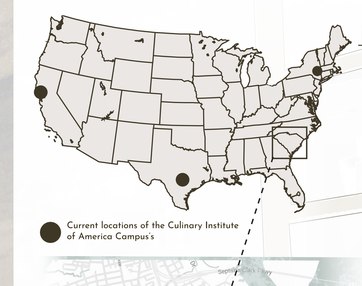
ARCHITECTURAL GASTRONOMY

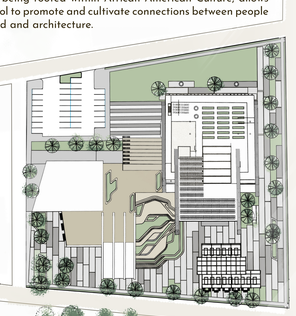
CREATING CONNECTIONS BETWEEN ARCHITECTURE AND FOOD THROUGH COMMUNITY, CULTURE, AND SUSTAINABILITY

SITE SELECTION

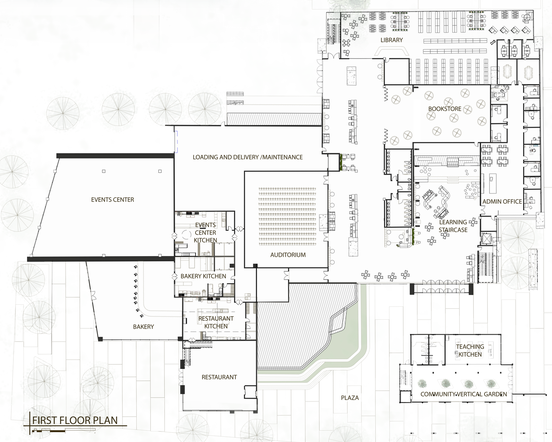
Charleston, South Carolina was chosen as the Fourth Location to the Culinary Institute of America to equally split the Hyde Park and San Antonio Campus's to expand into the Southern Region of the United States. The strong cultural and food presence of Charleston, being rooted within African American Culture, allows for this school to promote and cultivate connections between people through food and architecture.



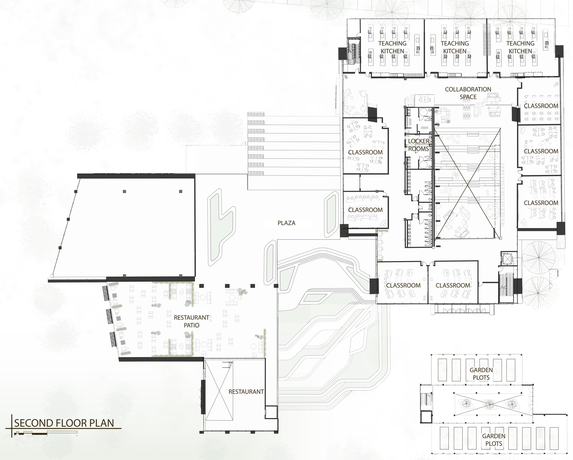
Current locations of the Culinary Institute of America Campus's



SITE PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN

SUSTAINABILITY THROUGH DESIGN

WATER COLLECTION

- IRRIGATION
- WATER COLLECTION
- WATER PUMP
- FILTRATION SYSTEM

HEAT EXCHANGE

- DIRECTION OF TRAVEL
- HEAT FROM KITCHENS
- HEAT EXCHANGE SYSTEM
- FUEL CELL STACK

SOLAR COLLECTION

- PHOTOVOLTAIC PANELS
- ENERGY STORAGE
- ENERGY INVERTER

WATCH ME!

ENERGY AND POWER

Both vertical and horizontal **SHADING DEVICES** are incorporated to control solar heat gain and maximize natural cooling.

PHOTOVOLTAIC PANELS located on the roof capture energy use within the school.

Commercial **HEAT EXCHANGE UNITS**, specifically for kitchen use, transfer heat used in kitchens to be returned throughout the building as heat.

WATER EFFICIENCY

RAINWATER COLLECTION located on the roof lowers the needs of non-potable water for site irrigation.

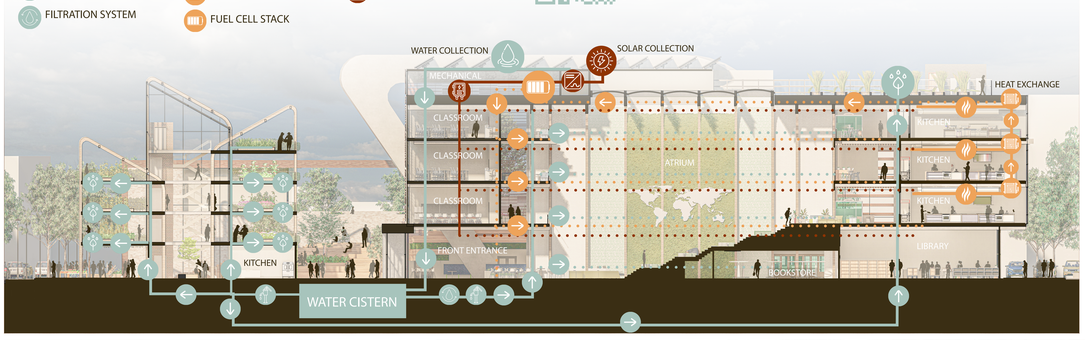
WATER EFFICIENCY through low flow plumbing fixtures lowers need of non-potable water.

LOCATION AND TRANSPORTATION

PARKING FOOTPRINT is lowered to maximize green space across the site. To obtain maximized parking needs, the parking garage nearby can be utilized.

Site is located within walking distance of **DIVERSE USE** area, King Street. As well as located on a major **PUBLIC TRANSIT** stop.

PROGRAMMED COMMUNITY SPACE to promote interaction with the building and students through an outdoor environment to promote human connections through nature.



Food and shelter are two constants that have been vital to survival throughout human history. How design and planning communities address these two facets of life must evolve to enhance the world for future prosperity of resources and human connections. This design thesis focuses on correlations between food, culture, human relationships and place making to prove that how we feed and house ourselves matters. Using sustainable practices and rooting design in opportunity for interaction; climate change, wasting of resources, food over-production and the importance of cultural community expression are addressed to exemplify how this can be achieved

As the fourth Campus of the Culinary Institute of America, the Charleston Campus provides a place for engagement and discussion about how food, architecture, and culture can come together to enhance human relationships and the environment. The location has been selected specifically for proximity to an area rich in the history of African American Cuisine which would be showcased through both educational and gastronomic offerings in the classroom and the Institute's restaurants. Additional programming and space is provided for community gardens and education, lectures, and gathering to grow, prepare, enjoy and learn about food at a holistic level with each other.

DESIGN THROUGH PROJECT GOALS

COMMUNITY CONNECTIONS

Creating Connections between the community and the Culinary School has been at the forefront of design. Food and Architecture naturally bring people together and have been since the beginning of time. So being able to cultivate this connection more with spaces designed for the community was a must. The Vertical Garden, Plaza, Restaurant, Bakery, and Events Center are placed specifically for these reasons. Within the Vertical Garden the Community can have their own plots of garden, interact with farmers markets, or take a cooking class. Restaurant, Bakery, and Events Center are placed to create direct connections to the Charleston School of Law, located across the street, through an existing walking path over old train rails. It opens up to the nearest connecting point with King Street. With open Plaza space that connects across the site and allows for further interaction of people and this thesis project.

CULTURAL INTEGRATION

Food and Architecture are brought together and expressed through cultural aspects found between the two. Every culture around the world has their own cultures and food practice that can be expressed and shared with others through the built environment and human exchanges. Incorporating these connections into the school will increase human connections through the understanding of other cultures. Charleston's deep Cultural ties to African American Heritage and history allows for the school to act as the catalyst to teach and learn about African American Culture through the teaching of food and emphasis of African Cuisine within the Restaurant on Campus.

SUSTAINABILITY

The correlations between Food and Architecture needs to demonstrate the collaboration necessary to facilitate change to help counter-act climate change, food waste, and over-production of resources around the world. These issues between the two fields are currently addressing sustainability as separate entities, but these very connected fields need to work together to address them. By incorporating Sustainable Building practices through LEED Design Criteria, Water Collection, and Kitchen Heat Exchange allows for the building to be the basis of a more sustainable education through rooftop gardens, apiary, and small bird care. This allows for the education taught within the school to be well-rounded and incorporate food production at a holistic level.

PERSONAL GROWTH

The Culinary Schools Building Program allows for a more holistic approach to learning Culinary Arts and related fields. Transparency between the interior atrium, classrooms, and exterior allows for information to be absorbed at all areas within the school, including collaboration stations located around the building in varying forms to prosper individual educational learning. The design of interior classrooms and peer interactions all promote an environment where students current knowledge is stretched and expanded upon to help not only their future but the people they interact with as well.

ENLARGED KITCHEN FLOOR PLANS

BAKERY KITCHEN

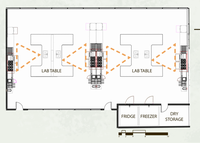
The Bakery Kitchen is designed in a Zoned Layout with Food Preparation and Service Area located near the front of house to allow ease of access to wait staff. While storage and washing are located in back of house. This layout was chosen to allow for patrons to see through and experience the baking process.

TEACHING KITCHEN

These Teaching Kitchens are focused on small class size interactions between Students and Chefs. These kitchens are specifically layed out for the students to cook with the Chefs through direct sight and reflective mirrors on the ceiling for closer demonstration of the food.

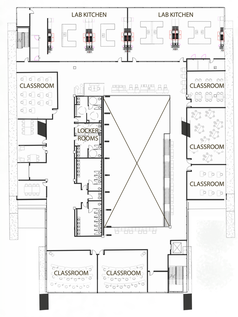
RESTAURANT KITCHEN

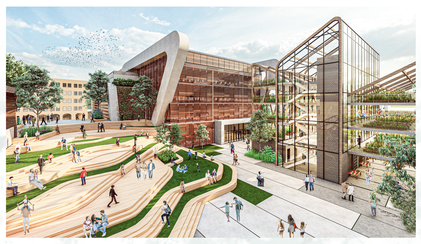
The Restaurant Kitchen is layed out through Island zoning. This layout allows for more flow from front of house to back of house while allowing staff to have room to cook.



STUDENT LAB KITCHEN

The Student Lab Kitchens uses a zoned kitchen layout. This provides students with individual kitchen space to take what they learned during lecture into a higher production level than the classic Teaching Kitchen.

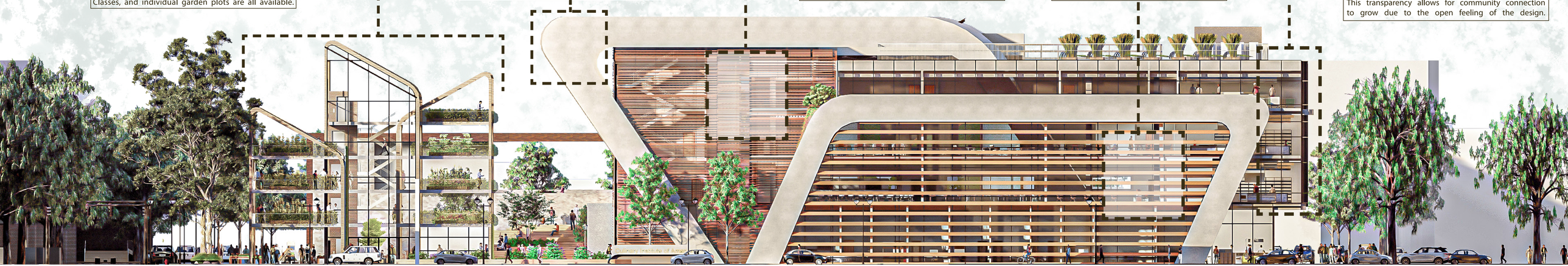




The **COMMUNITY VERTICAL GARDEN** located on the corner of Meeting St. and Mary St. sits to draw the community into the site. This interactive garden acts as a catalyst in creating connections between the school and the community of Charleston. Within the Vertical Garden; Farmers Markets, Cooking Classes, and individual garden plots are all available.

The Building's **SUPER STRUCTURE** not only acts as the primary structure for the School, but also expresses the progression of movement throughout time. Movement within the architecture and the process of time that students and the community experience cultivate growth through learning and sustainability.

Capping the Southern Facade of the School, Perforated Metal Panel **SHADING DEVICE** allows for Passive Cooling from the sun while still allowing views out from the interior. The design of the panels is specifically placed to allow for these site lines to be maintained in the different spaces located adjacent to them.

Located within the secondary Super Structure Frame, the horizontal **SHADING DEVICE** allows for protection from the Southern Sun but with more flexibility and views to the exterior. These panels move four times a year to maximize the amount of sunlight let in for the different seasons.

Connections to the community through the design of the building is shown through the **TRANSPARENCY** between the interior and exterior on the North Elevation. This side houses all the kitchens stacked on the interior with glazing around the entirety blurring the lines between nature and the built environment. This transparency allows for community connection to grow due to the open feeling of the design.