



# **DRAFT STRATEGIC FACILITIES PLAN UPDATE**

MAPLE RIDGE - PITT MEADOWS SCHOOL DISTRICT NO. 42

June 2018

# 1. STRATEGIC FACILITIES PLAN UPDATE

In order to ensure that future Capital Plan submissions to the Ministry of Education accurately reflect the current priorities and needs of the Maple Ridge - Pitt Meadows school district, the board directed staff to update the School District *Strategic Facilities Plan* adopted October 2015.

The *Strategic Facilities Plan* identifies and rationalizes current and future capital requirements for school sites, new schools, and facility upgrades based on building condition, seismic vulnerability and ongoing maintenance/life cycle costs; as well as new education initiatives.

The updated plan will provide the critical context for discussions with the municipalities regarding eligible school sites, the Ministry of Education regarding high priority project requests, and the community regarding the board's vision and priorities surrounding school district facilities.

## 2. FINANCIAL BACKGROUND

### 2.1 FUNDING

The current provincial funding model allocates funding to districts based on student population. In school districts experiencing enrolment growth, this translates to increased funding from year to year.

The increase in funding triggered by enrolment growth, however, is sometimes greater than the added costs. The cost of additional classrooms space, for example, is not funded through operating funding and at times school districts have to use operating funding to acquire and maintain temporary/portable classrooms until capital funding is received for new classroom space.

The funding formula, moreover, does not account for regular cost increases such as salary increments, increases in employee benefit costs, and inflation on goods and services not covered by provincial operating grants.

Under the School Act, Boards of Education are required to submit balanced budgets every year. When cost increases outpace funding increases, boards must implement reductions in programs, staffing and other costs.

For 2017-2018, eighty-three per cent (83%) of the school district's expenditures are tied to instruction (teachers, education assistants, instructional supplies, and school administration, including principals and school office support staff), while ten per cent (10%) is allocated to building operations and maintenance. Seven per cent (7%) of the district's budget is spent on student transportation, acquisition of capital assets and district administration. The efficient use of educational facilities reduces non-instructional operating costs, which would in effect protect funding for educational programs in the school district.

### 2.2 COST OF OPERATING NEW SCHOOLS

The Ministry of Education provides funding for land acquisition and construction of new schools, however, additional operating funding is not provided for operating the new schools.

When new schools are opened, the school district will incur additional costs in areas such as principal and vice-principal administration time, office support staff, custodians, facility operations, as well as maintenance supplies and expenses. The estimated ongoing facility based cost is \$370,000 for an elementary school and \$960,000 for a secondary school. There would be little increase to student-based costs, including principal and vice-principal teaching time, teachers, educational assistants and instructional supplies and expenses, because these costs would follow the students to their new school.

Although, from a purely financial perspective, the most efficient use of resources occurs when schools are operated at full capacity, this is not necessarily the optimal use of facilities. It is not advisable to operate all schools at 100 per cent capacity, because there would be limited flexibility to respond to emergent educational needs or to provide schools with space to support school-based educational and community initiatives. Schools operating at 90 per cent are considered to be operating at a reasonable rate and the Ministry of Education is encouraging school districts to operate schools at an average 95 per cent capacity utilization.

### 3. CAPITAL PLANNING PROCESS

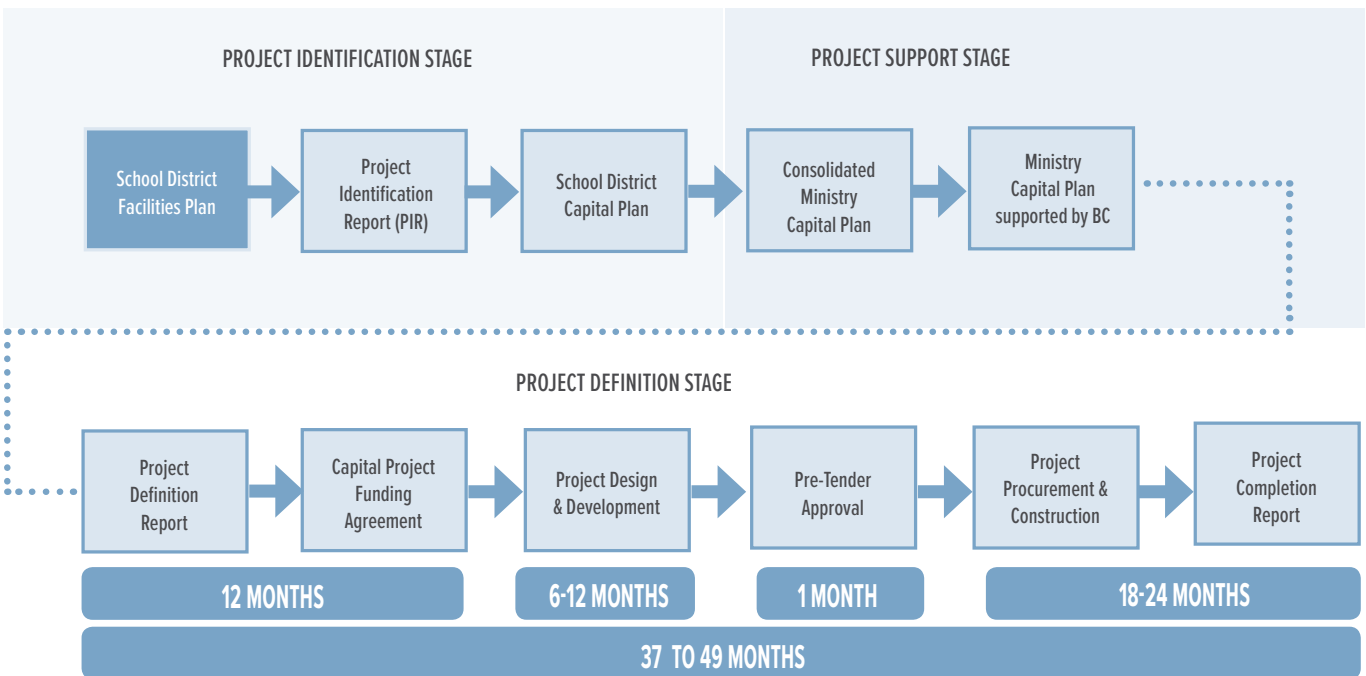
The Ministry of Education requires approval of a School District Facilities Plan (SDFP) prior to approving Five Year Capital Plans and Project Identification Reports.

The Ministry of Education planning and procurement process for Capital Plan submissions requires Boards of Education to develop long-range facilities plans that support capital projects being submitted to the Ministry for capital investment considerations.

These facility plans must identify capital requirements for school expansion and consolidation, school replacement or upgrades on building condition, seismic vulnerability and ongoing maintenance / life-cycle costs, as well as any new government initiatives.

The school district therefore requires a comprehensive long-term facilities plan that provides rationale for specific capital projects that may be proposed as part of the School District's Five-Year Capital Plan.

#### Ministry of Education Capital Plan Framework



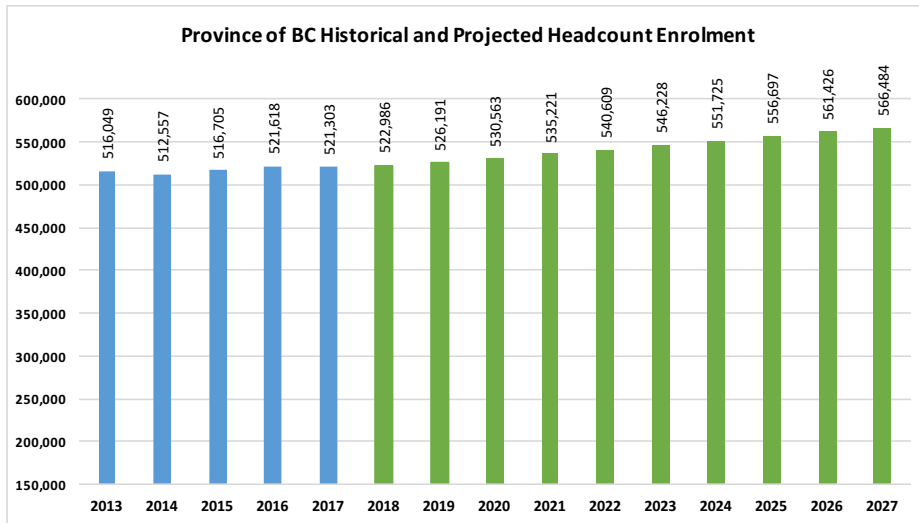
# 4. MAPLE RIDGE - PITT MEADOWS ENROLMENT PROJECTIONS

## 4.1 PROVINCIAL ENROLMENT TRENDS

Student enrolments in the province have increased after several years of decline. From 2013 to 2017, provincial enrolment headcounts have increased 5,254 students from 516,059 to 521,303. This represents an increase of 1% over 5 years or 0.2% per year.

BC Stats anticipates that in the next ten years, student enrolments will continue to increase as follows:

- 2018 to 2022: enrolments will increase to 540,609 with a forecast annual growth rate of 0.7% per year
- 2023 to 2027: enrolments will increase to 566,484 with a forecast annual growth rate of 0.9% per year

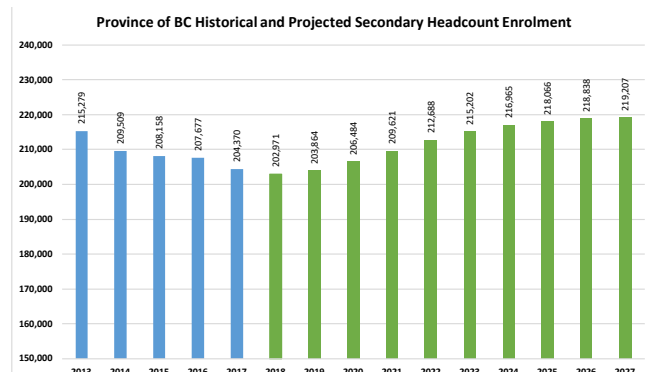
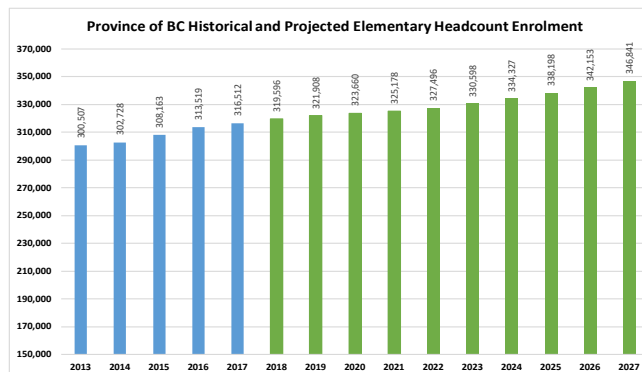


This upward trend is largely a result of three factors:

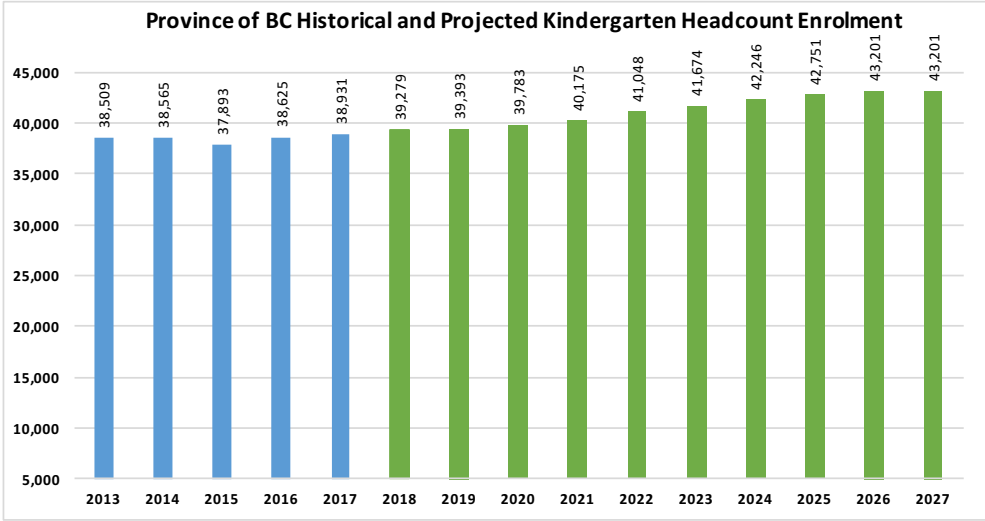
- A significant increase in the birth rate;
- A decrease of large secondary student cohorts graduating from the system; and
- Increase of the general population from in-migration.

The impact of the birth rate and in-migration can clearly be seen on the provincial elementary school forecast below.

The impact of the wave of existing secondary students graduating from secondary schools is also seen below. It is forecast that the number of secondary students will bottom out in 2018, and then rise steadily after that time as larger existing cohorts of elementary students follow.



The impact of increased births is illustrated in the projected kindergarten headcount enrolment. An increase of 11% over 10 years.



Data Source: BC Ministry of Education, Resource Management Division, Projection Reports for Public School Aged Headcount Enrolments (Excluding Adults), March 2018. Prepared By BC Stats, Ministry of Technology, Innovation & Citizens' Services.

## 4.2 MAPLE RIDGE – PITT MEADOWS ENROLMENT TRENDS

The Maple Ridge – Pitt Meadows School District is emerging from a number of years of declining enrolment. Enrolment has been on the rise since 2014. There also appears to be significant population and residential growth in the area that may have a large impact on school capacity requirements.

The data utilized in Section 4.1 was developed by BC Stats for the BC Ministry of Education. BC Stats uses a “Cohort-Survival” methodology to project the overall population. The population is “grown” from the latest census year by forecasting births, deaths and migration by age. Forecasts are based on past trends modified to account for known future changes, but without specific local knowledge. Historically, BC student enrolment forecasts have been well below other projections methodologies and actual enrolments realized.

Enrolment projections that incorporate local knowledge have been developed and are included in this section.

### 4.2.1 LOCAL RESIDENTIAL GROWTH PROJECTIONS

#### HISTORICAL NEW HOUSING BUILDING PERMITS

Building permits for new housing have risen significantly in recent years in the City of Maple Ridge. If the current trend continues, the average number of permits over the most recent three years equates to 1,042 new housing units per year. This is double the number of permits in 2013 and 2014.

MAPLE RIDGE NEW RESIDENTIAL BUILDING STARTS					
Type of Housing	2013	2014	2015	2016	2017
Single Family	184	248	384	391	203
Townhouse	154	195	269	214	185
Apartment	180	49	6	113	1,167
Duplex	2	0	5	0	2
<b>Total New Dwellings</b>	<b>520</b>	<b>492</b>	<b>664</b>	<b>718</b>	<b>1,557</b>

Data Source: City of Maple Ridge, website, Building Statistics

PITT MEADOWS NEW RESIDENTIAL BUILDING STARTS				
Pitt Meadows	2014	2015	2016	2017
Single Family	29	19	24	22
Townhouse	40	24	-	-
Apartment	148	97	-	-
Duplex	-	-	-	-
<b>Total New Dwellings</b>	<b>217</b>	<b>140</b>	<b>24</b>	<b>22</b>

Data Source: City of Pitt Meadows, website, Building Statistics

ANNUAL AVERAGE NEW HOUSING PERMITS BY AREA				
Area	5 Year Average	Most Recent 4 Year Average	Most Recent 3 Year Average	Most Recent 2 Year Average
Maple Ridge	790	858	980	1,138
Pitt Meadows	-	101	62	23
		<b>959</b>	<b>1,042</b>	<b>1,161</b>

## PROJECTED NEW HOUSING UNITS

The potential new housing units indicated below were collected from current development applications and Official Community Plan projections, and then verified with the planning departments at the cities of Maple Ridge and Pitt Meadows.

These residential units are projected to occur over the next 24 years, at an average rate of 729 units per year. This appears cautious and reasonable with the recent annual residential permits and the current capacity of the construction industry to deliver. (432 less than the most recent 3 year average.)

CITY PROJECTED NEW HOUSING UNITS 2017 TO 2041										
Housing Type	PITT MEADOWS			MAPLE RIDGE						
	Urban	Rural	<i>PittMeadows Total</i>	Urban Area Inc. Thornhill	Rural	Silver Valley	Hammond	Albion	Town Centre	<i>Maple Ridge Total</i>
Single Family	301	301	<b>602</b>	2,819	41	1,028	183	2,773	81	<b>6,925</b>
Triplex	0	0	<b>0</b>	2,832	0	147	43	0	119	<b>3,141</b>
Townhouse	900	0	<b>900</b>	325	0	179	699	177	152	<b>1,532</b>
Apartment	1,312	0	<b>1,312</b>	1,156	0	295	33	0	1,601	<b>3,085</b>
<b>Subtotal</b>	<b>2,513</b>	<b>301</b>	<b>2,814</b>	<b>7,132</b>	<b>41</b>	<b>1,649</b>	<b>958</b>	<b>2,950</b>	<b>1,953</b>	<b>14,683</b>
<b>Combined Total</b>	<b>17,497</b>									

Over the next ten years, approximately 7,500 new housing units will likely be constructed. The projected new housing units were then assigned to each elementary school catchment area.

ESTIMATED SINGLE FAMILY UNITS BY CATCHMENT AREA 2017 TO 2041								
ELEMENTARY	PITT MEADOWS		MAPLE RIDGE					
	URBAN	RURAL	URBAN AREA INC THORNHILL	RURAL	SILVER VALLEY	HAMMOND	ALBION	TOWN CENTRE
PITT MEADOWS	30	0	0	0	0	0	0	0
DAVIE JONES	211	0	0	0	0	0	0	0
EDITH MCDERMOTT	30	0	0	0	0	0	0	0
HIGHLAND PARK	30	301	0	0	0	0	0	0
HAMMOND	0	0	141	0	0	146	0	0
FAIRVIEW	0	0	226	0	0	0	0	0
LAITY VIEW	0	0	141	0	0	0	0	0
GLENWOOD	0	0	423	0	0	0	0	0
MAPLE RIDGE	0	0	423	0	0	37	0	8
ALOUETTE	0	0	141	4	0	0	0	0
ERIC LANGTON	0	0	226	0	0	0	0	73
HARRY HOOGHE	0	0	226	0	0	0	0	0
GOLDEN EARS	0	0	226	0	0	0	0	0
ALEXANDER ROBINSON	0	0	226	0	0	0	0	0
KANAKA CREEK	0	0	141	0	0	0	0	0
ALBION	0	0	141	0	0	0	416	0
BLUE MOUNTAIN	0	0	0	12	0	0	971	0
WEBSTER'S CORNERS	0	0	0	12	0	0	1,387	0
YENNADON	0	0	0	8	1,028	0	0	0
WHONNOCK	0	0	141	4	0	0	0	0
<b>TOTAL</b>	<b>301</b>	<b>301</b>	<b>2,819</b>	<b>41</b>	<b>1,028</b>	<b>183</b>	<b>2,773</b>	<b>81</b>

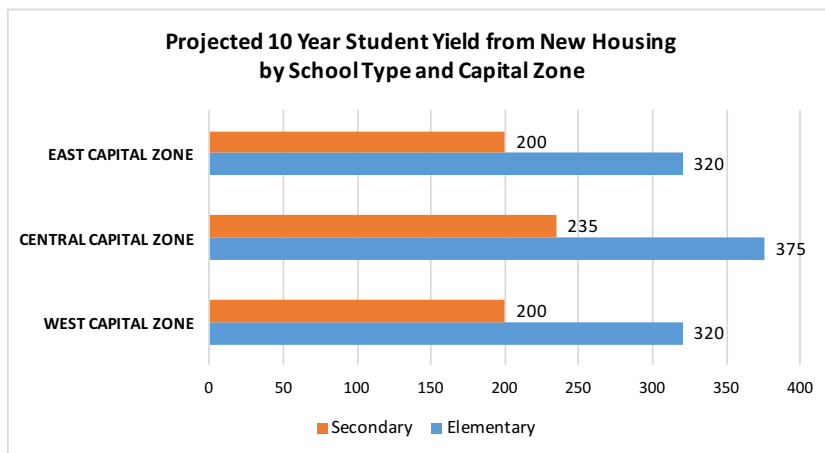
## STUDENT YIELD FROM NEW HOUSING

The existing student yield rate of children attending Maple Ridge - Pitt Meadows public schools was calculated to be 0.32 school aged children per household in Pitt Meadows and 0.38 children per household in Maple Ridge.

To be cautious and reasonable, a slightly lower yield rate was applied to the new housing projections by housing type for the purpose of this study as follows:

- 0.35 students per household for single family homes;
- 0.20 students per household for duplexes, triplexes and townhomes;
- 0.05 students per household for apartments.

At this yield rate, the number of students from new housing could reach 1,650 students over the next ten years; 1,015 elementary and 635 secondary.



## RESIDENTIAL GROWTH CAUTIONS

Although there is considerable residential growth forecast for the Maple Ridge – Pitt Meadows School District, it is important to note that student enrolment projections are not just about residential growth. Other factors that will significantly impact student enrolments are as follows:

- Every year students graduate from the system or no longer attend school and must be replenished through incoming kindergarten students and in-migration. There are some years and some catchments where more Grade 12s graduate than new students enter in kindergarten.
- The birth rate is forecast to only slightly increase over the next few years as the overall population ages.
- Independent schools in the area are capturing approximately 7.5% of the school age population.
- Some catchment areas are in decline as older neighbourhoods mature and children leave home. As a result, some catchment areas may experience a loss of students or no growth.
- Some out-migration will occur as families move to other areas or provinces.
- Residential and population growth is dependent on economic and political conditions as well as interest rates and local employment opportunities. Some of the new residential developments listed may be in competition with each other. New units may be planned but may not proceed on schedule.
- Some of the new residential units require significant servicing, transportation or other front end costs and may not have the backing to proceed in a timely manner.

It takes an integrated approach reviewing numerous factors, not just residential growth to forecast student enrolments.



## 4.2.2 ENROLMENT PROJECTION METHODOLOGY

All enrolment projections are best estimates with the data available when the projections are prepared. To be as accurate as possible, as part of the Strategic Facilities Plan Study the district has looked at three different enrolment projections, each with a different methodology. All three projection models do not include International students.

### 1. Ministry of Education Projections as prepared by BC Stats

BC Stats utilizes a “Cohort-Survival” methodology to project the overall population. The population is “grown” from the latest census year by forecasting births, deaths and migration by age. Forecasts are based on past trends modified to account for known future changes, but without specific local knowledge. Historically, BC student enrolment forecasts have been well below other projections methodologies and actual enrolments realized.

### 2. Baragar Demographic Projections

The school district commissions Baragar Demographics on an annual basis to create enrolment projections and provide demographic information pertaining to the district. Baragar is a well-respected independent consulting firm that provides this service to numerous school districts across North America.

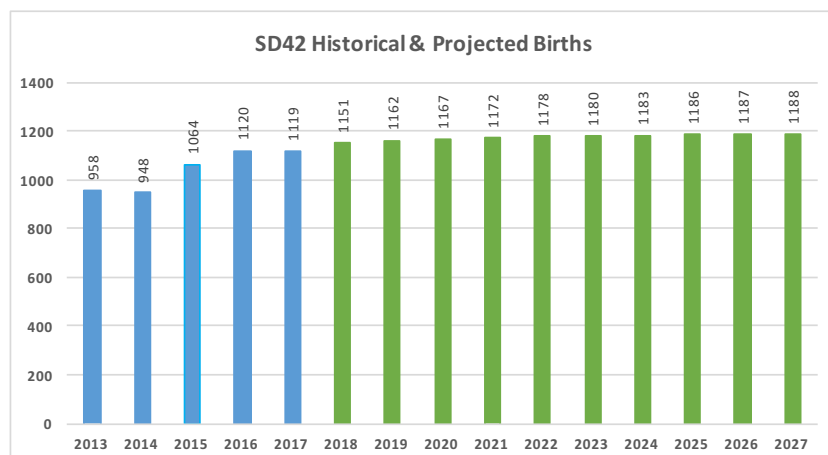
Baragar’s projections use a “Participation Rate Model” that calculates the percentage of the total population by age that attend Maple Ridge – Pitt Meadow Schools. They also utilize Child Tax Credit information to determine the number of preschool children living in each catchment, to determine the incoming kindergarteners as well as the number of new students from in-migration.

### 3. Strategic Facilities Plan Study Projections

The Maple Ridge – Pitt Meadows District hired an additional consultant, PlanningWorks Consulting Inc., to analyze the changing district demographics and create student projections through a third methodology. The Study Projections use a “Cohort Retention Model,” whereby historical retention rates by school and grade along with local knowledge of residential growth, out of catchment students and other factors are used to project enrolments. It is possible to utilize local knowledge with this methodology more than with the other two statistical based projections models.

## BIRTHS

The number of births over the last 2 years has increased significantly. Births from 2000 to 2012 average 927 per year. Births over the last 2 years averaged 1,092 –an increase of 165 per year. These children will enter kindergarten in 5 years’ time. It is anticipated that births will slow down but continue to grow at a rate of 0.6% over the next ten years, with most of that growth occurring in the next five years.



## MINISTRY OF EDUCATION / BC STATS PROJECTIONS

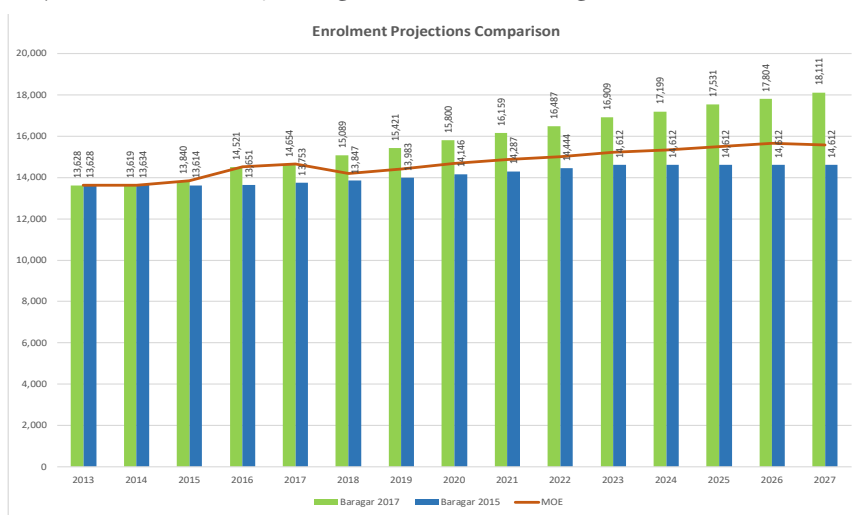
After 2018, BC Stats anticipates that enrolments will continue to increase at a rate of 1% or more per year. This is higher than the provincial average by 0.3%. Over the next 10 years, BC Stats has forecast student enrolments will rise to 15,820. This represents an additional 1,166 students by 2027.

These projections only provide district-wide projections by grade level. They do not provide individual school catchment area projections. The district-wide BC Stats projections were already provided in the graphs in section 4.1.

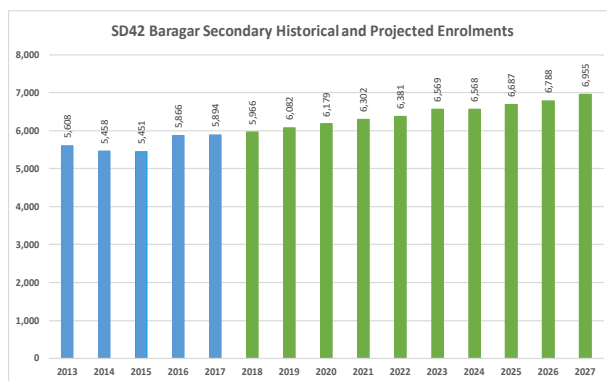
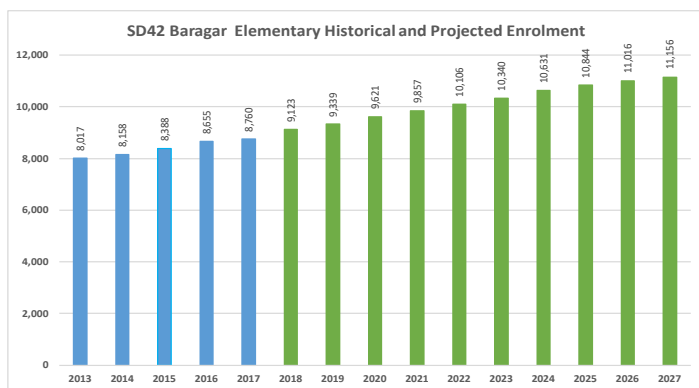
## BARAGAR DEMOGRAPHIC PROJECTIONS

By 2027, Baragar Demographics is projecting student enrolments to increase by approximately 3,455 students at a rate of approximately 345 students per year. K-7 elementary students are forecast to increase by 2,395 students and Grade 8-12 secondary students by 1,060 over the next ten years.

Overall, the Baragar projections are significantly higher than the BC Stats projections. They are also significantly higher than the Baragar Projections used three years ago in the 2015 Strategic Facilities Plan.



In the coming year from 2017 to 2018, K-7 elementary students are forecast to increase by 365 students, while Grade 8-12 secondary students will decline by 20. Baragar forecasts that this will be the last year that secondary enrolments decline as the last wave of larger secondary student cohorts graduate from the system.



The Maple Ridge – Pitt Meadows School District is concerned that the Baragar projections may be too high. In order to prepare a realistic strategic plan to meet future school capital needs, the following Study Projections were also prepared.

## STRATEGIC FACILITIES PLAN STUDY PROJECTIONS

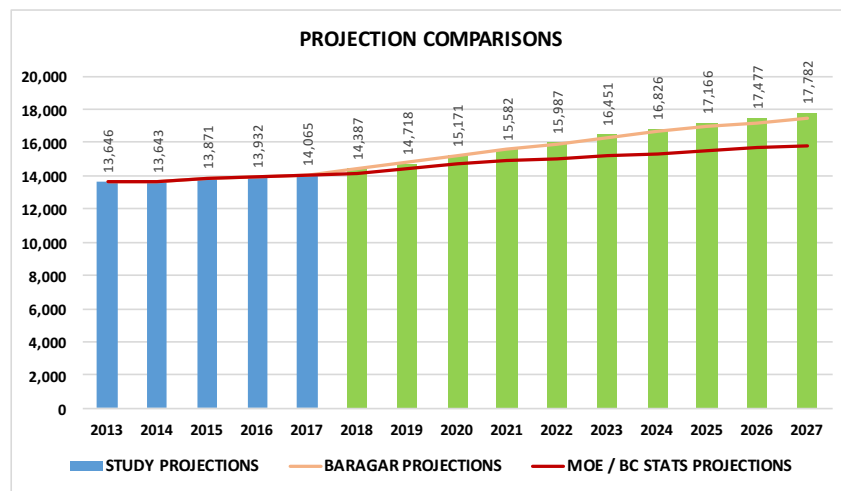
These ten year Study Projections have been developed specifically for the Strategic Facilities Plan using a variety of factors:

1. Review of Census population and historical population growth;
2. Review of external population projections (Census Canada, Ministry of Education/BC Stats, and Baragar Demographics);
3. Review of the Pitt Meadows and Maple Ridge Official Community Plans, Growth Strategies and Historical Residential Building Permits;
4. Review of projected student yield rates and new housing by catchment area;
5. Review of the birth rate and incoming kindergarten students;
6. Review of out of catchment enrolments by schools, particularly the flow of Grade 7 students into secondary school. Large numbers of secondary students do not attend their assigned catchment area school due to attendance at specialty programs or personal reasons;
7. Review of the most recent 5-year student enrolment history and determination of recent historical retention rates by grade and school;
8. Completion of a ten year roll-forward of all existing students by grade and school utilizing historical and projected retention rates;
9. Review of estimated growth from new development and adjustments to the retention factors to accommodate anticipated increases from anticipated new housing.

The Study Projections forecast student enrolments to increase by approximately 3,717 students at a rate of approximately 370 students per year. K-7 elementary students are forecast to increase by 2,428 students and Grade 8-12 secondary students by 1,289 over the next ten years.

### 4.2.3 MAPLE RIDGE - PITT MEADOWS PROJECTION ANALYSIS SUMMARY

It was found that the Study Projections were very similar to the Baragar Projections. An analysis of the historical and anticipated new residential building permits by year as well as the potential future housing growth in the area also support both the Baragar and Study projections. This gives a high degree of confidence moving forward to assess the district's capital requirements. As such, the Study Projections are used in the balance of the report.



Note: The elementary and secondary student projections included in the following sections do not include non-resident students enrolled in SD42 schools.



## 5. MAPLE RIDGE - PITT MEADOWS FACILITIES

The Maple Ridge – Pitt Meadows School District currently has facilities of all shapes and sizes. Over the years, as the district demographics have shifted, some schools were closed, some schools renovated or added to, and new schools were constructed.

The long term facilities planning process gives school districts the opportunity to identify future facility needs based on the future educational requirements of students and the operational goals of the district.

The terms *enrolment*, and *capacity and utilization* will be used throughout this report. An explanation of what these mean and how they are calculated is provided in the glossary of terms.

The school district currently operates 21 elementary schools and 6 secondary schools. For capital planning, the school district will be presented and analyzed in the following three capital zones: West, Central and East. While the educational programs offered in each zone are similar, the school circumstances in these three zones are very different.

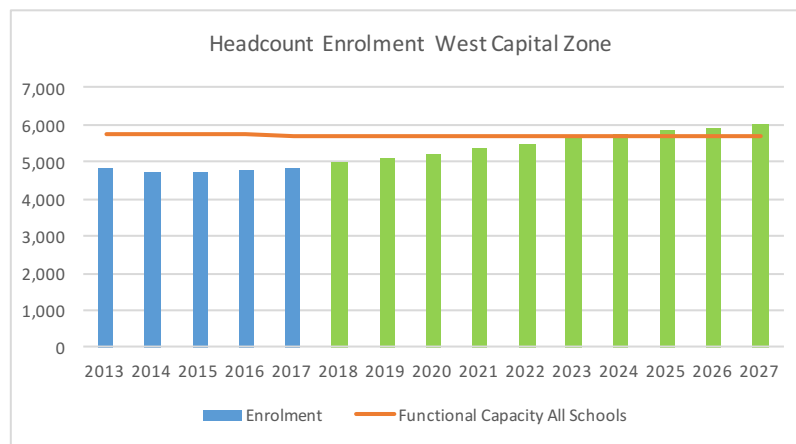
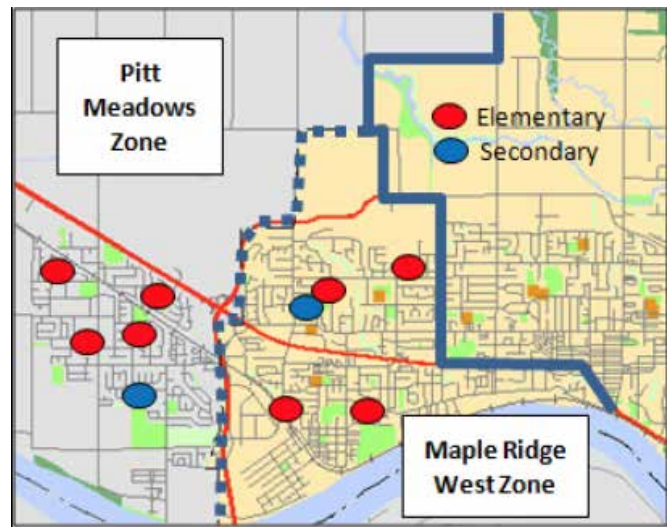
## 5.1 WEST CAPITAL ZONE

The West Capital Zone consists of eight elementary schools and two secondary schools and will be reviewed in the following two sub zones: The Pitt Meadows West Zone and the Maple Ridge West Zone.

Each subzone has four elementary schools and one secondary school.

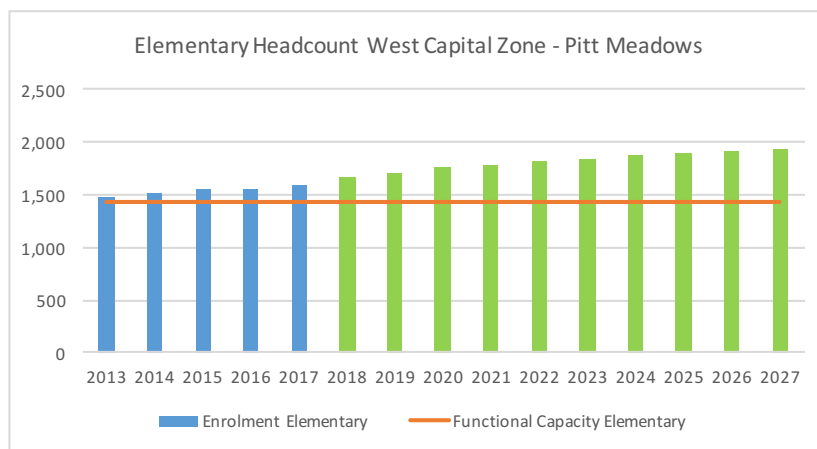
### 5.1.1 ENROLMENT PROJECTIONS

In the overall West Zone, the historical and forecast enrolment is shown relative to the operating capacity of all existing schools. By 2027, the schools in this zone are expected to be fully utilized.



### 5.1.2 ELEMENTARY SCHOOLS WEST CAPITAL ZONE

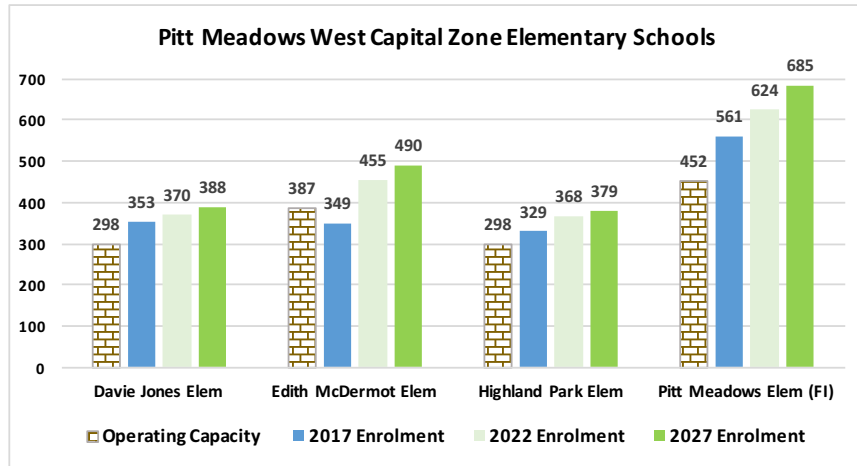
The elementary schools in the Pitt Meadows West zone are Davie Jones Elementary, Edith McDermott Elementary, Highland Park Elementary and Pitt Meadows Dual Track Elementary. The current and forecasted enrolments exceed the existing operating capacity significantly.



Although Edith McDermott Elementary currently has a small amount of surplus capacity, it will be fully utilized by 2019. All other elementary schools are operating beyond capacity with the assistance of portable and modular classrooms.

The high student enrolment at Pitt Meadows Elementary is in part due to the Early French Immersion Program housed at this school. It is therefore a school of choice for many families in the area. There are no other schools in the vicinity that have the space to accommodate the French Immersion Program.

The existing and projected utilization of each elementary school in the Pitt Meadows West Sub Zone is shown in the graph below.

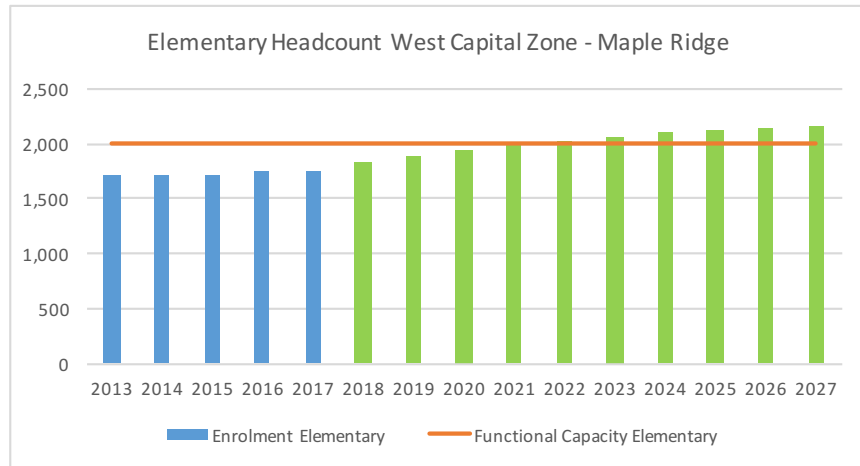


In 2017, there were 157 elementary students over school operating capacities with a combined utilization rate of 111%.

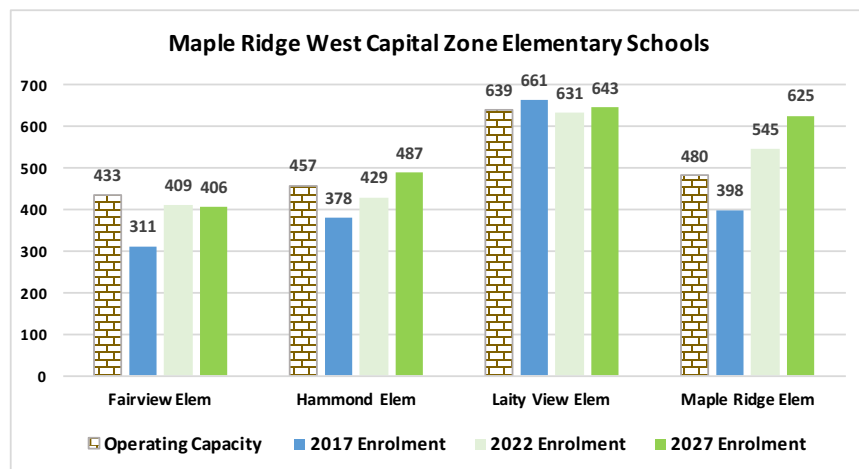
By 2027, it is estimated that there will be 507 elementary students over school operating capacities with a combined utilization rate of 135%, requiring up to 20 additional classrooms.

WEST CAPITAL ZONE	CAPACITY	2017 ENROLMENT	2017 UTILIZATION	2022 ENROLMENT	2022 UTILIZATION	2027 ENROLMENT	2027 UTILIZATION
<b>Pitt Meadows West</b>							
Davie Jones Elementary	298	353	118%	370	124%	388	130%
Edith McDermot Elementary	387	349	90%	455	118%	490	127%
Highland Park Elementary	298	329	110%	368	123%	379	127%
Pitt Meadows Elementary	452	561	124%	624	138%	685	152%
<b>TOTAL ELEMENTARY</b>	<b>1,435</b>	<b>1,592</b>	<b>111%</b>	<b>1,817</b>	<b>127%</b>	<b>1,942</b>	<b>135%</b>

The elementary schools in the West Capital Zone - Maple Ridge are Fairview Elementary, Hammond Elementary, Laity View Elementary and Maple Ridge Elementary. There is currently some surplus capacity, with 261 available spaces, however the four schools are operating at an average 87% capacity. It is anticipated all schools will have full or close to full utilization within ten years.



Hammond Elementary accommodates the K-5 Montessori Program, and Laity View Elementary and Maple Ridge Elementary host Early French Immersion Programs for the Maple Ridge West and Central West Capital Zones. The enrolment from these district programs fills the surplus capacity at these schools keeping adjacent schools from operating over capacity.

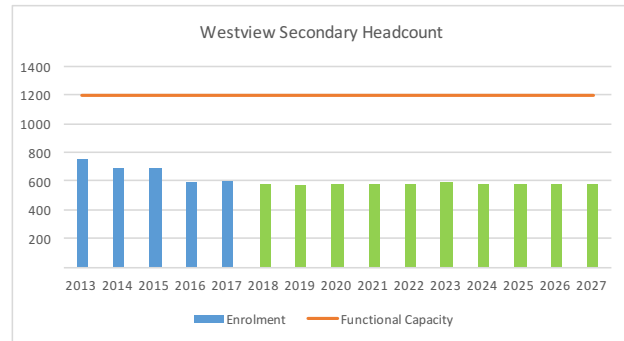
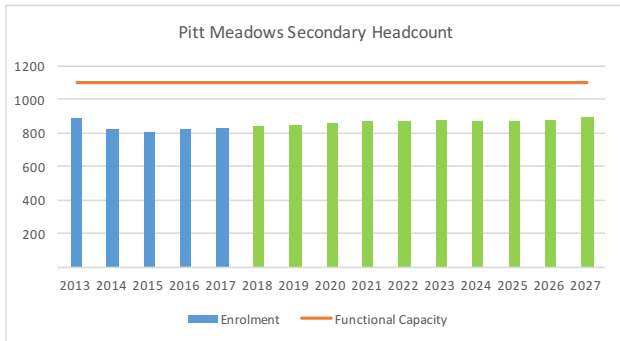


In 2017, there were 261 elementary students under school operating capacities with a combined utilization rate of 87%. By 2027, it is estimated that there will be 152 elementary students over school operating capacities with a combined utilization rate of 108%, requiring up to 6 additional classrooms.

WEST CAPITAL ZONE	CAPACITY	2017 ENROLMENT	2017 UTILIZATION	2022 ENROLMENT	2022 UTILIZATION	2027 ENROLMENT	2027 UTILIZATION
<b>Maple Ridge West</b>							
Fairview Elementary	433	311	72%	409	94%	406	94%
Hammond Elementary	457	378	83%	429	94%	487	107%
Laity View Elementary	639	661	103%	631	99%	643	101%
Maple Ridge Elementary	480	398	83%	545	114%	625	130%
<b>TOTAL ELEMENTARY</b>	<b>2,009</b>	<b>1,748</b>	<b>87%</b>	<b>2,014</b>	<b>100%</b>	<b>2,161</b>	<b>108%</b>

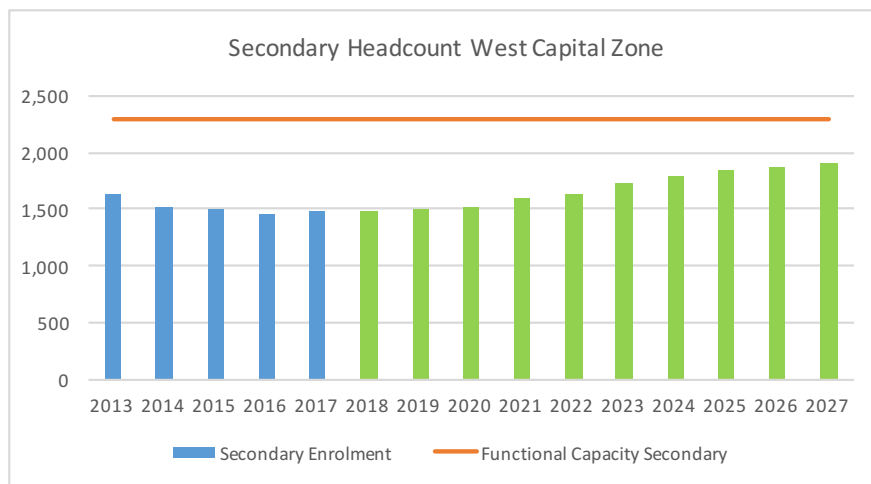
### 5.1.3 SECONDARY SCHOOLS WEST CAPITAL ZONE

In the West Capital Zone there are two secondary schools - one in each sub zone. Pitt Meadows Secondary is in the Pitt Meadows Sub Zone and Westview Secondary is in the Maple Ridge West Sub Zone. Both secondary schools are currently operating well under capacity.



Even though Pitt Meadows Secondary accommodates the French Immersion Program for the region, it currently has 279 surplus spaces. Westview Secondary is operating significantly under operating capacity with 543 surplus spaces in 2017. It is anticipated student enrolments will grow at both schools over time, but by 2027 they will still be under capacity.

When the schools are combined, the following graph demonstrates the significant excess capacity clearer.



In 2017, with the two secondary schools combined, there were 822 surplus secondary spaces with a utilization rate of 64%.

By 2027, it is estimated that there will be 402 surplus secondary spaces with a utilization rate of 83%.

SECONDARY	CAPACITY	2017 ENROLMENT	2017 UTILIZATION	2022 ENROLMENT	2022 UTILIZATION	2027 ENROLMENT	2027 UTILIZATION
Pitt Meadows Secondary	1100	821	75%	969	88%	1,102	100%
Westview Secondary	1200	657	55%	670	56%	796	66%
<b>TOTAL</b>	<b>2,300</b>	<b>1,478</b>	<b>64%</b>	<b>1,639</b>	<b>71%</b>	<b>1,898</b>	<b>83%</b>



#### 5.1.4 PLANNING AHEAD WEST CAPITAL ZONE

The most recent population projections prepared by the City of Pitt Meadows do not indicate any significant change in the number of school aged children over the next ten years. Similarly, the City of Maple Ridge expects only minor population growth to occur in the area served by the Maple Ridge West Zone.

Given these forecasts, the estimated additional 26 classrooms required by 2027 in the West Capital Zone should be first created by increasing the capacity of existing facilities. In the future, if the school aged population projections are revised consideration should be given to developing the school district owned school site in Pitt Meadows.

#### 5.1.5 SCHOOL CONDITION WEST CAPITAL ZONE

There are many criteria used to evaluate a school and whether any or what investment should be made in the facility. Typical criteria are location, educational suitability, size and condition.

Some of these are subjective, but the key technical criteria are the overall facility condition, the seismic risk and building envelope condition. Explanations of these terms are included in the glossary of terms section of this report.

The *facility condition index* (FCI) is a tool used to identify the work that would normally be required to bring the facility up to current standards. Typically, a school condition is expressed using a facility condition index (FCI) and it is a practical tool to compare the overall condition of different schools.

Both elementary and secondary schools in the West Capital Zone and their FCI are as shown in the table. Schools with an FCI greater than 0.30 have a condition rating of “Poor.” Immediate attention to some significant building systems will be required.

FACILITY NAME	FCI 2015	FCI 2017	SEISMIC RISK	BEP Provincial Ranking
Fairview Elementary	0.51	0.47	H3 - In Progress	43.07
Hammond Elementary	0.26	0.21		
Laity View Elementary	0.39	0.40	M	
Maple Ridge Elementary	0.46	0.38	M	Complete
Davie Jones Elementary	0.57	0.42	M	32.72
Edith McDermott Elementary	0.32	0.37		
Highland Park Elementary	0.56	0.55	M	38.46
Pitt Meadows Elementary	0.54	0.53	M	37.34
Westview Secondary	0.49	0.42	H3 - In Progress	26.7
Pitt Meadows Secondary	0.63	0.47	M	37.34

\* For additional information about the Facility Condition Index (FCI), see pages 49-51 of this document.

The seismic risk is a consolidated risk classification for the entire school. The school district has a complete list of the seismic status by individual school block. A classification of Medium (M) means that no significant structural mitigation is required, and a classification of Low (L) means there are no structural life safety risks.

Fairview is the only elementary school in the district with a current seismic classification that requires structural upgrading, however, only the current area leased for childcare and the multi-purpose room are affected. The remainder of the school is classified as Medium, and the west classroom block is classified as Low. A seismic upgrade project is currently underway at this school and will be completed by September 2018.

Westview is the only secondary school in the district with a current seismic classification that requires structural upgrading, however, only the central core classrooms and multi-purpose rooms are affected. The remainder of the school is classified as Medium. A seismic upgrade project is currently underway at this school and will be completed by September 2018.

Most schools in the West Capital Zone have been assessed for building envelope failures. They are shown in the above table as well. If a building envelope project is considered to be a significant capital project on its own, then the project will be included in the district's Capital Plan.

In addition to their general condition assessment, the two secondary schools with the lowest overall condition, Pitt Meadows Secondary and Westview Secondary, are both on the Capital Plan for building envelope upgrading. It should be noted that one wing of Westview Secondary is currently being seismically upgraded.

In summary, this zone is home to the schools that require significant facility upgrading over the next several years:

- the three elementary schools in the Pitt Meadows capital zone have some of the highest elementary school FCI in the school district;
- the two secondary schools in this zone have the highest secondary school FCI in the school district.

### 5.1.6 ADDING CLASSROOM CAPACITY

Over the next ten years, an additional 26 elementary classrooms will be required for schools in the West Capital Zone. Most schools in this zone can accommodate at least one additional portable classroom on-site, and Davie Jones, Fairview and Highland Park Elementary schools could accommodate an addition of at least 4 classrooms.

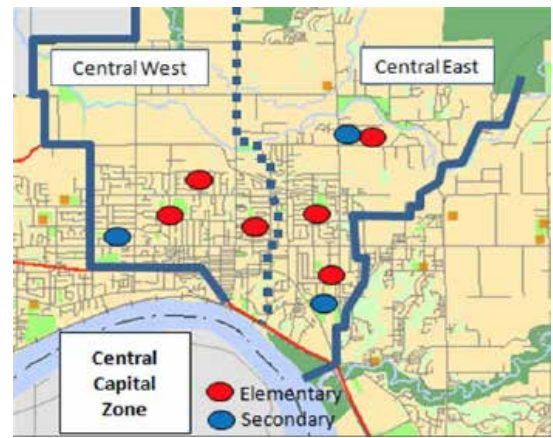
However, both Laity View and Hammond Elementary schools have no space available for a portable or an addition.

The school district also owns a school site in Pitt Meadows that could be developed, with Ministry of Education support, if actual enrolment for this capital zone exceeds the projected enrolments.

## 5.2 CENTRAL CAPITAL ZONE

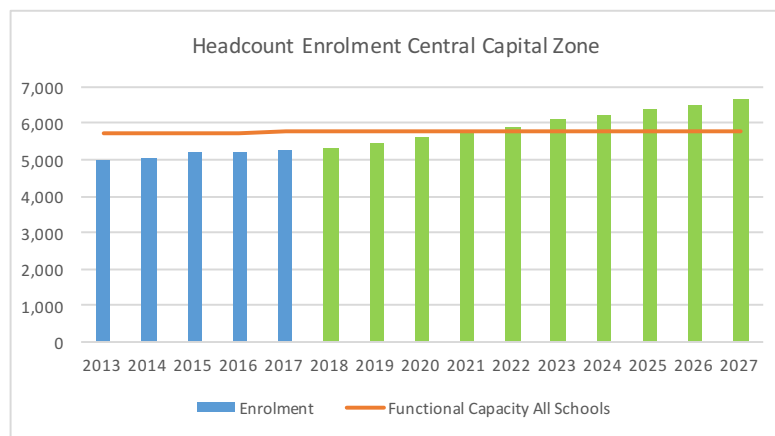
The Central Capital Zone consists of six elementary schools and two secondary schools and will be reviewed in two different sub zones - the Central West Zone and the Central East Zone.

Each subzone has three elementary schools and one secondary school.



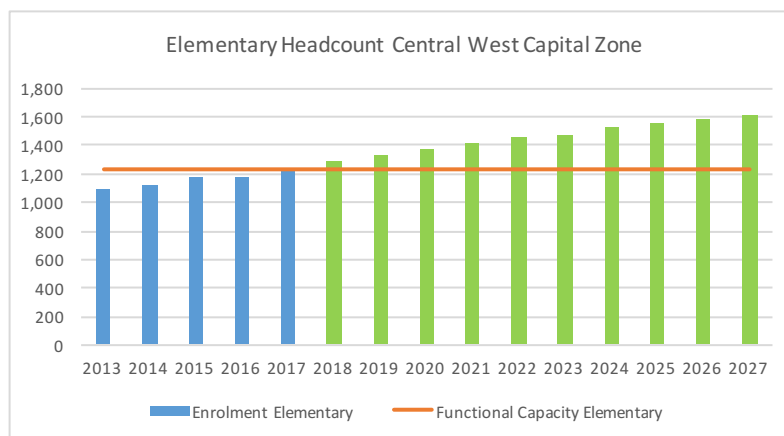
### 5.2.1 ENROLMENT PROJECTIONS CENTRAL CAPITAL ZONE

In the overall Central Zone, the historical and forecast enrolment is shown relative to the operating capacity of all existing schools. When looked at as a whole group, the schools are currently operating just under capacity but enrolments will quickly exceed existing capacity in the next few years.



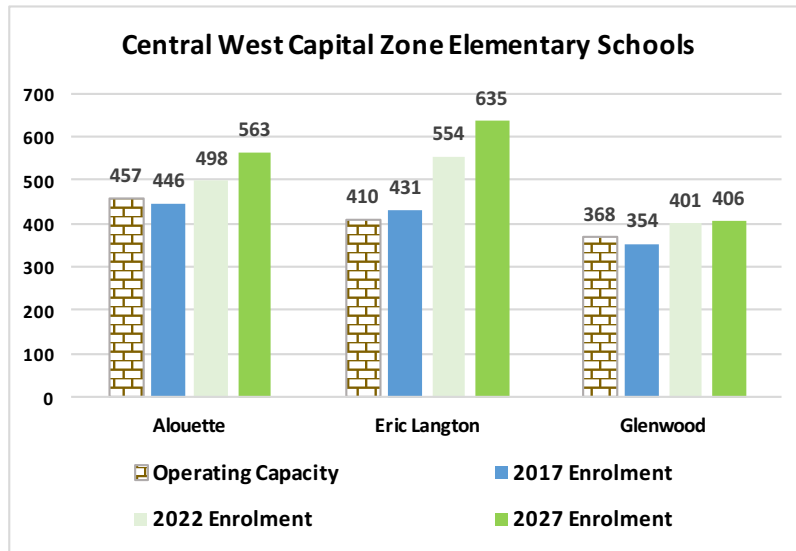
### 5.2.2 ELEMENTARY SCHOOLS CENTRAL CAPITAL ZONE

The elementary schools in the Central West Capital Zone are Alouette Elementary, Eric Langton Elementary and Glenwood Elementary. The elementary schools are currently operating very close to capacity. It is projected that there will be slow but steady enrolment growth in this zone, resulting in a shortage of spaces in a few years.



Eric Langton Elementary offers the Early French Immersion Program for both the Central West and Central East Capital Zones. Due to the draw of the program, it will likely see a higher growth over the next ten years than the other two schools.

The existing and projected utilization of each elementary school in the Central West Sub Zone is shown in the graph below.

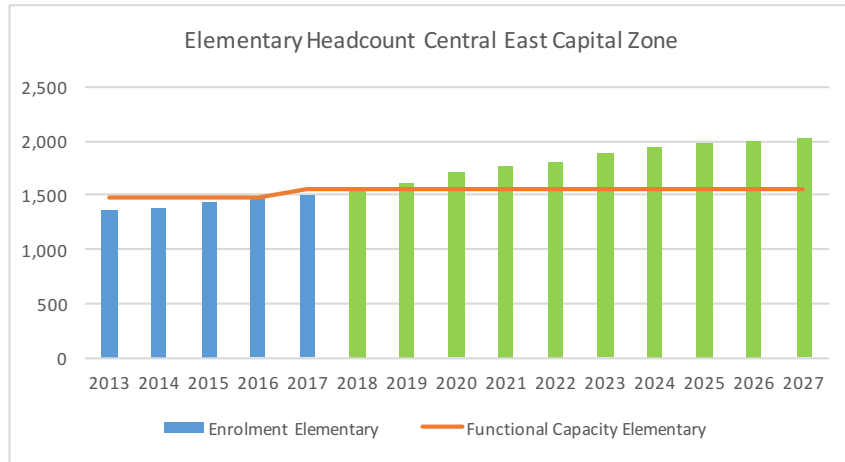


In 2017, the elementary schools are operating at capacity with a combined utilization rate of 100%.

By 2027, it is estimated that there will be 369 elementary students over school operating capacities with a combined utilization rate of 130% -requiring up to 14 additional classrooms.

CENTRAL CAPITAL ZONE	CAPACITY	2017 ENROLMENT	2017 UTILIZATION	2022 ENROLMENT	2022 UTILIZATION	2027 ENROLMENT	2027 UTILIZATION
<b>Central West</b>							
Alouette Elementary	457	446	98%	498	109%	563	123%
Eric Langton Elementary	410	431	105%	554	135%	635	155%
Glenwood Elementary	368	354	96%	401	109%	406	110%
<b>TOTAL ELEMENTARY</b>	<b>1,235</b>	<b>1,231</b>	<b>100%</b>	<b>1,453</b>	<b>118%</b>	<b>1,604</b>	<b>130%</b>

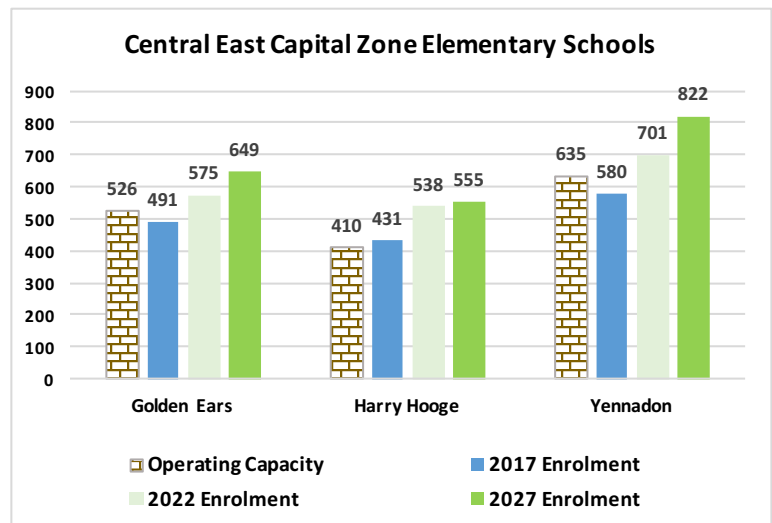
The elementary schools in the Central East Capital Zone are Golden Ears Elementary, Harry Hooge Elementary and Yennadon Elementary. In the Central Capital Zone, the overall utilization of elementary schools is 92% and there are currently 218 surplus spaces. There is significant growth in this area, and it anticipated that elementary enrolments at these three schools will grow by 545 students over the next 10 years.



Golden Ears Elementary is currently slightly under capacity at 93% utilization, while Harry Hooge & Yennadon Elementary schools are operating at 105% and 106% respectively. Golden Ears Elementary offers a Late French Immersion Program for the region, drawing additional students from the zone.

The existing and projected utilization of each elementary school in the Central East Sub Zone is shown in the graph to the right.

In 2017, the elementary schools are operating close to capacity with a combined utilization rate of 96%. However, Harry Hooge Elementary is 21 students over capacity. Yennadon Elementary is 55 students under capacity.

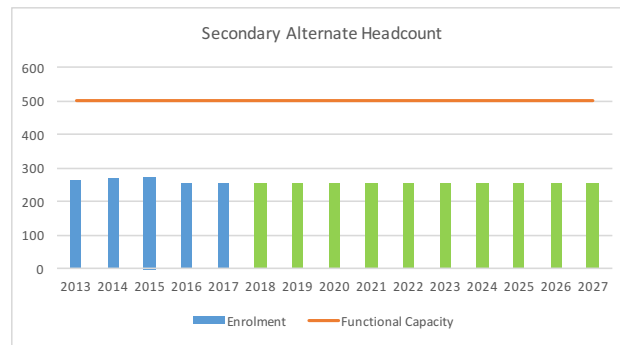
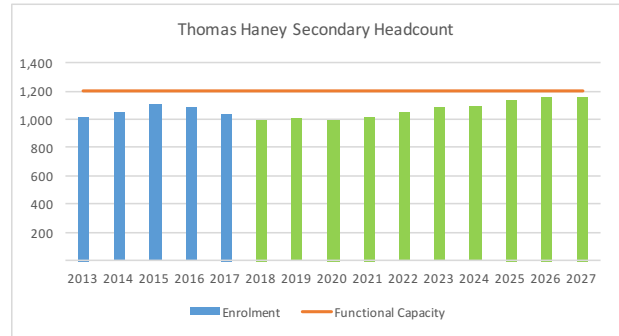
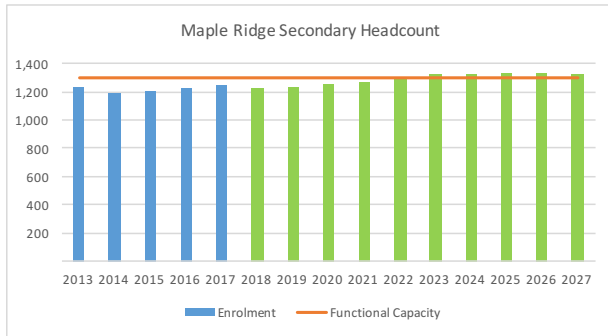


By 2027, it is estimated that there will be 455 elementary students over school operating capacities with a combined utilization rate of 129% -requiring up to 18 additional classrooms.

CENTRAL CAPITAL ZONE	CAPACITY	2017 ENROLMENT	2017 UTILIZATION	2022 ENROLMENT	2022 UTILIZATION	2027 ENROLMENT	2027 UTILIZATION
<b>Central East</b>							
Golden Ears Elementary	526	491	93%	575	109%	649	123%
Harry Hooge Elementary	410	431	105%	538	131%	555	135%
Yennadon Elementary	635	580	91%	701	110%	822	129%
<b>TOTAL ELEMENTARY</b>	<b>1571</b>	<b>1,502</b>	<b>96%</b>	<b>1,814</b>	<b>115%</b>	<b>2,026</b>	<b>129%</b>

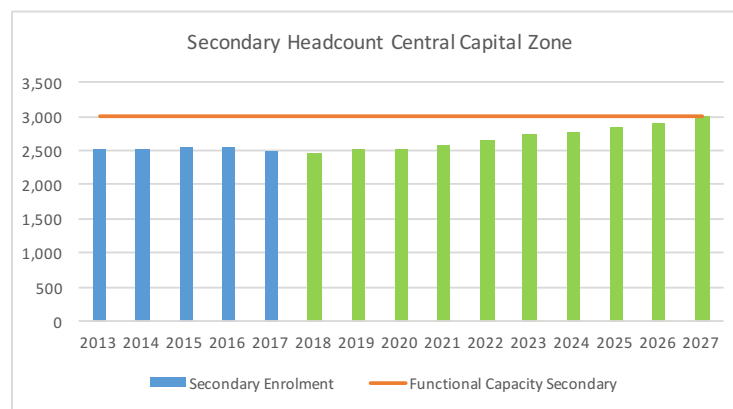
### 5.2.3 SECONDARY SCHOOLS CENTRAL CAPITAL ZONE

In the Central Capital Zone there are two secondary schools - one in each sub zone. Maple Ridge Secondary is in the Central West Sub Zone and Thomas Haney Secondary is in the Central East Sub Zone. Both secondary schools are currently operating slightly under capacity.



This is a high growth area with appeal to families. Maple Ridge Secondary accommodates the French Immersion and Outreach Alternate program for the region. It is currently operating at 94% capacity and is anticipated to increase to 118% capacity over the next ten years. In 2009, the repurposing of Mount Crescent Elementary to Maple Ridge Secondary Annex allowed the transfer of programs from Maple Ridge Secondary to the Annex, and the removal of portables from the Maple Ridge Secondary site. The Annex is not utilized to full capacity by Maple Ridge Secondary. Thomas Haney Secondary is currently operating at 85% capacity and will grow to 101% capacity by 2027. It is not anticipated any new classroom space will be required.

The graph below demonstrates the enrolment and capacity of the two secondary schools and the two alternate schools combined.



In 2017, with the two secondary schools combined, there were 252 surplus secondary spaces with a combined utilization rate of 90%.

By 2027, it is estimated that the schools will grow to 110% utilization, requiring an additional 248 spaces or 10 new classrooms.

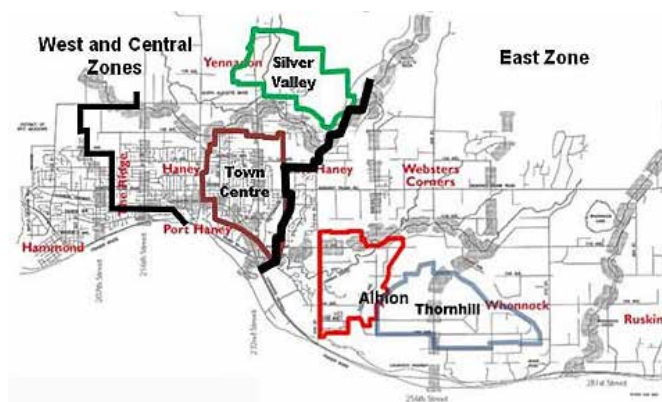
Secondary	Capacity	2017 Enrolment	Utilization	2022 Enrolment	Utilization	2027 Enrolment	Utilization
Maple Ridge Secondary	1,300	1,224	94%	1,325	102%	1,539	118%
Thomas Haney Centre	1,200	1,024	85%	1,079	90%	1,209	101%
<b>Total</b>	<b>2,500</b>	<b>2,248</b>	<b>90%</b>	<b>2,404</b>	<b>96%</b>	<b>2,748</b>	<b>110%</b>

### 5.2.4 PLANNING AHEAD CENTRAL CAPITAL ZONE

Maple Ridge is one of the BC communities experiencing relatively high growth. The table shows the historical population of Maple Ridge as reported by the Canada Census. The 8.2% growth experienced in Maple Ridge from 2011 to 2016 exceeds the Greater Vancouver growth of 6.5% and the provincial average growth of 5.6% over the same time frame.

Year	Maple Ridge	% Increase
2001	63,169	
2006	68,948	8.7%
2011	76,052	9.2%
2016	82,256	8.2%

Maple Ridge continues to be a desirable location for youth and younger families where building lots are larger and housing is generally more affordable than other parts of Metro Vancouver. The 2004 Demographic Analysis and Population and Housing Projection for Maple Ridge, 2001-2031, prepared by The Sheltair Group and Kelly & Associates, projects Maple Ridge’s population to be between 88,200 and 109,500 dependent on official community plan designation decisions made by Maple Ridge City Council.



The City of Maple Ridge currently forecasts the growth trend will continue, but at a somewhat lower rate than previously predicted.

The majority of the current population is located in an east-west band within 5 kilometers north of the Fraser River. With agricultural and natural geographic boundaries restricting growth northward, the community continues to grow eastward along the Lougheed corridor.

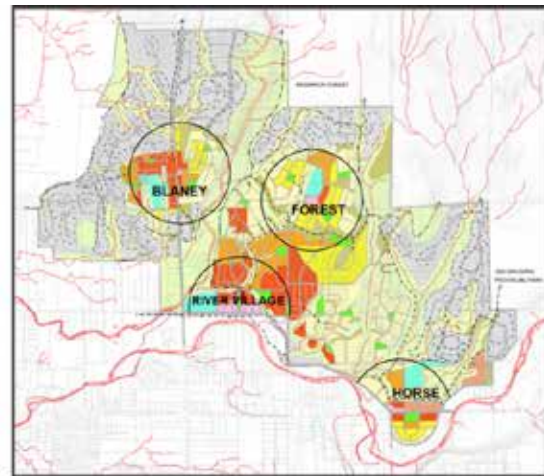
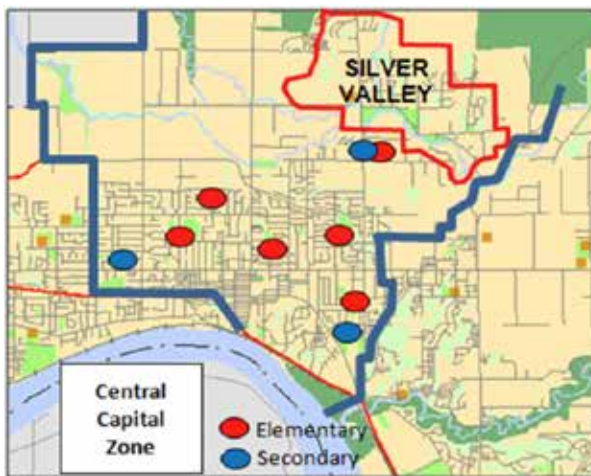
The BLACK lines show the area bounded by the Central Capital Zone. The key growth areas affecting this Zone are the Town Centre and Silver Valley areas.

In this Zone, growth is expected to be in the form of redevelopment in the Town Centre and infill in the Silver Valley area.

There are currently 69 surplus elementary spaces, 252 surplus secondary spaces and 244 secondary alternate spaces in this Zone.

The distribution of schools is generally well located to provide sufficient future spaces for growth in the Town Centre area, even though Eric Langton and Yennadon are currently full.

The challenge for the future will be to supply the additional capacity to accommodate growth from the Silver Valley area.



In order to accommodate all estimated elementary student enrolment from Silver Valley at build-out, the school district will have to acquire and develop one school site in Silver Valley that would at a minimum accommodate a school with an operating capacity similar to that of Yennadon Elementary (545 students).

The current catchment for Yennadon Elementary includes areas that are not part of the Silver Valley Planning Area. As of September 30, 2017, the total in catchment students was 707, however, only 64% enrolled at Yennadon. In the same year, 129 out of catchment students were enrolled in Yennadon.

As Silver Valley continues to develop an additional 242 elementary students are expected by 2027 in the Yennadon catchment.

If we allow some additional elementary growth from the Town Centre area as well, then it can be anticipated that all of the current excess capacity of 69 student spaces will be fully consumed and all elementary schools will approach 100% utilization before 2027.

Maple Ridge Secondary Annex is located in the Central Capital Zone, if the secondary alternate programs currently housed here are relocated to a facility outside this capital zone and the enrolment for Maple Ridge Secondary is capped within the capacity of the facility, Maple Ridge Secondary Annex, with some renovations, could be converted back to an elementary school.

The secondary schools are already at 90% utilization, with a current excess capacity of 252 student spaces. As the elementary enrolment increases, this will slowly translate to increases in secondary. 252 spaces should be sufficient to accommodate growth in the secondary grades in the Central Capital Zone through to 2027. Enrolment growth past this planning timeframe could be accommodated by increasing the capacity of the existing secondary schools in the area.



### 5.2.5 SCHOOL CONDITION CENTRAL CAPITAL ZONE

There are many criteria used to evaluate a school and whether any or what investment should be made in the facility. Typical criteria are location, educational suitability, size and condition.

Some of these are subjective, but the key technical criteria are the overall facility condition, the seismic risk and building envelope condition. Explanations of these terms are included in the glossary of terms section of this report.

Both elementary and secondary schools in the Central Capital Zone and their FCI are as shown in the table. Schools with an FCI greater than 0.30 have a condition rating of “Poor”. Immediate attention to some significant building systems will be required.

FACILITY NAME	FCI 2015	FCI 2017	SEISMIC RISK	BEP Provincial Ranking
Alouette Elementary	0.39	0.43	M	33.21
Eric Langton Elementary	0.50	0.54	M	Complete
Glenwood Elementary	0.60	0.40	L	
Golden Ears Elementary	0.27	0.39	M	
Harry Hooge Elementary	0.49	0.38	M	
Yennadon Elementary	0.43	0.18		Complete
James Best Centre	0.68	0.72		
Maple Ridge Secondary	0.33	0.30	M	Complete
Thomas Haney Centre	0.31	0.41		Complete
Maple Ridge Secondary Annex	0.70	0.64	M	
Yennadon Elementary Annex	0.77	0.18		

*\* For additional information about the Facility Condition Index (FCI), see pages 49-51 of this document.*

The seismic risk is a consolidated risk classification for the entire school. The school district has a complete list of the seismic status by individual school block. A classification of Medium (M) means that no significant structural mitigation is required. A classification of Low (L) means there is very little seismic risk in this school.

There are no schools in the Central Capital Zone with a current seismic classification that requires structural upgrading.

Most schools in the Central Capital Zone have been assessed for building envelope failures. They are shown in the table as well. The only outstanding building envelope remediation project in this capital zone is for Alouette Elementary.

### 5.2.6 ADDING CLASSROOM CAPACITY

It does not appear that additional classroom capacity must be acquired for schools in the Central Capital Zone. However, since the forecast indicates all elementary schools in this zone will reach 129% utilization by 2027, it is prudent to review where the possibilities are to expand capacity.

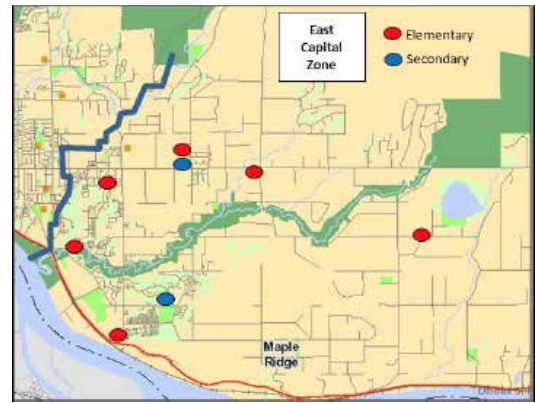
Of the elementary schools in the Central Zone, Glenwood can accommodate an addition of at least 4 classrooms. Both Eric Langton and Harry Hooge can accommodate a portable or an addition.

Golden Ears can accommodate a portable but as in the case with Alouette, and Yennadon they are not able to accommodate a substantial addition given the current design of those schools and the land available.

Consideration should be given to converting Maple Ridge Secondary Annex back to an elementary school.

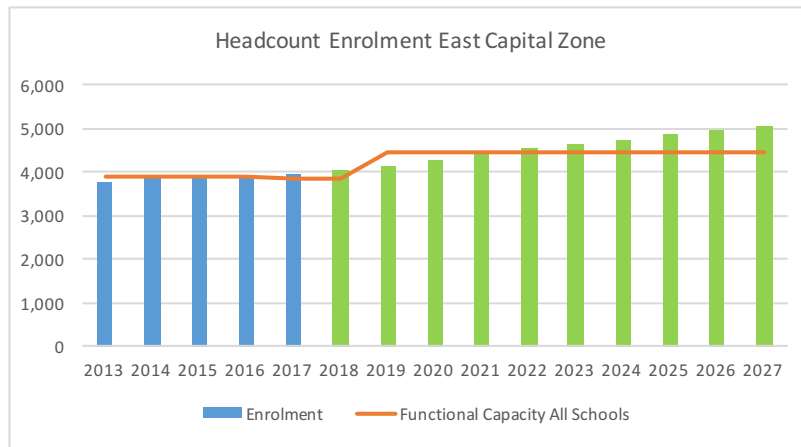
### 5.3 EAST CAPITAL ZONE

The East Capital Zone consists of one large zone that extends from central Maple Ridge all the way east to the Mission School District boundary. This large geographic zone contains six elementary schools and two secondary schools. The zone is bisected by Kanaka Creek which is a significant natural barrier with limited bridge crossings.



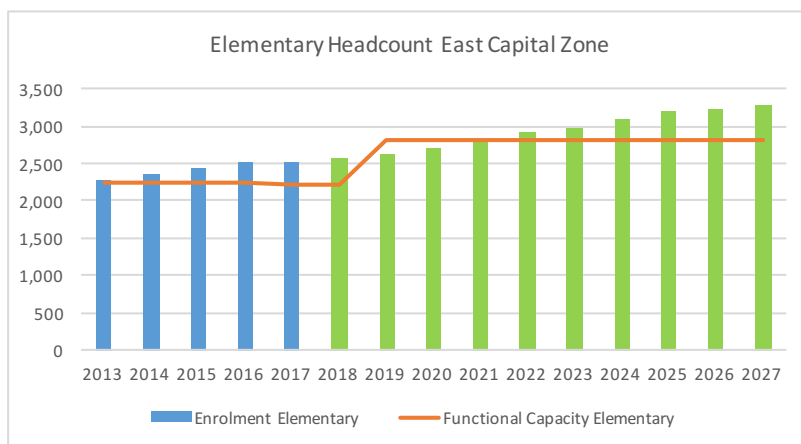
#### 5.3.1 ENROLMENT PROJECTIONS EAST CAPITAL ZONE

In the East Capital Zone, the historical and forecast enrolment is shown relative to the operating capacity of all existing schools. As a combined group, the schools in this zone are currently operating close to capacity, but high growth anticipated in the region in the next ten years could raise enrolments by over 1,100 students.



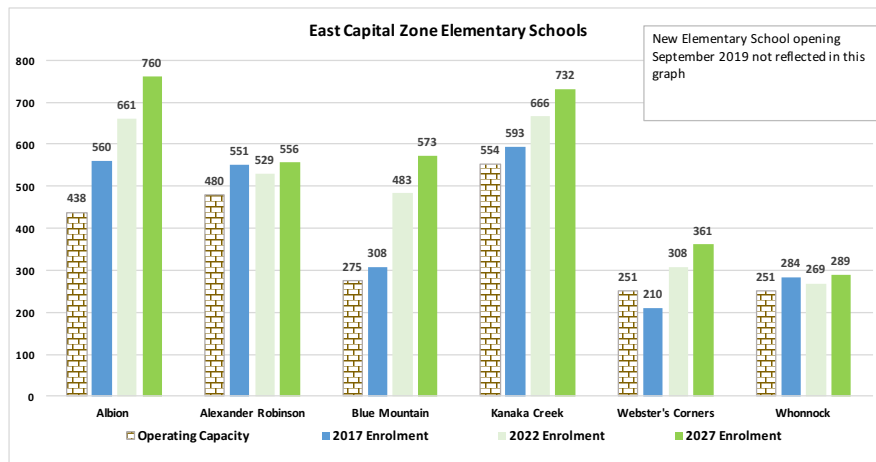
#### 5.3.2 ELEMENTARY SCHOOLS EAST CAPITAL ZONE

The six elementary schools in the East Capital Zone are currently Albion Elementary, Alexander Robinson Elementary, Blue Mountain Elementary, Kanaka Creek Elementary, Webster’s Corners Elementary and Whonnock Elementary. The elementary schools are currently operating very close to capacity. It is projected that there will be slow but steady enrolment growth in this zone, resulting in a shortage of spaces.



The existing and projected utilization of each elementary school in the East Capital Zone is shown in the graph below. Webster's Corners is the only Elementary school that currently has excess capacity. In 2017 there were 41 available spaces at this school, however, it is expected to grow considerably as the catchment is located in one of the proposed development areas.

All other elementary schools in the east zone are currently operating well over capacity with a combined total of 257 more students than existing seats. The area is anticipated to have aggressive growth and the student enrolments are projected to increase by an additional 765 students by 2027.



In 2017, the capacity of the East Zone Elementary schools is 2,249. The existing elementary schools are operating at capacity with a combined utilization rate of 111%, 257 students over capacity.

An elementary school in the Albion area of Maple Ridge is currently under construction and is expected to be open for September 2019. The new school will have an Operating Capacity of 616 students. This will greatly assist with the current overcrowding but will still not meet all the elementary capacity requirements for the next ten years.

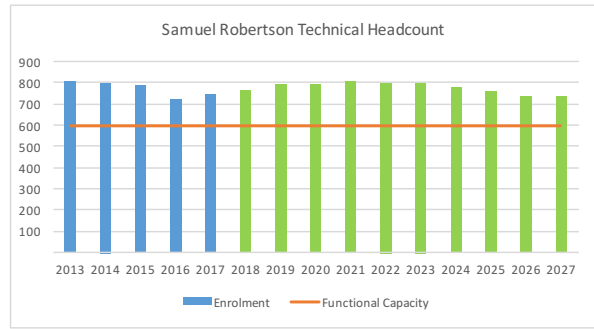
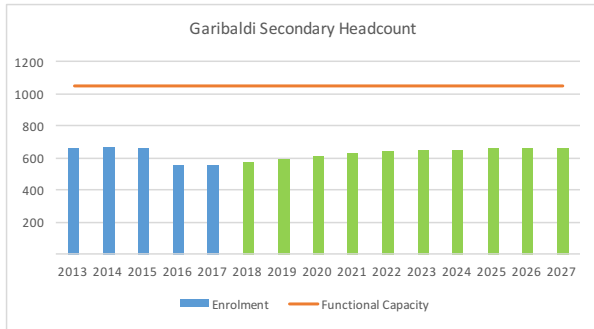
In 2027, it is estimated that there will be 406 elementary students above school capacities with a combined utilization rate of 114%, requiring up to 16 additional classrooms.

EAST CAPITAL ZONE	Capacity	2017 Enrolment	Utilization	2022 Enrolment	Utilization	2027 Enrolment	Utilization
Albion Elementary	438	560	128%	661	151%	760	174%
Alexander Robinson Elementary	480	551	115%	529	110%	556	116%
Blue Mountain Elementary	275	308	112%	483	176%	573	208%
Kanaka Creek Elementary	554	593	107%	666	120%	732	132%
New Elementary School*	616	Enrolments for the new school in the Albion area of Maple Ridge cannot be shown separately until a catchment area for the school is determined and students are distributed					
Webster's Corners Elementary	251	210	84%	308	123%	361	144%
Whoonock	251	284	113%	269	107%	289	115%
<b>Total Elementary</b>	<b>2,865</b>	<b>2,506</b>	<b>111%</b>	<b>2,916</b>	<b>102%</b>	<b>3,271</b>	<b>114%</b>

\*At the time of writing this report, the catchment area for the new school is still under consideration. Community consultation is currently underway with three potential options. Although the school district is confident regarding the total Ten Year Projected Enrolments for the East Capital Zone, until such time as the new school's catchment is confirmed, it is not possible to allocate the forecast elementary enrolments by specific school. An addendum to the Strategic Facilities Plan may be required to clarify the distribution of projected students in this zone.

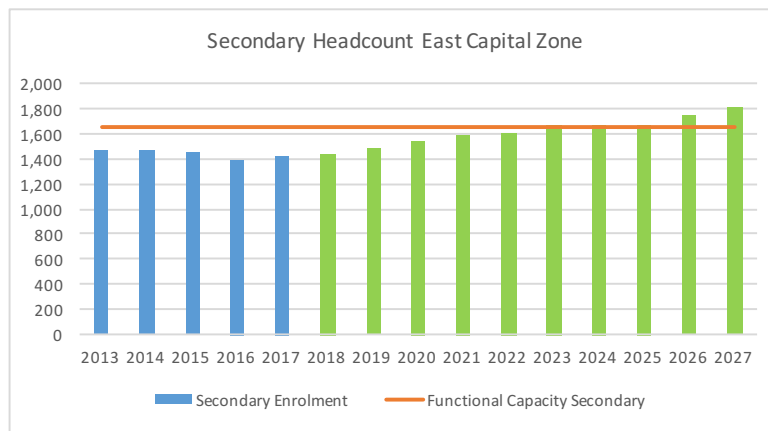
### 5.3.3 SECONDARY SCHOOLS EAST CAPITAL ZONE

In the East Capital Zone there are two secondary schools - Garibaldi Secondary and Samuel Robertson Technical. At the current time, there is an open boundary between the two schools, resulting in an imbalance of enrolments and school utilization. The larger school, Garibaldi Secondary, is operating at 64% capacity while Samuel Robertson Technical is operating at 126% capacity.



Even though this is a high growth area, it is anticipated that the existing capacity at the two secondary schools will accommodate the majority of secondary students over the next ten years as long as students utilize each school to its capacity. Grade 8 enrolment at Samuel Robertson Technical has been capped at 150 students, but a lower cap should be considered in order to discontinue the use of portable classrooms at SRT.

The graph below demonstrates the enrolment and capacity of both secondary schools combined.



In 2017, with the two secondary schools combined, there were 224 surplus secondary spaces with a combined utilization rate of 86%.

By 2027, it is estimated that the schools will grow to 152 students over capacity with a utilization rate of 109%, requiring an additional 6 classrooms.

SECONDARY	Capacity	2017 Enrolment	Utilization	2022 Enrolment	Utilization	2027 Enrolment	Utilization
Garibaldi Secondary	1,050	673	64%	865	82%	957	91%
Samuel Robertson Technical	600	753	126%	745	124%	845	141%
<b>Total</b>	<b>1,650</b>	<b>1,426</b>	<b>86%</b>	<b>1,610</b>	<b>98%</b>	<b>1,802</b>	<b>109%</b>

### 5.3.4 PLANNING AHEAD EAST CAPITAL ZONE

As seen previously, the majority of the population in Maple Ridge is located in an east-west band within 5 kilometers north of the Fraser River.

Over the years, growth has continued to move eastward as agricultural and geographic conditions preclude significant development from occurring to the north.



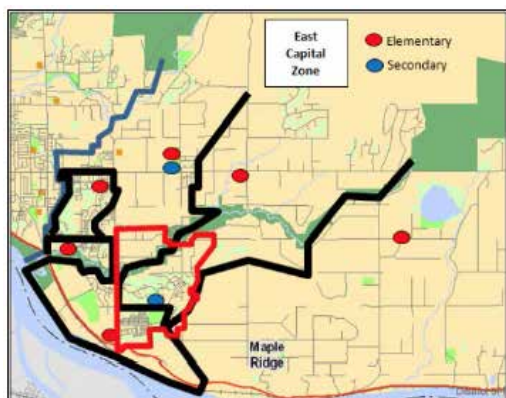
The **BLACK** line shows the area boundary between the East Capital Zone and the West and Central Zones.

The City of Maple Ridge currently forecasts the majority of their future growth will continue in the East area along the Lougheed corridor.

The primary growth area is south of Kanaka Creek in the Albion planning area. This area is shown on the map above outlined in **RED**. The area to the east of the Albion area is Thornhill, currently designated as Urban Reserve. The areas west and north of the Albion planning area are also experiencing new growth through continued development.

The current catchment areas for the East Zone elementary schools are as shown on the map.

From this, it is easy to visualize how all of the elementary schools in the East Zone are impacted by continued growth and development in and around the Albion planning area.



The forecast shows an enrolment growth projection of 765 elementary students for the East Capital Zone or 406 over the operating capacity of schools in the area after the new elementary school opens September 2019.

The school district should consider requesting Ministry of Education funding for acquiring a school site and building an additional elementary school in this capital zone. This would also provide sufficient space for future enrolment growth beyond 2027.

The City of Maple Ridge continues to forecast the highest growth to be in the Albion and surrounding areas. The challenge for the future will be to provide sufficient capacity to accommodate growth.

### 5.3.5 SCHOOL CONDITION EAST CAPITAL ZONE

There are many criteria used to evaluate a school and whether any or what investment should be made in the facility. Typical criteria are location, educational suitability, size and condition.

Some of these are subjective, but the key technical criteria are the overall facility condition, the seismic risk and building envelope condition. Explanations of these terms are included in the glossary of terms section of this report.

Both elementary and secondary schools in the East Capital Zone and their FCI are as shown in the table. Schools with an FCI greater than 0.30 have a condition rating of “Poor”. Immediate attention to some significant building systems will be required.

FACILITY NAME	FCI 2015	FCI 2017	SEISMIC RISK	BEP Provincial Ranking
Albion Elementary	0.52	0.43	M	In process
Alexander Robinson	0.24	0.21		
Blue Mountain Elementary	0.31	0.21		
Kanaka Creek Elementary	0.39	0.14		Complete
Webster’s Corners Elementary	0.40	0.26	M	
Whonnock Elementary	0.32	0.15		22.83
Garibaldi Secondary	0.33	0.41		
Samuel Robertson Technical	0.05	0.05		

*\* For additional information about the Facility Condition Index (FCI), see pages 49-51 of this document.*

The seismic risk is a consolidated risk classification for the entire school. A classification of Medium (M) means that no significant structural mitigation is required.

Most schools in the East Capital Zone have been assessed for building envelope failures and are shown in the table. If a building envelope project has been assigned a priority in the district’s Capital Plan, the building envelope project would be considered as a significant capital project.

All of the schools in this zone are in reasonable condition for their age, even though some of the facilities have a calculated FCI for 2017 that exceeds 0.30.

### 5.3.6 ADDING CLASSROOM CAPACITY

Additional capacity is required for schools in the East Capital Zone.

Only Blue Mountain or Webster’s Corners could accommodate an addition of at least 4 classrooms. The other schools have restricted site space, or the design and layout of the school on the site makes it very inefficient for an addition.

Alexander Robertson and Whonnock cannot support any additional portables. Blue Mountain and Webster’s Corners schools could accommodate at least one additional portable classroom. Albion and Kanaka Creek Elementary schools are not able to accommodate additional portable classrooms without encroaching on to the existing playfields.

## 5.4 OTHER FACILITIES

### 5.4.1 DISTRICT EDUCATION OFFICE (DEO)

The District Education Office is located at 22225 Brown Avenue, Maple Ridge, and houses the Board offices and administrative staff for the school district.

A building envelope remediation project was recently completed at the DEO. Because the facility cannot house all district services, alternate accommodation was found for the International Education Department and Learning Services.

The actual property is larger than the portion currently used by the school district, with the unused property on the east side as shown on the aerial photo.



The DEO property has two separate zones as shown below. The unused portion to the east, shown by dashed RED lines, is approximately 1,800 m<sup>2</sup> and is zoned RM-3, Multi-Family Residential.



While this property is surplus to the school district's current needs, it may be required in the longer term, even if just for parking. Over the following decade, the student enrolment in the Maple Ridge – Pitt Meadows School District is expected to grow and with that will come increased demand for administrative services in the longer term.

#### 5.4.2 DISTRICT MAINTENANCE

The District Maintenance facility is located at 23889 Dewdney Trunk Road, Maple Ridge, and houses all of the maintenance, support staff and repair equipment and stores for the school district.

The District Maintenance Facility is considered good accommodation and is suitable for the foreseeable future.

The property currently has an unused portion on the southeast side adjacent to the City of Maple Ridge Operations Yard and fronting on Dewdney Trunk Road, as shown on the following detailed site plan.

This property is approximately 3,000 m<sup>2</sup> and generally flat. It is currently not serviced but all services are available from Dewdney Trunk Road.

To allow for partial disposal, this property would have to be subdivided into two lots followed by a rezoning and OCP amendment in order to re-develop the site.

The property is potentially beneficial for future expansion of District Maintenance. It is very difficult to find suitable properties for maintenance facilities and the current location is considered very good.



#### 5.4.3 RIVERSIDE CENTRE

In 2009, the district closed Riverside Elementary at 20575 Thorne Avenue, Maple Ridge.

The school has been re-purposed as Riverside Centre. This site is home to a number of district programs: Online Learning, Continuing Education, International Education and Ridge Meadows College.

While the building is being utilized, the playfield, shown shaded in YELLOW on the aerial, is not necessary for the delivery of the programs currently housed at Riverside Centre.

To dispose of this property, a subdivision followed by a rezoning and OCP amendment would be required.





#### 5.4.4 ALOUETTE RIVER CAMPUS

The Alouette River Campus property is only 1.755 ha, is long and thin and is not large enough for an elementary school. Access to this property is currently circuitous. The property has a “Conservation” designation under the OCP. This property has been approved for disposal by the Board and the Ministry of Education.



#### 5.4.5 ARTHUR PEAKE CENTRE

The Arthur Peake Centre is located on the south side of the Golden Ears Elementary property, fronting on 116 Avenue. This facility is currently housing a secondary alternate program.



#### 5.4.6 JAMES BEST CENTRE

The James Best Centre is located on the east side of the Eric Langton Elementary property. The portion of the site currently used by the James Best Centre is approx. 2,500 m<sup>2</sup>. The facility is currently used by the Environmental School.

#### 5.4.7 SOUTH LILLOOET CENTRE



The South Lillooet Centre was repurposed to support Yennadon Elementary School's growing kindergarten program. The school underwent a major renovation to create four classrooms and was renamed Yennadon Elementary Annex. Its frontage is on 232nd Street.

The Yennadon Elementary site is approximately 1,750 m<sup>2</sup> larger than required by the Ministry's Area Standards. The portion of the site currently used by Yennadon Elementary Annex is approx. 3,300 m<sup>2</sup> and is shown bounded by the RED lines.



## 5.5 LAND MANAGEMENT

### 5.5.1 SCHOOL SITE ACQUISITION

As a part of the Ministry of Education capital planning process, all school districts are required to develop a capital plan based on a ten-year projection horizon to allow identification of future site acquisition needs.

All districts requesting the acquisition of new school sites or the expansion of existing school sites in response to potential enrolment growth generated by new residential development must have School Site Acquisition Charges (SSAC) in place before the Ministry will support a site request.

Once SSAC have been established in a school district, updated ten-year enrolment projections will inform the district's annual consultations with its local government regarding the need for new school sites and the calculated values of the per-unit SSAC.

Additional information about School Site Acquisition Charges is provided in the Implementation Guide: School Site Acquisition Charge at <http://www.bced.gov.bc.ca/capitalplanning/ssac/ssacguide.pdf>.

The capital planning process is the means by which boards obtain capital funding approval (based on board priorities), including support for site acquisitions. The primary driver for site acquisition support and funding from the Ministry of Education is forecasted enrolment pressure.

There are a number of requirements that must be met before acquiring a school site. The process is outlined in the School Site Selection Guide. When the school district considers the purchase of a site using SSAC funds, it must follow the School Site Selection Guide. A copy of the guidelines is available at: <http://www.bced.gov.bc.ca/capitalplanning/projectmanagement/documents/siteselectionguide.pdf>.

### MINISTRY OF EDUCATION GUIDELINES

The Ministry of Education Area Standards prescribes areas and other standards established by the Ministry of Education for space in elementary, middle and secondary schools and areas and other standards for sites and grounds and district service facilities. These standards apply to all facilities that are to be either newly constructed or enlarged. The standards are also to be used to establish the nominal capacity of existing schools.

In the Ministry of Education - Area Standards (05/2012) it is noted that the required site area for a new school should be based on a reasonable estimate of the eventual maximum nominal capacity of the school. For an elementary school the maximum nominal capacity under Ministry of Education standards is 800 students.

Nominal Capacity	Elementary Site Area in Hectares	Playfield Area (included in Site Area)
350	1.9	1.0
400	2.3	1.0
450	2.5	1.0
500	2.7	1.0
550	2.8	1.0
600	3.0	1.0
650	3.1	1.2
700	3.3	1.2
750	3.5	1.2
800	3.7	1.2

New site areas described above for elementary schools are subject to the following exceptions:

- Additional area requirements for sewage lagoons and septic fields will be considered on an individual basis;
- Topographical and/or other environmental conditions will be considered in acquiring additional land for the school building and playfields;
- Bus drop-off areas will be considered only where busing is required.

## SITE SELECTION CRITERIA

In selecting a school site the School Site Selection Criteria as outlined in the School Site Selection Guidelines from the Ministry of Education must also be applied.

In addition, the following criteria should be applied when considering the acquisition of a new school site:

- 10 year enrolment projections confirm the need for a new school to be built;
- The shape and size of the parcel can accommodate the building of a school facility with a nominal capacity of at least 500 students and the site size permits future expansion of the school;
- The parcel has adequate road frontage that would permit adequate pick-up and drop-off.

### 5.5.2 DISPOSAL OF LAND OR IMPROVEMENTS

The board may only dispose of board owned land or improvements subject to the orders of the Minister of Education. The Disposal of Land or Improvements Order (“M193/08”), effective September 3, 2008, is currently the most recent order regarding disposals. The related School Opening and Closure Order (“M194/08”) has also been in effect since that date.

Under the School Act the Board of Education may acquire or dispose of property owned or administered by the board only by bylaw.

M193/08 requires ministerial approval of any disposal of land or improvements by sale and transfer in fee simple, or by way of a lease of 10 years or more, unless the disposal is to another school board or to an independent school for educational purposes. Approval is in the minister’s absolute discretion and may be made on any terms or conditions.

The minister has issued a checklist of Mandatory Documents for Ministerial Approval, dated December 2, 2008, and a list of Questions and Answers regarding M193/08, dated February 2009. Those documents state Ministry policies, which may change from time to time. Those documents identify at least three factors that should be considered by school boards, although they are not express requirements of M193/08.

1. **Broad Consultation:**

The Ministry considers broad public consultation regarding a potential disposal to be important for procedural fairness and transparency. M194/08 specifies what consultation should occur before a school closure. The Ministry has stated that a school closure consultation should be followed by a separate consultation process regarding a proposed disposal.

2. **Alternative Community Use:**

The consultation process should include local government, community organizations and the public, and any potential alternative community uses should be considered. The Ministry appears willing to permit school boards to determine the form of consultation that is appropriate in each case.

3. **Appraisals:**

The Ministry’s checklist requires two appraisals from licensed property appraisers, but provides that a property assessment may be acceptable in situations where it is impractical to obtain two appraisals.

### 5.5.3 ALLOCATION OF PROCEEDS FROM THE DISPOSITION OF LAND OR IMPROVEMENTS

The allocation of proceeds from the disposal of board owned capital assets including land is made in accordance with the Ministry of Education Policy Allocation of Proceeds from the Disposition of Capital Assets issued February 18, 2004.

In accordance with the School Act, when a Board of Education receives money from the disposition of a capital asset, the proceeds must be allocated between the Minister as minister-restricted capital funds and the board as local capital funds, according to the original contributions made by the province and the Board of Education, respectively.

The Board of Education must determine how any proceeds should be allocated, based on its historical records of the capital fund sharing arrangement between the province and the board for site acquisition and any improvements.

In situations where the original contributions by the province and a board cannot be determined, the minister has the authority, under section 100 (3) of the School Act, to allocate the proceeds.

By this authority, the minister has determined that the proceeds of a disposition may be apportioned at 25 per cent as local capital funds and 75 per cent as minister-restricted capital funds. This applies to those cases where the board cannot determine the original provincial or local contributions, or the board's original contribution is known to be equal to or less than 25 per cent.

### 5.5.4 CROWN LAND GRANT

School sites that are the subject of a Crown Land grant are not affected by the Disposal of Land and Improvements Order. Crown Land grants no longer required for educational purposes revert to the Crown as per Section 99 of the School Act.

### 5.5.5 SCHOOL DISTRICT OWNED SCHOOL SITES

The school district owns one property suitable for construction of a new school: Bonson Road – this is a vacant parcel at 11225 Bonson Road in Pitt Meadows south. This property is located in the West Capital Zone where the projected enrolment needs be accommodated in an additional 26 classrooms over the next 10 years. See West Capital Zone section for additional information.



## 7. GLOSSARY OF TERMS

This section explains common terms utilized in this report.

### ENROLMENT

In this report, “enrolment” refers to the number of registered students in each school as at September 30, 2013 as confirmed by the Ministry of Education’s 1701 Verification Report.

The 2013 actual enrolment and 2023 forecasted enrolment includes only Ministry of Education funded students. Enrolment in the school district’s International Education program is not included in this report.

The forecasted enrolment distribution by school is based on 2013 catchment areas. Changes to catchment areas will affect the distribution of enrolment by school. Current catchment areas can be viewed on the school district website ([www.sd42.ca](http://www.sd42.ca)).

### NOMINAL CAPACITY

In order to determine the number of student instructional spaces in a school, the Ministry of Education uses a nominal capacity based on the following criteria:

This nominal capacity forms a standard baseline across the province and the Ministry allocates all other non-instructional school space – gymnasium size, office space, hallways, etc. based on this.

<b>Kindergarten:</b>	20 pupils per classroom
<b>Elementary:</b>	25 pupils per classroom
<b>Middle &amp; Secondary:</b>	25 pupils per classroom and vocational module

A typical nominal capacity would be 20K + 450, such as Albion Elementary. This means there are 20 spaces allocated to kindergarten and 450 spaces allocated to grades 1-7. The total school nominal capacity is then 470.

Modular classrooms were added to many school districts to accommodate Full Day Kindergarten. The Ministry of Education treats modular classrooms as permanent space, even though they may ultimately be relocated. When they are added to a school, such as Edith McDermott Elementary, an additional 20K will be added to the nominal capacity.

The nominal capacity may also be reduced if a classroom is used for an alternate approved educational program. A typical example is for a Strong Start Centre. If a classroom is not used and is removed from the educational space, such as the use of a portable classroom or multi-purpose room, then no change would occur in the school nominal capacity.

### FUNCTIONAL CAPACITY OR OPERATING CAPACITY

As a more practical alternative and to accommodate adjustments in student capacity for the various grade structures i.e. Grades K-3, K-5 or K-7 for elementary, the nominal capacity is adjusted to an operating capacity. The Ministry has a standard formula for these, for example:

Grade Structure	K-7	
Classroom Student Capacity	Kindergarten	19
	Grades 1-3	21
	Grades 4-7	25
Average Classroom 1-7 Capacity	23.29	

The operating capacity and nominal capacity may be the same value for most middle and secondary schools. For example, Garibaldi Secondary has both a nominal and operating capacity of 1050.

## CONVERSION OF NOMINAL CAPACITY TO OPERATING CAPACITY

For an elementary school, to determine the number of educational spaces, nominal capacity is converted to operating. For example, Albion Elementary, at 20K + 450 would have an operating capacity of 438 students, calculated as follows:

Kindergarten classrooms	1	= 19 capacity
Grade 1 - 7 classrooms (at 450/25 spaces per classroom)	18 x 23.29	= 419
Total		= 438

The Ministry's designated nominal and operating capacities are used as a standard across the province, and are not mandated capacities. For new facilities, school boards determine their own operating capacities, based on local decisions, subject to the limits established by the School Act.

## UTILIZATION

Utilization is usually expressed as a percentage. It usually refers to the entire school rather than a percent of kindergarten or of grades 1-7. Therefore, Albion Elementary, with an operating capacity of 438 and an enrolment of 544 would have a school utilization of 544/438 or 124.2%. This is consistent with Albion Elementary being full and having an additional 5 portable classrooms on-site.

As another example, Edith McDermott Elementary has a nominal capacity of 40K + 375 equals an operating capacity of 387 students. With 299 students registered for 2013, this is a school utilization of 77.3%.

Utilization is an easy method for understanding the current capacity situation in a school and for comparing it with other schools.

## FACILITY CONDITION INDEX (FCI)

The BC Ministry of Education has established a Capital Asset Management system (CAMS) for all schools in the province and has contracted with VFA Inc. to conduct facility condition audits.

The purpose of the facility condition audit is to determine the equivalent age and condition of each school building(s). The condition includes structural, architectural, mechanical, electrical, plumbing, fire protection, equipment and furnishings and life safety. An audit of site conditions is also included.

The audit determines what resources will be required over the coming years to maintain or replace aging facilities. Each school is given a rating called the Facility Condition Index (FCI). This is a comparative index allowing the Ministry to rank each school against all others in the province and is expressed as a decimal percentage of the cost to remediate maintenance deficiencies divided by the current replacement value i.e. 0.26. For practical purposes, the ratings have the following meaning:

FCI RATING	CATEGORY	GENERAL ASSESSMENT
0.00 to 0.05	Excellent	Near new condition. Meets present and foreseeable future requirements.
0.05 to 0.15	Good	Good condition. Meets all present requirements.
0.15 to 0.30	Average	Has significant deficiencies, but meets minimum requirements. Some significant building system components nearing the end of their normal life cycle.
0.30 to 0.60	Poor	Does not meet requirements. Immediate attention required to some significant building systems. Some significant building systems at the end of their life cycle. Parts may no longer be in stock or very difficult to obtain. High risk of failure of some systems.
0.60 and above	Very Poor	Does not meet requirements. Immediate attention required to most of the significant building systems. Most building systems at the end of their life cycle. Parts may no longer be in stock or very difficult to obtain. High risk of failure of some systems.

The FCI is a significant factor the Ministry of Education uses to determine funding priorities for rejuvenation or replacement projects. Generally, a school will not be considered for replacement unless the FCI is close to 0.60 or above.

## SEISMIC MITIGATION

In 2004, the Ministry of Education launched the School Seismic Mitigation Program in an effort to identify schools that may have structural risks associated with a seismic event.

In 2004, a partnership was developed with the Association of Professional Engineers and Geoscientists of BC as well as leading post educational research facilities to evaluate schools for seismic safety based on the latest research from major earthquakes around the globe.

Since 2004, these experts have developed new guidelines and new assessment tools to conduct a comprehensive reassessment leading to a more accurate picture of seismic safety risks in BC schools. Risk categories have been established to determine the various levels of seismic risks in schools. All schools in BC have now been assessed against this criterion.

In general, the seismic risk increases in BC as one travels from the Alberta border to the ocean. The entire lower mainland of BC, including the Maple Ridge - Pitt Meadows School District, is located in a seismic zone with a higher risk than many other parts of BC.

RATING	DEFINITION
High 1 (H1)	Most vulnerable structure, at highest risk of widespread damage or structural failure, not repairable after a large seismic event. Structural and non-structural seismic upgrades required.
High 2 (H2)	Vulnerable structure, at high risk of widespread damage or structural failure, likely not repairable after a large seismic event. Structural and non-structural seismic upgrades required.
High 3 (H3)	Isolated failure of building elements such as walls are expected, building not likely repairable after a large seismic event. Structural and non-structural seismic upgrades required.
Medium (M)	Isolated damage to building elements is expected, non-structural elements (such as bookshelves, lighting) are at risk of failure. Non-structural upgrades required. Building to be upgraded or replaced within the Capital Plan when it has reached the end of its useful life.
Low (L)	Least vulnerable structure. Would experience isolated damage and would probably be repairable after a seismic event. Non-structural upgrades may be required.

The latest Seismic Structural Risk Rating report was issued in September 2013 and shows updated risk ratings by block for all schools within the Province's 37 high risk seismic zones, including the Maple Ridge - Pitt Meadows School District schools.

Blocks are essentially areas within a school that are of different construction types, therefore having different structural characteristics. For example, gymnasiums are typically a different type of structure than classroom blocks. The list shows the overall risk rating for the school, as well as the status by block.

Schools constructed since 1992 are not listed on the report. These schools were constructed to modern structural codes and should not require structural seismic upgrading.

## BUILDING ENVELOPE

In the early 1980s, the provincial Building Code underwent a significant change. The revised Building Code made many changes to the way the exterior of buildings were to be constructed to better accommodate weather effects and to promote sustainable and energy efficient construction principles.

Some of the buildings constructed under this revised code had problems with deteriorating conditions within the exterior walls, windows and other penetrations through what is called the "building envelope".

In an effort to mitigate long term deterioration and damage to the building, the province created a public sector program to repair identified problems in the building envelope. This Building Envelope Program (BEP) is administered by the Risk Management Branch of the BC Ministry of Finance.



It should be noted that not all schools qualify for this program. First, it only applies to schools constructed after 1984 and second; schools must first undergo an assessment before funds or project numbers are assigned. The assessment will determine if there is a building envelope condition and there is a complicated rating system to assign the building a score. The rating score will determine the priority for repairs if they are needed.

School districts can apply for funding under this program. School districts work with their Ministry of Education Planning Officer to confirm or amend the priority order, based on the planned utilization of the individual school facilities and other rejuvenation work that may be completed in conjunction with the building envelope remediation work. Individual BEP projects may then be submitted as part of the Capital Plan submission.

The Maple Ridge - Pitt Meadows School District has a list of the currently identified projects that qualify under this program. They are identified in this report and where numbers are shown in the report, they are the current rating score.

There are two important things to note about building envelope:

1. Although a school (or part of a school) has been identified and a rating score determined, there is no guarantee that the building envelope repair or remediation will promptly proceed. The program is large and the funding is not unlimited.
2. It is not just these buildings that may have building envelope concerns. Many of the older schools (or even new schools) may develop building envelope concerns just due to age, or as part of a newer addition or other work in the school. These defects are often identified through school district maintenance and routine inspection programs.

#### **OFFICIAL COMMUNITY PLAN**

The Official Community Plan (OCP) is a long range (20 year) guide for the municipality that helps Council in making decisions on matters such as land use and growth, transportation, agricultural preservation, economic development and housing.

The City of Maple Ridge Official Community Plan (OCP) was last updated with minor housekeeping amendments and adopted on January 20, 2014 through OCP Adoption Bylaw No. 7060-2014. A copy of the OCP is available online at: <http://www.mapleridge.ca/316/Official-Community-Plan>

The City of Pitt Meadows Official Community Plan (OCP) was adopted through Official Community Plan Bylaw No. 2352-2007. A copy of the OCP is available online at:

<http://www.pittmeadows.bc.ca/assets/Planning/pdfs/OCP%2007jan2009.pdf>



Maple Ridge - Pitt Meadows School District No. 42

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