

Mark O. Hatfield Federal Courthouse

Portland, Oregon



Photo by Timothy Shaver © USA

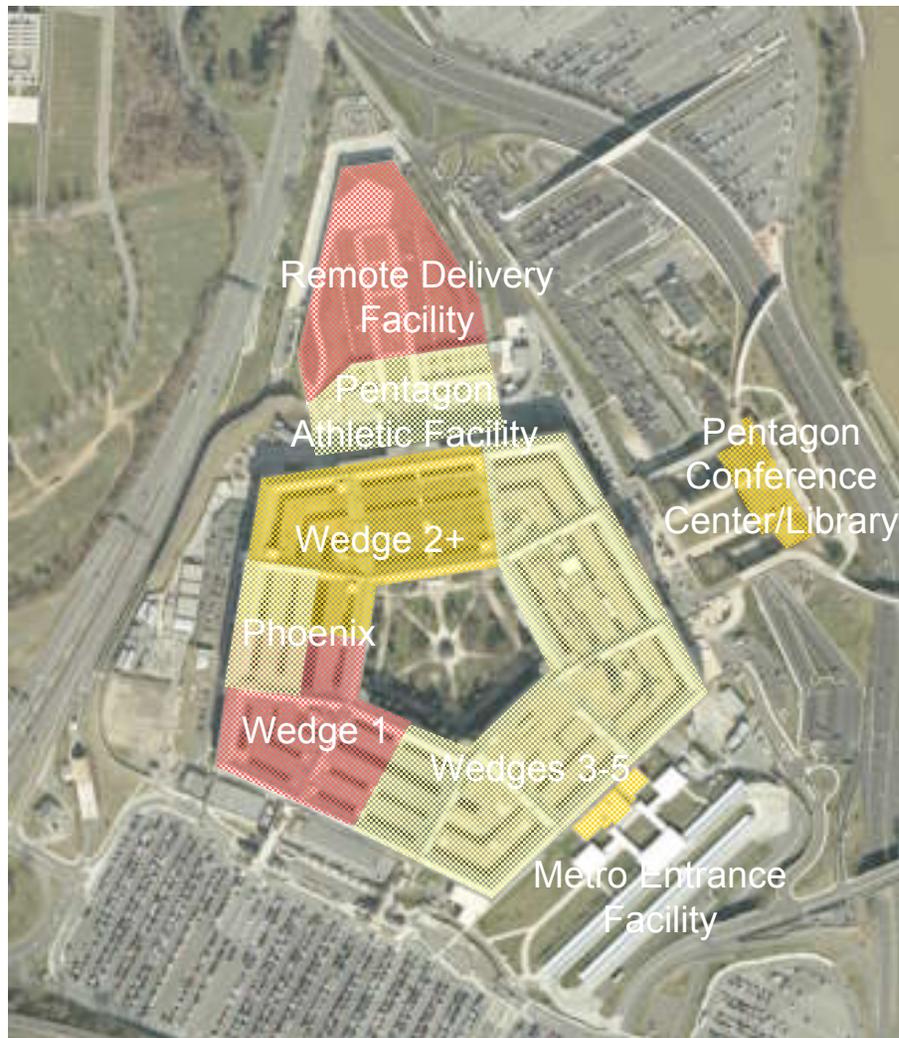
Owner:	General Services Administration
Project Type:	Retrocommissioning
Size:	590,000 ft ²
Rx Project Cost:	\$157,545 (Includes investigation, implementation, and CxP implementation oversight)
Annual Savings:	\$56,000 for fully implemented measures \$26,800 additional savings associated with partially implemented measures Simple payback for implemented measures - 2.8 years
Provider:	Portland Energy Conservation, Inc.



Pentagon Renovation Program



**Under the Hood:
Operations and Maintenance**



- 6 Million Sq Ft Renovation
- 1 Million Sq Ft New Const.
- Systems Cx'd
 - HVAC
 - Electric Power
 - Lighting Controls
 - Life Safety



Pentagon Renovation Program



Under the
Hood:
Operations
and
Maintenance

- Design-Build Team
 - Owner: Washington Headquarters Service
 - Project Manager: Pentagon Renovation Program
 - Designer: SBA/SI/Dean
 - Builder: Hensel Phelps
 - Cx Specialist: Sebesta Blomberg



Under the
Hood:
Operations
and
Maintenance

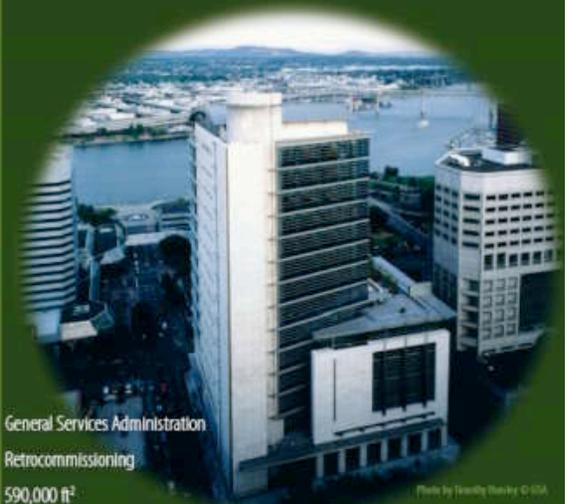
Continuous Cx is the key

Continuous Cx Plan:

- Training
- M&V of savings
- Consultation and Support
- Energy Star Benchmarking

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