

Heritage Conservation 101

Decisions about any conservation intervention on the character-defining elements of an historic place require sound, cautious judgment to protect its heritage value. It is important to engage all relevant stakeholders to balance potentially conflicting requirements. Conserving an historic place involves careful consideration of applicable laws, bylaws, policies and guidelines. These vary according to the type of historic place, its location and the objectives of those involved in its conservation.

The Regulatory and Policy Contexts

This section provides advice on how to approach heritage legislation, policies and guidelines as well as codes and standards related to health and safety, and accessibility. It also provides guidance on integrating social, economic and environmental sustainability considerations, including the application of environmental assessments. The emphasis on consulting the appropriate authorities, experts and other stakeholders is developed further in the next section: Who to Involve and When.

Heritage Legislation, Policies and Guidelines

The context of heritage conservation is built on the formal recognition or designation by a local, provincial, territorial or federal authority of the heritage value of an historic place. In addition to national designations such as National Historic Sites of Canada, all provinces and many local governments in Canada have legislation related to heritage conservation. As a result, heritage designations may exist at any of these levels. As indicated in Chapter 1 of the *Standards and Guidelines*, the designation process should eventually lead to creating a statement of heritage value, such as a Statement of Significance (SoS). To find out if a building or site has been formally recognized, start by checking the Canadian Register of Historic Places (www.historicplaces.ca) and contacting local heritage authorities.

Even when a historic place has already been evaluated and recognized, its archaeological potential may remain unknown. Archaeological investigations may be required before beginning project work to assess a place's potential archaeological value. A permit or license is necessary to conduct archaeological investigation. All Canadian provinces and territories have legislation that protects archaeological sites to varying degrees. This legislation expresses the need to protect archaeological sites from damage and destruction and to allow an expert (a qualified archaeologist) to investigate the site's significance. For more information, consult the Introduction to section 4.2, *Guidelines for Archaeological Sites*.

In the context of a specific heritage designation, other conservation documents may be consulted, including international conservation charters that provide direction on subjects such as recent, industrial or vernacular heritage. These documents will complement the approach defined in the *Standards and Guidelines* while providing guidance for specific applications.

Codes, Standards and Other Legislation

Federal and provincial codes and standards apply to all structures that are part of buildings but also to cultural landscapes, engineering works or archaeological sites, and related disciplines (architectural, structural, mechanical, electrical, environmental, etc.). These codes were generally developed to govern new construction, additions or major renovations. They typically establish technical provisions for new design, not for existing structures. Rehabilitating an historic place for a new use, such as converting it from a private to a public place, will require complying with current applicable codes and standards.

Additional legislation that applies to historic places can include local zoning bylaws that define criteria concerning materials, massing, setbacks, density and land use. While these do not necessarily apply strictly to heritage resources, they can have a significant impact on the heritage conservation process.

In undertaking work on an historic place, it is necessary to assess what codes or regulations are applicable; what impact compliance with current health and safety codes (public health, occupational health, life safety, fire safety, electrical, seismic, structural and building codes) will have on the historic place's heritage value; and what compliance alternatives there may be. Involving the appropriate, responsible professionals, including architects and engineers, early in the planning process is necessary to ensure that the impact of codes is properly addressed in the project's definition and options analysis. Special coordination with the proper code officials may be required. It is best to secure the required permits early in project planning. As well, it is often necessary to look beyond the code requirements; most modern codes allow for alternative solutions and reasonable variance to achieve compliance. Because codes and standards are updated regularly, it is important to ensure that the most recent versions are used.

Concerns with structural performance or safety are frequent in the condition assessment of historic places and can lead to significant, sometimes inappropriate, interventions. (See section 4.4, Guidelines for Engineering Works)

Certain health and safety considerations identified in building codes are often encountered in historic places. Some historic materials (insulation, lead paint, etc.) contain hazardous substances. Following careful investigation and analysis, some form of abatement may be required. All workers involved in encapsulating, repairing or removing known hazardous materials should be adequately trained and wear proper protective gear. Finally, preventive maintenance plans for historic places known to contain such materials should be developed and include warnings and precautions.

Providing universal accessibility is another goal of building codes that can affect the heritage value of an historic place. The impact on character-defining elements should be carefully assessed because alternative solutions can be just as effective. The solutions that best balance accessibility needs with heritage value are those that enhance the use and appreciation of a property by everyone. The objective is to provide the highest level of access with the lowest level of impact on character-defining elements. To determine the most appropriate solutions to accessibility issues, consult accessibility and conservation specialists and users early in the planning process.

Sustainable Heritage Conservation

Addressing health and safety and accessibility requirements reflect changes in public ideals and contribute to social sustainability while prolonging the life of historic places. The definition of sustainability varies, but there is a general consensus that development will be 'sustainable' if "it meets the needs of the present without compromising the ability of future generations to meet their own needs." (Gro Harlem Brundtland/World commission on Environment and Development, *Our Common Future*, Oxford University Press, 1987.) Increasing recognition that sustainability has environmental, social and economic dimensions helps us understand the potential role of heritage conservation. Developing an approach to heritage conservation that respects these principles is increasingly seen as a fundamental responsibility. In fact, in many ways, heritage conservation and sustainability principles and practices fit together naturally.

Following basic sustainability principles does not necessarily imply additional cost, especially if the cost is considered over the lifetime of the historic place. However, it is often necessary to weigh sustainability objectives against heritage conservation objectives and to make decisions that satisfy both with the least compromises. Understanding the past and current environmental characteristics and performance of an historic place is required to identify appropriate solutions. For example, before adapting or retrofitting an historic place to make it more energy efficient, the first step should be to identify and evaluate its existing features to assess their inherent energy-conserving potential, such as windbreaks, shutters or porches. Any decision to proceed with energy-saving measures should include a step where the total environmental cost of these measures is weighed against the overall environmental costs of retaining the existing features. If it is determined that retrofitting measures are appropriate, such work then needs to be carried out with particular care to ensure that character-defining elements are not obscured, damaged or destroyed. Solutions should be sought that take advantage of the inherent durability and adaptability of most historic places.

Some sustainability considerations are increasingly integrated into codes and standards. Consideration of a project's impact on the natural environment is addressed through a number of processes. Two main processes that may be required in a conservation project are environmental assessments and environmental rating systems.

Certain types of "green building" features are increasingly common. Following the long-established conservation principles of minimal intervention, using recognized conservation methods and reversibility of additions, it is important to ensure that these newer technologies are the most effective strategies. Often times simpler and less costly measures can go a long way in prolonging the life of an existing element, such as a window or a door, while improving its performance.

It is also important to ensure that proposed interventions are compatible with the historic place in terms of projected service life and maintenance needs. Refer to the explanations given in Chapter 3 for Standards 3, 10 and 12. More specific guidelines are provided in Chapter 4 for some of the most common types of sustainability-related changes that could be proposed at historic places.

Who is Involved and When

This section looks at some of the key stakeholders in heritage conservation, including owners and property developers, users and communities, professional consultants and authorities, as well as contractors, suppliers and trades people. Consultation is a critical part of the conservation decision-making process, ensuring that a transparent and open process is put in place that allows different perspectives and priorities to be considered. It is important to involve all stakeholders from the beginning of any conservation project and throughout the key phases of its development. For major projects that will affect many stakeholders, information on the project should be readily available through public information sessions, a website or a contact person.

Owners and Property Developers

Owners are critical stakeholders who should be involved in every step of the conservation process. Smaller private owners may be less aware of heritage designations and related obligations and may have concerns about potential costs. They may also have little experience with the specialized professionals and trades that might be required to maintain their historic place. Ensuring that an historic place has a socially and economically viable use is crucial to maintaining interest in its ownership.

Property developers are another important group to consider. For historic places that have been without a use for some time, developers can play an important role in creating a context for renewal. Some can provide expertise on cost analysis and experience in project management. Others may have limited experience with conservation issues and may expect high costs related to unknown risks. The vision of developers who do have experience in redeveloping historic places can help foster the creativity required to manage the challenges of conservation work.

For owners and developers, many needs and interests will be defined by economic opportunities. Ensuring that there are adequate financial resources for conservation work is often challenged by other priorities. It is, therefore, important to develop affordable conservation plans, based on minimal intervention and maximum reuse and retention of character-defining elements.

For places that are looking for a new life, ensuring that planning restrictions do not unduly limit the proposed use is important, for example, when seeking to convert a former industrial district into housing or small businesses. Some jurisdictions have developed financial incentives that encourage rehabilitation. Other financial challenges for historic place owners arise from inaccurate insurance assessments. A comprehensive risk assessment can help define practical and affordable measures to protect against fire and other disasters.

Users and Communities

Another group of critical stakeholders is the users or occupants of an historic place. The use of a place may in fact be part of its heritage value so understanding the needs and concerns of users should be a priority. Sometimes adaptation for continued use can be a challenge as organizations grow or change. Users to be considered also include staff responsible for the day-to-day decisions about care and maintenance.

Another related group of stakeholders is the broader community interested in conserving the historic place, either in itself or as part of a larger area or district. This includes local heritage and interest groups, politicians, and people living or working near the historic place or closely associated with its heritage value (such as a cultural community that is no longer involved in its present-day use). There may also be particular community members who should be consulted for their understanding of the traditional practices associated with the historic place.

Heritage conservation can provide common, collaborative objectives that reinforce the collective identity of communities and their capacity to share decision-making. A new project can also provide an opportunity to identify interested users and to increase public access to the historic place. As communities grow and their cultural identity evolves, historic places can play an important role in social sustainability.

Specialists and Authorities

Heritage conservation will usually involve a range of specialists as well as representatives from government agencies responsible for reviews, approvals, policy compliance and permits. As part of the regulatory and policy contexts explained above, specialists may include architects, engineers, landscape architects, archaeologists, historians, heritage recorders, cost estimators, property managers and others.

Some of these disciplines, such as engineering and architecture, are regulated professions in Canada. Professional licenses are issued by professional associations which are mandated to ensure public safety on behalf of a provincial or territorial government. These licensed professionals are required to know and apply applicable codes and standards which are an essential component of any project.

Authorities include planning and permit departments, city councils and government ministries, as well as groups responsible for recognizing heritage properties and assessing the impact of a project on an historic place. They may bring experience or ideas from similar projects that arose elsewhere in their jurisdiction or area of practice. Involving experienced, knowledgeable specialists at the early stages of a project is important.

Contractors, Suppliers and Skilled Trades People

Contractors, suppliers and skilled trades people also have excellent ideas about how a conservation intervention can be carried out more effectively. This is why it is important to involve them from the beginning when possible. Their selection should be based on their experience in planning and estimating conservation work, as well as their dependability and availability.

It is crucial to understand what skills are available when planning a project. There may be opportunities to use conservation projects to transfer knowledge and develop skills on site, ensuring the long-term availability of needed trades. In a related way, the specialized skills required for the ongoing maintenance of an historic place may require staff training.

Suppliers of historic materials can be a challenge to find. However, since building materials, such as stone or wood, may have been found in the vicinity of an historic place, consideration should be given to revitalizing former suppliers, representing economic opportunities for local businesses.

Applying Codes to Historic Structures

While the structural performance of buildings and engineering works, such as bridges and dams, must meet safety and serviceability objectives set out in national, provincial and municipal codes and standards, many historic structures were built before any codes and standards existed, and used materials and techniques that are no longer addressed in modern codes. However, if they are structurally sound and well maintained, these older structural systems can be made to work effectively. Structural loads and material strengths can be accurately determined in an existing structure through measurement or testing.

The National Building Code of Canada, Commentary L, describes how to apply the building code when evaluating and upgrading existing buildings. Some provincial codes also include specific sections on existing buildings. The International Organization for Standardization has published ISO 13822:2001 Bases for Design of Structures — Assessment of Existing Structures, which presents standards for assessing existing structures. The International Council on Monuments and Sites (ICOMOS) has also developed recommendations for the analysis, conservation and structural restoration of architectural heritage.

The Environmental, Economic and Social Sustainability of Heritage Conservation

The environmental benefits of heritage conservation can include:

- reducing urban sprawl by rehabilitating historic city centres;
- reducing waste and landfill from demolition;
- conserving embodied energy of existing constructions;
- reusing and recycling existing sites, buildings and materials that have a high durability; and,
- using appropriate technologies or regional and climate-adapted materials and models tested by time, such as windows sized and located to maximize use of daylight and natural ventilation.

The economic benefits of heritage conservation can include:

- reducing costs by using already developed sites;
- increasing property value through redevelopment;
- promoting the use of a life-cycle costing model that embodies a long-term view;
- developing skilled jobs that lead to long-term, equitable employment; and,
- supporting regional economies, including local materials suppliers.

The social benefits of heritage conservation can include:

- conserving diverse cultural memories and community spaces and amenities;
- conserving and building community and identity;
- providing more affordable housing and workspaces;
- providing public functions in places well-served by public transit;
- providing smaller-scale, more affordable commercial spaces; and,
- providing educational opportunities.

Environmental Assessments

An environmental assessment (EA) is a “process carried out to predict the environmental effects of proposed initiatives before they are carried out”; it should be conducted as early as possible in the decision-making process. The purpose is to “minimize or avoid adverse environmental effects before they occur and incorporate environmental factors into decision-making.” An EA will usually be required whenever there is construction within a certain distance of protected areas such as wetlands or floodplains. The need to carry out an environmental assessment is determined by the authority that has jurisdiction where the historic place is located. It is site-specific, depending on ownership, location, land use and many other factors.

It is recommended that heritage conservation stakeholders work with environment officials to investigate systems, methods, devices or technologies that are as effective as those prescribed by regulation to avoid unnecessary interventions. Many cultural landscapes have both natural and cultural values that must be protected. An understanding of the historic balance between these values is needed to develop a long-term plan.