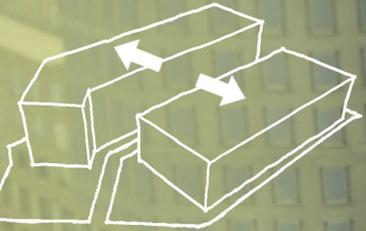
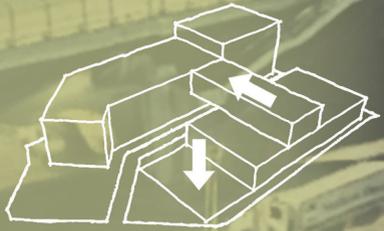


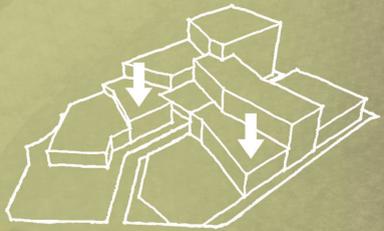
EXTRUSION OF THE BLOCK



SPLIT FORM TO MAINTAIN ACCESS ROAD



CONNECT BUILDINGS AND CREATE OUTDOOR SPACE



STEP DOWN ROOFS TO MIMIC TOPOGRAPHY

RELOCATED ROOTS:

a community focused urban agriculture facility



Relocated Roots addresses a limitation in the current thinking about agriculture within the urban environment. It aims to expand the local populace's knowledge and perception of agriculture by providing an educated architectural experience that both informs the user of modern growing techniques and positively promotes the message of sustainable city farming.

THE PREMISE

How can we as an increasingly urbanizing society successfully cultivate plants in the urban environment? And so, how can architecture facilitate and guide that transition? What methods have proven architecture can promote and advocate social change with its design?

This thesis examines these questions in the context of Downtown Cincinnati, Ohio: a city with strong economic growth but facing a declining population and high levels of obesity. With community-focused spaces and an emphasis on sustainable practices, Relocated Roots attempts to provide a design solution that is both an asset to the community and a viable investment for the client, Gotham Greens. It aims to prove that architecture can influence people's perceptions of concepts like city farming, community and sustainability by demonstrating these innovative technologies can revitalize a neighborhood.

THE CONTEXT

EARLY BEGINNINGS

Since its founding in 1788, Cincinnati has grown to be called the "Queen City of the West." The city began as three separate settlements but was unified and renamed Cincinnati. The city's first economic and population boom came from providing supplies to soldiers who were fighting the Native Americans. The next came after the Civil War, where the Ohio River provided new trading opportunities with the South.



INCREDIBLE BOOM

Cincinnati grew in status from village to city in only 17 years: largely due to the introduction of steam boats on the Ohio River in 1802. Around this time, the city became known as, "Porkopolis" for its incredible meat-packing industry. Pigs were so abundant, they freely roamed the streets. German Immigrants also flocked to the city, creating a special district called "Over the Rhine" which sprouted over 2,000 beer breweries.



ECONOMIC DOWNTURNS

The German Immigrants' booming brewing industry came to a screeching halt during 1920's Prohibition. Almost simultaneously, WWI's anti-German hysteria escalated tensions, forcing many German Immigrants to flee the city. In the 1950's, many downtown businesses still had not recovered, and with the popularity of the suburbs, wealthier residents and businesses moved away as well.



REVITALIZATION

Cincinnati today maintains its status as a transportation, economic trade, and cultural nexus. But despite the industrial economic growth, many downtown buildings are still abandoned with insufficient funds for restoration. The downtown area of Cincinnati suffers from broken window theory and likely would benefit from a new typological identity to provide fresh food, education and employment opportunities.



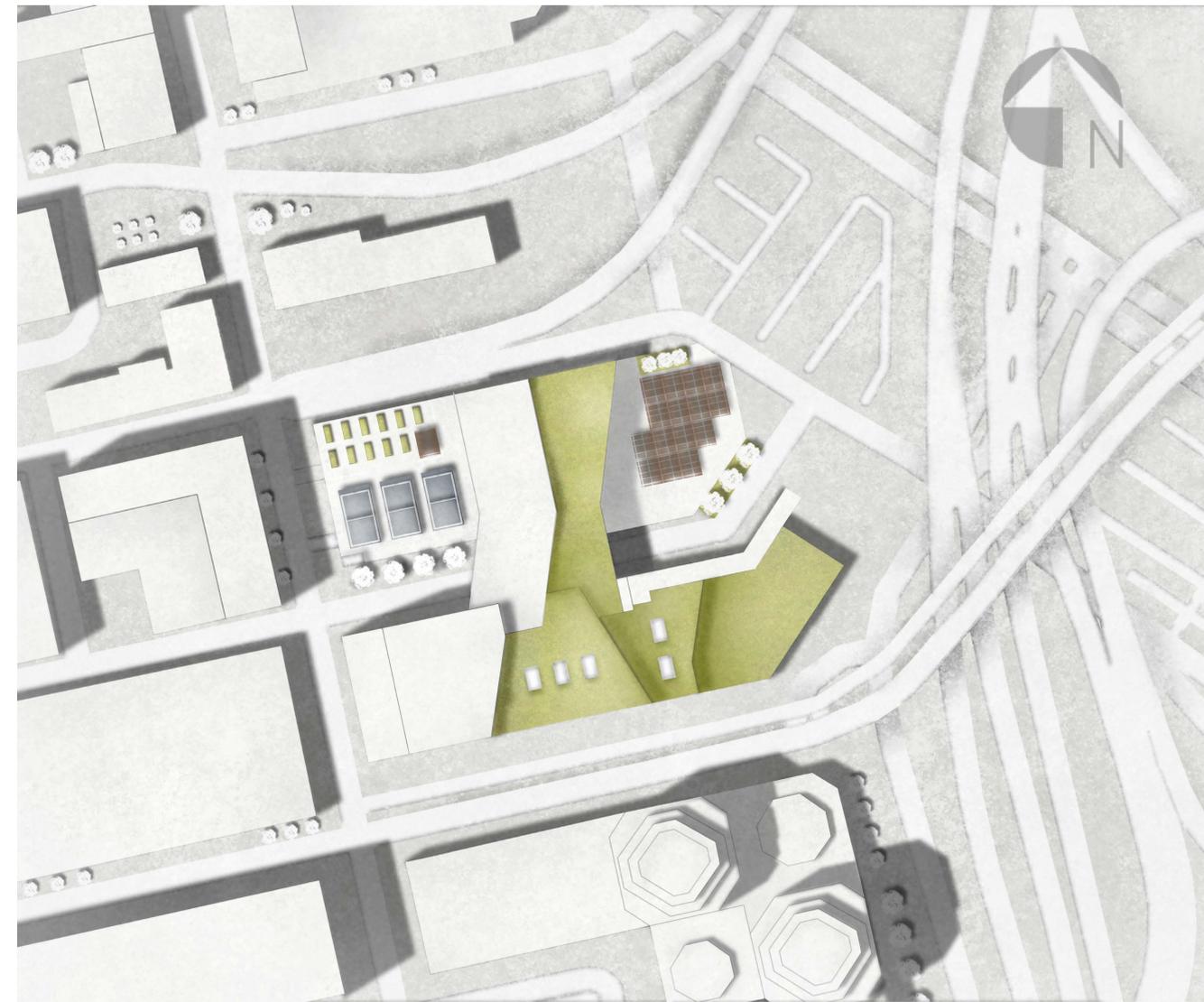
THE SITE

One of the biggest opportunities for the design is its site selection. Because community plays such a critical role in the premise, its location in the downtown neighborhood is carefully chosen. The site currently exists as an at-grade parking lot which primarily serves a headquarters building to the south. This parking lot is a void in the dense urban context.

To the east of the site is the boundary of the downtown as it is constrained by several interstates. This system of highways provides a motivation for the design to maximize transparency and beauty. This visual exposure to commuters allows the design the opportunity to convey a message of sustainable urban farming simply by its adjacency.

The Proctor and Gamble headquarters is one block to the south of the site. This office building employs about 1,500 people, and the thesis design capitalizes on this with a parking garage, grocery store, and quick stop restaurant. Additionally, the P&G design has a popular public plaza which adds an additional level of engagement for Relocated Roots' visitors.

This region of downtown hosts many desirable destinations like historical museums, cultural sites, public parks and restaurants. There's also a theater for music and comedy. These places create incentive for people to visit and thus make the Relocated Roots' site more competitive. By its proximity to these places, the design gains valuable exposure.



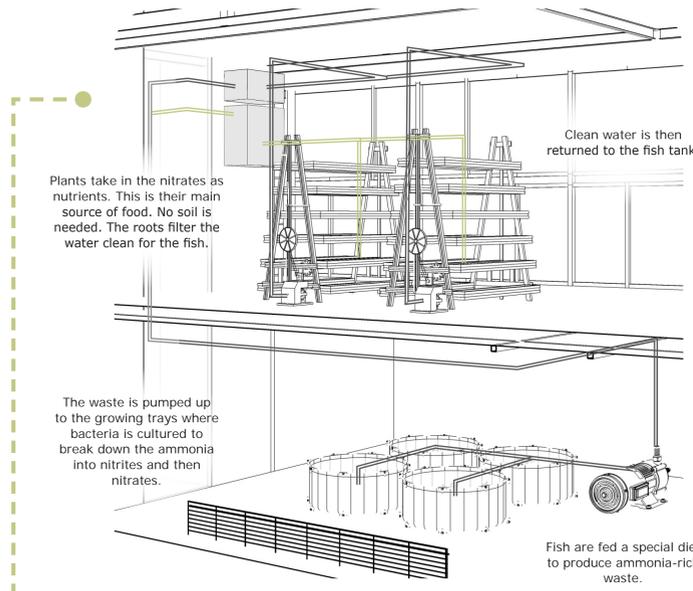
PEDESTRIAN ENTRY TO SITE



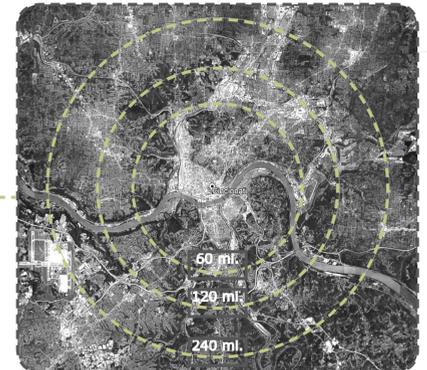
ROOFTOP ACCESS FROM GROUND LEVEL



To the north and south of Relocated Roots' site exists entrance and exit ramps for interstate access. This adjacency allows the design to function as a "gateway" into the downtown district. The cascading roofs act as an introduction into the cavernous towers of the downtown, as well as creating visibility and sunlight opportunities into the facility. The hill opposite the highway is home to many Cincinnati residents and along the highway pictured above is a pedestrian trail which connects the two zones.



Relocated Roots uses an innovative soil-less growing method called, Aquaponics. In this system, fish, bacteria, and the plants interact in a waste-free mutually beneficial relationship. Plants are able to receive all the nutrients they need to grow without soil, pesticides or additive chemicals. Because the system is closed, there is no waste. This leads to 90% less water usage than traditional outdoor agriculture.



The Relocated Roots mission is to provide fresh produce to residents amid the food desert surrounding Cincinnati. A food desert is a region where there is no access to locally grown food and challenging transportation access. To combat this, Relocated Roots follows a distribution network for deliveries to local grocery stores. Relocated Roots could reach communities within a 4 hour radius.

Light wells are used throughout the germination levels to provide sunlight to areas where it may otherwise not penetrate. Each light well has a highly reflective metal panel at the intersection of each floor to help reflect sunlight downwards. Because of its position at the top of each tiered green roof, visitors of Relocated Roots are able to interact with the light wells: exploring the void it cuts through the levels and visually connecting with the germinating plants below.

