
CAPITAL ASSET MANAGEMENT

**PROJECT PROCUREMENT
PROCEDURES AND GUIDELINES**

June 2003
Updated June 20, 2003

Ministry of Education
Province of British Columbia



UNDER REVIEW

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
1.0 INTRODUCTION.....	1
1.1 SUMMARY	1
1.2 GOVERNMENT’S CAPITAL ASSET MANAGEMENT FRAMEWORK.....	1
1.3 MAIN FEATURES OF THE PROJECT PROCUREMENT PROCESS.....	2
2.0 PROJECT PROCUREMENT MANAGEMENT PROCESSES	5
2.1 FEASIBILITY STUDY	5
2.2 PROJECT AGREEMENT	7
2.3 PROJECT COST AND SCOPE REPORTS	9
2.4 POST-IMPLEMENTATION REVIEWS	10
APPENDIX 1 - FEASIBILITY STUDY	13
APPENDIX 2 – PROJECT AGREEMENT	21
APPENDIX 3 – PROJECT REPORTS	33
APPENDIX 4 - POST-IMPLEMENTATION REVIEWS.....	36
APPENDIX 5 – NOTICE OF PROJECT ACCOUNT CLOSURE.....	42
APPENDIX 6 – POLICIES, PROCEDURES & GUIDELINES.....	44

UNDER REVIEW

EXECUTIVE SUMMARY

Effective February 4, 2002, the responsibility for the implementation of capital projects reverted to the Ministry of Education from the Capital Division, Ministry of Finance. The Ministry of Education's capital asset management process was developed as a response to three specific capital program functions transferred to the Ministry of Education to manage:

- controlling approved capital projects to ensure they are administered by school boards in accordance with provincial policies and conditions of funding approval;
- monitoring and reporting capital expenditure forecasts to Ministry of Finance, and;
- administering capital funding through the issuance of Certificates of Approval.

The framework developed to replace the Ministry of Finance's process is based on government's capital asset management framework guidelines. The Ministry of Education's process transfers the accountability and responsibility for capital expenditures to school boards, while retaining public accountability to ensure that schools are built and maintained in a cost-effective manner.

School Boards will be responsible and accountable to provide effective project management of capital projects in three key areas:

- cost effective design and construction;
- competent project management and cost control through all project phases; and,
- accountability for development of capital assets that will meet provincial guidelines.

The Ministry's role in the project procurement process is to develop and maintain provincial standards, monetary safeguards and reporting requirements to insure public accountability in the delivery of capital projects. The process is built on the following cornerstones:

- establishment of clear roles and responsibilities;
- justification of capital projects through business case analysis;
- project classification and reporting based on cost and risk; and,
- standards for complete, accurate and timely project reporting.

The following management processes are central to the Ministry's framework:

Approval and Oversight Principles: Oversight levels will be assessed from low to high on an individual school board and project basis commensurate with past performance on projects of similar size or complexity. The level of Ministry oversight shall dictate the reporting and auditing requirements.

Multi-Year Capital Plans: Approved projects for new and replacement schools or additions and major renovations will be incorporated into a three-year capital plan.

Feasibility Studies: Upon notification of initial project support, feasibility studies may proceed to enable school boards to undertake investigations of existing facilities and site conditions and define accurate scope, schedules and budgets for projects prior to final approval by the Minister.

Project Approval – A Contract between the Ministry and a School Board: Agreement by the school board and Ministry to enable the project to proceed, based on a fixed scope and budget as identified in the feasibility report and supported by the Ministry. After completing the project agreement, funding and approval will be provided to enable the project to proceed to completion.

Upon the Minister's approval, school boards shall be accountable through bylaws and agreements for delivering capital projects within the funding allocation and in accordance with the completion and expenditure schedule. As per section 156 (10) of the *School Act*, School boards may retain capital savings to deposit to a capital reserve. School boards will be responsible for additional funding for cost overruns in excess of the Minister's approval through approved borrowing or local capital sources.

Completion Approval Requests will be eliminated: Commensurate with Treasury Board policy changes, requests to the Chair of Treasury Board for approval of completion funds will no longer be required. Upon completion of the project agreement, a project may proceed to completion without additional approvals as long as the conditions set out in the project agreement are maintained.

Value analysis will not be universally mandated; however, it may be elected or be compulsory as a reporting requirement upon final approval of a project, commensurate with the experience of the school district, the proposed site, building design and level of oversight.

Contract Documents: Government previously prescribed standardized consultant or construction contract procurement processes and forms of agreements (i.e. Client-Architect agreement). School boards are able to employ open, transparent and competitive contracting processes that utilize standard industry forms for tenders and contracts.

Procurement: School boards may procure services or facilities through design-build, construction management or other forms without specific approval of the Minister. Public-Private Partnership or alternate forms of procurement will be identified during the feasibility study with specific terms provided within the agreement with the school board.

Reporting: A report form comparing the originally approved scope, budget, expenditure limit, current status and schedule will be required at various stages of the project (i.e. design development, construction documents, contract award, and substantial completion). An update to the Ministry's current web-based Capital Asset Planning System will be used.

Post-Implementation Reviews: As a condition of approval, school boards will be responsible for conducting and submitting project reviews to ensure that 'lessons learned' are incorporated into regular reviews of programs, specifications and capital management processes. These reviews will provide a mechanism for audit and accountability to ensure projects comply with government approvals.

The management process will maintain the Ministry's role in the development and maintenance of provincial standards, monetary safeguards and reporting requirements to ensure public accountability, while transferring to school boards greater responsibility and accountability in the effective management of capital projects.

1.0 INTRODUCTION

1.1 SUMMARY

The purpose of this document is to act as guide for school districts on the Project Procurement processes to be used by the Ministry of Education to manage capital projects. The Project Procurement process establishes a framework for Ministry approved projects supported in the Ministry's Capital Plan, for the acquisition of sites, the construction of new school facilities, and the expansion, renovation and replacement of existing facilities.

This guide is divided into two sections. The first section includes:

- **Introduction.** This area gives a general overview and outlines government's principles that support the Project Procurement process.
- **Project Procurement Management Processes.** This area describes the main management processes used to administer the funding of capital projects.

The second section includes appendices to:

- Expand descriptions of the management processes, with examples of the reporting requirements.
- Provide policies, procedures and guidelines that should be considered by school districts to ensure a project is completed successfully.

1.2 GOVERNMENT'S CAPITAL ASSET MANAGEMENT FRAMEWORK

To help public agencies find the best solutions and apply the best capital management practices, government developed a Capital Asset Management Framework. This framework sets a new standard for the way the Province plans and manages capital assets. The framework is not prescriptive, instead it sets out basic guidelines and principles, as well as minimum standards, that public agencies are encouraged to exceed.

Public agencies will have the freedom and flexibility to carry out their capital mandates with minimal intervention from the Province. At the same time, they will be held fully accountable for managing their capital assets efficiently.

The capital processes of the framework will be flexible to:

- accommodate differences in project complexities and agencies' experience in capital planning and management;
- encourage agencies to be innovative and consider a full range of options to best meet service delivery needs; and
- respond to the many factors affecting service delivery needs, such as demographic shifts, emerging technologies and changes in the provincial economy.

The Ministry of Education has developed its Project Procurement process based on the principles of the government's Capital Asset Management Framework. The Ministry is committed to provide greater local autonomy to school boards, establish better accountability measures and provide a less directive system of education funding and capital asset management.

The Ministry's Project Procurement process transfers the accountability and responsibility for capital expenditures more completely to school boards while retaining public accountability to ensure that schools are built and maintained in a cost-effective manner. The process is built on the following cornerstones:

- establishment of clear roles and responsibilities;
- justification of capital projects through business case analysis;
- project classification and reporting based on cost and risk; and,
- a standard for complete, accurate and timely project reporting.

The goal of the Project Procurement process is to achieve:

- a process, with a single approval point within a 'Project Agreement' and streamlined reporting by school boards;
- an articulated set of expectations for school boards in the areas of project scope, schedule and budget; and,
- financial management and public accountability that are consistent with the 'best practice' of industry.

Note: The guidelines and the other documents that make up the Capital Asset Management Framework are maintained by the Ministry of Finance and are available on the Internet at www.fin.gov.bc.ca/tbs/camf.htm.

1.3 MAIN FEATURES OF THE PROJECT PROCUREMENT PROCESS

The central premise of the Project Procurement process is to reduce the level of Ministry involvement and enable school boards to take a higher degree of responsibility in the delivery of capital projects. There is an emphasis on adherence to project schedules in order to ensure the timely expenditure, completion and closure of projects. There is also the expectation that school boards will complete projects within the authorized funding and will resolve problems locally.

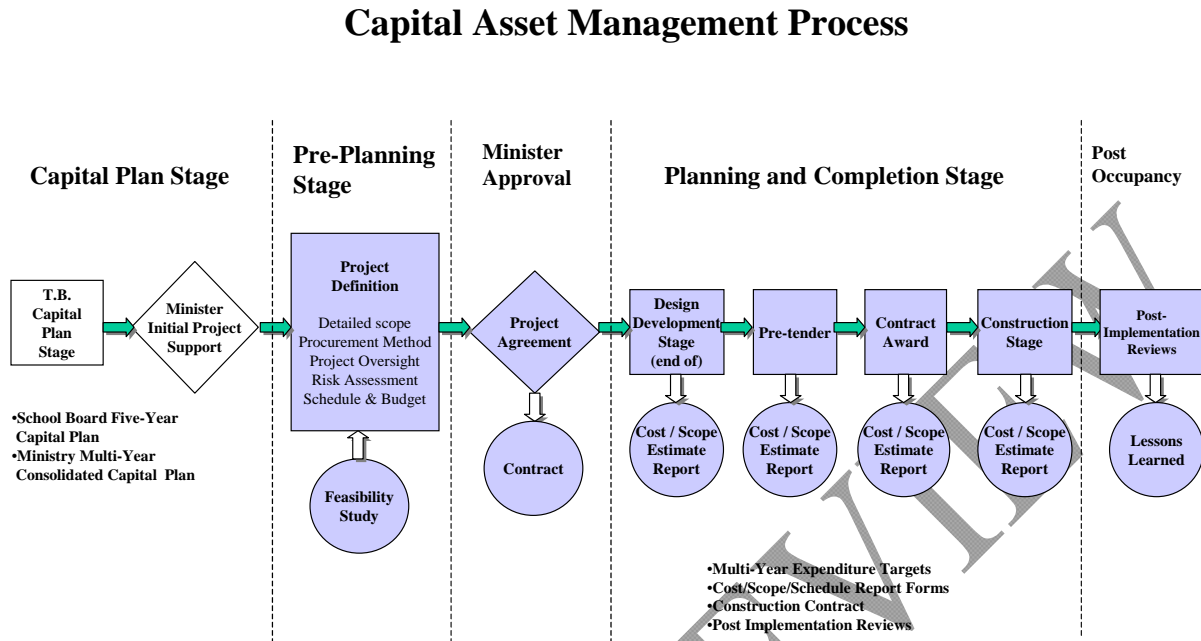
School boards will be responsible and accountable to provide effective project management of capital projects in three key areas:

- cost effective design and construction;
- competent project management and cost control through all project phases; and,
- development of capital assets that will meet provincial guidelines.

The Ministry's role in the Project Procurement process is to develop and maintain provincial standards, monetary safeguards and reporting requirements to ensure public accountability in the delivery of capital projects.

The Ministry's capital asset management process, including the Project Procurement process, is shown in Figure 1.

Figure 1.



The Project Procurement process, shown shaded in Figure 1, will adopt new systems and methods such as:

Project Management Processes

The Ministry's oversight of capital plan projects is based on the following four management processes:

- Feasibility Study - A two-phase process for establishing a project's scope, budget, risk assessment and management oversight.
- Project Agreement - A formal project approval document wherein the Ministry and the school board agree to the particulars of the project for which the school board will be held accountable.
- Project Reports - Formal reporting requirements to confirm a project's scope, budget and schedule remain within the parameters of the 'Project Agreement'.
- Post-Implementation Reviews - Formal reviews or workshops for collecting lessons learned, to determine whether a capital project's program and objectives have been achieved.

After receiving initial support, projects will only receive capital funding approval upon the completion of a feasibility study and a project agreement. The feasibility study is the process in which the project scope, method of procurement, budget, schedule and risk factors are determined. The project agreement is the contract between the School Board and the Minister that sets out the particulars of the project, as determined by the feasibility study, and details areas of accountability and any special conditions.

A project report comparing the original approved scope, budget, expenditure limit, current status and schedule will be required at various stages of the project (i.e. design development, construction documents, contract award and substantial completion) using a form developed for the Ministry's web-based Capital Asset Planning System.

Post-Implementation reviews will be a condition of approval to evaluate project scope and cost against the originally approved 'Project Agreement'. On specific projects, reviews of a facility's functional program, physical performance and project delivery processes will be required to ensure 'lessons learned' are documented.

Levels of Oversight

The Ministry's capital asset management framework establishes the minimum level of oversight required by the Ministry to fulfill its reporting and financial responsibilities to Treasury Board. All districts must maintain these minimum standards.

The requirements for increased levels of oversight, above the minimum standards, will be assessed from low to high on an individual school board and project basis, proportionate to past performance on projects of similar size or complexity. The level of Ministry oversight required will determine reporting and auditing requirements.

- School boards demonstrating consistent success in the delivery of capital projects of similar size and complexity, within approved completion funding targets, may earn reduced levels of oversight and reporting.
- School boards may partner with other school boards, public agencies or project management firms to reduce the level of oversight and reporting requirements.

Single Capital Project Funding Approval

Through a 'Project Agreement', the Minister will be responsible for approval of individual capital projects through design and construction. Once the 'Project Agreement' is signed funding approval will be provided to complete the project, as long as the conditions in the agreement are maintained.

Contract Documents

School Boards may use industry standard best practices for contract documents, tendering procedures and other guidelines. Without specific approval of the Minister, School Boards are enabled to procure services or facilities through a variety of methods, such as, stipulated sum, design-build, construction management and public-private partnership. The form of procurement will be identified during the feasibility stage and detailed in the project agreement. Oversight and risk assessment needs to be commensurate with the type of procurement.

Multi-Year Capital Plans

School Boards will receive notification of initial support for additions, new and replacement schools, or major renovations over a three year period. In subsequent years, supported projects will be added to the third year to maintain a three-year rolling capital plan.

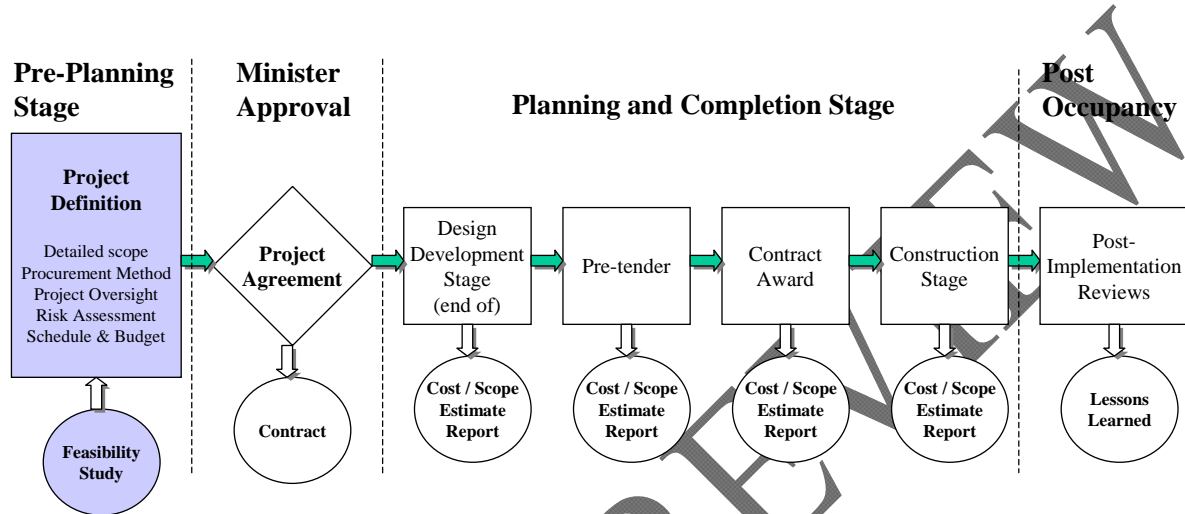
Economic Adjustments

The Ministry, through its cost consultants, will review project cost factors on a quarterly basis and make adjustments to construction cost forecasts. Economic adjustments will be applied to Ministry cost factors (such as the unit rate) to ensure the cost factors, at the signing of the 'Project Agreement', reflect costs forecast for the scheduled date of tender.

2.0 PROJECT PROCUREMENT MANAGEMENT PROCESSES

This section describes the four main management processes used to administer capital projects, and includes appendices that provide expanded descriptions with examples of the reporting requirements.

2.1 FEASIBILITY STUDY



Feasibility Study Process

Upon notification of initial project support and after receiving Ministry direction, school boards may then proceed at any time with a 'Feasibility Study' for each supported capital project. The 'Feasibility Study' is the step in the process to confirm the need for and scope of a capital project, consider options for satisfying the need, and analyze the cost implications of proceeding with a capital project. The main intent of the 'Feasibility Study' is to ensure proper pre-planning takes place and to prepare the supporting documentation needed to draft the 'Project Agreement'.

Depending on a project's type and complexity a 'Feasibility Study' should accomplish the following:

- Test project assumptions and develop a business case to support the best functional life-cycle value option;
- Develop a project budget in a prescribed format of all costs associated with the project. These costs must be estimated in sufficient detail to enable the signing of the Project Agreement;
- Develop realistic and detailed schedules for major project milestones within which the school board's fiscal year cash flows are to be managed;
- Identify the most appropriate method of procurement, including potential P3 delivery options for new or replacement schools;
- Assess and recommend the required personnel and project management expertise needed to successfully deliver the project within scope and budget; and,
- Identify areas of risk and recommend methods to manage the risk effectively.

The ‘Feasibility Study’ will generally be a two-phase process. The first phase will review the supporting rationale, evaluate options and confirm project scope. The second phase will investigate procurement methods, recommend management requirements and provide a detailed investigation of the preferred option to accurately define project scope, risks, schedules and budgets. Sufficient budget information must be provided to enable a school board to sign a ‘Project Agreement’ with confidence that the project costs will not exceed the agreed budget.

The ‘Feasibility Study’ process is summarized below in Figure 2. Further detail is provided in Appendix 1.

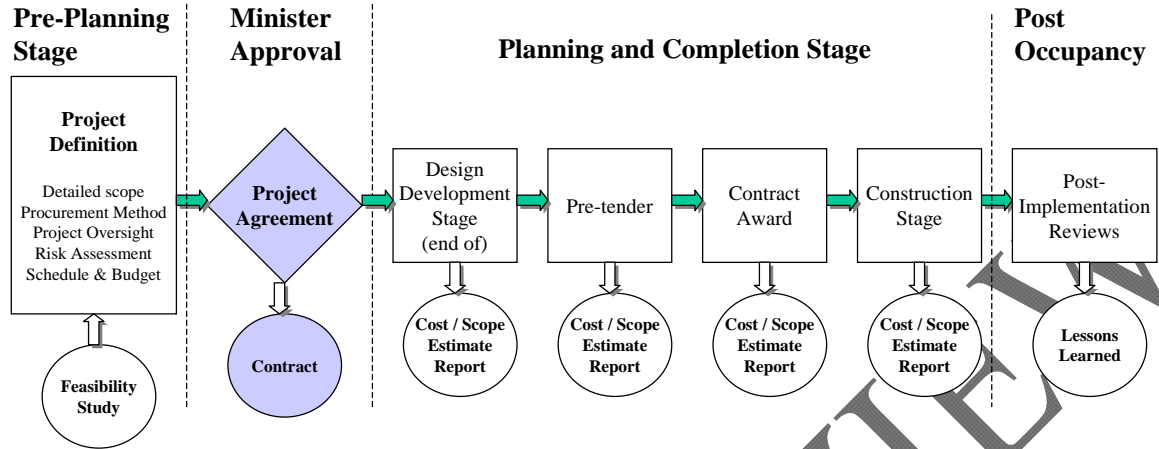
Figure 2. Summary of the Two Phases of the Feasibility Study

	PHASE 1	PHASE 2
Site Acquisition	<ul style="list-style-type: none"> • Confirm project rationale • Investigate potential Crown land sites and joint site development options with other agencies • Evaluate potential sites following ‘School Site Selection Guide.’ 	<ul style="list-style-type: none"> • Appraisal(s) • Detailed review of site development costs
New School or Addition	<ul style="list-style-type: none"> • Confirm project rationale • Refine project scope • Business case analysis of building options (e.g. additions to other schools as an alternative to a new school) and procurement options (e.g. construction management, design build, P3) • Consider other funding sources to reduce capital expenditures (e.g. sale of surplus assets, use of capital reserve or local capital) 	<ul style="list-style-type: none"> • Soils report and topographic survey • Evaluate project risks • Review project management requirements • Review supplementary site and building costs • Building code analysis • Green buildings and sustainability analysis • Review local government service charges and bylaw requirements • Describe proposed building systems • Outline specifications • QS cost estimate • Project timelines, milestones and cash flow forecasts
Renovations or Replacement School	<ul style="list-style-type: none"> • Confirm project rationale • Business case analysis of building options and renovation versus replacement costs • Refine project scope • Consider other funding sources to reduce capital expenditures 	<ul style="list-style-type: none"> • Same as for New School or Addition

Feasibility Study Funding

Upon notification that a school board is initiating a ‘Feasibility Study’, funding for the study will be made available from the Ministry of Education’s operating budget. The funding and payment schedule for Feasibility Studies is included in Appendix 1. Actual costs in excess of the funding provided may be included in the ‘Project Agreement’ budget.

2.2 PROJECT AGREEMENT



The ‘Project Agreement’ is the primary document in which the Minister authorizes the school board to proceed with agreed-to particulars of the project for which the School Board will be held accountable. In this case, the Minister is the funding authority and the school board takes the role of the owner and project developer. The ‘Project Agreement’, at a high level, defines the scope, schedule and integrated project plan.

The main features of the ‘Project Agreement’ are:

Single Project Approval

Upon signing the ‘Project Agreement’, a project may proceed to completion without additional approval as long as the conditions set out in the ‘Project Agreement’ are maintained.

Signing the ‘Project Agreement’

In general, a project may not proceed to the ‘Project Agreement’ stage prior to the year in which the project has received support in the Ministry’s three-year capital plan. Projects may be delayed, amended or discontinued if the supporting rationale for the project has changed.

While there are restrictions regarding when the ‘Project Agreement’ can be signed, the timing of the ‘Feasibility Study’ is at the discretion of the school board. For example, the ‘Feasibility Study’ for simple projects may fall closer to the year that the project is supported. Complex projects, such as a potential P3 or joint development may require longer lead times.

Upon completion of the ‘Project Agreement’ a Certificate of Approval will be issued to complete the project based on the budget and cash flow schedule agreed to in the ‘Project Agreement’.

Levels of Oversight

The Ministry will use a risk-based approach to oversight. Degrees of rigour in approval requirements, monitoring, reporting and other checks and balances will increase in proportion to the cost, complexity and level of risk associated with capital projects or decisions.

Ministry oversight will also reflect the concept of “earned independence” with oversight decreasing in proportion to an agency’s ability to demonstrate effective capital management.

School districts who are inexperienced in dealing with a project’s size or complexity or possess poor track records for project management will have increased levels of Ministry oversight imposed, such as:

- a staged approval process will be reinstated;
- Quantity Surveyor involvement may be required;
- Certificate of Approval funding will be increased only after successfully completing a project phase;
- Formal Value Analysis process may be required;
- level of project monitoring will increase;
- change order reporting may be required;
- external project management services may be mandated; and
- detailed post-implementation reviews may be required.

Changes to the Project Agreement

The Ministry expects that the majority of project changes that may arise will not require revisions to project scope or budget, thereby requiring an amendment to the ‘Project Agreement’. School boards are expected to plan for design and construction contingencies, potential risk responses, schedule or sequence changes, or other adjustments to a project within the terms of the ‘Project Agreement’.

If at any phase the ‘Project Agreement’ must substantially change because of unforeseen circumstances that compromises the project, the school board should immediately notify the Ministry and stop work in accordance with contractual conditions. An evaluation of potential corrective actions or contingencies should be presented to the Ministry for approval before work may continue. The school board will be responsible for managing the outcome of errors or omissions resulting from the ‘Feasibility Study’ through local means, to satisfy the terms in the ‘Project Agreement’.

Project Savings and Cost Overruns

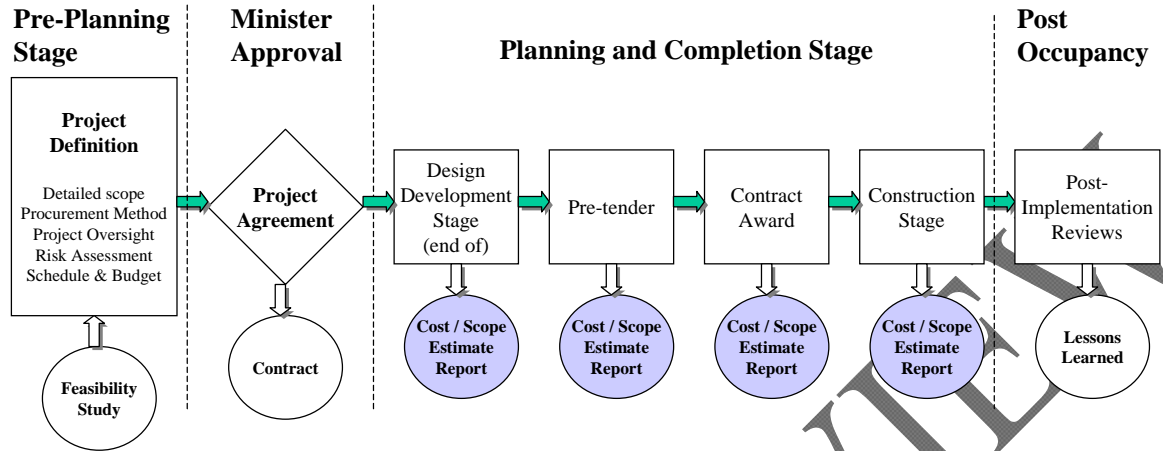
School boards will be responsible for funding cost overruns, in excess of the amount approved in the ‘Project Agreement’, from local capital sources. Sources such as capital reserve or local capital borrowing could be approved for any overages. School boards, as per section 156 (10) of the *School Act*, may retain capital savings to deposit to a capital reserve.

Value Analysis Process

On a project specific basis, the Ministry may require a formal value analysis be included in the ‘Project Agreement’, as part of the reporting and oversight requirements. However, a formal value analysis process is not universally mandated. School boards may elect to use value analysis as a management process dictated by the experience of the school board, project cost, building design, project size and complexity.

The ‘Project Agreement’ process is described in more detail in Appendix 2.

2.3 PROJECT COST AND SCOPE REPORTS



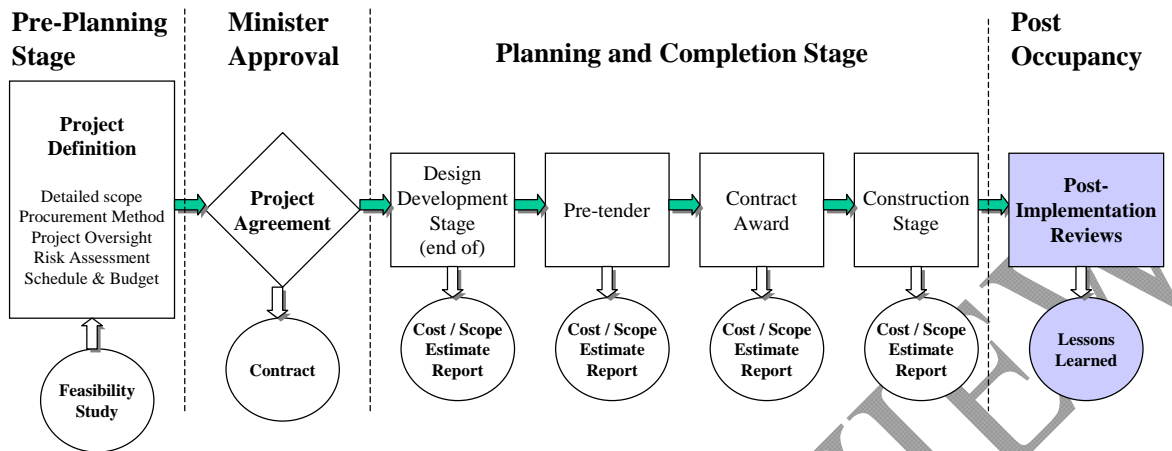
A formal project report comparing the original approved scope, budget, expenditure limit, schedule, and cash flow will be required at various stages of the project. School boards are responsible to enact remedial measures to ensure the project remains within the parameters of the 'Project Agreement' or provide proposed actions to enable the project to proceed. The number of formal project reports may vary with the size of the project or oversight levels, but would typically be submitted at the following project stages:

- at the end of 'design development' prior to commencing construction documents;
- at the end of 'construction documents' prior to the project being tendered;
- at 'contract award'; and
- at 'substantial completion'.

A formal project report is required at 'final completion' to establish project closure. Depending on the timing, this report may be replaced by the post-implementation review.

An example of a formal project report is included in Appendix 3.

2.4 POST-IMPLEMENTATION REVIEWS



Post-implementation reviews will be used to determine whether a capital project’s performance and objectives have been achieved. Post-implementation reviews can also be used to assemble “lessons learned” by collecting and sharing information about successes and failures in processes, products and other related areas, to help improve the quality of future facilities.

As prescribed in the ‘Project Agreement’ school boards and/or the Ministry will be responsible for conducting and submitting project reviews to ensure ‘lessons learned’ are incorporated into regular reviews of programs, specifications and capital management processes. These reviews will provide a mechanism for auditing and measuring accountability to ensure projects comply with government approvals. In addition, information will be gathered on school district performance to enable the Ministry to review the oversight requirements for future projects.

Post-implementation reviews can be categorized into the following four types:

- **Scope and cost reviews:** Usually the simplest type of review, concerned with evaluating facility’s technical scope and cost against the originally approved ‘Project Agreement’.
- **Program reviews:** Evaluation of the completed facility’s performance in terms of user satisfaction and the original functional program.
- **Product reviews:** Evaluation of the completed facility’s physical performance in terms of design, specification, operating and maintenance characteristics and operating costs.
- **Process reviews:** Evaluation of the project delivery process — approvals, project management, procurement, cost and schedule reporting, design, construction and commissioning.

Scope and cost reviews will be a requirement for all projects.

Program, product and project reviews may be required for specific projects and will be conducted on an ‘as required’ basis, as determined by the Ministry.

The post-implementation review process is described in more detail in Appendix 4.

APPENDICES

UNDER REVIEW

UNDER REVIEW

APPENDIX 1 - FEASIBILITY STUDY

The ‘Feasibility Study’ is a step in the capital asset management process to ensure options are reviewed and proper preplanning takes place to supply the background and supporting documentation needed to prepare the ‘Project Agreement’. The process of preparing a ‘Feasibility Study’ could be compared to the development of a project to a stage where the preferred option has been determined, and preliminary sketches, outline specifications and conceptual cost estimates are complete.

The following description of the process and other issues should be considered during the preparation of a ‘Feasibility Study’.

FEASIBILITY STUDY INITIATION

Following notification of a school board’s intent to initiate a ‘Feasibility Study’, the Ministry will review the scope of the approved project and identify any project-specific issues the ‘Feasibility Study’ must address. If there are a number of phases to the ‘Feasibility Study’, further direction will be given by the Ministry as additional project specific information becomes available. For more complex projects, a feasibility study initiation meeting between the Ministry, the school board and their consultants may be required to set out the ‘Feasibility Study’ parameters.

Feasibility studies will be funded from the Ministry operating budget according to the schedule below. Site acquisition studies will receive up to \$25,000. For new space, renovation and replacement projects funding will be based on a percentage of construction cost estimates. School boards will receive a preliminary payment of up to \$50,000, with any remaining funding to be provided when the study is underway.

Category		Feasibility Study Fees
Site Acquisitions		\$25,000
Construction	Up to \$5 million	3.5% of construction estimate up to \$50,000
	Greater than \$5 million	1.0% of construction estimate

TWO-STEP PROCESS

The ‘Feasibility Study’ can generally be broken into two phases. The first phase of the ‘Feasibility Study’ will explore the options available and determine the solution that will best meet the project objectives. After receiving Ministry support, the second phase of the ‘Feasibility Study’ will examine the preferred option and define the scope, risks, budget, schedule and management oversight required to complete the project successfully.

Depending on a project’s complexity a ‘Feasibility Study’ may be submitted as a single document or as separate documents: one document for the results of the scope and options review and another document detailing the development of the preferred option.

It is recommended that school districts work with Ministry staff and submit a draft report as ‘Feasibility Studies’ deemed incomplete will be returned for further development.

Upon receipt of the ‘Feasibility Study’ Ministry oversight levels are assessed from low to high on an individual school board and project basis, commensurate with past performance on projects of similar size

or complexity. The project specific conditions will be included in the 'Project Agreement' to insure the management processes in place will reflect a project's risks.

The two phases of the 'Feasibility Study' as they relate to various types of projects are:

Site Acquisition

For a site acquisition study the first phase would involve re-confirming support for the project and evaluating potential sites following the methodology outlined in the Ministry's 'School Site Selection Guide'. The second phase would involve appraisals and a more detailed review of the preferred site to ensure site development costs are manageable. Where a space project includes site acquisition, with the exception of assessing building massing or site access constraints, the process in determining the most suitable site would take place before issues relating to the building could be considered.

New School or Addition

For studies involving new space, the first phase would involve the confirmation of the project's rationale, defining project scope and determining the procurement method. In projects where options are limited, such as a small addition to an existing facility, the option phase of the 'Feasibility Study' would be minimal. The second phase of the 'Feasibility Study' would involve refining the project scope and preparing a project budget and schedule.

Major Renovations and Replacements

For major renovation or replacement projects the more complex the project the more the two phases will be distinct. For example, in a major renovation project, before defining the scope of the project, options such as renovation versus replacement must be examined. As common with other projects, once the preferred option is determined, phase two will establish the costs and other project particulars to successfully complete the project.

FEASIBILITY STUDY PHASES

The main focus of each phase of the 'Feasibility Study' can be more specifically described as:

Phase One – Project Scope and Options Review

The project scope and options review phase of the 'Feasibility Study' should:

- re-confirm project rationale;
- evaluate site and/or preferred building options
- refine project scope;
- investigate procurement options. (Is a P3 a possible option?);

Phase Two – Investigation of Preferred Option

The investigation of the preferred option phase of the 'Feasibility Study' should develop the project in sufficient detail to enable the school board to sign the 'Project Agreement' with confidence that the project's scope and costs will remain within the limits agreed upon. Depending on a project's complexity, the investigation and supporting documentation of the preferred option may include:

- soils report and topographic survey;

- evaluation of project risks;
- review of project management requirements;
- supplementary building and site costs review;
- building code analysis;
- green buildings and sustainability analysis;
- review of local government service charges (e.g. DCC's) and bylaw requirements;
- descriptive analysis of proposed building systems;
- outline specifications; and
- cost estimate prepared by a registered Quantity Surveyor.

AREA OF INVESTIGATION

Each project will have project specific issues that the 'Feasibility Study' will need to investigate. The Ministry will work with school districts in defining the scope of the 'Feasibility Study' to reduce delays and ensure that the appropriate supporting documentation is available to complete the 'Project Agreement'. A number of typical project specific issues that may need investigation are:

Enrolment Issues

Enrolment projections should be verified against earlier estimates. Confirmation is necessary to ensure the approved increases in the nominal capacity are required to support the projected enrolment, taking into account current Ministry policy on school utilization and secondary efficiency scheduling requirements.

Projects Including Site Acquisition Requests

Before seeking to acquire a private site for school development, school boards must first investigate the possibility of acquiring Crown Land and endeavour to jointly develop facilities with other agencies.

In acquiring a site, School districts are required to follow the Ministry's 'School Site Selection Guide'. The use of the guide will facilitate decision-making by ensuring a broad range of cost factors has been examined before a site is recommended for purchase or development. The results of the site selection process will form part of the 'Feasibility Study'.

The Guide was prepared to provide an evaluation tool to enable informed decision making in assessing potential school sites. The evaluation process includes two steps:

- **Step 1**
 - involves conducting a snapshot analysis using a Details of Proposed Facility Form and Snapshot Matrix.
- **Step 2**
 - involves conducting a Preliminary Site Analysis;
 - having a consultant perform a Phase 1 Environmental Assessment;
 - having a consultant perform a Preliminary Geotechnical Assessment;
 - if the site will require on-site sewage system, arrange to have a series of shallow test holes dug to establish suitable soil and water conditions.

This process should not be considered part of the detailed site assessment required to determine development potential, or for cost estimating purposes. Further detailed investigations of a site will be required to determine the best location for the school and establish site development costs.

For stand-alone site acquisition projects, the results of the process outlined in the 'School Site Selection Guide' will form the main body of the 'Project Agreement'.

Where a school board has only one site option, the guide should be used to evaluate the suitability of that site for school purposes. Due diligence is required to determine the magnitude of any supplementary costs associated with developing the site. If site development costs are excessive, it may be more cost effective to add space to existing schools.

The 'School Site Selection Guide' can be found on the Ministry's web site at:
bc.ed.gov.bc.ca/capitalplanning/projectmanagement.htm

Major Renovations & Replacement

Various options should be evaluated to determine a preferred option. Should the building be replaced rather than renovated, and conversely, should the building be renovated rather than replaced? If a replacement is in order, is it more practical to add on to other schools to reduce capacity or need for the replacement school? (e.g. adding on to existing schools and selling the subject school to offset project costs may be a better option)

Surplus District Assets as a Source of Funding Capital Projects

School boards often commit to the sale of a surplus asset to offset the costs of a capital plan project. Other roles of the 'Feasibility Study' would confirm ownership and determine any restrictions to selling the property, establish market value and a time line for the sale. The information would be used in the 'Project Agreement', committing the parties to the sale, establishing time lines for the disposal or approving borrowing of funds the district would contribute to the project against the future proceeds of the potential sale. The 'Feasibility Study' may also investigate whether proceeds of other surplus assets could contribute to reducing the project's capital plan costs.

FEASIBILITY STUDY CONTENT

The content of the 'Feasibility Study' may vary depending upon the specifics of a particular project. However, the following categories can be used to describe the majority of issues. The findings and recommendations of the 'Feasibility Study' will be reflected in the 'Project Agreement'.

- Project Rationale
- Project Scope and Options Review
- Procurement Process
- Project Management
- Risk Management Plan
- Budget Summary
- Project Time and Cash Flow Schedules
- Outstanding Issues and Process for Resolution

Project Rationale

Provide a brief description of the project with the reasons for the project and the overall timing and expectations. Some background information on how and why the project was initiated should be included. Identify other stakeholders who will be impacted by the results of the project.

Project Scope & Options Review

Provide the results and methodology used to validate the original project rationale and determine the preferred option.

Procurement Processes

The stipulated sum contract is the Province's preferred approach for traditional capital asset procurement. The 'Feasibility Study' will evaluate whether other procurement methods, such as Construction Management, Design Build, Cost Plus Contracts and Public Private Partnerships (P3), have merit based on the opportunity and risks associated with the method of procurement. If a P3 is an option, a business case analysis of all life cycle costs should be used to compare the P3 option with traditional procurement methods

Risk Management Plan

Risk is defined as the chance of something happening that will have an impact, either positive or negative, on objectives and/or outcomes. Every capital project carries a certain level of risk that must be identified and managed effectively throughout the project's life. Project risk factors include such things as the project's complexity, cost, site conditions, local government requirements and the school board's experience with similar types of projects and the nature of the technology involved.

Risk management is especially important when considering alternative procurement approaches, such as public-private partnerships (P3's). New ways of doing business carry an inherent risk. At the same time, a defining feature of P3's is the opportunity they provide to share or transfer risks. Ultimately, risks should be allocated to those parties best able to manage them at the least cost, while still serving the public interest.

Levels of due-diligence in managing a project should be commensurate with the project's risks, financial costs and level of complexity. Recommendations on managing risk should be documented in the 'Feasibility Study'.

Project Management

To deliver successful capital projects, agencies need the right personnel with the appropriate mix of knowledge, skills and experience. Based on the nature, risk and complexity of the project the 'Feasibility Study' should recommend the personnel and project management choice required to successfully deliver the project. School districts should evaluate whether in-house expertise is sufficient to manage the project or needs to be augmented, if a formal value analysis should take place, or if a Quantity Surveyor should be recommended.

Large and complex projects often require additional oversight to ensure early identification and resolution of issues to ensure the project remains on track and within budget. The degree of school district project oversight required to accomplish the project should be established and recommended in the project 'Feasibility Study'.

Budget Estimate

A 'Feasibility Study' should investigate all the cost-drivers that will effect a project. Sufficient due-diligence is required to contain the project costs within the Ministry's unit rates and contingencies supported for supplementary costs. A number of the project cost issues that should be considered are:

Site Costs

Enough schematic design work should be done to approximate the shape and location of the school building/addition, playfields, parking lots and driveways. Geotechnical issues such as the following should be investigated:

- provisions of underground services;
- suitable foundation types for the site;
- site development (site grading and parking);
- supplementary site costs such as preloading or removal of rock;
- supplementary building costs; and,
- septic sewage systems (where required).

An investigation of the site will typically require borehole studies, analysis and reporting. A lack of site condition information sometimes results in conservative estimating at the schematic design stage. The Ministry of Education recommends that a Soils Report, Environmental Review and Topographic Survey of the site be required documents for the 'Feasibility Study' cost estimate and for the commencement for any value analysis workshops.

Renovations

Additions to a school sometimes result not just in "local or adjoining" renovations, but also require code upgrades and the expansion or conversion of existing space. This is an area where pre-planning is particularly important, and the design team must pay particular attention to the scope of proposed renovation work associated with additions. Premium costs should be flagged early. It may be advisable to retain the services of a code consultant.

A cost breakdown should be provided when district sources of funding, such as annual capital grant, will be used to augment capital funding.

Supplementary Costs

The 'Feasibility Study' should investigate supplementary costs.

Supplementary site and building costs are defined as: *those costs that are unavoidable, extraordinary, significant, site-specific costs, not accounted for and not affordable within the construction budget.*

The construction budget is established using Ministry unit rates, cost allowances and factors. Supplementary costs therefore cover only premium costs for extraordinary work that do not form part of the normal costs of building and are not covered under the Ministry's unit rates or allowances for site development. (e.g. demolition, asbestos removal, site contamination, retention ponds required during construction, temporary accommodation, etc.) If there is need for clarification, the Ministry should be consulted to confirm if an item belongs in this category.

One area of concern to “Supplementary Costs” is where expensive design or servicing stipulations are being placed by third party entities, (e.g. the local municipality or WCB). In a situation such as this, it is important that the design team identify clearly the source of the expense, the value and the impact on the budget.

Care should be taken that supplementary funding is not overused or inappropriately used. Where high cost supplementary issues are raised, it is especially important that the design team review options. Supplementary funding should be considered a funding of “last resort.”

Local Government Service Charges and Bylaw Requirements

The ‘Feasibility Study’ should investigate if any Development Cost Charges, Offsite Service Costs, or other Bylaw Requirements are mandated by local government, and ensure the requirements fall within the Ministry guidelines. Costs associated with approved local government service charges and bylaw and building permit requirements should be included in the project cost estimate.

Contingency Planning and Allowances

The use of contingency planning and allowances affords the design team a measure of flexibility within their budget and schedule to effectively manage project costs during design. Where the cost of a specific item of work cannot be determined within a reasonable level of confidence, an appropriate contingency may be assigned. For items of work covered by a fixed Ministry allowance, such as the approved unit rate or site development allowance, the estimated cost of the work plus the design contingency and any economic adjustment must remain within the Ministry allowance. For an item of work that meets the definition of a supplementary cost, a design contingency, up to a maximum of 10% of the estimated cost, may be included in the project budget.

The Ministry contingency allowance of 3% for new space and 5% for renovations should be considered as construction contingencies and not used during design.

Budget Format

The project budget will be referenced in the ‘Project Agreement’ and used in scheduled project reports. The cost estimate structure should reflect the functional components of the building and be prepared by registered Cost Consultant, for all consulting disciplines.

A summary of the project budget should be presented as a budget estimate in a standard format as shown in the example ‘Project Agreement’. Project costs are mainly divided into the following areas:

- Land Acquisition
- Development Cost Charges
- Off-Site Costs
- Site Development
- Supplementary Site
- Construction:
 - New
 - Renovations
- Supplementary Building
- Fees
- Contingency (design & construction)
- Equipment

- Other
- Sources of Funding:
 - Capital Plan
 - Capital Reserve
 - Land Capital Reserve
 - Local Capital Reserve
 - Annual Capital Grant
 - Other

Each cost is to include estimated contractor's overhead and profit, plus any non-refundable portion of GST.

Ministry Space Allowances, Unit Rates and Cost Factors

Ministry space allowances, unit rates and cost factors will apply to all capital plan projects irrespective of the procurement process.

PROJECT TIME AND CASH FLOW SCHEDULES

The 'Feasibility Study' should include a project time schedule and a cash flow forecast. The project time schedule should show the end date of each project milestone. Typical project milestones are:

- Schematic Design;
- Design Development;
- Construction Documents (Working Drawing and Specifications)
- Tender and Contract Award;
- Construction to substantial completion; and
- Final Project Completion (after deficiencies, warranty period and equipment purchases are complete).

The cash flow forecast should be presented in table format showing the accumulated cash flow for each quarter for the life of the project. The forecast should be based on the Ministry's fiscal year, April 1st to March 31st.

OUTSTANDING ISSUES

The 'Feasibility Study' should identify any issues that have not been completely resolved but may have ramifications to the project costs or schedule. For example, while the future proceeds from the sale of a portion of a site have been committed to offset project costs, the actual contribution to the project costs cannot be determined until the property is sold. These types of issues may also be noted in the risk management plan.

APPENDIX 2 – PROJECT AGREEMENT

The 'Project Agreement' defines the scope, schedule and integrated project plan based mainly on the findings and recommendations of the 'Feasibility Study'. In addition to project specific issues, based on the type and complexity of the particular project, the agreement will generally address the following issues.

- Project Title & Project Number
- Project Rationale
- Project Scope & Design Parameters
- Procurement Process
- Project Management
- Risk Management Plan
- Budget Summary
- Project and Cash Flow Schedules
- Project Reports
- Extraordinary Issues
- Post-Implementation Review

The 'Project Agreement' will become a public document that will be executed by the Minister of Education, Board Chair and Secretary-Treasurer and adopted through a School Board Bylaw. Once the 'Project Agreement' has been completed, a School Board may proceed through the various stages of a project without further formal government approval, subject to continued compliance with the 'Project Agreement' for the project.

See the following example 'Project Agreement'.

Note:

The example supplied is for information purposes only. The actual agreement will vary depending on the specifics of the project and the school district.

- SAMPLE -

Capital Project Agreement

SCHOOL NAME:	ABC ELEMENTARY
PROJECT NUMBER:	123456
PROJECT DESCRIPTION:	NEW 40K+250 NOMINAL CAPACITY ELEMENTARY SCHOOL

THIS CAPITAL PROJECT AGREEMENT dated for reference the ____ day of _____ 2003.

BETWEEN: Her Majesty The Queen in Right of the Province of British Columbia, represented by the Minister of Education

(herein the "Province")

OF THE FIRST PART

AND: The Board of School Trustees of School District No XX (xxxxxxxxxxxxxxxx)

(herein the "School Board")

OF THE SECOND PART

BACKGROUND:

- A. The School Board in accordance with its capital plan has requested Provincial funding for the following Capital Project:

[insert brief description, e.g., "Construction of an elementary School at (location) with nominal capacity for approximately 250 students.]

- B. By letter to the School Board dated _____ the Minister of Education indicated approval in principle for the Capital Project.
- C. The parties agree that the Province will make financial contributions to the School Board by way of Prepaid Capital Advances for the purposes of the Capital Project, subject to the terms and conditions of this Agreement.

THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS

1.01 In this Agreement:

“Prepaid Capital Advance(s)” means a prepaid capital advance authorized by the Minister of Education in accordance with section 56.1 of the *Financial Administration Act*, RSBC 1996, c. 138;

“Capital Asset Management - Project Procurement Procedures and Guidelines” means the Ministry publication so entitled containing procedures and guidelines for Capital Projects and includes any revisions or updates of that publication;

“Capital Project” means the Capital Project described in Schedules “A” to “D”, collectively;

“Certificate of Approval” means the Certificate of Approval described in paragraph 3.03;

“Eligible Expenditure(s)” means those expenditure areas more particularly described and listed under the heading “Maximum Allowable Budget” in Schedule “B”;

“Feasibility Study” means the Feasibility Study described in paragraph 2.02;

“Minister” means the Minister of Education and includes the Deputy Minister of Education and any person designated by either of them to act with respect to any provision of this Agreement;

“Ministry” means the Ministry of Education of the Province of British Columbia; and

“Schools Protection Program” means the risk management program developed and administered by the Risk Management Branch of the Ministry of Finance and includes the Schools Protection Program Reference Manual and all amendments and updates to the program and manual;

“Treasury Board” means the Treasury Board established under the *Financial Administration Act*.

2. SCHEDULES AND REFERENCE

2.01 The attached Schedules are an integral part of this Agreement:

“A” – Rationale, Scope and Design Parameters

“B” – Project Budget Summary

“C” – Project Schedule and Projected Cash Flow

“D” – Design Aid Sheet

2.02 Feasibility Study:

The “Feasibility Study” submitted by the School Board to the Province in connection with this Capital Project is deemed to contain representations of the School Board which are relied upon by the Province and the Feasibility Study forms part of this Agreement for the purposes of paragraphs 4.04 and 4.05.

3. PROVINCIAL FUNDING CONTRIBUTION

- 3.01 Subject to paragraph 3.03, the Province will provide to the School Board capital funding up to a maximum amount of **[three million eight hundred and forty-four thousand one hundred and nine dollars (\$3,844,109.00)]**, to be used for the purposes of the Capital Project.
- 3.02 The Province will provide the capital funding in paragraph 3.01 in the form of a Prepaid Capital Advance.

[Alternate wording if Advances by installment:

- 3.02 The Province will provide the capital funding in paragraph 3.01 in the form of a Prepaid Capital Advance by installments in accordance with Schedule “___”.]
- 3.03 Payment of a Prepaid Capital Advance is subject to the Ministry issuing a “Certificate of Approval” in accordance with Treasury Board policies and directives and to the following conditions,
- (a) on no account must the School Board make a draw against funds available under a Certificate of Approval, unless the draw is reimbursement for Eligible Expenditures properly incurred by the School Board in connection with the Capital Project,
 - (b) the Minister may modify or withhold a Prepaid Capital Advance and applicable “Certificate of Approval”, or any portion thereof, in the event the School Board fails to observe, perform and comply with any provision of this Agreement or if, in the opinion of the Minister, there has been a material change in the Capital Project including, without limitation, the matters referred to in paragraph 5.01, and
 - (c) the School Board will comply with all applicable policies or directives of the Treasury Board respecting Prepaid Capital Advances.

[Additional provision – include if School Board to provide financial contribution from Board’s capital reserve:

- 3.04 The provision of funding under paragraph 3.01 and 3.02 is subject to the School Board allocating **[eight hundred thousand dollars (\$800,000.00)]** to the Capital Project from the School Board’s capital reserve and the Minister, by this Agreement, approves such allocation.]

4. SCHOOL BOARD OBLIGATIONS

- 4.01 The School Board will,
- (a) ensure that it fully complies with the conditions in paragraph 3.03 when making draws against funds available under the Certificate of Approval;
 - (b) carry out the Capital Project in a manner that ensures,
 - (i) cost effective design and construction;
 - (ii) competent project management and cost control through all project phases; and
 - (iii) School Board fiscal and management accountability with respect to the Capital Project, in accordance with the Capital Asset Management – Project Procurement Procedure, and Guidelines;

- (c) observe, perform and comply with each obligation and agreement on its part contained in this Agreement;
- (d) provide and maintain all financial management, administrative resources and technical expertise necessary to carry out its obligations under this Agreement;
- (e) ensure its awareness of and compliance with the Capital Asset Management - Project Procurement Procedures and Guidelines; and

[Include if paragraph 3.04 applies:

- (f) contribute eight hundred thousand dollars (\$800,000.00) from its capital reserve to the Capital Project and, if requested, provide evidence satisfactory to the Minister of such contribution.]

4.02 Use of Funds:

The School Board will ensure that a Prepaid Capital Advance is applied only for Eligible Expenditures.

4.03 Procurement and Contributions:

The School Board will

- (a) procure the Capital Project by way of stipulated sum contract,
- (b) ensure the stipulated sum contract is publicly tendered using the standard CCDC-2 (1994) document provided through the Canadian Construction Documents Committee,
- (c) include, in the stipulated sum contract, the standard insurance indemnification clauses required by the Schools Protection Program, and
- (d) provide any and all financial contributions which, together with the Provincial funding in paragraph 3.01, may be necessary to complete the Capital Project as contemplated in this Agreement.

4.04 Management:

- (a) Without limiting paragraph 4.01(d), the School Board will augment its current personnel by retaining consultant services from **[XYZ]** Construction Manager, to provide a level of management expertise as described in the Feasibility Study.
- (b) The School Board will engage the quantity surveyor firm **["DJ Consultants"]** on this Capital Project and will, in consultation with that firm, establish a formal value management process.

4.05 Risk Management Plan:

The School Board will

- (a) implement the risk management plan described in the Feasibility Study and will, without delay, inform the Ministry of any issues which may affect the successful completion of the Capital Project; and

- (b) comply with the requirements of the Schools Protection Program respecting capital construction projects.

5. CHANGES IN SCOPE OR COST OF CAPITAL PROJECT

- 5.01 The School Board must plan for design and construction contingencies, potential risk responses, schedule or sequence changes, or other adjustments to the Capital Project, and if unforeseen circumstances arise that compromise the Capital Project proceeding, the School Board must immediately notify the Ministry, stop work in accordance with contractual conditions and obtain the approval of the Minister to any proposed corrective actions or contingencies before work may continue.
- 5.02 The School Board, in accordance with paragraph 4.03(d), must provide from its own fiscal resources all financial contributions which, together with the Provincial funding in paragraph 3.01, are necessary to properly complete the Capital Project and, sources of School Board financial contribution may include the following options:
 - (a) allocating funds in its local capital reserve;
 - (b) with the prior approval of the Minister, using a surplus in its capital reserve as provided in section 156(10) of the *School Act*, RSBC 1996 c. 412; or
 - (c) borrowing money for the purpose in accordance with section 144(1) of the *School Act*.

6. COST SAVINGS

- 6.01 In the event that the Prepaid Capital Advance made pursuant to this Agreement is not fully expended at the successful completion of the Capital Project, the School Board must place any surplus capital funds in the School Board's capital reserve in accordance with section 156(10) of the *School Act*.
- 6.02 Pursuant to section 156(10), surplus capital reserve funds may be spent on other Capital Projects, subject to the orders of the Minister and with the Minister's approval.

7. REPORTING

- 7.01 The School Board must submit to the Ministry "Project Implementation Reports" using the Ministry's WebCaps Intranet site in accordance with Appendix 3 of the "Capital Asset Management – Project Procurement Procedures and Guidelines". The reports will update the current Capital Project status, cash flow and schedule forecasts as the project reaches the following milestones:
 - at the end of "design development" prior to commencing construction documents;
 - at the end of "construction documents" prior to the project being tendered;
 - at "contract award"; and
 - at "substantial completion" as certified by the Prime Consultant, in accordance with the contract documents.

- 7.02 Maintenance of the “Project Implementation Reports” requires annual updating of the Yearly Cash Flow Forecast and general updating as required to maintain a current Capital Project schedule and the School Board undertakes to submit update reports in a manner satisfactory to the Minister.
- 7.03 The School Board, no later than 6 months after the date of substantial completion (as described in paragraph 7.01), will submit to the Minister a “Scope and Cost Review” substantially in the form set out in Appendix 4 of the “Capital Asset Management – Project Procurement Procedures Guidelines”.
- 7.04 The School Board will submit a “Notice of Project Account Closure” substantially in the form set out in Appendix 5 of the Capital Asset Management – Project Procurement Procedures and Guidelines, when all funds have been disbursed.

8. ADDITIONAL CONDITIONS

- 8.01 The Province may add to or modify any terms or conditions of this Agreement by notice in writing to the School Board, if the Minister considers the changes are necessary to effectively safeguard the Provincial interest with respect to the expenditure of public funds for the purposes of the Capital Project. Upon receipt of such notice, the School Board will comply with any additions or modifications to this Agreement unless such additions or modifications will result in significant costs being incurred by the School Board, in which case compliance is subject to the parties first agreeing to mutually acceptable arrangements for covering such costs.
- 8.02 Public Events: The School Board will inform the Minister, prior to any public announcement or press release, of the awarding of the Capital Project construction contract and name of the successful bidder and further, the School Board will consult with the Ministry with respect to any planned public events respecting the Capital Project (such as ground-breaking ceremony, official opening ceremony, etc.) and will accommodate the Minister's participation in the ceremony if requested by the Ministry.

[Example of additional provision:

- 8.03 Upon the completion of the Capital Project the School Board will remove portable classrooms from **[SSS]** Elementary School and **[YYY]** Elementary School.]

9. CAPITAL PROJECT – BORROWING

- 9.01 If, with respect to the Capital Project, the School Board has requested and the Minister has authorized the borrowing of money for the Capital project, in accordance with section 144(1) of the *School Act*, the parties will attach to this Agreement as Schedule “E” the Minister’s written authorization for the borrowing and, if so attached, the Minister’s authorization will form part of this Agreement.

9.02 If paragraph 9.01 applies to this Agreement and a Schedule "E" is attached then the School Board warrants and represents that it will comply with all the terms and conditions of the Minister's written authorization.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day and year first above written.

SIGNED on behalf of Her Majesty)
the Queen in right of the)
Province of British Columbia by)
a duly authorized representative)
of the Minister of Education)

For the Minister of Education

Name (Print)

Title

SIGNED on behalf of the Board of)
School Trustees of School District)
No. ____ (_____) by its)
duly authorized signatories)

Authorized Signatory
(Board Chairperson)

Name (Print)

Authorized Signatory
(Secretary-Treasurer)

Name (Print)

SCHEDULE A – RATIONALE, SCOPE AND DESIGN PARAMETERS

School Name: ABC ELEMENTARY
Project No: 123456
Project Description: NEW 40K+250 NOMINAL CAPACITY ELEMENTARY

1.1 Rationale

The areas around Pleasant Valley have been experiencing steady growth for the past five years. Projections for population and enrolment forecast continual growth for the foreseeable future. The two other elementary schools in the area, SSS Elementary and YYY Elementary, are operating over capacity, and there is currently a combined shortfall in capacity for 175 students. This shortfall is expected to increase to 265 students over the next three years. The new elementary school will alleviate overcrowding at neighbourhood schools and allow the removal of eight portable classrooms

1.2 Options Considered

Additions to SSS Elementary and YYY Elementary were rejected as a viable option to the construction of a new school. There was no serious interest from the private sector to construct the school through a Public-Private Partnership arrangement.

1.3 Scope

Design and construction of a new 40K+250 nominal capacity elementary to be constructed on the district owned site located at the corner of XXX Avenue and YYY Street.

1.4 Design Parameters

Subject to the Ministry of Education's policies, procedures and guidelines the school shall be designed and constructed within the following cost allowances and factors.

Nominal Capacity: 40K/250 elementary
 Maximum Building Area: 2,330 sqm
 Economic Adjustment: 1.02 (\$xxx base adjusted to mm/yy)

<u>Cost Factors:</u>	<u>Base</u>	<u>Adjusted</u>
Unit Rate:	\$1,035 / sqm	\$1,055.70 / sqm
Air Conditioning Adjustment	\$ 50 / sqm	\$ 51.00 / sqm
Size Factor:	1.02	1.02
Location Factor:	1.037	1.037
Project Unit Rate:	\$1147.65 / sqm	\$1,170.60 / sqm
Equipment Allowance:	12%	12%
Equip. Freight Rate Allowance:	8.609%	8.609%
Consultant Fees (new space):	10.22%	
Consultant Fees (renovations):	16%	

Notes: Equipment allowance calculated as a percentage of base building cost (maximum building area x base unit rate)
 Consultant fees calculated as a percentage of site development and construction costs

SCHEDULE B – PROJECT BUDGET SUMMARY

School Name: ABC ELEMENTARY
Project No: 123456
Project Description: NEW 40K+250 NOMINAL CAPACITY ELEMENTARY

Nominal Capacity	Kindergarten	Grade 1 - 7	Grade 8 - 12	Grade Configuration
Existing				
Approved	40	250		K to 7
Additional				

Allowable Site Area (ha) N/A

Allowable Building Area (sqm)

Total Allowable Area	2,330
Less: Previously Existing Space	0
Add: Area to be Demolished	0
Area of New Space	2,330
Allowable Area of Renovations	N/A

Unit Rate for Construction (\$/sqm)

New	\$1,170.60
Renovations	N/A

Maximum Allowable Budget

Site Acquisition	N/A
Development Cost Charges	\$90,000
Offsite Costs	\$136,364
Site Development	\$383,960
Supplementary Site	\$244,924
Construction: New	\$2,727,500
Renovation	\$0
Supplementary Building	\$181,818
Fees	\$380,844
Contingency: Design	\$51,894
Construction	\$123,219
Equipment	\$320,586
Other	\$3,000
Total Funding	\$4,644,109

Funding Source

Capital Plan	\$3,844,109
Capital Reserve	\$800,000
Land Capital Reserve	
Local Capital Reserve	
Annual Capital Grant	
Other	
Total	\$4,644,109

SCHEDULE C – PROJECT SCHEDULE AND PROJECTED CASH FLOW

School Name: ABC ELEMENTARY
 Project No: 123456
 Project Description: NEW 40K+250 NOMINAL CAPACITY ELEMENTARY

Project Schedule Forecast (end of process)

Fiscal Year	2003/04	2004/05	2005/06	2006/07	2007/08
Schematic Design	21-Apr-03				
Design Development	31-May-03				
Construction Documents	7-Aug-03				
Contract Award	7-Oct-03				
Construction (substantial completion)		15-Nov-04			
Occupancy Date		1-Jan-05			
Final Completion			15-Nov-05		

Cash Flow Projection (Capital Plan Funding)

Fiscal Year and Quarter	2003/04	2004/05	2005/06	2006/07	2007/08
Apr-Jun	\$ 82,800	\$ 679,733	\$ 20,000		
Jul-Sep	\$ 184,800	\$ 679,733	\$ 10,000		
Oct-Dec	\$ 117,840	\$ 679,738	\$ 30,000		
Jan-Mar	\$ 679,733	\$ 679,732	\$ -		
Annual Forecast	\$ 1,065,173	\$ 2,718,936	\$ 60,000		
Cumulative Cash Flow	\$ 1,065,173	\$ 3,784,109	\$ 3,844,109		

SCHEDULE D

DESIGN AID SHEET FOR ELEMENTARY SCHOOLS

Grades: K to 7

School Name: ABC ELEMENTARY

Facility Code: _____

Date: _____

District: XX (XXXXXXXXXX)

School Capacity: • Nominal: Kindergarten - 40 Elementary - 250
 • Operating: Kindergarten - 38 Elementary - 233

Agreed Nominal / Operating Capacity:	
_____	_____
Ministry of Education	Date

This sheet is for use with the procedures in the Ministry of Education - Area Standards

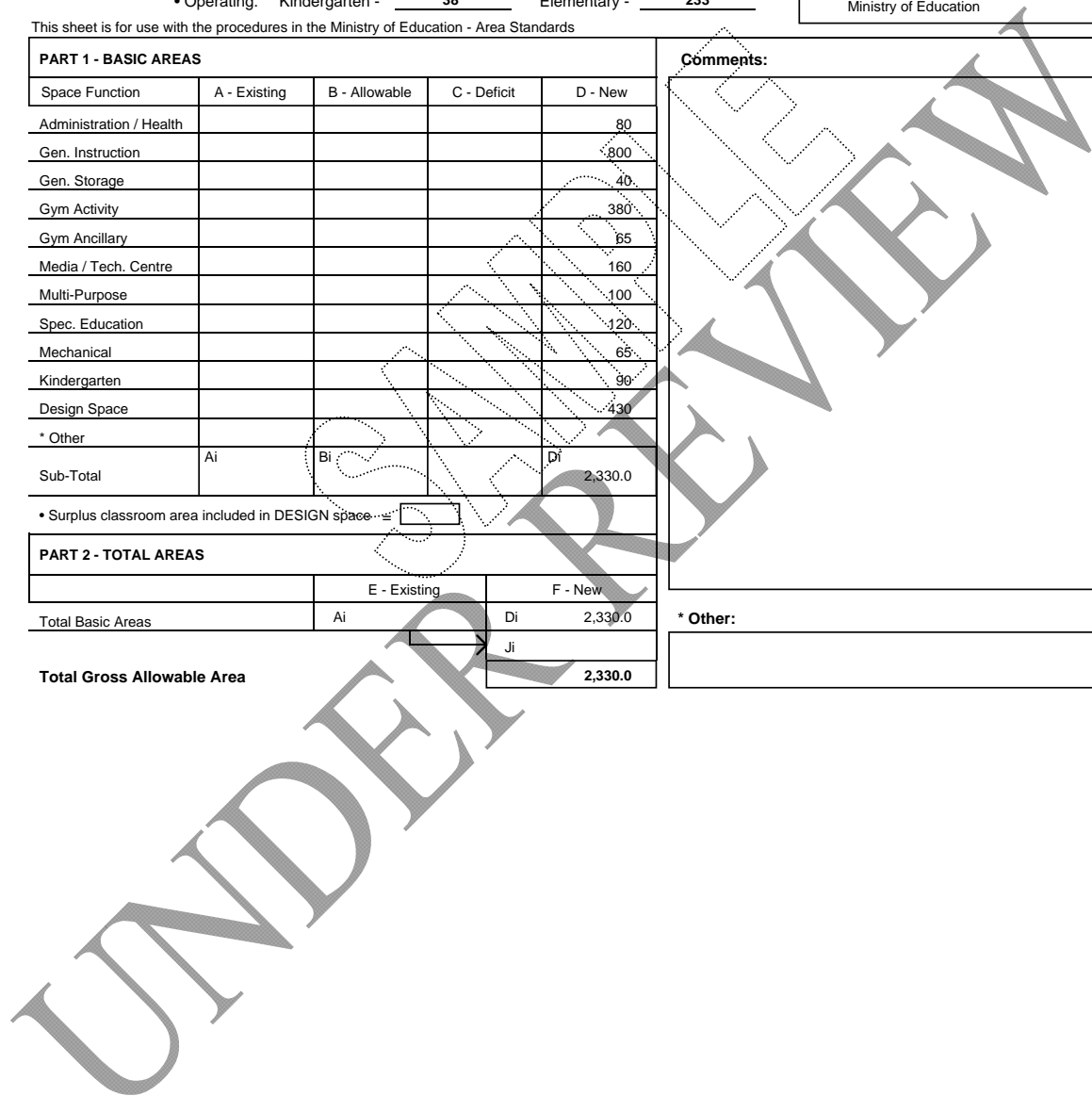
PART 1 - BASIC AREAS				
Space Function	A - Existing	B - Allowable	C - Deficit	D - New
Administration / Health				80
Gen. Instruction				800
Gen. Storage				40
Gym Activity				380
Gym Ancillary				65
Media / Tech. Centre				160
Multi-Purpose				100
Spec. Education				120
Mechanical				65
Kindergarten				90
Design Space				430
* Other				
Sub-Total	Ai	Bi		Di 2,330.0

• Surplus classroom area included in DESIGN space:

PART 2 - TOTAL AREAS			
	E - Existing		F - New
Total Basic Areas	Ai		Di 2,330.0
			Ji
Total Gross Allowable Area			2,330.0

Comments:

*** Other:**



APPENDIX 3 – PROJECT REPORTS

‘Project Implementation Reports’ provide standardized documentation, for the Ministry and school board, of a project’s evolution as it progresses through the various development phases. The Ministry will not intervene nor require the School Board to seek intermediary approvals, as long as the school board meets its reporting requirements and maintains the project specifications within the ‘Project Agreement’.

The ‘Project Implementation Reports’ will typically be submitted at the following stages:

- At the end of ‘design development’ prior to commencing construction documents;
- At the end of ‘construction documents’ prior to the project being tendered;
- At ‘contract award’; and
- At ‘substantial completion’.

‘Project Implementation Reports’ will be completed, updated and submitted by school districts by utilizing the Ministry’s WebCaps intranet site. Updates will be required as follows:

- Annual updates of the Capital Plan Cash Flow forecast by May 31 of each year;
- Updating of current project schedule as each project milestone is reached (within 30 days).

The fees supported for capital plan projects are deemed to be sufficient to compensate school districts for any work required by the project’s Quantity Surveyor to complete the project reports.

See the following example of the ‘Project Implementation Report’.

PAGE 1

PROJECT IMPLEMENTATION REPORT - BUDGET, SCHEDULE & CASH FLOW

Part A - Project Identification		
Project No.: 123456	Project Code: NEW	School District: XX (xxxxxxxxxxxxxxxxxxxxxx)
	Facility Code:	Facility Name ABC ELEMENTARY
Approval Year:	Adj. Unit Rate:	Project Description:
	New Instr. Spaces:	NEW 40K+250 NOMINAL CAPACITY ELEMENTARY

Part B - Area, Budget, Funding Source, Schedule

	5-Apr-02 Project Agreement	Project Phase				Post Occupancy Scope & Cost
		End of Design Development	End of Working Drawings	Contract Award	Substantial Completion	
Completed Site Area (ha)	N/A	N/A				

Building Area (m2)						
Total Area	2,330	2,330				
Less: Previously Existing Space	0	0				
Add: Area to be Demolished	0	0				
Area of New Space	2,330	2,330				
Area of Renovations	N/A	N/A				

Project Budget						
Site Acquisition	N/A	N/A				
Development Cost Charges	\$90,000	\$97,000				
Offsite Costs	\$136,364	\$135,000				
Site Development	\$383,960	\$383,960				
Supplementary Site	\$244,924	\$242,920				
Construction: - New	\$2,727,500	\$2,727,500				
- Renovations	\$0					
Supplementary Building	\$181,818	\$180,000				
Fees	\$380,844	\$375,905				
Design Contingency	\$51,894	\$35,500				
Constr. Contingency	\$123,219	\$121,621				
Equipment	\$320,586	\$320,586				
Other	\$3,000	\$0				
Total	\$4,644,109	\$4,624,652				

Variance from Project Agreement		-\$19,457				
---------------------------------	--	-----------	--	--	--	--

Funding Source						
Capital Plan	\$3,844,109	\$3,844,109				
Capital Reserve	\$800,000	\$800,000				
Land Capital Reserve						
Local Capital Reserve						
Annual Capital Grant						
Other						
Total	\$4,644,109	\$4,644,109				

Project Schedule						
(specify end of process or actual date)						
Schematic Design	April 21/02					
Design Development	May 31/02	June 4/02				
Construction Documents	Aug. 7/02	Sept. 15/02				
Contract Award	Oct. 7/02	Oct. 31/02				
Construction (to substantial completion)	Nov.15/03	Dec.1/03				
Occupancy Date	Jan. 1/04	Jan.3 /04				
Final Completion (C.O.A. closure)	Nov. 15/04	Dec.1/04				

PAGE 2

Part C - Capital Plan Cash Flow

	Annual Forecast	Actual Cash Flow	Current Forecast	Project Agreement	Variance Proj. Agreement Vs. Current Forecast
Last Update	May 2/02	Aug. 29/02	June 10/02	April 5/02	
Previous Quarters	XXXXXX	\$0	\$0	\$0	\$0
Current Gov.t Fiscal Year					
Apr-June-02/03	\$85,000	\$94,500	\$94,500	\$82,800	-\$11,700
Jul-Sep-02/03	\$183,000	\$129,000	\$178,500	\$184,800	\$6,300
Oct-Dec-02/03	\$120,000		\$135,000	\$117,840	-\$17,160
Jan-Mar-02/03	\$690,000		\$675,000	\$679,733	\$4,733
Total	\$1,078,000	\$223,500	\$1,083,000	\$1,065,173	-\$17,827
Future Fiscal Years					
2003/04			\$2,678,000	\$2,718,936	\$40,936
2004/05			\$83,109	\$60,000	-\$23,109
2005/06					
2006/07					
2007/08					
Total			\$3,844,109	\$3,844,109	

C.O.A.'s Included in Actual Cash Flow	1818-23231	1919-24564
--	------------	------------

Part D - Comments

End of Design Development

End of Working Drawings

Contract Award

Substantial Completion

APPENDIX 4 – POST-IMPLEMENTATION REVIEWS

Post-Implementation Reviews are evaluation tools to assess whether capital expenditures and resulting assets have successfully achieved their objectives. They serve as a mechanism to help ensure lessons learned (i.e. successes and failures) from the management of one project are passed on to the next. In addition, Post-Implementation Reviews serve an accountability function in that they assess performance and compliance with government approvals, policies and standards.

Post-Implementation Reviews are an important source of information to ensure effective operation of the Capital Asset Management Process. The Post-Implementation Review's primary objectives are:

- ensure the program, asset performance objectives and process of completed capital expenditures are appropriately reviewed.
- ensure projects comply with government approvals, policies and standards (e.g. approved scope and budget, cost factors, tendering practices and program standards).
- ensure lessons learned are factored into regular review of programs, specifications and capital management processes. For example, lessons learned can help:
 - fine tune specifications and performance levels;
 - assess impacts of facilities on occupants;
 - measure physical performance in terms of quality of design, construction and operating performance; and
 - assess application of new ideas once executed; identifying opportunities to improve project management and delivery processes.

In general, the requirement for Post-Implementation Review will be specified in the 'Project Agreement' and form a parameter of project approval.

A Post-Implementation Review will normally commence within six to eighteen months of substantial project completion unless otherwise specified in the 'Project Agreement'.

Post-implementation reviews can be categorized into four types:

A. Scope and Cost Reviews

Usually the simplest type of review, the purpose of the scope and cost review is for evaluating the completed asset's technical scope and cost against the original scope and budget approved in the 'Project Agreement'.

A scope and cost review is a requirement for all projects.

The scope and cost review will normally occur after the facility is opened, three to six months after substantial completion. The project's design team will normally be used to prepare the scope and cost review documents, and the architect, quantity surveyor and district staff could all have roll in the review process.

A typical scope and cost review will comprise:

- a report comparing the 'Project Agreement' project scope and cost against the as-built scope and cost;

- an area summary relative to applicable Ministry guidelines, noting net and gross areas, and net to gross ratios;
- as-built design aid sheet, with supporting line drawing , referenced room list and areas;
- updated Facility Audit;
- a questionnaire to evaluate the project’s success in meeting its objectives; and
- site visit to confirm what was built (selected projects).

A more detailed review might also include:

- change order review;
- as-built drawings review;
- site meetings minutes review; and
- site inspection

The fees supported for capital plan projects are deemed to be sufficient to compensate school districts for any work required by the project’s Quantity Surveyor to complete the scope and cost review forms.

B. Program Review

The purpose of a program review is to assess the functional performance of a facility and user satisfaction.

C. Product Review

The purpose of the project review is to evaluate a facility’s physical performance in terms of design, specification, operating and maintenance characteristics and operating costs.

D. Process Review

The purpose of process review is to evaluate a project’s delivery process, such as, approvals, project management, procurement, cost and schedule reporting, design, construction and commissioning to identify positive and negative lessons learned.

Program, product and process reviews will vary based on the type and scope of the review. The reporting requirements and responsibilities will be defined to suit individual review criteria, and when possible, the review requirements will be documented in the ‘Project Agreement’. The costs associated with these reviews will be paid directly by the Ministry or districts will be compensated through an allowance included in the ‘other’ portion of the project budget.

These reviews will be required on a project specific basis as selected by the Ministry.

Typical criteria that will be used in selecting projects for program, product and process reviews are:

<u>Criteria</u>	<u>Considerations</u>
Capital program or project	Is the project or program unique? Is it being delivered through a new or alternative approach?
Process	Did the process present new or different risks (e.g. design-build, public-partnership, construction management)?
Product	Is a new product or idea involved (e.g. alternative roofing material, new mechanical system, new or complex technology)?

Costs	Is it high cost, with large capital or long-term operating impacts?
Impact Analysis	Does the project generate significant social, environmental or economic impacts?
Duration	How much time has elapsed since the Ministry last reviewed this particular type of project?

See the following examples of a 'Scope and Cost Review' questionnaire and forms for comparing 'Project Agreement' costs against actual costs.

UNDER REVIEW

SCOPE AND COST REVIEW – QUESTIONNAIRE

- 1) Describe the planning/design process that was used in this project and identify the key players.

- 2) List any suggestions for changes to the process or design committee that you would make for future projects.

- 3) List any particular features that you are particularly pleased with and/or exceeded expectations..

- 4) List other changes you would recommend for future projects.

- 6) Describe the features incorporated to promote the Green Buildings BC initiative to reduce the environmental impacts?

- 7) Describe the unique features, materials, systems or processes used that you would recommend be considered for other schools?

SCOPE AND COST REVIEW

School Dist.: XX (XXXXXXXXXXXXXX)	Facility Name:
Project No.: 123456	Project Description:
Date:	

	Project Agreement	Actual Capacity, Areas or Expenditures	Difference
Date	<input type="text"/>	<input type="text"/>	
Nominal Capacity			
Kindergarten	<input type="text"/>	<input type="text"/>	<input type="text"/>
Grades 1 - 7	<input type="text"/>	<input type="text"/>	<input type="text"/>
Grades 8 - 12	<input type="text"/>	<input type="text"/>	<input type="text"/>
Grade Configuration	<input type="text"/>	<input type="text"/>	<input type="text"/>
Site Area (ha)	<input type="text"/>	<input type="text"/>	<input type="text"/>
Building Area (sqm)			
Total Allowable Area	<input type="text"/>	<input type="text"/>	<input type="text"/>
Less: Previously Existing Space	<input type="text"/>	<input type="text"/>	<input type="text"/>
Add: Area to be Demolished	<input type="text"/>	<input type="text"/>	<input type="text"/>
Area of New Space	<input type="text"/>	<input type="text"/>	<input type="text"/>
Allowable Area of Renovations	<input type="text"/>	<input type="text"/>	<input type="text"/>
Unit Rate for Construction (\$/sqm)			
New	<input type="text"/>	<input type="text"/>	<input type="text"/>
Renovations	<input type="text"/>	<input type="text"/>	<input type="text"/>
Budget *			
Site Acquisition	<input type="text"/>	<input type="text"/>	<input type="text"/>
Development Cost Charges	<input type="text"/>	<input type="text"/>	<input type="text"/>
Offsite Costs	<input type="text"/>	<input type="text"/>	<input type="text"/>
Site Development	<input type="text"/>	<input type="text"/>	<input type="text"/>
Supplementary Site	<input type="text"/>	<input type="text"/>	<input type="text"/>
Construction	<input type="text"/>	<input type="text"/>	<input type="text"/>
Supplementary Building	<input type="text"/>	<input type="text"/>	<input type="text"/>
Fees	<input type="text"/>	<input type="text"/>	<input type="text"/>
Contingency	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subtotal	<input type="text"/>	<input type="text"/>	<input type="text"/>
Equipment	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Funding	<input type="text"/>	<input type="text"/>	<input type="text"/>
Funding Source			
Capital Funds	<input type="text"/>	<input type="text"/>	<input type="text"/>
Annual Capital Grant	<input type="text"/>	<input type="text"/>	<input type="text"/>
Land Capital Reserve	<input type="text"/>	<input type="text"/>	<input type="text"/>
Capital Reserve	<input type="text"/>	<input type="text"/>	<input type="text"/>
Local Capital Reserve	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	<input type="text"/>	<input type="text"/>

* Budget and actual costs including 2.24% G.S.T.

SCOPE AND COST REVIEW

School Dist.: XX (XXXXXXXXXXXXXX)		Facility Name:
Project No.: 123456	Project Description:	
Date:		

Project Budget Category

Site	Project Agreement (@ 2.24% GST)	Actual Construction Expenditures (@ 2.24% GST)
Development Cost Charges		
Offsite Costs		
Site Development		
Supplementary Site		
Total Site		

Construction	Project Agreement (@ 2.24% GST)	Actual Construction Expenditures (@ 2.24% GST)
New		
Renovation		
Supplementary Building		
Total Construction		
TOTAL CONSTRUCTION (Site & Building)		

Design Ratios	Ministry Guidelines	Final Design
Average Storey Height		
Ratio of Footprint to Gross Floor Area		
Ratio of Service Space to Gross Floor Area		
Ratio of Perimeter to Gross Floor Area		
Ratio of Exterior Wall to Gross Floor Area		
Ratio of Glazed Area to Exterior Wall Area		
Ratio of Roof Area to Footprint		

Elemental Costs	Ministry Guidelines	Final Design	Actual Construction Costs
Substructure			
Structure			
Exterior Enclosure			
Interior Construction			
Fittings & Fixtures			
Mechanical Systems			
Electrical Systems			
Gross Floor Area			
Unit Rate			

Comments:

APPENDIX 5 – NOTICE OF PROJECT ACCOUNT CLOSURE

The 'Notice of Project Account Closure' form must be submitted to the Ministry at the end of a project after all funding has been disbursed. This formal process is required to officially inform the Ministry that the project is complete and the Certificate of Approval (COA) can be closed.

Until a project's COA is official closed, school districts should continue to update a project's status using the internet 'Project Agreement Report' on Web-Caps.

See the following example of the 'Notice of Project Account Closure'.

UNDER REVIEW



Ministry of Education
Capital Funding and Allocation Dept.

Notice of Project Account Closure

Submit to Capital Funding and Allocation Dept. when Capital Project is complete.

1. SCHOOL DISTRICT NUMBER	2. SCHOOL DISTRICT NAME		
3. PROJECT NUMBER	4. BUDGET YEAR	5. PROJECT TITLE	
6. PROJECT DESCRIPTION			
Account Information			
7. Certificate of Approval No.	<input style="width:100%; height:20px;" type="text"/>		
8. COA Expiry Date	<input style="width:100%; height:20px;" type="text"/>		
Budget Summary			
	Approved Budget	Expenditures to Date	Difference
9. Capital Plan	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
10. Capital Reserve	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
11. Land Capital Reserve	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
12. Local Capital Reserve	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
13. Annual Capital Grant	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
14. Other	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
15. Total	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>	<input style="width:100%; height:20px;" type="text"/>
16. Incl. - S.D. Funding for over-expenditures	<input style="width:100%; height:20px;" type="text"/>		
Secretary Treasurer _____			Date Signed _____

Surplus Capital Plan amount to be transferred to District's Capital Reserve Account.

Ministry Approval _____ **Date Signed** _____

APPENDIX 6 – POLICIES, PROCEDURES & GUIDELINES

The following policies, procedures and guidelines are presented to assist school boards in the decision making process in the design and construction of school facilities. The issues presented are those most relevant to the procurement process, other Ministry policies can be found on the Ministry of Education's website at: bc.ed.gov.bc.ca/capitalplanning/projectmanagement.htm

GOVERNMENT POLICIES, PROCEDURES & GUIDELINES

Throughout this section the word “must” or “shall” indicate mandatory items and the words “should” or “may” indicate discretionary items.

Threshold for Competitive Tendering of Contracts

The Government is committed to open procurement to allow fair competition and provide value for money and applies the rules set out in the Agreement of Internal Trade (AIT) for the competitive tendering of contracts to provide goods, services, and construction. Under the AIT rules for construction, school boards must use competitive tendering for all projects where the procurement value is greater than \$250,000.

Below this threshold, school boards are encouraged to openly and fairly tender work using a solicitation method appropriate to the value of the construction, goods or services being acquired.

To ensure the AIT rules for construction are followed, school districts must ensure board-managed projects remain within the \$250,000 threshold. The value of a project should be accurately established by strictly defining the scope of work and developing a firm cost estimate. The value of the work should include all appropriate costs, such as fees, permits, materials, and labour, similar to the costs that would be included in a tendered contract, less overhead and profit.

Bid Notification

Bid notification is the process of alerting potential bidders of contract opportunities and inviting their bids through an Invitation to Tender.

For projects where the procurement value is greater than \$250,000 potential contractors must be notified of all construction contracts through a nationally accepted bulletin board and/or a pre-qualified bidders' list. Pursuant to government policy in support of open, fair and competitive tendering, school boards should also consider posting bid notifications in recognized trade publications and newspapers to ensure broad industry and regional exposure.

Below the \$250,000 threshold, school boards should also consider posting bid notifications to ensure broad exposure.

Use of the Bid Depository

The Ministry of Education supports the use of the Bid Depository system as administered by the British Columbia Construction Association (*Bid Depository Rules of Procedure*).

The bid depository is a system for administering the tender process between trade and general contractors, facilitating the receipt of sealed bids. The bid depository rules require prime contractors submitting tenders to school boards to use only subcontractors who have submitted valid prices through the bid depository.

School boards may choose to require the use of the bid depository system for general contracts. Often, this approach is used when divisions of work are expected to exceed \$100,000. School boards may also choose to use the bid depository for divisions of work expected to be less than \$100,000.

Further material can be found on the British Columbia Construction Association website at: bccassn.com

Contractor Pre-Qualification

Contractors are generally considered to be qualified on their ability to reliably perform the work and secure the necessary bonds. However, there may be situations where school boards feel the best value for money can be achieved by employing a process to pre-qualify contractors. In such circumstances, for a specific project, school boards may use pre-qualification criteria to develop a list of contractors the school board has screened in advance and identified as potentially qualified to perform the work required.

Note: All contractors deemed to meet the qualifications shall be entitled to bid on the proposed work. This process shall not be used as an opportunity to limit the number of bidders.

Public-Private Partnerships

Most school projects are typically procured through the traditional stipulated sum contract, however, school districts should evaluate other procurement methods such as; Construction Management, Design Build and Public Private Partnerships (P3) based on the risks associated with the method of procurement.

Further information on P3 projects can be found at the Partnership BC's website at: partnershipsbc.ca

The publication, 'Public Private Partnership – A Guide For Local Government', by the Ministry of Municipal Affairs may provide some useful guidelines. The document can be found at: mcaws.gov.bc.ca/lgd/pol_research/MAR/PPP

Design and Cost Guidelines – K-12 Program

The K-12 Design and Cost Guidelines is intended to aid School Districts and their design teams in designing facilities within budget. They also clearly articulate provincial funding policies as they relate to school design. *The Guidelines do not represent standards.* While the Cost Model Specifications are not intended to be prescriptive, they reflect design solutions that have proven their value over time. It is recognized however, that there are many other cost-effective design alternatives. School districts and their professional consultants are properly responsible for exact standards, design and layouts of their projects.

The guidelines may be found at the Ministry of Education web site at: bc.ed.gov.bc.ca/capitalplanning/projectmanagement.htm

Green Buildings BC

New Building Program

In December 1999, the government announced the Green Buildings BC – New Buildings Program to develop provincially funded facilities that are consistent with the concept of responsible, sustainable development. Green design is the process that ensures facilities will be more resource-efficient in their

use of energy, water, and materials, in addition to generating cost savings and improving the comfort of building occupants.

Under this government initiative, the Ministry of Finance, worked with British Columbia Buildings Corporation to develop a policy for the integration of green buildings principles and practices into the design of provincially funded buildings. While the program is not mandated, the Green Buildings BC website provides information on the development of the program as well as a number of resources related to green buildings.

Retrofit Program

School districts are encouraged to consider buildings retrofits that can be self-funded through future reductions in operating costs. The Green Buildings BC Retrofit Program was implemented by B.C.B.C. on the request of the provincial government to encourage public agencies to improve their energy and water efficiency, and reduce their greenhouse gas emissions and waste generation. The retrofit program, described on the Green Buildings BC website, has developed eligibility criteria and procurement documents, and has established a two-step process for the preparation and approval of a feasibility study and implementation plan.

School districts are reminded that the Minister's approval is required for any borrowing of funds that may be required to undertake building retrofits.

The Green Buildings BC website can be found at: greenbuildingsbc.com

INDUSTRY-STANDARD DOCUMENTS

School districts are expected to use industry-standard tendering and contract documents in the procurement of capital projects. A number of industry-standard documents and procedures and guidelines available for use by school districts are:

Stipulated Sum Contract Documents

For stipulated sum contracts the Ministry supports the use of the current *CCDC-2* document established by the Canadian Construction Documents Committee (CCDC).

As standard documents may not fully reflect public sector risk allocation strategies and business practices, school boards should consider supplementary conditions in their contracts to address issues unique to a specific project. School districts should consider using the standard supplementary conditions supported by the Public Construction Council of British Columbia.

School boards should contact the Risk Management Branch, Ministry of Finance to insure their contract documents include the government's standard indemnity, insurance or other risk management related clauses.

Further information on stipulated sum contracts and other documents can be found at the Canadian Construction Documents Committee website at: ccdc.org

Agreement Between Client and Architect

The government's 'Standard Form of Agreement Between Client and Architect' is no longer mandated nor being maintained. School districts may use industry standard agreements but should include prescribed indemnity and insurance clauses.

Additional information can be found on the Ministry of Education website at:
bcded.gov.bc.ca/capitalplanning/projectmanagement.htm

Schedule of Cost Consulting Services

The Ministry of Finance along with the Quantity Surveyors Society of BC (QSSBC) developed a 'Schedule of Quantity Surveying and Cost Consulting Services On Government Projects' to define the extent of cost consulting services applicable to individual capital projects. School districts may choose to use the existing QSSBC 'Schedule of Services on Government Projects' as their standard document.

The 'Schedule of Quantity Surveying and Cost Consulting Services On Government Projects' can be found on the QSSBC website at: qssbc.org/schedule.html

Tendering Procedures and Guidelines

School Districts should consider using industry-standard tendering procedures and guidelines such as the 'Procedures and Guidelines Recommended For Use On Publicly-Funded Construction Projects' produced by the Public Construction Council of British Columbia. The guidelines may be found at the 'Public Construction Council Of British Columbia' web site at: pccbc.com

UNDER REVIEW