

University of Washington

## Abstract

Raze-or-Retrofit:

Institutional Influences on Redevelopment for Energy Efficiency

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Both my Planning (MUP) and Architecture (M.Arch) theses work around the rubric of the Architecture 2030 Challenge and the efforts of the Seattle 2030 District to meet it (2030DC - see <http://www.2030district.org/seattle/>). In taking up this challenge, the City of Seattle and the 2030DC have teamed up with major property owners, property managers, developers, architects and the Integrated Design Lab at UW to target and benchmark existing opportunities in Seattle's commercial building stock for potential deep retrofits and redesign. The goal of both theses is to provide the 2030DC with tools and intelligence that will assist in targeting its program and outreach efforts.

Both the MUP and M.Arch theses examine the behavior of commercial property owners and their propensity to either retrofit their buildings for energy efficiency or raze them in favor of redevelopment. To determine this, in the M.Arch thesis I developed a scoring system that utilizes various algorithms to process publicly available data combined with other data developed locally to derive a score that permits an apples-to-apples comparison of that propensity. The M.Arch thesis reviews these conditions at the building level; cites several case studies, and presents in-depth analysis of a selected commercial building in the Pike-Pine corridor, serving as an example of a typical Seattle property.

The MUP thesis scales the building owner propensity up to the neighborhood and district levels, and investigates the potential impact of development in Major Institutional Overlay (MIO) districts upon properties immediately adjacent to those districts. It applies the scoring system developed in the M.Arch thesis to demonstrate a correlation between proximity to an MIO district and the presence of predictive indicators of redevelopment. Thus, the scoring system can be used to indicate the likelihood of redevelopment in districts adjacent to an MIO district. The MUP thesis concludes with suggested policy changes to MIO districts to reduce the abrupt spatial transitions that are currently evident.