## Day-at-a-glance

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+/Δ (plus/delta)

- +  Things that are positive, that you would like to keep, that you would like more of
- Δ  Things that you would like to change
+/Δ (plus/delta)

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Wheatshocker Seminar

Implementation
From Vision to Occupancy

Charles Forrest
Friday, May 9, 2008
Introduction

- Five phase renovation process
  - Vision to Operation
  - Roles and responsibilities
  - Tools and techniques
- Questions
The Process

■ 1. Vision
■ 2. Plan
■ 3. Design
■ 4. Construct
■ 5. Operate
1. Vision

1.1 Vision, Mission and Values
   - University
   - Library
   - Project

1.2. Assess needs
   - Institutional needs
   - User needs
   - Library needs

1.3. Generate options

1.4. Evaluate options
Environmental assessment

- Changes in higher education
- Transformational technologies
- Changing user needs and expectations
- Trends in library design
- Organizational capacity
Environmental assessment

Look at your...

- library
- students
- faculty
- campus
- peers
- colleagues
- profession
Environmental assessment

- Look at your customers…

<table>
<thead>
<tr>
<th>CUSTOMER</th>
<th>LIBRARY</th>
<th>CAMPUS</th>
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<tbody>
<tr>
<td><strong>Mode</strong></td>
<td><strong>Goal</strong></td>
<td><strong>Role</strong></td>
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<tr>
<td>Transaction</td>
<td>Control</td>
<td>Gatekeeper</td>
</tr>
<tr>
<td>Service</td>
<td>Connect</td>
<td>Assistant</td>
</tr>
<tr>
<td>Experience</td>
<td>Collaborate</td>
<td>Partner</td>
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</table>
Assessing user needs

- Identify user groups and stakeholders
- Find out what they think, and what they do
  - Observation
  - Interviews
  - Questionnaires
  - Focus groups
  - Blogs, discussion boards
  - Pilot projects
Tools and techniques

- Scenario building
- Visualization
- Personas
- Appreciative inquiry
- Brainstorming
- +/- (plus / delta)
- More of / less of / about the same
Environmental assessment

SWOT analysis

- **Strengths**
- **Weaknesses**
- **Opportunities**
- **Threats**
## SWOT Analysis

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<td><strong>Enablers</strong></td>
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Friday, May 9, 2008
## Pilot projects

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**Priority**
- High: 1
- Low: 2

**Cost**
- Low: 3
- High: 4
Trends in library design

- Ubiquitous online communication
- Electronic classrooms
- Learning Commons
- Snack bars and cybercafés
- Group study space
- Academic services
Characteristics of learning spaces

- Computing that is wireless
- Electrical outlets that are accessible and plentiful
- Computer displays that are large, bright and clear
- White boards that are smart and interactive
Characteristics of learning spaces

- Upholstered soft seats with tablet arms
- Chairs that roll and stack
- Tables on wheels
- Fabrics that are interesting and durable
Characteristics of learning spaces

- Comfortable and flexible
- Paint colors that are warm and inviting
- Support both focused individual work and group collaboration
- Group studies that are numerous, thoughtfully furnished, and well-equipped
- Places to eat when we’re hungry and sleep when we’re tired!
1. Vision

- Roles and responsibilities
  - Listener
  - Learner
  - Inquisitor
  - Leader
  - Representative
  - Visionary
  - Magician
  - Juggler
  - Seer
1. Vision

- Roles and responsibilities
  - Listener
  - Learner
  - Inquisitor
  - Leader
  - Representative
  - Visionary
  - Magician
  - Juggler
  - Seer
  - Cheerleader
1. Vision: Key questions

- What student activities, uses and behaviors does the project need to support, foster and encourage?
- How can the library...
  - contribute to a sense of academic community?
  - become a collaborative partner in the learning experience?
  - contribute to student success?
  - serve as a model of environmentally sensitive renovation?
- How can your library renovation project serve as a catalyst for change?
2. Plan

- 2.1. Assemble project team
- 2.2. Develop program statement
- 2.3. Determine feasibility
- 2.4. Estimate costs
- 2.5. Get funding
2. Plan

2.1. Assemble project team
   Institutional
   - Library
   - Facilities management
   - User community
2. Plan

2.1. Assemble project team
Designers, consultants and engineers
- Library consultant (program phase)
- Architect
- Interior designer
- Signage and wayfinding
- Consulting engineers
- Other consultants: Cost estimating, LEED, AV, Technology
2. Plan

2.2. Develop program statement

- Intent and purpose
  - Design principles and guidelines
  - Summary of needs
  - Project priorities
  - Description of functional areas
- Rationale and justification
- Clarification and understanding
The Program Document

- General statement of goals
- Existing conditions
- Spatial requirements
- Adjacencies and room relationships
- Rooms: Special characteristics and amenities
- Mechanical, electrical and plumbing
- Furnishings
- Other
2. Plan

2.3. Determine feasibility

- Program goals and intent
- Scope definition
- Financial capacity
- Vision, program, schematic design
2. Plan

2.4. Estimate costs

- Professional fees
- Miscellaneous costs
- Construction costs
- Related costs
- Opportunity costs
- Contingencies
Cost categories

- Professional fees
  - Library consultant
  - Architectural, engineering design fees
  - Interior design
  - Construction administration
  - Materials testing
  - Cost estimating
  - Other consultants
Cost categories

- Miscellaneous costs
  - Permits
  - Surveying
  - Legal fees
  - Contingencies
Cost categories

- Construction costs
  - Time (labor)
  - Materials
Cost categories

- Related costs
  - Staging and phasing
  - Moving
  - Phone and data
  - Security systems
  - Furniture (user, staff)
  - Equipment (computers, copiers, book trucks)
Cost categories

- Opportunity costs
  - Unforeseen conditions
  - Scope increase (planned & unplanned)
  - Publicity, public relations
- Operating impact
  - Increased gate count
  - Increased hours of operation
  - Increased service demands
## Total cost

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2. Plan

2.5. Get funding

- Capital funds
- Financing
- Fundraising
- Appropriated funds
- Operating impact
2. Plan

Roles and responsibilities

- Champion
- Advocate
- Judge
- Negotiator
- Moderator
- Socializer
- Fund raiser
2. Plan

Key questions: Planning

- What are we trying to accomplish?
- Who needs to be involved, when and why?
- Who are our allies?
- Who is in competition with us?
2. Plan

Key questions: Programming
- How many?
- How big?
- Where?
- With what character?
- At what cost?
3. Design

- 3.1. Develop plans
- 3.2. Interior design
- 3.3. Test plans against program, budget
3. Design

3.1. Develop plans
   - 3.1.1. Programming
   - 3.1.2. Schematic design
   - 3.1.3. Design development
   - 3.1.4. Construction documents
3. Design

- Bubble diagrams
3. Design

- Bubble diagrams
- Schematic design
3. Design

- Bubble diagrams
- Schematic design
- Design development
3. Design

- Bubble diagrams
- Schematic design
- Design development
- Construction documents
3. Design

Schematic design package

- Small-scale floor plans
- Building elevations
- Building sections
- Outline specification
- Preliminary cost estimates
- MEP (mechanical, electrical, plumbing)
- Renderings
- Other services (models, fundraising materials, etc.)
Quality, quantity, price

- Architecture
  
  *Rule of two out of three*

  - *Quality*: Materials, systems and finishes
  - *Quantity*: Square feet
  - *Price*: Total project cost

  *Pick two!*
Quality, quantity, price

- Interior design
  
  *Rule of two out of three*
  
  - *Quality*: Fabric and finish
  - *Quantity*: Inventory count
  - *Price*: Total cost of furniture, equipment

*Pick two!*
3. Design

3.3. Test plans against program

- Pilot
- Benchmark
- Evaluate
- Adjust
- Refine
3. Design

3.3. Test plans against budget

- Cost finding
- Value finding
- Value engineering
3. Design

Construction documents

- Architectural floor plans
- Reflected ceiling plans
- Interior elevations
- Exterior building elevations
- Building sections
- Construction details
- Outline specification
- Estimates of construction cost
- Structural plans and details
- Mechanical, electrical and plumbing plans and details
- Renderings
- Additional services
3. Design

Roles and responsibilities

- Advocate
- Negotiator
- Moderator
- Compromiser
- Cheerleader
3. Design

Roles and responsibilities
- Advocate
- Negotiator
- Moderator
- Compromiser
- Cheerleader
- Bulldog
3. Design

Key questions: Vision and process

- What was it we said we were trying to accomplish?
- Who needs to be involved, when, why and how?
- Who should have been involved—and how do we include them now?
3. Design

- Key questions: Design
  - Is this a (restroom, network closet, elevator, stair, director’s office)?
  - Is this door (wood, steel, bronze, aluminum, glass, painted, unpainted)?
  - Does it swing (in, out, both ways, automatically open when someone approaches, automatically close in event of fire alarm)?
3. Design

- Key questions: Budget
  - How many?
  - How big?
  - At what cost?
  - We’ve got to cut by how much??
4. Construct

4.1. Bid and negotiate contract

4.2. Construct
   • 4.2.1. Demolition & abatement of hazardous materials
   • 4.2.2. Staging and phasing
   • 4.2.3. Maintain ongoing operations

4.3. Certificate of Occupancy

4.4. Furnish and equip

4.5. Punchlist

4.6. Close out
Project delivery

- **Design-Bid-Build**
  - Construction Manager at-risk
    - General Contractor
    - Specialty prime or sub-contractors
    - Guaranteed Maximum Price (GMP)
- **Design-Build**
  - Single entity architect/contractor
- **Fast-Track Construction**
4. Construct

4.1. Bid and negotiate contract
   4.1.1. Bidding requirements
   4.1.2. Contract forms
   4.1.3. Contract conditions
   4.1.4. Specifications
   4.1.5. Drawings
4. Construct

4.1. Bid and negotiate contract

4.1.1. Bidding requirements

- Invitation to bid
- Instructions to bidders
- Project information
- Bid form
- Bid bond
4. Construct

4.1. Bid and negotiate contract
   4.1.1. Bidding requirements
   4.1.2. Contract forms
      Agreement
      Performance Bond
      Payment Bond
      Certificates (insurance, etc.)
4. Construct

4.1. Bid and negotiate contract
   4.1.1. Bidding requirements
   4.1.2. Contract forms
   4.1.3. Contract conditions
     - General conditions
     - Supplementary conditions
4. Construct

4.1. Bid and negotiate contract
   - 4.1.1. Bidding requirements
   - 4.1.2. Contract forms
   - 4.1.3. Contract conditions
   - 4.1.4. Specifications
     - General requirements, concrete, masonry, metals, wood and plastics, thermal & moisture protection, doors and windows, finishes, specialties, equipment, furnishings, conveying systems, mechanical, electrical
4. Construct

4.1. Bid and negotiate contract
   - 4.1.1. Bidding requirements
   - 4.1.2. Contract forms
   - 4.1.3. Contract conditions
   - 4.1.4. Specifications
   - 4.1.5. Drawings
     - Architectural, structural, mechanical, plumbing, electrical, fire protection, life safety
     - Schedules (door types, room finishes, etc.)
Contract process

- Publish invitation to bid
- Prequalify bidders (request for qualifications RFQ)
- Prebid conference
- Issue addenda
- Open the bids
- Analyze the bids
- Award the contract
- Sign the contract
4. Construct

4.1. Bid and negotiate contract

4.2. Construct
   - Construction administration
   - Preconstruction
   - Change orders
Construction administration

- Preconstruction
- Permits
- Field reports
- Change orders
- Shop drawings
- Payment
- Substantial completion
- Certificate of occupancy
- Punchlist
- Final completion
Preconstruction

- Introductions
- Chartering
- Notice to proceed
- General and supplementary conditions
- Pay schedule, pay requests
- Project schedule
- Project meetings
- Miscellaneous
Change orders

- Request for information (RFI)
- Change order request
- Change order approvals
- Change order log
- Release contingency
Quality, schedule, price

Construction

Rule of two out of three

- **Quality**: Craftsmanship, fit and finish
- **Schedule**: Milestones, overall project duration
- **Price**: Total cost of construction

*Pick two!*
Close out

- As-built documents (“as-buils”)
- Additional materials (“attic stock”)
- Keys
- Training
- Manuals
- Cleanup
- Guarantees and warranties
- Transfer maintenance, operations
4. Construct

Roles and responsibilities

- Negotiator
- Master of ceremonies
- Decision maker
- Coordinator
- Communicator
- Lighting rod
- Bulldog
4. Construct

Roles and responsibilities

- Negotiator
- Master of ceremonies
- Decision maker
- Coordinator
- Communicator
- Lighting rod
- Bulldog
- Terrier
4. Construct

- Key questions: Project management
  - Are we on time?
  - Are we in budget?
  - Whom will we disrupt?
  - How will we let them know?
4. Construct

Key questions: Project results
- Are we getting what we expected?
- What we wanted?
- What’s this?
- What’s that?
- Does it look like I thought it would?
5. Operate

- 5.1. Move in
- 5.2. Dedicate
- 5.3. Celebrate!
- 5.4. Operate
- 5.5. Evaluate
5. Operate

Roles and responsibilities

- Coordinator
- Logistics manager
- Counselor
- Troubleshooter
5. Operate

Roles and responsibilities

- Coordinator
- Logistics manager
- Counselor
- Troubleshooter
- Punchlister!
5. Operate

- Key questions
  - How did we do?
  - How do we like it?
  - How do YOU like it?
  - What did we get good?
  - What did we miss?
  - What do we do next?
What to watch for…

- **Scope creep**
  - Unforeseen conditions
  - Unforeseen opportunities
What to watch for…

- **Vision**
  - What is the driving idea or concept?
  - How do you bring it to life?
What to watch for…

Vision
- What is the driving idea or concept?
- How do you bring it to life?

Division
- “NO” with no offer of an alternative
- “I don’t accept it” without a why
What to watch for…

- Decision making
  - Lack of clarity about responsibility for decision making
What to watch for...

- Decision making
  - Lack of clarity about responsibility for decision making
  - Clarity about responsibility for decision making
What to watch for…

- Assumptions
  - Shared assumptions
    - Unstated, that may need to be tested
What to watch for…

- Assumptions
  - Shared assumptions
    - Unstated, that may need to be tested
  - Unshared assumptions
    - Take nothing for granted
The Process

- 1. Vision
- 2. Plan
- 3. Design
- 4. Construct
- 5. Operate
So you want to build a library…

- Still interested ??
So you want to build a library…

- Dream big
So you want to build a library…

- Dream big
- Look around
So you want to build a library…

- Dream big
- Look around
So you want to build a library…

- Dream big
- Look around
- Take a chance
So you want to build a library...

- Dream big
- Look around
- Take a chance
- Remember what’s what
So you want to build a library…

- Dream big
- Look around
- Take a chance
- Remember what’s what
- Do some architecture
So you want to build a library…

- Dream big
- Look around
- Take a chance
- Remember what’s what
- Do some architecture
- Stay focused
So you want to build a library…

- Dream big
- Look around
- Take a chance
- Remember what’s what
- Do some architecture
- Stay focused
- Don’t beat yourself up
So you want to build a library...

- Dream big
- Look around
- Take a chance
- Remember what’s what
- Do some architecture
- Stay focused
- Don’t beat yourself up
- Have fun!
Countdown to construction

- 6 Categories of LEED
- 5 Laws of library science
- 4 Elements of success
- 3 Two out of…
- 2 Things not taught in library school
- 1 Big Idea
Six categories of LEED

- Sustainable Sites
- Water Efficiency
- Energy & Atmosphere
- Materials & Resources
- Indoor Environmental Quality
- Innovation and Design Process
Five Laws of Library Science

- Books are for use.
- Every reader his book.
- Every book its reader.
- Save the time of the reader.
- A library is a growing organism.

_The Five Laws of Library Science_
S. R. Ranganathan
Four Chairs

Narratives of relationship
Three, Pick two out of...

- **Architectural design**
  - **Quality**: Materials, systems & finishes
  - **Quantity**: Square feet
  - **Price**: Total project cost

- **Interior design**
  - **Quality**: Fabric and finish
  - **Quantity**: Inventory count
  - **Price**: Total cost of furniture and equipment

- **Construction**
  - **Quality**: Craftsmanship, fit and finish
  - **Schedule**: Milestones, overall project duration
  - **Price**: Total cost of construction
Two Things They Didn’t Teach You in Library School

- How to build a library…
Two Things They Didn’t Teach You in Library School

- How to build a library…
- How to run it!
One Big Idea

Bibliotheca Alexandrina

Then

Now
How can your library…

- contribute to a sense of academic community?
- contribute to student success?
- enhance faculty research?
- facility become a collaborative partner in the learning experience?
- project serve as a model of environmentally sensitive development?
- project serve as a catalyst for change?
Monday I will…

- Read a book or article
- Call the Provost
- Walk around the library
- Talk to a staff member
- Talk to a student
- Plan a visit
- _________________?
Wheatshocker Seminar

Library Services
Transforming Library Spaces

Charles Forrest
Friday, May 9, 2008

Thank you and good luck!
# Day-at-a-glance

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<thead>
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Q&A
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