1. Project Background

In January 2010, the Interior Health Authority received approval to proceed with the Interior Heart and Surgical Centre (IHSC) Project. The IHSC Project represents a component of Cardiac Services BC’s provincial revascularization plan and provides a permanent solution for the delivery of Cardiac Services to the southern interior of British Columbia.

In 2006, the Provincial Health Services Authority - Cardiac Services British Columbia recommended the development of a fifth Coronary Revascularization centre at Kelowna General Hospital (KGH) by 2012 to meet existing and anticipated provincial and regional demand. To meet this need, government approved a transition plan to implement Percutaneous Coronary Interventions by 2010, and open heart surgery by 2012 at KGH. The transition plan accommodates new cardiac services in temporary locations at KGH until the IHSC Project is completed.

The IHSC Project includes a new inpatient surgical unit to replace the outdated unit currently in use at the KGH. The surgical suite will be integrated with the cardiac revascularization program. The project also enhances support services by expanding the central sterilization reprocessing, diagnostic imaging, pharmacy and materials management departments.

The outdated Pandosy building on the KGH site will be demolished to create space for the construction of the new IHSC building. Completion of the fifth and sixth floor in the KGH patient care tower constructed under the Kelowna Vernon Hospitals Project and a new clinical support building will accommodate the services displaced from the Pandosy building. An expanded adult psychiatry inpatient unit, updated medical inpatient unit, and ophthalmology department will be created within the KGH patient care tower. An expanded laboratory and clinical departments will be housed in the new clinical support building.

The Royal and Strathcona buildings will be renovated to accommodate the changes and relocations of the inpatient surgical and cardiac revascularization programs and expansions to the support services.
The IHSC Project scope includes:

- Fifteen new operating rooms; eight replacement rooms – two of which will be dedicated to Cardiac Revascularization Services – and seven for future expansion;
- Eight-bed Cardiac Surgical Intensive Care Unit;
- Eight-bed Coronary Care Unit;
- Thirty-four cardiac inpatient and telemetry beds;
- Three Cardiac Catheterization Labs with associated short stay beds;
- Expansion space for support departments such as Central Sterile Reprocessing, Diagnostic Imaging, Pharmacy, Materials Management, Laundry and Nutrition and Food services to support the new cardiac program;
- An expanded laboratory;
- An expanded psychiatric program; and
- An expanded Medical/Surgical Inpatient Unit.

Components of the project will be delivered by the procurement method best suited to manage the risks associated with each component. These methods include: Design Bid, Build; Design Build; Change Order to the Kelowna Vernon Hospital project and a new Public Private Partnership.

2. Project Objectives

Key objectives for this project are to:

- Improve patient care for the residents of the southern interior of British Columbia by constructing facilities to accommodate the introduction of Cardiac Services, and enable those who require surgical services to receive care in a new state of the art facility closer to their homes.
- Design program areas to enable a comprehensive multi-disciplinary team approach with a patient care focus by integrating programs and services.
- Improve health service delivery and patient flow at the KGH.

3. Project Status and Scope

Preparations for the project have included:

- Completion of a business case confirming the range of services to be delivered and the approximate space requirements;
- Preparation of an indicative design for the major components of the project scope;
- A Class “C” project cost estimate using a quantity surveyor;
- Development of an order of magnitude operating cost projection;
- Development of a preliminary equipment list for all scope components;
- Analysis of project risks;
- Analysis of market sounding;
- Recommendation of project procurement models;
- Proposed project implementation schedule;
- Consultations with the City of Kelowna and local residents; and
- Approval from government to proceed with the IHSC project.
4. Costs and Benefits

*Project Costs:*  
The total estimated capital cost of the IHSC project is $448.2 million. The Central Okanagan Regional Hospital District is contributing $91.3 million to the total capital cost of the project.

The estimated capital cost of the cardiac transition plan project is $26.4 million.

*Project Benefits:*  
The project will benefit the patients and families of the interior of British Columbia by providing the fifth site for Cardiac Services, and the first site outside of the lower mainland and Vancouver Island in the Province of British Columbia.

The Interior Cardiac Revascularization program will provide timely, life-saving therapies and surgeries to patients who previously would be transported to the coast.

The IHSC will also improve quality of life for Southern Interior residents. The project will provide patients with better access to care by decreasing the amount of time spent in hospital and reducing time away from work and family.

The project will also benefit the KGH site and the people who are patients there by:
- Improved patient access and flow;
- Increased efficiency and capacity for inpatient surgical services by consolidating and developing space designed to current surgical standards;
- Increased use of new technology;
- Increased opportunities for health human resource recruitment and retention;
- Reduction of case referrals outside Interior Health; and
- Improved operational efficiencies through streamlined department flow.

5. Project Risks

The major risks associated with the project relate to project scope and functionality, schedule, budget and facility operation.

*Scope and Functionality:*  
The risks associated with scope and functionality arise when the building is not sized appropriately or does not have optimum design resulting in lower functionality, less efficient operations, and user dissatisfaction. Measures to mitigate these risks include:

- Extensive user involvement during the functional programming and indicative design process included as part of the business case development. This process will continue through the remaining design phases to ensure higher user satisfaction, integration, and functionality.
• Interior Health has engaged an architect and design team to act as “shadow consultants” and advisors to Interior Health during those parts of the project that will be procured as a Design Build or a Private Public Partnership (PPP) model. This will reduce the likelihood of oversights.

**Schedule Risk:**
The risk associated with scheduling arise from a longer than anticipated procurement, design and construction process. Measures to mitigate this risk include:

• Engagement of Partnerships BC to assist with the procurement process. Procurement and legal documentation will be based on industry-accepted templates.
• A Request for Qualifications process will be used to short-list the best proponents for the Design Build and PPP portions of the work.
• Contractual documentation will be prepared ahead of time and appended to the Request for Proposal (RFP) and proponents will be expected to base their proposals on this documentation.
• Indicative design drawings will be included in the RFP to support the procurement cycle for all the procurement options.

**Cost Risk:**
The risks associated with costs arise from higher project and construction costs than budget. Measures to mitigate this risk include:

• The preliminary budget is based on a quantity surveyor report and contains cost contingencies.
• Estimates of construction escalation and inflation have been built into the budget based on the current market forecasts, and a contingency has been included.
• Expected costs will be reaffirmed prior to release of the RFP and an affordability limit will be included in the RFP.

**Operating Risk:**
The risks associated with operating arise when the facility is not maintained over the building’s lifecycle or the cost of maintenance is higher than anticipated. The risk may also arise if building layouts do not promote work flow optimization in the operations of the departments included in this project. Measures to mitigate this risk include:

• Performance specifications will be included as part of the RFP for the Design Build and PPP procurement portions, to ensure the expected performance and functionality of the buildings.
• Engagement of the Maintenance team will be included in the specification preparation and review of the Design Bid Build portions of the project.
• User groups and Lean consultants will be involved in the design meetings to maximize operational efficiencies in the day to day operations of the departments.