

# Lifecycle Planning for Cultural Infrastructure:

An Overview of Municipal  
Approaches and Advice

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## **Lifecycle Planning for Cultural Infrastructure: An Overview of Municipal Approaches and Advice**

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*Abstract:* This paper provides an overview of policies and practices that address planning for, and management of, cultural infrastructure lifecycles. A discussion of why lifecycle planning for cultural facilities and spaces is more complex than lifecycle planning for other public infrastructure is followed by an exploration of the pros and cons of using standardized guidelines versus site-specific guidelines developed for a particular location or cultural facility. The final section summarizes key recommendations for lifecycle planning of arts and cultural infrastructure.

*Résumé:* Dans ce survol des pratiques et politiques en matière de planification et de gestion du cycle de vie des infrastructures culturelles, les auteurs font une analyse des particularités inhérentes à ce genre de planification pour expliquer pourquoi elle est plus complexe que celle de toute autre infrastructure publique. Ils évaluent ensuite les avantages et les inconvénients liés à l'utilisation de principes directeurs normalisés au lieu de l'utilisation de balises adaptées à un lieu ou à un espace culturel spécifique, et ils proposent diverses recommandations concernant la planification du cycle de vie des infrastructures culturelles et artistiques.

The lifecycle of a cultural facility or space is the period between its construction and, after it has served its maximum lifetime, its dismantling. Lifecycle planning is important to numerous participants involved in municipal arts and culture because, left unattended, any facility or cultural space naturally decays and depreciates over time. For the city, as well as for cultural organizations, lifecycle planning realistically envisions all the potential future costs of a new facility or realistically foresees the costs of running an older or rehabilitated facility, so that unexpected financial demands are not incurred over years of operation.

The purpose of this paper is to provide a summary and overview of, primarily, Canadian policies and practices that address planning for, and management of, cultural infrastructure lifecycles. Part One discusses why lifecycle planning for arts and cultural facilities is more complex than planning for other public infrastructure. Part Two explores the two predominant lifecycle planning models for cultural facilities in Canada: generalized frameworks and site-specific models. Part Three summarizes the main recommendations about how to plan for the lifecycles of arts and cultural infrastructure. This information is based on a preliminary scan for resources on this topic, and suggestions and contributions from members of the Creative City Network of Canada. See also the companion resource list on Cultural Facility Lifecycle Planning and Management ([www.creativecity.ca/cecc/publications](http://www.creativecity.ca/cecc/publications)).

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This paper does not review larger policies and planning frameworks developed to guide cultural facility development more broadly. For information on emerging cultural infrastructure planning frameworks, see the web-published materials of the *Making Space for Culture: Planning Cultural Infrastructure* pre-conference of the Creative City Network National Conference (Toronto, October 18, 2006): [www.creativecity.ca/cecc/events/preconference-2006.html](http://www.creativecity.ca/cecc/events/preconference-2006.html).

## **Part One: The nature of lifecycle planning for cultural facilities**

A general search for the term “facilities management” reveals ample journals and books on the topic, such as the *Journal of Facilities Management*, *Journal of Facilities Management in Africa*, *Facilities Design and Management*, *Journal of Property Management*, and the *Journal of Performance of Constructed Facilities*. Most business ventures incorporate some sort of short- or long-term planning around the space that their venture does or will occupy; however, articles and books argue that business often neglects to plan for facilities management. Focused on immediate concerns, they fail to recognize the inevitable annual depreciation and degradation of their business’ building, space, or facilities (Nonprofit Finance Fund, 2000). The cost of upkeep can occasionally be unexpectedly high, especially when some components (such as plumbing, heating, roofs, or windows) reach the end of their natural lifecycle.

Although the topic of facilities management may seem straightforward and simple to arts and cultural planners, the reality is that their task is significantly more complex (Nonprofit Finance Fund, 2001). With an abundance of planning guidelines for “general” facilities management, it may seem simple to dip into these resources and model planning off established standards, but the following three examples illustrate the major differences that define cultural infrastructure as unique from other public infrastructure:

1. Unlike general office space, cultural facilities often take much more “beating” as host to physically wearing activities such as dance, the use of art studio equipment, and the installation and dismantling of frequently changing exhibits and stage sets. Park spaces used for festivals, performances, and other cultural activities experience similar wear (Poulin, 2002).
2. While many public facilities only require standard maintenance systems, cultural facilities such as libraries, museums, and art galleries often require elaborate temperature and humidity control systems to preserve their collections (Waller, 1995).
3. General standards may also be difficult to apply to the specific category of “heritage facilities” – maintained as heritage sites or frequently re-used as the home of arts and cultural organizations. Whereas business facilities may wish their space kept “like new,” citizens may wish to keep the state of heritage facilities somewhere between “upkeep” to preserve the original beauty and “aged” to respect the natural degradation process of the place (Lai & Ho, 2003). Heritage facilities may also require more costly and detailed restoration processes as well as repairs over time—something for which standardized guidelines may not account (Nonprofit Finance Fund, 2001).

The *Cultural Facilities Study Summary* published by the Nonprofit Finance Fund (2001) argues that one of the major problems with cultural facilities planning is a lack of the multiple types of knowledge required for the long-term success of a cultural facility. The paper argues that architects often have the artistic and engineering knowledge to design a space but not the practical knowledge needed to envision a venue’s wear and tear. Cultural facility operators may have knowledge of the arts, but often lack the business or construction savvy to budget and plan for structural repairs. The report argues for the

necessity of a pre-construction lifecycle plan, which considers information from the various experts in order to plan for the long-term success of a given place.

Because of the variations and complexities of arts and cultural facilities, general facilities management guidelines for standard industries and businesses are not easily transferable.

## **Part Two: Approaches to cultural facilities lifecycle management**

The majority of cultural facilities lifecycle management plans can be divided into two general models:

1. **Standardized guidelines** may be applied to more than one general type of facility (for example, theatres and libraries) and may be used in more than one city or community.
2. **Site-specific guidelines** are researched, discussed, and designed specifically for one unique location or cultural facility.

### **1. Standardized guidelines**

The “generalizing” approach is often a post-hoc attempt to make the complex process of cultural facilities management more streamlined and efficient. For instance, the City of Ottawa has developed a worksheet containing a general equation to determine the cost over time of cultural facilities upkeep for cultural organizations that are budgeting their expenses (for example, 1.2% per annum of total cost of facility). Pierre Jolicoeur developed a much more complex document for the City of Ottawa that details the policy and guidelines for cultural facilities applying for a capital works improvement grant. These guidelines, meant to streamline the grant application process, also inevitably influence the method by which cultural organizations budget for their long-term facilities upkeep. The guidelines include detailed lists of general facilities repair categories such as: general, preventative, and deferred maintenance; repair work and capital repair; and lifecycle renewal, total asset replacement, and capital rust-out. This vocabulary may offer helpful insight to cultural organizations in determining the inevitable stages of cultural facility lifecycle degradation and maintenance needs.

A realm of research that has recently influenced the standardized approach to facilities lifecycle management is risk management studies. The influence of this research, which is most prominent in the United States, involves imagining potential degradation and decay, and planning for it in advance so as not to be taken financially off-guard in the future. A quote from Robert Waller illustrates the difference between the pre- and post-construction facilities management ideology of risk management for facilities lifecycle planning:

This work is a departure from the traditional focus of conservation on monitoring of collection condition. Such reporting can identify some types of current progressive damage and, over time, might clearly demonstrate continuing damage and loss. Information from these surveys can provide some guidance for planning the preservation activity of an institution. It is, however, often too little information too late for preventing damage or loss. Forecast risk, rather than measured damage to property, is the appropriate measure to manage the preservation function of a museum. Measurement of collection condition over time will provide verification (or not) of the efficacy of the preservation function, but it does not by itself provide sufficient information to monitor or plan the preservation function. (Waller, 2002)

## Pros and cons of standardized guidelines

**Pros:** The standardized guidelines are helpful to cities and municipalities because they help streamline application processes for capital repair and renovation funds. Often constrained for time and funding, cultural organizations also benefit from standardized guidelines. These guidelines may become general administrative forms that help cultural organizations plan their budgets more knowledgeably and securely while saving time for their actual operations, practice, and performances.

**Cons:** The problems surrounding standardized guidelines relate to the diverse needs of cultural facilities. As previously mentioned, theatres have different requirements from libraries or heritage sites and it would be difficult to devise one general lifecycle management plan for all types and forms of cultural infrastructure.

## 2. Site-specific guidelines

Most site-specific facilities management planning occurs shortly after the construction of the building. This is when the facility operator begins to recognize early structural problems, as well as the specific and unique user needs of a given arts or cultural facility.

An industry report on cultural facilities in the U.S. by the Nonprofit Finance Fund emphasizes the need for site-specific and activity-specific facilities management plans, especially in the arts and culture sector. These plans must be supported by relevant, site-specific data. The organization notes that in light of a “complex and diverse facility inventory,” a city needs to acquire relevant condition data that goes beyond “a generic re-investment profile for building lifecycle renewal.” In particular, heritage facilities and parks “limit the application of generic data and increase the dependence on validated condition data” (Nonprofit Finance Fund, 2001, p. 18).

Due to the high cost of site-specific facilities management plans, this model is most often popular with large anchor venue design and planning but not with smaller facilities. Large venues and facilities can afford the cost of a site-specific lifecycle assessment, whereas smaller ones generally cannot and plan on a much shorter term. Many references, however, argue that no matter the size of a given venue, site-specific cultural facilities lifecycle plans are necessary and important. Many large anchor facilities in major cities in Canada and elsewhere have included site-specific pre-construction planning to facilitate envisioning long-term expenses, for example, the Vancouver Art Gallery, the Museum of Modern Art’s temporary exhibition facility in Queens, New York, and the Fresno Metropolitan Museum in California (Vancouver Art Gallery, 2004).

The Town of Whitchurch-Stouffville in Ontario is a smaller municipality using site-specific planning for a proposed anchor cultural complex in the town’s centre. In the process of planning for this facility, the town plans to conduct pre-construction research to flesh out “the order of magnitude of the capital cost of facility construction and site development” (*Municipal Cultural Policy*, 2006, p. 9). This process helps the town achieve its official community goals of being financially accountable, responsible, and transparent.

On this note, the site-specific approach to cultural facilities management is also directly connected to towns and cities that are developing and adopting an Official Community/City Development Plan (OCDP) which strategically aligns the economic, environmental, social, and cultural values and principles of their town or city. OCDPs often, therefore, carry economic as well as social visions through arts and culture plans, which in turn reflect the manner in which local arts and cultural facilities are planned, developed, budgeted for, and managed.

In 2006, the Town of Whitchurch-Stouffville published an arts and cultural plan that included the devising of facilities management frameworks for new or potential facilities. Although these frameworks are not yet developed, the goal is that they not only facilitate the planning of future facilities (like a new cultural complex), but that they also tie in to two of the town’s key strategies and goals as outlined in their OCDP: to uphold fiscal stewardship and management, and to assure balanced growth and community sustainability. Under “fiscal stewardship and asset management,” the town aimed to establish a “[s]ustainable long term fiscal plan for all infrastructure and buildings; [and] [l]ong term asset management and infrastructure planning, including adequacy of reserves” (*Corporate Strategic Plan*, 2006, p. 4). The new arts and culture plan carried through these aims and states specifically the need to plan—through the Department of Leisure Services—for arts and cultural facilities management.

The Municipality, through the Department of Leisure Services, should annually prepare a life cycle costing “plan” regarding the on-going maintenance, renovation, conservation, and replacement of the existing municipal cultural facilities. This should include the identification of the financial resources to fund the required works at the appropriate time. (*Municipal Cultural Policy*, 2006, p. 9)

The Spruce Grove Agrena plan illustrates another site-specific plan that emerged from and was influenced by the larger efforts of the regional governance. The City of Spruce Grove, Alberta, recently developed a facilities management plan for their agricultural arena (the Spruce Grove Agrena) soon after the earlier structure began to show natural signs of wear. Their assessment aimed to “assess the present condition of [the] infrastructure conditions at any specified time, estimate when the infrastructure requires replacing and provide a schedule of future maintenance, repair and rehabilitation activities, including cost, to optimize the level of service while minimizing life cycle costs” (Bearden & Kardun, 2003, p. 1 of Executive Summary – Purpose). This site-specific lifecycle management plan was spurred by a more general and more encompassing infrastructure asset management assessment conducted in February 2006 for the larger county of Parkland, of which Spruce Grove is a part. The adoption by a city, town, or region of facilities management initiatives often has trickle-down effects in the management style and methods of smaller local arts and cultural facilities.

### **Pros and cons of site-specific guidelines**

**Pros:** The obvious benefit of site-specific planning is the drafting of a more comprehensive operating and budget plan that addresses the specific needs of the given facility. This in turn may foster the potential benefit of longer-term financial savings for the given facility. By planning in detail for the specific needs of facilities, organizations do not incur unexpected operating expenses.

**Cons:** The major problem with this type of plan is the potential initial cost of contracting an appropriate company or expert to devise it. For this reason, it is mainly large, established cultural organizations—or those facilities owned and supported by the city—that can afford site-specific facilities management planning.

## **Part Three: Advice and recommendations for cultural facilities lifecycle planning**

The following list of recommendations is compiled from a review of Canadian cities and communities that are currently performing lifecycle planning, or which are anticipating such planning in the near future. This advice is derived from and may be applied to both cultural and non-cultural facilities.

### **Suggestions for building**

- Weigh the costs and benefits of using higher cost materials to extend the lifetime of the building versus using cheaper materials resulting in a shorter lifetime.
- Explore grant opportunities for green and sustainable design and building materials in order to decrease construction costs and long-term capital costs.
- Consider the potential of the facility to have a changing demographic, and design for malleable space.
- Consider construction that uses modular parts that can be removed and replaced cheaply and easily, rather than built-in custom components.

### **Suggestions for operating**

- Weigh the cost of risking later unexpected facility expenses against the cost of spending money to devise a pre-construction facility management plan.
- Plan for strategic asset management reviews (periodic, long term, and recorded).
- Plan for condition audits to ensure that site lifecycle projects are documented and implemented in accordance with stated priorities.
- For heritage facilities, conduct special restoration reviews to ensure conditions also reflect stated priorities and heritage value.

### **Suggestions for policy**

- Determine clear definitions for different types of facilities repair for bookkeeping purposes and to facilitate capital grant applications.
- Draft or support policy that enables municipal funding for facilities management guidelines to facilitate emerging arts and cultural organizations that desire to develop permanent space in the future.
- Draft cultural and arts facilities policy that recognizes the specific needs of these structures. Base policy on general and specific post-construction reports done by city cultural and arts facilities.

### **Suggestions for data keeping**

- Assessment does not need to be costly. Gather continual information about the validated condition of the building from the users and operating staff of the facility.
- Various computer programs (asset management systems) exist to catalogue the annual state of cultural infrastructure (e.g., the City of Ottawa Asset Management System, or COAMS, and facilities asset databases developed by RTI International).
- Collect information from other arts and cultural facilities in the region to determine the affect of climate on the external lifecycle of the building.
- Gather information and knowledge from multiple sources: practicing artists and performers, arts administrators, architects, facilities managers, financial consultants, etc.

## In closing

Policy and practice provides ample recommendations of how to plan for the lifecycle of arts and cultural facilities. There exist many differences, however, between general facilities planning and cultural facilities planning. Arts and cultural facilities often require site-specific plans because of the unique services offered by the space, but these tailor-made plans can be costly and time consuming. Cities may opt to devise a general lifecycle planning framework that reduces the planning costs for arts facilities, but the general nature of these plans may not foresee all the nuances and specific needs of these locations. Cultural facilities lifecycle planning is a challenge that involves weighing costs and benefits, and short and long term planning.

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*This list only includes sources cited in this paper. Additional documents were also submitted and reviewed. See, also, the companion resource list of guidelines and tools related to Cultural Facility Lifecycle Planning.*

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## Creative City Network of Canada

*Transforming communities through culture*

The Creative City Network of Canada is a national non-profit organization that operates as a knowledge-sharing, research, public education, and professional development resource in the field of local cultural policy, planning and practice.

Through its work, the Creative City Network helps build the capacity of local cultural planning professionals—and by extension their local governments—to nurture and support cultural development in their communities. By doing so, the Creative City Network aims to improve the operating climate and conditions for artists and arts and cultural organizations across the country, and the quality of life in Canadian communities of all sizes.

The members of the Creative City Network are local governments across Canada.

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1. The state of cultural infrastructure in Canadian cities and communities
2. Culture as the fourth pillar of community sustainability
3. Culture in communities: Cultural systems and local planning
4. The impacts of cultural infrastructure and activity in cities and communities

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