CHES Canadian Healthcare Engineering Society

Emergency Room Redevelopment Project
Norfolk General Hospital
365 West Street
Simcoe, Ontario
N3Y 1T7

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Name and Description of Project:

**ER Redevelopment Project**  
**Start Date:** July 2003 – **End Date:** August 2005

- 35,000 square feet of new building space
- 15,000 square feet of renovations to existing space

Upon completion this project would house a new Emergency Department (9,000) square feet, Diagnostic Imaging Department (10,000) square feet and a new ambulance bay with a decontamination shower facility.
Goals of the ER Redevelopment Project

The main goal of this project was to create an expanded emergency department. In doing so this would enhance the process of flow between the Emergency Department and the Diagnostic Imaging Department. It would also create additional clinical space for a diabetes education program and ongoing clinical education programs.

In addition to enhancing the flow between the two departments, space was dedicated to the Human Resources Department—a key area in the recruitment process of the hospital. The health and wellbeing of our patients has always been a fundamental part in the growth and development. Renovations to the cafeteria area included an outdoor green space environment for patients and staff to enjoy.
Strategies – Communication

To ensure the ER Redevelopment Project delivered on the concept of patient process and flow from start to finish, Norfolk General Hospital implemented several important strategies.

Clear communications and a relationship between the building architect and the many user groups of the hospital was key to the successful planning process.

Accountability and trust are key elements in defining Norfolk General Hospital as a community health care leader. We are responsible for delivering a quality built environment on budget.
Strategies – Communication

Peer review contract documents as they were being developed so that every foreseeable detail would be covered in the final contract documents. Thus, precluding expensive change orders and extras throughout the course of the project.

Norfolk General Hospital appointed a construction leadership team of managers and front line staff to help steer the project to a successful conclusion.

Team meetings were scheduled on a bi-weekly basis in anticipation of various challenges. Issues were resolved before they developed. This greatly enhanced the flow of the project and eliminated additional concerns for the contractor and architect.

Environment

Environmental impact has always been a concern for Norfolk General Hospital. The ER Redevelopment Project would be designed as an energy efficient infrastructure through the use of state of the art lighting and mechanical technology. Norfolk General Hospital was one of the first hospitals to utilize new CSA standards on Infection Control procedures for hospital construction. CSA standards were implemented into the specifications of the project.
Strategies - Design

Norfolk General Hospital wanted to create a building that enhanced and reflected the many qualities of Norfolk County. In doing so, we would embed historical material into the foundation of this project highlighting some of the vast and rich resources from the area.

For example the stone finish, representing the huge economic impact of the rock quarries. The significant amount of wood finish to symbolize Norfolk County as being the Forestry Capital of Canada 2008; Cedar slating would exemplify the area’s tobacco industry which played an important role in the early development of Norfolk County’s history.

Strategies - Design

To make the new addition warm and welcoming to patients, staff and visitors the project was built with a lot of curb appeal to blend into our natural surroundings. As a community rooted in family tradition, the entrance was given a front porch look, a symbol of a warm welcoming home. The overhanging roof lines are built in an architectural form that represents outreached hands, a symbol of both comfort and determination in the physical representation of the efforts of a community making advancements in healthcare.
Strategies—Design

Having a local element in the building project was an important part in the planning process. Norfolk General Hospital provided prequalified bidders with a list of local sub-trades that had an interest in participating in the project. As a result, 50% of the trades and labour were from the Norfolk County area.

Technology

To attract new physicians and medical staff to the area, Norfolk General Hospital has a strong commitment to renewal and growth. Implementation of state-of-the-art technology would be highlighted in the ICU Renovation Project. New heart monitoring systems, new fluoroscopy and mammography units, new PACS system and a new CT scanner.

New technology, work space and overall improvements to our facility will benefit both patients and staff, present and future.
Barriers - Public Safety

- To ensure information flowed throughout the various levels of hospital and community, over 100 project notices were distributed over the course of the project to ensure clear communication and public safety.

- The staging of crane traffic and heavy equipment was a concern. Staff and public safety were constantly monitored with special consideration of the impact of a neighbouring public school.

- There was a significantly restricted working area for the emergency department while the new addition was under construction.

- Patients, staff and visitors would face an increase in noise and vibration throughout the hospital. Renovation project leaders measured noise levels on an ongoing basis to ensure a standard level of acceptance was being met.

- During construction, the province was experiencing a SARS epidemic which caused much concern. An increase in hospital screening would be part of the daily routine. This also prevented several meetings from being scheduled in the hospital.

- Timing and coordination of the distribution of electrical mechanical services to the rest of the hospital.

Parking-

Parking was impacted significantly during construction. Additional construction vehicles were given space to maneuver on the hospital premise. Visitor and patient traffic would be re-routed with special consideration for ambulance dispatch and emergency arrival.
Criteria - Terms of Reference

- Outstanding success on the completion of a major capital project
- On schedule
- On Budget
- No Outstanding Claims
- No Resulting litigation
- Good communication and relationship with the contractors was key
- A great team building exercise. Everyone appreciated being involved.
- Excellent public input. Board meetings were on top of every change order.

Impact

The final results of this 16.8 million dollar ER Redevelopment project greatly improved Norfolk General Hospital for both patients and staff.

- Working space, patient flow
- State-of-the-art-technology
- Built-in modern day efficiencies
- An excellent fit with natural surroundings
- A major improvement to our parking and overall traffic flow
- Modernized, more accessible ambulance reception
- Norfolk General Hospital and the counties image was greatly enhanced amongst their peers and within province
- The project positioned Norfolk General Hospital for future economic development i.e.. Toyotetsu, Canada, Sky Power Wind Farms, Wal-Mart and Home Depot
CHES AWARD OF EXCELLENCE

Norfolk General Hospital President and CEO Bill Lewis says the $15 million addition to the hospital is nearing completion. It is expected to open in January.

Finishing touches put on hospital expansion

Daniel Pearce
Southern Newsroom

The metal pillars shoot high in the air in front of the new entrance to Norfolk General Hospital. They support a suspended flat roof that protects beyond the walls of the 30,000-sq. ft. expansion. A door, concrete pour, awning colors sweeping down to prevent people coming in and out the door before.

With its mix of brick, stone, and metals and plenty of curves, this post-modernistic facade to NGH is almost ready for visitors.

In another four to six weeks, people coming to visit the sick or to be sick will walk through this door — which faces into what used to be the Robinson Street parking lot — rather than the West Street entrance.

Construction on the $15 million addition is basically done, say hospital officials. Landscapers are planting bushes in a circular boulevard before the entrance. The elevators and nurse stations have to be installed. New equipment, such as heart monitoring devices, must be brought in, tested, certified, and staff trained on how to use them.

On West Street, a base for substations needs to be finished before a new entrance for the emergency department, which will push out into the second story of the addition and triple in size, can be opened.

An elevator that will take the sick and injured from the emergency department to the operating room, intensive care unit or chemotherapy part of the hospital, if it's there, will have to be certified.

“There’s a lot of paper work to go through in the last months,” says J.J. Knott, NGH’s project manager for the expansion.

And this is only the end of chapter two. The expanding and upgrading of NGH also involves an expanded area for diagnostics. Once the new emergency rooms are running, the old one will be gutted and turned into a series of rooms for X-rays, DEXA scanning, and a CAT scan machine.

The expansion is expected to be finished around the end of June or beginning of July, says NGH president and CEO Bill Lewis.

“It will be confusing for a while,” says Lewis.

New era dawns at NGH

New ER open and dealing with patients

Continued on Page 2
The Emergency Department Renovation Project as a Model

- Capital management project structure
- Communications
- Timeline – July 2003– August 2005 Deadline and Budget achieved
- Cost controls
- Accountability – Prompt reporting to the board and public on a monthly basis
- The beautification of the project has attracted several interest groups throughout the province who have requested tours of Norfolk General Hospital
- The materials used – Chosen for life cycle costing benefits.
Conclusion

A rural hospital has many roles to play. It must be a strong community leader and good corporate citizen. It influences corporate decisions about locating to, remaining in or expanding within an area. It must attract top health-care professionals. These are key factors that make a hospital an important contributor to a region’s economic development.

By focusing on leadership, accountability, and teamwork in energy management, environmental consciousness, and community spirit, we have created a healthier workplace, a better managed health care facility, and a top-quality model for others to follow. And that’s just good business.

We at Norfolk General Hospital believe that our recently completed Emergency Room Redevelopment project meets all the criteria as set forth by the Canadian healthcare Engineering Society, for the Award of Excellence in Healthcare Facilities Management.

We thank you for consideration of this award submission.