

COURS BAYVIEW YARDS

Addition to 7 Bayview - Business Feasibility

Infrastructure Services

Cours Bayview Yards

To Board of Directors – October 3, 2019

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1.0 Executive Summary

Summary of Recommendation

The Bayview Yards Sub-Committee passed a motion August 26, 2019 to recommend the following to the Board of Directors;

1. Approve the enclosed project to proceed with a 600SM addition to the 7 Bayview Station Rd. at an estimated and maximum build cost of \$3.55 million and a target occupation date of Q1 – 2021.
2. Approve management to proceed with capital renovations of \$0.5M to the main Bayview Facility to improve revenue generating assets and user experience and take advantage of economies of scale and availability of capital through the borrowing outlined in 3. below,
3. Grant authority to management to; i. negotiate a waiver of limitations on financing as outlined in Section 5.6 of the Land Lease dated April 1, 2014 between Bayview Yards and the City of Ottawa, thereby allowing Bayview Yards to leverage the 7 Bayview Station Rd. building; ii. Negotiate a mortgage at market rates for up to \$4.0 million financing; and, iii) project manage the design and construction of the addition.

Detailed Recommendation

Building an addition of functional programming and rentable space at the Innovation Centre at Bayview Yards (CBY) and renovations of the main building is needed to bridge the gap in demand for space from Phase 1 of the project in it's current 7 Bayview configuration to the development of the Phase 2 of the Innovation Centre Project.

The determination of the market demand for the addition is based on the current level of interest in the CBY project by private and public sector organizations as well as challenges to accommodate demand from existing and new licensees. Management is reaching capacity to reconfigure space without impacting the level of service offered. Examples of reconfigurations to bring in licensees with higher value propositions include the Deloitte greenhouse, the Canada School of Public Service – Digital

Academy, ISED Innovation Lab, Invest Ottawa office move, and the ENCQOR 5G drop in lab.

Over the past 18 months, Management and the Bayview Sub-Committee have reviewed several alternative solutions to manage our growth requirements including engaging CBRE to locate space, office/co-work space in Hintonburg, refit of NCC building at 80 Bayview Station Road, refit of City Building at 7 Slidell St., on-site portables, on-site pre-fabricated modules, ZIBI, and office space downtown. Each option was thoroughly examined. As reported to the Board of Directors Sept 20, 2018, the option that was the best option in terms of harnessing existing infrastructure and services at 7 Bayview Rd. and financial feasibility is the option of building an addition to the existing building.

Concurrent with the planning, design and construction of this addition, there is a process ongoing at the City of Ottawa to present a development plan to Council, tentatively in 2nd quarter 2020, for the adjacent 16.5-acre Bayview Yards Lands that would encompass the Innovation Centre property. CBY and IO are working closely with the City staff on this project. It is anticipated that development could begin within a 3-5-year timeframe. It is important to maintain the momentum that has been created by CBY and take advantage of opportunities. Management is recommending that a material expansion of the 7 Bayview Station Rd. site at this time will have a significant positive impact on program delivery and economic development.

The risks of not proceeding with this project are the missed opportunities that will result from not having any space to grow, an inability to add strategically valuable licensees, and no new space for start-ups or scaling up SMES. There is a limit to the level of reconfiguration, retooling and tweaking that management can do within the current footprint and still provide the user experience characterized by high engagement levels, significant collaboration opportunities, and its place as a highly valued community asset.

Financial Summary

The recommended financial scenario is based on a licence fee model in line with the main facility, 5% vacancy rate, lifecycle reserve, recovery of shared services, and a

25-year mortgage period. Recommended debt arrangement is a 25-year mortgage, with an estimated interest rate of 3.5%.

The model shows profitability starting the first year of operations 2021 (9 month of operating facility).

CBY's Profit Margin responds positively to the addition, increasing from 30% (based on 2018 results) to 33% and will consistently grow as debt on the building is being repaid.

Several financial models were run to test sensitivity to variable changes. It was determined that, while the results are highly responsive to changes in the vacancy rate, the project is viable for CBY on an ongoing basis in terms of net income, cash flow, debt service coverage, IRR, and NPV.

25 Year Mortgage - 5% Vacancy							
	2020	2021	2022	2023	2024	2025	2026
Revenues	\$86,833	\$590,398	\$876,286	\$899,700	\$923,916	\$948,963	\$974,873
Operating Costs	\$0	\$129,294	\$159,808	\$164,602	\$169,540	\$174,626	\$179,865
Administration Costs	\$0	\$35,833	\$44,290	\$45,619	\$46,987	\$48,397	\$49,849
Life Cycle Reserve	\$0	\$31,500	\$43,260	\$44,558	\$45,895	\$47,271	\$48,690
Interest Cost	\$138,375	\$134,750	\$130,996	\$127,109	\$123,083	\$118,914	\$114,596
Amortization of Fitup (25 Years)	\$0	\$120,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Expenses	\$138,375	\$451,378	\$538,354	\$541,887	\$545,505	\$549,208	\$553,000
Net Income Impact	(\$51,542)	\$139,020	\$337,932	\$357,813	\$378,411	\$399,755	\$421,873
Cash Flow	(\$153,466)	\$153,471	\$388,629	\$404,622	\$421,195	\$438,370	\$456,170
Principal Repayment	\$101,924	\$105,549	\$109,303	\$113,191	\$117,217	\$121,386	\$125,703
Mortgage Balance - at Y/E	\$3,898,076	\$3,792,527	\$3,683,224	\$3,570,033	\$3,452,816	\$3,331,430	\$3,205,727
Debt Service Coverage Ratio		1.64	2.62	2.68	2.75	2.82	2.90
IRR	10.2%						
NPV of cash flows (25 years)	\$5,486,192						
Annual per Seat Rate	\$ 7,210						

Table 1 – Financial Recommendation

Renovations Request

The request for funding of renovations is driven by the knowledge management has acquired on the use of the public spaces and high licensee engagement in the building since opening the doors in December 2016. Renovation priorities are driven by feedback from licensees, Invest Ottawa experience and guest feedback as well as the

need to ensure that assets supporting the programming in the building are current, robust and scalable. It is a process of continuous improvement to ensure the “attractiveness” of the building appeals to existing licensees, potential licensees, guests and will contribute to the toolset for management to continue to grow the licensee base as well as the revenue generating capacity of assets.

The criteria for the projects proposed are to improve the user experience at CBY or, to generate a positive return on investment (ROI) as a result of the renovation.

Table 2 – Renovations Program

Type of Renovation	Description	Estimate	Rationale	Notes
Increase Revenue generating asset base	Move 1West entrance 18 feet into wing	\$ 35,000	ROI - Event Revenue	Move 1 west entrance into wing to bring Rogers room into public space to become rentable asset
Increased event offering in public space asset	Upgraded Training Room	\$ 40,000	ROI - Increased use of rentable space	Increase training room capabilities & look and feel - video conferencing, smart board, new furniture, mural
Increase in Collaboration space	New meeting room outside IO space	\$ 35,000	ROI - Sponsorship asset - \$30K/yr, 5 years	Replace loss of E202B meeting room - meeting room pod.
Improved User Experience	Remove centre pillar in Foundry	\$ 150,000	ROI - Increased value of rentable space	Increase capacity and functionality of Foundry
Improved User Experience	Upgrade Wi-fi APs/UPS/Switches	\$ 70,000	User Experience - License retention	Network Infrastructure is 3 years old - need to upgrade to current tech and build scalable capacity
Improved User Experience	Reconfigure café space for new offering/operations	\$ 120,000	User Experience - License retention, ROI – rent or revenues (model dependent)	Reconfigure café space to allow better variety of food offerings, better flow, more aesthetic appeal.
Total		\$ 450,000		

Governance

Upon approval of the business plan by the Board of Directors, a project management structure will be established with a Project Team as the oversight body reporting to the CBY Sub-Committee. Reporting to this project team will be the VP – Infrastructure Services.

A project management professional will be recruited as the owner’s representative to work on CBY’s behalf. The owner’s representative, working with the VP and the architect, will develop and run a competitive process to select a construction general contractor.

All civic approvals and site related compliance preparation work will be undertaken, including designated substance removal requirements.

Licensee recruitment will be a coordinated internal effort involving the Executive Leadership Team. This recruitment program will be supported by the Marketing Team and the Partnerships Manager.

A risk management scorecard will be developed and monitored on a regular basis by the project team.

Schedule

The estimated schedule from the approval to proceed by the Board is for an 8-month design phase, 8 months build and 3 months for commissioning and IT, furniture & Fixtures. An estimated schedule, if the project is approved by the Board in October 2019 would look like this;

1. Pre-construction	8 months	October 2019 - May 2020
2. CBY Renovation Work	5 months	February 2020- June 2020
3. Construction	8 months	June 2020 – January 2021
4. Commissioning	1-2 months	January 2021 - February 2021
5. Move-In (FF&E)	1-month	March 2021
6. Tenants move in		April 2021

2.0 Business Needs

2.1 Project Overview

CBY, a federal non-profit corporation, has a mission to create an environment that welcomes and encourages entrepreneurs by providing facilities, full-time and temporary space, programming support, peer sharing, networking opportunities, publicly accessible spaces, etc. The non-profit corporation, Innovation Centre at Bayview Yards, is governed by a Board of Directors that includes the Mayor of Ottawa, the City's Director of Economic Development and Long-Range Planning (non-voting, ex officio), PSI Presidents and business executives from the Ottawa and international entrepreneurial community.

CBY operates an approximately 55,000 square foot facility that hosts incubation organizations, including Invest Ottawa, as well as government service providers such as the National Research Council's Industrial Research Assistance Program, the Ontario Centres of Excellence, Canada School for Public Sector, ISED Innovation Lab, Build Canada Innovation Program (BCIP) and CANSOFCOM staffs. Invest Ottawa is the anchor tenant with approximately 60% of the licensed space.

CBY opened in December 2016 and was at full capacity by the Fall of 2017, yielding consistent operational surpluses for the first 2 years of operations.

The mix of tenants and mandate provides CBY with a unique revenue opportunity, by which tenants pay a set license fee for their right to be in the epicenter of innovation. With the two years of operations, this financial model proved to be successful for CBY operations yielding an annual surplus.

This proposed addition of 600SM is intended to bridge demand until CBY can proceed with the development of Phase 2 on the Bayview Lands site.

2.2 Desired Outcomes

CBY and strategic partner Invest Ottawa (IO) have done an exceptional job building a robust entrepreneurial infrastructure at 7 Bayview, and has communicated its strengths effectively, to develop, attract, and retain entrepreneurs. With CBY, IO has a dedicated

home, and a focal point, to draw local, national and international attention to its Ottawa entrepreneurial ecosystem.

The Innovation Centre at Bayview Yards provides a place where Ottawa entrepreneurs network, incubate, accelerate, and receive advice, programs and services that support their success. The outcome of their success is reflected in the growth of the broader entrepreneur sector where they create employment and economic prosperity for Ottawa residents.

By bringing the ecosystem contributors together in one location at CBY, entrepreneurs have been strongly supported by providing greater opportunity for peer networking and support, the provision and receipt of professional advice, and the delivery of assistive programming in close proximity to anchor businesses that can potentially offer channels to market, customer and investment opportunities, as well as inspiration and challenge to new entrepreneurs to equal or surpass their predecessors.

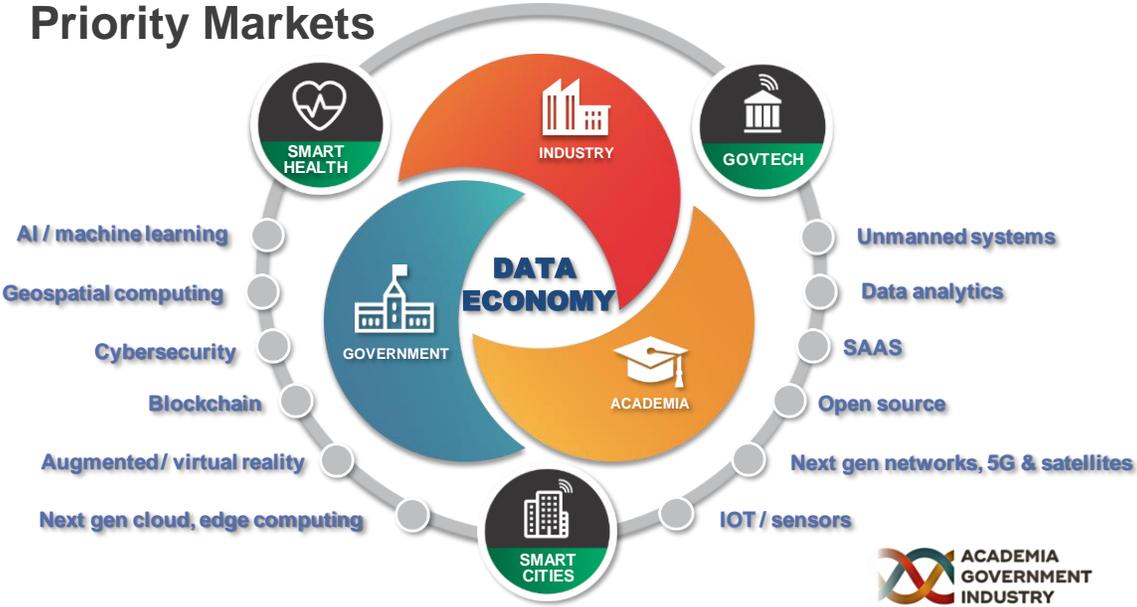
CBY provides an environment in which businesses can interact with each other and with subject matter experts, advisors and mentors on a regular basis to improve their potential for, and acceleration toward, economic success. It encourages the co-location, collaboration, and coordination of programs and services among contributors, including government agencies, non-profit organizations, professional services firms, anchor businesses, investment firms, and others.

CBY is a unique platform for all local post-secondary institutions to showcase their brand and participate in various programming activities that signify the strong talent hub that our universities and colleges generate each year in a wide variety of programs.

CBY showcases Ottawa's entrepreneurial strength to local, national and international delegations and constituencies. This in turn encourages more entrepreneurs and attracts quality entrepreneurs to Ottawa.

Invest Ottawa strategic priorities include GovTech, as well as focus on key priority markets: Smart City, Smart Health and Defence and Security.

Priority Markets



In order to maintain a desired mix of tenants to support strategic direction of Invest Ottawa and continue to grow entrepreneurial ecosystem in Ottawa, CBY has an immediate need for more space.

3.0 Financial Analysis

3.1 Financing

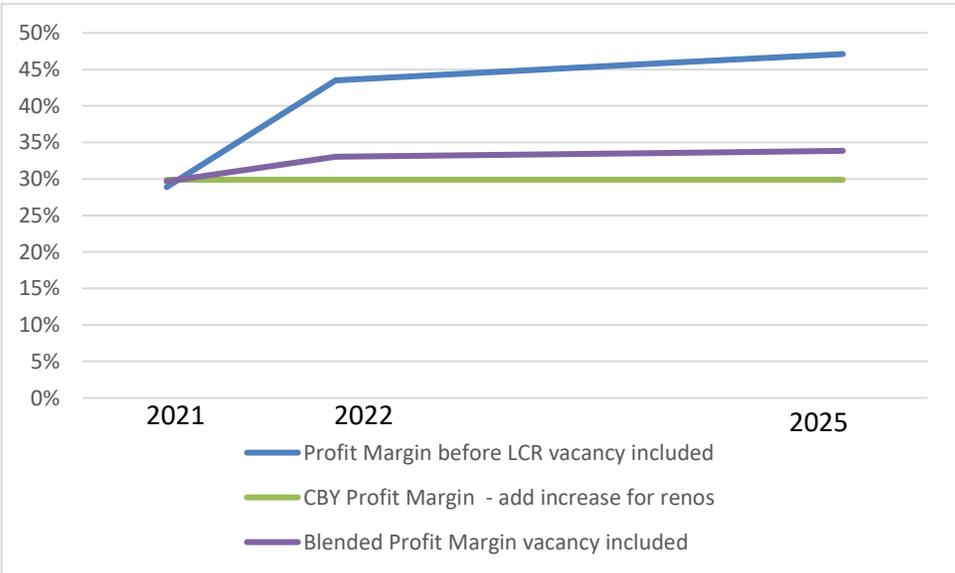
The estimated cost for the overall build, including hard and soft costs, is \$3.55M. The design phase is estimated to take eight months from the point of approval at the CBY Board. The build to occupancy phase is estimated to take ten months.

Renovations are estimated at \$450,000 and will take place prior to work commencing on the main expansion.

Both expansion and renovations contribute positively to the financial performance of CBY as a whole. Financial analysis confirmed decrease in the break-even point and improvement of the profit margin for CBY operations.

CBY Breakeven per seat (based on YE 2018 grossed up for inflation)	\$6,694
Expansion Breakeven (full year 2022)	\$5,690
Combined Breakeven (2022)	\$6,192

Profit Margin trending positively increasing by 5% to 35% by year 2025 and reaching 40% by the time the debt is fully paid.



3.2 Key Challenges and Assumptions

Financing Options:

- a. Construction Loan can be made available at 4.65% to 4.85% to finance up to 100% of the project value. Commercial appraisal of the building will be required. Construction loan facility will be under CBY and will be held in CBY, however may require a cross guarantee by Invest Ottawa. Loan can be drawn on as required basis.
- b. Mortgage: a typical mortgage can finance between 60% and 75% of the CBY's commercially appraised value. While the formal appraisal is to be completed, it can be safely assumed that that mortgage can finance 100% of the total project value. Average commercial mortgage rates range from 3.25% and 3.5% and allow for an amortization period between 15 and 25 years. Mortgage is extended at the full amount and can not be drawn in stages. Cross guarantee by Invest Ottawa may be required.
- c. The building at 7 Bayview Station Rd. is a City of Ottawa asset that has been leased to CBY under a 99 year lease at \$1/year (94 years remaining). From an accounting perspective this meets the criteria for a capital lease effectively ascribing ownership to CBY. From a technical aspect the building is still considered to be a City asset by the City of Ottawa. As a City asset, the City is not able to put a mortgage on the property or guarantee a mortgage to CBY. In order for CBY to leverage the 7 Bayview building, a waiver must be requested from the City of Ottawa that would provide CBY with the authority to use the building as collateral for debt or other encumbrance.

Under the current land lease with the City, as a condition precedent to the City being able to consider a waiver, CBY must be in compliance with terms and conditions of the land lease. Management is working with the Economic Development and Long-Range Planning Team and the Real Estate Group at the City to ensure CBY is in a position of compliance. Once that is established, the request can be drafted for FEDCO and Council to consider for approval. This could be an 8-week process to complete. With Council approval, CBY will

be able to place a mortgage on the property in its own name. In this scenario, CBY can raise funds to cover the entire cost of the Addition and renovations.

3.3 Key Assumptions and Sensitivity metrics

Comparing several models and scenarios, we have confirmed that the model is the most sensitive to the changes in license fees, vacancy rate and interest rate. CBY will have to strive to obtain the lowest financing and maintain a strong value proposition for the license fee model.

Assumption	Base Value	Sensitivity
1. Mortgage Term	25 years	A change in term by 5 years reduces the cash flow by approximately \$34K per year and has a slightly lower IRR.
2. Interest	Assumes industry average of 3.5%	A change in interest by 1% on the 25 - year mortgage results in negative impact on P&L of \$39,000 per year
3. Vacancy rate sensitivity	Model assumes 5% vacancy rate	An increase to 25% vacancy rate will result in additional negative impact on P&L of \$130K. Net Income and Cashflow will remain positive.

<p>4. Licenses will not be developed in a standalone manner. The license model will be based on the 7 Bayview model and treated as part of the overall site offering. Equivalent of 87 new seats will be created.</p>	<p>Assumes a licence fee equivalent to \$7,210 per seat</p>	<p>Under the recommended scenario, the break-even license fee value is \$5,691 per seat.</p>
<p>5. Partnership Revenue - model assumes that Addition will increase CBY's value proposition for sponsorships</p>	<p>\$140,000 per year</p>	<p>Partnership revenue has a positive impact, however, it is not a major factor in success of the business case</p>
<p>6. Operating costs escalation is set at 3% per year.</p>	<p>\$160,000 per year in 2020 (base year)</p>	<p>Escalation of OPS Costs by 5% provide additional requirement on P&L of \$8,000 per year</p>
<p>7. Administration Costs – include shared services provided by IO, assumes 3% inflation.</p>	<p>\$44,300 per year</p>	<p>Increase to 5% not material to the model</p>
<p>8. Lifecycle reserve is set based on 7 Bayview calculations.</p>	<p>Average of \$43K over the first 6 years in operation</p>	<p>Criteria and amount can be modified at the Board's discretion</p>
<p>9. Amortization</p>	<p>25 years</p>	<p>Consistent with CBY amortization policy</p>

3.4 Base Scenarios for Sensitivity Analysis

Detailed results from financial sensitivity analysis are included in Schedule 2. The following section summarizes the financial scenarios that were modeled.

Based on the sensitivity analysis below, the most financially viable and realistic option is scenario 2 using a 25-year mortgage and a vacancy rate of 5%. In this scenario, the longer-term mortgage rate provides cashflow and income stability, the highest IRR at 10.2% and strong Net Present Value. It also shows the best average Debt Service Coverage Ratio at 2.57 for the first 6 years after expansion.

Key Elements	Scenario 1 Commercial Loan, 15 years	Scenario 2 25-year Mortgage	Scenario 3 License Rate reduction by 45%, 25-Year Mortgage
Interest Rate	4.85%	3.5%	3.5%
Amortization	15 years	25 years	25 years
Vacancy Rate	5%	5%	5%
Lease up time	First three months of operations assumes occupancy at 50%		
Operational Costs	Include 3% annual escalation, kept at the same level regardless of occupancy rate		
Results			
Average Debt Service Ratio (2021-2026)	1.62	2.57	1.46
Internal Rate of Return	9.5%	10.2%	2.9%
Net Present Value of Cash Flow (25 years)	\$6,292,753	\$5,486,193	(151,158)

4.0 Tenant Acquisition

4.1 Prospect Strategy

The process for recruiting licensees for the Addition must be considered in the context of the larger strategy of managing the optimal mix of small, medium and large companies and support organizations for the overall 7 Bayview site.

Currently the licensee mix in the main building is as follows;

Licensee	2019 Seats	% of Total
Invest Ottawa	57	20.1%
SME(Non-FF)	130	45.8%
Female founder/led	25	8.8%
Large MNC	12	4.2%
Support Orgs	60	21.1%
	284	100.0%

The Goal for the licensee mix at the 7 Bayview site, with the Addition accounted for:

Licensee	With additional capacity	% of Total	% change of Total	Change in # of seats
Invest Ottawa	65	17.5%	-2.55%	+8
SME(Non-FF)	153	41.2%	-4.53%	+23
Female founder/led	45	12.1%	3.33%	+20
Large MNC	30	8.1%	3.86%	+18
Support Orgs	78	21.0%	-0.10%	+18
	371			+87 seats

There are currently no commitments confirmed in writing for the 600SM in the proposed addition. Upon approval of this business plan, CBY management will identify and recruit target companies, based on pre-established criteria, to pursue prior to completion of the building construction.

The goal for management will be to have the space in the addition fully subscribed ahead of occupancy.

Criteria for consideration for prospects;

- i. Complimentary to IO/ICBY core focus areas
- ii. Innovative – add to community culture, collaboration, engagement
- iii. Operational fit (space, equipment, security, HR)
- iv. Tenant activity tied to innovative outcomes – new market development, new technology development, staff expertise development
- v. Strong financial capacity
- vi. Origin, local national, international
- vii. Engagement - Likelihood to actively plug into and utilize other tenant capabilities such as DML, MS etc., programming, offer new and unique programming to CBY
- viii. Potential for tenancy in longer-term Bayview lands development

4.2 Recruitment strategies

Recruitment for licensees for the expanded capacity at CBY, based on the above strategy for the target licensee mix, and the set criteria, will require a concentrated level of effort to;

- Develop an opportunity list of potential licensees
- Create a pursuit strategy for each prospect based on personal and network resources
- Develop supporting marketing toolkit to assist in visualization of Bayview opportunity
- Closing documents to support negotiations

There are 2 ways to approach licensee recruitment – hire consultants or keep it in-house.

Consultant support

Hiring a consultant will allow the Executive Leadership Team (ELT) to oversee the pursuit activities, manage the pursuit list through one channel, and set priorities. The consultant route will be expensive from a cash flow perspective. It is expected they will want to be compensated either by time incurred or as a percentage of the revenue brought in through the licenses. CBY would also be at the mercy of what the consultant says or represents as being our strategy and offering concessions or benefits that would bind CBY down the road. This route will remove a lot of the pursuit burden from the ELT.

In-House Network

Taking the pursuit in-house will require a higher commitment from the ELT as well as the Partnerships and Sponsorships Manager in terms of time commitments required from each person to mine their network, stay focused on the pursuit and work to close deals.

4.3 Marketing and Communications Strategy

Opportunity

Marketing will play an important role in the licensee pursuit and attainment, revenue generation, risk mitigation, and the overall success and long-term sustainability of Bayview Yards.

The Vice President of Strategy, Marketing and Communications will work closely with the Bayview Yards team and key stakeholders to develop a marketing strategy that aims to:

1. Increase the visibility and awareness of Bayview Yards, its offering and value proposition among current and prospective licensees (including entrepreneurs, startups, SMEs, post-secondary institutions, innovation agencies and government departments with a focus on innovation, technology and R&D collaboration, and private and public sector investors).

2. Attract new licensees that are well positioned to contribute to, broaden and leverage the unique offering and value proposition of Bayview Yards to address key objectives and build new business in this region, enabling more Ottawa entrepreneurs and firms to benefit from this innovation hub and put them to work to achieve commercial goals.
3. Drive increased revenue generation and impact for Bayview Yards, contributing to the growth and success of the innovators, firms it serves – and the long-term sustainability of this innovation hub
4. This strategy will establish licensee goals and associated revenue targets, strategies and tactics while addressing the key licensee criteria initially created by the Sub-Committee of the Board of Directors and the following guiding principles:
 - i. Bayview Yards must be entrepreneur-driven to achieve desired impact: new, high-growth firms, revenue-generating products, jobs, wealth creation etc.
 - ii. Bayview Yards must harness the power of Ottawa’s collective entrepreneurial and innovation expertise and capabilities to achieve the greatest potential impact
 - iii. Bayview Yards should pursue and help to facilitate new and impactful community collaboration; seek to establish greater alignment on how we address city-wide objectives; and take targeted and collective action that achieves greater impact than any single organization could achieve in isolation

Leveraging critical input, referrals and recommendations from the Bayview Yards team, the associated Sub-Committee of the Board, current and prospective licensees identified to date, and other key collaborators, sponsors and stakeholders, the marketing strategy will proactively identify target licensees (organizations and associated key decision-makers) in the following broad segments:

- Technology, innovation, or R&D-intensive multinationals with the potential to serve as globally recognized and well-branded anchor firms that address key goals established by Bayview Yards; expand the value proposition of this innovation hub; and help to attract other desired key licensees, new revenue

and investment, and business opportunity to Bayview Yards and the Ottawa Region. These firms have the potential to create a positive halo effect, reinforcing the brand, value proposition and opportunity created through this innovation hub.

- Startups, SMEs and firms in different stages of development that participate in, and benefit directly from, programs and services delivered by licensees at Bayview Yards. This includes firms that participate in the Invest Ottawa Accelerator and Scaleup Programs and have cultivated a base of established customers, revenue streams, and/or capital, enabling the ability to pay the required licensee fees and add value to the innovation hub more broadly (through mentorship, collaboration, and/or other added value opportunities by being onsite as a licensee)
- Non-profit and post-secondary partners that serve as program delivery partners that address shared economic development, entrepreneurship and innovation objectives. This includes organizations that are committed to, and well positioned to deliver on, key diversity and inclusion objectives established by Bayview Yards including goals and targets related to female founders and women-owned business, Indigenous and
- Government departments that operate, deliver or manage science, technology, collaborative research or SME procurement programs; this will include public service teams and divisions with the potential to help Bayview Yards achieve key goals defined in the strategic plan in the following three global markets: Smart Government (leveraging the Digital Academy now established within Bayview Yards through the Canada School of Public Service); Smart Health (including the new collaboration established with The Ottawa Hospital); and Smart Cities (including connected and autonomous vehicles).

The marketing strategy will define a series of integrated strategies, tactics and assets that aims to equip Bayview Yards executives, Sub-Committee members and key employees dedicated to sponsorship, partnership and communications to pursue the right mix of licensees for the Bayview Yards expansion. Strategies will include in-

person meeting strategies (with target decision-makers), online and community-based promotion. Key tactics, marketing tools and collateral will include, but are not limited to:

- A pitch tool kit including: the elevator pitch, a concise pitch deck, key renderings and leave behind document (a bilingual one-pager or brochure) that elaborates on the value proposition of Bayview Yards for current and prospective licensees.
- Key speaking points and an FAQ for meetings with prospective licensees
- A proposed referral program for current licensees that incents these leaders and organizations recommend Bayview Yards to the desired target audiences (that address all licensee criteria and the overall objectives of this innovation hub)
- Web content and supporting social media across all platforms currently leveraged by Bayview Yards and key anchor licensees with broad reach across target audiences (including Invest Ottawa)
- Media strategy including proactive pitches to local media outlets that directly address target licensees
- Continued investment in the marketing and promotion of Bayview Yards as a preeminent innovation hub that is creating new opportunity, business and impact for current licensees and the region more broadly, while delivering a strong return on investment to public and private investors and sponsors. This will include third-party testimonials, data and success story vignettes that reinforce the brand, value proposition and impact of Bayview Yards on current licensees.

The strategy will be launched upon approval by the Board of Directors and executed until licensee objectives are achieved for the Bayview Yards expansion. It will be implemented by an integrated team comprised of: the President and CEO; Vice Presidents of Infrastructure, Finance and Corporate Services, and Strategy, Marketing and Communications (Bayview Yards); key executives at Invest Ottawa including the Vice President of Venture Development; the Strategic Partnerships team; and key

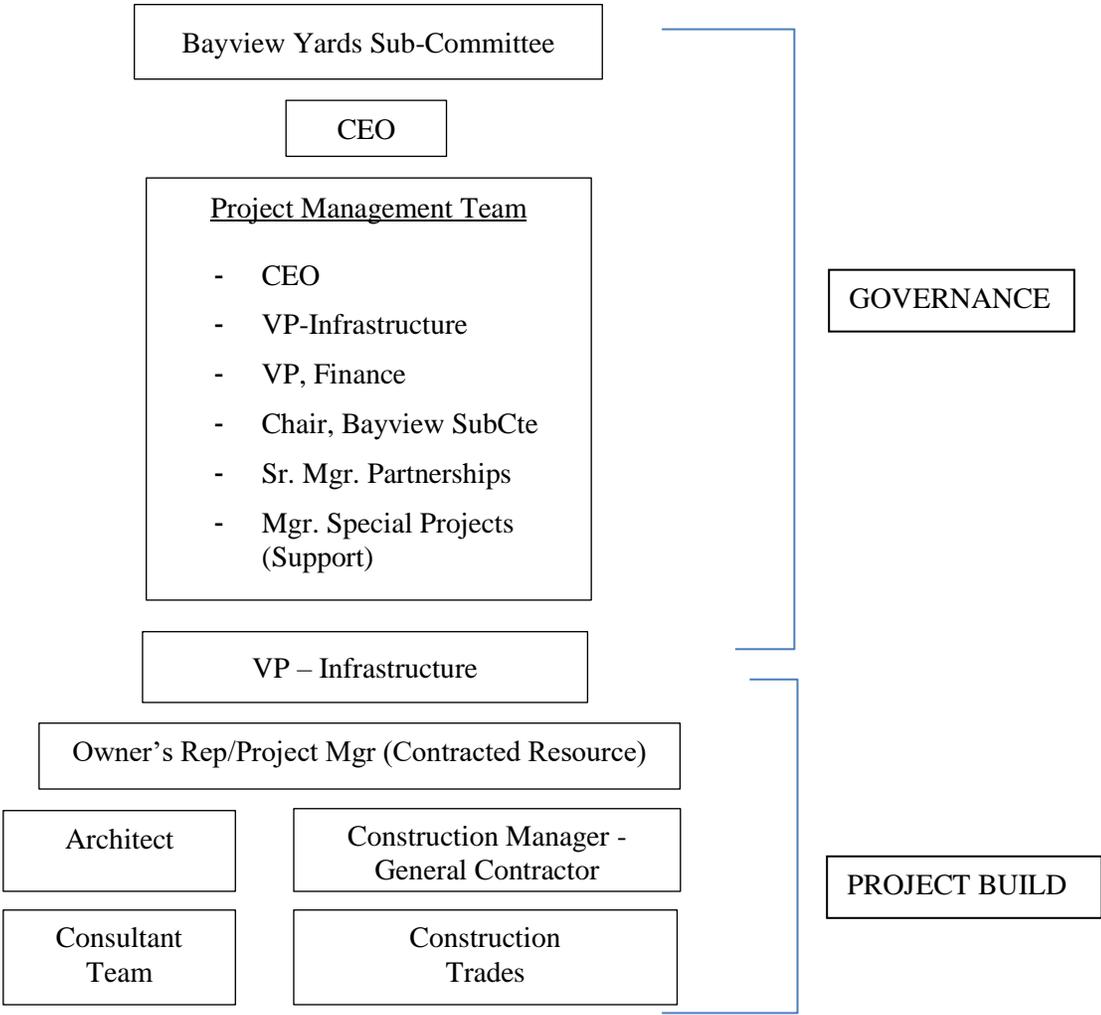
members of the Board of Directors and Sub-Committee of Bayview Yards (in critical supporting roles).

Bayview Yards may also engage a consultant with well established relationships and a proven track record in business development and revenue generation (in alignment with the goals established in the marketing strategy and the innovation hub more broadly). This decision will be made following the development of the strategy and assessment of the licensee 'sales' pipeline.

5.0 Contracting and Procurement

5.1 Construction Management Model

The project shall be managed by the Bayview Infrastructure team under the direction of the VP – Infrastructure Services with the support of a designated Project Team. The Project Team will work with the VP to ensure good governance practices are in place and report periodically to the Bayview Subcommittee on spending, schedule and resource usage. The organizational structure shall be as follows;



Project Team:

Building large infrastructure additions is not a typical day to day operational function for CBY. The Project Team will be formed to oversee the Addition project and provide advice and guidance to the VP-Infrastructure and to ensure there is a structured support framework for decisions that need to be made and to provide a forum for the Owner's Rep and VP to report regularly on progress for the schedule and the budget. The team consists of:

- CEO: Management Governance
- VP – Infrastructure Services: Operational and construction oversight
- VP, Finance & Corporate Services– Oversight of budget, cash flow, commitments
- Chair, Bayview Yards Sub-Committee – Representative of the Board
- Senior Manager – IO/CBY Partnerships
- Manager – Project Services – Staff Support

Responsibilities**VP – Infrastructure:**

Reporting to the CEO and the operational member of the Project Team, the VP is the executive responsible for overall project success measured as on-time and on-budget.

Owner's Representative/Project Manager:

Represents Owner (CBY) throughout the entire process of the build, entitlements, permitting, and construction. The owner's representative will serve as the liaison between the architecture, construction manager, consultant team, and ensure the owner's best interests are carried out, including ensuring that the project scope is carried out on time and according to budget. The rep will help with bidding processes as required, project mitigation, reporting, building code adherence.

Architect:

Management is working closely with the Architect of the Design Build for the ICBY Project, Hobin Architects, who will work in the same capacity for this project. Their knowledge of the site, building, site conditions, and understanding of the mission of ICBY make them uniquely positioned to enable us to move forward quickly as well as ensure a product that will be properly integrated into the overall site plan and design.

Working closely with the Owner and Owner's Rep, the architect is to develop a design for the addition that is complementary to the main building, bring functionality, form and flexibility together to contribute to the anticipated use for the space, and which stays within the City rules for the site. The Architect will assist the Owner in estimating the costs and developing a financial budget for the build as well as develop initial and final drawings of the building for the Owner's Rep to utilize for the overall management of the build. The architect will provide drawings and renderings of the floor plan, the site plan, the elevation, other detailed structural drawings, 3D models and 3D views.

The Architect will assist the Owner's Rep to create a fair and transparent process for selection of the General Contractor that will act in the role as General Contractor. Assistance will include development of the call for proposals, establishment of evaluation criteria and selection of the winning proposal.

Construction Manager:

The Construction Manager (CM), in this case the General Contractor, will be selected through a fair and transparent process. The CM will work with the Architect and Owner's Rep to plan the construction project and oversees its progress. This includes developing plans, handling logistics, and managing budgets, expenses, and schedules. The CM will manage the construction of the project from start to finish, and regularly communicate with owners and owner's representatives about any issues.

Along with the owner's representative, the CM will ensure that the project stays on time and on budget.

Consultant Team

The Owner's Rep will manage a team of Consultants as subject matter experts to ensure the project is completed to a high standard. The scope of each consultant will be defined as the overall scope is determined and the specific areas of expertise are defined. The consultant team will work closely with the CM to set the specifications for mechanical, electrical, civil, structural, IT/AV, and any other subject matter expertise the Owner's Rep deems necessary.

Construction Trades

The CM will hire and supervise workers and subcontractors, draft contracts, manage risks, and obtain equipment and materials.

5.2 Resource Plan – Internal Management, Reporting

To ensure accountability and strong management and financial controls, the VP Infrastructure will establish a communications plan at the project build level and for the Executive Leadership Team (ELT).

Build Team

The Owner's Representative will establish an on-site consultant's meeting which will be held on a regular recurring schedule. The core group required at each meeting will include representatives of the General Contractor, Architect, Owner's Rep. Consultants will be invited to the meeting as required, dependent on the issues in play or the schedule of the build.

Minutes of the Meetings will be kept to track status, decisions and action items. The Meeting agenda will include the following areas of discussion;

- Administration
- Schedule
- Architectural

- Structural
- Mechanical
- Electrical
- Safety
- IT/AV
- Landscaping
- Commissioning
- Security
- Change orders register
- Action Items register

ELT Reporting

The VP – Infrastructure Services will put in place a dashboard for the ELT to review on a regular schedule and will include;

- Schedule status (behind, on schedule, ahead)
- Budget status (behind, on budget, behind)
- Planned completion vs actual completion (%)
- Description of Work in progress
- Look ahead
- Change orders - Financial and schedule impacts
- Project risks
- Critical actions

6.0 Scheduling & Planning

Approval Phase

- 1. Review by CBY Sub -Committee – August 2019
- 2. Review by CBY Audit Committee – September 2019
- 3. Approval of the Business Case by the Board of Directors - October 3, 2019
- 4. Commercial Appraisal - October 2019
- 5. Secure financing – October – December 2019
- 6. Obtain LOI from potential future Licensees – October - March 2020
- 7. RFI (RFP) for Owner’s Representative - November 2019
- 8. RFI (RFP) Construction team – March 2020
- 9. Renovations – January – June 2020

Stages

1. Pre-construction	8 months	October 2019 - May 2020
2. Renovations	6 months	January – June 2020
3. Construction	8 months	June 2020 – January 2020
4. Commissioning	2 months	January -February 2021
5. Move-In (FF&E)	1-month	March 2021
6. Tenants move in		April 2021

Schedule

The schedule is the control document that synchronizes all activities and tasks and timings for the construction project. A good, well defined and closely managed schedule is integral to achieving a completed project on-time and on-budget.

At a macro level, there are 3 major schedule segments, pre-construction, construction and commissioning/occupancy. Within each of these areas there are many sub-sections of tasks, milestones, deliverables and deadlines.

Preconstruction

This is the most important part of the schedule and where the team will build the solid foundation for the rest of the project. It is in the pre-construction phase that we will determine the design, budget, financing, project and construction team formation.

It is estimated the pre-construction phase will be eight months from Board approval.

Pre-Construction will include the following non-exhaustive list of activities;

1. Selection of Project Manager – RFQ process
2. Space Planning (rough Drawings)
3. First and second draft and 50% Construction Drawings
 - a. Schematic design, design development, construction documents
 - b. Long lead time items identification
4. Selection of General Contractor – RFP Process
5. Procurement of long lead time items
6. Run Process for Sub-contractors
7. 90% construction drawings
8. Permitting
9. Establish detailed construction schedule
10. Issued for Construction drawings

Construction:

In this phase, it is important that we have a strong project manager in place to make sure the build moves forward as laid out in the pre-construction phase. It is critical that strong controls are in place for communications, monitoring, documentation, budget

tracking, schedule compliance, quality of work, critical path management, punch list management, contracts management, reporting, issues management, and change order management. It is estimated the construction phase will be eight months from completion of pre-construction phase.

Commissioning/Occupancy

The process of commissioning a building's transition from construction to occupancy involved all contractors and consultants involved certifying their work has been completed within the design parameters set out and that they comply with all the agreed requirements of the owner, and the legislative requirements of building code, health and safety, environmental and other mandatory. While many of the contractors will have had their work reviewed and inspected along the way, many systems such as HVAC, Building Automation, IT/AV, cannot be tested and approved until the construction has been completed.

It is estimated the Commissioning phase will be two months from end of construction phase.

Move-in Preparation

Once the building is approved for occupancy, there will be a short period where the interiors of the building are made ready for the occupants. This includes any specific fit-up or leaseholds required by incoming licensees, furniture, fixtures and equipment. This phase will be well planned and is anticipated to be accomplished in an organized and well controlled manner.

It is estimated the Move-in preparation phase will be one month from occupancy permit.

Move-in

It is estimated the Move-in of licensees will be April 2021.

7.0 Governance & Risk Management

7.1 Governance

This project will be supported by a governance model that will ensure risk is managed and mitigated within a structured framework. It will be based on 5 basic levels of accountability¹ as follows;

- Single point of accountability
 - Having a project champion in place is necessary to bring the entire project under the watchful eye of a highly skilled member of the team. This will support clear management of all elements of the project and reduce the risk of failed delivery through missed deadlines, lack of communication and resourcing issues. In short, it will be this person's responsibility to ensure that the project gets over the line.
- Oversight by Project Team
 - A well qualified project team is important in being able to bring skills, experience, knowledge and leadership to the project. An active and engaged project team will help to mitigate risks, increase the chance of success, and bring structure to the team in terms of reporting, accountabilities, oversight and risk management.
- Implementation of systems and processes
 - This build is a complex construction project. We will need to ensure that the right project management, accounting/financial, information management and reporting systems and processes are in place. These will not only allow the team to carry out their roles effectively, they will also support the need to work within a robust project governance framework.

¹ Concept from Deltek (UK) Blog " 5 Key Project Governance Principles for Firms in the Construction Industry", Claire Hodgson, October 31, 2017

- Rigid adherence to monitoring and reporting on schedule and budget
 - The CEO and Project Team need to have a complete picture of progress in line with expectations, project deadlines, resource allocation and project budget. It's vital that any potential risks or difficulties can be identified before they become a real issue so that the team can be proactive with course correction.
- Maintain a focus on delivery
 - The governance model must support the delivery expectations set out to the Board. It needs to be agile and be able to remain focused on helping the project team and management without reducing their ability to meet the end goals.

7.2 Risk Management

As with any large project, there is risk inherent to the project that needs to be recognized, tracked and contingencies planned for. Having a risk scorecard and contingency plans for negative events will be important to avoid litigation, get back on track quickly, react to changes to legislation, minimize impact of event, reduce exposure and protect reputation.

An example of risks that must be monitored include;

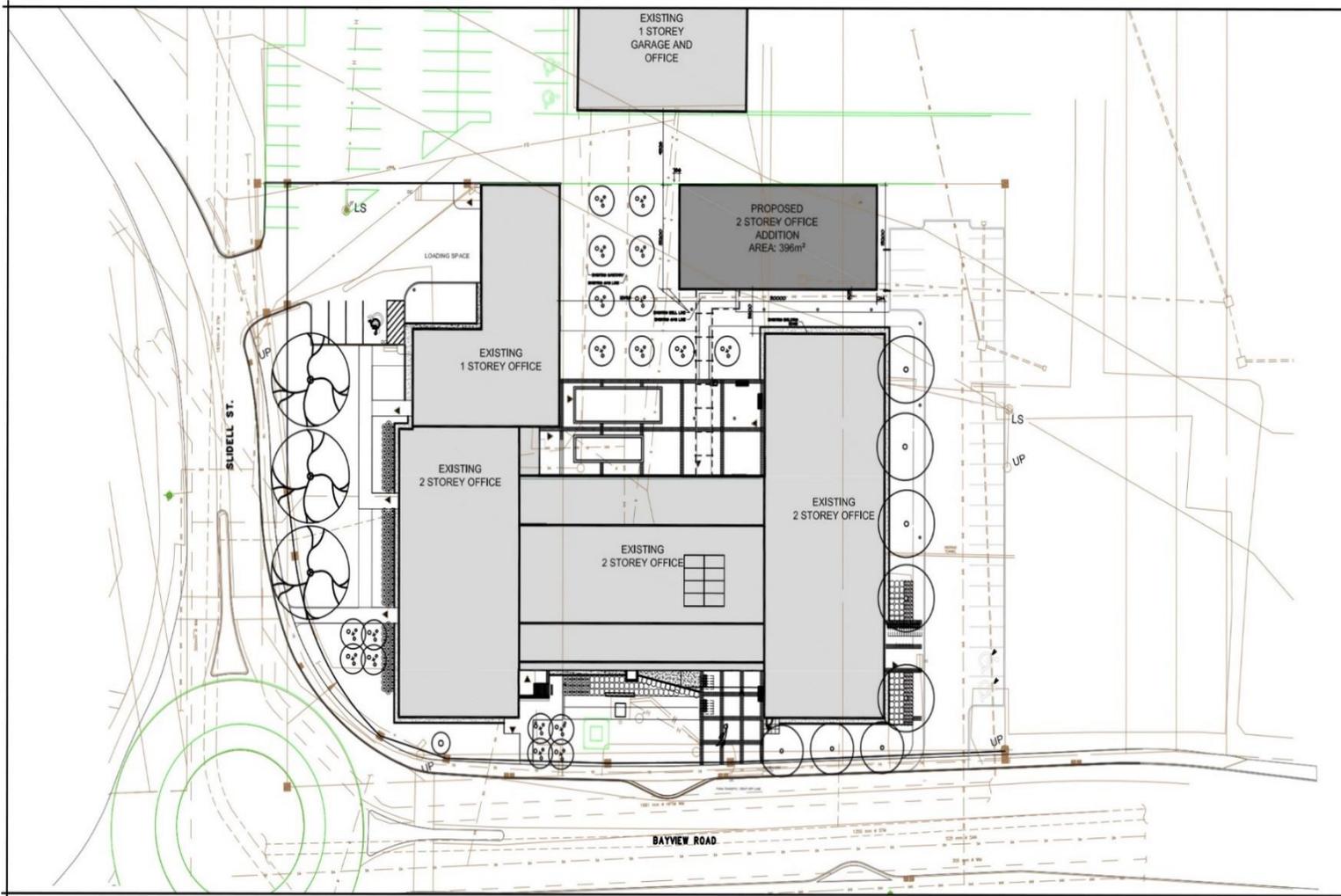
- Financial risk – ability of CBY to pay mortgage dependent on success of continuing to maintain a high level of occupancy in the entire site at the current level of license fees,
- Financial risk – cost escalations in materials or labour, or unknown site conditions impacting budget. Labour disputes can impact cost and timing of schedule and project completion.
- Schedule risk – Not completing on time can have a domino impact on CBY finances, licensee businesses. There could be reputational risk for CBY if the schedule slippage is seen as weak management controls.

- Funding risks – Major reductions in funding for Invest Ottawa would impair its ability to pay license fees to CBY (60% of revenues). This would impact CBY financials and CBY ability to pay mortgage.
- Management risk – changes at the senior level will have impacts on the overall controls and leadership and management attention.

There will more items that those above which will get added to the scorecard as they are identified. It will important that the CEO and the project team review the risk scorecard on a regular basis.

Schedule 1 – Hobin Architects Inc. Renderings (not final)



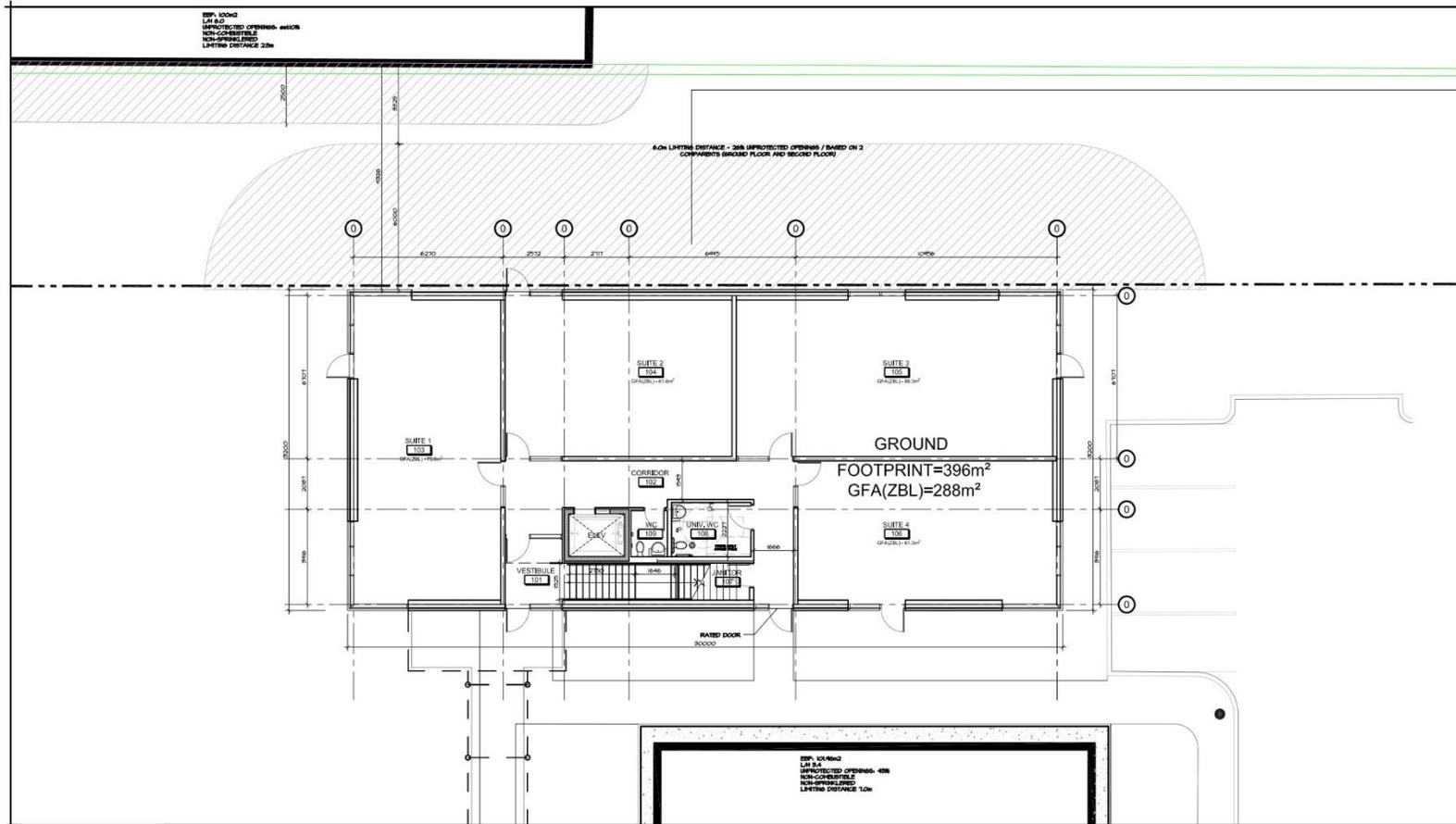


INNOVATION CENTER EXPANSION
EAST PAVILION

CONCEPT SITEPLAN

SCALE 1 : 500
 FEBRUARY 21, 2019





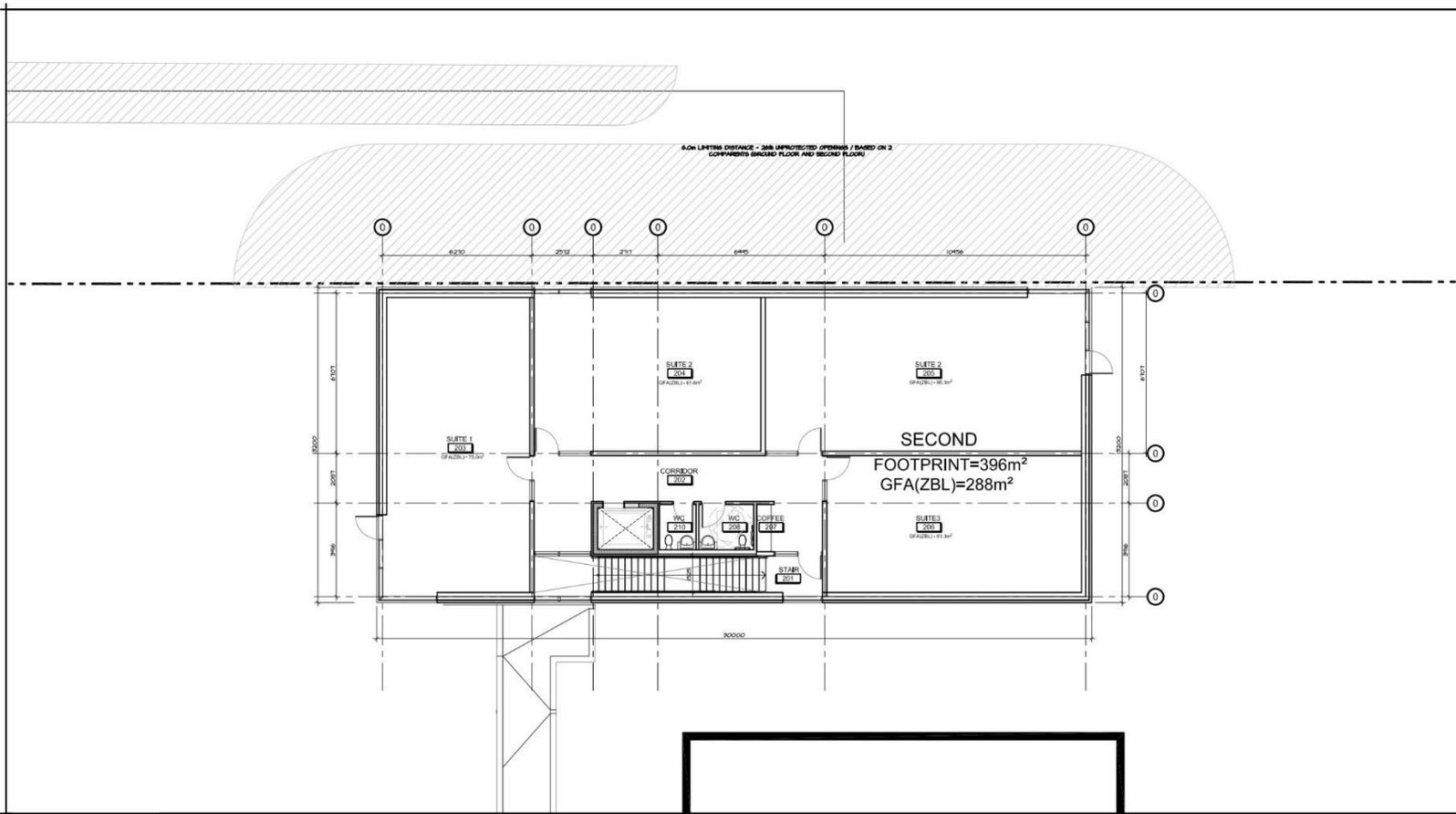
INNOVATION CENTER EXPANSION

EAST PAVILION

GROUND FLOOR PLAN

SCALE 1 : 150
FEBRUARY 21, 2019





INNOVATION CENTER EXPANSION
EAST PAVILION

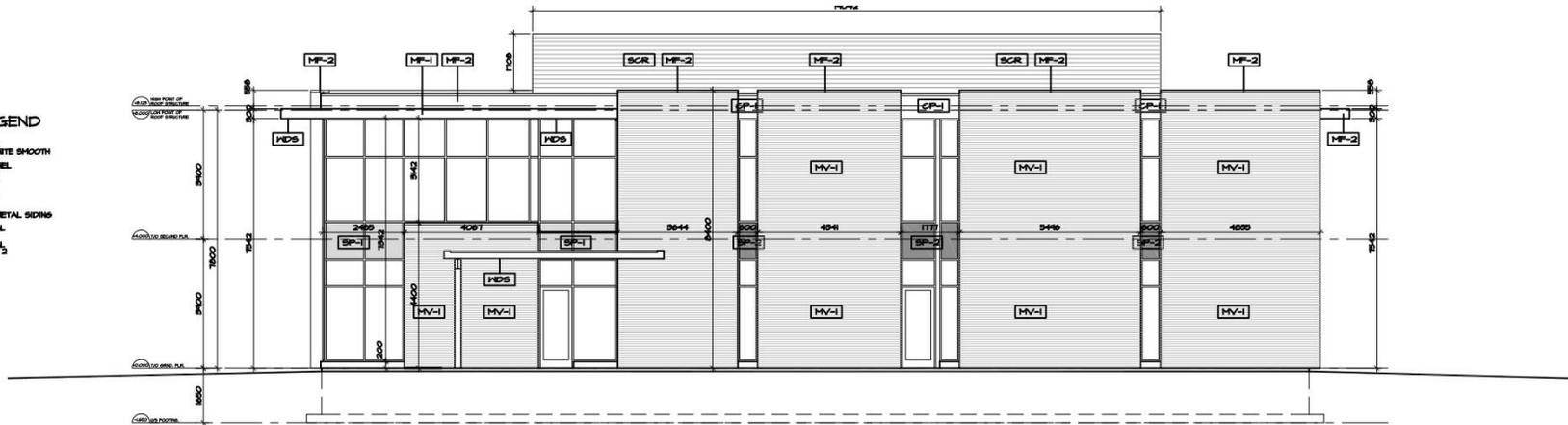
SECOND FLOOR PLAN

SCALE 1 : 150
FEBRUARY 21, 2019



MATERIAL LEGEND

- [MV-1] MASONRY VENEER
- [SCR] CITY - BEIGRE SMOOTH
- [CP-1] PIERRE CEMENT PANEL
- [SP-1] SPANZEL PANEL
- [SP-2] SPANZEL PANEL
- [MS-1] T&B PREFINISHED METAL SIDING
- [MF-1] PREFINISHED METAL
- [MF-2] PREFINISHED METAL
- [SCR] METAL SCREEN
- [HDS] HOOD SOFFIT

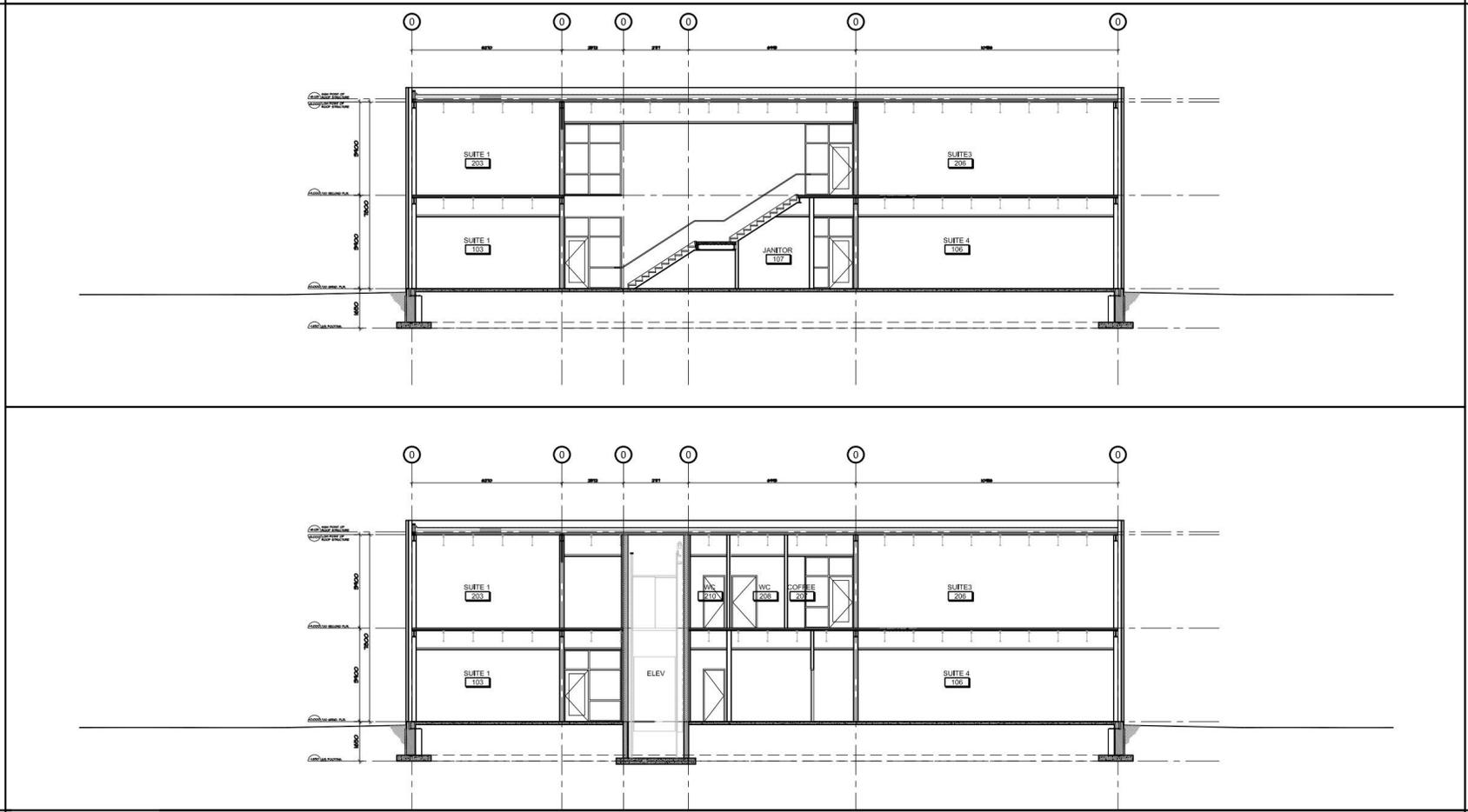


INNOVATION CENTER EXPANSION
EAST PAVILION

BUILDING ELEVATIONS

SCALE 1 : 150
 FEBRUARY 27, 2019





INNOVATION CENTER EXPANSION
EAST PAVILION

BUILDING SECTIONS

SCALE 1 : 150
 FEBRUARY 21, 2019

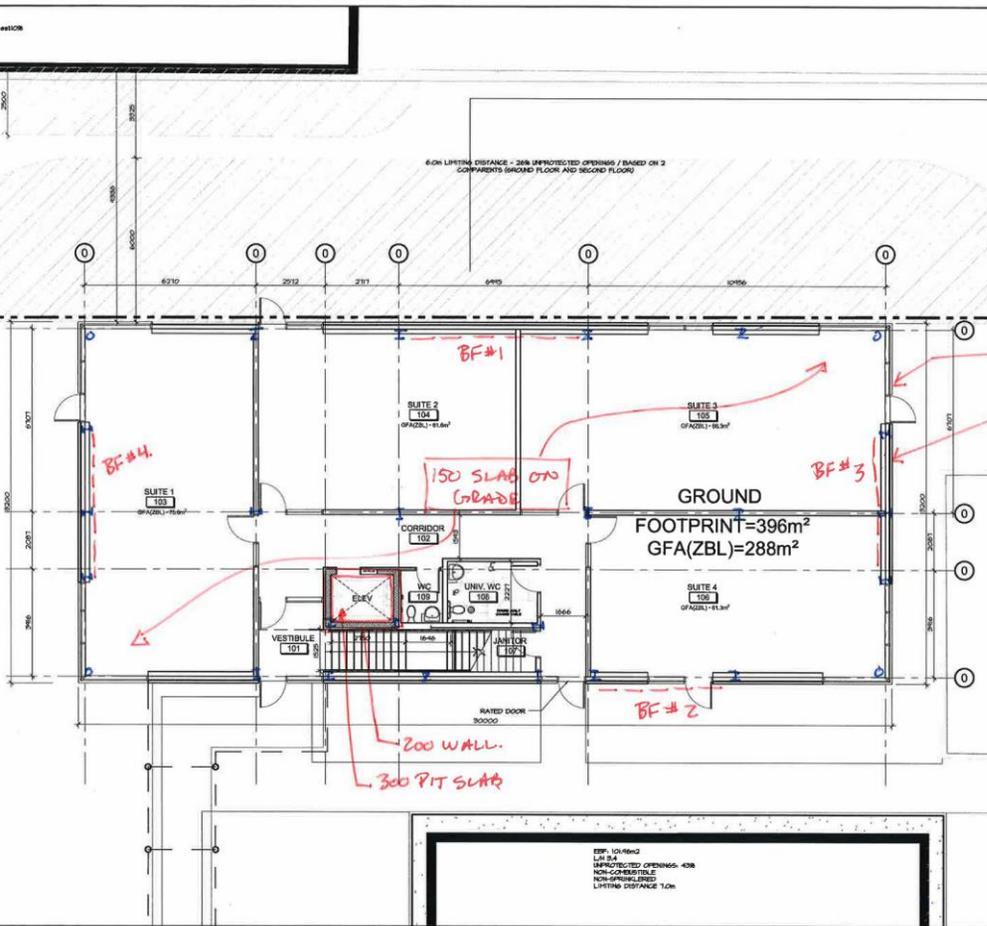


5569-09
FEB 14/19.

ESP. 100#2
LVL 6.0
UNPROTECTED OPENINGS: 200#
NON-COMBUSTIBLE
NON-SPRINKLERED
LIFTING DISTANCE 2.2M

6.0M LIFTING DISTANCE - 200# UNPROTECTED OPENINGS / BASED ON 2
COMMENTS (GROUND FLOOR AND SECOND FLOOR)

- TYPICAL INTERIOR COL.
W200x52 OR
HSS 203x203x6.4.
- TYPICAL PERIMETER COL.
W200x36 OR
HSS 152x152x6.4.
- TYPICAL CORNER COL.
HSS 152x6.4



INNOVATION CENTER EXPANSION

EAST PAVILION

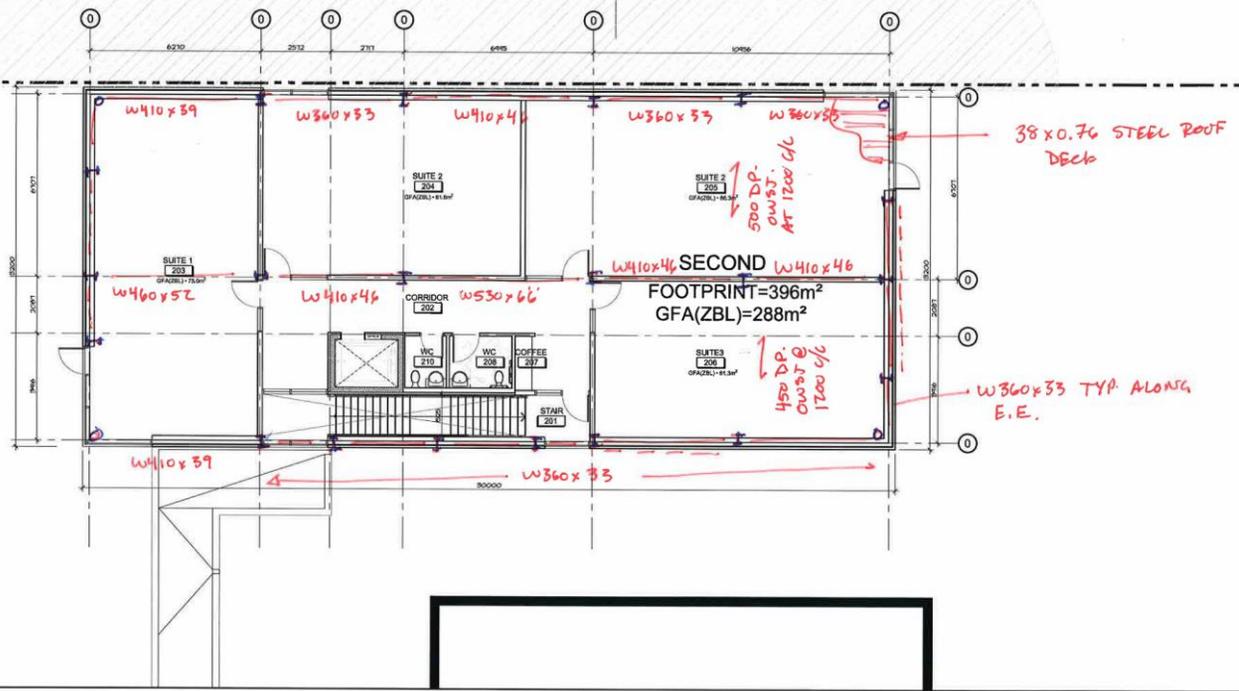
GROUND FLOOR PLAN

SCALE 1 : 150
FEBRUARY 8, 2019



5509-09
Feb 14/19.

6.0M LISTING DISTANCE - 20M UNPROTECTED OPENINGS / BASED ON 2 COMPONENTS (GROUND FLOOR AND SECOND FLOOR)



INNOVATION CENTER EXPANSION

EAST PAVILION

Roof
SECOND FLOOR PLAN
SCALE 1 : 150
FEBRUARY 8, 2019





March 11, 2019

Cours Bayview Yards
7 Bayview Road
Ottawa, ON
K1Y 2C5

Attention: Richard Quigley
VP Infrastructure Services

Dear Richard:

We have pulled together a fair bit of intelligence related to the proposed Bayview Addition and present a draft for your review. The information includes proposed rationales and suggested systems from the consultant team.

AAR (Adjeleian Allen Rubeli) have undertaken a preliminary structural design and prepared a plan with structural sizing. This information has been utilized by Morley Hoppner our construction adviser for use in estimating the superstructure costs. BPA (Bouthillette Parizeau) have reviewed the design and suggested concepts for the mechanical and electrical systems. This includes a review of opportunities to share the existing resources and the potential for some system integration with the existing Bayview building.

Gray Engineering has reviewed the civil issues and followed up with the City of Ottawa Infrastructure group to confirm the proposed approach to servicing will be acceptable. This discussion has related to potential savings.

Hobin Architecture Incorporated has coordinated the base footprint and prepared plans and elevations to provide as much flexible lease space as possible given the site constraints. Preliminary discussions have been undertaken to develop concepts that will support the close proximity of the addition to the existing east Incubator wing, specifically the north elevation. The existing Bayview building is to be retained as is with little to no changes to the facades.

The reviews by the consultant team are based on a very early study which determined a site area "of least resistance". This site is basically free of existing service runs which tie the ByLaw building to the Bayview main services. These include Hydro, Bell, and sewer, water and sanitary. As we are currently unaware of the time line for the retention of the ByLaw we have taken a position to avoid these essential servicing ties.

As a strategy to expedite the proposed new building current zoning permits an addition of

600SM (6458SF) maximum gross floor area (GFA) without a requirement to apply for Site Plan Application. The GFA is reduced by the incremental areas that include structure, outside walls, service rooms, stairs and elevators and washrooms so the actual built area will exceed the zoning defined GFA. This strategy of applying based on the area has not been discussed with the city planners as of this date.

The building that can hopefully be realized will provide a footprint area of 396SM (4262SF) on two floors. Each floor will be provided with elevator access and washrooms. Service entrances for electrical, data and water entry have not been

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finalized however a small room will be required and a location can be determined during final schematic design. The plan consolidates the required services and vertical access centrally to maximize the area for leased floor space. The plan as drawn shows 4 separate lease areas per floor ranging from 61SM (657SF) to 86SM (925SF). These areas are very easily combined and could become one lease space per floor of 284SM (3059SF). The area dedicated to corridor in the 4 lease plan would also be consolidated to the single lease area at each floor.



The building will be steel superstructure with foundations to bedrock. There will be no basement area due to the proximity of rock as well as the desire to avoid Site Plan Application requirements and maximizing above grade lease space.

Wall types will be a brick masonry proposed as a “black box” in contrast to the existing Bayview renovations. The building envelope will be highly insulated and detailed to be air tight. Glazing shown on the elevations will include high performance curtain wall with Low“E” argon fill insulated glazing units. Specific areas of glazing facing to the south (to the North elevation of the existing Incubator wing) and the north elevation of the addition facing the ByLaw (and eventually a through street) is shown with limited glazed area. The south face of the addition is glazed to reduce the exposed unprotected openings to the large unprotected openings of the Incubator wing. The north elevation of the addition facing the ByLaw and the future street must also provide a design strategy to meet the Ontario Building Code requirements. These strategies will be developed further and fine tuned with our life safety consultant and the local building authority. The specific strategies are to recognize temporary measures as impacted by the ByLaw building and to determine an effective and accountable solution between the face of the Incubator and the addition.

The mechanical electrical design summary is attached as a starting point for the Class D estimate. This is attached separately. The electrical will need to confirm the as found locations of the underground services to confirm the proposed addition will not disturb critical services. In addition a new service run from the existing Bayview Electrical room must be configured to extend hydro to the new addition.

Civil has provided a brief description relating to service strategies for each of the existing underground services. They have also confirmed with the city that connection to the existing as found services will be acceptable. This will save excavation and locating of new service connections to the street. The summary is attached separately

Structural has prepared a design for a steel superstructure. In addition we did discuss other possible structural variations which include a CLT (cross laminated timber) or NLT (nailed laminated timber). We have preliminary sizing however we did not explore the cost implications of these systems. We considered these as floor and roof assemblies within a steel framework. Review of a full CLT system was beyond the scope however we have access to CLT manufacturers that could advise on the cost and timing if the Bayview addition is deemed as appropriate in the current plan configuration.

Each consultant team reviewed the cost estimate and commented specifically resulting in some minor revisions to the overall cost.

Assumptions and designs noted herein are all very early stage and will need to be developed with further detail design and discussion with the city planners and authorities having jurisdiction.

Please review and call so we can arrange a meeting to discuss in added detail. We would be pleased to go through the design and respond to any questions you may have following your review.

Yours truly:

W.A. "Sandy" Davis, OAA, MRAIC, Assoc.AIA

Bayview Yards – Innovation Centre Expansion

Mechanical Requirements:

Sanitary:

- The building shows two sets of washrooms for a total of four lavatories and four water closets. The fixture unit count based on the National Plumbing Code for this installation is 24, meaning that an NPS 4 (1/100 slope) sanitary exit is required to service the building needs. □ A new sanitary piping connection to the city infrastructure is required

Storm:

- The building has a flat roof design. Roof drains are to be installed in the appropriate areas (sloped portions of roof) in order to capture and remove all of the storm water. The roof area is 396m². With Ottawa rain data of 23mm/15mins for a 100 year storm, the hydraulic load is 9108L. The storm piping exit for the building needs to be NPS 6 (1/100 slope).
- A new storm piping connection to the city infrastructure is required.

Domestic water:

- Domestic water distribution is to be tied into the existing Innovation Centre building water entry located on the North-West side of the building in Service Space L015. The service space is located in the basement approximately 350 feet away from the new installation. With the above mentioned plumbing fixtures, this building has a hydraulic load (fixture units) of 32. The approximate distance and fixture count requires an NPS 1-1/2 pipe size to supply the new building.
- Hot water can be produced with individual space saver type water heaters installed near the washroom groups on each floor.
- The hot and cold domestic water to be distributed to the plumbing fixtures using copper piping. The distribution will have to run from the basement water entry room, up to the ground floor, across the building, then down underground in order to reach the new building. Underground piping to be insulated PEX piping.

Natural gas:

- The natural gas distribution is to be tied into the existing gas distribution for the Innovation centre. The new piping can be connected to the existing NPS 4 gas header to supply the new building equipment requirements. The existing gas header is located on the outside wall on the North-West side of the existing building. The gas piping will connect the exterior header, into the existing building, through the ground floor, and then underground between the existing building and new building. With the heating capacity of 180,000 BTU/hr (RTUs + water heater), and the approximate distance of 375 feet, the piping needs to be NPS 1-1/2 to supply the required capacity.

- Black steel piping to be used to distribute the gas supply to the RTUs, and domestic water heater.

Fire protection:

- Architectural design matrix required to know if sprinklers are required.
- Should sprinklers be required, a new zone valve would need to be installed on the main sprinkler header. Routing to the new building will need to be established and coordinated with other services supplying the addition.
- Fire extinguishers to be installed at egress locations, mechanical spaces, and kitchenettes.

Ventilation:

- Preliminary load calculations have been prepared in order to estimate the heating and cooling requirements for the building. The following assumptions were made for each floor: 25 people, 25 computers (and screens), a coffee machine, printers, and a refrigerator per floor. With these assumptions and the supplied building dimensions/orientation, the ground floor requires approximately 105,000 Btu/hr of cooling and 70,000 Btu/hr of heating. The second floor requires approximately 85,000 Btu/hr of cooling and 55,000 Btu/hr of heating. Note that these calculations will be revised when walls, roof, and window materials are confirmed.
- In order to produce the heating and cooling, roof top units can be installed on the flat roof. The ground floor can be supplied by a variable air speed 10 ton unit, while the second floor can be conditioned with a variable air speed 7.5 ton unit. These units are to have gas heat with direct expansion cooling.
- The buildings fresh air requirements will be supplied through the above mentioned RTUs, and can be programmed to utilize free cooling during shoulder seasons.
- Variable air volume terminal units to be installed to ensure that each space is conditioned separately.
- A standard galvanized ductwork distribution with grilles, diffusers, accessories would circulate the air to all spaces of the building.
- Perimeter heating can be added to the installed systems and would reduce the heating requirements from the RTUs. However, there is no allocated space in the building for a perimeter hydronic heating system. If perimeter heating is required, it would have to be electric.
- Washrooms will be exhausted with the use of roof top down blast exhaust fans.

Controls:

- All new mechanical HVAC units would be tied back to the existing building's DDC control systems.
- A number of control solutions can be presented based on the client's requirements.

Electrical Requirements:

Electrical Service and distribution:

- Electrical power supplied from the main building electrical distribution system. This will include a 200A breaker in the main service switchboard (600V-3phase) and a check meter. Note the landlord is responsible to allocate and apportion utility revenue billing in the rent. Feeder will be run through the basement and underground to the new structure.
- In the new building, a main electrical room is required on the ground floor with access from the corridor. Approximately 4.5m² in size.
- Distribution main 600V 225A panel complete with main isolation breaker. Panel to include feeder breakers for roof top mechanical equipment and feeders to 30 kVA transformers and branch breaker panels per floor. Ground floor branch panel located in main electrical room and the second floor panel to be flush wall mounted in the corridor. Transformers in electrical room (ventilated).
- Branch circuits allocated throughout the floor ceiling space to suit fit-up requirements.

Telecom:

- Telecommunications service from existing building telecom room located in the basement.
- Interconnecting ducts (2x 50 mm C) between service rooms.
- In the new building, a main telecom room is required on the ground floor with access from the corridor. Approximately 4.5m² in size.
- Grounding bus in telecom room with #3/0 ground conductor in conduit back to main building ground.
- Empty zone conduits (41 mm C) from telecom room out to each tenant area.

Lighting:

- Light fixtures to be LED type direct/indirect recess fixtures in tee bar ceiling connected to 120V circuit. Fixtures with constant voltage drivers and dimming from 10 to 100 %. Lighting load density to latest ASHRAE/IES standards and OBC requirements.
- Layouts to provide illumination levels for various room types and use as recommended in latest IES standards.
- Lighting control to include manual control, occupancy sensors, natural lighting photocell control and continuous dimming provisions to meet OBC requirements.
- Exit signs to be LED type running man to latest code requirements.
- Emergency lighting with 12 V battery units and remote heads. Lamps to be LED 6W type. Fixtures and lighting heads located to illuminate egress pathways and exits to meet code requirements.
- Exterior LED lighting at exterior doors and pathways.

Fire Alarm System:

- Consistent with provisions in the main building a fire alarm system is recommended and would include signal horns throughout, pull stations at exits, smoke detectors in telecom-electrical rooms, elevator shaft, and heat detectors in storage and utility spaces.
- System connected to main building for supervision alarm only.
- Annunciator at ground floor entrance.

Civil Design Issues: Gray Engineering

Storm:

The Addition conflicts with part of the existing storm sewer system. The storm sewer system and grading will have to be modified to drain the courtyard. There is a catch basin on the Bylaw Building property between the Addition and the Bylaw Building. We will need to make modifications to the storm sewer system and/or the grading in the area around this catch basin. The foundation drains and roof drains of the Addition will be able to connect to the modified storm sewer system. None of this work should result in a shutdown of the existing building services.

Sanitary:

The Addition does not appear to conflict any existing sanitary sewers. A sanitary sewer from the Addition could connect to an existing manhole in the courtyard. This is not normal and if this was a private development the City might not approve it. However, the sanitary sewer for the Bylaw Building has a similar connection and since this is a City project, I think it would be permitted. (If the City does not permit it, it would be possible, but much more expensive, to connect to the municipal sewer in Bayview Rd.) None of this work should result in a shutdown of the existing building services.

Water:

The Addition does not appear to conflict any existing watermains or water services. A water service to the Addition could connect to water lines from within the existing building. Similar to above, this is not normal and if this was a private development the City might not approve it. However, also similar to the above scenario the Bylaw Building has a similar connection and since this is a City project, I think it would be permitted. (If the City does not permit it, it would be possible, but much more expensive, to connect to the municipal watermain in Bayview Rd.) I expect that there would be a minimal disruption of services: A few hours and perhaps only locally in the building in the area where the connection will be made.

Gas:

There appears to be gas service for the existing buildings that conflicts with the Addition. You should talk to a mechanical engineer, but I suspect that these services could be relocated without too many issues.

Bell:

The Addition does not appear to conflict with any Bell service. You should talk to an electrical engineer, but I suspect that if there are any conflicts that the Bell service could be fairly easily relocated and disruption of services would be minor.

Cable:

The cable service to the Bylaw Building does not appear to conflict with the Addition.

You should talk to an electrical engineer as I do not have any information with respect to the location of the cable service to the existing building but I suspect that if there are any conflicts that the cable service could be fairly easily relocated and disruption of services would be minor.

Hydro:

You should talk to an electrical engineer. I do not have any information with respect to the location of the Hydro service to the Bylaw Building, it may conflict with the Addition.

Follow up with City Infrastructure regarding servicing concept.

Richard Buchanan has confirmed that the City has no issues with the proposed servicing of the addition.



INNOVATION CENTRE - BAYVIEW YARDS - COURTYARD ADDITION

<u>Cost Code</u>	<u>Description</u>	<u>Firm Name</u>	<u>Bayview Yards March 12, 2019 - R1</u>
			8,525
<u>Permits, Insurance & Bonding</u>			
00000	Building Permit - \$8.14/1000	City of Ottawa	\$22,827
00201	Bonding	AON	\$21,032
00204	Liability Insurance	AON	\$4,206
00205	Builders Risk Insurance	AON	\$3,365
	Sub-total		\$51,431
<u>Division 1 - Site Overhead</u>			
00001	Site General Expenses	Morley Hoppner	\$226,768
01038	Security Guard	N/A	\$0
01048	Testing and Inspections	Morley Hoppner	\$2,000
01050	Winter Conditions	Summer Project - N/A	\$0
01070	Disbursements	Morley Hoppner	\$1,500
	Sub-total		\$230,268
<u>Division 2 - Sitework</u>			
02050	Demolition	N/A	\$0
02060	Cutting & Patching	Morley Hoppner	\$2,000
02069	Tree Removal	Included in Excavation	\$0
02220	Excavation & Backfill	Morley Hoppner	\$73,000
02225	Interior Mechanical Trenching	Morley Hoppner	\$2,000
02350	Shoring	N/A	\$0
02500	Asphalt Repairs & Line Painting	Morley Hoppner	\$21,000
02527	Concrete Curbs	Morley Hoppner	\$5,850
02528	Concrete Sidewalks	Morley Hoppner	\$15,000
02600	Mechanical Site Services	Morley Hoppner	\$65,100
02700	Site Electrical	Morley Hoppner	\$7,800
02832	Fencing - Chain Link Re & Re	Morley Hoppner	\$2,500
02900	Landscaping	Morley Hoppner	\$20,000
	Sub-total		\$214,250
<u>Division 3 - Concrete</u>			
03100	Formwork	Morley Hoppner	\$52,000
03200	Reinforcing Steel	Morley Hoppner	\$20,000
03250	Concrete Accessories	Morley Hoppner	\$12,000
03150	Concrete Hoisting	Morley Hoppner	\$2,000
03300	Concrete Supply	Morley Hoppner	\$36,000
03345	Concrete Finishing	Morley Hoppner	\$33,000
	Sub-total		\$155,000
<u>Division 4 - Masonry</u>			
04000	Masonry	Morley Hoppner	\$224,894
	Sub-total		\$224,894

1 Division 5 - Steel

05020	Speciality Metals	N/A	\$0
05000	Structural Steel & Miscellaneous Metals	Morley Hoppner	\$254,809
	Sub-total		<hr/> \$254,809

Division 6 - Wood & Plastics

06100	Rough Carpentry	Morley Hoppner	\$19,400
06220	Millwork	Morley Hoppner	\$5,500
	Sub-total		<hr/> \$24,900

Division 7 - Thermal & Moisture Protection

07100	Foundation Drainage Board & Damproofing	N/A	\$0
07190	Blueskin	Morley Hoppner	\$12,000
07212	Foundation Rigid Insulation	Morley Hoppner	\$2,200
07215	Spray Foam Insulation	Morley Hoppner	\$2,500
07250	Spray Applied Fireproofing	Morley Hoppner	\$22,343
07270	Fire Stopping	Morley Hoppner	\$2,000
07400	Metal Siding	Morley Hoppner	\$20,000
07410	Roof Screens	Morley Hoppner	\$20,000
07510	Bituminous Roofing	Morley Hoppner	\$60,000
07641	Soffits	Morley Hoppner	\$17,280
07920	Caulking (Exterior)	Morley Hoppner	\$2,500
07977	Caulking (Interior)	Morley Hoppner	\$650
	Sub-total		<hr/> \$161,473

Division 8 - Doors & Windows

08100	Doors, Frames & Hardware	Morley Hoppner	\$24,000
08101	Installation of Doors & Hardware	Morley Hoppner	\$11,000
08520	Aluminum Doors & Frames	Morley Hoppner	\$225,000
08550	Temporary Exterior Window Protection	Morley Hoppner	\$2,500
08721	Auto Door Operators	Morley Hoppner	\$11,000
08840	Miscellaneous Glazing	Morley Hoppner	\$5,400
08811	Window Film	Morley Hoppner	\$1,500
	Sub-total		<hr/> \$280,400

Division 9 - Finishes

09000	Drywall Partitions & Ceilings	Morley Hoppner	\$200,000
09310	Ceramic Tile	Morley Hoppner	\$25,000
09690	Carpet Tile	Morley Hoppner	\$28,000
09900	Painting	Morley Hoppner	\$15,000
	Sub-total		<hr/> \$268,000

Division 10 - Specialties

10200	Louvres & Vents	By Mechanical	\$0
10800	Washroom Accessories	Morley Hoppner	\$7,800
	Sub-total		<hr/> \$7,800

Division 11 - Equipment

11000	Equipment	N/A	\$0
	Sub-total		<hr/> \$0

2 Division 12 - Furnishings

12000	Furnishings	N/A	\$0
12680	Foot Grille	Morley Hoppner	\$3,196
	Sub-total		<hr/> \$3,196
	<u>Division 14 - Conveying Equipment</u>		
14200	Elevators		\$120,000
14200	TSSA Elevator License	TSSA	By Elevator Supplier
14800	Temporary Elevator Scaffolding	Morley Hoppner	\$3,830
	Sub-total		<hr/> \$123,830
	<u>Division 15 - Mechanical</u>		
15400	Plumbing	Morley Hoppner/BPA	\$45,000
15500	HVAC	Morley Hoppner/BPA	\$205,000
15700	Sprinklers	Morley Hoppner/BPA	\$30,000
15970	Commissioning	Morley Hoppner	\$0
	Sub-total		<hr/> \$280,000
	<u>Division 16 - Electrical</u>		
16000	Electrical	Morley Hoppner/BPA	\$118,000
16002	Communication & Data Cabling - Base Building Only	Morley Hoppner/BPA	\$12,000
16004	Security and Card Access - Base Building Only	Morley Hoppner/BPA	\$10,000
00403	Hydro Ottawa Costs	Hydro Ottawa	\$0
	Sub-total		<hr/> \$140,000
00000	<u>Cash Allowance</u>		
	Disconnect, remove and relocate GROWCER Sea Container	Cash Allowance	\$15,000
	Sub-total		<hr/> \$15,000
	Sub Total Construction Costs		<hr/> \$2,435,250
	Inflation Rate - 3%		\$73,057
	Contingency - 7.5%		\$188,123
	Construction Management Fee - 4%		\$107,857
	<u>Total Hard Costs</u>		<hr/> <u>\$2,804,287</u>
	Building Area - 396m2 footprint = 792m2 both floors	Square Feet	8,525
	Cost per Square Foot		\$328.95

MORLEY HOPNER LIMITED
OVERHEAD SHEET
1905 Bayview - Courtyard Addition - 2-storey - 4,300sf/floor
Schedule - Draft - 18 week project (30 kms - 1 way trip = 60kms round trip)

	Description	#	Unit	Material per Unit	Labour per Unit	Material	Labour
STAFFING, MILEAGE & CELL PHONES							
Supervision - Full Time							
1001	Site Superintendant	18 weeks		\$0.00	\$4,000.00	0	72,000
1036	Travel Expenses	0 weeks		\$150.00	\$0.00	0	0
1047	Parking	0 days		\$18.00	\$0.00	0	0
1063	Supervision Mileage	0 km		\$0.59	\$0.00	0	0
Supervision Cell Phone							
1075	Monthly Bill - Local Project	6 months		\$200.00	\$0.00	1,200	0
1075	Long Distance to Office	0 months		\$100.00	\$0.00	0	0
1075	Long Distance to Consultants	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Owner	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Subcontractors	0 months		\$50.00	\$0.00	0	0
Assistant Supervision - Full Time							
1002	Site Superintendent	0 weeks		\$0.00	\$2,440.00	0	0
1036	Travel Expenses	0 weeks		\$150.00	\$0.00	0	0
1047	Parking	0 days		\$18.00	\$0.00	0	0
1063	Mileage	0 km		\$0.59	\$0.00	0	0
Assistant Supervision Cell Phone							
1075	Monthly Bill - Local Project	0 months		\$200.00	\$0.00	0	0
1075	Long Distance to Office	0 months		\$100.00	\$0.00	0	0
1075	Long Distance to Consultants	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Owner	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Subcontractors	0 months		\$50.00	\$0.00	0	0
Project Manager							
17915	Project Manager - 20% allocation allowance	5.2 weeks		\$0.00	\$3,800.00	0	19,760
1036	Travel Expenses	0 weeks		\$150.00	\$0.00	0	0
1047	Parking	0 days		\$18.00	\$0.00	0	0
1063	Project Manager Mileage	0 km		\$0.59	\$0.00	0	0
Project Manager Cell Phone							
1075	Monthly Bill - Local Project	3 months		\$200.00	\$0.00	600	0
1075	Long Distance to Office	0 months		\$100.00	\$0.00	0	0
1075	Long Distance to Consultants	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Owner	0 months		\$50.00	\$0.00	0	0
1075	Long Distance to Subcontractors	0 months		\$50.00	\$0.00	0	0
Project Coordinator							
0999	Project Coordinator	5.2 weeks		\$0.00	\$2,300.00	0	11,960
1036	Travel Expenses	0 weeks		\$150.00	\$0.00	0	0
1047	Parking	0 days		\$18.00	\$0.00	0	0
1063	Project Coordinator Mileage	500 km		\$0.59	\$0.00	295	0
Project Coordinator Cell Phone							
1075	Monthly Bill - Local Project	2 months		\$200.00	\$0.00	400	0
1075	Long Distance to Office	0 months		\$100.00	\$0.00	0	0
1075	Long Distance to Consultants	0 months		\$50.00	\$0.00	0	0

1075	Long Distance to Owner	0 months	\$50.00	\$0.00	0	0
1075	Long Distance to Subcontractors	0 months	\$50.00	\$0.00	0	0
	Labourers					
1042	Labourers	249.6 hours	\$0.00	\$48.00	0	11,981
1036	Travel Expenses	0 weeks	\$150.00	\$0.00	0	0
1047	Parking	0 days	\$18.00	\$0.00	0	0
1063	Labourers Mileage	936 km	\$0.59	\$0.00	552	0
1035	Trucking - Morley Hoppner					
1035	Trucking - Mileage	936 Km	\$0.75	\$0.00	702	0
1035	Trucking - Driver Hourly Rate	124.8 hours	\$0.00	\$45.00	0	5,616
1047	Parking	0 days	\$18.00	\$0.00	0	0
	Field Engineer					
1090	Field Engineer - Call Engineering for a fee	0 days	\$0.00	\$760.00	0	0
1071	Site Photographs				0	0
1037	Flagmen	0 hours	\$0.00	\$50.00	0	0
1038	Watchmen	0 hours	\$0.00	\$65.00	0	0
	Parking Tickets					

1047	Parking Tickets	0 tickets	\$60.00	\$0.00	0	0
	TEMPORARY SITE OFFICE & COMPUTERS					
1004	Small Trailer - Delivery & Pickup	1 delivery	\$275.00	\$140.00	275	140
1004	Block, Level & Unblock	1 trailer	\$170.00	\$0.00	170	0
1003	Monthly Rental	5 months	\$320.00	\$0.00	1,600	0
	Medium Trailer - Delivery & Pickup	0 delivery	\$290.00	\$140.00	0	0
1004	Block, Level & Unblock	0 trailer	\$170.00	\$0.00	0	0
1003	Monthly Rental	0 months	\$410.00	\$0.00	0	0
	Large Trailer - Delivery & Pickup	0 delivery	\$350.00	\$140.00	0	0
1004	Block, Level & Unblock	0 trailer	\$200.00	\$0.00	0	0
1003	Monthly Rental	0 months	\$510.00	\$0.00	0	0
1003	Trailer Steps (2 sets of stairs)	5 months	\$65.00	\$65.00	325	325
1077	On Site Site Office Inside Building - up & down	0 lump sum	\$500.00	\$1,760.00	0	0
1045	Field Office Furniture	1 lump sum	\$500.00	\$500.00	500	500
1077	Field Office Demobilization	1 lump sum	\$100.00	\$280.00	100	280
1078	Field Office Supplies	5 months	\$100.00	\$0.00	500	0
	Site Phone					
1006	Phone Line Connection Fee	0 install	\$650.00	\$0.00	0	0
1006	Phone Line Installation Cost	0 install	\$450.00	\$0.00	0	0
1005	Monthly Bill - Local Project	0 months	\$200.00	\$0.00	0	0
1005	Long Distance to Office	0 months	\$200.00	\$0.00	0	0
1005	Long Distance to Consultants	0 months	\$50.00	\$0.00	0	0
1005	Long Distance to Owner	0 months	\$50.00	\$0.00	0	0
1005	Long Distance to Subcontractors	0 months	\$50.00	\$0.00	0	0
1005	Internet line	5 months	\$85.00	\$0.00	425	0
	Site Office Computer					
1049	Computer Purchase / Maintenance / Software	5 months	\$65.00	\$0.00	325	0
1049	Grade A / Maestro Monthly Cost	5 months	\$90.00	\$0.00	450	0

	Head Office Phone						
1072	Monthly Bill - Long Distance to Site	0 months	\$200.00	\$0.00	0	0	
1072	Long Distance to Consultants	0 months	\$50.00	\$0.00	0	0	
1072	Long Distance to Owner	0 months	\$50.00	\$0.00	0	0	
1072	Long Distance to Subcontractors	0 months	\$50.00	\$0.00	0	0	
	Drawings & Disbursements						
1070	Drawings for Contract Purposes	10 sets	\$50.00	\$0.00	500	0	
1070	Photocopying - Small project	0 month	\$12.00	\$0.00	0	0	
1070	Photocopying - Large project	5 month	\$50.00	\$0.00	250	0	
1074	AS-Built Drawings and Manuals	1 lump sum	\$150.00	\$0.00	150	0	
	Deficiencies						
1067	Small Project	1 lump sum	\$100.00	\$560.00	100	560	
1067	Large Project	0 lump sum	\$200.00	\$1,120.00	0	0	
1089	Courier costs	5 months	\$50.00	\$0.00	250	0	
	MISCELLANEOUS PURCHASES						
1034	Miscellaneous Purchases						
1034	Small Project	5 month	\$250.00	\$0.00	1,250	0	
1034	Large Project	0 month	\$500.00	\$0.00	0	0	
1079	Tool & Tool Maintenance						
1079	Small Project	5 months	\$100.00	\$0.00	500	0	
	TEMPORARY PHONE LINES						
	Phone Line for Elevator (Interim cost until turnover)						
1505	Installation	1 L.S.	\$0.00	\$0.00	0	0	
1505	Monthly costs	5 months	\$0.00	\$0.00	0	0	
	Phone Line for Transformer (Interim cost until turnover)						
1505	Installation	0 L.S.	\$0.00	\$0.00	0	0	
1505	Monthly costs	0 months	\$0.00	\$0.00	0	0	
	TEMPORARY DRINKING WATER						
	Temporary Water						
1016	Plumbing Connection Charge	0 connect	\$300.00	\$0.00	0	0	
1015	City of Ottawa Weekly Rental	0 weeks	\$30.00	\$0.00	0	0	
	Drinking Water						
1086	Water Cooler Rental	5 months	\$8.50	\$0.00	43	0	
1086	Water Cooler Jugs	18 weeks	\$13.00	\$0.00	234	0	

	TEMPORARY SITE STORAGE						
	Site Storage Container - 8' x 8' x 30'						
1094	Delivery & Pick Up	1 lump sum	\$360.00	\$0.00	360	0	
1094	Monthly Rental	5 months	\$125.00	\$0.00	625	0	
1094	Delivery Truck Float Charge - Abrams - 2018	8 hours	\$0.00	\$135.00	0	1,080	

	TEMPORARY WASHROOMS						
1007	Existing Washroom Use - Cleaning - Weekly	0 weeks	\$0.00	\$250.00	0	0	
1007	Existing Washroom Use - Supplies - Toilet Paper	0 rolls	\$1.25	\$0.00	0	0	
1007	Existing Washroom Use - Supplies - Paper Towel	0 rolls	\$1.75	\$0.00	0	0	
	Temporary Sanitary Facility (1 for every 15 workers)						
1007	Delivery & Pickup	1 each	\$50.00	\$0.00	50	0	
1007	Monthly Rental - Regular Unit - Non Winter	5 month	\$250.00	\$0.00	1,250	0	
1007	Monthly Rental - Regular Unit - Winter Unit	0 month	\$265.00	\$0.00	0	0	
1007	Monthly Rental - Crane Unit - Winter Unit	0 month	\$285.00	\$0.00	0	0	
1007	Extra Clean (One clean a week is included in Rental)	0 each	\$30.00	\$0.00	0	0	
1007	Winter Brine Charge	0 month	\$26.50	\$0.00	0	0	
	TEMPORARY POWER & LIGHTING						
	Temporary Power (Lump Sum Only)						
1009	Ottawa Hydro Design & Connection Fee	0 connect	\$1,500.00	\$0.00	0	0	
1010	Connect Site Trailer	0 install	\$750.00	\$0.00	0	0	
1010	Provide Temporary Panels to the Site	2 install	\$750.00	\$0.00	1,500	0	
1010	Provide Power to Tower Crane	0 install	\$1,500.00	\$0.00	0	0	
1010	Relocate Temporary Panels	0 Relocations	\$140.00	\$0.00	0	0	
1011	Hydro Pole - Supply, Install & Remove	0 poles	\$900.00	\$0.00	0	0	
1010	Hydro Monthly Charge - Small Project	5 months	\$1,000.00	\$0.00	5,000	0	
1010	Hydro Monthly Charge - Large Project	0 months	\$2,000.00	\$0.00	0	0	
	Temporary Lighting (Lump Sum Only)						
1012	Building	1 install	\$1,000.00	\$1,500.00	1,000	1,500	
1013	Site	1 install	\$750.00	\$750.00	750	750	
1014	Covered Walk	1 install	\$750.00	\$750.00	750	750	
	ENBRIDGE GAS						
1058	Enbridge Gas Disconnection Costs	0 L.S. up to		\$5,000.00	0	0	
	CLEANING REQUIREMENTS						
1028	Interim Cleaning - Weekly - One Person	18 weeks	\$50.00	\$360.00	900	6,480	
1029	Final Cleaning	32 hours	\$0.00	\$45.00	0	1,440	
1030	Street Cleaning	1 lump sum	\$750.00	\$0.00	750	0	
	UTILITY LOCATES - Private Property Locates						
1085	Small Project	0 lump sum	\$275.00	\$0.00	0	0	
1085	Large Project	1 lump sum	\$750.00	\$0.00	750	0	
	LEGAL SURVEY AND IN HOUSE LAYOUTS						
1017	Layout by Own Forces	1 days	\$25.00	\$280.00	25	280	
1018	OLS Property Layout	0 layout	\$1,000.00	\$0.00	0	0	
1018	OLS Building Layout for Excavation	1 layout	\$1,500.00	\$0.00	1,500	0	
1018	OLS Layout Footings in Excavation	1 layout	\$1,000.00	\$0.00	1,000	0	
1018	OLS Layout Foundation Walls on Footings	1 layout	\$1,200.00	\$0.00	1,200	0	
1018	OLS Parking Lot & Sitework Layout	0 layout	\$2,500.00	\$0.00	0	0	

1019	OLS As-Built Foundation Survey	1 survey	\$2,500.00	\$0.00	2,500	0
1046	Transit & Level Rental	0 months	\$350.00	\$0.00	0	0
	TEMPORARY PROTECTION OF EXISTING					
1020	Temporary Doors	0 doors	\$150.00	\$140.00	0	0
1020	Temporary Windows	0 windows	\$150.00	\$140.00	0	0
1021	Hoarding (Price based on 1,200ft)	1 lump sum	\$2,500.00	\$2,800.00	2,500	2,800
1021	Dismantle Hoarding	1 lump sum	\$0.00	\$1,400.00	0	1,400
1026	Temporary Stair Treads (in Steel Stairs)	20 flights	\$20.00	\$35.00	400	700
1220	Temporary Roof Protection	4 openings	\$500.00	\$560.00	2,000	2,240
1024	Temporary Dust Protection	0 days	\$150.00	\$280.00	0	0
9965	Temporary Flooring Protection	0 lump sum	\$0.00	\$0.00	0	0
15505	Temporary HVAC Filters	0 L.S.	\$0.00	\$0.00	0	0

1903	Temporary Access Roads	0 L.S.	\$0.00	\$0.00	0	0
	CONSTRUCTION SITE FENCING - 100 meters bayview = 330 feet					
1022	Site Fencing - 10' Lengths					
1022	Delivery & Return	1 l.s	\$170.00	\$0.00	170	0
1022	Install & Dismatle	330 ln.ft	\$1.00	\$0.00	330	0
1022	Monthly Rental	5 months	\$0.45	\$0.00	743	0
1022	Monthly Admin Fee	5 months	\$6.85	\$0.00	34	0
1022	Fuel Surcharge / 1 Time Per Contract	1 l.s.	\$37.70	\$0.00	38	0
1022	Mesh (Incl. Delivery, Set-Up & Takedown)	0 ln.ft	\$1.00	\$0.00	0	0
1022	Maintain Fencing	26 weeks	\$15.00	\$105.00	0	2,730
	Snow Fencing					
1022	Fencing - 4' high snow fence	0 lin ft	\$0.75	\$0.00	0	0
1022	Fencing - 6' high snow fence	0 lin ft	\$1.45	\$0.00	0	0
1022	"T" Posts - 8'-0" long	0 posts	\$9.70	\$0.00	0	0
	FALL & OVERHEAD PROTECTION					
	Covered Walk Hoarding	0 lin ft				
1023	Scaffold, plydecks, poly, 3/4" ply on roof	0 month	\$1,200.00	\$0.00	0	0
1023	Delivery & return	0 L.S.	\$150.00	\$0.00	0	0
1023	Erection & dismantle	0 L.S.	\$3,700.00	\$0.00	0	0
	Temporary Safety Railings - "Slab Grab" = 88m = 288 feet	0 each per floor				
1025	Monthly Slab Clamp Rental	1 months	\$136.80	\$0.00	137	0
1025	Monthly 10'-0" Fence Rental	1 month	\$172.80	\$0.00	173	0
1025	Mainting Railings	1 weeks	\$0.00	\$70.00	0	70
	Temporary Safety Railings					
1025	Fencing - 3'-6" high x 5'-7" long	0 months	\$2.50	\$0.00	0	0
1025	Fencing - 3'-6" high x 10'-1" long	0 months	\$5.00	\$0.00	0	0
1025	Spring posts - 8' to 9' long	0 months	\$2.00	\$0.00	0	0
1025	Spring posts - 9' to 10'-6" long	0 months	\$2.00	\$0.00	0	0

1025	Maintain Railings	0 weeks		\$0.00	\$70.00	0	0
1025	Elevator entrance guards	0 floors		\$50.00	\$140.00	0	0
1025	Temporary Safety Railings - 3 rail wood guards around Mezz	0					
1025	Wood Safety Rails - 8 foot sections - 3 rail w 3 posts	56 linear feet		\$2.88	\$6.88	160	383
1025	Wood Safety Rails - Dismantle	56 linear feet		\$0.00	\$3.44	0	193
1025	Temporary Bump Lines - Posts @ 8 feet on centre						
1025	Bump Lines - Wood Posts by MHL - 296 meters = 971	0 feet		\$2.63	\$6.25	0	0
1025	Above is build, set up, dismantle, including rope/posts	INFO	INFO	\$0.00	\$0.00	0	0
	WASTE DISPOSAL						
1027	Garbage Boxes - All Sizes	10 boxes			\$950.00	0	9,500
	Garbage Chute						
1043	Delivery (To & From Jobsite)	0 lump sum		\$0.00	\$300.00	0	0
1043	Installation (Based on 6 Stories)	0 install		\$0.00	\$1,500.00	0	0
1043	Removal (Based on 6 Stories)	0 removal		\$0.00	\$975.00	0	0
1043	Monthly Rental (Based on 6 Stories)	0 months		\$965.00	\$0.00	0	0
	PERMITS AND FEES						
1031	Encroachment Fees - Neighbouring Private Property	0 lump sum		\$0.00	\$0.00	0	0
1031	City of Ottawa Encroachment Permit	0 lump sum		\$0.00	\$0.00	0	0
1032	City of Ottawa Sidewalk Rental Fees	0 lump sum		\$0.00	\$0.00	0	0
1032	City of Ottawa Road Rental Fees	0 lump sum		\$0.00	\$0.00	0	0
1033	Construction Lien Advertisement-Gov not Req'd	1 Ad		\$350.00	\$0.00	350	0
0181	Noise Permits	0 months		\$100.00	\$0.00	0	0
	SAFETY REQUIREMENTS						
1097	Safety Consultant						
1097	Monthly Inspection Cost - 4 hour visit - 1 visit per week	18 weeks		\$340.00	\$0.00	6,120	0
1097	Parking	0 days		\$18.00	\$0.00	0	0
1044	First Aid Supplies	6 months		\$10.00	\$0.00	60	0
1068	Weekly Safety Meetings	18 weeks		\$15.00	\$15.00	270	270
1084	Site Meetings Materials	18 weeks		\$15.00	\$15.00	270	270
1083	Site Safety Signage	18 weeks		\$0.00	\$0.00	0	0

1080	Fire Extinguishers - Temporary	4 units	\$150.00	\$25.00	600	100
1082	Personal Protective Equipment	5 months	\$50.00	\$0.00	250	0
1082	Safety Equipment	0 lump sum	\$0.00	\$0.00	0	0
1091	Temporary Access Stairs	1 stairs	\$3,500.00	\$0.00	3,500	0
1040	Project Signs	0 signs	\$0.00	\$0.00	0	0
1039	Temporary Road Barricades	0 lump sum	\$0.00	\$0.00	0	0
	EQUIPMENT RENTALS & TOOL MAINTENANCE					
1041	Pumping	0 weeks	\$0.00	\$0.00	0	0
14400	Man & Material Hoists - YSB Hoist - 613-229-1584					
14400	Delivery	0 L.S.	\$0.00	\$0.00	0	0
14400	Erection & Dismantle	0 L.S.	\$0.00	\$0.00	0	0
14400	Monthly Rental	0 months	\$0.00	\$0.00	0	0
	Example - 175 Carruthers - 2018 - 19 Floors - 12 Months	lump	\$0.00	\$125,290.00		
1066	Fan & Dehumidifier Rental	0 weeks	\$0.00	\$0.00	0	0
	TESTING & INSPECTIONS					
1048	Testing & Inspections	0 lump sum	\$0.00	\$0.00		In Budget
1050	WINTER CONDITIONS					
1053	Tarping & Framing	0 weeks	\$1,000.00	\$2,240.00		
1055	Propane	0 weeks	\$1,000.00	\$560.00		
1057	Natural Gas	0 weeks	\$1,000.00	\$280.00		
1055	Cylinder Storage Fencing - Monthly	0 month	\$48.60	\$280.00		
1055	Cylinder Storage Fencing - Season	0 season	\$172.80	\$1,120.00		
1054	Unit Heater Rental	0 season	\$0.00	\$0.00		20,000
1056	Central Heater Rental	0 season	\$0.00	\$0.00		
1066	Fan & Dehumidifier Rentals	0 weeks	\$100.00	\$70.00		
1059	Snow Removal	0 weeks	\$20.00	\$560.00		
1059	Snow Removal Contract	0 season	\$1,000.00	\$0.00		
1058	Gas Connection Costs	0 season	\$0.00	\$0.00		
	ELEVATOR TSSA					
1506	TSSA Fees					
1506	TSSA License Fee for Elevator	1 L.S.	\$120.00	\$0.00	120	0
1506	Rough Carpentry hoarding around 2 elevator stops	1 L.S.	\$880.00			880
					49,830	176,938
	TOTAL OVERHEAD					226,768

Schedule 2 – Financial Analysis

a. Scenario 1

15 Year Loan - 5% Vacancy							
	2020	2021	2022	2023	2024	2025	2026
Revenues	\$40,833	\$590,398	\$876,286	\$899,700	\$923,916	\$948,963	\$974,873
Operating Costs	\$0	\$148,615	\$198,153	\$204,098	\$210,221	\$216,527	\$223,023
Administration Costs	\$0	\$32,250	\$44,290	\$45,619	\$46,987	\$48,397	\$49,849
Life Cycle Reserve	\$0	\$31,500	\$43,260	\$44,558	\$45,895	\$47,271	\$48,690
Interest Cost	\$63,713	\$186,321	\$177,294	\$164,361	\$151,428	\$138,494	\$125,561
Amortization of Fitup (25 Years)	\$0	\$120,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Expenses	\$63,713	\$518,686	\$622,998	\$618,635	\$614,530	\$610,690	\$607,123
Net Income Impact	(\$22,880)	\$71,712	\$253,289	\$281,064	\$309,386	\$338,273	\$367,750
Cash Flow	(\$22,880)	\$55,462	\$234,172	\$264,574	\$295,601	\$327,275	\$359,622
Principal Repayment	\$0	\$200,000	\$266,667	\$266,667	\$266,667	\$266,667	\$266,667
Loan Balance - at Y/E	\$3,163,713	\$3,800,630	\$3,533,913	\$3,267,196	\$3,000,479	\$2,733,762	\$2,467,045
Debt Service Coverage Ratio		1.14	1.53	1.61	1.71	1.81	1.92
IRR	9.5%						
NPV of cash flows (25 years)	\$6,292,753						

Schedule 2 – Financial Analysis

b. Scenario 2 – Recommended

25 Year Mortgage - 5% Vacancy							
	2020	2021	2022	2023	2024	2025	2026
Revenues	\$86,833	\$590,398	\$876,286	\$899,700	\$923,916	\$948,963	\$974,873
Operating Costs	\$0	\$129,294	\$159,808	\$164,602	\$169,540	\$174,626	\$179,865
Administration Costs	\$0	\$35,833	\$44,290	\$45,619	\$46,987	\$48,397	\$49,849
Life Cycle Reserve	\$0	\$31,500	\$43,260	\$44,558	\$45,895	\$47,271	\$48,690
Interest Cost	\$138,375	\$134,750	\$130,996	\$127,109	\$123,083	\$118,914	\$114,596
Amortization of Fitup (25 Years)	\$0	\$120,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Expenses	\$138,375	\$451,378	\$538,354	\$541,887	\$545,505	\$549,208	\$553,000
Net Income Impact	(\$51,542)	\$139,020	\$337,932	\$357,813	\$378,411	\$399,755	\$421,873
Cash Flow	(\$153,466)	\$153,471	\$388,629	\$404,622	\$421,195	\$438,370	\$456,170
Principal Repayment	\$101,924	\$105,549	\$109,303	\$113,191	\$117,217	\$121,386	\$125,703
Mortgage Balance - at Y/E	\$3,898,076	\$3,792,527	\$3,683,224	\$3,570,033	\$3,452,816	\$3,331,430	\$3,205,727
Debt Service Coverage Ratio		1.64	2.62	2.68	2.75	2.82	2.90
IRR	10.2%						
NPV of cash flows (25 years)	\$5,486,192						
Annual per Seat Rate	\$ 7,210						

Schedule 2 – Financial Analysis

Scenario 3 License Rate reduction by 45%, 25-Year Mortgage

25 Year Mortgage - 5% Vacancy - License Rate Reduction by 45%							
	2020	2021	2022	2023	2024	2025	2026
Revenues	\$86,833	\$395,789	\$609,024	\$624,420	\$640,378	\$656,919	\$674,067
Operating Costs	\$0	\$116,365	\$159,808	\$164,602	\$169,540	\$174,626	\$179,865
Administration Costs	\$0	\$32,250	\$44,290	\$45,619	\$46,987	\$48,397	\$49,849
Life Cycle Reserve	\$0	\$31,500	\$43,260	\$44,558	\$45,895	\$47,271	\$48,690
Interest Cost	\$138,375	\$134,750	\$130,996	\$127,109	\$123,083	\$118,914	\$114,596
Amortization of Fitup (25 Years)	\$0	\$120,000	\$160,000	\$160,000	\$160,000	\$160,000	\$160,000
Expenses	\$138,375	\$434,865	\$538,354	\$541,887	\$545,505	\$549,208	\$553,000
Net Income Impact	(\$51,542)	(\$39,076)	\$70,670	\$82,533	\$94,873	\$107,711	\$121,067
Cash Flow	(\$153,466)	(\$24,625)	\$121,367	\$129,342	\$137,656	\$146,325	\$155,364
Principal Repayment	\$101,924	\$105,549	\$109,303	\$113,191	\$117,217	\$121,386	\$125,703
Mortgage Balance - at Y/E	\$3,898,076	\$3,792,527	\$3,683,224	\$3,570,033	\$3,452,816	\$3,331,430	\$3,205,727
Debt Service Coverage Ratio	-	0.90	1.51	1.54	1.57	1.61	1.65
IRR	2.9%						
NPV of cash flows (25 years)	(\$151,158)						
Annual per Seat Rate	\$ 4,071						

SCHEDULE 3

REQUEST FOR INTEREST

THE INNOVATION CENTRE AT BAYVIEW YARDS SEEKS AN OWNER'S REPRESENTATIVE / DEVELOPMENT MANAGER

At this time, the Innovation Centre at Bayview Yards (ICBY) is requesting indications of interest from qualified suppliers to act as Owner's Representative for an upcoming construction project. This call is being conducted in anticipation of approval from the Board of Directors and securing of financing. Final execution of agreements for this role are contingent on the previous two conditions being successfully achieved.

ICBY is a dynamic and energized hub that serves as basecamp for some of our greatest homegrown technology talent, capabilities and companies. It is the ultimate one-stop business acceleration shop and 'mash-up' of technical, business and market services, resources and expertise that helps entrepreneurs and companies launch, grow and thrive, and compete with anyone in the world.

Opened in December 2016, CBY has become an important focal point in the Region for entrepreneurs, investors, service providers, PSI's and the public sector to intersect and where incubation, acceleration, peer-to-peer networking, subject matter expertise, mentoring, and professional services are accessible in one dedicated and iconic building.

CBY operates an approximately 55,000 square foot facility that hosts incubation organizations, including Invest Ottawa, as well as government service providers such as the National Research Council's Industrial Research Assistance Program, the Ontario Centres of Excellence, Canada School for Public Sector, ISED Innovation Lab, Build Canada Innovation Program (BCIP) and CANSOFCOM staffs. Invest Ottawa is the anchor tenant with approximately 60% of the licensed space.

In order to manage anticipated demand in the 2-5-year range, and to bridge demand until CBY can proceed with participating in a broader development of a Phase 2 on the Bayview Lands site in the 5-10-year timeframe, ICBY is preparing to launch a project to build a 600SM addition to the main building at 7 Bayview Station Road.

The project is conceived to achieve:

- A look and feel complimentary to the main 7 Bayview heritage building.
- Accessibility for people with disabilities
- Environmental technology adoption consistent with the LEED Gold certification achieved by the main building
- High level of interaction among the tenant community

The project schedule currently projects the project starting in October 2019 and achieving building occupancy by end of Q1, 2021.

The approved preliminary design concept package is available [here](#).

Job Goal: Reporting to the VP-Infrastructure, the Owner's Representative/Development Manager would represent the Corporation's interests and manage all aspects related to the development of the CBY expansion, from initial community and stakeholder engagement and consultation, through to assembly of the consultant team, procurement of a construction contractor and ultimately oversight of the construction stage. The Owner's Representative/Development Manager is a single point of contact throughout the project.

Specific Responsibilities:

Although not a comprehensive list, the following indicates some specific responsibilities of the Owner's Representative/Development Manager:

- Establish community and stakeholder engagement framework and relationship development and facilitate public meetings
- Develop project performance specifications, including space program, sustainability targets that will result in the desired qualitative tone of the Innovation Hub
- Develop project master schedule and tracking/management methodology
- Regular reporting to Owner and key stakeholders
- Prepare all necessary procurement documents
- Negotiate contracts for consultants and contractors
- Liaise with Authorities Having Jurisdiction/Regulatory Authority
- Support Consultants in obtaining regulatory approvals in a timely manner
- Ensure design and construction are consistent with performance specifications
- Conduct risk analysis on a regular basis
- Coordinate good and ongoing communication between consultants and contractor
- Ensure timely processing of contractor submittals, request for information and change orders
- Review changes as submitted by contractor with Architect/Engineer and keep Owner informed
- Attend any necessary meetings as the Owner's Representative
- Review requests for payment and invoices and make recommendation to the Owner
- Manage project completion stage, including commissioning, training, move coordination, provision of as-built record drawings and operating and maintenance manuals and oversee the smooth transition to an operating building

Qualifications and Characteristics:

- Individual or firm with relevant experience and qualifications to administer the development of this type of facility, with a University Degree in either engineering or architecture
- A high level of integrity

- Ability to work in a collaborative and congenial manner
- A strong commitment to quality and best practices
- Minimum 10 years of experience as Owner’s Representative/Development Manager with the following aspects:
 - Coordinating multiple stakeholders and tenants – public and private sector, profit and non-profit, and manage competing stakeholder interests
 - Community engagement and facilitation
 - Knowledge of LEED certification standards for sustainable design and construction
 - Establishment of performance specifications and project specific proposal evaluation criteria for consultants and contractors
 - Diverse project procurement expertise including conventional design/bid/build, construction management and design/build
 - Contract negotiation
 - Liaison with authorities having jurisdiction with respect to infrastructure and servicing development, brown field development and development planning
- Ability to develop business plans and financial plans
- Experience managing cash flows up to or exceeding \$4 million
- Developing and adhering to budgets and schedules
- Proven ability to negotiate and advocate on behalf of the Owner
- Ability to communicate in written and verbal format
- Excellent planning, organization and record keeping skills
- Computer literacy in Microsoft Word and Project, and Excel
- Ability to read architectural and engineering drawings and compare the information to work in place as construction progresses
- Experience in working with and supporting business development and marketing groups
- Bilingualism is an asset

Start date: effective October 15, 2019, subject to approval by the Board of Directors and confirmation of financing.

We will accept applications from individuals or firms.

Our candidate has a sense of commitment to the mission of the organization and willingness to listen carefully and work collaboratively.

Compensation will be commensurate with experience

Please respond with covering letter and resume to:

Manager@thebayviewyards.com

Candidates should include three references for similar projects where they have acted as the owner’s representative or project manager including the project name, client name and contact, project description and project value with their submissions.