

A Case for Investment in Ambulatory Surgical Care



London Health Sciences Centre

London Health Sciences Centre (LHSC), one of Canada's largest acute-care teaching hospitals, is dedicated to excellence in patient care, teaching and research. Since 1875, we have provided patient care for the people of London, the region, and beyond. Many national and international medical breakthroughs have been pioneered at LHSC, to the benefit of patients at home and around the world.

LHSC is home to Victoria Hospital, University Hospital, community medical centres, Children's Hospital, The London Regional Cancer Program, and Canadian Surgical Technologies & Advanced Robotics.

Our physicians, residents and staff number nearly 15,000 and together they provide care for more than one million patient visits every year.

The generosity and vision of the people we serve is a cornerstone for our progress—yesterday, today and tomorrow. They give selflessly through the Children's Health Foundation and London Health Sciences Foundation to strengthen and enhance our resources, building the future of health care.

Victoria Hospital



Left: Canadian Surgical Technologies & Advanced Robotics

Below: Victoria Family Medical Centre



The new Ambulatory Surgical Centre

Phase 1 of the Ambulatory Surgical Centre was created in 2020 to foster a cultural shift in surgical procedures, including innovative models of care delivery, advances in pre- and post-surgical care and how surgical procedures are carried out. These innovations align with LHSC's academic and research mission. In addition, innovations in new technologies, such as minimally invasive surgeries and better medication, leads to less pain medication required, shorter recoveries and reduced healthcare spending.

By moving less complex, lower acuity and lower risk surgeries to an ambulatory surgical centre, this initiative has created capacity in the main operating rooms to perform more complex surgeries such a transplant, cardiac and neurosurgeries. In this way, both environments are important to advancing LHSC's academic mission as a tertiary/quaternary centre. The Ambulatory Surgical Centre represents a strong step forward in incremental surgical capacity in a patient-centred, cost-effective, and efficacious manner.

Recently, LHSC's Ambulatory Surgical Centre has garnered considerable interest and positive attention from peer hospitals and the government. LHSC was approached to describe its Ambulatory Surgical Centre for the Office of the Auditor General of Ontario (OAGO) in support of a report focusing on value for money in moving from traditional operating room settings to an ambulatory approach for minor surgeries. As well, the Advisory Board, a healthcare research and best practice think tank has also highlighted LHSC's Ambulatory Surgical Centre to member organizations globally in a recent care shift summit. Being the first of its kind in Canada, the Centre has enabled LHSC to be seen as a leader in the Ambulatory Surgical Centre space and builds a positive reputation with peers and the Ministry of Health.



746 Baseline Road, home of the Ambulatory Surgical Centre



Operating Room at the Ambulatory Surgical Centre



Prep/Recovery Space at the Ambulatory Surgical Centre

Benefits of the Ambulatory Surgical Centre

The following is a summary of the benefits that LHSC has experienced since purchasing 746 Baseline Road East and building Phase 1 of the Ambulatory Surgical Centre:

- Owning a facility that lends itself to mobilizing innovative models of care
- A focus on capacity building close to LHSC's largest site – Victoria Hospital
- A Surgical Centre that is unique to Canada with a focus on patient and provider needs
- **A solution to address the backlog of surgical cases**, many of which existed pre-pandemic but have grown with the exponential growth in cases during and post-pandemic. The goal is to reduce wait-times for surgical cases by siphoning off the less complex cases to Surgical Ambulatory Centre and decreasing the stress on the main in-hospital operating rooms.
- Creating a positive working environment for physicians and staff
- Optimizing existing services including best use of main operating rooms
- Creating an integrated surgical system for the patients of Southwestern Ontario
- Achieving quality care at a lower cost
- Supporting LHSC's evolving space management plan and its Master Plan
- Building LHSC's reputation as a forward thinking and results-oriented organization
- Building credibility locally and internationally for a leading best practice
- **It's good for patients** – An environment that is considered safer (less infectious) and more private than an inpatient surgical service. It is conveniently located with ease of access and is less stressful than entering the main hospital campuses. Patients appreciate spending less time in the surgical suite and scheduling is more predictable. (Emergency cases are not as apt to lead to delays and cancellations in the off-site Centre in contrast to the main hospital operating rooms.)

- **It's good for physicians and staff** – It is conveniently located and very accessible without attending the main hospital. Physicians and staff have more control over their work, in a less stressful environment. Scheduling is more predictable, especially as their surgeries are less likely to be cancelled or deferred as a result of more complex and urgent cases.



Medical Device Reprocessing Room at the Ambulatory Surgical Centre

*LHSC's innovative off-campus Ambulatory Surgical Centre is the **first of its kind** in Canada!*

***Over 4,500 patients** per year will receive surgery in the Centre when all phases are complete!*

*It would take seven dedicated operating rooms, running five days per week for 45 weeks a year for **two full years** to address LHSC's total backlog and pre-pandemic cases.*

The Ambulatory Surgical Services Model

Standard practice at Canadian hospitals consists of surgical environments that operate with the premise that every patient requiring surgery also requires the highest level of support as a critical patient. (E.g. a patient undergoing cardiac or multiple traumas require the same resource as a patient undergoing an appendectomy or bunion procedure.)

LHSC is one of the largest academic tertiary quaternary care centres in Canada, completing over 27,000 surgical cases annually, including highly specialized care. The operating rooms are staffed for the unexpected urgent and emergent cases. Standardized policies, procedures, and clinical resources ensure the most complex patient care needs meet the Royal College of Physicians and Surgeons standards, regardless of the varying complexities of surgical procedures. This practice inevitably leads to needlessly higher organizational expenses. Furthermore, patients with lower complexity cases can be negatively impacted as they await surgery, further driving higher levels of health care resources and associated costs.

Thirty-three literature reviews, coupled with onsite visits inside and outside of North America informed LHSC's vision of an ambulatory surgical services model. The reviews include "A Framework for Ambulatory Surgical Centres" which was recently released on November 8, 2021, by the International Advisory Review Board. The Framework has been reviewed and confirmed for alignment to LHSC's Ambulatory Surgical Centre strategy. In addition, multiple external parties, such as the Canadian Journal of Surgery (pending LHSC research publication titled "Evaluation of an Academic Tiered OR Strategy: Comparing High-Efficiency vs Conventional operating rooms) and presentations to universities (e.g., McMaster, Toronto) have created awareness about the benefits associated with this model. We are pleased to report some surgical services at LHSC's main campuses are implementing the benefits of standardized medical instruments and decreasing the rigidity of nursing resources, when appropriate, to spread and scale what can also be achieved in the main operating rooms to further realize organizational benefits.

LHSC's proof-of-concept pilot in 2016 involved the Orthopaedic Trauma program who demonstrated the utility and viability of a streamlined, surgical process to deliver more efficient care within the same funding envelope. Through collaboration and influence, the following innovations in the model of care delivery were achieved:

- Average patient turnover decreased from the provincial and LHSC room turnover time of 23 minutes to less than nine (9) minutes
- Operating costs at the Centre decreased by 56 per cent
- Patient Eligibility Criteria and Surgical Complexity Framework (e.g., Tier Definitions) were designed to define the estimated surgical duration, recovery time, and staffing complement aligning resource complexity and anesthesia (included American Society of Anesthesiologists (ASA) requirements for candidate procedures.
- Surgical instrumentation trays dropped from 80 to 20 instruments



These changes in the model of health care delivery extend beyond dollars and capacity. Transformation of cultural norms has been achieved and has been pivotal to success. It has taken time, commitment, and collaboration between administrative and clinical leadership.

Based on the pilot, the Ambulatory Surgical Centre service delivery model was developed and expanded from lower extremity orthopedic/trauma to include general surgery cases. Significant improvements in the pilot project included:

- Improved patient and staff satisfaction
- Better utilization of resources, such as lower staffing requirements
- Complete utilization of all available OR time (nearly zero room idle time)
- Standardization of surgical instrumentation and disposables
- Standardization of case types and
- Surgical capacity in main operating rooms enables LHSC to meet its ongoing responsibilities as a major, tertiary, and regional (Cancer) Centre while better meeting time-sensitive, emergent cases.

A Case for Capital Investment

The cost of renovating and improving spaces at 746 Baseline Road for ambulatory surgical purposes are approximately half of the cost of building equivalent new facilities at Victoria Hospital. Given the success of Phase 1, LHSC stands to further improve on its clinical efficiency, patient and staff experience, cost savings, and further solidify its reputation as a leader in innovative best practices in the Province.

Ambulatory surgery centres are a quickly growing and evolving enabler for hospitals and health systems to improve quality and customer service while simultaneously reducing costs. Ambulatory care, or outpatient care, is medical care provided on an outpatient basis, including diagnosis, observation, consultation, treatment, intervention, and rehabilitation services. This care can include advanced medical technology and procedures even when provided outside of hospitals.

In the US, hospitals are diverting many services to outpatient facilities since the implementation of the Affordable Care Act. This has resulted in many hospitals being pressed to cut costs and make healthcare more accessible and affordable to all, while improving care. Ambulatory care provides a solution for global health systems to improve timeliness of care, reduce cost of care delivery, improve clinical outcomes, and facilitate care closer to home for some populations.

LHSC has need for growth in operating room services for ambulatory and non-ambulatory surgery types. The Ambulatory Surgical Centre provides the ancillary benefit of creating capacity for surgical cases that can only be completed within the main operating rooms.

The Ambulatory Surgical Centre will continue to play a strategic role in LHSC's broader COVID-19 recovery plan by providing incremental capacity that will



be required to address the surgical backlogs. The impact of the COVID-19 global pandemic is unprecedented. The reduction in surgical activity due to directives to cease elective cases, requirements to hold occupancy at defined levels, and inability to operationalize operating room grid time have all contributed to worsening patient wait times. Province wide, hospitals have completed fewer cases than pre-pandemic volumes. LHSC has been unable to meet the communities' growing population health demands for several years. The resulting substantial surgical backlog and increasing wait lists, LHSC is in the province's bottom quartile in performance.

Following the third wave of the pandemic, the Ambulatory Surgical Centre provided a relief valve for patients awaiting lower priority surgeries (often those than can be completed on an ambulatory basis) and supported some of the greatest pre-pandemic lower acuity surgery throughput in the province.

There is a compelling need to expand the Ambulatory Surgical Centre to build incremental operating room capacity in the immediate and short term (1 to 4 years) to address the growing number of patients requiring surgery (historic + COVID-19 backlog). Business analysis has demonstrated the immediate need to increase surgical capacity to address the surgical backlog as well as the operative capacity required over time to support the growing and aging patient population LHSC serves.

Key strategic advantages relate to LHSC 's reputation with its communities, health care partners and the government. 746 Baseline Road East provides a new opportunity outside the space constrained and higher cost main hospital campuses. While doing so, it enables new models of patient care without impacting other clinical programs and patient populations. The hope is that this makes LHSC an attractive hospital for the Ministry to invest in the short and long term.

Advancement of the Ambulatory Surgical Centre will create institutional knowledge and experience on the development and implementation of new hospital-based models of care. This institutional knowledge is essential as LHSC undertakes its Master Planning exercise with a commitment to further evolve and embrace innovation to create a sustainable local, regional, and provincial health care system of the future.

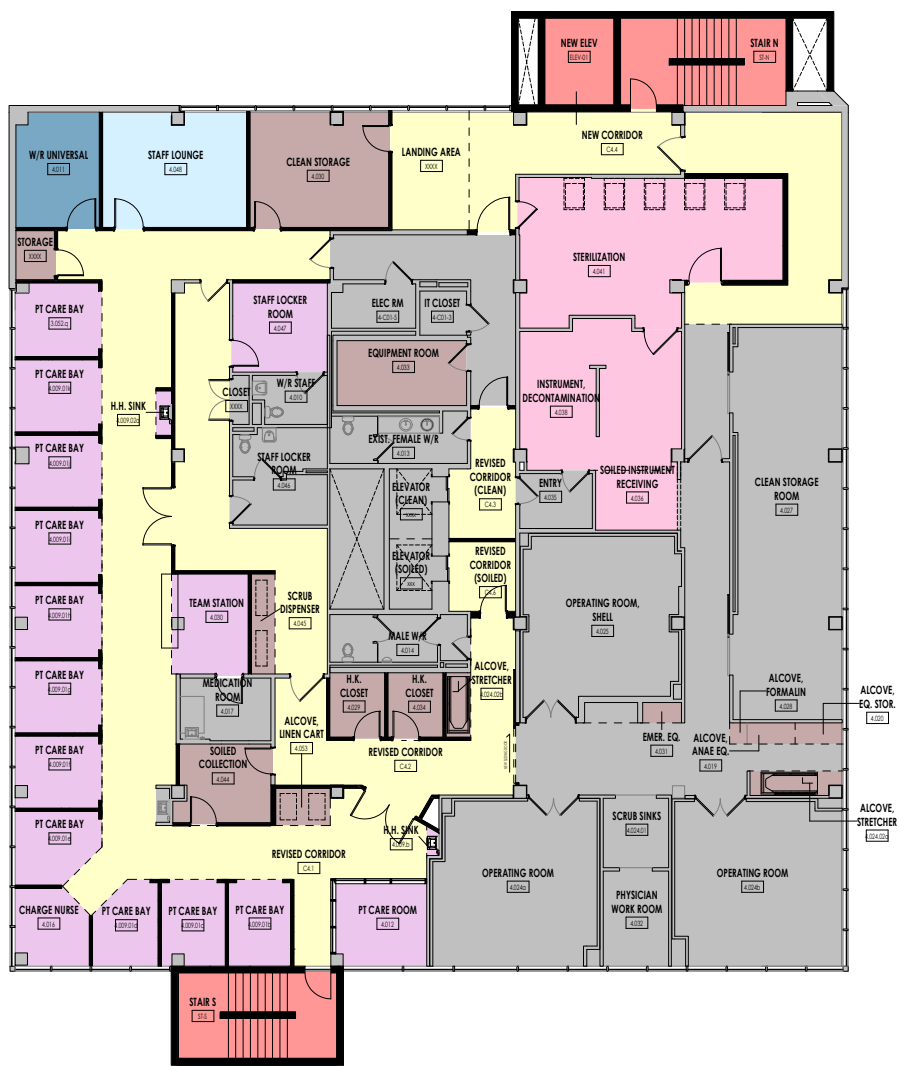
Moving Forward

Phase 1, completed in 2020, saw the opening of two surgery suites with recovery space, on-site MDR (Medical Device Reprocessing) and a waiting room. Phase 1 also included the shell for Phase 2 work, which will result in one more OR on Level 4, expanded MDR, and a new stair and elevator.

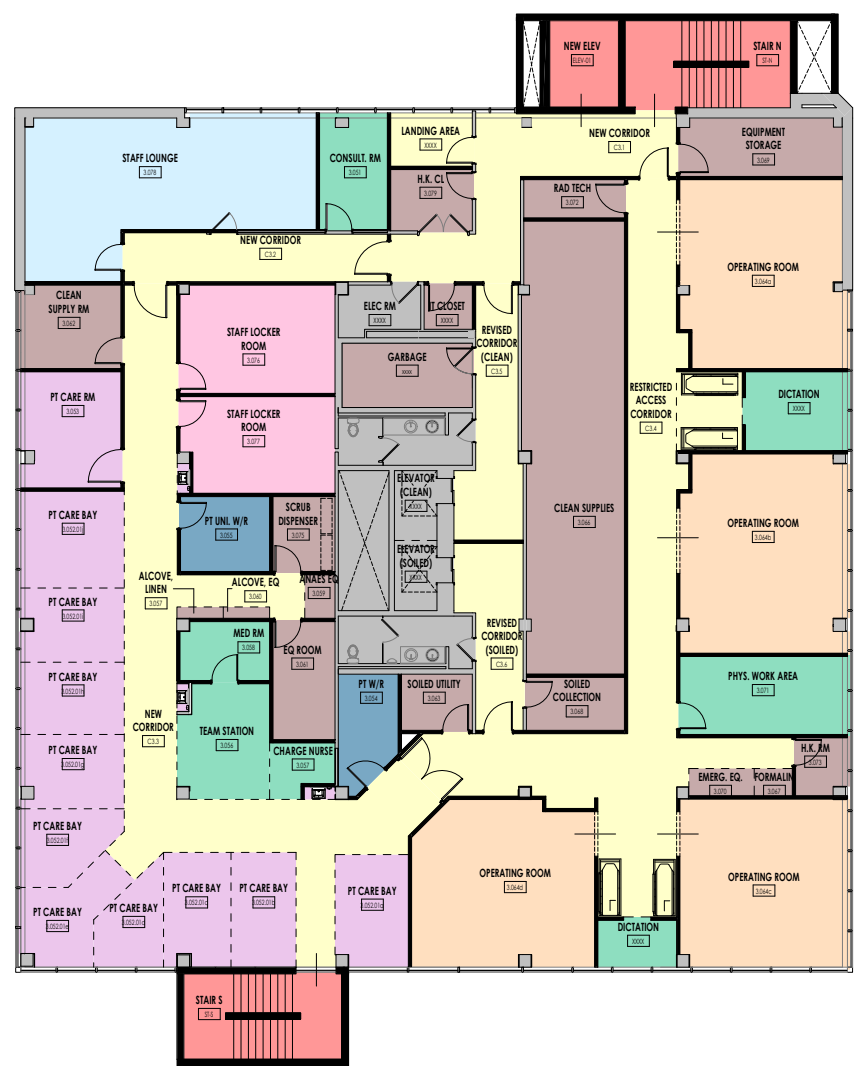
Phase 3 work proposed to redevelop Level 3 with 3 additional ORs, additional Prep and Recovery Space, and a dedicated Reception and Waiting Area. The additional capacity is a response to the extensive backlog of surgeries as a result of COVID-19 and expected future needs.

Phase 2 and 3 designs have been approved by the Ministry of Health to proceed.





Phase 2 work on Level 4 includes completion of the third OR and expanding the MDR



Phase 3 work on Level 3 includes three new ORs



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