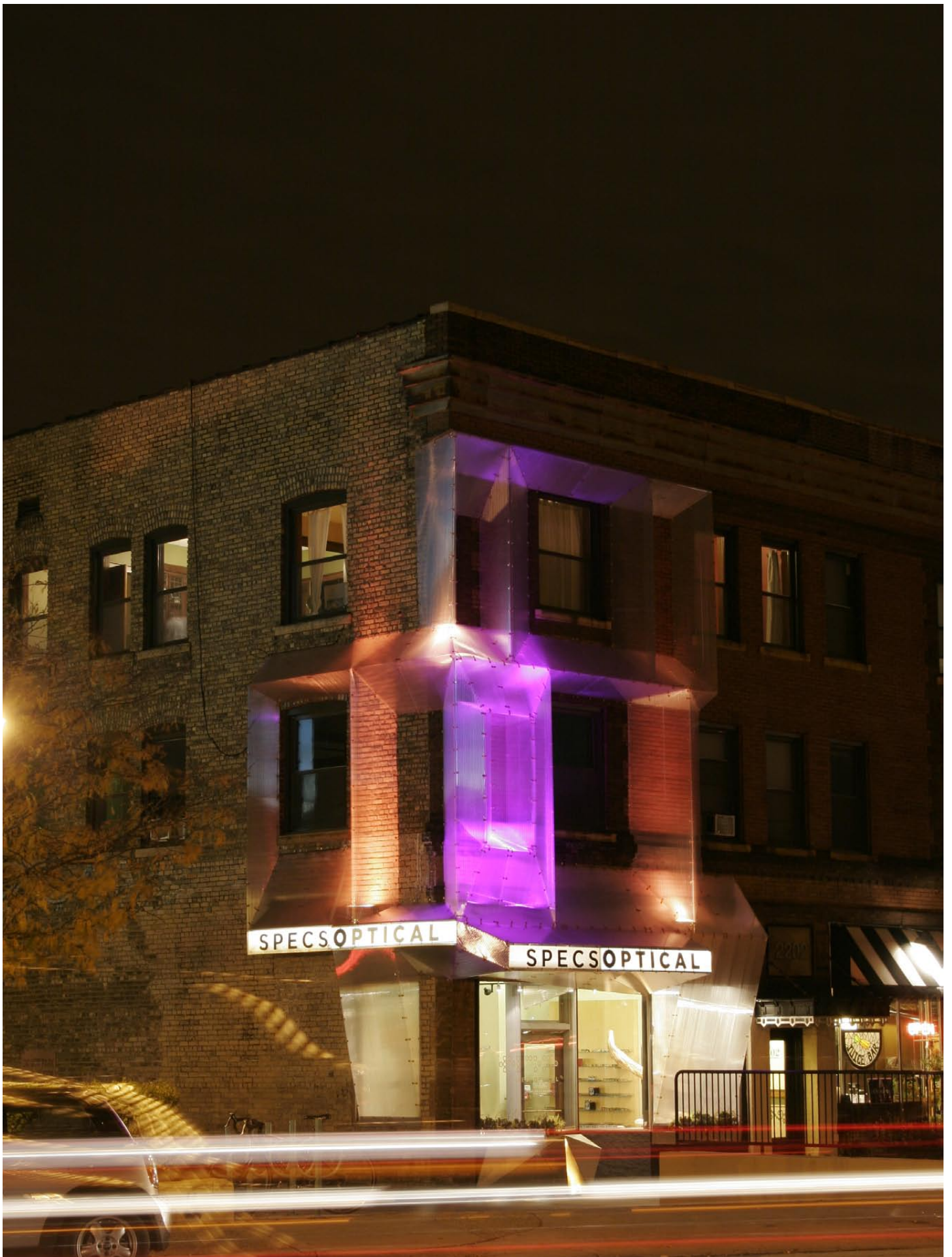


AIA Honor Awards

Small Projects
2010
Minneapolis, MN

#045

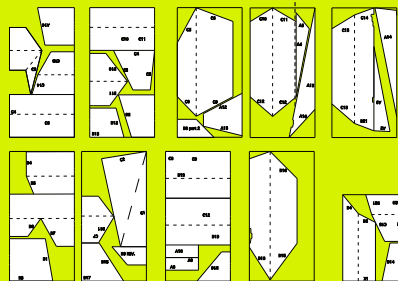
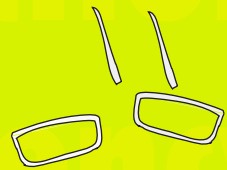
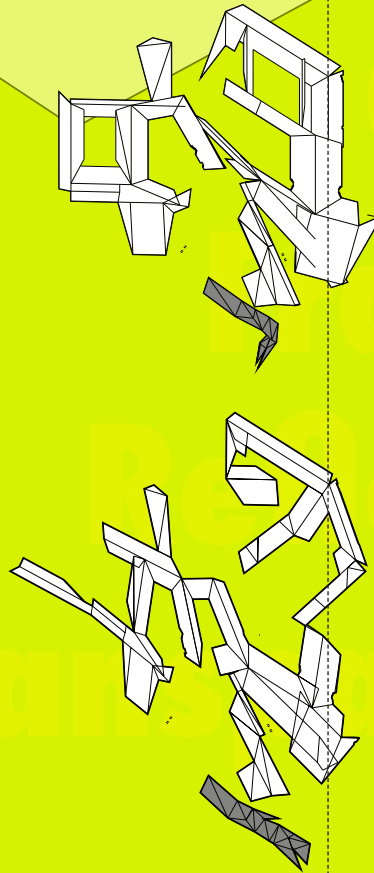
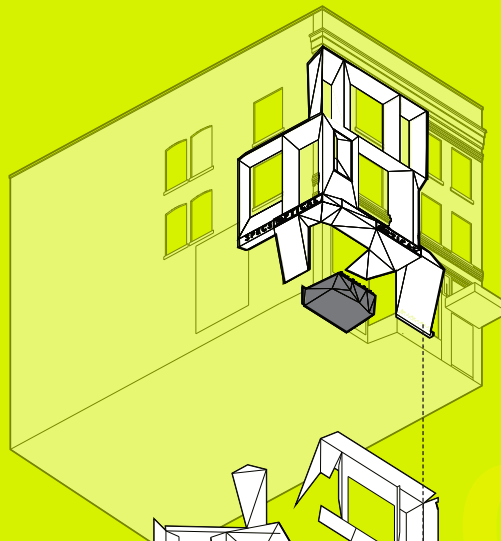


SPECS Optical Façade

Minneapolis, MN

The irony of an optical shop that one can't see on one of the busiest commercial streets in Minneapolis was not lost on the business owners. Landscape beautification installed by the city obscured their storefront, and sign code limitations prevented the shop from using signage that would be visible behind the trees and bushes. The architects investigated both code options and technology to create **architecture inseparable from the idea of sign.**

The design both relies on, and elevates, the character of the 100-year-old building it embraces. A crystalline envelope of CNC-cut 5/8" thick, 3-layer greenhouse polycarbonate grows out of the storefront openings. The skin is manipulated to form offset and distorted frames around the existing windows to bring together ideas of frame and optics. **The polycarbonate is rigid, inexpensive, and self-supporting in its triangulated geometry.** For ease of fabrication, the polycarbonate sheet is left open at the ends. The surface is treated with a nano-surfactant used in coating solar panels to promote self-cleaning when wet. Laser cut aluminum boxes form a dense and visual anchor at the corner. They also contain signage and lighting, coordination function with exterior form.



A 3-Dimensional model was built, flattened and used to create fabrication drawings.

2

Polycarbonate skin grows out of and around the existing building forming a mask. A large-format sheet metal CNC router was adapted with special plastic cutting heads allowing clean physical production of sheets up to 6' x 12'.

4

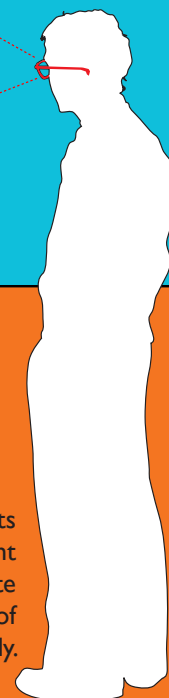
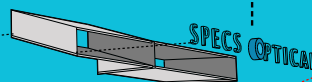
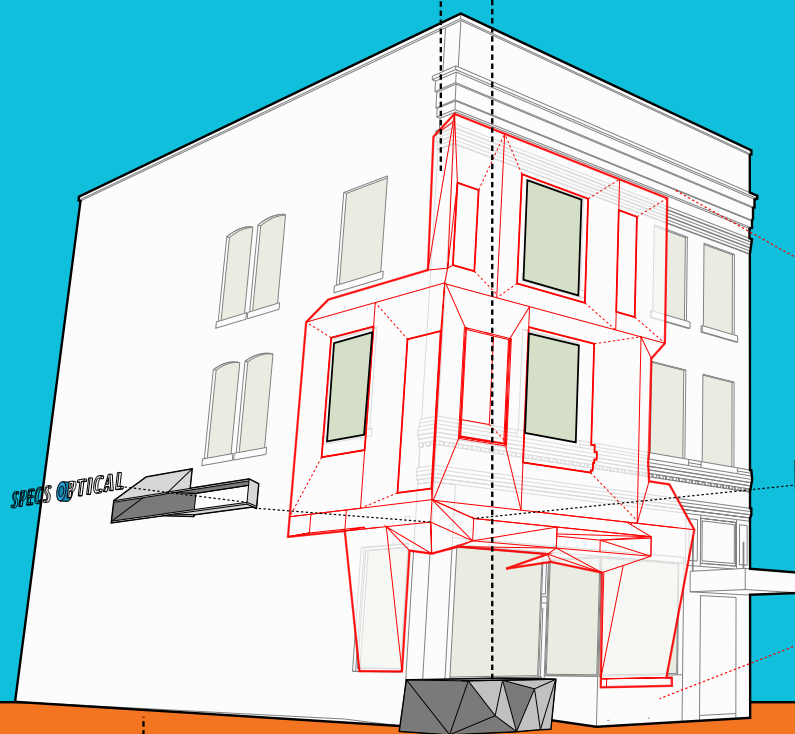
Custom translucent die-cut urethane straps were fabricated to easily handle the various connections required and provide a continuous "stitched" seam at the edges. Off-the-shelf stainless steel hardware anchored the straps to the polycarbonate and brick.

3

Water-jet cut aluminum planter boxes create a shroud at the base of the storefront. The architects tested various thickness and stitch patterns to evaluate the best arrangement to allow hand bending of the geometry on site. Matching seams maintained the stitched profiles. A hidden door provides access to a hose bib.

5

The **laser-cut aluminum sign boxes** were welded to contain the store identity, lighting, and anchor the lowest corner of the façade.

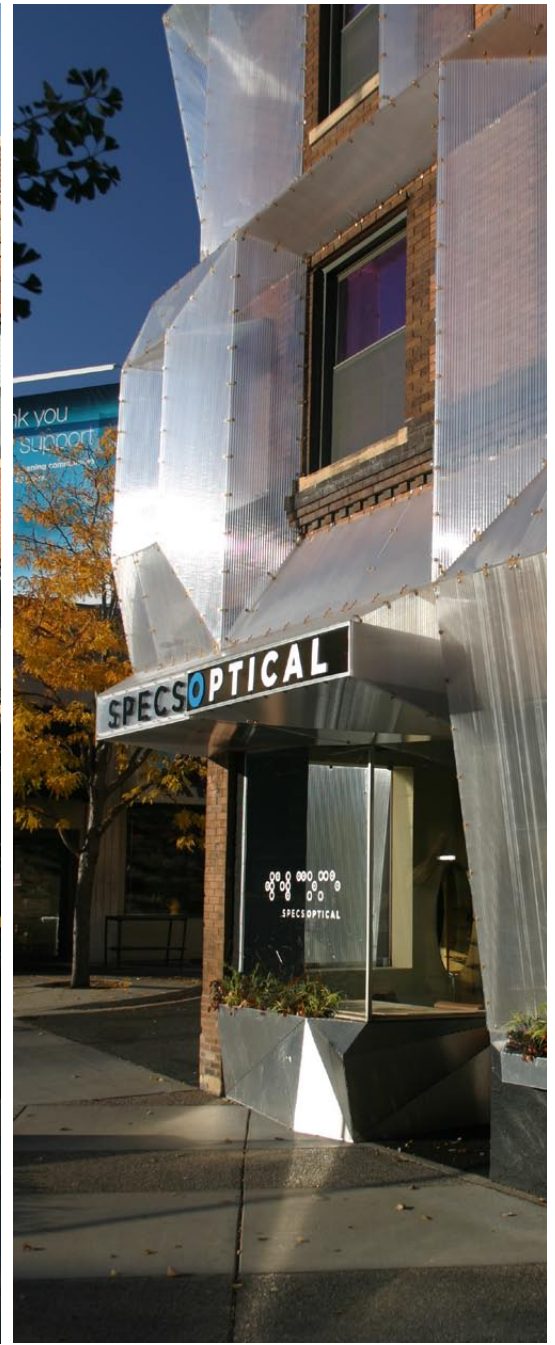


1

Instead of working drawings, a **laser-cut scale model** (1/2"=1'-0") of the skin was used as a 3-D guide to installation, with all pieces numbered in small and full scales.



The architects sought to create a celebration of seeing differently.

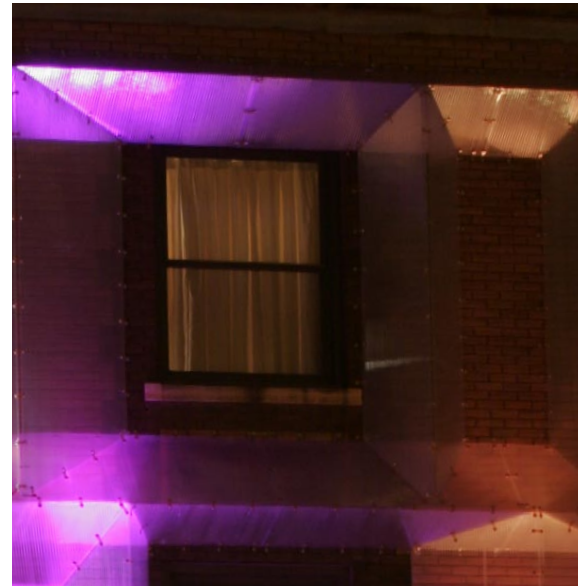


CONTEXT SPECS Optical business owners recognized the irony of having a storefront that couldn't be seen. City installed landscape beautification obscured their storefront. Sign code limitations prevented the shop from using signage that would be visible behind the trees and bushes. The century owned building sits on one of the busiest streets in South Minneapolis, but is set back to allow for a pedestrian sitting area. Motorized traffic speeds by, while heavy pedestrian traffic ambles by. Design for eye-catching appeal, due-respect to the neighborhood and building's historic roots, and communicating the store's message: VISION (as noted in Braille code on their storefront signage).





MATERIAL Polycarbonate skin grows out of and around the existing building forming a mask. A large-format sheet metal CNC router was adapted with special plastic cutting heads allowing clean physical production of sheets up to 6' x 12'.



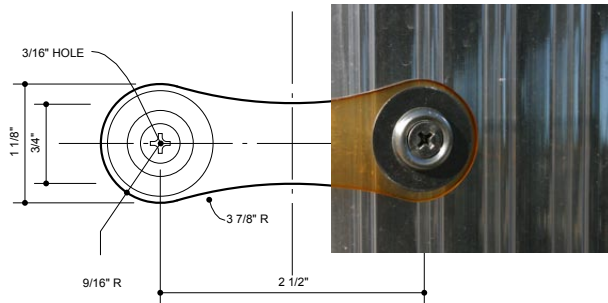
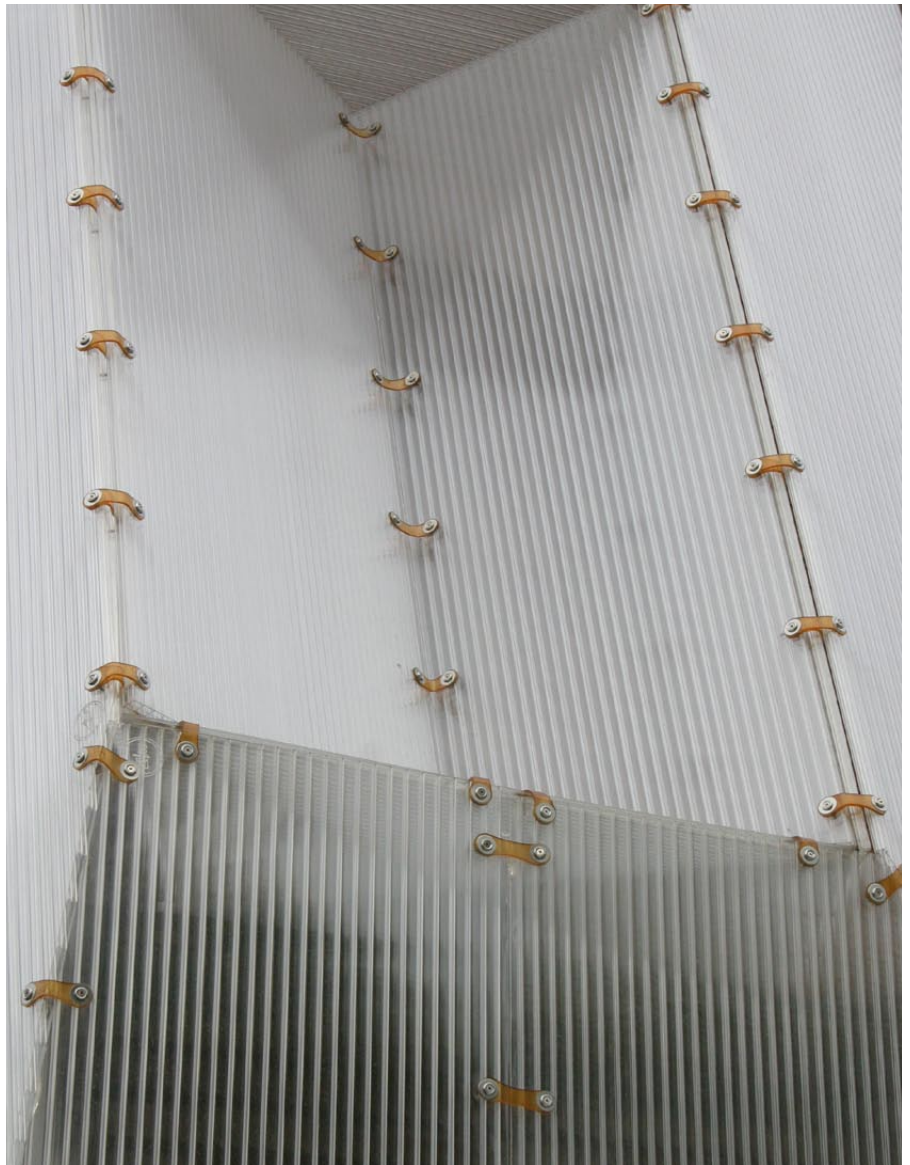
FRAME

The skin is manipulated to form offset and distorted frames around the existing windows to bring together ideas of frame and optics.

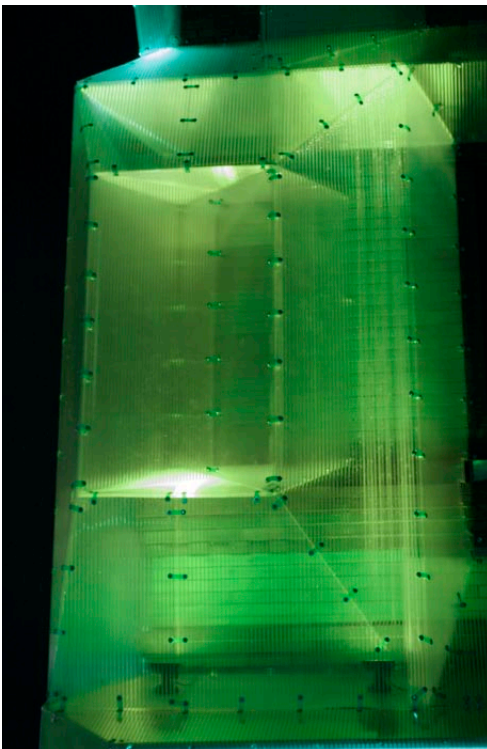


CRAFT

CAD-based design tools allowed the architects to maintain control of the fabrication to celebrate both the hand-made and the machine-made. The tradition of eyewear fabrication is reflected as old technology and new technology abut each other (the 1900 building and its new skin).



access to water spigot



ILLUMINATION

Waves of color radiate from hidden LED spotlights, giving the store a luminous and engaging evening persona.

