Executive Summary

Given that more Canadians than ever before are living in auto-dependent suburban environments, sustainable suburban development has become a critical planning issue. Planners should identify and analyze suburban neighbourhoods that reflect more sustainable development and design. Garrison Crossing in Chilliwack, British Columbia, is one such neighbourhood, redeveloped on the former Canadian Forces Base (CFB) Chilliwack by the Canada Lands Company (CLC). The CLC is a self-financing Crown corporation that protects the Canadian public interest in terms of sustainable redevelopment and management of surplus federal land. Therefore, analysis of Garrison Crossing can reveal lessons for more sustainable suburban development and investigate the performance of this unique organization. This report analyzes the sustainability of Garrison Crossing relative to three comparable projects in the suburban British Columbia Lower Mainland: Bedford Landing in the Township of Langley and East Clayton and Rosemary Heights in the City of Surrey (Figure I).

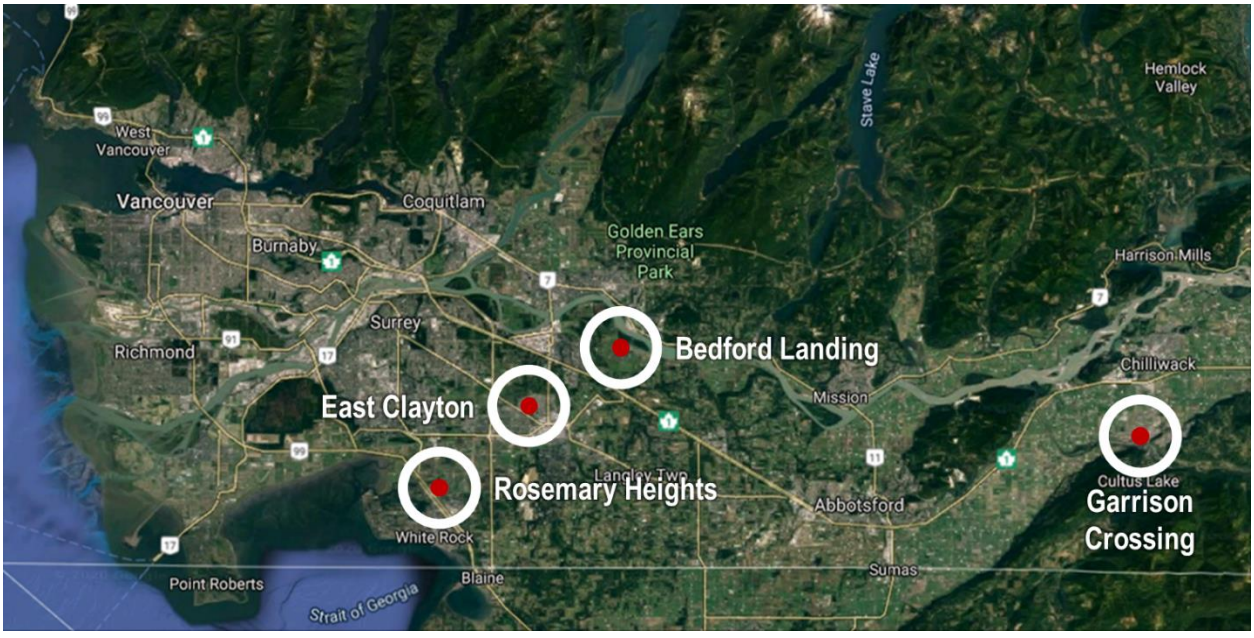

Figure I. Location of Each Neighbourhood

Garrison Crossing, Bedford Landing, East Clayton, and Rosemary Heights share similar geographic, historic, and design characteristics (Figure II). Each is located on the suburban fringe of Metro Vancouver, relatively isolated from the urban core and instead oriented toward local town centres. Additionally, residents of all four neighbourhoods report high automobile reliance. Each neighbourhood was developed from the late 1990s to late 2000s, meaning that similar practices, technologies, and design principles were available to practitioners. Of these, the most significant was new urbanism, a set of design priorities that influenced each neighbourhood. These include promotion of mixed uses and diverse housing types, reduction of surface parking, and emphasis on remarkable public space. The common context of each development allows for meaningful analysis and comparison of sustainable suburban development.

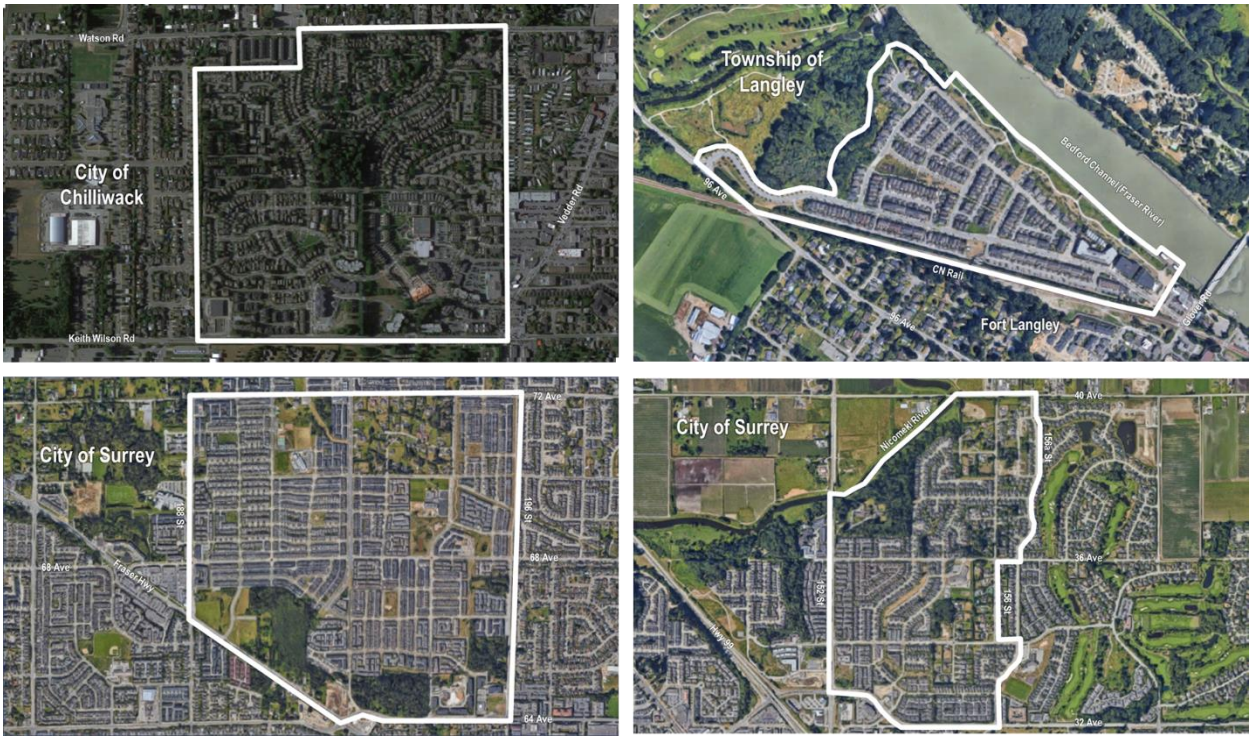

Figure II. Satellite Map of Each Neighbourhood: The four suburban neighbourhoods under analysis (clockwise from upper left: Garrison Crossing, Bedford Landing, Rosemary Heights, and East Clayton) share similarities regarding geography, development, and design.

To analyze the relative sustainability of Garrison Crossing, this report utilizes modified criteria of Leadership in Energy and Environment Design for Neighbourhood Development (LEED-ND), a quantitative, point-based system for evaluating the neighbourhood sustainability. Criteria were selected and modified to ensure the feasibility of sustainable development and design analysis. According to modified LEED-ND analysis based on relevant criteria and sustainability indicators, Garrison Crossing is more sustainable than Bedford Landing, East Clayton, and Rosemary Heights (Table I), earning 36 of 44 possible points.

Table I. Neighbourhood Scorecard: Based on analysis involving 13 modified LEED-ND criteria, Garrison Crossing is more sustainable than the three comparable projects.

Criteria	**Possible Points**	**Garrison Crossing**	**Bedford Landing**	**East Clayton**	**Rosemary Heights**
Preferred Locations	5	5	0	0	0
Access to Quality Transit	7	7	1	7	7
Bicycle Network	2	2	2	1	1
Walkable Streets	9	8	8	6	4
Compact Development	6	1	0	1	0
Mixed-Use Neighbourhoods	4	3	2	1	1
Housing Types	3	3	1	3	1
Reduced Parking Footprint	1	1	1	1	1
Connected and Open Community	2	1	2	2	0
Access to Civic and Public Spaces	1	1	1	1	1
Access to Recreation Facilities	1	1	0	0	0
Tree-Lined and Shaded Streetscapes	2	2	2	2	2
Neighbourhood Schools	1	1	1	1	1
Total	**44**	**36**	**21**	**26**	**19**

Having analyzed the relative sustainability of Garrison Crossing according to modified LEED-ND criteria, the findings of this report are summarized in six critical recommendations

(Figure III). In addition to summarizing the analytical conclusions of this research, these recommendations offer guidance for more sustainable development in the suburban context.

Figure III. Recommendations: Concluding recommendations of this research.

Based on modified LEED-ND analysis, this research concludes that Garrison Crossing is more sustainable than three comparable projects in the British Columbia Lower Mainland. Though Garrison Crossing underperforms in certain criteria, CLC has created a suburban development that achieves more sustainable development and design. With more Canadians moving to suburban environments, the sustainability of these neighbourhoods could be maximized if planners in these contexts consider the lessons of Garrison Crossing.