

Section 6.2

Capital Improvement Plan

The purpose of this guide is to provide a brief overview on what is a Capital Improvement Plan (CIP), the advantages of implementing one and how to prepare one.

The first section includes a review of:

- What is a Capital Improvement Plan?
- What is the purpose of a Capital Improvement Plan?
- Why should a municipality prepare a Capital Improvement Plan?
- What are the steps in preparing a Capital Improvement Plan?

The second section includes a Capital Improvement Plan Workbook, which includes:

- A brief overview handout on how to complete Capital Improvement Plan.
- Worksheet 1 provides a checklist on the items to complete for the steps of the Capital Improvement Plan.
- Worksheet 2 provides the commonly used capital project evaluation criteria.
- Worksheet 3 provides a chart for the listing of the inventory of public facilities.

What is a Capital Improvement Plan?

A Model Capital Improvement Plan for Municipal Units

I. Definition:

A capital improvement plan (CIP) is a multi-year plan identifying capital projects to be funded during the planning period. The CIP identifies each proposed capital project to be undertaken, the year the assets will be acquired or the project started, the amount of funds expected to be expended in each year of the CIP and the way the expenditure will be funded.

A CIP is not a static document. It should be reviewed every year to reflect changing priorities, unexpected events and opportunities. The CIP should include the maintenance, repair and rehabilitation of existing infrastructure as well as the construction of new infrastructure (see chart 1). This can include capital items such as buildings, utility systems, roadways, bridges, parks, landfills and heavy equipment which have a high cost and a useful life of several years.

II. Purpose:

The basic function of a CIP is to provide:

- a formal mechanism for decision making,
- a link to long range plans,
- a financial management tool, and
- a reporting document.

Mechanism for formal decision making

A CIP provides government with a process for the planning and budgeting of capital needs. A CIP answers such questions as what to buy, build, or repair and when to buy or build. It is a useful tool for prioritizing of capital projects.

A link to long range plans

A CIP serves as a link to the planning process and should be developed with the land use plan, strategic plan and other long range plans. When determining whether or not new

What is the purpose of a CIP?

infrastructure should be constructed or existing infrastructure should be replaced, it is important to consider changing demographics and land use patterns.

Financial management tool

A CIP is used to prioritize current and future needs to fit within the anticipated level of financial resources. When looking at capital projects, it is important to consider the operating and maintenance costs that will be incurred with the construction or replacement of infrastructure. A CIP will allow for better financial planning and will smooth the need for sharp increases in tax rates or user fees to cover unexpected repairs, replacements or construction of capital assets.

Reporting document

A CIP presents a description of proposed projects that will be undertaken over the planning period. The CIP is used to communicate to citizens the municipal unit’s capital priorities and plans for implementing projects. It also includes the expected source of funding for projects.

III. Advantages:

What are the advantages of a CIP for municipalities?

The advantages of a CIP are numerous. The major advantages are that a CIP:

- i. It focuses attention on community goals, needs and financial capability. A CIP ensures that the projects that are being done are the ones that will best serve the needs of the majority of citizens. When determining the projects to be addressed in the CIP it is important to balance the community’s needs against the community’s ability to pay.
- ii. It provides a forum for building public consensus for projects and improves community awareness. By involving the citizens in the selection and prioritization of projects, support for the projects is generated thereby eliminating (or reducing) opposition to the projects. It also educates the public as to the

costs of capital projects.

- iii. It improves inter-/intra governmental cooperation and communication. A CIP enhances coordination of capital projects between government departments and agencies. If all departments are aware of the proposed schedule of capital projects, opportunities may exist to schedule projects from different departments in such a manner to ensure an effective use of resources. If a municipal unit communicates its long range plans to other municipal units in an area, the opportunity may exist to reduce duplication of programs and share in joint efforts that could reduce the costs to all residents and improve the services to the residents in the common area.
- iv. It ensures an efficient use of resources. By having a multi year focus on projects, scheduling of phases of the project can be coordinated to ensure the project is finished on time and on budget. A CIP can also reduce the likelihood of costly delays brought about by citizen opposition to the projects and through missed linkages with other projects or project phases or through insufficient funding.
- v. It helps to ensure financial stability. Capital projects are prioritized and scheduled to fit within expected funding. This planning will reduce the occurrence of dramatic tax increases to fund capital projects. Another advantage is that municipal units will not have to take allocated resources from one project to make unanticipated capital expenditures. On a more fundamental level a CIP promotes financial stability through infrastructure maintenance and allowing for long term planning of resources and needs. The details of the impact of capital funding on operating budgets and debt servicing levels are clearly visible.

Limitations to the CIP process exist. Some limitations are the implementation of a CIP requires additional time by administrative and elected officials for preparing, reviewing and revising the CIP and

There are 11 steps to completing a CIP.

Administration Structure

budget. It is important to recognize that the role of the CIP is not to discourage development. Development may still occur in areas where site conditions and development controls permit on-site sewer and water systems or where key support facilities and urban services exist. However, the benefits of performing a CIP far outweigh any limitations to the process.

IV. Steps in the Capital Improvement Process:

The general outlines of the CIP will not vary significantly from one municipal unit to another. The major difference will be the amount of detail that is contained in an individual municipal unit's CIP. The amount of detail that is contained in a CIP is a factor of the size of the municipal unit, its organizational structure, fiscal condition and rate of growth. When preparing a CIP each municipal unit must take into account its specific needs.

The steps each municipal unit follows when implementing a CIP should remain the same. The design of a CIP follows eleven basic steps (see Worksheet 1):

1. Establish the administrative structure. At this point a municipal unit would appoint a coordinating unit or individual, distinguish between capital and operating expenditures, determine the time frame that the CIP will cover, prepare a calendar of key events and set the mechanism for public input.

It is important that the administrative framework include all individuals (departments) that are involved in the capital project decision making process; engineering, planning, finance, etc. While it is important to involve all stakeholders it is vital that the coordination of the CIP be handled by a single office or person.

**Policy
Framework**

2. Establish the policy framework for the CIP. A municipal unit will have a set of long range goals that they want to achieve with respect to the capital program. In many communities the principal criteria for capital improvements is a desired level of service. The policies that the municipal unit put in place provide the framework for achieving those goals and address the issues of: the municipal unit's financial viability, community development, levels of service standards and other strategic goals.

**Policy
Framework**

3. Formulate evaluation criteria to determine capital spending levels and to guide capital project selection. The criteria to evaluate projects should be clearly defined and agreed upon before the selection of capital projects begin. Some of the criteria that should be considered are:

- the fiscal impact (on costs and revenues),
- health and safety effects,
- community economic effects,
- environmental and social effects,
- feasibility including public support and the municipal unit's readiness, and ability to undertake the project,
- implications of deferring the project,
- amount of uncertainty and risk,
- effect on inter-municipal relationships, and
- any advantages that will be realized from undertaking that project at the specified time in relation to other projects (see Worksheet 2).

**Capital
Needs
Assessment**

4. Prepare a capital needs assessment. A capital needs assessment must take into account maintenance of existing infrastructure as well as the construction of new infrastructure. Proper maintenance of infrastructure is vital if governments are to deliver quality services to its residents effectively and efficiently. When looking at existing capital assets you must include the cost of deferring maintenance, the life cycle of the asset (useful

Status of Existing and New Projects

life remaining), the total cost of operating and maintaining the asset versus the total cost of replacing the asset. The municipal unit will prepare an inventory of assets. The inventory should include the age, condition, maintenance history of the asset and the replacement cost of the asset. This information will be instrumental when the municipal unit is trying to decide if they should repair or replace infrastructure (see Worksheet 3).

It is important to identify needs for capital facilities and equipment in the future by reviewing and forecasting demographic information, land use patterns and other relevant information.

5. Determine the status of previously approved projects and identify new projects. It is important that previously approved projects be reviewed in the capital improvement process. By reviewing previously approved projects municipal units will be able to evaluate whether or not the projects are on schedule and on budget. The municipal unit will also have to determine if a project that is not on schedule will impact planned projects for the upcoming year. Unfinished projects may require the financial and human resources that had been committed to current projects.

Municipal units will need to develop information for new project proposals. Decisions makers will need to know the project scope, justification of the project based on capital improvement plan policies or other long range goal, cost and expenditure schedule.

**Financial
Capacity**

6. Assess the financial capacity of the municipal unit to undertake new capital projects. The municipality should look at past, present and future trends in revenue generation, debt levels and ratios, changing regulations and shifting demographics to determine whether or not they can afford to undertake any or all of the proposed capital projects. The objective of the analysis is to determine the amount of funds available from existing revenue sources to pay for capital projects. The analysis should also consider the availability of senior government funding or new revenue sources as well as any tax rate increase that maybe required to finance the project(s).

When looking at the cost of doing a project it is important to look at all the project costs; capital, operating and maintenance. Decision makers should also look at the cost of not doing a project. If you delay a project or maintenance what will the cost of construction be in the future, what are the current yearly operating and maintenance costs and what is the lost opportunity cost to the municipality.

**Evaluate
Options**

7. Evaluate funding options. Once the cost of capital projects are known the municipality must decide on how they will fund the projects. It is helpful if the municipality has a policy in place that deals with investments and financing options. Some financing options are pay as you go, long term borrowing, lease purchase agreements, user fees and special purpose taxes. With limited financial resources it is important that municipalities look at all possible financing options. The decision makers need to be realistic when assessing the feasibility of financing arrangements and must consider their legal authority to enter into financing agreements, financing methods, political acceptability and administrative complexity.

Ranking

8. Compile, evaluate and rank project requests and undertake financial programming. This is where project requests are evaluated and prioritized. The evaluation criteria is used to

rank each project. It is important that all the stakeholders are involved in this process, this will ensure greater fairness in the ranking. Once the ranking is completed, funding sources are identified and the year the project will be undertaken will be determined.

Adoption

9. Adopt a capital program and capital budget. The CIP and capital budget will have to be formally approved and adopted by the municipal council. Ideally the capital budget and the CIP will be for the same time frame. The council would approve the capital plan in principle as the legislative authority to incur expenditures does not extend beyond one year. The CIP is a planning tool and the approval of the capital budget is the legislative authority to incur expenditures in that year. The CIP document should describe the program and budget. It must include enough relevant information about the capital program so that stakeholders (elected officials, residents and staff) can respond to the capital priorities.

Implementation

10. Implement and Monitor the Capital Budget and Projects. The projects must be monitored on an ongoing basis. The projects should be tracked from a cash flow or financial component as well as a time management perspective. A project that is over budget or is behind schedule may have an impact on the capital project schedule and budget for the next year.

Evaluation

11. Evaluate the CIP Process. The CIP must be evaluated on an ongoing basis. The evaluating committee should look at what aspects of the plan worked and what areas of the plan can be improved. This step is particularly important in the first year(s) of a CIP. Once the CIP has been established the administrative and policy areas will need some adjustment, but will not need to be reinvented. Generally once the CIP has been established the process will be able to start at step five most years with a review of steps 1 to 4 every so many years, as the committee

sees fit.

V. Conclusion:

Capital improvement programming is a valuable tool to ensure that choices are made wisely. Every community whether it is experiencing growth, decline or stability needs to budget for capital items to maintain the current asset base and to meet future needs.

The CIP enables decision makers to make the correct long term decisions that benefit the community as a whole both from a financial perspective and a service delivery/quality of life perspective.

Attached as a reference guide are a number of worksheets that have been used by various municipal governments to establish a capital improvement plan. These worksheets are to be used for reference only. Municipal units are encouraged to develop worksheets and a work plan that best suits their own needs.

Reference List:

1. A Capital Improvement Programming Handbook for Small Cities and Other Governmental Units, Municipal Finance Officers Association
2. Planning for Capital Improvements, MIS Report, Vol.25 # 10, October 1993
3. Guide to Setting Priorities for Capital Investment, Guides to Managing Urban Capital, Vol.5
4. Capital Improvement Programming : A Guide for Smaller Governments, Government Finance Officers Association, 1996

Capital Improvement Plan Workbook

The following workbook was developed as a handout to be distributed to the Capital Improvement Plan work team. It includes:

- **Capital Improvement Plan - Overview**
 - Definition
 - Purpose
 - Advantages
 - Steps in the Capital Improvement Plan
 - Conclusions

- **Work Sheet 1**
 - Checklist of the tasks to be completed for each of the 11 steps of the Capital Improvement Plan

- **Work Sheet 2**
 - Commonly Used Capital Project Evaluation Criteria

- **Work Sheet 3**
 - Inventory of Public Facilities

Capital Improvement Plan - Overview

Definition:

A capital improvement plan (CIP) is a multi-year plan identifying capital projects to be funded during the planning period. The CIP identifies each proposed capital project to be undertaken, the year the assets will be acquired or the project started, the amount of funds expected to be expended in each year of the CIP and the means of funding the expenditures.

A CIP is not a static document. It should be reviewed every year to reflect changing priorities, unexpected events and opportunities. The CIP should include the maintenance, repair and rehabilitation of existing infrastructure as well as the construction of new infrastructure.

Purpose:

The basic function of a CIP is to provide a formal mechanism for decision making, a link to long range plans, a financial management tool and a reporting document.

Advantages:

The major advantages of a CIP are:

- 1 Focuses attention on community goals, needs and financial capability.
- 2 Builds public consensus for projects and improves community awareness.
- 3 Improves inter-/intra governmental cooperation and communication.
- 4 Ensure efficient use of resources.
- 5 Promotes financial stability through:
 - a) infrastructure maintenance
 - b) long term planning of resources and needs
 - c) details impact of capital funding on operating budgets, debt servicing

Limitations to a CIP process exist. Some limitations are the implementation of a CIP requires additional time by administrative and elected officials for preparing, reviewing and revising the CIP and budget on an annual basis. It is important to recognize that the role of the CIP is not to discourage development. Development may still occur in areas where site conditions and development controls permit on-site sewer and water systems or where key support facilities and urban services exist. However the benefits of performing a CIP far outweigh any limitations to the process.

Steps in the Capital Improvement Process:

The general outlines of the CIP will not vary significantly from one municipal unit to another. The major difference will be the amount of detail contained in an individual municipal unit's CIP. The amount of detail that is contained in a CIP is a factor of the size of the municipal unit, its organizational structure, fiscal condition and rate of growth. When preparing a CIP each municipal unit must take into account its specific needs.

The steps that each municipal unit follow when implementing a CIP are the same. The design of a CIP follows eleven basic steps:

1. Establish the administrative structure.
2. Establish the policy framework for the CIP.
3. Formulate evaluation criteria to determine capital spending levels and to guide capital project selection.
4. Prepare a capital needs assessment.
5. Determine the status of previously approved projects and identify new projects.
6. Assess the financial capacity of the municipal unit to undertake new capital projects.
7. Evaluate funding options.
8. Compile, evaluate and rank project requests and undertake financial programming.
9. Adopt a capital program and capital budget.
10. Implement and Monitor the Capital Budget and Projects.
11. Evaluate the CIP Process.

Conclusion:

Capital improvement planning is a valuable tool to ensure that choices are made wisely. Every community-whether it is experiencing growth, decline or stability-needs to budget for capital items to maintain the current asset base and to meet future needs. The CIP enables decision makers to make the correct long term decisions that benefit the community as a whole both from a financial perspective and a service delivery/quality of life perspective.

Work Sheet 1 Checklist - Steps in the CIP Process

- 1 Establish the administrative structure.**
 - appoint a coordinating unit or individual
 - distinguish between capital and operating expenditures
 - determine number of years in CIP
 - prepare calendar of key events
 - formulate procedures for citizen input
- 2 Establish the policy framework.**
 - develop programmatic policies
 - develop financial policies
- 3 Develop capital project evaluation criteria. (see worksheet 2)**
- 4 Prepare capital needs assessment. (see worksheet 3)**
 - prepare capital inventory
 - evaluate whether to repair or replace facilities
- 5 Identify projects for capital program.**
 - review status of previously approved projects
 - identify and develop information for new projects
 - examine capital project alternatives
 - complete and submit project request forms
- 6 Undertake financial capacity analysis.**
 - evaluate financial conditions
 - assess likelihood past trends will continue
- 7 Evaluate funding options.**
- 8 Evaluate and program capital projects.**
 - review project applications
 - prioritize capital projects
 - select projects, schedules and assign a funding source
- 9 Adopt capital program and budget.**
 - prepare CIP document
 - submit preliminary CIP to legislative body
 - engage in formal public hearings
 - revise CIP and send to legislative body for adoption
- 10 Implement and monitor capital budget.**
 - assign a project manager
 - refine project milestones and cost schedules
 - prepare progress reports, review and take action as needed
 - monitor external environment
- 11 Evaluate CIP process.**
 - consider organizational/process issues
 - review forms and documents
 - examine financial assumptions and funding sources

Worksheet 2 Commonly Used Capital Project Evaluation Criteria

Consideration	Questions to Ask	Comments
Legal Mandates	Is the project needed to meet provincial or federal regulations?	
Fiscal and Budget Impacts	What is the total capital cost? Impact on operating budget? Impact on tax base, tax rate and user fees? Is there any senior government funding available?	
Health and Safety Impacts	Will the project improve the health and/or safety of the residents in a measurable way?	
Environmental, Aesthetic and Social Effects	Does the project reduce pollution levels? Improve the appearance of neighbourhoods? Ensure community values are achieved?	
Economic Development Impacts	Does the project promote the economic vitality of the community (job creation or business development)?	
Project Feasibility	Does the project demonstrate that it can be implemented as planned? Is the timing, phasing and proposed funding reasonable? Is there public support for the project?	
Distributional Effects	Who benefits from the proposed projects? Is the distribution of projects balanced?	
Disruption/Inconvenience	How much disruption or inconvenience is caused by the project?	
Impact of Deferral	What are the implications of deferring the project?	
Uncertainty of Risk	What degree of risk or uncertainty is inherent in acquiring the facility (demand, obsolescence)?	
Inter-municipal Effects	What are the effects on inter-municipal relationships? Is there an opportunity for inter-municipal cooperation?	
Relationship to Other Projects	Are there advantages from this project accruing to other projects?	

These are examples of commonly used criteria that can be used to evaluate project. Each municipal unit can develop their own criteria to meet their needs. Once the criteria have been established it is important that they are ranked or weighted so that projects may be prioritized.

Worksheet 3 Inventory of Public Facilities

General Information:

Type of Facility: _____

Unit of Capacity: _____

CIP Time Frame: _____

Name of Facility				
Location				
Service Area				
Facility Capacity				
Needs Work?				
Type of Improvement				
Estimated Cost				
Year Needed (in CIP time frame)				