

# Research

## R E P O R T

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## *A Facility Planning Guide*

by  
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This report was commissioned by the Saskatchewan School Boards Association to describe current practices for school facility planning. Included in the report are:

- Rationale for long term facility planning.
- Description of steps in the planning process.
- Links to key facility planning resources.



# 1 INTRODUCTION

School facilities are an essential component in the delivery of the educational program. An environment which is safe, well maintained, conducive to learning, technologically and structurally up-to-date and is able to accommodate the required and locally approved programs is critical to successful teaching and learning.

While education is a provincial responsibility, the planning and delivery of public education services to students, which includes school facilities, is delegated by the province to boards of education. The Education Act, 1995 delineates the board's responsibilities in section 85(1) d, w, and x, section 87(1) land x, section 348, section 351 and in Regulations 77 to 83.

Boards of education are responsible for:

- Designing, constructing and determining the location of a school facility and playground,
- Providing plant operation and maintenance, including regular, preventive and emergency maintenance,
- Determining priorities around school facilities needs
- Closing school facilities,
- Determining the attendance areas,
- Obtaining department approval for all construction and renovations,
- Defining, regulating and controlling facility usage, including community access,
- Maintaining an inventory of all lands, facilities, equipment and furnishings,
- Initiating and creating partnerships to enhance services for students and the community.

The department is committed to a capital process that demonstrates and is driven by the principles of equity, simplicity, transparency and accountability. Saskatchewan Learning has a leadership role to play in developing the strategy and policy framework that will establish the expectations of the school divisions. This will enable them to more effectively make long range planning decisions for their infrastructure within the accountability framework. Part of the comprehensive approach to long range planning for the sector is to ensure that planning done by school divisions is consistent and that the data collection and analysis is comparable. Consistent approaches to five year and long term planning must be developed if the school divisions and the government are to make the best use of limited resources to support the infrastructure of the learning sector.

*The planning and delivery of public education services to students, is the responsibility of boards of education.*

*Consistent approaches to five year and long term planning are necessary to make the best use of limited resources to support the infrastructure of the learning sector.*

Saskatchewan Learning is also responsible for:

- Providing a framework and standards for facilities to ensure that they meet safety, program and enrolment needs,
- Monitoring and providing resources,
- Providing funding for capital construction, modernization and maintenance needs.

### **1.1 PURPOSE**

The purpose of this resource is to encourage all school boards to establish a long term facility plan within the context of a continuous improvement framework. This planning framework serves to:

- Inform school boards on the process of facilities planning, and
- Provide a framework for flexible planning.

The envisioned plan would be a five year rolling model. The annual implementation process will be monitored and reviewed for success. This will precede the preparation of a new five-year plan to be implemented in the upcoming year.

### **1.2 RATIONALE**

A facilities plan is essential to provides all students and staff with safe learning environment conducive to learning. A facilities plan's function is to guide the physical development of the educational learning delivery system for the next five years. It also serves to focus the board's decision-making in accomplishing its educational goals. The plan provides a framework for actions and decisions to maintain and improve the educational opportunities for all students. By developing a plan a school division is enabled to:

- a. identify the division's long term facility needs,
- b. maintain a program of continuous, comprehensive planning and renewal of school facilities,
- c. provide accurate information to the board of education in policy development and decision-making regarding capital expenditures, transportation, program delivery and space utilization,
- d. guide the physical development of the educational delivery system,
- e. provide factual information about the communities from which present and future programming needs can be determined,
- f. communicate to the communities the division's facility needs and future directions, and
- g. facilitate effective planning of learning environments conducive to learning and teaching.

**NOTE: Adapted – Guide for the Development of a Long-Range Facilities Plan (1986) CED**

.....  
*The plan provides a framework for actions and decisions*

### **1.3 PLAN INITIATION**

Effective planning can only begin when the board of education makes the commitment to facilities planning by:

- a. passing a motion,
- b. organizing a process that guarantees continuous analysis and evaluation, guided by the division's goals and objectives,
- c. providing adequate resources and staff,
- d. recognizing that educational planning and facilities planning are an integral part of the educational process,
- e. involving the public through consultation to ensure that the decisions reflect the values of the communities that it serves,
- f. providing leadership in problem-solving, and
- g. selecting specific individuals to provide leadership and be held accountable for the development and implementation of the plan.

**NOTE:** Adapted – Guide for the Development of a Long-Range Facilities Plan (1986) CED

### **1.4 PLAN DEVELOPMENT**

The Director or representative is responsible for the development and leadership in creating a long-term facilities plan.

It is recommended that a planning committee be formed. The committee representatives could include: a board member, personnel from central office, community leaders, professional staff, local government and other related agencies.

The planning committee would function as a management group and ensure that the total staff and division's communities are involved in the planning and are kept informed and that professional resources are utilized in the different areas of specialization. The decisions of the committee would be documented in a report and communicated the Board and throughout the division.

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*The Director is responsible for the development and leadership in creating a long-term facilities plan.*



## 2 ESSENTIAL COMPONENTS

### 2.1 SECTOR-BASED PLANNING

Each school division has unique challenges in delivering educational programming that will meet all of its students' needs. A major challenge is the differences that exist between and among communities within the boundaries of a school division. This diversity challenges each school system to provide equitable opportunities to all its students.

The solution is to establish planning sectors within the division's boundaries as a way to manage issues regarding the utilization of space and more equitably address the wide range of student needs within the division.

Sector planning is the clustering of a number of schools that share common and unique challenges in a manageable geographic area. It may include one or more schools outside the school division's boundaries. Results of this process are:

- a. more effective planning for accommodation of student needs across the division, and
- b. focusing the division's actions on ensuring an even distribution of viable school facilities throughout the division and equitable access to a quality learning environment.

#### PROCESS

Develop a geographical sector map by identifying the school clusters, indicate geographical boundaries.

- Map and profile each sector.
  - a. student capacity based on the provincial facilities criteria
  - b. student numbers residing in the sector and enrolled in the sector as compared to the sector capacity

### 2.2 PLANNING PRINCIPLES

Planning principles describe what the school division and its communities are seeking to achieve in the facilities plan. A focus on principles will:

- a. enhance and focus integrated planning and decision-making around program delivery, space utilization, transportation and partnerships,
- b. support a clear, systematic identification of the division's current and future capital funding needs, and

*Sector planning is the clustering of a number of schools that share common and unique challenges.*

*Planning principles describe what the school division and its communities are seeking to achieve.*

- c. help formulate the goals and objectives of the plan and the criteria for measuring the attainment of the goals and objectives.

### **PROCESS**

- The board will draft a set of principles to serve as the guide for the study.
- The management committee will review the plan and clarify with the board at the commencement of the study.
- The board will adopt revised principles.
- The management committee will use the principles to gather data, analyze the data, and formulate the recommendations in the plan.
- The principles will be also used when reviewing and monitoring the plan annually.

### **SAMPLE GUIDING PRINCIPLES**

- Focus on student learning and achievement.
- Ensure that operational costs are not compromised by recommendations in the Master Plan.
- Maximize the ability of the community to benefit from all school facilities (K-12, post-secondary, life-long learners and community at large).
- Be economically efficient.

### Examples from the Medicine Hat Region Long Range Facilities Master Plan

- Equitable Access to Quality Learning Environment and Choice of Programs
  - (a) Students at all grade levels will have equity of access to high quality, modernized facilities wherever they live in the city.
  - (b) A balanced range of regular, alternative and special education programs will be provided with each sector.
  - (c) While district programs will be established and maintained to meet the needs of the public, their distribution will be intended primarily to accommodate students from inside sectors.
- Creative Re-Use of Surplus Space
  - (a) Surplus school space that is viable and has value to the community should be identified for potential partnership use.
  - (b) Partnership agreements will be at no cost to the district.
- Capital Investment contingent Upon Confirmation of Long-term Viability
  - (a) In the identification of existing schools for preservation projects, the school's long-term viability, in terms of

programming and student enrollment, will be considered first and foremost.

- (b) In instances where long-term viability is confirmed within existing oversized building, space reduction initiatives will be incorporated as a component of a proposed preservation project.
- (c) The district will continue to maintain and invest in existing school building where long-term viability has not been confirmed to ensure that all matters of life, health and safety are addressed.

Examples from Edmonton Public's Ten-Year Facility Plan  
2007-2016

### **2.3 EDUCATIONAL VISION**

The management committee must first start with a destination in mind, the educational vision of the division. This will be the compass which will guide the committee, staff, and communities from the current reality to the new destination.

In order to transfer the vision into action, the committee will use the clear, measurable goals to formulate the plan and maximize the implementation effort.

*The school's long-term viability, will be considered first and foremost.*

*The educational vision of the division is the compass which will guide.*



## 3 GATHERING DATA

### 3.1 CURRENT EDUCATIONAL SITUATION

- 3.1.1 Relate in a narrative account the history, regional setting, composition and physical description of the division.
- 3.1.2 Describe the educational programs or the needs for change.

### 3.2 DEMOGRAPHICS

A demographic study is essential when developing a comprehensive, long range facility plan. The process begins with detailed mapping of the division and each of the planning sectors in conjunction with utilizing the census data.

*A demographic study is essential*

#### MAPPING

- 1.0 Prepare a complete map of the school division. The map will include:
  - a. the topographical features, that influence development and access,
  - b. the construction and zoning which influence development and access, and
  - c. transportation circulation, such as highways, grid roads, railroads, major streets and feeder streets.

In preparing the map, work with agencies which would include municipal government and provincial agencies as highways, environment and education. The Facilities Branch has made computer generated maps of many geographical areas of the province.

- 2.0 Use a copy of the base map to subdivide the division into logical geographical sectors which share both common and unique challenges. Once the boundaries are established the area becomes the base for collecting and composing of all future demographic information. The boundaries will be:
  - a. physical features , man made features, school attendance boundaries or municipal boundaries,
  - b. small enough so the sector area will have minimum variation in characteristics,
  - c. permanent.

Once the demographic plan is implemented, the geographic sector must be continually up-dated. Analysis of changes and new development implications, including ethnic shifts in population, should be made.

3.0 After the geographical sector has been established, collection of the data can begin.

Data sources which can be used include Statistics Canada report on Federal Census and Tax Data, economic region surveys, provincial population and employment surveys, locally conducted surveys with volunteers, and provincial health data. It may be best in rural school divisions to conduct a census survey using parent volunteers. This method of collection would take 2-3 days. A system must be established to collect statistical data that can be accurately repeated annually to provide historical data for projecting enrollments. Annual information required includes:

- a. population forecast for division and sector
- b. birth rates by area and sector
- c. residential patterns by area and sector
- d. residential density by area and sector
- e. enrollment projections
- f. total students by grade by area and sector
- g. distribution of students by school, sector and area
- h. distribution of population by age group
- i. trade patterns by area and sector

It is suggested that the summary data of the enrollment projections be presented as follows ( Appendix 1 ):

- a. Regular pupils by grade level
  - Present date
  - Maturation date
- b. Grade groups pre-school/k, Grade1-5, 6-9, and 10-12
  - Present date
  - Maturation date
  - One year to seven-year projection

### **3.3 FACILITIES**

To provide a comprehensive evaluation of all schools facilities, a facilities audit must be undertaken. A report of the findings should include the age, condition, utilization and flexibility in order to offer the core and innovative programs for each facility in the division. This function, while costly, is the critical component for the facilities long-term plan and the maintenance plan.

An evaluation begins with the assembly of a facilities team. It should consist of at least one representative from Saskatchewan Learning's Facility Branch and /or a qualified external consultant, appropriate members of the division's administrative staff, including

.....  
*A facilities audit must be undertaken.*

the maintenance supervisor, school administrator, and community representatives. The team will visit each facility and conduct an evaluation or audit. A checklist or provincially approved assessment (Appendix 1) will be used as the evaluation tool. Data collected will include a description of the school's condition and priority level, based on the provincial criteria. (K-12 school Facilities Funding Guideline June 2006)

The facilities superintendent will develop a Five-year maintenance plan and budget based on the data collected as a result of the evaluation. The costs should be included in the Five-year Building Plan.

Data collected will include:

- a. A summary of the condition of the facilities,
- b. The condition of each school,
- c. A school profile for each school which will include the facility's age, enrollment, and organization,
- d. A facility utilization and capacity
  - By school
  - Summary for all schools
- e. Site utilization based on program access areas, office area, special education, classrooms, and interagency areas.



## **4 REPORT BUILDING**

The planning committee's final task is to develop a report, a call-for-action document which lays the foundation for developing the next steps in planning and implementation of the Five Year Facilities Plan. The report will contain two to three alternative solutions.

Synthesized statements or critical findings will be drawn from the data and observations collected by the committee. Their conclusions and recommendations are to be supported by data.

A strategic Five-year Facility Plan will be developed using the findings and recommendations of the report in conjunction with the planning principles formulated. The principles will serve as a guide and focus for the development, implementation and monitoring of the plan. (Appendix 2)



## **5 IMPLEMENTATION OF THE PLAN**

The Five-Year plan is revisited and updated annually. The yearly implementation of the plan involves a process through which the planning principles, goals and strategies are translated into action, to ensure an equitable access to a quality education for all students within the division. It is recommended that the process involve the public through a consultation process similar to the facilities plan development to ensure that the decisions reflect the values of the communities it serves.

Data derived from the school profiles will be analyzed when reviewing and updating the Five Year Building Plan. The profile is a summary of each school's viability, physical condition, organization and local conditions in the community. Other data will include the total pre-school population by age in the division and the actual and projected enrollment.

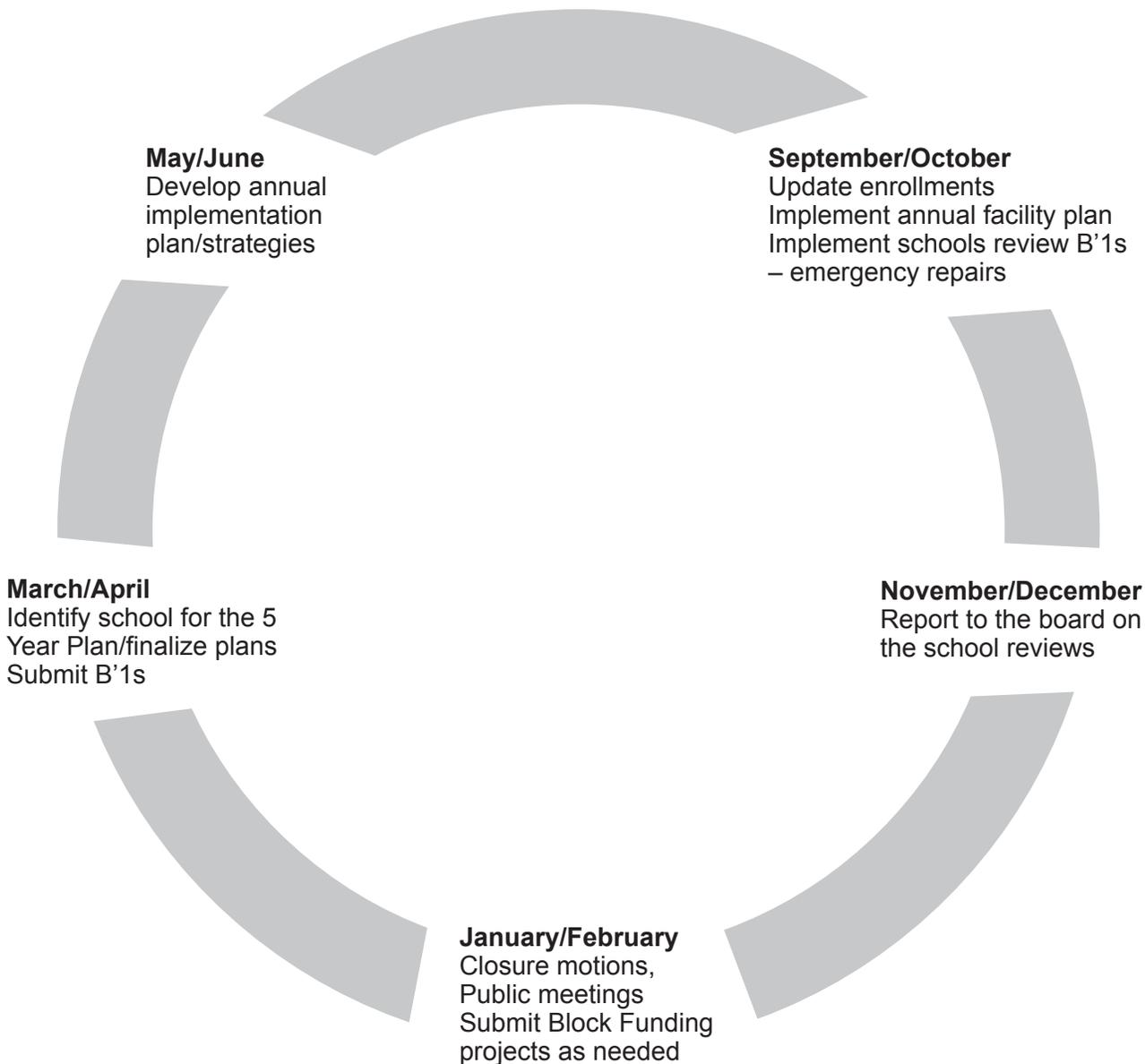
The responsibility for the annual implementation review should be assigned to the Director. The Director is also responsible for recording all actions taken to implement the previous year's plan, analyzing and evaluating the implementation of the plan and reporting the results to the board and communities.

An assessment criteria based on the goals will be used to evaluate the success of the division in meeting the goals. The data will be used to determine the strategies to successfully implement the updated plans.

.....  
*The Five Year plan  
is revisited and  
updated annually.*

### 5.1 ANNUAL IMPLEMENTATION CYCLE

The following is a suggested annual implementation cycle, beginning September and ending in June.



**1. SEPTEMBER/OCTOBER**

- School profile updated with current enrollment
- A sustainability review process commences for select schools
  - Collect data
  - Meet with staff and school advisory committee of each
  - school reviewed
- Implementation of the annual facilities plan strategies.
- B'1s submitted for emergency facilities repairs

**2. NOVEMBER/DECEMBER**

- Complete the school reviews and present the finding and recommendations to the Board
- Program changes, boundaries, and technology recommendations approved by Director

**3. JANUARY/FEBRUARY**

- School closure process motion(s) made
- Public meeting with communities where school closures have been initiated
- Identify the small strategic schools

**4. MARCH/APRIL**

- Final School Closure motion after the public consultation process
- School profiles updated
- School identified for the Five Year Building Plan for replacement or modernization.
- Submit B'1s (roof, relocatables, etc.)

**5. MAY/JUNE**

- Revised Five Year Plan approved by the Board
- Annual implementation plan developed and approved by the Board
  - Plan focuses on strategies
  - Plan identifies which school will be subject to a sustainability review
  - Timelines and total costs will be included.



## ***APPENDICES***

- 1. FACILITIES PLANNING –  
TOOLS, RESOURCES AND FORMS***
- 2. MAINTENANCE PLANNING –  
TOOLS AND RESOURCES***
- 3. BEST PRACTICES***



## **FACILITIES PLANNING**

### **TOOLS**

1. Space and capacity criteria:

K-12 SCHOOL FACILITIES FUNDING GUIDELINES 2003

[www.sasked.gov.sk.ca/branches/facilities/pdf/funding/funding\\_guidelines062003.pdf](http://www.sasked.gov.sk.ca/branches/facilities/pdf/funding/funding_guidelines062003.pdf)

2. Funding criteria:

K-12 SCHOOL FACILITIES FUNDING GUIDELINES 2003

[www.sasked.gov.sk.ca/branches/facilities/pdf/funding/funding\\_guidelines062003.pdf](http://www.sasked.gov.sk.ca/branches/facilities/pdf/funding/funding_guidelines062003.pdf)

NOTE: ADD AT LEAST 35% TO COST LISTED

3. Facilities assessment:

REVISED FACILITIES AUDIT APPLICATION (2000)

[www.bced.gov.bc.ca/capitalplanning/resources.htm](http://www.bced.gov.bc.ca/capitalplanning/resources.htm).

### **FORMS**

1. School profile
2. Enrollment Projections
3. SA-1D

**School Division:**

**School:**

<b>Student Enrollment by Program</b>												<b>Meets Benchmark</b>			
<b>Number of Students Per Grade:</b>															
Elementary			Jr. High			Sr. High									
K	Gr. 1	Gr. 2	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8	Gr. 9	Gr. 10	Gr. 11	Gr. 12			
<b>Student Enrollment:</b>															
Regular	Alternative	Dist. Centre	Early Ed.	<b>Total</b>											
<b>Historical Enrollment:</b>															
2001	2002	2003	2004	2005	2006										
<b>Student Space and Cost</b>															
	Percentage of utilized space													<b>Meets Benchmark</b>	
	Area of school m2														
	Weighted capacity														
<b>Facility Information and Condition</b>															
	Year school was built													<b>Meets Benchmark</b>	
	Year(s) addition(s) was built														
	Building type (masonry, wood frame, relocatable)														
<b>Location &amp; Accessibility</b>															
	Number of urban schools with available space within a 1.6 km radius													<b>Meets Benchmark</b>	
	Number of rural schools with available space within a 50 km radius														
<b>Transportation:</b>															
	Number of students in attendance area attending the school living more than 2.4 km from the school														
<b>Local conditions</b>															
<b>Recommended facility strategy and timeline:</b>															

# Demographic Enrollment Projection

**School Division:** \_\_\_\_\_

**Date:** \_\_\_\_\_

		Previous years pupils					Cohort factor			Projected years estimate pupils						
		4th year	3rd year	2nd year	1st year	present year	average rate of survival	adjust-ment	adjusted average rate of survival	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year
Preschool age	0 to 1															
	1 to 2															
	2 to 3															
	3 to 4															
	4 to K															
	K															
	1															
	2															
	3															
	4															
School district enrollment	5															
	6															
	7															
	8															
	9															
	10															
	11															
	12															
	K-6															
	7 to 8															
9 to 12																
Total K to 12																

SK Learning  
2003 SA-1D doc  
photocopy - next 3 pages





## **SCHOOL FACILITIES MAINTENANCE PLANNING**

The current replacement value of Saskatchewan's 720 school facilities is 4.6 billion dollars. Approximately 80% of the facilities are more than 25 years old, the majority being 40 years or more. As our schools grow older the maintenance needs grow, as do the costs. Boards do spend money on maintenance each year, but not enough to keep up with building needs, and the funding by Saskatchewan Learning and boards is not enough to keep up the buildings' needs. It is suggested that a yearly sum equivalent to 5% of the total assets be spent to meet and correct the problems. The research notes that a maintenance plan is required if facilities are to remain safe and conducive to learning.

### **RESOURCES**

PLANNING GUIDE FOR MAINTAINING SCHOOL FACILITIES  
(chapters 3-5)

*[www.nces.ed.gov/forum/publications.asp](http://www.nces.ed.gov/forum/publications.asp) (free download)*

### **TOOLS**

Appendix D – Audit form template

Appendix E – Record layout for computerized work order

*[www.nces.ed.gov/forum/publications.asp](http://www.nces.ed.gov/forum/publications.asp) (free download)*

Maintenance software

RECAPP (Maintenance software used by most Alberta school divisions, health centres and municipal governments)

*[www.recapp.com](http://www.recapp.com)*

### **TVA**

*[www.tva.com](http://www.tva.com)*

### **FAME**

Fame Facilities Software Solutions Inc.

*[www.ckman.com](http://www.ckman.com)*

## **BEST PRACTICES**

### **RESOURCES**

#### **Planning Examples**

[www.brook.edu/metro/gwrp/20040826\\_tasks1.pdf](http://www.brook.edu/metro/gwrp/20040826_tasks1.pdf)

[www.eqao.com/pdf\\_e/05/05polle.pdf](http://www.eqao.com/pdf_e/05/05polle.pdf)

[www.infratrans.gov.ab.ca/Infra\\_Content/docType506/Productions/sustainschoolsBldgs.pdf](http://www.infratrans.gov.ab.ca/Infra_Content/docType506/Productions/sustainschoolsBldgs.pdf)

#### **Planning Policy Models**

[www.21csf.org/cfs-home/publications/modelpolicies/PlanningsectionMay2005.pdf](http://www.21csf.org/cfs-home/publications/modelpolicies/PlanningsectionMay2005.pdf)

#### **Partnership Planning Resource**

#### **Human Services Integrated Forum**

[www.sasked.gov.sk.ca/hsif](http://www.sasked.gov.sk.ca/hsif)

#### **Partnership Planning Model**

Integrated Community Centres Building Blocks for Great Cities,  
May 2002

[kmoore@sasked.gov.sk.ca](mailto:kmoore@sasked.gov.sk.ca)

#### **Software Acquisition Questions for Supplier**

#### **Things to consider when buying maintenance facilities management software:**

- What is the initial cost of the acquisition?
- What are all the capabilities of the system?
- What level of customization is available?
- What are the costs of customization?
- What adaptations can be made to the system?
- What are the costs of adaptations?
- Are the costs inclusive of all the components?
- Are there separate costs for each element of the system?
- Does the purchaser have the option to select only some elements of the system?
- Can additional elements of the system be purchased later?
- What are the annual costs for maintenance of the system?
- What would be the transition process and cost for an upgrade of the system should it be required?

- What is the speed and ease of implementation of the system?
- What type of implementation assistance is available and what is the cost?
- What is the type of information needed to use the system?
- Is this information available?
- What is the speed and ease of maintaining the system?
- How user friendly is the system?
- Is the system able to import/export information to other systems? If so, what format?
- Can this system link/integrate with the financial systems used?
- What are the costs associated with application integration?
- What training is provided for the system?
- Is the training part of the purchase price or a separate cost?
- How many points of use (seats) are you purchasing?
- Does this software require an internal server or does the purchase make a remote server site available?
- What other hardware requirements are related to the purchase?
- What other software requirements are related to the purchase?
- What on-going technical/application support is part of the purchase?
- What on-going technical/application support is part of the maintenance agreement?
- What other technical support is available if required?
- Does the purchase price include the cost of data migration? If not, what are the costs and who does the work?
- Can the information components collected be defined by the user?
- What elements does the system include/have available (these are not all requirement but may be useful):
  - Capital reserve fund management
  - Long range planning
  - Facilities management
  - Equipment management
  - Asset hierarchy
  - Work order management
  - Inventory management
  - Issues management
  - Contract management
  - Document management
  - Purchase/requisition orders
  - Supplier management
  - Project Management
  - Standards and Safety procedures

- Analysis/Reporting
- Hazardous materials
- Preventive Maintenance Management
- Keys and Locks
- Serialized Inventory
- Fleet
- Employee Management
- Tool Management
- Budgeting
- Room Scheduling
- Space Utilization
- Sector/Region/Zone Mapping
- Utility Readings