

Ontario Science Centre, Circa 1969



Photo: Moriyama & Teshima Architects

Ontario Science Centre Modernization Business Case

Confidential

Prepared by: Infrastructure Ontario
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Executive Summary

Context:

Completed in 1969, the Ontario Science Centre (“OSC”) is an iconic Provincial institution and one of the Province’s most recognized brands. Although widely regarded as one of the leading science centres in the world, the OSC is currently facing a series of operational issues that threaten its long term sustainability, including:

- *Building Deterioration and Critical Maintenance Requirements:* Over the next 20 years, the cost of undertaking necessary building repairs and asbestos abatement is estimated to be \$195 million.
- *Building Health & Safety Risks:* Of the deferred maintenance required, critical building and system repairs should be completed in the next three to five years to address issues around health and safety, code compliance and building integrity (structural). Undertaking the required repair and asbestos abatement will likely require partial or complete closure of the OSC for an unknown period of time.
- *Functional Obsolescence of OSC Complex:* At 568,000 gross square feet the OSC is oversized for today’s needs. There is a significant amount of unusable space due to a sub-optimal building layout yet the 100,000 ft² permanent exhibit areas are at capacity. Only 18% of the OSC is dedicated to permanent exhibits, compared with 33% to 49% of floor area in other major North American science centres.
- *High Operating Costs and Carbon Footprint:* The huge building footprint across three levels results in not only a poor visitor experience, but very high operating and maintenance costs due to the inefficient building design.
- *Declining Attendance and Revenues:* A lack of investment in the visitor experience has resulted in a decline in attendance and related revenues. Between 2009 and 2016, annual attendance has declined by almost 30% from 1.287 million visitors to 932,258 visitors.
- *Shrinking Market Share and Increased Market Competitiveness:* The OSC needs to update its approach to science engagement in order to grow its revenues and attendance and compete more effectively with new attractions.
- *Lack of Provincial Control Over Site:* The entire 55 acre OSC site is leased from the City of Toronto and the Toronto Regional Conservation Authority (“TRCA”). Site intensification by the City is likely with impacts to parking and site access anticipated.

With shrinking attendance, mounting critical building maintenance costs, an aging facility, declining revenues and stagnant operating subsidies, the current operating model of the OSC is challenging.

The Province is also assessing the future of another iconic provincial brand: Ontario Place. Opened in 1971, Ontario Place – like the Ontario Science Centre – was built for all Ontarians as a statement of pride to celebrate innovation, education and creativity. After 40 years in operation, faced with declining attendance and limited public investment, on February 1, 2012, government announced partial closure of Ontario Place. In 2014, the Premier announced a new vision which would position Ontario Place as a “year-round, vibrant

waterfront destination – building on the site’s legacy of innovation, fun and live music” anchored by a “culture, discovery and innovation hub” schematically located on the West Island. No such cultural anchor had been identified to date.

The concurrent planning of these two provincial assets provides government with a unique opportunity to simultaneously revitalize two provincial assets through one financial investment.

Approach and Evaluation:

Infrastructure Ontario (“IO”) was engaged by the Ministry of Tourism, Culture and Sport (“MTCS”) to complete a qualitative and quantitative analysis (the “business case”) on how a modernization of the OSC is best achieved. The business case was led by IO with support from a team of external advisors, including Lord Cultural Resources (Cultural Feasibility), Ernst & Young (Fiscal and Economic Impact) and OSC (baseline condition and evaluation support).

The two options under consideration for modernizing the OSC included:

1. Remain on Site; completing a necessary refresh of exhibits and addressing capital repairs/deferred maintenance issues to sustain current operations; and
2. Relocate the OSC to Ontario Place; construct a new OSC facility on provincially owned land with new exhibits and modernized program.

Both options result in a revitalized building for the OSC for the next 50 years, addressing the challenges identified. In addition to repairing or constructing a new building, the business case assumes an investment in the exhibits and program of the OSC to allow the OSC remain relevant and continue to effectively deliver its education and innovation mandate over the next half century.

The two options were evaluated against five Government priorities, as identified by MTCS:

- i. Financial and Economic Impact;
- ii. Program Sustainability and Enhanced Visitor Experience;
- iii. Maximizing Accessibility and Integration;
- iv. Minimizing Labour Impacts; and
- v. Achieving Energy and Environmental Efficiency.

Based on the evaluation methodology and scoring, **Option 2: Relocate OSC to Ontario Place**, scores more favourably for the financial criterion and for three of the four qualitative criteria:

Financial and Economic Criteria	Option 1: Remain	Option 2: Relocate	Difference
Total Project Costs (NPV) ^{1,2} .	\$ 1,333.8 mil.	\$ 1,085.3 mil.	\$ 248.6 mil.
Total Project Costs (nominal) ² .	\$ 2,760.4 mil.	\$ 2,083.2 mil.	\$ 677.2 mil.
Fiscal Impacts / Funding Req. (2yr.) ³ .	\$ 60.3 mil.	\$ 46.6 mil.	\$ 13.7 mil.
Fiscal Impacts / Funding Req. (5yr.) ³ .	\$ 235.2 mil.	\$ 120.7 mil.	\$ 114.4 mil.
Fiscal Impacts / Funding Req. (10yr.) ³ .	\$ 480.3 mil.	\$ 270.6 mil.	\$ 209.7 mil.
Jobs (annual)	615 to 752	1,051 to 1,347	436 to 595
GDP (annual)	\$ 50 to 61 mil.	\$ 90 to 110 mil.	\$ 40 to 49 mil.
Forecasted Tax Revenue (annual)	\$ 6 to 7 mil.	\$ 11 to 13 mil.	\$ 5 to 6 mil.

Qualitative Criteria	Option 1: Remain	Option 2: Relocate
Program Sustainability / Experience	Poor to Satisfactory	Good to Very Good
Accessibility / Integration	Good	Good to Very Good
Minimizing Labour Impacts	Very Good	Satisfactory
Energy and Environmental	Very Poor to Satisfactory	Good

1. Total costs in net present value (“NPV”) terms; i.e. discounted to today’s dollars.
2. Total for useful life of a newly constructed facility plus planning and construction period; ~ 50 years.
3. Detailed fiscal analysis to be completed as capital costs are preliminary and high-level and the gains (or costs) associated with vacating the existing OSC lands are to be determined. Net fiscal impacts of OSC only and after factoring the current OSC operating grant is: Option 1: Remain; \$10.7 mil. (2 yr.); \$99.5 mil. (5 yr.); \$206.9 mil. (10 yr.); and Option 2: Relocate; -\$3.0 mil. (2 yr.); -\$4.3 mil. (5 yr.); \$11.75 mil. (10 yr.). (Note that a negative fiscal impact represents a savings for that time period).

The following provides a description of the favourable aspects of the preferred option.

Financial and Economic Considerations:

- Relocating the OSC to Ontario Place reduces the pressures OSC puts on the provincial fiscal framework, generating reduced costs to government relative to the Remain on Site option of an estimated \$13.7 million, \$114.4 million, and \$209.7 million (accrual basis) over 2, 5, and 10 years respectively. When the current operating grant for OSC is factored into the analysis, there are fiscal savings over 2 years (\$3.0 million in savings) and 5 years (\$4.3 million in savings). (Note: further analysis is required to confirm findings and fiscal accounting treatment).
- The cost of moving the OSC and building a new, more efficient facility optimizes value for money with a reduced costs of ~ \$248.6 million on a net present value basis (or 19%) as compared to staying at the current site due a stronger revenue generation and a smaller building with significantly reduced maintenance and operating costs.
- Building a new more efficient OSC with a modernized program and new exhibits requires a similar capital investment to undertaking deferred maintenance and refreshing the existing exhibits at the current OSC site.
- The Relocate option moves the OSC to provincially-owned lands and allows the City of Toronto to redevelop their lands at the current site. If vacated early, the Province could potentially negotiate a profit sharing arrangement.
- The large construction project, coupled with increased attendance and tourism with a new facility at Ontario Place, is forecasted to have a greater impact on jobs, GDP and tax revenues, as per forecasts provided by Ernst and Young.

Program Sustainability & Visitor Experience Considerations:

- A move to a central waterfront location will facilitate the re-imagination and re-branding of the OSC to better deliver a more stable, flexible and innovative program which better meets government priorities, and the move offers an increased likelihood of commercialization of the sciences sector.
- Developing a renewed Ontario Science Centre at Ontario Place would leverage their joint potential and facilitate shared programming opportunities (around such possible themes

as: water, innovation, play & learning, sustainability, ecology, health, etc.) to create a stronger destination and potentially attracting more visitors to the site.

Accessibility & Integration Considerations:

- The Ontario Place location has a strong fit with the neighbouring community; increasing the visibility of the OSC brand and allowing for increased access for residents, tourists and business partners.
- The OSC at Ontario Place is part of a strong cluster of complementary uses with Exhibition Place, the Central Waterfront and the downtown Toronto tourist offer that will help drive admissions, expand partnership and incubation opportunities and support other revenue generating activities (rentals, food and drink, events, etc.).
- If relocated to Ontario Place, the vacated OSC building may be an appropriate candidate for 're-purposing' as a community hub for Flemingdon Park (a Priority Neighbourhood).

Labour Considerations:

- There are labour impacts as staffing levels may be reduced at a new OSC by up to 33 FTE. While this results in a reduction in salaries, wages and benefits by ~ \$2.0 million annually, there will be a one-time severance cost in 2022 of approximately \$6.8 million.

Energy and Environmental Considerations:

- The new facility could be planned and designed to achieve LEED Gold Certification. This would result in a significant reduction in the facility's carbon footprint. Construction costs presented in the business case reflect LEED Gold standards.
- Without a building rationalization for the Remain option, system operations and on-going maintenance costs are required for a 568,000 gross square foot facility compared to a 315,000 gross square foot facility for the Relocate option.

Conclusions:

The business case analysis supports a relocation of OSC to Ontario Place based on its ability to meet government's priorities for modernization relative to Option 1: Remain.

Since an investment is required for the OSC in either option, construction of a new, modern facility would address two government priorities through a single infrastructure investment; ensuring long-term viability of the OSC and establishing an anchor for culture, discovery and innovation at Ontario Place. Overall, the relocation option optimizes value for money, minimizes fiscal and environmental impacts, and creates a sustainable program of science and innovation that will attract increased interest from businesses, visitors and tourists.

1. Introduction

Completed in 1969, the Ontario Science Centre (“OSC”) remains an iconic Provincial institution and is one of the Province’s most recognized brands. Attracting over 50 million visitors since its opening and widely regarded as one of the leading science centres in the world, the OSC is currently facing a series of operational issues that challenge its long term sustainability. Since 2009/10 attendance has fallen year-over-year with the OSC now attracting 30% fewer visitors than it did six years ago, resulting in a significant decline in admission revenues. With attendance (and related revenues) in decline, critical building maintenance costs for the aging facility increasing, and stagnant revenues and operating subsidies, the current operational model of the OSC is extremely challenging.

At 568,000 gross square feet, the OSC is a large, highly inefficient and inflexible building that no longer meets the needs of a modern science centre – from either a visitor experience or operational requirements. Today, the 50 year old OSC complex is showing its age and critical repairs are required if the building’s life cycle is to be extended. Over the next 20 years, the cost of undertaking necessary building repairs and asbestos abatement is estimated to be \$195 million. This cost far exceeds the annual \$1.1 million capital repair allocation OSC receives. Although some capital investment has been made to the facility in recent years (\$14.4 million between 2009 and 2014), this has been spent on emergency repairs to building systems with no improvements made to the visitor experience or addressing health and safety issues.

1.1 The Opportunity

The opening of the Ontario Science Centre in 1969 was an important advancement in engaging audiences with science. The OSC was a pioneer in the creation of the interactive science centre. Prior to its opening, science museums were largely collection-based institutions that employed a traditional museum approach to exhibit curation; the experiences were largely based on viewing rather than interacting. In the late 1960s the opening of the OSC signaled a major shift in the science engagement landscape. This new approach was embraced by users and began to be adopted worldwide as the model for engaging audiences with science, natural history and art. Today, there are more than 2,500 interactive science centres around the world.

In more recent years, however, access to digital content, globalization, shifting needs of audiences, increased competition and economic instability have had significant impacts on attendance at place-based institutions such as science centres, museums and art galleries. As a result, institutions now need to re-evaluate how their business is delivered in order to retain audiences and remain relevant into the future.

Relevance and sustainability are key issues facing the OSC as it looks at how it can position itself for ongoing success. As the OSC approaches its 50th anniversary in 2019 the time is ideal to look at the science engagement model of the future. The success of its past is a foundation to be built upon as the Centre works to once again establish itself as a leader in public science engagement.

In addition to contemplating the future role and business model for the OSC, the Province is also assessing the future function and opportunity of another iconic provincial brand: Ontario Place. An Ontario Place revitalization strategy is currently in development to move forward the government's announced vision for Ontario Place as a showcase for *"culture, innovation, learning and research"*. The concurrent planning of these two provincial assets provides an opportunity for the government to consider whether the OSC should remain on its current site and undertake critical maintenance and renewal of its exhibits or, alternatively, relocate to Ontario Place in a new building and reinvent itself as a Science Centre for the 21st century and anchor for a revitalized provincially-owned waterfront site.

1.2 Business Case Objectives

The business case was prepared by Infrastructure Ontario ("IO") on behalf of the Ministry of Tourism, Culture and Sport ("MTCS"). The business case will serve to provide analysis on how a modernization of the OSC is best achieved by either:

1. Staying in its current location, renewing exhibits and addressing capital repairs; or
2. Relocating to Ontario Place in a new facility with modernized exhibits and programming.

Both options result in a modernized OSC over the next 50 years. Option 1 offers a more modest 'refresh' of exhibits within the existing complex, while Option 2 contemplates a full update and replacement of exhibits and program within a new facility. Regardless of the investment in the building, the business case assumes an investment must also be made in the exhibits and program of the OSC to allow the centre to remain relevant and continue to effectively deliver its education and innovation mandate.

The business case provides a qualitative and quantitative assessment of the above two options against MTCS's priorities to identify a preferred option for modernization of the OSC.

1.3 Government Priorities

The two options will be assessed against a series of criteria that reflect the government's priorities for the modernization of OSC. When considering the two options for securing long-term sustainability of the OSC, MTCS's priorities have been identified as follows:

A/ Financial and Economic:

The preferred option will seek to minimize overall costs and fiscal impacts of the program and associated building operating costs. It will also seek to optimize economic impacts (e.g. tax revenues, GDP, job growth, etc.). This priority will be assessed through the identification and evaluation of the: total long-term cost to government (net present value; "NPV"), short term fiscal impacts to government and economic impacts for Ontario.

B/ Program Sustainability and Visitor Experience:

Long-term sustainability of the OSC program will come, in part, from its ability to offer a competitive, consistently available and evolving product for visitors and tourists. Four criteria support this priority, including:

Competitiveness of the offer: The degree to which the option positively attracts increased tourism, local visitors and new delivery partners (research, innovation and community partners).

Program and building flexibility: The ability of the OSC to quickly and effectively change usage/space design to respond to evolving trends and market forces.

Construction impact: How the construction of a new facility and/or significant renovations will impact the OSC visitor experience and the experience of other stakeholder groups.

Commercialization of innovation: The degree to which the option: i) facilitates ongoing support and development of leading edge research and innovation and science education; ii) includes the prospect of the OSC acting as a support hub and incubator; iii) serves as a platform for development and investment in technology and sciences; iv) facilitates investment and partnership opportunities.

C/ Accessibility and Integration:

The OSC is an important facility for Ontarians. The options must ensure that this facility remains accessible for Ontarians from all parts of the province and integrates well into local residential and business communities. Two criteria support this priority, including:

Accessibility, integration and profile (City, Region, and Province): Degree to which the OSC is able to be recognized as a pre-eminent facility showcasing science and innovation to business, community and tourists and accessible to all Ontarians. Degree to which selected option respects organizational history and nostalgia that Ontarians have towards the brand.

Neighborhood fit: Degree to which the facility and its program are a complementary and appropriate fit within context of neighbouring properties and communities.

D/ Labour Impacts:

The process of modernizing the OSC should aim to minimize disruptions and maximize stability and job security for Ontario Public Service (OPS) members. This priority will be assessed through the identification and evaluation of labour disruptions related to each option.

E/ Energy and Environment:

Modernization of the OSC must seek to optimize building efficiency so as to minimize environmental impacts. Two criteria support this priority, including:

Building space and operational efficiency: Degree to which the facility is efficiently designed so as to minimize operational costs and underutilized space.

Green Economy: Degree to which the facility supports green energy initiatives and policy objectives towards minimizing the carbon of provincially owned buildings (e.g. modernizing energy systems, reducing energy consumption, reducing greenhouse gas emissions, etc.).

1.4 Delivering the Business Case

Process

As presented below, the process for the business case development involved working with the Client (MTCS Culture Agencies Branch and MTCS Tourism Planning and Operations Division/Ontario Place Revitalization Branch) to help set project parameters and define government priorities. Based on these project priorities, the project team (IO and our external advisors) worked with the Client to establish a series of evaluation criteria to assess the options. The agreed criteria were then weighted based on the defined government priorities. After collecting and compiling all necessary baseline data and information, the project team – with representation from the Client – undertook an evaluation of the options against the criteria to arrive at a recommendation. The evaluation included both qualitative and quantitative (fiscal and economic) considerations.



OSC Modernization Business Case Study Process

Roles & Responsibility

To respond to the demands of the project requirements, IO resourced a broad variety of internal expertise, including:

- *Commercial Projects and Land Development:* Managed the internal and external team to secure individual outputs. Led the option evaluation, provided advice on land valuations, developed the financial models, and authored the business case.
- *Transaction Finance:* Prepared the financial models to identify total project costs and fiscal impact.
- *Land Use Planning:* Advised on highest and best use for existing OSC site and identified existing planning constraints.
- *Heritage:* Advised on constraints related to heritage status of existing OSC.
- *Realty Management:* Advised on building management best practice to help inform projected maintenance costs.

Under the leadership of IO, an external team was retained to provide advisory services, comprised of the following expertise:

- *Lord Cultural Resources Inc.:* Provided cultural advisory services relating to the development of a new Science Centre at Ontario Place, including suggested program, costs (operational and capital requirements) and attendance projections. Provided advice on Science Centres trends and programming best practice.

- *Ernst & Young Orenda Corporation Finance Inc.:* Undertook the economic and fiscal impact analysis for all options.
- *Ontario Science Centre:* Acted as specialist advisor. Provided all data relating to current OSC operations. Identified critical issues affecting current operations. Defined future program ambitions.

1.5 Limitations of Business Case

In preparation of this business case, the services provided by IO and/or its external advisors did not include (i.e., out of scope):

- an assessment of any other locations for the relocation of the OSC other than the West Island of Ontario Place;
- an opinion on the reasonableness of the proposed approach to modernize and relocate (or associated timelines) OSC to Ontario Place;
- an updated technical assessment of the appropriateness and related cost implications of the West Island as a destination for the OSC with regard to servicing and utility requirements, transit access or structural soundness of the landform.
- site specific construction costs for West Island development (generalized construction and site preparation costs have been used and do not reflect a specific architectural design of the OSC facility. Remediation and site preparation costs (including servicing and utility cost estimates) are based on 2013 cost estimates from due diligence completed as part of Stage 1 Ontario Place Revitalization work;
- the costs related to structural repair/reinforcement of the Pod Complex, if required;
- a strategy for consolidation of operations or restructuring of the OSC facility on the existing site (partial closure or rebuild on site);
- an assessment of the impact of potential affordable housing provision requirement on land value of current site, if OSC is relocated off-site;
- an assessment of the impact of any environmental planning and approval requirements (including EA);
- an assessment of risks related to project implementation and delivery;
- an assessment of heritage preservation requirements of existing facility, if OSC is relocates off-site;
- a detailed (line-by-line) fiscal impact analysis. The fiscal impact analysis completed as part of this report should be considered indicative only, as capital costs are estimates and preliminary in nature and a specific decommissioning program for the existing OSC - including any potential gain or loss - has not been determined; and
- an assessment of the appropriate delivery model for construction of a new or refurbishment of the existing OSC.

NOTE: The underlying assumptions supporting this business case are as at the date of this report. Subsequent changes to these assumptions may impact the analysis and outcome.

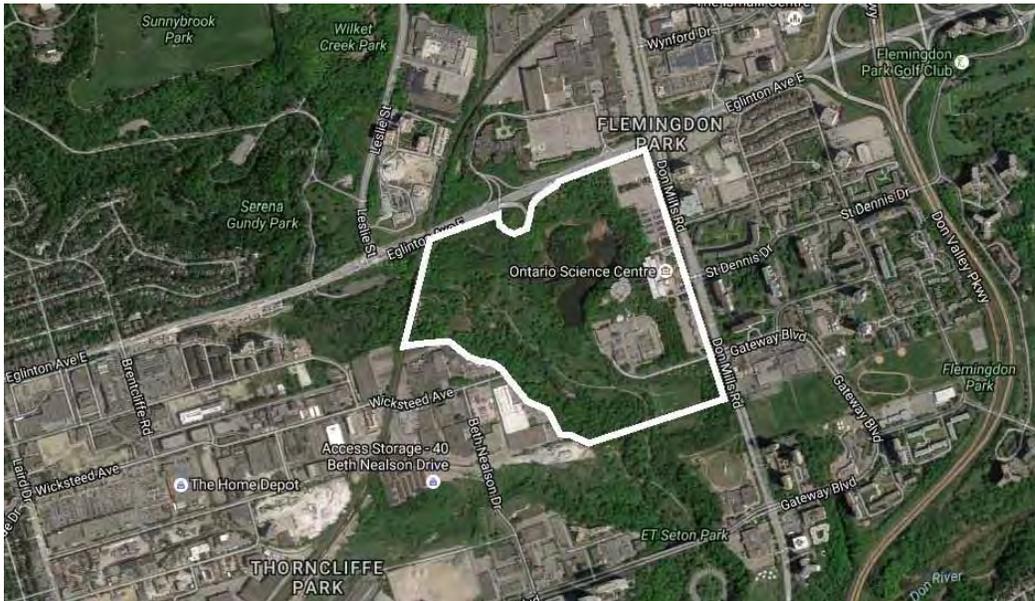
2.0 The Need for Modernization

This section introduces the two locations contemplated for the new or refurbished Science Centre: the existing Ontario Science Centre Site and the Ontario Place site. It also identifies issues related to each site that must be addressed through the modernization strategy.

2.1 The Ontario Science Centre Site

The OSC is located on a 55-acre site in suburban Toronto at the south-west corner of Don Mills Road and Eglinton Avenue East. Of the 55 acres, less than 18 acres is table lands, with the balance of the site being environmentally sensitive ravine lands.

The northern edge of the property fronts onto Eglinton Avenue East, which is currently being redesigned to accommodate Metrolinx's Eglinton CrossTown Light Rail Transit (LRT) project. Scheduled for completion in 2021, the \$5.3 billion CrossTown LRT will run for 19 kilometers along Eglinton Ave and be serviced by 25 stops, including a 'Science Centre' stop at Don Mills Road.



The Ontario Science Centre Site (source: Google Maps)

Designed by Moriyama & Teshima Architects in a modernist style and constructed between 1966 and 1969, the OSC was truly an innovative and forward thinking facility for its time. The OSC complex encompasses a gross floor area of approximately 568,000 gross square feet across three interlinked buildings. Of the 568,000 gross square feet, 140,000ft² is dedicated to public exhibition and programming space and an additional 46,000ft² for administration. The balance of the complex is dedicated to circulation, servicing, workshops, food service, retail and maintenance areas. Parking for 1,200 cars is provided on site. Refer to Appendix A for a generalized space program for the existing OSC.

The Planning Framework

The site supports two City of Toronto Official Plan land use designations: *Institutional Area* along the north and east edge of the site and *Natural Area* for the balance. *Institutional Areas* are intended to house major educational, health and governmental uses, while *Natural Areas* are restricted to parks and open spaces with any development being severely restricted.

The site also supports a split zoning of *Semi Public Open Space* and *Open Space - Natural Zone*. The OSC buildings and parking area zoned as *O3: Semi-Public Open Space*, which permits essentially any public use. The ravine portions of the site are zoned as *ON: Open Space – Natural Zone*. Permissions are highly restrictive. Refer to Appendix B for additional details on the site's land use planning framework.

Although planning permissions are currently highly restrictive on site, the City of Toronto recently initiated a multi-faceted Planning Study in the area of Don Mills Road and Eglinton Avenue that may potentially impact future permissions (zoning classifications and official plan designations). Further details are not known at this time.

Land Lease Arrangements

Although the OSC complex was constructed and owned by the Province, the site itself is leased from the City of Toronto and the Toronto & Region Conservation Authority (TRCA). The lease establishes that 49.96 acres of the 55 acre site is leased for a term of 99 years, commencing July 1, 1965, at \$1.00/year. There is one option to renew for a further term of 99 years at the same rent (through to June 2164). The balance of the site (5.49 acres) was leased for parking on a short-term basis, however this lease has now expired and there is no long-term lease in place over these lands.

Under the lease, the City of Toronto has approval rights over any new construction proposed for the site, including the OSC building itself. There is no termination right for either the Landlord or the Tenant and no termination payment provision. As the Crown cannot breach its covenants, any termination of the lease would need to be negotiated and agreed between the Landlord and the Tenant. Due to the nominal rent paid (\$1/year), potential termination penalties are expected to be low.

The Lease does not contain any requirement for the Tenant to remove any buildings from the site upon termination or expiry of the Lease. Upon termination or expiry of the Lease, the Tenant is obligated to restore the parking lot land to its original condition.

Refer to Appendix C for a summary of the existing land lease terms.

2.1.1 The Need for Modernization of the OSC

Opened in 1969 as one of the world's first Science Centres, the provincially-owned and operated OSC is widely recognized as a pioneer and world-leader in science related education and engagement. Today several critical issues threaten its on-going operations and long-term sustainability, including:

1. Building Deterioration and Critical Maintenance Requirements
2. Building Health & Safety Risks
3. Functional Obsolescence of OSC Complex
4. Increased Operational Costs due to Facility Inefficiency
5. Lack of Provincial Control Over Site / Land Ownership
6. Declining Attendance and Revenues
7. Shrinking Market Share and Increased Market Competitiveness

Building Deterioration and Critical Maintenance Requirements

Due to the age of the OSC, high volumes of visitors, specialized design of the facility and limited maintenance budget, the OSC is in need of considerable capital repairs. A *Facility Condition Assessment Report* completed by VFA Canada Corporation (“VFA”) in 2013 identified that the cumulative capital repair cost to government for the existing OSC facility is projected to be more than \$147 million over the next ten years and approximately \$195 million over the next 20 years (accumulative cost to 2035). These costs are to maintain the current use of the facility as a Science Centre. If adaptively repurposed for a non-Science Centre use (refer to Section 5.4), deferred maintenance costs may be significantly less.

The table below summarizes the deferred maintenance required over the ten and twenty year period for the building and the grounds. A detailed year-on-year summary of deferred maintenance requirements is provided at Appendix D:

<i>(All figures are presented in CAD \$ millions)</i>	10 year Deferred Maintenance (2025)	20 Year Deferred Maintenance (2034)
<i>Buildings:</i>		
Building A	\$39.5	\$53.8
Building B	\$36.7	\$47.8
Building C	\$64.1	\$82.3
Sub total	\$140.3	\$183.9
<i>External Areas:</i>		
Public Parking Area (north and south lots)	\$2.2	\$4.6
Staff Parking Area	\$1.2	\$1.5
Teluscape Area	\$0.1	\$0.4
Roadways & Landscape	\$3.6	\$4.4
Subtotal	\$7.2	\$10.9
TOTAL	\$147.5	\$194.8

Source: Facility Condition Assessments, VFA (2013) and Infrastructure Ontario's Real Estate and Lending Asset Management Division (2015)

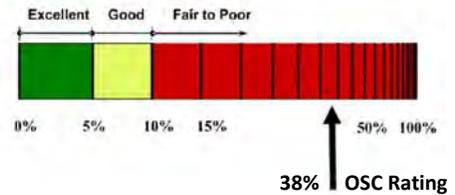
Average expected lifetimes of major building systems such as electrical service and HVAC are typically between 30 and 40 years, and the majority of the assets at the OSC are 47 years old. Although undertaking the \$194.8 million deferred repairs will sustain existing operations over

the next 20 years, this investment will not renovate facilities, modernize exhibits or enhance the visitor experience. The maintenance identified is for ‘behind the walls’ improvements only.

Of the total deferred maintenance requirements, the VFA report identifies that \$48.3 million is required in the near term (by 2018/19) for emergency maintenance to address critical issues around Life Safety Hazard (health & safety), Code Compliance (fire, access, building) and Asset Integrity (systems and structural).

Facility Condition Index (FCI)

A Facility Condition Index (FCI) is a comparative indicator of the relative condition of facilities. FCI is a standard measure used throughout the country, and is also currently being used by other ministries to measure the condition of buildings.



The FCI is the amount of deferred maintenance divided by the Current Replacement Value (CRV) of the building; resulting in the FCI. FCI results range from 0 to 100 and is expressed as a percentage. The range of FCI establishes a building’s condition: A building of an average condition would support an FCI of between 0.05 and 0.10 (5%-10%), while a fair or poor quality building would have an FCI of more than 0.10 (10%).

VFA identify that in 2013 the OSC had an overall FCI rating of 0.38 (38%) which is considered “Poor”.

Building Health & Safety Risks

Included in the deferred maintenance requirements of the OSC are a number of repairs related to environmentally sensitive issues, including the repair or replacement of Critical Building Systems. VFA’s *Facility Condition Assessments Report* identifies that if repairs are not undertaken to address the state of the Critical Building Systems, the following risks are present:

- personal injury due to faulty electrical systems, fire protection systems;
- air quality issues, related to the presence of mould and asbestos;
- other health issues related to presence of lead based paint, CFCs and PCBs; and
- failing building envelope and compromised structural integrity of building

Undertaking the required repair to the above Critical Building Systems – such as asbestos abatement and structural repair – will likely require partial or complete closure of the OSC for an unknown period of time. Closure will not only result in a loss of revenue but may generate negative perceptions regarding the safety of the OSC as a tourism and educational destination even after critical repairs have been completed (refer to Section 5.5 for additional information).

Functional Obsolescence

The design of the OSC reflected the needs of a museum and science facility of its era. However, since that time the function of museums and interactive experience centres has evolved but the purpose-built design of the OSC has prevented it from adapting to new program needs and revenue generating opportunities.

In addition to poor adaptability, the OSC building design has also resulted in a highly inefficient building with a large 'back of house' area and extensive corridors, utility and circulation areas. Of the OSC's 568,000 gross square feet, 50% is dedicated to utility spaces, corridors and circulation spaces, servicing areas and office space (approximately 285,000 ft²). Only 18% (100,000 ft²) is dedicated to permanent exhibit space. This compares unfavorably to other leading North American Science Centres, that dedicate between one-third to one-half of their facilities to exhibition space (refer to Appendix E). Only 5% of the OSC (30,000 ft²) is available for revenue generating spaces such as the retail store, restaurant, OMNIMAX, rental spaces. This inefficient building design and layout results in unnecessarily high maintenance cost, capital repair requirements and operating costs, in addition to a more difficult user experience (e.g. challenging wayfinding, long travel distances, etc.).

Although there is a significant amount of underutilized space at the OSC, the existing exhibition and program space is at capacity. Without a significant re-design of the building, there are limited opportunities to reimagine exhibition and program areas. This limits future opportunities for diversification of programming.

Operational Costs / Efficiency

The aging structure and design of the building has created long-term and on-going maintenance and budget challenges. Since 2009, overall building maintenance costs have increased by an average of 9%. Utility costs have soared by almost 16% over same period. As OSC's maintenance and operations budgets are increasing, revenues and provincial subsidies are declining or stagnating.

The OSC continues to struggle with rising occupancy costs. OSC does not own its building but leases it from IO. OSC's budget of \$3.8 million for occupancy costs consistently falls short of IO's billing amount, which was \$4.6 million in 2015-16 and expected to continue to rise. Reducing occupancy costs should be a key goal for creating a more sustainable OSC.

Land Ownership / Control Over Site

The entire 55 acre OSC site, including its parking area, is located on land leased from the City of Toronto and the Toronto Regional Conservation Authority (TRCA). As the Landlord, the City of Toronto and TRCA retains approval rights over any new construction or refurbishment of OSC buildings.



Potential Intensification Scenarios of OSC Parking Area (City of Toronto, *Eglinton Connects Planning Study: Volume 2 Appendix F - Focus Areas & Mobility Hub Studies*, 2014)

In addition to controlling what the OSC can do to its building, the City also controls what can be done on the parking area. At present there is no lease in place between the City and the OSC for the 274 parking spaces in the upper north lot and, as such, this parking provision is not protected under the current agreement. In the absence of a lease, the City may choose to redevelop, sell or repurpose the parking lands at any time. This would impact operations and revenue available to the OSC (OSC generates approximately \$100,000 in revenue through the upper north parking lot over approximately 30 peak operating days during the course of a year). Annual parking revenues, including the north parking lot are approximately \$1 million.

As recently as 2014, the City of Toronto contemplated redevelopment of the OSC's parking areas. As presented to the left, the *Eglinton Connects Planning Study (2014)* identified the OSC parking lots as a high density zone appropriate for redevelopment in excess of 12 storeys. The City is currently advancing this study through the *Don Mills and Eglinton Planning Study* that contemplates integrating the entire OSC site into an intensification zone, effectively expanding the intensification zone beyond the parking lots and into the main site. If redevelopment of these sites is pursued, it will remove parking, reduce revenues and restrict visibility of the OSC from both Eglinton and Don Mills.

Declining Revenues

Until 2012, the OSC regularly attracted more than 1 million visitors annually. However, since 2009/10, attendance has declined sharply, from a peak of 1.287 million visitors to 932,258 visitors in 2015/16. This represents a decline in attendance of 28% over a six year period. Even if measured from a year other than the peak year of 2009/10, attendance is off considerably (-17% from 10 years ago).

Decreasing attendance figures has had a direct impact on earned revenues. As shown in the table below, four of the past six years of operations, the OSC has witnessed a decline in revenue. Although 2015/16 witnessed a spike in revenues, this was credited to stronger than average sales of exhibition fabrication services. The demand for this specialized service is erratic and difficult to project.

Attendance based revenues are made up of regular visits and school admissions, parking, OMNIMAX theatre admissions, recreation programs. Revenue earned through admission related activities was \$11.4 million in 2015-16, 20.1% below the peak in 2009-10. Admission

and parking revenue decreased from \$6.6 million in 2009-10 to a low of \$4.6 million in 2014-2015 before seeing improvement to \$5.2 million in 2015-16 (first improvement in seven years). No other revenue streams increased in a sustained manner during over the past several years to address the shortfall in admission and parking revenue. In addition, over this period the OSC's operating grant was reduced thereby further impacting the financial sustainability of the organization.

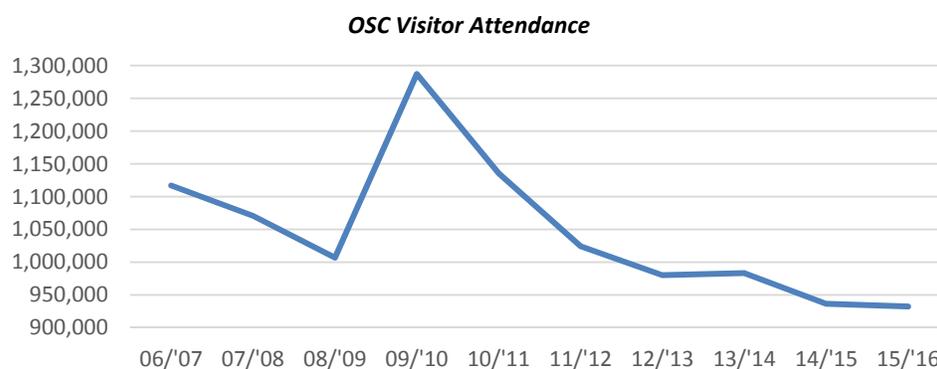
As a result of decreasing revenues the OSC has focused on reducing operating costs with the majority of savings realized through salary reductions/savings. The approach is not sustainable.

<i>(All figures in \$ '000's)</i>	09 /10	10 /11	11 /12	12/13	13/14	14/15	15/16
Admission Revenue	14,224	12,805	11,043	11,845	11,630	10,996	11,365
Year over Year Change		-10%	-14%	7%	-2%	3%	-5%
Non-admission Revenue	4,616	3,742	4,749	4,528	4,442	3,545	5,805
Year over Year Change		-19%	27%	-5%	-2%	-20%	64%
TOTAL Operating Revenues	18,840	16,592	15,792	16,373	16,072	14,541	17,170
Year over Year Change		-12%	-5%	4%	-2%	-10%	18%
Accumulative Change		-12%	-17%	-13%	-15%	-24%	-6%

Source: Ontario Science Centre, 2016

Competitiveness in Market

Since 2009/10, attendance at OSC has declined from a peak of 1.287 million visitors to 932,258 visitors in 2015/16, and in the past seven years, only one year (2013/14) saw an increase in visitation over the previous year (a modest 0.3% increase).



Source: Ontario Science Centre, 2016

An important component of visitor number are tourists. Toronto's tourism offer is becoming more sophisticated with new attractions (such as Ripley's Aquarium, CN Tower Edge Walk and the Aga Khan Museum) all competing for the out-of-town (tourism) market. The OSC has not been able to effectively compete with new attractions to grow its share of the tourism market. At present, only 17% of visitors to the OSC are tourists (non-GTA residents). There is also an opportunity to significantly grow attendance at the OSC by attracting more tourists.

OSC is under-performing as a tourist attraction and visitor destination. Its 17% tourism attendance rate compares unfavourably with other major provincially operated tourist attraction, such as the Art Gallery of Ontario (“AGO”). The AGO attracts 37% of its visitors from beyond the GTA (MTCS, 2016). OSC indicate that distance from other tourist attractions and a lack of investment in exhibition renewal and programming has limited their opportunity to grow their tourism market share.

Lord Cultural Resources identified that when OSC opened its doors in 1969 it was a leader of the ‘second wave’ of science museums, taking a pedagogical approach to science through interactivity and hands on learning aimed at children and youth. Today, ‘second wave’ science centres are far behind the times, with contemporary science centres now onto the ‘fourth wave’ with a focus on co-creation, clustering and innovation (Refer to Appendix E for additional details on ‘fourth wave’ Science Centre trends and precedents from around the world.). Current visitor trends suggest that a new approaches to bring OSC more in line with the latest best practice is required if it is to halt its shrinking attendance and grow new markets (tourism, teen, adult).

OSC needs to re-evaluate all aspects of its business in order to be relevant to audiences into the future. As part of this re-evaluation, OSC should focus on what MTCS identified as critical success factor attributed to successful cultural destinations, as identified in the Ontario Cultural and Heritage Tourism Product Research Paper (MTCS, 2009):

1. *Cultural Clustering.* Highly successful cultural tourism attractions are either part of a cluster or an anchor institution in initiating a cluster. A model for success going forward is not a single offer but rather a cluster of offers and experiences that can create a compelling reason to visit. The ability to cluster also supports the ability to renew content on a regular basis can increase visitation and relevance.
2. *Global Cultural Brands.* International big brands attract tourists. Exhibitions, theatrical productions, festivals and even institutions draw significant numbers of culture seekers based on the power of the brand.
3. *The Distinctiveness of Historic Places.* Unique historic places (such as Ontario Place) attract large numbers of cultural tourists especially when they are of sufficient scale, originality and authenticity.
4. *Quality Design and Architecture.* The Guggenheim Bilbao changed the way cities, regions and countries view architecture as a tourist destination. Almost 20 years after it opened, the museum regularly attracts more than 1m people with at least half of them from abroad. Visitors’ spending in Bilbao in the first three years after the museum opened raised over €100m (\$144 million) in taxes for the regional government, enough to recoup the construction costs and leave something over.
5. *Creative Destinations.* Increasing numbers of cultural institutions offer opportunities for active, creative participation as an important part of their mission. Laboratories and incubators attract both creative workers and travelers from all over the world.

6. *Economic Development.* Anchor cultural attractions or a cluster of attractions act as catalysts for revitalization generating further investment which lead to other attractions, private development and amenities.

2.2 The Ontario Place Site

The current revitalization efforts underway at Ontario Place offers an opportunity for the government to consider whether the OSC should be relocated to this provincially-owned waterfront site as an anchor for Ontario Place revitalization activities.

The Ontario Place site is 155 acres and encompasses a mainland parcel and a water parcel. The 20 acre mainland parcel includes surface parking lots and a visitor entrance buildings. The 135 acre water parcel includes 83.5 acres of open water (water lots) plus three man-made islands (East Island, West Island and Molson Amphitheatre Island).



The Ontario Place Site

At the heart of the site bridging the east and the west island areas are a cluster of iconic uses, including the marina, the Cinesphere and a complex of five pods suspended above the central lagoon. The importance of the site to Ontarian's has been reaffirmed by MTCS through its designation of the property as a cultural heritage landscape of provincial significance.

The Planning Framework

Development permissions at Ontario Place is currently restricted to recreational and cultural uses. The City of Toronto Official Plan designates Ontario Place a *Parks and Open Space Area* (specifically *Other Open Space Areas*) and as part of the *Green Space System*. These designations prohibit development with the exception of recreational and cultural uses. The site supports a split zoning with the mainland zoned as *G-Park* and the islands zoned *Gm-Marina Park*, both of which limit uses to cultural and recreational purposes, in line with the Official Plan designations. A rezoning and/or official plan amendment may be required for redevelopment of the site.

The Government Announced Vision for a Revitalized Ontario Place

In 2014, following a strategic visioning process that resulted in the Minister’s Advisory Panel Report ‘Ontario Place Revitalization’ and a subsequent period of technical due diligence, Premier Kathleen Wynne and then MTCS Minister Michael Coteau publically announced a new Government Vision for a revitalized Ontario Place (Appendix F). This vision, which was supported by a pledge of \$100 million for planning and ‘pre-development’ work, was for “a year-round, vibrant waterfront destination – building on the site’s legacy of innovation, fun and live music”.

At the heart of the Cabinet-supported Vision is a “Culture, discovery and innovation hub” that will act as an anchor for Ontario Place activities and “provide places and spaces for future ideas, with a focus on culture, innovation, learning and research”. This innovation hub is schematically located on the West Island of Ontario Place.

The OSC is a complementary fit to with the Governments Vision for a revitalized Ontario Place.



Conceptual plan for Ontario Revitalization, as announced by Premier Wynne, July 31, 2014.

2.2.1 The Need for Revitalization at Ontario Place

Opened in 1971, Ontario Place – like the Ontario Science Centre – was built for all Ontarians as a statement of pride to celebrate innovation, education and creativity. With a focus on family entertainment, Ontario Place showcased the Province’s past accomplishments as well as its future potential. After 40 years in operation, faced with declining attendance and limited public investment, the Liberal government decided to close Ontario Place in spring of 2012.

Four years after its closure, the majority of Ontario Place remains closed the public. Only the Molson Amphitheatre, the marina, and portions of the East Island remain open (seasonally).

Although the majority of the site remains closed or underutilized, on-going maintenance of the site remains a provincial obligation. Under a reduced operating budget, Ontario Place Corporation (“OPC”) has been tasked with managing the site during this ‘transitional phase’. Even as the site remains closed, some of the site’s most iconic features - such as the Cinesphere, pods and bridge complex – require costly structural attention and/or on-going repairs. For example, the Pods and Cinesphere require maintenance work in order to ‘make-safe’; estimated to be approximately \$10.2 million, excluding structural repair if required (GHD Limited, *State of Good Repair Review: Ontario Place Pod Complex*, Dec 2015) .

Ontario Place continues to demand on-going government subsidy during its restricted operations. With significantly reduced revenue opportunities and on-going maintenance requirements, OPC’s 2015 proposed budget identified a \$2.0 million operating subsidy requirement to balance their budget. This was based on forecasted \$4.5 million in revenues and \$6.5 million in expenses.

Following the revitalization planning process (now entering in its fifth year), there has been minimal physical revitalization undertaken on site. Beyond a commitment to construct a 7.5 acre park at the east end of the site, no additional revitalization project has been confirmed or implemented and, as such, no associated capital funding committed has been made to the revitalization effort. Although the Premier and Cabinet have endorsed the Vision for the site, the Province has yet to commit to a comprehensive capital plan for construction. As part of the revitalization planning work, \$100 million was allocated by the Province for ‘pre-construction’ work, however, no resources have been allocated for construction beyond the park and trail project currently underway.

Relocating and reimagining the Ontario Science Centre as the anchor use for the “*Culture, discovery and innovation hub*” may provide the government with a unique opportunity to maximize value for money by leveraging a single capital investment to the benefit of both OSC and Ontario Place. Investment in the OSC at Ontario Place can simultaneously achieve the revitalization of these two provincial assets through one financial commitment.

3.0 Options for Modernization

This section of the report presents the assumptions underlying the two options for the modernization of the OSC which include: remaining on site and undertaking repairs to remain operational or, alternatively, to relocate to provincial land and construct a new facility as an anchor component for the Ontario Place revitalization. The assumptions supporting this business case are as at the date of this report. Subsequent changes to these assumptions may impact the analysis and outcome. Detailed assumptions and sources can be found in the Assumptions Registry as part of Appendix H.

3.1 Option 1: Remain on Site

The Remain on Site option contemplates remaining on the current City of Toronto owned land and investing \$195 million in the property to address deferred maintenance issues. In addition to deferred maintenance costs, the business case assumes a one-time refurbishment cost of \$50 million to enable Option 1 to update exhibits and undertake minor refurbishment of some public areas. This government investment is required to update the OSC program to prevent on-going deterioration of exhibits, to reflect emerging and new government priorities over the next 50 years and to keep the OSC relevant for future generations of Ontarians.

3.1.1 Spatial Requirements

- Maintains status quo - no major change to building design or layout. OSC continues to be limited in using ~ 30% of its building footprint for public exhibitions and revenue generation activities.
- While the future of the parking area remains uncertain, the space and quantum of available parking is assumed to remain as is, with revenues remaining with the OSC.

3.1.2 Program Cornerstones

- No major change to programming themes, but one-time investment of \$50 million will allow OSC to refresh exhibits, programming and some public spaces. The budget contemplates an update to exhibits rather than a major reinvention of the entire space.

3.1.3 Attendance and Admissions

- Attendance is made up of regular visitors, school groups, OMNIMAX theatre admissions and recreation programs (camps, birthday parties, sleepovers).
- Since a peak in 2009/10, attendance has declined from 1.287 million visitors to 932,258 visitors in 2015/16. With a planned refresh of the exhibits, the financial model assumes attendance will stabilize at 960,000 visitors by 2019. This assumes the OSC is closed prior to that date to undertake critical repairs (including asbestos abatement). As such, attendance will drop to zero for approximately one year and is forecasted to be approximately 10% lower than the stabilized attendance for the remainder of the deferred maintenance repair period.

- The OSC is located adjacent to a highly disruptive long-term construction project (Eglinton Crosstown LRT, refer to Appendix G). While this project will likely negatively impact attendance through to 2021 (during construction), no drop in attendance specifically due to the LRT project is assumed. Similarly, while public access to the site is enhanced following completion of the LRT in 2021, no attendance increase is forecasted. (Currently, 15% of visitors to the OSC arrive by public transportation.)

3.1.4 Capital Requirements

Refer to Appendix H for a full summary of capital requirements for the Remain on Site option over the next 50 years.

3.1.4.1 Deferred Maintenance

- Deferred maintenance repairs on the OSC building and its systems will be required to allow the Science Centre to continue operations for next 50 years. The cumulative capital repair costs to the government are projected to be more \$195 million over the next 20 years (to 2035).
- \$48.3 million is required by 2019 to address critical building maintenance (systems and structures).
- Refer to Section 2.1 for additional details on Deferred Maintenance.

3.1.4.2 Building Refurbishment/Renovation/Exhibition Renewal

- The deferred maintenance investment of \$195 million will extend the life of the building structure and systems for another 40 to 50 years. The business case assumes that the government would not undertake this significant investment to the building without also ensuring that the public content/exhibits also benefit from a refresh to extend their lifespan.
- \$48 million has been earmarked in the business case for a full refresh of exhibits. \$2 million has been earmarked in the business case for the refurbishment of non-permanent exhibit spaces.
- Although this one-time \$50 million investment will allow a refresh exhibit areas and some limited public areas, but it will not be sufficient to renew the majority of other public areas (e.g. ticketing area, admissions, classrooms, offices, education centres, washrooms, foyers, etc.). This level of investment does not contemplate a full replacement of exhibits, and as such, does not guarantee that the exhibits on offer support a 'fourth wave' Science Centre.

3.1.5 Revenues and Subsidy Requirements

- The OSC has annual revenues from operations of approximately \$14 million currently, which represents a decrease of ~ 6% over the past few years primarily due to declining attendance.

- With annual expenses of approximately \$34 million, there is an annual subsidy required from Government. Last year, the OSC currently received ~ \$21 million in support: \$19.6 million for general operating activities and an additional \$1.1 million for capital projects. This subsidy is not site-specific and is fully transferable to any new location.
- Other than Provincial funding, operating revenues come from earned sources (ticketing, parking, OMNIMAX, memberships, concessions, etc.) and private donors.
- The Remain on Site option includes a significant increase in capital spending for deferred maintenance and exhibit renewal. Refer to Appendix H for a full summary of operational requirements for the Remain on Site option over the next 50 years.

3.1.6 Sponsorship Opportunities

- The OSC reports that 6% of its total operating budget is from sponsorship and fundraising.
- OSC has experience running successful fundraising campaigns. In 2007, the \$47.5 million 'Agents of Change' transformation resulted in the Weston Family Innovation Centre, the outdoor TELUSCAPE plaza in 2006, and two permanent art installations.
- Sponsorship and philanthropic activities have the greatest potential to increase earned revenues but it is difficult to attract these investments given the current state of the OSC building and exhibits. A combination of location, offer and the dated building have created challenges in developing partnerships and growing earned revenues through sponsorship and philanthropy.
- A more substantial level of private support for the OSC will most likely come with a planned strategic shift to better align its mission with critical science-related issues, innovation and research. As well, a broadening of its audience beyond children and families will appeal more to funders and sponsors.

3.1.7 Expenses

3.1.7.1 Occupancy Costs

- Annual lease and lease related occupancy costs are ~ \$6.7 million; representing ~ 20% of the annual operating budget; including \$4.7 million as an occupancy payment to IO (rent and associated operating and maintenance costs, management fees, etc.), \$430K for facility maintenance by OSC staff, and \$1.6 million for cleaning costs.

3.1.7.2 Staffing/ Salaries/Wages/Benefits

The OSC currently employs 277 staff on-site:

Role / Level	# of Staff
Senior Management	4
Science Experience & Education Staff	113
External Relations & Marketing Staff	62
Corporate Services & Operations Staff	98

Source: Ontario Science Centre, 2016

- The total for salaries, wages and benefits for the current OSC is \$20.3 million (2015/16).
- Salaries and wages represent the large expense, accounting for 59% of annual operating budget.
- The OSC is currently planning some changes to its operating model that will result in some labour reduction in the near term. The specific FTE impact has not yet been fully determined but any labour disruption is expected to be largely managed through natural attrition.

3.1.7.3 Other Operating Expenses

- The remaining operating expenses, other than labour and occupancy costs, are ~ \$7.3 million.

3.1.7.4 Ontario Place Expenses

- This business case factors current operating costs at Ontario Place to account for the fact that, under Option 2: Relocate OSC to Ontario Place, a portion of Ontario Place's existing expenses will be affected by this relocation (e.g. OSC would be occupying and assuming the costs associated with the Pods and Cinesphere and the West Island of OP).
- Under Option 1, OPC continues to bear costs associated with the Pods and Cinesphere, as well as all site maintenance responsibilities on the West Island of the site.
- It is assumed that OPC would spend some money to refurbish the Pod Complex (\$10.7 million), and then retain the associated operating expenses for the West Island. The costs for ongoing maintenance are assumed to be borne by OPC under their current funding model.

3.1.8 Financial and Economic Impact Analysis

3.1.8.1 Total Project Costs (Cash Basis Financial Impact)

- The total project costs for Option 1: Remain On Site, both in nominal terms for a 50-year period (equivalent to the life of a newly constructed building) as well as on a Net Present Value (NPV) basis, are presented in the table below. Refer to Appendix H for detailed assumptions.

All figures in \$ CAD millions ¹	TOTAL (50 year NPV)	TOTAL (50 year Nominal)	2016	2017	2018	2019	...	2066
Attendance			959,804	959,804	0 ²	863,824		959,804
Revenues	\$527.3	\$1,154.9	\$15.5	\$15.7	\$3.6	\$15.4		\$32.6
Expenses								
Operating Expenses	(\$1,543.3)	(\$3,434.3)	(\$39.4)	(\$40.2)	(\$41.0)	(\$41.8)		(\$105.8)
Deferred Maintenance	(\$177.2)	(\$224.1)	(\$4.0)	(\$3.4)	(\$49.2)	(\$5.1)		-
Ongoing Maintenance	(\$85.3)	(\$189.8)	(\$2.2)	(\$2.2)	(\$2.3)	(\$2.3)		(\$5.9)
Capital Expenses	(\$55.4)	(\$67.1)	-	-	(\$10.5)	(\$11.8)		-
Total	(\$1,333.8)	(\$2,760.4)	(\$30.2)	(\$30.1)	(\$99.4)	(\$45.6)		(\$79.0)

1. Numbers may not add due to rounding.

2. No attendance due to full closure for required asbestos abatement.

- As noted in the table above, the total nominal project costs are \$2.8 billion for a 50-year period and ~\$1.3 billion (in net present value terms, i.e. 'today's dollars'). This large expense can be attributed to the required increase in capital spending and high on-going operating expenses with no corresponding increase in visitors and/or revenues.

3.1.8.2 Fiscal Impact Analysis

- Fiscal impacts under this option are also negative given the increased subsidy required to fund capital repairs and the ongoing operating losses.
- The fiscal impact, or funding required for the OSC, for the next six years is as follows:

All figures in \$ CAD millions ¹	2016	2017	2018	2019	2020	2021
Remain On Site - Total Fiscal Impact ²	(\$30.2)	(\$30.1)	(\$93.7)	(\$39.7)	(\$41.5)	(\$67.0)
Fiscal Impact (with OP expenses removed)	(\$24.8)	(\$24.6)	(\$83.3)	(\$28.1)	(\$35.6)	(\$61.0)
Forecasted OSC Operating Grant ³	\$19.4	\$19.4	\$19.4	\$19.4	\$19.4	\$21.3
Incremental Fiscal Impact (OSC only)	(\$5.4)	(\$5.2)	(\$63.9)	(\$8.7)	(\$16.2)	(\$39.7)

- Numbers may not add due to rounding.
- Includes expenses for West Island portion of Ontario Place.
- Does not include Ontario Place operating grants.

- The accumulative fiscal impact for the next 5/10/50 years is as follows:

All figures in \$ CAD millions ¹	5-Year Fiscal Impact	10-Year Fiscal Impact	50-Year Fiscal Impact
Remain on Site - Total Fiscal Impact ²	(\$235.2)	(\$480.3)	(\$2,760.4)
Incremental Fiscal Impact (OSC only)	(\$99.5)	(\$206.9)	(\$1,005.1)

- Numbers may not add due to rounding.
- Includes expenses for West Island portion of Ontario Place.

Refer to Appendix I for a full summary of economic and fiscal impacts for the Remain on Site option over the next 50 years.

3.1.8.3 Economic Impact Analysis

- Overall economic benefits associated with the renewal of the OSC are measured in terms of GDP impacts. Both options generate an estimated level of spending (total project cost – see above). The incremental GDP impact is determined based on how much net new spending occurs in the Provincial economy as a result of the construction and ongoing operation of either option. Major activities influencing the GDP calculations include: tourism, construction, and operations. Operations include the ongoing operating costs of public institutions, and commercial businesses. The

greatest GDP impacts are therefore found among the option with the highest level of construction activity, operating institutions and attractions.

- Inputs into economic impact include the following:

1. Job creation:

- Considered in 3 categories: construction, operations, and tourism.
- The Remain on Site option will result in approximately 615 to 752 jobs.

Test concept #	Remain on Site	
	Low	High
Estimated annual results		
Jobs from construction	226	276
Jobs from operations	365	446
Jobs from tourism	24	29
Total	615	752

2. Tax Revenue:

- Based on capital, operational and tourism spending.
- Tax revenues under this option are forecasted to be between \$181 million and \$221 million over the ~ 50 term.

Test concept #	Remain on Site	
	Low	High
Results for 2016-2066		
Personal taxes	67	82
Sales taxes	52	64
Corporate taxes	25	31
Other taxes	37	45
Total	181	221
Estimated annual results		
Personal taxes	2	3
Sales taxes	2	2
Corporate taxes	1	1
Other taxes	1	1
Total	6	7

In CAD \$ millions

3. Tourism:

- Bringing new dollars to Ontario's economy and is therefore included as a component of GDP calculations. The benefit of tourism to the Province is measured in incremental spending.
- The modernization on site is forecasted to result in total GDP spend of between \$50 and \$61 million per annum.

Test concept #	Remain on Site	
	Low	High
Range		
Number of years of construction	9	9
Results for 2016-2066		
GDP from construction	185	226
GDP from operations	1,237	1,512
GDP from tourism	87	106
Total	1,509	1,844
Estimated annual results		
GDP from construction	21	25
GDP from operations	28	34
GDP from tourism	1.7	2.1
Total	50	61

In CAD \$ millions

3.2 Option 2: Relocate OSC to Ontario Place

Option 2 contemplates relocating OSC from City-owned land to a provincially controlled waterfront site as part of the Ontario Place Revitalization project. The OSC would be reimagined and fully modernized to serve as the anchor use for the Government’s announced “Culture, Discovery and Innovation Hub” at Ontario Place. The capital investment would result in a new, high efficiency facility designed to meet the needs of the Science Centre and its partners over the next 50 years.

3.2.1 Spatial Requirements

- Although no detailed architectural drawings were completed for new OSC (options are conceptual only), spatial planning analysis and related costings were used to inform the business case and establish operational requirements and costs. Spatial planning and costings were provided by Lord Cultural Resources, global leaders in museum and institutional planning and development.
- Contemporary museum spaces demand less space (gross square footage) than earlier models. The new building, although smaller, will operate more functionally and efficiently than the current OSC and dedicate the same square footage for permanent exhibition space. The total Gross Floor Area for the relocated OSC is 318,000 ft² (excluding the Cinesphere) - as compared to the existing facility at approximately 568,000.
- The more efficient new building design will significantly reduce maintenance and other operational costs (by ~\$4.5 million annually; ~\$2 million due a reduced headcount and ~\$2.5 million due to lower building operating costs). All new buildings could be constructed as LEED Gold. The capital cost estimates reflect this level of certification.
- Lord Cultural Resources has prepared a space plan for the new OSC at Ontario Place and which is reflective of the 2014 Government Announced Vision and 2013 masterplaning and due diligence work completed by Urban Strategies Inc. The space

plan proposes: (1) A new entrance building on the mainland will replace the current Ontario Place entry adjacent to the existing west surface lot and (2) the primary Science Centre building to be constructed on the West Island and fully integrated with the five pods and Cinesphere. The two new buildings will be connected by a structure that spans the water. A new vehicular bridge to service the main building has also been included in the costing estimates. The new building entry and new main building will accommodate approximately 265,000 gross square feet.

- 50,000 additional square feet will be utilized from adaptively re-using the existing infrastructure at Ontario Place including the Cinesphere, bridges and five pods.
- 100,000 ft² of public permanent exhibition space will be provided. This equates to 31% of the gross floor area (including pods) or 37% of the new build space.
- Of the total permanent exhibition space, 80% will be used for new and refurbished science centre type of displays and exhibits that demonstrate a high level of interactivity and multi-media functionality. The remaining 20% of the Permanent Exhibition Halls will be dedicated to other participatory programming including laboratory, creative and innovative uses.
- To accommodate the existing 1,200 parking provision of the current OSC, a new parking structure could potentially be built on the mainland. This structure is optional. This garage would be seamlessly integrated into the new OSC entrance building. The cost of this garage is approximately \$50.8 million in construction plus \$4.0 million in soft costs, for a total of \$54.8 million. This scale of parking structure may not be required due to greater proximity to more transit options. Further analysis is required to determine if 1,200 parking spots would be required at the new location, but the full cost has been included in the analysis.
- Refer to Appendix J and Appendix L respectively for a detailed space program and costings for the proposed new Science Centre at Ontario Place.

3.2.2 Program Cornerstones

The programming of the OSC at Ontario Place will reflect the latest trends in successful cultural destinations (refer to Appendix M), including:

- **Clustering:** Successful destinations are those that cluster activities and institutions into walkable accessible places. These can be in an urban downtown setting, or in a park-like place. The visitors arrive (by personal car, public transit or tour bus-vehicle) and then can freely explore a variety of activities. The Relocate option allows for a clustering of the cultural, recreation and tourism uses with Exhibition Place (which attracts more than 5.3 million visitors/year), the Central Waterfront and the downtown Toronto tourism offer.
- **Branding:** Branding is a critical element of successful communication. The Relocate option allows for a complete rebranding of both the OSC and Ontario Place.
- **Visibility:** The site is located at the western gateway to Ontario's capital city and Toronto's main gateway for tourism from much of Ontario, Canada and the US. The Relocate option provides a downtown waterfront site with high visibility for tourists, commuters and residents.

- **Leadership:** Research and its partnerships with universities, institutes and industry to create and apply new knowledge ensuring new science centres remain relevant and contemporary. Being physically isolated from partners with low visibility is currently inhibiting the OSC from expanding and fulfilling its leadership potential.

3.2.3 Attendance and Admissions

- A re-imagined OSC will attract a higher number of visitors on a year-round basis than the current site, particularly due to its proximity to the downtown tourist market. It is estimated that a minimum of a million visitors a year will enjoy the new OSC.
- In the interest of being conservative, it is assumed that the overall attendance to a relocated OSC will increase by more than 8% in a stabilized year (year 3 of operations) after an initial average increase of 21% over the first two years.
- It is assumed that the resident market for the relocated OSC will remain the same as the current resident market visitation. Any lost visitation from the east (Scarborough) and northeast (Markham) GTA visitors will be equal to the gains by residents from the west (Peel region) and northwest (Vaughan).
- School group attendance would remain the same at current levels as well. The OSC receives 160,000 school group visitors annually. It is assumed, that new school visits from the west and northwest part of the GTA would balance any lost school visits from the east and northeast.
- The OSC receives approximately 160,000 tourists annually which includes visitors from the rest of Ontario, Canada, the US and internationally. Ontario Place provides better proximity to the primary US border crossing and the rapidly growing Hamilton-Niagara region. The new location would also take advantage of the 5.3 million annual visitor to Exhibition Place and its numerous trade fairs and large-scale events.
- The OSC is very careful to not continually raise its admissions price year after year and price itself out of the market. As such, it is assumed that only a modest increase of \$0.50 per visitor will be applied at the new location.

3.2.4 Capital Requirements

Refer to Appendix H for a full summary of capital requirements for the Relocate option over the next 50 years.

3.2.4.1 Building Construction and Site Preparation

- The total estimated project costs to construct a new Ontario Science Centre at Ontario Place including full revitalization of the Pods and bridges is \$293.6 million (including all hard and soft costs and moving costs, but excluding exhibits). This total includes \$54.8 million required to construct the optional integrated parking structure.
- The total hard costs to complete the new building, bridges and refurbishment and finishing of the Pods is \$182.7 million. Total soft costs have been estimated at \$56.1 million.
- Included in the cost is an allocation of \$54.8 million for a new four level parking structure to accommodate 1,200 cars. Pending design of the new OSC as well as

discussions with the OPC on sharing of the existing 1,349 parking spaces on site, this structure may not be required.

3.2.4.2 Exhibits

- The total estimated costs for new exhibits, including design, fabrication and installation, is \$40.8 million. Exhibit costs are estimated at \$600 per square foot, including design, fabrication and installation.
- Total cost is dependent on size of new exhibits and percentage of existing exhibits reused. It is assumed that a 20% of the existing permanent exhibitions will be reused.

3.2.5 Revenues and Subsidy Requirements

- Annual revenues from ticket sales, memberships, parking, etc. are modelled with only marginal increases when the OSC is relocated. The increase is largely due to a higher number of visitors due to an increased number of tourists.
- OSC hosts a number of events, programs and functions in its public spaces and rental facilities. Approximately 2% of its operating revenue is derived through rental income. Given the new waterfront location, its proximity to conventions and trade shows and a new hotel at Exhibition Place, OSC should see an increase in facility rentals at the new location (of ~ 10 – 20%), but to ensure a degree of conservatism in the pro forma estimated revenues no increases were included in the analysis.
- Similarly, revenues and expenses from the Cinesphere are estimated to be equivalent to current levels at the existing OSC's OMNIMAX despite a doubling of seating capacity and an enhanced cinematic experience. Further study of the market, audience and product must be conducted to provide more accurate projections for the Cinesphere.
- All other revenue sources for the OSC was assumed to remain at current levels. This includes commissions for retail and food services, international sales, memberships, public and educational services and recreational and family learning experiences.
- All cultural facilities in Canada need operating support from government sources. Any new publically-operated cultural opportunities for Ontario Place will therefore need substantial levels of governmental support to pay for operating costs.
- The capital costs of the new construction will result in annual costs as provided in the breakdown in Appendix H.

3.2.6 Sponsorship and Partnering opportunities

- Sponsorship and philanthropic activities have strong potential to increase earned revenues. An increase in tourist visitors, coupled with a broadening of OSC's audience beyond children and families will appeal to funders and sponsors.
- A new facility, in a high visibility location, close to major highways with the right mix of partners would help attract increased sponsorship and philanthropic contributions (may be as high \$30 to \$35 million). As these types of one-time revenues are uncertain, no such contributions were included in the financial analysis.

3.2.7 Expenses

3.2.7.1 Occupancy Costs

- The new building will have a reduced floor area (44% smaller than the existing OSC) and built to LEED Gold standards. LEED certified buildings contribute to more efficient and sustainable operations. The capital costs reflect this quality of construction. Given its LEED certification and circulation efficiency and reduced non-useable space, the savings in occupancy costs would be approximately \$2.5 million per year.
- It is assumed that the OSC will not be responsible for ground lease payments at Ontario Place. Ground lease rent at the existing site (City-owned lands) is nominal.

3.2.7.2 Staffing/Salaries/Wages/Benefits

- Given a much smaller footprint and a more efficient building layout, staffing levels may be reduced at a new OSC from 277 to 244 FTE reducing salaries, wages and benefits by 12% (or \$2 million annually). A one-time severance cost in 2022 of approximately \$6.8 million is anticipated.

3.2.7.3 Other Operating Expenses

- Other operating expenses include administrative costs, exhibitions and programs, educational programs and marketing. These expense items are tied more closely to programming; therefore it is assumed that these expenses remain fixed.

3.2.8 Economic and Fiscal Impact

3.2.8.1 Total Project Costs (Cash Basis Financial Impact)

- Total project costs are presented in the table below on a nominal basis for a 50-year period building, as well as on a Net Present Value (NPV) basis. Refer to Appendix H for detailed assumptions.

<i>All figures in \$ CAD millions*</i>	TOTAL (50 year NPV)	TOTAL (50 year Nominal)	2016	2017	2018	2019	...	2066
Attendance			959,804	959,804	959,804	959,804		1,000,000
Revenues	\$ 618.9	\$1,354.7	\$15.5	\$15.7	\$15.9	\$16.2		\$38.5
Expenses								
Operating Expenses	(\$ 1,325.0)	(\$2,902.6)	(\$38.3)	(\$39.1)	(\$39.9)	(\$40.7)		(\$87.9)
Deferred Maintenance	-	-	-	-	-	-		-
Ongoing Maintenance	(\$69.2)	(\$168.0)	(\$0.2)	(\$0.2)	(\$0.2)	(\$0.2)		(\$5.6)
Capital Expenses	(\$310.0)	(\$367.3)	-	-	-	(\$34.3)		-
Total	(\$ 1,085.3)	(\$2,083.2)	(\$23.1)	(\$23.6)	(\$24.1)	(\$58.9)		(\$55.0)

* numbers may not add due to rounding.

- As noted in the table above, the Relocate option requires subsidies over the next 50 years of ~ \$1.09 billion in NPV terms, representing \$249 million less as compared to the Remain On Site option.

3.2.8.2 Fiscal Impact Analysis

- As per the Remain On Site option, fiscal impacts for the Relocate option are negative given that an increased subsidy is required to fund the new build and move costs.
- The fiscal impact for the next six years is as follows:

All figures in \$ CAD millions ¹ .	2016	2017	2018	2019	2020	2021
Relocate Option Fiscal Impact ² .	(\$23.1)	(\$23.6)	(\$24.1)	(\$24.7)	(\$25.3)	(\$25.8)
Fiscal Impact (with OP expenses removed)	(\$17.7)	(\$18.1)	(\$18.5)	(\$19.0)	(\$19.4)	(\$19.9)
Forecasted OSC Operating Grant ³ .	\$19.4	\$19.4	\$19.4	\$19.4	\$19.4	\$21.3
Incremental Fiscal Impact (OSC only)	\$1.7	\$1.3	\$0.9	\$0.4	(\$0.0)	\$1.4

- Numbers may not add due to rounding.
- Includes expenses for West Island portion of Ontario Place.
- Does not include Ontario Place operating grants.

- The accumulative fiscal impact for the next 5/10/50 years is as follows:

All figures in \$ CAD millions ¹ .	5-Year Fiscal Impact	10-Year Fiscal Impact	50-Year Fiscal Impact
Relocate Option Fiscal Impact ² .	(\$120.7)	(\$270.6)	(\$2,083.2)
Incremental Fiscal Impact (OSC only)	\$4.3	(\$11.7)	(\$424.6)

- Numbers may not add due to rounding.
- Includes expenses for West Island portion of Ontario Place.

- The fiscal impact of the Relocate option is significantly less than the Remain On Site option over both the short and long-term (i.e. the Relocate option has a smaller cost to government than the Remain On Site option). This indicates that the Relocate option would considerably reduce the pressures the OSC puts on the Provincial fiscal framework when compared to the Remain On Site option (refer to Section 4.2 for a comparison of costs and savings to government). In fact, when the impact is assessed after factoring the current OSC operating grant, there is a positive fiscal impact over the next four years.
- This fiscal impact analysis should be considered indicative only as a detailed line-by-line analysis has not been completed given: i) the level of detail in the capital cost estimates, and ii) an outstanding real estate strategy (along with any associated financial gains or losses) specific to the existing OSC lands should the OSC be relocated.
- Refer to Appendix I for a summary of fiscal and economic impacts for the Relocate option over the next 50 years.

3.2.8.3 Economic Impact to Province

The 50 year economic impact for the relocating OSC to Ontario Place is as follows:

1. Employment Impact:

- Given the new construction for a new facility that is required under the Relocate scenario, additional jobs are generated from construction and development.
- The Relocate scenario is forecasted to provide between 1,051 and 1,347 permanent jobs.

Test concept #	Relocate	
	Low	High
Range		
Estimated annual results		
Jobs from construction	707	864
Jobs from operations	318	451
Jobs from tourism	27	33
Total	1,051	1,347

2. Taxes:

- Tax revenue is forecasted at approximately \$11 to \$13 million per annum.

Test concept #	Relocate	
	Low	High
Range		
Results for 2016-2056		
Personal taxes	63	77
Sales taxes	49	60
Corporate taxes	24	29
Other taxes	34	42
Total	170	207
Estimated annual results		
Personal taxes	4	5
Sales taxes	3	4
Corporate taxes	2	2
Other taxes	2	3
Total	11	13

In CAD \$ millions

3. Tourism:

- GDP is anticipated to be between \$90 and \$110 million per annum.

Test concept #	Relocate	
	Low	High
Range		
Number of years of construction	4	4
Results for 2016-2066		
GDP from construction	257	314
GDP from operations	1,059	1,294
GDP from tourism	97	119
Total	1,413	1,727
Estimated annual results		
GDP from construction	64	78
GDP from operations	24	29
GDP from tourism	1.9	2.3
Total	90	110

In CAD \$ millions

4.0 Evaluation

4.1 Methodology

This section details both the quantitative and qualitative analysis of the two options.

The two options are scored against the five Government priorities as identified by MTCS:

- A. Financial and Economic Impact (50%)
 - a. Total project costs (in net present value terms)
 - b. Fiscal impacts;
 - c. Economic impacts (quantifiable);
 - d. Economic impacts (unquantifiable);
- B. Program Sustainability and Visitor Experience (25%)
 - a. Competitiveness of the offer as a tourist attraction;
 - b. Program and building flexibility;
 - c. Construction impacts;
 - d. Commercialization of innovation, opportunities for ‘hub’ and incubator activities;
- C. Accessibility and Integration (10%)
 - a. Accessibility, integration and profile, visibility, heritage and history;
 - b. Neighbourhood fit;
- D. Labour Impacts (10%)
 - a. FTE impacts for OSC employee base;
- E. Energy and Environment (5%)
 - a. Building space and operational efficiency;
 - b. Green economy considerations.

The performance of the options against the above government objectives were scored using the following guide:

Grade	Description	Score
Very Good	Substantially delivers against nearly all of the stated objectives applicable to the criteria.	100%
Good	Delivers against many of the stated objectives applicable to the criteria.	80%
Satisfactory	Delivers against some of the stated objectives applicable to the criteria, but will not deliver against some of the objectives without increasing risk and costs.	60%
Poor	Does not deliver many of the stated objectives applicable to the criteria and/or will increase risks and costs borne by the OSC and Province of Ontario.	40%
Very Poor	Does not deliver against substantially all of the stated objectives applicable to the criteria and/or will increase risks and costs borne by the OSC and Province of Ontario significantly.	20%
Unacceptable	Des not meet objectives in any way.	0%

4.2 Analysis

Financial Impact Comparison (Total Costs – Cash Basis)

Summary of Financial Analysis		
	Option 1: Remain on Site	Option 2: Relocate
Ontario Science Centre Revenue (\$)	527,263,208	618,918,949
Ontario Place Revenue (\$)	-	-
Total Revenue (\$)	527,263,208	618,918,949
Ontario Science Centre Operating Expense	(1,339,110,545)	(1,147,623,077)
Ontario Place Operating Expense	(204,142,575)	(171,859,631)
Ontario Science Centre – One Time Expense	-	(5,494,039)
Total Operating Expense (\$)	(1,543,253,120)	(1,324,976,746)
Ontario Science Centre Deferred Maintenance	(177,176,522)	-
Ontario Place Deferred Maintenance	-	-
Total Deferred Maintenance (\$)	(177,176,522)	-
Ontario Science Centre Maintenance	(78,398,118)	(65,195,431)
Ontario Place Maintenance	(6,859,835)	(4,023,834)
Total Maintenance (\$)	(85,257,954)	(69,219,265)
OSC Construction Cost - Exhibits	(43,966,255)	(37,763,436)
OSC Construction Cost - Buildings	(1,831,927)	(187,421,414)
OSC Construction Cost - Parking Structure	-	(50,680,753)
OSC Other Capital Expenses	-	(34,140,951)
Ontario Place Capital Expenses	(9,622,765)	-
Total Capital Expenses (\$)	(55,420,947)	(310,006,554)
Total Project Surplus / (Shortfall)	\$ (1,333,845,334)	\$ (1,085,283,616)
DIFFERENCE		\$ (248,561,717)

Fiscal Impact Comparison

- Fiscal Impacts are the funding requirements for the particular option from a fiscal accounting perspective net of forecasted revenue under the given option. The figures represent the total program funding requirements – they do not consider the current program funding from the Government of Ontario.
- Listed below is a comparison of the fiscal impacts of the Remain and Relocate options, respectively. Based on this information, the Relocate option would have less of a fiscal impact than the Remain option over both the short and long-term.
- Relocate option saves government \$114.4 million over 5 years, \$209.7 million over ten years and \$677.2 million over a fifty year period.

All figures in '000's \$ CAD*	2016	2017	2018	2019	2020	2021
Remain	(\$30.2)	(\$30.1)	(\$93.7)	(\$39.7)	(\$41.5)	(\$66.9)
Relocate	(\$23.1)	(\$23.6)	(\$24.1)	(\$24.7)	(\$25.3)	(\$25.8)
Difference in Fiscal Impact	\$7.1	\$6.5	\$69.6	\$15.0	\$16.2	\$41.1

*Please note that numbers may not add due to rounding.

- A comparison of the accumulative fiscal impact for the next 5/10/50 years is as follows:

All figures in '000's \$ CAD*	5-Year Fiscal Impact	10-Year Fiscal Impact	50-Year Fiscal Impact
Remain	(\$235.2)	(\$480.3)	(\$2,760.4)
Relocate	(\$120.7)	(\$270.6)	(\$2,083.2)
Difference in Fiscal Impact	\$114.4	\$209.7	\$677.2

*Please note that numbers may not add due to rounding.

The table below presents the analysis of the options against the agreed criteria.

CATEGORY	Option 1: Remain On Site	Option 2: Relocate to OP
Non-Financial Considerations - 50%	Scored Out of 50	Scored Out of 50
Financial and Economic Score - 50%	Scored Out of 50	Scored Out of 50
TOTAL SCORE - 100%	100	100

A. Financial and Economic	Option 1: Remain On Site	Option 2: Relocate to OP
<p>Net Present Value: <i>A dollar amount, in present value terms, which represents the total surplus of funds generated (or costs incurred if negative). A 50-year term will be used to match the useful life of a new building, and the number will include all revenues and costs for both sites to ensure appropriate comparability.</i></p>	<p>Total Project Costs \$ 1,333.8 million</p>	<p>Total Project Costs \$ 1,085.3 million Savings of \$249 million or (19%)</p>
<p>Fiscal Impacts: <i>Impact to the financial statements of the Province over the next five years due to forecasted revenues and expenses.</i></p>	<p>5 year: \$(235.2 million) 10 year: \$(480.3 million) 50 Year: \$(2,760.4 million)</p>	<p>5 year: \$(120.7 million) 10 year: \$(270.6 million) 50 Year: \$(2,083.2 million)</p> <p>Savings: 5 Year Period: \$114.4 million 10 Year Period: \$209.7 million 50 Year Period: \$677.2 million</p>
<p>Economic Impacts (Quantifiable): <i>Quantifiable economic impacts, such as incremental tax revenues, GDP impacts, and job growth.</i></p>	<p>Good</p> <ul style="list-style-type: none"> • Positive tax impacts estimated at \$181 to \$221 million; • Total positive GDP impacts at approximately \$1.5 to \$1.8 million; • Jobs from construction, tourism and operations of 615 to 752 	<p>Good</p> <ul style="list-style-type: none"> • Positive tax impacts estimated at \$170 to \$207 million; • Total positive GDP impacts at approximately \$1.4 to \$1.7 million; • Jobs from construction, tourism and operations of 1,051 to 1,347
<p>Economic Impacts (Other): <i>Other economic impacts will be for consideration, such as: opportunities for Sponsorship funding, impacts to the tourism industry as a whole, impacts to the local community, etc.</i></p>	<p>Good</p> <ul style="list-style-type: none"> • Some potential increase in use by tourism market 	<p>Very Good</p> <ul style="list-style-type: none"> • Strong potential for increased sponsorship; • Stronger potential for new community, institutional and business partnerships ('commercialization of science'); • Increased tourism and positive impacts to the local community

B. Program Sustainability & Visitor Experience	Option 1: Remain On Site	Option 2: Relocate to OP
<p>Competitiveness of the offer as a tourist attraction: <i>The degree to which the option positively attracts increased tourism, science, innovation, a growing audience for the OSC, and general enhancements to the local community.</i></p>	<p>Satisfactory:</p> <ul style="list-style-type: none"> • Updating of exhibits will result in some renewed interest; • Heritage building and history of site will continue to be appealing for some Ontarians; • Wayfinding challenges cannot be addressed given building design; • Some transit and access challenges persist albeit somewhat improved with the LRT; • Isolation of OSC remains (i.e. singular experience); • Visitor access impacted through construction and maintenance activities. 	<p>Good:</p> <ul style="list-style-type: none"> • Better access for OSC to tourism market with downtown location; • Waterfront site is attractive for OSC attendees given complementary options; • OP estate is enhanced; • OSC offering improves given clustering of multiple draws across adjacent properties (incl. 5.3m visitors to Exhibition Place); • More transit options, but some access and public transit challenges may persist; • New design allows for optimal visitor experience (accessibility, wayfinding, services, etc.).
<p>Program and building flexibility: <i>Ability of the OSC to quickly and effectively change usage/space design to respond to needs and market forces. Building size, configuration, services, systems and/or location may impact the ability to change and modify space.</i></p>	<p>Poor:</p> <ul style="list-style-type: none"> • Planned deferred maintenance to be undertaken will help address some core building flexibility, but significant footprint and layout challenges remain; • Current design of building limits program use and flexibility (due to concrete shell, multiple levels, inefficient gross to net usability, locations of spaces, etc.); • Permissions from City of Toronto required for any changes to property and building footprint. 	<p>Very Good:</p> <ul style="list-style-type: none"> • New and modern design will allow for complete flexibility, enhanced access, and flexible and multi-use throughout programming space; • Future expansion on site is possible given size of West Island; • Some challenges given build near/over water will persist but are manageable; • Opportunity to meet accessibility (AODA) requirements.
<p>Construction impact: <i>Construction of a new facility and/or signification renovations will impact the OSC user experience as well as other key stakeholder groups (e.g. neighbours, partners, etc.).</i></p>	<p>Poor:</p> <ul style="list-style-type: none"> • Planned closure and staged deferred maintenance activities will be very disruptive for visitor experience; • Full closure of OSC for asbestos abatement may have long-term impacts to brand and attractiveness of the OSC generally. 	<p>Good:</p> <ul style="list-style-type: none"> • No disruption to OSC contemplated given ongoing use of current site during construction of new facility at OP; • Construction is somewhat challenging given the OP site (water levels, remediation, etc.).
<p>Commercialization of innovation; opportunities for incubators; 'hub' activities: <i>Degree to which the option: i) facilitates ongoing support and development of leading edge research and innovation and science education; ii) includes the prospect of the OSC increasingly acting as a support hub and incubator for researchers, entrepreneurs, investors and mentors in the sciences; iii) supports start-up and acceleration of businesses and serves as a platform for development and investment in technology and sciences; and iv) facilitates investment and partnership opportunities that result in direct financial and non-financial support of the OSC.</i></p>	<p>Poor:</p> <ul style="list-style-type: none"> • Some history of partnerships (e.g. Ministry of Education), and opportunities continue to be explored which will be enhanced through a refreshed facility; • Location remains a key challenge as incubator and innovation sectors are typically located more centrally; • Limited hub and cluster opportunities due to isolation of OSC; • Redevelopment of the community is largely residential with minimal commercial partnership opportunity. 	<p>Good:</p> <ul style="list-style-type: none"> • Opportunities for new partnerships due to a new and modern facility closer to sector partners (business, institutional and community); • Dedicated space planned for hub, innovation and incubator activities not currently available at existing site; • Co-location options and specific designs would need to be fully articulated.

C. Accessibility and Integration	Option 1: Remain On Site	Option 2: Relocate to OP
<p>Accessibility of Site and Profile of OSC within City, Region, and Province; Heritage and History: <i>Degree to which the OSC is able to be recognized as a pre-eminent facility showcasing science and innovation to business, community and tourists and accessible to all Ontarians. Degree to which selected option honours organizational history and nostalgia that Ontarians express towards the institution.</i></p>	<p>Good:</p> <ul style="list-style-type: none"> • Strong history at current site; • Iconic structure which is architecturally significant; • Existing brand and strength remains; • Strong affinity for many users to the organization will continue; • OP West Island would remain available for other redevelopment opportunities; • Limited profile and visibility given its isolated location. 	<p>Good:</p> <ul style="list-style-type: none"> • Brings a Provincially-owned brand onto a Provincially-owned site; • Located on public waterfront site on shores of Lake Ontario • Opportunity for new iconic building and design; • Location offers better access to the US border and will capture new market (west end Toronto, Mississauga, broader GTA). May lose some east-end market; • Site in very close proximity to regional rail and highway networks • Opportunity for re-branding of OSC as more than a family destination; • Change of current OSC site use may be perceived as a negative.
<p>Neighborhood fit: <i>Degree to which the facility and program is fitting with neighbouring properties and community.</i></p>	<p>Good:</p> <ul style="list-style-type: none"> • Current gathering location for the local community; • Strong existing relationships with local schools; • Isolated from related sector or institutional organizations. 	<p>Very Good:</p> <ul style="list-style-type: none"> • Strong compatibility with neighbourhood, adjacent properties and businesses; • Facilitates opportunities for cross-programming with OP (play, sustainability, innovation, water, etc); • Site is accessible by foot, cycle and transit (integrated with downtown and local neighbourhood); • Emerging demographic in the community support OSC growth; • Existing OSC site becomes available to serve as a community hub.
D. Labour		
<p>Labour Impacts: <i>Degree to which employment at the OSC is affected.</i></p>	<p>Very Good:</p> <ul style="list-style-type: none"> • Some reduction in staff over time contemplated but managed through attrition. (OSC is undertaking a review of their operations, including staffing levels. Outcome may result in a reduction of staff.). 	<p>Satisfactory:</p> <ul style="list-style-type: none"> • Reduction in 33 FTE contemplated due to more efficient building and modernized program; but largely managed through attrition.
E. Energy and Environment		
<p>Building space and operational efficiency: <i>Degree to which the facility is efficiently designed so as to: minimize unusable space; ensure ease-of-use (wayfinding); minimize operational costs; etc.</i></p>	<p>Very Poor:</p> <ul style="list-style-type: none"> • Large, inefficient building footprint results in large draw on resources; • Lack of flexibility and adaptability; • LEED certification is not achievable. 	<p>Good:</p> <ul style="list-style-type: none"> • Space design efficiencies will be optimized; • Pods and Cinesphere are modernized and adaptively reused with viable long-term programming (with maintenance budget); • Site imposes some constraints (i.e. distance to parking, etc).
<p>Green Economy: <i>Degree to which the facility supports green energy initiatives and policy objectives towards minimizing the carbon of Provincially owned buildings (e.g. modernizing energy systems, reducing energy consumption, reducing greenhouse gas emissions, etc.).</i></p>	<p>Satisfactory:</p> <ul style="list-style-type: none"> • Deferred maintenance will upgrade existing building systems, including HVAC, windows, etc. • Large building footprint relative to program space cannot be addressed; • LEED certification will not be achieved. 	<p>Good:</p> <ul style="list-style-type: none"> • Opportunities for modern power supply, e.g. deep water heating/cooling, wind and solar power, etc. • LEED Gold certification contemplated; • Pods and Cinesphere will impact overall operational costs.

4.3 Scoring

The following table presents a summary of the scores allocated based on the performance of each option against the evaluation criteria.

CATEGORY & WEIGHTING	Option 1: Remain	Option 2: Relocate
	Score	Score
A. Financial and Economic - 50%	29.0 / 50.0	48.0 / 50.0
<i>Net Present Value (20 points)</i>	<i>(\$1,333.8 million) 23% more expensive Lose 23% of points 15 / 20</i>	<i>(\$1,085.3 million) 30 / 30</i>
<i>Fiscal Impacts (20 points)</i>	<i>Premium over Opt. 2: 5 Year: 95% 10 Year: 78% <u>50 Year: 33%</u> Avg. 69% Lose 69% of points 6 / 20</i>	<i> 20 / 20</i>
<i>Economic Impacts (10 points)</i>	<i>80%</i>	<i>80%</i>
B. Program Sustainability and Visitor Experience - 25%	Score: 11.0 / 25.0	Score: 21.3 / 25.0
<i>Competitiveness of the offer as a tourist attraction</i>	<i>60%</i>	<i>80%</i>
<i>Program and building flexibility</i>	<i>40%</i>	<i>100%</i>
<i>Construction impact</i>	<i>40%</i>	<i>80%</i>
<i>Commercialization of innovation; opportunities for incubators; 'hub' activities</i>	<i>40%</i>	<i>80%</i>
C. Accessibility and Integration - 10%	Score: 8.0 / 10.0	Score: 9.0 / 10.0
<i>Accessibility, Integration and Profile/Visibility of the City, Region, and Province; Heritage and History</i>	<i>80%</i>	<i>80%</i>
<i>Neighborhood fit</i>	<i>80%</i>	<i>100%</i>
D. Labour - 10%	Score: 10.0 / 10.0	Score: 6.0 / 10.0
<i>Labour Impacts</i>	<i>100%</i>	<i>60%</i>
E. Energy and Environment - 5%	Score: 2.0 / 5.0	Score: 4.0 / 5.0
<i>Building space and operational efficiency</i>	<i>20%</i>	<i>80%</i>
<i>Green Economy</i>	<i>60%</i>	<i>80%</i>
TOTAL SCORE - 100% <i>Financial and Economic (Category A) Qualitative (Categories B – E)</i>	60.0 / 100.0 <i>29.0 / 50.0 31.0 / 50.0</i>	88.3 / 100.0 <i>48.0 / 50.0 40.3 / 50.0</i>

Based on the evaluation methodology and scoring as outlined above, Option 2: Relocate OSC to Ontario Place, scores more favourably across nearly all quantitative categories. Not only does it offer considerably lower costs to Government over the long-term relative to Option 1: Remain (\$249 million in net present value terms; or \$677 million in nominal dollars), but it also offers a lesser impact in the near term from a fiscal accounting perspective (i.e. savings of 49% and 44% over 5 and 10 years respectively).

The Relocate option also scores better across all but one qualitative consideration. It allows the OSC to establish a much more sustainable program and growth model given a more flexible, cost effective facility, and allows for increased commercialization of the science sector, given hub and incubator activities that may be optimized. The facility will also establish a more energy efficient building, thus reducing the carbon footprint of this public-facing asset.

The option is not without its challenges. In particular, some of the savings relative to Option 1 are predicated on a reduction in staffing levels. This reduction, while managed largely through natural attrition, may be cause for some reputational impacts. It is noted, however, that there are cost savings available even without this reduction to headcount.

Note that relative to the Status Quo (i.e. do nothing), both options to modernize the OSC will require additional subsidies from government. Savings in this context are relative to the options presented.

5.0 Implementation Considerations

In addition to the analysis presented above, there are a series of issues specific to project implementation that the Province should consider when making its decision. These issues are presented below.

5.1 Pursue Capital and Operational Expenditure Offset Opportunities

The opportunity to relocate the OSC from City-owned lands to provincially owned land unlocks potential financial offset opportunities. These capital and operational expenditure offset opportunities include:

5.1.1 Capital Expenditure

Lease Break Incentive: The OSC site is leased to the Province for \$1/year by the City of Toronto. The current lease expires in 2064, with one option to renew for a further term of 99 years at the same rent. However, if an early lease termination could be negotiated with the City, the site could be returned to the City early. This would enable the City to pursue opportunities to redevelop the site for its highest and best use – identified as residential mixed-use (*The Highest and Best Use Ontario Science Centre Lands*, Bousfields Inc., 2005). The market value of the site is estimated to be between \$62 million and \$97 million (refer to Section 5.3 below). Due to the significant future financial benefits associated with the high value site, the Province may be able to negotiate a one-time share of the revenue generated from the sale of the land for agreeing to vacate the site early to facilitate sales. This one-time payment would be negotiate from the City as a percentage of the sales revenue. Payment would be impacted by costs for rezoning, servicing, development charges, site preparation, required repairs to the existing OSC and allowances for profit and risk, etc.

Tax Gain: If the site is redeveloped in the future as a mixed-use community supporting a density of 3.0 FSI, the future tax gain to the City is estimated to be \$167 million between 2016 and 2064. If the site supports a higher density, this tax benefit will increase accordingly. This significant tax benefit is a further incentive to the City to support an early lease break.

Capital Campaign: Opportunities to raise capital through a public capital campaign are significantly greater for new build projects than a building refurbishment project. In their last capital campaign in 2007, the OSC successfully raised \$47.5 million to expand and modernize portions of the OSC. In 2011, the Telus Spark Science Museum was opened in Calgary. Telus Spark successfully raised almost one-quarter of its \$160 million capital requirement through corporate and individual donors (\$36.5 million). This was in addition to contributions provided by three levels of government. More recently, the Canadian Museum for Human Rights in downtown Winnipeg exceeded their corporate and individual donor capital campaign target of \$150 million.

Capital Investment Horizon: The phasing of development could be programed so payments from government would not be due until 2020-2021, depending on construction schedule.

Investing In Canada – Infrastructure Funding: There is the potential for the province to realize some Ontario Science Centre revitalization through Federal infrastructure funding. As part of the 2016 Federal Budget, the Government committed to implementing a New Infrastructure Plan to invest more than \$120 billion in public transit, green infrastructure and social infrastructure over 10 years. Phase 1 of this plan proposes to provide \$3.4 billion to social infrastructure – \$342 million of which is dedicated to cultural and recreational infrastructure, which aligns with Ontario Science Centre uses/mandate (and Ontario Place Revitalization objectives). Further analysis and review of Federal guidelines would be required to determine applicability and the amount of potential funding to propose.

5.1.2 Operational Expenditure

Operating Subsidy: The \$19.6 million annual provincial operating subsidy OSC receives is transferable to any location, including Ontario Place. Over a 40 year term, the value of this subsidy is approximately \$800 million.

No new operating subsidy is required if the OSC relocates to Ontario Place. Critically, any other new provincial anchor use at Ontario Place is likely going to require a new operating subsidy in addition to a capital commitment. However, the existing operating subsidy upon which the OSC relies is not considered ‘new’ money and is fully transferable.

5.2 Scope Design of New Building to Available Budget

This business case contemplates a 318,000 square foot Science Centre, with an estimated construction cost of \$182.7 million (excluding parking structure). However, the final building design can be scoped to accommodate different levels of investment. The size, design and program of the new OSC is flexible, depending on budget availability. At this early stage of planning there is significant opportunity to devise a program and building that can accommodate various budgetary constraints.

5.3 Locational Value

The area around the OSC is undergoing rapid transformation. The recent provincial investment in transit along the Eglinton Corridor has attracted investment to the area with several new mixed-use high-density residential projects proposed or under construction in the area. Currently, there is strong private developer interest in the Eglinton Crossrail LRT corridor, and in particular, at the Don Mills and Eglinton hub. At present, three of the four corners of this intersection support development applications, including the 64 acre Celestica site immediately to the north of the OSC. The recently approved Celestica application is for 3,000 units contained within a series of towers up to 40 storeys in height.

The City of Toronto is supportive of this transformation and related investment and has created a policy framework that enables high and mid density residential development along transit corridors, such as Eglinton Avenue. The existing planning framework identifies the OSC site as appropriate for high-density residential along both Eglinton Avenue and Don Mills Road.

If terms could be agreed, the termination would result in the OSC lands being returned to the City and made available for redevelopment. Assuming the 17.7 acres of developable land adjacent to Eglinton and Don Mills roads is re-zoned for residential development, it is estimated that the market value of the land would range between \$62 and \$97 million, less costs for rezoning, servicing, development charges, site preparation, repairs to the existing OSC and allowances for profit and risk, etc. The Province may be able to negotiate with the City to secure a portion of this if it agrees to vacate the land early to allow sale and redevelopment.

Refer to Appendix K for a detailed analysis of the estimated land value for the OSC site.

5.4 Site Diversification

The community around the current Science Centre site is evolving and maturing into a mixed-income, mixed-use community. New residential, retail and employment uses are proposed on several sites in close proximity to the OSC and the Eglinton Crossrail LRT project is expected to spur further investment. As the community diversifies, there will be growing pressure for additional community services and amenities, housing, recreational opportunities and cultural programming. Centrally located, the OSC site is well positioned to accommodate some of these neighbourhood requirements.

If the OSC was to relocate to Ontario Place, the Science Centre site would revert back to the control of the City of Toronto. This would provide the City with an opportunity to diversify the site and repurpose all or a portion of the site to better serve the needs of the local community. Due to the size of the site, the City would have the option of selling a portion of the site while retaining some land for community uses or, alternatively, selling the entire site and obligating the purchaser to provide any required community facilities.

5.4.1 Community Hubs

The Government of Ontario has committed to developing 'community hubs' in an effort to bring services together in one place and to make better use of public spaces to serve Ontarians. A community hub can be a school, a neighbourhood centre or another public space that offers co-located or integrated services such as education, health care and social services.

In August 2015, the Premier's Advisory Group on Community Hubs published their report, *Community Hubs in Ontario: A Strategic Framework and Action Plan*, which provides recommendations to guide the creation of community hubs across Ontario. One of the recommendations is to examine opportunities for the re-purposing of publicly-supported properties – such as the OSC – as community hubs.

If vacated, the OSC building may be an appropriate candidate for 're-purposing' as a community hub. The building is located in the heart of the Flemingdon Park community and would be accessible to the wards 22,200 residents. Flemingdon Park is characterized as a multicultural neighbourhood that traditionally served as the first home for many new

Canadians seeking affordable housing. The 2011 Census indicates that the ward supports a high number of low-income residents, with almost one-third of residents qualifying as “low-income”, compared to the City average of 19%. Unemployment rates in the ward are 15%, almost double the City average of 9% (City of Toronto, 2011).

If repurposed as a community hub, the Ontario Science Centre building could support several different services on its premises. Although future re-purposing opportunities would need to be further explored to better define community needs, some initial considerations might include:

- Child care services and Ontario Early Years Programs
- Public Library
- Community Recreation Facilities
- Education and community learning centre
- Parks and Green Spaces
- Healthcare services
- Social services, including newcomer support services, senior and youth programming

5.4.2 Other Site Diversification Opportunities

Education & Training

All or a portion of the OSC building could be adaptively re-used for education and training purposes. This could include vocational training or higher education (as satellite college and/or university campuses)

Cultural Centre / Community Centre

All or a portion of the OSC building could be adaptively re-used as a community centre or cultural centre to service the Flemingdon neighbourhood or Don Valley West ward.

Affordable Housing

In addition to any obligations required through a rezoning/redevelopment of the OSC lands, a portion of the site could be retained by the City and used to provide new affordable housing opportunities.

5.5 Closure Requirements

Addressing the critical building maintenance and health and safety/building systems issues such as asbestos abatement, structural repair and electrical upgrades will likely require partial or complete closure of the OSC for an unspecified period of time. This will impact attendance and related revenues. In addition, closing the facility to address health and safety reasons may amplify existing concerns with the property and generate trailing negative perceptions of the OSC even after repairs have been completed. There is a risk that this may have a long term impact on attendance.

Closure requirements could also impact relationships with key stakeholders including schools, food and retail partners, sponsors and donors. Closure requirements could impact some or all staff during the construction period. Greater clarity of impact will be available as planning for this option evolves.

5.6 Transit Access

At present, the only transit service provided to the OSC is bus service (Bus #34 along Eglinton Ave East and Bus #25 along Don Mills Road). There is no subway or streetcar service available to the OSC. Approximately 15 per cent of visitors to the OSC arrive by public transportation (by bus). The completion of the Eglinton Crosstown LRT in 2021 will enhance transit accessibility to the site, however, the impact on attendance is not known at this time. The planned Science Centre LRT transit stop will be located approximately 500 metres from the OSC complex at the corner of Don Mills Road and Eglinton Avenue East.

Ontario Place is located approximately 900 meters from the Exhibition Place TTC Transit Loop, which provides both bus (#29 bus) and streetcar services (#121, #511 and #509 streetcars). The site is within 750 meters of regional rail service, via the GO Transit Lakeshore West line. This line currently provides service to Hamilton, with planned expansion to Niagara Falls by 2023.

As part of the Ontario Place Revitalization project, there are on-going discussions with the City of Toronto about enhancing transit service to the site. A transit upgrade may be in place prior to the opening of the new urban park and William G. Davies Trail at Ontario Place (2017).

In the longer term there are a number of area transit improvements that may enhance access to Ontario Place, including the *Waterfront Transit Reset* study and Mayor Tory's *SmartTrack* initiative, including the Downtown Relief Line (DRL) that is currently under study. The DRL would link the Bloor-Danforth and Yonge-University-Spadina subway lines with a new U-shaped route running underground through Queen, King or Union stations. Ontario Place is a short distance south of the possible routes for the DRL, and could be included as a station on the line. The high costs of the DRL could not be justified to serve a development at the Ontario Place site alone, but including a station near Ontario Place could be considered as part of the wider transit schemes for the City of Toronto (*Ontario Place Revitalization: Stage Two Test Concept Review: Transportation*, BA Group, 2013).

5.7 Heritage

Despite significant modifications and additions over its life, the OSC is considered to have provincially significant heritage value. As such, under the Heritage Act, there are ongoing obligations on the Province to maintain the building as long as it remains in provincial ownership (even if vacated).

However, if the building is gifted or sold to the City (title transfer), the province will no longer support any on-going maintenance obligations. The transfer of title of a provincially significant heritage property will require the consent of the Minister of Tourism, Culture and Sport.

In light of the current condition of the building and its inflexible purpose-built nature, should the OSC relocate to a new facility, the Province may choose to demolish portions or all of the existing building. However, as a heritage asset, demolition will require MTCS Minister's Consent.

It should be noted that the Ministry of Tourism, Culture and Sport has also recognized Ontario Place as a cultural heritage landscape of provincial significance (2013). The Pod complex, bridges and Cinesphere structure were identified as supporting particularly strong heritage attributes. This designation obligates the province to maintain the landscape and built form in an on-going state of good repair.

6.0 Conclusions

The current OSC facility is operationally inefficient and requires an investment of approximately \$195 million in critical and deferred maintenance. The approach to science engagement (programming, exhibits, partnerships) need to be renewed to better meet the needs of visitor and OSC priorities. Exhibits alone require an additional investment of approximately \$50 million to remain relevant, enhance the visitor experience and curb declining attendance. This total capital investment is comparable to the cost of constructing a new building at Ontario Place. Even after making this capital investment to the existing OSC, the ongoing subsidy required for the Remain on Site option is greater than that required for the Relocate option, due to maintenance costs for an oversized building, inefficient building layout and upkeep of the 55 acre leased property. At the same time, while a government commitment has been made to revitalize Ontario Place, the site remains largely underutilized and continues to decline.

The analysis contained in this business case supports the option to modernize the OSC through a relocation to Ontario Place. This conclusion is drawn following a qualitative and quantitative assessment of the two modernization options relative to meeting government's priorities, as follows:

Financial and Economic Considerations:

- Relocating the OSC to Ontario Place **reduces the pressures OSC puts on the provincial fiscal framework, resulting in reduced costs to government of \$13.7 million, \$114.4 million, and \$209.7 million (accrual basis) over 2, 5, and 10 years, respectively**, when compared with the Remain on Site option. Over the long-term, either option would require an increase in funding from the status quo as current funds are insufficient to maintain a viable operation, but the Relocation option does result in some fiscal savings over status quo funding for the next four years.
- Significant savings are available if the OSC is relocated. The cost of moving the OSC and building a new, more efficient facility **optimizes value for money with a reduction in costs of ~ \$249 million (or 19%)** as compared to staying at the current site. This is due to the fact that the current facility is operationally inefficient which cannot be addressed given the building design and layout. **Less than 30% of the current building is used** for exhibit space and revenue generating space as compared to more than 50% for a newly designed, more modern **and sustainable asset with lower on-going operating costs and higher revenue generating opportunities**.
- Both the Remain on Site and Relocate options will result in **hundreds of new jobs across the construction and tourism industries** given a significant spending on construction and maintenance, and a **substantially equivalent impact on GDP**. Although many new jobs are created, it should be noted that the **Relocate option contemplates a reduction in staff (estimated at 33 FTE)**. It is expected that these reductions can largely be managed through natural attrition.

- The Relocate option **moves the OSC to provincially-owned lands** and allows the City of Toronto to redevelop their lands at the current site. The market value of the site is estimated to be \$62 million to \$97 million, plus significant additional tax revenues over the long-term. If vacated early, the Province could avoid any future liability for the site.

Program Sustainability & Visitor Experience Considerations:

- The OSC faces declining attendance due to a stale product offering. A move from its current suburban locale to a central waterfront location will **facilitate the re-imagination and re-branding of the OSC in order to better deliver a more stable and flexible program** which better meets government priorities.
- The move offers an increased likelihood of **commercialization of the sciences sector**. Not unlike the MaRS facility, a new modern facility will better allow for hub and incubator activities as the central waterfront location is expected to facilitate investment and partnership opportunities.
- Developing a renewed Ontario Science Centre at Ontario Place would **simultaneously achieve revitalization of two iconic Provincial assets and leverage their joint potential to create a stronger destination**, attract more visitors to the site and allow for shared programming to maximize value for money.

Accessibility & Integration Considerations:

- The Ontario Place location is seen as having a **very strong fit with the neighbouring community**; increasing the visibility of the OSC brand and allowing for increased access for residents, tourists and corporate/business partners.
- The OSC at Ontario Place is **part of a strong cluster of complementary uses** with Exhibition Place (5.3 million visitors/year), the Central Waterfront and the downtown Toronto tourist offer that will help drive admissions, expand partnership and incubation opportunities and support other revenue generating activities (rentals, food and drink, events, etc.) over the longer term.
- If relocated to Ontario Place, the **vacated OSC building may be an appropriate candidate for 're-purposing' as a community hub**. The building is located in the heart of the Flemingdon Park community and could support several different services on its premises.

Labour Considerations:

- Given a smaller footprint and a more efficient building layout, **staffing levels may be reduced at a new OSC**, reducing salaries, wages and benefits by \$2 million annually. A one-time severance cost in 2022 of approximately \$6 million is anticipated and included in this business case.
- The existing OSC is currently undertaking a review of their operations which may also result in a reduction of staffing levels. The outcome is not known at this time.

Energy and Environmental Considerations:

- The new facility is costed to achieve LEED Gold Certification and would result in a significant **reduction in the program's carbon footprint**.
- Without a building rationalization for the Remain option, **system operations and on-going maintenance costs are required** for a 568,000 gross square foot facility compared to a 315,000 gross square foot facility for the Relocate option.

The status quo is no longer a viable option and the current OSC operational model is not sustainable. The Government faces a significant required investment into the existing OSC facility and program if it is to remain on site; a relocation of the OSC to Ontario Place can address two government priorities through a single infrastructure investment.

A modernized and re-imagined OSC, set within a revitalized Ontario Place offering a new innovative program, a high profile waterfront location, easy visitor access and proximity to complementary tourist, cultural and educational assets will halt OSC's decline and reposition it as a cutting edge Science & Discovery Centre and renewed provincial brand for the next generation of Ontarians. OSC will remain as one of Ontario's premier cultural destination for the next 50 years.

APPENDICES

Appendices

- A Existing Ontario Science Centre Spatial Analysis
- B Land Use Planning Review Memo
- C OSC Lease Review Memo
- D 20 Year Deferred Maintenance Summary
- E Fourth Wave Science Centre Precedents
- F The Governments Announced Vision for Ontario Place
- G Eglinton CrossTown LRT Information Sheet
- H Financial Model
- I Fiscal and Economic Impact Analysis
- J Space Program for New Ontario Science Centre
- K Ontario Science Centre Site Land Value Analysis
- L Cost Assumptions: Relocate Option
- M Trends in Successful Cultural Attractions

Appendix A
Ontario Science Centre Spatial Analysis

OSC Gross Floor Area Calculation Summary

(source: CBRE, 2016)

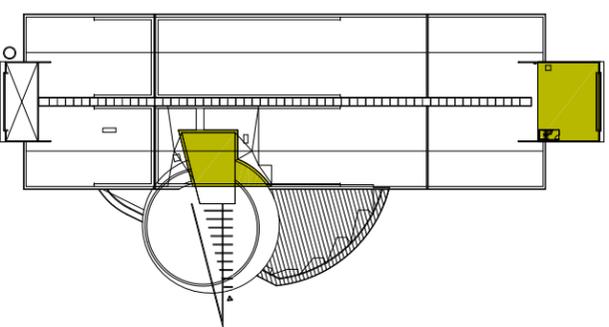
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Building B	148,182			Concourse	907	
					907	907
Building C	273,465			Hot Zone	6,034	
				Portables (2 @ 963)	1,966	
				VMR	10,721	
				Challenge Zone	2,973	
				Union Trailer	846	
				Rainforest	2,680	
					25,220	
Total GFA	568,427					25,220

Included in total

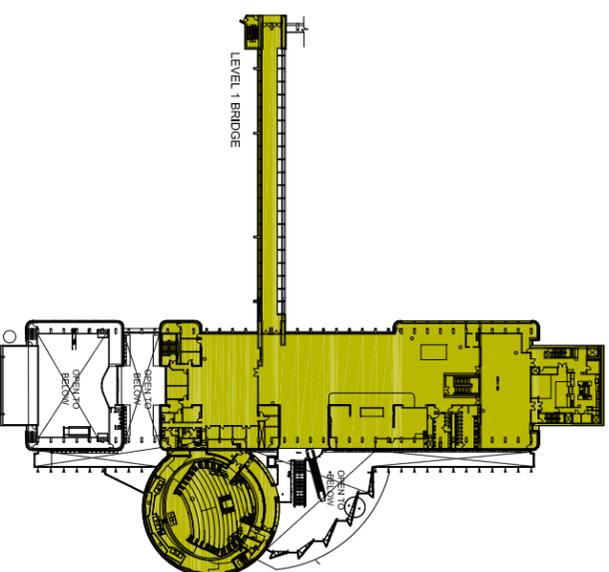
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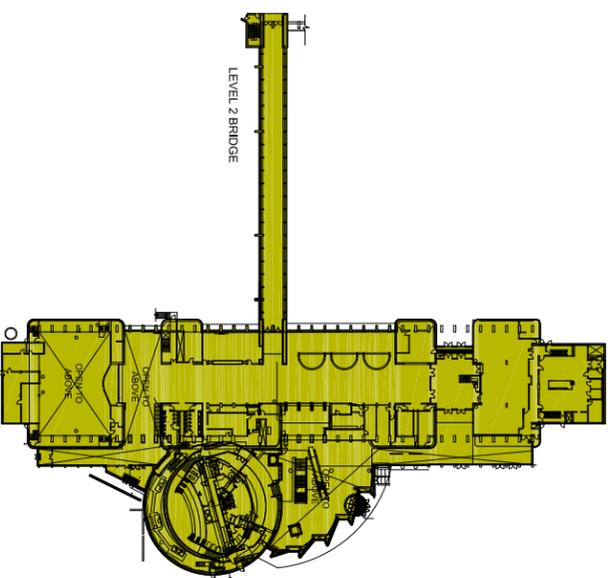
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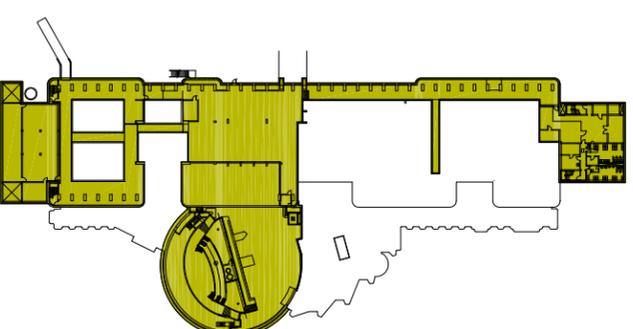
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LEVEL 2
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BASEMENT LEVEL
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BUILDING A
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NO.	REVISION	DATE

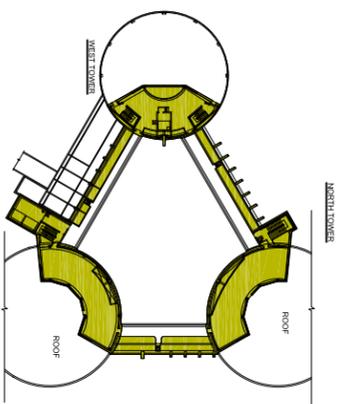
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B B. Shall be same as indicated

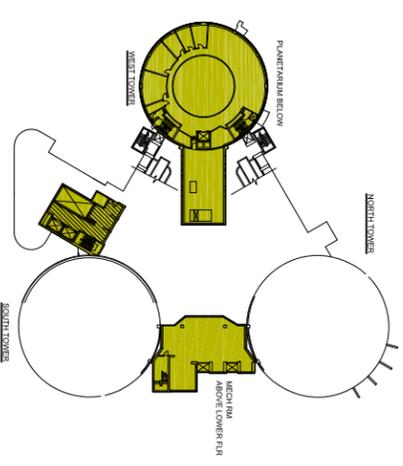


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Ontario
 Infrastructure Ontario
 ONTARIO SCIENCE CENTRE
 SQUARE FOOT CALCULATION
 770 DON MILLS ROAD
 TORONTO, ON M3C 1T3
 416-325-3777
 CB RICHARD ELLIS
 BUILDING A

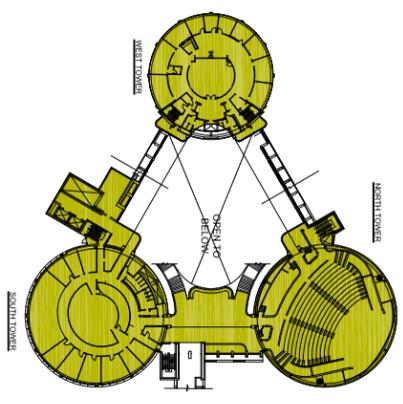
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Drawn By	TK	Checked By	1
Approved By			



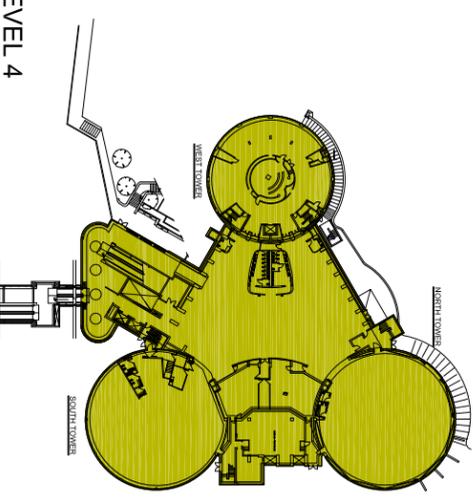
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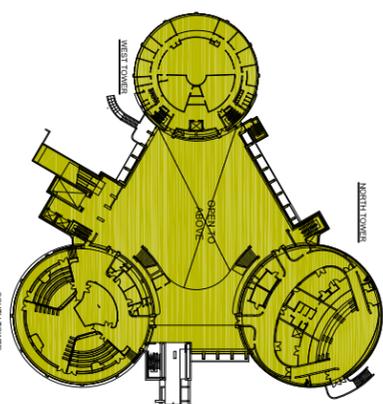
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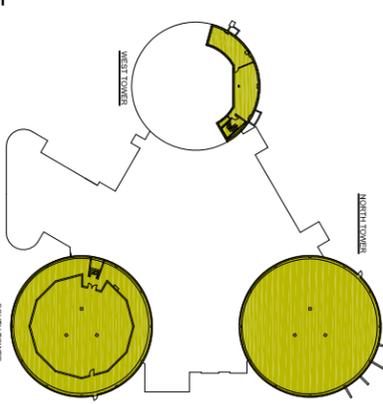
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LEVEL 4
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LEVEL 2
38,299.4 SQFT



BASEMENT
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148,181.65 TOTAL SQFT

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The Contractor shall check and verify all dimensions and report all errors and omissions to the OBC-Owner's/ISS Designer (as applicable) for his/her written direction before proceeding with the work.

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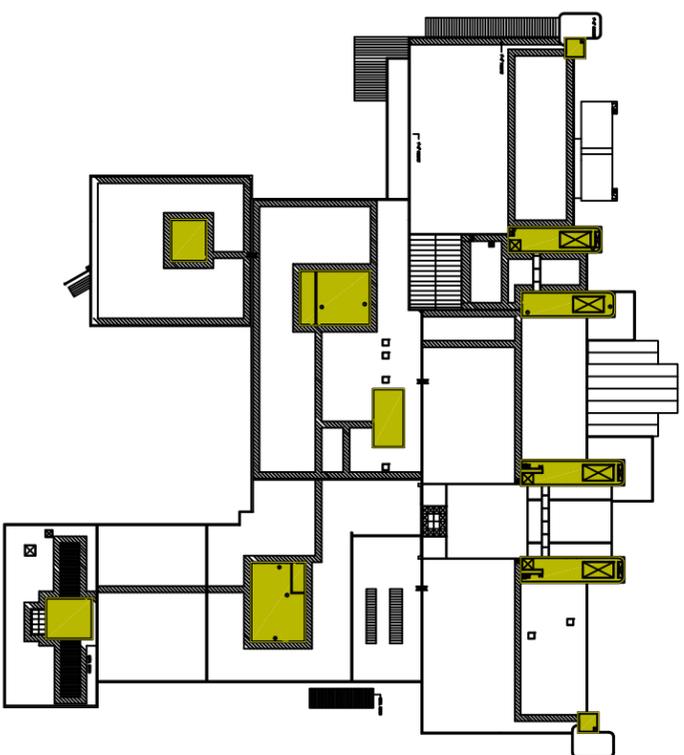

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 TORONTO, ON M3C 1T3
 B22377
 CB RICHARD ELLIS
 BUILDING B

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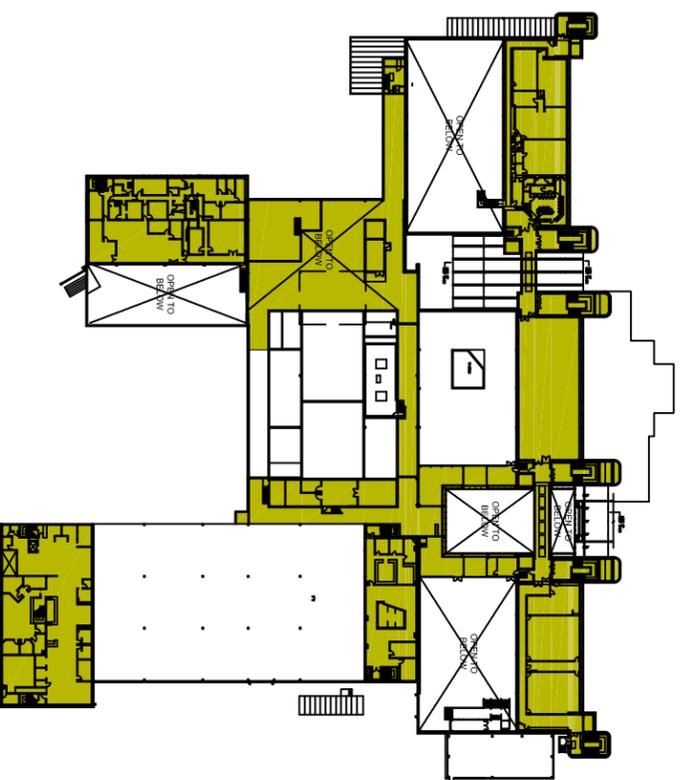
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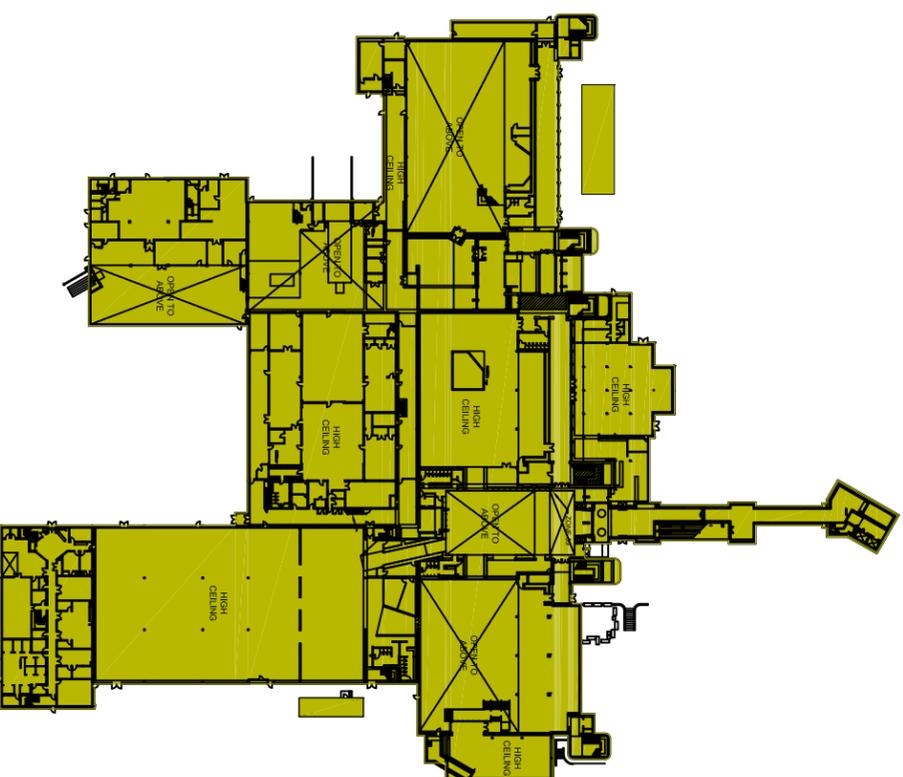
CBRE
CB RICHARD ELLIS



PENTHOUSE LEVEL
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LEVEL 5
76,277.2 SQFT



LEVEL 6
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A A Detail to
 B B Detail to items detailed


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 SQUARE FOOT CALCULATION
 770 DON MILLS ROAD
 TORONTO, ON, M3C 1T3
 B22377
 CB RICHARD ELLIS
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Appendix B
Land Use Planning Review Memo: Existing OSC Site

natural environment and propose measures to reduce negative impacts on and where possible improve, the natural environment”. (s. 3.4 Policy 3). Development will be “set back from the following locations by at least 10 metres or more: top of bank of valleys; areas of slope instability or risk, shoreline areas at risk of flooding or erosion (s. 3.4 Policy 8). All proposed development within or near the natural heritage system will be evaluated to assess the impact on the natural heritage system. Note: “development is generally not permitted in the Natural Heritage System illustrated on Map 9. Where the underlying land use designation provides for development in or near the natural heritage system, development will: recognize natural heritage values and potential impacts on the natural heritage ecosystem as much as is reasonable in the context of other objectives for the area; and minimize adverse impacts and when possible, restore and enhance the natural heritage system” (s. 3.4 Policy 10).

Further, note that all proposed development in or near the natural heritage system will be evaluated to assess the development’s impacts on the natural heritage system and identify measures to mitigate negative impact on and/or improve the natural heritage system. (s. 3.4 Policy 12). An impact study would be required. Further restrictions on development exist within areas with environmentally significant characteristics. Parts of the site contain designated Environmentally Significant Areas (ESAs), see Map 12, hatched portion. In those areas, “Development will not occur on lands within the natural heritage system that exhibit any of these characteristics. Activities will be limited to those that are compatible with the preservation of the natural features and ecological functions attributed to the areas. An impact study, as referred to in Policy 12, will be required for any proposed undertaking in those areas not already the subject of an Environmental Assessment under the Environmental Assessment Act.” S. 3.4 Policy 13).

The Land Use and Natural Heritage designations may appear to be in conflict, but these designations are not mutually exclusive: the *Institutional* designation is the base, underlying permitted land use designation. The Natural Heritage designation should be viewed as a layer that results in additional environmental analysis and justification being required prior to any further development in that *Institutional* area; it does not *necessarily* preclude development, as is made clear in Policy 10 above, where the language is generally supportive (“as much as is reasonable” “in the context of other objectives” “where possible”) rather than outright prescriptive.

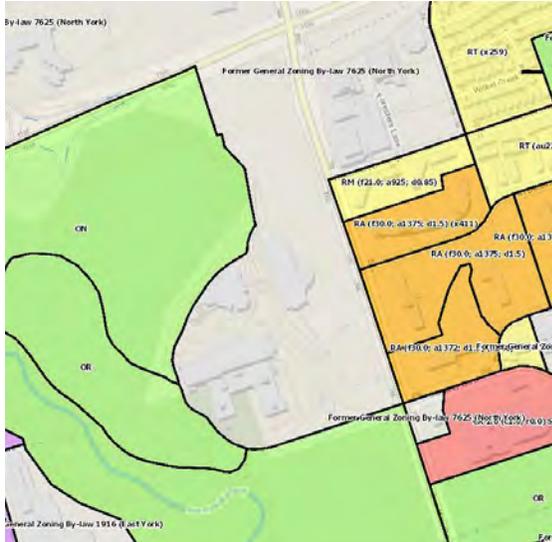
In summary, while the *Natural Heritage* designation complicates redevelopment of the site, it does not necessarily preclude it. Areas designated ESA are most likely non-developable, subject to a refinement of the area’s boundaries. For the remainder of the lands, any redevelopment would likely require a minimum 10 metre buffer from the top of the slope, as well as significant natural heritage assessments to gauge the impacts of the proposal. A detailed environmental study is required to determine a defensible developable area.

Zoning

The majority of the site is zoned via the former City of North York Zoning By-law 7625 (the portion of the site in grey in the map below). That grey area is zoned O3: *Semi-Public Open Space*. This zone permits essentially any public use: “any station, yard, building, park or parkway, operated or used by the City of North York, the Municipality of Metropolitan Toronto, the Province of Ontario, the Dominion of Canada, the Hydro-Electric Commission of North York, the Electric Power Commission of Ontario, The Board of Education for the City of North York, the City of North York Library Board, the Metropolitan Separate School Board, Seneca College, Sunnybrook Hospital, the University of Toronto, York University, the Toronto Transit Commission, the Bell Telephone Company of Canada, the Metropolitan Toronto and Region Conservation Authority, or any public railway company” (s. 39.1). Setbacks are generally stated: no building or structure shall be located closer to any lot line than a distance equal to the height of the building or structure (s 39.2). There is no mention of other height or density restrictions.

The remainder of the site is zoned ON: *Open Space – Natural Zone* per the current City of Toronto Zoning (569-2013), as shown in the map below. Uses in this zone are very limited, and include

ambulance depot, agricultural, fire hall, park, police station, public utility, and transportation use. Other uses may be permitted subject to further conditions.



Additional Information

The Ravine and Natural Feature Protection By-law (Chapter 658, Toronto Municipal Code) (in light green in the map below) prohibits the removal of trees or grading unless authorized by permit. This area aligns closely with the *Natural Heritage Area* outlined in the Official Plan.



Environmentally Significant Areas and Ravine By-law Area

The City recently began the *Don Mills & Eglinton Area Study*, which will examine ways to focus and shape anticipated growth around that intersection. This is intended to result in a new planning framework for the area. It is recommended that IO be involved in this process to protect and enhance the current and potential future uses of the site.

Summary

There are several layers of planning policy that apply to the site. It is an Institutional and Open Space site, and any redevelopment would have to have regard for the Natural Areas and particularly the Environmentally Significant Areas. A detailed natural heritage study is recommended, in consultation with the Toronto Region Conservation Authority, to define in greater detail the natural area boundaries including top of bank, required setbacks, and limits of ESAs. This will provide a more accurate sense of the site's developable area.

Appendix C
OSC Lease Review Memo

PRIVILEGED AND CONFIDENTIAL**MEMORANDUM**

To Daniel Horowitz, IO

From Jillian Shortt

Date February 3, 2014, updated February 11, 2014 and July 25, 2016

Subject **IO – Ontario Place – Ontario Science Centre – Lease Overview relating to Termination Rights**

PART I – LEASE OVERVIEW RELATING TO TERMINATION RIGHTS

1. **Lease Details:** Science Centre lease dated May 22, 1969 between the City and the Toronto Region Conservation Authority, as landlord, and The Centennial Centre of Science and Technology, as tenant (the “Lease”)
2. **Term:** The Lease gives the Tenant the right to use:
 - (a) **Parking Lands** - Parcel A (these are the parking lands described in Schedule D of Lease) for:
 - (i) 5 years starting July 1968 and ending on June 1973
 - (ii) with 1 renewal option (at the Tenant’s option) of 5 years (with no further renewal right)

NOTE: It has not been determined if there have been any extensions to the term of amendments to the lease arrangements relating to the Parking Lands. While the Lease is silent on the ability of the Tenant to remain on the Parking Lands after the expiry of the term relating to those lands, if the Tenant is still using the parking area, then the Tenant may continue to have rights relating to the Parking Lands. The current use of the Parking Lands should be determined.
 - (b) **Main Site Lands** - Parcel B (these are the site lands described in Schedule C of Lease) for:
 - (i) 99 years starting July 1965 and ending on June 2064
 - (ii) with 1 renewal option (at the Tenant’s options) for 99 years (with an on-going renewal option)
 - (c) **Plan of the Lands** – The site plan below (refer to page 5) shows how the Parcel A and Parcel B lands and certain other lands. Dentons has not been requested to complete any title work relating to the lands referred to in the Lease including to verify the location of the lands.

3. Termination Rights in the Lease:

(a) Parcel A/Parking Lands

- (i) The Landlord can terminate the lease for Parcel A/Parking Lands on 6 months' notice if the lands are required for municipal purposes.
- (ii) There is no termination payment provision in the Lease. The Landlord would not be obligated to make any payment to the Tenant if the Lease for these lands is terminated.
- (iii) The Tenant does not have a right to terminate the Lease on the Parcel A/Parking Lands.

(b) Parcel B/Main Site

- (i) There is no termination right for either the Landlord or the Tenant for Parcel B/Main Site.
- (ii) There is no termination payment provision.

(c) Negotiated Termination of the Lease

- (i) As the Crown cannot breach its covenants, any termination of the Lease would need to be negotiated and agreed to by the Landlord and the Tenant.
- (ii) In connection with any negotiated termination of the Lease, the Landlord may (or may not) consider seeking compensation for losses associated with the early termination of the Lease. While the nominal base rent may suggest that the losses (and thus any termination payment) would be small, the Landlord may look to the Tenant to make a termination payment sufficient to cover the Landlord's predevelopment costs if the Landlord in turn sells all or part of the land to private developers. As any such termination would be completed on negotiated terms, it would be open for the Landlord to request whatever compensation on whatever basis as it may wish although the reasonableness of the requests will likely influence the ability of the Landlord to get the Tenant to agree to such payments.

4. Termination Obligations of Tenant to the Landlord:

(a) Parcel A/Parking Lands

- (i) On termination or expiry of the Lease, the Tenant must remove the Ontario Science Centre sign in the parking lot and restore the land to the original condition

(b) Parcel B/Main Site

- (i) The Lease does not contain any express requirement for the Tenant to remove any buildings from the site on the termination or expiry of the Lease.
- (ii) While the Lease is silent on the condition of the Main Site on termination, the Tenant would be required to maintain the Main Site and the buildings as required by the terms of the Lease including the following provisions:

- A. Section 6 – good management and care of the Main Site and the buildings and structures
- B. Section 9 – maintenance of drainage
- C. Section 10 – restrictions and requirements relating to fences, hedges and other barriers
- D. Section 17 – construction of vehicular entrances and exits
- E. Section 18 – levels and elevations of the Main Site and the Parking Lands
- F. Schedule G – separate agreement between the Landlord and the Tenant relating to specific maintenance obligations

5. **City Development of Schedule F Lands**

- (a) If the City and the Toronto and Region Conservation Authority (together or separately) want to develop the lands in Schedule F of Lease, the party proposing the development has to notify the Tenant and provide the Tenant with details and plans. There cannot be any redevelopment until the Tenant has had a reasonable opportunity of expressing its views on the details and the plans to the party proposing the development.
- (b) The Schedule F Lands are shown on the site plan below (refer to page 5) and referred to as Additional City of Toronto Lands. The location of these lands has not been confirmed by Dentons and no title work has been completed on these lands.

PART II: Key Lease Terms Overview prepared by Infrastructure Ontario

NOTE: The following overview is based on the Property Details section of the Real Estate Advice Report dated July 19, 2013. The factual information in the following summary of the Lease is accurate and Part I of this memorandum contains additional information relating to the Lease.

Leased Premises:	Parcel A – Parking lot lands in Schedule D Parcel B – Main site lands in Schedule C
Landlord:	City of Toronto / Toronto Region Conservation Authority
Tenant:	The Centennial Centre of Science and Technology
Use:	Operation of a museum and related facilities
Base Rent:	\$1

Initial Lease Term, Parcel B (Main Site):	99 Years (July 1965 to June 2064)
Renewal Options, Parcel B (Main Site):	99 Years, includes on-going renewal option.
Initial Lease Term, Parcel A (Parking Lot):	5 Years (July 1968 to June 1973, subject to multiple renewals since initial expiry). Lease originally provided for only one (1) renewal options without any further option.
Termination Option:	If required for municipal purposes, Landlord may terminate Parcel A (Parking Lot) on 6 months' notice to Tenant. No termination option on Parcel B (Main Site).
Development:	The Landlord, jointly or severally, may propose development of certain lands (shown in Schedule F – these lands are not in the lease) but shall not proceed without the Tenant having had the opportunity to express its views on the proposed undertaking.

SITE PLAN



Appendix D
20 Year Deferred Maintenance Summary

ONTARIO SCIENCE CAPITAL REQUIREMENTS FOR 20 YEARS BY BUILDING

Years	BUILDING A			BUILDING B			BUILDING C			NORTH LOT			ROADWAY & SITE DEVELOPMENT			SOUTH LOT			STAFF PARKING			TELUSSCAPE				
	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total	Renewal Requirements	Non-Renewal Requirements	Total		
2015	396,908	1,215,107	1,612,015	725,044	150,534	875,578	732,809	600,446	1,333,255	0	192,271	183,772	376,043	0	291,169	0	291,169	0	0	0	0	0	0	0	4,488,060	
2016	1,060,643	0	1,060,643	799,050	0	799,050	1,272,247	0	1,272,247	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,131,940	
2017	13,649,317	84,527	13,733,845	10,910,560	140,907	11,051,467	18,572,469	1,249,566	19,821,925	20,736	120,279	120,279	120,279	20,736	20,736	0	20,736	0	0	0	0	0	0	0	44,789,722	
2018	1,326,724	0	1,326,724	1,373,385	0	1,373,385	1,822,108	0	1,822,108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,522,217	
2019	1,920,211	0	1,920,211	2,862,535	0	2,862,535	5,756,261	0	5,756,261	48,693	48,693	2,662,555	248,478	427,396	58,873	58,873	58,873	0	0	0	0	0	0	0	13,985,003	
2020	9,013,557	0	9,013,557	6,436,689	0	6,436,689	16,132,823	0	16,132,823	743,251	743,251	304,039	743,251	758,806	0	0	758,806	0	0	0	0	0	0	0	34,132,416	
2021	5,910,323	0	5,910,323	6,583,047	0	6,583,047	10,339,975	0	10,339,975	88,209	88,209	10,339,975	88,209	0	0	0	0	0	0	0	0	0	0	0	22,921,553	
2022	970,425	0	970,425	226,292	0	226,292	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,196,717	
2023	3,602,261	0	3,602,261	6,391,412	0	6,391,412	7,153,162	0	7,153,162	13,678	13,678	174,340	13,678	13,678	20,517	0	20,517	0	0	0	0	0	0	0	17,385,685	
2024	330,980	0	330,980	57,156	0	57,156	506,564	0	506,564	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	894,701	
2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2026	1,275,313	0	1,275,313	1,195,302	0	1,195,302	4,288,370	0	4,288,370	131,655	131,655	114,207	131,655	0	0	0	0	0	0	0	0	0	0	0	1,196,717	
2027	855,050	0	855,050	2,361,114	0	2,361,114	1,151,458	0	1,151,458	114,207	114,207	1,517	168,331	0	0	0	168,331	0	0	0	0	0	0	0	7,056,773	
2028	0	0	0	328,032	0	328,032	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,651,677	
2029	916,055	0	916,055	1,003,703	0	1,003,703	1,396,645	0	1,396,645	1,270,756	1,270,756	211,913	475,283	0	0	0	475,283	0	0	0	0	0	0	0	328,032	
2030	2,707,214	0	2,707,214	2,913,811	0	2,913,811	3,011,049	0	3,011,049	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,557,022
2031	2,174,362	0	2,174,362	2,456,708	0	2,456,708	4,144,698	0	4,144,698	0	0	585,755	169,149	0	0	0	169,149	0	0	0	0	0	0	0	0	8,632,074
2032	1,263,087	0	1,263,087	16,364	0	16,364	150,720	0	150,720	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,675,299
2033	5,026,100	0	5,026,100	733,840	0	733,840	594,949	0	594,949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,430,172
2034	50,301	0	50,301	162,194	0	162,194	3,438,752	0	3,438,752	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,354,888
Total	\$ 52,448,830	\$ 1,299,634	\$ 53,748,465	\$ 47,536,238	\$ 291,441	\$ 47,827,679	\$ 80,465,060	\$ 1,849,902	\$ 82,314,962	\$ 2,431,184	\$ 2,431,184	\$ 4,252,670	\$ 183,772	\$ 4,436,442	\$ 2,130,075	\$ 2,130,075	\$ 1,838,906	\$ 1,510,123	\$ 386,271	\$ 386,271	\$ 1,510,123	\$ 386,271	\$ 386,271	\$ 386,271	\$ 194,785,200	

Renewal Requirement

2015-2019	18,353,804
2020-2024	19,827,545
2025-2034	14,267,481
20 Year Total	52,448,830

Non-Renewal Requirement

2015-2019	1,299,634
2020-2024	0
2025-2034	0
20 Year Total	1,299,634

Building A, B, C Maintenance Requirements

2015-2019	66,621,248
2015-2024	73,654,665
2015-2034	43,615,192
Sub Total	183,891,105

Building A

2015-2019	16,670,574
2015-2024	19,694,595
2015-2034	11,171,069
20 Year Total	47,536,238

Building B

2015-2019	291,441
2015-2024	0
2015-2034	0
20 Year Total	291,441

Building C

2015-2019	26,155,893
2015-2024	34,132,524
2015-2034	18,176,642
20 Year Total	80,465,060

North Lot

2015-2019	69,429
2015-2024	845,137
2015-2034	1,516,618
20 Year Total	2,431,184

South Lot

2015-2019	269,214
2015-2024	756,929
2015-2034	812,763
20 Year Total	1,838,906

Staff Parking

2015-2019	448,132
2015-2024	779,323
2015-2034	282,668
20 Year Total	1,510,123

TELUSCAPE

2015-2019	58,873
2015-2024	16,638
2015-2034	310,759
20 Year Total	386,271

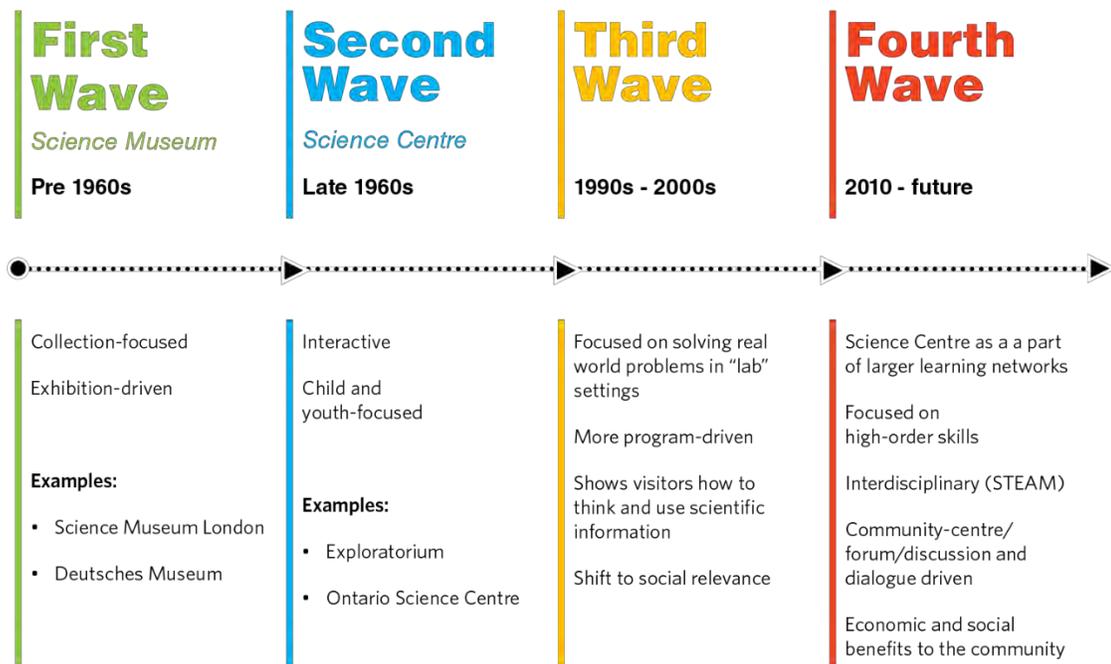
All Other Areas	Maintenance Requirements	TOTAL
2015-2019	4,295,694	
2015-2024	2,876,407	
2015-2034	3,721,993	
Sub Total	10,894,094	\$ 104,785,200

Total Deferred Funding For 20 Years		
Cost from VFA report for Building A, B and C	Cost from VFA report for other Areas	Total From VFA
66	4	70
140	7	147
184	11	195

Summary Prepared by: Asset Management for Central Region Leased & Land Portfolio, Infrastructure Ontario
Source: VFA, Facility Condition Assessments, September 2013

Appendix E
Fourth Wave Science Centre Precedents

EVOLUTION OF THE SCIENCE CENTRE



TRENDS IN SCIENCE CENTRES

1. Participative Research, Citizen Science, Lab-in-Gallery

As is the trend with museums and science centres globally, institutions are striving to turn "visitors" into participants. Science centres in particular are providing the tools for visitors to become active researchers, collaborators and creators. Makerspaces and innovation labs are becoming key components of science centres and other museums of innovation. Spark!Lab, was the flagship initiative of the Smithsonian Institution's makerspace concept, being an leader to recognize these types of learning environments within a museum setting. This type of learning and experimentation occurs in other science centres across North America and in Europe.

CREATE at Arizona Science Center, for example, is a place where science, design, and engineering collide. Inspired by inventor's workshop, art studios and laboratories, CREATE provides opportunity for innovation and creation through connectivity of a commons – shared interests and collaboration.

Competitions and prizes are another form of participation. Examples are numerous, from the BioGenius Challenge (where high school students are invited to compete to solve problems in health care, food services or environmental science via biotechnology) to the whimsical Rube Goldberg Machine Contest (an engineering competition where teams are invited to design a machine to complete the simplest task via the most complex method conceivable. Another example is the Giant Jamboree which is an annual event for collegiate and high school International Genetically Engineered Machine (iGEM) teams. During the event, these teams come together to present their synthetic biology projects. iGEM spun out of MIT and became an independent nonprofit organization in 2012.

2. Interdisciplinary Approaches, Partners and Networks

Interdisciplinary approaches continue to gain favour in the museum and science centre world. Relevant to the OSC is the mix of art and science to foster innovation, creativity and new skills.

For example, knowledge incubation is a key goal for many types of organizations today and is exemplified by an organization called Knowledge Incubation in Innovation and Creation for Science (KiICKs) which is a three-year European Commission-funded project (2012-2014) led by Ecsite, the European network of science centres and museums. The project aims to build bridges between arts, science and technology by giving evidence of the positive impacts of their interaction for creativity as well as for triggering interest in science. The project will stimulate co-creation processes involving creators and scientists, and nurture youth interest in science in a creative way. Members include other science centres and museums, but also private for-profit and not-for-profit organizations, science festivals and educational institutions. There are numerous other examples of “artscience” collaborations around the world.

Museums and science centres are no longer just the popularizers of academically-generated knowledge. They are now becoming more equal partners in the generation of knowledge, offering universities research expertise in scientific disciplines underrepresented in university faculties, new venues for substantial outreach and educational initiatives, and opportunities for the public to access science in inviting ways.

Moreover, they are integrating institutionally with universities, with some entering into agreements to provide jointly appointed and co-funded researchers that are cross-appointed to each institution and whose positions are jointly funded by each. An example is the partnership between the University of North Carolina and the North Carolina Museum of Natural Sciences, where institutional boundaries between the two are becoming blurred as they enter into ever-deeper – and mutually beneficial – collaboration.

Another form of university partnership relates to funding. In order to increase the chances of success for very competitive grants, science centres or science museums are becoming “sub-grantees” to university researchers to obtain funding for their informal science and technology learning programs. As a subgrantee in partnership with (often university-based) science researchers who apply for research grants, a museum becomes an education outreach partner

or a “subawardee” on a research centre proposal. This takes advantage of the fact that more funds are available for basic research in university settings than are offered directly to informal science education institutions like museums.

3. International and Local Networks

Science centres are increasingly reaching beyond partnerships with their science centre or museum peers and are developing broader-based partnerships and networks. For example, the Science Museum of Minnesota has recently been contracted by the National Aeronautics and Space Administration (NASA) to develop a Space and Earth Informal STEM Education project that will include exhibition, video and hands on activities as components of the program. The products of the collaboration will be made available, free of charge, to other science museums in the US. This is an example of a science museum working with a major government agency to advance the goal of STEM learning for children and youth.

In Mexico, CONACYT is an agency dedicated to the goals of providing basic science education, supporting technological development and innovations, and coordinating programs and funding efforts through over 25 CONACYT centres distributed throughout Mexico. CONACYT is the Spanish abbreviation for Consejo Nacional de Ciencia y Tecnología or the National Council of Science and Technology.

4. Public-Private Partnerships

Public-private partnerships between science centres and for-profit companies are undertaken for various reasons. For its part, the museum receives funding and content for its exhibitions and programs, while the corporation receives marketing exposure, an association with credible learning institutions, and other benefits that we explore below.

One example is the partnership between Google and London's Science Museum and Tate Modern to create two exhibitions which harness and showcase its Chrome products. The two exhibitions, one a collection of science experiments, the other an evolving art exhibition, will have both a physical and online existence. One of these is Web Labs, an exhibition to demonstrate the power of the internet and inspire the next generation of computer scientists and enthusiasts.

5. Meeting Social and Community Needs

Science centres are becoming more active in meeting social and community needs in the communities of which they are a part. In Mexico City, for example, the new National Energy and Technology Museum has entered into discussions with Tenaris Tamsa (a manufacturing firm active in the oil and gas sector) to contribute to that company's outreach program to youth in disadvantaged neighbourhoods.

Career counselling and development is also often a focus of meeting community needs. As with so many other best practices in science museums, the Science Museum of Minnesota stands out in the area of career development and counselling and provides it as a benefit of membership. The Kitty Anderson Youth Science Center (KAYSC), which is a part of the Science Museum, offers its members an opportunity to obtain STEM leadership internships

and apprenticeships with work experience programs and colleges and universities. Alumni interns can also become mentors for younger KAYSC high school and middle school members.

The Museum of Science and Industry in Chicago is another museum that provides career information, in this case via a schedule of programs and events. These include the Science Works Career Fair, which provides attendees with the opportunity to meet established STEM professionals and discuss career opportunities, listen to an array of dynamic speakers, and participate in hands-on activities and one-on-one discussions.

6. Broadening Audiences

Science centres have been working to change the perception that they are just for kids and families. Attracting adults is a key goal. An example is the Dana Centre at the Science Museum in London, which is an informal café/bar space for adults to discuss issues in contemporary science. The Centre's programming is described by the Museum as "controversial and experimental" and has included in the past such events as a stand-up comic debunking science myths to a live heart bypass operation. The events are supplemented by live webcasts and online discussion boards. Most events are free but are intended for those over 18 years of age.

Festivals are another method used to expand audiences and to attract millennials who are seeking experiential opportunities. The Edinburgh International Science Festival was founded in 1989 as an educational charity that aims to inspire people of all ages and backgrounds to discover the world around them through science. It is the world's first public celebration of science and technology and still one of Europe's largest. The festival lasts for 15 days and attracts 100,000 people and is increasingly popular. The 2014 festival had an increase in attendance of 27%.

The Science Gallery in Dublin is another engages young adults aged 15-25. The diverse range of educational programmes on offer at Science Gallery provide young people with the opportunity to pursue creative ideas that interrogate and explore the boundaries of art and science.

The Science Gallery in Dublin is another example of a science museum/centre that engages young adults targeting those between the ages of 15-25 at key stages of their life regarding school subject choices, college courses and decisions relating to future careers.

Finally, museum-sponsored field trips and travel expeditions are popular and enhance outreach to adults, such as the Harvard Museums of Science and Culture Travel Program in which museum staff lead trips relating to human evolutionary biology, marine biology, comparative zoology, anthropology, archaeology, history of science, Near Eastern civilizations, religion and more. Members of the public can book a tour accompanied by HMSC travel scholars. The Travel Program has an educational mission that reaches out to three populations: travelers, visitors to the museum, and local populations at HMSC travel destinations.

DOWNTOWN and/or WATERFRONT SCIENCE CENTRES

California Science Center, Los Angeles

Gross Square Ft: 549,258

Onsite Attendance: 2,000,000

% Exhibit Space: 34%



Museum of Science, Boston

Gross Square Ft: 444,000

Onsite Attendance: 1,637,249

% Exhibit Space: 33%



Perot Museum of Science, Dallas

Gross Square Ft: 237,000

Onsite Attendance: 1,153,909

% Exhibit Space: 34%



Exploratorium, San Francisco

Gross Square Ft: 217,643

Onsite Attendance: 1,124,003

% Exhibit Space: 45%



Franklin Institute, Philadelphia

Gross Square Ft: 387,000

Onsite Attendance: 895,242

% Exhibit Space: 49%



Appendix F
The Governments Announced Vision for Ontario Place

Revitalizing Ontario Place

Province Plans Year-Round Waterfront Destination for All Ontarians to Enjoy

NEWS

July 31, 2014

The province is moving forward with its long-term vision to revitalize Ontario Place into a vibrant waterfront destination. The government's plan does not include residential development of any kind on a space that should remain public.

The revitalized Ontario Place will offer the public access to a spectacular part of Toronto and a mix of outdoor and indoor features, including:

- Greater public recreational space — a collection of green spaces and a blue park for water activities, as well as a waterfront trail.
- A celebration common — an area for cultural activities, festivals and community events.
- Live music legacy — expansion of live music options that will include continuing performances at the Molson Canadian Amphitheatre, as well as exploring options to bring live music acts to the site year-round.
- A hub for culture, discovery and innovation — new facilities that have an eye towards the future, focused on learning and research
- Cinesphere and pods — will be conserved as an important part of the site's cultural heritage.
- A canal district — a waterfront promenade lined with stores and restaurants.
- Improved connections — including a landscaped pedestrian bridge that doubles as a gathering space extending across Lake Shore Boulevard and linking with Exhibition Place.

The province continues to work closely with the City of Toronto to realize the shared potential of Ontario Place and Exhibition Place.

Revitalizing Ontario Place is part of the government's economic plan to invest in people, build modern infrastructure and support a dynamic business climate.

QUOTES

“Our government is committed to ensuring the future of Ontario Place continues to be a place for people of all ages to enjoy in every season. Ontarians have said they want year-round public access, a continuation of the rich legacy of live music and a desire for an innovative destination that unites land and water — we listened and we are moving forward. Our bold new vision for Ontario Place revitalization will deliver on expectations and ensure the public interest is protected.”

— Michael Coteau, Minister of Tourism, Culture and Sport

QUICK FACTS

- The first phase of Ontario Place revitalization is building the [urban park and waterfront trail](#).
- The next stage of work includes an environmental assessment and land-use planning process, further consultations with Ontarians and soil remediation.
- Ontario Place sits on 63 hectares — 28 of land and 35 of water lots.
- The [Minister's Advisory Panel](#) on Ontario Place Revitalization released a report in July 2012 containing [18 recommendations](#) on how to transform Ontario Place. The new vision reinforces the guiding principles in the report to create a destination that is open year round.

LEARN MORE

- [Progress on the Revitalization of Ontario Place](#)
- [Re-imagining Ontario Place](#)
- ontario.ca/myontarioplace
- [Explore more ways to discover Ontario](#)

Jasmine Gill, Minister's Office, 416-325-1759
Christy Arnold, Communications Branch, 416-326-1724

ontario.ca/mtcsnews
Disponible en français

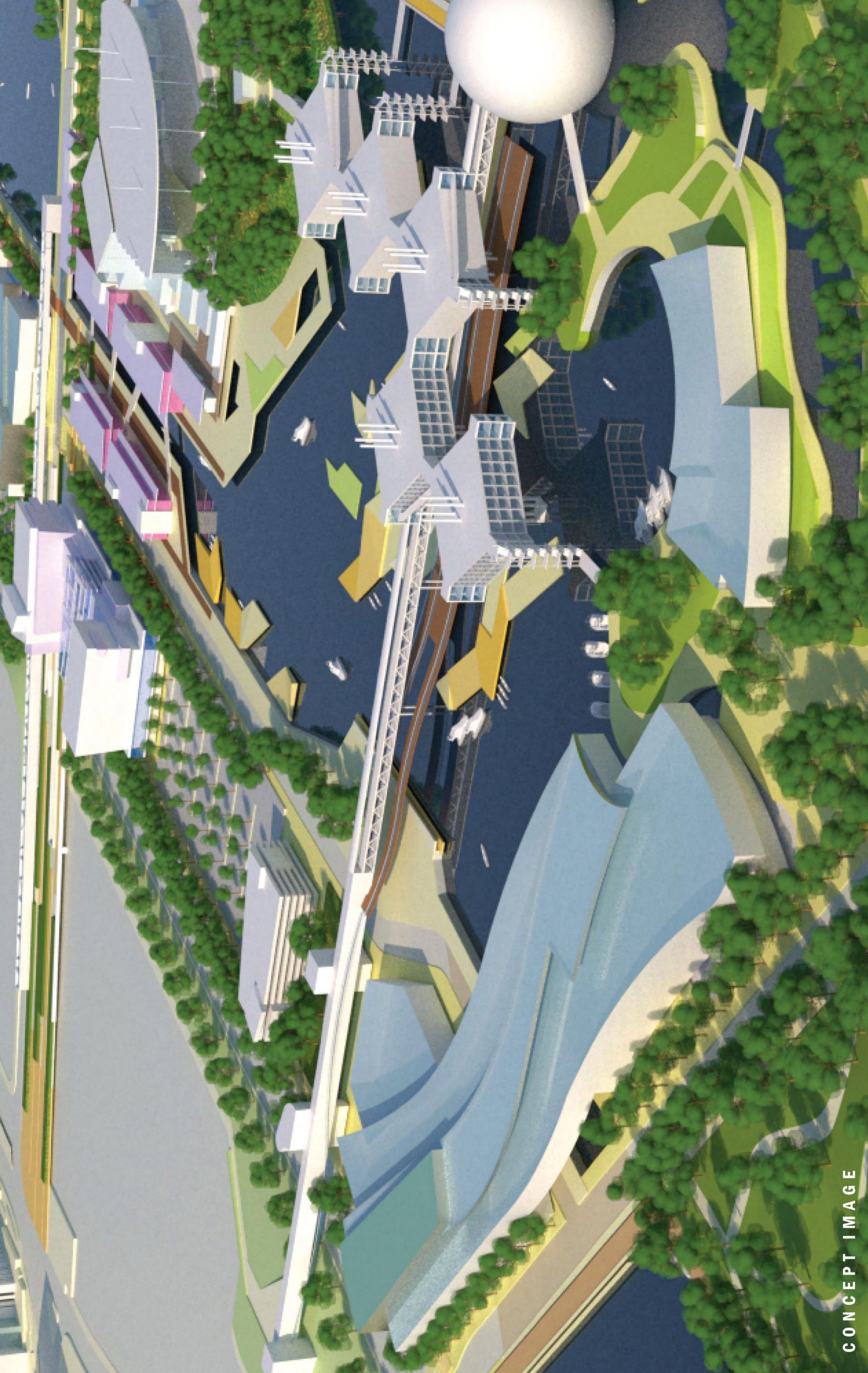
Government's Vision

As publicly announced on July 31, 2014



A year-round, vibrant waterfront destination – building on the site's legacy of innovation, fun and live music.

- 1** Urban Park and Waterfront Trail
- 2** Culture, discovery and innovation hub
- 3** Canal district and landscaped pedestrian bridge
- 4** Live music expansion (6,000 seats)
- 5** Blue Park – animating the water
- 6** Celebration Common
- 7** Recreational/leisure space
- 8** Landscaped Pedestrian Bridge



CONCEPT IMAGE

Appendix G
Eglinton CrossTown LRT Information Sheet

Eglinton Crosstown LRT

Backgrounder

The Eglinton Crosstown is a light rail transit line that will run along Eglinton Avenue between Mount Dennis (Weston Road) and Kennedy station. This 19-kilometre corridor will include a 10-kilometre underground portion, between Keele Street and Laird Drive.

The Crosstown will have up to 25 stations and stops. It will link to 54 bus routes, three subway stations and various GO Transit lines.

The Crosstown will provide fast, reliable and convenient transit by carrying passengers in dedicated right-of-way transit lanes separate from regular traffic.

This service will have priority signalling at intersections to ensure certainty in travel times. The vehicles will use the PRESTO proof-of-payment system and will have multiple entrances and low floors to ensure fast and accessible boarding.

Light rail vehicles can travel as fast as 80km/hr. However, actual speed is determined by the spacing of the stops and the speed limits of surrounding traffic. On average, the Crosstown vehicles will travel at 28km/hr.

The projected ridership of the Crosstown is 5,500 passengers per hour in the peak direction by 2031. The capacity of the Crosstown vehicles is 15,000 passengers per hour per direction. Cars can be removed or added easily, thus providing the flexibility to accommodate ridership demands.

Light rail transit is a proven technology that is used around the world, including extremely cold places such as Edmonton, Calgary and Minneapolis.

The Crosstown is a \$5.3 billion (2010\$) investment from the Government of Ontario to expand transit in Toronto. It is the largest transit expansion in the history of Toronto's history.

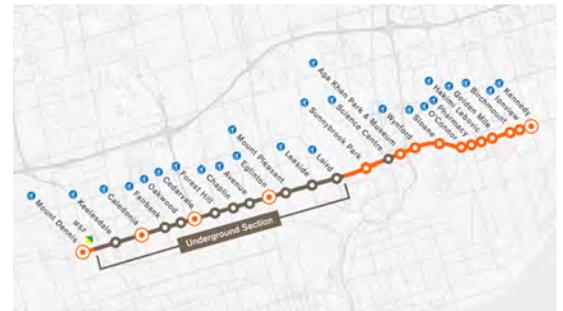
The Crosstown is currently under construction and will be complete by 2021.

Sample travel times:

	Currently (via bus)	Eglinton Crosstown LRT
Kennedy station to Yonge -Eglinton	40 min.	26 min.
Kennedy station to Eglinton-Keele	73 min.	38 min.
Eglinton-Keele to Eglinton West station	16 min.	6 min.



An artist's rendering of the LRT vehicle



Eglinton Crosstown stations and stops



An artist's rendering of the Laird station



Site at Black Creek Drive where the tunnel boring machines begin tunnelling

Contact us: West Community Office
1848 Eglinton Avenue West (at Dufferin)
416-782-8118 | crosstown@metrolinx.com

www.thecrosstown.ca

 facebook.com/thecrosstown

EGLINTON
CROSSTOWN

 **METROLINX**
An agency of the Government of Ontario

 twitter.com/crosstownTO

Appendix H

Financial Model

Model Author: Orlando Tudor
IO Project Lead: Michael Fedchyshyn
Last Modified By: Michael Fedchyshyn

Client: Ontario Ministry of Tourism, Culture & Sport
Last Modified: 20161003

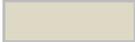
MODEL GUIDANCE:

This financial model (the "Model") has been prepared by Infrastructure Ontario ("IO") to assist the Ontario Ministry of Tourism, Culture & Sport in evaluating potential scenarios related to the revitalization of the Ontario Science Centre ("OSC") and Ontario Place ("OP"). In particular, the Model compares the NPV of two options, the Remain on Site option, where both entities continue to exist and operate in their current locations, and under a relocation of OSC to OP. The analysis is restricted to evaluating revenues and costs associated only with the OSC and those OP lands directly impacted by a relocation and does not contemplate ancillary operations. The Model draws from a number of sources, both internal and external, to inform inputs. The accuracy of this information and IO's ability to validate it may be inconsistent and is more fully described in the assumptions register.

The Model should not be modified or edited in any way without the assistance/involvement of IO and particularly the Model owner (Transaction Finance). If not received directly from the model owner, IO cannot warrant that downstream edits made by any party will not result in incorrect calculation or assumption handling, potentially causing in misleading results.

Please contact IO directly for any and all model revisions.

MODEL CELL LEGEND:
Please note the following model conventions;

	Input Cell
	Calculation Cell

Please avoid editing any calculation cell when testing model scenarios

TAB CODING:
Tab in the Model are grouped by colour;

	Version Control, Guidance & Assumptions
	Inputs & Calculations
	Output & Sensitivities

ASSUMPTION	DESCRIPTION
Remain on Site - Construction Duration	A sequential refurbishment of exhibit halls (both halls and the exhibits themselves) is contemplated in order to maintain operations of the majority of the attractions. Each of the 6 exhibition halls is estimated to require 18 months to refurbish resulting in a 9 year construction period. Due to the requirement for asbestos remediation, OSC is assumed shut down for an entire year in 2018 followed by exhibit hall refurbishments. Estimates provided by OSC.
Relocation - Construction Duration	Construction of a new OSC building and refurbishment of adjacent structures is assumed to require 3 year construction period (2020 - 2022 inclusive). Capital costs are incurred in 2019 associated with early works including; site preparation, demolition, site remediation, and associated soft costs. Estimates provided by IO and Lord Consulting.
Remain on Site - Number of Visitors	Visitor numbers are assumed to remain at the average of the last two years' attendance. Historically, the OSC has seen gradually decreasing attendance at its current location implying that this assumption may be aggressive. During the year of asbestos remediation, visitor number is assumed at 0, followed by a reduction of visitor number to 90% of baseline to account for the reduced exhibit space. This reduction persists until the exhibits are refreshed at which time visitor numbers return to baseline. Estimates provided by OSC and Lord Consulting.
Relocation - Number of Visitors	Under the relocate scenario, visitor numbers are expected to increase to 1,000,000 annually (4% increase) due to a combination of exhibit/building improvements, access to additional visitors arising from ancillary uses in the area (conventions, sporting events, music events, etc.), and improved accessibility from downtown Toronto. Visitor numbers are maintained at Remain on Site levels (attending the current OSC) until the completion of construction (2022), then increased transiently to 120% (2023) of the relocated steady state visitors (1,000,000), then decreased to 105% of steady state in 2024, followed by steady visitorship at 1,000,000 annually thereafter. Estimates provided by Lord consulting and OSC.
Remain on Site - Construction Curve	The Construction Curve describes the timing of both exhibit and exhibit hall refurbishment during the 9 year construction period. Equal expenditure (inflated) is assumed in each year. Estimates provided by Lord Consulting and OSC.
Relocation - Construction Curve	The Construction Curve describes the timing and magnitude of capital expenditure associated with construction of the new OSC buildings at OP and work to ancillary structures. Estimates provided by Lord Consulting and IO.
Remain on Site - OSC Critical Maintenance	The current OSC building has approximately \$194M of deferred critical capital maintenance required. The critical maintenance curve describes the timing and magnitude of that expenditure (inflated). Estimates provided in the 2013 VFA Report.
Relocation - OSC Critical Maintenance	Under the relocation scenario a new OSC structure is built and deferred maintenance associated with existing structures (pods) is completed as part of capital cost estimates (for new build). Therefore, no critical/deferred maintenance projects are assumed to be undertaken at the legacy OSC site in this scenario. Ongoing maintenance of the legacy OSC site is assumed to continue at current levels (expensed) for the duration of OSC tenancy at the legacy site, which could assume some emergency/critical repairs; however, in the relocation scenario no attempt is made to catch up on deferred maintenance projects. Any deferred maintenance accrued on the legacy OSC site is assumed reflected in the ultimate sale/transfer value of the property.
Remain on Site - Ontario Place Critical Maintenance	This curve defines the timing and magnitude of capital expenses associated with refurbishment of the pods and bridge. Refurbishment works is performed over 2 years (2018-2019) in the Remain on Site scenario. Estimate provided by GHD in the State of Good Repair Review.
Relocation - Ontario Place Critical Maintenance	This curve defines the timing and magnitude of capital expenses associated with refurbishment of the pods and bridge. Refurbishment works is performed over 2 years (2020-2021) to coincide with other construction activities on the site in the Relocate scenario. Estimate as in the Remain on Site scenario and provided by GHD in the State of Good Repair Review.
Remain on Site - OSC Visitor Multiplier	Visitor multiplier curve that allows for the adjustment of visitor number (as a percentage of the baseline visitor assumption) in each of the forecast years. Adjustments to visitor number under the Remain on Site scenario are described above. Estimate provided by Lord Consulting.
Relocation - OSC Visitor Multiplier	Visitor multiplier curve that allows for the adjustment of visitor number (as a percentage of the baseline visitor assumption) in each of the forecast years. Adjustments to visitor number under the Relocate scenario are described above. Estimate provided by Lord Consulting.
Remain on Site - OSC Revenue Items	Revenue inputs in the Remain on Site scenario are derived as an average of the last two years' of financial reporting from OSC (2014/2015). Line items that were identified as being variable in nature (dependent on the number of visitors) were; <ul style="list-style-type: none"> - General Admission - Educational Programs and Admission - Recreation & Family Learning Experiences Variable revenues were determined by taking the average revenue over the last two reporting cycles and dividing it by the average number of visitors in the same period. The resulting value/visitor was multiplied by the assumed number of visitors in any given forecast year. <p>Other line items are assumed fixed throughout the forecast period. All revenue items are inflated at a "General Growth Rate" of 1% annually which is the approximate rate at which revenue has grown at OSC (e.g. through pricing increase). The General Growth Rate is lower than the assumed CPI of 2% to reflect the historical trend of revenues at OSC not maintaining pace with inflation, but being larger than 0. Interest Revenue is an exception as it is based on working capital holdings, which should depend on inflation (costs) and is inflated accordingly. Estimates provided by OSC.</p>
Relocation - OSC Revenue Items	Revenue assumptions for the Relocate scenario are similar to those in the Remain on Site scenario with the exception of General Admission, which was increased by \$0.50/visitor to reflect OSC using the relocation as an opportunity for a modest admission price increase. All other revenue sources remain equal and assume the same growth profile as in the Remain on Site scenario. Estimates provided by OSC.
Remain on Site - OSC Parking Revenue	Revenue derived from parking under Remain on Site is included in the General Admission & Parking line item and is not separately accounted for in OSC financials.
Relocation - OSC Parking Revenue	General Admission & Parking revenue is maintained from the Remain on Site scenario in the Relocate scenario, which implicitly assumes that any revenue currently derived from parking is maintained under the Relocate scenario. However, it is also assumed that additional parking revenue will be derived from the construction of an ancillary parking structure to support OSC parking requirements on the OP site. This additional parking revenue is assumed only sufficient to break-even on the additional costs of construction of the parking structure. The parking revenue under the Relocate scenario is therefore a goal sought figure that ensures that the present value of the additional parking revenue is equal to the inflated cost (\$62M) of the additional parking facility. Estimates provided by Lord Consulting.
Remain on Site - Ontario Place Revenue Items	Revenue derived from the West Island specifically is assumed to be \$0 in the Remain on Site scenario.
Relocation - Ontario Place Revenue Items	As in the Remain on Site scenario, revenue derived from the West Island specifically is assumed to be \$0 in the Relocate scenario. All revenues derived from this OP land are included under OSC revenues.
Remain on Site - Square Footage for New/Refurbished Exhibits	In the Remain on Site scenario, 80,000 square feet of exhibition space and exhibitions are assumed renovated. This value has a per-sq.ft. charge applied to it to derived the costs of exhibit refurbishment. Estimates provided by OSC and Lord Consulting.
Relocation - Square Footage for New/Refurbished Exhibits	In the Relocate Scenario, a reimagines OSC would contain approximately 85,000 sq.ft. of exhibition space. Approximately 80% of this space would be for permanent PSC exhibitions (68,000 sq.ft. as reflected in the model). This value has a per-sq.ft. charge applied to it to derived the costs of exhibit construction. The remainder is assumed to be "program/maker space" and is not applied to the per-sq.ft. exhibition build/refurbishment costs. Estimates provided by OSC and Lord Consulting.
Remain on Site - Construction Cost/sqft for New/Refurbished Exhibits	Cost for refurbishing/rebuilding existing exhibits at OSC, set at \$600/sq.ft. and based on the costs for the "Human Edge" exhibit. Estimates provided by OSC and Lord Consulting.
Relocation - Construction Cost/sqft for New/Refurbished Exhibits	Cost for building new exhibits at a relocated OSC, set at \$600/sq.ft. and based on the costs for the "Human Edge" exhibit. Estimates provided by OSC and Lord Consulting.

ASSUMPTION	DESCRIPTION
Remain on Site - Demolition Costs	None assumed in the Remain on Site scenario.
Relocation - Demolition Costs	Demolition costs of \$3M assumed related to works on the West Island necessary to support the Relocate option. Estimates provided by Lord Consulting.
Remain on Site - Parking Garage	No additional parking structure envisioned in the Remain on Site scenario.
Relocation - Parking Garage	Capital costs of \$60.3M (inflated) assumed for a 1,200 stall parking structure with one below-grade floor, one at-grade floor, and one above grade floor (400 stalls per floor). Estimates provided by Lord Consulting.
Remain on Site - Construction Cost/sqft of Building	To accommodate the refreshed exhibits in the Remain on Site scenario, approximately \$50M of supporting renovations to the existing OSC are envisioned. Estimates provided by OSC and Lord Consulting.
Relocate - Construction Cost/sqft of Building	Capital costs (including soft costs) for the new OSC building at OP are estimated at \$636.5/sq-ft. and excludes demolition, parking garage, pod refurbishment, land servicing and remediation, and moving costs. Estimates provided by Lord Consulting.
Remain on Site - Moving Costs	None assumed.
Relocation - Moving Costs	Assume that the majority of exhibits will not be moved to the new OSC site as many require refurbishment anyway and cost would be prohibitive. Majority of moving costs are assumed associated with staff relocation (\$4M). Estimates provided by Lord Consulting.
Remain on Site - OSC General and Ancillary Operations Expenses	Average of the last 2 years (2014/2015) expenses as per OSC financial statements. Expenses are assumed fixed and inflate at CPI (2%). Estimates provided by OSC.
Relocation - OSC General and Ancillary Operations Expenses	Relative to the Remain on Site scenario, OSC estimates that approximately \$2M in savings, primarily associated with labour, can be realized in a smaller, more efficient building. However, OSC separates expenses in their financials by activity not by expense class (e.g. labour). To accommodate the forecast savings, Program Management (heavily comprised of labour costs) was reduced by 40% of the \$2M forecast savings. The remaining \$1.2M in savings was spread evenly across the remaining 5 expense items reducing them by \$240,000/year each. Each cost was otherwise assumed fixed and inflated with CPI (2%). Estimates provided by OSC.
Remain on Site - Occupancy Costs	This is the average of the last 2 years occupancy cost as per the financial statements. The lease makes up the majority of the occupancy cost. The remaining items included in this cost are maintenance and insurance.
Relocation - Occupancy Costs	This is the average of the last 2 years occupancy cost as per the financial statement. The lease makes up the majority of the occupancy cost. In the relocate option, the OSC would no longer have to pay that lease, hence the lower occupancy cost under Relocation.
Remain on Site - OSC Buildings and Outdoor Areas Critical Maintenance	Includes costs associated with critical and deferred maintenance associated with the current OSC property and buildings. Costs associated with this work are primarily systems related and do not include revitalization or reimagining of the existing OSC building. Estimates on the quantum (\$194M) and timing (20-year program) of necessary works is as described in the 2013 VFA Report.
Relocation - OSC Buildings and Outdoor Areas Critical Maintenance	Under the Relocate scenario, no critical/deferred maintenance backlog is assumed.
Remain on Site - OSC General Maintenance	In addition to the critical maintenance backlog on the current OSC buildings, additional year-over-year capital investment is required to maintain the Facility Condition Index ("FCI") of any structure. Best practice maintenance estimates are to assume investment of the full replacement value of the structure (est. at \$176M) over the useful life of the structure (40-years). This implies that 2.5% of \$176M (\$4.4M) should be invested (or reserved for investment) into the current OSC annually. Since government tends to not maintain building infrastructure at best-practice levels, the ongoing general maintenance spend is estimated at \$2M annually. Best practice estimates provided by IO Capital Planning. Estimates of actual general maintenance spend provided by IO.
Relocation - OSC General Maintenance	As in the Remain on Site scenario, 2.5% of replacement value should be expended or placed into reserve for future maintenance for new buildings also. Estimate for general maintenance spend is matched to the Remain on Site scenario at \$2,000,000.
Remain on Site - Ontario Place Expenses	For the purpose of this analysis, costs associated with only the West Island are assumed for OP. The West Island represents approximately 15% of the total 80 acre OP property. To derive annual expenses associated with the West Island, OP expenses were averaged over the last two years of financial reporting (2013/2014). The following expenses were scaled at 18.75% (15/80) of their totals: <ul style="list-style-type: none"> - Janitorial - Transportation and Communications - Supplies - Other <p>Due to the uneven distribution of infrastructure on the West Island (pods, cinesphere), it was assumed that the West Island consumes 50% of utility costs. Approximately \$250,000 of site maintenance is associated exclusively with the pods and was maintained entirely as an expense associated with the West Island, the remainder of Site Maintenance was scaled at 18.75% of total. All expenses are inflated at CPI (2%) for the duration of the forecast period. Estimated provided by OP.</p>
Relocation - Ontario Place Expenses	OP assumptions are as in the Remain on Site scenario; however, it is assumed that all OP costs associated with operating and maintaining the West Island are assumed by OSC upon completion of construction and occupancy of the new OSC facilities. Therefore, all expenses associated with the West Island stop at construction completion in the Relocate scenario. <p>However, IO has provided two treatments of salary-related expenses (Salaries, Admin Costs, and Benefits) and staffing consideration. In the base case, it is assumed that staff effort that was associated with the West Island are redeployed to other parts of OP (falling outside of the model analysis scope) or made surplus. In Input Scenario 1, West Island staff effort is maintained within the model analysis scope and carried as a cost throughout. This effectively adds the cost of surplus staff to the total project costs. Note that only staff costs are maintained following the completion of OSC construction in Input Scenario 1.</p>
Remain on Site - West Island Park Maintenance	Costs associated with maintenance of grounds and park at the location of where the new OSC site would be on the West Island. Assumed at \$175,000 annually. Estimate provided by Public Works, 2013.
Relocation - West Island Park Maintenance	Costs associated with maintenance of grounds and park adjacent to new OSC building on the West Island. Assumed at \$88,000 annually. Estimate provided by Public Works, 2013.
Remain on Site - Pods and Bridge Maintenance	Total of critical and deferred maintenance on pods and bridge of \$10.2M. Estimates provided in State of Good Repair report from GHD. Costs associated with pod and bridge refurbishment are included as deferred maintenance in this scenario. Estimates provided in State of Good Repair report from GHD. Ongoing maintenance costs for the pods and bridge are included in General Maintenance following rehabilitation.
Relocation - Pods and Bridge Maintenance	The relocation scenario uses the same costs for pod and bridge repair as in the remain scenario but includes these costs within the total capital costs for the site rather than as critical/deferred maintenance (i.e. would be procured under a single contract as part of the larger site works). Estimates provided in State of Good Repair report from GHD. Ongoing maintenance costs for the pods and bridge are included in General Maintenance following rehabilitation.
Both Cases - Fiscal Impact	Indicative fiscal impact has been created for guidance purposes only. Analysis treats all site improvements/betterments/new construction as capitalized and amortized and all ongoing repairs and deferred maintenance as expensed. It is likely that specific elements of projects undertaken relating to either new construction or ongoing maintenance requirements at either site may ultimately be handled differently from a fiscal impact perspective as estimates and project planning mature. No imputed interest or subsidy costs have been considered in order to project the fiscal impact to government of each option. Note that new-build construction is amortized over 40 years while new-build exhibits are amortized over 20 years.
Both Cases - Operating Subsidies & Other Funding	No operating subsidies are assumed in either scenario. The model calculates the total cost to government (net of revenue and including revenue in the fiscal impact) under each option. It is assumed that any annual shortfall in either scenario would need to be covered by an revised operating subsidy that reflects the nature of the selected delivery option. The model aims to describe what that subsidy would need to be rather than assume current funding levels that may not be appropriate or relevant to the new operating environment. In addition, no existing allocated funding (e.g. for site remediation) has been assumed in the analysis.

OPTIONS AND SCENARIOS REGISTER

OPTIONS AND SCENARIOS	DESCRIPTION
Remain on Site	
Scenario 0	Represents base case scenario.
Scenario 1	The same as the base case scenario with the exception of the treatment of Ontario Place Salaries, Admin Costs, and Wages. These items are assumed to persist in the long term at Ontario Place, unlike in Scenario 0.
Scenario 2	This is a variation of the base case scenario where a parking garage is not contemplated in the "Relocate Option". Ontario Place Salaries, Admin Costs, and Wages are treated as in scenario 0.
Scenario 3	This is a variation of the base case scenario where a parking garage is not contemplated in the "Relocate Option". Ontario Place Salaries, Admin Costs, and Wages are assumed to persist in the long term.
Scenario 4	
Scenario 5	
Scenario 6	
Scenario 7	
Scenario 8	
Scenario 9	
Relocation	
Scenario 0	Represents base case scenario.
Scenario 1	The same as the base case scenario with the exception of the treatment of Ontario Place Salaries, Admin Costs, and Wages. These items are assumed to persist in the long term at Ontario Place, unlike in Scenario 0.
Scenario 2	This is a variation of the base case scenario where a parking garage is not contemplated in the "Relocate Option". Ontario Place Salaries, Admin Costs, and Wages are treated as in scenario 0.
Scenario 3	This is a variation of the base case scenario where a parking garage is not contemplated in the "Relocate Option". Ontario Place Salaries, Admin Costs, and Wages are assumed to persist in the long term.
Scenario 4	
Scenario 5	
Scenario 6	
Scenario 7	
Scenario 8	
Scenario 9	

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
GLOBAL OPTIONS			
General Inflation Rate	%	2.00%	2.00%
General Growth Rate	%	1.50%	1.50%
Discount Rate	%	3.00%	3.00%
Model Start Date	Date	2016	2016
Model End Date	Date	2066	2066
Operating Period Length	# of Yrs	40	40
GENERAL			
Number of Visitors	#	959,804	833,333
Early Works/Site Prep	Date	2017	2019
Construction/Refurbishment Start	Date	2018	2020
Construction/Refurbishment End	Date	2026	2022

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
CURVES			
Construction/Refurbishment Spend Curve			
Year 1	#	11.1%	30.0%
Year 2	#	11.1%	50.0%
Year 3	#	11.1%	20.0%
Year 4	#	11.1%	0.0%
Year 5	#	11.1%	0.0%
Year 6	#	11.1%	0.0%
Year 7	#	11.1%	0.0%
Year 8	#	11.1%	0.0%
Year 9	#	11.1%	0.0%
Year 10	#	0.0%	0.0%
Year 11	#	0.0%	0.0%
Year 12	#	0.0%	0.0%
Year 13	#	0.0%	0.0%
Year 14	#	0.0%	0.0%
Year 15	#	0.0%	0.0%
Year 16	#	0.0%	0.0%
Year 17	#	0.0%	0.0%
Year 18	#	0.0%	0.0%
Year 19	#	0.0%	0.0%
Year 20	#	0.0%	0.0%
Year 21	#	0.0%	0.0%
Year 22	#	0.0%	0.0%
Year 23	#	0.0%	0.0%
Year 24	#	0.0%	0.0%
Year 25	#	0.0%	0.0%
Year 26	#	0.0%	0.0%
Year 27	#	0.0%	0.0%
Year 28	#	0.0%	0.0%
Year 29	#	0.0%	0.0%
Year 30	#	0.0%	0.0%
Year 31	#	0.0%	0.0%
Year 32	#	0.0%	0.0%
Year 33	#	0.0%	0.0%
Year 34	#	0.0%	0.0%
Year 35	#	0.0%	0.0%
Year 36	#	0.0%	0.0%
Year 37	#	0.0%	0.0%
Year 38	#	0.0%	0.0%
Year 39	#	0.0%	0.0%
Year 40	#	0.0%	0.0%
Year 41	#	0.0%	0.0%
Year 42	#	0.0%	0.0%
Year 43	#	0.0%	0.0%
Year 44	#	0.0%	0.0%
Year 45	#	0.0%	0.0%
Year 46	#	0.0%	0.0%
Year 47	#	0.0%	0.0%
Year 48	#	0.0%	0.0%
Year 49	#	0.0%	0.0%
Year 50	#	0.0%	0.0%
TOTAL CONSTRUCTION		100.0%	100.0%

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
Critical Maintenance - Ontario Science Centre			
Year 1	#	2.1%	0.0%
Year 2	#	1.7%	0.0%
Year 3	#	24.3%	0.0%
Year 4	#	2.5%	0.0%
Year 5	#	5.7%	0.0%
Year 6	#	17.2%	0.0%
Year 7	#	12.4%	0.0%
Year 8	#	0.7%	0.0%
Year 9	#	9.3%	0.0%
Year 10	#	0.5%	0.0%
Year 11	#	0.0%	0.0%
Year 12	#	3.7%	0.0%
Year 13	#	2.4%	0.0%
Year 14	#	0.2%	0.0%
Year 15	#	1.8%	0.0%
Year 16	#	4.7%	0.0%
Year 17	#	4.8%	0.0%
Year 18	#	0.8%	0.0%
Year 19	#	3.5%	0.0%
Year 20	#	2.0%	0.0%
Year 21	#	0.0%	0.0%
Year 22	#	0.0%	0.0%
Year 23	#	0.0%	0.0%
Year 24	#	0.0%	0.0%
Year 25	#	0.0%	0.0%
Year 26	#	0.0%	0.0%
Year 27	#	0.0%	0.0%
Year 28	#	0.0%	0.0%
Year 29	#	0.0%	0.0%
Year 30	#	0.0%	0.0%
Year 31	#	0.0%	0.0%
Year 32	#	0.0%	0.0%
Year 33	#	0.0%	0.0%
Year 34	#	0.0%	0.0%
Year 35	#	0.0%	0.0%
Year 36	#	0.0%	0.0%
Year 37	#	0.0%	0.0%
Year 38	#	0.0%	0.0%
Year 39	#	0.0%	0.0%
Year 40	#	0.0%	0.0%
Year 41	#	0.0%	0.0%
Year 42	#	0.0%	0.0%
Year 43	#	0.0%	0.0%
Year 44	#	0.0%	0.0%
Year 45	#	0.0%	0.0%
Year 46	#	0.0%	0.0%
Year 47	#	0.0%	0.0%
Year 48	#	0.0%	0.0%
Year 49	#	0.0%	0.0%
Year 50	#	0.0%	0.0%
TOTAL CRITICAL MAINTENANCE - ONTARIO SCIENCE CENTRE	#	100.0%	0.0%

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
Critical Maintenance - Ontario Place			
Year 1	#	0.0%	0.0%
Year 2	#	0.0%	0.0%
Year 3	#	45.0%	0.0%
Year 4	#	55.0%	0.0%
Year 5	#	0.0%	45.0%
Year 6	#	0.0%	55.0%
Year 7	#	0.0%	0.0%
Year 8	#	0.0%	0.0%
Year 9	#	0.0%	0.0%
Year 10	#	0.0%	0.0%
Year 11	#	0.0%	0.0%
Year 12	#	0.0%	0.0%
Year 13	#	0.0%	0.0%
Year 14	#	0.0%	0.0%
Year 15	#	0.0%	0.0%
Year 16	#	0.0%	0.0%
Year 17	#	0.0%	0.0%
Year 18	#	0.0%	0.0%
Year 19	#	0.0%	0.0%
Year 20	#	0.0%	0.0%
Year 21	#	0.0%	0.0%
Year 22	#	0.0%	0.0%
Year 23	#	0.0%	0.0%
Year 24	#	0.0%	0.0%
Year 25	#	0.0%	0.0%
Year 26	#	0.0%	0.0%
Year 27	#	0.0%	0.0%
Year 28	#	0.0%	0.0%
Year 29	#	0.0%	0.0%
Year 30	#	0.0%	0.0%
Year 31	#	0.0%	0.0%
Year 32	#	0.0%	0.0%
Year 33	#	0.0%	0.0%
Year 34	#	0.0%	0.0%
Year 35	#	0.0%	0.0%
Year 36	#	0.0%	0.0%
Year 37	#	0.0%	0.0%
Year 38	#	0.0%	0.0%
Year 39	#	0.0%	0.0%
Year 40	#	0.0%	0.0%
Year 41	#	0.0%	0.0%
Year 42	#	0.0%	0.0%
Year 43	#	0.0%	0.0%
Year 44	#	0.0%	0.0%
Year 45	#	0.0%	0.0%
Year 46	#	0.0%	0.0%
Year 47	#	0.0%	0.0%
Year 48	#	0.0%	0.0%
Year 49	#	0.0%	0.0%
Year 50	#	0.0%	0.0%
TOTAL CRITICAL MAINTENANCE - ONTARIO PLACE	#	100.0%	100.0%

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
Visitor Multiplier			
Year 1	#	100.0%	96.0%
Year 2	#	100.0%	96.0%
Year 3	#	0.0%	96.0%
Year 4	#	90.0%	96.0%
Year 5	#	90.0%	96.0%
Year 6	#	90.0%	96.0%
Year 7	#	90.0%	96.0%
Year 8	#	90.0%	120.0%
Year 9	#	90.0%	105.0%
Year 10	#	90.0%	100.0%
Year 11	#	90.0%	100.0%
Year 12	#	100.0%	100.0%
Year 13	#	100.0%	100.0%
Year 14	#	100.0%	100.0%
Year 15	#	100.0%	100.0%
Year 16	#	100.0%	100.0%
Year 17	#	100.0%	100.0%
Year 18	#	100.0%	100.0%
Year 19	#	100.0%	100.0%
Year 20	#	100.0%	100.0%
Year 21	#	100.0%	100.0%
Year 22	#	100.0%	100.0%
Year 23	#	100.0%	100.0%
Year 24	#	100.0%	100.0%
Year 25	#	100.0%	100.0%
Year 26	#	100.0%	100.0%
Year 27	#	100.0%	100.0%
Year 28	#	100.0%	100.0%
Year 29	#	100.0%	100.0%
Year 30	#	100.0%	100.0%
Year 31	#	100.0%	100.0%
Year 32	#	100.0%	100.0%
Year 33	#	100.0%	100.0%
Year 34	#	100.0%	100.0%
Year 35	#	100.0%	100.0%
Year 36	#	100.0%	100.0%
Year 37	#	100.0%	100.0%
Year 38	#	100.0%	100.0%
Year 39	#	100.0%	100.0%
Year 40	#	100.0%	100.0%
Year 41	#	100.0%	100.0%
Year 42	#	100.0%	100.0%
Year 43	#	100.0%	100.0%
Year 44	#	100.0%	100.0%
Year 45	#	100.0%	100.0%
Year 46	#	100.0%	100.0%
Year 47	#	100.0%	100.0%
Year 48	#	100.0%	100.0%
Year 49	#	100.0%	100.0%
Year 50	#	100.0%	100.0%

OPTION 1 & OPTION 2 INPUTS		UNITS	Remain on Site	Relocation
REVENUES				
Ontario Science Centre				
Interest	\$		135,000.00	135,000.00
General Admission (temporarily includes Parking Fees)	\$/Visitor		5.05	5.50
Parking Fees	\$/Visitor		-	1,554,733.25
OMNIMAX Theatre	\$/Visitor		1,408,000.00	1,408,000.00
International Sales and Rentals	\$/Visitor		1,405,500.00	1,405,500.00
Educational Programs and Admission	\$/Visitor		1.31	1.31
Recreation & Family Learning Experiences	\$/Visitor		1.02	1.02
Memberships	\$/Visitor		2,299,500.00	2,299,500.00
Concessions	\$/Visitor		520,500.00	520,500.00
Adult & Corporate Learning Experiences	\$/Visitor		548,500.00	603,350.00
Sponsorship/Donations	\$/Visitor		1,907,000.00	1,907,000.00
Program Support and Other Revenue	\$/Visitor		156,000.00	156,000.00
Revenue from Ancillary Operations	\$/Visitor		\$ 8,245,002.33	\$ 8,299,852.33
Ontario Place				
Amphitheatre	\$		-	-
Parking	\$		-	-
Concessions and facility rental	\$		-	-
Marina	\$		-	-
Other revenue	\$		-	-
Retail Sales	\$		-	-
Interest Income	\$		-	-
Operating revenue	\$		\$ -	\$ -
EXPENSES				
Ontario Science Centre				
Square Footage of New/Refurbished Exhibits	sqft		80,000	68,000
Construction Cost/sqft for New/Refurbished Exhibits	\$/sqft		600.00	600.00
Construction Cost of Exhibits	\$		48,000,000.00	40,800,000.00
Demolition Costs	\$		-	3,000,000.00
Parking Garage (Inc. Soft Costs)	\$		-	54,756,000.00
Building Square Footage	sqft		318,135	318,135
Construction Cost/sqft of Building	\$/sqft		6.29	636.50
Construction Cost of Building	\$		2,000,000.00	202,492,000.00
Land Servicing	\$		-	25,650,000.00
Land Remediation	\$		-	3,675,000.00
Total Construction Cost	\$		50,000,000.00	330,373,000.00
Moving Costs	\$		-	4,000,000.00
Exhibits and Programs	\$		2,176,000.00	1,936,000.00
Marketing and Advertising	\$		2,281,500.00	2,041,500.00
Visitor Services	\$		3,211,500.00	2,971,500.00
Facility Operations	\$		5,214,500.00	4,974,500.00
Program Management	\$		3,506,500.00	2,706,500.00
Administration	\$		3,994,500.00	3,754,500.00
Capital Projects	\$		1,100,000.00	-
General Operations	\$		21,484,500.00	18,384,500.00

OPTION 1 & OPTION 2 INPUTS	UNITS	Remain on Site	Relocation
Occupancy Costs	\$	5,096,500.00	2,545,000.00
OMNIMAX Theatre	\$	1,315,500.00	1,315,500.00
International Sales and Rentals	\$	1,575,000.00	1,575,000.00
Educational Programs and Admission	\$	1,638,000.00	1,638,000.00
Recreation & Family Learning Experiences	\$	782,000.00	782,000.00
Memberships	\$	607,500.00	607,500.00
Concessions	\$	106,000.00	106,000.00
Interest	\$	-	-
Adult & Corporate Learning Experiences	\$	373,000.00	373,000.00
Sponsorship/Donations	\$	895,000.00	895,000.00
Program Support and Other Expenses	\$	141,500.00	141,500.00
Bank and Service Fees	\$	222,500.00	222,500.00
Expenses from Ancillary Operations	\$	7,656,000.00	7,656,000.00
Severance Costs	\$	-	6,000,000.00
One-Time Costs	\$	-	6,000,000.00
Buildings	\$	183,891,105.19	-
Outdoor Areas	\$	10,894,094.43	-
General Maintenance	\$	2,000,000.00	2,000,000.00
Critical Maintenance	\$	194,785,199.62	-
Terminal Value of Ontario Science Centre	\$	-	-
Proceeds from Ontario Science Centre Lease Termination	\$	-	-
Ontario Place			
Salaries and admin costs post construction	\$		Yes
Salaries and wages	\$	2,039,000.00	2,039,000.00
Employee benefits	\$	382,000.00	382,000.00
Administration and property tax	\$	1,796,500.00	1,796,500.00
Utilities	\$	475,250.00	475,250.00
Site Maintenance	\$	274,093.75	274,093.75
Cost of retail sales	\$	161,500.00	161,500.00
Janitorial	\$	25,593.75	25,593.75
Transportation and communications	\$	19,031.25	19,031.25
Supplies	\$	19,968.75	19,968.75
Other	\$	14,906.25	14,906.25
Administrative and Operating Expense	\$	\$ 5,207,843.75	\$ 5,207,843.75
Critical Maintenance - Ontario Place	\$	-	-
West Island Park Maintenance	\$	175,000.00	88,000.00
Pods and Bridge Critical Maintenance	\$	10,161,000.00	-
Terminal Value of Ontario Place	\$	-	-



General Inflation
 General Growth Rate
 Model Year
 Calendar Year
 Construction Year
 Operating Year

	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.17	1.20	1.22	1.24	1.27
	1.00	1.02	1.03	1.05	1.06	1.08	1.09	1.11	1.13	1.14	1.16	1.18	1.20
	0	1	2	3	4	5	6	7	8	9	10	11	12
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	0	0	0	1	2	3	4	5	6	7	8	9	0
	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	2

ONTARIO SCIENCE CENTRE		UNIT	NPV	TOTAL															
PARAMETERS																			
Construction/Refurbishment Spend Curve	%		100%		0.00%	0.00%	11.11%	11.11%	11.11%	11.11%	11.11%	11.11%	11.11%	11.11%	11.11%	11.11%	0.00%	0.00%	
Critical Maintenance - Ontario Science Centre	%		100%		2.08%	1.70%	24.26%	2.46%	5.73%	17.17%	12.42%	0.65%	9.32%	0.49%	0.00%	3.68%	2.38%		
Visitors	#		47,222,357		959,804	959,804	0	863,824	863,824	863,824	863,824	863,824	863,824	863,824	863,824	959,804	959,804		
REVENUE																			
General Admission	\$	162,224,239	358,077,928		4,847,010	4,919,715	-	4,561,572	4,629,996	4,699,446	4,769,938	4,841,487	4,914,109	4,987,821	5,062,638	5,709,531	5,795,173		
Parking Fees	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Revenue from Ancillary Operations																			
OMNIMAX Theatre	\$	48,118,942	105,259,046		1,408,000	1,429,120	-	1,472,315	1,494,400	1,516,816	1,539,568	1,562,662	1,586,102	1,609,893	1,634,041	1,658,552	1,683,430		
International Sales and Rentals	\$	49,358,612	106,520,133		1,405,500	1,426,583	1,447,981	1,469,701	1,491,746	1,514,123	1,536,835	1,559,887	1,583,285	1,607,035	1,631,140	1,655,607	1,680,441		
Educational Programs and Admission	\$	42,081,931	92,887,542		1,257,343	1,276,203	-	1,183,299	1,201,048	1,219,064	1,237,350	1,255,910	1,274,749	1,293,870	1,313,278	1,481,086	1,503,302		
Recreation & Family Learning Experiences	\$	32,766,084	72,324,651		979,000	993,685	-	921,347	935,168	949,195	963,433	977,884	992,553	1,007,441	1,022,553	1,153,212	1,170,510		
Memberships	\$	78,586,298	171,905,666		2,299,500	2,333,993	-	2,404,537	2,440,605	2,477,215	2,514,373	2,552,088	2,590,370	2,629,225	2,668,664	2,708,694	2,749,324		
Concessions	\$	17,788,288	38,911,459		520,500	528,308	-	544,276	552,440	560,726	569,137	577,674	586,339	595,134	604,061	613,122	622,319		
Adult & Corporate Learning Experiences	\$	18,745,199	41,004,678		548,500	556,728	-	573,555	582,158	590,890	599,754	608,750	617,881	627,149	636,557	646,105	655,797		
Sponsorship/Donations	\$	66,970,383	144,527,850		1,907,000	1,935,605	1,964,639	1,994,109	2,024,020	2,054,381	2,085,196	2,116,474	2,148,221	2,180,445	2,213,151	2,246,349	2,280,044		
Program Support and Other Revenue	\$	5,331,360	11,662,224		156,000	158,340	-	163,126	165,573	168,056	170,577	173,136	175,733	178,369	181,044	183,760	186,516		
Interest Income	\$	5,291,873	11,781,584		135,000	137,700	140,454	143,263	146,128	149,051	152,032	155,073	158,174	161,337	164,564	167,856	171,213		
TOTAL REVENUE	\$	527,263,208	1,154,862,760		15,463,354	15,695,979	3,553,074	15,431,100	15,663,283	15,898,963	16,138,192	16,381,025	16,627,516	16,877,720	17,131,692	18,223,873	18,498,071		
EXPENSES																			
Capital Expenses																			
Construction Expenditure																			
Demolition Costs	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Parking Garage	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Construction - Building	\$	(1,831,927)	(2,255,270)		-	-	(231,200)	(235,824)	(240,540)	(245,351)	(250,258)	(255,263)	(260,369)	(265,576)	(270,888)	-	-	-	
Construction - Exhibits	\$	(43,966,255)	(54,126,482)		-	-	(5,548,800)	(5,659,776)	(5,772,972)	(5,888,431)	(6,006,200)	(6,126,324)	(6,248,850)	(6,373,827)	(6,501,304)	-	-	-	
Land Servicing	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Land Remediation	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Moving Costs	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Terminal Value for OSC	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Proceeds from OSC Lease Termination	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
General Operations																			
Exhibits and Programs	\$	(85,297,153)	(189,901,673)		(2,176,000)	(2,219,520)	(2,263,910)	(2,309,189)	(2,355,372)	(2,402,480)	(2,450,529)	(2,499,540)	(2,549,531)	(2,600,521)	(2,652,532)	(2,705,582)	(2,759,694)		
Marketing and Advertising	\$	(89,432,653)	(199,108,763)		(2,281,500)	(2,327,130)	(2,373,673)	(2,421,146)	(2,469,569)	(2,518,960)	(2,569,340)	(2,620,726)	(2,673,141)	(2,726,604)	(2,781,136)	(2,836,758)	(2,893,494)		
Visitor Services	\$	(125,887,778)	(280,270,783)		(3,211,500)	(3,275,730)	(3,341,245)	(3,408,069)	(3,476,231)	(3,545,755)	(3,616,671)	(3,689,004)	(3,762,784)	(3,838,040)	(3,914,801)	(3,993,097)	(4,072,959)		
Facility Operations	\$	(204,403,494)	(455,074,575)		(5,214,500)	(5,318,790)	(5,425,166)	(5,533,669)	(5,644,342)	(5,757,229)	(5,872,374)	(5,989,821)	(6,109,618)	(6,231,810)	(6,356,446)	(6,483,575)	(6,613,247)		
Program Management	\$	(137,451,501)	(306,015,725)		(3,506,500)	(3,576,630)	(3,648,163)	(3,721,126)	(3,795,548)	(3,871,459)	(3,948,889)	(4,027,866)	(4,108,424)	(4,190,592)	(4,274,404)	(4,359,892)	(4,447,090)		
Administration	\$	(156,580,642)	(348,603,967)		(3,994,500)	(4,074,390)	(4,155,878)	(4,238,995)	(4,323,775)	(4,410,251)	(4,498,456)	(4,588,425)	(4,680,193)	(4,773,797)	(4,869,273)	(4,966,659)	(5,065,992)		
Capital Projects	\$	(43,118,965)	(95,998,088)		(1,100,000)	(1,122,000)	(1,144,440)	(1,167,329)	(1,190,675)	(1,214,489)	(1,238,779)	(1,263,554)	(1,288,825)	(1,314,602)	(1,340,894)	(1,367,712)	(1,395,066)		
Occupancy Costs	\$	(199,778,005)	(444,776,598)		(5,096,500)	(5,198,430)	(5,302,399)	(5,408,447)	(5,516,616)	(5,626,948)	(5,739,487)	(5,854,277)	(5,971,362)	(6,090,789)	(6,212,605)	(6,336,857)	(6,463,594)		
Ancillary Operations																			
OMNIMAX Theatre	\$	(51,566,362)	(114,804,987)		(1,315,500)	(1,341,810)	(1,368,646)	(1,396,019)	(1,423,940)	(1,452,418)	(1,481,467)	(1,511,096)	(1,541,318)	(1,572,144)	(1,603,587)	(1,635,659)	(1,668,372)		
International Sales and Rentals	\$	(61,738,518)	(137,451,808)		(1,575,000)	(1,606,500)	(1,638,630)	(1,671,403)	(1,704,831)	(1,738,927)	(1,773,706)	(1,809,180)	(1,845,364)	(1,882,271)	(1,919,916)	(1,958,315)	(1,997,481)		
Educational Programs and Admission	\$	(64,208,059)	(142,949,881)		(1,638,000)	(1,670,760)	(1,704,175)	(1,738,259)	(1,773,024)	(1,808,484)	(1,844,654)	(1,881,547)	(1,919,178)	(1,957,562)	(1,996,713)	(2,036,647)	(2,077,380)		
Recreation & Family Learning Experiences	\$	(30,653,664)	(68,245,914)		(782,000)	(797,640)	(813,593)	(829,865)	(846,462)	(863,391)	(880,659)	(898,272)	(916,238)	(934,562)	(953,254)	(972,319)	(991,765)		
Memberships	\$	(23,813,428)	(53,017,126)		(607,500)	(619,650)	(632,043)	(644,684)	(657,578)	(670,729)	(684,144)	(697,827)	(711,783)	(726,019)	(740,539)	(755,350)	(770,457)		
Concessions	\$	(4,155,100)	(9,250,725)		(106,000)	(108,120)	(110,282)	(112,488)	(114,738)	(117,033)	(119,373)	(121,761)	(124,196)	(126,680)	(129,213)	(131,798)	(134,434)		
Interest Expense	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Adult & Corporate Learning Experiences	\$	(14,621,249)	(32,552,079)		(373,000)	(380,460)	(388,069)	(395,831)	(403,747)	(411,822)	(420,059)	(428,460)	(437,029)	(445,770)	(454,685)	(463,779)	(473,054)		
Sponsorship/Donations	\$	(35,083,158)	(78,107,536)		(895,000)	(912,900)	(931,158)	(949,781)	(968,777)	(988,152)	(1,007,915)	(1,028,074)	(1,048,635)	(1,069,608)	(1,091,000)	(1,112,820)	(1,135,076)		
Program Support and Other Expenses	\$	(5,466,667)	(12,348,845)		(141,500)	(144,330)	(147,217)	(150,161)	(153,164)	(156,227)	(159,352)	(162,539)	(165,790)	(169,106)	(172,488)	(175,937)	(179,456)		
Bank and Service Fees	\$	(5,774,148)	(11,347,500)		(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)		
One-Time Costs																			
Severance Costs	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Maintenance																			
Buildings Critical Maintenance	\$	(167,267,259)	(211,556,444)		(3,820,848)	(3,194,578)	(46,409,368)	(4,799,013)	(11,407,761)	(34,870,260)	(25,714,055)	(1,374,652)	(20,090,249)	(1,069,250)	-	(8,403,949)	(5,539,201)		
Outdoor Areas Critical Maintenance	\$	(9,909,263)	(12,533,047)		(226,355)	(189,254)	(2,749,388)	(284,304)	(675,820)	(2,065,787)	(1,523,354)	(81,437)	(1,190,188)	(63,345)	-	(497,868)	(328,154)		
General Maintenance	\$	(78,398,118)	(174,541,979)		(2,000,000)	(2,040,000)	(2,080,800)	(2,122,416)	(2,164,864)	(2,208,162)	(2,252,325)	(2,297,371)	(2,343,319)	(2,390,185)	(2,437,989)	(2,486,749)	(2,536,484)		
TOTAL EXPENSES	\$	(1,640,483,367)	(3,434,839,794)		(40,284,203)	(40,341,122)	(92,630,743)	(49,420,292)	(57,302,845)	(83,055,248)	(74,274,543)	(49,429,516)	(70,208,883)	(51,035,159)	(50,896,166)	(53,903,820)	(51,764,948)		
EBITDA	\$	(1,113,220,159)	(2,279,977,034)		(24,820,849)	(24,645,													



General Inflation	1.29	1.32	1.35	1.37	1.40	1.43	1.46	1.49	1.52	1.55	1.58	1.61	1.64	1.67	1.71	1.74	1.78	1.81	1.85
General Growth Rate	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.49	1.52	1.54	1.56	1.59
Model Year	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Calendar Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

ONTARIO SCIENCE CENTRE UNIT

PARAMETERS																			
Construction/Refurbishment Spend Curve	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Critical Maintenance - Ontario Science Centre	%	0.18%	1.80%	4.69%	4.77%	0.78%	3.46%	1.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Visitors	#	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804

REVENUE																				
General Admission	\$	5,882,101	5,970,333	6,059,888	6,150,786	6,243,048	6,336,693	6,431,744	6,528,220	6,626,143	6,725,535	6,826,418	6,928,815	7,032,747	7,138,238	7,245,312	7,353,991	7,464,301	7,576,266	7,689,910
Parking Fees	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue from Ancillary Operations	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OMNIMAX Theatre	\$	1,708,682	1,734,312	1,760,327	1,786,732	1,813,533	1,840,736	1,868,347	1,896,372	1,924,817	1,953,690	1,982,995	2,012,740	2,042,931	2,073,575	2,104,679	2,136,249	2,168,293	2,200,817	2,233,829
International Sales and Rentals	\$	1,705,648	1,731,233	1,757,201	1,783,559	1,810,313	1,837,467	1,865,029	1,893,005	1,921,400	1,950,221	1,979,474	2,009,166	2,039,304	2,069,893	2,100,942	2,132,456	2,164,443	2,196,909	2,229,863
Educational Programs and Admission	\$	1,525,852	1,548,740	1,571,971	1,595,550	1,619,484	1,643,776	1,668,433	1,693,459	1,718,861	1,744,644	1,770,813	1,797,376	1,824,336	1,851,701	1,879,477	1,907,669	1,936,284	1,965,328	1,994,808
Recreation & Family Learning Experiences	\$	1,188,068	1,205,889	1,223,977	1,242,337	1,260,972	1,279,887	1,299,085	1,318,571	1,338,350	1,358,425	1,378,801	1,399,483	1,420,476	1,441,783	1,463,409	1,485,361	1,507,641	1,530,256	1,553,209
Memberships	\$	2,790,564	2,832,422	2,874,909	2,918,032	2,961,803	3,006,230	3,051,323	3,097,093	3,143,549	3,190,703	3,238,563	3,287,142	3,336,449	3,386,496	3,437,293	3,488,852	3,541,185	3,594,303	3,648,218
Concessions	\$	631,654	641,129	650,746	660,507	670,415	680,471	690,678	701,038	711,554	722,227	733,060	744,056	755,217	766,545	778,043	789,714	801,560	813,583	825,787
Adult & Corporate Learning Experiences	\$	665,634	675,618	685,752	696,039	706,479	717,076	727,832	738,750	749,831	761,079	772,495	784,082	795,848	807,781	819,898	832,196	844,679	857,350	870,210
Sponsorship/Donations	\$	2,314,245	2,348,958	2,384,193	2,419,955	2,456,255	2,493,099	2,530,495	2,568,452	2,606,979	2,646,084	2,685,774	2,726,062	2,766,953	2,808,457	2,850,584	2,893,343	2,936,743	2,980,794	3,025,506
Program Support and Other Revenue	\$	189,314	192,154	195,036	197,962	200,931	203,945	207,004	210,109	213,261	216,460	219,707	223,002	226,347	229,743	233,189	236,687	240,237	243,841	247,498
Interest Income	\$	174,637	178,130	181,692	185,326	189,033	192,813	196,670	200,603	204,615	208,707	212,881	217,139	221,482	225,911	230,430	235,038	239,739	244,534	249,424
TOTAL REVENUE	\$	18,776,398	19,058,917	19,345,691	19,636,785	19,932,264	20,232,193	20,536,640	20,845,673	21,159,361	21,477,774	21,800,984	22,129,063	22,462,085	22,800,124	23,143,255	23,491,556	23,845,105	24,203,980	24,568,262

EXPENSES

Capital Expenses																				
Construction Expenditure	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Demolition Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking Garage	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Building	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Exhibits	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Servicing	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Remediation	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moving Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value for OSC	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from OSC Lease Termination	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

General Operations																				
Exhibits and Programs	\$	(2,814,888)	(2,871,186)	(2,928,610)	(2,987,182)	(3,046,925)	(3,107,864)	(3,170,021)	(3,233,422)	(3,298,090)	(3,364,052)	(3,431,333)	(3,499,959)	(3,569,959)	(3,641,358)	(3,714,185)	(3,788,469)	(3,864,238)	(3,941,523)	(4,020,353)
Marketing and Advertising	\$	(2,951,364)	(3,010,391)	(3,070,599)	(3,132,011)	(3,194,651)	(3,258,544)	(3,323,715)	(3,390,189)	(3,457,993)	(3,527,153)	(3,597,696)	(3,669,650)	(3,743,043)	(3,817,903)	(3,894,261)	(3,972,147)	(4,051,590)	(4,132,621)	(4,215,274)
Visitor Services	\$	(4,154,418)	(4,237,506)	(4,322,256)	(4,408,701)	(4,496,875)	(4,586,813)	(4,678,549)	(4,772,120)	(4,867,562)	(4,964,914)	(5,064,212)	(5,165,496)	(5,268,806)	(5,374,182)	(5,481,666)	(5,591,299)	(5,703,125)	(5,817,188)	(5,933,531)
Facility Operations	\$	(6,745,512)	(6,880,422)	(7,018,030)	(7,158,391)	(7,301,559)	(7,447,590)	(7,596,542)	(7,748,473)	(7,903,442)	(8,061,511)	(8,222,741)	(8,387,196)	(8,554,940)	(8,726,039)	(8,900,560)	(9,078,571)	(9,260,142)	(9,445,345)	(9,634,252)
Program Management	\$	(4,536,032)	(4,626,752)	(4,719,287)	(4,813,673)	(4,909,947)	(5,008,145)	(5,108,308)	(5,210,475)	(5,314,684)	(5,420,978)	(5,529,397)	(5,639,985)	(5,752,785)	(5,867,841)	(5,985,197)	(6,104,901)	(6,226,999)	(6,351,539)	(6,478,570)
Administration	\$	(5,167,312)	(5,270,658)	(5,376,071)	(5,483,592)	(5,593,264)	(5,705,130)	(5,819,232)	(5,935,617)	(6,054,329)	(6,175,416)	(6,298,924)	(6,424,903)	(6,553,401)	(6,684,469)	(6,818,158)	(6,954,521)	(7,093,612)	(7,235,484)	(7,380,194)
Capital Projects	\$	(1,422,967)	(1,451,427)	(1,480,455)	(1,510,064)	(1,540,266)	(1,571,071)	(1,602,492)	(1,634,542)	(1,667,233)	(1,700,578)	(1,734,589)	(1,769,281)	(1,804,667)	(1,840,760)	(1,877,575)	(1,915,127)	(1,953,429)	(1,992,498)	(2,032,348)
Occupancy Costs	\$	(6,592,866)	(6,724,724)	(6,859,218)	(6,996,402)	(7,136,330)	(7,279,057)	(7,424,638)	(7,573,131)	(7,724,594)	(7,879,085)	(8,036,667)	(8,197,400)	(8,361,348)	(8,528,575)	(8,699,147)	(8,873,130)	(9,050,592)	(9,231,604)	(9,416,236)

Ancillary Operations																				
OMNIMAX Theatre	\$	(1,701,740)	(1,735,774)	(1,770,490)	(1,805,900)	(1,842,018)	(1,878,858)	(1,916,435)	(1,954,764)	(1,993,859)	(2,033,736)	(2,074,411)	(2,115,899)	(2,158,217)	(2,201,382)	(2,245,409)	(2,290,317)	(2,336,124)	(2,382,846)	(2,430,503)
International Sales and Rentals	\$	(2,037,430)	(2,078,179)	(2,119,743)	(2,162,137)	(2,205,380)	(2,249,488)	(2,294,478)	(2,340,367)	(2,387,174)	(2,434,918)	(2,483,616)	(2,533,289)	(2,583,954)	(2,635,634)	(2,688,346)	(2,742,113)	(2,796,955)	(2,852,894)	(2,909,952)
Educational Programs and Admission	\$	(2,118,928)	(2,161,306)	(2,204,532)	(2,248,623)	(2,293,595)	(2,339,467)	(2,386,257)	(2,433,982)	(2,482,661)	(2,532,315)	(2,582,961)	(2,634,620)	(2,687,313)	(2,741,059)	(2,795,880)	(2,851,798)	(2,908,834)	(2,967,010)	(3,026,350)
Recreation & Family Learning Experiences	\$	(1,011,600)	(1,031,832)	(1,052,469)	(1,073,518)	(1,094,989)	(1,116,889)	(1,139,226)	(1,162,011)	(1,185,251)	(1,208,956)	(1,233,135)	(1,257,798)	(1,282,954)	(1,308,613)	(1,334,785)	(1,361,481)	(1,388,711)	(1,416,485)	(1,444,814)
Memberships	\$	(785,866)	(801,583)	(817,615)	(833,967)	(850,647)	(867,660)	(885,013)	(902,713)	(920,767)	(939,183)	(957,966)	(977,126)	(996,668)	(1,016,602)	(1,036,934)	(1,057,672)	(1,078,826)	(1,100,402)	(1,122,410)
Concessions	\$	(137,122)	(139,865)	(142,662)	(145,515)	(148,426)	(151,394)	(154,422)	(157,510)	(160,661)	(163,874)	(167,151)	(170,494)	(173,904)	(177,382)	(180,930)	(184,549)	(188,240)	(192,004)	(195,844)
Interest Expense	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adult & Corporate Learning Experiences	\$	(482,515)	(492,166)	(502,009)	(512,049)	(522,290)	(532,736)	(543,391)	(554,258)	(565,344)	(576,650)	(588,183)	(599,947)	(611,946)	(624,185)	(636,669)	(649,402)	(662,390)	(675,638)	(689,151)
Sponsorship/Donations	\$	(1,157,778)	(1,180,933)	(1,204,552)	(1,228,643)	(1,253,216)	(1,278,280)	(1,303,846)	(1,329,923)	(1,356,521)	(1,383,652)	(1,411,325)	(1,439,551)	(1,468,342)	(1,497					



General Inflation	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16	2.21	2.25	2.30	2.34	2.39	2.44	2.49	2.54	2.59	2.64	2.69
General Growth Rate	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.81	1.84	1.87	1.90	1.93	1.95	1.98	2.01	2.04	2.07	2.11
Model Year	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Calendar Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

ONTARIO SCIENCE CENTRE		UNIT																		
PARAMETERS																				
Construction/Refurbishment Spend Curve	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Critical Maintenance - Ontario Science Centre	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Visitors	#	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804	959,804
REVENUE																				
General Admission	\$	7,805,258	7,922,337	8,041,172	8,161,790	8,284,217	8,408,480	8,534,607	8,662,626	8,792,566	8,924,454	9,058,321	9,194,196	9,332,109	9,472,090	9,614,172	9,758,384	9,904,760	10,053,332	10,204,131
Parking Fees	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Revenue from Ancillary Operations	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OMNIMAX Theatre	\$	2,267,337	2,301,347	2,335,867	2,370,905	2,406,468	2,442,565	2,479,204	2,516,392	2,554,138	2,592,450	2,631,337	2,670,807	2,710,869	2,751,532	2,792,805	2,834,697	2,877,217	2,920,376	2,964,181
International Sales and Rentals	\$	2,263,311	2,297,260	2,331,719	2,366,695	2,402,196	2,438,229	2,474,802	2,511,924	2,549,603	2,587,847	2,626,665	2,666,065	2,706,056	2,746,646	2,787,846	2,829,664	2,872,109	2,915,190	2,958,918
Educational Programs and Admission	\$	2,024,730	2,055,101	2,085,928	2,117,217	2,148,975	2,181,210	2,213,928	2,247,137	2,280,844	2,315,056	2,349,782	2,385,029	2,420,804	2,457,117	2,493,973	2,531,383	2,569,354	2,607,894	2,647,012
Recreation & Family Learning Experiences	\$	1,576,508	1,600,155	1,624,158	1,648,520	1,673,248	1,698,346	1,723,822	1,749,679	1,775,924	1,802,563	1,829,601	1,857,045	1,884,901	1,913,175	1,941,872	1,971,000	2,000,565	2,030,574	2,061,032
Memberships	\$	3,702,941	3,758,485	3,814,862	3,872,085	3,930,166	3,989,119	4,048,956	4,109,690	4,171,335	4,233,905	4,297,414	4,361,875	4,427,303	4,493,713	4,561,119	4,629,535	4,698,978	4,769,463	4,841,005
Concessions	\$	838,174	850,746	863,508	876,600	889,607	902,951	916,496	930,243	944,197	958,360	972,735	987,326	1,002,136	1,017,168	1,032,425	1,047,912	1,063,630	1,079,585	1,095,779
Adult & Corporate Learning Experiences	\$	883,263	896,512	909,960	923,609	937,463	951,525	965,798	980,285	994,989	1,009,914	1,025,063	1,040,439	1,056,045	1,071,886	1,087,964	1,104,284	1,120,848	1,137,661	1,154,725
Sponsorship/Donations	\$	3,070,888	3,116,952	3,163,706	3,211,162	3,259,329	3,308,219	3,357,842	3,408,210	3,459,333	3,511,223	3,563,891	3,617,350	3,671,610	3,726,684	3,782,584	3,839,323	3,896,913	3,955,367	4,014,697
Program Support and Other Revenue	\$	251,211	254,979	258,803	262,685	266,626	270,625	274,685	278,805	282,987	287,232	291,540	295,913	300,352	304,857	309,430	314,072	318,783	323,564	328,418
Interest Income	\$	254,413	259,501	264,691	269,985	275,385	280,892	286,510	292,241	298,085	304,047	310,128	316,331	322,657	329,110	335,693	342,406	349,255	356,240	363,364
TOTAL REVENUE	\$	24,938,033	25,313,376	25,694,374	26,081,113	26,473,680	26,872,162	27,276,649	27,687,231	28,104,001	28,527,051	28,956,477	29,392,375	29,834,842	30,283,978	30,739,883	31,202,660	31,672,412	32,149,245	32,633,264
EXPENSES																				
Capital Expenses																				
Construction Expenditure																				
Demolition Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking Garage	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Building	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Exhibits	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Servicing	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Remediation	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moving Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value for OSC	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from OSC Lease Termination	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Operations																				
Exhibits and Programs	\$	(4,100,760)	(4,182,776)	(4,266,431)	(4,351,760)	(4,438,795)	(4,527,571)	(4,618,122)	(4,710,485)	(4,804,694)	(4,900,788)	(4,998,804)	(5,098,780)	(5,200,756)	(5,304,771)	(5,410,866)	(5,519,083)	(5,629,465)	(5,742,054)	(5,856,896)
Marketing and Advertising	\$	(4,299,579)	(4,385,571)	(4,473,282)	(4,562,748)	(4,654,003)	(4,747,083)	(4,842,025)	(4,938,865)	(5,037,642)	(5,138,395)	(5,241,163)	(5,345,987)	(5,452,906)	(5,561,964)	(5,673,204)	(5,786,668)	(5,902,401)	(6,020,449)	(6,140,858)
Visitor Services	\$	(6,052,202)	(6,173,246)	(6,296,711)	(6,422,645)	(6,551,098)	(6,682,120)	(6,815,763)	(6,952,078)	(7,091,119)	(7,232,942)	(7,377,601)	(7,525,153)	(7,675,656)	(7,829,169)	(7,985,752)	(8,145,467)	(8,308,377)	(8,474,544)	(8,644,035)
Facility Operations	\$	(9,826,937)	(10,023,476)	(10,223,945)	(10,428,424)	(10,636,993)	(10,849,732)	(11,066,727)	(11,288,062)	(11,513,823)	(11,744,099)	(11,978,981)	(12,218,561)	(12,462,932)	(12,712,191)	(12,966,435)	(13,225,763)	(13,490,279)	(13,760,084)	(14,035,286)
Program Management	\$	(6,608,142)	(6,740,304)	(6,875,111)	(7,012,613)	(7,152,865)	(7,295,922)	(7,441,841)	(7,590,678)	(7,742,491)	(7,897,341)	(8,055,288)	(8,216,399)	(8,380,721)	(8,548,336)	(8,719,302)	(8,893,689)	(9,071,562)	(9,252,994)	(9,438,053)
Administration	\$	(7,527,797)	(7,678,353)	(7,831,920)	(7,988,559)	(8,148,330)	(8,311,297)	(8,477,523)	(8,647,073)	(8,820,014)	(8,996,415)	(9,176,343)	(9,359,870)	(9,547,067)	(9,738,009)	(9,932,769)	(10,131,424)	(10,334,053)	(10,540,734)	(10,751,548)
Capital Projects	\$	(2,072,995)	(2,114,455)	(2,156,744)	(2,199,879)	(2,243,876)	(2,288,754)	(2,334,529)	(2,381,219)	(2,428,844)	(2,477,421)	(2,526,969)	(2,577,508)	(2,629,058)	(2,681,640)	(2,735,272)	(2,789,978)	(2,845,777)	(2,902,693)	(2,960,747)
Occupancy Costs	\$	(9,604,561)	(9,796,652)	(9,992,585)	(10,192,437)	(10,396,286)	(10,604,212)	(10,816,296)	(11,032,622)	(11,253,274)	(11,478,340)	(11,707,906)	(11,942,063)	(12,180,906)	(12,424,524)	(12,673,014)	(12,926,475)	(13,185,004)	(13,448,704)	(13,717,678)
Ancillary Operations																				
OMNIMAX Theatre	\$	(2,479,113)	(2,528,695)	(2,579,269)	(2,630,855)	(2,683,472)	(2,737,141)	(2,791,884)	(2,847,722)	(2,904,676)	(2,962,770)	(3,022,025)	(3,082,466)	(3,144,115)	(3,206,997)	(3,271,137)	(3,336,560)	(3,403,291)	(3,471,357)	(3,540,784)
International Sales and Rentals	\$	(2,968,151)	(3,027,514)	(3,088,065)	(3,149,826)	(3,212,823)	(3,277,079)	(3,342,621)	(3,409,473)	(3,477,662)	(3,547,216)	(3,618,160)	(3,690,523)	(3,764,334)	(3,839,620)	(3,916,413)	(3,994,741)	(4,074,636)	(4,156,129)	(4,239,251)
Educational Programs and Admission	\$	(3,086,877)	(3,148,615)	(3,211,587)	(3,275,819)	(3,341,335)	(3,408,162)	(3,476,325)	(3,545,852)	(3,616,769)	(3,689,104)	(3,762,886)	(3,838,144)	(3,914,907)	(3,993,205)	(4,073,069)	(4,154,531)	(4,237,621)	(4,322,374)	(4,408,821)
Recreation & Family Learning Experiences	\$	(1,473,711)	(1,503,185)	(1,533,249)	(1,563,914)	(1,595,192)	(1,627,096)	(1,659,638)	(1,692,830)	(1,726,687)	(1,761,221)	(1,796,445)	(1,832,374)	(1,869,022)	(1,906,402)	(1,944,530)	(1,983,421)	(2,023,089)	(2,063,551)	(2,104,822)
Memberships	\$	(1,144,858)	(1,167,756)	(1,191,111)	(1,214,933)	(1,239,232)	(1,264,016)	(1,289,297)	(1,315,082)	(1,341,384)	(1,368,212)	(1,395,576)	(1,423,488)	(1,451,957)	(1,480,996)	(1,510,616)	(1,540,829)	(1,571,645)	(1,603,078)	(1,635,140)
Concessions	\$	(199,761)	(203,757)	(207,832)	(211,988)	(216,228)	(220,553)	(224,964)	(229,463)	(234,052)	(238,733)	(243,508)	(248,378)	(253,346)	(258,413)	(263,581)	(268,852)	(274,229)	(279,714)	(285,308)
Interest Expense	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adult & Corporate Learning Experiences	\$	(702,934)	(716,992)	(731,332)	(745,959)	(760,878)	(776,096)	(791,617)	(807,450)	(823,599)	(840,071)	(856,872)	(874,010)	(891,490)	(909,320)	(927,506)	(946,056)	(964,977)	(984,277)	(1,003,962)
Sponsorship/Donations	\$	(1,686,664)	(1,720,397)	(1,754,805)	(1,789,901)	(1,825,699)	(1,862,213)	(1,899,457)	(1,937,447)	(1,976,195)	(2,015,719)	(2,056,034)	(2,097,154)	(2,139,098)	(2,181,880)	(2,225,517)	(2,270,027)	(2,315,428)	(2,361,737)	(2,408,971)
Program Support and Other Expenses	\$	(266,662)	(271,996)																	



General Inflation
 General Growth Rate
 Model Year
 Calendar Year
 Construction Year
 Operating Year

	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.17	1.20	1.22	1.24	1.27	
	1.00	1.02	1.03	1.05	1.06	1.08	1.09	1.11	1.13	1.14	1.16	1.18	1.20	
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
0	0	0	0	1	2	3	4	5	6	7	8	9	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	2

ONTARIO PLACE – WEST ISLAND		UNIT	TOTAL														
PARAMETRES																	
Critical Maintenance - Ontario Place	%		100%		0.00%	0.00%	45.00%	55.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
REVENUE																	
Operating revenue																	
Amphitheatre	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Parking	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Concessions and facility rental	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Marina	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Other revenue	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Retail Sales	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Interest Income	\$	-	-		-	-	-	-	-	-	-	-	-	-			
TOTAL REVENUE	\$	-	-	-	-	-	-	-	-	-	-	-	-	-			
EXPENSES																	
Terminal Value for Ontario Place	\$	-	-		-	-	-	-	-	-	-	-	-	-			
Capital Expenses																	
Refurbishment of Pods and Bridge	\$	(9,622,765)	(10,687,791)		-	-	(4,757,177)	(5,930,614)	-	-	-	-	-	-			
Administrative and Operating Expenses																	
Salaries and wages	\$	(79,926,882)	(177,945,548)		(2,039,000)	(2,079,780)	(2,121,376)	(2,163,803)	(2,207,079)	(2,251,221)	(2,296,245)	(2,342,170)	(2,389,013)	(2,436,794)	(2,485,530)	(2,535,240)	(2,585,945)
Employee benefits	\$	(14,974,041)	(33,337,518)		(382,000)	(389,640)	(397,433)	(405,381)	(413,489)	(421,759)	(430,194)	(438,798)	(447,574)	(456,525)	(465,656)	(474,969)	(484,468)
Administration and property tax	\$	(70,421,110)	(156,782,333)		(1,796,500)	(1,832,430)	(1,869,079)	(1,906,460)	(1,944,589)	(1,983,481)	(2,023,151)	(2,063,614)	(2,104,886)	(2,146,984)	(2,189,923)	(2,233,722)	(2,278,396)
Utilities	\$	(18,629,353)	(41,475,538)		(475,250)	(484,755)	(494,450)	(504,339)	(514,426)	(524,714)	(535,209)	(545,913)	(556,831)	(567,968)	(579,327)	(590,914)	(602,732)
Site Maintenance	\$	(10,744,217)	(23,920,433)		(274,094)	(279,576)	(285,167)	(290,870)	(296,688)	(302,622)	(308,674)	(314,848)	(321,145)	(327,567)	(334,119)	(340,801)	(347,617)
Cost of retail sales	\$	(6,330,648)	(14,094,265)		(161,500)	(164,730)	(168,025)	(171,385)	(174,813)	(178,309)	(181,875)	(185,513)	(189,223)	(193,007)	(196,868)	(200,805)	(204,821)
Janitorial	\$	(1,003,251)	(2,233,592)		(25,594)	(26,106)	(26,628)	(27,160)	(27,703)	(28,258)	(28,823)	(29,399)	(29,987)	(30,587)	(31,199)	(31,823)	(32,459)
Transportation and communications	\$	(746,007)	(1,660,876)		(19,031)	(19,412)	(19,800)	(20,196)	(20,600)	(21,012)	(21,432)	(21,861)	(22,298)	(22,744)	(23,199)	(23,663)	(24,136)
Supplies	\$	(782,756)	(1,742,693)		(19,969)	(20,368)	(20,775)	(21,191)	(21,615)	(22,047)	(22,488)	(22,938)	(23,397)	(23,865)	(24,342)	(24,829)	(25,325)
Other	\$	(584,311)	(1,300,883)		(14,906)	(15,204)	(15,508)	(15,819)	(16,135)	(16,458)	(16,787)	(17,123)	(17,465)	(17,814)	(18,171)	(18,534)	(18,905)
Maintenance																	
Critical Maintenance	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
West Island Park Maintenance	\$	(6,859,835)	(15,272,423)		(175,000)	(178,500)	(182,070)	(185,711)	(189,426)	(193,214)	(197,078)	(201,020)	(205,040)	(209,141)	(213,324)	(217,591)	(221,942)
TOTAL EXPENSES	\$	(220,625,175)	(480,453,891)	-	(5,382,844)	(5,490,501)	(10,357,488)	(11,642,931)	(5,826,563)	(5,943,094)	(6,061,956)	(6,183,195)	(6,306,859)	(6,432,997)	(6,561,656)	(6,692,890)	(6,826,747)
EBITDA	\$	(220,625,175)	(480,453,891)	-	(5,382,844)	(5,490,501)	(10,357,488)	(11,642,931)	(5,826,563)	(5,943,094)	(6,061,956)	(6,183,195)	(6,306,859)	(6,432,997)	(6,561,656)	(6,692,890)	(6,826,747)
TOTAL																	
TOTAL EBITDA	\$	(1,333,845,334)	(2,760,430,926)	-	(30,203,693)	(30,135,644)	(99,435,156)	(45,632,123)	(47,466,126)	(73,099,379)	(64,198,308)	(39,231,686)	(59,888,226)	(40,590,436)	(40,326,130)	(42,372,837)	(40,093,625)



General Inflation	1.29	1.32	1.35	1.37	1.40	1.43	1.46	1.49	1.52	1.55	1.58	1.61	1.64	1.67	1.71	1.74	1.78	1.81	1.85
General Growth Rate	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.49	1.52	1.54	1.56	1.59
Model Year	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Calendar Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

ONTARIO PLACE – WEST ISLAND		UNIT																		
PARAMETRES																				
Critical Maintenance - Ontario Place	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
REVENUE																				
Operating revenue																				
Amphitheatre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Parking	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Concessions and facility rental	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Marina	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Retail Sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Interest Income	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL REVENUE	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
EXPENSES																				
Terminal Value for Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Capital Expenses																				
Refurbishment of Pods and Bridge	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Administrative and Operating Expenses																				
Salaries and wages	\$	(2,637,664)	(2,690,417)	(2,744,226)	(2,799,110)	(2,855,092)	(2,912,194)	(2,970,438)	(3,029,847)	(3,090,444)	(3,152,253)	(3,215,298)	(3,279,604)	(3,345,196)	(3,412,100)	(3,480,342)	(3,549,948)	(3,620,947)	(3,693,366)	
Employee benefits	\$	(494,158)	(504,041)	(514,122)	(524,404)	(534,892)	(545,590)	(556,502)	(567,632)	(578,985)	(590,564)	(602,376)	(614,423)	(626,711)	(639,246)	(652,031)	(665,071)	(678,373)	(691,940)	
Administration and property tax	\$	(2,323,964)	(2,370,444)	(2,417,852)	(2,466,210)	(2,515,534)	(2,565,844)	(2,617,161)	(2,669,504)	(2,722,895)	(2,777,352)	(2,832,900)	(2,889,558)	(2,947,349)	(3,006,296)	(3,066,422)	(3,127,750)	(3,190,305)	(3,254,111)	
Utilities	\$	(614,787)	(627,082)	(639,624)	(652,416)	(665,465)	(678,774)	(692,350)	(706,196)	(720,320)	(734,727)	(749,421)	(764,410)	(779,698)	(795,292)	(811,198)	(827,422)	(843,970)	(860,850)	
Site Maintenance	\$	(354,569)	(361,661)	(368,894)	(376,272)	(383,797)	(391,473)	(399,303)	(407,289)	(415,435)	(423,743)	(432,218)	(440,863)	(449,680)	(458,673)	(467,847)	(477,204)	(486,748)	(496,483)	
Cost of retail sales	\$	(208,917)	(213,096)	(217,358)	(221,705)	(226,139)	(230,662)	(235,275)	(239,981)	(244,780)	(249,676)	(254,669)	(259,763)	(264,958)	(270,257)	(275,662)	(281,175)	(286,799)	(292,535)	
Janitorial	\$	(33,108)	(33,770)	(34,446)	(35,135)	(35,837)	(36,554)	(37,285)	(38,031)	(38,792)	(39,567)	(40,359)	(41,166)	(41,989)	(42,829)	(43,686)	(44,559)	(45,451)	(46,360)	
Transportation and communications	\$	(24,619)	(25,111)	(25,614)	(26,126)	(26,648)	(27,181)	(27,725)	(28,279)	(28,845)	(29,422)	(30,010)	(30,611)	(31,223)	(31,847)	(32,484)	(33,134)	(33,797)	(34,472)	
Supplies	\$	(25,832)	(26,348)	(26,875)	(27,413)	(27,961)	(28,520)	(29,091)	(29,673)	(30,266)	(30,871)	(31,489)	(32,118)	(32,761)	(33,416)	(34,084)	(34,766)	(35,461)	(36,171)	
Other	\$	(19,283)	(19,668)	(20,062)	(20,463)	(20,872)	(21,290)	(21,716)	(22,150)	(22,593)	(23,045)	(23,506)	(23,976)	(24,455)	(24,944)	(25,443)	(25,952)	(26,471)	(27,001)	
Maintenance																				
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
West Island Park Maintenance	\$	(226,381)	(230,909)	(235,527)	(240,237)	(245,042)	(249,943)	(254,942)	(260,041)	(265,242)	(270,546)	(275,957)	(281,477)	(287,106)	(292,848)	(298,705)	(304,679)	(310,773)	(316,988)	
TOTAL EXPENSES	\$	(6,963,282)	(7,102,548)	(7,244,599)	(7,389,491)	(7,537,281)	(7,688,026)	(7,841,787)	(7,998,623)	(8,158,595)	(8,321,767)	(8,488,202)	(8,657,966)	(8,831,126)	(9,007,748)	(9,187,903)	(9,371,661)	(9,559,094)	(9,750,276)	
EBITDA	\$	(6,963,282)	(7,102,548)	(7,244,599)	(7,389,491)	(7,537,281)	(7,688,026)	(7,841,787)	(7,998,623)	(8,158,595)	(8,321,767)	(8,488,202)	(8,657,966)	(8,831,126)	(9,007,748)	(9,187,903)	(9,371,661)	(9,559,094)	(9,750,276)	
TOTAL																				
TOTAL EBITDA	\$	(35,447,464)	(40,421,661)	(48,898,071)	(50,176,350)	(40,377,735)	(48,729,955)	(45,628,271)	(40,891,103)	(41,807,700)	(42,744,178)	(43,700,957)	(44,678,466)	(45,677,145)	(46,697,441)	(47,739,811)	(48,804,721)	(49,892,648)	(51,004,078)	



General Inflation	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16	2.21	2.25	2.30	2.34	2.39	2.44	2.49	2.54	2.59	2.64	2.69
General Growth Rate	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.81	1.84	1.87	1.90	1.93	1.95	1.98	2.01	2.04	2.07	2.11
Model Year	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Calendar Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

ONTARIO PLACE - WEST ISLAND		UNIT																		
PARAMETRES																				
Critical Maintenance - Ontario Place	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REVENUE																				
Operating revenue																				
Amphitheatre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concessions and facility rental	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marina	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retail Sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXPENSES																				
Terminal Value for Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expenses																				
Refurbishment of Pods and Bridge	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Administrative and Operating Expenses																				
Salaries and wages	\$	(3,842,578)	(3,919,430)	(3,997,818)	(4,077,775)	(4,159,330)	(4,242,517)	(4,327,367)	(4,413,915)	(4,502,193)	(4,592,237)	(4,684,081)	(4,777,763)	(4,873,318)	(4,970,785)	(5,070,200)	(5,171,604)	(5,275,037)	(5,380,537)	(5,488,148)
Employee benefits	\$	(719,895)	(734,292)	(748,978)	(763,958)	(779,237)	(794,822)	(810,718)	(826,933)	(843,471)	(860,341)	(877,547)	(895,098)	(913,000)	(931,260)	(949,886)	(968,883)	(988,261)	(1,008,026)	(1,028,187)
Administration and property tax	\$	(3,385,577)	(3,453,289)	(3,522,354)	(3,592,802)	(3,664,658)	(3,737,951)	(3,812,710)	(3,888,964)	(3,966,743)	(4,046,078)	(4,127,000)	(4,209,540)	(4,293,730)	(4,379,605)	(4,467,197)	(4,556,541)	(4,647,672)	(4,740,625)	(4,835,438)
Utilities	\$	(895,628)	(913,540)	(931,811)	(950,448)	(969,456)	(988,846)	(1,008,623)	(1,028,795)	(1,049,371)	(1,070,358)	(1,091,765)	(1,113,601)	(1,135,873)	(1,158,590)	(1,181,762)	(1,205,397)	(1,229,505)	(1,254,095)	(1,279,177)
Site Maintenance	\$	(516,541)	(526,872)	(537,409)	(548,157)	(559,120)	(570,303)	(581,709)	(593,343)	(605,210)	(617,314)	(629,660)	(642,254)	(655,099)	(668,201)	(681,565)	(695,196)	(709,100)	(723,282)	(737,747)
Cost of retail sales	\$	(304,353)	(310,440)	(316,649)	(322,982)	(329,442)	(336,031)	(342,751)	(349,606)	(356,598)	(363,730)	(371,005)	(378,425)	(385,994)	(393,713)	(401,588)	(409,619)	(417,812)	(426,168)	(434,691)
Janitorial	\$	(48,232)	(49,197)	(50,181)	(51,185)	(52,208)	(53,253)	(54,318)	(55,404)	(56,512)	(57,642)	(58,795)	(59,971)	(61,170)	(62,394)	(63,642)	(64,915)	(66,213)	(67,537)	(68,888)
Transportation and communications	\$	(35,865)	(36,582)	(37,314)	(38,060)	(38,822)	(39,598)	(40,390)	(41,198)	(42,022)	(42,862)	(43,719)	(44,594)	(45,486)	(46,395)	(47,323)	(48,270)	(49,235)	(50,220)	(51,224)
Supplies	\$	(37,632)	(38,385)	(39,152)	(39,935)	(40,734)	(41,549)	(42,380)	(43,227)	(44,092)	(44,974)	(45,873)	(46,791)	(47,726)	(48,681)	(49,655)	(50,648)	(51,661)	(52,694)	(53,748)
Other	\$	(28,091)	(28,653)	(29,226)	(29,811)	(30,407)	(31,015)	(31,636)	(32,268)	(32,914)	(33,572)	(34,243)	(34,928)	(35,627)	(36,339)	(37,066)	(37,807)	(38,564)	(39,335)	(40,121)
Maintenance																				
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Island Park Maintenance	\$	(329,795)	(336,390)	(343,118)	(349,981)	(356,980)	(364,120)	(371,402)	(378,830)	(386,407)	(394,135)	(402,018)	(410,058)	(418,259)	(426,624)	(435,157)	(443,860)	(452,737)	(461,792)	(471,028)
TOTAL EXPENSES	\$	(10,144,188)	(10,347,071)	(10,554,013)	(10,765,093)	(10,980,395)	(11,200,003)	(11,424,003)	(11,652,483)	(11,885,533)	(12,123,243)	(12,365,708)	(12,613,022)	(12,865,283)	(13,122,588)	(13,385,040)	(13,652,741)	(13,925,796)	(14,204,312)	(14,488,398)
EBITDA	\$	(10,144,188)	(10,347,071)	(10,554,013)	(10,765,093)	(10,980,395)	(11,200,003)	(11,424,003)	(11,652,483)	(11,885,533)	(12,123,243)	(12,365,708)	(12,613,022)	(12,865,283)	(13,122,588)	(13,385,040)	(13,652,741)	(13,925,796)	(14,204,312)	(14,488,398)
TOTAL																				
TOTAL EBITDA	\$	(53,299,441)	(54,484,398)	(55,694,906)	(56,931,502)	(58,194,738)	(59,485,174)	(60,803,384)	(62,149,952)	(63,525,476)	(64,930,565)	(66,365,842)	(67,831,940)	(69,329,509)	(70,859,210)	(72,421,719)	(74,017,724)	(75,647,930)	(77,313,054)	(79,013,830)



General Inflation
 General Growth Rate
 Model Year
 Calendar Year
 Construction Year
 Operating Year

	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.17	1.20	1.22	1.24	1.27
	1.00	1.02	1.03	1.05	1.06	1.08	1.09	1.11	1.13	1.14	1.16	1.18	1.20
	0	1	2	3	4	5	6	7	8	9	10	11	12
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	0	0	0	0	0	1	2	3	0	0	0	0	0
	0	0	0	0	0	0	0	0	1	2	3	4	5

ONTARIO SCIENCE CENTRE		UNIT	NPV	TOTAL															
PARAMETERS																			
Construction/Refurbishment Spend Curve	%		100%		0.00%	0.00%	0.00%	0.00%	30.00%	50.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Critical Maintenance - Ontario Science Centre	%		0%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Visitors	#		42,473,857		799,837	799,837	799,837	799,837	799,837	799,837	799,837	1,000,000	875,000	833,333	833,333	833,333	833,333	833,333	
REVENUE																			
General Admission	\$	158,418,865	344,652,635		4,039,175	4,099,763	4,161,259	4,223,678	4,287,033	4,351,339	4,416,609	6,104,147	5,421,246	5,240,537	5,319,145	5,398,933	5,479,917	5,561,000	
Parking Fees	\$	50,680,752	124,124,782		-	-	-	-	-	-	-	1,785,900	1,821,618	1,858,050	1,895,211	1,933,115	1,971,778	2,010,441	
Revenue from Ancillary Operations																			
OMNIMAX Theatre	\$	49,446,407	106,709,603		1,408,000	1,429,120	1,450,557	1,472,315	1,494,400	1,516,816	1,539,568	1,562,662	1,586,102	1,609,893	1,634,041	1,658,552	1,683,430	1,708,308	
International Sales and Rentals	\$	49,358,612	106,520,133		1,405,500	1,426,583	1,447,981	1,469,701	1,491,746	1,514,123	1,536,835	1,559,887	1,583,285	1,607,035	1,631,140	1,655,607	1,680,441	1,705,275	
Educational Programs and Admission	\$	38,290,265	82,717,776		1,047,786	1,063,503	1,079,455	1,095,647	1,112,082	1,128,763	1,145,695	1,162,887	1,180,331	1,198,034	1,215,994	1,234,215	1,252,694	1,271,430	
Recreation & Family Learning Experiences	\$	29,813,794	64,406,208		815,833	828,071	840,492	853,099	865,896	878,884	892,068	1,132,042	1,005,395	971,881	986,640	1,001,257	1,016,275	1,031,293	
Memberships	\$	80,754,271	174,274,668		2,299,500	2,333,993	2,369,002	2,404,537	2,440,605	2,477,215	2,514,373	2,552,088	2,590,370	2,629,225	2,668,664	2,708,694	2,749,324	2,790,054	
Concessions	\$	18,279,016	39,447,691		520,500	528,308	536,232	544,276	552,440	560,726	569,137	577,674	586,339	595,134	604,061	613,122	622,319	631,551	
Adult & Corporate Learning Experiences	\$	20,831,687	45,325,066		548,500	556,728	565,078	573,555	582,158	590,890	599,754	608,745	617,862	627,104	636,471	645,964	655,591	665,338	
Sponsorship/Donations	\$	66,970,383	144,527,850		1,907,000	1,935,605	1,964,639	1,994,109	2,024,020	2,054,381	2,085,196	2,116,474	2,148,221	2,180,445	2,213,151	2,246,349	2,280,044	2,314,238	
Program Support and Other Revenue	\$	5,478,437	11,822,939		156,000	158,340	160,715	163,126	165,573	168,056	170,577	173,136	175,733	178,369	181,044	183,760	186,516	189,312	
Interest Income	\$	5,291,873	11,781,584		135,000	137,700	140,454	143,263	146,128	149,051	152,032	155,073	158,174	161,337	164,564	167,856	171,213	174,635	
TOTAL REVENUE	\$	573,614,364	1,256,310,935		14,282,795	14,497,712	14,715,866	14,937,306	15,162,082	15,390,244	15,621,943	19,842,604	19,047,394	18,969,973	19,264,619	19,563,887	19,867,850	20,172,222	
EXPENSES																			
Capital Expenses																			
Construction Expenditure																			
Demolition Costs	\$	(2,828,609)	(3,183,624)		-	-	-	(3,183,624)	-	-	-	-	-	-	-	-	-	-	
Parking Garage	\$	(50,680,753)	(60,341,251)		-	-	-	-	(17,780,897)	(30,227,524)	(12,332,830)	-	-	-	-	-	-	-	
Construction - Building	\$	(187,421,414)	(223,146,697)		-	-	-	-	(65,755,156)	(111,783,765)	(45,607,776)	-	-	-	-	-	-	-	
Construction - Exhibits	\$	(37,763,436)	(44,961,703)		-	-	-	-	(13,248,970)	(22,523,248)	(9,189,485)	-	-	-	-	-	-	-	
Land Servicing	\$	(24,184,604)	(27,219,985)		-	-	-	(27,219,985)	-	-	-	-	-	-	-	-	-	-	
Land Remediation	\$	(3,465,046)	(3,899,939)		-	-	-	(3,899,939)	-	-	-	-	-	-	-	-	-	-	
Moving Costs	\$	(3,662,692)	(4,504,650)		-	-	-	-	-	-	(4,504,650)	-	-	-	-	-	-	-	
Terminal Value for OSC	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Proceeds from OSC Lease Termination	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
General Operations																			
Exhibits and Programs	\$	(77,473,701)	(170,740,864)		(2,176,000)	(2,219,520)	(2,263,910)	(2,309,189)	(2,355,372)	(2,402,480)	(2,450,529)	(2,223,855)	(2,268,333)	(2,313,699)	(2,359,973)	(2,407,173)	(2,455,316)	(2,503,460)	
Marketing and Advertising	\$	(81,609,202)	(179,947,953)		(2,281,500)	(2,327,130)	(2,373,673)	(2,421,146)	(2,469,569)	(2,518,960)	(2,569,340)	(2,345,042)	(2,391,943)	(2,439,781)	(2,488,577)	(2,538,349)	(2,589,116)	(2,640,888)	
Visitor Services	\$	(118,064,327)	(261,109,973)		(3,211,500)	(3,275,730)	(3,341,245)	(3,408,069)	(3,476,231)	(3,545,755)	(3,616,671)	(3,413,319)	(3,481,586)	(3,551,218)	(3,622,242)	(3,694,687)	(3,768,580)	(3,843,923)	
Facility Operations	\$	(196,580,042)	(435,913,765)		(5,214,500)	(5,318,790)	(5,425,166)	(5,533,669)	(5,644,342)	(5,757,229)	(5,872,374)	(5,714,137)	(5,828,420)	(5,944,988)	(6,063,888)	(6,185,165)	(6,308,869)	(6,434,412)	
Program Management	\$	(111,373,328)	(242,146,360)		(3,506,500)	(3,576,630)	(3,648,163)	(3,721,126)	(3,795,548)	(3,871,459)	(3,948,889)	(3,108,918)	(3,171,096)	(3,234,518)	(3,299,208)	(3,365,193)	(3,432,496)	(3,501,209)	
Administration	\$	(148,757,190)	(329,443,158)		(3,994,500)	(4,074,390)	(4,155,878)	(4,238,995)	(4,323,775)	(4,410,251)	(4,498,456)	(4,312,740)	(4,398,995)	(4,486,975)	(4,576,715)	(4,668,249)	(4,761,614)	(4,856,828)	
Capital Projects	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Occupancy Costs	\$	(116,604,933)	(241,073,242)		(5,096,500)	(5,198,430)	(5,302,399)	(5,408,447)	(5,516,616)	(5,626,948)	(5,739,487)	(2,923,405)	(2,981,873)	(3,041,511)	(3,102,341)	(3,164,388)	(3,227,675)	(3,292,212)	
Ancillary Operations																			
OMNIMAX Theatre	\$	(51,566,362)	(114,804,987)		(1,315,500)	(1,341,810)	(1,368,646)	(1,396,019)	(1,423,940)	(1,452,418)	(1,481,467)	(1,511,096)	(1,541,318)	(1,572,144)	(1,603,587)	(1,635,659)	(1,668,372)	(1,701,725)	
International Sales and Rentals	\$	(61,738,518)	(137,451,808)		(1,575,000)	(1,606,500)	(1,638,630)	(1,671,403)	(1,704,831)	(1,738,927)	(1,773,706)	(1,809,180)	(1,845,364)	(1,882,271)	(1,919,916)	(1,958,315)	(1,997,481)	(2,037,426)	
Educational Programs and Admission	\$	(64,208,059)	(142,949,881)		(1,638,000)	(1,670,760)	(1,704,175)	(1,738,259)	(1,773,024)	(1,808,484)	(1,844,654)	(1,881,547)	(1,919,178)	(1,957,562)	(1,996,713)	(2,036,647)	(2,077,380)	(2,118,919)	
Recreation & Family Learning Experiences	\$	(30,653,664)	(68,245,914)		(782,000)	(797,640)	(813,593)	(829,865)	(846,462)	(863,391)	(880,659)	(898,272)	(916,238)	(934,562)	(953,254)	(972,319)	(991,765)	(1,011,594)	
Memberships	\$	(23,813,428)	(53,017,126)		(607,500)	(619,650)	(632,043)	(644,684)	(657,578)	(670,729)	(684,144)	(697,827)	(711,783)	(726,019)	(740,539)	(755,350)	(770,457)	(785,860)	
Concessions	\$	(4,155,100)	(9,250,725)		(106,000)	(108,120)	(110,282)	(112,488)	(114,738)	(117,033)	(119,373)	(121,761)	(124,196)	(126,680)	(129,213)	(131,798)	(134,434)	(137,120)	
Interest Expense	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Adult & Corporate Learning Experiences	\$	(14,621,249)	(32,552,079)		(373,000)	(380,460)	(388,069)	(395,831)	(403,747)	(411,822)	(420,059)	(428,460)	(437,029)	(445,770)	(454,685)	(463,779)	(473,054)	(482,506)	
Sponsorship/Donations	\$	(35,083,158)	(78,107,536)		(895,000)	(912,900)	(931,158)	(949,781)	(968,777)	(988,152)	(1,007,915)	(1,028,074)	(1,048,635)	(1,069,608)	(1,091,000)	(1,112,820)	(1,135,076)	(1,157,761)	
Program Support and Other Expenses	\$	(5,546,667)	(12,348,845)		(141,500)	(144,330)	(147,217)	(150,161)	(153,164)	(156,227)	(159,352)	(162,539)	(165,790)	(169,106)	(172,488)	(175,937)	(179,456)	(183,045)	
Bank and Service Fees	\$	(5,774,148)	(11,347,500)		(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	(222,500)	
One-Time Costs																			
Severance Costs	\$	(5,494,039)	(6,756,975)		-	-	-	-	-	-	-	(6,756,975)	-	-	-	-	-	-	
Maintenance																			
Buildings Critical Maintenance	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Outdoor Areas Critical Maintenance	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
General Maintenance	\$	(65,195,431)	(159,673,412)		-	-	-	-	-	-	-	(2,297,371)	(2,343,319)	(2,390,185)	(2,437,989)	(2,486,749)	(2,536,484)	(2,586,203)	
TOTAL EXPENSES	\$	(1,528,319,100)	(3,054,139,952)		(33,137,000)	(33,795,290)	(34,466,746)	(35,158,179)	(35,863,235)	(36,603,305)	(37,378,288)	(35,100,043)	(35,797,594)	(36,509,096)	(37,234,828)	(37,975,074)	(38,730,126)	(39	



General Inflation	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16	2.21	2.25	2.30	2.34	2.39	2.44	2.49	2.54	2.59	2.64	2.69
General Growth Rate	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.81	1.84	1.87	1.90	1.93	1.95	1.98	2.01	2.04	2.07	2.11
Model Year	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Calendar Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	0	0	0	0

ONTARIO SCIENCE CENTRE		UNIT																		
PARAMETERS																				
Construction/Refurbishment Spend Curve	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Critical Maintenance - Ontario Science Centre	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Visitors	#	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333	833,333
REVENUE																				
General Admission	\$	7,380,653	7,491,363	7,603,733	7,717,789	7,833,556	7,951,060	8,070,325	8,191,380	8,314,251	8,438,965	8,565,549	8,694,033	8,824,443	8,956,810	9,091,162	9,227,529	9,365,942	9,506,431	9,649,028
Parking Fees	\$	2,929,958	2,988,557	3,048,328	3,109,295	3,171,481	3,234,910	3,299,608	3,365,601	3,432,913	3,501,571	3,571,602	3,643,034	3,715,895	3,790,213	3,866,017	3,943,338	4,022,204	4,102,648	4,184,701
Revenue from Ancillary Operations																				
OMNIMAX Theatre	\$	2,267,337	2,301,347	2,335,867	2,370,905	2,406,468	2,442,565	2,479,204	2,516,392	2,554,138	2,592,450	2,631,337	2,670,807	2,710,969	2,751,832	2,792,805	2,834,697	2,877,217	2,920,376	2,964,181
International Sales and Rentals	\$	2,263,311	2,297,260	2,331,719	2,366,695	2,402,196	2,438,229	2,474,802	2,511,924	2,549,603	2,587,847	2,626,665	2,666,065	2,706,056	2,746,646	2,787,846	2,829,664	2,872,109	2,915,190	2,958,918
Educational Programs and Admission	\$	1,757,937	1,784,306	1,811,071	1,838,237	1,865,811	1,893,798	1,922,205	1,951,038	1,980,303	2,010,008	2,040,158	2,070,760	2,101,822	2,133,349	2,165,349	2,197,830	2,230,797	2,264,259	2,298,223
Recreation & Family Learning Experiences	\$	1,368,776	1,389,307	1,410,147	1,431,299	1,452,769	1,474,560	1,496,679	1,519,129	1,541,916	1,565,044	1,588,520	1,612,348	1,636,533	1,661,081	1,685,997	1,711,287	1,736,957	1,763,011	1,789,456
Memberships	\$	3,702,941	3,758,485	3,814,862	3,872,085	3,930,166	3,989,119	4,048,956	4,109,690	4,171,335	4,233,905	4,297,414	4,361,875	4,427,303	4,493,713	4,561,119	4,629,535	4,698,978	4,769,463	4,841,005
Concessions	\$	838,174	850,746	863,508	876,460	889,607	902,951	916,496	930,243	944,197	958,360	972,735	987,326	1,002,136	1,017,168	1,032,425	1,047,912	1,063,630	1,079,585	1,095,779
Adult & Corporate Learning Experiences	\$	971,589	986,163	1,000,955	1,015,970	1,031,209	1,046,677	1,062,378	1,078,313	1,094,488	1,110,905	1,127,569	1,144,482	1,161,650	1,179,074	1,196,761	1,214,712	1,232,933	1,251,427	1,270,198
Sponsorship/Donations	\$	3,070,888	3,116,952	3,163,706	3,211,162	3,259,329	3,308,219	3,357,842	3,408,210	3,459,333	3,511,223	3,563,891	3,617,350	3,671,610	3,726,684	3,782,584	3,839,323	3,896,913	3,955,367	4,014,697
Program Support and Other Revenue	\$	251,211	254,979	258,803	262,685	266,626	270,625	274,685	278,805	282,987	287,232	291,540	295,913	300,352	304,857	309,430	314,072	318,783	323,564	328,418
Interest Income	\$	254,413	259,501	264,691	269,985	275,385	280,892	286,510	292,241	298,085	304,047	310,128	316,331	322,657	329,110	335,693	342,406	349,255	356,240	363,364
TOTAL REVENUE	\$	27,057,187	27,478,967	27,907,392	28,342,568	28,784,603	29,233,606	29,689,689	30,152,965	30,623,549	31,101,557	31,587,109	32,080,324	32,581,325	33,090,238	33,607,188	34,132,305	34,665,718	35,207,561	35,757,969
EXPENSES																				
Capital Expenses																				
Construction Expenditure																				
Demolition Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking Garage	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Buildings	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Construction - Exhibits	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Servicing	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Land Remediation	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Moving Costs	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Terminal Value for OSC	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Proceeds from OSC Lease Termination	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Operations																				
Exhibits and Programs	\$	(3,648,471)	(3,721,440)	(3,795,869)	(3,871,786)	(3,949,222)	(4,028,206)	(4,108,770)	(4,190,946)	(4,274,765)	(4,360,260)	(4,447,465)	(4,536,415)	(4,627,143)	(4,719,686)	(4,814,079)	(4,910,361)	(5,008,568)	(5,108,740)	(5,210,914)
Marketing and Advertising	\$	(3,847,290)	(3,924,235)	(4,002,720)	(4,082,775)	(4,164,430)	(4,247,719)	(4,332,673)	(4,419,326)	(4,507,713)	(4,597,867)	(4,689,825)	(4,783,621)	(4,879,293)	(4,976,879)	(5,076,417)	(5,177,945)	(5,281,504)	(5,387,134)	(5,494,877)
Visitor Services	\$	(5,599,912)	(5,711,911)	(5,826,149)	(5,942,672)	(6,061,525)	(6,182,756)	(6,306,411)	(6,432,539)	(6,561,190)	(6,692,414)	(6,826,262)	(6,962,787)	(7,102,043)	(7,244,084)	(7,388,965)	(7,536,745)	(7,687,480)	(7,841,229)	(7,998,054)
Facility Operations	\$	(9,374,647)	(9,562,140)	(9,753,383)	(9,948,451)	(10,147,420)	(10,350,368)	(10,557,375)	(10,768,523)	(10,983,893)	(11,203,571)	(11,427,643)	(11,656,195)	(11,889,319)	(12,127,106)	(12,369,648)	(12,617,041)	(12,869,382)	(13,126,769)	(13,389,305)
Program Management	\$	(5,100,509)	(5,202,519)	(5,306,570)	(5,412,701)	(5,520,955)	(5,631,374)	(5,744,002)	(5,858,882)	(5,976,059)	(6,095,581)	(6,217,492)	(6,341,842)	(6,468,679)	(6,598,052)	(6,730,013)	(6,864,614)	(7,001,960)	(7,141,944)	(7,284,783)
Administration	\$	(7,075,508)	(7,217,018)	(7,361,358)	(7,508,585)	(7,658,757)	(7,811,932)	(7,968,171)	(8,127,534)	(8,290,085)	(8,455,887)	(8,625,004)	(8,797,504)	(8,973,455)	(9,152,924)	(9,335,982)	(9,522,702)	(9,713,156)	(9,907,419)	(10,105,567)
Capital Projects	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Occupancy Costs	\$	(4,796,156)	(4,892,079)	(4,989,921)	(5,089,719)	(5,191,513)	(5,295,344)	(5,401,250)	(5,509,275)	(5,619,461)	(5,731,850)	(5,846,487)	(5,963,417)	(6,082,685)	(6,204,339)	(6,328,426)	(6,454,994)	(6,584,094)	(6,715,776)	(6,850,092)
Ancillary Operations																				
OMNIMAX Theatre	\$	(2,479,113)	(2,528,695)	(2,579,269)	(2,630,855)	(2,683,472)	(2,737,141)	(2,791,884)	(2,847,722)	(2,904,676)	(2,962,770)	(3,022,025)	(3,082,466)	(3,144,115)	(3,206,997)	(3,271,137)	(3,336,560)	(3,403,291)	(3,471,357)	(3,540,784)
International Sales and Rentals	\$	(2,968,151)	(3,027,514)	(3,088,065)	(3,149,826)	(3,212,823)	(3,277,079)	(3,342,621)	(3,409,473)	(3,477,662)	(3,547,216)	(3,618,160)	(3,690,523)	(3,764,334)	(3,839,620)	(3,916,413)	(3,994,741)	(4,074,636)	(4,156,129)	(4,239,251)
Educational Programs and Admission	\$	(3,086,877)	(3,148,615)	(3,211,587)	(3,275,819)	(3,341,335)	(3,408,162)	(3,476,325)	(3,545,852)	(3,616,769)	(3,689,104)	(3,762,886)	(3,838,144)	(3,914,907)	(3,993,205)	(4,073,069)	(4,154,531)	(4,237,621)	(4,322,374)	(4,408,821)
Recreation & Family Learning Experiences	\$	(1,473,711)	(1,503,185)	(1,533,249)	(1,563,914)	(1,595,192)	(1,627,096)	(1,659,638)	(1,692,830)	(1,726,687)	(1,761,221)	(1,796,445)	(1,832,374)	(1,869,022)	(1,906,402)	(1,944,530)	(1,983,421)	(2,023,089)	(2,063,551)	(2,104,822)
Memberships	\$	(1,144,858)	(1,167,756)	(1,191,111)	(1,214,933)	(1,239,232)	(1,264,016)	(1,289,297)	(1,315,082)	(1,341,384)	(1,368,212)	(1,395,576)	(1,423,488)	(1,451,957)	(1,480,996)	(1,510,616)	(1,540,829)	(1,571,645)	(1,603,078)	(1,635,140)
Concessions	\$	(199,761)	(203,757)	(207,832)	(211,988)	(216,228)	(220,553)	(224,964)	(229,463)	(234,052)	(238,733)	(243,508)	(248,378)	(253,346)	(258,413)	(263,581)	(268,852)	(274,229)	(279,714)	(285,308)
Interest Expense	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adult & Corporate Learning Experiences	\$	(702,934)	(716,992)	(731,332)	(745,959)	(760,878)	(776,096)	(791,617)	(807,450)	(823,599)	(840,071)	(856,872)	(874,010)	(891,490)	(909,320)	(927,506)	(946,056)	(964,977)	(984,277)	(1,003,962)
Sponsorship/Donations	\$	(1,686,664)	(1,720,397)	(1,754,805)	(1,789,901)	(1,825,699)	(1,862,213)	(1,899,457)	(1,937,447)	(1,976,195)	(2,015,719)	(2,056,034)	(2,097,154)	(2,139,098)	(2,181,880)	(2,225,517)	(2,270,027)	(2,315,428)		



General Inflation
 General Growth Rate
 Model Year
 Calendar Year
 Construction Year
 Operating Year

	1.00	1.02	1.04	1.06	1.08	1.10	1.13	1.15	1.17	1.20	1.22	1.24	1.27	
	1.00	1.02	1.03	1.05	1.06	1.08	1.09	1.11	1.13	1.14	1.16	1.18	1.20	
0	0	1	2	3	4	5	6	7	8	9	10	11	12	13
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
0	0	0	0	0	0	1	2	3	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	2	3	4	5	6

ONTARIO PLACE – WEST ISLAND		UNIT	TOTAL														
PARAMETRES																	
Critical Maintenance - Ontario Place	%		100%		0.00%	0.00%	0.00%	0.00%	45.00%	55.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
REVENUE																	
Operating revenue																	
Amphitheatre	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Parking	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Concessions and facility rental	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Marina	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Retail Sales	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
EXPENSES																	
Terminal Value for Ontario Place	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expenses																	
Refurbishment of Pods and Bridge	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
Administrative and Operating Expenses																	
Salaries and wages	\$	(79,926,882)	(177,945,548)		(2,039,000)	(2,079,780)	(2,121,376)	(2,163,803)	(2,207,079)	(2,251,221)	(2,296,245)	(2,342,170)	(2,389,013)	(2,436,794)	(2,485,530)	(2,535,240)	(2,585,945)
Employee benefits	\$	(14,974,041)	(33,337,518)		(382,000)	(389,640)	(397,433)	(405,381)	(413,489)	(421,759)	(430,194)	(438,798)	(447,574)	(456,525)	(465,656)	(474,969)	(484,468)
Administration and property tax	\$	(70,421,110)	(156,782,333)		(1,796,500)	(1,832,430)	(1,869,079)	(1,906,460)	(1,944,589)	(1,983,481)	(2,023,151)	(2,063,614)	(2,104,886)	(2,146,984)	(2,189,923)	(2,233,722)	(2,278,396)
Utilities	\$	(3,137,288)	(3,533,143)		(475,250)	(484,755)	(494,450)	(504,339)	(514,426)	(524,714)	(535,209)	-	-	-	-	-	-
Site Maintenance	\$	(1,809,387)	(2,037,691)		(274,094)	(279,576)	(285,167)	(290,870)	(296,688)	(302,622)	(308,674)	-	-	-	-	-	-
Cost of retail sales	\$	(1,066,117)	(1,200,637)		(161,500)	(164,730)	(168,025)	(171,385)	(174,813)	(178,309)	(181,875)	-	-	-	-	-	-
Janitorial	\$	(168,953)	(190,271)		(25,594)	(26,106)	(26,628)	(27,160)	(27,703)	(28,258)	(28,823)	-	-	-	-	-	-
Transportation and communications	\$	(125,632)	(141,484)		(19,031)	(19,412)	(19,800)	(20,196)	(20,600)	(21,012)	(21,432)	-	-	-	-	-	-
Supplies	\$	(131,821)	(148,453)		(19,969)	(20,368)	(20,775)	(21,191)	(21,615)	(22,047)	(22,488)	-	-	-	-	-	-
Other	\$	(98,401)	(110,817)		(14,906)	(15,204)	(15,508)	(15,819)	(16,135)	(16,458)	(16,787)	-	-	-	-	-	-
Other Maintenance																	
Critical Maintenance	\$	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-
West Island Park Maintenance	\$	(4,023,834)	(8,326,630)		(175,000)	(178,500)	(182,070)	(185,711)	(189,426)	(193,214)	(197,078)	(101,084)	(103,106)	(105,168)	(107,272)	(109,417)	(111,605)
TOTAL EXPENSES	\$	(175,883,465)	(383,754,524)		(5,382,844)	(5,490,501)	(5,600,311)	(5,712,317)	(5,826,563)	(5,943,094)	(6,061,956)	(4,945,666)	(5,044,579)	(5,145,471)	(5,248,380)	(5,353,348)	(5,460,415)
EBITDA	\$	(175,883,465)	(383,754,524)		(5,382,844)	(5,490,501)	(5,600,311)	(5,712,317)	(5,826,563)	(5,943,094)	(6,061,956)	(4,945,666)	(5,044,579)	(5,145,471)	(5,248,380)	(5,353,348)	(5,460,415)
TOTAL	UNIT	NPV	TOTAL														
TOTAL EBITDA	\$	(1,130,588,201)	(2,181,583,541)		(24,237,049)	(24,788,079)	(25,351,191)	(60,230,190)	(123,299,717)	(191,650,156)	(106,121,402)	(20,203,105)	(21,794,780)	(22,684,594)	(23,218,589)	(23,764,535)	(24,322,690)



General Inflation	1.29	1.32	1.35	1.37	1.40	1.43	1.46	1.49	1.52	1.55	1.58	1.61	1.64	1.67	1.71	1.74	1.78	1.81	1.85
General Growth Rate	1.21	1.23	1.25	1.27	1.29	1.31	1.33	1.35	1.37	1.39	1.41	1.43	1.45	1.47	1.49	1.52	1.54	1.56	1.59
Model Year	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Calendar Year	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

ONTARIO PLACE - WEST ISLAND		UNIT																		
PARAMETRES																				
Critical Maintenance - Ontario Place	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REVENUE																				
Operating revenue																				
Amphitheatre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concessions and facility rental	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marina	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retail Sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXPENSES																				
Terminal Value for Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expenses																				
Refurbishment of Pods and Bridge	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Administrative and Operating Expenses																				
Salaries and wages	\$	(2,637,664)	(2,690,417)	(2,744,226)	(2,799,110)	(2,855,092)	(2,912,194)	(2,970,438)	(3,029,847)	(3,090,444)	(3,152,253)	(3,215,298)	(3,279,604)	(3,345,196)	(3,412,100)	(3,480,342)	(3,549,948)	(3,620,947)	(3,693,366)	(3,767,234)
Employee benefits	\$	(494,158)	(504,041)	(514,122)	(524,404)	(534,892)	(545,590)	(556,502)	(567,632)	(578,985)	(590,564)	(602,376)	(614,423)	(626,711)	(639,246)	(652,031)	(665,071)	(678,373)	(691,940)	(705,779)
Administration and property tax	\$	(2,323,964)	(2,370,444)	(2,417,852)	(2,466,210)	(2,515,534)	(2,565,844)	(2,617,161)	(2,669,504)	(2,722,895)	(2,777,352)	(2,832,900)	(2,889,558)	(2,947,349)	(3,006,296)	(3,066,422)	(3,127,750)	(3,190,305)	(3,254,111)	(3,319,193)
Utilities	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of retail sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Janitorial	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation and communications	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplies	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Maintenance																				
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Island Park Maintenance	\$	(113,837)	(116,114)	(118,436)	(120,805)	(123,221)	(125,686)	(128,199)	(130,763)	(133,379)	(136,046)	(138,767)	(141,542)	(144,373)	(147,261)	(150,206)	(153,210)	(156,274)	(159,400)	(162,588)
TOTAL EXPENSES	\$	(5,569,623)	(5,681,016)	(5,794,636)	(5,910,529)	(6,028,739)	(6,149,314)	(6,272,301)	(6,397,747)	(6,525,701)	(6,656,215)	(6,789,340)	(6,925,127)	(7,063,629)	(7,204,902)	(7,349,000)	(7,495,980)	(7,645,899)	(7,798,817)	(7,954,794)
EBITDA	\$	(5,569,623)	(5,681,016)	(5,794,636)	(5,910,529)	(6,028,739)	(6,149,314)	(6,272,301)	(6,397,747)	(6,525,701)	(6,656,215)	(6,789,340)	(6,925,127)	(7,063,629)	(7,204,902)	(7,349,000)	(7,495,980)	(7,645,899)	(7,798,817)	(7,954,794)
TOTAL		UNIT																		
TOTAL EBITDA	\$	(24,893,318)	(25,476,688)	(26,073,075)	(26,682,759)	(27,306,027)	(27,943,171)	(28,594,490)	(29,260,289)	(29,940,880)	(30,636,579)	(31,347,713)	(32,074,612)	(32,817,615)	(33,577,068)	(34,353,323)	(35,146,740)	(35,957,688)	(36,786,541)	(37,633,684)



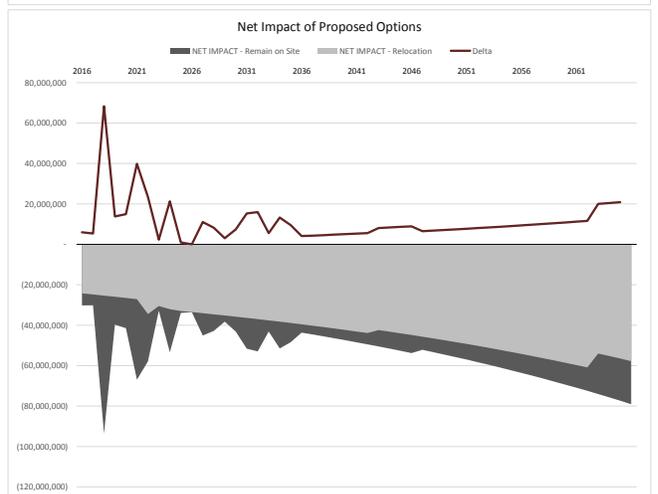
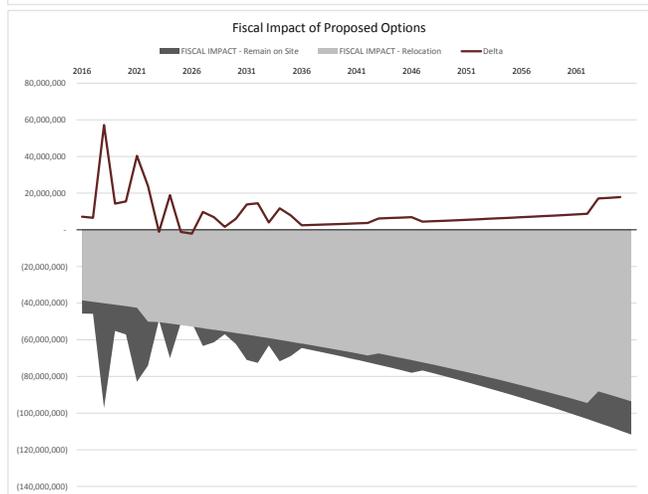
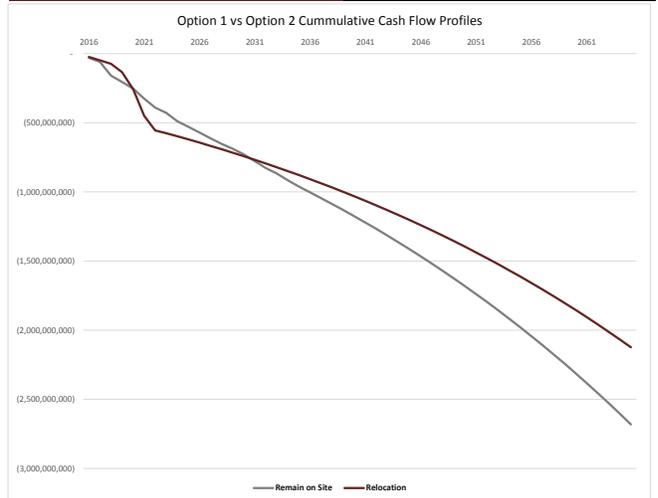
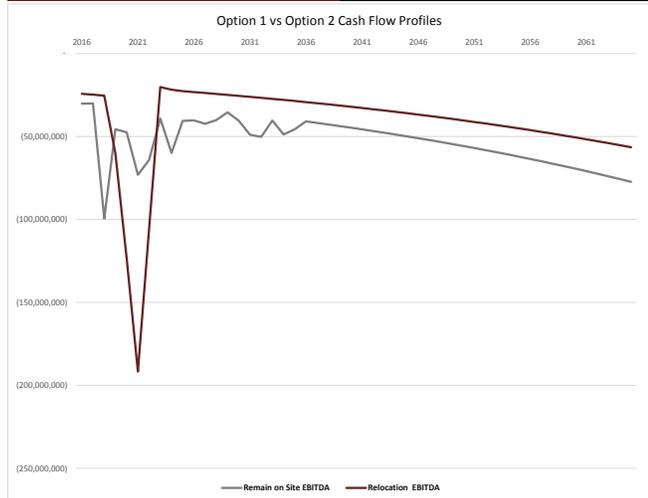
General Inflation	1.88	1.92	1.96	2.00	2.04	2.08	2.12	2.16	2.21	2.25	2.30	2.34	2.39	2.44	2.49	2.54	2.59	2.64	2.69
General Growth Rate	1.61	1.63	1.66	1.68	1.71	1.73	1.76	1.79	1.81	1.84	1.87	1.90	1.93	1.95	1.98	2.01	2.04	2.07	2.11
Model Year	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51
Calendar Year	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	0	0	0	0

ONTARIO PLACE - WEST ISLAND		UNIT																		
PARAMETRES																				
Critical Maintenance - Ontario Place	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
REVENUE																				
Operating revenue																				
Amphitheatre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parking	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concessions and facility rental	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Marina	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Retail Sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL REVENUE	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EXPENSES																				
Terminal Value for Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Capital Expenses																				
Refurbishment of Pods and Bridge	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Administrative and Operating Expenses																				
Salaries and wages	\$	(3,842,578)	(3,919,430)	(3,997,818)	(4,077,775)	(4,159,330)	(4,242,517)	(4,327,367)	(4,413,915)	(4,502,193)	(4,592,237)	(4,684,081)	(4,777,763)	(4,873,318)	(4,970,785)	(5,070,200)	(5,171,604)	(5,275,037)	(5,380,537)	(5,488,148)
Employee benefits	\$	(719,895)	(734,292)	(748,978)	(763,958)	(779,237)	(794,822)	(810,718)	(826,933)	(843,471)	(860,341)	(877,547)	(895,098)	(913,000)	(931,260)	(949,886)	(968,883)	(988,261)	(1,008,026)	(1,028,187)
Administration and property tax	\$	(3,385,577)	(3,453,289)	(3,522,354)	(3,592,802)	(3,664,658)	(3,737,951)	(3,812,710)	(3,888,964)	(3,966,743)	(4,046,078)	(4,127,000)	(4,209,540)	(4,293,730)	(4,379,605)	(4,467,197)	(4,556,541)	(4,647,672)	(4,740,625)	(4,835,438)
Utilities	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Site Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cost of retail sales	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Janitorial	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transportation and communications	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supplies	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Maintenance																				
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
West Island Park Maintenance	\$	(165,840)	(169,156)	(172,539)	(175,990)	(179,510)	(183,100)	(186,762)	(190,498)	(194,307)	(198,194)	(202,158)	(206,201)	(210,325)	(214,531)	(218,822)	(223,198)	(227,662)	(232,215)	(236,860)
TOTAL EXPENSES	\$	(8,113,890)	(8,276,167)	(8,441,691)	(8,610,524)	(8,782,735)	(8,958,390)	(9,137,557)	(9,320,309)	(9,506,715)	(9,696,849)	(9,890,786)	(10,088,602)	(10,290,374)	(10,496,181)	(10,706,105)	(10,920,227)	(11,138,632)	(11,361,404)	(11,588,632)
EBITDA	\$	(8,113,890)	(8,276,167)	(8,441,691)	(8,610,524)	(8,782,735)	(8,958,390)	(9,137,557)	(9,320,309)	(9,506,715)	(9,696,849)	(9,890,786)	(10,088,602)	(10,290,374)	(10,496,181)	(10,706,105)	(10,920,227)	(11,138,632)	(11,361,404)	(11,588,632)
TOTAL																				
TOTAL EBITDA	\$	(38,499,508)	(39,384,412)	(40,288,805)	(41,213,103)	(42,157,732)	(43,123,125)	(44,109,726)	(45,117,989)	(46,148,374)	(47,201,354)	(48,277,411)	(49,377,036)	(50,500,732)	(51,649,010)	(52,822,395)	(54,021,420)	(55,246,632)	(56,498,586)	(57,777,851)

OPTIONS SUMMARY SHEET

IN NPV TERMS		
Key Metrics	Remain on Site	Relocation
Ontario Science Centre Revenue	527,263,208	573,614,364
Ontario Place Revenue	-	-
Total Revenue	527,263,208	573,614,364
Ontario Science Centre Operating Expense	(1,339,110,545)	(1,147,623,077)
Ontario Place Operating Expense	(204,142,575)	(171,859,631)
Ontario Science Centre - One-Time Charges	-	(5,494,039)
Total Operating Expense	(1,543,253,120)	(1,324,976,746)
Ontario Science Centre Critical Maintenance	(177,176,522)	-
Ontario Place Critical Maintenance	-	-
Total Critical Maintenance	(177,176,522)	-
Ontario Science Centre Maintenance	(78,398,118)	(65,195,431)
Ontario Place Maintenance	(6,859,835)	(4,023,834)
Total Maintenance	(85,257,954)	(69,219,265)
OSC Construction Cost - Exhibits	(43,966,255)	(37,763,436)
OSC Construction Cost - Buildings	(1,831,927)	(187,421,414)
OSC Construction Cost - Parking Structure	-	(50,680,753)
OSC Other Capital Expenses	-	(34,140,951)
Ontario Place Capital Expenses	(9,622,765)	-
Total Capital Expenses	(55,420,947)	(310,006,554)
Combined EBITDA	\$ (1,333,845,334)	\$ (1,130,588,201)
TOTAL DELTA	\$	(203,257,132)

IN NOMINAL TERMS		
Key Metrics	Remain on Site	Relocation
Ontario Science Centre Revenue	1,154,862,760	1,256,310,935
Ontario Place Revenue	-	-
Total Revenue	1,154,862,760	1,256,310,935
Ontario Science Centre Operating Expense	(2,979,826,572)	(2,520,451,716)
Ontario Place Operating Expense	(454,493,677)	(375,427,894)
Ontario Science Centre - One-Time Charges	-	(6,756,975)
Total Operating Expense	(3,434,320,249)	(2,902,636,584)
Ontario Science Centre Critical Maintenance	(224,089,491)	-
Ontario Place Critical Maintenance	-	-
Total Critical Maintenance	(224,089,491)	-
Ontario Science Centre Maintenance	(174,541,979)	(159,673,412)
Ontario Place Maintenance	(15,272,423)	(8,326,630)
Total Maintenance	(189,814,402)	(168,000,042)
OSC Construction Cost - Exhibits	(54,126,482)	(44,961,703)
OSC Construction Cost - Buildings	(2,255,270)	(223,146,697)
OSC Construction Cost - Parking Structure	-	(60,341,251)
OSC Other Capital Expenses	-	(38,808,198)
Ontario Place Capital Expenses	(10,687,791)	-
Total Capital Expenses	(67,069,543)	(367,257,849)
Combined EBITDA	\$ (2,760,430,926)	\$ (2,181,583,541)
TOTAL DELTA	\$	(578,847,385)





NOTE: To be updated by Ministry.

Fiscal Year
Construction Year
Operating Year

FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
0	0	0	0	1	2	3	4	5	6	7	8	9	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3

OPTION 1 - Remain on Site	UNIT	NPV	TOTAL	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
OPERATING COSTS																			
Ontario Science Centre	\$	(1,417,508,663)	(3,154,368,551)			(36,237,000)	(36,957,290)	(37,691,986)	(38,441,376)	(39,205,753)	(39,985,418)	(40,780,676)	(41,591,840)	(42,419,227)	(43,263,161)	(44,123,975)	(45,002,004)	(45,897,594)	(46,811,096)
Ontario Place	\$	(211,002,410)	(469,766,100)			(5,382,844)	(5,490,501)	(5,600,311)	(5,712,317)	(5,826,563)	(5,943,094)	(6,061,956)	(6,183,195)	(6,306,859)	(6,432,997)	(6,561,656)	(6,692,890)	(6,826,747)	(6,963,282)
OPTION 1 - Total Operating Costs	\$	(1,628,511,073)	(3,624,134,651)			(41,619,844)	(42,447,791)	(43,292,296)	(44,153,692)	(45,032,316)	(45,928,513)	(46,842,633)	(47,775,035)	(48,726,086)	(49,696,158)	(50,685,631)	(51,694,894)	(52,724,342)	(53,774,378)
CAPITAL COSTS																			
Ontario Science Centre	\$	(177,176,522)	(224,089,491)			(4,047,203)	(3,383,832)	(49,158,757)	(5,083,317)	(12,083,580)	(36,936,047)	(27,237,409)	(1,456,089)	(21,280,437)	(1,132,595)		(8,901,816)	(5,867,354)	(449,483)
Critical Maintenance	\$	(29,087,042)	(54,126,482)														(2,706,324)	(2,706,324)	(2,706,324)
Statutory Capital Expense (Exhibits)	\$	(941,497)	(2,255,270)														(56,382)	(56,382)	(56,382)
Statutory Capital Expense (New Build and/or Improvements)	\$																		
Ontario Science Centre - Total Capital Costs	\$	(207,205,060)	(280,471,243)			(4,047,203)	(3,383,832)	(49,158,757)	(5,083,317)	(12,083,580)	(36,936,047)	(27,237,409)	(1,456,089)	(21,280,437)	(1,132,595)		(11,664,522)	(8,630,060)	(3,212,189)
Ontario Place	\$	(9,622,765)	(10,687,791)					(4,757,177)	(5,930,614)										
Critical Maintenance	\$																		
Statutory Capital Expense (New Build and/or Improvements)	\$																		
Ontario Place - Total Capital Costs	\$	(9,622,765)	(10,687,791)					(4,757,177)	(5,930,614)										
OPTION 1 - Total Capital Costs	\$	(216,827,825)	(291,159,034)			(4,047,203)	(3,383,832)	(53,915,934)	(11,013,931)	(12,083,580)	(36,936,047)	(27,237,409)	(1,456,089)	(21,280,437)	(1,132,595)		(11,664,522)	(8,630,060)	(3,212,189)
FISCAL IMPACT - Remain on Site	\$	(1,845,338,898)	(3,915,293,685)			(45,667,046)	(45,831,623)	(97,208,230)	(55,167,623)	(57,115,896)	(82,864,560)	(74,080,042)	(49,231,125)	(70,006,524)	(50,828,752)	(50,685,631)	(63,359,416)	(61,354,402)	(56,986,568)
Revenue Adjustment																			
Ontario Science Centre Revenue	\$	527,263,208	1,154,862,760			15,463,354	15,695,979	3,553,074	15,431,100	15,663,283	15,898,963	16,138,192	16,381,025	16,627,516	16,877,720	17,131,692	18,223,873	18,498,071	18,776,398
Ontario Place Revenue	\$																		
OPTION 1 - Total Revenue	\$	527,263,208	1,154,862,760			15,463,354	15,695,979	3,553,074	15,431,100	15,663,283	15,898,963	16,138,192	16,381,025	16,627,516	16,877,720	17,131,692	18,223,873	18,498,071	18,776,398
NET IMPACT - Remain on Site	\$	(1,318,075,690)	(2,760,430,926)			(30,203,693)	(30,135,644)	(93,655,156)	(39,736,523)	(41,452,614)	(66,965,597)	(57,941,850)	(32,850,099)	(53,379,007)	(33,951,033)	(33,553,939)	(45,135,542)	(42,856,331)	(38,210,170)
Check: TRUE																			

OPTION 1 - Subsidy Surplus/(Deficit) Associated with OSC Only	UNIT	NPV	TOTAL	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Net Impact	\$	(1,318,075,690)	(2,760,430,926)			(30,203,693)	(30,135,644)	(93,655,156)	(39,736,523)	(41,452,614)	(66,965,597)	(57,941,850)	(32,850,099)	(53,379,007)	(33,951,033)	(33,553,939)	(45,135,542)	(42,856,331)	(38,210,170)
Less: OP Expenses	\$	220,625,175	480,453,891			5,382,844	5,490,501	10,357,488	11,642,931	5,826,563	5,943,094	6,061,956	6,183,195	6,306,859	6,432,997	6,561,656	6,692,890	6,826,747	6,963,282
Less: Current OSC Subsidy	\$	610,456,750	1,274,852,764			19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000	19,400,000
Surplus/(Deficit)	\$	(486,993,765)	(1,005,124,270)			(54,220,849)	(52,451,143)	(83,897,668)	(86,939,592)	(16,226,050)	(39,682,503)	(30,539,893)	(5,326,904)	(25,732,148)	(6,178,036)	(5,652,282)	(17,102,653)	(14,689,584)	(9,906,888)

Fiscal Year
Construction Year
Operating Year

FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
0	0	0	0	0	0	1	2	3	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	2	3	4	5	6	7

OPTION 2 - Relocation	UNIT	NPV	TOTAL	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
OPERATING COSTS																			
Ontario Science Centre	\$	(1,218,312,547)	(2,686,882,102)			(33,137,000)	(33,795,290)	(34,466,746)	(35,151,631)	(35,850,213)	(36,562,768)	(44,046,547)	(35,100,043)	(35,797,594)	(36,509,096)	(37,234,828)	(37,975,074)	(38,730,126)	(39,500,278)
Ontario Place	\$	(175,883,465)	(383,754,524)			(5,382,844)	(5,490,501)	(5,600,311)	(5,712,317)	(5,826,563)	(5,943,094)	(6,061,956)	(6,183,195)	(6,306,859)	(6,432,997)	(6,561,656)	(6,692,890)	(6,826,747)	(6,963,282)
OPTION 2 - Total Operating Costs	\$	(1,394,196,012)	(3,070,636,626)			(38,519,844)	(39,285,791)	(40,067,056)	(40,863,948)	(41,676,777)	(42,505,862)	(50,108,504)	(40,405,709)	(40,842,173)	(41,654,567)	(42,483,208)	(43,328,422)	(44,190,541)	(45,069,901)
CAPITAL COSTS																			
Ontario Science Centre	\$																		
Critical Maintenance	\$																		
Statutory Capital Expense (Exhibits)	\$	(27,194,521)	(44,961,703)										(2,248,085)	(2,248,085)	(2,248,085)	(2,248,085)	(2,248,085)	(2,248,085)	(2,248,085)
Statutory Capital Expense (New Build and/or Improvements)	\$	(151,434,268)	(322,296,146)										(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)
Ontario Science Centre - Total Capital Costs	\$	(178,628,789)	(367,257,849)										(10,305,489)						
Ontario Place	\$																		
Critical Maintenance	\$																		
Statutory Capital Expense (New Build and/or Improvements)	\$																		
Ontario Place - Total Capital Costs	\$																		
OPTION 2 - Total Capital Costs	\$	(178,628,789)	(367,257,849)																
FISCAL IMPACT - Relocation	\$	(1,572,824,800)	(3,437,894,476)			(38,519,844)	(39,285,791)	(40,067,056)	(40,863,948)	(41,676,777)	(42,505,862)	(50,108,504)	(40,405,709)	(40,842,173)	(41,654,567)	(42,483,208)	(43,328,422)	(44,190,541)	(45,069,901)
Revenue Adjustment																			
Ontario Science Centre Revenue	\$	573,614,364	1,256,310,935			14,282,795	14,497,712	14,715,866	14,937,306	15,162,082	15,390,244	15,621,843	19,842,604	19,047,394	18,969,973	19,264,619	19,563,887	19,867,850	20,176,583
Ontario Place Revenue	\$																		
OPTION 2 - Total Revenue	\$	573,614,364	1,256,310,935			14,282,795	14,497,712	14,715,866	14,937,306	15,162,082	15,390,244	15,621,843	19,842,604	19,047,394	18,969,973	19,264,619	19,563,887	19,867,850	20,176,583
NET IMPACT - Relocation	\$	(920,581,648)	(2,184,325,691)			(24,237,049)	(24,788,079)	(25,351,191)	(25,926,642)	(26,514,695)	(27,115,618)	(34,486,661)	(30,508,594)	(32,100,268)	(32,990,083)	(33,524,078)	(34,070,024)	(34,628,179)	(35,198,807)
Check: TRUE																			
FISCAL IMPACT DELTA	\$	477,999,210	7,147,203	6,545,832	57,141,174	14,303,676	15,439,120	40,358,698	23,971,538	(1,120,073)	18,858,861	(1,131,303)	(2,103,066)	9,725,505	6,858,372	1,611,177			
NET IMPACT DELTA	\$	578,847,385	5,966,644	5,347,565	68,303,965	13,809,882	14,937,919	39,849,979	23,455,188	2,3									



NOTE: To be updated by Ministry.

Fiscal Year
Construction Year
Operating Year

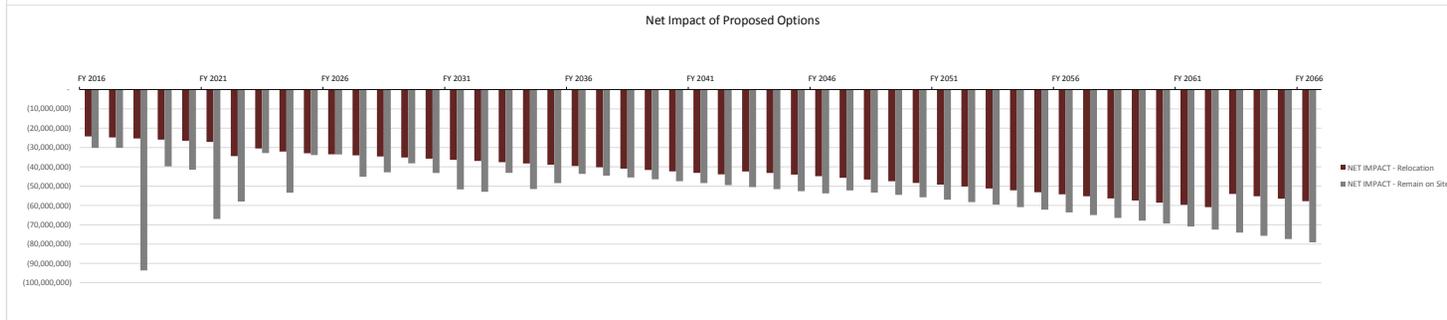
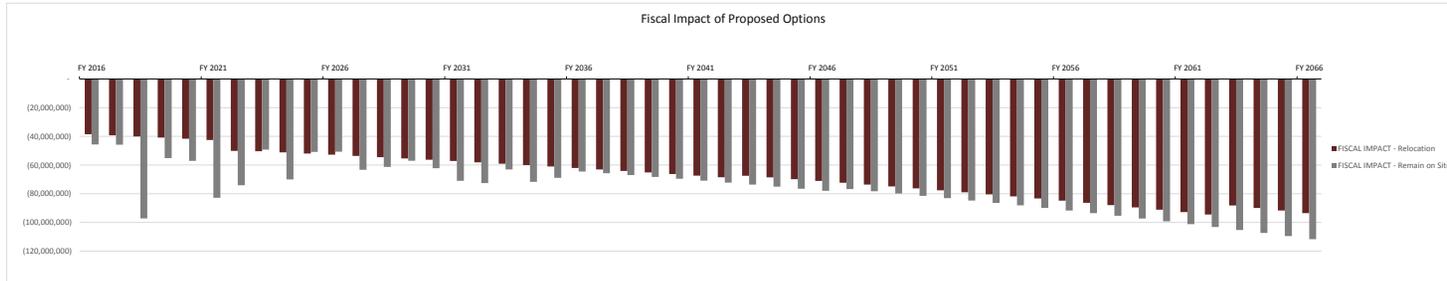
	FY 2048	FY 2049	FY 2050	FY 2051	FY 2052	FY 2053	FY 2054	FY 2055	FY 2056	FY 2057	FY 2058	FY 2059	FY 2060	FY 2061	FY 2062	FY 2063	FY 2064	FY 2065	FY 2066
Fiscal Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

OPTION 1 - Remain on Site																				
UNIT																				
OPERATING COSTS																				
Ontario Science Centre	\$	(68,093,287)	(69,450,703)	(70,835,267)	(72,247,522)	(73,688,023)	(75,157,333)	(76,656,030)	(78,184,700)	(79,743,944)	(81,334,373)	(82,956,611)	(84,611,293)	(86,299,069)	(88,020,600)	(89,776,562)	(91,567,644)	(93,394,546)	(95,257,987)	(97,158,697)
Ontario Place	\$	(10,144,188)	(10,347,071)	(10,554,013)	(10,765,093)	(10,980,395)	(11,200,003)	(11,424,003)	(11,652,483)	(11,885,533)	(12,123,243)	(12,365,708)	(12,613,022)	(12,865,283)	(13,122,588)	(13,385,040)	(13,652,741)	(13,925,796)	(14,204,312)	(14,488,398)
OPTION 1 - Total Operating Costs	\$	(78,237,475)	(79,797,774)	(81,389,280)	(83,012,615)	(84,668,418)	(86,357,336)	(88,080,033)	(89,873,183)	(91,729,477)	(93,657,617)	(95,622,319)	(97,624,315)	(99,664,352)	(101,743,189)	(103,861,602)	(106,020,384)	(108,225,792)	(110,477,309)	(112,777,095)
CAPITAL COSTS																				
Ontario Science Centre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (Exhibits)	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (New Build and/or Improvements)	\$	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)
Ontario Science Centre - Total Capital Costs	\$	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)													
Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (New Build and/or Improvements)	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ontario Place - Total Capital Costs	\$	-	-	-	-	-	-													
OPTION 1 - Total Capital Costs	\$	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)	(56,382)													
FISCAL IMPACT - Remain on Site	\$	(78,293,856)	(79,854,156)	(81,445,661)	(83,068,997)	(84,724,799)	(86,413,718)	(88,136,414)	(89,893,565)	(91,685,859)	(93,513,998)	(95,378,701)	(97,280,697)	(99,220,733)	(101,199,570)	(103,217,984)	(105,276,766)	(107,376,724)	(109,518,681)	(111,703,477)
Revenue Adjustment																				
Ontario Science Centre Revenue	\$	24,938,033	25,313,376	25,694,374	26,081,113	26,473,680	26,872,162	27,276,649	27,687,231	28,104,001	28,527,051	28,956,477	29,392,375	29,834,842	30,283,978	30,739,883	31,202,660	31,672,412	32,149,245	32,633,264
Ontario Place Revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPTION 1 - Total Revenue	\$	24,938,033	25,313,376	25,694,374	26,081,113	26,473,680	26,872,162	27,276,649	27,687,231	28,104,001	28,527,051	28,956,477	29,392,375	29,834,842	30,283,978	30,739,883	31,202,660	31,672,412	32,149,245	32,633,264
NET IMPACT - Remain on Site	\$	(53,355,823)	(54,540,780)	(55,751,287)	(56,987,884)	(58,251,119)	(59,541,556)	(60,859,766)	(62,206,334)	(63,581,858)	(64,986,947)	(66,422,223)	(67,888,322)	(69,385,891)	(70,915,592)	(72,478,101)	(74,074,106)	(75,704,312)	(77,369,436)	(79,070,212)

OPTION 1 - Subsidy Surplus/(Deficit) Associated with OSC Only																				
UNIT																				
Net Impact	\$	(53,355,823)	(54,540,780)	(55,751,287)	(56,987,884)	(58,251,119)	(59,541,556)	(60,859,766)	(62,206,334)	(63,581,858)	(64,986,947)	(66,422,223)	(67,888,322)	(69,385,891)	(70,915,592)	(72,478,101)	(74,074,106)	(75,704,312)	(77,369,436)	(79,070,212)
Less: OP Expenses	\$	10,144,188	10,347,071	10,554,013	10,765,093	10,980,395	11,200,003	11,424,003	11,652,483	11,885,533	12,123,243	12,365,708	12,613,022	12,865,283	13,122,588	13,385,040	13,652,741	13,925,796	14,204,312	14,488,398
Less: Current OSC Subsidy	\$	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400	25,821,400
Surplus/(Deficit)	\$	(17,390,235)	(18,372,309)	(19,375,875)	(19,817,251)	(19,867,185)	(19,938,013)	(20,032,223)	(20,150,311)	(20,292,785)	(20,460,164)	(20,652,975)	(20,871,760)	(21,117,068)	(21,389,110)	(21,684,167)	(22,002,471)	(22,344,622)	(22,712,230)	(23,105,920)

	FY 2048	FY 2049	FY 2050	FY 2051	FY 2052	FY 2053	FY 2054	FY 2055	FY 2056	FY 2057	FY 2058	FY 2059	FY 2060	FY 2061	FY 2062	FY 2063	FY 2064	FY 2065	FY 2066
Fiscal Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction Year	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating Year	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	0	0	0	0

OPTION 2 - Relocation																				
UNIT																				
OPERATING COSTS																				
Ontario Science Centre	\$	(57,442,806)	(58,587,212)	(59,754,506)	(60,945,146)	(62,159,599)	(63,398,341)	(64,661,858)	(65,950,645)	(67,265,208)	(68,606,062)	(69,973,734)	(71,368,758)	(72,791,684)	(74,243,067)	(75,723,479)	(77,233,498)	(78,773,718)	(80,344,742)	(81,947,187)
Ontario Place	\$	(8,113,890)	(8,276,167)	(8,441,691)	(8,610,524)	(8,782,735)	(8,958,390)	(9,137,557)	(9,320,309)	(9,506,715)	(9,696,849)	(9,890,786)	(10,088,602)	(10,290,374)	(10,496,181)	(10,706,105)	(10,920,227)	(11,138,632)	(11,361,404)	(11,588,632)
OPTION 2 - Total Operating Costs	\$	(65,556,696)	(66,863,379)	(68,196,197)	(69,555,671)	(70,942,334)	(72,356,731)	(73,799,416)	(75,220,954)	(76,771,923)	(78,346,912)	(79,944,520)	(81,574,360)	(83,241,057)	(84,949,249)	(86,699,583)	(88,491,725)	(90,325,122)	(92,201,147)	(94,118,819)
CAPITAL COSTS																				
Ontario Science Centre	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (Exhibits)	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (New Build and/or Improvements)	\$	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)	(8,057,404)
Ontario Science Centre - Total Capital Costs	\$	(8,057,404)																		
Ontario Place	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Critical Maintenance	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Statutory Capital Expense (New Build and/or Improvements)	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ontario Place - Total Capital Costs	\$	-																		
OPTION 2 - Total Capital Costs	\$	(8,057,404)																		
FISCAL IMPACT - Relocation	\$	(73,614,099)	(74,920,783)	(76,253,601)	(77,613,075)	(78,999,738)	(80,414,135)	(81,856,819)	(83,328,358)	(84,829,327)	(86,360,315)	(87,921,923)	(89,514,764)	(91,139,461)	(92,796,652)	(94,486,987)	(96,211,125)	(97,972,527)	(99,761,147)	(101,577,061)
Revenue Adjustment																				
Ontario Science Centre Revenue	\$	27,057,187	27,478,967	27,907,392	28,342,568	28,784,603	29,233,606	29,689,689	30,152,965	30,623,549	31,101,557	31,587,109	32,080,324	32,581,325	33,090,238	33,607,188	34,132,305	34,665,718	35,207,561	35,757,969
Ontario Place Revenue	\$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OPTION 2 - Total Revenue	\$	27,057,187	27,478,967																	



Appendix I
Economic & Fiscal Impact Analysis

Ernst & Young Orenda Corporate Finance Inc.

Ontario Place Revitalization

Ontario Science Centre Relocation Business Case

26 September 2016

FINAL



Ontario Science Centre Relocation Business Case

1.0. Introduction

Ernst & Young Orenda Corporate Finance Inc. (“EY”) has been engaged by Urban Strategies Inc. (“USI”) to provide Infrastructure Ontario (“IO”) financial and economic advisory services (“Services”) as related to the business case for the relocation of the Ontario Science Centre (“OSC”) to Ontario Place and related to EY’s previous engagement with IO providing financial advisory services for the Ontario Place Revitalization Project (SSR No. 13-234R).

1.1 Scope of work

EY’s scope of work included:

1. Define the Gross Domestic Product (“GDP”) impact associated with modernizing and relocating the OSC to Ontario Place, including:
 - a. GDP impact to the Province from construction, operations, and tourism;
 - b. Jobs creation;
 - c. Tax benefits for the City of Toronto (“City”) and the Province.
2. Comment on the fiscal impact and accounting treatment of the costs and revenues expected to the Province.

EY’s work has been informed by documents and information provided by IO and Lord Cultural Resources, such as the following:

- ▶ Cash flow financial model provided by IO;
- ▶ Tourism attendance and construction costs provided by Lord Cultural Resources;
- ▶ Tourism attendance and daily spend provided by OSC; and
- ▶ Email correspondence between IO and EY.

EY notes that our analysis does not take into consideration any alternative uses that may be considered feasible with the existing OSC site.

1.2 Background

EY has assessed the economic and fiscal impact of two (2) suggested scenarios:

- ▶ Remain on Site
 - Under this scenario, the OSC remains at its current location at Don Mills Road and Eglinton Avenue in Toronto.
 - There is an estimated 80,000 square feet (“SF”) of exhibition space that is assumed to be refurbished at a cost of \$600 per SF, which has been included in the construction spend at the OSC. \$48 million has been classified as capital construction costs for the exhibition refurbishment. In addition to the \$48 million, there is also a one-time capital upgrade of \$2 million (as a capital cost).

- There is an estimated \$195 million contemplated over a 20 year period for the deferred maintenance remediation at the OSC under this scenario. This has been included in the construction spend at the OSC.
 - This scenario assumes a 9 year refurbishment period between 2018 and 2026 for the exhibition space and additional ancillary work in the exhibit halls.
- ▶ Relocate
- Under this scenario, the OSC relocates from its current location at Don Mills Road and Eglinton Avenue in Toronto to the Ontario Place site in downtown Toronto.
 - There is an estimated 68,000 SF of exhibition space that is assumed to be newly constructed at a cost of \$600 per SF (totalling \$40.8 million). It is noted that the accommodation cost is a separate cost.
 - The construction of a new OSC at Ontario Place is estimated to cost \$334.4 million, which includes the construction cost of the exhibitions (inclusive of the \$40.8 million exhibition construction costs), the construction cost of the building (including demolition of minor ancillary buildings that are currently in the location of where the new structure will be built), land servicing, and land remediation.
 - This scenario assumes that the construction of a new OSC at Ontario Place will commence in 2019 with site servicing works (demolition, land servicing, land and remediation). Construction will occur between 2020 and 2022.
 - This scenario also includes a one-time severance cost in 2022 of approximately \$6.8 million.

2.0. GDP analysis

GDP is defined as a monetary measure of the value of goods and services produced and is a quantitative measure of economic activity. One of the main contributors to GDP is government spending, which we have relied upon in this analysis. The government spending is reflected as economic production and thereby stimulates a multiplying effect. This multiplying effect is based on the assumption that with any new injection of spending, this leads to a multiplying increase to spend – i.e. increased government spending may trigger increased jobs, which may then increase household income and the propensity to spend on consumer goods, etc.

The GDP impacts are calculated on a 50-year period from 2016 to 2066. In carrying out our work, we used various economic multipliers to estimate GDP creation, job creation and estimated tax revenues for the Province of Ontario¹. The Gross Domestic Product (“GDP”) calculations are based on a number of assumptions, such as the following:

- ▶ Construction: Based on capital costs required for the relocated development and/or redevelopment of the OSC only;
- ▶ Operations: Based on ongoing operating costs for the Remain on Site and relocation of the OSC only;
- ▶ Annual ongoing economic impact is based on annual GDP from operations and annual GDP from tourism; and,

¹ Relied on economic indicators used in EY’s previous engagement with IO regarding the Ontario Place Revitalization project in 2013/2014. In undertaking this work, EY had partnered with Dr. Stephen Tanny, an independent economics consultant. Dr. Tanny had assisted in the modelling and estimation of the potential economic impacts. In addition, the economic impact analysis also involved EY’s participation in and discussions with the Ministry of Finance. In addition, the methodology to calculate GDP from tourism is consistent with the Ontario’s Tourism Regional Economic Impact Model (“TREIM”).

- ▶ Tourism: Based on tourism attendance estimated to visit the OSC only. OSC has indicated a rate of approximately 17% in 2016 as a percentage of tourists compared to the visitor base². Tourists are defined as any visitors coming from outside of the GTA (beyond 200 km) with Ontario and Canada, United States, and overseas. Under the Relocate Scenario, it is estimated that the 17% tourism attendance is applied to the estimated 1 million visitors. As such, an assumption of 170,000 tourism attendees was applied.

Tax revenues from personal taxes, corporate taxes, HST and other taxes have been estimated on the capital, operational, and tourism spending related to the OSC.

EY notes that the bulk of GDP contribution to the Province is due to the construction of the facilities rather than their ongoing operation; though the ongoing operations could generate a significant impact over a 50-year horizon.

An **incremental impact** was also calculated comparing the two scenarios of Relocate and Remain on Site. This infers the difference of the Relocate scenario compared to the Remain on Site scenario in terms of the GDP impact, job creation, and tax revenues.

GDP Impacts (in millions)

Test concept # Range	Remain on Site		Relocate		Incremental Impact	
	Low	High	Low	High	Low	High
Number of years of construction	9	9	4	4		
Results for 2016-2066						
GDP from construction	185	226	257	314	72	88
GDP from operations	1,237	1,512	1,064	1,300	(174)	(213)
GDP from tourism	87	106	97	119	11	13
Total	1,509	1,844	1,418	1,733	(91)	(111)
Estimated ongoing annual results						
GDP from operations	28	34	24	29	(4)	(4)
GDP from tourism	1.7	2.1	1.9	2.3	0.2	0.3
Total	29	36	26	32	(3)	(4)

- ▶ The chart above contains 2 sections. The first represents GDP created from the inception of the project (i.e. 2016) through 2066 for a 50 year time period. Both of these scenarios have continuing operational and tourism GDP that could potentially go beyond 2066. The second section attempts to capture annual impacts over the years that the given scenario is in construction/operation.
- ▶ The total impact under each category (GDP from construction, GDP from operations, GDP from tourism) are based on the total spend over 50 years. An economic multiplier for non-residential buildings is then applied to each of the categories to determine the GDP impact.
- ▶ Although the Remain on Site scenario includes a significant amount of construction spend for refurbishments and critical maintenance at the OSC, the GDP impact from construction is higher in the Relocate scenario largely due to the development and construction of a new facility.
- ▶ GDP impact for operations is calculated off of the operations spending. The larger square footage of the exhibition space in the Remain on Site scenario contributes to higher operating spend (e.g. general operations related to exhibits and programs, program management, capital projects, and occupancy costs). In addition, the Remain on Site scenario includes approximately \$6 million annually on facility maintenance.

² Based on historical 3 year period from 2013/14, 2014/15, and 2015/16 as provided by OSC.

- ▶ The ongoing economic impact is calculated by the annual GDP from operations and the GDP from tourism. Given the additional spending at the Remain on Site scenario, the ongoing annual economic impact is perceived to be greater in the Remain on Site scenario than compared to the Relocate scenario.
- ▶ In summary, the Relocate scenario will generate less of a GDP impact on a total basis compared to the Remain on Site scenario. The Relocate scenario comprises of construction spending for a new development, but the efficiencies at the new facility will allow less to be spent on operations. As a result, the GDP impact from Construction for the Relocate scenario derived an impact of \$257 million to \$314 million, compared to the Remain on Site scenario, which derived a GDP impact from Construction of \$185 million to \$226 million.
- ▶ The GDP from operations is greater under the Remain on Site option than it is for the Relocate option. As GDP from operations is calculated directly from the operation spending, the Remain on Site has higher operation spend due to larger square footage of exhibition space and higher operating and maintenance costs associated with the older facility. As a result, the Remain on Site scenario will have a GDP impact of approximately \$174 to \$213 million more than the Relocate scenario.
- ▶ The GDP from tourism is based on tourism spending at the OSC, which is largely attributed to the number of tourists visiting the site. The GDP impact from tourism is greater under the Relocate scenario by \$11 to \$13 million compared to the Remain on Site scenario. This is contributed by the increase of tourists visiting the OSC under the Relocate scenario (170,000 tourists per year under the Relocate scenario compared to 118,766 tourists per year under the Remain on Site scenario).
- ▶ The GDP impact on an annual basis is greater under the Relocate scenario compared to the Remain on Site. This is largely due to the GDP from construction being spent over a shorter construction period than in the Remain on Site scenario – 4 years in Relocate and 9 years in Remain on Site.

Employment Impacts

Test concept # Range	Remain on Site		Relocate		Incremental Impact	
	Low	High	Low	High	Low	High
Estimated annual results						
Jobs from construction	226	276	707	864	481	588
Jobs from operations	365	446	318	451	(48)	4
Jobs from tourism	24	29	27	33	3	4
Total	615	752	1,051	1,347	436	596

- ▶ The total impact under each category (jobs from construction, jobs from operations, jobs from tourism) are based on the total spend over 50 years. An economic multiplier for non-residential buildings is then applied to each of the categories to determine the direct labour and induced labour impact resulting in job creation.
- ▶ The job creation from construction will be temporary in nature (e.g. construction of infrastructure) and will end when construction is complete. Given the new construction for a new facility that is required under the Relocate scenario, additional jobs are added for the construction and development. The Relocate scenario would require approximately 707 to 864 jobs annually during a 4 year construction period whereas the Remain on Site scenario would require approximately 226 to 276 jobs annually during a 9 year construction period.
- ▶ Operational jobs, which could be primarily permanent in nature, represent those necessary to maintain and operate the OSC. Under the Relocate scenario, given the reduced size of exhibition space and proposed efficiencies in program management and service delivery, the operational spending is lower than compared to the Remain on Site scenario. As a result, the Relocate scenario will create approximately 318 to 451 jobs. The

Remain on Site will require more jobs than the Relocate scenario with 365 to 446 jobs annually, based on the amount of operational and maintenance spending that is required at the Remain on Site option.

- ▶ Tourism jobs represent those in the food and beverage industry, along with hotels, taxis and other similar jobs. Similar to the GDP impact from tourism, the jobs created from tourism is largely based on the tourism attendance. The Relocate scenario will create approximately 3 to 4 more jobs annually than the Remain on Site scenario.

Tax Impact (in millions)

Range	Remain on Site		Relocate		Incremental Impact	
	Low	High	Low	High	Low	High
Results for 2016-2066						
Personal taxes	67	82	63	77	(4)	(5)
Sales taxes	52	64	49	60	(3)	(4)
Corporate taxes	25	31	24	29	(2)	(2)
Other taxes	37	45	34	42	(2)	(3)
Total	181	221	170	208	(11)	(13)
Estimated annual results						
Personal taxes	2	3	4	5	2	2
Sales taxes	2	2	3	4	1	2
Corporate taxes	1	1	2	2	1	1
Other taxes	1	1	2	3	1	1
Total	6	7	11	13	5	6

- ▶ The tax numbers above were estimated using the share of government tax revenue from the 2016 Ontario Budget³.
- ▶ The tax impact is calculated by the share of government tax revenue from the 2015/16 interim budget figures for personal tax, sales tax, corporate tax, and all other taxes. Ontario Health Premium and Education Property Tax was excluded (i.e. total tax revenue was \$90.8 million but for the abovementioned accounts, the subtotal tax revenue was \$81.7 million). The tax impact takes into account the GDP impact from construction, operations, and tourism and applies an estimated 12% share of government tax revenues. This share gets allocated according to the percentage share of the government tax revenue for each of the accounts (personal, sales, corporate, other).
- ▶ On a total basis, given the lower spend at the Relocate scenario, there will be less tax revenue generated compared to the Remain on Site scenario. The Remain on Site scenario will generate approximately \$11 to \$13 million more than the Relocate scenario based on the greater operational spending.
- ▶ The tax impact on an annual basis is greater under the Relocate scenario compared to the Remain on Site. This is largely due to the tax revenue generated from construction being created over a shorter construction period than in the Remain on Site scenario – 4 years in Relocate and 9 years in Remain on Site.

³ <http://www.fin.gov.on.ca/en/budget/ontariobudgets/2016/ch3b.html#t3-13>

Reinvestment of Savings

It is noted that the Relocate scenario will result in approximately \$677 million of nominal savings as compared to the Remain on Site scenario. It is assumed that Government would apply these nominal savings to reinvest in other areas, such as infrastructure, transit, etc. Although the GDP impact analysis above does not include the reinvestment of the nominal savings, EY has provided a hypothetical analysis of the reinvestment of the \$677 million nominal savings based on an estimate of the current government ratio of capital spending and operations spending.

According to the Government of Ontario's 2016-17 estimates, there will be the following spend on Economic Development, Employment and Infrastructure, and Research and Innovation:

<i>(in millions)</i>	2016-17 Estimates ⁴	
Operating	1,068	57%
Capital	803	43%
Total	1,872	

EY has applied the allocation to operating and capital spend to the \$677 million nominal savings. It has been assumed that approximately \$387 million will be invested into operation spend and \$291 million will be invested into construction (capital) spend.

The summary tables below illustrate the potential GDP impact from the reinvestment spending of \$677 million in nominal savings:

GDP impact (in millions)

<i>(in millions)</i>	Total		Annual	
	Low	High	Low	High
GDP from Construction (Capital)	96	117	24	29
GDP from Operations	195	238	6	8
Total	291	356	30	37

Tax impact (in millions)

<i>(in millions)</i>	Total		Annual	
	Low	High	Low	High
Personal taxes	13	16	1.4	1.7
Sales taxes	10	12	1.1	1.3
Corporate taxes	5	6	0.5	0.6
Other taxes	7	9	0.7	0.9
Total	35	43	3.7	4.5

3.0. Cash analysis

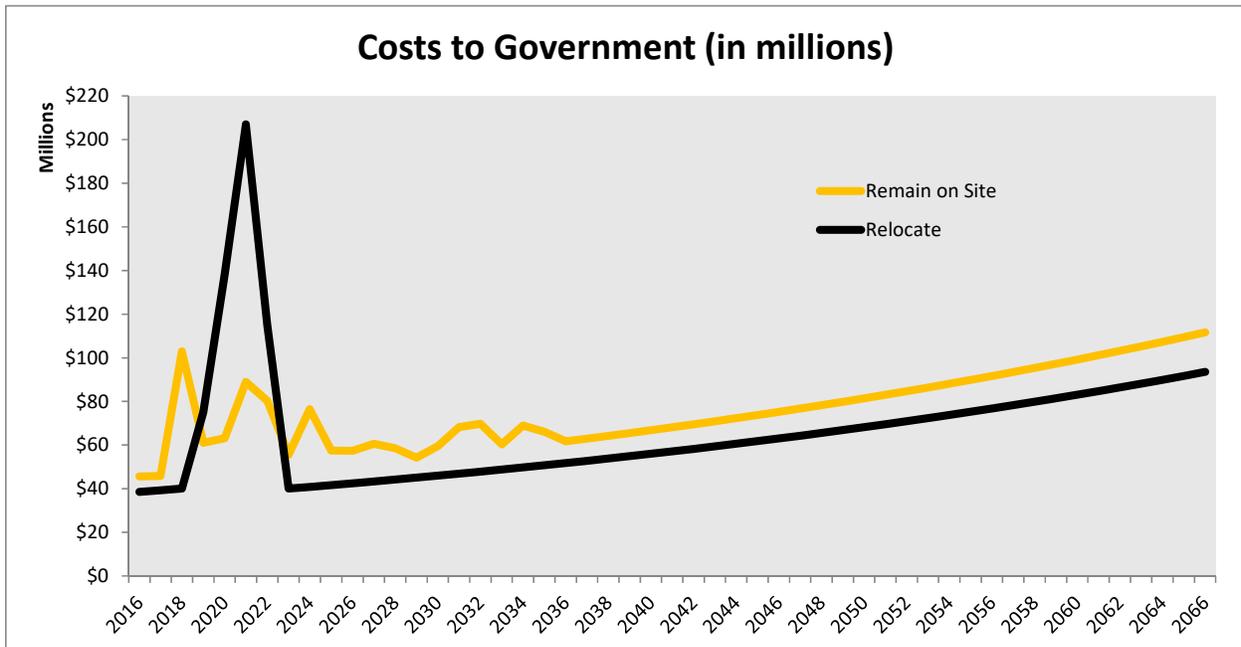
The net cash flows on a nominal basis for a 50-year basis (consistent with the financial model provided by IO) has been summarized below:

⁴ <https://www.ontario.ca/page/summary-table-6-capital>, <https://www.ontario.ca/page/summary-table-2-operating>

(in millions)	Remain on Site	Relocate
Revenues	1,155	1,355
Net Costs to Government	3,915	3,438
Net Cash Flow	(2,760)	(2,083)

It is noted that the revenues and costs listed in the table above are consolidated costs and revenue figures for both the OSC and Ontario Place in the Remain on Site and Relocate scenario. It appears that savings could be achieved by the Relocate scenario due to more efficient operations.

The following line graph illustrates that although there are significant capital investments required in the Relocate scenario, there are potential opportunities to reduce operating costs to government.



4.0. Fiscal impact analysis

Fiscal impact analysis is used to estimate the impact of the government costs offset by revenues to government. It is important to consider as fiscal impact infers the net impact on the government of a particular project. EY has reviewed the fiscal impact analysis performed by IO and has concluded that the methodology appears valid and consistent with our recent and prior experience with IO. The following tables summarize the fiscal impact, on a nominal basis, of each scenario:

5 year fiscal impact

<i>(in millions)</i>	Remain on Site	Relocate
Operating costs	(217)	(200)
Capital costs	(84)	--
Revenues	66	80
Fiscal impact	(235)	(121)
Net fiscal impact compared to Remain on Site	--	114

10 year fiscal impact

<i>(in millions)</i>	Remain on Site	Relocate
Operating costs	(456)	(416)
Capital costs	(172)	(31)
Revenues	148	176
Fiscal impact	(480)	(271)
Net fiscal impact compared to Remain on Site	--	210

50 year fiscal impact:

<i>(in millions)</i>	Remain on Site	Relocate
Operating costs	(3,624)	(3,071)
Capital costs	(291)	(367)
Revenues	1,155	1,355
Fiscal impact	(2,760)	(2,083)
Net fiscal impact compared to Remain on Site	--	677

As a result, the fiscal savings of the Relocate scenario would be approximately \$677 million as compared to the Remain on Site scenario. This is a result of improved program management, rightsizing of the exhibition square footage footprint, and more efficient facility management. The fiscal impact of the Relocate scenario less than the Remain On Site option over both the short and long-term, implying that the Relocate scenario has a smaller cost to government than the Remain On Site scenario.

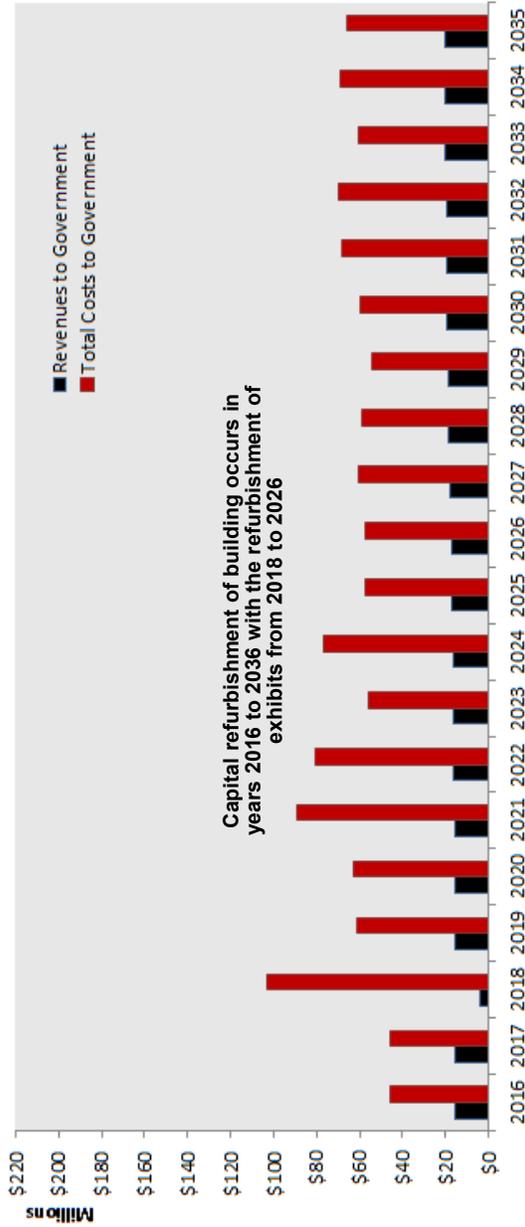
As the OSC is considered an institutional and cultural development, it is generally appropriate, according to public sector accounting guidance, to capitalize the costs related to the development regardless of whether it is classified as costs to redevelop an existing asset or costs to acquire and construct a new asset. Maintenance costs do not

qualify for capitalization and are expensed in the period incurred. Given our review of the IO fiscal impact analysis, it appears that IO has applied the appropriate methodology in accordance with public sector accounting standards.

Ontario Science Centre Business Case

Remain on Site Scenario

Remain on Site
Cash flows per fiscal year (in millions) for 20 years



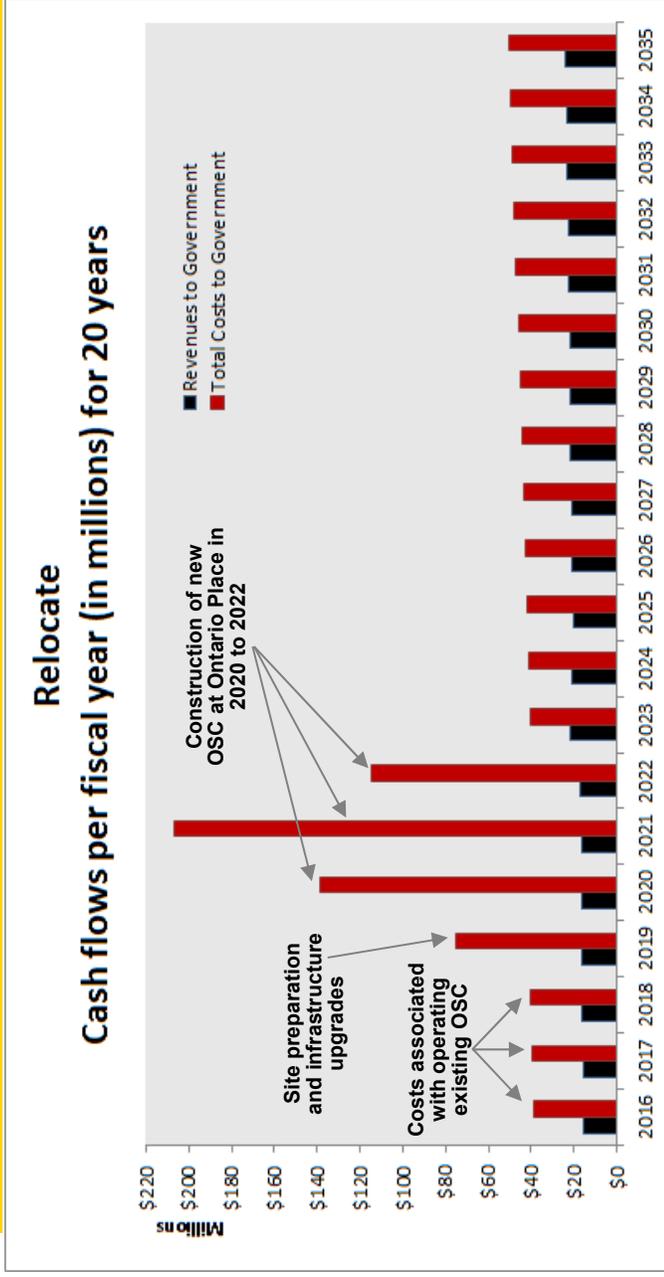
10 Year Cash Flow (subset of 51 year cash flow)

Model Year	1	2	3	4	5	6	7	8	9	10
Calendar Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenues - OSC	15	16	4	15	16	16	16	16	17	17
Capital Costs - OSC	4	3	55	11	18	43	33	8	28	8
Operating Costs - OSC	36	37	38	38	39	40	41	42	42	43
OSC Cash Flow	(25)	(25)	(89)	(34)	(42)	(67)	(58)	(33)	(54)	(34)
Revenues - Ontario Place	-	-	-	-	-	-	-	-	-	-
Capital Costs - Ontario Place	-	-	5	6	-	-	-	-	-	-
Operating Costs - Ontario Place	5	5	6	6	6	6	6	6	6	6
Ontario Place Cash Flow	(5)	(5)	(10)	(12)	(6)	(6)	(6)	(6)	(6)	(6)
Net Cash Flow - OSC & Ontario Place	(30)	(30)	(99)	(46)	(47)	(73)	(64)	(39)	(60)	(41)

Scenario	Remain on Site
GDP (total, millions)	Low High
Construction	185 226
Operations	1,237 1,512
Tourism	87 106
Jobs (annual)	
Construction	226 276
Operations	365 446
Tourism	24 29
Ongoing annual estimated GDP	
Operations	\$28 to \$34 million
Tourism	\$1.7 to \$2.1 million
Total	\$29 to \$36 million
Annual estimated tax impact	
	\$6 to \$7 million
Nominal net cost to Government	
	(\$2,760 million)
NPV net cost to Government	
	(\$1,334 million)

Ontario Science Centre Business Case

Relocate Scenario



10 Year Cash Flow (subset of 51 year cash flow)

Model Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenues - OSC	15	16	16	16	16	17	17	22	21	20
Capital Costs - OSC	-	-	-	34	97	165	72	-	-	-
Operating Costs - OSC	33	34	34	35	36	37	44	35	36	37
OSC Cash Flow	(18)	(18)	(19)	(53)	(116)	(184)	(99)	(14)	(15)	(16)
Revenues - Ontario Place	-	-	-	-	-	-	-	-	-	-
Capital Costs - Ontario Place	-	-	-	-	-	-	-	-	-	-
Operating Costs - Ontario Place	5	5	6	6	6	6	6	5	5	5
Ontario Place Cash Flow	(5)	(5)	(6)	(6)	(6)	(6)	(6)	(5)	(5)	(5)
Net Cash Flow - OSC & Ontario Place	(23)	(24)	(24)	(59)	(122)	(190)	(105)	(18)	(20)	(21)

Scenario	Relocate Low	Relocate High
GDP (total, millions)		
Construction	257	314
Operations	1,064	1,300
Tourism	97	119
Jobs (annual)		
Construction	707	864
Operations	318	451
Tourism	27	33
Ongoing annual estimated GDP		
Operations	\$24 to \$29 million	
Tourism	\$1.9 to \$2.3 million	
Total	\$26 to \$32 million	
Annual estimated tax impact		
	\$11 to \$13 million	
Nominal net cost to Government		
	(\$2,083 million)	
NPV net cost to Government		
	(\$1,085 million)	
Net Fiscal Impact (compared to Status Quo)		
	+\$677 million	

Appendix J
Space Program for New Ontario Science Centre

Legend	
Zone O - Outdoor Areas	
Zone A - Public Non-Collection	
Zone B - Public Collection	
Zone C - Non-Public Collection	
Zone D1 - Administrative	
Zone D2 - Building Support and Services	

OUTDOOR AREAS

Zone O	Public Non-Collection Space	Lord Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
O1.2	Parking				
O1.3	Pedestrian Drop-off, Car & Coach Bus				
O1.4	School Bus drop off zone two spots and two lay-by, and 17 bus parking spots.				
O1.5	Non-Exhibition Service Delivery Zone				
O1.1	Non-Exhibition Service Delivery Zones				
O1.2	Exhibition Delivery Zones				
O1.3	Emergency Laneways				
O1.1	Outdoor Food Services Eating Area in Main Building			Design dependent	
O1.2	Courtyards in Main Building			Design dependent	

ENTRANCE BUILDING

Entrance Bldg	Zone A	Public Non-Collection Space	Lord Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1	Entry - Entrance Building				
	A1.1	Vestibules	600	55	At Public entry points to Entrance Building.	Airlock entrances providing at least 10ft between inner and outdoor sets of doors - transition between outside environment and controlled environment inside.
	A1.2	Entry Lobby	2,000	184	Serves as OSC experience starting point for all visitors.	
	A1.3	Orientation Area	500	46		
	A2	Visitor Services				
	A2.1	Ticketing Counter	900	83	Counter providing ticketing for special shows and events.	
	A2.2	Information / Membership Desk	600	55	Counter providing information and membership tickets etc.	
	A2.3	Wheelchair and stroller Pick Up/Drop Off and Storage	250	23	Space to store personal strollers during visit and pick up OSC strollers and wheelchairs.	
	A2.4	Washroom, Family/Special Needs	shared with Education	shared with Education	Intent is for general public to go to main building and use restrooms there in Main Building but for emergency can use Education Washrooms. Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family; adjacent to other restrooms.	
	A2.5	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors and staff due to level changes that need to be addressed.	
	A3	Visitor Amenities				
	A3.1	Retail, Main	3,000	276	Retail space open to visitors and general public that carries merchandise and books. Includes retail space geared to kids	
	A4	Education				180,000 students per year based on 2015 numbers
	A4.1	Education Vestibules	400	37	Serves as dedicated entry point, assembly space for all school groups.	Airlock entrances providing at least 10ft between inner and outdoor sets of doors - transition between outside environment and controlled environment inside.
	A4.2	Education Orientation Areas	2,500	230	Dedicated space for school groups to get organized upon arrival. Separate from Entry Lobby; to accommodate 5 school buses that are assumed to arrive at one time. 250sqft; each can accommodate approx 25-30 persons each.	
	A4.3	Education Reception Counter	250	23	For teachers to check-in upon arrival, may be at same location as main reception however students will wait in orientation area.	
	A4.4	Education Washroom, Men's	200	18	Limited washrooms for school bus arrivals which could be shared with public if long waiting queues for entry. More washrooms provided in education area in Main Building.	
	A4.5	Education Washroom, Women's	300	28	Limited washrooms for school bus arrivals which could be shared with public if long waiting queues for entry. More washrooms provided in education area in Main Building.	
	A4.6	Education Washroom, Family/Special Needs	300	28	Two provided for urgent use to be shared with general public. Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other restrooms.	

Total NFA Zone A - Entrance Bldg		11,800	1,096		
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Entrance Bldg	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	D1	Front of House Support				
	D1.1	Ticketing Office	100	9	Office for Ticketing Manager, money safe, etc.	
	D1.2	Entry Lobby Storage	200	18		
	D2	Retail Support				
	D2.1	Retail Office	120	11	Office space for retail managers and buyers. Complete with table, chair, filing cabinets, computer and telephone hook-ups. Cash counting to take place here.	
	D2.2	Retail Storage	1000	92	This space is for retail stock and supplies storage.	
	D3	Non-Exhibit Support				
	C3.1	Non-Exhibit/Loading Area	Exterior	Exterior	For retail/Reception material shipments. Moving equipment kept here.	Secured space.
	C3.2	Custodial/Janitorial	100	9	To support Orientation Building	
	C3.3	Service Elevator	Part of Grossing	Part of Grossing	May be required depending on what level this is located on in the Entry Building.	
Total NFA Zone D - Entrance Bldg		1,620	148			
TOTAL NFA - Entrance Building		13,320	1,225			

MAIN BUILDING

Main Bldg	Zone A	Public Non-Collection Space	Lord Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1	Main Building				
	A1.1	Main Transition Lobby	1,500	139	May include retail kiosk	
	A1.2	Secondary Vestibules	400	37	Main Building is internally connect to bridge so no vestibule required there but not vestibules from this building to outdoor areas will be required. Amount of vestibules is design dependent.	Airlock entrances providing at least 10ft between inner and outdoor sets of doors - transition between outside environment and controlled environment inside.
	A2	Visitor Services				
	A2.1	Tour Station/ Audiotour Rental	50	5	Rental and Meeting Place for Tours	
	A2.2	Cloakroom	750	70	Manned or unmanned cloakroom, depending on event need.	
	A2.3	Locker Rental	500	46	Room containing personal lockers for storage of coats and other items.	
	A3.5	Retail, Special Exhibition	Within Related Exhibition Space	Within Related Exhibition Space	Retail space related to special exhibitions.	
	A3.6	Food Services	2,600	242	Grab and Go Food seating area. It could include a cafe.	
	A3.7	Public Washroom, Men's	800	74	To be discretely situated off main building lobby, on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas. Others to be provided by restaurant/cafes as shown. Final number will be based on attendance and building code regulations.	
	A3.8	Public Washroom, Women's	1,250	116	To be discretely situated off main building lobby, on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas. Others to be provided by restaurant/cafes as shown. Final number will be based on attendance and building code regulations.	
	A3.9	Public Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other public restrooms.	
	A3.10	Baby Care Room	120	11	Room equipped with supporting facilities enabling mothers to privately breastfeed and/or bottle-feed their babies and diaper changing area. Accessible to all. Separate from toilets for hygienic reasons but located in the same area, discretely off the main circulation route complete with small play area.	
	A3.11	Sick Room	200	19	First Aid area serving visitors and staff. Large enough for emergency workers to bring in life/rescue equipment (gurneys, etc.)	
	A3.12	First Aid Room	120	11	Needs to be accessible by emergency personnel bringing in a stretcher with ease of access to emergency vehicles.	
	A3.13	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors and staff. Ideally be large enough to accommodate at least 20 persons at one time.	
	A4	Education				
	A4.1	Education Coat/Bag Lockers	750	70	Room containing personal lockers for storage of backpacks and coats. Designed to be accessed by one busload group at a time.	
	A4.2	Education Lunch Storage Area	250	23	Lunch Storage Zone	
	A4.3	School Lunch Room	2200	204	For school groups "brown-bagging". Students will use this on rotation. It includes vending machine alcove.	
	A4.4	Studios/Labs/Classrooms	2250	209	Similar to existing Level 5 Labs? two labs are equipped with work benches and equipment for students to take part in hands-on programs such as DNA Fingerprinting, Diversity of the Microworld, and Rocks and Minerals.	
	A4.5	Education Washroom, Men's	400	37	Dedicated washrooms, with some urinals	
	A4.6	Education Washroom, Women's	600	56	Dedicated washrooms	
	A4.7	Education Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other restrooms.	
	A4.8	Resource/Multimedia Centre	750	70		
	A4.9	Theatre/AV Experience	Cinesphere	Cinesphere		
		Total NFA Zone A - Main Building	15,790	1,467		
Main Bldg	Zone B	Public Collection Space	Lord Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	B1.1	Permanent Exhibition Spaces (including Maker Spaces)	85,000	7,897	Maker Spaces will be included in on of the adjacent pods	
	B1.2	Temporary Exhibition Spaces	15,000	1,394		Environmental controls to international lender standards.
		Total NFA Zone B - Main Building	100,000	9,290		

Main Bldg	ZONE C	Non-Public Collection Space	Lord Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
		C1 Non-public Collection Storage				
		C1.1 Collection Storage	No Permanent Storage in Scope	No Permanent Storage in Scope		
		C2 Non-public Exhibition Support				
		C2.1 Enclosed Exhibition Loading Bay	2,200	204	Assuming two 73' long truck (max) backed in completely with cab, and adequate space between trucks and area for driver to walk to dock.	Secured space.
		C2.2 Enclosed Exhibition Loading Dock	500	46	With hydraulic lifts for each truck to accommodate "Design Object"	Secured space.
		C2.3 Exhibit Shipping/Receiving Office	120	11	For processing logistical paperwork and receiving couriers	Secured space.
		C2.4 Exhibit Shipping/Receiving	700	65	Space for exhibition preliminary packing and unpacking of uncrated objects on loan or as part of a travelling exhibition, and for final closing and weighing of outgoing crates	Secured space.
		C2.5 Crating/Uncrating	700	65	To accommodate one uncrating one truck load.	Environmental controls to international lender standards.
		C2.6 Isolation/Fumigation Room	250	23	Includes isolation storage, freezer and anoxic fumigation facilities	Secured space, inert gas unit for non-toxic fumigation. Must have ability to be exhausted to outside.
		C2.10 Photo Studio	275	26		Environmental controls to international lender standards.
		C2.12 "Clean" Workshop	450	42		Environmental controls to international lender standards.
		C2.13 Transit Storage	1,250	116		Environmental controls to international lender standards.
		C2.14 Crate Storage	750	70		Environmental controls to international lender standards.
		C2.15 Exhibit Staging	600	56	Access to back of house circulation route	Environmental controls to international lender standards.
		C2.6 Collection Freight Elevator	in Grossing	in Grossing	May be required depending on what level this is located on in the Entry Building.	Amply sized to accommodate crated "Design Object"; Environmental controls to international lender standards.
		Total NFA Zone C - Main Building	7,795	724		
Main Bldg	ZONE D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
		D1 Central Offices				
		D1.1 Reception/Waiting Area	150	14	3-6 Person Waiting Area	
		D1.2 Offices, CEO	325	30	at 325sqft each; Includes meeting space	
		D1.3 Office, CEO Executive Assistant and Admin Assistant	200	19		
		D1.4 Offices, VP	675	63	at 225sqft each; Includes meeting space	
		D1.5 Office, VP Executive Assistant and Admin Assistant	600	56		
		D1.6 Offices, Director's Office	2,160	201	at 180sqft each	
		D1.7 Offices, Manager/ Head's Office	1,650	153	at 150sqft each	
		D1.8 Open Office	7,605	707	at 90sqft per person in open office	
		D1.9 Open Office - Hotelling Desks	700	65	at 70sqft per person in open office	
		D1.10 Office Supplies/Storage	100	9		
		D1.11 Office Copy/Fax/Mail Room	150	14		
		D1.12 Large Meeting Room	790	73	Meeting, conference, audio-visual presentation space for up to 30 persons	
		D1.13 Small Meeting Room	300	28	Meeting, conference, audio-visual presentation space for 6-8 persons	
		D1.14 File Storage	160	15	For up to 16 lateral files	
		D2 Staff Amenities				
		D2.1 Staff Kitchenette	200	19	Assuming 2, one per floor	
		D2.2 Staff Lounge/Break Room	600	56		
		D2.6 Staff Washrooms, Male	175	16		
		D2.7 Staff Washrooms, Female	225	21		
		D1 SUB-TOTAL	16,765	1,558		

Main Bldg	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	D1	Other Building Support Offices Elsewhere in Building				
	D1.1	Offices, Manager/ Head's Office	390	36	at 130sqft each; including Team Lead AV and IT and Manager Tech Operations.	
	D1.2	Open Office	80	7	at 90sqft per person in open office for above related staff	
	D2	Front of House Support				
	D2.1	Main Building Lobby Storage	275	26		
	D3	Event Support				
	D3.1	Chair and Table Storage	450	42	Required or rented out per event.	
	D4	Education Support				
	D4.1	Educational Staff Prep and Meeting Room	450	42	Space for Education staff to prepare workshops that will take place in Education Zone.	
	D4.2	Education Storage/Prep	500	46	Storage of education material.	
	D5	Food Services Support				
	D5.1	Kitchen, Food Services	750	70	Could be divided up if food services divided up.	
	D5.2	Kitchen Food Storage	250	23	Could be divided up if food services divided up.	
	D6	I.T. Support				
	D6.1	I.T. Server Room	120	11		
	D6.2	I.T. Equipment Storage	150	14		
	D6.3	I.T. Communication Closets	300	28		
	D6.4	I.T. Telephone Server Room	125	12		
	D6.5	Information Technology Office	120	11		
	D7	Volunteer and Operations Staff Support			How many volunteers expected?	
	D7.1	Volunteer Lounge	450	42		
	D7.2	Volunteer Kitchenette	100	9		
	D7.3	Volunteer Uniform Storage	50	5		
	D7.4	Volunteer Locker/Changing Room, Male	175	16		
	D7.5	Volunteer Locker/Changing Room, Female	175	16		
	D7.6	Operations Staff Lounge	600	56		
	D7.7	Operations Kitchenette	150	14		
	D7.8	Operations Staff Locker/Changing Room, Male	225	21		
	D7.9	Security/Operations Locker/Changing Room, Female	225	21		
	D7.10	Operations Staff Uniform, Equipment Storage	50	5		
	D8	Contract Staff Support				
	D8.1	Contract Staff Lounge	275	26		
	D8.2	Contract Staff Kitchenette	100	9		
	D8.3	Contract Staff Locker/Changing Room, Male	150	14		
	D8.4	Contract Staff Locker/Changing Room, Female	150	14		
	D9	Exhibit Support				
	D9.1	Exhibit Loading Dock Security Station	120	11	Provided to ensure safety of objects. Overlooking exhibit loading dock and should be positioned to allow security personnel to see approaching trucks and drivers connected to small waiting area for inspection of documents. Ideally this will also overlook Non-Exhibit Loading Dock area.	Secured space.
	D9.2	Exhibit Loading Dock Security Station/Toilet	60	6		Secured space.
	D9.3	Archive Files/Storage	100	9	Related to exhibit Shipping/Receiving Office	
	D9.4	Moving Equipment Storage	150	14	In secure zone, dedicated for exhibit movement	
	D9.5	Packing Supplies	80	7	Clean storage for packing and preparation supplies for crating/uncrating process so should be located adjacent to it.	
	D9.6	Supplies/Tool Room - Clean Workroom	75	7	Related to Clean Workshop in Exhibit Support Zone.	
	D9.7	Workshop, Small Carpenter Shop	750	70	for touch ups to exhibit cases/props etc; main workshop elsewhere.	
	D9.8	Supplies, Tool Room - Carpenter Shop	160	15	Related to Carpenter Workshop	
	D9.9	AV Workroom/Storage	350	33		
	D9.10	Exhibit Case/Prop Storage	450	42		
	D10	Non-Exhibit Support				
	C10.1	Non-Exhibit Loading Bay	1,800	167	Assuming all food and non-exhibit deliveries will come through the Main Building to final destinations, including Pods.	Secured space.
	C10.2	Non-Exhibit Loading Dock	500	46		Secured space.
	C10.3	Non-Exhibit Shipping/Receiving	750	70	Includes cages for temporary storage of some items being brought in.	
	C10.4	Moving Equipment Storage	150	14		
	C10.5	Security, Employee/Visitor/ Non-Exhibit Package Entrance	100	9		
	C10.6	Non-Exhibit Loading Dock Security Station/Toilet	60	6		
	C10.7	Custodial/Janitorial	300	28		
	C10.8	Service Elevator	in Grossing	in Grossing	May be required depending if building is 2 stories and to perhaps to access adjacent pod depending on design.	
	D11	Facility Support				
	D11.1	Security Control Room	250	23		
	D11.2	Facilities Maintenance Control Rooms (BMS)	250	23		
	D11.3	Staff/ Service Elevator	In Grossing	In Grossing		
	D11.4	Technical, Maintenance & Electrical Workshops	3250	302		
	D11.5	Operations Storage	500	46		
	D11.6	Custodial/Janitorial	400	37		
	D11.7	Garbage Disposal/ Recycling Room	200	19		
	D11.8	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located.	
	SUB-TOTAL		17,640	1,639		
	Total NFA Zone D - Main Building		34,405	3,196		
	TOTAL NFA - Main Building		157,990	14,678		

POD 1 - FOOD SERVICES

Pod 1	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1.1	Food Services - Dining Area	4,500	418		
	A1.2	Public Washroom, Men's	350	33	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.3	Public Washroom, Women's	425	39	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.4	Public Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other public restrooms.	
	A1.5	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors.	
Total Zone A - Pod 1			5,425	504		
	D1.1	Kitchen, Food Services	1,200	111		
	D1.2	Kitchen Food Storage	200	19	to be divided up so some provided for each food service	
	D1.3	Catering Setup Area	1,000	93	to support events and be provided for restaurant and one cafe	
	D1.4	Wares storage	100	9	cutlery/ glassware/ china etc.	
	D1.5	Front of House Storage	255	24	for extra chairs/tables / cutlery/ glassware/podiums, signage	
	D1.6	Office, Food Services Manager	120	11		
	D1.7	Custodial/Janitorial	100	9		
	D1.8	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located on in the Pod.	
Total Zone D - Pod 1			2,975	276		
TOTAL NFA - Pod 1			8,400	780		

POD 2 - AUDITORIUM

Pod 2	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1.1	Auditorium Lobby	1500	139	Accommodate 50% of auditorium crowd or one school group shift (5 bus loads). Includes refreshment area	
	A1.2	Auditorium Sound and Light Locks	280	26	Dark transition space	
	A1.3	Auditorium/Theatre	3,000	279	Existing accommodates up to 472 guests and includes stage and circulation. This will accommodate slightly more.	
	A1.4	Public Washroom, Men's	450	42	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.5	Public Washroom, Women's	600	56	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.6	Public Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other public restrooms.	
	A1.7	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors.	
Total Zone A - Pod 2			5,980	556		
	D1.1	Office, Auditorium Manager	120	11		
	D1.2	Auditorium Stage 1	050	98		
	D1.3	Auditorium Storage	300	28		
	D1.4	Piano/Instrument Storage	250	23		
	D1.5	Auditorium Dressing Rooms/toilets/showers	500	46		
	D1.6	Auditorium, Projection/Audio Booth	200	19		
	D1.7	Custodial/Janitorial	100	9		
	D1.8	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located on in the Pod.	
Total Zone D - Pod 2			2,420	225		
TOTAL NFA - Pod 2			8,400	780		

POD 3 - ADDITIONAL FOOD SERVICES & VIP SUITE

Pod 3	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1.1	Food Services - Dining Area	2,900	269		
	A1.2	Public Washroom, Men's	175	16	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.3	Public Washroom, Women's	225	21	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.4	Public Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other public restrooms.	
	A1.1	VIP Cloakroom	120	11		
	A1.2	VIP Lounge	2,400	223		
	A1.3	VIP Washroom, Men's	160	15		
	A1.4	VIP Washroom, Women's	220	20		
	A1.6	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors.	
Total Zone A - Pod 3			6,350	590		
	D1.1	Kitchen, Food Services	700	65		
	D1.2	Kitchen Food Storage	200	19	to be divided up so some provided for each food service	
	D1.3	Catering Setup Area	500	46	to support events and be provided for restaurant and one cafe	
	D1.4	Wares storage	100	9	cutlery/ glassware/ china etc.	
	D1.5	Front of House Storage	150	14	for extra chairs/tables / cutlery/ glassware/podiums, signage	
	D1.1	VIP Kitchenette	300	28		
	D1.2	Custodial/Janitorial	100	9	Includes washrooms, custodial/janitorial area, storage etc.	
	D1.3	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located on in the Pod.	
Total Zone D - Pod 3			2,050	190		
TOTAL NFA- Pod 3			8,400	780		

POD 4 - RENTAL

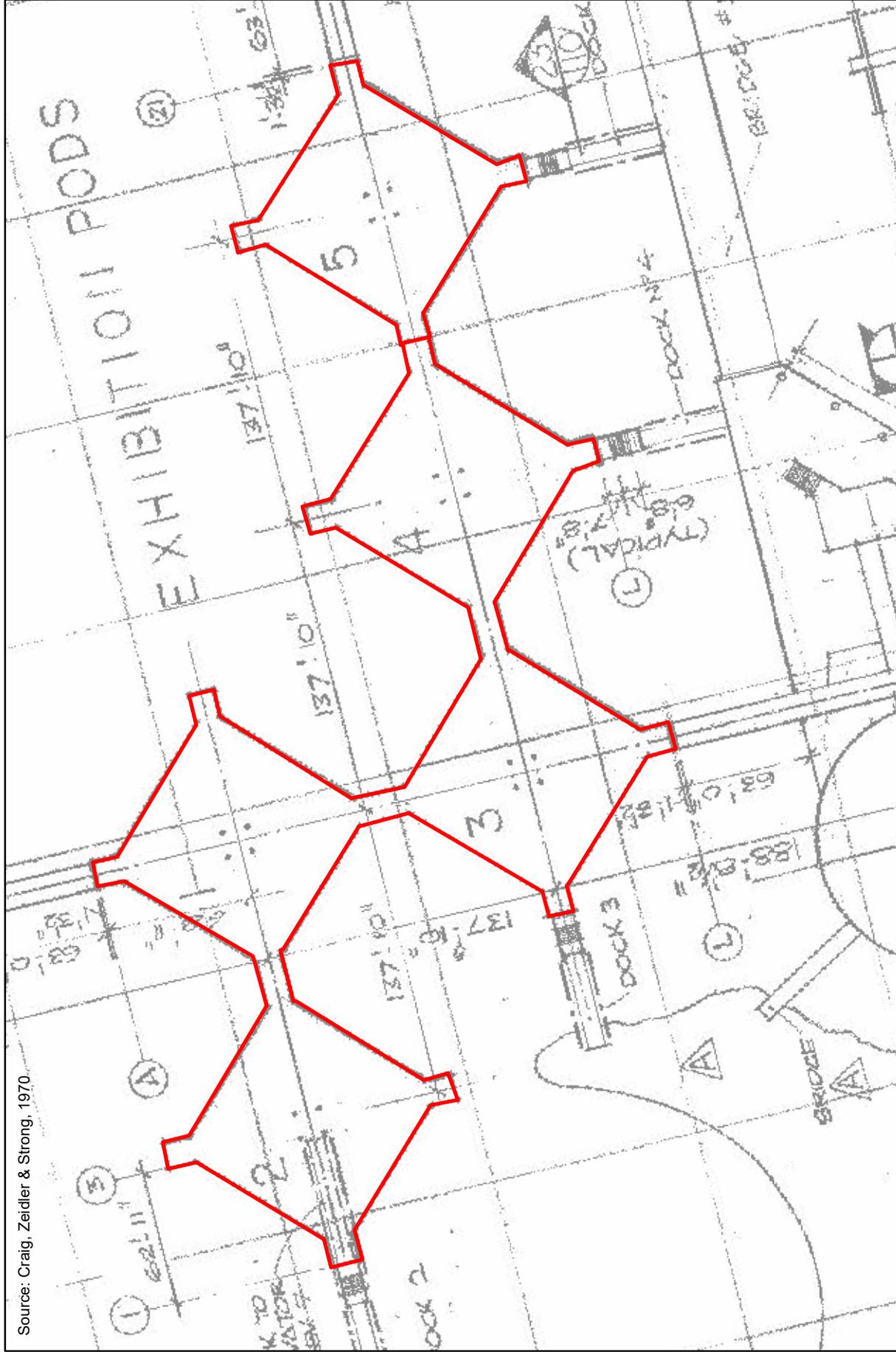
Pod 4	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1.1	Hall	5600	520	Accommodate 50% of auditorium crowd or one school group shift (5 bus loads). Includes refreshment area	
	A1.2	Cloak Room	150	14		
	A1.3	Public Washroom, Men's	375	35	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.4	Public Washroom, Women's	475	44	To be discretely situated on each main floor off of circulation area by elevators/escalators, outside of Exhibit Areas and provided by restaurant/cafes. Final number will be based on attendance and building code regulations.	
	A1.5	Public Washroom, Family/Special Needs	150	14	Discretely located restroom designed to accommodate and be barrier-free accessible for a single-user or family. It will be situated with other public restrooms.	
	A1.6	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors.	
Total Zone A - Pod 4			6,750	627		
	D1.1	Catering Kitchen	1,250	116		
	D1.2	Storage Space	300	28		
	D1.3	Custodial/Janitorial	100	9		
	D1.4	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located on in the Pod.	
Total Zone D - Pod 4			1,650	153		
TOTAL NFA- Pod 4			8,400	780		

POD 5 - FUTURE PARTNERSHIP SPACES

Pod 5	Zone D	Non-Public Non-Collection Space	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)	Functional Description	Technical Comment
	A1.1	Future Partnership Space	8,400	780	Related washrooms and back of house spaces have not been broken out.	
	A1.2	Visitor Lift	Part of Grossing	Part of Grossing	Dedicated lift for vertical movement of visitors.	
	D1.1	Service Elevator	in Grossing	in Grossing	May be required depending on what level functions are located on in the Pod.	
Total NFA- Pod 5			8,400	780		

Zoned Areas	Recommended Program Net Floor Area (Sq.Ft.)	Lord Recommended Program Net Floor Area (Sq.M.)
TOTAL NFA - Entrance Building	13,320	1,225
TOTAL NFA - Main Building	157,990	14,678
TOTAL NFA - Entrance and Main Building	171,310	15,903
GROSSING FACTOR 1.5	85,655	7,952
TOTAL GFA - Entrance and Main Building	256,965	23,855
TOTAL GFA - Pod 1	8,400	780
TOTAL GFA - Pod 2	8,400	780
TOTAL GFA - Pod 3	8,400	780
TOTAL GFA - Pod 4	8,400	780
TOTAL GFA - Pod 5	8,400	780
TOTAL GFA - Pods	42,000	3,902
GROSSING FACTOR 1.2	8,400	780
TOTAL GFA - Pods	50,400	4,682
TOTAL GFA - New Pedestrian Bridge	5,800	540
TOTAL GFA - Refurbishment of Existing Ped Bridge	3,070	285
TOTAL GFA - New Suspension Bridge	1,900	177
TOTAL GFA - New/Refurbished Bridges	10,770	1,002
GRAND TOTAL GFA	318,135	29,539

Source: Craig, Zeidler & Strong, 1970.



— Pod Area

Pod Area

Total Pod Area: 42,000 gsf

Individual Pod Area: 8,400 gsf



Date: 7/28/2016

Appendix K
Ontario Science Centre Site Land Value Analysis

Real Estate Advice Report

Date: July 25, 2016

Re: Ontario Science Centre (OSC) Land Valuation

OBJECTIVE

This memo provides an estimate of the potential economic benefits to the City of Toronto that could be realized through the future redevelopment of lands currently leased to the Ontario Science Centre (the "OSC") by the City of Toronto at Don Mills and Eglinton Avenue East, Toronto. The subject property (Appendix A) is comprised of 55 acres of which it is estimated that 17.7 acres is developable (the developable lands).

The economic benefits considered in this memorandum include:

1. One-time proceeds resulting from the sale of the developable lands (17.7 acres) for the purposes of residential mixed-use development; and
2. Recurring property tax revenues accruing to the City as a result of the termination of the existing lease and redevelopment of the lands for residential purposes.

SUMMARY

The termination of the lease and redevelopment of the developable lands are projected to result in total revenues, expressed as Present Values, ranging from \$230.1M to \$379.7M, depending on density and valuation metrics:

Market Sale of Developable Land	\$62.5M to \$97.2M
+ Realty Tax Gain	\$167.6M to \$282.5M
= Economic Benefit to Municipality	\$230.1M to \$379.7M

The above analysis assumes the early termination of the current lease (scheduled to expire in 2064) and the following assumptions as they relate to the future development of the developable lands:

- **Density achieved:** The total density that is achieved on the developable lands. This has been estimated as ranging from 3.0x to 3.5x coverage.
- **Land value:** The residual land value, expressed as a metric of \$ per square foot (psf) of buildable density, estimated as ranging from \$30.00-\$40.00 psf buildable.
- **Incremental assessment:** Calculated as the net floor area multiplied by an estimate of assessed value for residential use based on current market values for medium and high density residential units ranging from \$450.00-650.00 psf.
- **Property tax rate:** Application of the City's property tax rate of 0.72% to the incremental increase in the assessment base.

APPROACH

Proceeding under the opinion that the highest and best use of the subject property is medium to high density residential (Bousfields Inc., 2005), the *Total Benefit to Municipality* was calculated by combining the market sale value of the developable lands that could be realized by the Municipality if it was sold, and the Net Present Value (“NPV”) of the incremental Realty Tax Revenue that would accrue to the Municipality through an expanded tax base as a result of the developable lands being redeveloped from an Institutional use to a Residential use.

- 1. Market Sale of Developable Land** is calculated as the price per square foot that a developer would pay to redevelop the site as medium to high density residential, multiplied by the total estimated buildable density of the subject site.

Cost per square foot buildable:

The valuation metric for development land, expressed as price per square foot buildable, was informed by recent market sales activity in the market area. Market sales indicate a price range of \$24.00 - \$54.00/sf buildable, with the adjusted average across all comparators of \$35.00 per square foot buildable (Appendix B).

For the purposes of estimating the potential proceeds that might be achieved through the sale of the developable portion of the developable lands, a narrower range of **\$30.00 - \$40.00/sf buildable** was considered more applicable for the following reasons:

- the comparable at the low end of the range (\$24.00/sf) was also the oldest, and market appreciation in the area would dictate that this value is too low in comparison to more recent trades of similar size and density; and
- the comparable at the high end of the range (\$54.00/sf) was represented by the development at 169 The Donway West, which includes many higher value townhomes.

Using the adjusted average of the market trades, \$35.00/sf, and inflating to adjust for land appreciation assuming a development in 2021, a conservative estimate of cost per buildable square foot would be \$37.50 for the subject OSC site.

Estimated site density:

Based on recent sales of comparable development sites, density on similarly situated sites ranges from 2.7 – 4.4 FSI, with an average across all comparables of 3.7 FSI (Appendix B). However, it is noteworthy that all of these comparable sites have been designated for High Density development. Given that the scale of the developable lands is much larger than any of these recent market trades, and that there will be a mix of high and medium density, a density of between 3.0 – 3.5 FSI is appropriate. Based on the developable land area of 17.7 acres, this would contemplate a development in the range of **2.3M sf (215K m²) and 2.7M sf (250k m²)** (Appendix C).

Based on the variables described above, price per square foot buildable between \$30.00 - \$40.00 and attributable density of between 2.3M sf and 2.7M sf (3.0x – 3.5 FSI), the range of the Market Sale of Developable Land ranges between:

Market Sale of Developable Land (A) \$62.5M to \$97.2M

Appendix D highlights the full spectrum of market sale values based on a range of price per square foot buildable and density described above.

2. **Realty Tax Gain** was assessed by applying a market value range to the potential developable density of the developable lands; a 10-year development horizon was assumed. The City of Toronto's current realty tax rate for new multi-residential was then applied to this value and the total realty tax gain over the remaining term encumbered by the OSC lease (48 years to expire in 2064) was discounted back to 2016 dollars assuming a sale date of 2021.

Sale price of market residential units per square foot:

As property is assessed based on the current value of the property, market comparables for improved property was used to determine a range for the purposes of determining the incremental tax assessment associated with redevelopment of the OSC site. The range was established using recent market sales of condominium unit sales (Appendix E), which range of \$328.00 - \$720.00 per square foot.

Based on the review of comparables (Appendix E), it is estimated that the developable lands built-out with medium to high density residential would result in market values falling within a bracket of \$450.00 - \$650.00/sf. The adjustments are premised on the following:

- The low end of the range of comparable sales identified, \$328.00/sf, reflects a project that is comparatively older and therefore does not reflect current market conditions. The Scenic Condominium development (\$426.00/sf) is considered to be more comparable to potential future development on the OSC site. This comparable, after adjusted for inflation was used to define the low end of the range at \$450.00/sf.
- The Flair condominiums project represents the high end of the comparable sales identified (\$720.00/sf). While located within close proximity to the OSC site, this development is situated within the Shops of Don Mills retail development and therefore a significant premium is attached to its location. Similarly, the Blythwood Condominiums (\$690.00/sf) are marketed as an upscale product with a premium location, large average unit size, and limited number of units. Neither project is considered as indicative in scale or market orientation to future development at the OSC site. Accordingly, \$650.00/sf was considered to be more representative of the high end of the range.
- The residential projects that were considered to be most comparable to future residential development at the developable lands in terms of age, market orientation and scale/density are Scenic2 (\$525.00/sf), Lanes (\$519.00/sf), and Sonic (\$553.00/sf). The average sale price of these three developments is \$532.00/sf, adjusted for inflation in the context of a 2021 development and factoring in a medium to high density development, a sale price of **\$550.00/sf would be the most suitable price estimate per square foot** for a development of this size and scale.

Estimated site density:

The assumed buildable density for the site is estimated to be between 2.3M sf and 2.7M sf representing a range of 3.0 – 3.5 FSI as described in the calculation of (A) Market Sale of Land.

Based on the variables described above, a sale price per square foot between \$450.00 - \$650.00 and attributable density of between 2.3M sf and 2.7M sf (3.0 – 3.5 FSI), the Present Value of the (gross) future tax revenue accruing to the City would range between:

Realty Tax Gain (NPV) (B) \$167.6M to \$282.5M

It is to be noted that a 85% efficiency factor has been applied to the total estimated developable square footage (2.3M to 2.7M) to account for circulation and common space within the developments which will not be subject to residential property tax.

Appendix F highlights the full spectrum of Realty Tax revenue based on the sale price per square foot and density as described by the parameters established above.

3.	<i>Total Benefit to Municipality</i>	<i>(A + B)</i>	<i>\$230.1M to \$379.7M</i>
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APPENDIX B: LAND VALUE & DENSITY COMPARABLES

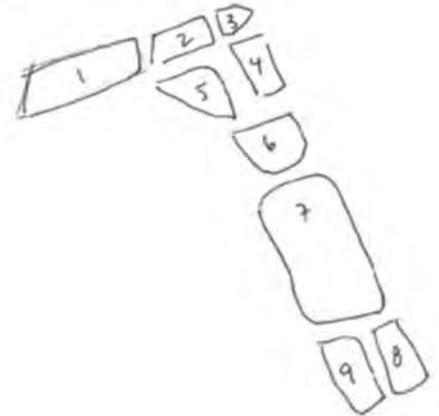
Date	Transaction Name / Land Sale	Price	Size (Acres)	Price/Sf Buildable	Price/Unit Buildable	Land Use	FSI
6/12/2009	133 Wynford Drive	\$10,000,000	3.6	\$24.00	\$28,169.00	High Density	2.7 x
8/4/2009	Vanderhoof Avenue	\$19,476,000	3.0	\$35.86		High Density	4.2 x
12/13/2010	169 The Donway West	\$9,500,000	1.3	\$54.00		High Density	3.0 x
9/7/2011	2 Laird Drive	\$3,050,000	0.5	\$38.00	\$39,103.00	High Density	3.5 x
3/3/2014	3-5 Southvale Drive	\$4,200,000	0.5	\$47.00	\$42,857.00	High Density	4.4 x
11/17/2014	1185 Eglinton Avenue East & 18 Ferrand Drive	\$15,000,000	2.9	\$29.00	\$23,511.00	High Density	4.2 x
5/29/2015	1401 O'Connor Driver	\$4,900,000	0.9	\$40.00	\$34,507.00	High Density	3.1 x
Average				\$38.27			3.7 x
Average Less Outliers:				\$35.64			

APPENDIX C: DENSITY ASSUMPTIONS

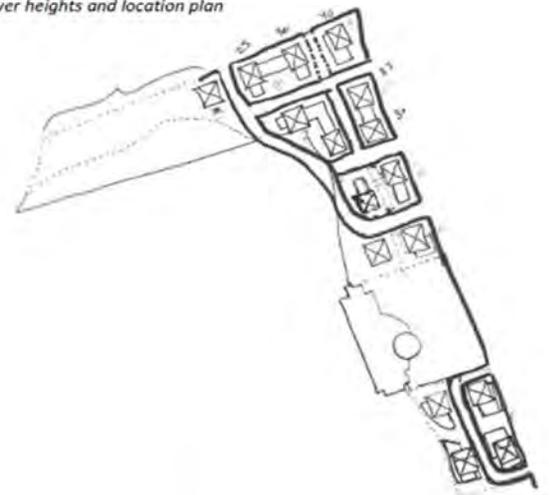
Based on comparable market developments, and the scale of the contemplated development site at the Ontario Science Center, the below represents a plan for the estimated maximum density (3.5 FSI) achievable on site across a developable area of 17.7 acres. Density assumptions are presented below.

		Storeys		GFA		TOTAL
		Podium	Tower	Podium	Tower	GFA
Block 1	Building 1	0	12	0 m ²	9000 m ²	9000 m ²
Block 2	Building 1	8	25	9800 m ²	18750 m ²	28550 m ²
	Building 2	8	30	3360 m ²	22500 m ²	25860 m ²
Block 3	Building 1	8	35	5600 m ²	26250 m ²	31850 m ²
Block 4	Building 1	8	30	6800 m ²	22500 m ²	29300 m ²
	Building 2	0	30	0 m ²	22500 m ²	22500 m ²
Block 5	Building 1	8	12	11200 m ²	9000 m ²	20200 m ²
	Building 2		12	0 m ²	9000 m ²	9000 m ²
Block 6	Building 1	6	10	5250 m ²	7500 m ²	12750 m ²
	Building 2	6	8	5250 m ²	6000 m ²	11250 m ²
Block 7	Building 1		10	0 m ²	7500 m ²	7500 m ²
	Building 2		8	0 m ²	6000 m ²	6000 m ²
Block 8	Building 1	6	10	5250 m ²	7500 m ²	12750 m ²
	Building 2		8	0 m ²	6000 m ²	6000 m ²
Block 9	Building 1	6	8	5250	6000 m ²	11250 m ²
	Building 2		8	0	6000 m ²	6000 m ²
TOTAL						249760 m²
Site Area						84,984 m ²
Buildable Area						71,629 m ²
FSI						2.9x
						3.5x

Key Plan



Tower heights and location plan



Assumptions

- 750m² point towers
- Podium depths of 35m
- 25m tower separation
- 24m ROW
- tower storeys is total building height (inclusive of podium)

250,702	232,794	214,887	m²
84,984	84,984	84,984	m ²
71,629	71,629	71,629	m ²
2.9x	2.9x	2.7x	2.5x of total site area
3.5x	3.5x	3.3x	3.0x of buildable area

APPENDIX D: MARKET SALE OF LAND SENSITIVITY (\$M)

		\$/psf buildable				
		\$30.00	\$32.50	\$35.00	\$37.50	\$40.00
FSI	3.0x	\$ 62.5M	\$ 67.7M	\$ 72.9M	\$ 78.1M	\$ 83.3M
	3.25x	\$ 67.7M	\$ 73.3M	\$ 79.0M	\$ 84.6M	\$ 90.3M
	3.5x	\$ 72.9 M	\$ 79.0M	\$ 85.1M	\$ 91.1M	\$ 97.2M

Highlighted in red are the valuations which are most probable given the scale of site, most recent market comparables, and with adjustments made for timing of the development.

APPENDIX E: MARKET SALE COMPARABLES (\$M)

Name of Development	Builder	Units	Occupancy	Currently Available Units \$/sf
Rosewood	Greenpark	203	9/1/2009	\$430.00
Accolade	Tridel	327	9/1/2009	\$443.00
Red Hot	Camrost Felcorp	114	7/1/2009	\$328.00
Kilgour2	Daniels	230	9/1/2009	\$571.00
Rosewood2	Greenpark	152	1/1/2010	\$447.00
Red Hot 2	Camrost Felcorp	117	3/1/2013	\$455.00
Residence at Don Mills	Fram	92	9/1/2013	\$513.00
Scenic	Aspen Ridge	217	5/1/2013	\$426.00
Blythwood	Tridel	119	5/1/2014	\$690.00
Scenic2	Aspen Ridge	316	10/1/2016	\$525.00
Flaire	Fram	298	12/1/2016	\$720.00
Lanes	Edzar Co.	142	1/1/2018	\$519.00
Sonic	Linvest	313	1/1/2019	\$553.00
Average				\$501.53
Average Less Outliers:				\$541.90

APPENDIX F: NPV REALTY TAX GAIN SENSITIVITY (\$M)

		\$/psf		
		\$450.00	\$550.00	\$650.00
FSI	3.0x	\$ 167.6M	\$ 205.9M	\$ 242.1M
	3.25x	\$ 181.6M	\$ 223.0M	\$ 262.3M
	3.5x	\$ 195.5M	\$ 240.2M	\$ 282.5M

Highlighted in red are the valuations which are most probable given the scale of site, most recent market comparables, and with adjustments mad for timing of the development.

APPENDIX G: PROPERTY DETAILS

Total Area:	55.5 Acres
Net Developable Area:	17.7 Acres (Appendix F)
Official Plan:	General Institutional
Zoning: Open Space	Open Space
Landlord:	City of Toronto / Toronto Region Conservation Authority
Tenant:	The Centennial Centre of Science and Technology
Use:	Operation of a museum and related facilities
Initial Lease Term, Parcel B:	99 Years (July 1965 to June 2064)
Renewal Options, Parcel B:	99 Years, includes on-going renewal option.
Initial Lease Term, Parcel A (Parking Area):	5 Years (July 1968 to June 1973, subject to multiple renewals since initial expiry). Lease originally provided for only one (1) renewal options without any further option.

APPENDIX H: MODEL ASSUMPTIONS

City Discount Rate:	4.16%	Municipal rate of 4.16% (based on debt issue spread of 123 basis points above over 30-yr Canada bond, which currently yields 2.93%).
Inflation Rate:	2.00% (Annual)	IO Land Development general inflation assumption. Applied to market value of residential units to accurately reflect Realty Tax Gain.
Highest and Best Use:	Residential (Mid- to Hi-Density)	<i>A Planning Report: The Highest and Best Use, Ontario Science Centre Lands, City of Toronto, Bousfields Inc., June 2005.</i>
Density/FSI: GFA:	2.3M – 2.7M FSI: 3.0-3.5x	Market comparables and schematic site planning indicate that a range of 3.0 – 3.5x FSI is appropriate for this site, representing 2.3M – 2.7M sf GFA.
Current Market Value:	\$62.5M -\$97.2M	17.7 Acres (771,000 sf) net developable area. Based on an FSI range of 3.0 - 3.5x, the total buildable area ranges from 2.3M – 2.7M sf GFA, and \$30 to \$40 psf/buildable, equates to \$62.5M-\$97.2M.
Realty Tax Gain:	\$167.6M -\$282.5M	Realty Tax Rate on 2.3M – 2.7M SF GFA, based on \$450.00-\$650.00, and subject to annual Inflation rate escalation. Subject to 10-yr development horizon (2-yr staging period followed by 25% completion every 2 years).
Realty Tax Rate:	0.72%	Current City of Toronto rate for New Multi-Residential
Development Efficiency	85%	Model output assumes that 85% of all developable square footage will be residential condominium. The remainder (15%), will constitute public areas such as lobbies, condominium amenities, and hallways.
Affordable Housing:	20%	If calculated at 20% of the land value, this contribution is estimated to be between \$12.5M - \$19.4M. Specific terms for affordable housing, if applicable, are to be negotiated. This deduction is currently not included in the outputs of (A) and (B).
Demolition:	\$11.4M	Province may agree to demolish the existing OSC buildings. This would allow the site to be sold free and clear. This cost is not deducted from Market Sale of Land (A). Assumes 568,000gsf and \$20/sf cost to demolish.

Appendix L
Costing Estimates: Relocation Option



ONTARIO SCIENCE CENTRE RELOCATION

West Island, Ontario Place, Toronto

ORDER OF MAGNITUDE (CLASS D) ESTIMATE

Prepared for:
LORD CULTURAL

Prepared by:
ALTUS GROUP LIMITED

Issued: August 22, 2016
Job No. 101418

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**Ontario Science Centre Relocation
Order of Magnitude (Class D) Estimate
West Island - Ontario Place, Toronto**

EXECUTIVE ESTIMATE SUMMARY

The Hard Construction and Soft Cost Estimates can be summarized as follows :

Development Component	GFA(m2)	\$/m2 (GFA)	GFA(SF)	\$/SF (GFA)	\$ ESTIMATE	% of TOTAL
1 Site Demolition & Preparation - West Island	37,161	\$81	400,000	\$7.50	\$3,000,000	1.3%
New Construction	<i>(bldg. area)</i>		<i>(bldg. area)</i>			
2 Entrance (Orientation) Building, 2 storey	1,856	\$4,389	19,980	\$408	\$8,146,000	3.4%
3 Main Building - Science Centre, 2 storey	22,016	\$4,733	236,985	\$440	\$104,208,000	43.6%
4 State of Good Repair (SGR) Upgrades - Pod Buildings <i>(as per the State of Good Repair Review Report prepared by GHD)</i>	<i>(reno. area)</i>		<i>(reno. area)</i>			
4.1 Pod # 1	936	\$1,880	10,080	\$175	\$1,760,700	0.7%
4.2 Pod # 2	936	\$2,516	10,080	\$234	\$2,355,700	1.0%
4.3 Pod # 3	936	\$1,944	10,080	\$181	\$1,820,700	0.8%
4.4 Pod # 4	936	\$1,827	10,080	\$170	\$1,710,700	0.7%
4.5 Pod # 5	936	\$1,448	10,080	\$134	\$1,355,700	0.6%
Subtotal for Pod SGR Upgrades	4,682	\$1,923	50,400	\$179	\$9,004,000	3.8%
5 Existing Pod Buildings - Interior Renovations	<i>(reno. area)</i>		<i>(reno. area)</i>			
5.1 Pod # 1 - Food Services	936	\$2,961	10,080	\$275	\$2,773,037	1.2%
5.2 Pod # 2 - Auditorium	936	\$2,597	10,080	\$241	\$2,432,044	1.0%
5.3 Pod # 3 - Rental	936	\$2,309	10,080	\$215	\$2,162,571	0.9%
5.4 Pod # 4 - VIP Suites & Future Partnership Space	936	\$2,579	10,080	\$240	\$2,414,722	1.0%
5.5 Pod # 5 - Future Partnership Space	936	\$2,451	10,080	\$228	\$2,295,075	1.0%
Subtotal for Pod Interior Renovations	4,682	\$2,579	50,400	\$240	\$12,077,000	5.1%
6 New Enclosed Pedestrian Bridge from the Entrance Building to Main Building, 90 m length						
6.1 Abutments including pile foundations, 2 No.					\$3,000,000	
6.2 Shoreline Rehabilitation - West Island end					\$1,500,000	
6.3 Enclosed Bridge Structure, 6 m wide x 90 m long	540	\$16,111	5,800	\$1,500	\$8,700,000	
6.4 Moving Walkways, 2 directions					\$750,000	
Total for New Pedestrian Bridge	540	\$25,833	5,800	\$2,405	\$13,950,000	5.8%
7 Existing Pedestrian Bridge to the Pods (approximately 95 m long)						
7.1 Allowance for upgrade the existing pedestrian bridge	285	\$8,079	3,070	\$750	\$2,302,500	
7.2 Allowance to add People Movers to the existing bridge					\$1,000,000	
Total to Reurbish the Existing Pedestrian Bridge	285	\$11,588	3,070	\$1,076	\$3,302,500	1.4%

Ontario Science Centre Relocation
Order of Magnitude (Class D) Estimate
 West Island - Ontario Place, Toronto

EXECUTIVE ESTIMATE SUMMARY

The Hard Construction and Soft Cost Estimates can be summarized as follows :

Development Component	GFA(m2)	\$/m2 (GFA)	GFA(SF)	\$/SF (GFA)	\$ ESTIMATE	% of TOTAL
8 New Pedestrian Bridge from the Main Building to the existing Pods (assumed suspended on West end from the Main Building)						
8.1 New East bridge abutment					\$500,000	
8.2 New suspended pedestrian bridge, 100 m length x 6 meters wide	177	\$16,146	1,900	\$1,500	\$2,850,000	
Total for New Pedestrian Bridge - Main Building	177	\$18,979	1,900	\$1,763	\$3,350,000	1.4%
9 Site Infrastructure - Mechanical & Electrical						
9.1 Allowance for mechanical site services and connection to Lakeshore Blvd. (tanks, pumps, piping and connections) <i>Estimate provided by LORD Cultural</i>					\$25,650,000	
9.2 Allowance for electrical site services and connection to Lakeshore Blvd. (hydro charges, power from Entrance Building to Main Building)					Included above	
Total - Mechanical & Electrical Site Infrastructure					\$25,650,000	10.7%
Total (excluding HST)	29,556	6,181	318,135	\$574	\$182,688,000	
10 Project Soft Costs (see Separate Summary)	29,556	\$1,899	318,135	\$176	\$56,129,000	23.5%
Total Estimated Project Cost (excluding HST)	29,556	8,080	318,135	\$751	\$238,817,000	

Separate Estimates (Not Included Above)

1 New 4 storey Parking Garage, total 1200 parking spots			1,200	\$42,250	\$50,700,000
1.1 Below Grade Parking		300	\$55,000	\$16,500,000	
1.2 Above Grade Parking		900	\$38,000	\$34,200,000	
2 Project Soft Costs for Parking Garage					\$4,056,000
Total Estimated Project Cost - Parking Garage (excluding HST)			1200	\$45,630	\$54,756,000
Combined Total Estimated Project Cost (including Parking Garage) (excluding HST)					\$293,573,000

Project Soft Cost Estimate				
1	Gross Floor Area (New Construction + Renovations)			318,135 SF
3	Total Hard Construction Estimate (including contingencies)	\$574	per SF	\$182,688,000
4	Project Management/Owner's Representative			
4.1	Project Managers, Owner's Representative (PM)	\$14.36	2.50%	\$4,567,000
5	Professional Services Consultants			
5.1	Architect, Engineers and Specialty Consultants including:	\$45.74	7.96%	\$14,550,900
5.2	Architectural Design		2.00%	\$3,653,760
5.3	Interior Designer		0.75%	\$1,370,160
5.4	Structural Engineer		0.65%	\$1,187,472
5.5	Mechanical & Electrical Engineer		1.15%	\$2,100,912
5.6	Landscape Architect		0.20%	\$365,376
5.7	Cultural/Heritage Consultant		0.50%	\$913,440
5.8	Civil Engineer		0.40%	\$730,752
5.9	Acoustical/Noise Consultant		0.15%	\$274,032
5.10	Planning Consultant		0.09%	\$156,351
5.11	LEED Consultant		0.15%	\$274,032
5.12	Geotechnical Engineer		0.12%	\$219,226
5.13	Environmental Consultant		0.15%	\$274,032
5.14	Shoring Consultant		0.23%	\$415,417
5.15	Quality Control		0.16%	\$283,677
5.16	Elevator Consultant		0.05%	\$85,103
5.17	Land Surveyor		0.08%	\$138,548
5.18	Miscellaneous Consultants		1.00%	\$1,826,880
5.19	Disbursements for Consultants		0.15%	\$281,748
6	Testing & Inspections + Commissioning	\$5.08		\$1,615,376
6.1	Testing and Inspections	\$3.14	0.55%	\$1,000,000
6.1	LEED Certification (process and submissions)	\$0.79	0.14%	\$250,000
6.3	Third Party Commissioning Agent (LEED)	\$1.15	0.20%	\$365,376
	Subtotal - PM + Consultants	\$65.17	19.31%	\$20,733,300
	Other Soft Costs			
7	Legal fees and expenses	\$4.31	0.75%	\$1,370,160
8	Marketing sales/leasing fees and expenses			Excluded
9	Permit fees (actual development charges would be based on the permit application process)	\$9.43	1.64%	\$3,000,000
10	Development charges			Excluded
11	Furniture & Fixtures and Equipment (Owner Supplied)	\$57.42	10.00%	\$18,268,800
12	Relocation and moving costs (physical move)	\$12.57	2.19%	\$4,000,000
13	Insurance (Gen Liability, Builders Risk, Project Wrap up, etc)	\$11.48	2.00%	\$3,653,760
14	Pre-opening & Start Up			Excluded
15	Soft Cost Contingency	\$16.04	10.00%	\$5,103,000
16	Harmonized Sales Tax or any tax rebates			Excluded
17	Financing			Excluded
18	Land acquisition			Excluded
	Total for Soft Cost Estimate (including contingency)	\$111	19.37%	\$35,395,700
	Total - Project Soft Cost Estimate	\$176	30.7%	\$56,129,000

Appendix M
Trends in Successful Cultural Attractions

CLUSTERING, BRANDING AND LEADERSHIP

Some of the major social and economic forces that impact cultural destinations need to be figured into decisions about the future of Ontario Place and the Ontario Science Center. These include

- Clustering
- Branding
- Leadership

CLUSTERING

Successful destinations are those that cluster activities and institutions into walkable accessible places. These can be in an urban downtown setting, or in a park-like place. The visitors arrive (by personal car, public transit or tour bus-vehicle) and then can freely explore a variety of activities. People have less and less discretionary free time but a greater and greater need for memorable experiences. In the knowledge economy people place high value on experiences that are both learning and enjoyment — at every age from children (who need to learn for a better future) to retirees who want to learn for better health and every stage in between.

A visit to London's Knowledge Quarter, for example, encompasses some 50 entities from the British Library, and Crick Institute to a cartoon museum and children's theatre with pop-up activities and restaurants. These entities satisfy many interests including literature and science — but does not require a group to decide in advance what their focus of the day will be. The original idea for Ontario place was a cluster of leisure activities — in the knowledge economy — leisure alone is not enough. The Science Centre in its current location is not part of a 'cluster'. It requires the potential visitor to take a decision to make a single-purpose trip. This does not reflect 21st century behavior.

BRANDING

In an information saturated world branding is a critical element of successful communication. Currently Ontario Place is a once-great brand that is derelict. Unfortunately the dereliction of this stunning site has a negative impact on brand Ontario. This is the western gateway to Ontario's capital city — it is the city's main gateway for tourism from much of Ontario,

Canada and the US. — and it is the commuter gateway for millions of person trips coming for work or shopping or sports to the economic powerhouse of Canada. So Ontario Place had high brand value and high visibility — that currently communicates failure. The Ontario Science Centre has high brand value — being considered one of the top five science centres in the world — however it has low visibility. Its location is not strategic for tourism, business, shopping or sports and the future of its street frontage is not secure in the long term since the province does not control the property. The OSC is a brand in peril.

LEADERSHIP

Cultural leadership in the 21st Century is about the creation of new knowledge. For science centres this means research and it means partnerships with universities, institutes and industry to create and apply new knowledge. It is no longer sufficient for the public to only `play` with science — but to participate fully in the process of innovation — co-creativity. Richard Florida has demonstrated that cities are the ideal crucible for these types of partnerships, even in the internet age. For many granting agencies, the science centre provides an ideal location to disseminate to the public scientific advances that they fund. Being physically isolated from partners — with low visibility is getting in the way of the OSC expanding and fulfilling its leadership potential.

