



British Columbia  
School Trustees  
Association

June 22, 2022

**The Honourable Jennifer Whiteside**

*Minister of Education and Child Care*

PO Box 9045, Stn Prov Govt

Victoria, B.C. V8W 9E2

educ.minister@gov.bc.ca

Dear Minister Whiteside,

**Subject: Annual Report on Deferred Maintenance**

At the British Columbia School Trustees Association's most recent annual general meeting, our membership, representing all 60 boards of education in B.C., passed the following resolution:

*"That BCSTA request the Ministry of Education provide the Association with an annual report on school building deferred maintenance including:*

- 1. The average facility condition index for school buildings in BC,*
- 2. The estimated value of deferred (unfunded) maintenance, and*

*The Ministry's plan to address the shortfall and worsening condition of school buildings."*

In 2021, BCSTA provided the Ministry of Education and Child Care with a paper titled *The Case for Increased School Life Cycle Funding*. The paper highlighted several concerns, including the need for additional funding for deferred maintenance. Unfortunately, the province's most recent budget does not address the concerns expressed by our association and members.

In response to the lack of additional funding and on behalf of our member boards of education, we ask that the Ministry of Education and Child Care provide BCSTA with an annual report on school building deferred maintenance. To maximize usefulness, it is essential that the report include an average facility condition index for school buildings and the estimated value of deferred and unfunded maintenance, as well as your strategy to address shortfalls and the continued deterioration of school buildings.



British Columbia  
School Trustees  
Association

We thank you for considering this request on behalf of our membership. As this is a complex issue requiring many considerations, I invite you to meet with me at a future date so we may discuss how to best support boards of education in addressing the condition of ageing facilities.

Sincerely,

A handwritten signature in black ink that reads "Carolyn Broady". The signature is written in a cursive, flowing style.

**Carolyn Broady**

*President*

British Columbia School Trustees Association

Motion: A202216.1

Enclosure: Original motion rationale  
BCSTA Report: The Case for Increased School Life Cycle Funding

CC: Christina Zacharuk, Deputy Minister, Ministry of Education and Child Care  
Chris Brown, Assistant Deputy Minister, Ministry of Education and Child Care  
BCSTA member boards of education  
Suzanne Hoffman, CEO, BCSTA  
BCSTA Board of Directors

## 16.1.Request to Ministry for Annual Report on Deferred Maintenance

### Category:

<b>Motion #:</b>	16.1 : A202216.1	<b>Sponsor:</b>	SD 42 (Maple Ridge-Pitt Meadows)
<b>Meeting:</b>	AGM 2022	<b>Action:</b>	<i>not specified</i>
<b>Category:</b>	<i>not specified</i>	<b>Outcome:</b>	Letter to be drafted (April 28)
<b>Disposition:</b>	Carried		

### Motion as Adopted:

#### BE IT RESOLVED:

That BCSTA request the Ministry of Education provide the Association with an annual report on school building deferred maintenance including:

1. The average facility condition index for school buildings in BC,
2. The estimated value of deferred (unfunded) maintenance, and

The Ministry's plan to address the shortfall and worsening condition of school buildings

### Motion as Presented:

#### BE IT RESOLVED:

That BCSTA request the Ministry of Education provide the Association with an annual report on school building deferred maintenance including:

1. The average facility condition index for school buildings in BC,
2. The estimated value of deferred (unfunded) maintenance, and

The Ministry's plan to address the shortfall and worsening condition of school buildings

### Rationale:

This qualifies as a late motion because the provincial 2022/2023 budget was not released until after the BCSTA motion deadline. It has now become clear that government has not come close to funding deferred maintenance at the level recommended by the BCSTA in its 2020 paper titled "The Case for Increased School Life Cycle Funding".

**This is an action motion and does not change or contradict any existing Foundational or Policy Statement.**



# THE CASE FOR INCREASED SCHOOL LIFE CYCLE FUNDING

*a report from the BC School Trustees Association | March 2021*

## Introduction

Life cycle maintenance refers to the work which must be completed over the “life” of a building to ensure it remains in peak operating condition. A roof may need to be replaced a few times over the typical 50 to 60 year life of a public school building, as will mechanical and electrical systems. Structural and building envelope upgrading may also be required. This is not an exhaustive list but serves to provide examples of the type of work included in life cycle maintenance.

By all accounts B.C. schools suffer from an ever-increasing level of deferred life cycle maintenance. Several measures of this situation are offered in the following pages. One critical measure suggests the shortfall in 2020 needed to address deferred maintenance in the public school system is \$237M (see Figure 1, page 3).

The intent of this paper is to define the problem and make recommendations for consideration by government to correct the shortfall.

The context of these recommendations is also worthy of consideration given the need for economic recovery following the COVID-19 pandemic and the potential for significant infrastructure investments to fuel that recovery.

Premier Horgan’s November 2020 mandate letter to Minister of Education Jennifer Whiteside offers additional context. The letter directs the minister to “continue to invest in new and modernized schools, including focussing on meeting seismic requirements and climate change and energy efficiency standards as set out in our Clean BC plan.”

In 2020 the routine capital program funded by the provincial government for schools totaled \$204M. By comparison the estimated cost of repairs and maintenance recommended by building system engineers engaged by the Ministry was more than double that amount at \$441M.

# Summary of Recommendations

1. That a building life cycle plan be developed for each new public school facility at the time of construction including an indication of the annual contributions necessary to fully implement the plan over time.
2. That the Annual Facilities Grant (currently \$115M) be increased by:
  - a. inflation (currently roughly 2%), plus
  - b. an amount equivalent to the annual contribution necessary to implement the detailed life cycle plan for new buildings (roughly 3%) and
  - c. a minimum of 15% for “catch up” each year amounting to a minimum of \$139.5M in 2021/22, \$168.5M in 2022/23, \$203.6M in 2023/24, \$246M in 2024/25, etc., noting that annual increases should continue until the recommended deferred maintenance costs can be covered.
3. That School Enhancement Program funding (currently \$64M) be increased by:
  - a. inflation (currently roughly 2%) and
  - b. a minimum of 15% for “catch up” each year amounting to a minimum of \$75M in 2021/22, \$88M in 2022/23, \$103.2M in 2023/24 and \$121M in 2024/25, etc., noting that annual increases should continue until the recommended immediate deferred maintenance costs can be covered and
4. That the Carbon Neutral Capital program be increased a minimum of 100% in 2021/22 and 10% per year thereafter amounting to \$33.4M in 2021/22, \$36.74M in 2022/23, \$40.41M in 2023/24 and \$44.45M in 2024/25.
5. That the provincial government carry out the required research to identify appropriate technologies and determine the funding required to achieve provincial government energy conservation objectives for existing public buildings outlined in the Clean BC program; and further, that the provincial government work with the federal government to provide the necessary funding to achieve those objectives.
6. That the need for more up-to-date learning environments to support student success and the level of accumulated deferred maintenance both be given greater consideration in the decision-making process about whether to complete major renovations or replace school buildings as they approach the end of their useful life.
7. That a review of the process to determine the Facility Condition Index be undertaken by the Ministry of Education in concert with school district Directors of Facilities and Maintenance to ensure accuracy incorporating more frequent local updates.
8. That a review of the Building Envelope Program be completed by the Ministries of Education and BC Housing in concert with school district Directors of Facilities and Maintenance to ensure adequate funding is available to finally complete all building envelope repairs that stemmed from the “leaky condo” era.
9. That all of the additional funding identified as being required in this paper be provided beyond the current Ministry of Education funding envelope.

# Background

## Deferred Maintenance

Figure 1 (below) identifies historic routine capital program allocations, deferred maintenance recommended within 1 year, deferred maintenance recommended within 5 years, and the change in the average provincial facility condition index (FCI) of school facility assets.

The listed capital programs in Figure 1 include the Annual Facilities Grant (AFG), the Carbon Neutral Capital Program (CNCP), the School Enhancement Program (SEP) and the Building Envelope Program (BEP) all of which contribute to addressing facility life cycle maintenance requirements. It will be noted Figure 1 captures a long term trend toward poorer conditions in school buildings, along with a growing estimate of unfunded immediate deferred maintenance costs (a \$237M shortfall in 2020).

If the trend toward a worse average facility condition index were to continue at a certain point the province would experience a crisis of needing to replace many school buildings all at once. That may not occur for several years, however, the trend is definitely of concern. The FCI descriptor on page four of this paper and the current average FCI rating of 0.47 suggest many school buildings must already be in the poor or very poor rating category.

We have based all of our analysis on data obtained from the Ministry of Education. It has been identified by some districts that more detailed and frequent analysis is needed on the process of assessing school buildings and that the analysis should involve school district staff involved in facility maintenance, to ensure the FCI is accurate and up to date. As a consequence we have made a recommendation for such a review to be completed at the earliest opportunity.

Fiscal Year	EDUC Routine Capital Program Allocations (AFG, BEP, CNCP, SEP) plus AFG operating	Immediate Deferred Maintenance (Cost of repairs and upgrades required within 1 year) n.i.c. closed schools	Total Deferred Maintenance (Cost of repairs and upgrades required within 5 years) n.i.c. closed schools	Average Provincial Facility Condition Index (FCI) for Total Asset Inventory
2020/21	\$204M	\$441M	\$7.05B	0.47
2019/20	\$192M	\$491M	\$6.95B	0.44
2018/19	\$193M	\$396M	\$6.70B	0.43
2017/18	\$195M	\$343M	\$6.28B	0.43
2016/17	\$174M	\$332M	\$6.26B	0.42
2015/16	\$152M	\$305M	\$6.09B	0.42
2014/15	\$98M	\$296M	\$5.98B	0.41
2013/14	\$98M	\$254M	\$5.41B	0.38
2012/13	\$96M	\$236M	\$5.38B	0.37

Figure 1 - Source: Ministry of Education

## Facility Condition Index

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. 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 that allows 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).

According to VFA Inc., FCI ratings have the following meanings:

### 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.*

## How Deferred Maintenance is Calculated

In Figure 1 immediate deferred maintenance refers to those projects which are recommended by the engineering firm engaged by MOE to complete facility condition assessments each year. While the projects included in those recommendations do not necessarily involve building systems that will fail in the next year, preventive maintenance is always better than reactive or crisis maintenance. Building systems need to be properly maintained before they fail.

Building condition assessments are completed by engineers who are specialists in this field. They rely upon their knowledge of building systems to know where the sweet spot is.....that place where an ounce of prevention avoids a pound of cure and where replacement is more cost effective than constant repairs. Deferred maintenance reflects the work these specialists indicate should be done which has not been done as a result of inadequate funding. It is appropriately a requirement of government that building condition assessments are completed so government can direct limited funding to the areas of greatest need. We commend government for that, however, identifying and not addressing other maintenance requirements must still be considered a shortfall.

## Capital Maintenance Project Requests/ Allocations

Figure 2 (below) documents shortfalls in each of several capital programs over the past five years.

The number of projects and funding for requests beyond the actual number of projects and funding provided by the ministry are reported for

- the Carbon Neutral Capital Program (CNCP),
- the School Enhancement Program (SEP),
- the Bus Acquisition Program (BUS) and
- the Playground Equipment Program (PEP).

All of these programs indicate the inadequacy of current levels of funding. Full program descriptions are available [here](#).

Unlike other programs listed in Figure 2, the Annual Facilities Grant is based on what is provided to districts by formula. Districts seek approval from the ministry on how they intend to use their AFG allocation. The best indication of an AFG shortfall is that provided in Figure 1. Figure 3 (page 5) provides another indication of less than adequate AFG funding.

The Building Envelope Program (BEP) identified in Figure 1 is not listed in Figure 2. We are advised the annual funding provided for this program amounts to approximately \$10M each year and is intended to address building envelope issues arising during the “leaky condo” years and will be phased out over time as they are addressed. Some additional funding for this purpose has been provided through litigation. We are advised by some districts relying on this funding that it is inadequate and, therefore, we are making a recommendation that the program be reviewed by the Ministry of Education and BC Housing Authority in concert with affected school districts and appropriately funded to address outstanding projects.

### Figure 2 - Source: Ministry of Education

#### 2020/21

AFG	2993 projects submitted in district spending plans, \$113.5M total allocated
BUS	165 project requests valued at \$24.2M. 101 projects approved for \$14.6M.
CNCP	124 project requests valued at \$40M. 67 projects approved for \$16.7M.
PEP	137 projects requests valued at \$12M. 40 projects approved for \$5M.
SEP	413 project requests valued at \$207.8M, 164 projects approved for \$64M

#### 2019/20

AFG	2768 projects submitted in district spending plans, \$113.5M total allocated
BUS	148 project requests valued at \$21.8M. 87 projects approved for \$12.8M.
CNCP	112 project requests valued at \$36.3M. 19 projects approved for \$5M.
PEP	146 requests valued at \$14M. 50 projects approved for \$5M.
SEP	431 requests valued at \$219.5M. 138 projects approved for \$65M.

#### 2018/19

AFG	2605 projects submitted in district spending plans, \$113.5M total allocate
BUS	123 project requests valued at \$16.M. 93 projects approved for \$13M.
CNCP	90 project requests valued at \$26.5M. 19 projects approved for \$5M.
PEP	158 project requests valued at \$15M. 51 projects approved for \$5M.
SEP	415 project requests valued at \$145M. 175 projects approved for \$65M.

#### 2017/18

AFG	2704 projects submitted in district spending plans, \$108.5M total allocated
BUS	134 project requests valued at \$16.2M. 73 projects approved for \$10M.
CNCP	91 project requests valued at \$30.6M. 15 projects approved for \$5M.
SEP	346 project requests valued at \$167M. 130 projects approved for \$55M.

#### 2016/17

AFG	2123 projects submitted in district spending plans, \$108.5M total allocated
BUS	126 project requests valued at \$16M. 73 projects approved for \$10.8M.
CNCP	85 project requests valued at \$22.2M. 25 projects approved for \$5M.
SEP	462 project requests valued at \$277.3M. 146 projects approved for \$70M.



## Annual Facility Grant

Figure 3 tracks changes in the Annual Facilities Grant since 2002 indicating increases in that specific area of funding have risen by far less than inflation even though capital costs have risen significantly during that same period.

Given the shortfalls noted earlier we have recommended increases to the AFG program which are considerably greater than inflation beyond 2021/22. These increases and those recommended to other education routine capital programs are required to address the growing levels of deferred maintenance identified in Figure 1.

The result of underfunding public school life cycle funding is that many BC schools suffer from poor life cycle maintenance, looking and feeling tired, and creating less than ideal learning conditions.

As important, they cost more to operate than they should, taking money away from student educational resources. Fairly straight forward energy efficiency upgrades can redirect hundreds of thousands of dollars back into education operating budgets in addition to helping achieve the climate change targets established by the province.

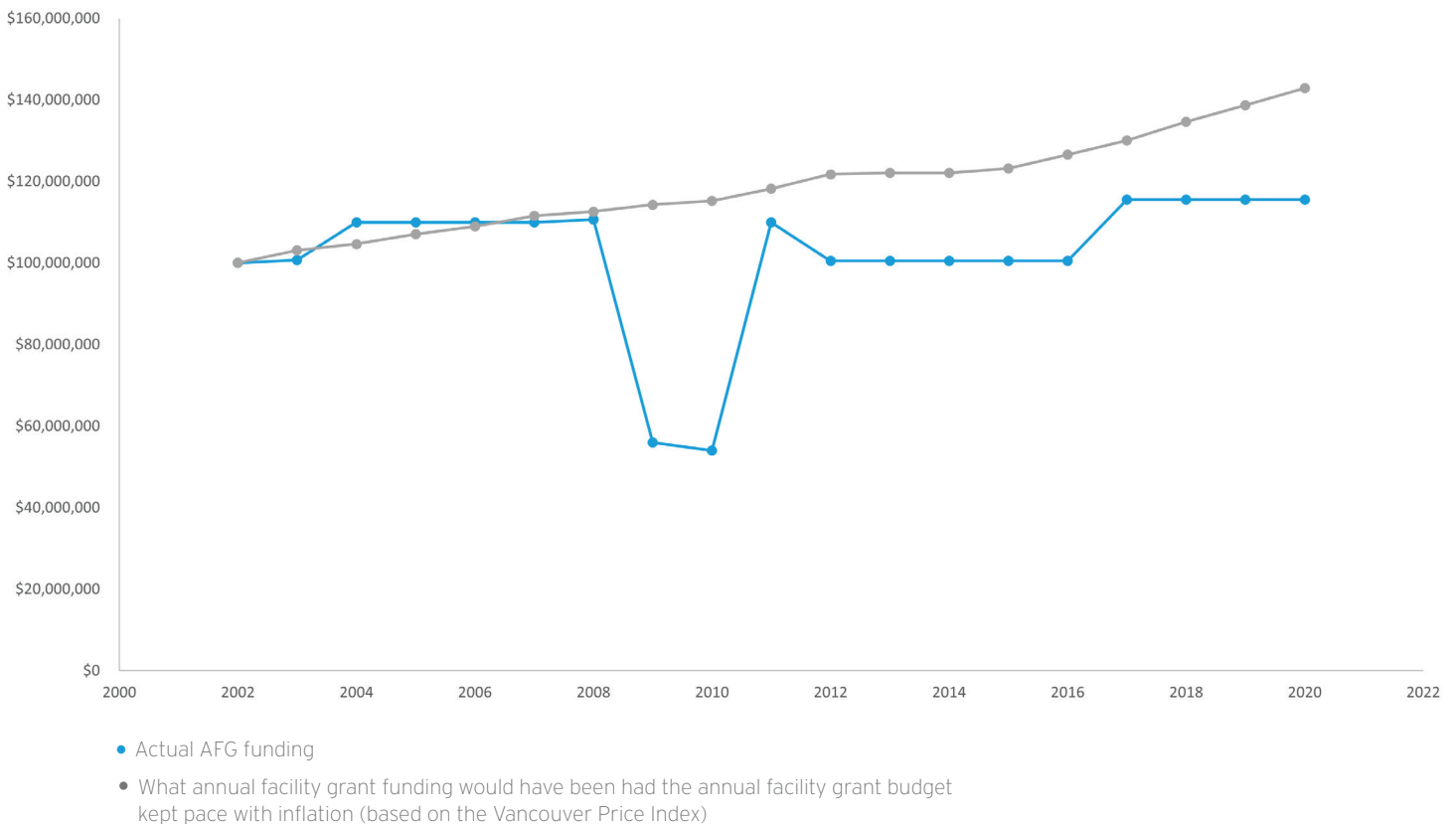


Figure 3 - data sourced from the Ministry of Education. The graph identifies the value of the Annual Facilities Grants (AFGs) awarded for each year beginning in 2002 compared to the amount which should have been budgeted given inflation (based on the Vancouver Consumer Price Index).

## Investments in New Schools, Seismic Upgrading and School Replacements

It can be said districts and government do a reasonable job of ensuring schools are safe which is a clear priority. The only exception may be those schools for which recommended seismic upgrading has not yet been completed. To their credit government has identified seismic retrofitting as a priority. Unfortunately, government and the boards of education involved in addressing this situation seem to be having some difficulty catching up to the problem, especially since seismic survivability standards appear to be increasing. Keeping up to the need for capital funding for new schools and additions on top of the seismic upgrade program has been extremely challenging. Despite this Government has made substantial attempts to address these issues with increased funding as noted in Figure 4.

	B2018	B2019	B2020
SEISMIC	126M	220M	310M
NEW & ADDITION	102M	166M	332M

*Figure 4 - Source: Ministry of Education*

A few school replacements are also being funded which will have an impact on the facility condition index as very old schools are fully replaced. The amounts provided over the past three years for full building replacements are \$9.8M in 2018, \$31.4M in 2019 and \$56M in 2020.

All three of these areas of funding (for new schools, additions and seismic upgrading) are important and, although they are not the subject of this discussion paper, we must assume plans have been developed which define the level of funding required to complete seismic upgrades and construct new schools to keep pace with growth in the system.

While these needs are being more appropriately addressed we cannot forget the amount of funding required to address deferred maintenance in existing buildings. New schools and seismic upgrading are both needed. They tend to enjoy a higher profile than maintenance projects in existing schools. However, the latter are equally important if we are to fulfill our responsibility as trustees of important public assets.

Data obtained from the Ministry of Education illustrates a growing level of deferred maintenance and the degree to which we are failing in this responsibility.

## Regional Differences and Equity

During the process of writing this paper the capital working group heard from many school districts both verbally and in writing. A few quotations are shared from the written input on the following page. Apart from validating the need for additional life cycle funding to address deferred maintenance some also raised the need to consider regional differences and matters of equity.

There is no question that growth and seismic survivability are demanding the bulk of limited capital funding. As reported earlier, allocations for 2020 for these two categories of work amounted to \$642 million. This can be compared to education routine capital funding (including AFG from operating) in the same year of \$204M which, as we've noted, is \$237M less than the amount recommended by building system engineers..

Needed upgrades and renovations (deferred maintenance) are often addressed when seismic work or additions are completed. It only makes sense that those upgrades should occur at the same time as major structural work is being undertaken. Of course the addition of upgrades, seismic work and the need for school expansions can also factor into the decision on whether or not to replace an older school. There comes a point in the calculation when complete replacement makes more sense from a purely fiscal analysis.

There really cannot be any arguments as to why \$642M (or more) is needed on an annual basis to address the critical issues of growth and seismic survivability,

especially given the number of portables growing districts are having to purchase from operating funding to ensure there is enough space to accommodate their students. Reducing the number of portables being used in this fashion is a stated goal of government. In the report we've suggested that more detailed analysis and planning may be required to ensure adequate resources in these areas.

However, if funding is limited and seismic mitigation, new schools and school expansions are identified as priorities it means that the replacement of older schools and deferred maintenance (which is the subject of this paper) are severely underfunded. Since the majority of growth and seismic work are occurring in urban areas it is understandable why many of our more rural districts believe they are receiving an inadequate level of attention from government.

On top of that many of them exist in areas that experience more extreme climates, with disproportionate heating and maintenance costs during the winter months. Underfunding programs like the Carbon Neutral Capital Program, which could have an even more significant impact in areas experiencing extreme climates, adds to this sense of regional disparity.

There is another point some districts shared which bears repeating and it is embodied in the following phrase offered by one of our committee members, "your environment fosters your culture". To illustrate, one of the schools referenced by District 72, Campbell River, is 57 years old with an FCI of .69 which is very poor or critical on some FCI scales. Putting any significant amount of money into



deferred maintenance doesn't make a lot of sense at this stage given the strong case for replacement, and yet there is no funding for replacement despite several years of the project topping the district's capital request. It happens that the school is situated in an area of the community experiencing a disproportionate amount of poverty and a vulnerable student population. The result is a community within the district that is perceived to be under-served, with the consequent perception that the need of students for an appropriate and positive physical learning environment is somehow less of a priority in this school than in other SD72 school communities.

This is not a situation we can collectively ignore if we are to create positive learning environments for all of the children of our province...if we are to ensure equity within our education system. The only thing that will address this is increased funding for education routine capital programs and school replacements, and not at the expense of seismic upgrading or addressing growth. All of these needs must be addressed.

## Rules and Standards Have Changed Over the Last Fifty Years.

Standards for health and safety have changed considerably over time with ever increasing and appropriate measures to address such issues as the use of asbestos many years ago, lead content in the water more recently and seismic survivability. The cost of energy has gone up considerably as well, demanding measures to become more efficient, not only to keep costs down but also to reduce green house gas emissions and, literally, save the planet. Government is now requiring that school buildings meet reasonable standards for energy efficiency reducing emissions by 50% from 2007 levels by 2030 and achieving net zero targets for new buildings by 2032. That is very appropriate and to be applauded as we consider the design of new schools, but what about our existing building infrastructure? It is not unusual for schools to be in service for over fifty years. How do we reduce the carbon footprint of buildings constructed that many years ago and ensure they are safe and efficient, not to mention providing positive learning environments for children?

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*".....it costs more to operate buildings that are in poor repair which takes away from student educational resources.....the quality of our buildings, especially in rural/remote locations is a factor in staff recruitment and retention."*

### **SD60 North Peace**

*"Thirteen of our twenty buildings are in the poor or very poor FCI category. Thus we utilize every dollar of our annual facilities grant just trying to triage our most urgent maintenance needs. The district submits an annual plan for the spending then always adjusts based on a roof that sprouts a leak or a boiler that fails. There are never enough funds to address all of the needs thus building deferred maintenance requirements and costs continue to grow."*

### **SD71 Comox Valley**

*"One wonders what our future selves might wish that we had done today to succeed in managing this challenging problem in the long run...In our experience a majority of projects that are a good fit for CNCP funding tend to be more expensive projects, including HVAC rooftop units, heating, water and electrical systems. The gap between existing equipment and the much lower Clean BC targets (to be achieved with enhanced systems and equipment) would possibly justify .....a doubling in the current amount (of available funding)."*

### **SD 37, Delta**

*"As a district with most of our buildings more than 30 years old funding to do exterior upgrades to schools would greatly improve student, staff, parent and community morale in our public education system."*

### **SD 28, Quesnel**

*"Since much of the provincial funding for the Building Envelope Program flows through the BC Housing Authority it creates some further complexity. That the fund is only \$10M annually is a significant detriment to addressing more costly maintenance. The funding is simply insufficient. For example, we have two schools each of which require more than the annual fund provided. As a result these projects never get approved, the buildings are deteriorating more rapidly than others which significantly increases operating costs and (reduces) building life.....the leaky condo era was 1981-98 and 22 years later the building envelope is still a significant issue"*

### **SD43, Coquitlam**

*".....we are particularly concerned about the specific challenges facing many rural and remote communities in northern BC. The window of time that districts are able to perform cost effective building and maintenance is smaller and northern districts can face significantly higher building and maintenance costs during colder months than other districts might."*

### **SD57, Prince George**

# How Can We Address the Problem?

Boards of education have long expressed the concern that the annual allocation of capital funding to address deferred maintenance is inadequate. Figure 1 provides a relatively clear substantiation of that claim.

Many municipal governments have addressed this problem for their own facility infrastructure by developing life cycle plans at the point of constructing new buildings, identifying each building's life cycle costs well into the future and putting sufficient funding into a reserve each year to ensure the identified work can be addressed as it comes up in the plan. Roofs, mechanical and electrical systems all need to be replaced several times over the life of a building. Given the extremes of our climate regular reviews and repair/replacement of building envelopes is another aspect of the ongoing work which needs to be addressed more than once during the life of a building.

Strata councils are required in legislation to have lifecycle plans which they are wise to implement to avoid surprise assessments as major issues arise. It is a preferred approach to set monthly strata fees at a level sufficient to accommodate everything in the plan rather than wait until something breaks down and requires an emergency repair or replacement and a somewhat unexpected assessment. An unanticipated \$10,000 bill, or greater, can be a significant blow to a family's budget, not to mention the disruption if replacement is left until something like a water line breaks.

Many commercial buildings operate this way as well with a portion of every lease payment for common costs allocated to life cycle projects.

The cost to address the reported shortfalls for school facility life cycle maintenance is significant (\$237M per year) and couldn't possibly be addressed all at once. We have suggested other sources of funding that could be tapped in another paper of the BCSTA Capital Working Group ([School Site Acquisition Charges - Issues and Solutions](#)). Implementing the recommendations offered in that paper would free up more capital funding over the long term. This is a long term problem and, we submit, requires a steady and considered long term approach to address the issue. If the recommended changes had been made in the years prior government could have saved \$42M in land acquisition costs in 2018 and similar amounts going forward. However, nothing we can suggest short of additional government funding will be sufficient to bring the entirety of public K-12 education infrastructure up to the desired level very quickly.

## Life Cycle Plan Recommendations

To begin we are suggesting that the ministry require a standardized life cycle plan be developed for every new school building that is constructed into the future....and further....that an adequate annual contribution be added to the Annual Facilities Grant of the school district in which the facility is located to address the lifecycle needs of that building over time.

Ideally school districts would work backwards and create such plans for all their existing buildings and apply to the ministry for the annual funding required to sustain the overall building life cycle plan. That is likely unrealistic given the increased amount of funding required as indicated by the high number of requests made and relatively few which are approved. In 2019/20 the amount allocated by the province to lifecycle maintenance (the combination of AFG, SEP, CNCP and BEP) was \$205M against a recommended amount of \$441M. As noted earlier the recommended amount is derived from the work of building system engineers engaged by MOE to complete the facility condition assessment each year.

Ideally the annual allocation from the ministry would address the annual deficit (\$237M). Since that is unrealistic in the short term we are suggesting a gradual "catch up" to eventually achieve enough annual funding to meet existing building life cycle needs, concurrent with a new system of lifecycle planning and funding for new buildings as they come on board.

In summary we are recommending annual increases in the Annual Facilities Grant, the School Enhancement Program and the Carbon Neutral Capital Program until the total recommended level of funding required to complete recommended immediate deferred maintenance can be achieved.

## Annual Facilities Grant Recommendations

The current AFG allocation in 2020/21 is \$115.5M. We are recommending that amount be increased each year with the addition of:

- the annual contribution identified as being required in new facility life cycle plans plus
- inflation (currently roughly 2%) plus
- a minimum of 15% beyond inflation intended to reduce the shortfall for existing buildings over time.

The investment made in constructing new schools and additions in 2020 was \$332M. In order to provide a rough estimate of the annual life cycle contribution required for new facilities we have anticipated that cost to be the initial capital cost divided by a fifty year life or \$6.6M. That can be roughly translated to 3% of the current combined investment in AFG and SEP. The actual amount added to the system each year should be based on the specific lifecycle plans prepared for each building in the prior year. However, for the purposes of this paper and its recommendations we have simplified the calculation.

This formula would amount to AFG funding of approximately \$139.5 in 2021/22, \$168.5M in 2022/23, \$203.6M in 2023/24 and \$246M in 2024/25.

## School Enhancement Program Recommendations

We are also recommending an annual increase in the School Enhancement Program (SEP). The SEP funding provided for 2020/21 is \$64M. We are recommending that amount be increased each year with the addition of:

- inflation (currently roughly 2%) plus
- a minimum of 15% beyond inflation intended to reduce the shortfall for existing buildings over time

This would amount to SEP funding of \$75M in 2021/22, \$88M in 2022/23, 103.2M in 2023/24 and \$121M in 2024/25.

Both of these programs would continue to increase using these formulas beyond 2025 until the amount being budgeted is sufficient to address the deferred maintenance shortfall.

We have selected a 15% factor in our formula for “catch up” recognizing it will still take several years to do so. If the “catch up” provision was increased to 20% over \$500M would be available in 2025. A smaller “catch up” amount would extend the time needed to achieve the required level of funding and complete the required work.

## Carbon Neutral Capital Program Recommendations

We must also consider the Carbon Neutral Capital Program. Expenditures in this program are often used to replace electrical, mechanical or other systems which need to be replaced in the regular course of completing life cycle maintenance. It only makes sense that completing upgrades to systems to make them more energy efficient would be completed at the same time.

There is another significant argument to be made for increased funding beyond the amount already provided in the Carbon Neutral Capital Program. Reduced consumption generally means reduced operating costs, which can then be redirected to student achievement.

We are hoping the total amount of funding required to achieve the net zero targets established by the province for new buildings and improved efficiency for existing buildings (50% reduced consumption by 2030) will be the subject of further investigation and recommendations by government and is beyond the scope of this paper. However, we do feel it is appropriate in the context of this discussion to suggest a minimal ramping up of the Carbon Neutral Capital Program. It can be seen in Figure 2 that funding requests for this work totalled 2.5 times the available funding in 2020. Total requests amounted to \$40M in 2020/21 while the available funding amounted to only \$16.7M.

We are concerned the amount of annual funding currently available in the Carbon Neutral Capital Program for public schools is significantly less than the amount required to achieve Clean BC objectives. We are recommending the annual allocation to the Carbon Neutral Capital Program be doubled in the next year and increased by 10% per year thereafter. At this point we do not know if that level of investment will be sufficient to achieve the goals of the Clean BC program. We do know that most districts have already completed the easiest upgrades beginning with lighting systems followed by more efficient Boiler and HVAC equipment as mechanical systems reach the end of their life expectancy. What remains are projects which will be needed to achieve the Clean BC goals by 2030. They are very likely to be more complex and expensive as conversions from traditional to more innovative systems using alternative clean energy sources are contemplated. We are recommending CNCP allocations over the next four years should be \$33.4M in 2021/22, \$36.74M in 2022/23, \$40.41M in 2023/24 and \$44.45M in 2024/25. These increases are considered to be the minimum required. A more detailed analysis on what it will take to achieve Clean BC goals by 2030 may indicate the need for even greater resources. We are also recommending that analysis be undertaken by the provincial government as soon as possible.

Of course Initial capital funding for new buildings should be based on achieving as close to net zero emission targets as possible going forward, leading to new buildings fully achieving the net zero target by 2032.

Access the Clean BC program details [here](#).

## Renovate or Replace?

Many districts and the Ministry of Education face difficult decisions as schools approach the end of their useful life (fifty to sixty years of service) and encounter the need to complete relatively costly seismic upgrades and building system upgrades if they are to continue safely accommodating students in those facilities.

The dilemma is that schools built so many years ago often do not include the kind of learning environments we want to offer to students. For example most older secondary schools do not include the kind of trades and technical training facilities which are commonplace in modern secondary schools. Most older elementary schools do not provide the kind of break out space needed for Education Assistants to work one on one with students who have specialized needs, resulting in hallways filled with EAs and their assigned students when working in regular classrooms is not appropriate.

Unfortunately in the process of making capital submissions for older facilities to the Ministry of Education many school districts have experienced a direction from government to plan for the least expensive solution which will ensure student safety and meet basic building system requirements. This is often occurring without adequately addressing the needs of students. With that the case we are recommending that decisions concerning whether or not to complete major upgrades or replace older buildings which have effectively reached the end of their useful life (50 to 60 years) include greater consideration of the changing learning needs of students. Full replacement may cost more than renovations in the short term but will often be more educationally effective and justifiable given a longer term perspective.

Moreover, all of the deferred maintenance of an older facility being considered for renovation must be considered in the calculation to determine the comparable costs of renovation vs replacement.

# Conclusion

Building new schools and additions as our student population grows is important as is completing seismic upgrades to ensure our buildings are survivable in the event of an earthquake. With that said ensuring regular, appropriately timed life cycle maintenance on all school facilities is equally necessary to fully achieve our goal of providing safe and efficient school facilities which provide excellent learning environments for children. Accomplishing that can only be achieved with adequate annual funding provided by government. We have offered several recommendations along with a formula which should be used to catch the system up to address the ever increasing levels of deferred maintenance currently being experienced by school districts in British Columbia, and urge consideration of those recommendations and the proposed formula by government. Maintaining our schools is not a luxury that can wait until the economy is better. We need to act now to avoid serious problems in the future.

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