

2024

human_space

HERITAGE

for ALL

COMPENDIUM



Introduction

Heritage for All was a three-year research project with the goal of facilitating greater access to Canada's federal heritage buildings by providing guidance with which to develop standards and implement solutions appropriate in heritage contexts.

The research was funded by Accessibility Standards Canada and led by Human Space, an inclusive design consultancy of BDP, in coordination with partners serving people with disabilities and representing heritage professionals across the country. The study focused on federal heritage buildings in Canada's urban areas and considered architectural, planning, and operational solutions.

The project was organized in three phases: an investigation phase to document federal heritage buildings and gather the perspectives of people with disabilities and heritage professionals on using and working with heritage buildings; a research phase to identify successful projects and record a range of solutions applicable to heritage buildings; and an evaluation and recommendation phase to bring solutions back to engagement groups to evaluate their success and develop recommendations intended to achieve the best possible outcomes.

This compendium summarizes the project, including engagement activities, observed solutions, and recommendations. For the full report, visit <https://humanspace.global/our-work/heritage-for-all/>.

Objectives

1. Understand barriers
2. Understand heritage designations and building typologies
3. Identify tension points
4. Engage with the disability community and heritage professionals
5. Identify design solutions
6. Propose recommendations
7. Finalize recommendations to inform the creation of standards



Building 1, Administration Building (Recognized Federal Heritage Building), Vancouver, British Columbia

Context

Despite challenges to access, people with disabilities visit heritage buildings and sites at roughly the same rate (46%) as the general population (48%). In fact, during the COVID-19 pandemic, people with disabilities were more likely (34% vs. 22%) to access online heritage content, visit a local heritage site, or attend a local heritage event. However, 36% of people with disabilities reported feeling that they did not belong in arts and heritage facilities in their communities (Arts and Heritage Access and Availability Survey 2020-2021).

Access to services and culture is a right upheld in Canada by commitment to the UN's Convention on the Rights of Persons with Disabilities and the Canadian Charter of Rights and Freedoms. All provinces and territories have similar legislation applying to their jurisdiction (Chun and Gallagher-Louisy 2018).

Canada's federal heritage buildings are governed by the Treasury Board Secretariat's Directive on the Management of Real Property which requires custodians to conserve the heritage value of federal heritage buildings and provide barrier-free access

to federal real property. Accessibility is also a theme running through the pan-Canadian framework for decision-making with respect to historic places, the Standards and Guidelines for the Conservation of Historic Places in Canada.

The objectives of achieving accessibility and conserving heritage should therefore be considered "both/and" rather than an "either/or," meaning objectives for both are important and achieving both should be the goal.

Limitations

- Heritage buildings require individual understanding, therefore potential solutions will differ between each building and site.
- The research was based on a representative sample of federal heritage buildings and case studies in a limited number of cities.
- Participants were self-selecting and may not reflect the diversity of disability in Canada.
- The report focuses on physical access solutions as those are most likely to affect the heritage character of the building.

Definitions

Definitions used for the project include the following:

Custodian – the federal department or agency responsible for managing changes to a federal heritage building.

Disability community – individuals who identify as having one or more disabilities and experience barriers to accessibility or who are otherwise familiar with the needs of people with disabilities.

Heritage building – a building of 50 or more years in age significant for its architectural, historical, or cultural value.

Heritage professional – individuals with knowledge and experience in the field of heritage conservation.

Engagement

In line with the spirit of “nothing about us without us,” engagement with people with disabilities and heritage professionals was central to Heritage for All.

Participants	Phase one survey	Phase one workshops	Phase two survey	Phase two workshops	Peer review
Heritage professionals	62	22	48	14	13
Disability community	51	17	49	20	14
Disability type					
Mobility/physical	42	2	66	9	17
Hearing	6	2	7	2	1
Vision	7	3	11	4	6
Cognitive/developmental	3	1	6	0	7
No disability	59	21	35	9	0
Unknown/no response	4	10	6	10	0
Gender					
Male	29	6	26	7	-
Female	74	16	68	19	-
Unknown/no response	10	17	5	8	-

Findings

71%

of the disability community was less than somewhat satisfied with access to public buildings in Canada

77%

of the disability community considered the heritage value of buildings to be at least somewhat important

43%

of the disability community favoured moderate change for accessibility, 30% supported significant change, and 28% preferred minor or no change

81%

of heritage professionals supported balanced change (73%) or significant change for accessibility (8%)

37%

of heritage professionals reported engaging an accessibility consultant

Common experiences

Experiences of the disability community with barriers and solutions in heritage contexts:

- **Physical effort/demand** required to use a heritage building;
- **Lack of end-to-end details** and the **illusion of accessibility** where one element may be accessible but other parts of the journey sequence were not.
- **Non-equitable experiences** and **feelings of otherness** when required to use alternative doors/routes or when solutions are not well integrated.
- **Reliance on others** when solutions were not user operable.
- **Flexibility of choice** in deciding whether to use alternative solutions, such as virtual access.



National Research Council Canada Laboratories (Classified Federal Heritage Building), Ottawa, Ontario

Attributes of successful projects

The following attributes were derived from engagement results and solutions observed at case study buildings:

- **Creativity** in working within the constraints of a heritage context. I.e. being able to think “outside the box”.
- **Balance** between conserving heritage attributes and providing public buildings that can be used by all, without compromising either priority.
- **Quality** of design, as reflected in designer’s interpretation of the building and its expression in the solution in terms of materiality, durability, etc.
- **Tools** available to overcome architectural obstacles, including lifts and elevators, ramp configurations, and accessible technologies.
- **Redundancy** to enable use when access is interrupted and **maintenance** to ensure they provide reliable access.
- Flexibility in the **codes and standards** that govern the accessibility of buildings and modifications to heritage buildings.
- **Information** provided when visiting a heritage building and staff **training** in accessible systems and procedures, including alternative modes of providing a service or experience.
- **Engagement**, particularly with people with disabilities, during the design and implementation of access solutions.

Defining success

When defining “success” in heritage contexts, participants cited the following key components:

Theme	Disability community	Heritage professionals
Prioritize accessibility by employing a universal/barrier-free design	39.7%	28.6%
Inclusivity, equitable experiences and access	19.1%	22.2%
Ability to fully participate and enjoy the heritage site	14.7%	9.5%
Access to information for people with invisible disabilities	8.8%	4.8%
Following accessibility codes and best practices and ensuring safety	8.8%	6.4%
Balance between accessibility features and preservation of heritage characteristics	8.8%	28.6%

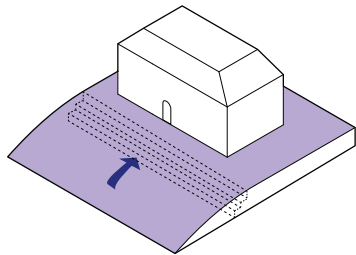
Solutions

Solutions for physical access

Entrances/Exits

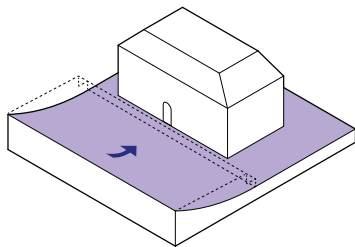
Grade change

Changes to the exterior landscape to overcome steps. The ground may be raised or lowered to meet the level of the entrance.



Raise grade to entrance level

Building up the ground surface to provide step-free access to an entrance.



Lower grade to entrance level

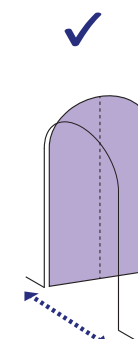
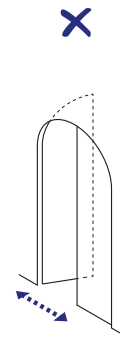
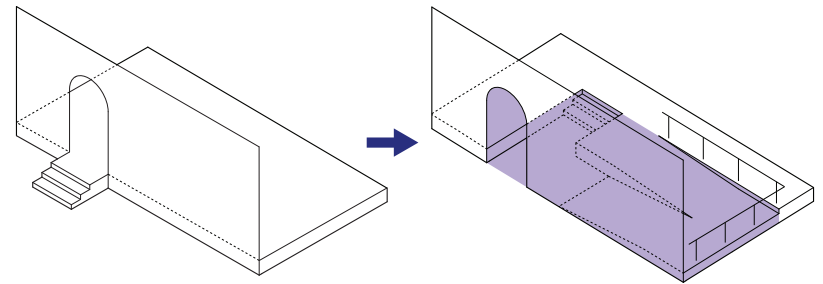
Excavating the ground surface to provide step-free access to an entrance.

Modified entrance

Changes to the location of an entrance door or modifications to the door itself.

Move the door

Moving the door vertically to eliminate steps, e.g. by bringing it down to ground level.

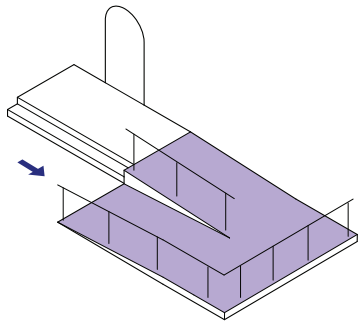


Modify the door

Adding secondary doors, joining a double-leaf door to create a wider door, widening a door, modifying a door frame, changing hardware, adding door-openers, etc.

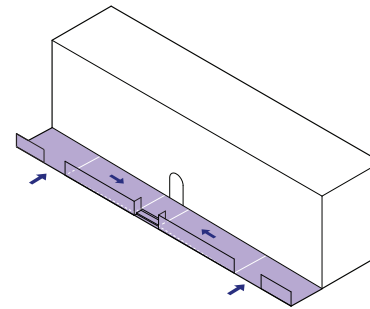
Ramped approach

The addition of ramps or slopes to existing entrances or the redevelopment of stairs to incorporate ramps/slopes.



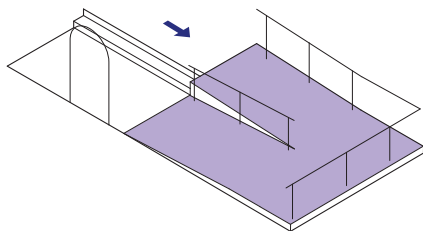
Above-grade ramp

Adding a ramp up to an entrance as a new architectural element employing compatible modern or period materials and details.



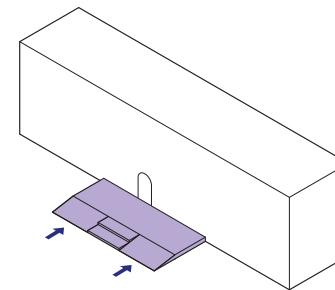
Low-profile/screened slopes/ramps

Adding a slope/ramp to an entrance with minimal visual impact.



Below-grade ramp

Adding a ramp down to a new or existing entrance as a new architectural element employing compatible modern or period materials and details.

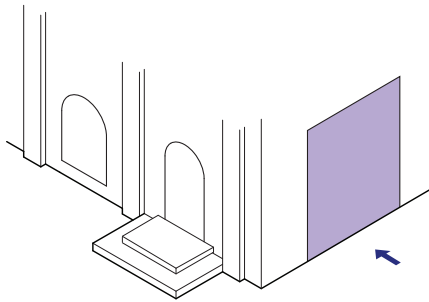


Integrated ramp/slopes

Redeveloping stairs to incorporate ramps or slopes as part of a unified element.

Alternative entrance

The creation of new common entrances or secondary, accessible entrances with the former being preferable in terms of equity.

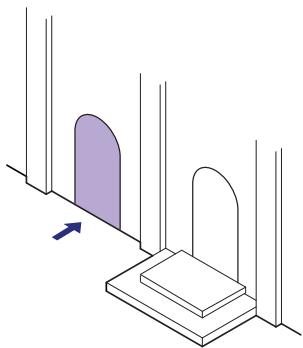


New primary entrance

Using an existing, alternative historic entrance or adding a new entrance to provide step-free access for all users.

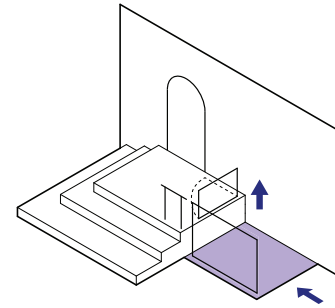
Accessible secondary entrance

Adding or adapting a non-primary entrance to provide access.



Mechanical access (exterior)

The installation of lifts that raise and lower to navigate changes in level. They may be fully or partially enclosed and should be user-operable. Due to the need to maintain lifts, non-mechanical solutions should be prioritized.

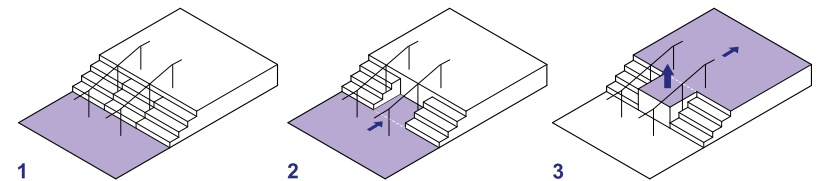


Low-profile exterior lifts

Adding a high-quality exterior lift with features and details that visually recede or compliment the heritage building.

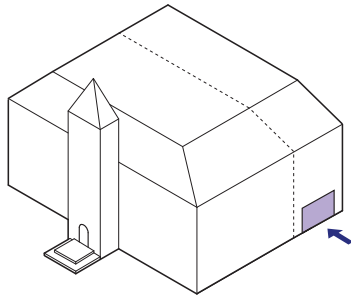
Concealed platform lift

Adding a concealed lift to overcome historic stairs. Concealed platform lifts work as stairs when not in use but transform into a lift when needed.



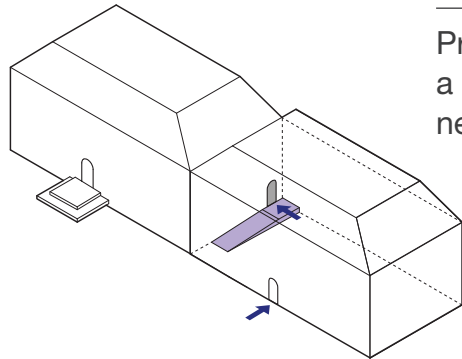
Access through external structure

The provision of vertical circulation through additions or connected buildings.



Access through addition

Providing access through an accessible extension that may be limited to an entrance or include new programmatic space.



Access through adjacent building

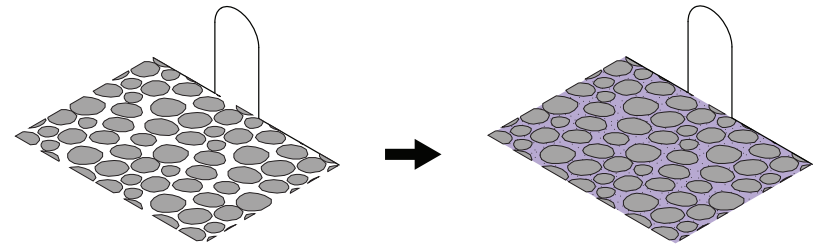
Providing access through a separate existing or new building.

Landscapes

The modification of landscapes to provide access to heritage buildings. Consideration of heritage landscapes in themselves was outside the scope of the research.

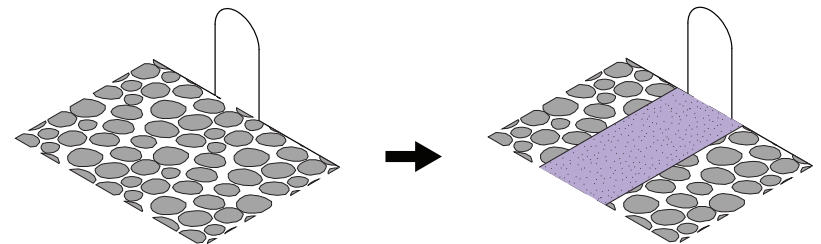
Consolidation of ground surfaces

Re-setting unit ground surfaces on solid substrates or augmenting granular ground surfaces to provide firm, level paths.



Access paths

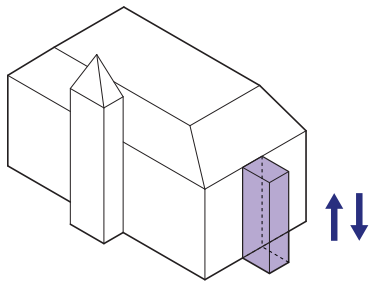
Providing dedicated paths with more accessible surface characteristics within a larger path or landscape.



Interior spaces

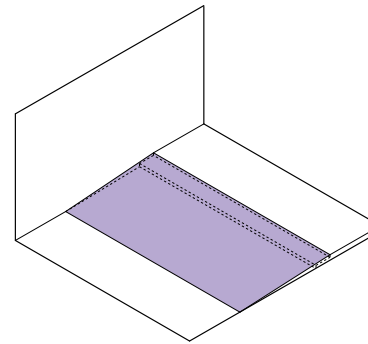
Vertical circulation

The provision of access to other floors without significant exterior change.



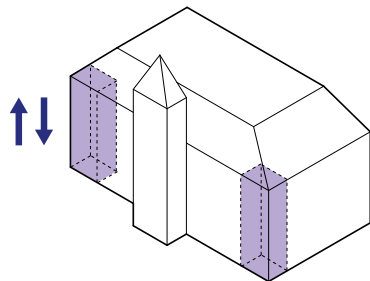
Vertical circulation outside the historic envelope

The addition of stair/ elevator towers or new amenity structures with ramps or elevators.



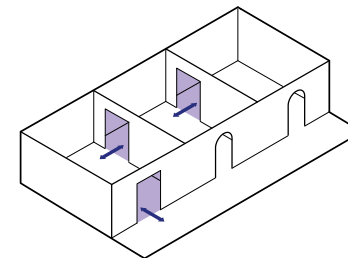
Sloping floors

The modification of interior floors to eliminate steps.



Inserted vertical circulation

The insertion of new stairs, ramps, and elevators or lifts within the historic envelope.



Cut-through horizontal circulation

The creation of new, accessible horizontal circulation routes through interior walls.

Information

Strategies for providing information to enable independent navigation of heritage buildings.

Access guide

An access guide is a form of pre-visit information, generally provided online, describing the accessibility of a heritage building. Access guides may follow a journey sequence, provide measurements for specific access features, and describe limits to access.

Programmatic access solutions

Multi-sensory access

Measures to incorporate features serving a range of senses to enable the use and appreciation of a heritage building by all.

Integrated sensory elements

Semi-permanent interventions in a heritage building to enhance multi-sensory access. Integrated sensory elements include touch models, tactile maps to aid in wayfinding, and the use of tactile flooring.

Adapted experiences

Experiences or services tailored to the needs of people with disabilities. The adapted experience will depend on the nature of the offering, such as open captioning for performances or “touch tours” for museum exhibits.

Assistive technologies

A range of technologies that may be provided on site using borrowable or personal devices.

Built-in systems

Systems provided by the custodian that require the installation of on-site hardware. Built-in systems include induction loops, audio beacons, and audio-visual displays.

App-based systems

Software provided on smartphones or tablets. Apps may be available on visitors’ personal devices but should also be provided on borrowable devices on site.

Alternative access

Measures to provide access to architectural features, spaces, or interpretive material as a stand-in for physical access.

Virtual access

The provision of audio-visual access to a heritage building or space using information and communication technology. Virtual access may be provided online and/or on site.

Operational access

The provision of access to the program of a heritage building or a space within it in an alternative, accessible venue, e.g. mobile physical exhibits or interpretation provided by trained staff.

Key recommendations

General approach and planning

Custodians shall develop an access plan specific to the heritage building that describes physical, management, and operational changes addressing all parts of the journey sequence. The access plan may be implemented in phases based on a clearly articulated timeline and shall include a schedule for review.

Creativity

Project teams shall be multidisciplinary and may include, depending on the scale of the project:

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1. Accessibility specialists;

 2. Internal accessibility staff;

 3. Architects and/or conservation architects;

 4. Building conservation specialists;

5. Architectural historians;

6. Wayfinding or exhibit designers; and

7. Landscape architects.

Balance

The value of conservation of character-defining elements must be balanced against the value of improved access for all and the right to access public services and cultural resources.

Quality

Quality may be improved through a process of negotiation between custodians, designers, heritage and accessibility professionals, and users, including people with disabilities.

Tools

All tools should be evaluated prior to implementation by end users, including people with disabilities, who may recommend provisions to improve accessibility or rejection of the tool.

Redundancy

Redundant access measures must be easily identifiable. Multiple accessible routes shall be provided where possible.

Maintenance

Where existing equipment maintenance processes are not prescribed, custodians shall establish an ongoing formal maintenance program that includes: regular inspection and testing; a reporting process for maintenance issues; etc.

Information

Pre-visit information should consider the journey sequence and include:

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- a. Arrival to the site including parking, transit, or drop-off facilities;

 - b. Entrance conditions;

 - c. Horizontal and vertical routes through the building;

 - d. Locations of facilities such as washrooms;

 - e. Notable sensory stimuli (e.g. loud noises, strong smells);

 - f. Availability of on-site mobility or technological aids;

 - g. Details on adapted tours, performances, or services;

 - h. Emergency provisions; and

 - i. Contact information for knowledgeable staff for additional information or to arrange accommodations.

Staff training

In heritage buildings providing services such as interpretation or performance, the concept of staff training should be extended to the provision of adapted tours or performances.

Codes and standards

Custodians shall apply better practice standards for accessibility in the built environment, such as *CSA B651*, to the greatest extent possible.

Engagement

People with disabilities shall be involved in the decision-making process, particularly regarding the: use of new tools or technologies; decision not to make parts of the heritage building accessible; and implementation alternative solutions, such as virtual experiences.

Alternative considerations

Custodians are encouraged to provide alternative methods for experiencing heritage buildings:

-
- a. In addition to on-site measures and physical access solutions; and

 - b. As interim measures while physical access solutions are implemented.

Documentation and review

Custodians shall establish a review process for the accessibility strategy and conduct periodic reviews to evaluate its performance against objectives, current standards, and user expectations.

Case Study 1

Colonial Building

Location: St. John's, NL, Canada

**Architects/consultants:
EVOQ Architecture, Stantec,
Department of Transportation and
Infrastructure**

Year completed: 2022

The Colonial Building is a Neoclassical stone building with a T-shaped floor plan and wide steps leading to a raised entrance. It was built in 1847-50 in St. John's, NL, where it served as a legislature until 1959. The province restored the building in 2009-22 to interpret its political history. The front of the building is divided into offices and the rear into two large chambers with galleries. A split staircase provided the only means of reaching the left and right sides.

A relatively small floor plan precluded the insertion of an elevator, and it was decided early on that a lift would be added in a corner of the "T" and a lower side door would be the main entrance.

Programming was oriented to this entrance, with tours progressing to the lift and nearby staircase where visitors go together to the main floor. A passage was opened between the left and right galleries to provide step-free access to the entire upper floor. On the exterior, the lift is clad in stone that matches the heritage building.

Key takeaways

- An alternate entrance, aligned with interior services, is now the main entrance for all visitors.
- A new opening provides level access between two sides of the upper level for the first time.
- Interventions reference historic details while remaining identifiable to the trained eye.



The front portico was conserved and the public entrance relocated.



An existing side door, near accessible parking, is now the entrance for all.



The lift (left of centre) uses materials of the existing building with subtle modern details.

Case Study 2

National Assembly of Quebec

Location: Quebec City, QC, Canada

Architects/consultants: Provencher Roy, GLCM Architectes

Year completed: 2019

The National Assembly of Quebec is a Second Empire Gothic stone building built in 1877-86. It is characterised by a massive, symmetrical façade with mansard roofs, a central tower, and a pair of curved stairs leading to a raised entrance. A significant project to expand visitor facilities was completed in 2019 when additional levels were inserted below the raised base of the building and courtyard. On the surface, a small set of steps on one side of the courtyard and a curved ramp on the other descend around a circular skylight to the new entrance.

On the interior, ramps and elevators descend further into the site while connecting to new amenity spaces, including a restaurant and gift shop,

as well as to a tunnel to the heritage building. Interior treatments for new spaces are modern with bold colours and geometric forms contrasting the more organic existing building. A vertical circulation tower in the central courtyard provides access to the heritage building except for two mid-levels only accessible by stairs or a service elevator.

Key takeaways

- A new common entrance serves all visitors. Collocated ramps and stairs provide access to most facilities.
- Burying new facilities beneath an existing landscape minimized their impact.
- A long, curved ramp provides a level of redundancy with a nearby elevator, but lacks landings and ramp features.



New facilities were added below historic stairs with minimal visual impact.



A spiral ramp under the stairs descends to visitor amenities.



A new stair and elevator were inserted in the building's courtyard.

Case Study 3

14 Henrietta Street

Location: Dublin, Ireland

**Architects/consultants:
Shaffrey Architects**

Year completed: 2017

14 Henrietta Street was built in the 1740s as a townhouse and eventually served as tenement housing for over 100 residents. Today, it operates as a social history museum interpreting urban life in Dublin. City Council restored and adapted the building from 2006-17. A subtle stone ramp and black metal handrail were added to the front of the house, taking advantage of a street slope to provide a gentle rise, however a small landing requires visitors using larger mobility devices to use a temporary ramp or an accessible rear entrance. The latter was intended to be the primary entrance for visitors with disabilities, however staff have prioritized the front as the more equitable option.

At the rear, a new structure provides step-free entry, vertical circulation, and washroom facilities. Window openings were used to connect the addition to the house. While modern in detail, the addition makes use of materials that match but remain distinct from the heritage building. The museum's website provides pre-visit information and staff are trained in universal access.

Key takeaways

- 14 Henrietta Street itself is part of the museum, calling for a high level of conservation.
- Redundant access is provided by a front ramp and rear entrance.
- Accessible vertical circulation and services are provided outside the historic house in a distinct but referential addition.



The building is fully attached with a small setback from the sidewalk.



A fence and low wall were cut to provide ramp access to the front door.



A rear elevator reaches all public levels but not upper staff areas.

Case Study 4

Manitoba Legislative Building

Location: Winnipeg, MB, Canada

Architects/consultants: Bridgman Collaborative

Year completed: 2007

The Manitoba Legislative Building is a large, classically inspired stone structure completed in 1920 as Manitoba's centre of government. It is characterized by a monumental portico, a three-sided set of steps to the doors, the use of Tyndall limestone, and a high degree of symmetry. In 2007 a project was undertaken to provide step-free access to the front entrance. A new ramp is physically separate but visually tied to the heritage building using similar materials. While the ramp is asymmetrical, the scale of the building and the ramp's material similarities limit its visual impact.

Despite the use of period materials, the ramp is distinctly modern with a cantilevered, geometric form, generous dimensions, modern handrails, and a spacious landing. These elements

add a new layer of interpretation to the heritage building. Subsequent phases saw the floor and fixtures of the legislative chamber modified to enable step-free use of the upper and lower levels. Washrooms were reconfigured to provide gender-neutral and universal options.

Key takeaways

- Expansive grounds enabled the addition of a substantial ramp. The size of the building reduces its visual impact.
- Matching stone and guardrails blend the modern addition with the existing building. A gap visually and physically separates the ramp and steps.
- The ramp represents a distinct layer on the existing building, celebrating the act of approaching the legislature.



The large stone building is set in expansive landscaped grounds.



The ramp extends over the historic stairs without touching them.



The journey for all visitors begins and ends at the same place.

Case Study 5

Institution of Civil Engineers

Location: London, UK

**Architects/consultants:
Feilden+Mawson**

Year completed: 2016

The Institution of Civil Engineers (ICE) is a steel-framed building with a stone façade completed in 1919. It is characterised by a central portico, large arched windows on the main floor, and tall rectangular windows between columns above. The building is located on a street corner in a dense urban area with little space between it and the sidewalk. Altering the portico and covering adjacent basement windows were ruled out in favour of mechanical access. The width of the steps and the project budget enabled consideration of a custom lift.

The solution, a convertible concealed platform lift, is hidden beneath a set of steps on one side of a centre handrail, its presence indicated by seams in the steps and a call button on one side. Once pressed, an attendant prepares the lift for

use. The steps retract, an upper landing guard and platform controls emerge, and a wheel stop rises around the edge of the platform. This process takes approximately 30 seconds.

Key takeaways

- The width of the stairs permitted the installation of a hidden lift while maintaining functional use of the adjacent steps.
- Attentive, trained staff enable access with minimum delay.
- Impact on the building is minimized by using stone from the original steps to clad the lift.



The ICE building is on an urban street with a set of steps from the sidewalk.



A call button on the right alerts building attendants who prepare the lift.



One side of the steps retracts and a platform lift rises from below.

Case Study 6

Wellcome Collection

Location: London, UK

Architects/consultants: Wilkinson Eyre Architects

Year completed: 2019

The Wellcome Collection is a five-storey stone building erected in 1931-32 and characterized by a Portland stone exterior, tall columns above the ground floor, and a central portico. With a focus on medicine and health, accessibility was a central tenet of the building's rehabilitation since 2007. Heavy original doors are held open during opening hours with fully glazed, power-operated doors installed behind. Inside, a modern staircase leads to the main level and an adjacent platform lift provides step-free access. Three elevators serve the upper floors with larger freight elevators connecting to covered accessible parking.

Physical access is complimented by strong programmatic access. Live tour options include audio description, sign

language, and speech to text. Other measures include the use of tactile flooring, large print, braille titles, and borrowable aids. A Changing Places washroom, part of network of universal washrooms with adult change tables, is provided on the ground floor. The Wellcome Collection provides a detailed accessibility guide on its website and regularly consults people with disabilities.

Key takeaways

- Sidewalk-level doors relieved the need for exterior changes. Stairs and a lift are collocated inside and connect to a tactile path.
- A suite of programmatic access measures is described online. Curators follow an internal accessible exhibit guide.
- Consultation with people with disabilities was integral to developing the program.



The building is on a busy street corner with doors directly off a sidewalk.



A platform lift is collocated with the entrance stair inside the front doors.



A kiosk near the entrance provides auditory, visual, and sensory aids.

Conclusion

With the passing of the **Accessible Canada Act (2019)** and the creation of **Accessibility Standards Canada**, the Government of Canada committed to making its services and facilities accessible to all Canadians. In line with these commitments, **Heritage for All** endeavoured to provide recommendations that address the particular challenges of making heritage buildings accessible. Engagement throughout the project made it clear that there is widespread interest in the federal heritage buildings that tell the story of Canada, and significant potential for inclusion and education in making them accessible.

The project team was fortunate to have the support and input of passionate members of the disability community and heritage professionals from the beginning. Through their involvement, we uncovered significant interest in heritage buildings and their sensitive adaptation on the part of the disability community, and significant support for the concepts of universal design and equity on the part of heritage professionals.

In terms of next steps, participants proposed a wide range of additional formats and new directions for research, including:

- the creation of accessible tactile, audio-visual, HTML, and multiple-language formats;
- practical tools, including a checklist, a toolkit, and/or a “live” version of the document that could be updated over time;
- analysis of case studies in a wider range of contexts, and;
- additional consideration of inclusivity beyond physical accessibility, including social, cultural, and economic inclusion.

Improving access through ambitious standards is critical not only to meeting commitments to the rights of people with disabilities, but because “in aspiring to achieve the highest standards, the government sets a benchmark for others” (Bonnett and Nee 2021, 20). Ultimately, we hope this report will support better processes and outcomes, and equitable access for people with disabilities to many heritage buildings that tell the story of Canada.



A ramp in a compatible style was added to the Sun Life Building, Toronto, Ontario

human_space

Click here to access the full [Heritage for All report](#).

