

TO: The Board of Education

FROM: Mark Walsh, Secretary-Treasurer

DATE: May 16, 2016

RE: **Seismic Program Update**

Background:

The provincial Seismic Program, intended to make schools safer in the event of an earthquake by minimizing the probability of structural collapse, has been conducted in 2 distinct phases:

1. Phase One. Phase one began with district assessments of schools – to determine seismic risk and the scope of upgrading work that would be required as part of this process. This phase of the projects calculated the seismic risk for every school in the province using a standardized rating system,
2. Phase Two. Phase two includes the retrofits and upgrading of the schools that were identified as “High Risk” during Phase One.

Over the past decade, the government has upgraded, replace or committed to address 214 high-risk schools. The remainder, approximately 128 high-risk schools in the province, are still to be addressed and are in various stages of planning to be upgraded. As the program has progressed, the upgrades of the schools have included the seismic elements and have slowly considered essential upgrades to other building components related to life-safety components of the school that could be affected by a seismic event.

Risk Ratings

During Phase One, Engineers calculated the seismic risk ratings based on the risk of damage from an earthquake to a building. This calculation is the foundation for the decisions what schools will be selected for consideration by the province, about how to mitigate risk and then on specific work needed to make specific locations safer.

Table 1 below provides an overview of the risk ratings used for B.C. schools:

Table 1 - B.C. Seismic Rating Definitions

Rating	Definition
High 1 (H1)	Most vulnerable structure; at highest risk of widespread damage or structural failure; not repairable after 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 event. Structural and non-structural seismic upgrades required.
High 3 (H3)	Isolated failure to building elements such as walls are expected; building likely not repairable after 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 an event. Non-structural upgrades may be required.

The government is only approving projects to structurally upgrade schools that have a “**High**” risk rating (High 1, High 2 or High 3). The structural upgrade work will also correct any non-structural deficiencies at these high-risk locations. At the District level, 27 schools were identified as being high risk (See Table 2 below). Please note, that the District has only become aware of one section of Campus View being added to this list recently and will need to be added to the Capital Plan. We are confident that the nature of its particular requirements, however, suggest a modest summer project rather than a full move.

Table 2 - SD#61 - High Risk Seismic Schools

School	Ministry Rating Assigned	Status
Shoreline	H1	Supported. PDR complete
Vic High Ph 2	H1	Supported. PDR underway
Cedar Hill	H1	Supported. PIR underway
Craigflower	H1	SPIR underway
Braefoot	H1	SPIR complete
Campus View	H1	SPIR complete
Arbutus	H1	SPIR complete
Reynolds	H2	SPIR underway
Lambrick Park	H1	SPIR complete
Macaulay	H3	SPIR complete
Cloverdale	H1	Construction underway
Monterey		Completed
Margaret Jenkins		Completed
Mount Doug		Completed
Doncaster		Completed (pre 2007)
Willows		Completed
Central		Completed
Vic High Ph 1		Completed

Quadra		Completed
Glanford		Completed (pre 2007)
Gordon Head		Completed (pre 2007)
Lansdowne		Completed
James Bay		Completed
McKenzie		Completed
South Park		Completed (pre 2007)
Tillicum		Completed
Vic West		Completed

Discussion:

At SD #61, we are one of the leaders across the province in getting Seismic Projects approved and completed. Over the past years, we have undertaken various levels of Seismic Upgrades on 16 schools and have an additional 11 schools either being planned, ongoing or yet to be started. To date, the major criteria used by the Province in the selection and approval of the schools to be funded for Seismic Upgrades has been primarily based upon the “**Risk Rating**” assigned to the school and upon the District’s preparedness to implement the project in a timely manner. The timelines have been tight with typical approvals received in the April timeframe and contracting and construction to be completed by the end of the following fiscal year.

This year, the District submitted Shoreline Middle School as our next school to receive a seismic upgrade. The required studies were completed and submitted to the Ministry of Education by our staff and consultants, tender documents for a Construction Manager were prepared, and tendering activity had commenced in anticipation of Ministry approval in April 2016.

On 5 May 2016, the Ministry advised us that the Shoreline Seismic Upgrade Project had not been approved at this time due to concerns over the low utilization at that school (63%) and across the district as a whole (80%). The Ministry indicated that they understood that the district was in the early stages of the long range facilities planning process and that this document would be beneficial as a cornerstone document for the district’s seismic upgrade program moving forward. When asked about the Ministry’s expected utilization rates for a seismic school to be approved for funding, it was suggested that a **95%** utilization rate for the school now and into the future (5 year utilization rate) was a reasonable target for us to look at. Specifically, the Ministry stated:

Thank you for taking my call today to discuss Shoreline Community Middle School. As per our conversation the seismic upgrade project has not been approved at this time due to the concerns over the low utilization at that school (63%) and across the district as a whole (80%).

I understand the district is in the early stages of the long range facilities planning process and I think it would be beneficial for district and ministry staff to meet in the coming weeks to discuss the districts seismic upgrade program and how it relates to your planning.

Thank you for your work, and the work of the team, on this project to date and for your dedication to the students of the Greater Victoria School District.

During conversations, the Ministry also expressed concerns about Vic High’s utilization rate. At this point in time, there appears to be a disconnect between the Ministry data on District utilization and what the District has available for each school. The issue of Shoreline not meeting the new target of 95% is not in dispute, but Vic High and the overall Board Utilization are not in agreement. Staff is

working with the Ministry now to clarify the source and currency of the data being used by both of us. However, it is important to note that we do have facilities in the District that currently meet the new requirements as determined by the Ministry.

Facilities staff has prepared a summary of the current District Utilization rates for every school and specifically for those schools in our Seismic Upgrade Program using data taken from the Baragar system, Table 3 below shows that a number of our seismic schools do not meet the new target of 95% utilization now or in the next five years. This will have to be addressed as we move into the District Facilities Strategic Plan process.

Given our intention to being a Facilities Plan, we are confident that we will be able to ensure that Shoreline is upgraded in the near term.

Table 3 - Current and Projected School Utilization - May 2016 (Source: Baragar)

School	Operating Capacity	Current Headcount (Enrolment)	Percentage Utilization	5 Year Projected Attendance	Percentage Utilization - 5 Year Projected	Comment
Shoreline	424	250	59%	276	65%	
Vic High	800	775	97%	761	95%	
Campus View	360	458	127%	437	121%	Portables
Braefoot	317	257	81%	289	91%	
Arbutus	499	454	91%	466	93%	
Cedar Hill	575	496	86%	546	95%	
Reynolds	900	1124	125%	1136	126%	Portables
Lambrick Park	725	511	70%	489	67%	
Craigflower	226	113	50%	96	42%	

Recommended Motion

The Board of Education of School District No. 61 (Greater Victoria) direct staff to prepare an interim capital plan for approval by the Board to submit to the Ministry of Education while the long-term facilities plan is created.