# Resistance Is Not Futile: Laura Blau and a Legal Win for Passive House Levels of Insulation

When Laura Blau had a fine art exhibition in Paris, in the early 1980s, at the American Center, it was requested that two pieces be taken down - the observer saying one looked like a “foetus” (in English: “fetus”), and another like “merde” (that’s “shit”). Laura refused. And, in 2016 when working as the architect on the Passive House EnerPHit renovation of her townhouse, at 1722 Pine Street near Rittenhouse Square, the Philadelphia Historical Commission (PHC) requested that she resubmit without proposed exterior insulation that would cover existing brick on a minor rear facade. Consistent to her character, Laura refused to accept the verdict.

An almost-gut-renovation was required when Laura and her husband Paul Thompson, also an architect, decided to renovate. The four-story, 6,500 SF townhouse at 1722 Pine Street was built in the 1840’s in the Federal style, with the front facade of high quality “Philadelphia Brick”. The bricks at the side and rear alleys

acquaintance, Laura took the first Passive House training available, and completed a Passive House retrofit feasibility study for the University of Pennsylvania. Understanding the level of control needed for Passive House, while also suffering the all-too-common construction workplace sexism (particularly toward a woman not ready to concede her power), Laura decided to become GC as well as the architect.

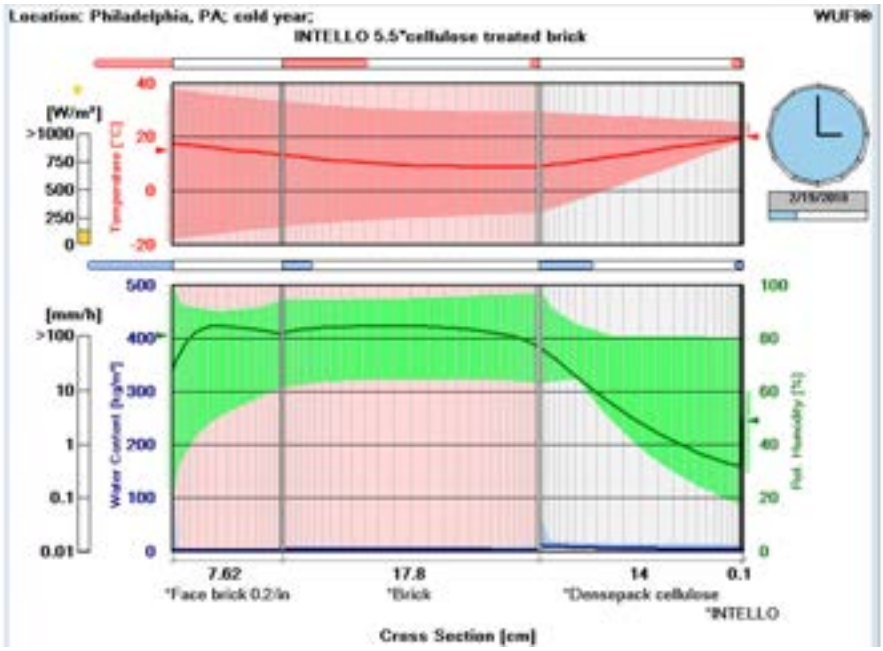
The townhouse renovation enclosure details typically followed the Historic Masonry Retrofit Smart Enclosure playbook - utilizing the PHI certified INTELLO PLUS intelligent airtight system, including TESCON VANA, EXTOSEAL ENCORS, and other Pro Clima tapes, gaskets and adhesvies. Of course, there were many surprises, from newly exposed conditions, to dealing with sub-par subcontractors in a hot market, with a lack of skilled workers and a lot of shoddy work needing repair.

## Project Details

**Architectural details rebuilt over the service cavity to match the historic features o this home.**

For Passive House retrofits of historic buildings, typically, getting simulated double-hung windows approved by the local historic commission is essential. Laura's application was the first time the Philadelphia Historical Commission was asked to consider such a request and were not inclined to grant approval. Not taking "no" for an answer, and building on the track record of approvals in other jurisdictions like New York City's Landmarks Commission approvals, Laura went through several rounds of submissions. Following initial objections, they got approval, achieving the project's first important legal precedent in Philadelphia.

The bigger challenge was still to come. Working with 475 and Joe Lstiburek of Building Science Corporation, there was still the matter of safely insulated the masonry walls. On the front of the facade, 475 detemined with a WUFI Pro analysis that you could safely add 5.5" of cellulose on the interior of the brick, when protected by INTELLO Plus and reach EnerPHit performance targets (for more on that, see our previous post *Insulating Historic Masonry Buildings Safely: How WUFI Can Help*). However, all parties agreed that at the porous rear brick, the best approach to maintain the building's integrity, address mold/moisture issues and provide a long term reliable and durable solution, was to insulate from the outside. Yet the Historical Commission wasn't budging, even if the proposed alteration wasn't visible from Pine Street.




**475 provided a WUFI analysis on this project to help ensure the safety of the assembly.**

Working with the North American Passive House Network (NAPHN) as a sponsor in this trailblazing effort, Laura was able to obtain the pro-bono services of Ballard Spahr LLP and their attorney Michael Sklaroff. Michael had a new and expansive approach. Rather than trying to get a narrow reading of technical significance, he made the insulation a constitutional issue. Pennsylvania has an Environmental Bill of Rights. Article 1, Section 27 of the Pennsylvania Constitution states:

**"The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."**

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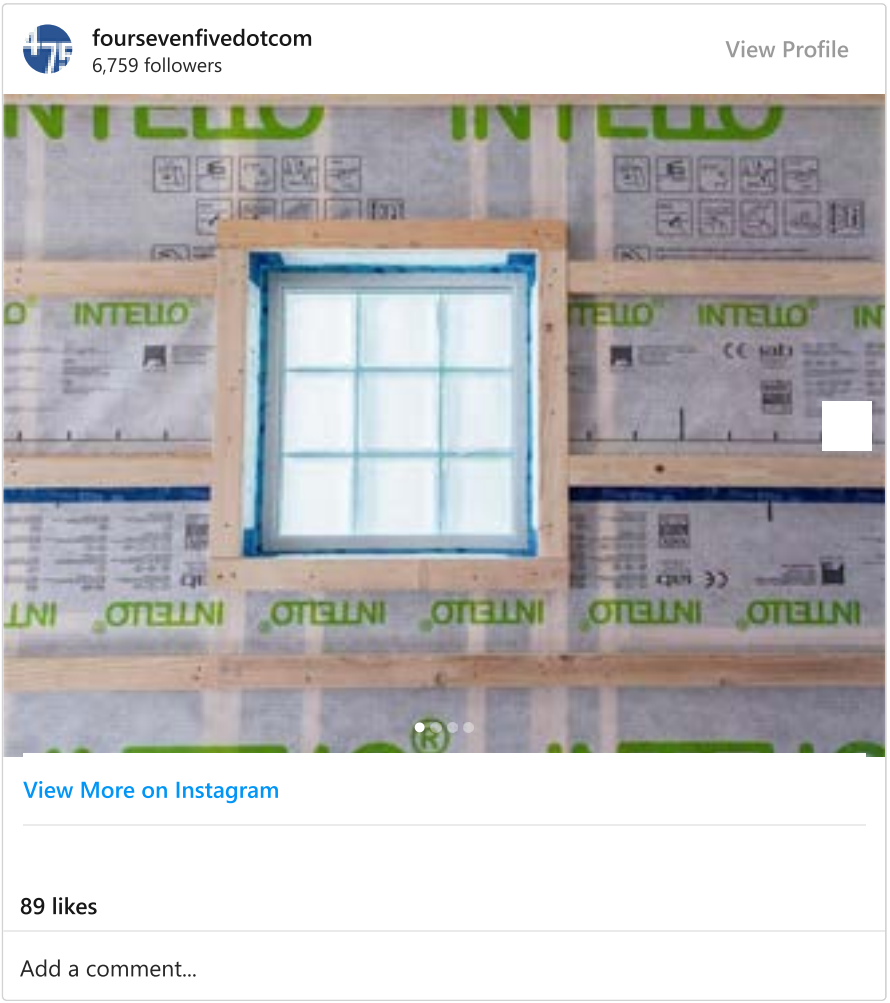
consider Article 1, Section 2 of the state constitution and given detailed explanations and expert testimony, including that from Ken Levenson of 475 and NAPHN. On Dec 15, 2017, the commission approved the request, establishing a landmark victory and precedent for others to follow.

With the renovation of 1722 Pine Street coming to a close, Laura remains restless and unsatisfied by the status quo, whether that be in construction quality, lack of team education or limitations of architects' reach in the construction process. She is looking for new hybrid approaches to push back: more transgressive transformation.

## LOOKING FOR MORE? FOLLOW 475 FOR THE LATEST

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