

PENTAGON RENOVATIONS | ARLINGTON, VIRGINIA



5 Chevron-Shaped Wedges
1,000,000 Square Feet



September 2001–February 2011



Wedge 2: \$23,769,343*

Wedge 3: \$12,877,510*

Wedge 4: \$22,320,066**

Wedge 5: \$18,620,622**

*Fixed **Guaranteed Maximum



Hensel Phelps Construction Co.



Demolition



Hazardous Material Abatement



Salvage & Asset Recovery

Working under multiple contract awards, and extremely tight security conditions, LVI performed demolition and abatement services for Wedges 2, 3, 4, and 5 of the Pentagon Renovation, one of the largest hazardous material abatement projects ever undertaken in the United States.

The Pentagon military complex was initially constructed in 5 chevron-shaped wedges. More than 1 million square feet in size with the capacity to accommodate roughly 5,000 workers, each wedge was designed to be a stand-alone building structure with its own separate utility system. This unique design was meant to ensure that, if one section of the building was suddenly disabled, the other sections could function regularly without disruption.

ABATEMENT & DEMOLITION

LVI began work on the Pentagon renovation efforts in 2001 as a subcontractor to Hensel Phelps, the general contractor responsible for the renovation of the Pentagon. LVI performed the complete abatement and disposal of hazardous materials including asbestos, lead, PCBs and mercury, in addition to the demolition of all interior architectural building components and systems.

LVI demolished all non-structural, architectural building components and removed



250,000 LABOR HOURS ACHIEVED WITHOUT AN OSHA RECORDABLE INJURY

PROJECT HIGHLIGHTS

- » One of the largest asbestos abatement projects ever completed in the U.S.
- » Large-scale demolition via multiple phases under tight security
- » Successfully met significant labor and schedule demands in occupied building
- » Extensive hazardous material abatement, segregation, and packaging
- » Aggressive recycling goals of LEED Waste Management Plan met



them from the building utilizing both manual and mechanical demolition methods. LVI also performed complex decommissioning of operational security, telecommunication, mechanical, electrical, and plumbing systems.

Over the course of the project, LVI removed approximately 75,000 tons of hazardous waste material and construction debris, including lead, PCBs, and mercury. Using a large, specially-engineered steel chute, as well as multiple interior saw-cut chutes for waste load-out, LVI removed approximately 25,000 cubic yards of asbestos waste and 200,000 cubic yards of construction debris.

LEED WASTE MANAGEMENT PLAN

Workers adhered to a LEED Waste Management Plan, segregating construction debris for recycling of reusable metals, concrete, brick, and other building components under the USGBC LEED Program. LVI recycled more than 75 percent of the total project waste stream. For Wedge V, the rate was above 90 percent.

WORKING WITHIN INTENSE SECURITY

LVI performed work under tight security restrictions. All personnel underwent background and security checks and LVI coordinated the loading of debris and movement of material through an intense security apparatus, inspecting both the interior and exterior of every vehicle entering the site throughout the project's duration.

EXCEEDING SMALL BUSINESS GOALS

During the course of deconstruction activities, LVI employed up to 200 full-time employees and 70 subcontractor employees for this project, exceeding small business goals of 26 percent.

FAST-TRACK SCHEDULE

The project schedule was conducted according to the master schedule developed by the Pentagon Renovation Team. The accelerated schedule accounted for the relocation of tenants and the necessity for the facility to remain fully operational 24 hours a day, 7 days a week to support military operations. Major decommissioning requirements were handled during off-peak hours, weekends, and holidays to provide uninterrupted building services. After the unexpected events related to 9-11, LVI provided emergency response cleanup services to support the Pentagon's ability to maintain mission critical services.

SAFETY IN CHALLENGING CONDITIONS

Safety was of paramount concern. LVI segregated the active work site from occupied areas via construction of hard wall and dust barriers, notifying and re-routing tenants. LVI continually policed the work zone and adjacent public spaces to minimize dust and debris. Despite challenging conditions, LVI achieved 250,000 hours without an OSHA recordable incident or lost time accident. Pentagon Renovation Safety IPT Leader Larry Hensley, the government representative who oversaw the safety of the entire Pentagon Renovation project, called this an 'astounding record' in his recommendation of LVI for safety performance.