Policy Name:	Capital Planning Process
Originating/Responsible Department:	Vice-President (Finance & Administration)
Approval Authority:	Board of Governors
Date of Original Policy:	October 2018
Last Updated:	April 2025
Mandatory Revision Date:	April 2027
Contact:	Associate Vice-President (Facilities Management & Planning)

Purpose

The purpose of this Capital Planning Policy is to establish a comprehensive framework for the development and maintenance of Carleton University's property. It outlines the processes, principles, and requirements for planning, approving, and implementing capital projects and infrastructure renewal programs. The policy aims to ensure excellence in campus planning and design, promote responsible use of resources, and align physical development with the university's academic mission and strategic goals.

Capital Planning Principles

Campus master plans, capital plans, as well as infrastructure renewal plans, will be developed and implemented within the context of principles that express the university's commitment to the orderly and responsible development and use of its assets. Such principles extend to the development of individual projects that are integral to the academic mission of the university. All projects should stand as examples of high-quality design, incorporating an appropriate level of functionality as well as responsibility towards environmental sustainability. Each individual project needs to follow the principles of the Campus Master Plan and the Campus Design Guidelines.

Ancillary Units and all other major use facilities of a non-academic nature, including residences, student services, athletics and recreation, child-care, parking, etc. will conform to the same procedural requirements for capital projects as defined by this policy. The essential differences will often be the particular project funding source for capital costs.

Key Guiding Documents

Many key planning documents inform Capital Projects including, but not limited to:

i. **Campus Master Plan**

The Campus Master Plan addresses the location, size, and general use of buildings. The University will assess the need to undertake a review of the Campus Master Plan every five years which will be subject to Board of Governors approval. The planning process will be chaired by the Vice-President (Finance and Administration), and will involve extensive community input from students, faculty, and staff, as well as relevant external organizations such as the City of Ottawa, National Capital Commission, Rideau Valley Conservation Authority, and the surrounding neighbourhood. After the review process is completed and changes approved by the President's Advisory Group (PAG), the revised Master Plan will be submitted to the Building Program Committee of the Board for review and recommendation to the Board of Governors. The Campus Master Plan may designate certain sites as priority locations for academic, administrative, or ancillary projects. The plan also addresses the type and quality of the public spaces on campus/university property, the parameters for individual buildings and growth opportunities.

ii. Capital Plan

As part of the University's strategic and operational planning process, Carleton will prepare an annual Capital Plan, that is presented for information to the Building Program and Finance Committees of the Board of Governors, which set out the priority and strategic importance of major capital projects over $5 million. The plan covers multi-year periods and will be updated on an annual basis to reflect progress made, as well as new or altered priorities. The Capital Plan provides provisional estimates of overall costs, sources of funds and is the responsibility of the Vice-President (Finance and Administration).

iii. Infrastructure Renewal Plan

Subject to approval by the Board of Governors, the University may adopt, from time to time, an infrastructure renewal program to address maintenance or update requirements of buildings systems and other campus assets. Annually, a number of projects will be undertaken that are identified within the Infrastructure Renewal Plan, that will be presented for information to the Building Program and Finance Committees of the Board of Governors. Such program will highlight multi-year priorities and will be updated, at appropriate intervals, to reflect progress made and new or altered priorities.

iv. Other Guiding Documents:

- Strategic Integrated Plan
- Carleton Academic Plan
- Coordinated Accessibility Plan
- Energy Master Plan
- Kinàmàgawin Strategy
- Outdoor Space Master Plan
- Strive for Sustainability Plan
- Campus Design Guidelines
- Equity, Diversity and Inclusion Action Plan

Planning Process and Reporting Requirements (Projects $5 million and over)

The Board of Governors oversees major capital projects ($5 million or more) through three pre-construction approval steps (Step 1, 2, 3 outlined below), continuous reporting during construction (Step 4 below), and a final report upon project completion (Step 5 below). The process starts with identifying projects in the Capital Plan, assessing needs, engaging key stakeholders, and appointing an executive sponsor. See Appendix A for a diagram of the project planning process and reporting requirements of the Board of Governors. Projects are reviewed and recommended for approval to the Board of Governors through the Building Program and Finance Committees of the Board. The Board of Governors is responsible for the approval of all proposed changes to the use of university lands and the selection of all sites for construction facilities and for any projects which directly impact the built environment of the campus.

Step 1 – Capital Proposal Form (For Board Approval)

A Capital Proposal Form is prepared collaboratively by the faculty/department looking to initiate the project and Facilities Management and Planning (FMP). An executive sponsor at the President, Vice-President or Decanal level should be identified for the project. The proposal is presented to the President's Advisory Group (PAG) to determine whether it should move forward for consideration by the Board of Governors.

The Capital Proposal Form focuses on developing the business case, cashflow, Net Present Value (NPV), and includes a concept design and a preliminary (Class D) cost estimate as well as sources of funding and a proposed project schedule. A representative template of the Capital Proposal Form can be found in Appendix B.

Step 2 – Project Planning Report (For Board Approval)

Approval of the Project Planning Report by the Board of Governors is required for all individual capital projects and infrastructural renewal projects with values of $5 million or greater. The intent of the Project Planning Report is to develop a fundamental understanding of what the project will entail. The Project Planning Report requires the hiring of the prime consultant for the project. Items such as total project costs, secondary effects, site approval, environmental considerations, operating costs, space inventory, space utilisation analysis, and space programs are items considered in the report. The Project Planning Report provides a detailed analysis of the project demonstrating that the majority of the design issues are contemplated and resolved early on in the project life cycle and that the project stakeholders have a sound knowledge of project requirements, to facilitate a smooth process in the implementation phase.

The Project Planning Report will include a schematic design and a Class C Cost Estimate prepared by a qualified Quantitative Surveyor. Concise reference to the quality standards anticipated for the particular project with respect to existing and or equivalent facilities should be included in the report to facilitate and clarify the objectives of the project and provide construction standards. A representative template of the Project Planning Report can be found in Appendix C.

The Project Planning Report must include the potential sources of revenue, cost escalation, the details of a preliminary projected cash flow analysis with respect to both revenues and expenditures, and the operating costs.

The Project Planning Report constitutes the parameters within which further planning and implementation of the project shall take place.

Step 3 – Project Implementation Report (For Board Approval)

When the design has proceeded to a point where a project can be tendered and a total project cost determined (Class B Estimate), the Associate Vice-President (Facilities Management and Planning) prepares a Project Implementation Report for review by the Building Program and Finance Committees. The Project Implementation Report will include comments on any changes from the approved Project Planning Report in line with the overall Campus Design Guidelines. The Project Implementation Report will also address the following: design variances, other approvals required, the proposed total project cost, the sources of funding, the timing of projected expenditures, updated projected cash flow projections and the required financing and escalation costs. A representative template of the Project Implementation Report can be found in Appendix D.

Approval of the Project Implementation Report by the Board of Governors is required for all individual capital projects and infrastructural renewal projects with values of $5 million or greater to proceed to the tender stage. The purpose of the Project Implementation Report is to provide a summary of the key characteristics and issues of the project for review by the Board of Governors. The report will capture any significant matters arising after the Project Planning Report that may change the project scope. The report also addresses cost and schedule, includes a Class B estimate prepared by a qualified Quantitative Surveyor, but more importantly includes a recommendation on whether to move forward with the project for tender and award if the project falls within the approved budget.

In reviewing the project for implementation, the Building Program and Finance Committees will assess the extent to which the project is within its approved parameters, is cost effective, and the extent to which full funding is committed or obtainable, and whether there are any significant outstanding and unresolved issues with respect to the project. If satisfied with the Project Implementation Report, the Building Program and Finance Committees will recommend the project for approval by the Board of Governors.

No contract for the implementation of a project $5 million or greater may be signed before approval of the project by the Board of Governors.

If costs overruns are realized following approval of the Project Implementation Report, additional requests for funding can be made to the Board of Governors. Such requests must be accompanied by a detailed report of all expenditures to date on the given project.

Step 4 – Project Status Report (For Board Information)

A Project Status Report will be provided to the Building Program and Finance Committees at their meetings until a Project Closure Report has been submitted. These reports should include reporting on any changes in scope, risks, schedule, budget of the project and include all key milestones met.

Step 5 – Project Closure Report (For Board Information)

At the completion of a capital or infrastructure renewal project, a Project Conclusion Report is prepared (Appendix E) for the Building Program and Finance Committees. The purpose of the report is to bring closure to the project and to provide useful feedback on all procedures as well as the final costs of the project. All Project Conclusion Reports are to be reviewed by PAG.

Project Fast Tracking

"Fast tracking" of a project may be required as a result of schedules, emergencies, or conditions of funding/finance. The decision for a project to be "fast tracked" requires Board of Governors approval. In this case, the Board of Governors reporting requirement may be combined in order to expedite the process. In such cases, approval will be conditional on tenders coming in as planned within the project budget.

In exceptional circumstances, such as emergencies or disaster recovery situations, projects can be approved in principle by the Board of Governors, but will normally require confirmation of the source(s) of funds.

Project Consultants

Project consultants can be retained under each of the following scenarios:

- Planners, architects, landscape architects, engineers and other consultants may be retained, and site preparation work authorized, for any project approved. The cost of this activity is to be included as part of the project costs. Such consultants may also be retained for projects not approved as part of a Capital Plan, but only with the approval of the Vice-President (Finance and Administration), or designate, and with secured funding and costs not to exceed $250,000. Expenditures in excess of $250,000 for such purposes will require approval of the Finance Committee; or
- The authority to appoint architects and other consultants is delegated to the Vice-President (Finance and Administration) (or designate), acting after receiving advice from the Project Committee. In the case of projects not requiring Project Planning Reports, authority to appoint architects and other consultants is delegated to the AVP Facilities Management and Planning (or designate), subject to confirmation of project funding.

Project Cost Increases

In the event costs have increased from the approved/tendered price to beyond $500,000 of the project cost, the project will be resubmitted for Board of Governors approval. Should the Board of Governors not approve additional resources as a result of the change, the Project Committee will recommend a course of action to PAG with alternative scoping options and their implications.

Changes in Scope

Irrespective of cost or schedule issues, a re-submission to the Board of Governors is required to secure approval when changes in scope have been introduced which may impact the functional quality of the projects' end-product, introduce reputational risk to the University, or remove or add fundamental elements of the original project scope.

Definitions:

Building Program Committee
A standing committee of the Board of Governors responsible for consideration of all proposed changes to the use of University lands and the selection of all sites for construction of facilities, as well as consideration for any matter it deems to pertain to the physical infrastructure of the University. The committee also receives regular reports regarding deferred maintenance and infrastructure renewal plans. *Reference the Board of Governors Building Program Committee Terms of Reference.*

Finance Committee
A standing committee of the Board of Governors responsible for reviewing and recommending the extent and nature of external borrowing for capital and/or operational needs. The committee also reviews and recommends to the Board of Governors the financing proposed for new construction projects with a dollar value over five million ($5,000,000). *Reference the Board of Governors Finance Committee Terms of Reference.*

Class D Cost Estimate
A Class D estimate is generally an estimate based on the initial functional program and broad concept approach. Usually by this time, the site and program have been approved. Initially, the owner may guess at the amount of budget available which figure may be low due to a lack of up-to-date cost advice. Then after initial design concepts, consultants prepare an order of magnitude estimate comprised of an elemental summary and based on a rough cost per square metre. This enables verification of the order of magnitude budget, as a reflection of a program and building envelope on a particular site. This often results in a modification of the budget or program, or both. The accuracy of this estimate is generally +/- 20 to 30% accurate depending on the complexity of the project and whether the project is new construction on a greenfield site or a renovation. The cost consultant should provide advice on design and pricing allowances for items not yet known, as well as risk allowances. Escalation allowance due to the length of time for working document production, as well as the duration of construction should also be included in the unit rates. This estimate should contain the following contingencies: design, pricing, bid, construction, escalation, and scope. This estimate usually forms the basis of an agreement between the owner and the consultant. *Reference the Canadian Construction Association.*

Class C Cost Estimate
This is a schematic design (construction documents) development estimate, where the program is set; the consultants have provided plans, elevations, sections, and an approximate palette of materials, as well as a concept design to allow form and spaces, and the design is generally completed up to 33%. The cost consultant can now measure drawings more accurately for an elemental estimate which can provide a framework to modify or refine parts of the design. There may be as many as three or more concept designs that require comparative costing. From the documentation and information provided, where possible quantities of all major elements are assessed and measured and priced at rates considered competitive for the particular project under stipulated lump sum form of contract. The estimate is a determination of the fair market value for the construction of the project, not a prediction of the low bid. The accuracy of this estimate is generally +/- 15 to 20%. *Reference the Canadian Construction Association.*

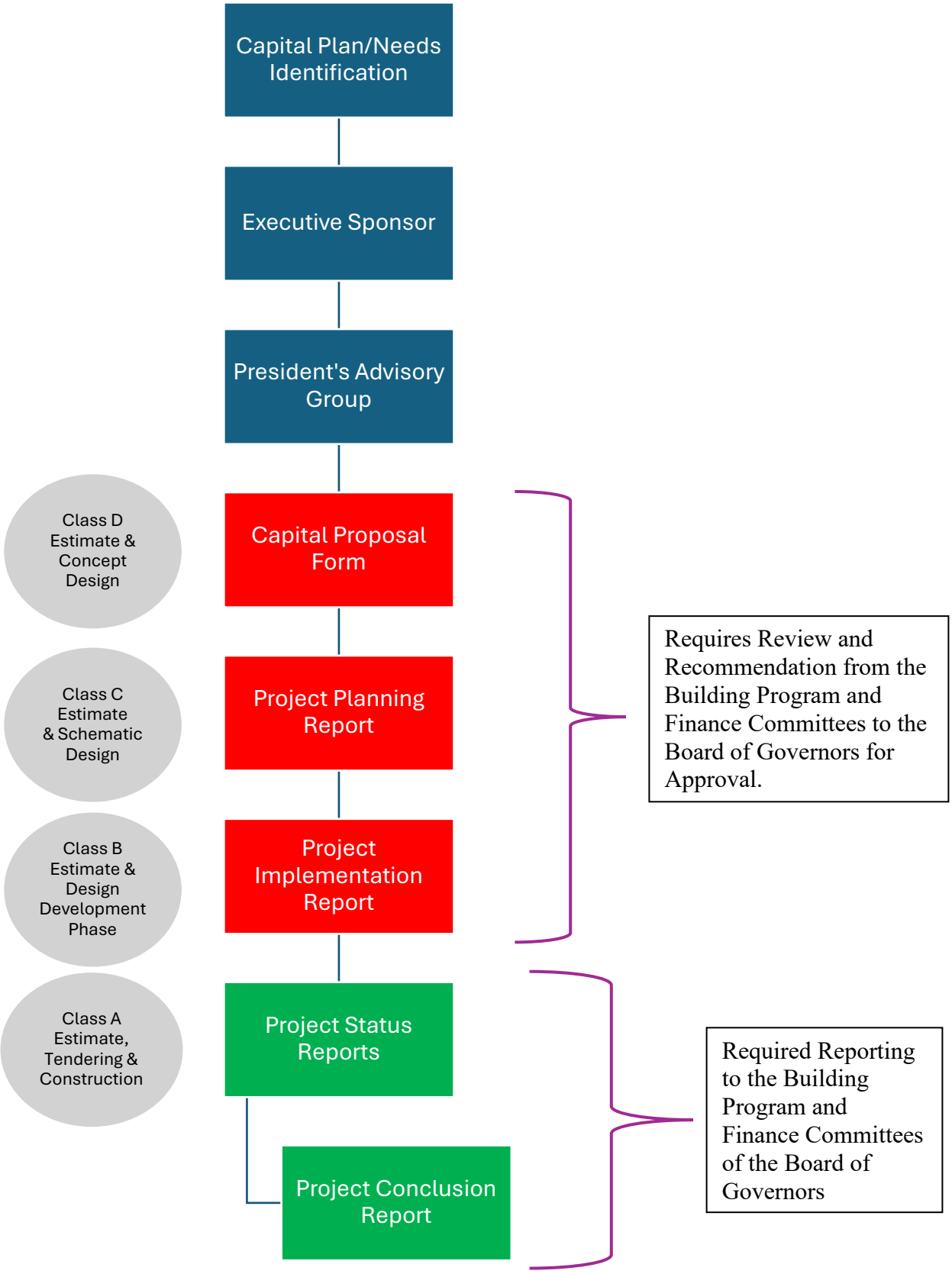
Class B Cost Estimate
This is a construction document estimate based on working drawings and more detailed dimensioning from computer generated drawings and systems with preliminary plans for mechanical and electrical. Generally, such items as structural grid, element sizes, and weight

are all determined. The outline specifications of all systems and materials are available. The initial Class B estimate is upgraded from 33% during design development, which depending on the project can be at 50%, 66% or 95% design development stage. The accuracy of this estimate is generally +/- 10 to 15%. *Reference the Canadian Construction Association.*

Class A Cost Estimate

This estimate can only be produced after the construction documents are 100% complete and a minimum of two weeks following the completion of drawings is required to prepare the estimate. This estimate is of sufficient quality and reliability as to warrant approval from the owner to proceed with tender, as it is based on detailed systems and component design and takes into account all project objectives and deliverables. It requires that project systems be designed and specified to completion based on a realistic construction schedule and accurate material and labour costs. As such, it is the final estimate before tender call. Typically, the total forecast is presented in an elemental format or trade format and includes all actual associated fees and costs and carries an expected degree of accuracy of +/- 5% to 10%. The number of bidders, the market conditions, non-standard materials, and nonstandard designs can affect this accuracy. There are some exceptional and unique projects which are politically prominent, historic, or of an unusual complexity whose Class A estimate may vary by more than 10%. *Reference the Canadian Construction Association.*

Appendix A: Project Planning Process and Reporting Requirements for the Board of Governors



Appendix B: Capital Proposal Form Template

Project Name:
Department:
Last Updated:
Author:
Project Manager(s):
Executive Sponsor:

Project Business Case

Project Overview
- Description of project execution

Opportunity/Context
- Description of the background context of the project and why it is necessary

Project Goal
- Description of the value expected to be gained through this project implementation and how the environment will be improved.

Project Duration Estimates

Project Milestone	Date Estimate	Confidence Level
Project Start Date	[mm/dd/yy]	[High/Medium/Low]
Milestone 1	[mm/dd/yy]	[High/Medium/Low]
Milestone 3	[mm/dd/yy]	[High/Medium/Low]
Milestone *n*	[mm/dd/yy]	[High/Medium/Low]
Project End Date	[mm/dd/yy]	[High/Medium/Low]

Project Conditions

Project Assumptions
- Outline all known assumptions that apply to this project.

Project Risks
- Outline all known risks that apply to this project.

Project Constraints
- Outline all known constraints that apply to this project.

Environmental Considerations
- Outline how environmental issues are being addressed.

Project Financing

Project Costs
- Provide a summary of cost analysis. Attach an appendix that details the budget for the projects that includes a preliminary cash flow (revenue and expenses).

Project Funding

- Provide a summary of the funding for the project.

Project Operating Impact
- Provide a summary of the ongoing operating impact. Attach an appendix that details the operating impact for 5 years. Impact should include revenues, costs, maintenance and financing implications.

Financial Assumptions
- Outline all key assumptions that apply to the financing of the project.

Project Critical Success Factors/Key Performance Indicators
- Outline all known critical success indicators that apply to this project.

APPROVALS:

Project Manager: _____ Date:_____
[Name] [Signature]

Executive Sponsor: _____ Date:_____
[Name] [Signature]

AVP Facilities Management Planning: _____ Date:_____
[Name] [Signature]

Vice-President Finance & Adm.: _____ Date:_____
[Name] [Signature]

President: _____ Date:_____
[Name] [Signature]

Appendix C: Project Planning Report Template

Project Name:
Department:
Last Updated:
Author:
Project Manager(s):
Executive Sponsor:

I. **Membership of Project Committee**

II. **Terms of Reference**

III. **Background Information**

- history
- previous approvals/reference documents

IV. **Statement of Academic or other Strategic Plan**

V. **Space Program**

- overview of existing space
- nominal space allocation required by Academic Plan or other initiatives
- summary of space utilization analyses
- tabular listing of renovated and new space
- special facilities

VI. **Functional Plan**

- description of relationships between activities
- functional space allocation diagram

VII. **Environmental Impact**

- energy/water use
- open space
- materials
- Environmental Site Assessment

VIII. **Special Considerations**

- standards of construction and quality
- landscape requirements
- accessibility and personal safety
- computing and communications
- environmental issues
- hazardous waste disposal
- campus planning issues

IX. **Resource Implications**

- site service relocates
- infrastructure upgrades in the sector
- construction costs
- other costs (secondary effects, construction contingency, demolition)
- permits and insurance
- professional fees
- landscaping
- computer and telephone terminations
- furniture and equipment
- miscellaneous costs (signage, security, other)
- donor recognition
- moving and staging
- commissioning
- financing costs
- total project cost estimate

X. **Total Cost of Ownership (TCO)**

X1. **Other Related Costs**

XII. **Funding Sources and Cash Flow Analysis**

XIII. **Schedule**

XIV. **Recommendations**

APPENDICES:

1. Space Inventory
2. Utilization Analyses
3. Equipment/Furnishings
4. Computing and Information Technology
5. Total Project Cost (TPC) Estimate (see B.1 – Table 1)
6. Room Specification Sheets

Notes:

1. This template is specific to capital projects. Items IV and V and elements of item IX are not directly applicable to infrastructure renewal projects and should be identified as N/A.

2. A detailed Construction Cost Estimate will be systematically updated for all capital projects, beginning with the initial design cycle and continuing through to completion. This information will be maintained for internal use in the project file by the office of the AVP Facilities Management and Planning and available to the Building Program and Finance committees.

3. Includes Class C Construction Estimate prepared by a Qualified Quantity Surveyor and a Class C Total Project Cost.

4. Includes Schematic Design.

Table 1: Total Project Cost Estimate (TPC)

Column 2 will be completed with the Project Planning Report.
Columns 2 and 3 will be included in the Project Implementation Report.
Column 2-5 will be included in the Project Conclusion Report

Items	Project Planning Report	Project Implementation Report	Tender	Project Completion Report
Construction Cost Estimate (B.2 - Table 2)				
Construction Contingency				
Total Construction Costs				
Site service relocates				
Infrastructure upgrades in sector				
Secondary Effects				
Demolition				
Landscaping				
Permits & Insurance				
Professional Fees				
Computer wiring & Telephone Terminations, Security, Life				

safety functions				
Moving & Staging				
Furnishings & Equipment				
Miscellaneous Costs (signage, security)				
Commissioning				
Donor recognition				
Finance Costs				
Total Project Cost Estimate. **HST included**				
HST at Rebated Amount				
Total Project Cost including taxes				
10% Contingency to be added				

Table 2: Construction Cost Estimate

A Construction Cost Estimate will be systematically updated for all Capital Projects, beginning with the initial design cycle and continuing through to completion.

This information will be maintained for internal use by the office of the AVP Facilities Management and Planning and available to the Building Program and Finance committees.

Items	Project Planning Report	Concept Design	Design Devel't	Drawings @ 90%	Tender	Project 100% complete
A. EXTERIORS						
A.1 SUBSTRUCTURE A.1.1 Foundation A.1.2 Basement Excavation						
A.2 STRUCTURE A.2.1 Lowest Floor Constr. A.2.2 Upper Floor Constr. A.2.3 Roof Construction						
A.3 EXTERIOR ENCLOSURE A.3.1 Walls Below Grade A.3.2 Walls Above Grade A.3.3 Windows & Entrance A.3.4 Roof Covering						

A.3.5 Projections						
B. INTERIORS						
B.1 PARTITIONS & DOORS B.1.1 Partitions B.1.2 Doors						
B.2 FINISHES B.2.1 Floor Finishes B.2.2 Ceiling Finishes B.2.3 Wall Finishes						
B.3 FITTING & EQUIPMENT B.3.1 Fitting & Fixtures B.3.2 Equipment B.3.3 Conveying Systems						
C. SERVICES						
C.1 MECHANICAL C.1.1 Plumbing & Drainage C.1.2 Fire Protection						

C.1.3 HVAC C.1.4 Controls						
C.2 ELECTRICAL C.2.1 Services & Distribution C.2.2 Lighting, Devices, Heating C.2.3 Systems & Ancillaries						
NET BUILDING COST (Excluding site)						
D. SITE & ANCILLARY WORK						
D.1 SITE WORK D.1.1 Site Development D.1.2 Mechanical Site Services D.1.3 Electrical Site Services						
D.2 ANCILLARY WORK D.2.1 Demolition D.2.2 Alterations						
NET BUILDING COSTS (Including site)						
Z. GENERAL REQUIREMENTS & ALLOWANCES						

Z.1 GENERAL REQ-MENTS Z.1.1 General Requirements Z.1.2 Fee						
Z.2 ALLOWANCES Z.2.1 Design Allowance Z.2.2 Escalation Allowance						
TOTAL CONSTRUCTION ESTIMATE (Pretax) (Inc. Allowances)						
Taxes at rebated amount						
Total Construction Estimate including taxes						
Gross Floor Area (GFA)						

APPROVALS:

Project Manager: _____ Date:_____
[Name] [Signature]

Executive Sponsor: _____ Date:_____
[Name] [Signature]

AVP Facilities Management Planning: _____ Date:_____
[Name] [Signature]

Vice-President Finance & Adm.: _____ Date:_____

[Name] [Signature]

President: _____ Date:_____
[Name] [Signature]

Appendix D: Project Implementation Report Template

Project Name:
Department:
Last Updated:
Author:
Project Manager(s):
Executive Sponsor:

I. Executive Summary

II. Terms of Reference

III. Project Overview

- Relevant Elements of the Project Committee Report
- Changes from the Project Committee Report

IV. **Project Summary**

- Build and Site Overview
- Design Review Committee Input

V. **Resources Implications**

- Construction Cost Estimate (Class B Estimate) (Update on the Project Planning Report)
- Project Cost Estimate (Update of the Project Planning Report)
- Total Cost of Ownership
- Schedule to Completion
- Funding Sources and Cash Flow Analysis

VI. **Table 1: Total Project Cost Estimates (TPC) through the Development Cycle of the Project**

VI. **Recommendations**

APPROVALS:

Project Manager: _____ Date:_____
[Name] [Signature]

Executive Sponsor: _____ Date:_____
[Name] [Signature]

AVP Facilities Management Planning: _____ Date:_____
[Name] [Signature]

Vice-President
Finance & Adm.: _____ Date:_____
[Name] [Signature]

President: _____ Date:_____
[Name] [Signature]

Appendix E: Project Closure Report Template

Project Name:
Department:
Last Updated:
Author:
Project Manager(s):
Executive Sponsor:

Project Overview

- Description of project execution

Opportunity/Context

- Description of the background context of the project and why the project was necessary
- Include start date and completion date (substantial completion and final completion)

Project Description

- Description of the project including scope completed and any outstanding issues

Project Performance

- Outline project deliverables, project schedule and costs, stakeholders engaged
- Outline any scope changes

Overall Assessment

- Describe lessons learned with recommendations for improvements. This could include:
    - Scope Management
    - Cost Management
    - Project Management
    - Risk Management
    - Procurement Management
    - Schedule Management
    - Governance
    - Communications