

Cultural Heritage Evaluation Report (CHER)

Ontario Science Centre
770 Don Mills Road, North York, Ontario



Postcard with Original Front Entrance, 1970
Credit: Robert Moffatt, Toronto Modern Blog

DRAFT

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LAND ACKNOWLEDGMENT¹

The Ontario Science Centre sits on the ancestral lands and territories of the Haudenosaunee Confederacy, the Wendat peoples, and the Anishinaabek Nation, which includes the Mississaugas of the Credit First Nation and the Chippewa.

We acknowledge this land is home to many diverse First Nations, Inuit, and Metis peoples. We are grateful to work with them, learn from, and partner with Indigenous communities in peace, friendship, and respect.

¹ Adapted from the Acknowledgement on the Ontario Science Centre website

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Executive Summary

In August 2022 Infrastructure Ontario (IO) retained Stevens Burgess Architects Ltd. (SBA) to undertake a Cultural Heritage Evaluation Report (CHER) for the Ontario Science Centre located at 770 Don Mills Road in North York. Provincially identified as N00382, the Ontario Science Centre (OSC) opened in 1969 and continues to operate in its capacity as a science centre.

The OSC is located on the southwest side of the intersection of Don Mills Road and Eglinton Avenue in North York. The property consists of three buildings set into the ravine of the Don Valley, and it is understood that the Ontario Science Centre provincial agency has care and control of these three interconnected buildings. While associated with the buildings, the surrounding landscape is owned by the Toronto and Regional Conservation Authority (TRCA) and the City of Toronto. The term “heritage site” has been used throughout this report to reflect both the built form, natural ravine landscape/setting, constructed setting elements, and the interrelationship of built form and setting that comprise the OSC regardless of ownership.

In 2003 William Greer, a Heritage Consultant / Architect, completed a Heritage Significance Study for the Ontario Realty Corporation (now Infrastructure Ontario). However, that report does not meet the current provincial standards and IO requires a new Cultural Heritage Evaluation Report (CHER) and Cultural Heritage Evaluation Report Recommendations (CHERR) for the property as per the Ministry of Citizenship and Multiculturalism’s Heritage Identification and Evaluation Process.² The heritage site has been identified by MOI as a Provincial Heritage Property of Provincial Significance (PHPPS); however, there is no corroborative rationale for its identification. In 2006 the property was Listed on the Toronto Heritage Register.

Provincial legislation and policies provide the framework for this report. Part III of the *Ontario Heritage Act* (OHA) (amended in 2005) enables the Ministry of Citizenship and Multiculturalism (MCM) in consultation with ministries and affected public bodies to prepare standards and guidelines for the conservation of provincial heritage properties. In 2010, the Ministry of Culture, Tourism and Sport (MTCS, and now MCM) produced the *Standards and Guidelines for the Conservation of Provincial Heritage Properties*. This document requires all ministries and public bodies that have been prescribed by regulation to identify, protect, and care for provincial heritage properties that they own or control as well as those properties considered for disposal.

An assessment of the heritage site was completed by SBA, and this CHER reflects research and analysis that appreciates the whole of the heritage site; however, the recommendations and the Statement of Cultural Heritage Value (SCHV) prepared as part of the Cultural Heritage Evaluation Recommendations Report (CHERR) focuses on just the three buildings but in consideration of their setting within the broader heritage site.

The CHER and CHERR have been organized as per the “MTCS Heritage Identification and Evaluation Process” (2014) and the *Standards and Guidelines for the Conservation of Provincial Heritage Properties* (OHA, 2010). The CHER contains research, advice from qualified persons, community input, and information related to archaeology that informs the evaluation in the CHERR. The scope of the CHER

² The approved guiding document is titled “Ministry of Tourism, Culture & Sport Standards and Guidelines for the Conservation of Provincial Heritage Properties - Heritage Identification and Evaluation Process” (Sept 1, 2014). Since 2014 the Ministry has undergone numerous name changes. Matters related to heritage fall under the purview of the Ministry of Citizenship and Multiculturalism. Throughout this document, the authors have used the current ministry name; however, for document titles the ministry name remains unchanged.

includes the research and evaluation of the setting and ravine landscape; however, as the province does not have care or control of these lands, they are outside the scope of the CHERR.

SBA conducted multiple site visits in the fall of 2022 to photograph and document the property. SBA also read background material comprised of prior reports and analyses about the property and conducted its own corroborative research. Over the course of this work, SBA synthesized their own research and analysis with previous information to ensure a comprehensive report and that all information and analysis reflected the most up-to-date standards, processes of identification, and evaluation.

As part of the process, SBA engaged with Indigenous Communities to incorporate any applicable traditional and ecological knowledge provided by these groups as well as any additional input with respect to the property's heritage value. The communities contacted include the Mississaugas of the Credit First Nation, the Six Nations of the Grand River Elected Council, the Haudenosaunee Chiefs Confederacy Council, and the Huron-Wendat Nation. Engagement also included the Toronto Council Fire Native Cultural Centre and Native Canadian Centre of Toronto. As of this time, SBA received no response to their inquiries.

Through the course of its work SBA consulted with the City of Toronto Heritage Planning Services, Infrastructure Ontario, and the authors of previous reports/studies to gauge the community interest in the property and to gain a fuller appreciation of the context of the property, its buildings and setting, and its potential cultural heritage value. Engagement also extended to the Ontario Science Centre, the Architectural Conservancy of Ontario (ACO-Toronto Branch), the North York Community Council, and an examination of the Ontario Science Centre within media releases to gauge public sentiment.

SBA concluded that the property meets the criteria of O. Reg 9/06 (as amended by O. Reg. 569/22)³ under the *Ontario Heritage Act* in all three evaluation categories: design and physical value, historical and associative value, and contextual value of local significance. The findings also corroborated that the property meets the criteria established in O. Reg 10/06, and merits identification as a provincial heritage property of provincial significance (PHPPS). While the research of the CHER considers the relationship between the built form and the landscape to understand the broader heritage context, the recommendations, and the Statement of Cultural Heritage Value (SCHV) prepared reflect only the buildings over which the province has care and control.

³ O. Reg 569/22 came into force January 2023 replacing O. Reg 9/06

1. Introduction

In August 2022 Infrastructure Ontario (IO), on behalf of the Ministry of Infrastructure (MOI), retained Stevens Burgess Architects Ltd. (SBA) to undertake a Cultural Heritage Evaluation Report (CHER) for the Ontario Science Centre, located at 770 Don Mills Road in North York. Provincially identified as N00382, the Ontario Science Centre (OSC) opened in 1969 and it continues to operate in its capacity as a science centre.

The OSC is located on the southwest side of the intersection of Don Mills Road and Eglinton Avenue in North York and consists of three buildings set into the ravine of the Don Valley. The Toronto and Region Conservation Authority (TRCA) and the City of Toronto own and have oversight over the lands including the surrounding ravine and green lands; the day-to-day management of these lands is undertaken by the City of Toronto. The Ontario Science Centre provincial agency is responsible for the care and control of the buildings that comprise the Ontario Science Centre and those areas leased as part of the daily operation of the OSC.

SBA uses the term “heritage site” in reference to the holistic understanding of the OSC as comprised of both its setting including the surrounding ravine land and the three interconnected buildings regardless of ownership. This CHER has focused more attention in its analysis on the built form over which the province has care and control to inform the subsequent Cultural Heritage Evaluation Recommendations Report (CHERR) and the evaluation of cultural heritage value or interest.

In 2003 William Greer, a Heritage Consultant / Architect, completed a Heritage Significance Study for the Ontario Realty Corporation (now Infrastructure Ontario). Under the approved Ministry of Citizenship and Multiculturalism’s Identification and Evaluation Process (“MTCS I & E” dated September 2014)⁴, Section 3.0, a property evaluation was triggered because the property had not yet been evaluated in conformance with the current evaluation protocol established by the *Ontario Heritage Act* (2006). The property has potential cultural heritage value or interest as determined by previous studies and it is included on the City of Toronto’s municipal heritage register. The Province has also identified it as a provincial heritage property of provincial significance (PHPPS) in its internal database.

Provincial legislation and policies provide the framework for this report. Part III of the *Ontario Heritage Act* (OHA) (amended in 2005) enables the Ministry of Citizenship and Multiculturalism (MCM) in consultation with ministries and affected public bodies to prepare standards and guidelines for the conservation of provincial heritage properties. In 2010, the Ministry of Culture, Tourism and Sport (MTCS, and now MCM) produced the *Standards and Guidelines for the Conservation of Provincial Heritage Properties*. This document requires all ministries and public bodies that have been prescribed by regulation to identify, protect, and care for provincial heritage properties that they own or control as well as those properties considered for disposal.

The CHER has been organized as per the “MTCS Heritage Identification and Evaluation Process” (2014) and the *Standards and Guidelines for the Conservation of Provincial Heritage Properties* (MCM, 2010). This CHER contains research, advice from qualified persons, community input, and information related to archaeology that will subsequently inform the evaluation and recommendations in the CHERR. The relationship between the built form and the setting helps to frame this report because this relationship is a crucial element of the broader heritage context. Due to the ownership structure (the lands/landscape

⁴ Since the the Identification and Evaluation document was written, the provincial Ministry responsible for heritage has changed its name to the Ministry of Citizenship and Multiculturalism (MCM). The document title references the previous iteration of the Ministry, which is why the former “MTCS” is used.

are not under provincial care or control), this CHER does not discuss the heritage site as a cultural heritage landscape.

SBA conducted multiple site visits in the fall of 2022 to photograph and document the property. SBA also read background material comprised of prior reports and analyses about the property and conducted its own corroborative research. Over the course of this work, SBA synthesized their own research and analysis with previous information to ensure a comprehensive report and that all information and analysis reflected the most up-to-date standards, processes of identification, and evaluation.

SBA reached out to Indigenous communities to invite input of any applicable traditional and ecological knowledge. The communities contacted include the Mississaugas of the Credit First Nation, the Six Nations of the Grand River Elected Council, the Haudenosaunee Chiefs Confederacy Council, and the Huron-Wendat Nation, as well as the Toronto Council Fire Native Cultural Centre and the Native Canadian Centre of Toronto. As of this draft, SBA has not received any feedback.

Through the course of its work SBA consulted with the City of Toronto Heritage Planning Services, Infrastructure Ontario, and the authors of previous reports/studies to gauge the community interest in the property and to gain a fuller appreciation of the context of the heritage site inclusive of its buildings and setting, and its potential cultural heritage value. SBA reached out to the Ontario Science Centre and its stakeholders, as well as the Architectural Conservancy of Ontario (ACO-Toronto Branch). Refer to **Section 7.0**.

Kelly Gilbride, Heritage Architect and Project Lead, and Julia Rady, Historian, with Stevens Burgess Architect Ltd, a firm that specializes in heritage conservation, visited the site in October 2022. Julia returned for further photography in November 2022. Julia also undertook the synthesis of historical research and historical assessment alongside new archival and other historical research. Their qualifications can be found in **Appendix A**. Unless otherwise noted all photography is by SBA.

2. Description of the Heritage Site

2.1 Heritage Site Location

The heritage site is located on the west side of Don Mills Road, southwest of the intersection of Eglinton Avenue and Don Mills Road in the former borough of North York. The location of the Ontario Science Centre (OSC) is south of Highway 401 and west of the Don Valley Parkway (DVP). It is nestled in the Don Valley River watershed in an area of the city that experienced expansion during the mid-20th century with the rise of many planned communities including Don Mills located to the north of the intersection of Eglinton Avenue and Don Mills Road, Flemingdon Park located southeast of the Eglinton Avenue and Don Mills Road intersection, Thorncliffe Park located southwest of the heritage site along Overlea Blvd., and an industrial park located north along Eglinton Avenue East and spanning from Leslie Road to the DVP. Refer to **Figures 1 and 2**.

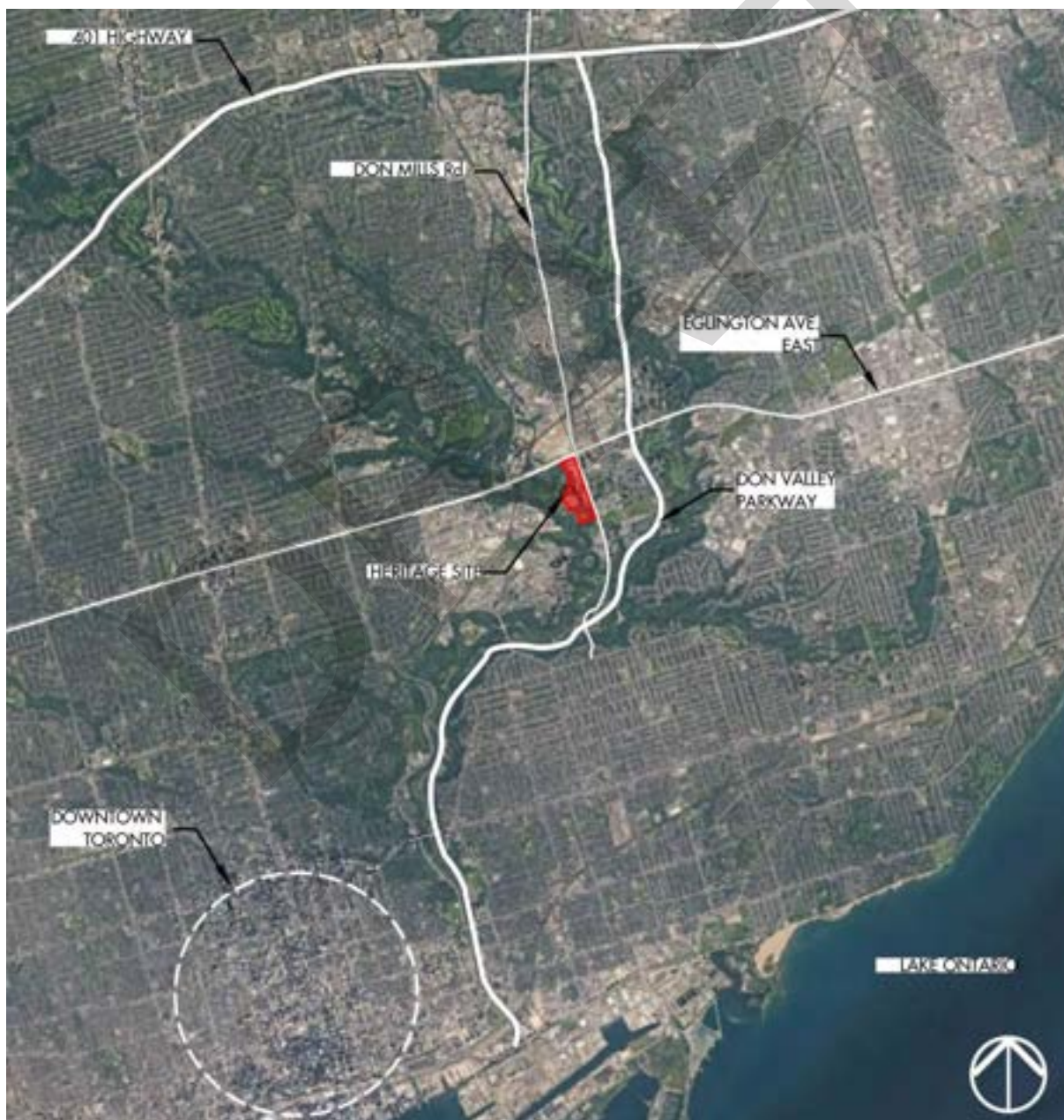


Figure 1: Location Plan
(Credit: Google Earth, 2023 with SBA annotation of heritage site in red)

The heritage site is accessed from the main entrance along Don Mills Road. There are two additional entrances located along Don Mills Road that provide vehicular access to the various parking areas. There is a large parking lot to the north of the OSC building, a parking lot located south of the Main Entrance building, and a third parking lot used for staff and service vehicles located around the Valley Building and set into the lower part of the land.

The heritage site is a unique pivot point between urban, suburban, and conservation areas. E.T. Seton Park is located immediately to the west of the property and provides a link to the West Don Trail as part of ravine of the Don River Valley. There is ample green space to the west of the heritage site that provides a buffer to more urbanized areas. Conversely, to the east of Don Mills Road are residential high-rise developments as part of the Flemington Park neighbourhood of the City of Toronto.⁵ There are some commercial properties along the thoroughfare of Eglinton Avenue East including a supermarket complex at the northeast of the Eglinton and Don Mills intersection. The Eglinton Avenue thoroughfare undergoing change related to the expansion of the Light Rail Transit (LRT) and includes the development of residential high-rises that replace the former low-scale industrial buildings to the northwest of the intersection.



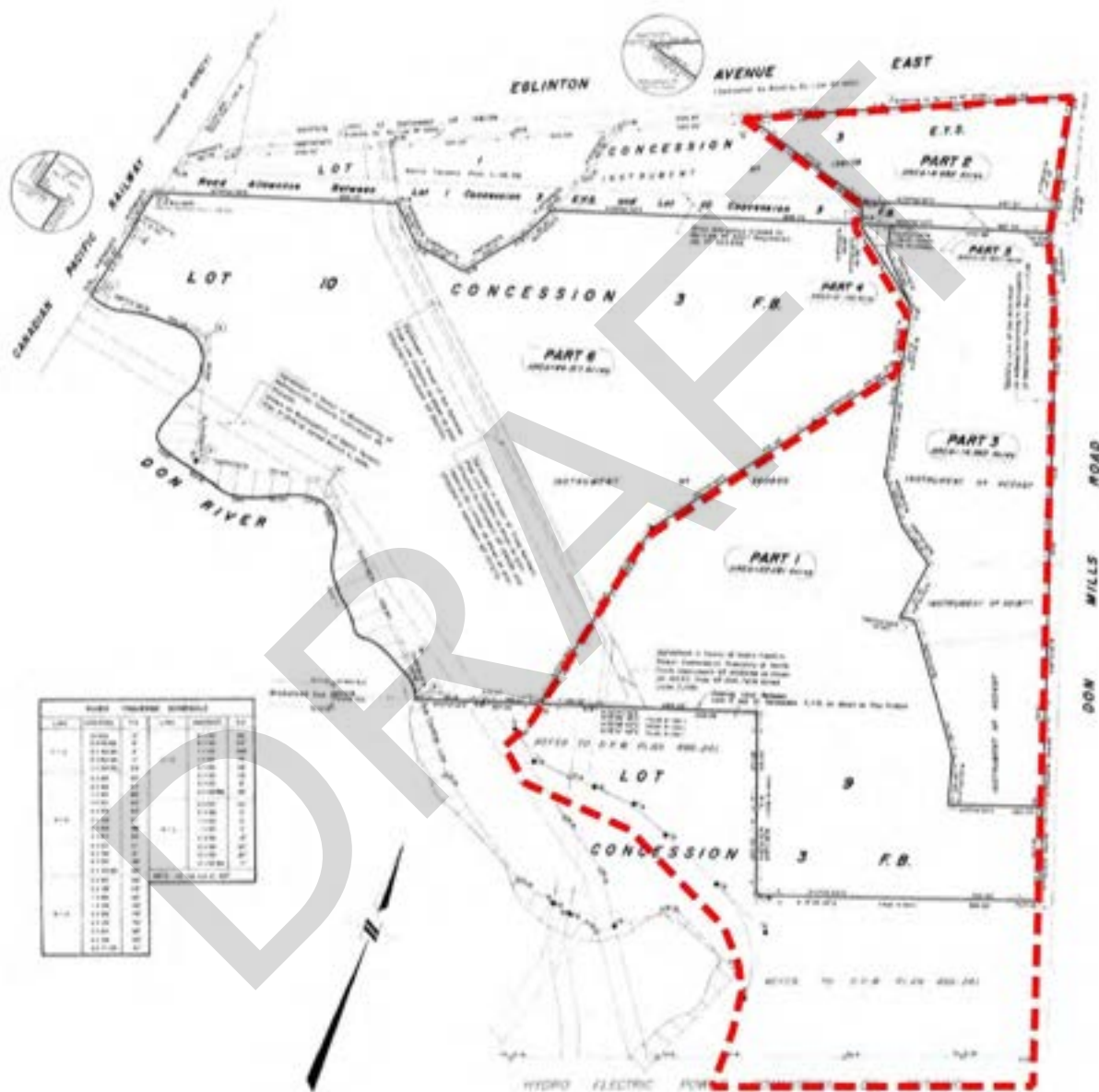
Figure 2: Heritage Site Immediate Context Map extra m in Flemmingdon

Credit: Google Earth Base map 2023 with SBA annotation

⁵ <https://www.toronto.ca/ext/sdfa/Neighbourhood%20Profiles/pdf/2016/pdf1/cpa44.pdf>

2.2 Legal Description of Heritage Site

The legal address of the Ontario Science Centre is Part of Lots 9 and 10, Concession 3 from the Bay and Part of Lot 1, Concession 3 East of Yonge Street in the former Township of North York. The heritage site has a complex ownership structure. The Ontario Science Centre provincial agency has care and control of the built form while the Toronto and Region Conservation Authority and the City of Toronto own the lands that comprise the extent of the heritage site as indicated on the survey below [Figure 3].



2.3 Physical Description of Heritage site

Located southwest of the intersection of Don Mills Road and Eglinton Avenue and abutting the ravine of the Don Valley to the west, the built form within the heritage site was constructed in 1967 as the Centennial Museum of Science and Technology, later renamed the Ontario Science Centre (OSC). Since its opening, the OSC has provided space for both permanent and touring exhibits that showcase science and technology within an environment that welcomes and invites interaction from museum-goers with the subject matter.

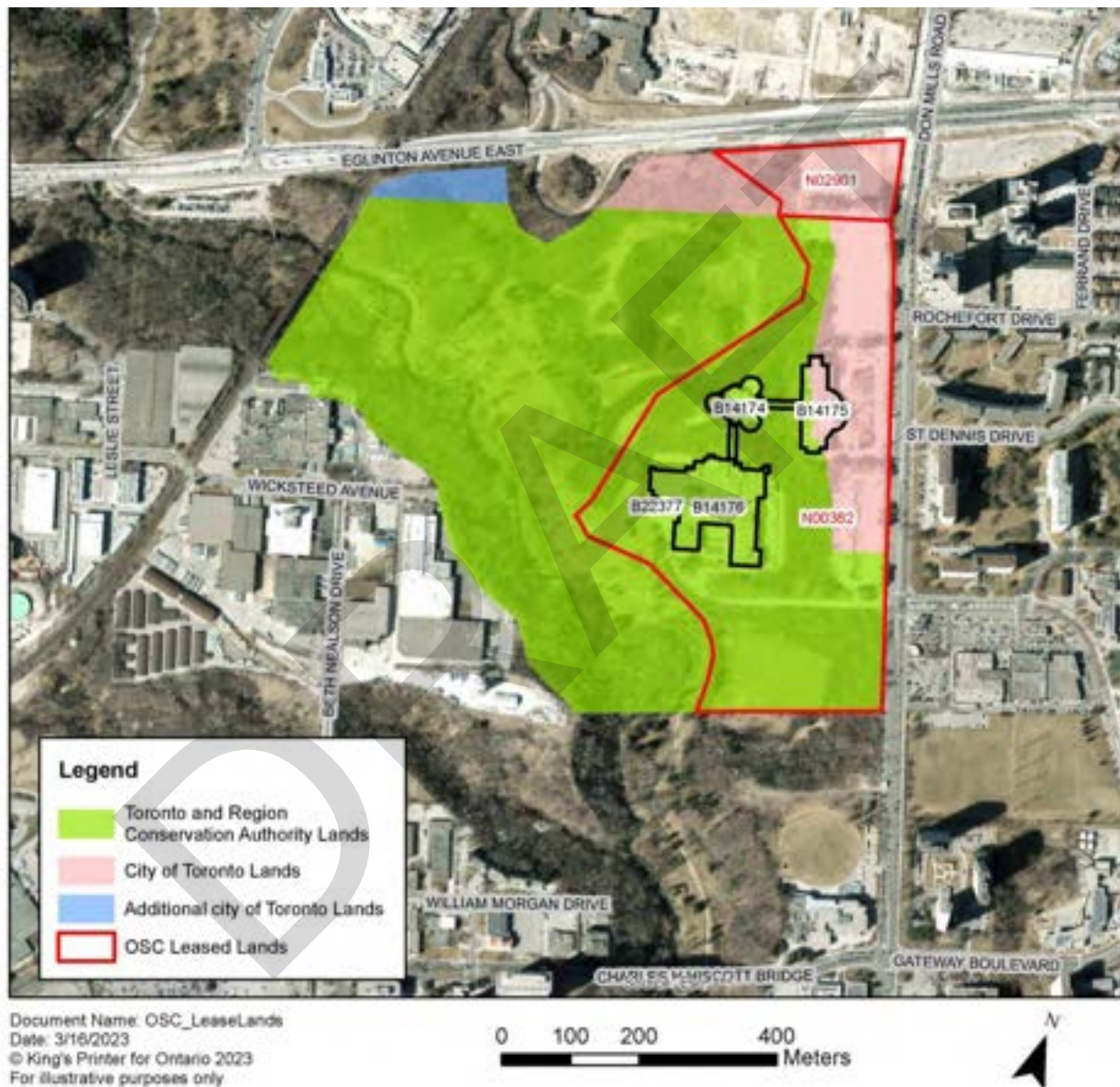


Figure 4: Identification of Extant Buildings on Property, outlined in black and under the care and control of the Centennial Museum of Science and Technology Provincial Agency
Credit: IO

Currently the heritage site consists of three interconnected buildings that are identified with four IO building numbers [Figure 4] and includes the following: Main Entrance Building (B14175/ Building A), the Core Building (B14174/ Building B), the Valley Building (B14176 / Building C), and a small greenhouse (B22377) that is part of the Valley Building. Currently, the small greenhouse is not identified as a heritage resource by the province, but this CHER considers it as part of its update.

The Main Entrance Building is connected to the Core Building by a bridge.⁶ The Core Building and the Valley Building are connected by escalators as well as an exterior, sloped pedestrian pathway set within the slope of the ravine.

Reference	Asset No.	Name	Parent Asset	Property No.	Ownership Type	Year	Current Heritage Status
A	B14174	Main Entrance Building	P00382	N00382	Under the care and control of the Centennial Museum of Science and Technology, a provincial agency	1968	PHPPS
B	B14175	Core Building				1968	PHPPS
C	B14176	Valley Building				1968	PHPPS
	B22377	Greenhouse addition to Valley Building	P00382	N00382	As above	1980	Not Heritage

Table 1: Table of Extant Buildings

Credit: Infrastructure Ontario, and adapted by SBA

Set against the ravine of the Don Valley, the OSC reflects a relationship between the built form and its natural backdrop. There are two parking lots that provide surface parking for visitors to the site. One is located north of the Main Entrance Building at the southwest corner of Don Mills Road and Eglinton Avenue East, and the other is located south of the Main Entrance Building along Don Mills Road. There is a service road that connects to the south parking lot as well as the intersection of Don Mills Road and Gateway Blvd. The road curves to the west and slopes down to a smaller parking lot, and traffic drop-off at the security entrance to the Valley Building.

⁶ As of mid-2022 the bridge has been closed to the public due to forecasted structural remedial work to reinforce the bridge link as per the Pinchin Building Condition Assessment (April 2022). The normal circulation for the complex has been redirected. Visitors take buses from the southern parking lot via the southern driveway to enter via the Valley Building.

2.4 Description of Heritage Context

2.4.1 Provincial Recognition

2.4.1.1 Provincial Heritage Property of Provincial Significance (PHPPS)

The heritage site has been identified as a Provincial Heritage Property of Provincial Significance (PHPPS). Neither corroborative information nor a Statement of Cultural Heritage Value or Interest related to the rationale for its identification as a PHPPS was available from Infrastructure Ontario.

2.4.1.2 Provincial Base Building Assessment Reporting

Base Building Assessment Reports (BBARs) prepared for Infrastructure Ontario each include a paragraph with respect to identified heritage characteristics/attributes. For the OSC the description matches the “Brief Statement of Significance” included in William Greer’s “Heritage Significance Study” (August 2003). The description is included below.

Building A [B, and C are] considered to be a provincially significant heritage site according to a Heritage Significance Study. Overall, the statement of significance for this building, and the rest of the Ontario Science Center Complex, states the following:

The Ontario Science Center is historically significant due to it being a prime project to commemorate the Centennial of Confederation. It was also the first interactive museum of its type in Canada and a conspicuous landmark. The Ontario Science Center is architecturally significant based on the design philosophy of architect Raymond Moriyama, the refinement of architectural detailing and astute selection of durable materials, the creative use of concrete in a variety of forms and finishes throughout the project, the clustering by function of buildings uniquely linked to respect the landforms of the site, the careful placement of windows to visually connect interior users with the exterior environment, the provision of large open and flexible exhibit space to allow for future design trends and change, and the collaboration between the architect and the structural engineer to achieve an award winning design.

The landscape plays an important role in the significance of the complex as the innovative and bold solution for the conservation of the natural landscape and parkland while providing a range of public accessibility to the site from within and outside the City of Toronto.

2.4.1.3 Metrolinx Interim Heritage Committee

In January 2014 the Metrolinx Interim Heritage Committee, a Crown agency, noted that “770 Don Mills Road retains physical, associative, and contextual heritage value in accordance with criteria contained within Ontario Reg. 9/06.”⁷ Within the report a Statement of Cultural Heritage Value was included. It differs from the one used in the BBARs. It has not been approved by MOI/IO, but it is reproduced below as part of the broader understanding of the heritage context to demonstrate another consideration of the cultural heritage value of the heritage site.

Cultural Heritage Value

The Ontario Science Centre is of cultural heritage value and meets the evaluation criteria under O. Reg. 9/06 in the categories of design or physical value, historical or associative value and contextual value in respect to its cultural heritage landscape. The Province of Ontario undertook the construction of the Centennial Centre of Science and Technology, commonly known as the Ontario Science Centre, as its official centennial project. Planning commenced in 1961, a site and an architect were chosen in 1964, and the facility opened in 1969. Celebrated Canadian architect, Raymond Moriyama designed the complex and was involved in the development of the functional programme as well as the architectural direction. The hands-on participatory approach was an innovative concept at the time. Moriyama is noted for the integration of building and site, and the design of the complex responds to the property’s configuration of tableland, valley and ravine. As the visitor moves through the site from the entry on the tableland through to the exhibit building on the valley floor, a sequence of vistas of the natural landscape are provided. Modulation of the landscape through the use of berms and plantings buffers the parking areas from the main entry and bordering arterial roads. Contextually, the Ontario Science Centre is a symbolic landmark known to generations of school children across the province. It is intrinsically connected with its site and it forms an important component of the Flemingdon Park neighbourhood.

Heritage Attributes

Heritage attributes, i.e., character defining elements, of the cultural heritage landscape of the Ontario Science Centre located at 770 Don Mills Road include, but are not limited to:

- *Property at the southwest corner of the intersection of Eglinton Avenue East and Don Mills Road comprising valley and tableland to the east of the Don River, West Branch;*
- *Complex of three inter-connected buildings set in a natural landscape;*
- *Views of the natural landscape;*
- *Outdoor areas;*
- *Entry drives from Don Mills Road leading into the property;*
- *Walkways on the property providing access from Don Mills Road and Eglinton Avenue East and connections to E.T. Seton Park;*
- *Public area on the tableland beside Don Mills Road comprising public forecourt, parking and entranceway to the Ontario Science Centre;*
- *Berms with planting extending along Don Mills Road and Eglinton Avenue East that shield the parking lots from the main entry and bordering arterial roads;*
- *Two level north parking lot with detailed concrete retaining wall, plantings, ramps and walkway; and*
- *South parking lot.*

⁷ Metrolinx Interim Heritage Committee Decision Form, January 2014

2.4.2 Municipal Recognition

2.4.2.1 City of Toronto Register of Heritage Properties

In April 2006, the City of Toronto listed the OSC on its Register of Heritage Properties. In its reasons for identification, Toronto Heritage Planning notes the following:

Description:

The property at 770 Don Mills Road is worthy of inclusion on the City of Toronto Inventory of Heritage Properties for its cultural heritage value or interest. Containing a complex of buildings, the Ontario Centre is an internationally renowned science museum that is located on the west side of Don Mills Road, south of Eglinton Avenue East.

Cultural Heritage Value:

The cultural heritage value of the Ontario Science Centre is related to its significance as an important example of Modern architecture, the movement that emerged in Canada after World War II and incorporated contemporary materials and technology, embodied clean lines and rejected surface ornament. Commissioned by the Ontario Government to celebrate Canada's Centennial in 1967, the opening of the Ontario Science Centre was delayed until September 1969. The celebrated Canadian architect Raymond Moriyama designed the complex, which was described as "grandiose in scale and in parts awesome with its view of the ravine" (The Canadian Architect, September 1969, 44). The Ontario Science Centre has contextual importance as a landmark adjoining Flemingdon Park, the planned community near the intersection of Don Mills Road and Eglinton Avenue East.

Heritage Attributes:

The heritage attributes related to the cultural heritage value of the Ontario Science Centre as representative of the Modern Movement in architecture are found on the exterior walls and roofs of the three core components of the complex. The entrance building off Don Mills Road is connected to the core building to its west by a two-level enclosed and partially glazed bridge that extends across the ravine. To the southwest, an enclosed tower with escalators, elevators and stairs links the entrance building to the exhibition halls with service areas that are located in the valley below.

The original parts of the complex blend structural steel, poured in place concrete, ribbed concrete surfaces and glazed components. The entrance building features a rectangular plan under a cantilevered roof with supporting columns and an entrance ramp. The three-storey core building features a triangular centre section with the Great Hall that is adjoined by three round pods for subsidiary uses. The Imax Dome Theatre (now known as the Shoppers Drug Mart OMNIMAX Theatre) was added to the east side of the entrance building in 1996 and is not included in the Reasons for Listing.

2.4.2.2 Toronto and Region Conservation Authority (TRCA) Cultural Heritage Database

The Toronto and Regional Conservation Authority (TRCA) created a Don Watershed Cultural Heritage Database in 1992, which has been updated over time. This database "monitors the status of heritage structures within its watershed."⁸ The Ontario Science Centre is identified within the category of

⁸ Toronto and Region Conservation, "Don River Watershed Plan – Cultural Heritage – Report on Current Conditions" (2009), 11.

contemporary cultural features, which includes prominent modern structures generally in public use. This report is part of on-going reporting and monitoring of the watershed to ensure its conservation and revitalization health balanced against urbanization.

2.4.3 Adjacent Heritage Properties

There are three listed properties adjacent to the heritage site as indicated below in **Figure 5**. A property designated under Part IV of the *Ontario Heritage Act* is located northwest of the subject property at 1150 Eglinton Avenue East. It is the former IBM Canada headquarters. A portion of the property was designated (Bylaw 1154-2020) in 2020.



Figure 5: Adjacent Heritage Properties

Credit: Google Earth Basemap 2023 with SBA Annotation in reference to City of Toronto Heritage Property Map

3. Research

3.1 Overview

SBA used previous studies and reports undertaken for the Ontario Science Centre (OSC) as the starting point for its research. Of particular note, William Greer, a Heritage Consultant / Architect, completed a Heritage Significance Study for the Ontario Realty Corporation (now Infrastructure Ontario) in 2003 to evaluate its significance as a heritage resource. The report had the mandate to determine the character defining features of the buildings and the property and to identify activities proposed at the time that could adversely affect those values.⁹

In 2006, the City of Toronto identified that the property had potential heritage value or interest and added it to its Cultural Heritage Register as a Listed property. In addition, as part of the pre-design work for the Light-Rail Transit (LRT) Crosstown, Metrolinx, a crown agency of the province of Ontario, identified the property as having cultural heritage value. The background reporting for these identifications has also been used to inform the research.

In developing the background research for the site, SBA supplemented the Heritage Significance Study with its own archival and historical research. Refer to **Chapter 8 – Summary of Resources/Sources Cited** for the comprehensive lists of reports and studies consulted.

⁹ Greer, Heritage Significance Study, 1.

3.2 Geographic Context

The Ontario Science Centre is located within the Flemingdon Park neighbourhood of the City of Toronto that extends south from Eglinton Avenue East between the east and west branch of the Don River. The heritage site is located just east of the Don Valley River and adjacent to E.T. Seaton Park, an Environmentally Significant area within the City of Toronto. This area is part of the Don River watershed between the east and west branches that flow from their headwaters in the Oak Ridges Moraine further north of the city south towards Lake Ontario (see also **Figure 2**). The two branches meet in the vicinity of Don Mills Road and the Don Valley Parkway. The subject property is located north of this confluence in an area known as the Upper Don, a part of the broader Don Watershed.



Figure 6: Natural Heritage Map – Green denotes land part of the Natural Heritage System and Yellow denotes environmentally significant area as identified by the City of Toronto and TRCA.

Credit: Bing with SBA annotation showing heritage site in red

3.3 Archaeological Background

As part of his work in 2003 for the Heritage Significance Study, William Greer engaged Archaeological Services Inc. (ASI) to conduct a Stage 1 Archaeological Assessment. The heritage site encompassed 20 acres within which the three interconnected buildings sit. The assessment concluded that no registered archaeological sites were located within the heritage site. The heritage site itself had been subject to severe land disturbance including the area occupied by the existing Science Centre buildings, paved parking areas, fountain structure, an extensive patio at the rear, and landscaped berms adjacent to both Eglinton Avenue and Don Mills Road. The report identified an undisturbed wooded top of bank west of the patio and parking lot that exhibited archaeological potential due to its proximity to the Don River and nineteenth-century land use.

The assessment included the following recommendations:

- The existing developed lands that comprise the Ontario Science Centre may be considered free of archaeological concern.
- A Stage 2 Archaeological Assessment should be undertaken in advance of any property redevelopment that will involve soil displacement beyond the existing building and infrastructure footprints. This should be accompanied by a test-pitting survey at five-meter intervals, with soils screened through 6 mm wire mesh to facilitate the recovery of archaeological material.
- Should deeply buried archaeological remains be found on the property during construction activities, notifications should be sent to the appropriate governing bodies.

3.4 History of Area

Indigenous History of the Area

The Anishnaabemowin name for the Don River is Wonscotonach, which roughly translated means burning bright point.¹⁰ Rebeka Tabobondung of the Wasauksing First Nation wrote of the Don River:

*I found a song along the Don River
just before you run into the tents and shacks
where the brown water picks up
you can easily climb down to the muddy shore
hardly anyone goes down that far
on the Discovery Trail
except for fast bikers
and the people who live there
I'm told at one time
the River's mass used to glide across the entire valley
It has always been a highway
before cars were thought of
or White people
birch bark used to cut the water
passing songs along the shores¹¹*

The rivers and its tributaries were the highways of many First Nations groups. The Don River waterway attracted small groups of nomadic hunters who valued the water system for food and transportation. Archaeological finds of small slate tools help to trace settlement to as far back as 7000 years ago. The area was the traditional home of the Haudenosaunee, the Anishnaabek, the Wendat, and later the Mississaugas.

Through early periods of Indigenous history, the area transformed from one of sporadic and seasonal encampments to more established and permanent communities.¹² The Wendat travelled through the river valley for centuries, drawn to the salmon runs.¹³ The clay deposits in the river valley provided the means to make pottery. As corn became a staple around the 14th century CE, the Wendat established longhouse villages along the river.¹⁴

By 1600 CE, the communities within the Great Lakes basin had formed the Confederation of Nations. It was this broad group whom the first European explorers and missionaries first encountered.¹⁵ By the mid 17th century, the historic hostility between the Haudenosaunee¹⁶ and the Huron-Wendat came to a head and

¹⁰ City of Toronto Parks and Environment Committee, "Update on the partnership with evergreen and establishing an identity for the Lower Don Parklands," March 22 2018, retrieved at:
<https://www.toronto.ca/legdocs/mmis/2018/pe/bgrd/backgroundfile-113533.pdf>

¹¹ Rebeka Tbobondung, "Don Song" in *Indigenous Toronto: Stories that Carry this Place* edited by Denise Bolduc, Mnawaate Gordon-Corbier, Rebeka Tabobondung, Brian Wright-McLeod (Toronto: Coach House Books, 2021), 59.

¹² ASI, "Don Mills Crossing Cultural Heritage Resource Assessment" (2019), 17-20, retrieved at
<https://asiheritage.ca/wp-content/uploads/2020/08/Don-Mills-Crossing-CHRA.pdf>

¹³ <https://tdotcommunity.ca/project/the-don-valley-through-the-ages/>

¹⁴ <https://donrivervalleypark.ca/about-the-park/history/>

¹⁵ Ibid 19.

¹⁶ The Haudenosaunee were a confederation of five related Iroquoian-speaking groups including the Cayuga, Seneca, Onondaga, Oneida, and Mohawk. While related, each group had its own distinct culture.

the Huron-Wendat were scattered. In their exercise of greater control over the area, the Haudenosaunee established strategic settlements located along trade routes including the trail within the Don River watershed.¹⁷ Over the latter 17th century, the Haudenosaunee faced the pressure to defend their settlements located south of Lake Ontario due to an increased military presence there from the French.

By the close of the 17th century, the Mississaugas of the Credit had arrived on the north shore of Lake Ontario.¹⁸ Derived from the Anishnabek word *minzazaheeg*, Mississauga means “people living where there are mouths of many rivers.” The water flowing towards these mouths including the Don River provided the means to traverse the land, supplied a variety of animals and plants, and most importantly the water was viewed as the “life blood of mother earth.”¹⁹ The ecosystem surrounding the river worked in harmony for the benefit of the community. This ecosystem changed with the arrival of Europeans.

In 1763 the Treaty of Paris was signed, which ended the Seven Years’ War following the fall of Quebec. All of New France came under British control. As a part of their colonial rule the Crown pursued land agreements and purchases with Indigenous communities to help shore their own political and military control. “The Crown felt it needed a secure military communication route from Lake Ontario to Lake Huron that did not utilize the current one, along the lakefront. They wanted a route that would take them out of harm’s way. The colonialists explored some routes and determined they had to make purchases with the Mississaugas and the Chippewas.”²⁰

In 1787 the “Toronto Purchase” occurred and the Mississaugas surrendered their land to the British in what they thought was a benign agreement and not the release of their claim to the land. This treaty was revisited in 1805 to articulate the agreement more clearly. The land claim for this purchase was not settled until 2010. The subject property is located in York Township, which part of the lands bought from the Mississaugas as part of the Toronto Purchase Act.

Early Colonial Settlement – 1820 – 1900

The area, known in the early 19th century as Don Mills or Don, extended along the Don River Valley from Bayview to Victoria Park and from south of Eglinton north towards York Mills. Farmers living in the area contributed sufficient land to open the Don Independent Road to make travel north and south easier in the area. In 1825, Don Mills Road was an “improved” road (meaning a road that had a maintained surface), and by 1852 it had been macadamized²¹ as far south as Todmorden.²² Over this same period of time, settlement to the area increased, which in turn prompted greater industry such as saw, grist, and paper mill and the growth of agriculture as well as the erection of schoolhouses and churches to attend to the communities.²³

The heritage site is located on Lot 10 and Part Lot 9, Concession 3 “from the bay.” Eglinton Avenue forms the north boundary of the Concession. The Browne Map from 1851 [Figure 7] shows the and lotting of the area. Most of the land is shown to be uncultivated.

¹⁷ ASI, “Don Mills Crossing Cultural Heritage Resource Assessment,” 20.

¹⁸ Darin Wybenga, “Mississaugas were a people of waters,” (November 21, 2022), retrieved at: <https://mncfn.ca/mississaugas-were-a-people-of-the-waters/>

¹⁹ Wybenga, “Mississaugas were a people of waters.”

²⁰ Margaret Sault, “A Story about the Toronto Purchase,” in *Indigenous Toronto: Stories that Carry this Place*,” edited by Denis Bolduc, Mnawaate Gordon-Corbiere, Rebeka Tabobondung and Brian Wright-McLeod (Toronto: Coach House Books, 2021) 37.

²¹ Macadamized means “to construct or finish (a road) by compacting into a solid mass a layer of small broken stone on a convex well-drained roadbed and using a binder (such as cement or asphalt) for the mass” (Merriam Webster).

²² Patricia W. Hart, *Pioneering in North York: A History of the Borough* (Toronto: General Publishing Co., 1968), 231.

²³ *Ibid*, 233-235.

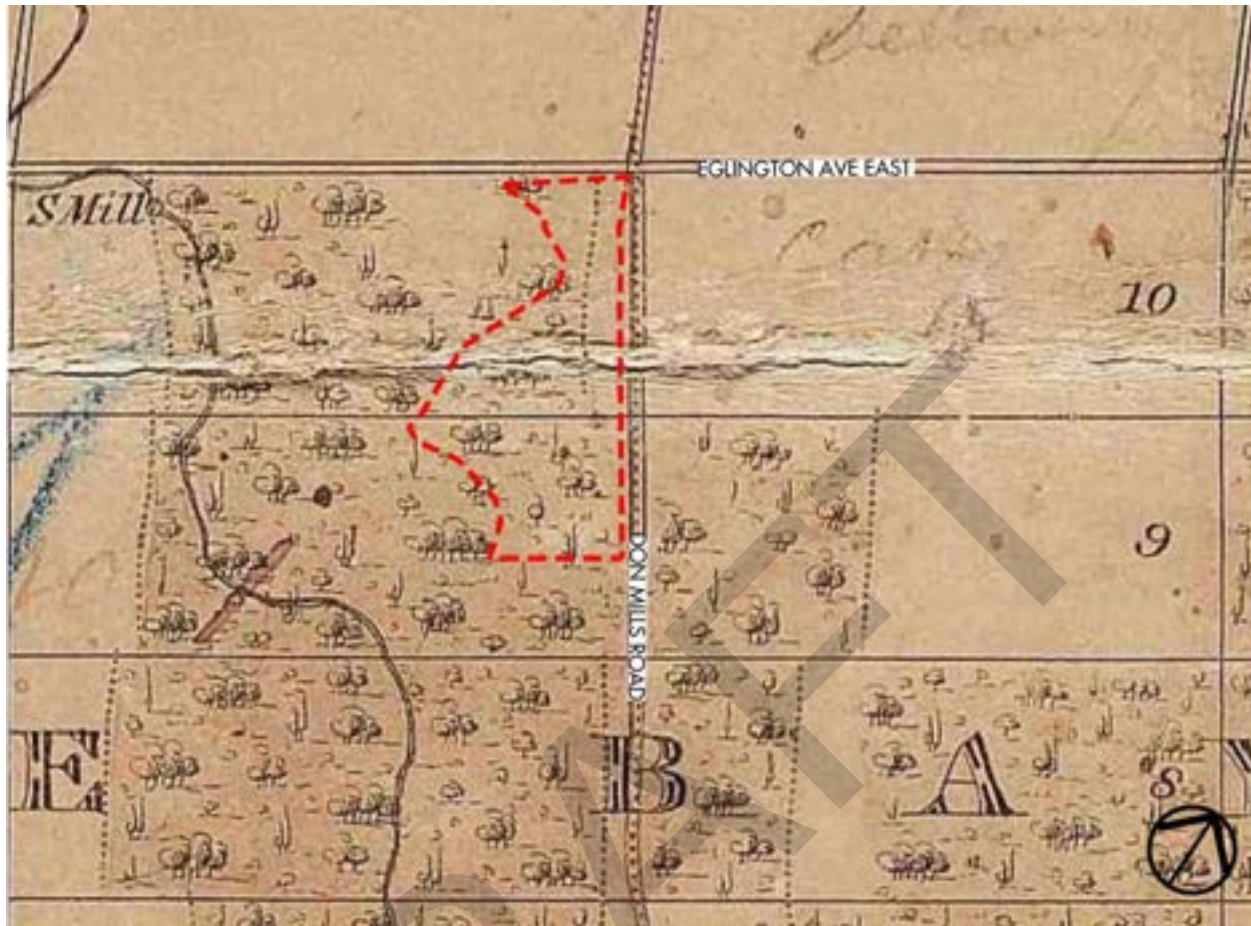


Figure 7: Browne Map, 1851 with SBA annotation in red of heritage site and modern road names

The Taylor Brothers – c. 1850 – c. 1900

John, Thomas, and George Taylor owned this vast tract of land that spanned a mile north of present-day Eglinton Avenue and extended south to the Forks of the Don River. They owned property both to the east and west of Don Mills Road.²⁴ The Taylor brothers had emigrated to Canada in 1825, initially settling in Vaughan before they headed south to the forks of the Don River in the mid-1830s. There, the brothers established saw and paper mills in addition to farming and breeding cattle and horses.²⁵ In 1880, in addition to their other mills, one of the brothers had established the Don Valley Pressed Brick Works.²⁶

²⁴ Patricia W. Hart, *Pioneering in North York: A History of the Borough* (Toronto: General Publishing Co., 1968), 77.

²⁵ *Ibid.*

²⁶ *Ibid* 237.

The Tremaine Map of 1860 [Figure 8] gives an indication of the vast land holdings of the Taylor Brothers with the exception of the property at the southwest corner of Don Mills and Eglinton, owned by P.J. Johnston, and the west half of Lot 10 owned by Charles Snider.

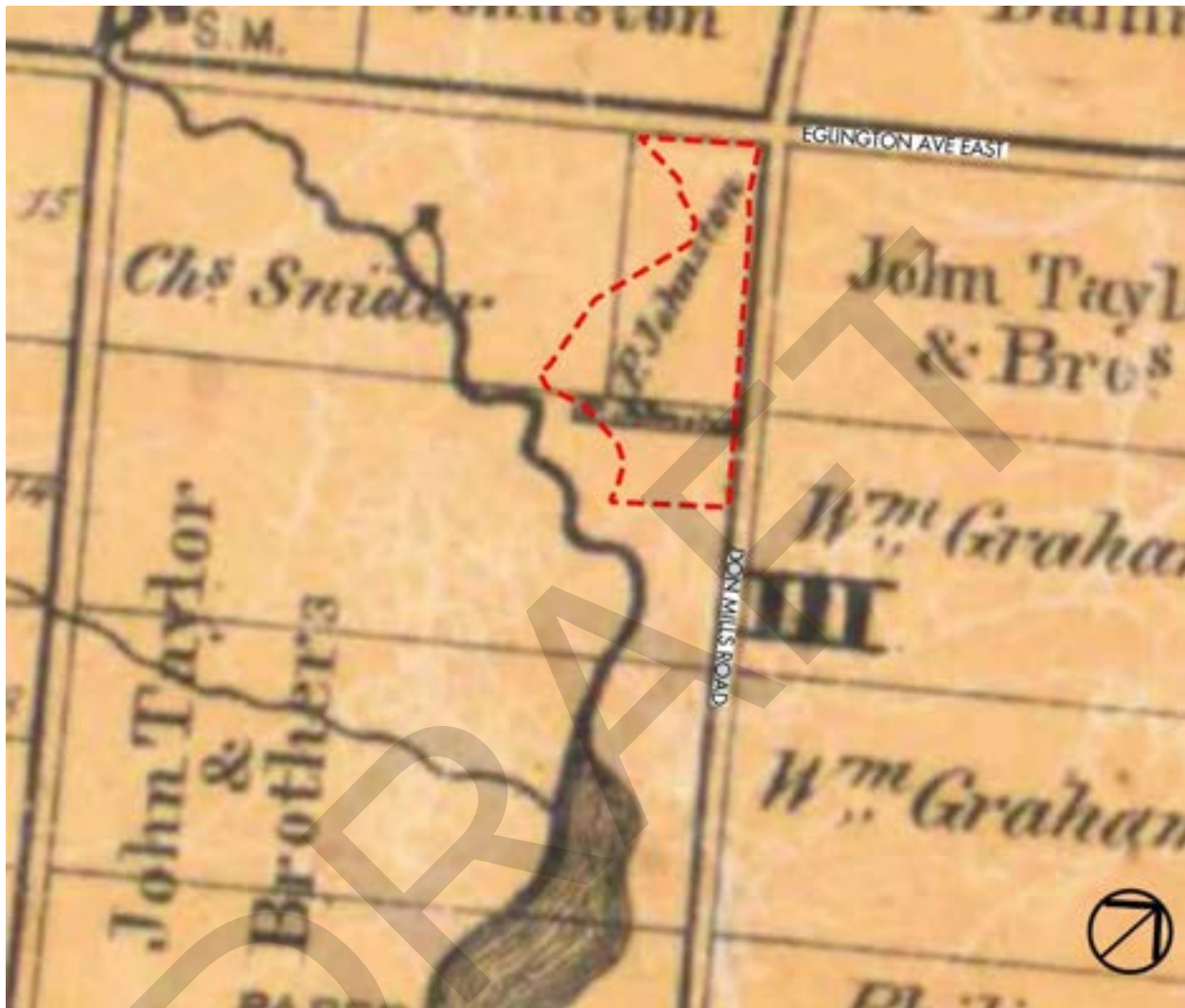


Figure 8: Tremaine Map, 1860 with SBA annotation in red to show the heritage site and modern road names

By 1878, as noted in the Southeast York Atlas [Figure 9], the brothers had taken over all of Lot 10. There is a small parcel at the northeast corner of Lot 9 owned by H.H., but there are no historical records as to who this might be. Later photographic records suggest that Abraham Taylor had constructed a house on Part lot 9²⁷; however, the Tremaine Map of 1860 does not show a structure; nor are there records of Abraham Taylor that corroborate this information. By 1878, there are three structures on Lots 9 and 10.

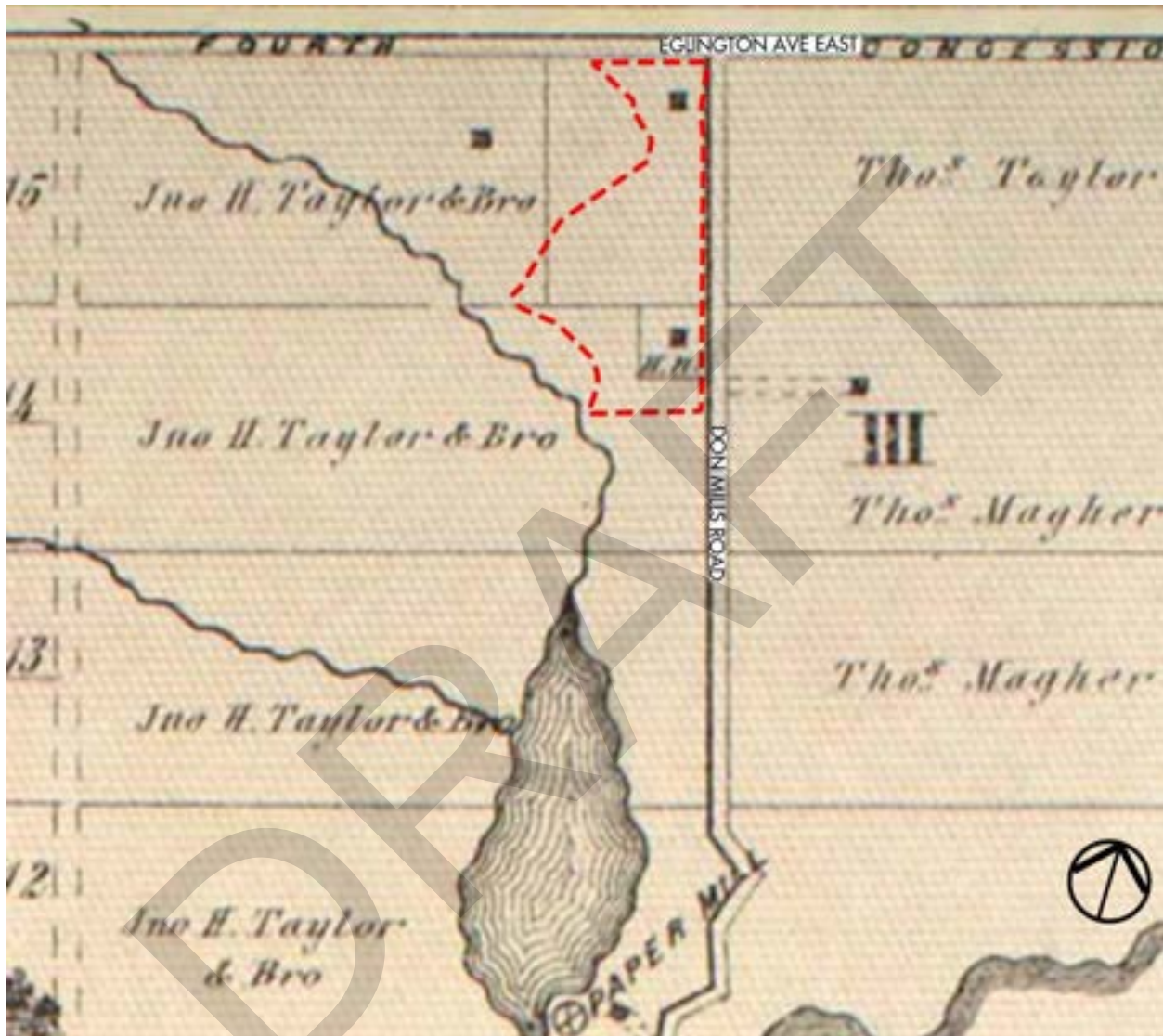


Figure 9: Southeast York Township, 1878 with SBA annotation in red to show the outline of the heritage site as well as modern road names for reference

²⁷ The Toronto Public Library makes note of a house on the west side of Don Mills Road constructed by Abraham Taylor in 1849 - <https://digitalarchive.tpl.ca/objects/267140/house-west-side-of-don-mills-road>

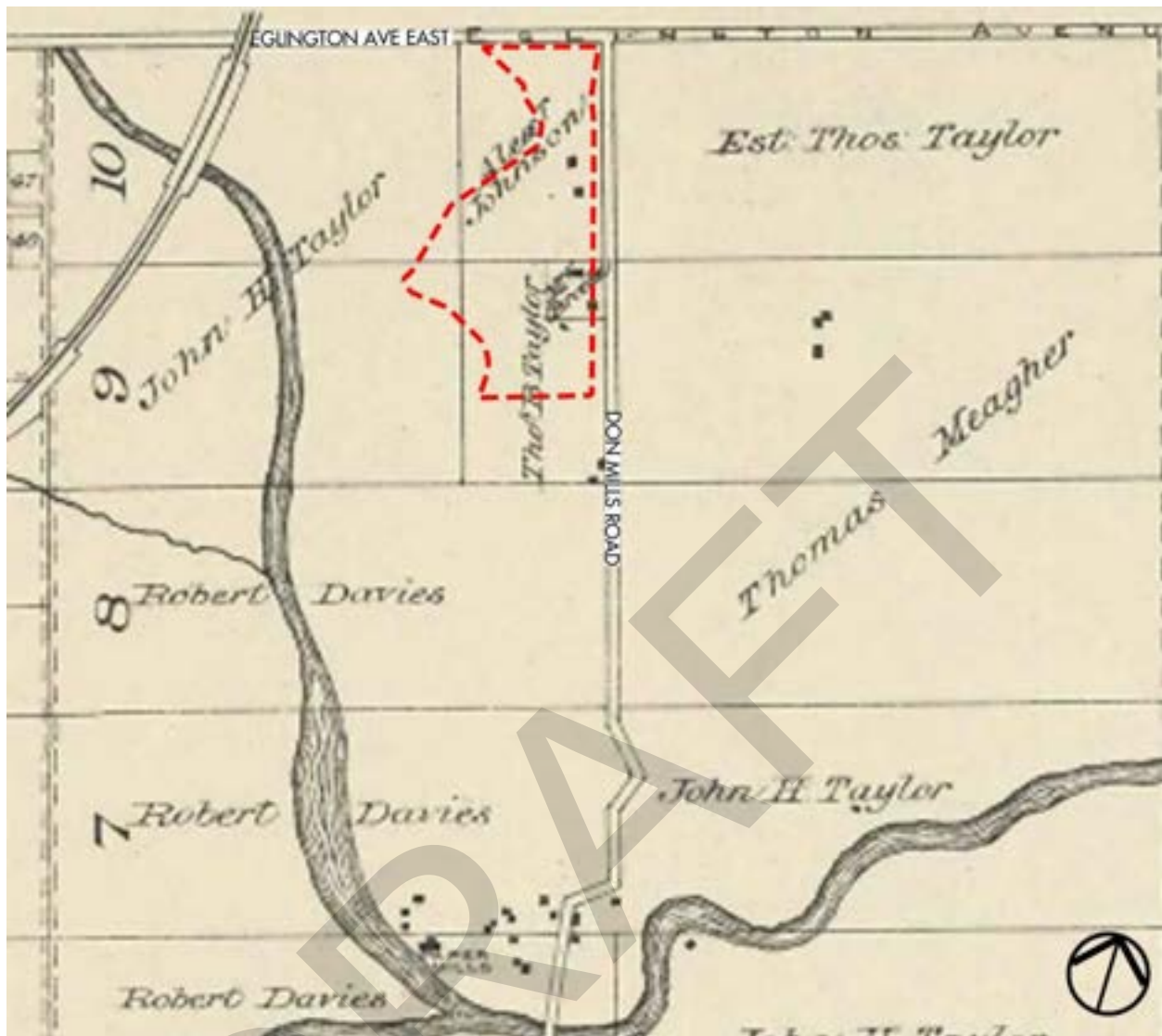


Figure 10: Goad Fire Insurance Plan, 1890 with SBA annotation in red to show the heritage site and modern road names for reference

As noted in **Figure 10**, by 1890, while the Taylors still owned a large tract of land near the Don River, they had also sold off some of their property located close to Eglinton Avenue including the property at Lots 9 and 10 had been subdivided. Thomas Meagher, a Provincial Land Surveyor originally from Tipperary in Ireland, owned the eastern third of Lot 9, and Alex Johnson owned the eastern third of Lot 10. Mapping showed a number of structures on the property likely representative of both houses and barns. Meagher turned to farming after marrying in his early 50s. With his wife, Bridget, Thomas had seven children. Their large estate boasted apple orchards and crops in addition to which they kept livestock. Thomas was a racehorse enthusiast and bred racehorses.²⁸

From Agricultural Roots to Early North York Township 1900-c.1945

The area remained farmland through most of the early half of the 20th century, although the Township of York's northern and southern parts began to develop in different directions. The southern part became increasingly urbanized, while the northern remained primarily rural with some scattered settlements. Within these northern areas, landowners sought to protect their own interests and direct their own

²⁸ <https://www.edbrownwriter.com/post/my-flemingdon-park-historic-meagher-homestead>

growth. As a result of these local efforts, the Township of North York was incorporated in 1922 through provincial legislation.²⁹

With the creation of the Township the area's political and social infrastructure expanded including the formation of a Board of Health as well as police and fire departments.³⁰ The development of the Township was stymied due to the devastating effects of the Great Depression of 1929. Nearly half of North York Township residents were unemployed. When the township defaulted on its bonds resulting from the inability to collect taxes, the province placed North York under its supervision that required provincial approval for all expenditures. This relationship persisted until 1941 when the economy was reignited by Canada's engagement in the Second World War.³¹

Thomas Meagher died in 1911. At the time his daughters, Mary and Margaret had remained living on the farm having never wed. Thomas' two younger sons, James and Michael, also lived on the farm and helped to manage the property. Of Thomas' older children, Thomas II was a hotelier in Toronto, John worked elsewhere, and George was estranged.³² By the early 20th century, the Meaghers had accumulated a good deal of wealth: Thomas and his wife had been members of the Granite Club, and the children had attended a Catholic boarding school.

When Thomas Sr. died he left his estate to his daughters. However, George contested the will claiming the daughters had duped their father in changing it. After lengthy litigation, the Judge seized of the matter ruled in favour of the daughters.³³ Both Mary and Margaret lived on the estate until their deaths while Michael and James (with their families) continued to manage the property. Over the course of the 1920s and 1930s and largely in response to changing economic conditions the Meaghers started to reduce their land holdings.

Michael and his wife, Mary, had seven children. After Michael died in 1932 of influenza³⁴ his brother, James, died too. Michael's son, Thomas, inherited it and he remained on the property until he and his wife Ellen were approached by Metro Toronto to sell it. By the time of sale all the remaining Meaghers were close to retirement or past it and none had children of their own.³⁵ Therefore, they agreed and in 1961 they sold their estate to Metro Toronto for \$356,681.44 for park purposes, subject to a joint tenancy agreement.³⁶ A year later, the Metro Council approved the Parks and Recreation committee's report that the former Meagher farm will be used as the Metropolitan Zoo to be constructed as a Centennial project.³⁷

²⁹ <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-community-neighbourhoods/progress-economy-heart-celebrating-100-years-of-north-york/progress-economy-heart-from-farmland-to-township/>

³⁰ Ibid

³¹ <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-community-neighbourhoods/progress-economy-heart-celebrating-100-years-of-north-york/progress-economy-heart-from-farmland-to-township/>

³² <https://www.edbrownwriter.com/post/my-flemingdon-park-historic-meagher-homestead>

³³ Ibid

³⁴ Canada, Ontario Deaths, 1869-1937 and Overseas Deaths, 1939-1947, "North York Twp, York, Ontario, Canada, 38580, Registrar General. Archives of Ontario, Toronto; FHL microfilm 2,378,772.

³⁵ <https://www.edbrownwriter.com/post/my-flemingdon-park-historic-meagher-homestead>

³⁶ Archives of Ontario, RG 5-4. Box 21. Folder 52.4

³⁷ Ibid



Figure 11: House, west side of Don Mills Road, c. 1965
Credit: North York Historical Society, Local History Collection, Toronto Public Library

Urban Planning and the Expansion of Don Mills 1945 - 1960

The end of World War II in 1945 ushered in a new period of urban growth for the Township of North York. The return of soldiers as well as the influx of immigrants to the province contributed to the growth and expansion of the City of Toronto to accommodate housing, new business, and amenities for the growing population. By 1950, too, the area around Don Mills had dwindled to only twenty farms in its locale.³⁸

Greater transportation infrastructure expanded concurrently with the development of these planned communities. Eglinton Avenue was expanded east, and the Don Valley Parkway was constructed to provide an urban expressway that connected the suburbs to downtown Toronto. In the Don Mills area, large company campuses took advantage of the open spaces. IBM Canada opened its head office and manufacturing plant on the northwest corner of Don Mills and Eglinton in 1951.³⁹ This campus expanded over the ensuing decades with additions and extensions. Designed in the Modern Style, the IBM Headquarters helped to set a precedent in the area for more modern architectural design styles and provided an anchor for new urban planning in the vicinity.

In 1953 the Township of North York was united with other local governments to form the Municipality of Metropolitan Toronto. The once agricultural area provided ample land for suburbs. Planned communities began to grow including Don Mills. The first of its kind in Canada, Don Mills was constructed between 1952

³⁸ <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-community-neighbourhoods/progress-economy-heart-celebrating-100-years-of-north-york/progress-economy-heart-living-in-north-york/>

³⁹ <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-community-neighbourhoods/progress-economy-heart-celebrating-100-years-of-north-york/progress-economy-heart-industrial-development-in-north-york/>

and 1965 on a tract of land between east and west valleys of the Don River.⁴⁰ Flemingdon Park was constructed to the east of Don Mills Road during the 1960s and included high-rise apartment buildings.

The Don Mills community was designed by Macklin Hancock and built by Don Mills Developments Ltd.⁴¹ Hancock was a veteran of the Second World War and a graduate of the University of Toronto with a degree in agriculture. He then studied planning and landscape architecture at Harvard University.⁴² Toronto Industrialist E. P. Taylor, intent on designing new communities and developing properties, selected Hancock, who was (the son-in-law of Taylor's executive assistant) to help design new communities in the city. His first project was Don Mills in 1953.

Influenced by the Garden City design principles, Hancock conceived of a community that reflected a modernist aesthetic, the separation of pedestrian and vehicle traffic, breaking the community into neighbourhood quadrants, integration of industry into the community, and the preservation or creation of a greenbelt. Hancock had socialized and worked with Tommy Thompson, the Advisor on Park and Recreation Facilities in the Community Services Branch of the Ontario Department of Education in 1951 and later the Commissioner of Parks for the Toronto municipal government from 1955 until 1978.⁴³ Thompson championed green spaces and the need to enjoy nature.

During this period of tremendous suburban growth and infrastructure expansion occurred, there continued to be a large emphasis on the need for green space, recreational parklands, and the preservation of nature for citizens to enjoy, as reflected in the planning principles of the Don Mills community. The planned community began in the 1950s and its development continued through the early 1960s.

Contemporaneously, transit systems expanded in and around the area to support the needs of the growing communities outside of the downtown Toronto core. Eglinton Avenue was extended east and west, and as previously noted the Don Valley Parkway was constructed. Its construction north of Bloor Street forced a new alignment through the Don Valley that required the diversion of the river and the removal of some hills and woodland areas. The following aerial photographs [Figures 16-18] clearly show the change of the area from a rural and agricultural one to a sprawling community with the increase of roadways, most notably on the land to the east of the heritage site. All the aerial photographs (from the City of Toronto) have been annotated to show the extent of the heritage site.

⁴⁰ Hart, *Pioneering in North York*, 238.

⁴¹ <https://www.toronto.ca/explore-enjoy/history-art-culture/online-exhibits/web-exhibits/web-exhibits-community-neighbourhoods/progress-economy-heart-celebrating-100-years-of-north-york/progress-economy-heart-living-in-north-york/>

⁴² <https://www.lib.uoguelph.ca/archives/our-collections/centre-canadian-landscape-architecture-archives/macklin-hancockproject/>

⁴³ <https://www.lib.uoguelph.ca/archives/our-collections/centre-canadian-landscape-architecture-archives/macklin-hancockproject/>



Figure 12: Aerial photograph, 1947 (pre-Eglinton extension)
Credit: City of Toronto with SBA annotation



Figure 13: Aerial Photograph, 1959
Credit: City of Toronto with SBA annotation



Figure 17: Aerial Photograph, 1965
Credit: City of Toronto with SBA annotation



Figure 16: Aerial Photograph, 1977
Credit: City of Toronto with SBA Annotation



Figure 14: Aerial Photograph, 1987
Credit: City of Toronto with SBA annotation



Figure 15: Aerial Photograph, 1992
Credit: City of Toronto with SBA annotation

Stable Growth and Modern North York (c. 1960 – present)

Since its initial period of growth, the Don Mills community has remained relatively stable. There has been expansion and change. For example, further north of the heritage site the original Don Mills Shopping Centre constructed in the 1960s was demolished and an open-air centre, the Shops at Don Mills, opened in 2009. As noted in the aerial photographs [Figures 12-17] there has continued to be significant infill in the area surrounding the Ontario Science Centre located primarily to the east of Don Mills while the lands west of the Science Centre have remained unchanged as a result of their continued oversight by the TRCA. In the 21st century, new transit connections have been established with the creation of the Eglinton LRT to extend Toronto's transit system across Eglinton Avenue.

The Toronto and Region Conservation Authority have worked to conserve the green spaces along the Don River north and south and helped to establish an elaborate trail system that connects trails and paths south of Bloor Street north through E.T. Seton Park. Refer to **Figure 2**.

3.5 History of the Ontario Science Centre

The history of the conception, design, construction, and longevity of the Ontario Science Centre coincides with the growth of the Don Mills community and the modernization and urbanization that occurred in the area following the Second World War through to the 1960s.

Throughout the following sections the following key themes are explored:

- centennial celebration projects and Ontario
- the expansion of Toronto and city planning in the 1960s
- the relationship of technology and the natural world
- science/technology and progress
- modernist design

3.5.1 The Ontario Science Centre

Centennial Projects

After the Second World War ended in 1945, Canada experienced tremendous economic growth and increased prosperity as the war time industry quickly adapted to a post-war manufacturing and construction industry.⁴⁴ Additionally, in 1961 Prime Minister John Diefenbaker announced the availability of federal funding for structures to be constructed for Canada's Centennial. The Ontario Science Centre was inspired by the earlier Massey Commission in 1951 that recommended to the federal government the increased support of more arts and culture projects to help foster a sense of national unity.⁴⁵ It was one of 860 buildings constructed across the country to mark Canada's birthday.

For many of these Centennial Projects, architects chose to design within the brutalist architectural style as a symbol of modernity embedded in the architectural form.⁴⁶ "The Centennial Projects, in the youthfulness and vigour of their design, expressed the youthfulness, vigour and optimism of Canada in the 1960s."⁴⁷ The projects ranged in scale and size: smaller towns tended to construct libraries or parks while large cities constructed concert halls or museums. All the projects celebrated community and were constructed as public spaces where people could engage with arts, culture, science, or the natural environment. The following table provides a list of several projects constructed in Ontario:

⁴⁴ Robert Bothwell, Ian Drummond, John English, *Canada since 1945* (Toronto: University of Toronto Press, 1989), 14-21.

⁴⁵ <https://www.cbc.ca/news/canada/centennial-buildings-50th-anniversary-1.3654283>

⁴⁶ <https://www.cbc.ca/news/canada/centennial-buildings-50th-anniversary-1.3654283>

⁴⁷ "Architecture and National Identity: The Centennial Projects 50 Years On," in *Canadian Architect* (September 29, 2014) retrieved at: <https://www.canadianarchitect.com/architecture-and-national-identity-the-centennial-projects-50-years-on/>

Name	Location	Theme
Centennial Museum of Science and Technology*	Toronto	Culture / Institutional / Science & Technology
North York Centennial Arena	Toronto	Sports & Leisure
National Arts Centre*	Ottawa	Arts & Culture
Teck Centennial Library	Kirkland Lake	Institutional
Centennial Hall*	London	Arts & Culture
Queen's Square Centennial Fountain	Cambridge	Arts & Culture
Centennial Tower	Owen Sound	Recreation / Monument
Big Nickel	Sudbury	Monument / Public Art
Confederation Park Fountain	Kingston	Monument / Public Art
Oxford County Library	Woodstock	Institutional
Mimico Centennial Library	Mimico	Institutional
Rosehill Reservoir Fountain	Toronto	Monument / Public Art
Kitchener Centennial Stadium	Kitchener	Sports & Leisure
Centennial Terrace	Burlington	Monument / Public Art

Table 2: Centennial Projects in Ontario⁴⁸ - asterisks denote if the architectural style was Brutalist

The overall objectives of a Provincial Centennial Project included:

- To portray the development of Ontario and its people in terms of outstanding inventions and other significant, scientific and technological achievements.*
- These achievements and inventions will relate to agriculture, forestry, mining, manufacturing, transportation, communications and other industries, and to energy resources, including hydro and to health and education.*
- The portrayal will take place through exhibits and demonstrations which will be initially contained in suitable buildings and settings on a site of appropriate size accessible to all the people of Ontario.*
- The project will provide the basic site and exhibits from which, over the years, will grow an institution of international significance.⁴⁹*

By the mid-1950s through the early 1960s, citizens became captivated by what science and technology could achieve to help modernize their society on both a small and a large scale. In this moment and in anticipation of Canada's Centennial in 1967, active citizens and government officials considered the establishment of a museum dedicated to science and technology as one such project meant to meet the objectives of the Provincial Centennial Project.⁵⁰

Premier John Robarts announced the construction of a centre devoted to science and technology in 1964. This Centennial Centre of Science and Technology was considered the "marquee" centennial project⁵¹ and Premier Robarts noted that, "we are planting a seed from which will grow an undertaking of international significance."⁵²

⁴⁸ The list provided was developed from the following sources: <https://www.cbc.ca/news/canada/centennial-buildings-50th-anniversary-1.3654283>, <http://www.davidkopulos.com/everycentennialproject/> with associated themes developed by SBA through background reading from: http://colinripley.com/uploads/1/2/1/8/121828715/ch1_polo-ripley_canadianmodernarch_4p_1.pdf.

⁴⁹ *Metropolitan Toronto Council Minutes 1964*, Vol.2 Appendix A from August 11, 1964 and Appendices B and C, Appendix A, Report No. 10 of The Parks and Recreation Committee, Item 1, 1841.

⁵⁰ <https://nyhs.ca/north-yorks-ontario-science-centre-a-30m-gamble-that-paid-off/>

⁵¹ http://www.archives.gov.on.ca/en/explore/online/centennial/ontario_science_centre.aspx

⁵² Archives of Ontario, Project Files of the Centennial Planning Branch, "Ontario Science Centre (Centennial Centre of Science and Technology)" booklet, c. October 1966, RG 5-52-59.

In a booklet that provided an overview of the project and its guiding planning principles published in 1966, the frontispiece outlined the goals for the project:

*This is the story of a Centennial project designed to grow with Canada.
Officially it is the salute of the Province of Ontario to the nation's first century of Confederation.
But it is not just a commemoration of the past. It is an investment in Canada's present and future
in the world of accelerating change.
The Centennial Centre of Science and Technology will be a unique public institution – combining
many characteristics and functions of museum, school, university, and exhibition.
It will be devoted to helping people of all ages understand the scientific revolution and the impact
of technological advances on their lives.
Its ultimate concern will be the welfare of Man himself and his progress toward a better life.⁵³*

The booklet also provided rationale for the setting and design of the OSC. The setting influenced the design, and the property's location was carefully chosen to reflect "the over-all concept of presenting science and technology as part of Man's total experience."⁵⁴ While the location is noted as being removed from the downtown of Toronto, the public transportation infrastructure, expressways, and highways helped to provide "the best possible access for residents of the region as well as more distant Ontarians and out-of-province visitors."⁵⁵

Brutalist Architectural Style

"Brutalism examines the beauty of concrete."⁵⁶ Brutalism originated in England as a response or reaction to the international architectural style that dominated the 1920s through the 1950s that emphasized glass curtain walls.⁵⁷ Brutalism quickly spread to Ontario and Canada during a sustained period of institutional building when the economy of construction exerted an influence on the design process. Brutalism, which favoured and relied on concrete as a building material, provided a relatively inexpensive way to accommodate the climate conditions of Canada, and could be erected with relative speed.⁵⁸

Brutalist design incorporated texture to help exaggerate or call attention to the sense of mass.⁵⁹ The style evolved from architect Le Corbusier's term "béton brut" (meaning raw concrete) and was typified by large concrete masses (or walls) that would extend to the ground and convey a sense of futurism.⁶⁰ In Britain the style expressed the growing welfare state and the idea that public facilities or spaces were constructed

⁵³ Archives of Ontario, Project Files of the Centennial Planning Branch, "Ontario Science Centre (Centennial Centre of Science and Technology)" booklet, c. October 1966, RG 5-52-59.

⁵⁴ Archives of Ontario, Project Files of the Centennial Planning Branch, "Ontario Science Centre (Centennial Centre of Science and Technology)" booklet, c. October 1966, RG 5-52-59, pp 5-6.

⁵⁵ Ibid

⁵⁶ Leslie Maitland, Jacqueline Hucker & Shannon Ricketts, *A Guide To Canadian Architectural Styles*, (Toronto: Broadview Press, 1992) 185.

⁵⁷ <http://www.ontarioarchitecture.com/international.html>

⁵⁸ <http://www.ontarioarchitecture.com/Brutalist.htm>

⁵⁹ Ibid

⁶⁰ Will Sloan, "What is the Legacy of the Centennial Projects" in *Toronto Met Today*, (July 2017), retrieved at <https://www.torontomu.ca/news-events/news/2017/10/what-is-the-legacy-of-the-centennial-projects/>

for everybody.⁶¹ The association with this particular architectural style and its perceived egalitarian aim played out in the Canadian context within this period and particularly during the 1960s when many new public buildings used this style in their design and construction.⁶² “Brutalism in this era was also closely linked to the concept of “megastructuralism,” which looked at projects not as single buildings but as large collections of objects connected by an infrastructure.”⁶³

Other notable brutalist buildings contemporary to the OSC include but are not limited to: the D.B. Weldon Library in London, Robarts Library in Toronto, Erindale College (part of the University of Toronto on what is now the Mississauga Campus), Brantford City Hall in Brantford, the John M. Kelly Library on the University of St. Michael’s College campus part of the University of Toronto, the Sears Canada headquarters in Toronto, R.H. Coats Building in Ottawa, and the Allan Carswell Astronomical Observatory at York University.⁶⁴

Site Selection

By the early 1960s the expansion of Toronto to the north, west, and east was a key factor in the selection of the site for the Science Centre at the intersection of Don Mills Road and Eglinton Avenue. The investment by Metropolitan Toronto in the expansion of public infrastructure coincided with a development push outside of the downtown core of the City and the desire for housing and space for the growing metropolitan.⁶⁵ The Don Valley Parkway, too, was under construction. The selection of the site for the Centennial Museum of Science and Technology coincided with this moment of expansion in the Don Mills area and the way areas of the city were being reimagined in the post-war urban planning environment.

Macklin Hancock, a lead figure in the design of the Don Mills Community was also instrumental in the site selection for the facility. Hancock worked on the site plan and landscape design for the Centre because the proposed location of the museum at Don Mills and Eglinton and abutting a large ravine required careful consideration of the surrounding context. Hancock had previously worked on the Expo 67 plan for Montreal amongst other planning projects including Ontario Place. In an interview with William Greer, Hancock noted, “Oh Yes. I wanted it to be *in* that area because it was for Ontario, not for the City of Toronto. So I thought, ‘Where do you put the thing that’s close to Toronto but also enables people to think it’s theirs from North Bay.’”⁶⁶

While there was increased development of the Don Mills community to the north, the southwest corner of Eglinton Avenue and Don Mills Road remained untouched, perhaps because its tableland terminated into wetlands of the Don Valley below. Owned by the Meagher family since the late 19th century, the site was selected for the new science centre. As noted in **Section 3.4**, this land was owned by the Meagher family until they were approached by Metro Toronto to sell it in 1961.⁶⁷ A year after the sale, the Metro Council approved the Parks and Recreation committee’s report that the Meagher site will be used as the Metropolitan Zoo to be constructed as a Centennial project.⁶⁸

⁶¹ Ibid

⁶² Sloan, “What is the legacy of the Centennial Projects?” (October 2017).

⁶³ Ibid

⁶⁴ Source material from: <http://www.ontarioarchitecture.com/Brutalist.htm#Brutalist%20Brantford>

⁶⁵ Richard White, “Urban Infrastructure and Urban Growth in the Toronto Region, 1950s to the 1990s” (January 2003), retrieved at <https://neptis.org/publications/urban-infrastructure-and-urban-growth-toronto-region-1950s-1990s>

⁶⁶ William Greer, “Heritage Significance Study – Ontario Science Centre: Appendix 3.0, Interview with Macklin Hancock, April 2003” 114.

⁶⁷ Archives of Ontario, RG 5-4. Box 21. Folder 52.4

⁶⁸ Ibid

Hancock opined on the selection of the site that, “I wanted it to be in the valley, to be a nature place, you see. It was in the valley. And then on top would be modern science, modern people, modern way of living, and Flemington Park. That’s why it’s sited there.”⁶⁹ The “design reflects the bi-level arrangement and the bridge across.”⁷⁰

For Hancock, going further north did not make sense because the highway systems did not have the capacity to transport large numbers of people at that time.

Design Intent & Team

Raymond Moriyama received the commission to design the centre in 1964, one of his first major project. Moriyama was born in Vancouver in 1929 and moved east for his architectural studies, first at the University of Toronto in 1954 and then McGill University in 1957 where he graduated with a Master of Architecture degree. After graduation Moriyama settled in Toronto and opened his own architectural firm called Raymond Moriyama, Architects and Site Planners, located on Yorkville Avenue. In 1961 he won the Massey Medal for the Civic Garden Centre located in Toronto (the Toronto Botanical Gardens).

Moriyama’s reputation for design excellence and his design aesthetic that favoured contemporary design/architecture put him on the radar of the Ontario provincial government. The government sought a young architect to design their proposed Museum for Science and Technology. For this official Centennial project, the Government wanted a building that reflected no other design precedent, and Moriyama’s award winning Japanese Cultural Centre located in Toronto in the same area as the future Ontario Science Centre helped to secure him the job.

Moriyama later went on to design the Scarborough Civic Centre, the Toronto Reference Library, the Bata Shoe Museum, and the Canadian Embassy in Tokyo. Moriyama drew upon his Japanese cultural roots to influence architectural forms in the west. “Some of his core values as an architect involve the principles of designing for human scale and human functionality.”⁷¹ Moriyama has won numerous awards for this work including the Governor General Award for Architecture in 1991 and he was named to the Order of Canada in 1995. Moriyama retired in 2003 but continues to be a trusted resource in the profession.

Upon Moriyama receiving the commission for the Ontario Science Centre, Moriyama visited examples of similar museum types in Europe and parts of the United States. This architectural tour helped to inform his eventual design based on the integration of architectural spaces with the requirements of a museum focused on an educational experience. In an interview about his work on the Ontario Science Centre in 2003, Moriyama reflected that he asked himself the question at the time, “how do people learn?”⁷² For Moriyama, engaging an individual’s senses, and particularly touch was crucial to the programming of a museum dedicated to science and technology. This philosophy helped to inform the design. The Ontario provincial government wanted the Ontario Science Centre to be constructed out of concrete because the material conveyed how the complex could be monumental.⁷³

Moriyama “conceived in the form of a city, the Centre respects the existing trees and configuration of land table, valley, and ravine. Throughout, vistas of the natural landscape are constant reminders that, despite

⁶⁹ William Greer, “Heritage Significance Study – Ontario Science Centre: Appendix 3.0, Interview with Macklin Hancock, April 2003” 115.

⁷⁰ William Greer, “Heritage Significance Study – Ontario Science Centre: Appendix 3.0, Interview with Macklin Hancock, April 2003” 115.

⁷¹ “A Fine Balance: The Art and Science of Architecture,”
<https://mcgillnews.mcgill.ca/s/1762/news/interior.aspx?sid=1762&gid=2&pgid=1526>

⁷² Greer, 102.

⁷³ Ibid 101

the emphasis on science and technology, nature remains the basis of life.”⁷⁴ The landscape architect, Bon W. Mueller, who worked with Moriヤマ in his office worked not only on the plan for the science centre but also the Master Plan for the Ernest Thompson Seton Park. E.T. Seton Park forms the eastern border of the OSC as part of the larger conservation areas that extend along the West Don Trail. Named for the Scottish-Canadian author and wildlife artist who spent much of his childhood in the Don River Valley, the creation of the park space reflected a preservationist impulse of the 1950s and 60s to protect park and green space as a direct response to the massive growth of infrastructure and development.⁷⁵ Charles Sauriol, a Canadian ecologist, persistently lobbied the City of Toronto for the creation of the park. Moriヤマ’s design also reflected his philosophy to express the building or museum as a “sequence of experiences.” The surrounding setting provided the framework or basis for each part of these experiences and was intended to remain visible or observable through glazed wall areas, windows, or on adjacent exterior patios. The educational, aesthetic, and spiritual value of the natural setting helped to anchor the modernist or contemporary elements to depict balance between science and nature.

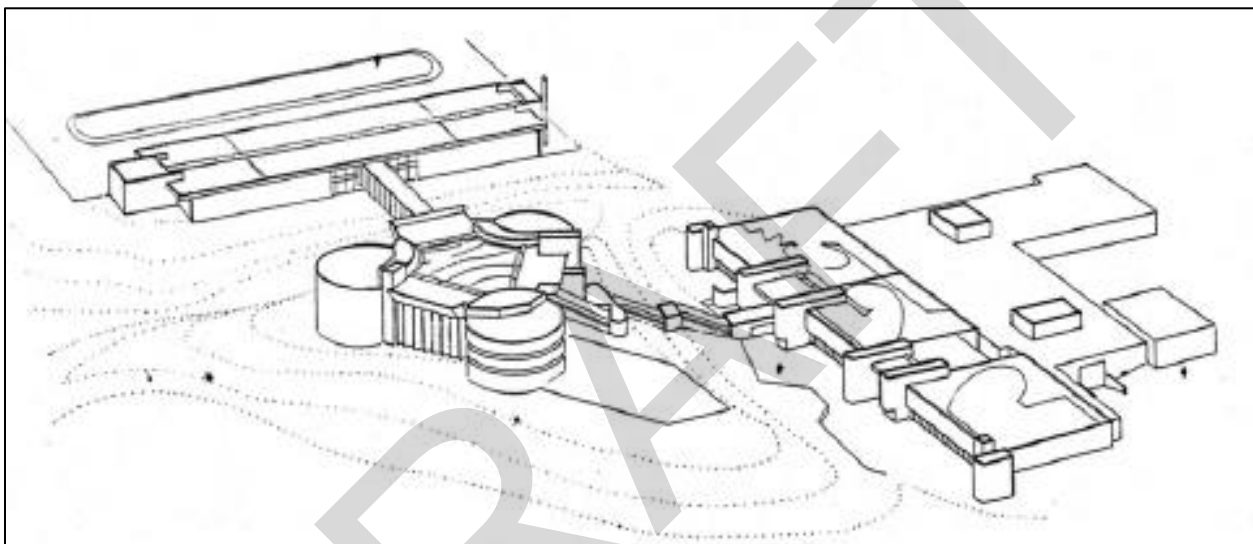


Figure 18: Schematic axonometric depicting the relationship of the three buildings
(Credit: *Process: Architecture*, Issue No. 107, 1992 as reproduced in *Concrete Toronto*)

The OSC was designed to provide a series of six “sequential” experiences:⁷⁶

- The “opening” – represented by the forecourt including the original fountain, parking, and pedestrian entries.
- The “mundane” – the Main Entrance building that contained the storage, ticketing, the boiler room, and other administrative functions.
- The “psychological break and reintroduction” – the bi-level bridge that moved the visitor from their point of entry over the natural ravine environment.
- The “Statement” – the Core Building with its great, central hall, lecture rooms, and ~~some~~ exhibition space.
- The “Adjustment” – the elevators and escalators that link to the lowest level.
- The “Back-up” – the exhibition halls, workshops, and specialty areas and offices, all located in the Valley Building.

⁷⁴ <https://mtarch.com/projects/ontario-science-centre/#>

⁷⁵ Dennis Duffy, “Historicist: Ernest Thompson Seton, Charles Sauriol, and Discipleship in the Don Valley,” in *Torontoist* May 21, 2016, retrieved at: <https://torontoist.com/2016/05/historicist-seton-and-sauriol/>

⁷⁶ Raymond Moriヤマ in “Thought Process and Intent” in *Canadian Architect* 13 (September 1969), 13.
See also Douglas N. Omand, “The Ontario Science Centre in Toronto,” in *Museum XXVI.2* (1974) 76-85.

Each of the three interconnected buildings served a specific programmatic function and reflected the philosophy that architecture was rooted in the connection of land, nature, and context.

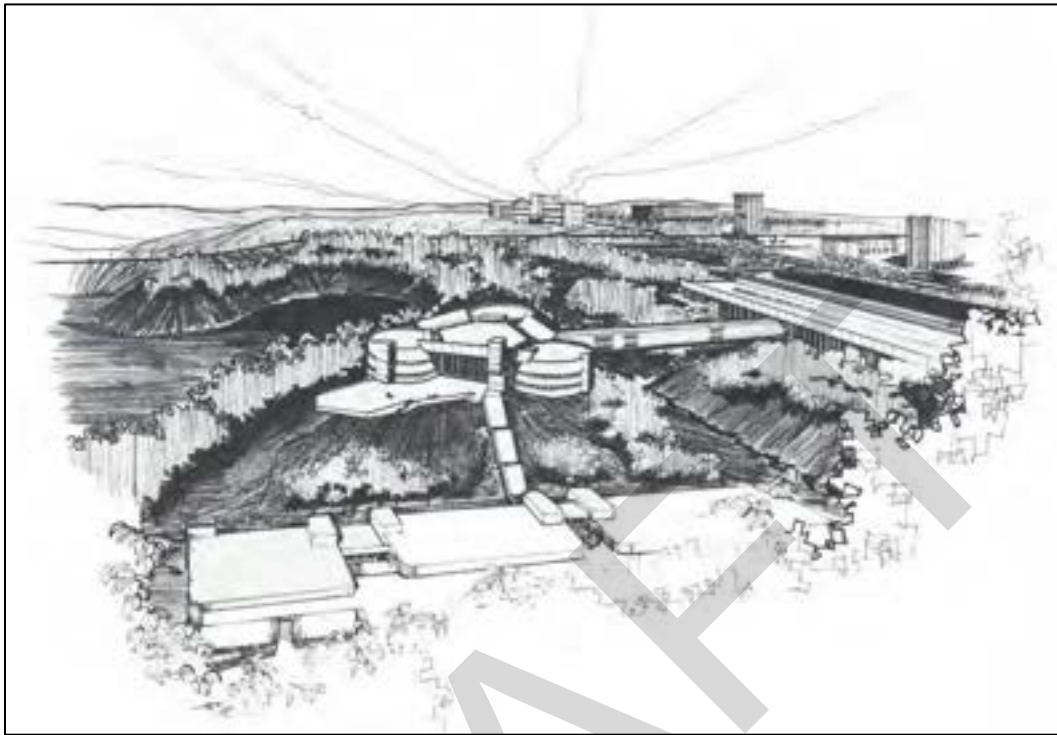


Figure 19: Concept Sketch of OSC complex looking north by Raymond Moriyama

The Main Building was located on the tableland near Don Mills Road. It was connected to the Core Building via a bridge. The Core Building was designed to express the trillium, the provincial flower of Ontario. This Great Hall included lecture spaces and a larger, central, open interior. The Valley Building housed the main exhibit halls. In his original design Moriyama anticipated the need for expansion in the Valley Building and chose materials that would allow for these additions to be made without sacrificing the original design.



Figure 20: Aerial view looking northeast. c. 1969
(Credit: City of Toronto Archives Series 1745, File 9, Item 5)



Figure 21: Original Main Entrance with forecourt fountain c. 1970
(Credit: Moriyama & Teshima Architects)



Figure 22: Interior of Core Building, n.d.
(Credit: Moriyma and Teshima Architects)

For ~~this~~ the project, Moriyma worked with a team of professionals to help carry out the design and the logistics of the construction of the Ontario Science Centre. Glenn Creba, the Chief Architect for the Public Works Department of the Provincial Government, oversaw the administration of the design and construction period from 1964 until 1969 from the provincial side.

Morden Yolles supported the design from an engineering perspective and helped to provide structural innovation in collaboration with Moriyma, with whom he had previously worked on the Japanese Cultural Centre. A graduate of the University of Toronto Yolles started his own engineering firm in 1952. Yolles was joined by Roland Bregman, a bridge engineer from Austria, in 1955. Their partnership had a profound influence on Moriyma's design. Their structural engineering expertise complemented Moriyma's bold vision for the complex.

The strong structural elements are particularly evident in the design of the 210-foot bridge that spans the ravine to connect the Main Entrance Building with the Core Building. Yolles firmly believed that engineering structures could have artistic expression.⁷⁷ "For an engineering firm like Yolles emerging in the 1950s, the early years of modernism in Canada were characterized by opportunities for technical innovation in design, construction, and the use of materials."⁷⁸

Yolles later went on to design some of the world's tallest buildings. He was invested into the Order of Canada in 2003.

⁷⁷ <https://imagomundicollection.org/artworks/morden-yolles-portrait-can>

⁷⁸ Beth Kapusta and John McMinn, *From Yolles: A Canadian Engineering Legacy* (Vancouver: Douglas and McIntyre, 2002), retrieved at <https://www.canadianconsultingengineer.com/features/structures-the-yolles-legacy/>

The OSC officially opened on September 27, 1969. By its opening the original budget estimate of \$5million had swelled to \$30 million. The Ontario Science Centre was an immediate success. In the intervening fifty years, the OSC continued and continues to welcome visitors to its exhibits and halls that have been changed and adapted to reflect advances in science and technology and to reflect the original impulse to create space where these changes could be demonstrated in a “hands-on” way.

In 1996 the Main Building’s front elevation was altered to accommodate the construction of an OMNIMAX theatre, the only one of its kinds in Ontario.⁷⁹ Designed by Zeidler Roberts Partnership under the design supervision of Eberhard Zeidler, the new entrance expanded the old one, but removed the main stairs to the second level entrance lobby in favour of a new entrance lobby at grade. A new, two-level glass wall enclosed lobby created a new lobby space where guests could enter the exhibition space of the Ontario Science Centre or use the Imax theatre.⁸⁰

The notable alteration can be understood to reflect the need for the programming of the OSC to remain relevant and to correspond to the times, engaging new audiences and generations. John Bentley Mays, the Art and Architecture critic for *The Globe and Mail* at the time noted that the addition helped to rejuvenate a building that had started to feel dated.⁸¹ Mays’ also observed in his column that whether a person liked the addition or not, it responded to a desire in society for entertainment. It also reflected the changing structure of such institutions and greater reliance on corporate sponsorship.⁸²

Christopher Hume the architectural columnist for *The Toronto Star* wrote upon the opening of the addition that,

Many Buildings are ugly, a few are beautiful, and most fall in between.

But the Ontario Science Centre was none of the above. It has always been an invisible place, an anonymous structure hidden behind parking lots, entrance roads and an absurdly large fountain that rarely seems to work.

*Now, nearly 30 years after it opening, the science centre finally has a face to call its own.*⁸³

Hume noted that Eb Zeidler approached the addition as a way “to open up the centre so you can see what’s happening inside. It had a kind of fortress look to it, but today we live in age where the way we represent things changes the way we receive them.” Eb Zeidler was an award winning architect in the province who embraced a modern style of design and, like Moriyama, was concerned with the interplay between the setting of a building and the building itself. Notably, he designed Ontario Place in 1967.

The addition, while perhaps controversial because of its clear departure from the original design by Moriyama, responded to changing trends in architectural design by the late 20th century. Arguably, it also respected the impulse that animated the original concept of a museum dedicated to science and technology in the 1960s – to make science accessible and interactive. Whether liked or not, the theatre created a very prominent frontispiece that has made the OSC a visible “landmark with a futuristic feel”⁸⁴ along Don Mills Road.

⁷⁹ J. Tuzo Wilson, “The Ontario Science Centre,” in *The Canadian Encyclopaedia*, retrieved at: <https://www.thecanadianencyclopedia.ca/en/article/ontario-science-centre>

⁸⁰ <http://spacing.ca/toronto/2013/07/16/mod-toronto-ontario-science-centre-raymond-moriyamas-temple-of-technology/>

⁸¹ John Bentley Mays, “Making a Spectacle of Science,” in *The Globe and Mail* (September 11, 1996).

⁸² Ibid

⁸³ Christopher Hume, “Science Centre Finally has a Face to Call its Own,” in *The Toronto Star* (December 5, 1996).

⁸⁴ Ibid



Figure 23: Main Entrance primary elevation c. 1996
Credit: Ontario Science Centre with SBA annotation

The forecourt fountain was removed in the mid-2000s and replaced with an environmentally friendly greenspace. Concurrently, the Weston Family Innovation Centre was opened within the Valley Building, and other programming changes occurred within the Core Building with the addition of the KidSpark installation.

3.5.2 Chronology of the Subject Property

Date	Event
Pre-settlement period	
1791	York Township is surveyed and settlement in the area commences
1797	"Toronto Purchase"
Early 1800s	The subject property and its surrounding environ is settled; farms begin to emerge to the east and west of the Don Independent Road running north-south
1846-1847	The Upper Don Paper Mill is established by the Taylor Brothers
1860	- Charles Snider owns the westerly 2/3 of the west half of Lot 10. There is a house on Snider's property P. Johnston owns the easterly 1/3 - The Taylor brothers continue to own an expansive property along the Don River
1878	J. H. Taylor and his brother own the westerly 2/3 - No owner is indicated for the easterly 1/3 - Each property has a house on it
Late 19 th century	The Taylors sell the property to Thomas Meagher. It remains in the Meagher family, who farmed it, until the 1960s
1961	Metro Toronto purchases 15.763 acres fronting Don Mills and Eglinton for \$356,681.44 subject to a joint life tenancy agreement with Thomas and Ellen Meagher
1962	Approval by Metro Toronto of Parks and Recreation Committee's proposal to develop the site as a centennial project, initially conceived as a zoo
1963	Formation of a Science and Industry Committee to investigate the educational potential of a science "museum"
	Zoo project abandoned as untenable
	Federal Government announces \$2.5M for use towards centennial projects in each province
1964	Location of the future Centennial Centre for Science and Technology selected. Macklin Hancock was in charge of the site selection and selected the growing Don Mills area
1964-1969	Ontario Centennial Centre for Science and Technology constructed
1969	The Centennial Centre for Science and Technology is opened; the Centre is renamed the Ontario Science Centre
1979-80	Addition of greenhouse at southwest corner of Valley Building
1989-90	Storage and assembly Workshops (South Wing) added – designed by Moriyama & Teshima
1992-93	Internal Courtyard in Valley building covered to create Rainforest exhibit
1995-96	Prominent addition completed in front of the façade of the original entrance buildings – addition of the Omnimax theatre, creation of a new group entrance, and removal of the main staircase. The design was done by Eb Zeidler of Robert Zeidler Partnership. A new forecourt designed by EDA collective replaces the 100-jet fountain
1996-97	Valley Building restaurant addition designed by Julian Jacobs Architects Ltd.
c. 2005	The forecourt fountain was removed and replaced with an environmentally friendly greenspace. Concurrently, the Weston Family Innovation Centre was opened within the Valley Building, and other programming changes occurred within the Core Building with the addition of the KidSpark installation

4. Description of Setting

4.1 Naturalized Ravine Setting

The location of the Ontario Science Centre is a crucial element for the facility. Located in the watershed of the Don River, the natural setting under the governance of the TRCA and the City of Toronto was incorporated into the design of the modern facility. Views to and from the ravine were considered, as was the experience of the natural world. As noted in **Section 3.5.1**, the OSC was designed to have its most modern looking facility as the Main Entrance Building on the tableland, with increasingly integrated designs into the natural setting with the Core Building located on the knoll and Valley Buildings located in the valley.

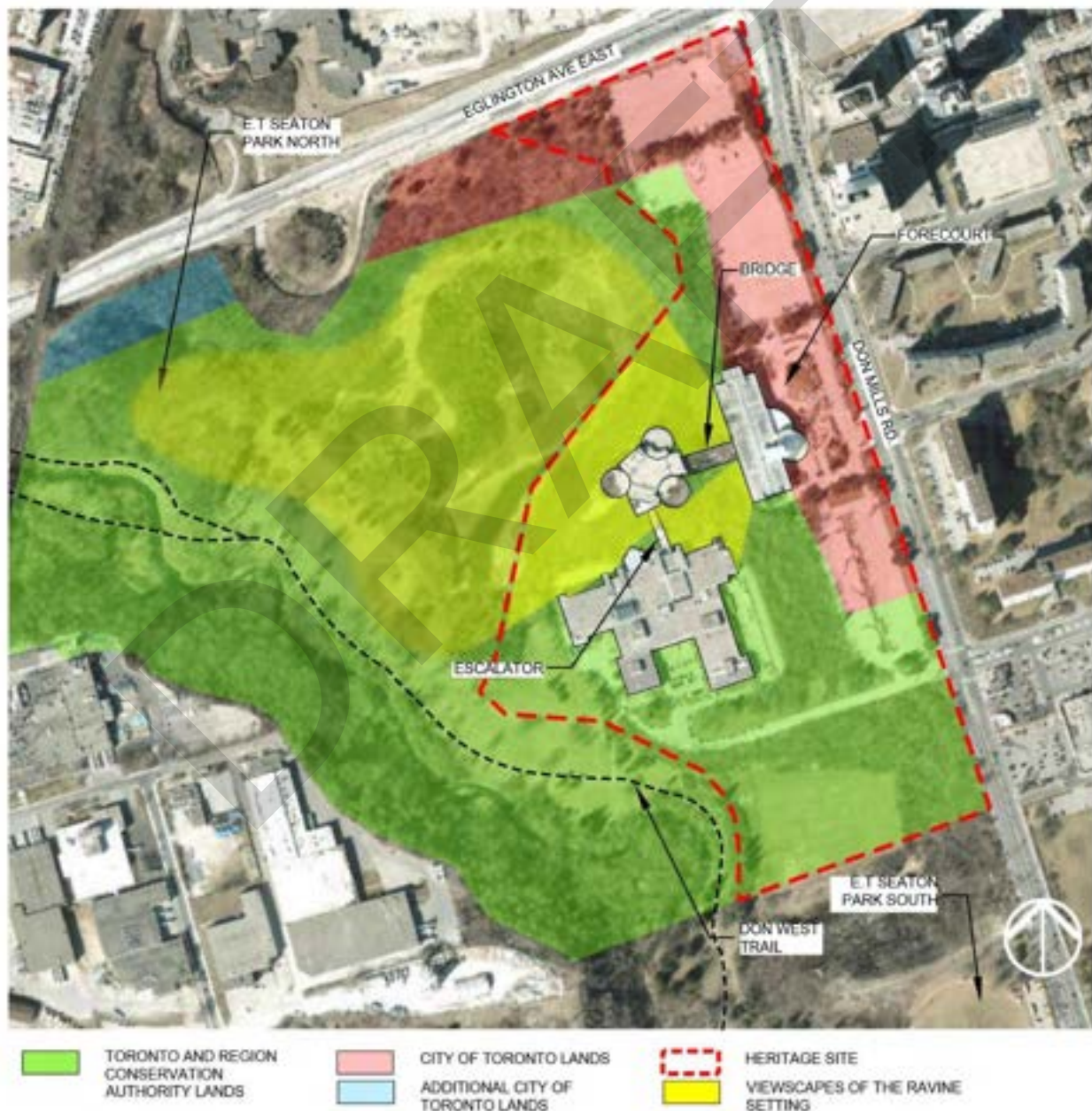


Figure 24: Setting Context map showing natural ravine setting,
Credit: Google Earth Base Map with SBA annotation



Figure 25: View northeast with rear of Main Entrance to right of image, bridge, and Core Building in view



Figure 26: Aerial View of Main Building (at top of image) and linked by bridge to Core Building with TRCA lands below

The land surrounding the OSC to the south and west is part of the Upper Don trail system that connects to E.T. Seton Park at the north. This protected greenspace has helped to maintain the setting of the OSC and the juxtaposition of the modern architecture against the naturalized backdrop.



Figure 27: Aerial view northwest from Core Building toward E.T. Seton Park



Figure 28: Aerial view looking at the west side of Core Building

Connections between the buildings were designed in consideration of the setting, either meant to span the geography of the site, as in the bridge [Figure 26] or the escalators set into the slope [Figure 29].



Figure 29: View of Escalators connecting Core Building (to right of image) with Valley Building set into the natural ravine embankment



Figure 30: Aerial view southwest towards the Valley Building and the parkland beyond

The setting is in good condition and has been well maintained throughout the history of the OSC.

4.2 Landscaped Setting

In addition to the naturalized ravine setting, areas of the site have been landscaped with both hard and soft landscape elements. The province has care and control over these elements as part of the daily operation of the OSC and as a result they are included as part of this research. These elements are noted in the following photographs.



Figure 31: Main Building, Front Entrance
Credit: Google, 2023



Figure 34: Stadium seating in front of entrance



Figure 35: Main Entrance forecourt space



Figure 32: View from Omnimax entrance towards Don Mills Road and exterior landscaping



Figure 33: View north toward Omnimax

5. Description of the Built Heritage of the Ontario Science Centre

A complex is a group of buildings intentionally designed to be used together for a particular purpose.⁸⁵ As noted in **Section 3.5.1**, the OSC was designed as a series of sequential experiences and its buildings all work together as a complex with each building providing a unique function as part of the overall experience of the museum. The series of interconnected buildings set into a natural setting (as discussed in **Section 4**), each share similar design elements that provide architectural cohesion to the entirety of the complex. As a result of these shared features, the following descriptions address those elements that apply to the entirety of the complex. **Sections 5.2** through **5.4** provide details particular to the design of each of the component buildings and their respective connection points to each other and the naturalized setting. SBA has used William Greer’s “Heritage Significance Study” (2003) and its identification of character defining features as the starting point for their descriptions and as corroborated by their own research and visual investigation.⁸⁶

In terms of the building condition commentary SBA incorporated the observations and recommendations from the Building Condition Assessment and 20 Year Capital Plan prepared for Infrastructure Ontario by Pinchin in April 2022, supplemented by SBA’s walk-throughs and the Base Building Assessment Reports conducted in April 2020.

5.1 The OSC Complex

Designed in the Brutalist architectural style (refer to **Section 3.5.1**), the complex incorporates three buildings each designed so that their individual architectural form expresses their function and purpose. Throughout the complex, the use of large, unobstructed window openings and skylights juxtaposes views of the natural setting with the modernist architectural built form.

⁸⁵ Definition adapted from: <https://www.lawinsider.com/dictionary/building-complex>

⁸⁶ Within Greer’s study, Section 3.2 – Physical Description, 3.4 Integrity, 3.5 – Materials, Fixtures, Chattel or Equipment, 6.2 – Characterizing Defining Architectural Features and Section 6 – Summary Heritage Assessment all provided an important basis for the details identified within this CHER.



Figure 36: Context Map showing the OSC complex set within the broader heritage site

Credit: Google Base Map annotated by SBA based on IO mapping of the OSC and its lease lands and to show the heritage site outline in red

Since it opened in 1969, the OSC complex has undergone a series of alterations. Most of these changes occurred in the Valley Building, which was designed to accommodate expansion. All of these alterations occurred in response to changing programming needs.

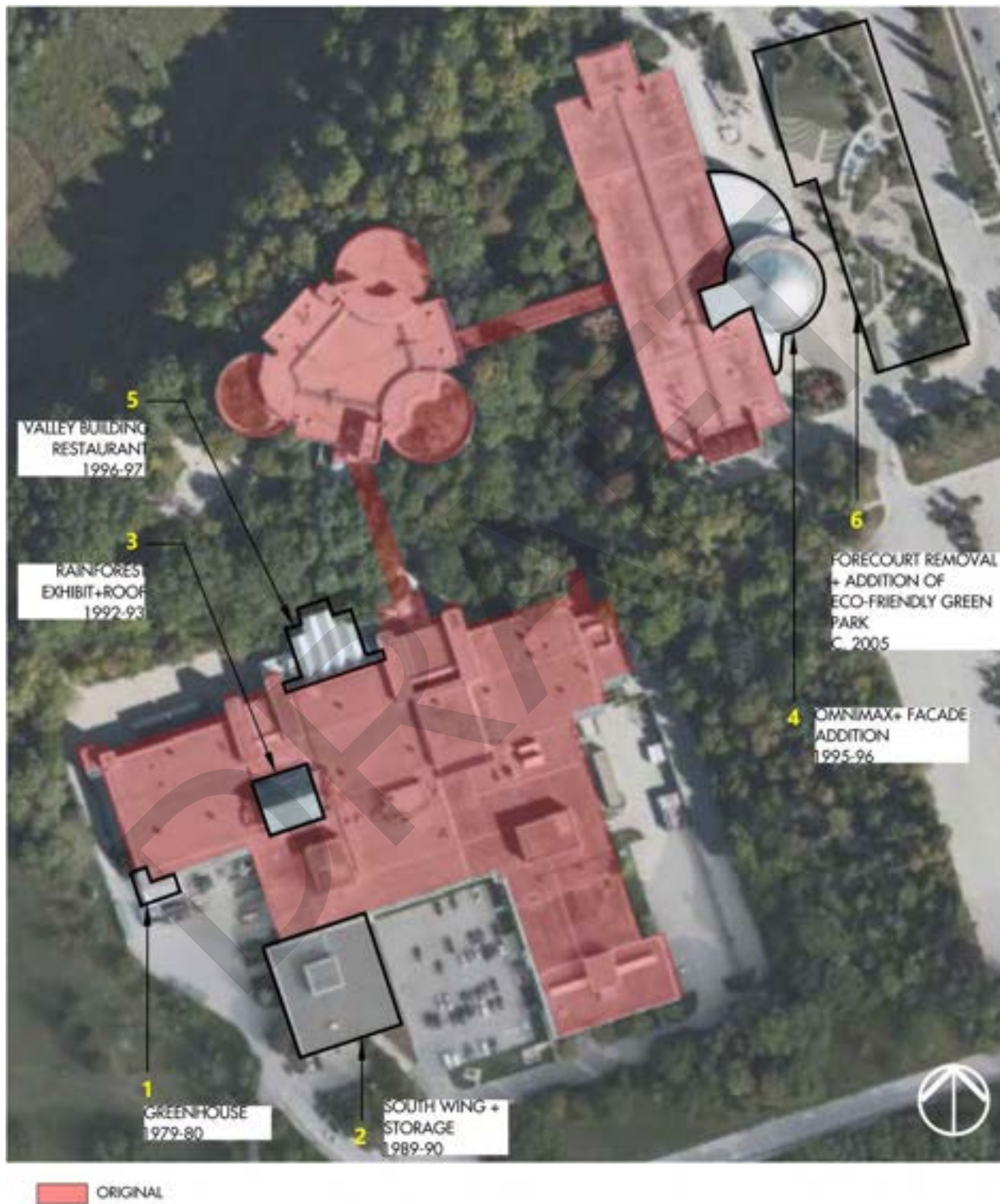


Figure 37: Chronology of Changes
(Credit: Google Basemap with SBA annotation)

5.1.1 Circulation

Circulation was carefully considered within the design of the Ontario Science Centre. The main vehicular entrance from Don Mills Road, the location of parking, the flow of traffic, the pedestrian experience before entering the complex, and the circulation of people within the complex are key elements of its design and have remained intact.

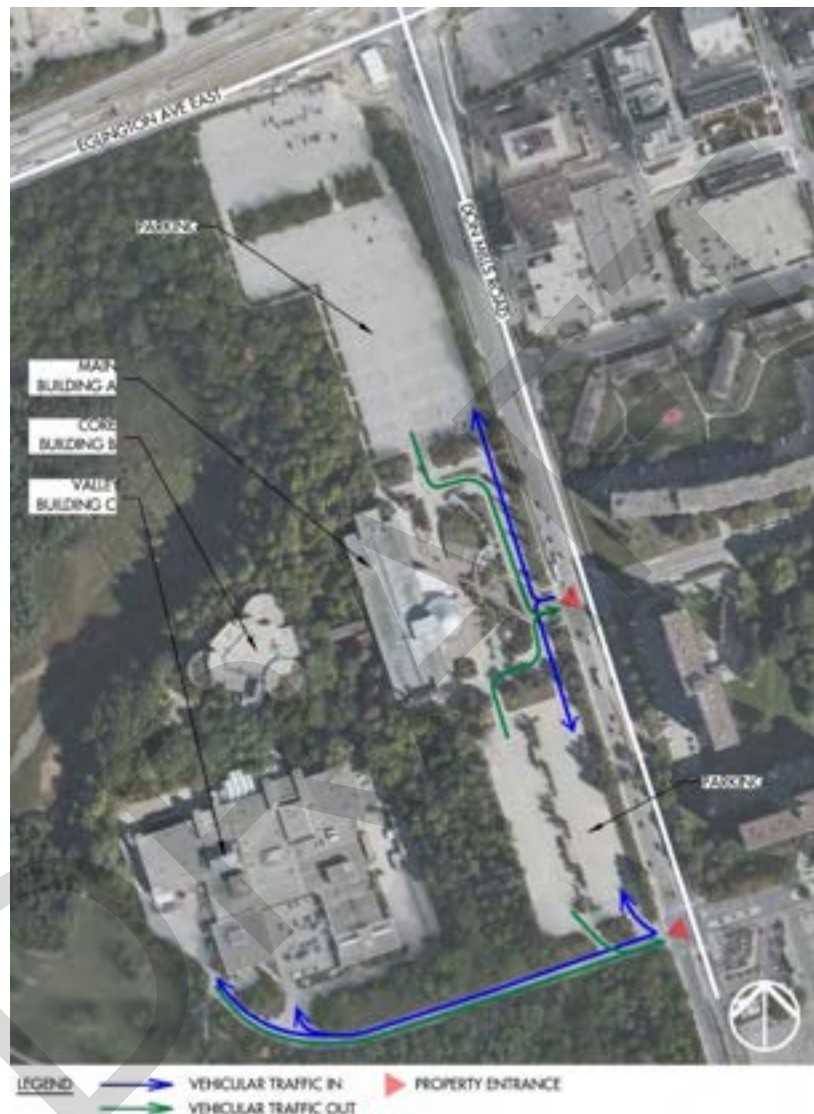


Figure 38: Vehicular Circulation Map Key Map
Credit: Google Earth with SBA annotation

Parking and Traffic

There are two surface parking areas, one located to the north of the Main Entrance and one to the south. They are accessible by entrances located along Don Mills Road, the southern two at major intersections. The parking areas are located away from the pedestrian forecourt in front of the Main Entrance Building. Refer to **Figure 38**.

Forecourt

Originally a large fountain dominated the forecourt of the OSC. The original fountain had one hundred jets incorporated into it to commemorate Canada's Centennial in 1967. The fountain also provided a cooling element for the original air conditioning system for the complex. A road wound around the entirety of the fountain. The forecourt is part of lands leased by the provincial agency over which they have care and control.



Figure 39: Original Forecourt with Fountain feature
(Credit: W.J.L. Gibbons for use on Ontario Science Centre postcard, n.d.)

Coinciding with the addition of the Omnimax Theatre in 1995/96 (refer to **Section 5.2.3**) the forecourt space was reimagined. EDA Collaborative designed the Teluscape Plaza that combined native trees, a wetland with walkways, and interactive experiences with installation art and an outdoor forum to create a more useable space for visitors. **Figure 37** shows the additions and **Figure 40** shows the design of the new forecourt.

The new forecourt was required in part due to the change in grade that was required for the construction of one level access to the building's entry points. This change in grade led to the decommissioning of the fountain, and the removal of the driveway immediately in front of the Main Entrance Building. It provided an opportunity to enhance the pedestrian experience prior to entering the complex and extended the "experience of nature" and the interactive qualities of the OSC to the exterior space while improving accessibility and safety.



Figure 40: Drawings for new forecourt
Credit: EDA Collaborative Inc.



Figure 41: View northwest of current Forecourt configuration
(Credit: MapCart, n.d.)



Figure 42: Aerial view looking south over current forecourt area

Pedestrian

A designed pattern for circulation directs the visitor through a sequential experience of the complex. The direction through the architectural spaces also reflects the functional uses of each building. Moving through the Ontario Science Centre, a visitor typically enters via the main doors adjacent to the Omnimax Theatre and then travels through the Main Entrance Building, the hub of visitor services, to the Core Building via a bridge. The Core Building contains auditoriums and exhibition spaces. The visitor then continues their route to the Valley Building via an escalator or a pedestrian foot trail located on berms within the slope of the ravine. The Valley Building contains more exhibition space, a restaurant and learning spaces.



Figure 43: Pedestrian Circulation Map –
Credit: Google Earth with SBA annotation

While pedestrians can move in both directions, the exhibit and crowd control for the Complex continue to be directed via this pattern.⁸⁷ The Main Entrance Building includes Levels 1 and 2, the Core Building includes Levels 3 and 4, and the Valley Building includes Levels 5 and 6. These levels correlate to the storeys within each building (as shown below on **Figure 44**).

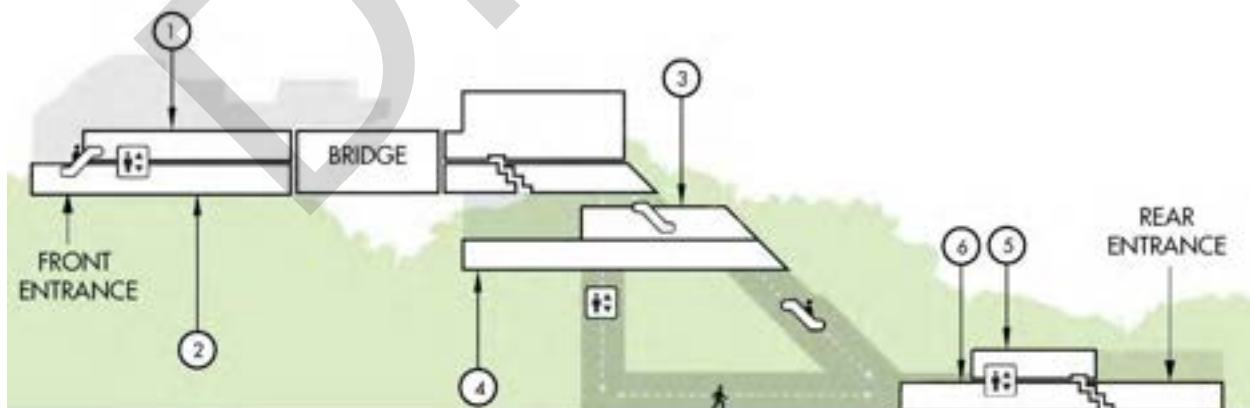


Figure 44: Pedestrian Circulation Map between OSC levels
Credit: SBA based on Ontario Science Centre Circulation infographic

⁸⁷ Since the temporary closure of the bridge in 2021 the typical circulation route has been reversed. Groups of visitors, unless visiting the Omnimax, take a shuttle bus to the Valley Building and the hoteling lot located there to begin their trip.

Bridge

A bi-level bridge extends across the ravine to connect the Main Entrance Building with the Core Building. It is supported by pre-cast concrete pillars set into the slope that have post-tensioned cables embedded within them.⁸⁸ The north side of the bridge has expansive windows, while the south has no windows.



Figure 45: Aerial of North side of bridge with bi-level glazing



Figure 46: South side of Bridge

⁸⁸ Jerol Technologies, "Ontario Science Centre Building Condition Assessment" (February 2022), included as Appendix IV – Structural Specialist Report in Pinchin "Building Condition Assessment and 20 Year Capital Plan" (April 2022).



Figure 47: Interior of Bridge, n.d.
(Credit: Mishy Laine)



Figure 48: Detail of connection point on pier supporting bridge

Condition: As per the Building Condition Assessment by Jerol Technologies conducted in February 2022 and included in the 20 Year Capital Plan prepared by Pinchin in April 2022, the bridge is in need of immediate structural repairs to reinforce it and address safety concerns as a result of deferred maintenance and the age of the components. It was closed at the time of SBA's site visits.

Escalators

To access the Valley Building both escalators and an elevator are used to travel down the slope. The escalators are built into the embankment with windows to either side.



Figure 49: Exterior view of escalators



Figure 50: Interior View of escalators from their base in the Valley Building

Condition: As per the BCA and 20 Year Plan by Pinchin (April 2022): the windows within the link are recommended to be replaced because they are at the end of their service life; and the escalators are in fair condition, but because they are original it is recommended, they be replaced in the upcoming years.

Pedestrian Path

There is a sloped walkway extending from the Core Building to the Valley Building woven into the slope of the ravine with a series of pre-cast concrete berms. In specific areas the wood railings and brick ground pavers have heaved and are in need of repair. The path is situated on the lands leased by the province.

Condition: Poor to Good. Areas of wood railings and uneven pavers are in poor condition and need to be repaired. The concrete berms are generally in good condition.



Figure 51: View along pedestrian path



Figure 52: Concrete berm/retaining wall

Elevators

Elevators are used throughout the complex. Particularly, there is a set that offers an alternate connection between the Core and Valley Buildings. The internal and external detailing of the elevators is bronze, like the other fitments found throughout the complex. The large service/freight elevators also integrate bronze detailing within their large doors.



Figure 53: Elevator Lobby with bronze elevator doors in the Valley Building



Figure 54: Interior brass detailing in elevator

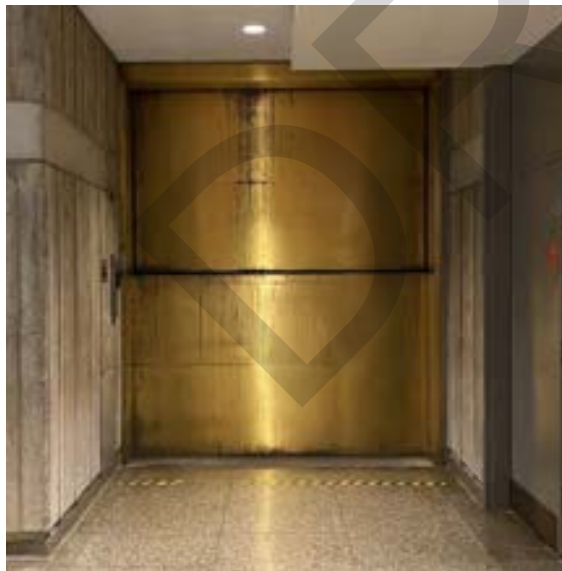


Figure 55: Loading Elevator in the Core Building

Condition: As per the BBAR completed in November 2020 the elevators are in good condition.

5.1.2 Viewscapes

The setting and the design intent both reflect the integration of the natural world and modernist architecture. The use of large windows with views west towards the conservation lands invite visitors to experience nature as they also experience the wonders of science and technology. The patio located west of the Core Building and jutting out into the ravine space provides an ample panoramic view of the surrounding E.T. Seton Park. The bridge includes windows that afford a view into the ravine as a visitor cross over from the Main Building to the Core Building. From the pedestrian path set into the ravine that connects the Core and Valley Buildings, there are vistas towards both buildings where the relationship between nature and built form is evident.



Figure 56: Viewscapes from the OSC Complex to the natural ravine setting
Credit: Google Earth Base Map with SBA annotation



Figure 58: Panoramic view from Core Building over E.T. Seton Park



Figure 57: Vista from pedestrian path through integrated ravine setting towards Valley building



Figure 59: View from Patio adjacent to Core building northwest towards E.T. Seton Park

Condition: The viewsapes remain intact and apart from the natural growth of the surrounding landscape are relatively unchanged.

5.1.3 Exterior

Throughout the complex the primary structural materials used are cast in-place concrete, pre-cast concrete, pre-cast pre-stressed concrete structural members, structural steel beams, and lightweight long-span steel joists. The roof uses lightweight autoclaved serrated concrete panels, and the walls are concrete block. All the materials used were chosen for their durability and were used in a variety of forms and treatments to provide creative detail. The concrete forms express the Brutalist design style, which was desired by the Ontario government at the time of construction because it gave a “monumental” feel to the complex. Brutalism underscored the futuristic theme of the Ontario Science Centre as well as the forward-looking aim of the Centennial projects in the late 1960s.⁸⁹ “Brutalism in this era was also closely linked to the concept of “megastructuralism,” which looked at projects not as single buildings but as large collections of objects connected by an infrastructure.”⁹⁰ The textuality of the concrete also reinforced the organizing principle for the new museum that everything was meant to be touched.

Foundations and Slab-on-grade Floors

The foundations throughout the complex are poured in-place reinforced concrete with poured-in-place reinforced concrete slab-on-grade floors. In areas where the foundations are exposed above grade the exposed concrete finish is a rough surface board finish.



Figure 60: Basement concrete floor slab in Main Entrance Building

Condition: The exposed foundations and concrete floor slabs are generally in good condition with some isolated cracks within the floor slabs.

⁸⁹ Sloan, “What is the legacy of the Centennial Projects?” (October 2017).

⁹⁰ Ibid

Roof Types and Materials

The existing roof systems throughout the complex are mainly flat inverted assemblies. There are some variations in each building that reflect their particular construction. As identified within the Base Building Assessment Reports:

- The Main Entrance Building has a ballasted conventional built-up roof system with drains and metal flashings. The Main Entrance skylights were strategically located to provide ample natural light. The skylights are constructed with anodized aluminum frames.
- The Core Building has, in addition to its inverted roof system, a unique Green Roof system.
- The Valley Building has an inverted flat roof system.



Figure 62: Roof of Main Entrance Building with row of skylights visible



Figure 61: Roof of the Core Building with the Green Roof visible



Figure 63: Roof of Valley Building

Condition: Both the Main Entrance and Core Building's roof systems have been replaced since 2012 and are in good condition. The Valley Building roof is in fair condition.

Cladding Materials- Exterior Walls

The primary wall treatment for the exterior walls in the complex has deeply ribbed pre-cast concrete panels with a rough hammered finish on the face of each rib. This finish is contrasted with the relatively smooth faced areas where the finish of the poured in place concrete mimics vertical boards.



Figure 64: Examples of concrete detailing in two different treatments on exterior of the Main Building



Figure 65: Detail of Core Building Tower where two concrete textures are used

The Valley Building's exterior walls also include portions that are clad with corrugated metal vertical ribbed steel, used during both original construction and subsequent additions, in locations where future expansion was and/or is anticipated.



Figure 66: Detail of concrete texture prevalent throughout complex



Figure 67: View of Valley Building's southeast wing where both concrete and vertical paneling was used

Condition: Both the exterior concrete finishes and the metal siding are in good condition.

Windows

Throughout the buildings and along the bi-level bridge, there are large, glazed windows with dark bronze anodized aluminum frames with copper sill caps.



Figure 68: View of West side of Core Building with prominent windows overlooking ravine



Figure 69: View northeast where windows on the bridge and the west elevation of the Main Entrance Building are visible

Windows in the Valley Building are typically a storefront system that consists of perimeter and intermediate framing with fixed glazing set in dark bronze anodized aluminum frames located between the building columns.



Figure 70: Windows in Valley Building where storefront system visible

Condition: The windows throughout the complex are in good condition.

Doors

Generally solid metal exterior doors are used for emergency exits, service areas, and for staff entrances. In contrast the public entrances were designed with glazed aluminum doors and frames, a simple design detail used to distinguish service entrances from public entrances.



Figure 71: Exterior Metal Door on West Elevation of Main Entrance Building

Condition: The hollow metal and aluminum doors are in good condition.

Fixtures and Chattels

The Heritage Significance Study by William Greer previously cited notes that at one time wooden benches had been installed to provide seating both inside and outside the buildings. The exterior benches were designed with spaced parallel wood members sitting on a central formed concrete base. These benches were extant in the Valley Building at the time of Greer's report; however, no exterior benches were noted by SBA during either of their site visits.

5.1.4 Interior – Flooring, Metalwork, and Chattels

Throughout the complex key design details provide cohesion within the overall design. The original flooring – terrazzo with bronze divider strips – is still extant, particularly in the Main Entrance Building and the Core Building. The interior walls are primarily concrete and like the exterior, were finished in a variety of textures to provide visual interest. The textuality also reinforces the concept that the museum is interactive and can be touched.

Bronze metalwork is prominently featured on elevator doors, cab detailing, and control panels, escalator panels and trim, fire hose cabinets, handrails throughout the original areas, doors, frames, and transom panels (particularly in the Great Hall area of the Core Building), and door pulls.



Figure 72: Main Entrance Building – extant terrazzo flooring, concrete walls and wooden interior bench



Figure 73: Terrazzo floor with bronze divider strips



Figure 74: Entrance to Discovery Exhibition Space with brass doors and door pulls



Figure 76: Brass door on fire house cabinet in Core Building



Figure 75: Drinking Fountain and interior bench in Core Building

Condition: The bronze elements are in fair to good condition, with some visible damage to the finish of the bronze as a result of improper maintenance. The bronze railings and doors are in fair condition throughout and have evidence of wear and tear over time. Railings in the Main Entrance Building were noted to have been painted at some point.

The benches are in good condition.

5.2 Main Entrance Building (Building A)

The Main Entrance Building, sometimes referred to as Building A, is located such that it faces Don Mills Road. Designed as the “mundane” space, Building A housed the boiler room, ticketing, and pedestrian entrance to the Ontario Science Centre.⁹¹ The Main Entrance Building continues to function as it did originally – as the gateway to the rest of the exhibitions – except for the front lobby space where visitors can access the Omnimax theatre, which arguably remains separate from the rest of the OSC experience.



Figure 77: Front Elevation c. 2015.
Credit: David Ceballos

5.2.1 Exterior

The building consists of two storeys above grade and a basement. The basement of the Main Entrance Building was intended to provide space for the distribution of infrastructure services and storage areas. The powerhouse or boiler room for the whole OSC complex is located in the south part of the Main Entrance Building.

Vertical concrete slabs that marked the entrance in the original building remain extant on the interior [Figure 84].

⁹¹ Greer, “Heritage Significance Study,” 14.



Figure 79: Main entrance OSC including ticketing area and Omnimax Theatre lobby



Figure 78: View of the exterior of the Boiler Plant at south side of Main Entrance Building



Figure 80: North Elevation

Condition: The exterior of the Main Entrance Building is in good condition.

5.2.2 Interior

The front lobby has a large open space that leads to ticketing, the Omnimax theatre lobby, and entrance to the rest of the Main Entrance Building. As per the site's Pedestrian Circulation Map [Figures 80 and 81] the public enter the OSC on the 2nd level and travel via an escalator adjacent to the Omnimax lobby to the upper level, identified as level one below.

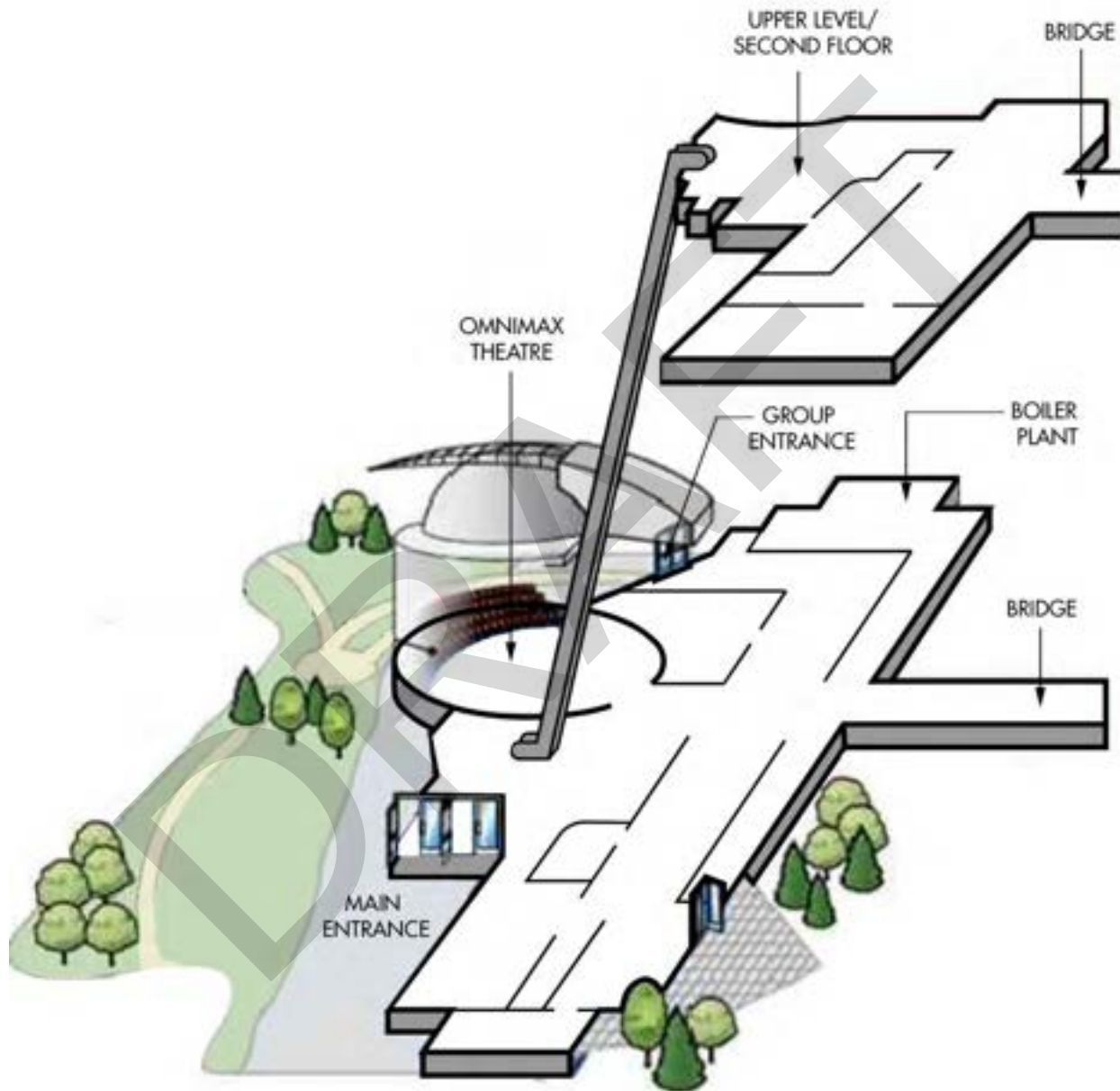


Figure 81: Layout, Main Entrance Building
Credit: Public Good Design adapted by SBA

In the primary marshalling area, there are three semicircular carousels designed for easy, built-in seating for school groups. There is also a clear span upper-level ceiling that has a series of skylights centrally placed that extend the full length of the building to provide ample natural light.

Condition: The interior is in good condition.



Figure 82: View of Omnimax lobby and escalator to level 1 of the OSC



Figure 83: View from lobby north through ticketing and entrance corridor with infilled glazing

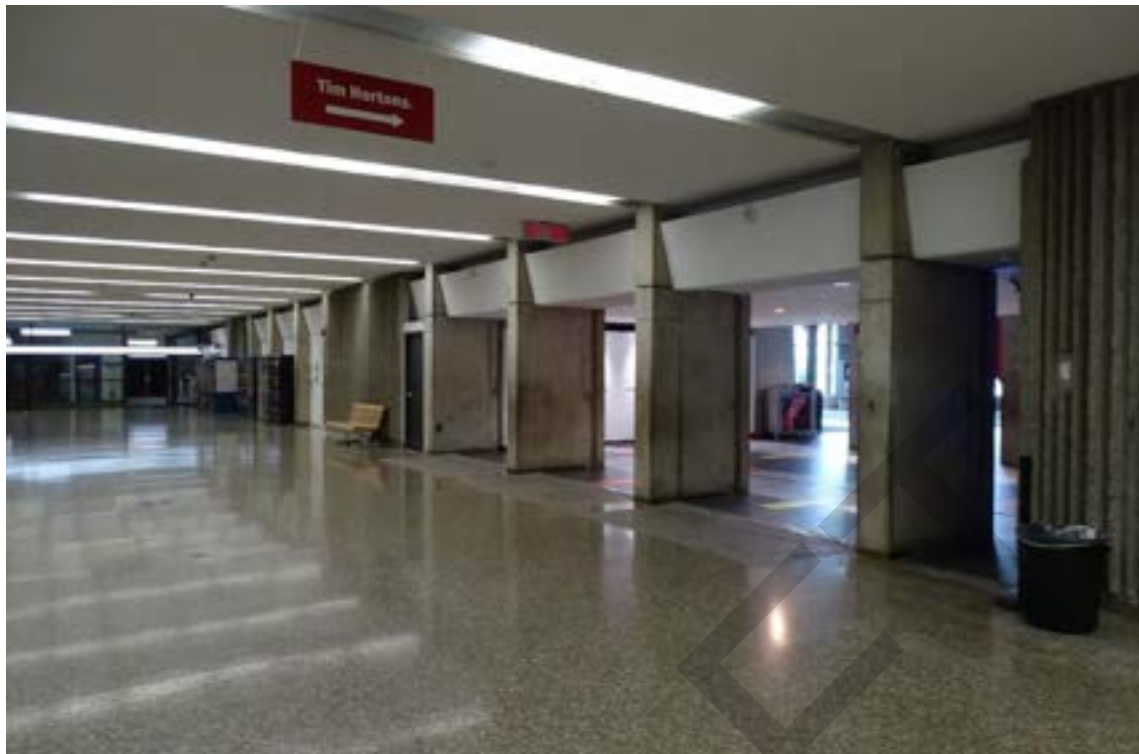


Figure 84: View from marshalling hallway toward lobby, vertical concrete slabs remain extant and the concrete walls/finish remain intact



Figure 85: Large windows overlooking ravine setting on west side of Main Entrance Building, the clear span upper-level ceiling has skylights that extend the length of the space
Credit: Moriyama Teshima Architects

Within the Main Entrance Building, the walls remain the original concrete. The concrete interior walls provide a point of continuity with the exterior walls and are in keeping with the Brutalist architecture. They also reflect Moriyama's design decision to focus on the textuality of the walls as an open invitation for the public to touch them. The flooring, like the majority of the complex, is terrazzo with bronze divider

strips. Features like the original marble clad security desk stand out from the concrete detailing, however they remain in keeping with the overall design aesthetic.



Figure 86: Security Desk with marble detailing



Figure 87: Original, semicircular Carousels in Main Entrance Building that provide built-in seating

5.2.3 Alterations and Additions

In the mid-1990s the front entrance of the OSC was changed with the removal of the main staircase, the reconfiguration of the lobby space, and the addition of the Omnimax theatre (refer to **Figure 37** for full chronology of changes). The addition prompted the need to re-grade the forecourt. The loss of the original main staircase and entrance at the upper floor entrance is not reversible; however, the new addition maintained the original design intent for the main entrance building as the “modern” entrance to the facility. It also enhanced accessibility to the entirety of the OSC while enhancing a feeling of transparency that would be inviting for the public to enter.



Figure 88: Zoomed in Chronology of Changes to the Main Entrance Building

The addition was designed by Eberhard Zeidler of Zeidler Roberts Partnership. The new dome was positioned in the same location as the original two-level main entrance and a continuous glass wall with a light, structural steel frame and bow-string mullions was put in place in front of the original ribbed concrete façade.

The foundations of the addition are poured in-place concrete and the walls of the circular sphere theatre are concrete clad in Renaissance cast stone. The structural framing of the theater is a hemispherical roof clad in nickel stainless steel.



Figure 89: Original Front Entrance with central staircase leading to second floor lobby
Credit: Postcard of Entrance, 1970 – Robert Moffatt, Toronto Modern Blog



Figure 90: Aerial view of the Omnimax Dome addition

In conjunction with the addition, the breezeway between the power plant (or boiler room) and the main, public part of the entrance building was enclosed and the main roof line was extended over this area by continuing the existing roof line. The space just south of the dome became the relocated group entrance.



Figure 91: Glazed group entrance

5.3 Core Building (Building B)

The Core Building was designed with three circular towers around an irregular triangular core to symbolically represent Ontario's provincial flower - the trillium. It is three storeys in height. One of the towers is used for administration, which itself is four storeys contained within the same space as the other, three-storey towers.



Figure 92: Southwest façade of Core Building

The Core Building has a large interior space with windows overlooking the surrounding ravine and conservation lands. Oriented around this central programming space are three circular masses (or towers), each used for different programming. One holds auditorium space, one is currently used by KidSpark as a discovery area, and the third currently houses the space exhibit.



Figure 93: West facade of Core Building facing the ravine



Figure 94: Overhead View of the Core Building

5.3.1 Exterior

The Core Building features prominent glazing with cast-in place overhangs. The windows provide views to the surrounding natural setting and provide ample natural light into the interior space [Figure 93]. There is also a large exterior terrace that invites visitors to overlook the surrounding green space. Views north, south, and west, remain largely unobstructed to the TRCA lands. A pedestrian path wraps around the building. In addition to the large glazing, there is a balcony on the western side and exterior staircase.

Condition: The exterior is in good condition. The pedestrian paths and west patio are in fair condition.



Figure 96: Large windows looking west towards the TRCA lands



Figure 95: Pedestrian pathways around the Core Building



Figure 97: View of path that winds around the Core Building



Figure 98: Exterior Stair on west side of Core Building leading to upper level, pedestrian path and upper balcony

Patio

The Core Building has a large, exterior patio located at the northwest. The patio is constructed of pavers, surrounded by poured in place concrete walls that continue around the patio forming a barrier at the brow of the ravine. The patio prominently juts out towards the ravine along the western edge.



Figure 99: View towards Core Building from patio space



Figure 101: View west from patio towards E.T. Seton Park/ravine



Figure 100: Concrete wall and patio deck detail

Condition: The patio is in fair condition. There are some heaved pavers likely caused by the natural movement of the terrain below.

5.3.2 Interior

The interior of the Core Building is organized around a large, central exhibition space. Each circular tower is accessible from this space and each space is programmed differently. One tower is used for administration, one is an auditorium, and the third is used for KidSpark – programming and hands-on learning.

As per the site's Pedestrian Circulation Map [Figure 102] the public would arrive from the Entrance Building via an escalator to level 3 and then level 4 within the Core Building.

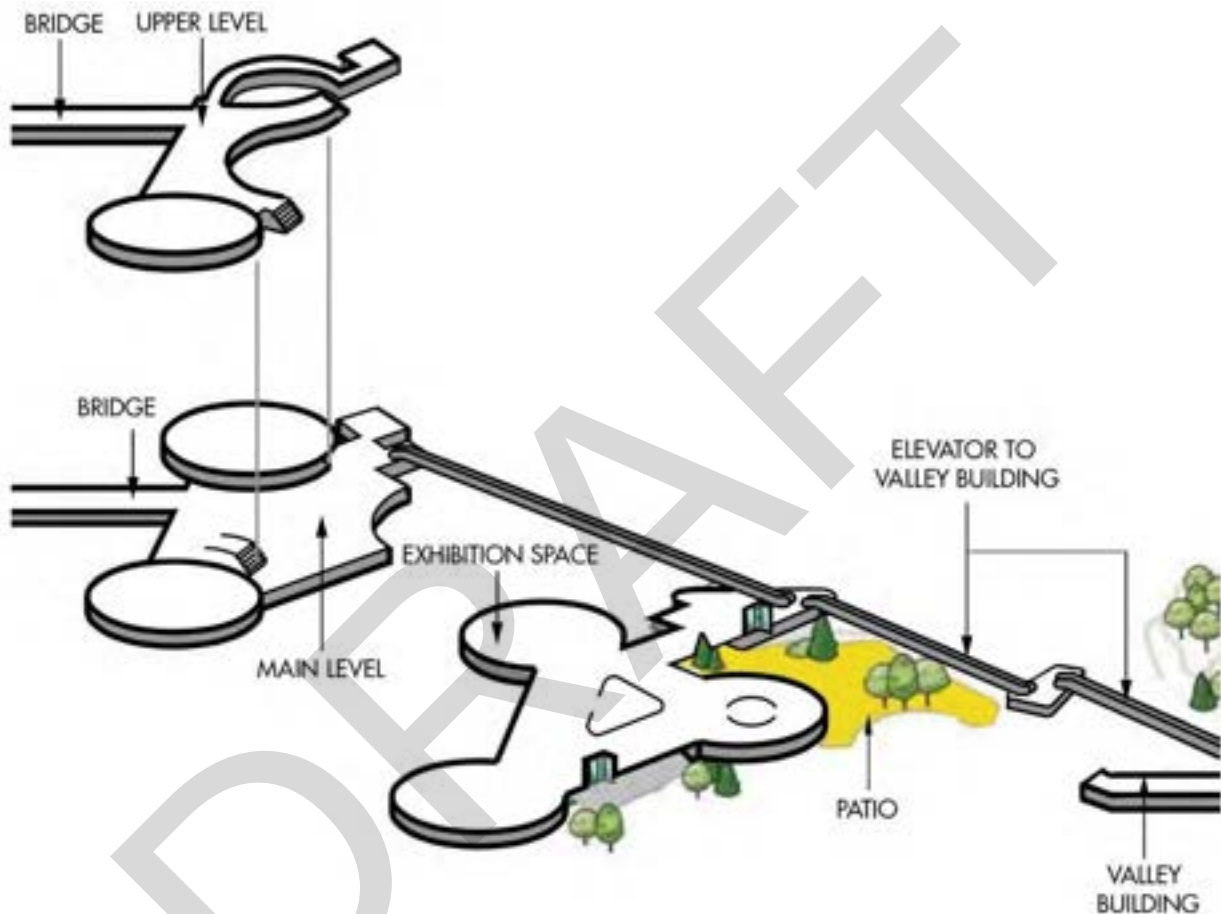


Figure 102: Layout of Core Building
Credit: Public Good Design and adapted by SBA

The bifurcated staircase is positioned prominently in the Great Hall (exhibition space). The orientation of the stairwells mirrors the curve of circular tower walls that lead from the central exhibition space to the upper levels, which includes access to the second level of the bridge. These stairs are cast-in place concrete with bronze hand railings. As per the complex the floors are terrazzo with bronze divider strips. Door and other fixture detailing include bronze exit doors, handrails, and doorknobs.

The walls in the towers are smooth concrete, while there is greater texturing of the concrete within the large central exhibition space. The use of a variety of concrete finishes echoes the exterior walls of the building and reflects the design intent to have the building express the way visitors were meant to have a “hands-on” experience.

Condition: The interior and its original finishes are in good condition.

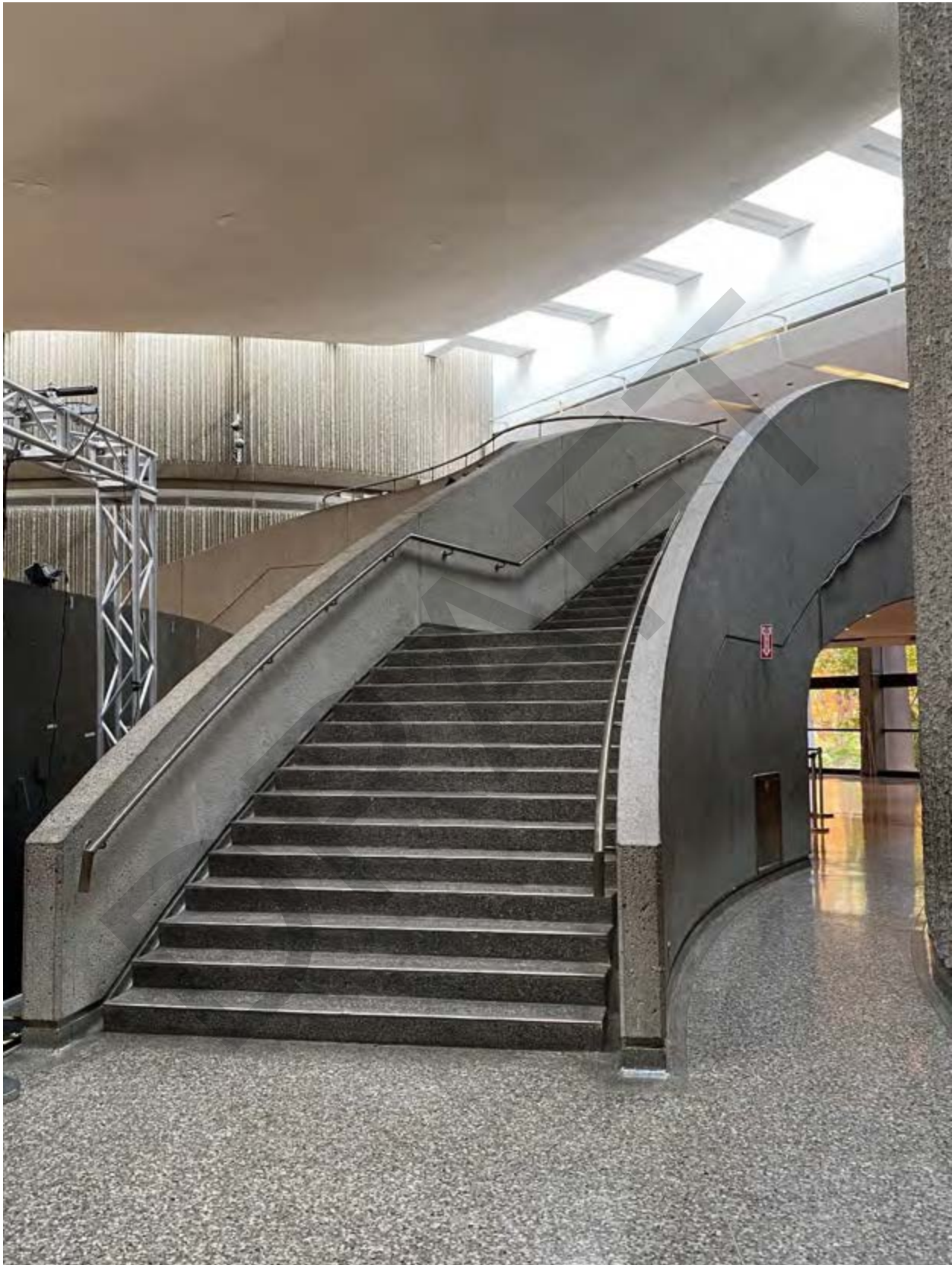


Figure 103: Staircase



Figure 104: Second floor landing protruding into the exhibition space
Credit: Moriyama and Teshima Architects



Figure 105: Auditorium space
Credit: Moriyama and Teshima Architects



Figure 109: KidSpark activity space



Figure 108: KidSpark Activity Space



Figure 111: Large installation near KidSpark area



Figure 110: Space Exhibit Entrance



Figure 106: Escalators to access the Valley Building



Figure 107: Skylights in the central exhibition space

5.3.3 Alterations and Additions

The exterior of the building has not been altered since it was first constructed. The interior spaces have been modified to accommodate new programming, such as the KidSpark facility. The Ontario Science Centre was conceived with the intention that modification to the interiors would happen over time to allow for renewal of the space and new programming. The significant attributes of the interiors such as the floors, concrete walls, and bronze detailing have been conserved. The programming space is reversible.

DRAFT

5.4 Valley Building (Building C)

The Valley Building is located in the valley and houses exhibition space, a restaurant, a greenhouse, classrooms, and exhibit assembly workshops as well as storage areas and offices. Its foundations were constructed on caissons due to the poor sub-soil bearing conditions in the flat lands of the valley.

The building is two storeys high with no basement. In some parts of the building there is a high roof level for exhibition hall spaces. There is a smaller, second floor level adjacent to these exhibition halls used for classrooms and breakout spaces. A large interior space within the Valley Building was designed as a “black box” where the architectural detail was purposely absent from the space in order to allow for a flexible exhibition space.



Figure 112: South Elevation of Valley Building



Figure 113: View southwest of the Valley Building

5.4.1 Exterior

The cladding of Building C varies from the rest of the complex because it was situated more out of sight than the other parts of the complex. As noted in **Section 5.1.1** a weaving pedestrian path set into the slope of the valley offers another point of connection between the Core and Valley Buildings. Where the visitor enters the Valley Building at its north, the concrete façade is in keeping with the rest of the Brutalist design. However other elevations to the south are clad in vertically ribbed steel paneling, especially in areas where expansion was or is anticipated.

The roofing of the Valley Building originally included a unique design flourish. Moriyama had his name, in Japanese symbols, executed in white and black stone chips on the built-up roofing surface to provide visual interest when looked upon from the upper levels of the complex. These characters could be distinguished when looking down upon it from the Core Building. This feature was removed during subsequent roof rehabilitation work.⁹²

Condition: The exterior is in good condition.



Figure 114: Original Roof with Moriyama's symbols visible across north part of building, 1970
(Credit: City of Toronto Archives)

⁹² Greer, Heritage Significance Study, 17.



Figure 115: Southwest façade of Valley building with security/visitor entrance



Figure 116: North elevation of Valley Building obstructed by trailers



Figure 117: Partial west elevation



Figure 118: Aerial looking south over Valley Building Roof

Recently, there have been efforts to expand the natural exhibition elements for the OSC. A new nature path has been added with naturalized landscaping and perches to invite birds native to the area for observation. This path is set next to the north side of the building, which has the same pre-cast textured concrete like other parts of the complex.



Figure 120: Nature Area to the east of the escalators and north of the Valley Building set into the valley and slope



Figure 119: View towards escalators from nature area (left) view of entrance from Valley Building (right)

5.4.2 Interior

The interior of the Valley Building has flexible exhibition space and is home to production/workshop spaces and offices. In the publicly accessible areas, the same bronze detailing is used on doors, elevators, terrazzo floor dividers, and hand railings within the complex. All spaces in the building used for public displays including connected spaces between the elevator bay that connect the Core Building into the main exhibition spaces of the Valley Building.

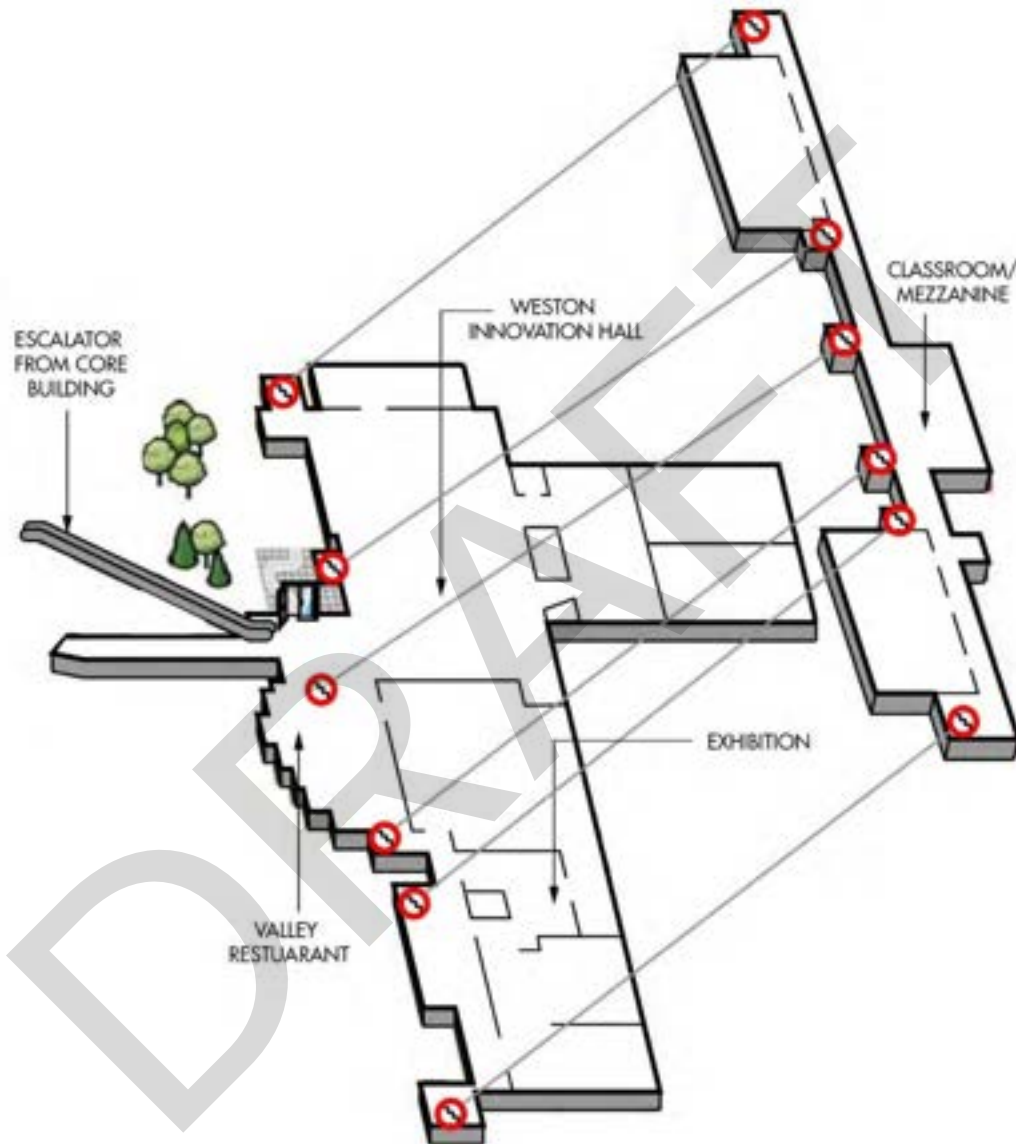


Figure 121: Interior Configuration of Main Level of the Valley Building open to the Public
Credit: Public Good Design adapted by SBA

As per the site's Pedestrian Circulation Map [Figure 121] the public would arrive from the Core Building via an escalator to level 5 and then level 6.

The skylights [Figure 123] located in the link between the escalators and the Valley Building are circular and provide natural light into the passage. The circularity of the skylights reinforces the space as a point of change as the visitor proceeds from the Core Building to the exhibition spaces of the Valley Building.

Condition: The interiors are in good condition.



Figure 122: Hallway leading from Elevator Bay to main exhibition spaces

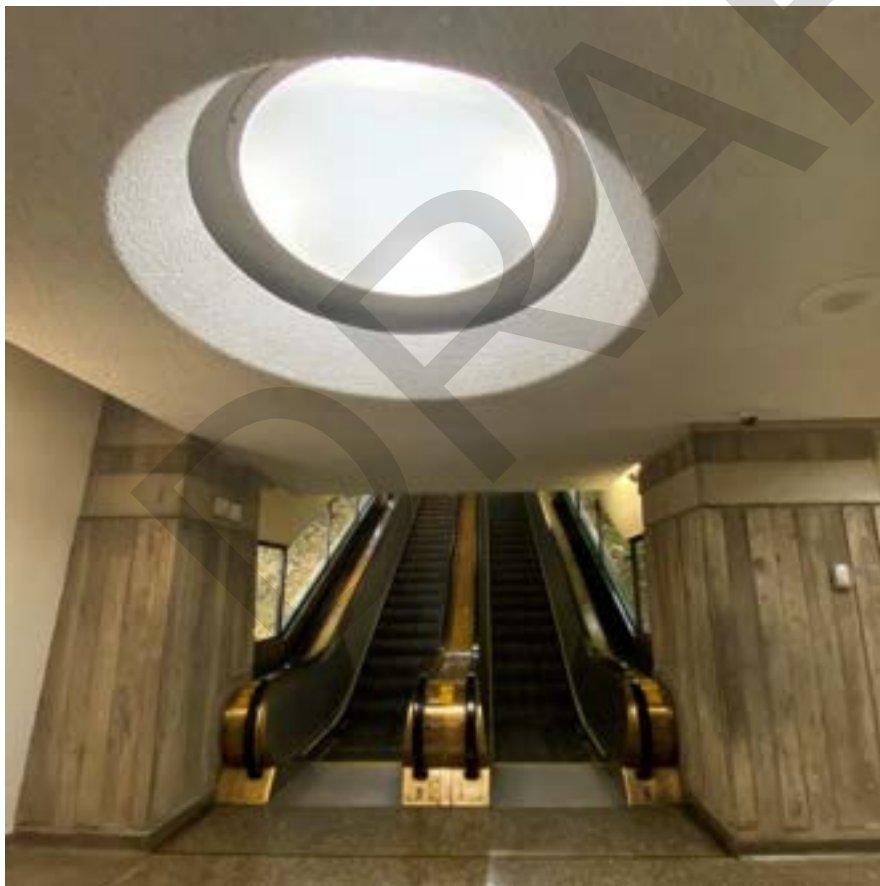


Figure 123: Base of escalators in Valley Building with circular skylight above

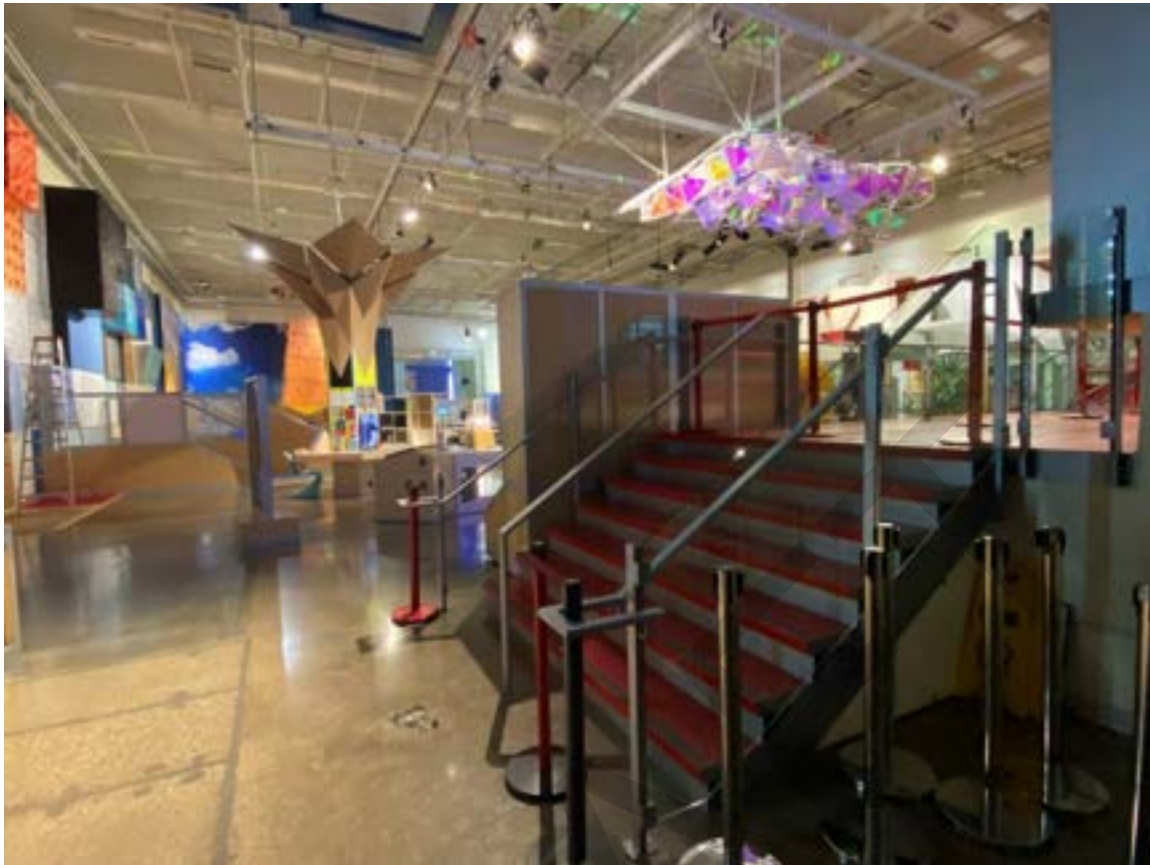


Figure 124: Weston Innovation Hall



Figure 125: View from Weston Innovation to second floor office and breakout room spaces



Figure 126: Large two- storey exhibition space



Figure 127: Second level loft space with access to small classrooms (at right) overlooking Exhibition Hall

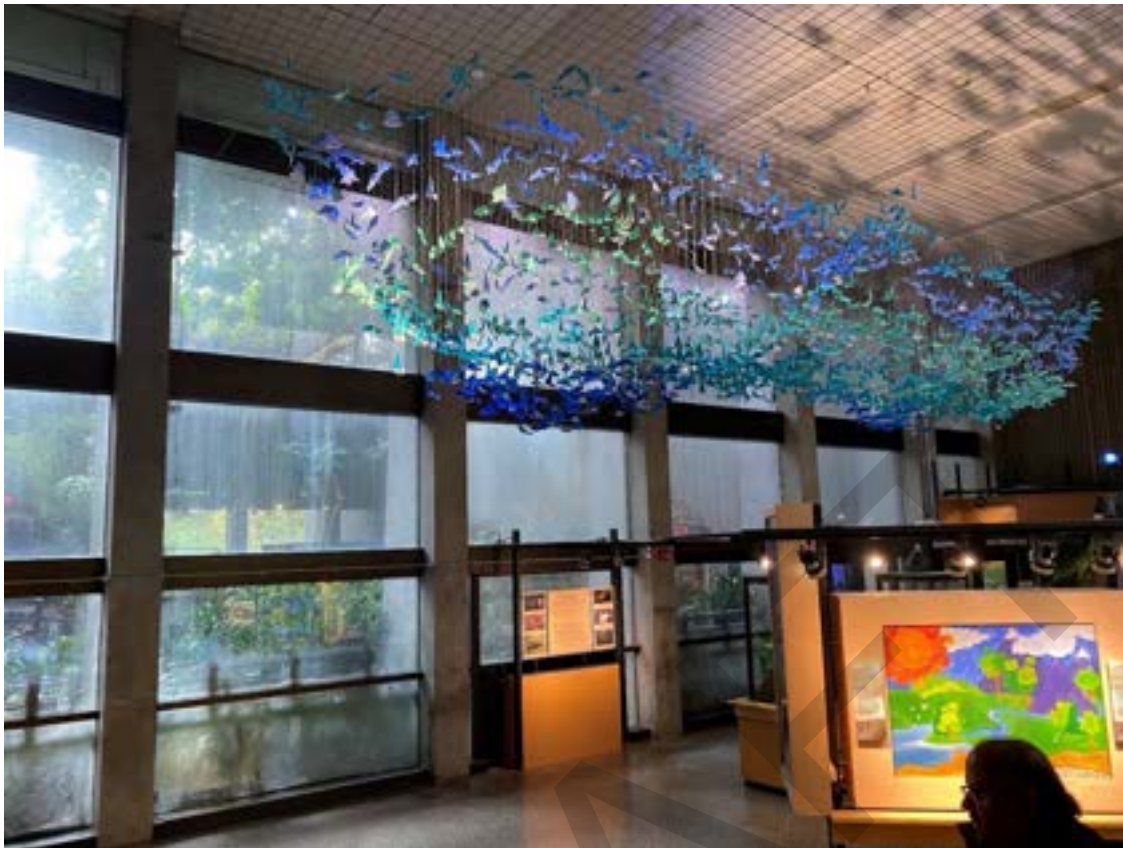


Figure 128: Living Earth Exhibition Space with access to climate controlled "rainforest"; the storefront window system is also visible

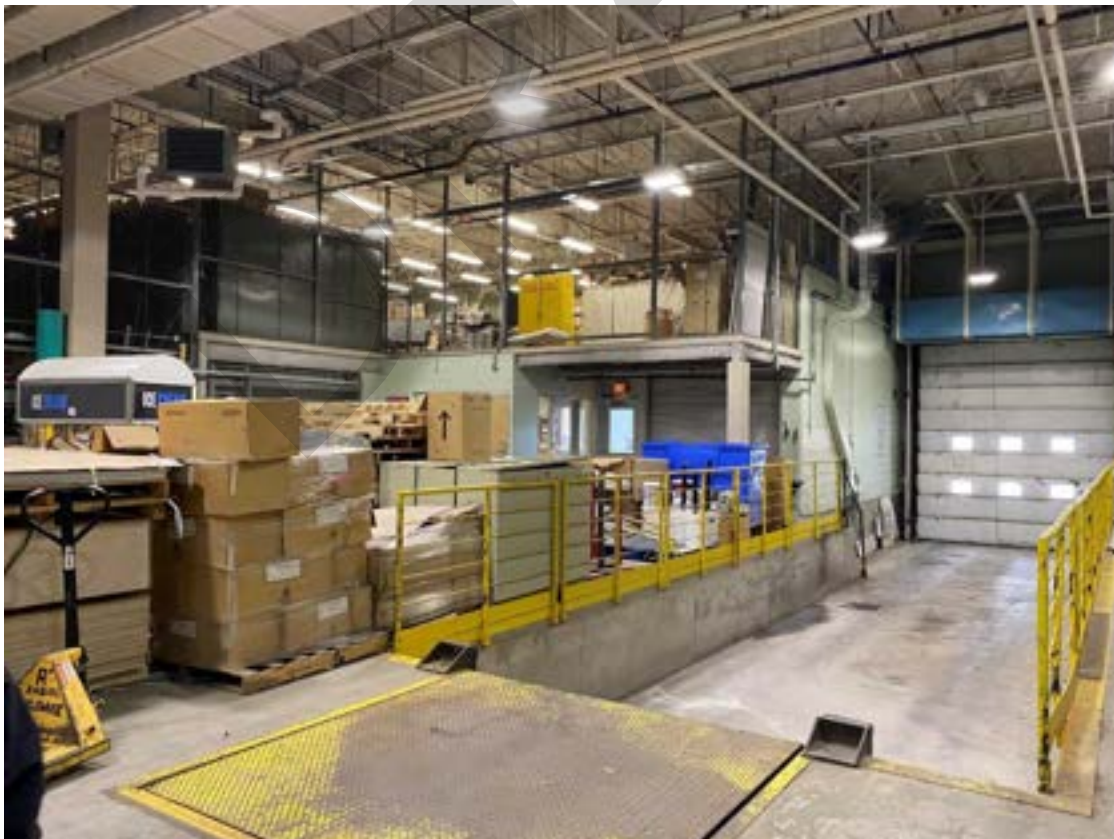


Figure 129: Workshop space and loading dock

5.4.3 Alterations and Additions

The Valley Building was designed to accommodate expansion and change to reflect the needs of the museum and its staffing. It has undergone the greatest number of changes of all the buildings in the complex since its original construction.



Figure 130: Map of Additions to Valley Building
Credit: Google Earth base map with SBA annotation

South Wing Addition

In 1989-1990 a storage and workshop addition were constructed on caissons that were already in place in the area south of the existing workshops. Designed by Moriyama and Teshima Architects, the addition was designed based on the original design plan that had anticipated the need for expansion. The floor slab is reinforced concrete, and the building frame is steel columns, long span steel roof joists, steel decking, and built-up roofing. The exterior walls are clad in ribbed steel panels that matched those of the original building adjacent to the new wing.

These alterations accommodated a second-floor level for offices and reflected the evolving use of the space in the existing wing. Skylights were added to the existing roof at the same time, and interior finishes reflected the original areas and office spaces.

Condition of additions: All additions are in good condition.



Figure 131: Aerial view looking southeast of Storage and Workshop addition

Restaurant

A restaurant space was added in 1996/97 and was designed by Julian Jacobs Architects Ltd. It was located in the former patio area west of the escalator link and is accessible via the base level of the escalator link. The cafeteria exits into the north corridor of the Exhibition Hall Area.

The addition has concrete foundations and structural steel column and roof truss framing configured to create a serrated roof form with steel sheet roofing. The addition is discernible from the original in terms of its flooring and its use of steel elements. It is potentially reversible.

The exterior walls are glazed from sill height to form a high greenhouse-like space. The attached receiving and food storage facility are masonry clad on the exterior with buff brick similar to the base of the restaurant area. The interior finishes are generally concrete block, painted steel structural elements, and vinyl flooring.

Condition of alterations: The restaurant addition is in good condition.



Figure 132: Large restaurant/cafeteria addition

Greenhouse

A small greenhouse was added at the southwest corner of Building C. It is a standard lightweight greenhouse material that is fully glazed with a reinforced concrete floor slab finished with a ceramic floor tile. It is currently used for storage.

Condition of alterations: The greenhouse addition is in fair condition.



Figure 133: Greenhouse addition on southwest corner

Internal Courtyard – Rainforest Exhibit

The Colborne Architectural Group designed a metal structure to enclose an internal activity courtyard. The metal structure extends above the roof forming a glazed penthouse. The addition, done in 1992-93, accommodates a rainforest exhibit.

Condition of alteration: The addition is in good condition.



Figure 134: View of Rainforest exhibit addition

6. Integrity

6.1 Setting

The naturalized ravine setting is protected green space under the jurisdiction of the Toronto and Region Conservation Authority (TRCA) and the stewardship of the City of Toronto. While the surrounding Don Mills and Flemingdon Park neighbourhoods have continued to grow and change, the relative protection afforded by the setting on conservation lands has helped to conserve the original siting and intent for the Ontario Science Centre.

While the primary focus of this CHER pertains to the buildings under the care and control of the Centennial Museum of Science and Technology agency but not the leased lands upon which the OSC is built, the setting is an integral component of the Ontario Science Centre with strong heritage integrity.

6.2 Built Heritage

6.2.1 The OSC Complex

The OSC complex maintains its heritage integrity. It has remarkably stood the test of time and its features have remained intact, legible, and the original design intent remains. The alterations and additions have changed some notable aspects of the front elevation of the Main Entrance Building; however, the additions were done with sensitivity to the original design intent. In the case of the Valley Building, the original design anticipated the need for change and expansion.

The circulation pattern has been preserved throughout the complex until recently when the temporary closure of the bridge has forced rerouting visitors through the Valley Building. This change in circulation is problematic because it does not reflect the original design intent; however, this divergence is short termed.

The removal of the original forecourt fountain diminishes the overall heritage integrity of the approach entrance to the Main Building. Its replacement has retained the design intent to balance innovation and science with elements of the natural world.

The bridge requires remedial works but has otherwise maintained its heritage integrity. The escalators, pedestrian path, and elevators, too, have retained their heritage integrity including their original fitments and details.

The textuality of the walls, both interior and exterior, remains an important feature that reflect the ingenuity of the architectural design as well as the programming mandate that the Ontario Science Centre was meant to be interactive and “hands-on”.

6.2.2 Main Entrance Building (Building A)

The Main Entrance Building has undergone the most substantial change with the removal of the main staircase and the reconfiguration of the space to include an Omnimax Theatre, a new group entrance, and reoriented lobby space. Arguably, for a new generation of Ontarians the Theatre is a well-loved feature and the only front façade that they associate with the Ontario Science Centre. While its addition diminishes the design integrity of the original building, the new design reflects the original design intent for the Main Building to act as a gateway or entry point to the rest of the facility to be the most “modern” in its design and utility. The original roof line remains legible.

The addition remains distinct from the original massing in its form and shape and a large amount of the original façade has been retained and incorporated into the new space. The redesigned lobby maintains large and expansive glazing to provide natural light into the interior, and the rear (west) elevation of the building has not been altered so the views towards the natural setting have been maintained.

6.2.3 Core Building (Building B)

The Core Building retains its heritage integrity. Its interiors have been altered to provide new exhibition spaces that reflect pedagogical changes for the instruction of children. Key details including the central staircases, the open exhibition space at the heart of the building, the auditorium, the terrazzo flooring, the bronze detailing, and views towards the ravine remain intact as does the large windows, the exterior patio that cuts out towards the ravine, and the staircases and balcony on the west elevation.

6.2.4 Valley Building (Building C)

The Valley Building has retained its heritage integrity. Designed by Raymond Moriyama in anticipation for the need to expand or adapt the spaces, the additions reflect original areas intended for expansion and original design details such as the vertical steel cladding. The additions were designed and constructed to accommodate programming needs for the property including workshop space and exhibit space. The changes were undertaken by the original architectural design firm, and the choice of materials and specifications were consistent with the original design intent. The additions have not had an impact on the heritage integrity.

The addition of the Valley Restaurant, while compatible with the building, does diminish the heritage integrity. Originally conceived as a quiet outdoor space for reflection of the surrounding natural environment, this exterior patio space was replaced by a large, glassed-in structure. Views to the exterior are maintained. More than the restaurant, the servicing space required for the entrance detracts from the north elevation of the Valley Building. The service area has to accommodate large trucks and waste bins that do not invite a visitor to reflect. As a result, the pedestrian path from the Core to the Valley Building does not have the same utility to guide visitors to their next experience. More recently, trailers have obstructed the full entrance way to the north entrance of the building.

The OSC was designed to reflect the evolving understanding of science and all new designs likewise respect the original mandate that the Ontario Science Centre provide a “hands on” experience for its visitors.

7. Community Input

7.1 City Engagement

Stevens Burgess Architects Ltd. reached out to Tamara Anson-Cartwright, Program Manager, and Ana Martins, Heritage Planner, from the City of Toronto's Heritage Planning Services to gauge the City's views about the property. A virtual meeting was held on December 14th 2022 to discuss the preparation of the CHER on behalf of Infrastructure Ontario. During the meeting representatives from the City expressed great interest in the property and noted that its history was embedded within the growth of the Don Mills community roughly contemporaneously.

7.2 Toronto and Region Conservation Authority (TRCA) Engagement

SBA reached out to the TRCA in January 2023 via email. A Senior Property Agent from the Property, Assets, and Risk Management Department of Corporate Services responded to note that the "TRCA does not have input regarding the Ontario Science Centre's potential heritage values or uses" and then directed SBA to inquire with the City because the lands are managed by them.

7.3 Indigenous Engagement

In November 2022, SBA reached out to representatives from the Six Nations of the Grand River, the Haudenosaunee Chiefs Confederacy Council, the Huron-Wendat Nation, the Toronto Fire Native Cultural Centre, and the Native Canadian Centre of Toronto via email informing these communities of the work of the CHER and to inquire if and how they wished to contribute to CHER. As of the time of this draft there has been no response. IO reached out the Mississaugas of the Credit First Nation. Similarly, there has been no response.

7.4 Stakeholder Engagement

SBA reached out to the North York Community Council via email in February 2023 to gather any preliminary input from the community panel in respect of the potential heritage value of the property as well as the Ontario Science Centre and the Architectural Conservancy of Ontario (Toronto Chapter). SBA has only received a response from the ACO who noted,

We are glad Infrastructure Ontario is undertaking a CHER, as we believe that the Ontario Science Centre meets multiple, if not all, criteria under O. Reg. 9/06. We trust that this CHER will lead to designation of Ontario Science Centre...

The ACO also provided references they thought merited consultation.

7.5 Public Engagement

No public engagement has been undertaken as of the time of this draft.

7.6 The OSC in the Media

The OSC has undergone increased public scrutiny since April 2023. This media scrutiny has provided insight into the broader public and stakeholder awareness and valuation of the property. **Appendix B** provides a reference list to these media releases.

8. Summary of Resources / Sources Cited

Government Policies and Resources:

Ministry of Citizenship and Multiculturalism “Information Bulletin 2:
_____ “Heritage Identification and Evaluation Process.” 2014

Ministry of Infrastructure. Heritage Identification and Evaluation Process. August 2016.

Ontario Heritage Act (R.S.O. 1990)

Ontario Heritage Tool Kit.

Provincial Policy Statement, Under the Planning Act. 2020.

Standards and Guidelines for the Conservation of Provincial Heritage Properties (OHA, 2010).

Background Reports and Studies:

ASI, “Don Mills Crossing Cultural Heritage Resource Assessment” (2019), 17-20, retrieved at
<https://asiheritage.ca/wp-content/uploads/2020/08/Don-Mills-Crossing-CHRA.pdf>

Infrastructure Ontario. Base Building Assessment Report. November 2020.

Greer, William. “Heritage Significance Study: Ontario Science Centre.” August 2003.

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