

May 2016



## AN AUDIT OF MID-SIZE CAPITAL PROCUREMENT IN POST-SECONDARY INSTITUTIONS

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The Honourable Linda Reid  
Speaker of the Legislative Assembly  
Province of British Columbia  
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Victoria, British Columbia  
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Dear Madame Speaker:

I have the honour to transmit to the Legislative Assembly of British Columbia my report, *An Audit of Mid-size Capital Procurement in Post-secondary Institutions*.

We conducted the audit in accordance with the standards for assurance engagements set out by the Chartered Professional Accountants of Canada (CPA) in the *CPA Handbook – Assurance and Value-for-Money Auditing in the Public Sector*, Section PS 5400, and under the authority of Section 11 (8) of the *Auditor General Act*.



Carol Bellringer, FCPA, FCA  
Auditor General  
Victoria, B.C.  
May 2016



# AUDITOR GENERAL'S COMMENTS

Governments, like any business, have finite resources and must make trade-offs in deciding what to do and what not to do. Using a rigorous, standardized approach helps decision-makers understand the pros and cons of the choices they have to make, especially when needs exceed the money available. The B.C. government has developed such an approach to identify and prioritize where the greatest capital needs exist, and also take account of other government priorities.

This audit builds on our theme of examining significant capital asset projects in the public sector. Previously, we focused on large, public-private partnership capital projects, like the Evergreen Line, Sea-to-Sky Highway and Diamond Health Care Centre. Recently, we published [\*Monitoring Fiscal Sustainability\*](#), where we looked at how government is reporting on the management of key sustainability risks, such as capital asset management.

This audit looks specifically at whether procurement of major construction projects in the Ministry of Advanced Education is in keeping with government policy. We focused on the post-secondary sector because it spends a notable \$600 - \$900 million on capital asset procurement activities, mainly building construction, improvements and maintenance. We examined eight construction projects – mostly new buildings – that received \$20 - \$50 million of funding from the Ministry of Advanced Education (ministry).

We expected the ministry would ensure its capital planning processes prioritized projects with the greatest need. We also expected that planning and risk management activities would comply with government's capital framework and the ministry's guidance for post-secondary institutions.

For the institutions, we expected they would carry out their capital procurements in a competitive and transparent way to achieve the



CAROL BELLRINGER, FCPA, FCA  
*Auditor General*

best value for money. We also expected to find a culture of continuous improvement in both the ministry and the institutions, where all parties leveraged lessons learned to improve capital asset management outcomes across the post-secondary sector.

Overall, the eight projects we sampled met budget and construction goals. The ministry followed good practice for implementation, monitoring and reporting processes for construction.

However, the ministry doesn't yet know whether new campus buildings are effectively providing the services for which they were designed. Institutions should report to government on how well the new buildings are meeting their needs and share lessons learned, both with the ministry and other post-secondary institutions. To ensure value for money, the ministry needs a system to assess how well its new buildings are meeting the service requirements outlined in the original business case.

We also found that when our sample of projects were being planned, the ministry's planning processes for capital procurement did not meet all of the requirements of government's framework, or the ministry's guide. We are pleased to note, however, that the ministry has since improved its practices.

Finally, post-secondary institutions need to develop and follow conflict of interest policies. This will help ensure that decisions are based on value for money, not personal benefit. After completion of our fieldwork, the institutions rolled out a conflict of interest policy.

My thanks to the Ministry of Advanced Education, Treasury Board staff, and the eight post-secondary institutions we examined for participating in this audit.



Carol Bellringer, FCPA, FCA  
Auditor General  
May 2016

# REPORT HIGHLIGHTS



Government has  
**\$39**  
**BILLION**  
worth of assets  
(e.g. schools,  
hospitals)

Up to  
**\$7** **BILLION**  
per year spent  
**BUILDING &  
MAINTAINING  
ASSETS**



Ministry of  
Advanced Education  
doing a  
**GOOD JOB**  
planning and  
constructing  
new buildings

We looked at  
campus buildings  
built in last  
8 years  
at cost of

**\$20-50**  
**MILLION**



B.C.'s **25**  
publicly funded  
post-secondary  
institutions  
spend

**\$700**  
**MILLION**  
per year  
on capital  
assets

Always room for  
**IMPROVEMENT  
&  
REFINEMENT**



We continue  
to look at   
government's  
capital program and  
fiscal sustainability

# SUMMARY OF RECOMMENDATIONS

## **WE RECOMMEND THAT TREASURY BOARD STAFF:**

- 1** define the key capital project documents that must be retained, where they should be kept, who should retain them, and for how long.

## **WE RECOMMEND THAT THE MINISTRY OF ADVANCED EDUCATION:**

- 2** use its improved understanding of the condition of its facilities to prioritize significant maintenance and new construction projects, and to inform its capital planning goals and priorities.
- 3** follow its documentation processes to ensure capital submissions are complete.
- 4** require post-secondary institutions to report on their compliance with the conflict-of-interest principles in the Capital Asset Management Framework for major projects, as part of the post-awarding communication to the ministry.
- 5** create a risk-based audit plan to ensure that periodic, independent procurement or financial audits (or both) are completed for significant, provincial government-funded capital projects.
- 6** improve its knowledge management practices by requiring project managers to review lessons learned on significant projects, and share and discuss project successes and challenges with ministry staff.
- 7** require post-secondary institutions, after they complete a capital project, to assess and report back on their progress against the original business case objectives.

# RESPONSE FROM THE MINISTRY OF ADVANCED EDUCATION

The Ministry of Advanced Education (the Ministry) would like to thank the Auditor General for reviewing the procurement of a selection of mid-sized capital projects completed by public post-secondary institutions in British Columbia. The Ministry is pleased the Auditor General found that the eight major projects audited met capital budget and construction goals. The Ministry is also pleased the Auditor General found the Ministry followed good practice for project implementation, monitoring and reporting processes during the construction phase, which is the period of highest risk for any capital project.

Post-secondary institutions request and receive approval for capital funding to support projects at their campuses to either replace and/or modernize existing buildings or to expand post-secondary training for students in response to industry needs. The Ministry works collaboratively with post-secondary institutions in reviewing each project business case. In turn, the Ministry and Treasury Board Staff work collaboratively through government’s project approval process. The Ministry is confident that major capital projects approved through the Ministry are appropriately justified and budgeted to receive approval for capital funding.

Recommendation by OAG	Ministry Response
<p><b>RECOMMENDATION 2:</b>  <i>We recommend that the Ministry of Advanced Education use its improved understanding of the condition of its facilities to prioritize significant maintenance and new construction projects, and to inform its capital planning goals and priorities.</i></p>	<p>The Ministry agrees the incorporation of facility condition into the prioritization of new capital investments is an important principle.</p> <p>The Ministry is on its second iteration of assessing the physical condition of post-secondary assets at publicly funded post-secondary institutions in British Columbia. The results of those assessments are used to inform the approval process for projects currently before government for funding approval.</p>
<p><b>RECOMMENDATION 3:</b>  <i>We recommend that the Ministry of Advanced Education follow its documentation processes to ensure capital submissions are complete.</i></p>	<p>The Ministry agrees with the importance of proper documentation and retention of capital submissions supporting projects receiving funding approval.</p> <p>The Ministry notes that planning and approvals for the projects audited were processed through government over the past seven to eleven years. Since then, considerable evolution and improvement of capital planning and project business planning requirements has taken place. The Ministry is pleased the Auditor General acknowledges the passage of time and subsequent refinements in the capital development process.</p> <p>The Ministry’s current capital planning process and project documentation is rigorous; project business cases are linked closely with the associated approval documents; and continue to be retained in the Ministry’s records for future reference.</p>

# RESPONSE FROM THE MINISTRY OF ADVANCED EDUCATION

Recommendation by OAG	Ministry Response
<p><b>RECOMMENDATION 4:</b></p> <p><i>We recommend that the Ministry of Advanced Education require post-secondary institutions to report on their compliance with the conflict-of-interest principles in the Capital Asset Management Framework for major projects, as part of the post-awarding communication to the ministry.</i></p>	<p>The Ministry takes conflict-of-interest during the planning and procurement of a capital project very seriously. In response to the Auditor General’s recommendation, the Ministry will issue written guidance to the public post-secondary institutions highlighting the importance for those institutions to identify, document and report any conflict-of-interest between their staff and any organizations bidding on capital work for their particular institution.</p>
<p><b>RECOMMENDATION 5:</b></p> <p><i>We recommend that the Ministry of Advanced Education create a risk-based audit plan to ensure that periodic independent procurement or financial audits (or both) are completed for significant, provincial government-funded capital projects.</i></p>	<p>The Ministry notes that since 2012, project boards were created to monitor and govern the development of major capital projects as they progress through business planning and construction.</p> <p>Project boards identify and mitigate risks as they arise on capital projects. Project board members include senior Ministry officials, Institution and independent procurement experts (e.g. Partnerships BC).</p> <p>The Ministry will supplement the work of project boards with a plan to undertake periodic risk-based audits on future capital projects.</p>
<p><b>RECOMMENDATION 6:</b></p> <p><i>We recommend that the Ministry of Advanced Education improve its knowledge management practices by requiring project managers to review lessons learned on significant projects and share and discuss project successes and challenges with ministry staff.</i></p>	<p>The Ministry acknowledges the importance of learning from successes and challenges with every significant capital project.</p> <p>As part of the work supporting Recommendation Seven, the Ministry will incorporate an assessment of lessons learned during the planning and procurement process to better inform the Ministry and post-secondary institutions for future planning purposes.</p>
<p><b>RECOMMENDATION 7:</b> <i>We recommend that the Ministry of Advanced Education require post-secondary institutions, after they complete a capital project, to assess and report back on their progress against the original business case objectives.</i></p>	<p>Undertaking a post-occupancy evaluation of a major capital project approximately one year after completion is an important aspect in the project close out process.</p> <p>The Ministry will work with post-secondary institutions to ensure that a post-occupancy evaluation assessment is completed and provided to the Ministry. A post-occupancy evaluation would assess if a project achieved the business plan objectives, as known at that time, as well as other lessons learned during the procurement and implementation process.</p>



# RESPONSE FROM THE MINISTRY OF FINANCE

The Ministry of Finance (Finance) would like to thank the Auditor General for assessing the planning and procurement processes for eight major capital projects that were completed in the post-secondary sector between 2008 and 2013. Finance is encouraged that the procurement, risk assessment, monitoring and reporting processes used by the Ministry of Advanced Education (AVED) for the audited projects generally

achieved the principles of Finance's Capital Asset Management Framework and AVED's Capital Asset Reference Guide. In addition, Finance is pleased that the report acknowledges the improvements made to AVED's capital planning and procurement processes, as well as Government's multi-year consolidated capital planning processes since the completion of the projects.

Recommendation by OAG	Ministry Response
<p><b>RECOMMENDATION 1:</b> <i>We recommend that Treasury Board Staff should define the key capital project documents that must be retained, where they should be kept, who should retain them, and for how long.</i></p>	<p>Finance agrees that it is important to ensure that key capital project documents, including project submissions and business plans, should be stored in a manner that allows for efficient and timely retrieval since these documents are used to inform and confirm decisions about major capital projects. As such, as part of the update to the Capital Asset Management Framework, Finance will clarify the policy concerning the retention of key capital project documents to address the report's recommendation in this area.</p>

# BACKGROUND

**IN PLANNING AND** delivering its services, the B.C. government must consider the interests and needs of the province's citizens – both today and in the future.

This means that in managing the capital assets used to provide these services – typically buildings, like schools, hospitals and other infrastructure – the government must ensure that scarce resources are prioritized against many competing needs to achieve both cost-effectiveness and sustainability.

Government spends between \$5 billion and \$7 billion a year to add or extend the life of its capital asset stock. It strives to manage its capital assets through a rigorous process that weighs the costs and benefits of particular proposals for creating, refurbishing or maintaining these assets.

## WHY WE CHOSE THIS AUDIT

In June 2015, we published *Monitoring Fiscal Sustainability*, in which we discussed the significance of capital assets as a risk to monitor. We also commented on the complexity of understanding the current condition of capital assets and preparing for future needs. The historical cost of assets on government's books has no bearing on what the cost is to renew or replace them. As of March 31, 2015, the province had capital assets worth \$39 billion (at depreciated cost) on its books.

In past years, we have focused on examining large, mainly public-private partnership capital projects. We chose this current project because of significant capital activity in the post-secondary sector, especially in the range of \$20 million to \$50 million per project.

## RESPONSIBILITY FOR CAPITAL PROJECTS IN THE POST-SECONDARY SECTOR

Establishing clarity and confirming understanding of the roles and responsibilities of those involved in procurement processes is important to help ensure that the related responsibilities and accountabilities are effectively discharged. This is especially important in situations where governance is multi-layered, complex, or with diverse stakeholder interests to be managed.

Some jurisdictions in Canada have a centralized ministry or organization responsible for all capital infrastructure and procurement. These ministries or organizations tend to be staffed with experts in capital procurement, but they are not necessarily experts in the specific program needs of the projects.

In contrast, B.C.'s capital procurement process is decentralized. Responsibility for each project lies with the ministries and institutions completing the projects. No central agency in B.C. has responsibility for project delivery.

# BACKGROUND

## ROLES OF TREASURY BOARD AND TREASURY BOARD STAFF

Treasury Board is a statutory Committee of the Executive Council (Cabinet). Treasury Board is chaired by the Minister of Finance and is the major financial management committee of Cabinet, providing advice and recommendations on budgetary and fiscal policy matters, particularly those involving significant expenditure decisions and those related to the annual Budget and Fiscal Plan.

In 2003, Treasury Board issued a directive requiring all government entities (as defined in the *Financial Administration Act*) to comply with the Capital Asset Management Framework. (see p.13)

Advice from Treasury Board staff helps inform the Minister of Finance and Treasury Board on making decisions on spending management, budget priorities and government's fiscal and capital plan. Treasury Board staff are responsible for:

- ◆ developing, reviewing and maintaining government's economic and fiscal framework
- ◆ providing analysis and advice to Treasury Board and to the Minister of Finance
- ◆ converting Treasury Board's direction into strategic and operational plans for all ministries and Crown agencies

For post-secondary institution capital projects, responsibilities lie with the Ministry of Finance, Ministry of Advanced Education and the institutions.

## Ministry of Finance

The Ministry of Finance is the central agency responsible for overseeing the quality and integrity of financial management and control systems across government, as well as managing government's overall cash flow, borrowing and financing needs.

The *Financial Administration Act* is the main statute governing capital financial management and administration. It authorizes Treasury Board and the Minister of Finance to provide central direction on capital management to government and government bodies.

The *Budget Transparency and Accountability Act* also applies to capital asset management. It requires agencies to produce annual service plans, which form the basis for capital planning, and to make available to the public any information on major capital projects.

For capital programs, the Ministry of Finance reviews and provides direction on all the ministry service plans and 10-year capital plans. It also borrows funds in capital markets and advances funds to agencies. As well, the ministry provides support and advice to Treasury Board and the Minister of Finance on all capital-related expenditure matters.

## Ministry of Advanced Education

For the post-secondary education sector, the capital program is overseen and managed by the Capital Asset

## BACKGROUND

Management Unit in the Financial and Management Services Division in the Ministry of Advanced Education. The team's mission is to ensure that facilities meet educational and provincial government requirements to provide accessible and high-quality post-secondary education.

It is responsible for a broad range of government policies and provincial standards associated with the planning, procurement, maintenance, construction and use of facilities. The team:

- ◆ formulates and oversees the implementation of multi-year capital and maintenance plans and ensures they are based on local needs, demographics, educational program plans and other trends and government priorities
- ◆ provides advice and technical support to public post-secondary institutions in capital and facilities planning, development and maintenance
- ◆ ensures that post-secondary facilities capital planning and development comply with government's overall Capital Asset Management Framework, the ministry's capital policies and procedures (including those related to educational capital planning, such as the *Capital Asset Reference Guide* and related templates) and other relevant Acts and Regulations

### Post-secondary institutions

The Ministry of Advanced Education (ministry) oversees more than 400 post-secondary institutions in the province: universities, colleges and private training institutions. These institutions play a crucial role by helping students reach their educational goals, advance their careers, and provide for themselves and their families.

In terms of government's capital asset management program, the ministry is mainly involved with the province's 25 publicly funded institutions. The major activities in the capital program are:

- ◆ annually preparing a list of proposed and prioritized capital projects and submitting these to the ministry as part of their service plans and capital plans
- ◆ implementing capital plans approved by Treasury Board and the ministry, consistent with their mandates and government's strategic direction
- ◆ monitoring their current portfolio of capital projects and reporting the status of that to the ministry
- ◆ owning, maintaining and operating their post-secondary facilities in support of their mission and goals

### B.C.'S POST-SECONDARY INSTITUTIONS INCLUDE:

- ◆ 25 publicly funded institutions
- ◆ 19 private and out-of-province public degree-granting institutions
- ◆ 13 seminaries and theological colleges
- ◆ 39 Aboriginal-controlled institutes
- ◆ 310+ registered private career-training institutions



## BACKGROUND

# CAPITAL ASSET SPENDING IN THE POST-SECONDARY EDUCATION SECTOR

In the past five years, about \$3.4 billion (averaging about \$680 million per year) has been spent on adding to or extending the life of capital asset stock in the post-secondary sector. The Ministry of Advanced

Education provides a portion of this funding (see Exhibit 1). Additional capital funding comes from private sector organizations and individuals, and the federal government and goes directly to institutions.

**Exhibit 1:** Provincially funded capital spending by post-secondary institutions (\$ millions)

	Fiscal Year					
	Actual		Forecast	Budget		Total
	2013/14	2014/15	2015/16	2016/17	2017/18	
New priority projects	29.7	47.0	67.1	111.2	121.3	376.3
Whole asset replacement & renewal projects	12.7	36.0	53.9	132.5	43.7	278.8
Innovation projects	-	-	-	-	-	-
Maintenance & rehabilitation projects	34.3	35.5	79.0	99.9	115.0	363.7
Upgrade and renovation projects	1.8	1.9	3.0	-	-	6.7
<b>Ministry of Advanced Education Total</b>	<b>78.5</b>	<b>120.4</b>	<b>203.0</b>	<b>343.6</b>	<b>280.0</b>	<b>1,025.5</b>

Source: Office of the Auditor General of British Columbia

## BACKGROUND

Exhibit 2 shows the five categories of capital projects that the ministry funds that are delivered by post-secondary institutions.

<b>Exhibit 2: Capital project categories used by the ministry</b>			
New Priority Investment	Category 1	<b>New Priority Projects</b>	
		Primary Driver	Accommodate growth; labour market demand-driven capacity
		Secondary Benefit	New system capacity
	Category 2	<b>Whole Asset Replacement &amp; Renewal Projects</b> Facility Condition Index (FCI) > 0.5	
		Primary Driver	Improve the condition of the physical asset and reduce deferred maintenance backlog
		Secondary Benefit	Increased system capacity due to improved functional efficiency
Capital Innovation	Category 3	<b>Innovation Projects</b>	
		Primary Driver	Improve efficiency in the delivery of core programs and yield a net positive financial return over the lifecycle of the capital asset
		Secondary Benefit	New system capacity, or increased system capacity, or maintain/extend the life of the asset, or modify existing infrastructure
Routine Capital	Category 4	<b>Maintenance &amp; Rehabilitation Projects</b> Facility Condition Index < 0.5 (a) Major projects ≥ \$250,000 (b) Minor Projects < \$250,000 (c) Emergency Projects	
		Primary Driver	Improve the condition of the physical asset and reduce deferred maintenance backlog
		Secondary Benefit	Maintain or extend the life of the asset
	Category 5	<b>Upgrade &amp; Renovation Projects</b>	
		Primary Driver	Improve functionality, efficiency, or for a policy rationale (i.e., heritage restoration)
		Secondary Benefit	Existing infrastructure is modified but does not result in net new programming

Source: Ministry of Advanced Education *Capital Asset Reference Guide*, 2014

## BACKGROUND

# GOVERNMENT'S GUIDANCE IN CAPITAL ASSET MANAGEMENT

Two documents shape capital asset management in the post-secondary sector.

### Capital Asset Management Framework

The Capital Asset Management Framework, issued by Treasury Board in 2002, directs capital procurement within the B.C. government. Built around two objectives and six main principles (see Exhibit 3), it establishes best practices in managing public sector capital assets and helps institutions find efficient ways to meet provincial infrastructure needs.

The framework allows for flexibility both in the extent to which the guidelines' minimum standards are applied, and in the level and intensity of oversight exercised by ministries and Crown agencies. It also:

- ◆ puts a focus on using approaches that best meet service delivery needs

- ◆ protects the public interest
- ◆ provides best value for taxpayers

Several topics, such as agency monitoring and asset renewal and disposal, are not included in the framework. Ministries are expected to fill in these gaps and develop their own detailed guidance that applies to their Crown agency sectors.

### Capital Asset Reference Guide

This detailed guide, prepared by the ministry, was designed to align with government's Capital Asset Management Framework. It directs post-secondary institutions in their capital planning and approval processes, and provides guidance on implementing projects that are partially or wholly funded by government.

Significantly updated in 2013, the guide sets out processes to follow for various project categories and project delivery options. A number of new templates are also available to ensure a consistent approach for the documents required to support decisions in the capital planning and procurement stages.

**Exhibit 3:** Objectives and principles of government's Capital Asset Management Framework

Objectives	Principles
1. To establish best practices in capital asset management across the public sector	1. Sound fiscal and risk management 2. Strong accountability in a flexible and streamlined process 3. Emphasis on service delivery
2. To support provincial public sector agencies to think creatively and find the most efficient ways to meet British Columbia's infrastructure needs	4. Value for money 5. Protecting the public interest and safety 6. Competition and transparency

Source: Ministry of Finance

# AUDIT OBJECTIVE

**WE CONDUCTED THIS** audit to determine whether capital procurement in the Ministry of Advanced Education (ministry) is in keeping with the government's Capital Asset Management Framework and the Ministry of Advanced Education's *Capital Asset Reference Guide*.

Specifically, we expected the ministry to ensure that:

- ◆ post-secondary institution capital planning processes include prioritizing projects to determine where the greatest capital asset needs exist
- ◆ the capital procurement planning and risk management activities carried out are in keeping with government's framework and guide
- ◆ capital procurement is being accomplished in a competitive and transparent manner, demonstrating value for money
- ◆ results of capital procurement processes are monitored and reported on

We developed our audit objective and criteria based on:

- ◆ government's Capital Asset Management Framework
- ◆ the Ministry of Advanced Education's *Capital Asset Reference Guide* (August 2005 edition) plus Versions 1.0 and 2.0
- ◆ government's Core Policy and Procedures Manual
- ◆ a review of relevant B.C. legislation including the *Financial Administration Act*, the *Balanced Budget and Ministerial Accountability Act*, the *Financial Information Act*, the *University Act*, and other related legislation
- ◆ a review of capital asset management practices in select Canadian jurisdictions
- ◆ discussions with Ministry of Advanced Education and Treasury Board staff, and key stakeholders



# AUDIT SCOPE

**WE EXAMINED A SAMPLE** of eight category 1 and 2 projects (see [Exhibit 2](#)) with \$20 million to \$50 million of ministry funding (some projects may also be co-funded from other sources). We looked at projects completed for core educational facilities between 2008/09–2013/14. Planning for these buildings started as early as 2005.

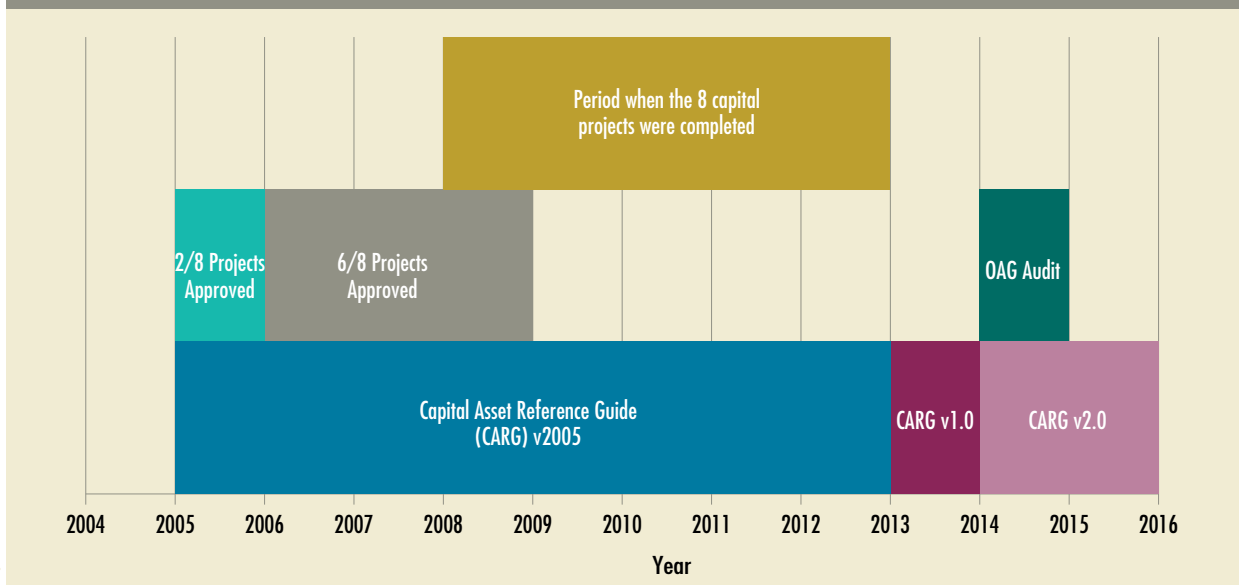
[Appendix 1](#) provides a list of the eight institutions and the projects.

We carried out our audit work between September 2014 and March 2015, and substantially completed the work in April 2015. Our work involved:

- ◆ reviewing agreements, legislation, policies, ministry and post-secondary institution capital plans and other documents
- ◆ researching best practice literature
- ◆ interviewing ministry and institution staff and asset condition experts
- ◆ analyzing business cases, financial and other data for the eight capital projects in our sample
- ◆ re-performing process walk-throughs of ministry and institution business processes
- ◆ visiting the eight institutions in our sample to analyze supporting documentation for the business cases and financial information submitted to the ministry

Exhibit 4 shows the timelines of the capital projects we assessed and the version of the *Capital Asset Reference Guide* we used.

**Exhibit 4:** Timelines of the capital projects we audited, and the ministry’s *Capital Asset Reference Guide* that was in effect during those periods



Source: Office of the Auditor General of British Columbia

## AUDIT SCOPE

We excluded projects with greater than \$50 million of ministry funding, because they require a public-private partnership assessment and involve higher involvement from central agencies. We also excluded projects with less than \$20 million of ministry funding, because they require less oversight and incur less significant financial risks. We also excluded non-core educational facilities, such as dormitories and gymnasiums.

We conducted the audit in accordance with the standards for assurance engagements set out by the Chartered Professional Accountants of Canada (CPA) in the *CPA Handbook – Assurance and Value-for-Money Auditing in the Public Sector*, Section PS 5400, and under the authority of Section 11(8) of the *Auditor General Act*.

# AUDIT CONCLUSION

**THE MINISTRY OF** Advanced Education's (ministry) planning processes, at the time the projects were planned (2005-2009), for capital procurement were not meeting all of the related requirements of government's Capital Asset Management Framework or the ministry's *Capital Asset Reference Guide* for the completed projects we audited. However, we have examined their recent practices and confirmed that the ministry is now compliant.

The related procurement, risk assessment, monitoring and reporting processes used by the ministry for the projects we audited were generally achieving the principles of the Capital Asset Management Framework and the *Capital Asset Reference Guide*.

The capital planning processes used by the post-secondary institutions for the samples we audited were also achieving those principles, although conflict of interest policies need improvement.

# KEY FINDINGS AND RECOMMENDATIONS

## IDENTIFICATION AND PRIORITIZATION OF CAPITAL PROJECTS

**GOVERNMENTS, LIKE ANY ORGANIZATION**, have finite amounts of resources to carry out their work. The needs for, or claims on, these resources usually exceed what can be financed over a given time horizon. This requires standardized approaches to identifying the needs, analyzing them, and ranking and sorting them based on certain criteria.

In applying guidelines set out in the Capital Asset Management Framework (CAMF), the B.C. government uses a very structured approach to identify its capital asset needs and priorities. These then go through to Treasury Board for final decision-making and funding.

Our objective was to determine whether the ministry's multi-year consolidated capital planning processes include steps for appropriately identifying and prioritizing projects to determine where the greatest capital asset needs exist – and, if they do include them, whether those steps are being followed in the post-secondary education sector.

**The ministry was not consistently using capital asset management plans to create a sector-wide capital plan, but has since improved**

Ministry policies and guidance (*Capital Asset Reference Guide 2005*) in place at the time of our audit required each post-secondary institution to prepare and submit an annual, long-term capital asset management plan. The ministry was then to use these plans in formulating a sector-wide capital plan.

We expected the ministry to have assessed these plans and prioritized all project requests, and to have ensured that funding requests were made for the projects where the greatest needs existed.



# KEY FINDINGS AND RECOMMENDATIONS

## What we found

During the period of our audit (see [Exhibit 4](#)), the post-secondary institutions we audited were preparing long-term capital plans. These plans were clearly aligned with one or more strategic priorities or initiatives of government.

Prior to 2008, the ministry received capital plans from post-secondary institutions on an as-needed basis. The plans identified emergent priorities. During this period, the ministry and Treasury Board staff did not have a regular annual capital plan update process in place; however, the ministry made adjustments to the timing and selection of projects as priorities changed.

Since 2012, Treasury Board staff have used a standard framework for capital planning, including a process to accommodate emerging priorities and risks. The ministry has also been using the multi-year capital plans of post-secondary institutions to maintain its own long-term capital plan, which has been sent to and used by Treasury Board staff. We were encouraged to see this improvement, and as a result have not made a recommendation in this area.

## Key project documents were difficult to identify and locate

Keeping reliable records and documentation of important decisions is basic to accountability. Reliable records are also needed in order to assess whether benefits were achieved.

We expected government to identify and readily locate all of the key documents supporting its post-secondary institution capital decisions. These documents are also useful in providing lessons applicable to future project work.

## What we found

The CAMF states that documents must be retained to meet government's Freedom of Information legislation, but what should be retained, by whom and for how long is not clear. The framework also outlines the responsibility for keeping key project documents, but it does not define what those documents are.

We found no consistent document-referencing system used by the post-secondary institutions, the ministry or Treasury Board staff to track and support capital project submissions. This made it difficult to obtain complete sets of key documents that supported Treasury Board decisions. We also noted that the draft documents kept by the ministry were titled and categorized in a different way than the final Treasury Board staff versions were. As a result of the lack of clarity in the CAMF requirements, all parties involved spent a significant amount of time reassembling complete packages of the documents that were used for the audit to support the original project decisions.

### LOCATING KEY DOCUMENTS HAS BEEN AN ONGOING ISSUE IN OUR CAPITAL WORK

Challenges in locating key decision documents and supporting evidence have been an ongoing theme in our work around capital procurements in the last five years. For further information, see our reports on the following projects: [Audits of Two P3 Projects in the Sea-to-Sky Corridor](#), [Audit of the Evergreen Line Rapid Transit System](#), and [Audit of the Academic Ambulatory Care Centre Public Private Partnership: Vancouver Coastal Health Authority](#)

## KEY FINDINGS AND RECOMMENDATIONS

**RECOMMENDATION 1:** *We recommend that Treasury Board staff define the key capital project documents that must be retained, where they should be kept, who should retain them, and for how long.*

### Professional asset condition valuations could be put to better use for capital planning

When government invests in new capital assets for providing services, it's committing far more than the original costs to build them. It must also factor in the costs to operate the assets and to maintain them in an acceptable state over their useful lives, which can be 50 years or more. Significant components include roofs, windows, carpets, and cooling and heating systems for buildings. Often the ongoing costs end up being several times the original asset cost.

The ministry prioritizes projects in the five-year capital plans of the 25 public post-secondary institutions, within the overall corporate strategic priorities of the ministry and government. The criteria used for this prioritization are:

- ♦ asset condition: facility condition based on VFA Canada contract assessments
- ♦ educational programming: current and future service delivery needs of their assets
- ♦ strategic priorities: government initiatives requiring capital investments (i.e. B.C.'s Skills for Jobs Blueprint, Labour Market Demands)
- ♦ fiscal impacts of the investment: operating and capital cost implications of their projects

The application of these criteria results in a prioritized list of major capital projects for the advanced education sector for consideration by government, and potential inclusion within the ministry's approved capital plan.

There are several tools government can use to keep track of how its assets are wearing out, and what is happening to new monies invested to maintain and renew the assets as components reach the end of their life:

- ♦ One tool is to look to the audited financial statements. These show the original (historical) cost of the assets; how much has been depreciated (used up) through time, based on accounting standards;<sup>1</sup> and, the costs of new investments to repair or replace worn-out components.
- ♦ Another tool is to regularly assess and track the condition and replacement cost of capital assets and significant components. This forward-looking method, which requires periodic assessment updates to remain current, assists with prioritizing where the greatest needs are for budgeting and funding maintenance and asset renewal projects.

Each tool only provides partial information. For example, the historical cost approach does not take into account the future replacement costs of significant components or of the assets themselves. Both approaches are needed to help manage capital assets so that those assets will continue to provide cost-effective services over their life cycles.

<sup>1</sup> For an overview of how public sector accounting standards are used for financial reporting, including those for capital assets, see our publication [Understanding Canadian Public Sector Financial Statements](#).

## KEY FINDINGS AND RECOMMENDATIONS

We expected government to have a good understanding of the condition of its capital asset portfolio in order to inform and enhance its decision-making about future capital planning decisions.

### What we found

For the last five years, the ministry has contracted with [VFA Canada](#) to perform facility condition assessments on all buildings in publicly funded institutions. VFA Canada provides capital planning and management services to other B.C. ministries and other jurisdictions as well.

The ministry's process is to keep refreshing these assessments by 20% a year.

Using VFA Canada – a professional asset valuation – is a positive development. VFA Canada uses a methodology that enhances comparisons between institutions and within building classes in the sector. It also gives each institution a snapshot of the conditions of its capital asset stock, which aids in developing and prioritizing long-term capital plans, and provides an idea of the amount of funding needed to catch up on deferred maintenance (something often called the infrastructure deficit).

Although the ministry has set an asset condition target and assessments have been carried out on all the capital assets in the ministry's portfolio, we noted that the ministry and Treasury Board staff are still considering how to use it to inform capital planning and funding decision-making.

**RECOMMENDATION 2:** *We recommend that the Ministry of Advanced Education use its improved understanding of the condition of its facilities to prioritize significant maintenance and new construction projects, and to inform its capital planning goals and priorities.*

### Documentation for capital project submissions was not always complete

The ministry has set standards for the documentation it requires as part of capital project submissions from post-secondary institutions.

We therefore expected that this required documentation would be complete, and that the ministry's evaluation work on the capital submissions would have identified and explained the reasons for any missing documents.

### What we found

In each of our post-secondary institution samples, we found that required documentation was missing. There was no indication by the ministry whether it had noted these deficiencies and followed up on them.

This creates the risk that capital decisions were not properly informed by the due diligence expected by the ministry.

**RECOMMENDATION 3:** *We recommend that the Ministry of Advanced Education follow its documentation processes to ensure capital submissions are complete.*

## KEY FINDINGS AND RECOMMENDATIONS

### PROCUREMENT PROCESSES USED BY POST-SECONDARY INSTITUTIONS

We expected the post-secondary institutions to be carrying out capital procurement planning and risk management activities in accordance with the Capital Asset Management Framework (CAMF) and the *Capital Asset Reference Guide*. We also expected the institutions to be conducting their capital procurement processes in a competitive and transparent manner, demonstrating value for money, and to be effectively monitoring and reporting the results.

#### Institutions need to strengthen their conflict-of-interest policies

One of the most important ways to ensure fairness in procurement is to avoid real or perceived conflicts of interest. A conflict of interest can arise when someone on the procurement team has a relationship or association with a proponent that could prejudice the team member's impartiality in choosing a bidder. A team member accepting a significant personal gift or other benefit from a bidder is another conflict-of-interest situation.

Although such risks cannot be completely avoided, they can often be mitigated and managed by ensuring appropriate processes are in place to prevent the risks arising – and to respond to them if conflicts of interest do occur.

The expectation in the CAMF is that agencies will: develop their own processes to ensure that any real

or perceived conflicts of interest are identified and declared before a bidding process begins; and, identify and address any new conflicts that may arise during the procurement process.

#### What we found

Planning activities and risk management assessments, for the projects and institutions we sampled, met the requirements of CAMF and the *Capital Asset Reference Guide*. We also found that these procurements were generally conducted in a fair, open and transparent manner, and contracts were awarded based on the competition criteria.

However, we also found that none of the eight institutions we examined had processes in place to ensure that procurement team members and their advisors declared and addressed any real or perceived conflicts of interest. This means there is a risk that the procurement processes could be biased, and therefore not carried out fairly, or in a way to ensure that the best value for money is achieved.

Although some institutions we examined told us that they use independence declarations as a condition of employment, we found no monitoring underway to watch for project-specific conflicts of interest that could arise on procurement teams.

**RECOMMENDATION 4:** *We recommend that the Ministry of Advanced Education require post-secondary institutions to report on their compliance with the conflict-of-interest principles in the Capital Asset Management Framework for major projects, as part of the post-awarding communication to the ministry.*

# KEY FINDINGS AND RECOMMENDATIONS

## Procurement monitoring processes need improvement

The B.C. government has several monitoring tools to ensure that the procurement processes of public sector entities – including post-secondary institutions – align with the policies and objectives of the CAMF; and, that the entities demonstrate their accountability in carrying out procurement.

Two of the main tools are:

- ◆ the Capital Procurement Checklist, which is designed to help institutions follow the CAMF principles when carrying out each phase of capital procurement activities
- ◆ procurement audits, which are after-the-fact assessments that can be carried out by external consultants or other professionals to verify compliance with any component of the CAMF, and provide entities and the ministry with valuable information about project performance

When it comes to the degree of monitoring that is required, government uses a risk-based approach – that is, adopting checks and balances that are proportional to the level of risk associated with any particular institution or capital project.

As well, the principle of “earned independence” is discussed in the CAMF. Essentially, as institutions prove their ability to effectively and competently

deliver infrastructure projects, they become subject to less oversight. On the other hand, institutions that fail to prove their ability to deliver projects face continued close oversight.

We expected the ministry to be using a range of financial and compliance audit services at different project stages across the post-secondary institutions to monitor and assess both the effectiveness of individual institutions’ procurement processes and the sector-wide compliance with monitoring policy.

## What we found

We found that the ministry was not employing a range of monitoring tools. In two of our eight sample projects, we found that the ministry had carried out financial and compliance audits. The selection of these audits was not risk based. They were conditions of the federal funding received for the projects in question. Both of the projects’ audits identified weaknesses in the capital procurement processes that could lead to a lack of fairness. No other audits were performed in the other six projects we sampled.

**RECOMMENDATION 5:** *We recommend that the Ministry of Advanced Education create a risk-based audit plan to ensure that periodic, independent procurement or financial audits (or both) are completed for significant, provincial government-funded capital projects.*



## KEY FINDINGS AND RECOMMENDATIONS

### CONTINUOUS IMPROVEMENT IN CAPITAL ASSET PROCUREMENT

For government organizations to obtain value for money in the long term, resources must be used as effectively as possible. To this end, the experience gained from past lessons (both positive and negative) is invaluable for informing future decisions.

The types of capital projects we examined can take five or more years from inception to completion. They also consume a lot of money, time and other limited resources. Staff involved in these projects inevitably learn from the experience, but in any organization, staff come and go.

For the advanced education sector, it is therefore important that these often hard-earned lessons become part of the continuous learning of post-secondary institutions and of the broader sector, so that resources will be used more effectively in future projects. Historical information documented from past projects can be retained and used to inform and assist in the development of new project plans and templates. That information can also be a rich source for training programs. Any organization can learn from both successful and poorly performing capital projects.

### Project close-out reports did not identify any lessons-learned opportunities

The ministry requires all post-secondary institutions to submit a project close-out report for each completed project. The ministry provides a template to ensure consistent reporting of information. This template requires details such as project administrative data, procurement methods, milestone dates, cost summaries, funding sources, cash flows, and space and capacity summaries. It also may, as applicable, require reporting out on key government requirements, such as employment creation, health and safety improvements, LEED certifications, energy efficiency, greenhouse gas emission reductions, and compliance with the *Wood First Act*.

Another important part of the template is a box for lessons learned. We expected to find that this section had been informed by a rigorous discussion between the project team and stakeholders of key lessons that both the institution and the sector could use and share.

### What we found

The lessons-learned section of the close-out report was not completed in any of the eight reports we reviewed.

In all cases, we found that although the close-out reports provided a comprehensive collection of facts and figures about the projects, the reports did not address lessons learned, best practices, or areas for improvement.



## KEY FINDINGS AND RECOMMENDATIONS

**RECOMMENDATION 6:** *We recommend that the Ministry of Advanced Education improve its knowledge management practices by requiring project managers to review lessons learned on significant projects, and share and discuss project successes and challenges with ministry staff.*

### Project results were not being evaluated to determine whether value for money was achieved

When Treasury Board approves taxpayers' money to be spent on a capital project, the decision is based on the entity in question asserting that the project being put forward is the best way to provide a needed service or resolve a business problem. Business case goals related to cost and timeliness of construction are measurable when construction is completed. However, effectiveness of a project's result in providing a service or resolving a problem can generally only be measured after the asset has been in use.

Government's expectations for performance measurement and evaluation, laid out in the Capital Asset Management Framework, direct agencies to:

- ◆ measure actual results of asset performance and compare them with expected outcomes
- ◆ identify and evaluate any variances and their underlying causes
- ◆ report these results to the appropriate internal or external authority

We expected to find that post-secondary institutions would be assessing how well new facilities were meeting the business case goals and report their findings back to the ministry.

### What we found

We found that the post-secondary institutions had completed close-out reports at the end of construction for the projects we examined. However, although budget-to-actual costs and some government priorities were tracked (such as the *Wood First Act* and LEED certification requirements), the reports did not include follow-up evaluation to determine how successfully the projects had met the original needs.

Without this further step, there is a risk that unmet needs will still exist after significant time, effort and funds have been spent on a project – and that the post-secondary institution may have to go back to government for more money.

**RECOMMENDATION 7:** *We recommend that the Ministry of Advanced Education require post-secondary institutions, after they complete a capital project, to assess and report back on their progress against the original business case objectives.*

## KEY FINDINGS AND RECOMMENDATIONS

### **The ministry and post-secondary institutions have improved knowledge sharing practices to help improve outcomes**

One way for any sector, industry or group to be more effective as a whole is to actively share their experiences and expertise with their peers. System-wide knowledge sharing and management is known to enhance capacity and reduce risk.

For example, the Ministry of Transportation and Infrastructure regularly holds regional and ministry-wide project management workshops. These workshops primarily involve presentations by project managers, sharing with their peers what they learned from recent projects, followed by candid question-and-answer sessions.

### **What we found**

We found that staff in capital roles at all eight of the post-secondary institutions we visited are well qualified for their positions and have a wide array of expertise and backgrounds. The number of staff devoted to capital building and management programs also ranges widely across the institutions.

Smaller institutions may go years between major projects, and may not have sufficient resources to manage more than one major project at time. On the other end of the scale, major universities are generally managing tens of millions of dollars of construction at any given time.

The ministry has a number of formal means to encourage the sharing of knowledge and lessons learned. These include standing committees, ministry-hosted conferences, face-to-face meetings with institution senior management, and briefings on updates to the *Capital Asset Reference Guide*. Despite these tools, we found that during the period our audit work was conducted, some post-secondary institutions were still struggling with problems that others had already resolved.

Since then, there has been better collaboration between the ministry and post-secondary institutions, such as in identifying and sharing best practices and problem resolutions. For example, the ministry recently changed its model for maintenance funding to better address some of the planning challenges faced by post-secondary institutions. We encourage the ministry to continue facilitating and stimulating collaboration among the post-secondary institutions. We have no recommendation in this area.

# APPENDIX 1:

## INSTITUTIONS AND PROJECTS INCLUDED IN OUR AUDIT SAMPLE, SORTED BY TOTAL PROVINCIAL CONTRIBUTION

Institution	Project name	Project description	Project dates A – Approval F - Finish	Total project cost (\$ millions)	Total provincial contribution (\$ millions)
Douglas College	David Lam Expansion	Construction of a new classroom/lab building to accommodate the planned increase of 1,500 full-time students in line with the ministry's Strategic Investment Plan	A: April 2005 F: September 2008	39.3	35.2
University of British Columbia – Okanagan Campus	Health Sciences Centre (Medical Building)	Construction of a building to establish a medical school in the Okanagan Valley, in line with the province's strategy to increase medical training	A: December 2007 F: February 2013	30.8	30.8
University of Northern B.C.	Teaching and Learning Centre	Construction of a building in support of increasing full-time students by 550, in line with the ministry's Strategic Investment Plan	A: February 2005 F: March 2008	31.4	29.0
Simon Fraser University	Phased renewal of the Shrum Science Centre	To address deferred maintenance in SFU's chemistry labs  This project also received federal funding under the Knowledge Infrastructure Program	A: April 2009 F: April 2011	49.4	25.0
Okanagan College	Centre For Learning	Construction of a building in support of increasing full-time students at Okanagan College by 1,000, in line with the ministry's Strategic Investment Plan	A: July 2007 F: June 2009	28.0	23.0
British Columbia Institute of Technology	Renewal of Building SW1	Improvements to building SW1 to improve use of space, netting 5 new classrooms and 14 faculty offices.  This project received federal funding under the Knowledge Infrastructure Program.	A: June 2009 F: June 2011	39.6	22.8

## APPENDIX 1: INSTITUTIONS AND PROJECTS INCLUDED IN OUR AUDIT SAMPLE, SORTED BY TOTAL PROVINCIAL CONTRIBUTION

Institution	Project name	Project description	Project dates A – Approval F - Finish	Total project cost (\$ millions)	Total provincial contribution (\$ millions)
University of Victoria	Renewal and improvement of 6 buildings	Renewal of 6 existing buildings to increase their use and functionality, improve energy efficiency, and address health and safety issues.  This project received federal funding under the Knowledge Infrastructure Program.	A: June 2009 F: March 2011	42.5	21.5
University of the Fraser Valley	Renovate building 1040 CFB Chilliwack	Redevelopment and renovation of 2 buildings to support the planned growth of 600 full-time students under the ministry's Strategic Investment Plan	A: December 2007 F: August 2008	21.6	21.6

Source: Office of the Auditor General of British Columbia, from data supplied by the Ministry of Advanced Education



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