

October 6, 2021

**ITEM 1.1**

TO: Facilities Planning Committee

FROM: J. David Green, Secretary-Treasurer  
John Dawson, Director of Educational Planning**RE: Long-Term Investment Plan (LTIP)***Reference to Strategic Plan:**Goal 4: Provide effective leadership, governance and stewardship**Objectives: Effectively utilize school district resources and facilities**Support effective communication, engagement and community partnerships*

Attachment - Long-Term Investment Plan (LTIP)

**INTRODUCTION:**

This report is a follow up to the report presented at the June 14, 2021 meeting of the Facilities Planning Committee (Agenda Item 4.4 Capital Plan Bylaw No. 2021/22-CPSD39-01) which referred to the second Capital Plan Response Letter the District received in May 2021 asking for the development of Long-Term Investment Plan (LTIP). This report is for information.

**BACKGROUND:**

In the June report, the committee was informed the provincial government requested that Ministry Staff in the Resource Management Branch review the District's [2020 Long Range Facilities Plan](#) (LRFP), approved the Vancouver School Board in January 2021 and provide a report to support the business case for capital investments prioritized by the Board in the [2022-23 Five-Year Capital Plan Submission](#) (Item 4.5). Additionally, Ministry staff requested to work alongside the District to develop a LTIP that '*incorporates information from the recently approved Long Range Facilities Plan information, seismic priorities, partnerships, public use of facilities and enrolment changes in communities, including Olympic Village*'.

**RATIONALE FOR THE LONG-TERM INVESTMENT PLAN:**

The LTIP report is intended to support the capital investment priorities set out in the [2022-23 Five-Year Capital Plan Submission](#) (5 YCP) by highlighting and contextualizing information in the [District Long-Range Facilities Plan \(LRFP\)](#). In particular, the LTIP details the planning methodology used by the District to identify priorities for capital investment set out in the 5YCP in alignment with the mandate of the provincial Seismic Mitigation Program (SMP) which is to provide seismically safe schools to accommodate students as quickly and as cost effectively as possible. As the LTIP is a supplemental tool to communicate

the road map to work towards the strategic goals in the District Long Range Facilities Plan, it will be appended to the LRFP.

In recognition of the unique challenges and opportunities facing the VSB, the LTIP serves the broader purpose of providing a framework to enhance equitable access to licensed childcare spaces in the Vancouver School District in conjunction with the SMP. The proposed school at the Olympic Village site stands out as an opportunity to address enrolment pressure in the area and provide space for 0-5 age daycare, and school age care at a single site. Further, as the LTIP evolves it will support a more systematic approach to reviewing opportunities that emerge from the VSB Land Asset Management strategy that align with affordable housing objectives of the government and the City of Vancouver.

## PROCESS

Senior District and Ministry staff have formally met several times to discuss the development of the LTIP with the common purpose of advancing the VSB Capital Program. The District has found these discussions to be productive in defining the scope, content, and overall approach to developing the LTIP. Further discussions have occurred on a weekly basis between the Director of Educational Planning and the Regional Director for Capital Projects. Both series of discussions have provided an opportunity for exploration of the zonal planning methodology used to prioritize requests for capital investment by government and a fuller discussion of ideas and opportunities to maximize public benefit from investments that advance the capital plan in Vancouver.

## LTIP FRAMEWORK

The LTIP is developed in alignment with priorities set out in the 5YCP. The report contains seven detailed case studies that provide supporting zonal context and analysis for project requests prioritized in the Capital Plan and projects that have advanced to the feasibility stage in the capital plan approval process.

**Figure 1 - List of Schools with Zonal Case Studies in LTIP**

School Name	Capital Plan Status
David Thompson	Supported
Grenfell	Supported
Mackenzie	Prioritized in Year 1
Renfrew	Prioritized in Year 1
Waverley	Prioritized in Year 2
Emily Carr	Prioritized in Year 2
School at Olympic Village	Prioritized in Year 1

Each existing school is in a zone where over 60% of the capacity is not seismically safe and there is insufficient capacity at safe schools adjacent to the zone to accommodate all students in safe schools. In addition to providing seismically safe capacity, a new school at the Olympic Village site provides an opportunity to address local enrolment growth, persistent kindergarten waitlists, and demand for daycare and school age childcare within a single project.

## SUMMARY

- In collaboration with Ministry of Education staff, District staff have developed a Long Term Investment Plan which is aligned with priorities set out in the [2022-23 Five-Year Capital Plan Submission](#) (5 YCP)
- The Long-Term Investment Plan report is intended to support the capital investment priorities set out in the (5 YCP) by highlighting and contextualizing information in the [District Long-Range Facilities Plan \(LRFP\)](#).
- Senior District and Ministry staff have formally met several times to discuss the development of the LTIP with the common purpose of advancing the VSB Capital Program.
- Once submitted to the Ministry of Education, it will be appended to the Long Range Facilities Plan on the District website.

## RECOMMENDATION

This report is for information only.

## Long Term Investment Plan – Capital Planning Overview

### **LTIP Purpose**

The Long-Term Investment Plan report is intended to support the capital investment priorities set out in the [2022-23 Five-Year Capital Plan Submission](#) (5 YCP) by highlighting and contextualizing information in the [District Long-Range Facilities Plan \(LRFP\)](#). In particular, the LTIP details the planning methodology used by the District to identify priorities for capital investment set out in the 5YCP in alignment with the mandate of the provincial Seismic Mitigation Program (SMP) which is to provide seismically safe schools to accommodate students as quickly and as cost effectively as possible.

In recognition of the unique challenges and opportunities in the VSB, the LTIP serves the broader purpose of providing a framework to enhance equitable access to licensed childcare spaces in the Vancouver School District in conjunction with the SMP. The proposed school at the Olympic Village site stands out as an opportunity to address enrolment pressure in the area and provide space for 0-5 daycare, and school age care at a single site. Further, as the LTIP evolves it will support a more systematic approach to reviewing opportunities that emerge from the VSB Land Asset Management strategy that align with affordable housing objectives of the government and the CoV. To that end, the District has initiated conversation with BC Housing in anticipation of future opportunities for using VSB land deemed surplus by the Board to provide space for affordable housing projects. Regulations governing the disposition of school board property, provide a 90-day review period that enables all government ministries and agencies to negotiate a sale or leasing arrangement with the school board. Soon, the disposition process for the south end of the Fleming site will provide the opportunity for government to undertake a review of this site for its potential to advance government priorities.

Finally, the LTIP also re-enforces the partnership between the Ministry and the VSB with the shared responsibility to provide safe and modern schools for the delivery of high quality educational programs, recognizing that the government funds capital programs including the seismic mitigation program and the school expansion program.

### **Capital Planning Process**

The VSB benefitted from the large number of Project Approvals in response to our 2017/18 and 2018/19 Capital Plan Request Submissions. In light of the significant advancement of the SMP during this timeframe, the District reviewed and updated the methodology used to prioritize capital projects for the 2020-21 Capital Plan Request Submission, adopting a zonal approach in alignment with Ministry planning methodology, and ensuring that the business case for priorities identified in the Capital Plan were supported by the LRFP.

## Elementary and Secondary SMP

The SMP functions differently for secondary and elementary schools. Figure 1 shows a comparison of considerations for elementary and secondary seismic mitigation projects.

**Figure 1 Considerations for elementary and secondary seismic mitigation projects**

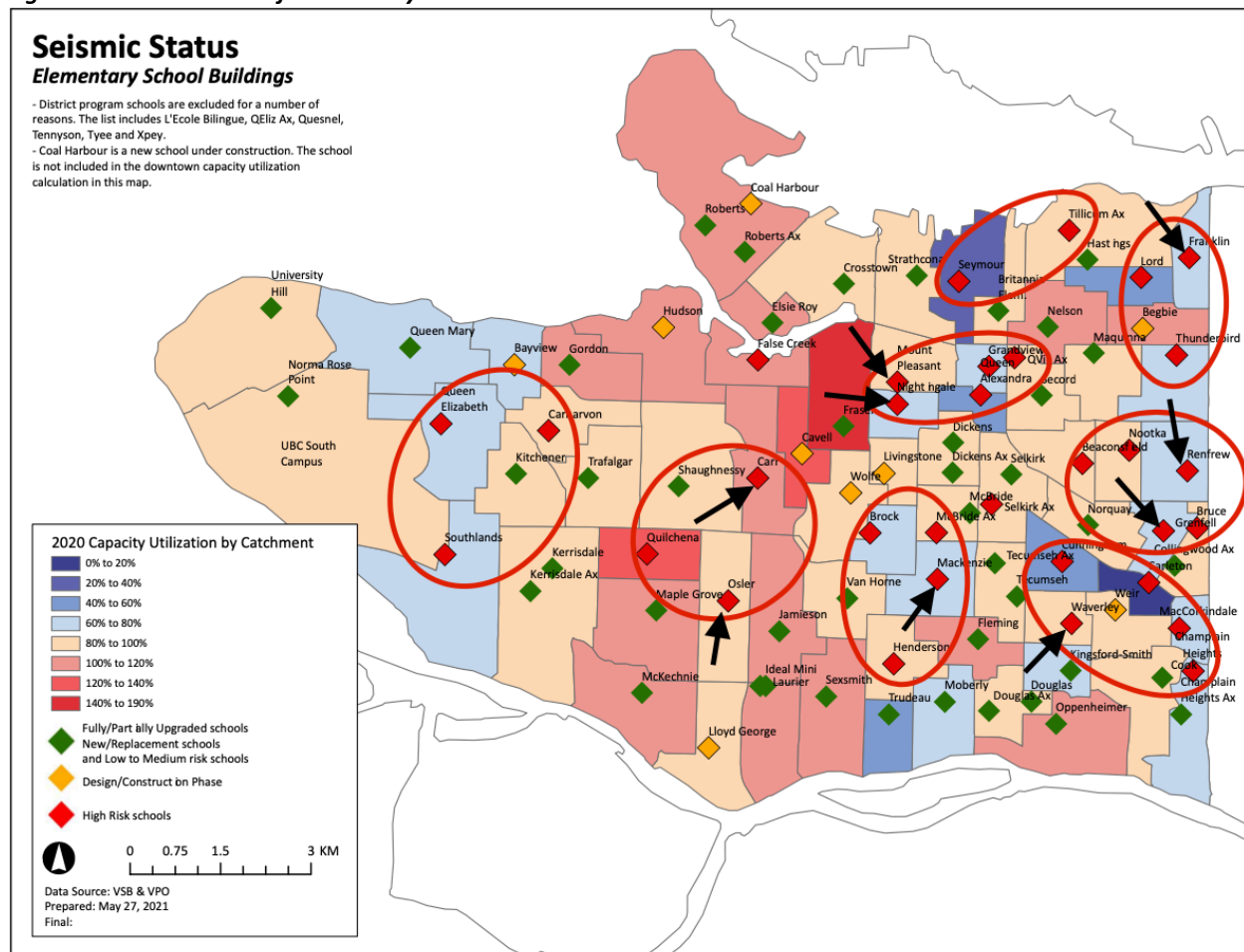
Consideration	Secondary	Elementary
Approval Process	Some supported projects may not be funded	Supported projects are generally funded.
Timeline	7 – 9 years from feasibility to occupancy.	5 – 6 years from feasibility to occupancy
Costs	Range \$90-\$120M	Range \$20- \$40 M
Procurement	Design-Build or Construction Management	Design – Bid – Build or Construction Management
Temporary Accommodation	Single site required to move students offsite	Challenging but feasible, more options available
Educational Programming	Comprehensive programming - sustaining educational programming options requiring specialty spaces is a primary concern	Less requirement for specialty spaces

## VSB Elementary Seismic Mitigation Program

The SMP has progressed to a point where there are discrete zones in the District that contain clusters of elementary schools that are not yet seismically safe. Many of these zones have overall low-capacity utilization.

Figure 2 shows elementary catchment boundaries overlaid with colors that identify the capacity utilization of the catchment school, or combined capacity utilization of the school and the annex where appropriate. The red ovals identify zones that have been studied to determine the priorities for funding requested in the 2022-23 capital plan submission. The black arrows point at schools that have been supported in the SMP or identified as priorities in years 1-3 of the capital plan submission.

**Figure 2 Seismic Status of Elementary Schools**



The Seismic Status chart, above, does not show the following schools which have the District as their catchment: Quesnel, Queen Elizabeth Annex, Tennyson, L'Ecole Bilingue, Tyee, Xpey' and Douglas Annex. All of these schools are seismically safe apart from Xpey' which has not been prioritized in the capital plan.

The District systematically uses seven criteria in conjunction with local knowledge to identify capital investment priorities in each zone for schools that are most essential to meet the long-term educational programming needs of the District.

**Figure 3 Considerations for elementary and secondary seismic mitigation projects**

Criteria	Description
High Seismic Risk Factor	Statistic - % High risk X Enrolment
Geographic Location is Essential	Geographic accessibility or isolation
Capacity	Prioritizing schools that have sufficient capacity to accommodate students from nearby schools that are not seismically safe
Forecast CU is high	Forecast Capacity Utilization % is high (2025)
Capacity of Surrounding Schools	Assessment of safe capacity in surrounding schools to receive students
Availability of TA	Temporary Accommodation site is available
Limited Scope	Potential for MOE support due to limited scope

In the process of developing the capital plan through detailed zonal analysis consensus has formed about some key planning principles that will move the SMP forward in a way that is cost effective and meets the educational programming goals and operational goals for facilities the District set out in the LRFP. These principles are set out below:

- Replacement schools are the preferred option for most SMP projects
- Capacity should be retained at elementary schools prioritized for investment
- Capital investment from the Board is required to achieve preferred SMP project outcomes

Apart from the zone containing Carr, Quilchena, and Osler, the remaining zones in Figure 2 above are characterized by overall low-capacity utilization of all the schools within the zone. In the past there may have been an emphasis on capacity utilization at a single school as the essential consideration to support the business case for capital investment. Now, by using the seven factors in Figure 3 the District has prioritized the schools in each zone that are most essential for the long-term educational programming needs of the District. The District recognizes that the mandate of the SMP is to provide safe schools to accommodate VSB students and that some schools may not be funded for seismic upgrades within this mandate. By retaining capacity at schools advanced in the SMP - even those that currently have low-capacity utilization - the overall number of projects requiring government investment may be reduced maintaining the cost effectiveness and time efficiency of the program. For example, if there is a requirement of 1500 seats within a zone to accommodate students at safe schools, it would be more cost effective and time efficient to fund three schools with capacity for 500 students than 5 schools with capacity for 300 students. In the past, the process of 'right-sizing' has, in nearly all instances resulted in less capacity at the replacement school than the existing building. The zonal approach to project identification and prioritization is premised on the general principle of retaining the necessary capacity at identified sites to accommodate all students at safe schools in the future.

Retaining capacity demonstrates resilient planning in the SMP by providing options for the future to accommodate demographic change that has not been anticipated.

The LTIP provides the project rationale for six elementary schools in five study zones – Grenfell and Renfrew are in the same study zone.

**Figure 4 List of Schools studied in LTIP**

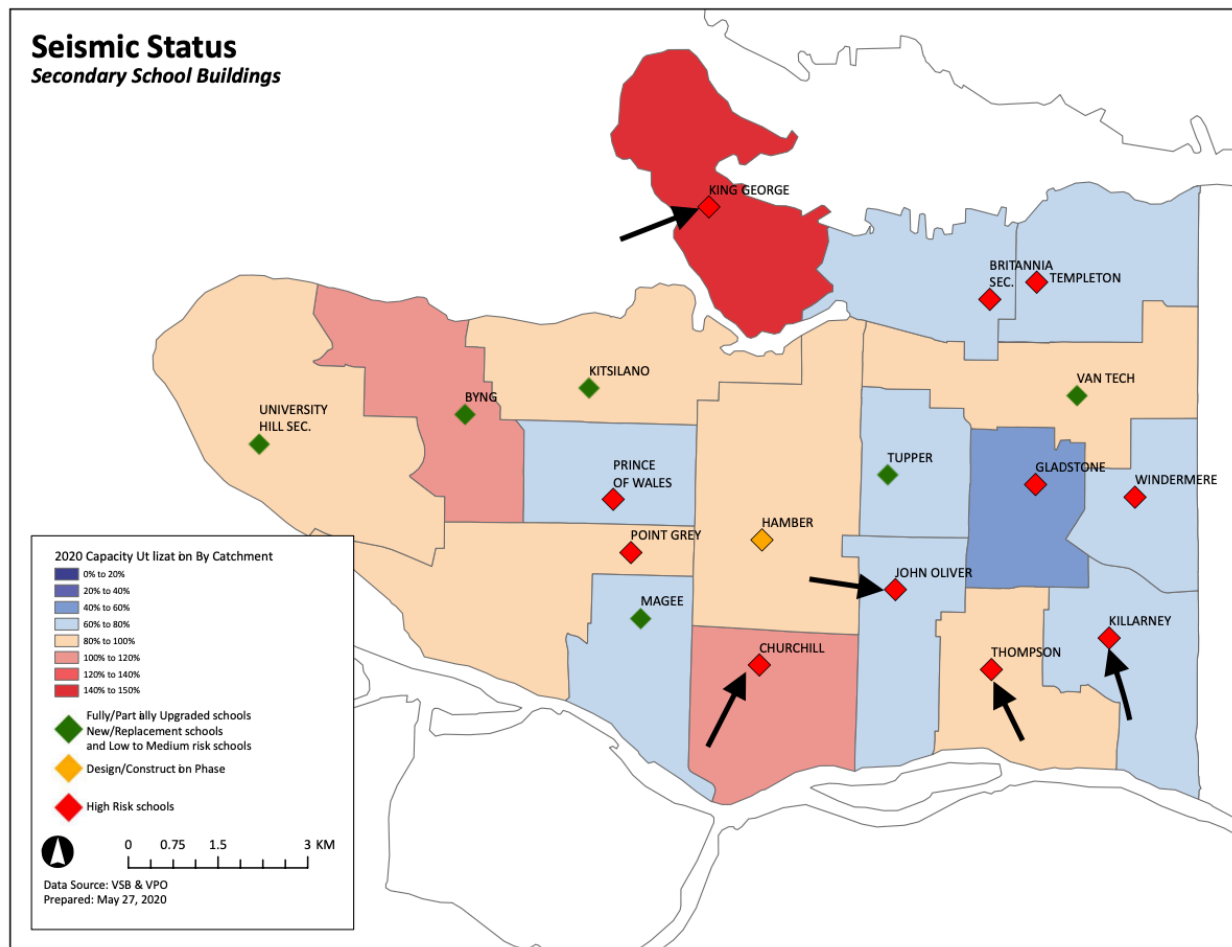
School Name	Capital Plan Status	Safe Operating Capacity in Zone
Grenfell	Supported	30%
Renfrew	Prioritized in Year 1	30%
Mackenzie	Prioritized in Year 1	23%
Waverley	Prioritized in Year 2	31%
Carr	Prioritized in Year 2	35%
Olympic Village	Prioritized in Year 1	33%

In all zones over 60% of the capacity is not seismically safe and there is insufficient capacity at safe schools adjacent to the zones to accommodate students in safe schools.

### **VSB Secondary Seismic Mitigation Program**

Figure 5 shows secondary catchment boundaries overlaid with colors that identify the capacity utilization of the catchment school. The black arrows point at schools that have been supported in the SMP or identified as priorities in years 1-3 of the capital plan submission.

**Figure 5 Seismic Status of Secondary Schools**



Overall, the SMP is not as advanced for secondary schools as elementary schools. Eleven of eighteen schools are at high seismic risk. There are two safe schools east of main street. Since the inception of the VPO in 2014, Kitsilano has been completed and Hamber is now in the construction phase. David Thompson and Killarney are supported in the SMP. Using the seven criteria outlined in Figure 3 above, the District has prioritized capital investment for schools that are most essential to meet the long-term educational programming needs of the District.

The LTIP provides the project rationale for David Thompson located in the Southeast region of the District where currently there is no seismically safe capacity.

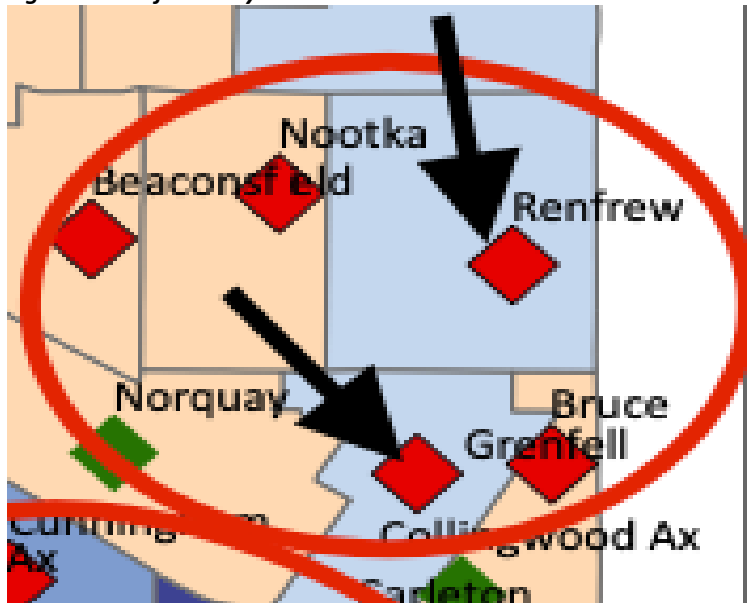
## Zonal Studies

### Grenfell Study Zone Identification

The 5 high-risk schools in the Grenfell zone are somewhat functionally isolated from schools to the South of Kingsway which is a major arterial road. The Grandview highway is another major arterial road to the North, with a light industrial area immediately adjacent to this roadway on

its north side. Schools to the West of this zone, Secord, Selkirk, and Tyee are seismically safe, but are operating at or near capacity and cannot accommodate additional students from the Grenfell zone. Burnaby is to the East.

**Figure 6 Grenfell Study Zone**



Grenfell is a supported project in the SMP and Renfrew is a prioritized project in year 1 of the capital plan.

#### **Planning Assumption**

- *In consideration of its location and district enrolment dynamics, schools in the Grenfell Study zone can be considered together and in isolation from other surrounding schools outside the zone.*
- *Grenfell is supported in the SMP*

#### **Grenfell Study Zone Seismically Safe Capacity**

Figure 7 combines the information that is the standard basis for evaluation of the business case for projects funded through the SMP.

**Figure 7 Seismically Safe Capacity and Enrolment – Grenfell Study Zone**

School Name	Seismic Program Status	CP Priority	NC	OC	Enr 2020	2020 Cu	Enr 2030	2030 Cu
<b>Grenfell</b>	Supported	Supported	540	489	378	77%	288	59%
<b>Renfrew</b>	Unsupported	Year 1	685	620	473	76%	437	70%
<b>Bruce</b>	Unsupported	n/a	340	308	247	80%	258	84%
<b>Collingwood</b>	Completed	Completed	215	176	141	80%	138	78%
<b>Norquay</b>	Completed	Completed	830	752	631	84%	596	79%
<b>Nootka</b>	Unsupported	n/a	560	507	409	81%	413	81%
<b>Beaconsfield</b>	Unsupported	Year 4	315	285	242	85%	238	83%
<b>Total</b>			<b>3485</b>	<b>3137</b>	<b>2521</b>	<b>80%</b>	<b>2368</b>	<b>75%</b>

Two of seven schools in the Grenfell study zone are seismically safe. Grenfell is supported project in the SMP, and Renfrew which is the largest remaining high-risk school is prioritized in year 1 of the Capital Plan to maximize the potential for seismically safe seats provided through the SMP.

### Planning Assumption

- *Both Grenfell and Renfrew are essential to accommodate VSB students at seismically safe schools for the long term.*

Figure 8 presents analyses by which the available seismically safe capacity in the zone can be understood. If the capacity utilization of the seismically safe schools in the zone were maximized a total of 160 additional students could be accommodated at Collingwood Annex and Norquay. In this scenario 37% of all students in the Grenfell study zone would attend a seismically safe school. At present 31% of students attend a seismically safe school.

**Figure 8 Seismic Safety Analysis**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	30%
Seismically Safe OC	Safe OC/Total OC	30%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	31%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	31%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	37%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	39%

### Planning Assumption

- *Without further capital investment there is and will be insufficient seismically safe capacity available in the Grenfell study zone to accommodate over 60% of students in a seismically safe school*

### Future Scenario A – Grenfell Advances in the SMP

The preferred option in the current Grenfell PDR is a partial upgrade of the existing main school building and the demolition of a wood frame building on site. The wood frame building has three classrooms, one of which is a dedicated Strong Start Center (SSC). In this scenario the final nominal capacity of the school will be 465, which corresponds to an operating capacity of 422. Figure 9 shows a Seismic Safety Analysis for the zone with a partial upgrade completed at Grenfell.

### Planning Assumption

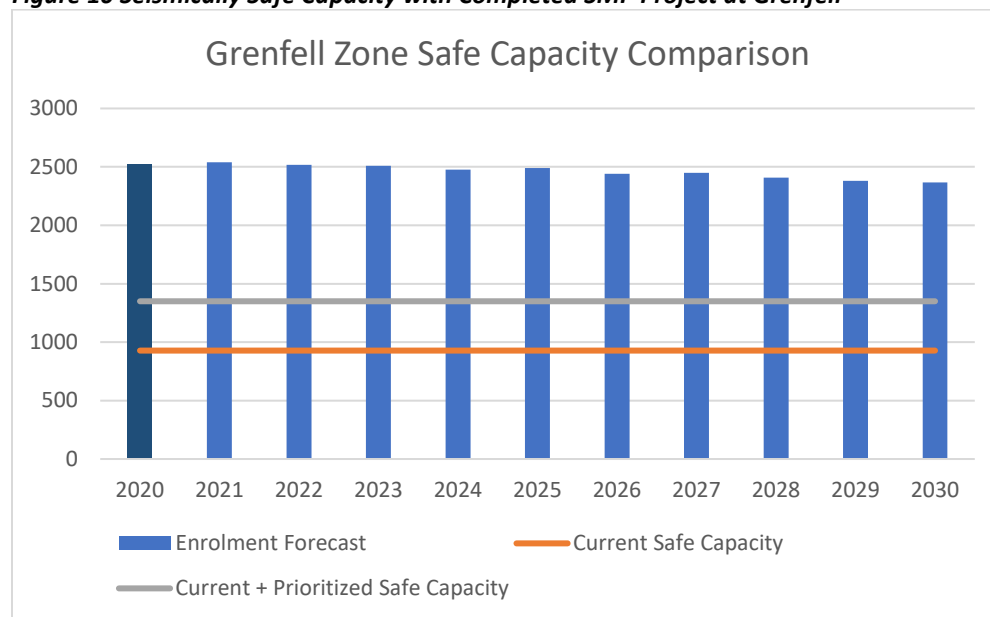
- *The NC and OC of Grenfell will be reduced as an outcome of the SMP.*

**Figure 9 Seismic Safety Analysis with Completed SMP Project at Grenfell**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	43%
Seismically Safe OC	Safe OC/Total OC	43%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	46%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	43%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	54%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	57%

Approximately 57% of the enrolment forecast for 2030 (Baragar Baseline) will have access to a seismically safe school in the Grenfell zone when the SMP project for Grenfell advances to completion.

**Figure 10 Seismically Safe Capacity with Completed SMP Project at Grenfell**



### Planning Assumption

- In this scenario Grenfell advances to completion through the SMP. With the safe capacity at Grenfell up to 57% of the 2030 forecast enrolment could be accommodated at seismically safe schools in the Grenfell study zone.

### Future Scenario B – Grenfell and Renfrew Advance to completion in the SMP

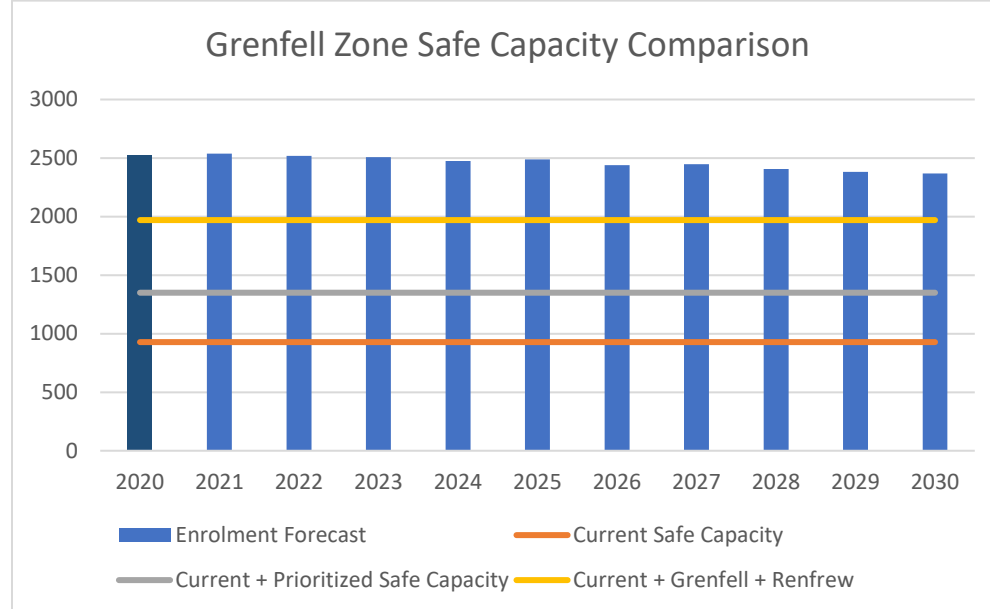
In this scenario Grenfell is seismically safe (NC = 465) and Renfrew is advanced in the SMP at its current capacity (NC = 685).

**Figure 11 Seismic Safety Analysis with Completed SMP Projects at Grenfell and Renfrew**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	63%
Seismically Safe OC	Safe OC/Total OC	63%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	64%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	62%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	78%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	83%

Approximately 83% of students in the Grenfell study zone will have access to a seismically safe school when the SMP projects for Grenfell and Renfrew advance to completion.

**Figure 12 Seismically Safe Capacity with Completed SMP Project at Grenfell and Renfrew**



### Planning Assumption

- *In this scenario Grenfell and Renfrew advances to completion through the SMP. With the safe capacity at Grenfell and Renfrew up to 83% of the 2030 forecast enrolment could be accommodated at seismically safe schools in the Grenfell study zone.*

### Summary

- At present, more than 60% of students cannot be accommodated in seismically safe schools in the Grenfell study zone.
- There is no surplus seismically safe capacity at schools surrounding the Grenfell study zone.
- Grenfell has been advanced to the feasibility stage in the SMP and has a completed PDR with a partial upgrade identified as the least cost and preferred option.
- Renfrew has been prioritized in year 1 of the 2022-23 Capital Plan submission.
- If both Grenfell and Renfrew were advanced to completion through the SMP about 83% of students would have access to seismically safe seats in the zone based on 2030 enrolment forecasts.

### Mackenzie Study Zone Identification

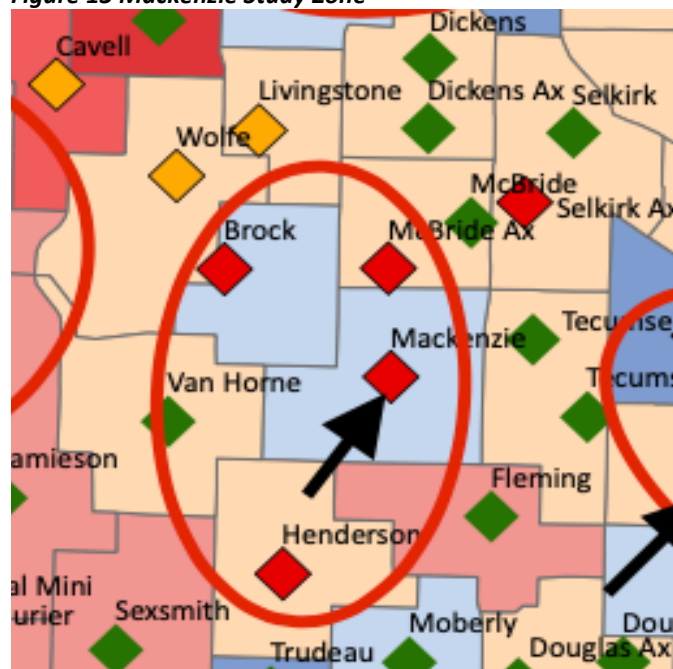
The Mackenzie study zone is centrally located in the District straddling Main Street. The zone includes the following elementary schools: Brock, Henderson, Mackenzie and Van Horne. Although McBride Annex is within the zone, it will not be considered in this analysis as McBride elementary is seismically safe and students at the McBride Annex could reasonably be accommodated at McBride elementary which is outside the zone. This study zone is not

geographically isolated and is surrounded by schools that are seismically safe, including many of which have some surplus capacity and are forecast to have additional surplus capacity in the future. Mackenzie elementary is the only school in the zone that is prioritized in the 5-year capital plan.

### Rationale for Prioritization of Mackenzie

Mackenzie has the largest capacity of schools in the Mackenzie study zone and is identified as H1 high seismic risk. There is insufficient seismically safe capacity at safe schools in adjacent catchments, McBride, Tecumseh, Fleming and Van Horne to accommodate students from Mackenzie. Retaining capacity at Mackenzie will provide cost efficient options to accommodate students from seismically unsafe schools within the Mackenzie zone that may not be funded for upgrades through the SMP.

**Figure 13 Mackenzie Study Zone**



Mackenzie is a prioritized project in year 1 of the 2022-23 capital plan.

### Planning Assumptions

- Due to its central location, size, and potential to facilitate advancement of the SMP Mackenzie has been prioritized in year 1 of the 5-year capital plan.

### Mackenzie Study Zone Seismically Safe Capacity

Figure 14 below combines the information that is the standard basis for evaluation of the business case for projects funded through the SMP.

**Figure 14 Seismically safe capacity at schools within the Mackenzie Study Zone**

School Name	Seismic Program Status	CP Priority	NC	OC	Enr 2020	2020 Cu	Enr 2030	2030 Cu
<b>Mackenzie</b>	Unsupported	Year 1	635	575	411	71%	345	60%
<b>Brock</b>	Unsupported	n/a	390	353	242	69%	280	79%
<b>Van Horne</b>	Completed	Completed	485	439	391	89%	385	88%
<b>Henderson</b>	Unsupported	n/a	610	552	460	83%	389	70%
<b>Total</b>			<b>2120</b>	<b>1919</b>	<b>1504</b>	<b>78%</b>	<b>1399</b>	<b>73%</b>

Currently, Van Horne elementary is the only seismically safe school within the study zone.

Figure 15 presents analyses by which the available seismically safe capacity in the zone can be understood. If the capacity utilization of the only seismically safe school in the zone – Van Horne - were maximized a total of 48 additional students could be accommodated at Van Horne. In this scenario 29% of all students in the Mackenzie study zone would attend a seismically safe school. At present 26% of students attend a seismically safe school.

**Figure 15 Seismically Safe Capacity in Mackenzie study zone**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	23%
Seismically Safe OC	Safe OC/Total OC	23%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	26%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	28%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	29%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	31%

### Planning Assumption

- *Without further capital investment there is and will be insufficient seismically safe capacity available in the Mackenzie study zone to accommodate about 70% of students in a seismically safe school*

### Seismically Safe Capacity at Surrounding Schools

As noted above there is surplus seismically safe capacity at some schools surrounding the Mackenzie study zone, and in some schools adjacent to the Mackenzie catchment. There is limited safe capacity to the West and North of the Mackenzie study zone, there is significant safe capacity to the East and South of the study zone. Current forecasts indicate that there will be

additional enrolment decline at several schools surrounding the study zone that will create additional safe surplus capacity in future years. However, as noted above, about 70% of students in the Mackenzie study cannot be safely accommodated within the zone, and there is insufficient safe capacity in schools surrounding the study zone to accommodate all students attending high risk schools within the study zone.

### **Future Scenario – Mackenzie Advances in the SMP**

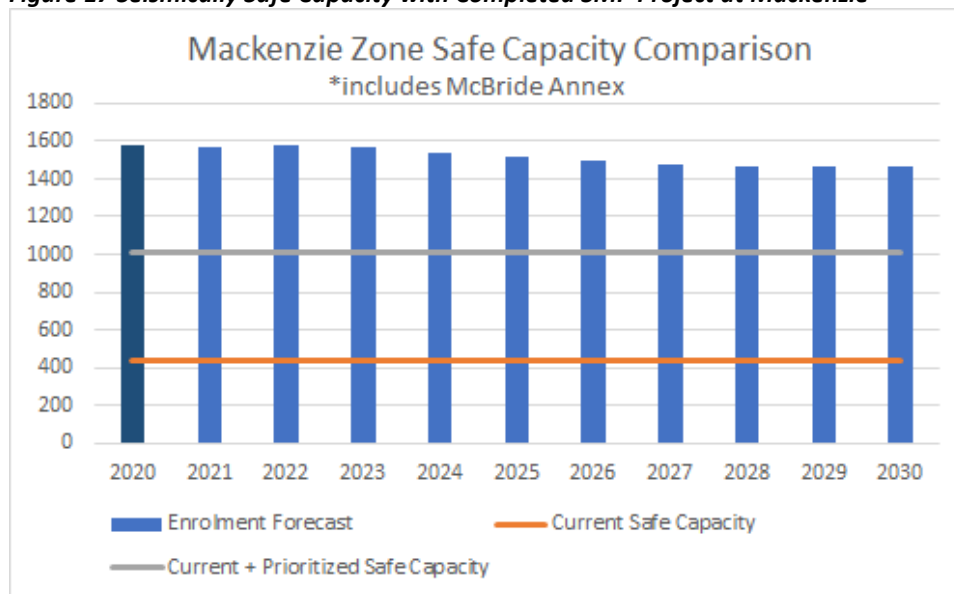
In this scenario, Mackenzie is upgraded or replaced at its current capacity (NC = 635, OC = 575) through the SMP.

**Figure 16 Seismic Safety Analysis with Completed SMP Projects at Mackenzie**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	53%
Seismically Safe OC	Safe OC/Total OC	53%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	53%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	52%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	67%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	72%

Approximately 72% of the enrolment forecast for 2030 (Baragar Baseline) will have access to a seismically safe school within the Mackenzie study zone if Mackenzie advances at its current capacity through the SMP.

**Figure 17 Seismically Safe Capacity with Completed SMP Project at Mackenzie**



#### Planning Assumptions

- *In this scenario Mackenzie advances at its current capacity to completion through the SMP. With the safe capacity at Mackenzie up to 72% of the 2030 forecast enrolment could be accommodated at seismically safe schools in the Mackenzie study zone.*
- *With the completion of Mackenzie, and additional safe capacity at surrounding the schools all students in the Mackenzie study zone would have the option of attending a seismically safe school.*

#### Summary

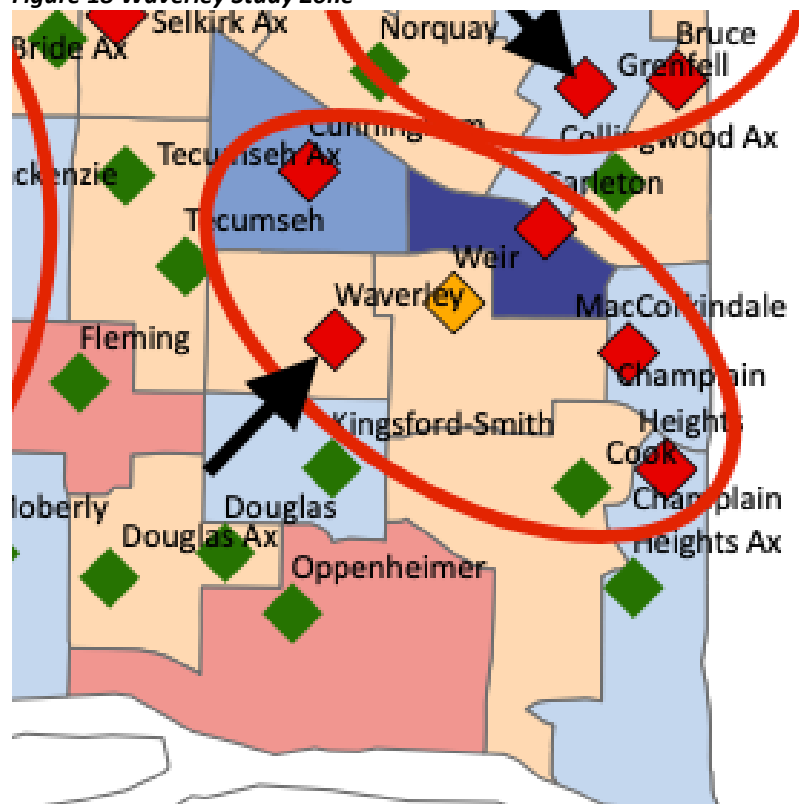
- At present, about 70% of students cannot be accommodated in seismically safe schools in the Mackenzie study zone.
- There is not enough surplus seismically safe capacity at schools surrounding the Mackenzie to accommodate students attending high risk schools within the Mackenzie study zone.
- Mackenzie has been prioritized in year 1 of the 2022-23 capital plan submission, and is the only school prioritized within this zone.
- If Mackenzie were advanced to completion through the SMP, about 72% of students would have access to seismically safe seats in the study zone based on 2030 enrolment forecasts.

## **Waverley Study Zone Identification**

The 4 high risk schools in the Waverley zone are somewhat functionally isolated from schools in the Grenfell study zone to the North. Kingsway which is a major arterial road that separates these two zones. Boundary road forms the eastern boundary of this zone with Burnaby to the East.

There is some surplus seismically safe capacity in schools to the west and south of the zone. The overall enrolment in the zone is forecast to remain stable. Kingsford-Smith and Fleming are forecast to have surplus safe capacity. Tecumseh also has some surplus capacity available that could be used to accommodate students from Tecumseh annex in the future. There is ongoing development in the River District (East Fraser Lands) which is contributing to enrolment at schools further South in the District such as Oppenheimer and Cook that are seismically safe but do not have surplus capacity and are forecast to remain full. Overall, there is insufficient safe capacity within the Waverley study zone and at schools surrounding the zone to accommodate students at safe schools.

**Figure 18 Waverley Study Zone**



Weir has advanced in the SMP and the new replacement school is currently under construction with occupancy scheduled for fall 2022. Weir is considered as a seismically safe school for this report. Waverley is prioritized in year 2 of the capital plan. There have been no students accommodated at the Carleton site for five years due to damage to the main school building

caused by the August 2016 fire. Therefore, the capacity at Carleton is not considered in the zonal analysis below.

### Planning Assumption

- *Due to its location, size, and potential to facilitate advancement of the SMP Waverley has been prioritized in year 2 of the 5-year capital plan.*

### Waverley Study Zone Seismically Safe Capacity

Figure 19 combines the information that is the standard basis for evaluation of the business case for projects funded through the SMP.

**Figure 19 Seismically Safe Capacity and Enrolment – Waverley Study Zone**

School Name	Seismic Program Status	CP Priority	NC	OC	Enr 2020	Cu 2020	Enr 2030	CU 2030
Waverley	Unsupported	Year 2	510	462	389	84%	371	80%
Cunningham	Unsupported		660	598	428	72%	398	67%
MacCorkindale	Unsupported	Year 4	490	444	275	62%	276	62%
Champlain Heights	Unsupported	Year 4	495	448	267	60%	277	62%
Cook	Completed		490	444	381	86%	479	108%
Weir	Construction		465	421	382	91%	303	72%
<b>Total</b>			<b>3110</b>	<b>2817</b>	<b>2122</b>	<b>75%</b>	<b>2104</b>	<b>75%</b>

With the completion of Weir two of the six schools in the Waverley study zone will be seismically safe. Waverley has the highest utilization of the remaining unsafe schools and is ideally located to maximize utilization of safe capacity in the zone.

### Planning Assumption

- *Waverley is essential to accommodate VSB students at seismically safe schools for the long term.*

Figure 20 presents analyses by which the available seismically safe capacity in the zone can be understood. If the capacity utilization of the seismically safe schools in the zone were maximized presently, a total of 63 additional students could be accommodated at Cook. When Weir is completed, 39 additional students could be accommodated at a safe school. In this scenario 41% of all students in the Waverley study zone would attend a seismically safe school. At present 36% of students attend a seismically safe school.

**Figure 20 Seismic Safety Analysis: Current**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	31%
Seismically Safe OC	Safe OC/Total OC	31%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	36%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	37%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	41%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	41%

### Seismically Safe Capacity at Surrounding Schools

Kingsford-Smith is located immediately to the south of the Waverley study zone. Currently there is about 112 surplus seats of unused safe capacity at this school. A similar amount is forecast to be available in the future with the understanding that this site may become an overflow site to accommodate some students from Cook as enrolment is forecast to exceed capacity at this school in the future. Even if surplus capacity at Kingsford-Smith were fully utilized fewer than 50% of the students in the Waverley study zone would be accommodated at a safe school. Continuing to maximize the utilization of Fleming in the future will also provide access to additional safe seats to the west of the Waverley zone.

### Planning Assumption

- *Without further capital investment, there will be insufficient seismically safe capacity available in the Waverley study zone to accommodate about 70% of students in a seismically safe school.*

### Future Scenario – Waverley Advances in the SMP

In this scenario, the Waverley is advanced in the SMP at its current capacity (NC = 510, OC = 462). Figure 21 shows a Seismic Safety Analysis for the zone with partial/full upgrades completed at Waverley.

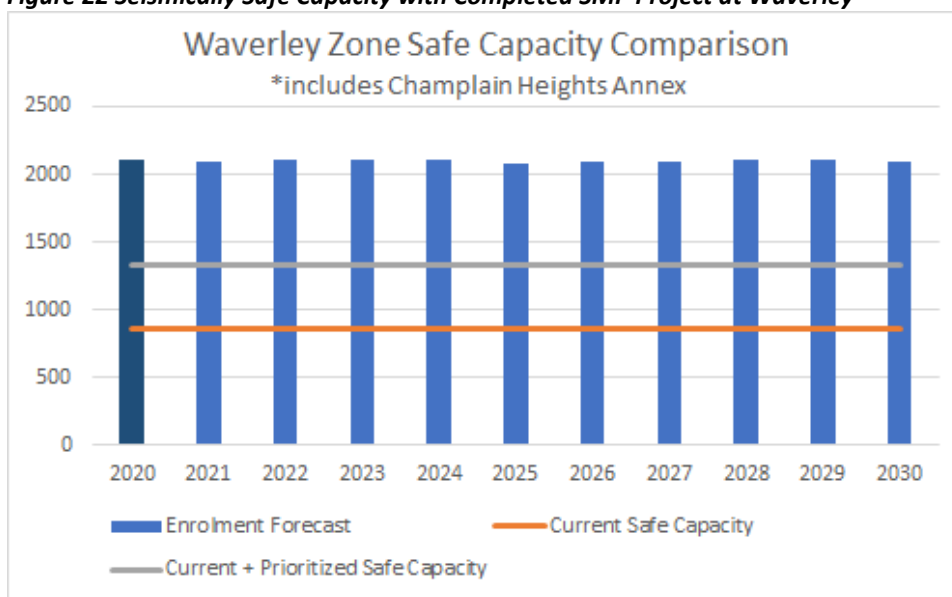
**Figure 21 Seismic Safety Analysis: with Completed SMP Project at Waverley**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	47%
Seismically Safe OC	Safe OC/Total OC	47%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	54%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	55%

Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	63%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	63%

Approximately 63% of the enrolment forecast for 2030 will have access to a seismically safe school in the Waverley zone when the SMP project for Waverley advances to completion. As noted above there will be some additional surplus safe capacity at schools adjacent to the Waverley zone.

**Figure 22 Seismically Safe Capacity with Completed SMP Project at Waverley**



### Summary

- At present, close to 70% of students cannot be accommodated in seismically safe schools in the Waverley study zone.
- There is some surplus seismically safe capacity at schools surrounding the Waverley study zone but it is insufficient to accommodate over 50% of students in the Waverley zone.
- Waverley has been prioritized in year 2 of the 2022-23 Capital Plan submission.
- MacCorkindale and Champlain Heights prioritized in year 4 of the 2022-23 Capital Plan submission.
- If Waverley were advanced to completion through the SMP, about 63% of students would have access to seismically safe seats in the zone based on 2030 enrolment forecasts.

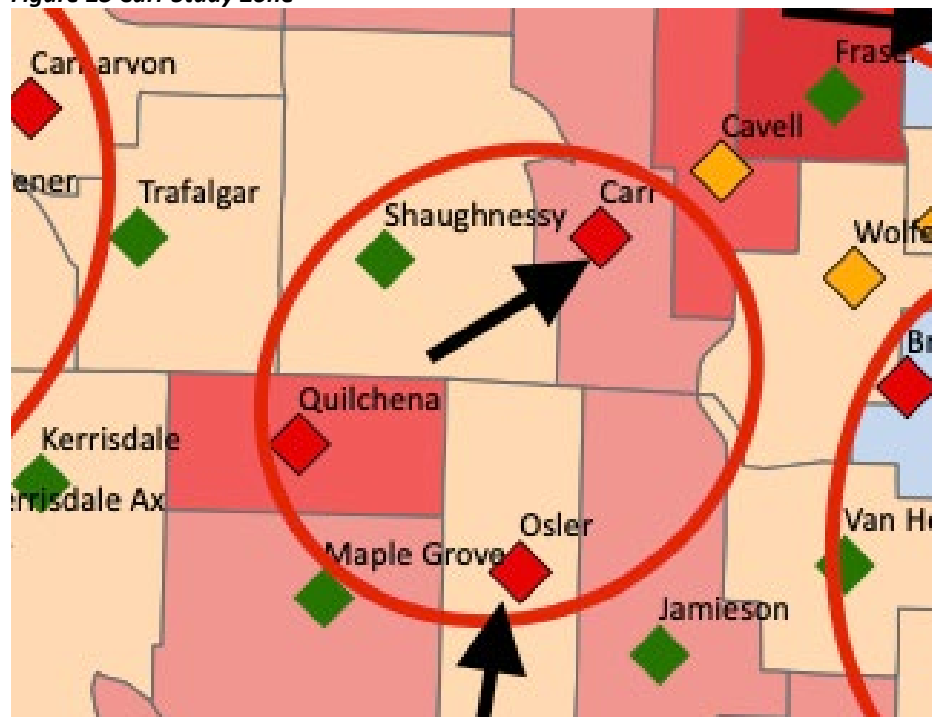
### Carr Study Zone Identification

There are three high risk schools in the Carr study zone. The overall capacity utilization in the zone is above 100%, schools in the Carr study zone have been operating either near or over the capacity for many years. Capacity utilization in this zone is forecast to remain high. Shaughnessy elementary is seismically safe and there are other seismically safe schools adjacent to the Carr study zone. Overall, there is minimal surplus seismically safe capacity at schools adjacent to Carr zone that could be used to accommodate students from within the zone.

### Rationale for Prioritization of Carr

Carr has been prioritized in the zone due to its high-capacity utilization, and location. The Carr catchment is located close to the Cambie corridor and Oak Street where further development may push enrolment demand above the baseline forecast in this report. Carr is also a suitable school to consider for expansion concurrently with a seismic mitigation project. An expansion at Carr would provide additional capacity in the zone to accommodate increased enrolment at Carr from future development, overflow from Fraser and overflow from False Creek.

**Figure 23 Carr Study Zone**



Carr is prioritized one in year 2 of the capital plan.

### Planning Assumption

- *In consideration of its central location, current and forecast enrolment pressure, and its high-capacity utilization Carr has been prioritized in year 2 of the 5-year capital plan.*

### Carr Study Zone Seismically Safe Capacity

Figure 24 combines the information that is the standard basis for evaluation of the business case for projects funded through the SMP.

**Figure 24 Seismically Safe Capacity and Enrolment – Carr Study Zone**

School Name	Seismic Program Status	CP Priority	NC	OC	Enr 2020	CU 2020	Enr 2030	CU 2030
<b>Carr</b>	Unsupported	Year 2	290	263	308	117%	303	115%
<b>Osler</b>	Unsupported	Year 3	315	285	250	88%	225	79%
<b>Quilchena</b>	Unsupported		265	240	321	134%	265	110%
<b>Shaughnessy</b>	Completed		465	421	403	96%	440	105%
<b>Total</b>			<b>1335</b>	<b>1209</b>	<b>1282</b>	<b>106%</b>	<b>1233</b>	<b>102%</b>

Figure 25 presents analyses by which the available seismically safe capacity in the zone can be understood. Currently, 31% of students from the zone attend a seismically safe school. Even if the capacity utilization of the only seismically safe school in the zone – Shaughnessy – were maximized, only a total of 19 additional students could have safe seats.

**Figure 25 Seismic Safety Analysis: Current**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	35%
Seismically Safe OC	Safe OC/Total OC	35%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	31%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	36%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	33%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	34%

### Planning Assumption

- *Without further capital investment, there will be insufficient seismically safe capacity available in the Carr study zone for nearly 70% of students.*

### Seismically Safe Capacity at Surrounding Schools

There is minimal surplus safe capacity at schools surrounding the Carr study zone to accommodate students from within the zone.

### Future Scenario A – Carr Advances in the SMP

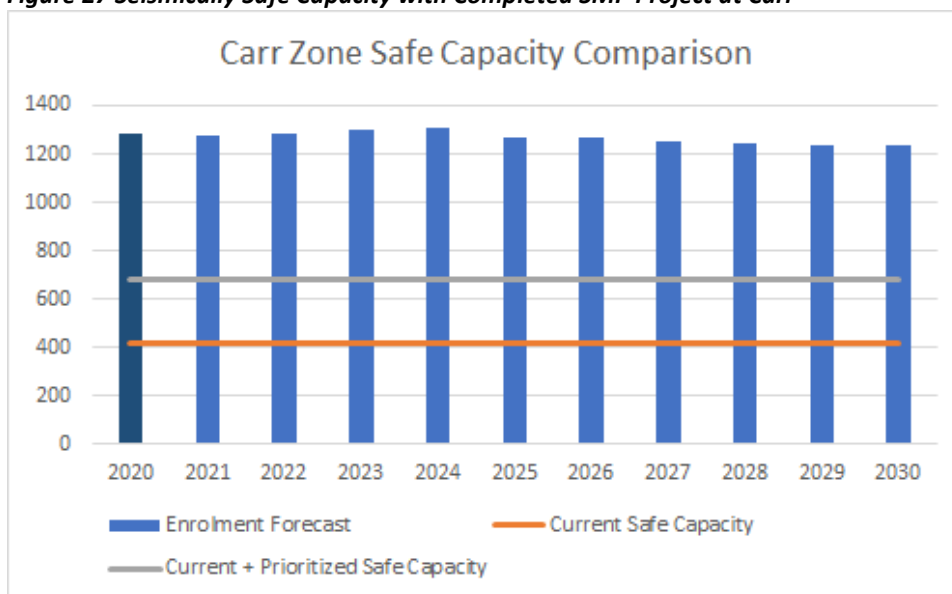
In this scenario, the Carr elementary school retains its existing capacity (NC = 290, OC = 263) through the SMP.

**Figure 26 Seismic Safety Analysis: with Completed SMP Project at Carr**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	57%
Seismically Safe OC	Safe OC/Total OC	57%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	55%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	60%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	53%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	55%

Approximately 55% of the enrolment forecast for 2030 (Baragar Baseline) will have access to a seismically safe school within the Carr study zone when an SMP project for Carr advances to completion.

**Figure 27 Seismically Safe Capacity with Completed SMP Project at Carr**



### Planning Assumption

- In this scenario Carr advances at its current capacity to completion through the SMP. With the safe capacity at Carr about 55% of the 2030 forecast enrolment could be accommodated at seismically safe schools in the Carr study zone.

### Future Scenario B – Carr Advances in the SMP with an addition of 8 Classrooms

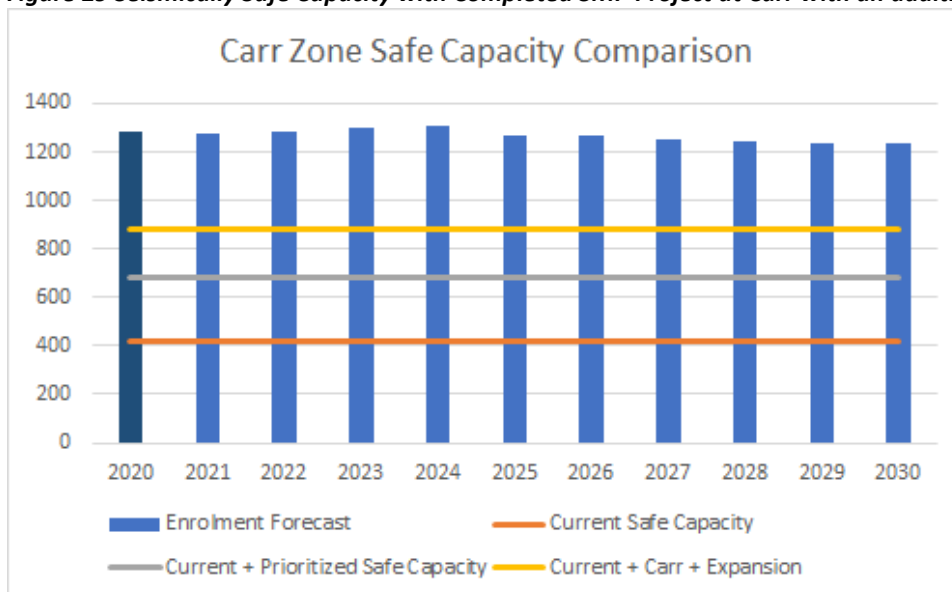
In Future Scenario A, completing SMP project for Carr with the existing capacity will create safe seats to accommodate about 55% of the students in the Carr study zone. Remaining students would not have access to a safe school within the zone, or at schools adjacent to the Carr zone. Advancing an expansion project at Carr in conjunction with an SMP project would be a cost efficient option to provide additional safe capacity where there is current and future need. Without a detailed feasibility study the optimal capacity of an expansion at the Carr site cannot be fully assessed. For the purpose of this report an eight classroom expansion is proposed (1K/7E) which would increase the nominal capacity at Carr to 485. This would place Carr within the preferred school size range for VSB elementary schools.

**Figure 28 Seismic Safety Analysis: with Completed SMP Project at Carr with an addition of 8 CRs**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	71%
Seismically Safe OC	Safe OC/Total OC	73%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	71%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	76%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	69%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	71%

Approximately 70% of the enrolment forecast for 2030 (Baragar Baseline) will have access to a seismically safe school within the Carr study zone if an EXP and SMP project for Carr advance to completion.

**Figure 29 Seismically Safe Capacity with Completed SMP Project at Carr with an addition of 8 CRs**



### **Planning Assumption**

- *In this scenario Carr advances at its current capacity with an 8-classroom addition. With the additional safe capacity at Carr, 70% of the 2030 forecast enrolment could be accommodated at seismically safe schools in the Carr study zone.*

### **Summary**

- At present, nearly 70% of students cannot be accommodated in seismically safe schools in the Carr study zone.
- There is minimal surplus seismically safe capacity at schools surrounding the Carr study zone.
- Carr has been prioritized in year 2 of the 2022-23 Capital Plan submission.
- If Carr were advanced to completion through the SMP, only about 55% of students would have access to seismically safe seats in the zone based on 2030 enrolment forecasts.
- An expansion project at Carr in conjunction with an SMP project is a time efficient and cost effective way to provide access to safe seats in the Carr study zone to accommodate students within the zone and from surrounding schools.
- Osler is prioritized in year 3 of the 2022-23 Capital Plan submission.
- Quilchena is not prioritized in the Capital Plan.

### **Olympic Village Zone Identification**

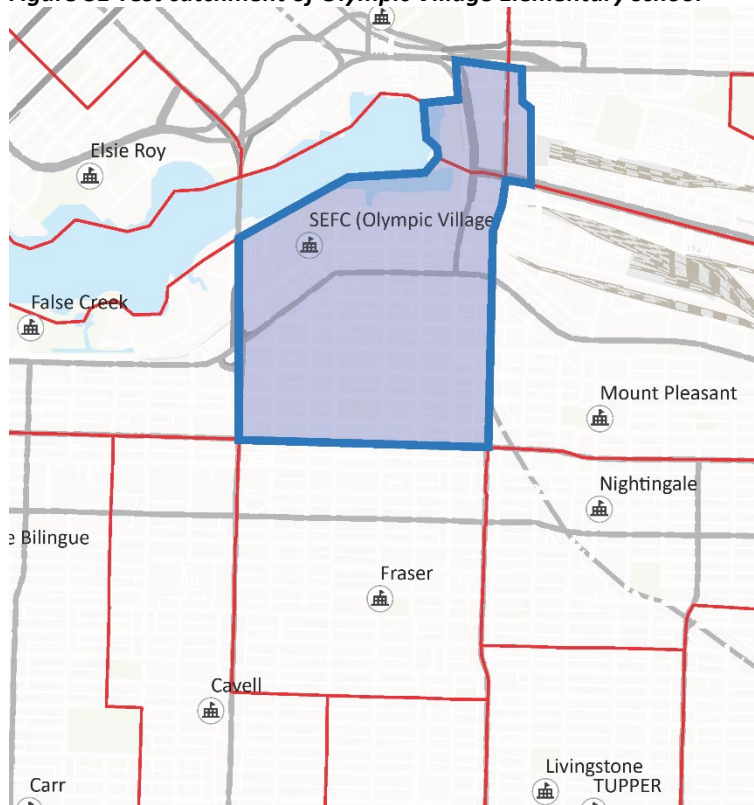
The site for the new school to proposed for Olympic Village is on the East side of Hinge Creek Park at the North end of Columbia St. The site is currently within the catchment for Fraser Elementary school.

**Figure 30 Location of the proposed Olympic Village Elementary School**



Although, the catchment for OV is not yet defined. For planning purposes, the District has defined a test catchment for Olympic Village – see Figure 31 below.

**Figure 31 Test catchment of Olympic Village Elementary school**



There are four school catchments adjacent to the Olympic Village test catchment.

- False Creek
- Cavell
- Fraser
- Nightingale
- Mount Pleasant

The study zone is bounded by False Creek to the North which is a significant geographical barrier. VSB schools north of False Creek in Yaletown and the Downtown peninsula are full and cannot meet their catchment demand for enrolment. There is no surplus seismically safe capacity to the east or west of the OV study zone. With the completion of Livingstone and Wolfe there will be limited surplus safe capacity to the South of the OV study zone. Three of the five schools in the Olympic Village Study Zone are at high seismic risk. The Olympic Village study zone is characterized by youth population growth, schools operating above 100% capacity utilization, and small schools with relatively low operating capacity. Within the zone, False Creek is a supported project in the capital plan. Detailed feasibility work has been undertaken for a potential SMP project at this site. Capital investment in a school at Olympic Village would provide an alternative to the False Creek project with up to 200 additional seats of seismically safe capacity when compared with False Creek. Additional capacity available at Olympic Village would also mitigate current and forecast local enrolment pressure.

### Planning Assumption

- *In consideration of ongoing and forecast youth population growth in the Olympic Village Study Zone, and insufficient available seismically safe capacity in the study zone to accommodate current and forecast enrolment, advancing the Olympic Village project is the top priority for capital investment in the Olympic Village Study Zone.*

### Olympic Village Study Zone Seismically Safe Capacity

Figure 32 combines the information that is the standard basis for evaluation of the business case for projects funded through the SMP.

**Figure 32 Seismically Safe Capacity and Enrolment – Olympic Village Study Zone**

School Name	SMP Status	*CP Priority	NC	OC	2020 Enrolment	2020 CU	Enr 2030	2030 CU
Cavell	Construction	n/a	290	263	317	121%	234	89%
Fraser	Completed	n/a	195	177	333	189%	379	215%
False Creek	Feasibility	n/a	290	263	293	112%	334	127%
Mount Pleasant	Unsupported	Year 3	315	285	251	88%	274	96%
Nightingale	Unsupported	Year 1	390	353	250	71%	279	79%
<b>Total</b>			1480	1340	1444	108%	1500	112%

\*The Capital Plan priorities were established prior to the announcement that a new school would be built at the Olympic Village site. These priorities have been retained pending support for the Olympic Village project.

With the completion of Cavell, two of five schools in the Olympic Village Study Zone will be seismically safe.

### Planning Assumption

- *Additional seismically safe capacity in the Olympic Village study zone is essential to accommodate VSB students at seismically safe schools for the long term.*

Figure 33 presents analyses by which the available seismically safe capacity in the zone can be understood. Although only one third of the capacity in the zone is seismically safe, 45% of students in the zone are currently attending a seismically safe school – the use of safe capacity is already maximized within the zone. There is no additional seismically safe capacity available to accommodate students in this zone.

**Figure 33 Seismic Safety Analysis: Current**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	33%
Seismically Safe OC	Safe OC/Total OC	33%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	45%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	39%
Total Potential for Students in Seismically safe Seats 2020	Note - Schools operating above 100% CU Total Safe OC/Total 2020 Enr	45% - there is no additional capacity at either safe school
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	*30%

\*2020 enrolment for Fraser was used as no additional students can be accommodated at that school.

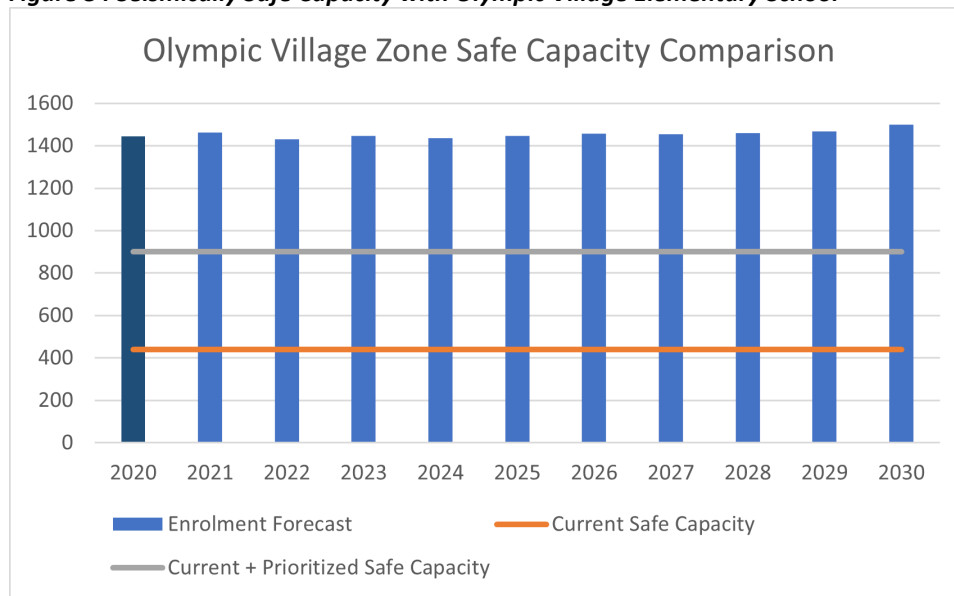
### Planning Assumptions

- *There is no additional seismically safe capacity within the Olympic Village study zone.*
- *The current utilization of Fraser Elementary is not optimal from an educational perspective.*
- *As enrolment increases, the percentage of students attending seismically safe schools will decrease without further capital investment within the zone*

### Future Scenario – Olympic Village Advances in the Capital Program

In this scenario Olympic Village provides additional safe capacity (NC = 510, OC = 462) to the safe capacity already available in the study zone. With the additional safe capacity from Olympic Village, the total safe operating capacity in the zone would increase to 902 spaces. The forecast enrolment in 2030 is 1500, so the total potential for or students in seismically safe seats in 2030 is 60% of forecast enrolment.

**Figure 34 Seismically Safe Capacity with Olympic Village Elementary School**



## **An Integrated Capital Plan for the Olympic Village Zone**

In the 5-Year Capital Plan contains the following requests for the Olympic Village Study Zone.

### **Seismic Mitigation Program**

- Nightingale Year 1
- Mount Pleasant Year 3

### **Expansion Program**

- Olympic Village
- Expansion at Cavell

Building a new school at Olympic Village advances the mandate of both major capital programs (SMP and EXP) by providing 510 safe seats in a modern building in an area with overcrowded schools and persistent kindergarten waitlists. Supporting information about current and forecast enrolment demand is detailed in the sections below.

### **Planning Assumption**

- *When the Olympic Village project advances in the capital program, the District will review the prioritization of requests in the current capital plan in the Olympic Village zone in the context of the additional safe capacity provided by the new school.*

## **Olympic Village Study Zone – Enrolment Demand**

There is a need for further capital investment in the Olympic Village Study Zone to ensure that VSB students can be accommodated at safe schools in the long term. This section of the LTIP

provides a more detailed analysis of indicators of further enrolment growth in the Olympic Village study zone that provide evidence that additional capacity will be required to resolve persistent enrolment pressure in this area.

The VSB Long Range Facilities Plan has two overarching strategic objectives that inform District planning:

- Accommodate catchment students at their catchment school
- Ensure that all VSB students can be accommodated at a seismically safe school

The future site of the school at Olympic Village has been identified as an optimal location for a school that will provide sufficient capacity to significantly mitigate enrolment pressure in the zone while also advancing the mandate of the seismic mitigation program.

### **Local Demand - Olympic Village Test Catchment**

In Figure 35 below, a test catchment for the Olympic Village is shown. This catchment is comprised of the portion of the current Fraser catchment north of Broadway, and a small area at the east end of False Creek that is currently in the Crosstown catchment. The black dots represent addresses where students attending VSB schools reside. These are mostly multi-residential buildings so a single dot usually represents multiple students.

**Figure 35 Olympic Village Test Catchment**

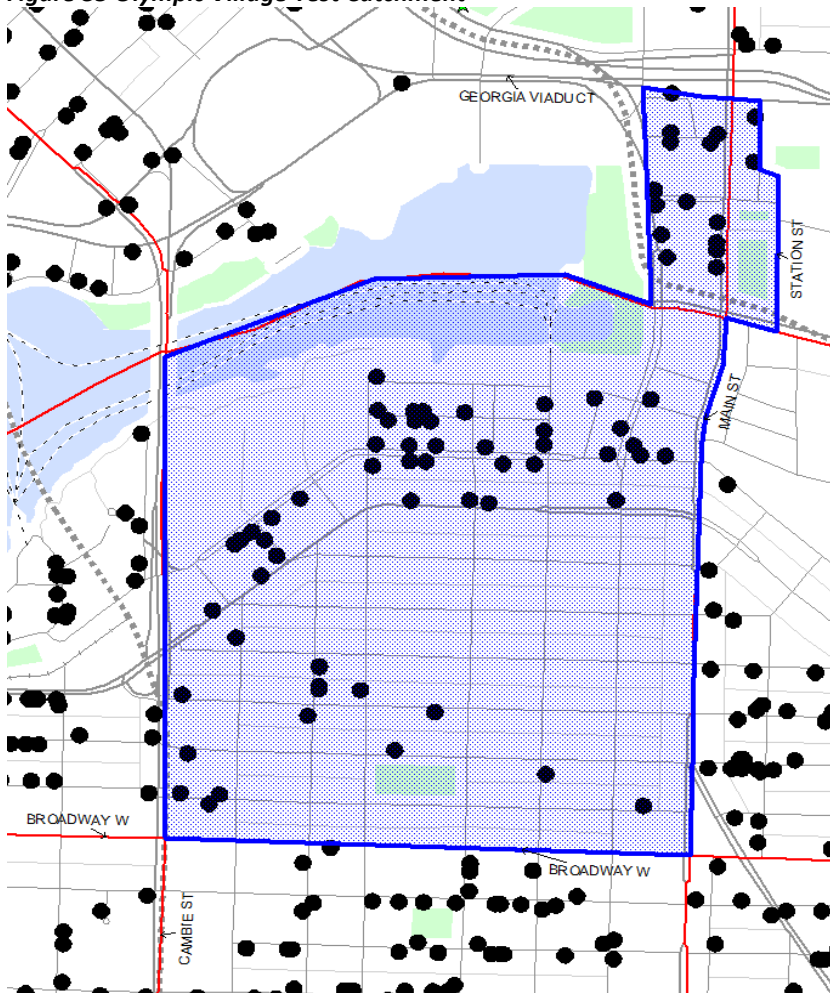


Figure 36 below shows a five-year enrolment history for K-7 VSB students living within the Olympic Village test catchment.

**Figure 36 Enrolment History**

Year	K-7	Annual Increase
2016-17	203	
2017-18	227	24
2018-19	261	34
2019-20	305	44
2020-21	335	30

The number of students living in the Olympic Village test catchment is increasing annually – in 2020 there were 132 more students attending VSB schools from the Olympic Village test catchment are than in 2016. From the southern portion Fraser catchment there are an additional 350 students attending VSB schools.

A school at Olympic Village would accommodate students living in the Olympic Village area as well as overflow from False Creek and Fraser.

### **Kindergarten Waitlists – Unmet Catchment Enrolment Demand**

The growth in enrolment in the Olympic Village study zone is being driven by an increasing birth rate and youth population within the zone. The result of increasing population is lengthy Kindergarten waitlists at Fraser and False Creek and in some years Cavell.

**Figure 37 Kindergarten Waitlist History – Olympic Village Zone**

Waitlist History	2018-2019	2019-2020	2020-2021	2021-2022
Cavell	14	27	11	0
False Creek	12	19	26	24
Fraser	36	60	51	37
Mount Pleasant	0	0	0	0
Nightingale	0	0	0	0
Total	62	106	88	61

The waitlist numbers are from March of each year which is after families have accepted placements in District Choice programs and received initial offers of placement if they have applied to out of catchment schools.

### **Overflow Schools**

District practice is to place catchment students who cannot be accommodated at their home school at the closest nearby school with available space. As noted in the previous section False Creek, and Fraser experience very sizeable and persistent demand for catchment enrolment that cannot be accommodated at these sites. Catchment overflow from False Creek has been placed at Mount Pleasant Elementary in previous years. For the first time, this school year, Mount Pleasant was unable to accommodate all overflow students from False Creek. The False Creek students that could not be accommodated at Mount Pleasant were placed at Nightingale, the next closest school with available space. Placing False Creek students at Nightingale limits the space available at that school for overflow from Fraser which creates additional demand for space at Wolfe.

### **Impact of Kindergarten Waitlists on Enrolment Forecasts**

This report presents baseline enrolment forecasts from Baragar. For many VSB catchments the baseline forecasts are accurate and reliable for planning purposes. The presence of persistent unmet catchment demand and evidenced by long kindergarten waitlists suppresses enrolment forecasts for these schools. In other words, the baseline forecasts likely do not fully represent the actual number of catchment students who would choose to attend these schools if space were available.

## Maximizing Catchment Enrolment

For many years the District has actively managed enrolment at the schools in the Olympic Village Study Zone by restricting out of catchment enrolment at schools within this zone in order to maximize the space available for catchment students.

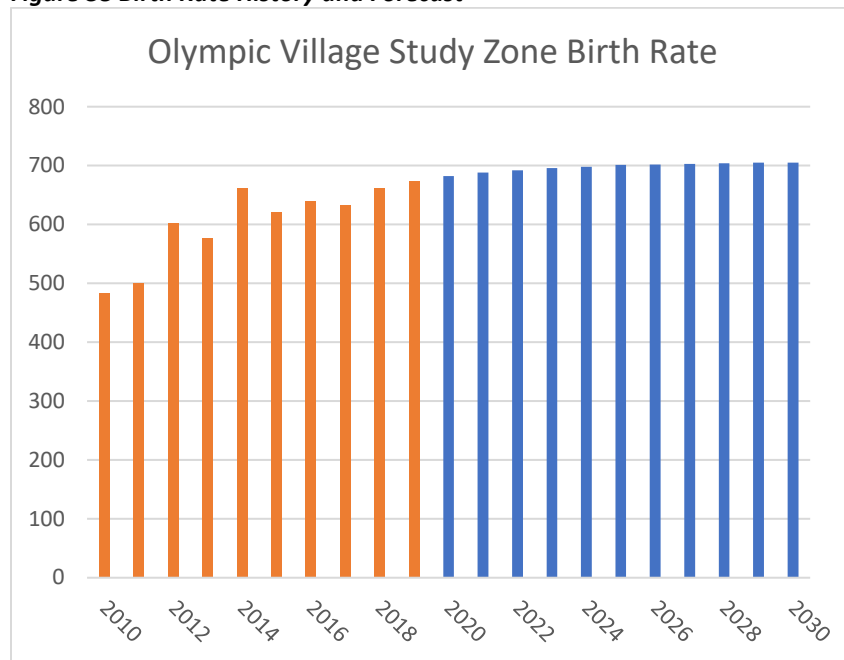
## Maximizing Available Capacity

Enrolment capacity in the zone has been maximized through interior renovations to create additional classroom space, and location of portables and modular buildings at sites where feasible. There are no District Choice programs or Learning Services Student Programs located at schools within the Olympic Village study zone.

## Birth Rate

In Vancouver, birth rate is a reliable indicator of future enrolment demand. Figure 38 shows actual (orange bars) and forecast (blue bars) aggregate birth rate within the five catchments in the Olympic Village study zone.

**Figure 38 Birth Rate History and Forecast**

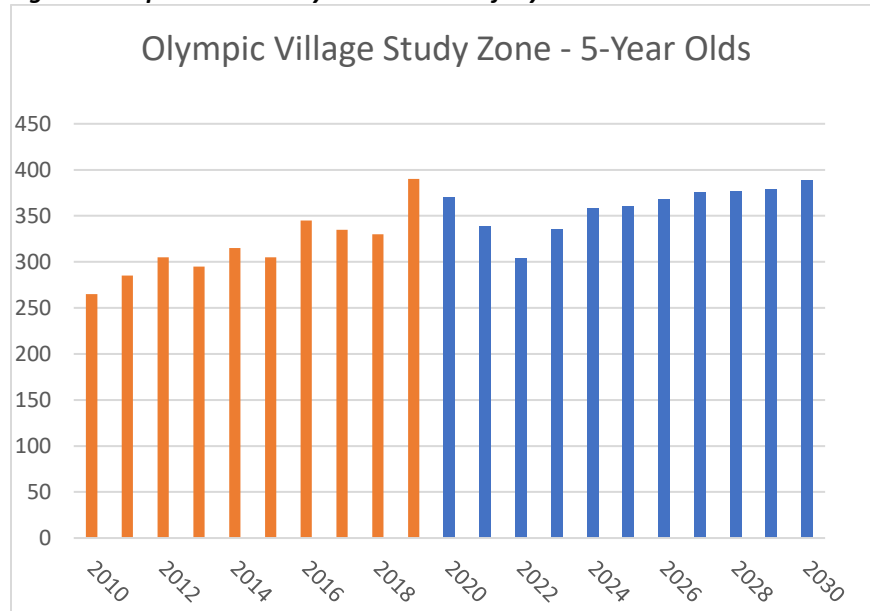


An increasing birth rate is forecast for the Olympic Village zone with an upward trend for Fraser and False Creek catchments, and relatively stable forecasts for the remaining schools in the zone.

## Population of 5-year-old children

Between birth and the age of 5 there is net out-migration of youth (with their families) in the Olympic Village Study Zone. Due to net out-migration between birth and age 5, the population of 5-year-old children is, on average, 55% of the number of the number of births 5 years earlier.

**Figure 39 Population History and Forecast of 5-year-old children**



The population of 5-year-old children has increased steadily because of the strong correlation with birth rate - further increase is forecast. We have often heard from residents that one of the drivers of out-migration is the lack of a local school for their children to attend. A new school at the Olympic Village site could decrease the out-migration rate and increase the number of children residing in the area above the currently forecast level.

### Planning Assumption

- *The baseline enrolment forecast for the Olympic Village zone is not fully representative of the true enrolment demand and capacity requirements in the zone. Catchment kindergarten students who are placed at other schools suppress the apparent future catchment enrolment demand for full schools. There is anecdotal evidence that families with children leave the Olympic Village zone due to the lack of available space nearby schools and/or lack of a school located in Olympic Village.*

### Summary

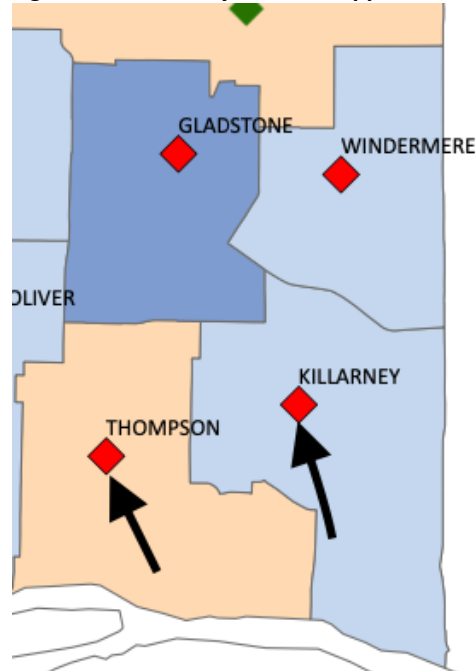
- At present, more than 50% of students cannot be accommodated in seismically safe schools in the Olympic Village study zone.
- Safe schools in the Zone are operating above 100% Capacity Utilization.
- With the completion of Wolfe and Livingstone there will be some surplus seismically safe capacity to the south of the Olympic Village zone in future years.

- Indicators of future enrolment including birth rate, population of five-year-old children, and number of students from the Olympic Village zone enrolling in VSB schools are continuing to increase.
- Lengthy kindergarten waitlists are persistent in the zone and will continue to exist without additional capacity to accommodate local students.
- Olympic Village has been prioritized in year 1 of the 2022-23 Capital Plan submission and is the top priority for capital investment in the zone.
- Advancing Olympic Village in the Capital Plan will increase the number of safe seats in the zone and provide additional enrolling capacity in a location where it is required to enable children to attend their catchment school.
- When the Olympic Village project advances in the capital program, the District will review the prioritization of requests in the current capital plan in the Olympic Village zone in the context of the additional safe capacity provided by the new school.

### **Southeast Family of Schools Region**

In the LRFP the District is divided into six zones for analysis. The Southeast zone has four secondary schools two of which are currently supported in the SMP – David Thompson and Killarney. Windermere has been prioritized in year four of the capital plan. David Thompson is prioritized for capital investment as a school that is required for the long-term educational programming needs of the District. All or most of the current capacity at David Thompson should be retained to accommodate students from nearby schools that may not be funded for upgrade or replacement through the SMP.

**Figure 40 Secondary Schools supported in the SMP**



### Planning Assumption

- *David Thompson is required to meet the long-term educational programming needs and enrolment needs of the District, the school has been prioritized for capital investment in the Southeast Region of the District.*
- *David Thompson is supported in the SMP.*

### Seismically Safe Capacity in the Southeast Family of Schools Region

There are no seismically safe seats in the Southeast Family of Schools Region (SE FOS). The total surplus safe capacity in schools adjacent to the SE FOS is about 500 seats mostly available at Tupper Secondary.

**Figure 41 Seismically Safe Capacity and Enrolment SE FOS**

School Name	Seismic Program Status	CP Priority	NC	OC	Enr 2020	2020 Cu	Enr 2030	2030 Cu
Thompson	Supported	Supported	1550	1550	1275	82%	1116	72%
Gladstone	Unsupported	n/a	1600	1600	932	58%	957	60%
Killarney	Supported	Supported	2200	2200	1550	70%	1496	68%
Windermere	Unsupported	Year 4	1500	1500	973	65%	1021	68%
Total			6850	6850	4730	69%	4590	67%

After a period of significant decline, the overall enrolment in the SE FOS has stabilized and is forecast to decline incrementally in future years. Of the four schools in the region, David Thompson has the highest capacity utilization in the SE FOS even though enrolment management has been in place for several years, restricting cross-boundary enrolment in preparation for the possibility of moving to a temporary accommodation site. There is no seismically safe capacity at secondary schools in the SE FOS. Safe secondary schools adjacent to the zone can accommodate about 500 additional students; if enrolment were maximized at these schools there would still be about 4000 secondary students in the SE FOS who could not be accommodated at a safe school.

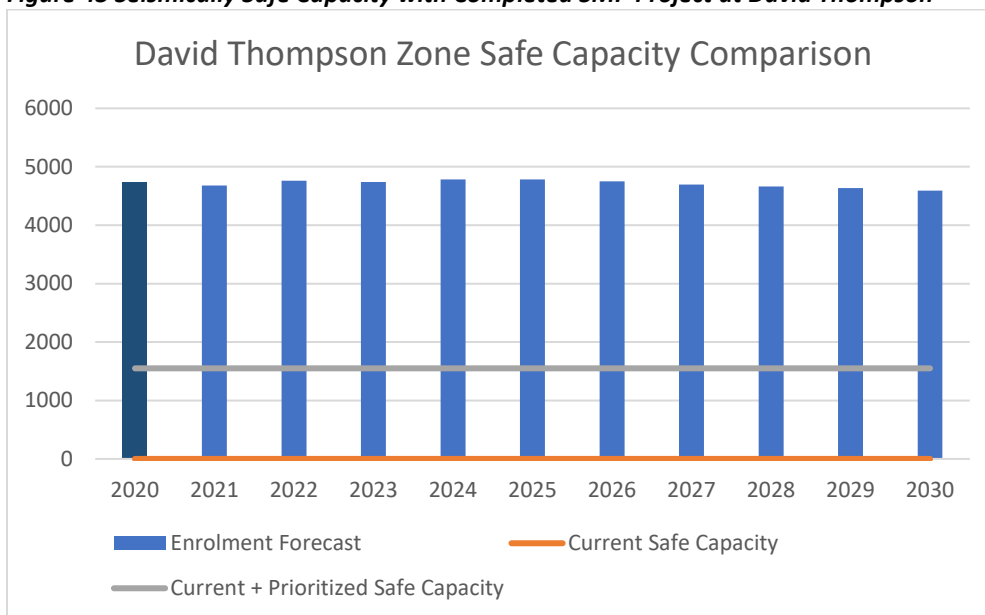
### Future Scenario – David Thompson Advances in the SMP

In this scenario, David Thompson would maintain its nominal capacity of 1550 after an SMP project. Figure 42 presents a seismic safety analysis for this scenario.

**Figure 42 Seismic Safety Analysis**

Seismic Safety Metric	Analysis	Percentage
Seismically Safe NC	Safe NC/Total NC	23%
Students in Seismically Safe Seats (2020)	2020 Enr in Safe Schools /Total Zonal Enr	23%
Students in Seismically Safe Seats (2030)	2030 Enr in Safe Schools /Total Zonal Enr	27%
Total Potential for Students in Seismically safe Seats 2020	Assume safe schools at 100% CU Total Safe OC/Total 2020 Enr	33%
Total Potential for Students in Seismically safe Seats 2030	Assume safe schools at 100% CU Total Safe OC/Total 2030 Enr	34%

**Figure 43 Seismically Safe Capacity with Completed SMP Project at David Thompson**



### Additional Considerations

- The Vancouver Park Board have authorized staff to initiate negotiations for a land exchange that would facilitate the construction of a replacement school for David Thompson in Gordon Park.
- The replacement school option would have several advantages:
  - Much less disruption to educational programming and the school community to continue using the existing building during the construction phase of the replacement school

- Preserve the significant transportation costs and other costs associated with temporary accommodation to invest directly into a replacement school
- Eliminate deferred maintenance costs and reduce life cycle costs of the school

### **Planning Assumption**

- *A replacement school of similar capacity to the existing school is the preferred outcome of an SMP project at David Thompson*
- *A financial contribution from the VSB would be required to close the gap between the anticipated amount of available funding for the least cost option (seismic upgrade) and the cost of a replacement school.*

### **Summary**

- There are no seismically safe secondary schools in the SE FOS.
- David Thompson has been prioritized for capital investment in the SE FOS.
- About 500 seats of surplus safe capacity is available adjacent to the SE FOS region, mostly at Tupper Secondary.
- David Thompson has been supported by the Ministry, a concept plan and a project definition report have been completed to detail the feasibility and cost of SMP options.
- A replacement school of similar capacity to the existing school would enable the District to move forward towards accommodating students in modern and safe schools for educational programming and reducing maintenance and operating expenses of facilities.

## **Childcare Opportunities and Considerations**

The VSB has a long-standing commitment to working with the City of Vancouver (CoV), childcare providers, and the provincial government to support the provision of childcare in school buildings and on school sites. Government investment in prioritized projects in the VSB's 5-year capital plan provides a further opportunity to enhance public benefit through the creation of additional childcare spaces in conjunction with seismic and expansion projects. This section of the LTIP summarizes the opportunities and approaches that may be used in future projects to increase equitable access to childcare programs and services.

### **Childcare Programs and Services Supported by the VSB**

The StrongStart program is a ministry funded drop-in program currently supported at 18 VSB schools. At each of these sites, StrongStart operates a program in dedicated space with a capacity of approximately 25-30 families each day.

**Figure 44 Summary of Childcare Programs and Services**

Program/Option	Number of Sites	Number of Spaces
StrongStart	18	450-570*
O-5 Childcare	32	971
School Age Care (SAC)	72	3631

\*The number of space available for the Strong Start drop-in program is less fixed and can be described as a range of the number of families that can participate on a given day.

Pre-school and daycare (0-5 childcare) operate at 32 VSB sites. These all-day services operate on school grounds in portable, modular and outbuildings, as well as rooftop locations. In partnership with the CoV, rooftop childcares have been completed or are in progress at following schools:

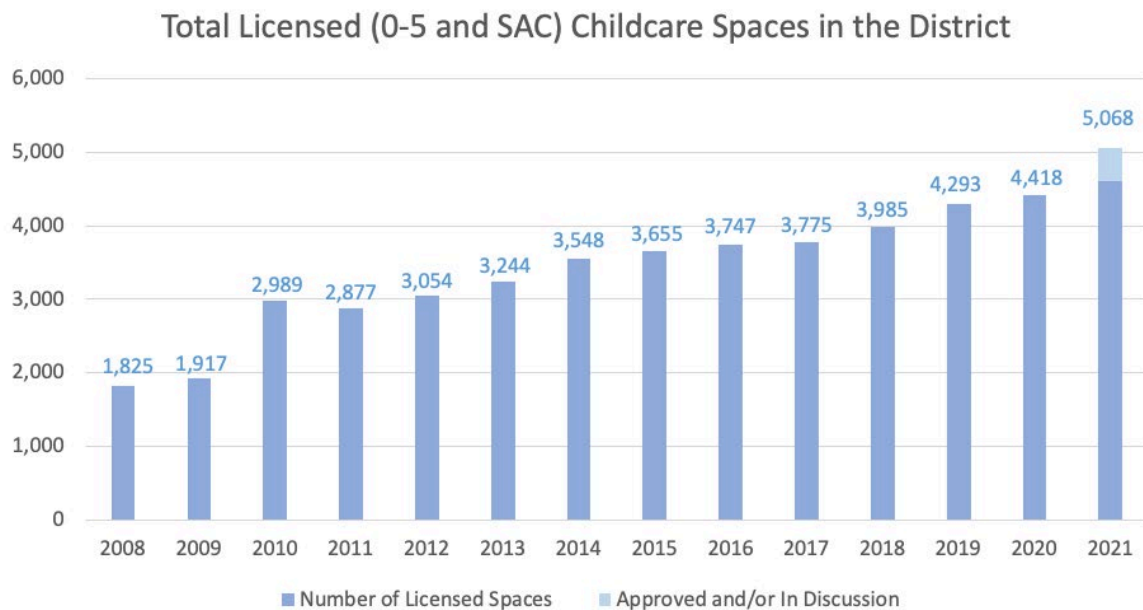
- Tennyson (complete)
- Nelson (complete)
- Fleming (complete)
- Hudson (in design phase)
- David Lloyd George
- Coal Harbour (in design phase)
- Hamber (under construction)
- Olympic Village (pending approval)

Rooftop locations are advantageous because service provision, particularly outdoor play, is separated from K-7 school routines including outdoor time at recess and lunch. The option to construct rooftop pre-school care is only available in replacement school and new schools, a consideration which aligns with the general preference for capital investment to be directed towards building new replacement schools rather than upgrading older buildings where feasible.

The VSB provides access to the space required to deliver school age care (SAC) for nearly 3700 students at 72 of 77 elementary school sites. SAC space is available in multipurpose rooms and on school grounds in portable, modular and outbuildings.

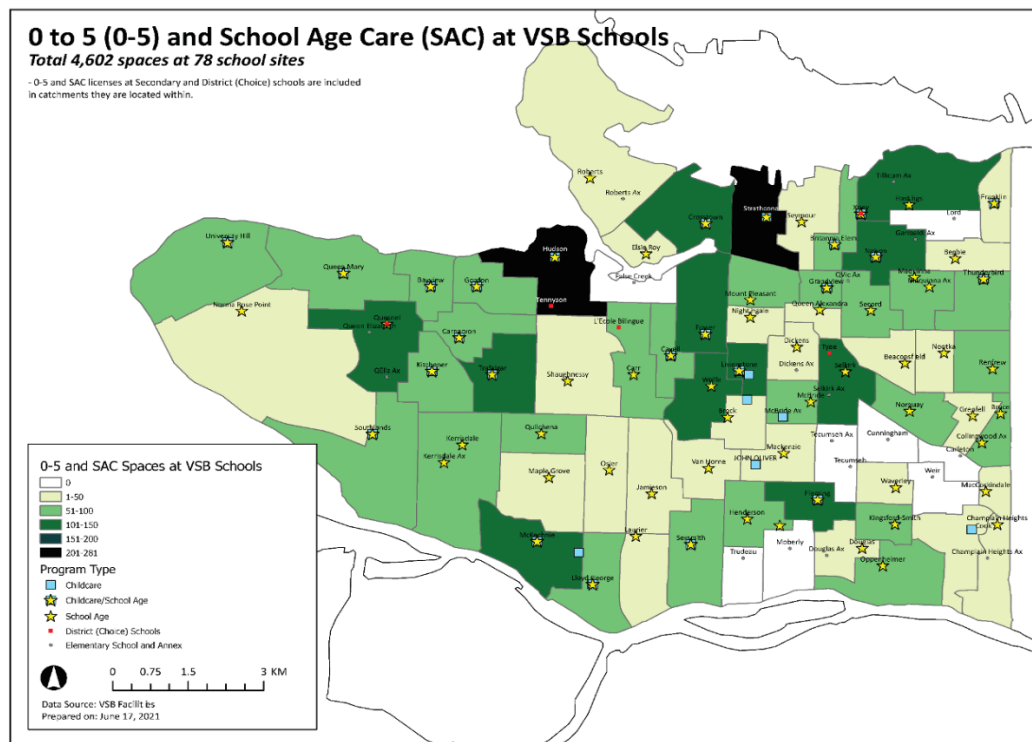
In partnership with the CoV and childcare service providers, the VSB has supported significant expansion of access to 0-5 Childcare and SAC. Since 2008, when there were 1825 spaces, access to space that meets licencing requirements has increased by 250% to the current total of 4602 licensed Childcare and SAC spaces in the District. Further growth is anticipated in the next 3 to 4 years with up to 466 new spaces becoming available.

**Figure 45 Growth of licensed childcare spaces**



The map below shows the distribution of licensed childcare spaces in the District by elementary school catchment.

**Figure 46 Distribution of Childcare**



Each newly funded project presents an opportunity to explore options to increase access to childcare services.

- Only replacement schools present opportunities to build additional purpose-built NLC space and rooftop childcares
- Partial replacement projects provide the option of expanding NLC space
- Retaining capacity at existing sites may provide suitable locations for additional StrongStart centres
- School sites are assessed on a case-by-case basis for their suitability as a potential location for a new modular structure
- Existing outbuildings could be considered for seismic upgrading rather than demolition to create additional space at sites where a seismic upgrade is the preferred option
- Where upgrading outbuildings is not feasible, the outbuilding could be replaced with a new modular building

The site-based feasibility of the opportunities and approaches outlined above are explored during the development of the project definition report (PDR) for supported projects.

Grenfell which has proceeded to the PDR phase in the 2020/21 capital program, is an example of a school with possibilities to expand 0-5 Childcare and SAC space. A partial replacement for Grenfell would allow an increase to the NLC space in the newly built sections of the school. The wood frame outbuilding on the Grenfell site could also be retained and upgraded or replaced with a modular structure which would provide space suitable for either 0-5 childcare or SAC.

A rooftop childcare and NLC space will be available at Olympic Village once the school is completed. The new school with access to additional childcare services might encourage families with young children to remain in the Olympic Village neighbourhood. The design for the school at Coal Harbour is indicative of the opportunities that exist for Olympic Village.

In partnership with the CoV, the replacement school at Hamber will have space for a rooftop 0-5 Childcare operation. A replacement school for David Thompson could provide a similar opportunity.

Expanding access to SAC by 10-15% at the existing operations would be possible once the licensing requirements for SAC are reviewed and aligned with requirements governing K-7 school operations.