Deconstruction Case Study

Dismantling the past for a more valuable future.

About the project

Project Background

- Built in the late 1960s, the two-story, 200-room DoubleTree Inn was located next to Westfield Southcenter (formerly Southcenter Mall) in Tukwila.
- Westfield Corporation acquired the property and contracted with PDG, Inc., to conduct asbestos abatement and then demolish the hotel and meeting facility.
- Before granting the demolition contractor access to the building, Westfield permitted American Development Company to conduct some non-structural deconstruction and salvage activities at the hotel.
- The deconstruction company was allowed to remove a large cedar trellis from the building’s exterior as well as any interior materials that would not impair the wood-framed hotel’s structural integrity or security.
- Salvage, deconstruction, and demolition occurred in summer and fall of 2005.
- Demolishing the hotel helps pave the way for Westfield Corporation’s Southcenter expansion plans, which include new parking, retail stores, restaurants, and a possible future hotel.

Resources Saved

- The project owner, Westfield Corporation, allowed American Development Company to do salvage and deconstruction work prior to demolition of the hotel. Westfield stated that the salvage effort did not cost them any additional money and it also did not cause any schedule delays or other problems. The project manager noted that salvaging materials was the right thing to do, and the company expressed interest in incorporating salvage efforts in future demolition and construction projects, including its upcoming expansion work at Westfield Southcenter.

“We did salvage because it was the right thing to do. It didn’t cause a hassle or negatively impact the scheduling.”

- David Kautz, project manager, Westfield Corp.
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Southcenter Doubletree Inn

- Nearly 34 tons of cedar lumber and other materials were salvaged from an extensive trellis that was removed from the exterior of the hotel.
- An additional six tons of cedar siding and other lumber was recovered from the building’s exterior.
- Interior woodwork, including paneling, beams, poles, and trim, yielded an additional 18 tons of salvaged materials.
- Reusable items from hotel rooms included mirrors, sinks, faucets, and countertops - totaling nearly seven tons.
- More than a ton of miscellaneous material was also salvaged, including door hinges, stair treads, grab bars, cabinets, lights, and two large skylights.
- In all, more than 66 tons of used building materials were salvaged from the hotel, including over 36,000 board feet of lumber - representing an estimated value of more than $10,000, in addition to the savings on disposal fees.

Challenges
- Salvage crews had to avoid asbestos-containing materials. The project’s deconstruction contractor was not allowed to disturb any asbestos-containing material in the hotel, which meant that crews avoided removing asbestos-lined fire doors, asbestos-backed floor tiles, and other potential asbestos-laden materials.
- Damage to building materials reduced salvage opportunities. Vandalism and a police training exercise damaged many items. Nearly every door was kicked in; paint pellets splattered some materials; and many mirrors and light fixtures were broken.
- External posts were degraded. Wooden posts on the outside of the building had not been protected over the years and had deteriorated, reducing their salvage value.

Pre-Contract Steps Taken
- Before Westfield negotiated a contract with its demolition contractor, King County met with the project owner to discuss opportunities for deconstruction and salvage of used building materials from the old hotel.
- As a result, Westfield was able to work with the demolition contractor to allow salvage of valuable materials from the hotel prior to its demolition.

Lessons Learned & Recommendations
1. Even if it does not actively save money, salvage can still keep valuable materials out of the landfill. Sale of recovered building materials can help salvage pay for itself without negatively impacting the budget.
2. Deconstruction can usually be staged to avoid adverse impacts on project schedules. Additional materials could likely have been salvaged in the final demolition of the hotel if time had permitted.
3. Clear, ongoing documentation of benefits can help support the case for deconstruction and salvage on future projects. Making the case for deconstruction early in the site planning process can yield significant benefits.