant corners" in parking areas. Pedestrian entrances to buildings and designated pedestrian routes should be highlighted with additional secondary lighting fixtures. | YES |
| F | Consider using electronic security devices and monitoring systems as a supplement to natural surveillance opportunities to increase safety in parking structures and parking areas. | YES |
| G | Walls and ceilings of parking structures should be painted white to enhance or reflect light. | YES - light colours to be used in parking structure. |
| H | Secure residential parking separate from public parking. | YES - residential parking is physically secured from public parking via security gate Iresidential on P4 and partial P3 while non-residential is located on P1, P2 and partial P3). |
| 1 | Do not locate employee parking in remote areas of parking lots, behind blank walls, or within service or loading areas. | YES |
| J | Gate tenant parking apart from that for visitors and consider incorporating gates on visitor parking areas. | YES - residential parking gated from remainder of parking pool. Residential |


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| K | Do not allow free access to adjacent buildings without direct <br> monitoring. | visitor parking shared with <br> commercial/office/ECDH parking. |
| L | Yublic and private parking spaces should be designated. | YES - all ECDH parking stalls will be <br> clearly designated. Residential visitor, <br> office, and retail stalls to be shared <br> lbut delineated as shared stalls for <br> particular usel. |
| M | Pedestrian and vehicular access gates should be <br> mechanically or manually controlled, or be within effective <br> visual range of security/parking personnel. | YES |
| N | Elevators should be close to the main entrance with the <br> entire interior of the elevator in view when the doors are <br> open. Glass doors for elevators are preferable. | YES - Elevators will be close to each <br> parking access point - where possible <br> by building code, side lites will be <br> utilized to enhance visibility, security <br> and aesthetics. |
| O | Ground floors should be designed to be open for visibility, but <br> secured to prohibit access by wire mesh or stretch cable. | YES |
| P | Access should be limited to no more than two designated, <br> monitored entrances. | YES |

## Natural Access Control

| A | Design features that guide people to and from a space by <br> creating real or perceived barriers le.g., separate lobbies and <br> circulation between residential and non-residential uses). | YES |
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| B | Create safe routes for pedestrians and create clearly-defined <br> pedestrian entries and separate vehicle access from <br> pedestrian access. | YES |
| C | Minimize the number of formal access points where possible. | YES |
| D | Define edges and corners with low landscaping, low curbing, <br> low permeable fencing, columns, paving stones or decorative <br> paving treatment, and elevation changes. | YES - however, based on the <br> requirements from Translink lwith <br> respect to the Busmall design), the <br> entry and lobby of Tower 2 will be less <br> visible because of PMT and fencing. <br> The design team will work to reduce <br> this barrier as much as possible to <br> increase sightlines and overall safety. |


| E | Place orientation and directional signage at public access <br> points. | YES |
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| F | Design portions of the building to act as a form of access <br> control. | YES |
| G | Provide separate lobbies and circulation between residential <br> and non-residential uses. | Residential uses are physically <br> separated from the rest of the building <br> functions. |
| H | Semi-private open spaces should be situated and designed to <br> maximize resident access, surveillance and enjoyment. | YES |
| I | Walkways should be direct, follow natural pathways and avoid <br> blind corners. | YES |
| $J$ | Illuminate walkways and access points to open spaces. | YES |

Natural Surveillance

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| A | Provide "surveillance" opportunities that allow people to easily view what is happening around them during the course of everyday activities. | YES |
| B | Make all exterior public or semi-public spaces visible and defensible, so that residents can control their own surroundings. | YES |
| C | Cluster residential units, shared tenant facilities, and semiprivate areas to encourage neighbour-to-neighbour surveillance without impairing necessary privacy. | YES |
| D | Design landscapes and circulation routes to allow clear, unobstructed views of surrounding areas, le.g., make elevator lobbies clearly visible and easily accessible from the public street). | YES |
| E | Eliminate entrapment spots, and incorporate barriers that permit visual access without loss of privacy, le.g., glazing in lobby doors and stair-wells). | YES |
| F | Encourage "eyes on the street" with windows, front doors, and activity generators (e.g., playgrounds and seating). | Residential outdoor space on L3 and L9 monitored by adjacent residential units. |
| G | Group common facilities or areas so that each facility or area will be automatically monitored by the constant presence of users of other facilities or areas. | The residential amenity room on L3 can be monitored from the interior by interior glazing and also monitored |


|  |  | from the exterior via glazing and glass doors. All residential public outdoor space immediately adjacent to units and will be constantly latently monitored. |
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| H | Ensure that windows and doors remain visible from the street and are not hidden by vegetation. | YES |
| 1 | Design buildings to allow for passive observation of outdoor amenity areas, pedestrian or vehicle access points to provide "eyes on the street". | YES - Refer to point "F". |
| J | Ensure a strong orientation between buildings and the street (e.g., porches, bay windows, stoops). | YES - Retail and lobbies face all streets. |
| K | Ensure that windows and door remain visible from the street and are not hidden by vegetation. | YES - Retail and lobbies on the ground level face the street, while residential balconies and units above face street. |
| L | Utilize a variety of glazing to project a sense of surveillance. | YES |
| M | Consider pedestrian or bike friendly design to activate space and add to passive surveillance. | YES - Class-2 bicycle racks ring the perimeter of the project. Commercial Class-1 bicycle room is located near major car entrance, increasing views/sights to increase security and reduce privacy. |
| N | Illuminate spaces with low-leve! lighting that provides light and security for semi-private space, but does not produce glare into the adjacent residential buildings. | YES |
| 0 | Provide opportunities for passive surveillance Iseating, arrangement of windows and viewing decks) that permit observation of children at play. | YES - children's play area in centre of L3 outdoor amenity space. |
| P | Carefully select the types and location of planting to maintain visibility and surveillance and minimize opportunities for intruders to hide. | YES - refer to landscape drawings. |
| Q | Use low ground covers and shrubs less than $0.9 \mathrm{~m}(3 \mathrm{ft}$.) in height and prune trees limbs to a height of $3 \mathrm{~m}(9.84 \mathrm{ft}$.). | YES - refer to landscape drawings. |
| R | Allow user to view entrances, exits, pathways and the immediately surrounding areas. | YES |
| 5 | Ensure lighting does not produce shadows close to pathways and entries or exits. | YES |


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| T | Ensure windows and doors remain visible from the street and <br> are not hidden by vegetation. | YES |
| U | Ensure unimpeded sightlines, particularly along pedestrian <br> pathways and at building entrances to prevent concealment; <br> apply the 2-2-8 rule to ensure a clear line of sight (i.e., 0.61 m <br> (2 ft.) or from any entry/window or pedestrian access point, <br> $0.61 \mathrm{~m}(2 \mathrm{ft}$.$) or maximum landscaping/fence/ screening$ <br> height). | YES |

## Territoriality (Defensible Space)

| A | Distinguish public and semi-public spaces from private <br> spaces and design symbolic barriers through building siting, <br> design and landscape such as changes in paving, vegetation, <br> grade or through architectural features le.g., low wall, <br> bollards, raised planters, rather than continuous solid fences <br> or walls). | YES |
| :--- | :--- | :--- |
| B | Personalize impersonal space such as streets, surface <br> parking and open spaces through the use of place-making <br> techniques through the use of signage, colour, hard and soft <br> landscaping, grading, fencing, artwork, lighting, community <br> boards and gardens, landmark, pedestrian and bike paths, <br> fountains, seating, and playground that encourage people to <br> congregate. | YES - refer to landscape drawings. <br> landscaping, seating, pedestrian path <br> and colourful facades to animate |
| space and encourage congregation of |  |  |
| persons. |  |  |
| Light open spaces, pedestrian and vehicular circulation <br> routes, parking lots, and building entries to provide security, <br> safety, and convenient access without producing glare into <br> adjacent properties and sensitive uses: <br> - lighting should be located and designed to ensure <br> that all areas are well lit. Avoid glare and reduce <br> shadows; <br> • apply suitable lighting to project ownership and <br> control; <br> - lighting along pedestrian pathways should be at a <br> scale appropriate for pedestrians while providing <br> optimum visibility; <br> - illuminate entry points, and set light levels to <br> provide for a comfortable transition between <br> neighbouring locations; <br> - provide vandal-resistant light fixtures that are easy <br> to maintain and operate. | YES - refer to landscape drawings. |  |


| D | Semi-private open spaces should be clearly defined from <br> public spaces for the exclusive use of building/complex <br> occupants through the use of changes in grade, low walls or <br> fences, planting, or siting within the confines of the buildings. | Full height privacy screens delineate <br> extents of continuous balconies <br> throughout the residential portion of <br> the project. |
| :--- | :--- | :--- |
| E | Provide landscaping, terracing, screening, low-levet hedges, <br> and/or garden walls between private ground-oriented <br> outdoor spaces and the public realm. | YES - refer to landscape |
| F | Where a residential front yard provides a unit's only private <br> open space, ensure that this space is usable/practical while <br> also enhancing the streetscape. Changes in grade/terracing <br> should be used in combination with hedges, trees, shrubs, <br> open lattice screens, and low fences to provide an area of <br> privacy near the unit while still providing an open, inviting <br> public edge. | Public and private areas are separated <br> through the use of landscaping, water <br> features, pavement treatments and/or <br> elevation changes. |
| G | Provide signage that is clearly visible, easy to read and simple <br> to understand. | YES |

Maintenance

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| A | Ensure the continued use of space for its intended purpose and ensure landscaping is maintained (not overgrown) and lighting is operable. | YES |
| B | To ensure safety and security, provide sightlines through any cluster of tall growing vegetation by selective and judicious pruning of shrubs or multi-stemmed trees and by keeping all other understorey to a maximum of $1.2 \mathrm{~m}(3.9 \mathrm{ft}$.) in height. | YES - refer to landscape drawings. |
| C | Ensure city bylaws regarding nuisance, graffiti removal or unsightly premises are adhered to. | YES |

To the Holder: Thomas Lee, Architect AIBC<br>Property Address:<br>6340 No. 3 Road<br>Address:<br>139 E 8th Avenue, Vancouver, BC V5T 1R8

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans \#1 to \#48 attached hereto.
4. Sanitary sewers, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of $\$ 3,104,407.90$ to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

## Development Permit

To the Holder: Thomas Lee, Architect AIBC
Property Address 6340 No. 3 Road
Address: ..... 139 E 8th Avenue, Vancouver, BC V5T 1R8
7. The land described herein shall be developed generally in accordance with the terms andconditions and provisions of this Permit and any plans and specifications attached to thisPermit which shall form a part hereof.
This Permit is not a Building Permit.
AUTHORIZING RESOLUTION NO.


City of Richmond


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