The University of Texas at San Antonio
North Paseo Building

Lessons Learned Workshop
January 29, 2016
I. Introduction and Ground Rules

September 11, 2012

November 19, 2012
II. Project Overview

- **180,050** Gross Square Feet
- Single Building, Five Stories with Classrooms, Offices, and Computer Labs
  - Concrete structure with post-tension beams
  - CMU back-up walls
  - Brick(primary), metal panel siding, and windows on the façade
  - Modified bitumen roof with cap sheet

July 27, 2013
III. Lessons Learned

A. Project Organization and Manpower

• A/E Team

- JQ San Antonio (now IES)
  Civil Engineer

- Datum Gojer
  Structural Engineer

- Clark Condon Associates
  Landscape Architect

- Datacom Design Group
  Communications Designer

- Aon
  Code Consulting
III. Lessons Learned

A. Project Organization and Manpower
   • Contracting Team

- Victoria Air Conditioning
  HVAC & Plumbing
- Bergelectric
  Electrical
- Smart Cabling Solutions
  Data Cabling
- Simplex
  Fire Alarm
- Automatic Fire Protection
  Fire Sprinkler
- Rudd & Adams
  Masonry
- CFS
  Concrete Forming
- Rain King
  Roofing & Metal Panels
- Sharp Glass
  Windows & Storefront
- Gratr
  Landscaping

Joeris General Contractors
Construction Manager at Risk
III. Lessons Learned

A. Project Organization and Manpower

• OFPC Team

- Ken Krejci
  Senior Project Manager

- Marc Kimball
  Project Manager

- Deborah Carruth
  FFE Project Manager

- Bob Riley
  Senior RCM

- Rob McNicol
  Resident Construction Manager

- Michael Coe
  Senior Construction Inspector
III. Lessons Learned

A. Project Organization and Manpower

• UTSA Team

Daniel Sibley
Director of Capital Projects

Doug Lipscomb
University Architect

Users

Robert Espinoza
Director of Capital Projects

MPMC

Jonathan Jarrell
Senior Project Manager

Rick Zamora
Project Coordinator

Marc Kimball\Rob McNicol
OFPC
### III. Lessons Learned

#### B. Project Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue AE RFQ</td>
<td>July 2011</td>
</tr>
<tr>
<td>AE Selection</td>
<td>September 2011</td>
</tr>
<tr>
<td>Issue CMR RFQ</td>
<td>December 2011</td>
</tr>
<tr>
<td>CMR Selection</td>
<td>February 2012</td>
</tr>
<tr>
<td>GMP 1 Submitted</td>
<td>August 6, 2012</td>
</tr>
<tr>
<td>GMP 2 Submitted</td>
<td>August 24, 2012</td>
</tr>
<tr>
<td>GMP Accepted</td>
<td>August 31, 2012</td>
</tr>
<tr>
<td>Notice to Proceed</td>
<td>September 12, 2012</td>
</tr>
<tr>
<td>Substantial Completion</td>
<td>September 4, 2014</td>
</tr>
<tr>
<td>Vacate University Heights</td>
<td>October 31, 2014</td>
</tr>
</tbody>
</table>
### III. Lessons Learned

#### C. Budget and Cost Control

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>$33,435,000</td>
<td>$39,222,363</td>
<td>$38,223,502</td>
</tr>
<tr>
<td>Professional Fees, Consulting Services, Project Management</td>
<td>$5,938,640</td>
<td>$5,697,109</td>
<td>$5,851,800</td>
</tr>
<tr>
<td>Project Insurance</td>
<td>$834,000</td>
<td>$763,370</td>
<td>$740,340</td>
</tr>
<tr>
<td>Furnishings</td>
<td>$4,375,000</td>
<td>$2,750,000</td>
<td>$3,594,894</td>
</tr>
<tr>
<td>Institution Managed Work and Equipment</td>
<td>$1,750,000</td>
<td>$1,950,000</td>
<td>$2,415,540</td>
</tr>
<tr>
<td>Project Contingency</td>
<td>$3,667,360</td>
<td>$2,043,234</td>
<td>$1,600,000</td>
</tr>
<tr>
<td><strong>Total Project Cost</strong></td>
<td><strong>$50,000,000</strong></td>
<td><strong>$52,426,076</strong></td>
<td><strong>$52,426,076</strong></td>
</tr>
</tbody>
</table>
III. Lessons Learned

C. Budget and Cost Control (continued)

• Approx. $2.1M saved through VE at SD
• Major VE items at end of SD phase
  - Eliminate finish-out of floor (alternate later accepted)
  - Eliminate trellis (alternate later accepted)
  - Eliminate most landscaping (alternate later accepted)
  - Eliminate trenching of courtyard for hydronic and water piping
  - Eliminate penthouse except for elevator machine rooms
III. Lessons Learned

C. Budget and Cost Control (continued)

- $1,032,000 saved through Value Engineer process at GMP
- 15 alternates identified in Construction Drawings (8 alternates accepted)
  - Landscaping
  - East trellis
  - Level 3 finish-out
  - Sunshades
  - Cast stone window jambs
III. Lessons Learned

C. Budget and Cost Control (continued)

• **VE List**

• Some major items identified through VE
  - Reduce belvedere length (from 12 ft. to 10 ft.)
  - Steel cascading stair (in lieu of concrete)
  - Revise metal panels to Kynar® finish aluminum (in lieu of zinc clad steel)
  - Eliminate lights in exterior cove in offices
  - Revise ceiling grid from 1x4 offset to 2x4 offset
  - Replace aluminum die-cut panel at stairs with painted finish
III. Lessons Learned

C. Budget and Cost Control (continued)
III. Lessons Learned

D. Contracting Plan, RFQ/RFP, Procurement Process

• Qualifications based process
III. Lessons Learned

E. Design, Technical Functionality, GMP Process

October 30, 2013

October 30, 2013
III. Lessons Learned

F. Construction Phase (E&O’s, change administration, inspections, etc.)

- Change order statistics

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
<th>Percentage of Change Orders</th>
<th>Percentage of Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner Requested</td>
<td>$915,303</td>
<td>52%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Improvements</td>
<td>$157,700</td>
<td>9%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Unknowns</td>
<td>$266,654</td>
<td>15%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Errors and Omissions</td>
<td>$429,456</td>
<td>24%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>
III. Lessons Learned

F. Construction Phase (E&O’s, change administration, inspections, etc.)
  • Major Owner changes

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add water softener</td>
<td>$79,472</td>
</tr>
<tr>
<td>Expedite 3rd floor finish-out</td>
<td>$165,565</td>
</tr>
<tr>
<td>Purchase CRAC units for CS data rooms</td>
<td>$82,638</td>
</tr>
<tr>
<td>AV and data changes to fifth floor</td>
<td>$56,231</td>
</tr>
<tr>
<td>Re-pull data lines to 2.118 (delete power poles)</td>
<td>$74,013</td>
</tr>
<tr>
<td>General scope creep</td>
<td>$527,384</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$915,303</strong></td>
</tr>
</tbody>
</table>
III. Lessons Learned

G. Commissioning and General Operations

- Warranty Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total warranty items</td>
<td>196</td>
</tr>
<tr>
<td>Door/lock issues</td>
<td>29</td>
</tr>
<tr>
<td>Lighting issues</td>
<td>11</td>
</tr>
<tr>
<td>Mini-blinds</td>
<td>6</td>
</tr>
<tr>
<td>Plumbing related</td>
<td>14</td>
</tr>
<tr>
<td>Elevator</td>
<td>22*</td>
</tr>
<tr>
<td>No problem found</td>
<td>26</td>
</tr>
</tbody>
</table>

*Not all elevator issues reported as ROD’s
III. Lessons Learned

H. Safety and Environment
III. Lessons Learned

I. Project Aesthetics
III. Lessons Learned

J. Project Furnishings
III. Lessons Learned

K. Project Communications, Decision Making, and Team Interface
III. Lessons Learned

L. Project Objectives vs. Results

February 13, 2014
Lessons Learned
North Paseo Building

Conclusion