Development of the New Children’s Hospital, Critical Care Tower and Iowa River Landing Clinic

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Presented to
President’s Forum
By
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Vice-President for Medical Affairs

November 4, 2008
**Background – Need for New, Modernized Facilities**

- **Patient service volumes are growing in all areas** and UIHC is serving an increasingly complex patient population.

- **Emerging technological advances** require more floor space, greater height and more sophisticated electrical, mechanical and information technology systems.

- **Consumer expectations** are continuing to rise as are requirements for safety, infection control and patient privacy – private patient rooms.

- Intermingled with adult services, facilities for children are currently located in Carver, Colloton, Pappajohn and Pomerantz Family Pavilions and need to be **consolidated into a Children’s Hospital** that is designed to meet the specific needs of pediatric patients.

- **Corollary requirements for teaching and clinical research space** are continuing to expand.

- **Buildings built in the 1970s and early 1980s** have reached or will soon reach 30 years of age and need to be modernized and brought into conformance with contemporary codes and expectations.

- **Roadways to UIHC are currently crowded** with large numbers of patients, visitors and staff coming to the Hospital and need to be decongested by development of an off-site clinic facility.
Overview of Inpatient Care Project

- Engaged Kurt Salmon Associates (KSA) and TRG Healthcare LLC, national consulting firms to assist with planning

- Consultants worked with UIHC planning staff, clinical department heads and faculty, other medical leaders, UIHC, CCOM and UI Facilities and Operations administrators and many other staff to complete assessments in three areas:
  - **Strategic assessment** – translated the future vision into work load projections and facility requirements
  - **Operational assessment** - evaluated the functionality of clinical space in comparison to contemporary standards
  - **Physical assessment** - evaluated the physical condition of current facilities and the capacity and constraints related to future development

- Information from the assessments and other factors led to the conclusions that UIHC’s future facility needs could best be met by developing a children’s hospital, critical care tower and renovation of existing patient care units.
### Key Findings: Functionality of Clinical and Other Space

**Existing at UIHC**

- Majority of patient rooms are semi-private
- Private rooms average 184 NSF
- Operating rooms are not uniformly sized; many are small; fragmented flow. Current range < 400 NSF to 527 NSF
- Dispersed surgery, angiography, catheterization lab, endoscopy; multiple anesthesia sites
- No coherent ambulatory “vision”; ambulatory services still in multiple locations
- Access from parking not always direct; difficult way finding
- No consistent strategy for faculty officing
- On-stage, (public) and off-stage (service) functions intermingled
- Few amenities, especially in inpatient areas
- Privacy lacking in waiting, reception, prep/recovery areas

**Contemporary Standards for large tertiary AMCs**

- Large, all-private patient rooms
- Benchmark of 280 NSF to meet AIA standard*
- Large, efficiently configured surgical suite; operating rooms minimum 600 NSF; clear & coherent flow
- Interventional platform with co-located procedural and related support
- Ambulatory services, integrated, accessible, often in single center
- Proximate parking, easy way finding
- Dedicated physician office locations, not co-mingled in clinical areas
- On-stage, off-stage functions separate
- Strong patient & family amenities
- HIPAA sensitive privacy in the patient areas

* Also applies to community hospitals
Key Findings: Facility Conditions

Suitability for clinical use

- **Good**
- **Fair**
- **Poor**

Building Key:
- CDD – Center For Disabilities & Development
- BT – Boyd Tower
- GH – General Hospital
- SW – South Wing
- SRF – Shipping & Receiving Facility
- RCP – Roy Carver Pavilion
- JPP – John Pappajohn Pavilion
- PFP – Pomerantz Family Pavilion
- HPR1 – Hospital Parking Ramp 1
- HPR2 – Hospital Parking Ramp 2
- HPR3 – Hospital Parking Ramp 3
- HPR4 – Hospital Parking Ramp 4
## Key Findings: Our location provides unique challenges

<table>
<thead>
<tr>
<th>Existing at UIHC</th>
<th>“State of the Art” (for large tertiary AMC)</th>
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</thead>
<tbody>
<tr>
<td>● 100 acres for UI Health Sciences, not all developable; ~37 acres UIHC</td>
<td>● 120+ acres campus size for comprehensive AMC, including research labs</td>
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<td>● Potential (but not immediate) opportunity to acquire adjacent parcels</td>
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<td>● Hospital expansion constrained by multiple factors: building, ramps, roads, utilities, IT</td>
<td>● Clear, unhindered zones for development</td>
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<tr>
<td>● Poor street alignment &amp; traffic separation</td>
<td>● Easy vehicular access, clear circulation &amp; separation of traffic types (patient, service, ambulance)</td>
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<td>● Congested external access routes</td>
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<td>● Limited visibility of front door</td>
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<td>● Limited visibility from primary south and east roadways (Melrose, Grand)</td>
<td>● High visibility</td>
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<td>● Parking adequate, but not convenient for ambulatory care (esp. Pomerantz) and stacking space is tight</td>
<td>● Adequate parking proximate to key entrances (main, amb., ED)</td>
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<tr>
<td>● Strong “spine” in pavilions; extends to Pomerantz; less clarity in General and Boyd</td>
<td>● Development along a clear circulation axis; may be 1 bldg, interconnected bldg or freestanding</td>
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</table>
Campus Opportunity Zones

Northwest Option

West Option

East Option

Overlap zones 1, 3 & 7

1. Center For Disabilities & Development – 6 acres
2. Field House – 5 acres
3. General Hospital/Boyd Tower – 5 acres
4. Hospital Parking Ramp 2–3 acres
5. College of Pharmacy – 3 acres
6. Dormitories – 8 acres
7. Speech & Hearing and Hospital Parking Ramp 1 – 4.7 acres
Children need different health care that focuses on their unique needs, involves their parents from start to finish and is provided in places designed to be kid-sized and child friendly.

We must create the sizing, shape, color, organization and “feel” that lessen the anxiety and stress for children and their families during hospitalization.

Children’s services are currently spread over multiple pavilions and multiple floors.

Inpatient and specialty services for children must be provided in patient-centered areas.

We must meet the expected standard for academic medical center children’s hospitals to aid in the recruitment of first class “pediatric trained” clinicians, house staff researchers and nurses.
Rationale for Critical Care Tower

- Volume of cases going to ICU increased 16% in 2006 and another 11% in 2007
- First quarter FY2008, 6 out of 8 ICU units were >80% occupancy
- # of admissions through ETC has increased 31% since 2005 (from 4811 to 6308 in 2007)
- % of those that need ICU bed has increased by 57% (627 patients coming through ETC required ICU bed in 2005; 984 required bed in 2007)
- Trauma cases requiring ICU increased 26% between 2006 and 2007
- Increased need for ICU with growing transplant and burn programs
- Because we are the emergent hospital, stand-by capacity is needed
Ambulatory Care Strategies

Short Term Strategy
Decompress Existing Campus

• Build one or more facilities close to main campus for the following purposes:
  • Reduce congestion on the main campus
  • Create new space on the main campus
  • Create additional or improved access points throughout the community for UIHC health care services, to include primary care
• Will tie to long term facilities growth plan for main campus
• Will include relocation of business functions currently located within Hospital

Long Term Strategy
Patient-centeredness

• Create multi-building ambulatory care campus
• Provide multi-specialty care with focus on preventative as well as chronic diseases
• May include services such as wellness, pharmacy, day care, restaurants, banking
• May include administrative functions such as Information Systems, Call Center, Business Office
## Updated Timeline

### Children's Hospital and Critical Care Tower

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2008</td>
<td>March, 2008: Permission to proceed with project planning approved by Board of Regents.</td>
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<td></td>
<td>Sept., 2008: Subcomm. presents recommendations to Facilities Planning &amp; Construction Committee.</td>
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<tr>
<td>2010</td>
<td>March, 2010: Receive bids for project.</td>
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<td>May, 2010: Begin Construction.</td>
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<tr>
<td>2013</td>
<td>May, 2013: Complete Construction.</td>
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<td>Sept., 2013: Occupancy.</td>
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*UIHC will seek determination of CON reviewability and submit CON application if indicated.

### Parking, Utilities and other UI Responsibilities

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<th>Event</th>
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<tr>
<td>2008</td>
<td>March, 2008: Commence preliminary planning with UI staff.</td>
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<td>April, 2010: Relocate Parking as needed alternate site(s).</td>
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<tr>
<td>2010</td>
<td>May, 2010: Complete all work on Parking, Utilities &amp; other UI responsibilities.</td>
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<tr>
<td>2013</td>
<td>May, 2013:</td>
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### Replacement of Facilities or Relocation of Programs

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<th>Event</th>
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<tr>
<td></td>
<td>Sept., 2008: Subcomm. presents plan for relocation of Center for Disabilities and Development services.</td>
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<tr>
<td>2009</td>
<td>May, 2010: Relocation of functions to new or interim sites.</td>
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<tr>
<td>2010</td>
<td>May, 2010:</td>
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<tr>
<td>2013</td>
<td>May, 2013:</td>
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### Off-site Ambulatory Care

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<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td></td>
<td>July, 2008: Appointed Subcomm. to develop off-site Ambulatory Care plans.</td>
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<td>Jan., 2009: Present progress report to Board of Regents.</td>
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<td>July, 2010: Developer completes construction of initial buildings.</td>
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<td>2013</td>
<td>Sept., 2010: UIHC moves clinical operations into new facilities.</td>
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Architectural and Construction Manager Selection

Architectural Selection Process Completed

- **Heery International** (Iowa City office) selected as Architect of Record
- **HKS** (Dallas, TX) selected as Design Architect
- **Stanley Beaman & Sears** (Atlanta, GA) selected as Children’s Hospital Architect

Construction Manager Selection Completed

- **Gilbane Building Co.** (Chicago, IL) selected as Construction Manager
### Key Decisions

#### Beds

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<tr>
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<th>2008</th>
<th>2013 Projected Bed Need</th>
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<tr>
<td></td>
<td></td>
<td>Moderate</td>
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<tr>
<td>Adult</td>
<td>534</td>
<td>579</td>
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<tr>
<td>Pediatric</td>
<td>171</td>
<td>198</td>
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<tr>
<td>Total</td>
<td>705</td>
<td>777</td>
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Facilities Planning and Construction Committee

Key Decisions

Site Options

1
GH
CCOM

2
RCP
JCP
JPP
PFP
Facilities Planning and Construction Committee

Key Decisions

Site Selection Criteria

- Patient Experience of the Future
- Operational Efficiency
- Adjacencies & Flow
- Image, Identity & Clarity of Orientation
- Capacity for Future Service Line Growth
- Financial Realities
- Minimize Domino Projects Deterring Priority Initiatives
- Future Flexibility

Option 1

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<thead>
<tr>
<th>Option 1</th>
<th>Option 2</th>
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Facilities Planning and Construction Committee
Option Priorities

Strategic Priorities

**Adjacent Adult & Pediatric Interventional Platform**
*Best Use/Highest Cost; Highest Margin Contribution; Recruit Best Surgeons*

**Children’s Hospital Consolidation**
*Image/Identity; Recruitment; Market Expansion; Patient/Family Experience*

**Critical Care Bed Upgrades**
*Best Use/Highest Cost; Safety/Quality; High Margin Contribution*

**Single-Bedded Patient Rooms**
*Patient Experience; Safety/Quality; Operational Efficiency*

**BALANCED PRIORITIES**
Massing Study 1

New Adult Hospital and Bed Tower
New Entry for Adult Hospital
Replacement For Ramp 2
New Parking Ramp
Existing Hospital
Existing Parking
Bus Lane
New Childrens Hospital and Bed Tower
New Entry for Childrens Hospital
700,000 GSF
80-90k Footprint
Hawkins Drive
Stadium
Ambulatory/Outpatient Facilities Project

Subcommittee for Developing Off-Site Ambulatory Care Facility Plans

Ms. Kathleen Barbee, Co-Chair
John Swenning, R.N., Co-Chair
Paul Abramowitz, Pharm.D.
Lori Christensen, M.D.
Laurie Fajardo, M.D.
Ms. Teddie Federici *
Dan Fick, M.D.
Mr. Randy Fry
Mr. Jay Goodin

Mr. Mark Hingtgen
Ms. Diana Leventry
Ms. Chris Miller
Keri Semrau, R.N.
Mr. John Staley
Craig Syrop, M.D.
Bonnie Wagner, R.N.
Ms. Lauren Waitzman

* Representing Patients/Customers
Subcommittee Activities/Tasks Completed

- To date, the Subcommittee for Developing Off-Site Ambulatory Care Facility Plans has completed five meetings.
- On August 26, two representatives from the Disney Institute met with the Subcommittee and thirty others to discuss Disney’s approach to service.
- The Subcommittee is in the process of defining the Iowa Patient Experience for the facility.
- The Subcommittee is working on defining the service lines to be relocated to the Off-Site Facility.
- The Subcommittee has established seven workgroups to address the following:
  - Define ideal patient experience
  - Establish standards for patient experience
  - Functional evaluation of clinics with workload projections
  - Functional space program for off-site facility
  - Staffing model
  - Business planning
  - Training and Research
UIHC reviewing proposal from City of Coralville to develop clinic at Iowa River Landing.
Questions?