Sleepless Seattle Innovation: Demonstrating Recent Changes in Real Estate

Chris Trahan
Cornell University

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Abstract
New ideas and untraditional perspectives can provide opportunity in unlikely places. This statement was in the Baker Program's latest trip to the Seattle/ Tacoma area. The intent of the trip was to explore how technology merged with real estate can bring value to the world while disrupting traditional expectations. The site visits began with a visit to the NewCold storage facility.

Keywords
Seattle, Tacoma, technology, NewCold storage, cold storage, fireproof, low oxygen, automated, offload cargo, David Richardson, Sustainable Living Innovations, Collins and Woerman, environmental stewardship, 47 + 7, Osterhout, panels, off site, Microsoft, Redmond, pop up surfaces, Treehouse
Domestic Trek: Seattle, Washington

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Author: Chris Trahan

1. INTRODUCTION
New ideas and untraditional perspectives can provide opportunity in unlikely places. This statement was exemplified in the Baker Program’s latest trip to the Seattle/Tacoma area. The intent of the trip was to explore how technology merged with real estate can bring value to the world while disrupting traditional expectations.

The site visits began with a visit to the NewCold storage facility.

2. NEWCOLD
“Don’t mind the gap between the door and the stairs, but watch your step. Its negative five (Fahrenheit) in this room. The building physically shrunk because of its temperature.” Explained David Richardson, President and CEO of Netherland based NewCold USA, as he led the way into one of the facility’s cold storage chambers.

It was the facility’s first day to receive a pallet from its primary customer, Trident Seafoods, the largest seafood company in the United States. Trident moved its operations to Tacoma to occupy most of NewCold’s warehouse containing 25 million cubic feet of storage. The facility is one of the largest cold storage facilities in the United States, but the size was not the principal reason the property was attractive. Within the 140-foot-tall building’s fireproof low oxygen environment stands a mechanically complex system of lifts, robotic arms, and storage platforms that take up most of the facility’s indoor space. This system is what makes the industrial facility revolutionary to storage.

Operated by sophisticated software, a system of automated cranes and conveyor belts serves to offload cargo from software integrated, mechanized double-decker trailers that each hold 44 pallets. Cargo is unloaded onto conveyor belts and is then sorted and stored in the above holding bays. The facility operates with fewer than 30 people, mostly engineers. Mr. Richardson highlighted the facility’s advanced software, as it directs the cranes and conveyor belts to sort its storage in preparation for the next distribution and delivery even after the staff goes home in the evening. “We are extremely efficient at this facility.”

Despite real estate typically favoring traditional methods over, the example of NewCold’s adaptation of technology and real estate counters the conventional. The NewCold visit provided an opportunity to reflect on how technological breakthroughs can not only be disruptive to supply chain, but also can have lasting impacts that create real estate opportunities.

3. SUSTAINABLE LIVING INNOVATIONS
Sustainable Living Innovations (SLI) 47 + 7 building in Seattle was the next destination. Founded by architects Arlan Collins and Mark Woerman, SLI seeks to reduce
construction time, minimize costs, and incorporate energy efficient systems throughout their buildings. The company achieves its goals through its construction methods and patented systems while claiming to develop sustainably, with appropriate environmental stewardship, social development, and economic progress (Chai-Lee, 2017).

SLI Executive Vice President of Strategy, Don Reed, visited the Cornell Baker Program in October 2017, in the program’s Distinguished Speaker Series and indicated that the company’s proprietary, cutting edge manufactured systems integration in multifamily urban infill would be disruptive to traditional construction. The erection of its first high-rise in Seattle, the 47 + 7 building, proved to be as shocking as it was inspiring. “The steel, the walls, and the floors are premade offsite. It saves on construction time and we know the exact quantity of every building material, even down to each screw.” Said Rick Osterhout, Executive Vice-President of SLI.

Students learned that site-work, utilities, foundations, garages, podiums, etc. are constructed like components of a typical building, however, there are few similarities in the rest of a building’s construction. SLI uses a system whereby floor panels, wall panels, and structural steel are crafted off site. These ultra-durable components are then installed as each prefabricated floor slab is erected inside a steel exoskeleton. The exposed steel frame is not welded because each piece is connected using bolts. Steel allows for building more floors per total height of the building because it is lighter and more efficient, and steel beams that support floors are not required to be as deep as those of concrete (NBM & CW, 2013). These SLI components allow their buildings to go up fast. After excavation, buildings like the six story 47 + 7 development can be built 50 percent faster than standard buildings of the same size.

Mr. Osterhout invited his visitors to interact with the components up close. The experience was remarkable.

He then demonstrated the unit’s wide sliding walls and ultra-wide porch window. He also informed them that the company’s approach to construction allows for a reduction in energy systems by 70 percent and water usage by a minimum of 33 percent. Mr. Osterhout also informed the group that the SLI building weight is 50 percent less than traditional buildings, allowing similar high-rises to be built in more locations than high-rises with comparable volume.

SLI has great ambitions, and is currently developing its first high-rise in downtown Seattle, scheduled to be erected within 12 months. The company is also developing mid-rise buildings in San Francisco and is looking to use this model to expand to the east coast.

4. MICROSOFT

Late Friday, Baker students arrived at the Mecca of Microsoft, the company’s headquarters located in Redmond, Washington. Nestled in the Puget Sound region, the campus boasts over an impressive 8 million square feet of office space and is set to undergo a breathtaking expansion to host an additional 8000 employees. Susan Wagner, Senior Director of Real Estate and Facilities, and Mike Ford, General Manager of Real Estate and Facilities, led the tour through an open lobby with wood accents, trees, experimental light fixtures, coffee machines with exotic blends, and a floor layout not too different from an experience at WeWork.

In several halls, students saw sketches, equations, cartoons, team objectives, jokes, and recipes written throughout the facility’s many sliding walls, doors, and pop up surfaces. It was easy to find a dry eraser just about anywhere in the facility. As they got closer to the conference room, some noticed signs with arrows: “Xbox to the right. Skype to the left. Treehouse straight ahead.” Ms. Wagner indicated that part of their scope in managing corporate facilities is to be creative as she rolled out visually stunning plans to
redevelop existing and stale facilities into cutting edge, collaborative work spaces in Microsoft facilities beyond the Redmond headquarters.

Mr. Ford then discussed Microsoft’s range of products and how their roles consist of continually anticipating the needs for space domestically and globally and coordinating between their leased and owned space. He used LinkedIn as an example of how his role is to accommodate their need for space like so many other extensions of Microsoft. “For instance, consider LinkedIn. You do have LinkedIn, right?”

Mr. Ford and Ms. Wagner fielded all sorts of questions ranging from global real estate strategy and planning to Microsoft’s Hololens capability to view the campus’s expansion in a virtual world. Mr. Ford ended his statements with a Bing search for the Microsoft outdoor meeting spaces his team invented saying “By the way, you have seen the Treehouse, right?” The treehouse was inspected shortly after the conference room meeting, and it was obvious how Mr. Ford and Ms. Wagner’s team created a space that was not only great for Microsoft’s publicity, but also had great utility for the company’s employees.

Innovations in robotics at NewCold, in lightweight construction at Sustainable Living Innovations, and in corporate and personal communication at Microsoft signal the changes taking place in real estate. This includes not only the way in which properties are conceived and built, but also managed and sold. Looking for change in Seattle provides exciting glimpses of the future.

WORKS CITED