



### Subject: **Planning and Tendering Successful Building Projects**

Other Tip Sheets and project planning assistance are available at 1-800-894-3777 or 945-0502

#### **PRE-DESIGN PLANNING**

*A building project is likely to be a major undertaking in terms of an organization's time, energy and resources. Careful planning will help ensure that the project will be affordable and that the facility involved will serve the long-term needs of the organization and the community.*

*The questions that follow are intended to help your organization evaluate its needs and to identify the different details that must be considered when undertaking a building project.*

#### **Organizational Information**

1. Are your organization's goals and objectives up to date?
2. Is your planned project consistent with these goals and objectives?

#### **Project Rationale**

1. How will this project benefit the community? How much of your community will benefit?
2. Will this project cause your facility to compete with any other facilities in your community or district?
3. Is this the first of several possible building projects which are part of an overall plan? What other projects are planned? What makes this one a priority?
4. If your project is for the repair of your facility, are these repairs required due to neglect of routine maintenance? If so, what corrective action has been taken to avoid a recurrence of the repairs?

#### **Project Scope and Facility Sustainability**

1. What other user groups in your community have facility needs which may be served by your facility?
2. What resources does your organization have to apply to the cost of this project? What sources of external funding can you count on? Does the cost of your project reflect these resources?
3. What are the estimated costs of operating and maintaining your facility once the project is completed? What use and activity-related revenues can be relied upon from all users to assist with the operation and maintenance of the facility once the project is complete? What other sources of funding can you count on to assist with these on-going costs? Are these expected resources realistic compared to the costs?

#### **PROJECT DESIGN**

*The first and most important question to be answered in any design exercise (whether building improvements or new construction) is how can you be certain that the proposed project reflects the demands of your community. If, for instance, you are planning to build a skating rink, how can you be certain that this would be your community's first project choice? Have you asked them in a reliable way such as a survey? Have you offered them a range of options from which to prioritize their preferences?*

#### **New Construction**

1. Will the project serve both present and future needs? What provisions have been made for economical future expansion if required?
2. What features must you incorporate in your facility to support the activities of the organizations and groups who will use it? Can the interior spaces be adapted for other uses?
3. Have essential service spaces been planned (for example, washrooms, kitchens, storage, mechanical room, garbage pickup)?

#### **Renovation**

If the project involves an existing building, has a building evaluation been done to determine what work needs to be done? For example:

- Repairs to increase the facility's life expectancy
- Upgrades to reduce operational costs such as improving energy efficiency
- Preservation or restoration of a heritage building
- Renovations to comply with fire code, safety regulations or with health code and sanitary standards
- Renovations to increase revenue
- Upgrades to improve the overall condition of the facility
- Renovations to develop multi-use areas

### **Other Considerations to be Addressed:**

1. Are you choosing equipment, materials and finishes for your project on the basis of economy and the efficient maintenance of the facility in the long term?
2. If you are planning to use volunteer and/or donated resources in the undertaking of your project, have you investigated the availability of insurance for your volunteers, site, materials, tools/equipment, third parties and building? (Some local governments will allow community projects to be included under their blanket coverage policy.)
3. If you intend to act as your own "General Contractor" by subcontracting to others or by doing the work yourselves with the use of volunteer/donated resources, do you have a competent and experienced construction project manager to manage the project?

## **PROJECT TENDERING & MANAGING**

***Trying to compare contractors' estimates is often like trying to compare apples with oranges. When organizations that manage their own construction projects fail to define their project to contractors in sufficient detail, discrepancies between various contractors' tenders are inevitable. Worse yet, when contractors are given a free hand to design / define the project in their own fashion, organizations can be left with a project which falls short of their expectations or which exceeds their financial abilities.***

***Tendered contracts are, when properly managed, the least expensive and the most reliable way to undertake a contracted project. A properly managed tender is one which describes the project in sufficient detail so as to ensure that all contractors understand the requirements similarly and comprehensively and that their subsequent bids (or tenders) reliably reflect all of the requirements of the project. If each contractor who is bidding on your project is left to define the project for themselves each will be bidding on what is essentially a different project and none of them may particularly reflect your needs and vision. Subsequent comparison of these dissimilar bids will of course be all but impossible.***

Tendering and managing a construction project is an administrative exercise which relies on comprehensive attention to detail in defining your project and rigorous management of the tender and contract documents. The three principal documents are (in sequence of steps):

**THE DRAWING** which is the first and most definitive tender document. Proper drawings include:

- ① floor plan
- ② site plan
- ③ electrical / lighting plan
- ④ mechanical / heating / ventilation plan
- ⑤ exterior elevations (illustrating exterior features and finishes)
- ⑥ cross sections (or cut away) illustrating construction configuration(s) from footings to roof ridge

Extra attention to labelling these drawings will ensure that the project reflects your preferences and will minimize the potential for undefined elements of the plan being hastily resolved while under construction, often with unsatisfactory results and at increased cost.

**INSTRUCTIONS TO BIDDERS / SPECIFICATIONS** form the second document. Specifications define how business between the contractor and client will be conducted. Your organization (and those acting for your organization) will need to discuss the following issues and render your preferences and expectations into the tender instructions to bidders / specifications:

## Statements in your specifications should address these issues:

- **building permits** - decide who (that is, your organization or the contractor) will be responsible for:
  - obtaining and paying for building permits.
  - ensuring that everything required for an occupancy permit and code compliance is included in your tender.
  - obtaining and paying for engineering if it is required to obtain a building permit.
- **authorization of changes** – identify who will be acting for your organization to authorize changes during the course of the project. Proposed changes should be identified on the drawings and any approved changes will require an adjusted payment schedule to the contractor.
- **adjustments to the project cost** – make an explicit list of items which may be considered for extra billing under specified conditions (for example, inadequate subsoil bearing capacity) and define the contractor's responsibility for items which should have been foreseeable at the time of tendering (for example, code or standards non-conformance, zoning, etc.).
- **good neighbour issues**
  - stipulate the acceptable hours of work that will minimize disruption to other facility users.
  - identify who is responsible for site cleaning and how often and to what extent the site will be cleaned.
  - identify who will be responsible for rectifying any damage resulting from construction activities.
  - confirm where construction material and equipment will be stored.
  - decide whether the contractor is responsible for salvaging any assets or materials and, if so, where and how will they be stored.
- **warranties** - specify the warranty you require on the performance of the facility or some detail therein (for example, energy consumption will be less than \_\_\_\_\_, roof will not leak for \_\_\_\_\_ years, ventilation rates will meet prevailing ASHRAE standards, building will be NRC National Energy Code compliant etc.).
- **payment schedules**
  - link payments to an inspection and approval schedule based on construction quarter points or other project stages and specify payment turnaround time.
  - identify who, representing your organization, will conduct inspections and approve the contractor's work.
  - specify a completion date and any penalties that may be levied for failure to meet completion schedules.
- **insurance / bonding**
  - establish the mechanism the contractor will offer to indemnify the organization from claims by suppliers and subcontractors.
  - stipulate that the contractor must have insurance to cover the site, equipment, materials, workers and third parties and establish who is responsible for site security.
  - confirm the contractor's bid and/or performance bonds to guarantee acceptance of contract and satisfactory completion.
- **operations / maintenance manual** – stipulate that literature accompanying all equipment installed (operations manuals, manufacturer contact information, warranty, etc.), is to be packaged in a facility operations and maintenance manual and provided to your organization at the end of the project.

**Contractor selection** – Discussing your plans and specifications with prospective contractors will allow your organization the opportunity to refine your instructions to bidders / specifications to ensure that your requirements can be met by the qualified contractors who will be tendering for the project. Discuss each of the questions posed above with your prospective contractors (a committee of your organization rather than any one individual will accomplish this best), and ensure that your instructions to bidders fairly reflect your requirements. This process may also identify planning deficiencies before they become points of contention (and extra cost) when identified during the course of construction.

**THE CONTRACT** is the third step once tenders are received and a contractor selected. Don't do business on a handshake! Ensure that the selected contractor has clearly understood and committed to the conditions set forth in your instructions to bidders. Prepare the contract documents yourself for the contractor's signature, don't leave it up to the contractor. Send a draft copy to your lawyer for review prior to signing.

Professionally designed, tendered and managed projects typically offer fewer surprises and a more predictable finished product than self-managed projects, however many organizations choose to design, tender and manage their own projects either in an attempt to save professional fees or because professional design and management is sometimes seen as excessive. It has often been demonstrated that professional design, tendering and management may in fact result in lower project end-costs (even including professional fees) than self-managed projects. A do-it-yourself approach to project design, tender and management can be a rewarding experience for an organization both financially and experientially *if it is rigorously administered* however the process of construction design, tender and management is time consuming and complicated. The risks are high because the costs are perhaps the largest costs an organization will ever face and there are many organizations that ultimately regret their decision to self-manage. If your self-management experience is to be a positive one, it will be because you have attended to the managerial, administrative and contractual details that others, whose self-management experience was negative, had probably ignored.

For your guidance, the following **sample** costing sheet is provided as an example of a practical form that addresses many of the issues discussed above