Operations and Maintenance in Public-Private Ventures

Facilities Officers Conference
October 24-26, 2012
Savannah, GA
<table>
<thead>
<tr>
<th>Year</th>
<th>Project</th>
<th>Facility Use</th>
<th>Units</th>
<th>Cost</th>
<th>Accum. $</th>
<th>GSF</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>University Suites Residence Hall</td>
<td>607</td>
<td>$13,860,000</td>
<td>$13,860,000</td>
<td>138,950</td>
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<tr>
<td>2005</td>
<td>Arbor View Apartments Residence Hall</td>
<td>600</td>
<td>$19,175,000</td>
<td>$33,035,000</td>
<td>189,505</td>
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<tr>
<td>2006</td>
<td>Campus Center Student Center</td>
<td></td>
<td>$30,720,000</td>
<td>$63,755,000</td>
<td>131,448</td>
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<tr>
<td>2009</td>
<td>Athletic Complex Athletic</td>
<td></td>
<td>$30,450,000</td>
<td>$94,205,000</td>
<td>80,810</td>
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<td>2009</td>
<td>Greek Village Residence Hall</td>
<td>264</td>
<td>$26,440,000</td>
<td>$120,645,000</td>
<td>88,098</td>
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<tr>
<td>2010</td>
<td>UWG Bookstore Retail</td>
<td></td>
<td>$5,300,000</td>
<td>$125,945,000</td>
<td>25,000</td>
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<tr>
<td>2011</td>
<td>Student Housing Ph 1 Residence Hall</td>
<td>602</td>
<td>$23,800,000</td>
<td>$149,745,000</td>
<td>153,000</td>
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<tr>
<td>2012</td>
<td>Student Housing and Dining Ph 2</td>
<td>760</td>
<td>$28,500,000</td>
<td>$178,245,000</td>
<td>184,000</td>
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<tr>
<td>2012</td>
<td>Student Housing and Dining Ph 2</td>
<td>Dining/HRL Offices</td>
<td>$11,300,000</td>
<td>$189,545,000</td>
<td>30,800</td>
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<td>2012</td>
<td>Athletic Operations Center Buildout</td>
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<td>$3,500,000</td>
<td>$193,045,000</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>2,833</td>
<td>$193,045,000</td>
<td>1,021,611</td>
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</table>
PPV Distribution by Use (GSF)

- Athletic: 30,800
- Residence Hall: 753,553
- Retail: 80,810
- Student Center: 131,448
- Dining/HRL Offices: 25,000

Total: 1,047,502
By 2013

35%

of UWG’s Gross Square Footage Will be PPV Space
PPV O&M Risk Factors

- Front Cost vs. Life Cycle Cost
- Impact of design decisions on operating costs
- Inflation “double-bind” (debt service and operating costs)
- Renewal and Replacement Reserves
- Potential for premature depletion of maintenance reserves
- Silo effect
The business-like nature of PPV projects—based on rigid pro formas and subject to performance metrics—raises the bar for the Facilities Officer, and requires diligence in managing the facility maintenance and renewal cycles.
Elements of a PPV O&M Program

1. Ensure that university building and quality standards are met during design and construction;
2. Careful attention to MEP system design, energy modeling, and project commissioning to control long-term energy costs;
3. Reliance on Facility Condition Assessments to benchmark current condition and predict future maintenance costs;
4. Implementation of an effective preventive maintenance (PM) program to ensure operational performance metrics are achieved.
5. Careful budgeting during proforma development to ensure that O&M funding and R&R reserves are adequate.
1. Meeting Building Standards and Quality Objectives

- Involvement of SME’s (Subject Matter Experts) from across campus in the design process
- Development of a Building Standards Document to establish quality standards for the design team
- Active participation in design and frequent review of contract documents throughout the schematic, design development, GMP, and CD phases
- During construction: constant presence on site by program manager, resident inspectors, maintenance staff, and special inspectors
- Submittal review program
- Warranty Management Program
2. MEP Systems Design and Commissioning

- Balancing front-end cost and operational costs.
- Energy modeling for HVAC and lighting systems
- Case Study: Center Pointe Suites
  - VRV HVAC systems: Pilot program and decision-making during early design
  - Verve lighting controls: ROI study
- Commissioning: Lessons learned from Phase 1

East Village Dining Commons
3. Facility Condition Assessments

- Required for most PPV’s
- Engineering study to measure the life cycle performance of building systems and components.
- Identifies deferred maintenance, future modeled renewal and replacement costs, and viability of reserves.
- Provides a roadmap for effective life-cycle management of PPV facilities.

![Life Cycle Model Expenditure Projections]

- Average Annual Renewal Cost per SqFt: $6.98
EXECUTIVE SUMMARY - CAMPUS CENTER / HPE

Building Code: 0049
Building Name: CAMPUS CENTER / HPE
Year Built: 1965
Building Use: Multi-Purpose
Square Feet: 131,448

Project Costs by Priority

<table>
<thead>
<tr>
<th>Priority</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>$0</td>
</tr>
<tr>
<td>2</td>
<td>$14,410</td>
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<tr>
<td>3</td>
<td>$1,456,400</td>
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<tr>
<td>4</td>
<td>$1,340,202</td>
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<tr>
<td>5</td>
<td>$0</td>
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</table>

Total Project Costs: $2,811,012
Current Replacement Value: $46,539,403

Facility Condition Needs Index (FCNI): 0.06
(Project Costs / Replacement Cost)

Project Costs by System Code

- Accessibility
- Electrical
- Exterior
- Fire / Safety
- Health
- HVAC
- Interior
- Plumbing
- Site

Some colors corresponding to condition levels:
- Poor Condition (Total Ren. Req)
- Below Ave. Condition (Major Ren. Req)
- Fair Condition (Normal Ren. Req)
- Good Condition (Maintained with Life Cycle)
- Excellent Condition (Typically New Construction)
4. **PM Program and Performance Metrics**

- Preserve overall value and condition of facility from initial acceptance through termination of lease/transfer of asset to BOR.
- Perform planned maintenance at recommended intervals to extend lifecycle of building systems and components.
- PM program is essential, as PPV O&M funds may be limited, and R&R funds may not be available for premature replacement.
- Develop performance metrics to monitor building systems, condition, and energy performance.
- Metrics should be developed for each facility in a way that can be used to benchmark against other PPV’s within the institution and USG.
5. Pro forma Development

- Facilities Officers should familiarize themselves with the Bond Documents and PPV Pro forma.
- Pro forma should identify annual operating budget for the PPV, as well as any escalation factors.
- Bond Documents will identify who is responsible for M&O.
- Bond Documents and/or pro forma will identify annual R&R contribution and under what conditions these funds may be disbursed.
- If possible, participate in the early development of the PPV pro forma to help ensure that sufficient funds are in place for M&O and R&R.
Thank You!

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