



**The New Civic Campus:  
A 21<sup>st</sup>-Century Hospital  
in the Heart of Canada's Capital**  
Site Selection Review and Information Report

Prepared by The Ottawa Hospital  
Informed by HDR Inc.,  
International Healthcare Design Experts.  
April 2016

## Table of Contents

1. Key Milestones .....	1
1. Executive Summary .....	3
2. Introduction .....	11
3. The Vision for a 21 <sup>st</sup> -Century Health-care facility .....	12
5. History and Context .....	15
6. Capital Planning Considerations .....	25
7. Methodology - The ‘hypothetical test fit’ .....	30
8. Site Selection and Analysis .....	35
9. Next Steps .....	63
10. Conclusion .....	64
Appendix A: The Ottawa Hospital Master Plan Steering Committee - 2008 .....	66
Appendix B: Letter – Ministry of Health and Long-Term Care .....	67
Appendix C: The Ottawa Hospital: Civic Campus Land Planning Matrix .....	68
Appendix D: Overview of 21 <sup>st</sup> -Century Health-care Attributes .....	70

## 1. Key Milestones

- 1996: In April, the Government of Ontario establishes the Health Services Restructuring Commission (HSRC) to begin restructuring the province's hospitals.
- 1998: The HSRC publishes its Master Plan, directing the amalgamation of General, Civic and Riverside hospitals into The Ottawa Hospital.
- 2000: Amalgamation of the three hospitals into The Ottawa Hospital begins with approximately \$350 million in investments from the Government of Ontario.
- 2007: The Ottawa Hospital convenes a Steering Committee to develop a Master Plan for 2020 and beyond.
- 2008: The Steering Committee's Master Plan concludes the Civic Hospital is too old and would be too difficult and costly to rebuild.
- The Master Plan is delivered to the Champlain Local Health Integration Network (LHIN), which is endorsed in April 2008.
- The Master Plan is delivered to the Ministry of Health and Long-Term Care (MOHLTC). The Plan is endorsed, but the development review and approval process cannot begin until a site for the new Civic Campus is secured.
- The Ottawa Hospital Steering Committee commissions a review panel with Public Works and Government Services Canada, the National Capital Commission (NCC), Canada Lands Corporation and the City of Ottawa to identify available land options to accommodate the new Civic Campus. The panel reviews 12 options. Of the 12, two optimal sites emerge, both of which are federal properties.
- 2009 – 2013: The Ottawa Hospital continues discussions with the Government of Canada and the Government of Ontario related to the Master Plan and associated building and land requirements.
- In 2013, the Government of Canada requests additional information to support a submission to the Treasury Board of Canada Secretariat (TBS) for the development of the new Civic Campus.
- 2014: The Government of Canada commissions the NCC to assist in the land transfer process. The NCC, in collaboration with The Ottawa Hospital and Agriculture and Agri-Food Canada (AAFC), reviews all planning material for the development of the new Civic Campus and prepares the required submission material for approval.
- In October, the NCC receives TBS approval to begin transferring up to 60 acres of the preferred Central Experimental Farm (CEF) site from AAFC to the NCC, to be used for the development of a new Civic Campus.

In November, the Government of Canada announces the intent to transfer 60 acres to the NCC for the new Civic Campus. A Memorandum of Understanding (MOU) is signed between Agriculture and Agri-Food Canada (AAFC), the NCC and The Ottawa Hospital.

2015: From January to June, The Ottawa Hospital works with the NCC and AAFC to complete the land transfer agreement and an agreement to lease. An NCC-led community consultation on design and vision guidelines is planned but delayed until after the October 2015 federal election.

In December, the newly-elected federal government reviews the initiative and requests a further review of land options. Four sites are selected by the federal government for review, including the CEF site which is the subject of the 2014 Memorandum of Understanding.

2016: The Ottawa Hospital continues working with the City of Ottawa and the Government of Canada to conduct due diligence on the four potential sites, as the landscape and availability of lands have changed since 2008.

In March, The Ottawa Hospital hosts a public information session to provide the community with a perspective on 21<sup>st</sup>-century health care, the development of a new Civic Campus, and an update on the review of the land options.

As The Ottawa continues to make progress toward a new Civic Campus, a number of critical dates must be met.

<b>Major Milestone</b>	<b>Target Date</b>
Federal government to complete review and recommendation for land option	June 2016
Finalization of MOU with NCC (based on federal government's decision)	July – September 2016
Approval of pre-capital submission (planning grant) by MOHLTC	September 2016 – Fall 2017
Design guidelines consultation process	July 2016 – January 2017
Finalization and approval of ground lease	January 2017 – March 2017
Master Program development and submission	September 2016 – Fall 2017
Approval of the Master Program (LHIN)	Fall 2017
Review and approval of Stage 1 and 2 - MOHLTC	Fall 2017 – Fall 2018
Design / sketch approval	Fall 2018 – Fall 2019
Approval to tender / request for proposal	Winter 2019 – Winter 2020
Construction start	Fall 2021
Construction complete	Summer 2026

## 1. Executive Summary

The Ottawa Hospital is the only adult acute-care trauma centre in Eastern Ontario. It provides health care services for the 1.3 million citizens of the National Capital Region, communities across Eastern Ontario, West Quebec and Nunavut. Its three main campuses are the only centres that provide complex, specialized services for the region's most severely ill and injured patients.

Through its three campuses, The Ottawa Hospital provides care for more patients than any other hospital in Canada. It is renowned as one of the country's leading academic research hospitals (affiliated with the University of Ottawa), as well as for its leadership in compassionate, patient-centered care, and education. It is also recognized for its investments in state-of-the-art facilities and technology.

The Ottawa Hospital manages an annual operating budget of approximately \$1.2 billion and is the third largest employer in the region, employing 11,638 staff, 1,377 physicians, and attracting 1,025 volunteers. It is also an innovation, research and education engine and is home to 1,358 residents and fellows, 124 scientists, 455 clinical investigators, 648 medical students, 1,632 nursing placements, 24 paramedic placements, and 427 research trainees.

Health care is an industry that evolves at a remarkable rate. The last century has seen incredible advancement, evolution and change. Models of care, education and research have transformed, allowing for new treatments, technology, skills and processes to greatly improve care to Canadians.

As a leading learning and research centre across all three sites, The Ottawa Hospital allows patients faster access to novel therapies and procedures, and improved clinical outcomes that are recognized internationally as practice changing. Through its partnership with the University of Ottawa, the hospital provides specialized training to the next generation of doctors, nurses and researchers, and is a major recruiter of international talent to the region.

The vision for The Ottawa Hospital in the 21<sup>st</sup>-century is to strengthen the delivery of healthcare for patients, their families and friends, the staff of the hospital, and the neighbourhoods in which its facilities are located. The Ottawa Hospital is also committed to advance leading-edge research and teaching facilities intended to improve health and wellness on both a local and global scale.

In 2007–2008, The Ottawa Hospital established a Steering Committee to guide the development of a Master Plan, which would identify the needs for the future of the community it serves. It concluded that an adult acute-care trauma centre was needed in the core of the city of Ottawa, and that the Civic Campus was best positioned for redevelopment.

The Steering Committee concluded that the current Civic Campus:

- Built in 1924, was designed to meet earlier and now-outdated standards which are no longer suitable to provide modern and state-of-the-art health care.
- Compromises The Ottawa Hospital's ability to deliver the comprehensive and integrated health-care services expected today.
- Would not accommodate future needs.
- Requires a new adult acute-care trauma centre.

Further, the Steering Committee recommended that due to its age, the existing Civic Campus would be too difficult and costly to rebuild. A new, larger site of between 50 and 60 acres was needed to accommodate a 21<sup>st</sup>-century, state-of-the-art facility. A parcel this size would be consistent with best practices for new healthcare centres across North America. The Ontario Ministry of Health and Long-Term Care (MOHLTC) agreed with these recommendations.

A new health-care facility represents a major capital investment by all levels of government, the hospital and the community. Therefore, selecting the proper size and location for the site is a critical decision to ensure the organization serves the needs of the community effectively and efficiently for the next century. To help make this decision, The Ottawa Hospital engaged HDR Architecture Associate Inc. (HDR) to provide advice and direction on the size, shape and related requirements for the new Civic Campus. This planning also included key capital planning considerations, as well as a rationale for program and space requirements to guide the Civic Campus initiative.

In 2007–2008 The Steering Committee commissioned a land review panel with Public Works and Government Services Canada (PWGSC) (now Public Services and Procurement Canada), National Capital Commission (NCC), Canada Lands Corporation, the City of Ottawa and HDR to identify available land parcels that would accommodate a new health-care facility. Their work was guided by planning principles focused on quality of care and patient safety, excellence in research and teaching, and improving cost effectiveness. Twelve criteria were developed to evaluate the potential land options. These included land size and location, ease of access to a new campus, and impact on the community, among other considerations.

The land review panel identified 12 potential sites for the development of a new Civic Campus. Each site was independently assessed, scored and ranked against the 12 evaluation criteria. Two strong options emerged: a 60-acre site on the Central Experimental (CEF) across from the existing Civic Campus (bordering Carling Avenue and Fisher Avenue), and a 60-acre site on NCC land located at Woodroffe Avenue and Hunt Club Road across from the Nepean Sportsplex.

In April 2008. The completed land review exercise was submitted as part of the Master Plan to the Champlain Local Health Integration Network (LHIN) for review and approval. The LHIN endorsed the plan, following which it was submitted and endorsed by the MOHLTC. However, the development review and approval process could not begin until a site for the new Civic Campus was secured.

As both of the highest ranked parcels of land were federally owned, The Ottawa Hospital submitted the Master Plan to the Government of Canada, together with a request to transfer land for use in the development of the new Civic Campus. The site at Woodroffe Avenue and Hunt Club Road was removed as a preferred option because the growth projections for the densification of Ottawa's core changed.

During 2013 and early 2014, The Ottawa Hospital with the NCC and Agriculture and Agri-Food Canada (AAFC) provided information to the federal government for a submission to the Treasury Board of Canada Secretariat (TBS) to transfer land from AAFC to the NCC, with the intention of developing the new Civic Campus.

This resulted in the development of a Memorandum of Understanding (MOU) between AAFC, the NCC and The Ottawa Hospital. In November 2014, the Government of Canada publicly announced its approval to transfer 60 acres of CEF land to the NCC for a new Civic Campus, and the MOU was signed. From January to November 2015, The Ottawa Hospital worked with the NCC and AAFC to develop a land transfer agreement and an agreement to lease. Both of these documents were the starting point for the development of a formal ground lease, which would be drafted after a community consultation process was completed related to vision and design guidelines for the new land.

This process was originally planned for the summer and fall of 2015, but it was agreed it would begin after the fall 2015 federal election. The newly-formed federal government endorsed the building of a new Civic Campus in the core of the city of Ottawa.

The new government also requested that The Ottawa Hospital conduct a further review of the following four land options as the landscape and availability of lands may have changed since 2008:

1. The CEF-West property identified in the approved MOU.
2. CEF-Central, a site on CEF land south of the current Civic Campus and east of the existing MOU-approved site.
3. CEF-East, a site known as the Sir John Carling site located in the northeast section of the CEF.
4. A property at Tunney's Pasture.

The Ottawa Hospital re-engaged HDR, internationally-recognized experts in the design and build of modern hospitals, to conduct a review of the four options. HDR utilized an industry accepted hypothetical test fit modelling approach.

Hypothetical test fit modelling assesses both current planning assumptions and potential for future growth. It also demonstrates optimal placement of facilities, tests and validates the most efficient footprint size for hospital buildings, and shows how facilities integrate into the

neighbourhood. HDR utilized this test fit modelling tool to assess the strength, enablers, challenges and considerations for each option.

The land planning matrix criteria was used to determine whether sites met the criteria for land area, location, land access to the facilities by patient and service vehicles, access to and from major road and transportation systems, impact on the community, impact on AAFC, infrastructure, phasing and transition, proximity and accommodation for future expansion. The following table provides a summary of the analysis.

Strengths/Enablers	Challenges/Considerations
<p><b>CEF-West:</b> A parcel located on the northwest portion of the CEF. The site has two primary roadways – Carling Avenue and Fisher Avenue – and is directly across the street from the current Civic Campus.</p>	
<ul style="list-style-type: none"> <li>• Meets land area criteria.</li> <li>• Meets criteria of being in centre core.</li> <li>• Meets access criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles. Bounds the CEF on only two sides, allowing for public access and trails on two sides without going through or near the remaining CEF land.</li> <li>• Meets transportation criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles. This option integrates well to major road systems for patient, visitor and emergency vehicle access. Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).</li> <li>• Meets criteria to support future expansion.</li> <li>• Zero to minimal community impact – some disruption and impact to surrounding communities. Directly across from the existing site for any synergies associated with the total urban plan.</li> </ul>	<ul style="list-style-type: none"> <li>• Research done on part of this land to be relocated. Still awaiting substantive and comprehensive details confirming the impact of relocating existing research.</li> <li>• CEF is a National Heritage Designation.</li> <li>• Relocation of the intersection of Ash Lane and Winding Lane.</li> <li>• Minor relocation of CEF parking required along the northeast boundary.</li> <li>• During construction, neighbourhood may be impacted.</li> <li>• Site remediation of buried experimental pesticides and insecticides based on initial environmental survey assessment.</li> </ul>

<ul style="list-style-type: none"> <li>• Meets land preparation criteria. No demolition of CEF buildings required. No relocation of physical building assets.</li> <li>• Meets infrastructure criteria.</li> <li>• Meets patient accessibility and proximity criteria.</li> <li>• Meets phasing criteria.</li> </ul>	
<p><b>CEF-Central:</b> A parcel located south of the current Civic Campus. This parcel has only one primary road to access the site, Carling Avenue, and includes both open CEF fields and existing buildings.</p>	
<ul style="list-style-type: none"> <li>• Meets land area criteria.</li> <li>• Meets location criteria.</li> <li>• Meets land access criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles.</li> <li>• Meets transportation criteria – access from 417 and Carling Avenue. Access is effective without the requirement to cross through adjacent residential neighbourhoods. Option integrates well with major road systems for patient, visitor and emergency vehicle access. Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).</li> <li>• Meets future expansion criteria.</li> <li>• Zero to minimal community impact – minimal disruption and impact to surrounding communities. Almost directly across from the existing site for any synergies associated with the total urban plan.</li> <li>• Minimal impact to the research on the land – requires confirmation from AAFC as to extent of research being conducted.</li> <li>• Meets infrastructure criteria.</li> <li>• Meets patient accessibility and proximity criteria.</li> <li>• Meets phasing criteria.</li> </ul>	<ul style="list-style-type: none"> <li>• Capital cost would be significantly higher in this option in order to demolish or relocate existing buildings.</li> <li>• It would not be uncommon for building requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</li> <li>• The existing larger buildings within this land area include:</li> <li>• <b>Building 20:</b> K.W. Neatby Building East and Oilseed Research Centre (~ 25,443 sq ft heritage building)</li> <li>• <b>Building 21:</b> Header House - Integrated Growth Facility (~3866 sq ft greenhouse space)</li> <li>• <b>Building 22:</b> Canadian Food inspection Agency Carling Laboratory (~ 5347 sq ft heritage building).</li> <li>• There are also a few smaller AAFC buildings.</li> <li>• The plan and cost to demolish and redevelop on an alternate site would need to be validated and funded by the Federal government.</li> <li>• CEF is a National Heritage Designation.</li> <li>• No secondary access roadway; will need to repurpose the NCC scenic parkway and bisect Ash Lane and existing CEF lands to create a dedicated roadway for service and emergency vehicles. Site will be bound by CEF land on three sides.</li> <li>• Will need to consider how to integrate CEF land with the hospital lands.</li> <li>• Divides the CEF requiring full relocation of</li> </ul>

	<p>Winding Lane.</p> <ul style="list-style-type: none"> <li>• During construction, neighbourhood may be impacted.</li> </ul>
<p><b>CEF-East - Sir John Carling:</b> Located on the northeast portion of the CEF. The parcel is bounded by Carling Avenue, Maple and Birch Drives, Prince of Wales Drive and the CEF Pathway and Queen Juliana Park. Similar to CEF-Central, CEF-East has open area, existing buildings and the original pathways for the CEF. The topography of this site varies and slopes to the east.</p>	
<ul style="list-style-type: none"> <li>• Meets land criteria if expanded outside the current boundaries of the John Carling site – test fit shows how 60 acres fits and the boundaries of the outline.</li> <li>• Meets location criteria of being in centre core. While not as close as CEF-West or CEF- Central sites, the access from Highway 417 via Carling Avenue or Parkdale Avenue is still very effective. Location overlooks the Queen Juliana Park with potential for direct synergies for wellness amenities and recreational relationships within the neighbourhood and community.</li> <li>• Meets land access criteria – access from Highway 417, and potential access from Carling Avenue and Prince of Wales Drive.</li> <li>• Meets transportation criteria – access from 417 and Carling Avenue. Will take longer as it is somewhat farther than CEF-Central and CEF-West sites. Potential access from both Carling Avenue and Prince of Wales Drive. Option integrates well with major road systems for patient, visitor and emergency vehicle access. Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).</li> <li>• Meets criteria to support future expansion.</li> <li>• Minimal community impact.</li> <li>• Potential to integrate existing mature trees.</li> <li>• Meets infrastructure criteria.</li> <li>• Meets patient access and proximity criteria.</li> <li>• No impact on research plot – need</li> </ul>	<ul style="list-style-type: none"> <li>• Irregular site boundaries.</li> <li>• Located adjacent to a known fault line (need to confirm that the site will meet the hospital post-disaster building construction requirements).</li> <li>• Increase in height/depth of parking structures required based on tight site density.</li> <li>• Inability to maintain program adjacencies with connected buildings due to site configuration.</li> <li>• Incompatibility with the scale of adjacent buildings.</li> <li>• Traffic access will increase on Prince of Wales Drive and NCC scenic parkway.</li> <li>• Will need to review impact of Prince of Wales Drive being used as the secondary access for service vehicles, etc.</li> <li>• CEF is a National Heritage Designation.</li> <li>• This site has the tightest site density.</li> <li>• Potential impact to the community living near Prince of Wales Drive if the traffic volume increases.</li> <li>• During construction, neighbourhood may be impacted.</li> <li>• Capital cost would be significantly higher in this option.</li> <li>• Capital cost would be significantly higher in this option to demolish or relocate existing buildings, including heritage buildings.</li> <li>• It would not be uncommon for building requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</li> <li>• On this site we have a least 24 buildings. A number of them are recognized as Level 1</li> </ul>

<p>confirmation from AAFC.</p>	<p>National Historic Sites, and nine of the buildings are recognized by the Federal Heritage Building Review. Heritage buildings include:</p> <ul style="list-style-type: none"> <li>• Buildings 1 to 9: Natural Resources Canada Campus (7 heritage buildings including Dominion Observatory)</li> <li>• Building 20: K.W. Neatby Building East and Oilseed Research Centre (~ 25,443 sq ft heritage building)</li> <li>• Building 34: Genetics</li> <li>• Extensive demolition and/or relocation of buildings is required to allow for the new build to proceed. The plan and cost to demolish, relocate and redevelop on an alternate site would need to be validated and funded by the Federal government.</li> <li>• Option is in relatively close proximity to existing Civic Campus. However, transitions of programs will require further planning and temporary arrangements compared to the options on CEF-West and CEF-Central sites.</li> </ul>
<p><b>Tunney's Pasture:</b> Located north of the existing campus and adjacent to the Ottawa River. The parcel is bound by Sir John A. Macdonald Parkway, Parkdale Avenue, Scott Street and the Sir Fredrick Banting Driveway.</p>	
<ul style="list-style-type: none"> <li>• Meets land criteria.</li> <li>• This location is next to the Ottawa River. The parcel of land is bound by Sir John A. Macdonald Parkway, Parkdale Avenue, Scott Street and the Sir Frederick Banting Driveway.</li> <li>• Multiple land access points.</li> <li>• Meets transportation criteria - close proximity to new light rail development and substation.</li> <li>• Meets future expansion criteria.</li> <li>• No impact on CEF land.</li> <li>• Meets infrastructure criteria.</li> <li>• Meets patient access criteria.</li> <li>• Still in the core of the city although access is not as fast or convenient.</li> </ul>	<ul style="list-style-type: none"> <li>• In order to accommodate land area, significant demolition, repurposing and reallocation of existing buildings is required.</li> <li>• Access from Highway 417 for emergency vehicles and public traffic is not as good as the other three options, with the exception of light rail. Most patients requiring acute trauma care will not travel via light rail.</li> <li>• Anticipated that road work to and from Highway 417 would be required to support increased traffic.</li> <li>• Service vehicle access needs to be reviewed as to best possible access.</li> <li>• Traffic access will increase on Parkdale Avenue, Sir John A. Macdonald Parkway and surrounding streets.</li> <li>• During construction neighbourhood may be impacted.</li> </ul>

	<ul style="list-style-type: none"> <li>• Capital cost would be significantly higher in this option.</li> <li>• It would not be uncommon for buildings requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</li> <li>• The plan and cost to demolish and redevelop on an alternate site would need to be validated and funded by the federal government.</li> <li>• Not as close as the other three options. This would have significant impact related to staging and phasing the efficient transitions of services from existing Civic Campus.</li> <li>• This is a new location with no line of sight to existing Civic Campus, unlike the other three options.</li> </ul>
--	--

The development of a new Civic Campus is a milestone project – not only for health care, but as a major community-building project. The development will serve the region for generations to come and will be built to deliver the highest possible quality of service to patients. It will also accommodate the changing models, demands and practices of 21<sup>st</sup>-century health care. As clinical, research and education frameworks and best practice standards evolve, so will the healthcare needs of our community. The new Civic Campus must be designed to accommodate such changes as they emerge.

The Ottawa Hospital is also committed to continuing to engage the community. In February 2016, the hospital held a meeting with a newly established Public Consultation Committee (PCC) comprised of a broad range of organizations that have an interest in the new Civic Campus and the future of the CEF. The Ottawa Hospital also developed and continues to refine a Community and Stakeholder Engagement Program with the goal of consulting the public and stakeholders in a meaningful way to solicit perspectives to inform the vision and design guidelines of a modern Civic Campus. As a first step, in March 2016, The Ottawa Hospital hosted a public information session to provide the community with a perspective on 21<sup>st</sup>-century health care and what can be expected with the development of a new Civic Campus. An update was also provided on the review of the land options that would be undertaken.

The development of the new Civic Campus is a critical project for the future delivery of health-care services for the greater Ottawa Region, Western Quebec and eastern Nunavut. There is an urgency to proceed forward with the confirmation of the land selection process for two principle reasons. Firstly, the Master Planning initiated in 2008 identified a number of

significant deficiencies with the existing Civic Campus infrastructure that had to be addressed through the development of a new site by 2020/21. Extending significantly beyond this timeframe will further exacerbate the challenges associated with the aging infrastructure of the existing campus. Secondly, the provincial government is structuring its 10-year capital project strategy and the new Civic Campus development project will only be considered as part of this strategy with the approval of the land option. The longer this is delayed, the greater the risk that the project will not be included as part of the province's capital priorities.

The implementation of a lease agreement through the NCC for the use of federal lands to develop a hospital is not the first instance in the Ottawa region. The Queensway Carleton Hospital structured a very similar arrangement with the NCC for the development of their hospital site onto federal lands in the west end of Ottawa. The following report provides a comprehensive review of the four options that will provide the federal government with the requested information to complete their review and finalize the land selection. With this in place, the approval process with the Province of Ontario will be initiated and The Ottawa Hospital looks forward to working with the regional, provincial and federal partners to develop our new, state-of-the art adult trauma center over the next 10 years.

## 2. Introduction

The purpose of this document is to provide a clear understanding of the steps and processes to secure a site in the core of the city of Ottawa to build a new, more modern and patient-centric Civic Campus of The Ottawa Hospital.

Selecting the best possible site is paramount in the development of a world-class, health-care facility for the 21<sup>st</sup> century. It will also help to meet the vision for the Civic Campus to strengthen the delivery of health care; enhance the health-care experience for patients, their visitors, and staff; and integrate a new facility with its neighbours and the community. This vision is described fully in Section 4.

The site options represent a culmination of 20 years of collaboration of federal, provincial and community partners, together with international experts and the perspective of the population served by The Ottawa Hospital. A history of the decisions and activities – which began in 1996

with the Government of Ontario’s decision to restructure the province’s health-care system – is outlined in Section 5.

Decisions about the future of the Civic Campus are based on a consensus among partners, including the Champlain LHIN and the MOHLTC, that the current facility is no longer suitable to provide modern, state-of-the-art health care. Further, the community of Ottawa requires a new adult acute-care trauma centre in the core of the city, and the Civic Campus is best positioned for redevelopment. Among major G8 cities in the world, the integration of the hospital and trauma centre into the fabric of the community is considered to be a critical economic and infrastructure landmark and an important building block in a city’s future.

Section 6 describes The Ottawa Hospital’s capital planning considerations for the new Civic Campus, and Section 7 lays out the methodology and processes applied in selecting options for a site. They reflect best practices and principles in the delivery of patient-focused health care, the size and location of land and buildings based on a number of identified needs, as well as requirements for research and education and projected future needs.

In Section 8, four potential site options proposed by the current federal government for a new Civic Campus site are assessed, with analysis for each on location, suitability, strengths and challenges. Currently, they are being reviewed and it is anticipated that a final site will be chosen shortly.

Section 9 outlines anticipated next steps in the initiative, and Section 10 reiterates the importance and value of a new Civic Campus for the city of Ottawa and surrounding region. As The Ottawa Hospital looks forward to the next 10 to 15 years in the expected lifespan of the initiative, it remains committed to collaborate closely with its partners and the community to ensure the best choices are made for the location, design and construction of a new Civic Campus of The Ottawa Hospital.

### 3. The Vision for a 21<sup>st</sup>-Century Health-care Facility

The vision for The Ottawa Hospital’s Civic Campus in the 21<sup>st</sup> century represents a significant and exciting evolution from its early 20<sup>th</sup>-century origins and the advances that have been made since.

In general, the vision is to:

- Strengthen the delivery of health care. A new facility will enhance this role by providing leading-edge research and teaching facilities

**The Ottawa Hospital  
Civic Campus  
Draft Development Principles**

Providing the Best Patient and Family Experience  
--  
Improving Health, Wellness and Recovery  
--  
Promoting Innovation and Research  
--  
Educating our Future World-Class Talent  
--  
Integrating with our Community  
--  
Helping to Sustain our Environment  
--  
Enhancing the Economic Engine of our Community

intended to advance health and wellness on both a local and global scale.

- Enhance the experience, heritage, and spirit of the facility for patients, visitors, neighbours, and staff of the hospital.
- Integrate a new facility with its neighbours and the community.

The Ottawa Hospital drafted seven development principles to help articulate and achieve its vision. Subject to validation in future community consultations (see Section 9), these principles will form part of a planning framework that guides and inspires the design of the facility in its location within the city and its integration in the community.

The following are the seven draft development principles:

*1. Providing the best patient and family experience*

The Ottawa Hospital recognizes that it is part of a broader system where disease prevention and community care are essential components of care. The new Civic Campus will be a patient- and community-focused facility committed to providing the highest standards of care possible for patients suffering from major trauma and acute illnesses. It will have design features that were either not conceived or encouraged in 20<sup>th</sup>-century hospitals. With health and wellness at its core, this vision takes into consideration:

- Improving the flow of movement for patients, their visitors, and staff.
- Maximizing natural light.
- Building healing gardens.
- Integrating the facility with its natural surroundings.
- Enhancing enjoyment of the location for surrounding neighbourhoods and community.

*2. Improving health, wellness and recovery*

At the hub of a 21<sup>st</sup>-century vision for health care are state-of-the-art buildings which marry patient safety and hospital efficiency while providing greater comfort and ensuring faster healing.

In addition, The Ottawa Hospital will work closely with partners in health and social services to create networks of care focused on the health of populations.

In this vision:

- Patients will have their own private rooms and bathrooms, providing a better, more comfortable and private experience for them and their families. This approach conforms with evidence-based, modern healthcare standards and is proven to reduce the spread of infection.
- Isolation rooms, floor layouts and monitoring systems will be designed to defeat “super bugs”. The use of new materials will help repel viruses and drug-resistant bacteria.

- Diagnosis and surgery will be performed in tandem in the same suite, in keeping with modern healthcare standards. It will save precious time for patients suffering from strokes, heart attacks and major trauma. Every minute saved means the difference between a happy outcome and permanent disability or death.
- Access will be provided to green spaces, gardens, walking and cycling paths, and quiet areas for reflection to promote and even hasten recovery.
- Healthy foods will be studied in partnership with experts from the food systems sector and other community organizations, with emphasis to patients on the importance of nutrition and healthy eating, and how they promote wellness.

### *3. Promoting innovation and research*

The future of health care is created through innovation and research. The new state-of-the-art Civic Campus will allow The Ottawa Hospital to attract the best and brightest physicians, scientists and health-care professionals from around the world. This will ensure that The Ottawa Hospital remains at the forefront of discoveries that are revolutionizing health care globally in the 21<sup>st</sup> century.

In this vision:

- The hospital will be fully digitalized. For the first time patients, family members and caregivers will have access to up-to-date health records – from anywhere in the world.
- Ground-breaking research will be conducted, leading to innovations and new discoveries through collaboration between health-care innovators, medical engineers and designers.

### *4. Educating our future world-class talent*

The Ottawa Hospital will educate, develop and attract the finest talent in the world through its affiliations with local colleges and universities. Its commitment to education will enable it to provide world-class care to patients, and leading-edge education and training for future doctors, nurses and other health professionals.

The Ottawa Hospital is recognized in Canada and around the world for its therapies and procedures, and for its success in improving clinical outcomes. It will continue to build on its national and international stature while contributing to the quality of care at the community, city, regional and territorial levels. The Civic Campus is integral to this success.

### *5. Integrating with the community*

The Ottawa Hospital is the largest academic health sciences centre in the Champlain LHIN. It plays an active role in promoting and improving health within the community by collaborating with a wide range of partners to build a strong, integrated system for regional health-care delivery.

The new Civic Campus will be part of the neighbourhood, not bricks and mortar standing in

isolation. It will be a campus that is respectful of, and in sync with, its community. It will be a built environment that respects human scale and the surrounding natural landscape. It will be part of a health village that offers much more than acute care.

#### *6. Helping to sustain the environment*

The new Civic Campus will be reengineered into an eco-friendly, sustainable health-care centre that meets the highest environmental standards. The carbon footprint will be minimal, water will be conserved and building services will be energy efficient. Access to the campus will be supported by the City of Ottawa's mass transit system plans and green methods of transportation such as walking and cycling, which will reduce the number of staff and families using cars to commute to the health centre.

#### *7. Enhancing the economic engine of the community*

The new Civic Campus will continue to play an active role in the economic future of the nation's capital, which is growing rapidly in size.

With 12,000 employees, The Ottawa Hospital is the third-largest employer in the community. Through intellectual property and research discovery, it partners with the private sector to develop start-up companies, create jobs and improve the overall economic health of the National Capital Region.

The Ottawa Hospital is also a major purchaser of products and services and generates significant direct and indirect economic benefits. With development costs estimated at over \$2 billion, the new Civic Campus will be a major economic driver for the region, both during the construction phase and in years to come as an engine to attract and retain the best talent available.

## **5. History and Context**

The journey to realize a new, more modern and patient-centred Civic Campus that delivers advanced health-care practices has been a 20-plus-year collaboration of federal, provincial and community partners, international experts, and the perspective of the population it serves.

### **5.1 Restructuring Ontario's public hospitals**

In April 1996, the Government of Ontario established the Health Services Restructuring Commission (HSRC) to make decisions on restructuring Ontario's public hospitals. In 1998, the HSRC published a Master Plan which, for the region, focused on developing a three-site, full-service system that would transform Ottawa into a leading clinical and academic health sciences centre.

### **5.2 Restructuring The Ottawa Hospital**

In April 1998, The Ottawa Hospital was formed in response to a directive of the HSRC Master Plan to amalgamate the Civic, Ottawa and Riverside hospitals' programs and services under one corporation. This transformation, which began in 2000, took approximately 10 years to implement. Key milestones included:

- A new Critical Care Wing at the General Campus.
- Consolidation of medical oncology, thoracic surgery and inpatient rehabilitation to the General Campus.
- Consolidation of neurosciences, trauma and vascular surgery to the Civic Campus.
- Renovation of the Riverside Campus to convert it from an inpatient hospital to an academic ambulatory care centre.
- Expansion and renovation of the emergency departments at the Civic and General campuses.
- Redevelopment and expansion of the Cancer Centre at the General Campus; closure of the Civic Campus Cancer Centre.
- Expansion of the Intensive Care Unit at the Civic Campus.
- Renovation and expansion of the mental health unit at the Civic Campus.

The cornerstone of the plan's success was the transformation of the Riverside Campus into a state-of-the-art ambulatory care centre, and the development of the Civic and General campuses into two full-service, acute-care inpatient facilities that would provide speciality programs and services unique to the Eastern Ontario region.

### **5.3 The Ottawa Hospital today**

Today – post-amalgamation – The Ottawa Hospital is the only adult acute-care trauma centre in Eastern Ontario. It provides care to the 1.3 million patients annually serving the National Capital Region, communities across Eastern Ontario from Pembroke to Cornwall, West Quebec and Nunavut. Its three main campuses are the only centres that provide complex, specialized services for the region's most severely ill and injured patients.

Through its three campuses, The Ottawa Hospital provides care for more patients than any other hospital in Canada. It is renowned as one of the country's leading academic research hospitals, affiliated with the University of Ottawa, as well as for its leadership in compassionate, patient-centered care, and education. It is also recognized for its investments in state-of-the-art facilities and technology.

As a leading learning and research centre across all three sites, The Ottawa Hospital allows patients faster access to novel therapies and procedures, and improved clinical outcomes that are recognized internationally as practice changing. Through its partnership with the University of Ottawa, the hospital provides specialized training to the next generation of doctors, nurses and researchers, and is a major recruiter of international talent to the region.

The Ottawa Hospital manages an annual operating budget of approximately \$1.2 billion.

### The Ottawa Hospital



**Our Facility**  
 1,117 beds  
 96 bassinets  
 8 days (average length of stay)



**Our Team**  
 11,638 staff  
 1,377 physicians  
 1,025 volunteers



**Our Patients**  
 50,023 patient admissions  
 34,379 surgical cases  
 14,066 eye care surgical cases  
 169,507 emergency visits  
 1,126,204 ambulatory care visits  
 6,296 babies delivered  
 7,579,883 laboratory procedures



**Research and Education**  
 1,358 residents and fellows  
 124 scientists  
 455 clinical investigators  
 648 medical students  
 1,632 nursing placements  
 24 paramedic student placements  
 427 research trainees

The **Civic Campus** is the designated adult acute care trauma centre in Eastern Ontario, treating people with serious and often complex illnesses. It also houses specialty programs in neurosciences, vascular and cardiac care in its Heart Institute.

The **General Campus** is the hub for cancer care in the community. From rapid diagnosis in the Ages Cancer Assessment Clinic, to surgery, to innovative therapies and care at The Ottawa Hospital Cancer Centre, the General Campus provides the complete continuum of cancer care. This campus also houses the hospital's Eye Institute, programs in high risk obstetrics, thoracics, and joint replacements. The General Campus is home to the Sprott Centre for Stem Cell Research, one of the top five research facilities of its type in the world.

The **Riverside Campus** is an innovative outpatient centre bringing patient care, research and education under one roof. Specialized clinics at the campus include women's health, kidney care, arthritis, eye care and diabetes.

#### 5.4 Planning The Ottawa Hospital's future

The Ottawa Hospital is a high-performing and high-quality facility focused on patient care. But, with more modern facilities, it could save more lives and limit more suffering. Demand for best possible care is growing swiftly. Experts have been predicting for years that our aging population will place tremendous strain on our health system. Newer, safer and more efficient facilities are needed to attract the best and brightest to deliver high-quality care.

Great success was achieved beginning in 2000 to consolidate and reorganize clinical programs and to implement the HSRC Master Plan. The next step in planning was to develop a more comprehensive capital strategy to meet the long-term vision of The Ottawa Hospital and the requirements of the Champlain LHIN. In 2007, hospital leaders convened a Master Plan Steering Committee to develop a Master Plan to envision what The Ottawa Hospital would look like in 2020 and beyond.

The Steering Committee was comprised of regional Board Chairs, CEOs, Chiefs of Medical Staff and Chief Nursing Officers, the Deans of Medicine and Nursing, the Chair and CEO of the LHIN, and a third party with experience and expertise in building large modern hospitals across North America, including Canada (see full membership in Appendix A).

To guide the development of its Master Plan, The Ottawa Hospital adopted the following planning principles:

- Quality of care and patient safety enhancement
- Improvement of accessibility and circulation
- Maximization of patient flow, critical mass and clinical coherence
- Improvements in cost effectiveness
- Academic excellence
- Health service provider partnerships.

The Master Plan identified program and service growth, projected demand, and the impact that changing population demographics and healthcare needs would have on The Ottawa Hospital's ability to provide services within their current campuses.

The Master Plan Steering Committee wanted to ensure it considered all options for The Ottawa Hospital's facilities in future, and closely evaluated the following:

1. A one-site model: Maintain the General Campus, close Riverside and Civic campuses.
2. A two-site model: Maintain General and Riverside campuses, close Civic Campus.
3. A three-site model: Maintain current sites, renovate Civic Campus on its current site.
4. A three-site model: Maintain General Campus and Riverside Campus, build a new Civic Campus on a new site.

In 2008, following a review of these options, the Champlain LHIN agreed that The Ottawa Hospital would continue to operate a three-campus model with the following key directions:

- The Riverside Campus would continue as an ambulatory care centre and be expanded to accommodate growth and further consolidations.
- The General Campus would expand significantly to accommodate current services including cancer, thoracic and transplant services.
- The Civic Campus would expand significantly and continue to serve the core of the city and be the region's principal adult acute-care trauma centre, providing trauma, neurosurgery, vascular surgery and cardiac care.

The Civic Campus currently occupies approximately 2,143,032 sq ft of clinical, research, education and administrative space across 21 buildings. A series of assumptions was built into the 2007–2008 Master Plan. Based on projected growth of programs and services and the correct sizing of space to meet codes and standards at the time, the future Civic Campus was estimated to require a total of 2,341,000 sq ft by 2020–2021 for the “base clinical buildings.” In addition, other circulation and access assumptions were made, outlining a total building square footage of approximately 2.7 million sq ft.

The Steering Committee then set out to assess the future expansion options for the Civic Campus and concluded that the facilities were too old and would be too difficult to rebuild on its existing site. Given this conclusion, the development of a new Civic Campus on a new site (option 4 from above) became the cornerstone recommendation of the Master Plan. The Plan cited four principal reasons:

1. Rebuilding and/or redevelopment of the existing 2.143 million sq ft campus would cost approximately \$1 billion more than developing a new site.
2. Rebuilding on the existing site would add 20 years to the project's length as the existing hospital would have to continue to be operational.
3. Rebuilding on the existing Civic Campus site would considerably disrupt the ability to care for patients during construction and create significant risks and one-time operating costs during the development process.
4. The existing site is 23 acres in size and, based on the requirements for a new Civic Campus, the site would be too small to develop an effective and efficient state-of-the-art health-care centre.

**Note:** A new master planning program will begin in late 2016 and be completed in 2017. It will provide an update in functional programming established in the 2008 Master Plan. The estimated square footage may be increased for clinical, research, education and administrative functions. This possible increase in square footage would be accommodated within the 60-acre parcel required for the new Civic Campus. In addition, a critical infrastructure system review is underway to assess additional costs to stay operational if not in a new building by 2026.

## 5.5 Planning a new Civic Campus

### 5.5.1 Outdated campus

With facilities dating back to 1924, it was determined in the Master Plan that the Civic Campus' aging infrastructure and size will not accommodate future needs.

The current Civic Campus:

- Was built to meet earlier and now-outdated standards, which are no longer suitable to provide modern and state-of-the-art health care.
- Compromises The Ottawa Hospital's ability to deliver the comprehensive and integrated health-care services expected today.
- Requires a new adult acute-care trauma centre. Among major G8 cities in the world, the integration of the hospital and trauma centre into the fabric of the community is a critical economic and infrastructure landmark and an important building block in a city's future.

### 5.5.2 Site size and location

The Master Plan contained a recommendation for a site of between 50 and 60 acres in size to develop the new Civic Campus. The MOHLTC was in agreement (See Appendix B). For the future

of the city’s only adult acute-care trauma centre, the size would be in line with best practices for new health-care centres across North America. The QCH and Montfort community hospitals are both built on about 50 acres.

A planning process was initiated to identify best options for a location for the new Civic Campus. To assist in the planning process, the Ottawa Hospital engaged HDR Inc., an international firm that has developed world-class health-care facilities and large urban projects, including in Canada. HDR Inc. is known for giving design considerations to three important elements – patient care, context and community. For additional information, refer to section 6.1.

The Ottawa Hospital’s Steering Committee commissioned a land review panel with PWGSC, the NCC, Canada Lands Corporation, the City of Ottawa and HDR to identify available parcels that would accommodate a state-of-the-art 21<sup>st</sup>-century health-care facility.

### 5.5.3 Site selection criteria

The Steering Committee approved a set of criteria developed by the land review panel. The criteria were based on general land planning parameters, which was supported by MOHLTC:

1. **Land area:** Land area required is approximately 50 to 60 acres.
2. **Land location:** Land area is located in the centre of the city (in proximity to the existing Civic Campus) or towards the west or southwest of the city.
3. **Land access:** Land area allows for multiple (i.e., two or more) road access points to the campus to allow public versus industry (i.e. supply vehicles, ambulances, etc.) traffic/vehicles to access a new campus at defined and dedicated intersections.
4. **Transportation**
  - a. **Highways 416 and 417:** Accessibility to and from Highway 416 and/or Highway 417 is efficient/effective:
    - i. For public access.
    - ii. For industry access (i.e., supply vehicles, medical companies, etc.).
  - b. **Public transportation:** Public transportation (i.e. bus and future city mass transit systems plan – light-rail, etc.) can be integrated into the campus.
5. **Future expansion:** Flexibility for future expansion over and above what is currently planned, within 60 acres.
6. **Community impact:** Zero or minimal impact on nearby communities and/or community associations.
7. **Land preparation:** Land does not require a significant amount of preparation to allow the new campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings, etc.)
8. **Infrastructure:** Infrastructure (i.e. hydro, sewer, gas, etc.) is nearby and can be effectively connected and integrated to a new campus location.
9. **Phasing:** Impact of phasing the transition from the current Civic Campus location to the new location on the operations.

10. **Patient accessibility:** The Civic Campus is currently centrally located and in close proximity to the downtown population. This criterion assesses access of downtown population to new site options.
11. **Agriculture Canada impact:** Impact of site development on AAFC's research mandate.
12. **Hospital proximity and access:** Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services).

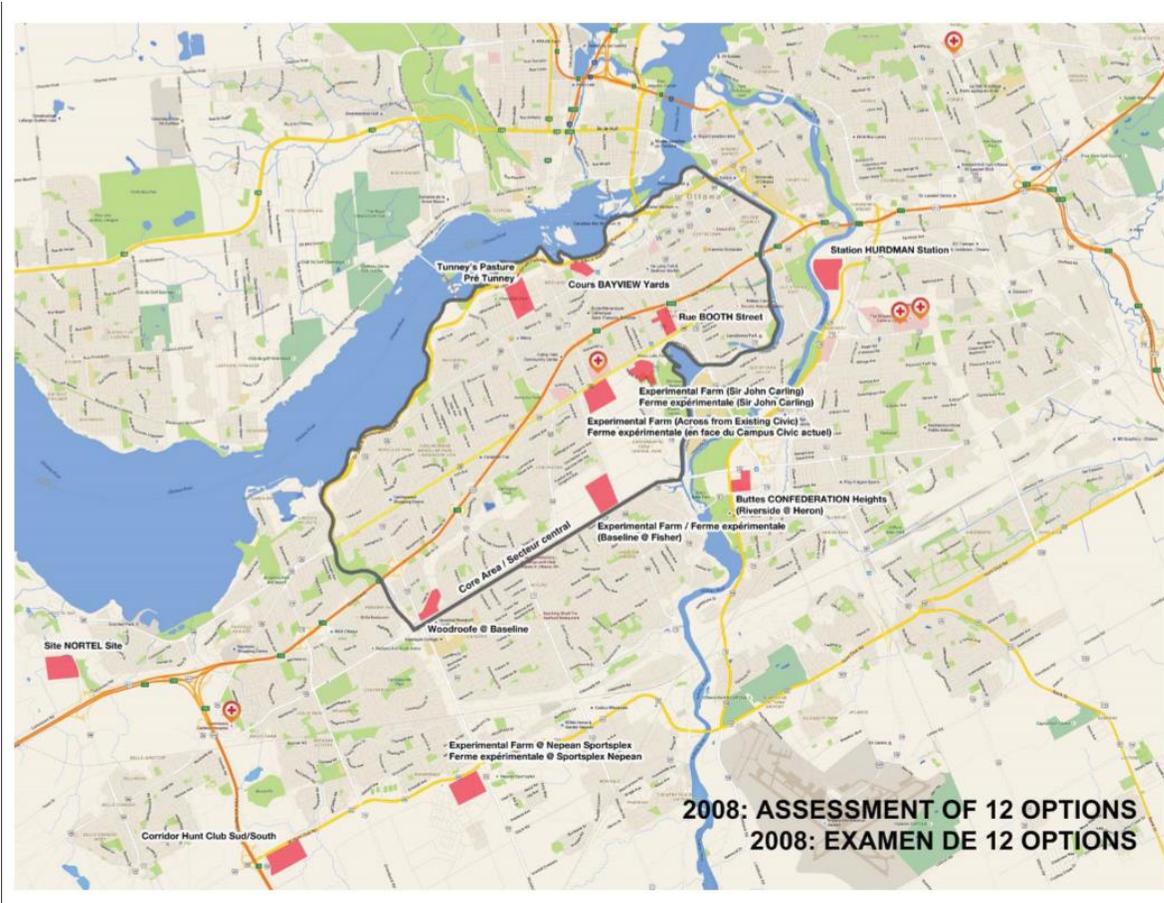
#### *5.5.4 Selecting and assessing potential land options*

The land review panel of the Master Plan Steering Committee identified 12 potential land options for a new Civic Campus, evaluated against the 12 criteria.

The 12 land options were (see map below):

1. CEF – across from the existing Civic Campus
2. CEF – Baseline Road and Fisher Avenue (cross road)
3. NCC – Woodroffe Avenue and Hunt Club Road across from the Nepean Sportsplex
4. CEF – Sir John Carling Building
5. Hurdman Station
6. Bayview Yards – adjacent to LeBreton Flats
7. Woodroffe Avenue at Baseline Road (beside Algonquin College)
8. Nortel site – Carling Avenue and Moodie Drive
9. Confederation Heights – Riverside Drive and Heron Road (Canada Post)
10. Tunney's Pasture
11. Booth Street
12. Hunt Club Road – south corridor

**Map:** Location of 12 options



Each site was independently assessed, scored and ranked based on the site evaluation criteria. (see Appendix C for land evaluation matrix). Two strong options were identified through this process:

- A 60-acre site on the CEF across from the existing Civic Campus (bordering Carling Avenue and Fisher Avenue).
- A 60-acre site on NCC lands located on the corner of Woodroffe Avenue and Hunt Club Road, across from the Nepean Sportsplex. This option was later dismissed by the NCC.

Both options were submitted to the LHIN as part of the Master Plan document.

#### 5.5.5 Master Plan approved

Subsequent to completing the land review exercise and finalizing the Master Plan, The Ottawa Hospital submitted the planning document to the Champlain LHIN for review and approval in April 2008. The LHIN endorsed the plan in April 2008, and it was then submitted and endorsed by the MOHLTC.

The critical milestone still to be met to enable the launch of the capital process was the acquisition of a new site. At this point, The Ottawa Hospital took steps to initiate a discussion

with the federal government regarding the possibility of securing land for the development of the new Civic Campus.

#### *5.5.6 New campus site approved*

As both of the highest-ranked parcels of land were federally owned, The Ottawa Hospital submitted the Master Plan to the federal government, together with a request to transfer the federal land for use in the development of the new Civic Campus. The NCC removed the option of Woodroffe Ave and Hunt Club Road, across from the Nepean Sportsplex, as it was inconsistent with their Greenbelt Master Plan. Given the densification of the city core and because locating the new Civic Campus outside the core would result in a gap in service, a request was made for the CEF site as the preferred location.

In May 2012, The Ottawa Hospital obtained a letter from the MOHLTC indicating its support for the new Civic Campus development plan (see Appendix B"). In its letter, the Ministry recognized that the "site across the street from the existing Civic Campus" appears to meet the objectives of the 2008 Master Plan.

In 2013–2014, The Ottawa Hospital began receiving requests from the Government of Canada to provide information to support a submission to TBS to have land transferred from AAFC to the NCC, with the intention of developing the new Civic Campus. This model was consistent with the federal land that was transferred to the Queensway Carleton Hospital to support their expansion plans. Based on feedback from the government's review of the Master Plan, and subsequent to its approval, an MOU was structured between AAFC, the NCC and The Ottawa Hospital. A land transfer agreement was also prepared. A lease agreement between the NCC and The Ottawa Hospital was drafted but not signed.

In early 2014, the federal government commissioned the NCC to assist in the land transfer and lease agreement.

#### *5.5.7 Land transfer begins*

On October 30, 2014, the NCC received TBS approval to embark on a process to transfer of up to 60 acres of CEF land from AAFC to the NCC, to be used for the development of a new Civic Campus.

In November 2014, the Government of Canada publicly announced the intent to transfer 60 acres to the NCC for a new Civic Campus. The MOU between The Ottawa Hospital, NCC and AAFC was signed confirming the plan to transfer administration of a 60-acre parcel of land from AAFC to the NCC for use by The Ottawa Hospital. The NCC and The Ottawa Hospital then began working through the terms and conditions of a 99-year lease agreement which would make land available to rebuild the new Civic Campus along Carling Avenue.

From January to November 2015, The Ottawa Hospital worked with the NCC and AAFC to develop two further documents – the land transfer agreement and an agreement to lease. Both of these documents were the starting point for the development of a formal ground lease,

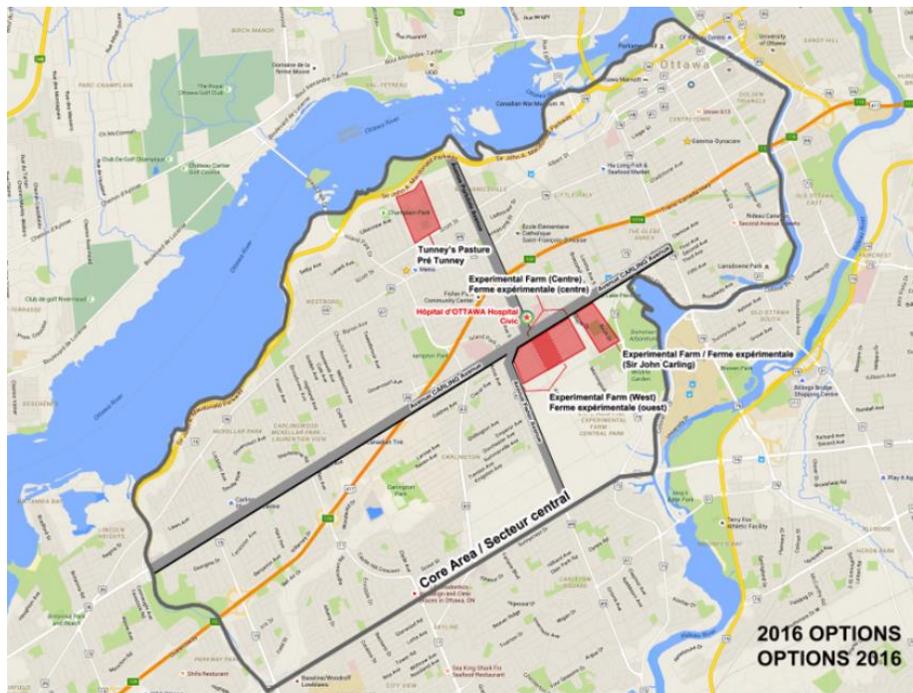
which would be drafted after a community consultation process was completed related to vision and design guidelines for the new land. This process was planned for the summer and fall of 2015, but it was agreed it would begin after the fall 2015 federal election.

In November 2015, the Champlain LHIN endorsed The Ottawa Hospital’s pre-qualification submission to begin planning for a new hospital at the CEF site, and the MOHLTC. The endorsement included the approval for The Ottawa Hospital to begin consultations with the community regarding the new campus design.

#### 5.5.8 Further review of land options

The federal election in October 2015 resulted in a change in government. In December 2015, subsequent to concerns raised about scientific research being conducted by AAFC on the CEF parcel, the federal government requested that The Ottawa Hospital conduct a further review of four land options, notably:

1. The CEF property identified in the approved MOU.
2. A 60-acre site on CEF land south of the current Civic Campus and east of the existing MOU-approved site.
3. A site known as the Sir John Carling site, located in the northeast section of the CEF.
4. A property at Tunney’s Pasture.



(see Section 8 for analysis of the four options)

The Ottawa Hospital continues to work collaboratively with the federal government on the need for a 21<sup>st</sup>-century health-care facility. In discussions, the government endorsed a new Civic Campus with two key criteria:

1. It must be located in the core of the city of Ottawa.
2. 60 acres are required to support clinical efficiencies, and a new facility will serve the region for generations to come with the highest quality of health care.

In addition, the Ottawa Hospital and the Government of Canada have agreed on two key parameters for the land option review:

1. **Architectural modelling** – A hypothetical test fit for each of the locations based on the above supported criteria of 60 acres. A test fit will demonstrate the viability and optimal placement of the facility. (see Section 7 for more detail on hypothetical test fits)
2. **Site option review** – A comparison of four site options using the land planning matrix criteria. For this analysis, the criteria were mapped to the strengths, enablers, challenges and considerations in each for these four sites. (see Section 5.5.3 and Section 8)

### *5.5.9 Public information sessions begin*

In March 2016, The Ottawa Hospital hosted a public information session to provide the community with a perspective on 21<sup>st</sup>-century health care and what can be expected with the development of a new Civic Campus. An update was also provided on the review of the land options that would be undertaken.

The Ottawa Hospital also established a Public Consultation Committee (PCC) comprising a broad range of organizations that have an interest in the new Civic Campus and the future of the CEF. The inaugural meeting of the PCC was held on February 29, 2016.

## **6. Capital Planning Considerations**

A new health-care facility represents a major capital investment by all levels of government, the hospital and the community. Therefore, selecting the proper size and location for the site is a critical decision to ensure the organization serves the needs of the community effectively and efficiently for the next century. To help make this decision, The Ottawa Hospital worked with HDR to provide advice and direction with respect to the sizing, shape and acreage requirements for the new Civic Campus. This section provides an overview of key capital planning considerations, as well as a rationale for program and space requirements that guide the Civic Campus initiative.

### **6.1 Drivers**

Health care is an industry that evolves at a remarkable rate. The last century has seen incredible advancement, evolution and change. Models of care, education and research have transformed, allowing for new treatments, technology, skills and processes to greatly improve care to Canadians.

In the 21<sup>st</sup> century, standards for building new hospitals are driven by infection control practices, innovation and design efficiency. Elements like private beds for all patients, separate buildings for outpatient versus inpatient care, integration of critical care onto single-floor plates, and integrated but distinct research facilities that focus on both bench and clinical research are all elements that inform how new organizations are developed in the future.

The 21<sup>st</sup> century will continue to see great strides forward. The vision and role of hospitals within the overall health-care system will be far more integrated with community and other healthcare sectors, and will focus on providing seamless care for patients and families.

One of the largest challenges facing hospitals worldwide is to develop infrastructure that has the flexibility to accommodate growth and evolving health-care delivery models. In its 2008–2009 Master Plan, The Ottawa Hospital factored in projected growth, changing demographics, technology advancement and a series of other assumptions to plan the requirements for each and every program that would operate at the new Civic Campus. However, a number of other assumptions around health and wellness and future growth will continue to evolve with the planning and development process, and which need to be anticipated as part of the Civic Campus development strategy.

HDR's health-care designers have rules of thumb from years of experience with contemporary hospitals and for a building program the size of The Ottawa Hospital's Civic Campus. It has outlined the following ranges of acreage required for the development strategy:

1. Base clinical building footprints: 15 to 25 acres (range will be validated after new Master Plan is completed).
2. Patient experience, wellness and health:
  - a. Site access, circulation, roadways and parking: 15 to 25 acres.
  - b. Outdoor wellness and health elements (walkways, courtyards, healing gardens, etc.): 10 to 15 acres.
3. Future expansion: 10 to 15 acres (long-range planning – population growth and changes).

Looking at the minimums and the maximums, those calculations would indicate that The Ottawa Hospital needs 50 developable acres at a minimum and 80 developable acres at a maximum. When it comes to developing new hospitals across North America, there are no hard and fast rules or guidelines that stipulate the specific land requirements. As a general practice, the MOHLTC endorses the use of 50 to 60 acres for new hospital development. Many similarly-

sized academic centres across the globe, which have been built on new lands over the last decade, have utilized a range of 55 to 90 acres or more.

### ***Research and education***

A key mandate of The Ottawa Hospital is to be an academic centre advancing healthcare treatments and protocols, in addition to educating healthcare leaders in the future. It is also critical to enable recruitment and retention of the best and brightest talent to advance The Ottawa Hospital's programs and services in the future. Given research and education models are always evolving, it is essential that flexibility and innovative environments be built into the planning process to allow these programs to flourish in the future.

#### ***Education***

With the advent of simulation training and evolving post-graduate training program requirements, the space and program needs to train all professionals in hospital environments have changed significantly. Simulation and decentralized didactic training infrastructure will be required across a new 21st century academic institution, and the development strategy will need to be flexible to allow for effective expansion without compromising either the clinical or education models, or infrastructure. This will be incorporated into the overall campus development strategy.

#### ***Research***

Research is a core mandate at The Ottawa Hospital. Over the last decade, The Ottawa Hospital has been recognized as a world leader in a number of research programs including stem cell, cancer and translational research. This has allowed the hospital to recruit internationally recognized clinical and academic leaders. However, the challenge with research planning is that the requirements for the future evolve and change rapidly. As such, it is critical that a flexible development strategy for research be created that allows for effective expansion and redevelopment of the spaces.

## **6.2 Base clinical buildings**

### ***Footprint***

The main component of the Civic Campus development is the base clinical buildings, which include clinical, research and education infrastructure. The Master Plan for the new Civic Campus has highlighted that approximately 2.341 million sq ft of space is required for development over the next 10 to 15 years, with additional capacity (i.e. potentially up to an additional 1 million sq ft) required to support any future programming and services that might be identified as part of the 2016–2017 Master Plan exercise. This does not include other essential components such as access, flow, parking and allowances for future growth.

Any limitations placed on the square footage risks compromising the vision for the facility and the ability to provide state-of-the-art health care for patients.

<b>Table: Space Requirements for Base Clinical Buildings</b> (as identified in the 2008 Master Plan)	
<b>Component</b>	<b>Square feet</b>
The Ottawa Hospital Civic Campus	1,250,000
The University of Ottawa Heart Institute	520,000
The Ottawa Hospital Rehabilitation Centre	174,000
Research/Administration	287,000
Medical Education (includes skills and simulation)	60,000
Central Utility Plant	50,000
<b>Grand total</b>	<b>2,341,000</b>

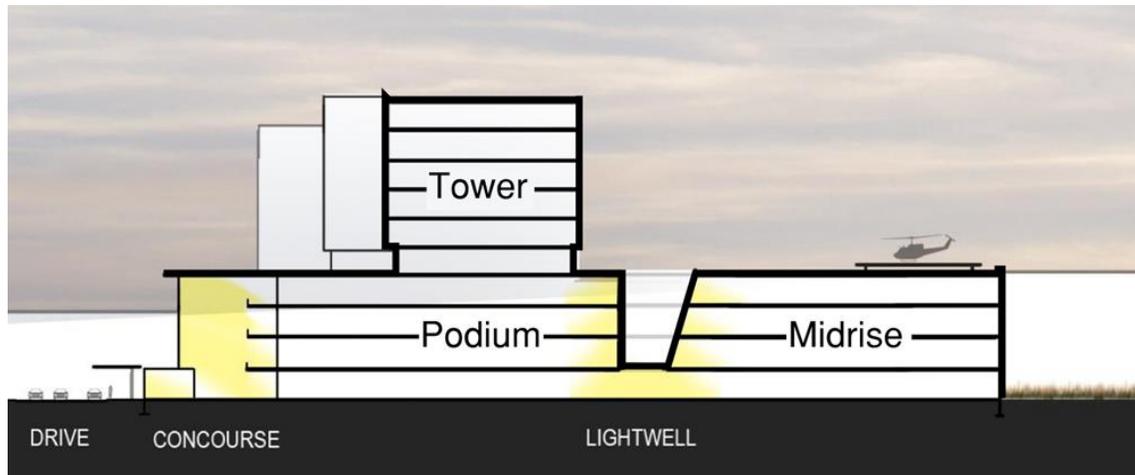
Over the next 2 to 3 years, The Ottawa Hospital will work closely with regional partners and the MOHLTC to develop a new Master Plan that will validate the exact planning and program requirements for the new Civic Campus. It is anticipated that, based on emerging trends in health care, changing demographics and new standards of health-care delivery, the estimated square footage will likely increase. Bed requirements and regional program requirements are just two of the key areas where changes have been seen since the 2008 Master Plan. While the updated Master Plan will likely result in additional square footage requirements, these will be accommodated within the boundaries of a new 60-acre campus.

### *Stacking*

A modern health-care facility includes elements that require both vertical and horizontal adjacencies to achieve operational efficiencies and optimal clinical service delivery models. Based on the program requirements, the new Civic Campus will require a footprint as follows:

- Podium structure for public, ambulatory, diagnostic and treatment areas. This ranges from one to three floors, connected to upper floors for clinical functionality requirements.
- Tower floors for inpatient areas. These are generally tied to the podium floors and include complementary clinical functions for optimal patient and staff flows.
- Midrise buildings for research, rehabilitation, education and other ancillary uses including facilities infrastructure. Depending on the program, these may be tied to the primary building or developed in a campus setting.
- Accessibility and circulation for patient, families, staff and support services. Ensures safe, efficient and comfortable means for all traffic movement on the site.

The diagram below illustrates the three primary building types in this kind of health-care facility.



*Hypothetical building section showing stacking*

Based on the stacking requirements for the new Civic Campus and the need for effective and efficient horizontal and vertical integration of programs and services, it is estimated that approximately **20 acres** will be required for the base clinical buildings. The appendices provide further details on the Civic Campus requirements and the acreage required for each major program area. (See Appendix D for more information)

### **6.3 Patient experience, wellness and health**

Over the last century, hospitals were often built as “concrete jungles” focused on interior spaces that accommodated the technological requirements of the day. Health care of the 21<sup>st</sup> century is much more than that. It focuses on the patient and family experience and the overall health of the population.

While technological advancements are critical in effective planning, the reality is patient experience and health are driven by many other factors focused on wellness and comfort. This includes:

- Features such as walking routes, healing spaces, therapeutic gardens, atriums, indoor/outdoor quiet spaces, letting in natural light, offering views to nature, etc. Studies have demonstrated that these and other features actually hasten the healing process for patients and enhance the wellness of staff and visitors who provide care and support.
- Effective accessibility and circulation for patients, families and visitors. From the perspective of the patient experience, these are the most important considerations to ensure safe and effective access to the core services the Civic Campus will provide, and an enhanced experience.

- Clear access routes and visual connections to the hospital across multiple points of entry. Circulation must ensure safe, efficient and ease-of-access means for all forms of traffic movement on the premise. These range from pedestrian, bicycle, vehicular, priority/emergency, patient, public/visitor, staff, service vehicles, airborne (helicopter), etc. Providing means for quick drop-off and flow-through traffic, fast emergency access direct to the emergency, and mass transit stops with covered and comfortable space are all elements that have to be effectively integrated into the land planning.
- Multi-use parking for visitors and staff play an integral part of providing clear access routes to the hospital. A mix of flat top and above/below grade parking on the site in a decentralized fashion will maximize access to core services for patients and families. Building only flat top parking, while most economical, is not the most functional approach.

As a large portion of these requirements are supported through land use, many will require square footage to be developed either as internal, external or mixed-use spaces. These elements will evolve through community consultation and further detailed planning. However, based on preliminary concepts and reference against other centres, a guideline of approximately **10 acres** will allow the Civic Campus to incorporate what are considered to be best practices from the perspective of health and wellness. Approximately **20 acres** of land will be required to support the overall circulation, access, roadway and parking requirements.

### 6.3 Future growth

The development of a new Civic Campus is a milestone project not only for health care but as a major community-building project. The development will serve the region for generations to come and will be built to deliver the highest possible quality of service to patients. It will also accommodate the changing models, demands and practices of 21<sup>st</sup> century health care. As clinical, research and education frameworks and best practice standards evolve, so will the health-care needs of our community. The new Civic Campus must be designed to accommodate such changes as they emerge.

For example, it is essential in the planning stages of the new Civic Campus that accommodation be made for expansion and growth of other integrated acute, sub-acute and post-acute care sectors. The program overview in this report outlines a series of elements that will drive the growth requirements for the new Civic Campus in the future. Based on these considerations and the general guideline other major centres have utilized for growth planning, the Civic Campus should incorporate approximately **10-15 acres** of growth capacity to ensure The Ottawa Hospital and the community can continue to provide all future health-care requirements as the city's only regional adult academic trauma centre.

## 7. Methodology - The hypothetical test fit

The purpose of this section is to outline the technical process used to demonstrate the viability of developing a new 60-acre campus on a proposed site. The use of a 'hypothetical test fit', which is then applied to the four site options, serves to highlight the optimal placement of the base clinical buildings and other necessary components, and allows for an assessment of the strengths, weaknesses and other considerations specific to each site.

### 7.1 Importance of hypothetical test fit models

Acquiring a site can have a significant impact on the design (shape and massing) of a building. Instead of being developed on land that offers appropriate space to support functional, expandable health-care development, hospitals are often designed to fit a specific parcel of real estate which has a detrimental impact on clinical efficiencies and substantially increases construction and operating costs.

A critical site selection factor, therefore, is to ensure that the final design is not severely and detrimentally dictated by the size, shape and usability of the proposed site. A hypothetical test fit demonstrates the optimal placement for a new Civic Campus and is used as a starting point to test and validate the most efficient footprint size for the hospital buildings, and associated access, orientation and integration requirements. Placing footprints of core buildings, accessibility and circulation, on a hypothetical site helps to illustrate whether the proposed footprint and the placement of buildings will meet the needs of the health-care facility.

A hypothetical site also reinforces the clinical service plan, allowing for the optimal configuration of the buildings and helps determine future potential for expansion and growth.

A test fit approach is standard industry practice and a great measuring stick for the evaluation of potential sites. A few guidelines to consider in creating the generic plan site include:

- **Usable acreage:** Usability drives efficiency in design and minimizes costs. Zoning regulations, soil conditions, density requirements, building code restrictions, existing utility runs, water, wetlands, easements and right-of-ways, existing buildings, contaminated soils, seismic zones, or other similar areas unsuitable for development can substantially impact the location and design of buildings as well as construction costs.
- **Shape:** Square or rectangular sites generally yield the highest usable acreage and greatest flexibility. An irregularly shaped site is problematic as there will be unsuitable acreage for current and future development.
- **Topography:** Flat or gently sloping sites are easier to site-plan and less costly to develop. Hills, dips or valleys can reduce usable acreage.

### 7.2 Hypothetical test fit modelling exercise

Taking into consideration all information outlined above, HDR completed a hypothetical test fit modelling exercise outlining a demonstration concept on how the Civic Campus requirements could be organized on a 60-acre plot based on best practice design guidelines.

Diagram 1 below provides a visual overview of how the buildings would be stacked and massed, allowing for effective horizontal and vertical integration. Site circulation, roadways, effective access points and decentralized parking (above/below grade) are all incorporated into the test fit. Spaces for outdoor gardens and walking paths (depicted by the yellow lines) are incorporated into green spaces that are integrated on the tops of parking structures. Finally, the plan allows for future expansion by developing new buildings (effectively integrated with base buildings) on the existing parking lots. Diagrams 2 and 3 provide a three-dimensional visual rendering of the hypothetical site.

The presented generic test fit option provides a visual rendering for how The Ottawa Hospital can achieve a world-class, state-of-the-art health-care facility while providing opportunities to maximize new and emerging concepts in patient-centered care, inter-professional service-delivery models, safety, privacy and confidentiality, infection prevention and control, bench-to-bedside research innovations, education, application of ground-breaking equipment and technology, and energy and environmental conservation.

### Evaluating potential sites for a new Civic Campus

A hypothetical test fit serves as a preliminary guide in the evaluation of all potential sites for a new Civic Campus.

A hypothetical test fit is assumed to have:

- Approximately 60 acres of land, configured to allow long term rejuvenation and expansion, in keeping with contemporary planning standards.
- Frontage on two primary roadways to allow for dedicated access and segregation of vehicular flow (i.e. patient/visitor from emergency/service vehicles).
- Service access, central utility plant and support services (i.e. loading docks) to be located at back of the site with a dedicated access and roadway from a secondary street.
- Convenient access for public transit at primary access points and onsite.
- Land to accommodate parking for projected requirement on day one of operations.
- Podium and tower construction including standalone buildings for research and ancillary services.
- Distinct and separate entrances for the emergency department, acute care towers, research, mental health, rehabilitation and educational services.
- Programs and services planned and designed to support lean thinking principles for patient, staff, and material flows; application of on and off stage strategies (i.e. separation of patient versus staff elements).
- A built environment for people of all abilities, without modification to their normal conduct/behaviour; for example, at minimum, barrier-free and universal design standards incorporated into the planning and design of the facility.
- Optimization of day lighting throughout the facility, providing the greatest exposure of natural light to staff and patients/visitors.

Diagram 1: Hypothetical test fit



*Civic Campus test model on a hypothetical 60-acre site*

**Diagram 2:** Hypothetical test fit – 3D rendering



**Diagram 3:** Hypothetical test fit – 3D rendering



*Civic Campus test model on a hypothetical 60-acre site*

## 8. Site Selection and Analysis

The planning for the development of a new Civic Campus is a critical milestone – not only for The Ottawa Hospital, but for all three levels of government, the city of Ottawa, and its surrounding community as the next major economic development and community-building project.

Selecting the best possible site is paramount to the development of the new Civic Campus and will enable The Ottawa Hospital to create a world-class health-care facility. The placement of the Civic Campus in the “downtown core” is a critical element to the regional health-care plan considering a trauma centre, similar to all other urban centres, is best placed in an urban downtown area. As well, the distribution of other hospitals across the region requires a facility of this size to be located in the centre of the service area where a large portion of the population resides.

Map 1 below highlights the location of the current acute-care facilities in the National Capital Region. As noted in the map, if the Civic Campus was relocated outside the downtown core to the eastern, western or southern parts of the Ottawa region, there would be a significant void of hospital access between the General Campus and The Queensway Carleton for this community.

The Ottawa Hospital currently has an MOU with the federal government for a 60-acre site on CEF lands (directly across from existing Civic). In December 2015, subsequent to the change in government following the federal election campaign, the new government asked The Ottawa Hospital to review four land options. However, they endorsed the requirement for 60 acres, located in the downtown core, to develop a new Civic Campus.

The sites to be assessed include:

1. The existing site (approved MOU) – referred to as “CEF-West” in the options review.
2. A repositioned 60-acre site on the CEF – referred to as “CEF-Central” in the options review.
3. The John Carling site on the CEF – referred to as “CEF-East” in the options review.
4. Tunney’s Pasture.

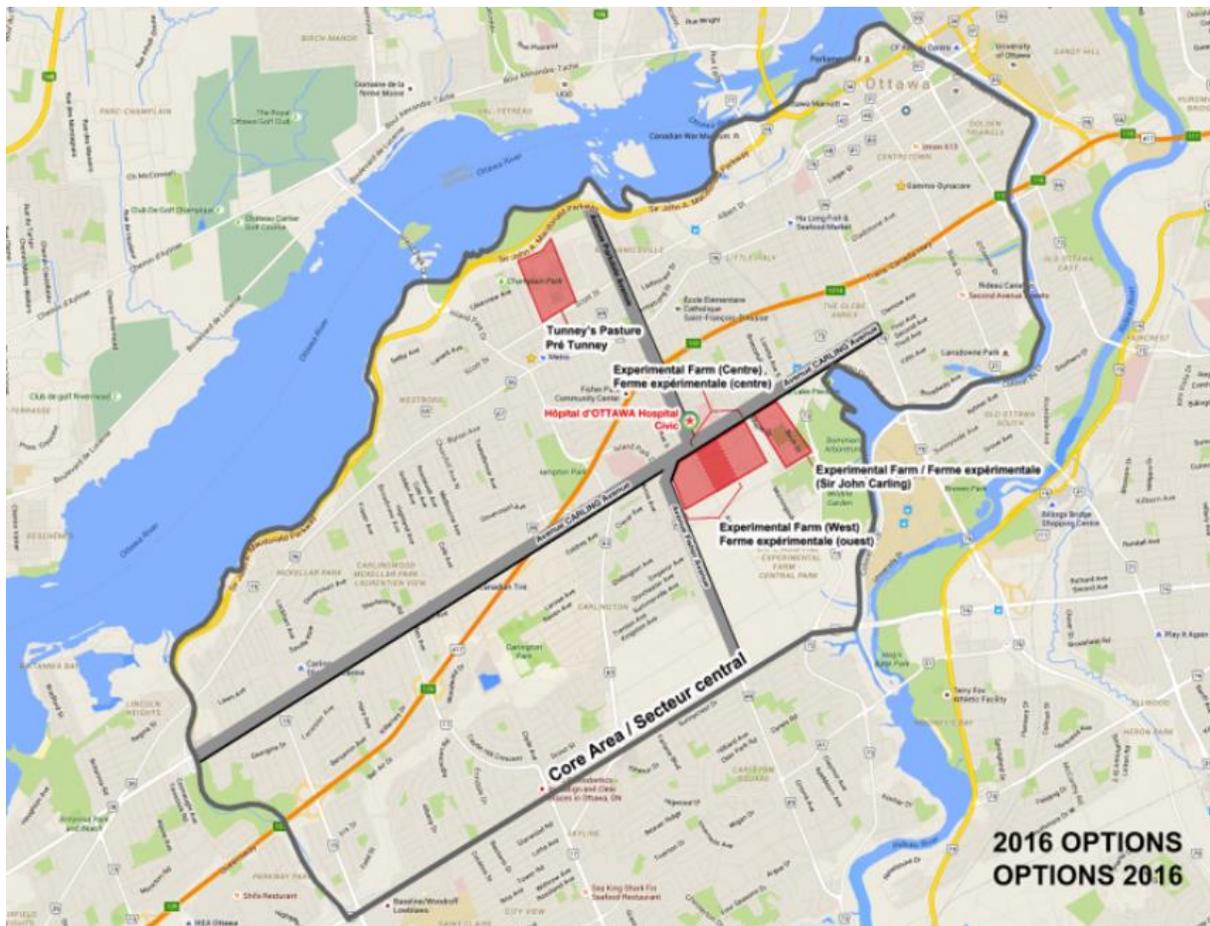
(Map 2 below illustrates the locations of the four sites to be assessed)

**Map 1:** Distribution of acute care facilities in Ottawa



The locations of current acute-care facilities in the region are highlighted in this map. The Queensway Carleton Hospital is in the west of the city and the Montfort Hospital, the Children’s Hospital of Eastern Ontario and General Campus are in the east. The centre of the city (as defined by the NCC), which is outlined in the gray border, shows the only adult acute-care trauma hospital is the Civic Campus.

**Map 2:** Site locations for the four 60-acre parcels of land in the city of Ottawa’s core



An overview and assessment of the four options is described below. For each option, the hypothetical test fit model (outlined above) is used to provide a preliminary assessment of whether the new Civic Campus will fit on each proposed site outline. It also shows how the 60 acres can be positioned on each land option to determine the strengths, challenges and impacts associated with the development strategy.

## 8.1 CEF-West (Current option – approved MOU)

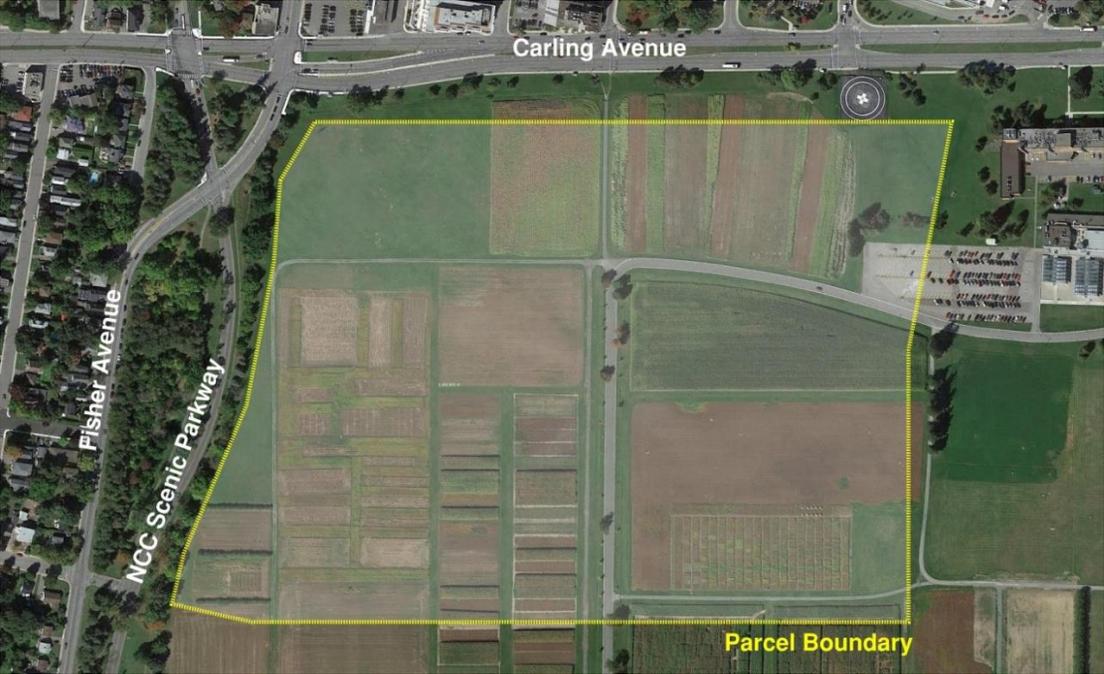
### 8.1.1 Site description

The 60-acre parcel of land on the CEF-West site is located on the northwest portion of the CEF, representing 5.6 percent of the CEF land. The site has two primary roadways – Carling Avenue and Fisher Avenue – and is directly across the street from the current Civic Campus. There are no buildings within the parcel boundary that would require removal or relocation.

**Diagram 1.** Aerial view of site CEF-West site



Diagram 2: CEF-West parcel boundary



8.1.2 Optimal orientation

The hypothetical test fit was applied within the parcel boundary lines to determine the suitability of the proposed parcel of land. A number of manipulations to the hypothetical test fit were performed to optimize the proposed parcel, while minimizing impact to the site plan and building footprint.

A horizontal orientation of the generic greenfield plan allows for the programs and services to be accommodated, but minor adjustments would be required to the test fit plan to have it fit fully within the 60-acre parcel. (Diagram 3)

Diagram 3: Hypothetical test fit – 3D rendering

Legend	
	Podium Building
	Tower Building
	Surface Parking
	Green Roof Parking
	Wellness Feature
	Access Road
	Pathway
	Parcel Boundary
	Generic Site Outline



*Horizontal orientation of the hypothetical test fit*

8.1.3 Strengths and challenges

Evaluation Criteria	Strengths/Enablers	Challenges/Considerations
<p><b>Land area:</b> Land area required is approximately 50 to 60 developable acres</p>	<p>Meets criteria. Effectively accommodates the test fit model on 60 acres – this model includes main building footprints, site access, circulation, roadways, parking, outdoor wellness and health elements, along with future expansion requirements.</p>	<p>Research done on part of this land to be relocated. Still awaiting substantive and comprehensive confirmation on the impact of relocating existing research.</p>
<p><b>Land location:</b> Land area is located in the centre of the</p>	<p>Meets criteria of being in centre core; directly across</p>	<p>CEF is a national heritage</p>

<p>city (in proximity to the existing Civic Campus) or towards the west or southwest of the city.</p>	<p>from existing site to allow for synergies associated with the total urban plan.</p> <p>Location is directly across from existing Civic Campus, which facilitates effective and efficient staging and phasing of development and transfer of services between existing site and new site.</p>	<p>designation</p>
<p><b>Land access:</b> Land area allows for multiple (i.e. two or more) road access points to the campus to allow public versus industry (i.e. supply vehicles, ambulances, etc.) traffic/vehicles to access a new campus at defined/dedication intersections.</p>	<p>Meets criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles.</p> <p>Bounds the CEF on only two sides, allowing for public access and trails on two sides without going through or near the remaining CEF land.</p>	<p>Relocation of the intersection of Ash Lane and Winding Lane.</p> <p>Minor relocation of CEF parking required along the northeast boundary.</p>
<p><b>Transportation:</b></p> <p>a. <b>416/417:</b> Accessibility to/from Highway 416 and/or Highway 417 is efficient/effective:</p> <ul style="list-style-type: none"> <li>i. For public access.</li> <li>ii. For industry access (i.e. supply vehicles, medical companies etc.).</li> </ul> <p>b. <b>Public transportation:</b> Public transportation (i.e. bus and future city mass transit systems plan – light-rail, etc.) can be integrated into the Civic Campus.</p>	<p>Meets criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles.</p> <p>Option integrates well to major road systems for patient, visitor and emergency vehicle access.</p> <p>Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).</p>	

<p><b>Future expansion:</b> Flexibility for future expansion over and above what is currently planned.</p>	<p>Meets criteria to support – incorporated into the 60 acres is expansion for 10 to 15 acres.</p>	
<p><b>Community impact:</b> Zero or minimal impact on nearby communities and/or community associations.</p>	<p>Zero to minimal impact – some disruption and impact to surrounding communities. Directly across from the existing site for any synergies associated with the total urban plan.</p>	<p>During construction neighbourhood may be impacted.</p>
<p><b>Land preparation:</b> Land does not require significant amount of preparation to allow new campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings, etc.).</p>	<p>No demolition of CEF buildings required. No relocation of physical building assets.</p>	<p>Site remediation of buried experimental pesticides/insecticides based on initial environmental survey assessment.  Minor relocation of CEF parking required along the northeast boundary.</p>
<p><b>Infrastructure:</b> Infrastructure (i.e. hydro, sewer, gas, etc.) can be/is nearby and can be effectively connected/integrated to new campus location.</p>	<p>Meets criteria – all infrastructure is available or in close proximity.</p>	
<p><b>Phasing:</b> Impact of phasing the transition from the current Civic Campus location to the new location on the operations.</p>	<p>Option allows for efficient and effective staging, phasing and relocation of programs and services from the existing campus.</p>	
<p><b>Patient accessibility:</b> Civic Campus is currently centrally located in close proximity to the downtown population. This criterion assesses access of downtown population to new site options.</p>	<p>Meets criteria</p>	

<p><b>AAFC impact:</b> Impact of site development on AAFC’s research mandate (to be confirmed by AAFC and NCC).</p>	<p>No demolition of buildings.</p>	<p>Research done on part of this land to be relocated. Still awaiting confirmation of the specific research being conducted and impact of relocating research to adjacent or alternate fields.</p> <p>Site remediation of buried experimental pesticides/insecticides based on initial environmental survey assessment.</p>
<p><b>Hospital proximity and access:</b> Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services.</p>	<p>Meets criteria with minimal to no impact as it is across the road.</p>	

*8.1.4 Key considerations specific to this site*

The capital cost estimate for CEF-West has yet to be prepared by the federal government on the cost to the taxpayer. However, it is anticipated the cost estimate will be the lowest of all four options as no demolition, repurposing or relocations of buildings is required. The following additional costs:

- Site remediation

**8.2 CEF-Central option**

*8.2.1 Site description*

CEF-Central (Central) is a 60-acre site on the CEF located south of the current Civic Campus. This parcel has only one primary road to access the site, Carling Avenue, and includes both open CEF fields and existing buildings (including two heritage buildings). The existing buildings within the boundary lines of this parcel include:

- **Building 20:** K. W. Neatby Building Eastern Cereal and Oilseed Research Centre (heritage building)
- **Building 21:** Integrated growth facility (greenhouse)
- **Building 22:** Canadian Food Inspection Agency Carling Laboratory (heritage building)
- A number of smaller AAFC buildings.

The development of the Civic Campus on this option would require the demolition and relocation of all or a number of these buildings to effectively develop the Civic Campus per the

test fit. The site also includes a number of mature trees along the primary road, NCC scenic parkway and pathway system.

**Diagram 1.** CEF-Central parcel boundary

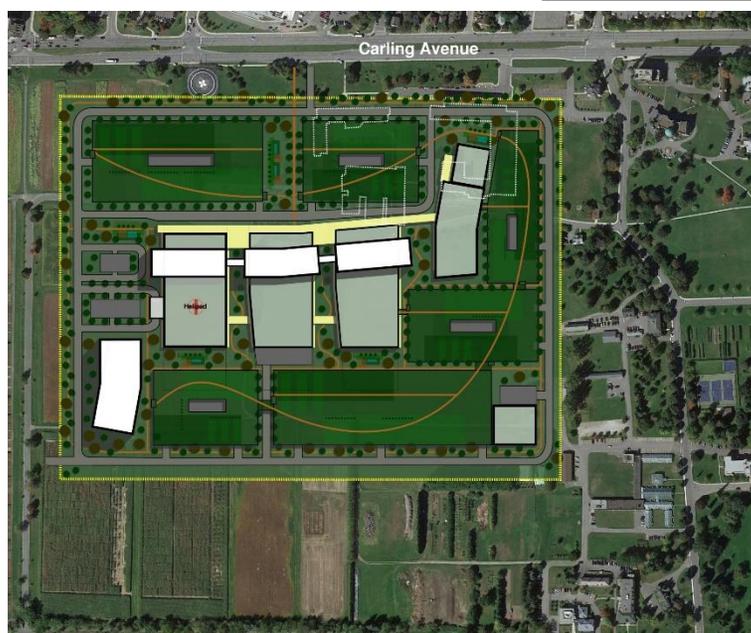


8.2.2 Optimal orientation

The hypothetical test fit was applied within the parcel boundary lines to determine the suitability of the proposed parcel of land. A number of manipulations to the generic greenfield plan were performed to optimize the proposed parcel, while minimizing impact to the site plan and building footprint.

Diagram 2: Hypothetical test fit – 3D rendering

Legend	
Podium Building	Wellness Feature
Tower Building	Access Road
Surface Parking	Pathway
Green Roof Parking	Parcel Boundary
	Generic Site Outline



*CEF-Central orientation of the hypothetical test fit plan*

8.2.3 Strengths and challenges

Evaluation Criteria	Strengths/Enablers	Challenges/Considerations
<p><b>Land area:</b> Land area required is approximately 50 to 60 developable acres.</p>	<p>Meets criteria. Accommodates the test fit model on 60 acres – this model includes main building footprints, site access, circulation, roadways, parking, outdoor wellness and health elements, along with future expansion requirements.</p>	<p>Capital cost would be significantly higher in this option.</p> <p>It would not be uncommon for building requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</p> <p>The existing larger buildings within this land area include:</p> <ul style="list-style-type: none"> <li>• <b>Building 20:</b> K.W. Neatby Building East and Oilseed Research Centre (~ 25,443 sq ft heritage building)</li> <li>• <b>Building 21:</b> Header House - Integrated Growth Facility (greenhouse)(~3866 sq ft greenhouse space)</li> <li>• <b>Building 22:</b> Canadian Food inspection Agency Carling Laboratory (~ 5347 sq ft heritage building).</li> </ul>

		There are also a few smaller AAFC buildings.
<b>Land location:</b> Land area is located in the centre of the city (in proximity to the existing Civic Campus) or towards the west or southwest of the city.	Meets criteria of being in centre core. Almost directly across from existing site to allow for any synergies associated with the total urban plan.  Option allows for effective and efficient staging, phasing and transfer of services from existing campus.	CEF is a national heritage designation
<b>Land access:</b> Land area allows for multiple (i.e. two or more) road access points to the Civic Campus to allow public versus industry (i.e. supply vehicles, ambulances, etc.) traffic/vehicles to access a new campus at defined/dedication intersections.	Meets criteria – access from Highway 417 and Carling Avenue. Access is available from Fisher Avenue for service vehicles, as well as a secondary means of access for all other vehicles.	No secondary access roadway; will need to repurpose the NCC scenic parkway and bisect Ash Lane and existing CEF lands to create a dedicated roadway for service and emergency vehicles.  Site will be bounded by CEF land on three sides; will need to consider how to integrate CEF land with the hospital lands.  Divides the CEF requiring full relocation of Winding Lane.
<b>Transportation:</b> a. <b>416/417:</b> Accessibility to/from Highway 416 and/or Highway 417 is efficient/effective: i. For public access. ii. For industry access (i.e. supply vehicles, medical companies etc.).	Meets criteria – access from 417 and Carling Avenue. Access is effective without the requirement to cross through adjacent residential neighbourhoods.  Option integrates well with major road systems for patient, visitor and emergency vehicle access.	No secondary access roadway; will need to repurpose the NCC scenic parkway and bisect Ash Lane and existing CEF lands to create a dedicated roadway for service and emergency vehicles.

<p><b>b. Public transportation:</b> Public transportation (i.e. bus and future city mass transit systems plan – light-rail, etc.) can be integrated into the Civic Campus.</p>	<p>Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).</p>	
<p><b>Future expansion:</b> Flexibility for future expansion over and above what is currently planned.</p>	<p>Meets criteria to support – incorporated into the 60 acres.</p>	
<p><b>Community impact:</b> Zero or minimal impact on nearby communities and/or community associations.</p>	<p>Zero to minimal impact – minimal disruption and impact to surrounding communities. Almost directly across from the existing site for any synergies associated with the total urban plan.</p>	<p>During construction neighbourhood maybe impacted.</p>
<p><b>Land preparation:</b> Land does not require significant amount of preparation to allow new Civic Campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings, etc.).</p>	<p>There is preparation required, along with consideration of the impact on what has been identified as two heritage buildings.</p>	<p>Capital cost would be significantly higher in this option as well as development timeline due to the requirements to demolish and rebuild/relocate the current buildings and or/occupants.</p> <p>Extensive demolition and/or relocation of the following buildings are required to allow for the new build to proceed. The plan and cost to demolish and redevelop on an alternate site would need to be absorbed by the federal government.</p> <p>The existing larger buildings within this land area include:</p> <ul style="list-style-type: none"> <li>• <b>Building 20:</b> K.W. Neatby Building East and Oilseed Research</li> </ul>

		<p>Centre (heritage building)</p> <ul style="list-style-type: none"> <li>• <b>Building 21:</b> Integrated Growth Facility (greenhouse)</li> <li>• <b>Building 22:</b> Canadian Food inspection Agency Carling Laboratory (heritage building)</li> <li>• There are also a few smaller AAFC buildings.</li> </ul> <p>The plan and cost to demolish and redevelop on an alternate site would need to be validated and funded by the federal government.</p>
<p><b>Infrastructure:</b> Infrastructure (i.e. hydro, sewer, gas, etc.) can be/is nearby and can be effectively connected/integrated to new campus location.</p>	<p>Meets criteria – all infrastructure is available.</p>	
<p><b>Phasing:</b> Impact of phasing the transition from the current Civic Campus location to the new location on the operations.</p>	<p>Meets criteria – very close proximity enables effective and efficient staging, phasing and transfer of services from existing Civic Campus.</p>	
<p><b>Patient accessibility:</b> Civic Campus is currently centrally located in close proximity to the downtown population. This criterion assesses access of downtown population to new site options.</p>	<p>Meets criteria</p>	
<p><b>AAFC impact:</b> Impact of site</p>	<p>Minimal impact to the</p>	<p>Impact to three larger</p>

development on AAFC’s research mandate (to be confirmed by AAFC and NCC).	research on the land – requires confirmation from AAFC as to extent of research being conducted.	buildings and the full relocation of Winding Lane.
<b>Hospital proximity and access:</b> Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services.	Meets criteria with minimal to zero impact, as it is almost right across the road.	

*8.2.4 Key considerations specific to this site*

The capital cost estimate for CEF-Central has yet to be prepared by the federal government on the cost of the demolition and the cost to the taxpayer. However, it is anticipated the cost estimate will be similar to CEF-West, factoring in the following additional costs:

- Demolition, repurposing or relocation of all buildings
- Building containment (e.g., asbestos removal)
- Site remediation
- Heritage building preservation

**8.3 CEF-East (Sir John Carling building parcel)**

*8.3.1 Site description*

The CEF-East location is located on the northeast portion of the CEF. The site is bounded by Carling Avenue, Maple and Birch Drives, Prince of Wales Drive and the CEF Pathway and Queen Juliana Park. Similar to CEF-Central, CEF-East has open area, existing buildings and the original pathways for the CEF. There are multiple buildings within the boundary lines of this parcel including the William Saunders Building (heritage building). Compared to the CEF-West and CEF-Central, the topography of this site varies and slopes to the east.

**Diagram 1.** CEF-East (Sir John Carling building) site boundary



### 8.3.2 Optimal orientation

The hypothetical test fit plan was applied within the parcel boundary lines to determine the suitability of the proposed parcel of land. A number of manipulations were performed to optimize the proposed parcel, while minimizing impact to the site plan and building footprint.

The horizontal orientation of the test fit plan within the parcel boundary line could be accommodated with minor modifications to the site plan and parking configurations. This is a manageable amendment should this option be considered.

**Diagram 2.** CEF-hypothetical test fit – 3D rendering



*CEF-East orientation of the hypothetical test fit plan*

*8.3.3 Strengths and challenges*

Evaluation Criteria	Strengths/Enablers	Challenges/Considerations
<p><b>Land area:</b> Land area required is approximately 50 to 60 developable acres.</p>	<p>Only meets developable acreage criteria if land is expanded outside the current boundaries of the John Carling site – test fit shows how 60 acres fits and the boundaries of the outline.</p>	<p>Irregular site boundaries. Located adjacent to a known fault line (need to confirm that it meets the hospital post-disaster building construction).</p>
<p><b>Land location:</b> Land area is located in the centre of the city (in proximity to the existing Civic Campus) or towards the west or southwest of the city.</p>	<p>Meets criteria of being in centre core. While not as close as CEF-West or CEF-Central sites, the access from Highway 417 via Carling Avenue or Parkdale Avenue is still very effective.  Location overlooking the Queen Juliana Park with potential for direct synergies</p>	<p>Increase in height/depth of parking structures required based on tight site density.  Inability to maintain program adjacencies with connected buildings due to site configuration.  New Civic would be incompatible with the scale of</p>

	for wellness amenities and recreational relationships within the neighbourhood and community.	adjacent CEF buildings. CEF is a National Heritage Designation
<b>Land access:</b> Land area allows for multiple (i.e. two or more) road access points to the Civic Campus to allow public versus industry (i.e. supply vehicles, ambulances etc.) traffic/vehicles to access a new campus at defined/dedication intersections.	Meets criteria – access from Highway 417, Carling Avenue and Prince of Wales Drive.  Potential access from both Carling Avenue and Prince of Wales Drive.	Traffic access will increase on Prince of Wales Drive and NCC scenic parkway.  Will need to review impact of Prince of Wales Drive being used as the secondary access for service vehicles, etc.
<b>Transportation:</b> a. <b>416/417:</b> Accessibility to/from Highway 416 and/or Highway 417 is efficient/effective: i. For public access. ii. For industry access (i.e. supply vehicles, medical companies, etc.). b. <b>Public transportation:</b> Public transportation (i.e. bus and future city mass transit systems plan – light-rail, etc.) can be integrated into the Civic Campus.	Meets criteria – access from 417 and Carling Avenue. Will take longer as it is somewhat further than CEF-Central and CEF-West sites.  Potential access from both Carling Avenue and Prince of Wales Drive  Option integrates well with major road systems for patient, visitor and emergency vehicle access.  Public transportation runs along this route. Option allows for effective integration of mass transit planning in future (bus, light rail, etc.).	Will need to review impact of Prince of Wales Drive being used as the secondary access for service vehicles, etc.
<b>Future expansion:</b> Flexibility for future expansion over and above what is currently planned.	Meets criteria to support – incorporated into the 60 acres is expansion for 10-15 acres.	This site has the tightest site density.
<b>Community impact:</b> Zero or minimal impact on nearby	Minimal impact to the communities surrounding	Potential impact to the community living near Prince

<p>communities and/or community associations.</p>	<p>existing Civic Campus.</p>	<p>of Wales Drive if the traffic volume increases. During construction, neighbourhood may be impacted.</p>
<p><b>Land preparation:</b> Land does not require significant amount of preparation to allow new Civic Campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings etc.).</p>	<p>Potential to integrate mature trees on the site.</p>	<p>Capital cost would be significantly higher in this option.</p> <p>It would not be uncommon for building requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</p> <p>On this site we have at least 24 buildings. A number of them are recognized as Level 1 National Historic Sites, and nine of the buildings recognized by the Federal Heritage Building Review. Heritage buildings include:</p> <ul style="list-style-type: none"> <li>• Buildings 1 to 9: Natural Resources Canada Campus (7 heritage buildings including Dominion Observatory)</li> <li>• Building 20: K.W. Neatby Building East and Oilseed Research Centre (~ 25,443 sq ft heritage building)</li> <li>• Building 34: Genetics</li> </ul> <p>Extensive demolition and/or relocation of buildings is required to allow for the new build to proceed. The plan</p>

		<p>and cost to demolish and redevelop on an alternate site would need to be validated and funded by the Federal government.</p> <p>Extensive demolition and/or relocation of buildings are required to allow for the new build to proceed.</p> <p>The plan and cost to demo and redevelop on an alternate site would need to be validated and funded by the Federal government.</p>
<p><b>Infrastructure:</b> Infrastructure (i.e. hydro, sewer, gas, etc.) can be/is nearby and can be effectively connected/integrated to new campus location.</p>	<p>Meets criteria – all infrastructure is available or in close proximity.</p>	
<p><b>Phasing:</b> Impact of phasing the transition from the current Civic Campus location to the new location on the operations.</p>		<p>Option is in relatively close proximity to existing Civic Campus. However, transitions of programs will require further planning and temporary arrangements compared to the options on CEF-West and CEF-Central sites.</p>
<p><b>Patient accessibility:</b> Civic Campus is centrally located and in close proximity to the downtown population. This criterion assesses access of downtown population to new site options.</p>	<p>Meets criteria – multiple access points and public transportation is available.</p>	
<p><b>AAFC impact:</b> Impact of site development on AAFC’s</p>	<p>No impact on research plot – need confirmation from</p>	<p>Demolition, repurposing or</p>

research mandate (to be confirmed by AAFC and NCC).	AAFC.	relocation of all buildings. Extensive demolition and/or relocation of buildings are required to allow for the new build to proceed. The plan and cost to demolish and relocate heritage buildings on an alternate site would need to be absorbed by the federal government.
<b>Hospital proximity and access:</b> Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services.	Meets criteria with minimal to no impact as it is in proximity to the existing Civic Campus.	

*8.3.4 Key considerations specific to this site*

The capital cost estimate for CEF-East has not been prepared. However, it is anticipated the cost estimate will be similar to CEF-West, with the following additional costs:

- Demolition, repurposing or relocation of all buildings
- Building containment (e.g., asbestos removal)
- Site remediation
- Heritage building preservation
- Seismic infrastructure and construction requirements

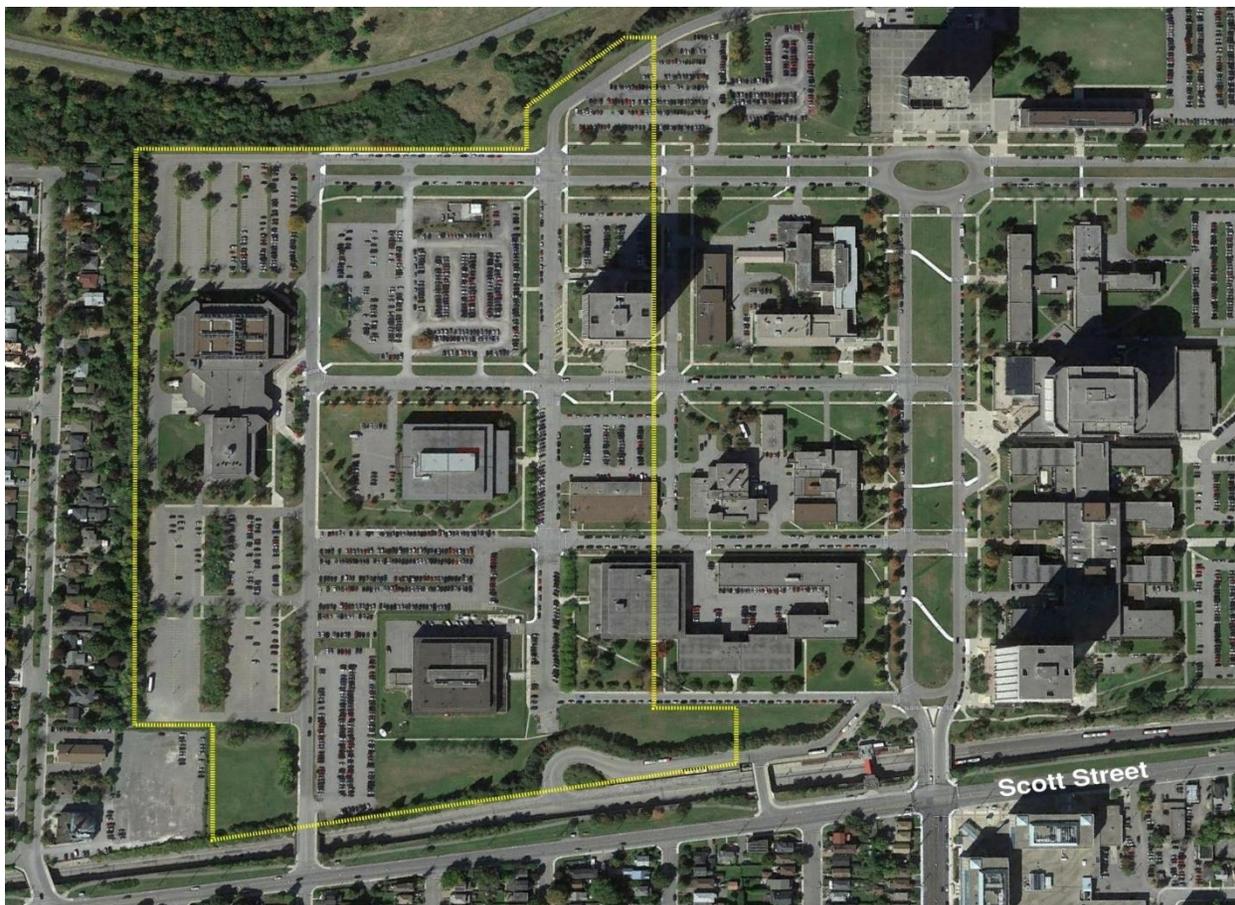
**8.4 Tunney’s Pasture**

*8.4.1 Site description*

The Tunney’s Pasture site is located north of the existing campus and is adjacent to the Ottawa River. The parcel is bounded by Sir John A. Macdonald Parkway, Parkdale Avenue, Scott Street and the Sir Fredrick Banting Driveway.

This land is owned by Public Services and Procurement Canada (former PWGSC). To accommodate a new Civic Campus, multiple buildings would need to be demolished or redeveloped/relocated.

**Diagram 1.** Tunney’s Pasture parcel boundary

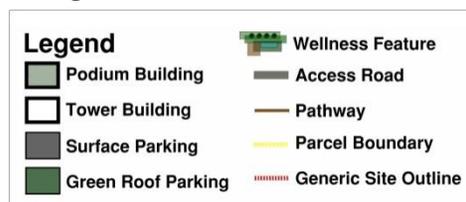


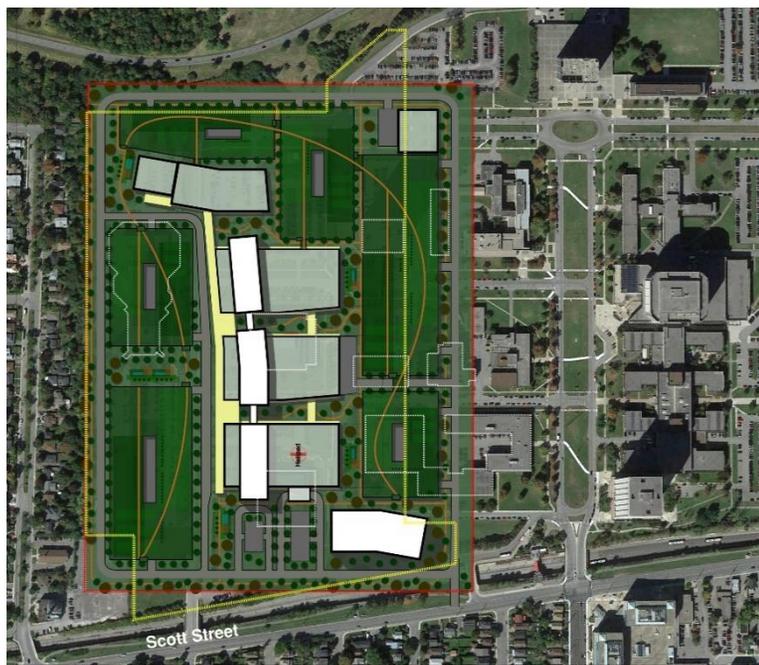
### 8.4.2 Optimal orientation

The hypothetical test fit plan was applied within the parcel boundary lines to determine the suitability of the proposed parcel of land. A number of manipulations were performed to optimize the proposed parcel, while minimizing impact to the site plan and building footprint.

A preliminary analysis confirms that 60 acres could be accommodated on the site, notwithstanding that a significant amount of planning would be required to validate various planning considerations and their impact. In particular, there are approximately eight buildings that would have to be removed with this orientation. Other orientations could be considered (which would require the removal of other buildings), but The Ottawa Hospital would require more detailed input from federal government officials to explore these more fully.

**Diagram 2.** Tunney's Pasture hypothetical test fit – 3D rendering





*Tunney's Pasture site with hypothetical test fit*

8.4.3 Strengths and challenges

Evaluation Criteria	Strengths/Enablers	Challenges/Considerations
<p><b>Land area:</b> Land area required is approximately 50 to 60 acres.</p>	<p>Meets criteria. Accommodates the test fit model on 60 acres – this model includes main building footprints, site access, circulation, roadways, parking, outdoor wellness and health elements along with future expansion requirements.</p>	<p>In order to accommodate land area, significant demolition, repurposing and reallocation of existing buildings is required.</p>
<p><b>Land location:</b> Land area is located in the centre of the city (in proximity to the existing Civic Campus) or towards the west or</p>	<p>This location is next to the Ottawa River. The parcel of land is bounded by Sir John A. Macdonald Parkway, Parkdale Avenue, Scott Street and the Sir Frederick</p>	<p>Access from Highway 417 for emergency vehicles and public traffic is not as good as the other three options.</p>

southwest of the city.	Banting Driveway.	
<p><b>Land access:</b> Land area allows for multiple (i.e. two or more) road access points to the Civic Campus to allow public versus industry (i.e. supply vehicles, ambulances etc.) traffic/vehicles to access a new campus at defined/dedicated intersections.</p>	Multiple access points.	<p>Access from Highway 417 for emergency vehicles and public traffic is not as good as the other three options. Anticipated that road work to and from Highway 417 would be required to support increased traffic.</p> <p>Service vehicle access needs to be reviewed as to best possible access.</p> <p>Traffic access will increase on Parkdale Avenue, Sir John A. Macdonald Parkway and surrounding streets.</p>
<p><b>Transportation:</b></p> <p>a. <b>416/417:</b> Accessibility to/from Highway 416 and/or Highway 417 is efficient/effective:</p> <ul style="list-style-type: none"> <li>i. For public access.</li> <li>ii. For industry access (i.e. supply vehicles, medical companies etc.).</li> </ul> <p>b. <b>Public transportation:</b> Public transportation (i.e. bus and future city mass transit systems plan – light-rail, etc.) can be integrated into the Civic Campus.</p>	<p>Multiple access points</p> <p>Close proximity to new light rail development and substation</p>	<p>Access from Highway 417 for emergency vehicles and public traffic is not as good as the other three options.</p> <p>Anticipated that road work to and from Highway 417 would be required to support increased traffic.</p>
<p><b>Future expansion:</b> Flexibility for future expansion over and above what is currently planned.</p>	Meets criteria to support – incorporated into the 60 acres is expansion for 10 to 15 acres.	
<p><b>Community impact:</b> Zero or minimal impact on nearby</p>		<p>Traffic access will significantly increase on Parkdale Avenue,</p>

<p>communities and/or community associations.</p>		<p>Sir John A. Macdonald Parkway, and surrounding streets.</p> <p>During construction neighbourhood maybe impacted.</p>
<p><b>Land preparation:</b> Land does not require significant amount of preparation to allow new campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings, etc.).</p>	<p>No significant impact on any CEF soil or CEF land.</p>	<p>Capital cost would be significantly higher in this option.</p> <p>It would not be uncommon for building requiring demolition and redevelopment (as well as heritage buildings of this size and complexity requiring relocation) to cost hundreds of millions of dollars.</p> <p>The plan and cost to demolish, redevelop or relocate on an alternate site would need to be validated and paid for by the federal government.</p> <p>Extensive demolition and/or relocation of the following buildings are required to allow for the new build to proceed. The plan and cost to demolish and redevelop on an alternate site would need to be absorbed by the federal government.</p> <p>The plan and cost to demo and redevelop on an alternate site would need to be validated and funded by the federal government.</p>
<p><b>Infrastructure:</b> Infrastructure</p>	<p>Meets criteria – all</p>	

(i.e. hydro, sewer, gas, etc.) can be/is nearby and can be effectively connected/integrated to new campus location.	infrastructure is available or in close proximity.	
<b>Phasing:</b> Impact of phasing the transition from the current Civic Campus to the new location on the operations.		Not as close as the other three options. This would have significant impact related to staging and phasing the efficient transitions of services from existing Civic Campus.
<b>Patient accessibility:</b> Civic Campus is centrally located in close proximity to the downtown population. This criterion assesses access of downtown population to new site options.	Multiple access points and light rail station.	Access from Highway 417 for emergency vehicles and public traffic is not as good as the other three options with the exception of light rail. Most patients requiring acute trauma care will not travel via light rail.
<b>AAFC impact:</b> Impact of site development on AAFC's research mandate (to be confirmed by AAFC and NCC).	No impact.	
<b>Hospital proximity and access:</b> Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services).	Still in the core of the city although access is not as fast or convenient.	New location – no line of sight to existing Civic Campus, which is true of the other three options.

*8.4.4 Key considerations specific to this site*

Public Services and Procurement Canada has indicated that it has spent approximately five years creating a development strategy for this land, which has required a significant effort on its workforce. The secondary master plans, which are quite advanced, have been the subject of a number of community consultations.

## 9. Next steps

With the finalization of the land selection by the federal government, The Ottawa Hospital will execute a Community and Stakeholder Engagement Program. Its objectives will be to consult the public and stakeholders in a meaningful way, and to solicit a broad spectrum of input to inform the vision and design of a modern Civic Campus.

Consultation activities will be designed to enable the public to share their ideas, thoughts and concerns and to better determine the design elements of the new facility. Priority will be placed on optimizing the delivery of health-care services, while enhancing how best to incorporate the surrounding environment so that it meets community expectations, addresses or mitigates concerns, delivers benefits, and enhances the enjoyment and appreciation of the new site for patients, visitors, neighbours, and staff of the hospital.

Given the community's need for information regarding The Ottawa Hospital's vision for the new Civic Campus, the engagement program's focus will be broad and informative at the outset, and narrow down to the key questions as the program unfolds.

The program has four phases:

1. **INFORM:** Introduction to the project.
2. **INPUT** into the draft development principles, vision and design guidelines.
3. **REFINE:** validation of the vision and input into initial architectural and landscaping concepts (demonstration plan framework).
4. **REPORT:** presentation of the demonstration plan framework (concepts for a 21<sup>st</sup>-century health-care facility).

Public sessions will be conducted at each phase and structured to provide participants with opportunities to:

- Hear from staff and experts in a group setting or individually.
- Review project details.
- If they choose, engage in dialogue regarding the key elements being presented.
- Provide comments, ideas and input that can truly influence the project outcomes.

Phase I, INPUT, was held in late winter of 2016. A public information session was held on March 7 to bring the community up to date on the project so far.

In addition, a PCC made up of representatives from a wide range of interests has been established, with the inaugural meeting held on February 29. Future meetings will continue. Membership includes groups directly affected by the initiative, such as neighbouring community associations, local businesses, representation from the urban indigenous population, as well as a number of organizations that can speak to other broader matters, such

as Ottawa's growing healthcare needs and the requirements for new state-of-the-art research and teaching facilities.

The Ottawa Hospital will continue to engage the community to ensure the new Civic Campus reflects the needs, concerns and aspirations for a 21<sup>st</sup>-century health-care facility.

Given the land options being reviewed are federally-owned and situated on unceded Algonquin territory, steps will be taken to engage with Algonquin Anishinabeg communities once the federal government has selected a final site. This engagement will build on consultations the NCC has already initiated with the Algonquians of Ontario.

## 10. Conclusion

The Ottawa Hospital's Civic Campus is one of the most important health-care institutions in the region – supporting The Ottawa Hospital with more than one million patient visits every year in a community of 1.3 million people located across dozens of neighbourhoods and towns in Eastern Ontario, West Quebec and Nunavut.

The current Civic Campus was built to meet earlier standards which are no longer suitable to provide modern, state-of-the-art health care. A new Civic Campus is needed to improve patient health and safety, make the delivery of health care more efficient, and advance research and teaching facilities designed to improve health and wellness at both the local and global levels.

With a new Civic Campus, health care will be a vastly different experience for patients and their families, hospital staff and the community. Private rooms will give patients greater privacy while reducing the spread of infections. The location of facilities within the hospital will save precious time when every minute counts in treating patients suffering from heart attacks, strokes and other major trauma. And, a fully digitized campus will enable patients, families and their caregivers to have real-time access to up-to-date health records – from anywhere in the world.

Selecting the most appropriate site is critical in achieving a 21<sup>st</sup>-century vision for health care in Ottawa. Otherwise, The Ottawa Hospital's ability to deliver the comprehensive and integrated service expected today will be compromised.

The Ottawa Hospital's Master Plan, endorsed by federal, provincial and municipal governments, calls for a new Civic Campus located in the core of the city on a parcel of land 60 acres in size. Rigorous capital planning has been undertaken – factoring in projected growth, changing demographics, technology advancement and a number of other assumptions to plan the requirements for each and every program that would operate at the new Civic Campus. At the heart of this planning is what the patient experience will be like, how the base clinical buildings

will accommodate patients and health-care providers, and anticipating what the needs of a growing population will be in future.

The Ottawa Hospital has taken a systematic approach in developing and applying a methodology to understand the viability of developing a new 60-acre Civic Campus on a proposed site. Its hypothetical test fit enabled the optimal placement of buildings and other necessary components on each of the four proposed sites, and the criteria it developed to analyze and evaluate each site has enabled a clear assessment of their strengths, weaknesses and other important considerations.

Significant progress has been made to finalize the selection of a site for the new Civic Campus. The Ottawa Hospital now looks forward to the Government of Canada's feedback on the four land options presented for review, and a timely decision confirming the selection of a site. In the meantime, The Ottawa Hospital will continue planning and conducting due diligence on the future of the Civic Campus, including engaging the community in the development of the new facility.

The development of the new Civic Campus is one of the most important and exciting development initiatives for the region. When it is built and completed in the coming 10 to 15 years, it will serve the community's needs for generations and put the Ottawa region on the national and international map as a truly modern, forward-looking health-care complex for the 21<sup>st</sup> century.

## Appendix A: The Ottawa Hospital Master Plan Steering Committee - 2008

Member	Title
Dr. Jack Kitts	President and CEO (Chair)
Mr. Gino Picciano	Sr. VP, COO and CIO
Mr. Cameron Love	VP Facilities, Planning and Support Services
Ms. Peggy Taillon	VP, Advocacy, Community Engagement & CPO
Dr. Jim Worthington	VP, Medical Affairs, Quality and Patient Safety
Dr. Chris Carruthers	Chief of Staff
Ms. Alison Wesley- James	Manager, Planning and Development
Mr. Kent Woodhall	Planning Coordinator
Mr. Yves Tremblay	Chair, TOH Board of Directors
Mr. Phil Murray	Treasurer, TOH Board of Directors
Dr. Robert Roberts	CEO, Heart Institute
Mr. Jean Jacques Blais	Chair, Heart Institute
Dr. Robert Cushman	CEO, Champlain LHIN
Dr. Ron Worton	EO, Ottawa Hospital Research Institute
Dr. Jacques Bradwejn	Dean, Faculty of Medicine, University of Ottawa
Denis Prud'homme	Dean, Faculty of Health Sciences and Associate Professor at School of Human Kinetics
Ms. Deb Sanders	Sr. VP (HDR)
Mr. Craig Ellis	Sr. VP (HDR)
Dr. Rashmi Kothary	CEO, Ottawa Research Institute
Mr. Robert Hanlon	COO, Ottawa Research Institute
Mr. Earl Bardswich	HCM Inc.

## Appendix B: Letter – Ministry of Health and Long-Term Care

## Appendix C: The Ottawa Hospital: Civic Campus Land Planning Matrix

### Criteria

The following criteria provide the evaluation parameters for the land options identified below. The criteria are explained below and are provided in the table below (as identified by the “bolded words” outlined below). Criteria scoring are as follows:

- “1” – Land option meets criterion
  - “.5” – Land option partially meets criterion
  - “0” – Land option does not meet criterion
1. **Land area:** Land area required is approximately 50-60 acres.
  2. **Land location:** Land area is located in the centre of the city (in proximity to the existing Civic Campus) or towards the west or southwest of the city.
  3. **Land access:** Land area allows for multiple (i.e. two or more) road access points to the campus to allow public versus industry (i.e. supply vehicles, ambulances etc.) traffic/vehicles to access a new campus at defined/dedication intersections.
  4. **Transportation:**
    - a. **416/417:** Accessibility to/from 416 and/or 417 is efficient/effective:
      - i. For public access.
      - ii. For industry access (i.e. supply vehicles, medical companies etc.).
    - b. **Public transportation:** Public transportation (i.e. bus and future city mass transit systems plan – light-rail etc.) can be integrated into campus.
  5. **Future expansion:** Flexibility for future expansion over and above what is currently planned.
  6. **Community impact:** No or minimal impact on nearby communities and/or community associations.
  7. **Land preparation:** Land does not require significant amount of preparation to allow new campus to be constructed (i.e. soil contamination, demolition of existing structures/buildings etc.).
  8. **Infrastructure:** Infrastructure (i.e. hydro, sewer, gas, etc.) can be/is nearby and can be effectively connected/integrated to new campus location.
  9. **Phasing:** Impact of phasing the transition from the current Civic Campus location to the new location on the operations.
  10. **Patient accessibility:** Currently, the Civic Campus is centrally located in close proximity to the downtown population. These criteria assess access of downtown population to new site options.
  11. **AAFC impact:** Impact of site development on AAFC’s research mandate.
  12. **Hospital proximity and access:** Location of new site in relation to existing hospital sites across Ottawa (i.e. effective distribution of hospitals across Ottawa and access to core services).

## SITE SELECTION REVIEW AND REPORT

Land Option	Criteria													
	Land Area	Land Location	Land Access	416-417	Public Transportation	Future Expansion	Community Impact	Land Preparation	Infrastructure	Phasing	Patient Access	Ag Canada Impact	Hospital Proximity & Impact	Total
1. CEF – across from existing Civic Campus	1	1	1	1	1	1	.5	1	.5	1	1	.5	1	11.5
2. CEF – Baseline Road and Fisher Avenue (cross road)	1	1	1	.5	1	1	.5	1	.5	1	1	.5	1	11
3. NCC – Woodroffe Ave and Hunt Club Rd across from the Nepean Sportplex	1	1	1	1	1	1	1	1	.5	.5	.5	1	1	11.5
4. CEF – Sir John Carling Bldg	1	1	1	1	1	.5	.5	.5	.5	1	1	0	1	10
5. Hurdman Station	1	0	.5	1	1	0	1	0	.5	.5	.5	1	0	7
6. Bayview Yards – adjacent to LeBreton Flats	0	1	.5	.5	1	0	1	0	.5	.5	1	1	1	8
7. Woodroffe Ave at Baseline Rd (beside Algonquin College)	0	1	1	1	1	0	.5	.5	.5	.5	.5	1	.5	8
8. Nortel site – Carling Ave and Moodie Dr	1	.5	1	1	1	1	1	.5	.5	0	0	1	.5	9
9. Confederation Heights – Riverside Dr and Heron Rd (Canada Post)	0	1	.5	.5	1	0	1	0	.5	.5	.5	1	0	6.5
10. Tunney's Pasture	.5	1	.5	.5	1	.5	.5	0	.5	.5	1	1	1	8.5
11. Booth Street	0	1	.5	1	1	0	0	0	.5	.5	1	1	1	7.5
12. Hunt Club Road south corridor	1	.5	0	.5	0	1	.5	1	.5	0	.5	1	0	7.5

## Appendix D: Overview of 21<sup>st</sup>- Century Health-care Attributes

21 <sup>st</sup> -century hospital attributes	Current Civic Campus	New Civic Campus: why 60 acres
<b>Location</b>		
Central to the major patient population served.	Civic Campus is currently located in central core close to population it serves.	New Civic Campus to be located in central core close to population it serves.
Access to regional and arterial road networks and to helipad for efficient acute patient transport/transfer.	Civic Campus is currently easily accessible from multiple directions along major arteries but accessibility from the helipad is poor.	Access to multiple road networks and a helipad on site is required. Helipad to be complete with clear approach and departure paths.
In proximity to public transit.	Current site is not accessible by LRT but is accessible by buses.	A public transit station and associated dedicated travel route located on the site in close proximity to the main entry to the hospital.
Linked to regional trail networks where possible.	Current site is bound by busy roads on all sides.	Potential to link new hospital to existing Ottawa trail networks.
<b>Site</b>		
Dedicated public access for public transportation, private vehicles, taxi and special access buses to entrance with clear and intuitive wayfinding “front of house”.	Current Civic Campus has multiple public entrances on different sides of the building accessible by both public and service vehicles.	New Civic Campus to have multiple public entrances along one common facade for public transportation, private vehicles taxis and special access buses. Entrances to be clearly marked to indicate which hospital services they access. Similar to an airport departure drop-off area.
Dedicated emergency vehicle access. Do not mix with public access or service vehicles.	Current Civic Campus access for emergency vehicles is shared with public traffic.	New Civic Campus will separate emergency traffic from both public traffic and service vehicles.
Dedicated service vehicle access for deliveries and pick-up “Back of House”.	Current Civic Campus service vehicle access is shared with public access.	New Civic Campus will separate service vehicle access from both emergency and public access.
Civic Campus presence with clear identity / view corridors.	Current Civic Campus does not have a clear identity or view corridors to the hospital.	New Civic Campus to be clearly visible and easily identifiable along approach paths.
Immediate access to onsite parking for both the public and staff.	Current Civic Campus has parking on site and off site.	New Civic Campus to have all public and staff parking on the site of the hospital.

## SITE SELECTION REVIEW AND REPORT

Areas for mass casualty deployment and decontamination.	Current Civic Campus does not have an area for mass casualty deployment and decontamination.	New Civic Campus to have area of sufficient size to allow for mass casualty deployment and decontamination.
Fire department access to all areas of the facility/campus.	Current Civic Campus has access to all areas for fire department but in some areas the firetrucks have to back out of the area they are accessing which is not desirable.	New Civic Campus to have access to all areas for fire department complete with turnaround areas for firetrucks to eliminate backing out of areas on the site.
Buffer areas to adjacent properties.	Current Civic Campus site does not have buffer areas between the hospital buildings and exterior amenity spaces and the roads and neighbours.	New Civic Campus will have buffer zones between the hospital buildings and exterior areas and the roads and neighbours.
Access to outdoor amenity areas, healing gardens, rehabilitation areas and greenspace.	Current Civic Campus site does not have access to outdoor amenity areas, healing gardens, rehabilitation areas and greenspace.	New Civic Campus will incorporate outdoor amenity space, healing gardens, rehabilitation areas green space as part of the healing process.
Availability of open land to permit the replacement of the initial facility without major disruption or excessive phasing to the original structure in the future.	There is no open land on the current Civic Campus site.	New Civic Campus will have dedicated space available for future development and/or replacement of the facility.
<b>Program</b>		
Clear and intuitive wayfinding through the facility.	Finding your way through the current Civic Campus site is challenging and not intuitive.	Views to the exterior along major corridors and clear organization of departments and amenities along major traffic routes and minimal decision (turning) points will allow for clear and intuitive wayfinding.
Clear segregation of high traffic ambulatory outpatient areas from inpatient areas while allowing minimal travel distances for ambulatory patients.	Current Civic Campus mixes outpatient and inpatient areas and some ambulatory service areas are distant from entrances.	New Civic Campus will allow for direct access to ambulatory outpatient service areas from hospital entrances and parking.
Segregated front of house and back of house networks for patient comfort and staff convenience.	Currently the public (front of house) and service (back of house ) share access in corridors, elevators, etc.	New Civic Campus to have separate front of house and back of house access systems.
Minimal travel distances for patient transfers specifically high acuity patient transfers, staff efficiency and	Current Civic Campus departments are not well laid out to minimize travel distances between interdependent	New Civic Campus to be laid out with optimum adjacencies between interrelated departments and services to minimize travel

SITE SELECTION REVIEW AND REPORT

ambulatory patients.	services and departments.	distances for both patients and staff.
Hybrid areas including surgical and imaging technology to minimize patient transport,	Civic Campus currently has minimal hybrid areas.	Current Civic Campus operating rooms range in size from 450 sq ft to 900 sq ft. New hybrid operating rooms would all be a minimum of 1000 sq ft in size.
All single patient rooms for optimal privacy and infection control practices with family areas. All rooms would have a private accessible washroom. Allow for sufficient number of bariatric rooms.	Current Civic campus has single, double and four bed rooms without any designated family areas and only some private washrooms. Not all washrooms are accessible. Current single bedrooms are approximately 160 sq ft. Private washrooms vary in size from 25 sq ft to 55 sq ft.	New Civic Campus would have all single bed rooms with a minimum area of 230 sq ft with clearly outlined patient, staff and family areas and private accessible washrooms. Washrooms would be minimum 60 sq ft in size.
Modular facilities for ease of staff use and familiarity. (associated with reduction of errors)	Current Civic Campus does not have modular facilities.	New Civic Campus would have modular facilities.
Designed to current infection control requirements including handwash sinks in all patient care areas, minimal sizes of patient areas (ie. stretcher bays, dialysis chairs, waiting areas), isolation rooms properly located to minimize infectious patient transfer travel distances.	Current Civic Campus continuously struggles through the changes they make to meet the latest infection control requirements in some areas due to age of facility and space available.	New Civic Campus would be designed to all current infection control requirements.
Minimizing open storage of equipment in corridors through the decentralization of equipment rooms and appropriate alcove distribution.	Current Civic Campus does not have sufficient storage for all of the equipment required in a modern day hospital resulting in items being stored in corridors and /or in storage rooms that are distant from where the equipment is required.	New Civic Campus to have sufficient storage areas for the equipment required.
Appropriate privacy measures for patients (registration areas, consult rooms).	Current Civic Campus areas are tight, which at times does not allow sufficient space for patient confidentiality.	New hospital to be designed to allow for patient confidentiality in all areas.

<b>Infrastructure</b>		
Dedicated trauma elevator(s) serving the Helipad, Emergency Department, Interventional Platform, Imaging and Critical Care Departments at a minimum.	Civic Campus does not have dedicated trauma elevators.	New hospital would have dedicated trauma elevators if the related areas are not located on the same floor.
Electrical and IT rooms appropriately sized and located to ensure for maximum future flexibility.	Current electrical and IT rooms are small and not located for future flexibility.	New Civic Campus would have IT and electrical rooms sized and located for flexibility and expansion.
Location of all services mechanical / electrical elements outside of patient care areas.	Current services are located in patient care areas.	Service areas will be segregated from patient areas.
Automated Guided Vehicle friendly planning to permit future use of robotic delivery systems on every floor.	Civic not currently designed to accommodate robotic delivery systems.	Corridors, elevator position and number to be planned for future robotic delivery.
Universal access to all public/patient areas including universal washrooms as per current standards.	Current Civic Campus does not meet new universal washroom requirements.	New Civic Campus will meet all current universal access requirements.
Corridors of adequate width for stretcher, motorized scooter and universal access.	Current Civic Campus has some areas that can't be developed for patient services due to existing corridor widths.	New Civic Campus all corridors would be of adequate width for stretcher, motorized scooter and universal access.
<b>Amenity</b>		
Floor plans that are not too deep to permit access to daylight for both staff and patients in all departmental areas.	Many areas at the current Civic Campus do not have access to daylight.	New Civic Campus will be designed for maximum access to daylight for both patients and staff.
Family amenities that allow direct patient access and care.	Current Civic Campus patient rooms are not designed with family areas.	New single bedrooms will be designed with a family area.
Partnering programs to enhance wellness.	Civic Campus currently does not have any space to accommodate new partners.	New Civic Campus would have space for new partners.
Retail and support spaces that encourage wellness and preventative/proactive medicine.	Civic Campus currently does not have any space to accommodate new support spaces.	New Civic Campus would have space for new partners.