BEST 3
Enclosure Commissioning – The Owner’s View

U. S. General Services Administration - PBS
Who is GSA?

- 1949
- Public Buildings Service
  - 8600 Buildings
  - 353 million + SF
  - 49% owned 51% leased
  - house > 1 million workers
- Federal Acquisition Service
  - 1970 - 40,000 employees
  - 2009 - 12,600 employees (PBS has 6,000 employees)
FEDERAL COURTHOUSE PROGRAM
Land Ports of Entry - San Ysidro, CA
FEDERAL BUILDINGS

Set on dirt streets, a stone Beaux Arts U.S. post office and courthouse literally put the town on the map, expressed the nation’s confidence in the town’s future and cemented the state’s relatively new membership in the Union.

1906
Cheyenne, Wyoming
“People do what you inspect not what you expect”
“You can not inspect quality into a project it must be designed into it”
ASTM E 2813
Building Enclosure Commissioning (BECx)

• is a _process_ that begins with the establishment of the Owner’s Project Requirements (OPR) and endeavors to ensure that the exterior enclosure and those elements intended to provide environmental separation within a building or structure _meet or exceed the expectations of the Owner_ as defined in the OPR. A fundamental understanding of the most current published edition of ASHRAE Guideline 0 and NIBS Guideline 3 is recommended for optimal use and application of this practice.
Current practice of commissioning

Quadrant I

Quadrant II

DEFECTS

Current practice of commissioning

Quadrant III

Quadrant IV

What Commissioning must become

What Commissioning must become
of Bing Thom, Architect for the newly renovated Arena Stage

........he made a strong impression on the theater’s artistic director, Molly Smith. (For one thing, he asked for a copy of its mission statement, something none of the architects thought to do, she said.)
Example:
What was in the OPR?
The Objectives

- Wind Resistance
- Water Resistance
- Thermal Performance
- Blast Resistance
- Ballistic Resistance
- Seismic Resistance
- Life Safety
- Sustainability
- Aesthetic
- Constructability
- Maintenance
- Durability
“The Checklist Manifesto”
Atul Gawande

• Rethink what we mean by expertise: that experts need help, and that progress depends on experts having the humility to concede that they need help.— “Malcolm Gladwell”
No Pain No Gain
Meeting EISA Fossil Fuel Reduction Goals

The Reason
The Need

- Chronological Distribution of GSA Buildings
Establish the Criteria Early
Example:
Wind Tunnel Testing

Analysis courtesy of Heitmann & Assoc.
## Example:
### Benefits

<table>
<thead>
<tr>
<th>Component</th>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piles</td>
<td>$352,100.00</td>
<td>$315,330.00</td>
</tr>
<tr>
<td>Pile Cap Concrete &amp; Rebar</td>
<td>$445,640.00</td>
<td>$335,280.00</td>
</tr>
<tr>
<td>Shear Wall Rebar</td>
<td>$392,000.00</td>
<td>$341,600.00</td>
</tr>
<tr>
<td>Exterior Wall Studs</td>
<td>$1,220,000.00</td>
<td>$775,000.00</td>
</tr>
</tbody>
</table>

**Estimated Total Savings**  
$642,530.00

**Initial Owner Investment**  
$57,500.00
Owners Response

GSA  P-100  – Performance Based Approach

Facilities Standards for the Public Buildings Service

March 2005

U.S. General Services Administration
Office of the Chief Architect
http://www.gsa.gov/portal/content/220569
Construction Safety

• **Solicitation Submittal Requirements:** The Government desires to do business with only those firms that excel in safety performance.
“Do the right thing”

How we do things is a Manager’s decision

Why we do things is an Executive decision

thank you

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