The Fischer Body Plant #21 was designed and built in 1919 by Albert Kahn on Piquette Street in Detroit, MI. The building was originally used to manufacture automobile undercarriages for companies such as Ford, Cadillac, Hudson, and GMC from the 1920s-1960s. Albert Kahn created an open floor plan with large exterior windows for daylighting and structural rows of concrete columns running throughout the interior. The redesign of the building uses the original concrete columns, walls, and large blue glass windows preserving the original integrity of the building.

This site has become a mixed-use space incorporating retail, restaurants, daycare, pet services, farmers market and gardens, an education center, library, and computer lab, after school program, theater, residential and public spaces. Ownership of the building will be a co-op, the owners of the retail spaces on the 1st & 2nd floors and students attending the education center on the 3rd & 4th floors will be allowed to work and live in the building ensuring the care and upkeep of the building and site. The renewal of this site using passive design will create a positive impact within the neighborhood of Milwaukee Junction and the city of Detroit.

Preserving the Past: The industrial plants have been abandoned and deteriorate. The buildings and their stories should be preserved by remodeling using passive design. There are a growing number of abandoned industrial sites in the US and Detroit has an abundance of these abandoned industrial plants. The rise of energy shortages in parts of the US are concerning and need to be addressed. The implementation of passive systems within existing buildings should be a major consideration within each design.

The two adjacent sites to the east and west of the building site have been kept for the development of the site. These sites will be added to the building by adding a roof over the parking lot, placing the parking garage, and extending the building to the east and west. These sites will add additional parking and space for the building and the mixed-use spaces on the ground floors. The east lot will also have additional outdoor spaces for the daycare and pets. These two sites show the future expansion of the building site into the surrounding community and the positive impact renewing an industrial site can have on the neighborhood.
Passive Design and A Building

This thesis program for 2019 took a decaying industrial building, Fisher Body Plant 21 in Detroit, MI, a key building in American industrial history and has created an adaptive reuse space using passive design. There are apartments on the 5th-6th floors, shops, restaurants, farmers market, daycare and pet boarding on the 1st-2nd floors, of fices, meeting spaces, theater and an education center on the 3rd-4th floors incorporating both commercial and residential spaces.

Passive systems include a light tower cut through the center of the building to provide daylighting and ventilation to the lower floors. A green roof was designed to collect rainwater and melting snow into storage tanks located under the parking lot, which will collect and filter both rain water and gray water for use throughout the building for flushing toilets and watering vegetation. The roof also has a pool, exercise space, pet area, lounge, and park. Other passive systems include vegetation around the site for shade and filtered air, solar panels on the exterior and shading devices on the south and west sides. The exterior windows on the 5th and 6th floors were taken out and a new exterior wall was set in to the building to create balconies for the residences providing shade and garden spaces for the building user.

Parking was added below grade and on vacant lots adjacent to the site along with transit lines. The two adjacent sites provide green space, parking and community gardens for the farmers market.

Image on Left: The building was vacated in 1993 and has been abandoned and left to scrappers and spray paint artists. This building which once played an important role in shaping the nation and automobile history is now fading into history.

Meaning in a name: Obnovit means renew in Czechoslovakia. Inspiration for this site started when I inherited my Great-Grandfathers 1952 Henry J automobile which he bought new. It has all of its original parts, upholstery, engine, color and has been passed down through the family. My great-grandfather was Bohemian and even though the country no longer exists, the language they spoke was Czech and so this is to honor the past while looking to the future.

"Unless someone like you cares a whole awful lot, nothing is going to get better. It's not." - Dr. Seuss.