A09: Renovating a Hospital Campus to Better Serve Patients

Presenters:
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Central DuPage Hospital
Graham Harwood, Principal
Owner Services Group, Inc.

Introduction

Agenda
- Project Objectives
- Project Overview
- Bed Tower Design
- Summary
- Questions

Presentation Objectives and Outcomes
- Discuss how desired patient outcomes were integrated with physical planning objectives and constraints
- Present the sophisticated planning principles utilized to reorganize an occupied campus and remain operational
- Describe how we prioritized physical improvement options for budgeting, phasing and capital investment purposes
- Discuss how needs for infrastructure, parking and site improvements were evaluated relative to patient care goals and objectives
Central DuPage Hospital

Project Objectives

- Increase care giver - patient interaction
- Accommodate current and future technology
- Facilitate family participation in patient care
- Provide capability for additional floor
- Obtain LEED Silver

Project Scope

- Replace semi-private and small private rooms with 202 private rooms
- Relocate Diagnostic Imaging
- Renovate and enlarge Emergency Department

Phasing & Logistics

Phase I
1. Parking Relocation
2. Diagnostic Imaging Relocation

Phase II
1. New Bed Tower Construction
2. ED Renovation

Phase III
1. Existing Hospital Renovation
New Bed Pavilion

Project Team

Owner’s Rep
Owner Services Group (OS)

Owner
Central DuPage Hospital (CDH)

General Contractors
Pepper Boldt

Architect/Engineer
RTKL

Design/Bid/Build

• Preconstruction services
• Contractor selection
• Ongoing project management

Design/Bid/Build

Project Delivery

OWNER’S REP

DESIGN → BID → BUILD
Bed Tower Design

Private Rooms

Why Private Rooms?
- Reduce nosocomial infection rate
- HIPAA
- Transfer reduction
- Improve family involvement in patient care
- Eliminate bed unavailability due to gender or isolation issues
- Provide for improved patient physical safety
- Privacy at end of life
- Sufficient space for Code Blues, etc
- ADA compliant
- Bariatric accessible

Visited “Best of Breed” Hospitals
- Nationwide search
- Included physicians, nurses, architects, in-house construction team
- Travelling by van/bus increased camaraderie among design team members
<table>
<thead>
<tr>
<th>Initial Design Considerations</th>
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<tbody>
<tr>
<td>• Size of nursing unit (26 patients)</td>
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<tr>
<td>• Bathroom location within patient room (outboard)</td>
</tr>
<tr>
<td>• Connection to existing building (at each floor)</td>
</tr>
<tr>
<td>• Floor to floor height (15’4” vs 12’0” existing)</td>
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<tr>
<td>• Same-handed vs mirror-image room layout (mirror image)</td>
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<td>• Corridor shape (curved)</td>
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<table>
<thead>
<tr>
<th>Patient Room Mock-ups</th>
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<tr>
<td>• Full sized (3)</td>
</tr>
<tr>
<td>• Rough cut</td>
</tr>
<tr>
<td>• More refined</td>
</tr>
<tr>
<td>• Accurate representation of final</td>
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<tr>
<td>• Input from</td>
</tr>
<tr>
<td>• Primary care givers</td>
</tr>
<tr>
<td>• Physicians</td>
</tr>
<tr>
<td>• Ancillary staff</td>
</tr>
<tr>
<td>• Supportive staff</td>
</tr>
<tr>
<td>• Former patients</td>
</tr>
<tr>
<td>• Tested equipment for fit</td>
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<th>Final Patient Room Mock-ups</th>
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<table>
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<tr>
<th>Actual Patient Room</th>
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Care Giver Zone

Care Giver Work Area

Computer on Wheels

Gloves and Hand Sanitizer
Digital Clock with Temp, Day and Date

Pillow Speaker with Temp Control

Footwall

Night Light and Hand Rail
Bathroom – Make-up Mirror, Hair Dryer, Night Light

Bathroom – Soaps and Lotions

Shower – Fold-Down Seat, No Threshold

Family Zone
Bamboo Wall
A Serene Environment
Tile Mosaic
Photograph Collage
## Tapestry

- One unit available for training 5 months before Move Day
- Staff enacted “Day in the Life”
- Used LEAN to understand work in new building
- Tours on audio tape used to train staff (a la art museums)
- Planned for the move intensively for four months
- Patients informed of upcoming move days in advance
- Communication plan to many audiences
- Fortunate to be replacing med Pyxis, Telemetry, PC’s and phones

## Move

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<tr>
<th>Lessons Learned</th>
<th>Questions?</th>
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<td>• Be flexible – Things Will Change</td>
<td>• 202 times anything equals a lot</td>
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<tr>
<td>• User input and up-front understanding and agreement is critical</td>
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Thank You