

As part of a cross-disciplinary seminar at the Ross Business School, our team of 6 students (architecture, planning, policy, mba, natural resources) worked closely with a Detroit Non-Profit (University Cultural Center for Arts) to renovate an old foreclosed house located in mid-town Detroit. The house is unique for being the thinnest house in the state (16' wide) built in 1885.

We decided to redesign this house by maintaining the existing envelope but redesigning and re-programming the inside. Detroit is a city of extreme climate, so we decided to engage sunlight and wind as agents of natural heating and ventilation via the manipulation of the building envelope (facade).

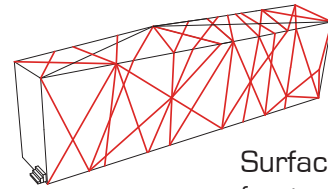
The second issue of focus was the number of occupants. Detroit being a shrinking city, now has an average family size much smaller than what this house was originally designed for. We decided to re-design the interiors by consolidating the programs into one half of the house and introducing a courtyard/tea room. The design strategy for this project primarily addresses two elements - the envelope and the program.

DESIGN CONCEPT

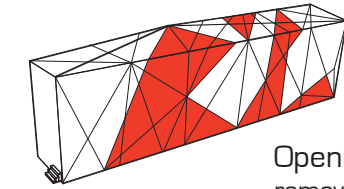
CONSOLIDATE PROGRAMS | REDESIGN FACADE



Existing Envelope  
old brick facade

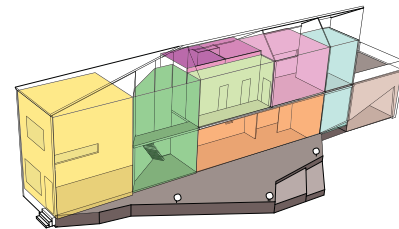


Surface Analysis  
for structural integrity, daylight penetration

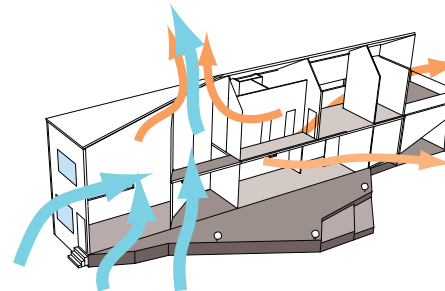


Openings + Facade  
remove weak masonry, create daylight penetration & indoor views

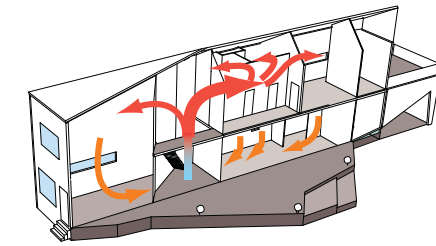
DESIGN FEATURES



Programs  
Sitting Room  
Courtyard  
Living + Kitchen  
Bedrooms  
Bath



Ventilation (Summer Cooling)



Convection (Winter Heating)



Double Glazed Fibre Glass

Renewable Bamboo Flooring

Xeriscape Garden

Ventilated Roof

Salvaged Brick Walls w Jeans Insulation