

SUPPORTIVE COLLAGE INFRASTRUCTURE

manuel de jesus alvarado cueto

DEDICATION

mami y papi

este proyecto es el fruto de 21 años de esfuerzos y sacrificios. gracias por siempre creer en mi, especialmente en los momentos en los que yo le deje de hacer. Y por nunca dejar de luchar por mi futuro. los amo, y nada de esto seria posible sin ustedes.

besties

thank you for your constant support and belief in me and my talent as a designer. you have no idea how much i will forever cherish the memories we've made together. thank you for the long nights, the laughs, and the many shoulders to cry on. I wish this chapter didn't have to come to an end, but I turn the page knowing it was a well written one.

my committee & studio professor

thank you for your support and encouragement throughout this entire process. thank you for believing in my ideas and pushing me to flourish as a young architect. I will forever be grateful to you for advice, ideas, and constructive criticism.

COMMITTEE

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MARCELO LÓPEZ-DINARDI

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JAMES MICHAEL TATE
NANCY PLANKEY-VIDELA

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JAMES HALIBURTON

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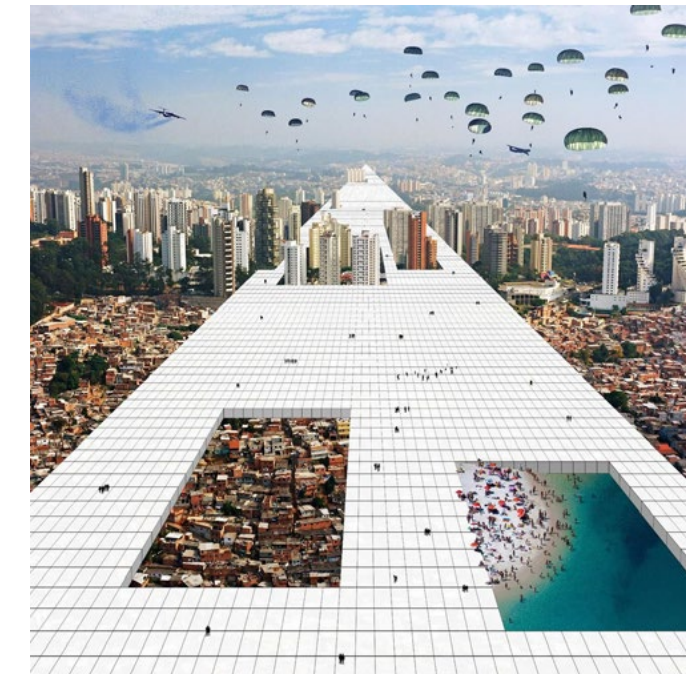
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COLLAGE

a: an artistic composition made of various materials (such as paper, cloth, or wood) glued on a surface.

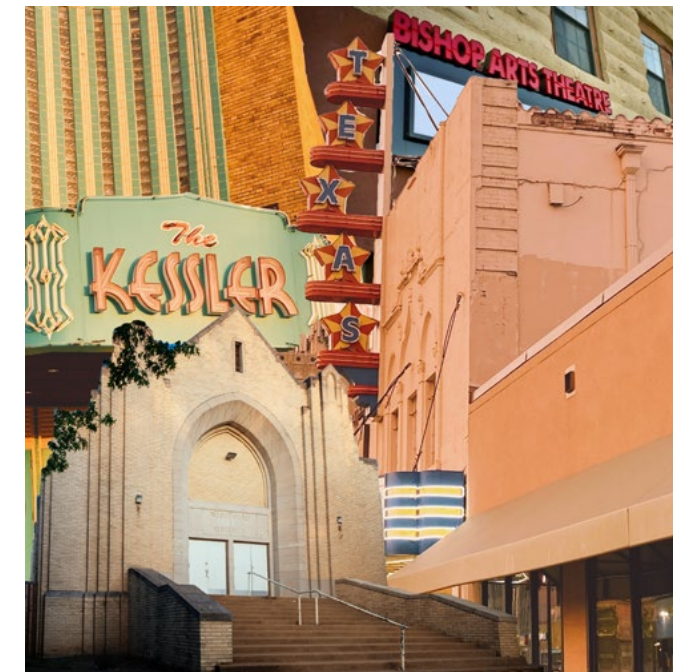
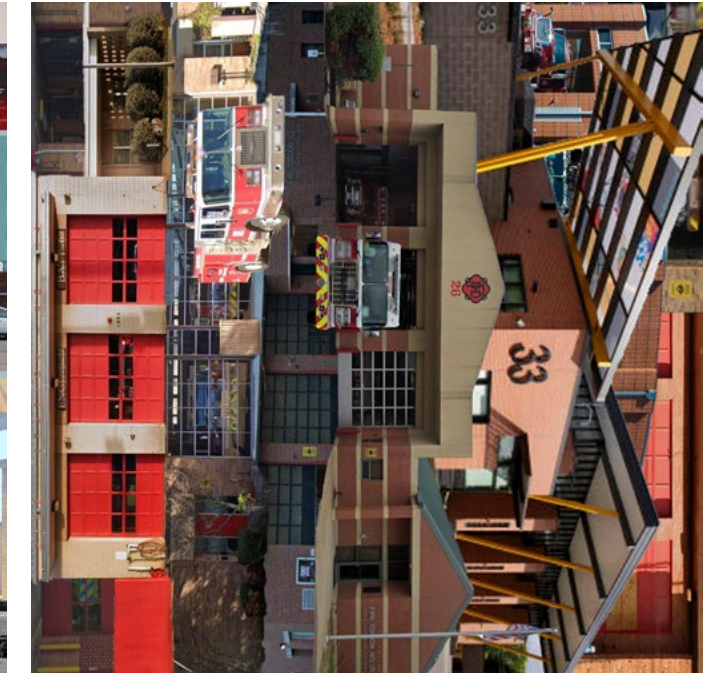
b: a creative work that resembles such a composition in incorporating various materials or elements.

as a designer I believe the world is colorful, and composed of images which we use in order to compose the collages of our lives. I am interested in the way architecture acts as a catalyst for vulnerable communities and how design can be used to better the lives of those who experience it. Ideally identifying the role architecture plays in the collages of our lives.



SOCIAL INFRASTRUCTURE

social infrastructures are the facilities that support essential social services. such as, hospitals, schools, parks, public transportation, and libraries. these are all physical locations in which people can create bonds, meet their neighbors, and harbor themselves in times of need. Eric Klinenberg describes these places as palaces for the people, applying the term that Andrew Carnegie once used for libraries to all places which serve the people, and create supportive spaces for them to thrive.



RESEARCH QUESTION

What roles do architecture, governmental policies, race and cultural background play in the catalyzation and revitalization of social infrastructure within under-served/vulnerable neighborhoods in large American cities. Particularly Oak Cliff, a mostly under-served or vulnerable are in the city of Dallas. And how do we re-imagine the American neighborhood in order to cultivate strong social infrastructure? How does the use or misuse of public land affect the way we use and create spaces in our neighborhoods? How do we negate the doctrine that prosperity is profit centered? What is considered essential for a community to thrive?

DESIGN HYPOTHESIS

This project could be a multiplicity of spaces, but at its core the strengthening of social infrastructure in vulnerable communities through physical manifestations of support, and the re-imagining of the American neighborhood are what motivated the begging intentions of what could be. The project focuses on developing intentions that brings access to knowledge, engagement, healing, understanding, education, health, culture, shelter, democracy, and protection to a community that has been deprived of these.

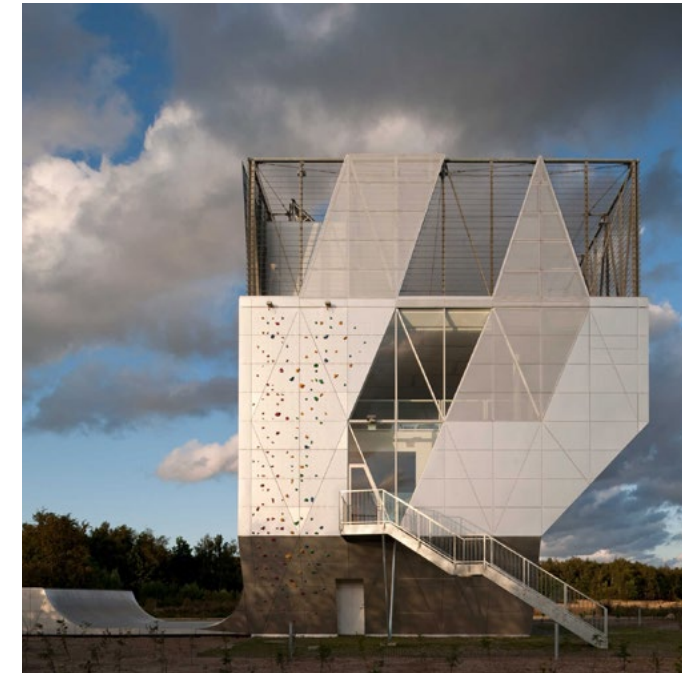
PRECEDENTS

architecturally small scale projects with magnified community impacts served as influence for both the programmatic and architectural manifestations of the project. projects such as Project Rowe Houses, The Rebuild Foundation , and Akoaki's Detroit Cultivator; while architecturally different all speak to the re-purposing of existing conditions in underdeveloped communities. primarily focusing on using the existing spaces, re-imagining the way the neighborhood operates, and the scale of intervention. grace farms, jemtelandsgade neighborhood center, and herstedlund community center all served as programmatic references for small scaled communal interventions. projects like so-il's manetti shrem museum of art served as reference for architectural elements such as canopies used in this project.

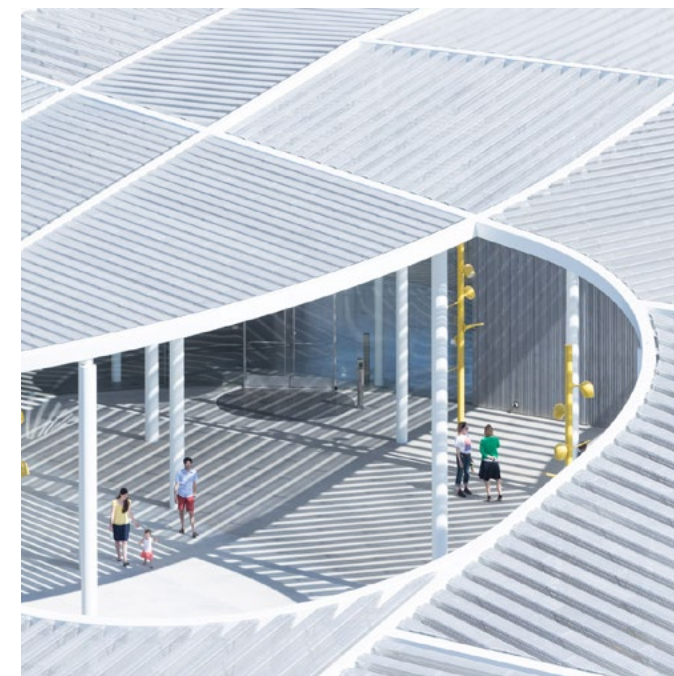
SCALE



PROGRAM

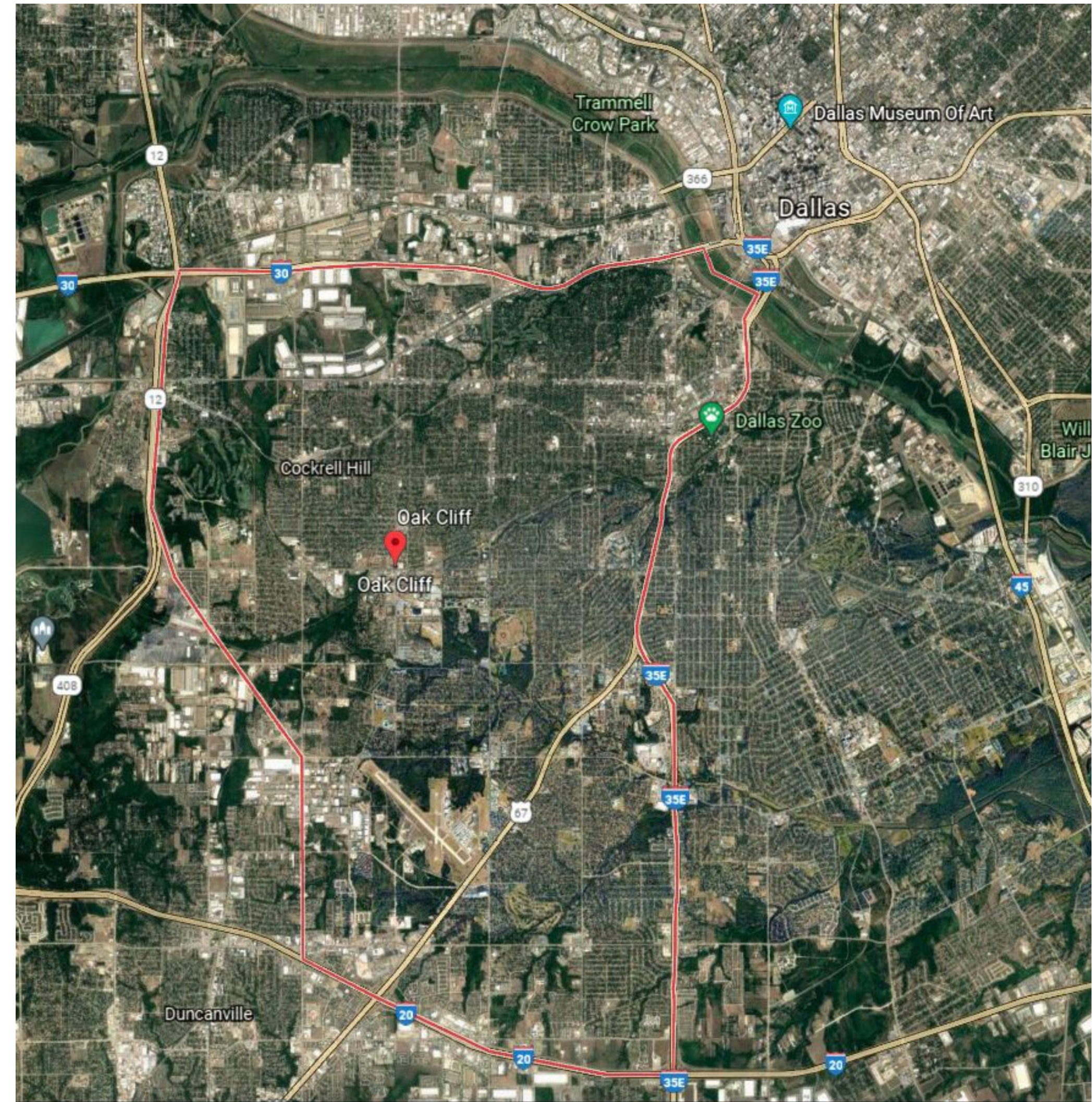


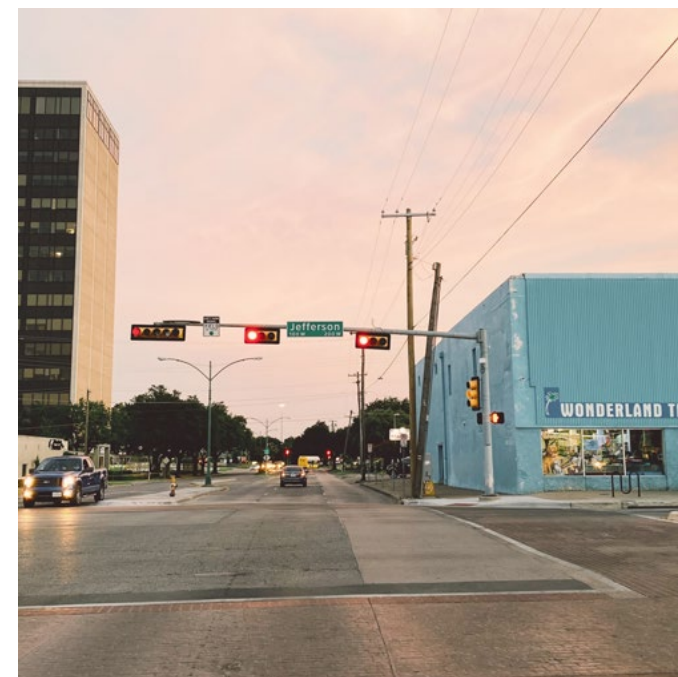
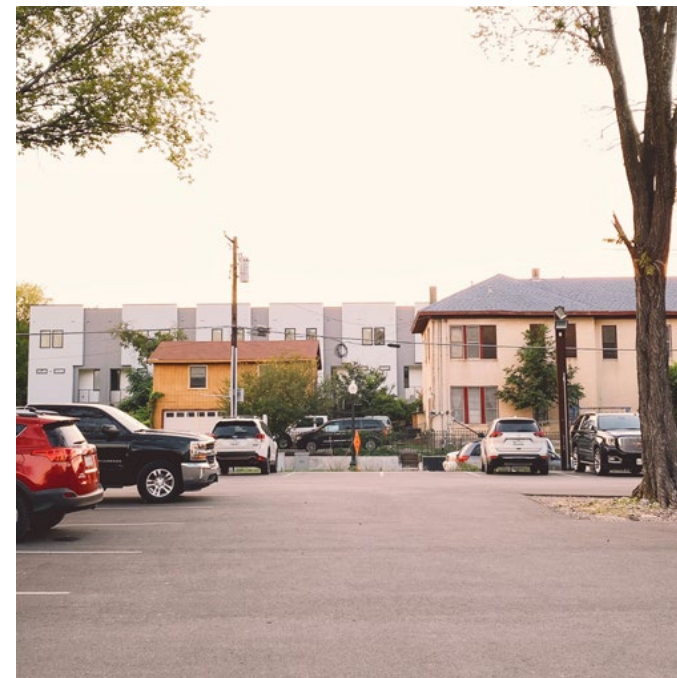
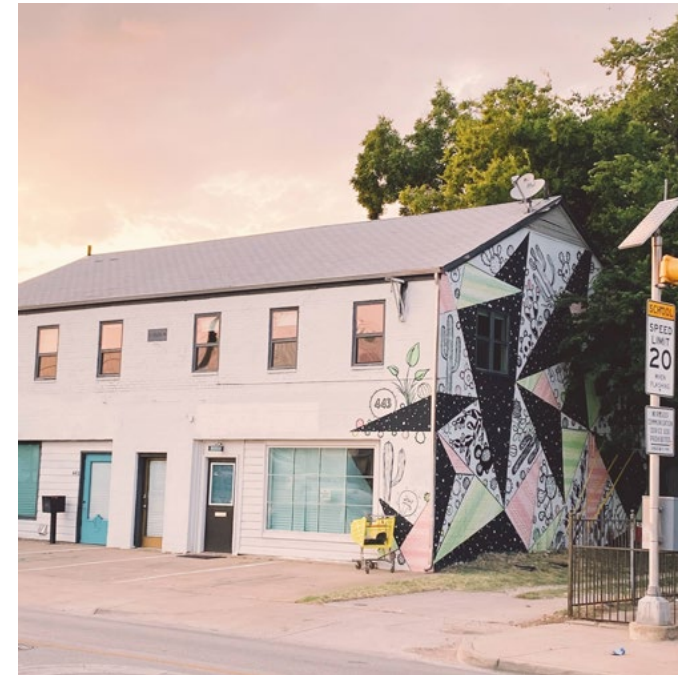
ARCHITECTURE



OAK CLIFF

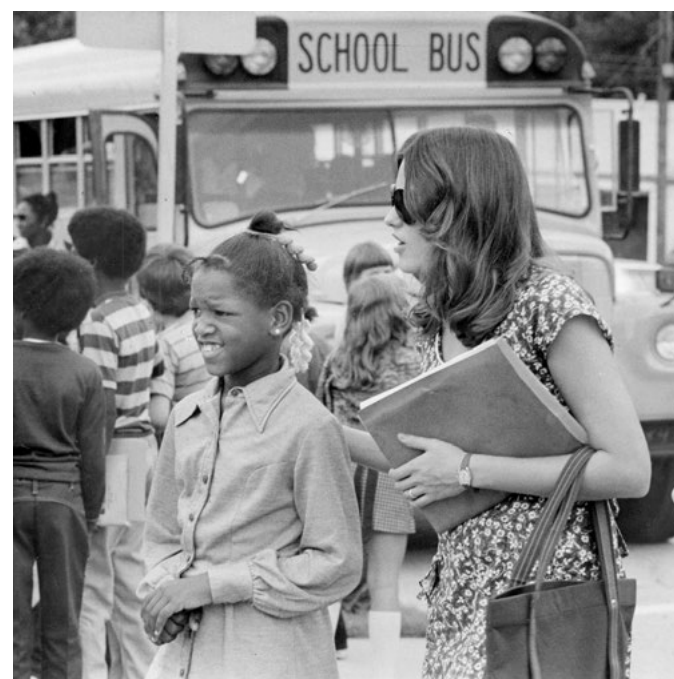
founded in 1887 Oak Cliff is one of the oldest neighborhoods in the city of Dallas. originally founded as a real estate development and resort area for the wealthy white residents of Dallas, the area has seen many changes throughout time. like many neighborhoods throughout the country it has particularly fallen victim to the damaging effects of redlining, desegregation and the white flight. leaving oak cliff to be one of the most vulnerable and underdeveloped areas in the city. today it is a predominantly black and latino community. and although it continuously faces the lasting effects of inequity; it is one of the most beautifully layered collages of urban life.





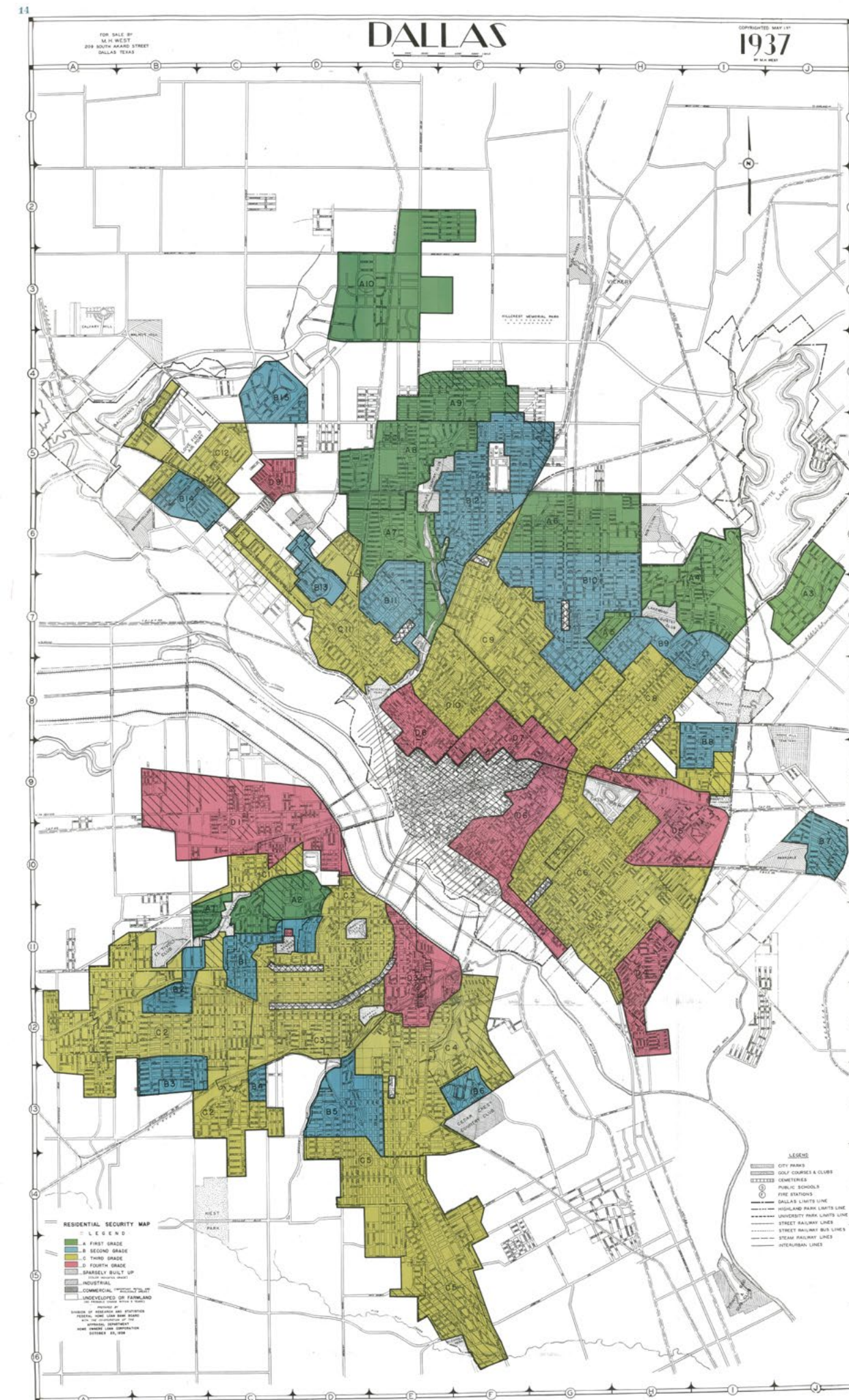
HISTORY

Oak Cliff is one of the oldest established areas in the city of Dallas. Located two miles south of downtown Dallas, on the south bank of the Trinity river. Originally a small community named Hord's Ridge, the community grew slowly until 1887 when Thomas L. Marsalis and John S. Armstrong bought hundreds of acres of land and began to develop it. Hord's Ridge was renamed Oak Cliff, and advertised as an elite residential neighborhood, and eventually an escapist vacation resort for the wealthy. Oak Cliff became incorporated as a city separate from Dallas in 1890, and continued to grow until the economic depression of 1893. The lack of need for elitist vacation resorts, and property outside of the city along with the weakened economy caused Oak Cliff's growth to become stagnant and eventually became annexed to the city of Dallas in 1903 after years of economic strife. now a part of the city of dallas the neighborhood continued to expand a as majority working class community. in the 1930s the area became a victim of redlining, causing a lack of investment in subsequent years. in the 1950s the dallas independent school district began the desegregation of its schools. in an attempt to keep schools segregated the district implemented a stair-step plan which desegregate the schools one year at a time. as a result of this and the suburban expansion many white families fled Oak Cliff, changing the community's demographic make up.



REDLINING

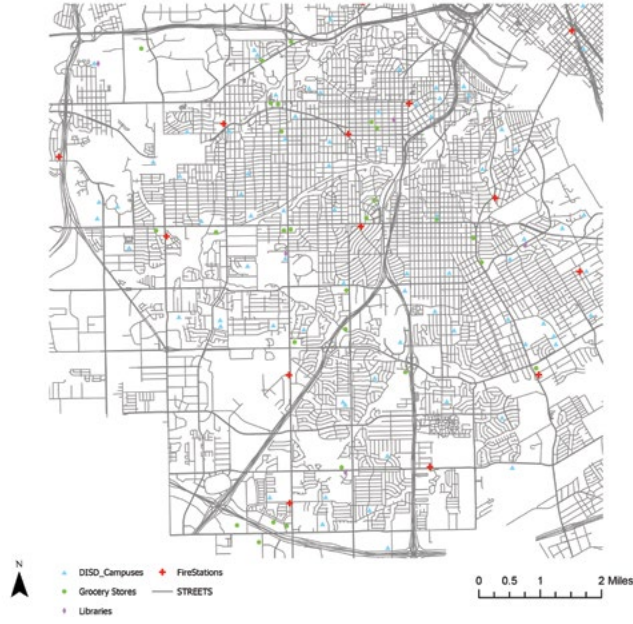
in the 1930s the Home Owners' Loan Corporation, a New Deal agency was formed to refinance mortgages during the Great Depression. and parallel began one of the most discriminatory and legal practices in the history of our nation, one whose impact is still seen and felt today by so many inner city communities. Redlining. Redlining was the process of labeling certain communities as undesirable or in decline. This was done in order for the Federal Housing Agency to refuse mortgages, loans, and other essential services to primarily black and minority communities. in 1937 the Federal Home Loan Bank Board prepared this map of the city of Dallas listing a majority of the neighborhoods in Oak Cliff as either in definitely declining or hazardous. this in-turn has caused for little to no investment in this area of the city or private investors. today we can see the effects of these actions reflected in the lack of maintenance to existing infrastructure and the misuses of public land.



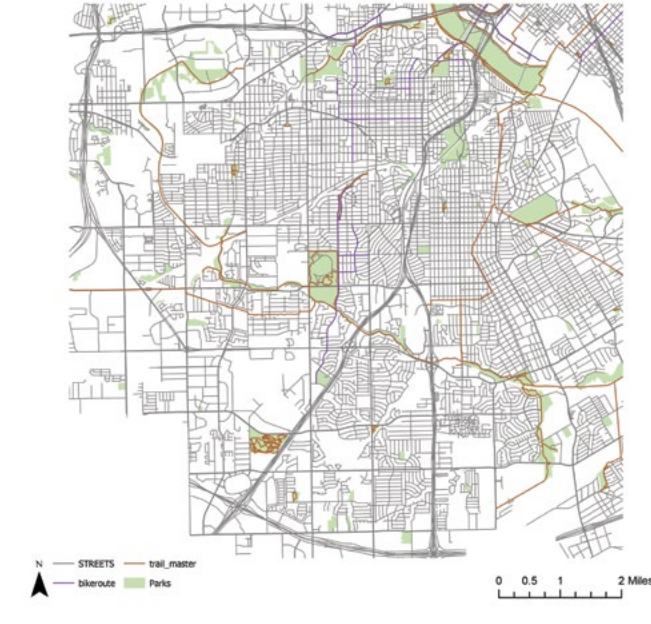
MAPPINGS

the act of mapping helps better understand the urban composition. through mapping existing resources and forms of both physical and social infrastructure are able to be identified and used as a tool when selecting a site. issues such as the disproportionate distribution of food resources and access to community resources become visible, real and tangible. this series not only illustrates the infrastructural makeup of Oak Cliff, but also the demographic layers of the area.

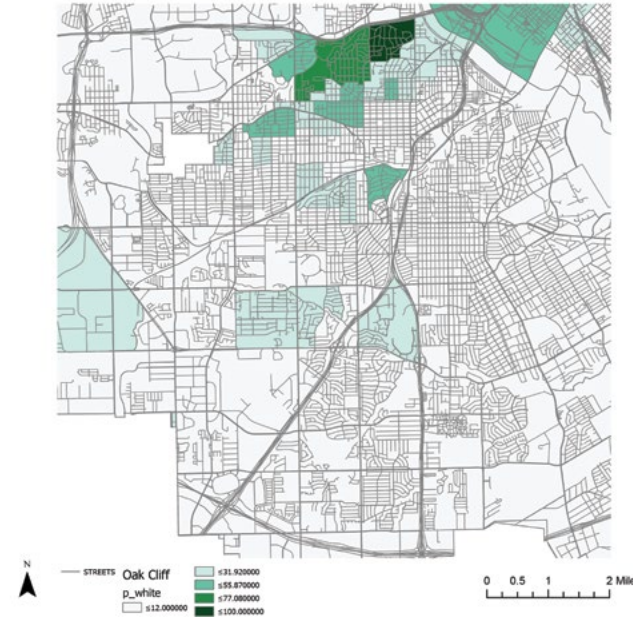
Oak Cliff Resources



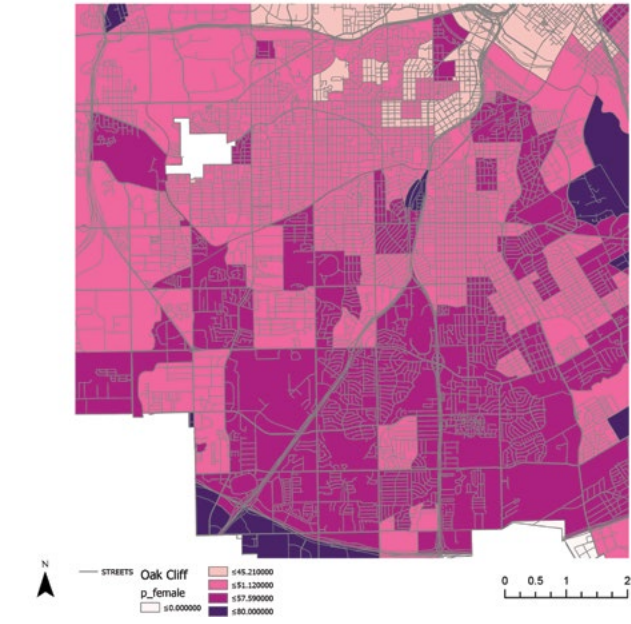
Oak Cliff Parks, Trails, and Bike Routes



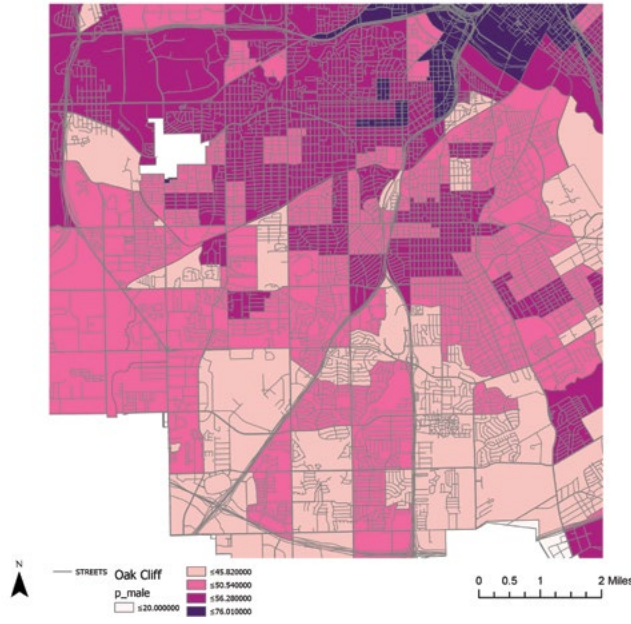
Percentage of White Population



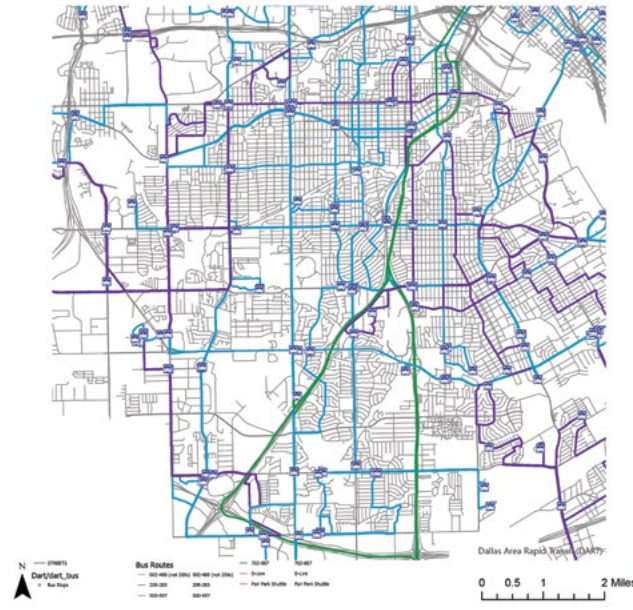
Percentage of Female Population



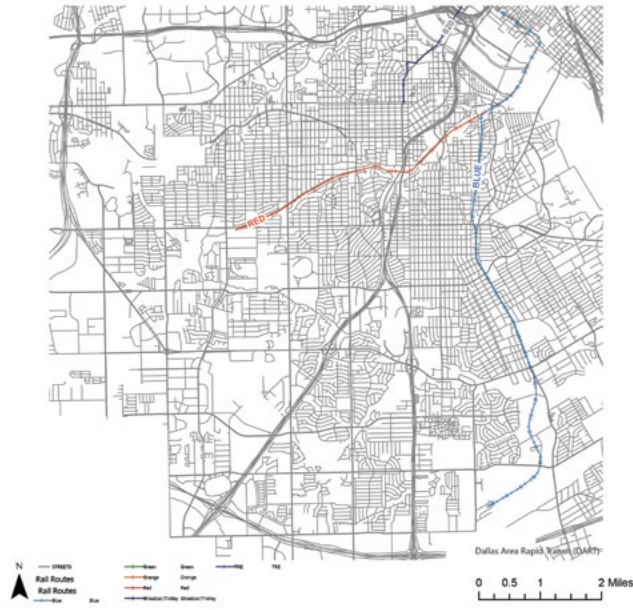
Percentage of Male Population



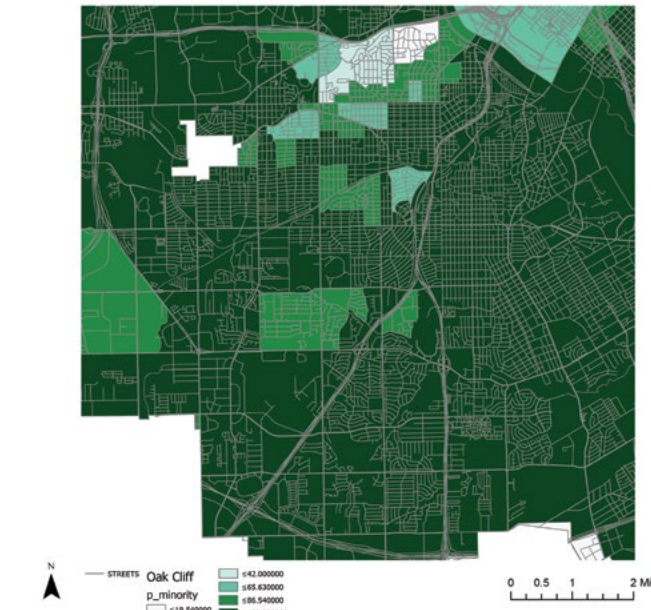
Oak Cliff DART Routes



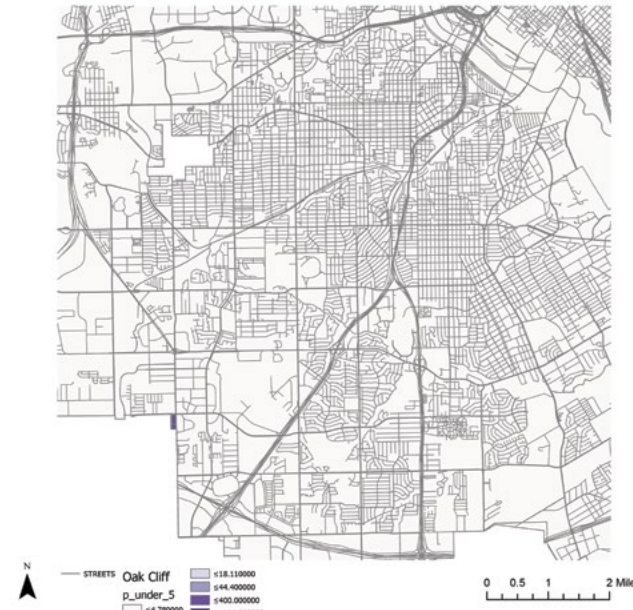
Oak Cliff DART Rail Routes



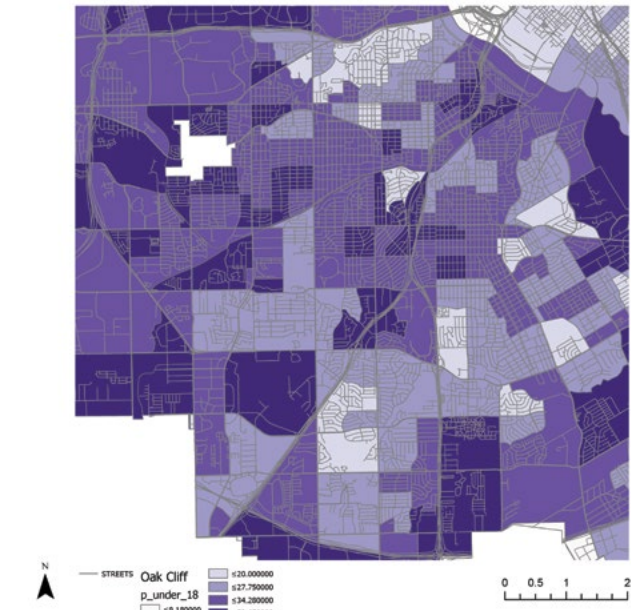
Percentage of Minority Population



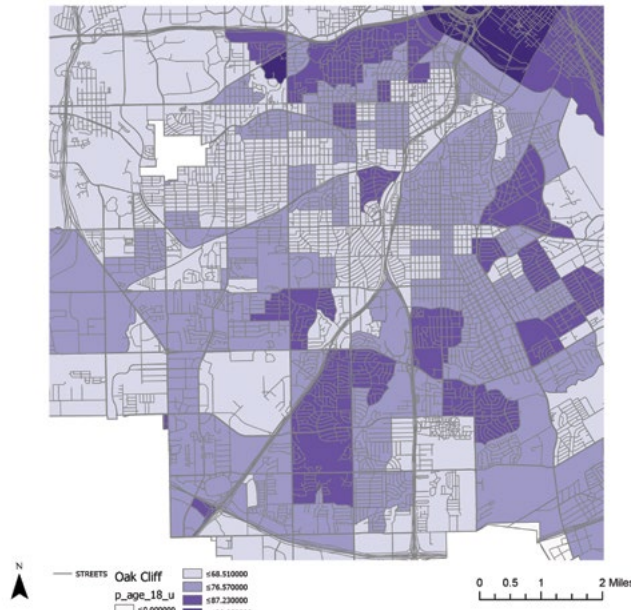
Percentage of Population Age 0-4



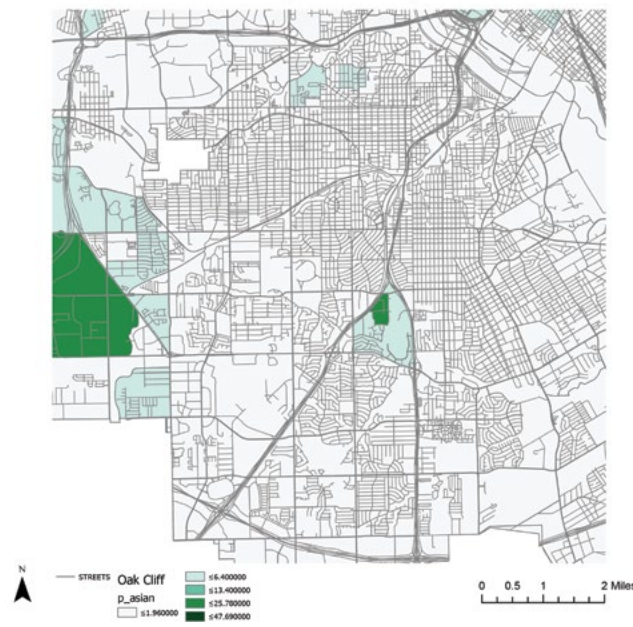
Percentage of Population Age 5-17



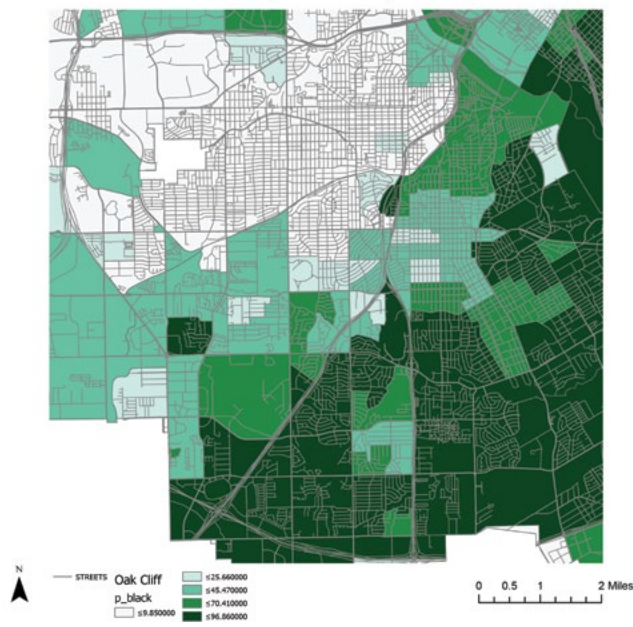
Percentage of Population Age 18-64



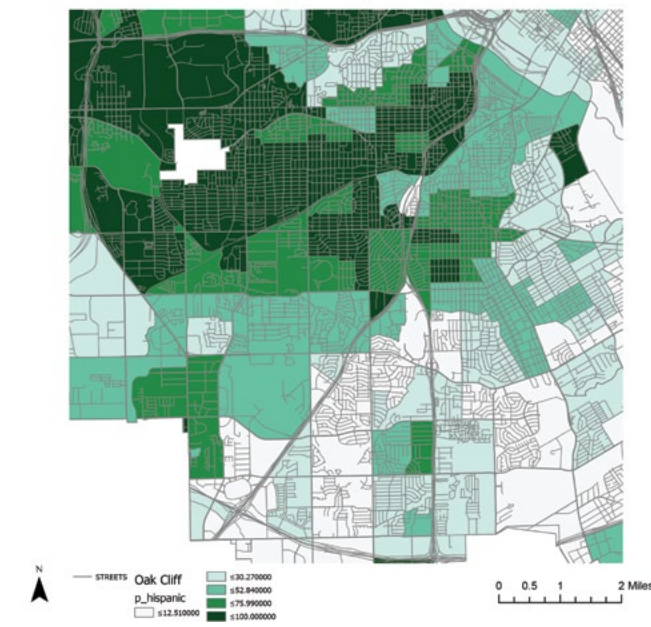
Percentage of Asian Population



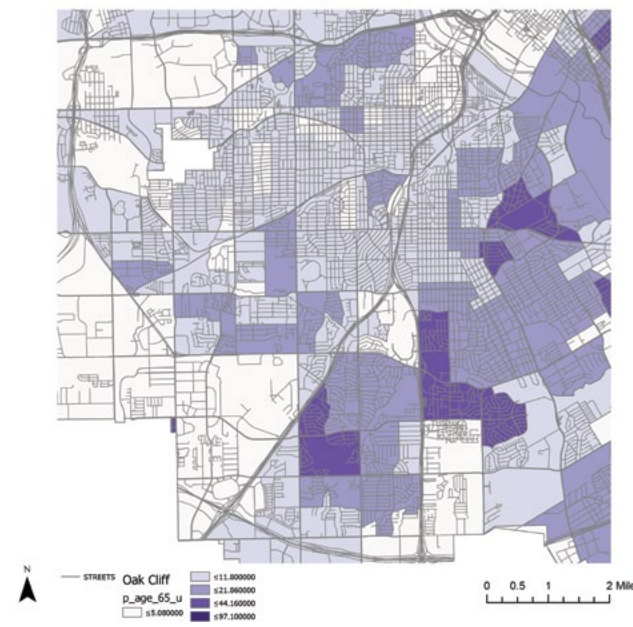
Percentage of Black Population



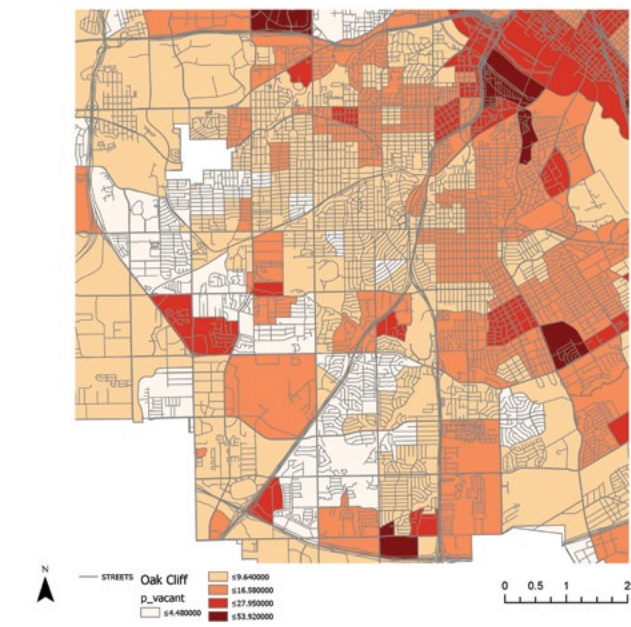
Percentage of Hispanic Population



Percentage of Population Age 65 & Up



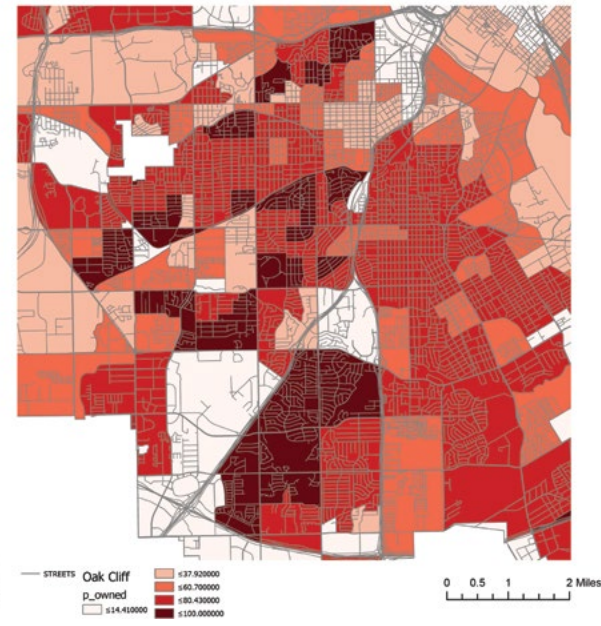
Percentage of Vacant Lots



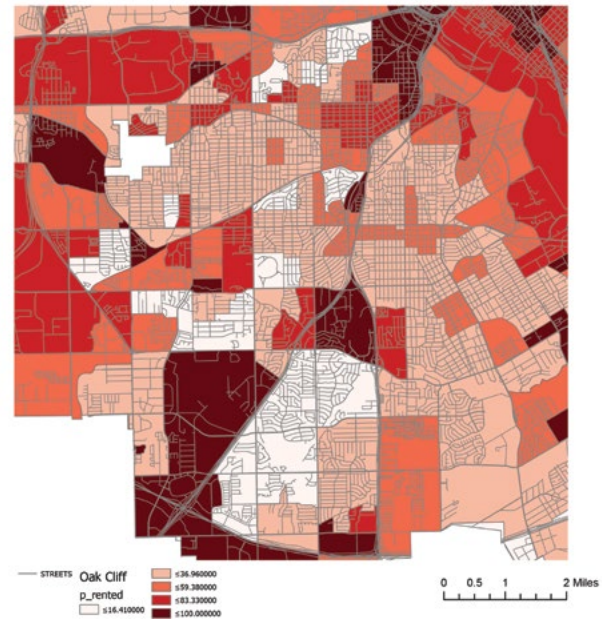
Percentage of Occupied Lots



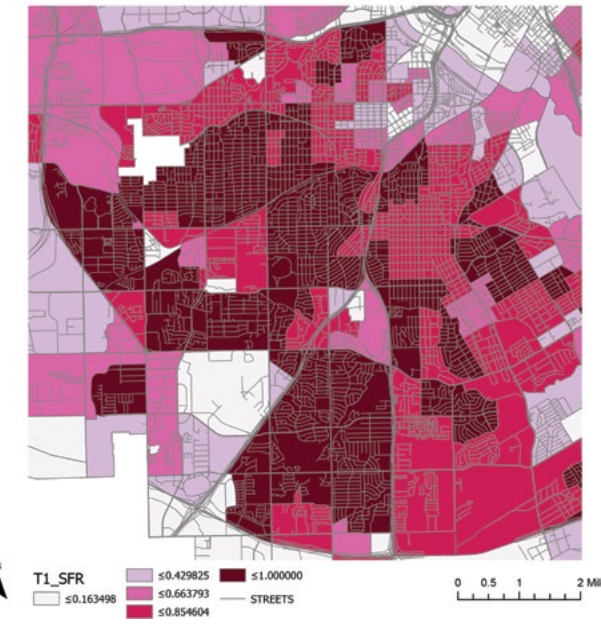
Percentage of Owned Homes



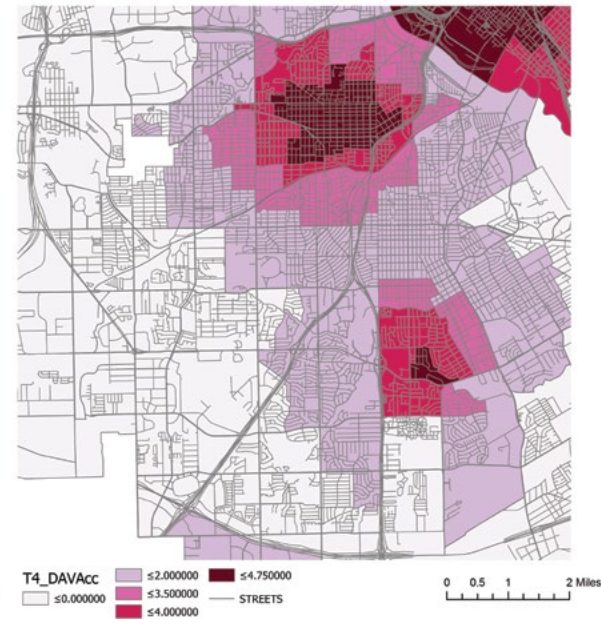
Percentage of Rented Homes



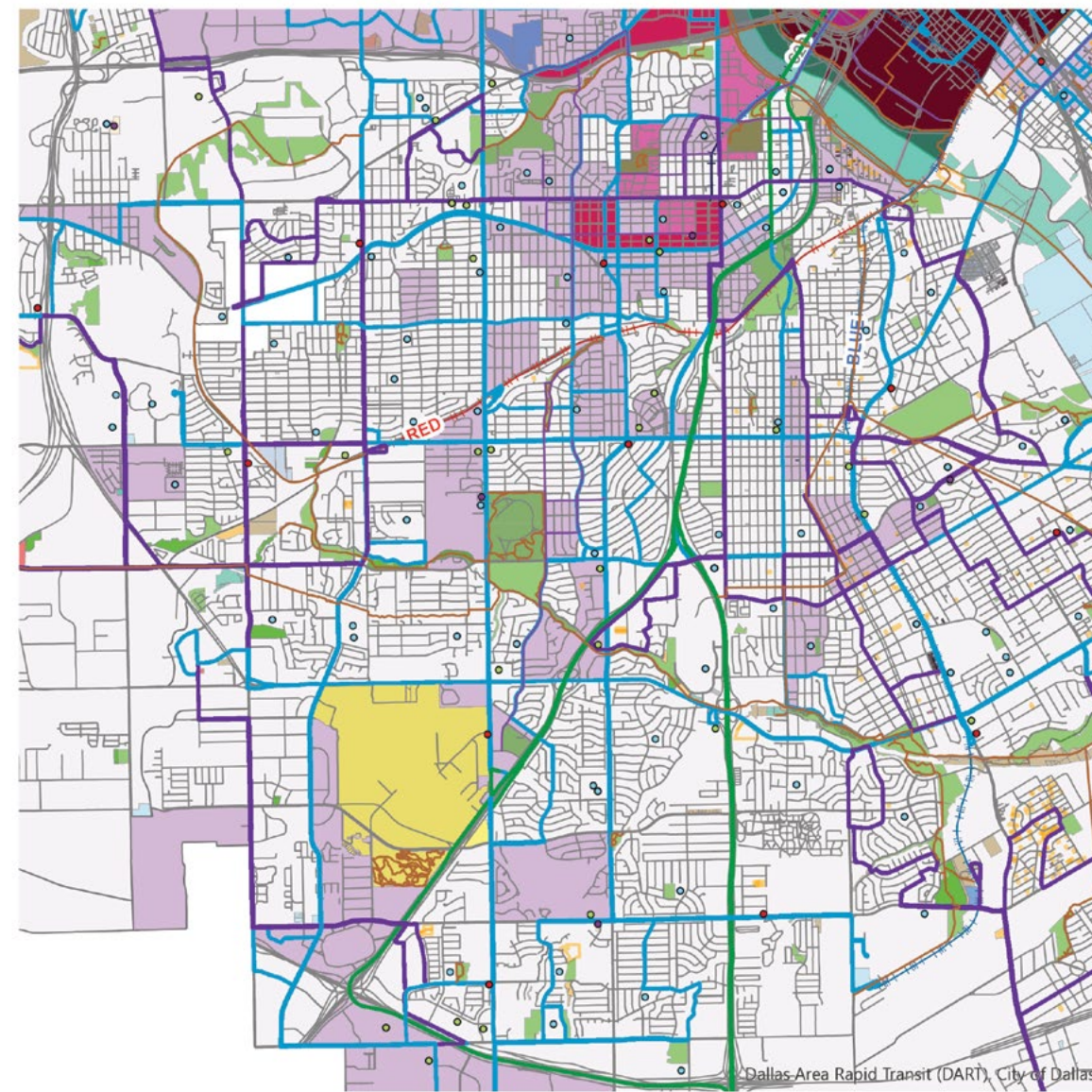
Percentage of Single Family Residential Properties



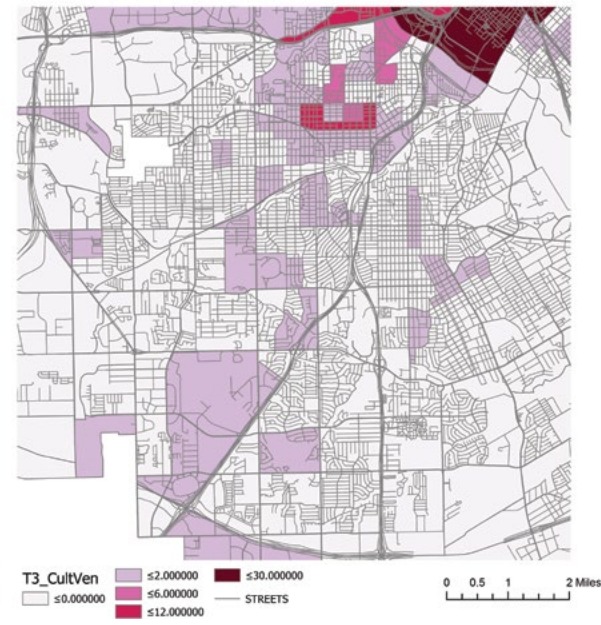
Access to Dedicated Art Venues



Conc of Cultural Venues, Services, Transportation, City Property



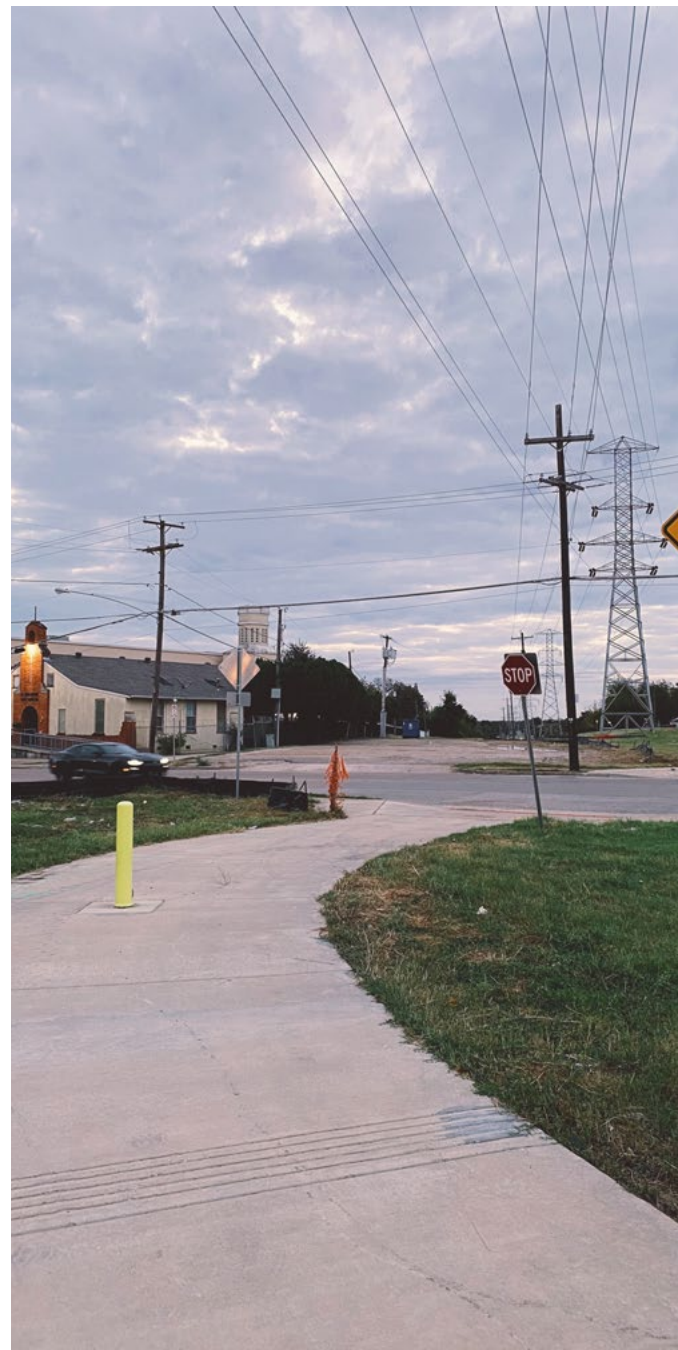
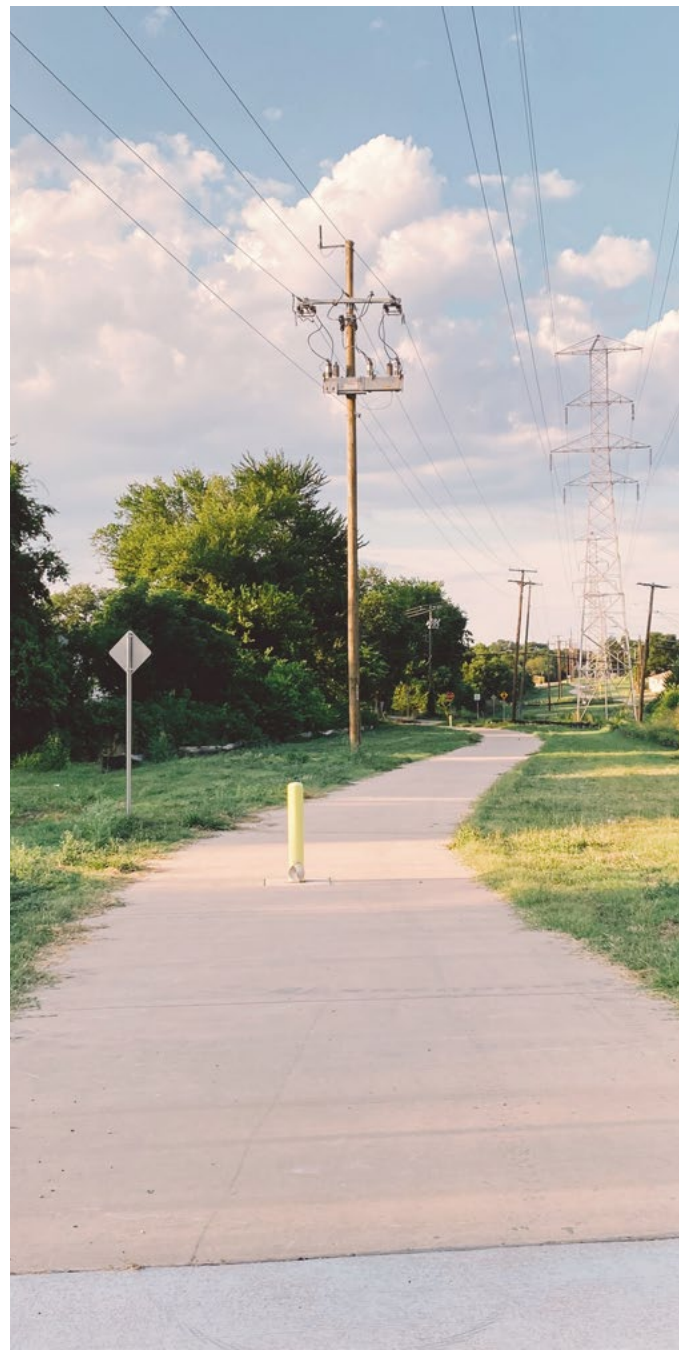
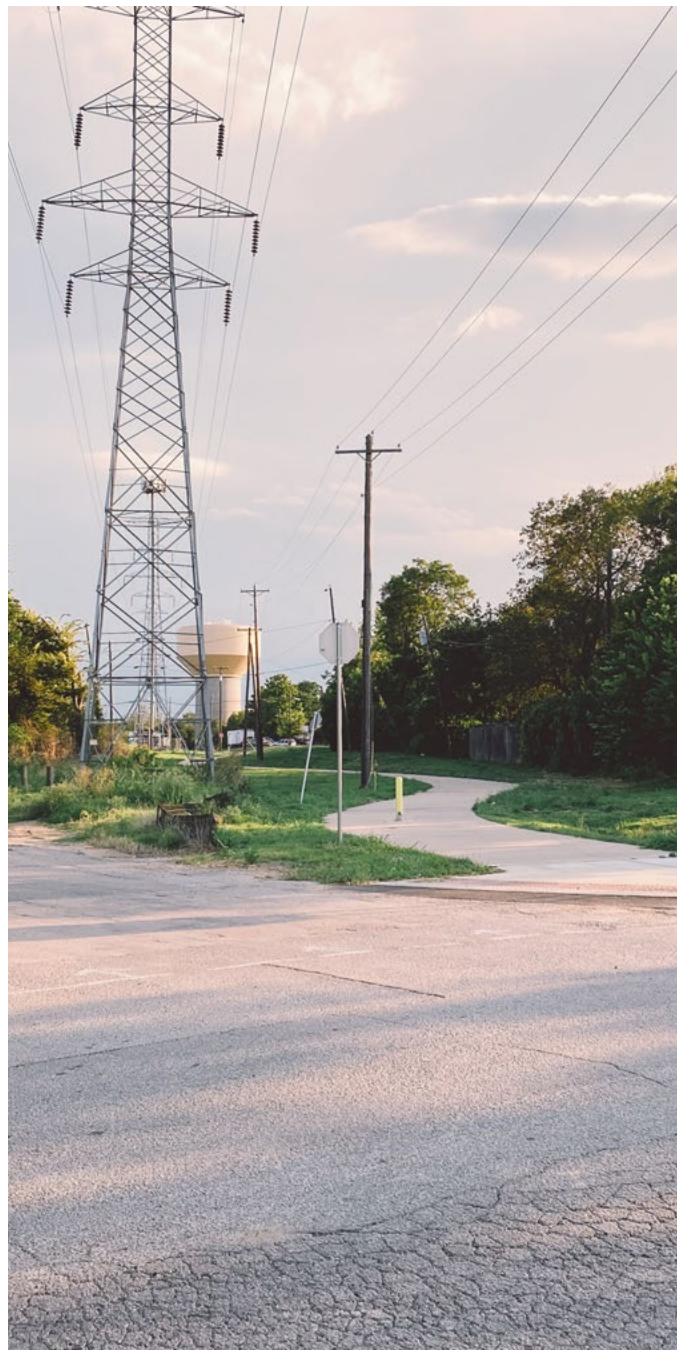
Concentration of Cultural Venues



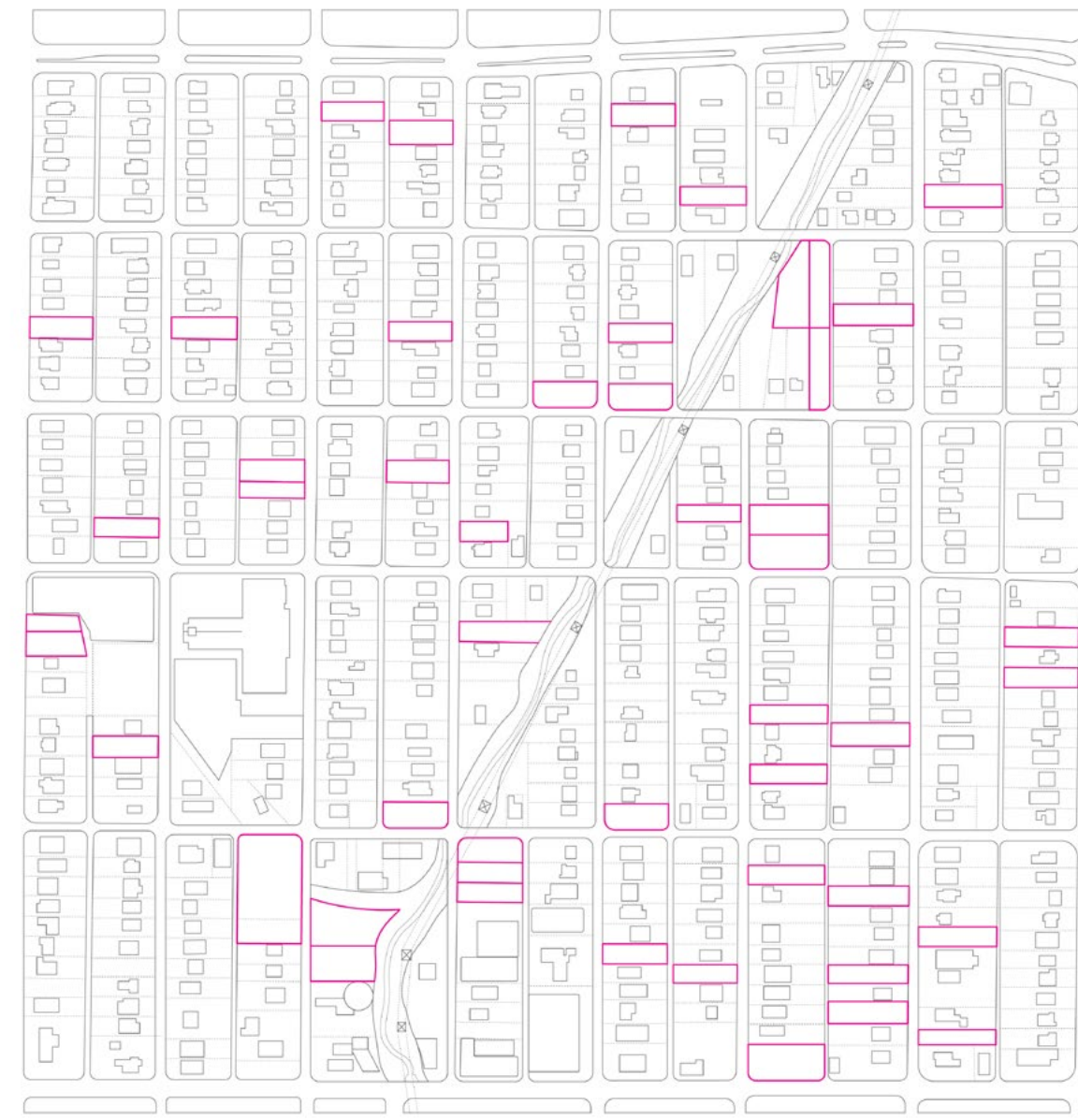
SITE

located in south oak cliff the Honey Springs – Cedar Crest Trail and surrounding empty lots serve as the base of the collage being constructed. here we find an existing overlapping of materials and compositions, the layering that makes up the neighborhood. streets and allies move horizontally and vertically along the composition while creating a means of mobility. existing forms of infrastructure such as the walking trail and transmission towers are central to the composition. creating a very evident contrast with the grid of mobility the streets and allies provide. and a spine for the neighborhood. the empty lots serve as opportunities of intervention, the pieces of the collage waiting to be filled in.

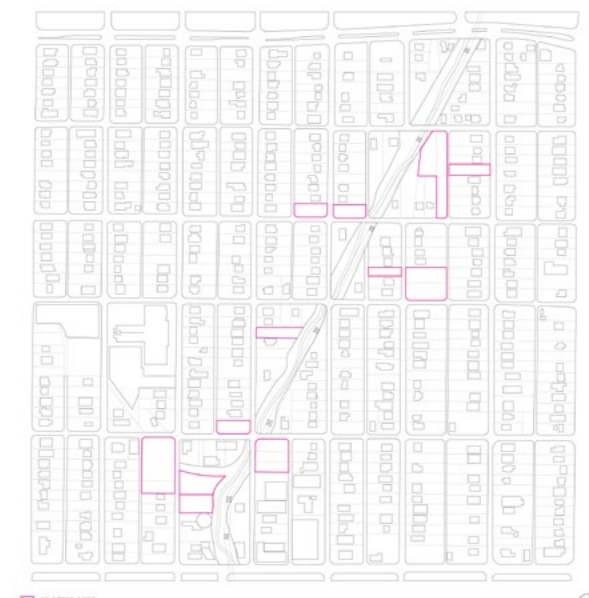




DISTRIBUTION OF EMPTY LOTS



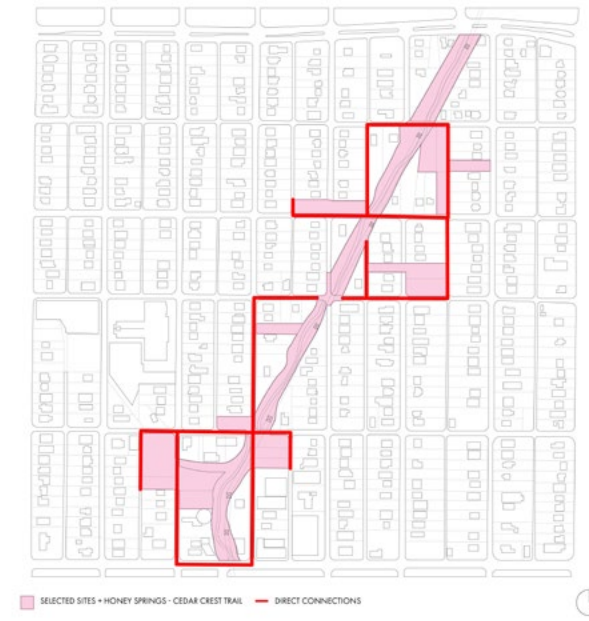
SELECTED SITES



SELECTED SITES & HONEY SPRINGS - CEDAR CREST TRAIL



DIRECT SITE TO SITE CONNECTIONS

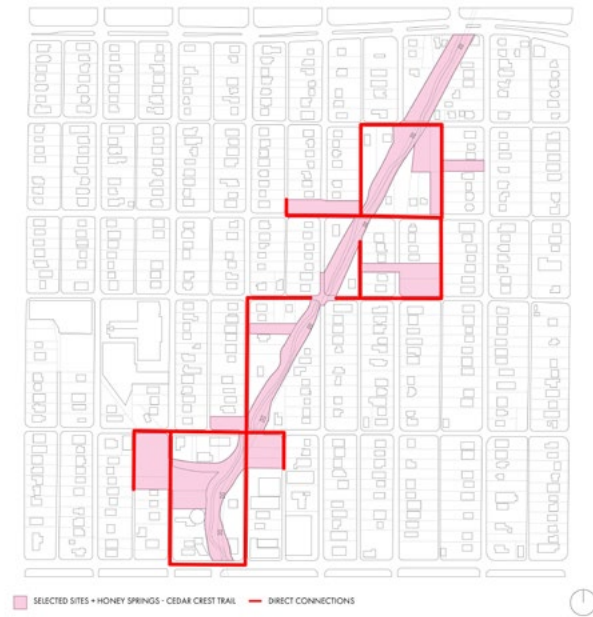


analyzing the existing conditions of the site was more than imperative for this project. in order for the project to be successful the site called to be understood at the urban, intermediate, and individual site scales. understanding how the site worked at different scales allowed for various explorations of the existing composition to occur.

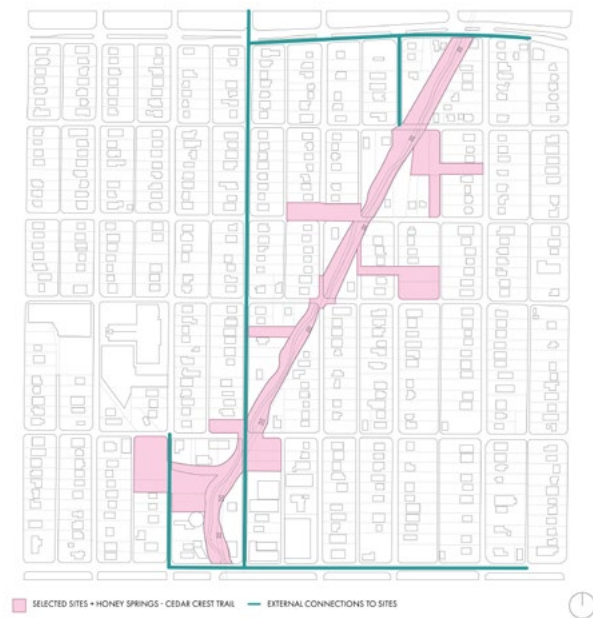
at the urban scale we begin to understand the layering of elements that create the collaged composition of the neighborhood. primarily how existing infrastructure exists and its relationship to the residences and people who live in the neighborhood.

as a form of analysis a series of maps was created in order to identify and catalog the layering of the neighborhood. the series begins by identifying empty lots distributed through out the neighborhood, some privately owned, others owned or chartered by the city of Dallas. sites that seemed to be nodes that were near or fed directly into the existing walking trail were then highlighted as possible sites of intervention . the series continues to identify existing forms of mobility throughout the neighborhood and their relationship to the datum created by trail and selected sites of intervention, as well as the direct connections amongst the selected sites.

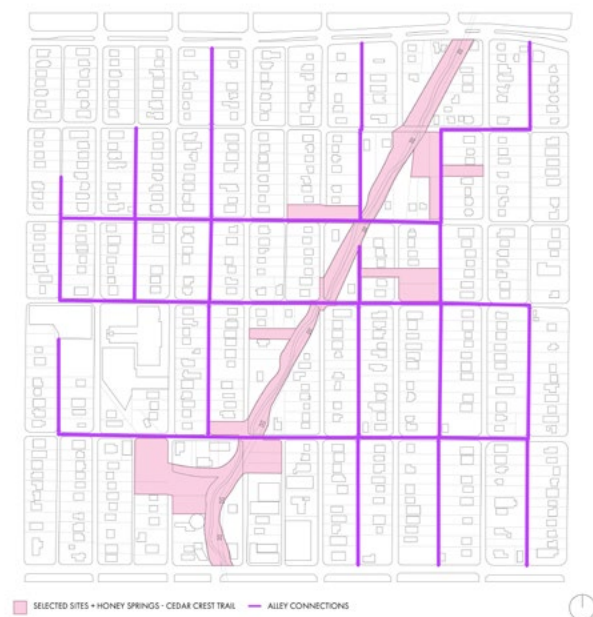
DIRECT SITE TO SITE CONNECTIONS



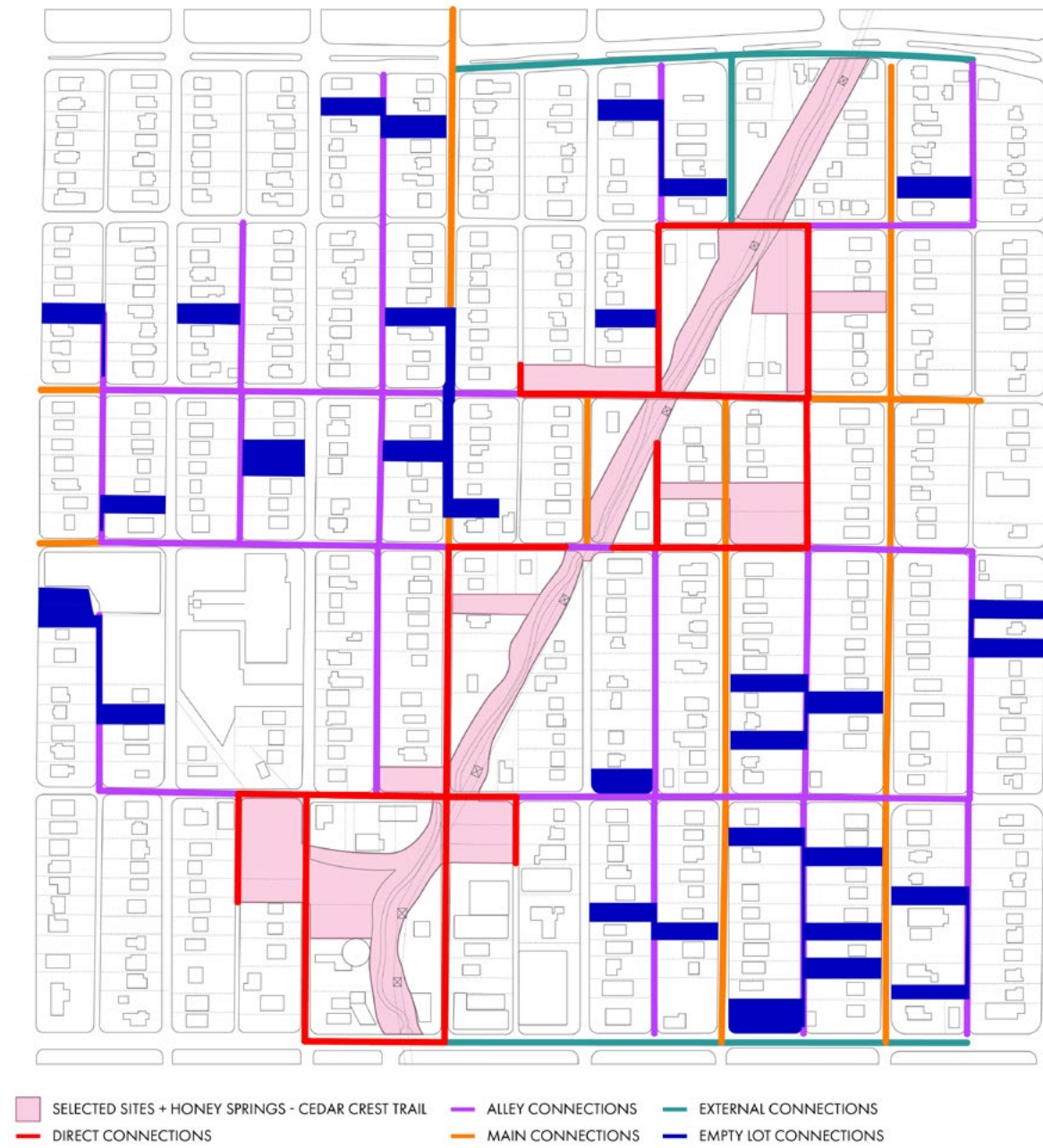
EXTERNAL CONNECTIONS TO SITES



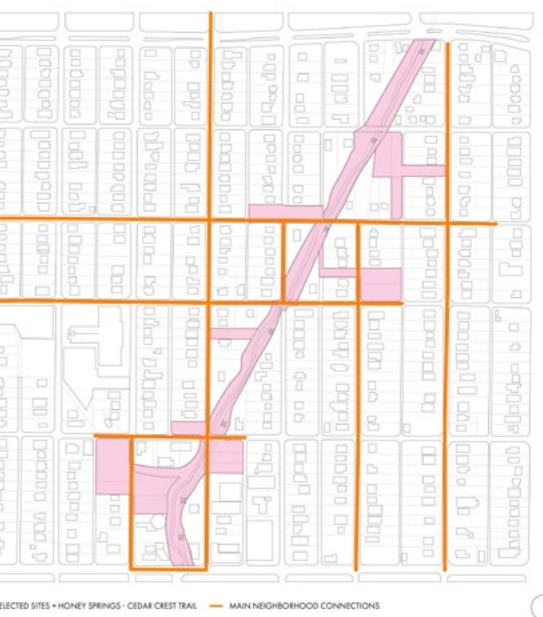
ALLEY TO SITE CONNECTIONS



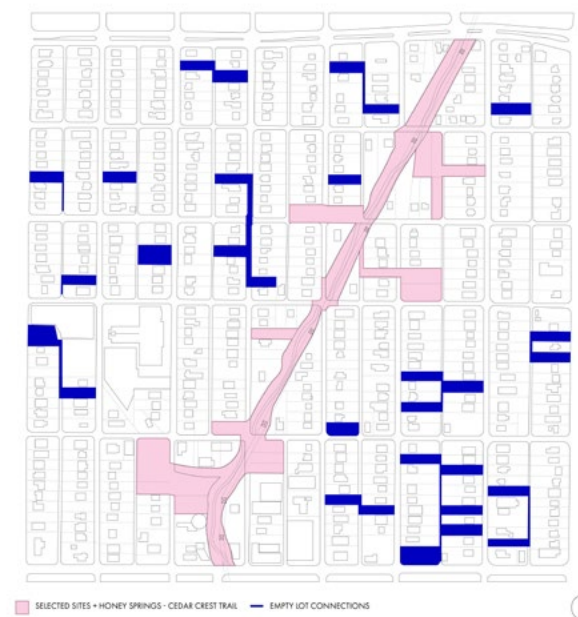
NETWORK OF CONNECTIONS



MAIN NEIGHBORHOOD TO SITE CONNECTIONS



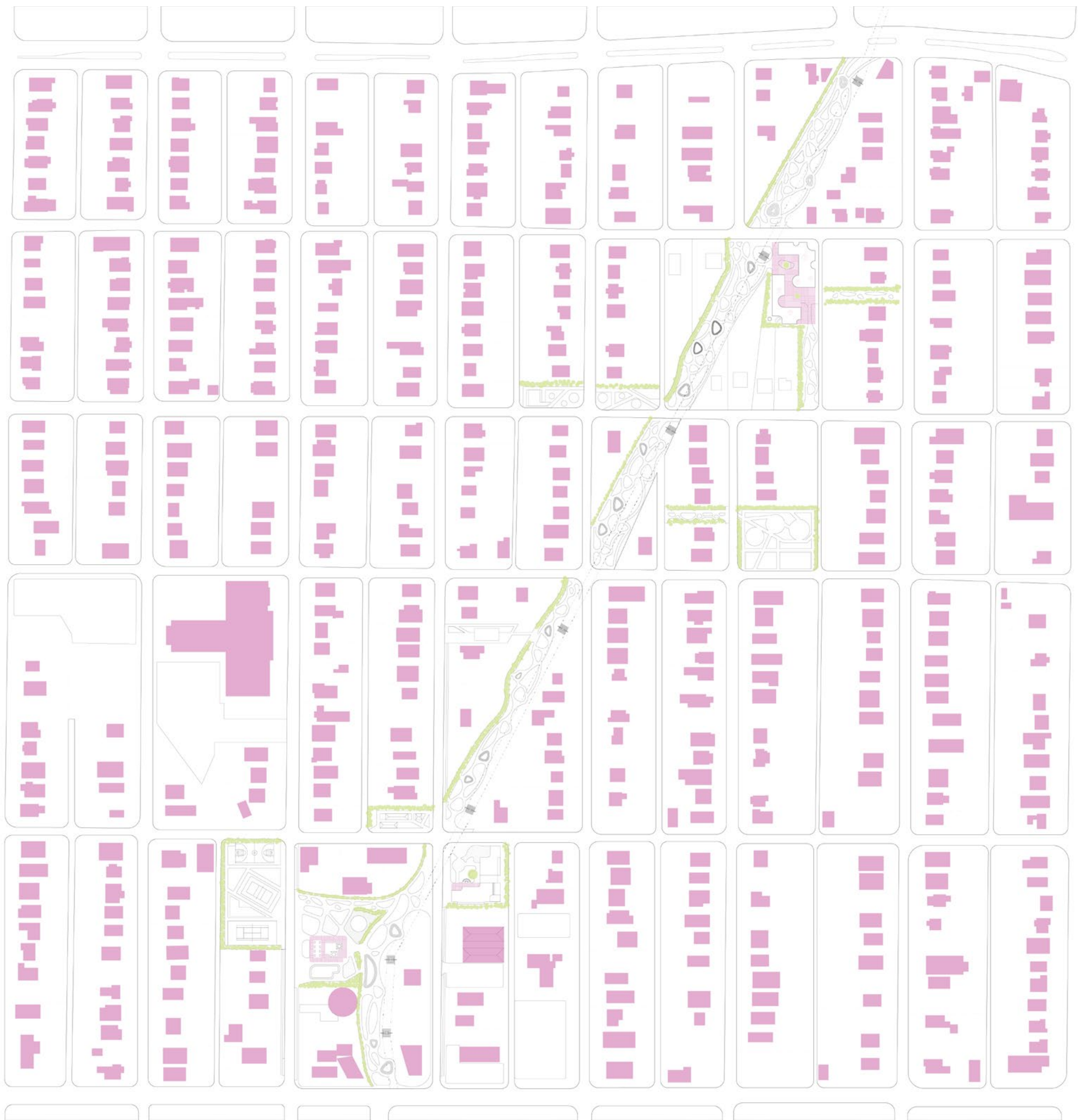
EMPTY LOT CONNECTIONS



upon mapping the existing conditions of the neighborhood it became evident that many of the infrastructural layers making up the composition of the neighborhood were not being explored to their full potential. in reaction to this the re-imagining of said compositional layers became just as imperative as the understanding of the existing context of the neighborhood. a series of sketches and reinterpretations of the trail and adjacent lots then followed. strategies such as buffers, edge conditions, nodes, and pods were used to re-imagine the space. trees and vegetation are used as a buffer between the proposed interventions and the neighborhood residences. buildings are used as either icons or edge

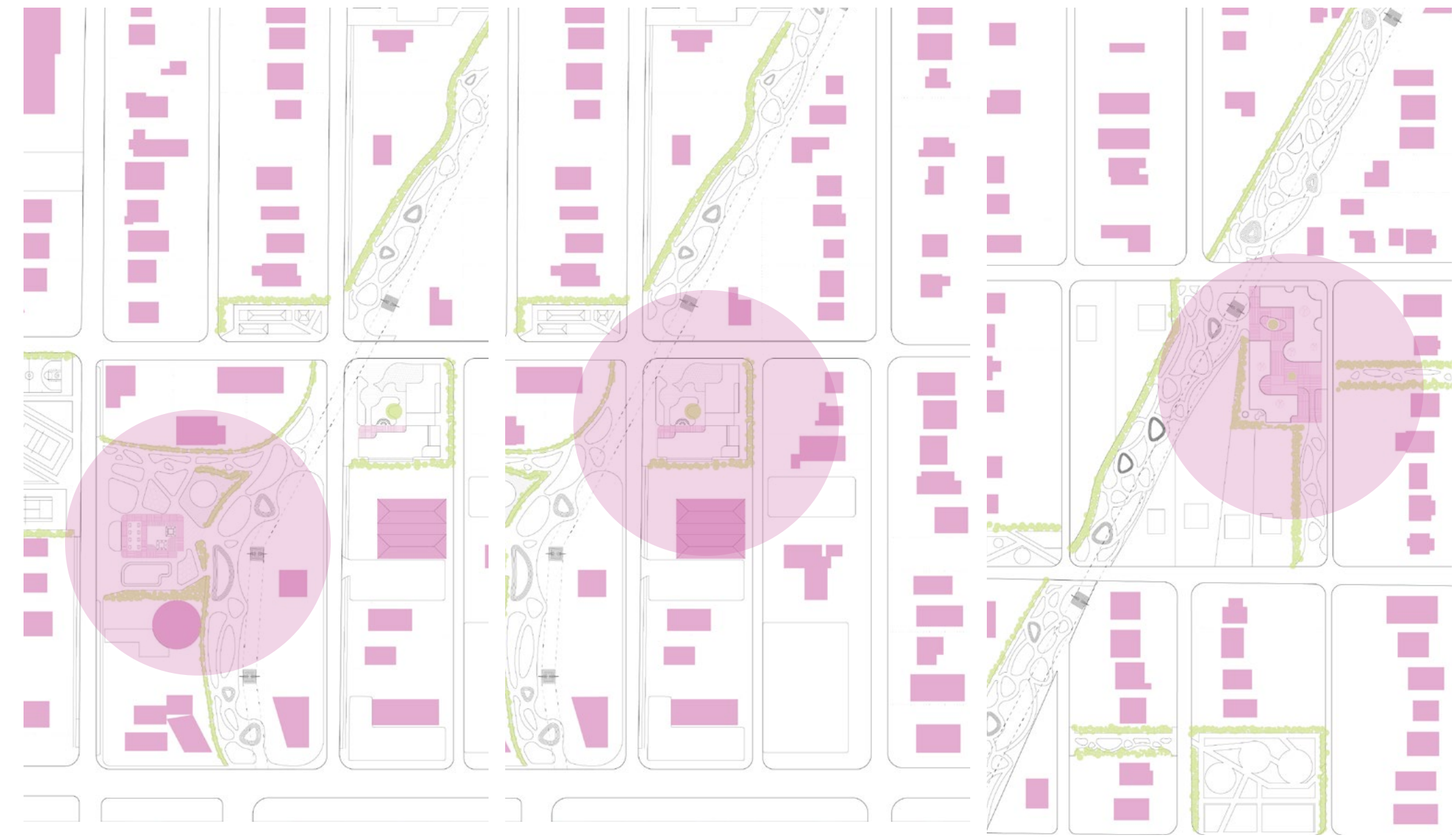
conditions in order to frame specific lots creating courtyards and enclosed spaces. the use of patterns and curvature creates new forms of mobility, and pockets of space along the existing walking trail. this allows for those who move along this supportive neighborhood spine to not only appropriate public space within these newly designed pockets of space but also move along it as they see fit. re-imagining the way the trail exists in the composition of the neighborhood provides new opportunities for social interaction, and for the strengthening of social infrastructure.





PROGRAM

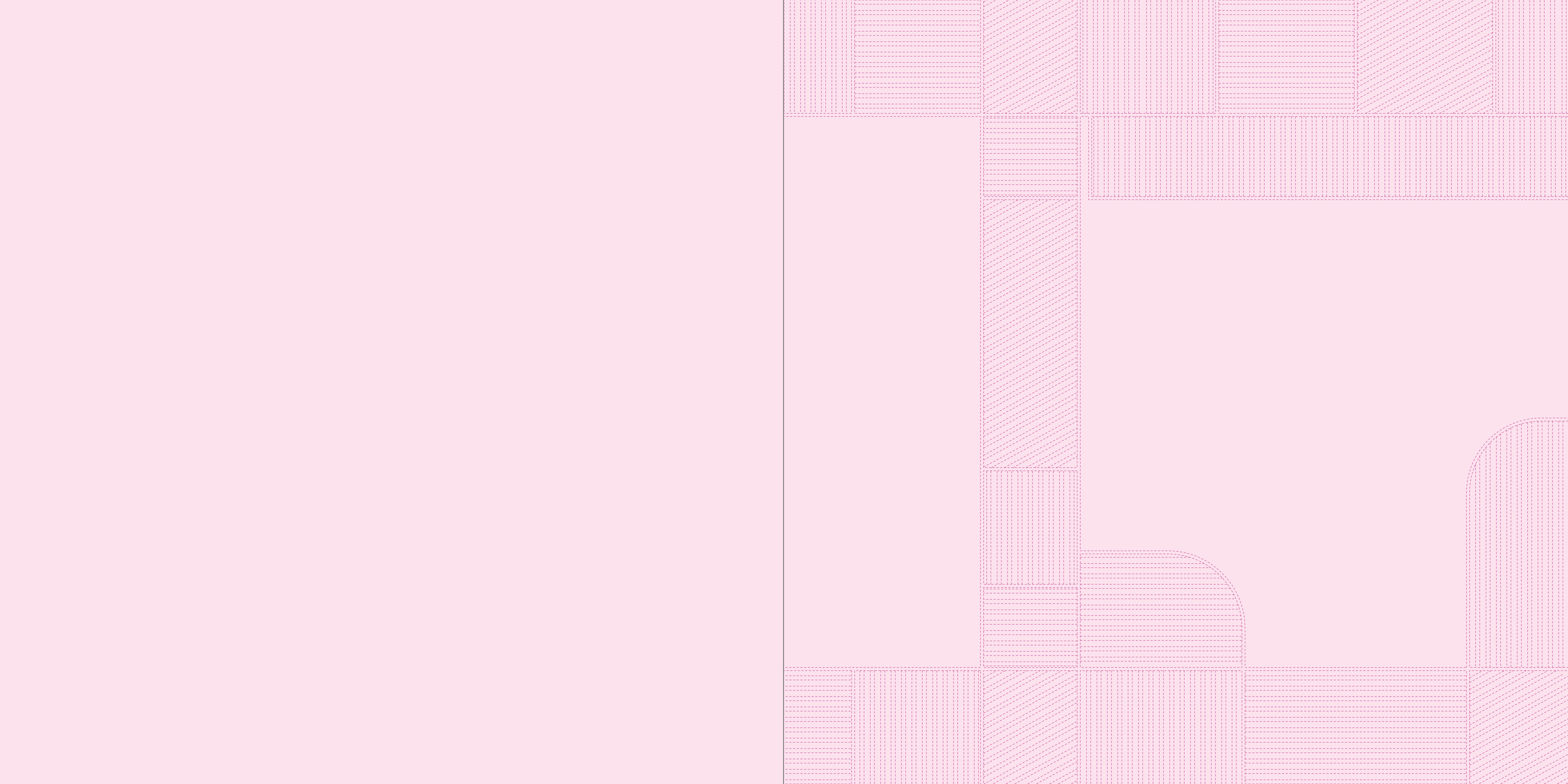
collaged supportive infrastructures approaches the architectural intervention as a series of smaller distributed ones that don't aim to be a singular heroic one. rather they are thoughtful and conscious interventions that have analyzed the realities that exist in a context and provide support to the community they come to exist in. in this project the idea of a centralized community center is broken up and distributed amongst the vacant lots adjacent to the Honey Springs - Cedar Crest trail that cuts through the neighborhood. essential programs for a community to thrive such as an aquatic pavilion, community kitchen, community garden, laundromat, multimedia center, gym, exhibition space, design studios, community daycare, and community library were distributed in order to strengthen the social infrastructure of the neighborhood. the project furthermore explores the architectural interventions of the aquatic pavilion, community kitchen and event space, the daycare and community library.



AQUATIC PAVILION

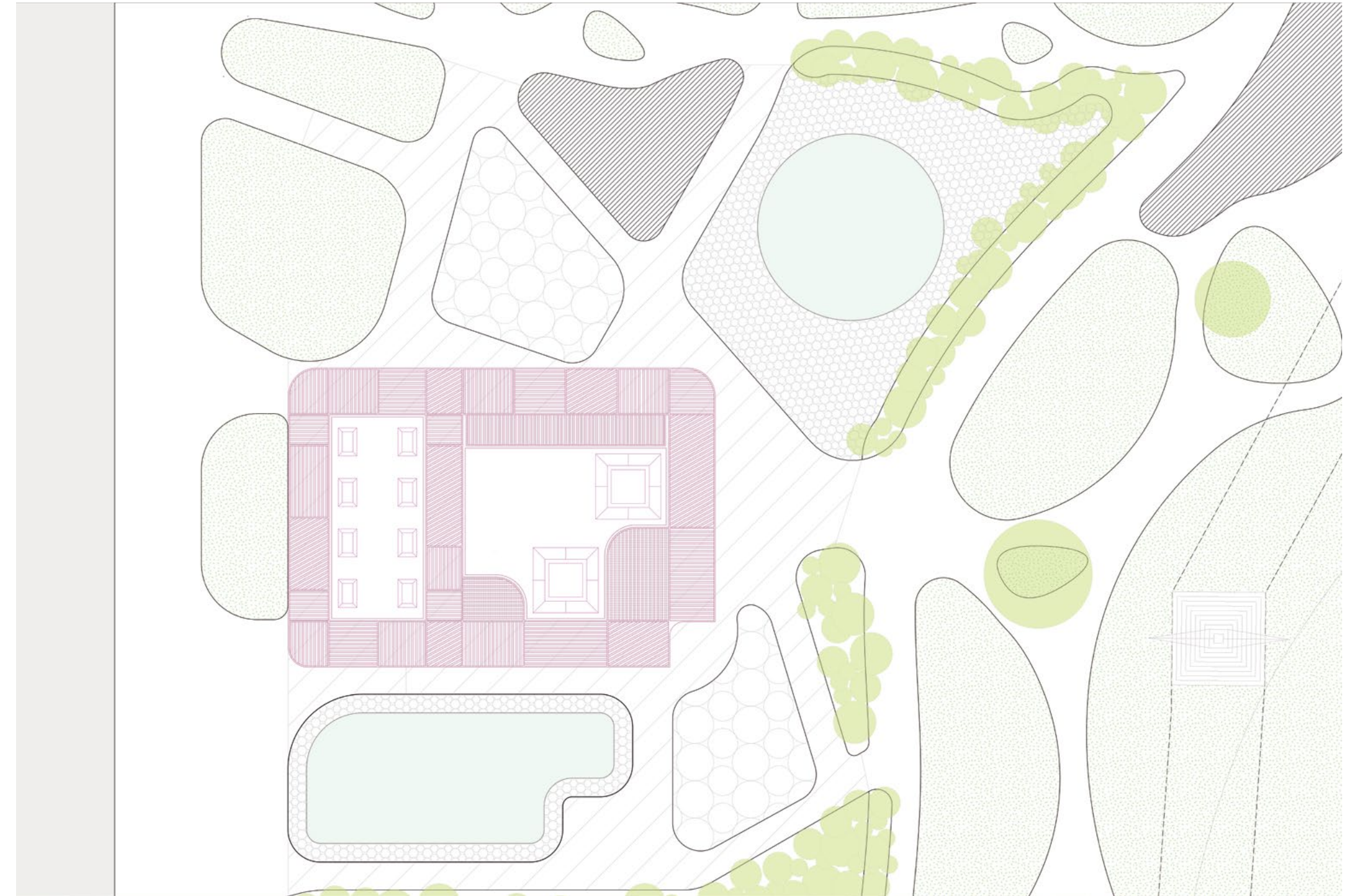
COMMUNITY KITCHEN & EVENT SPACE

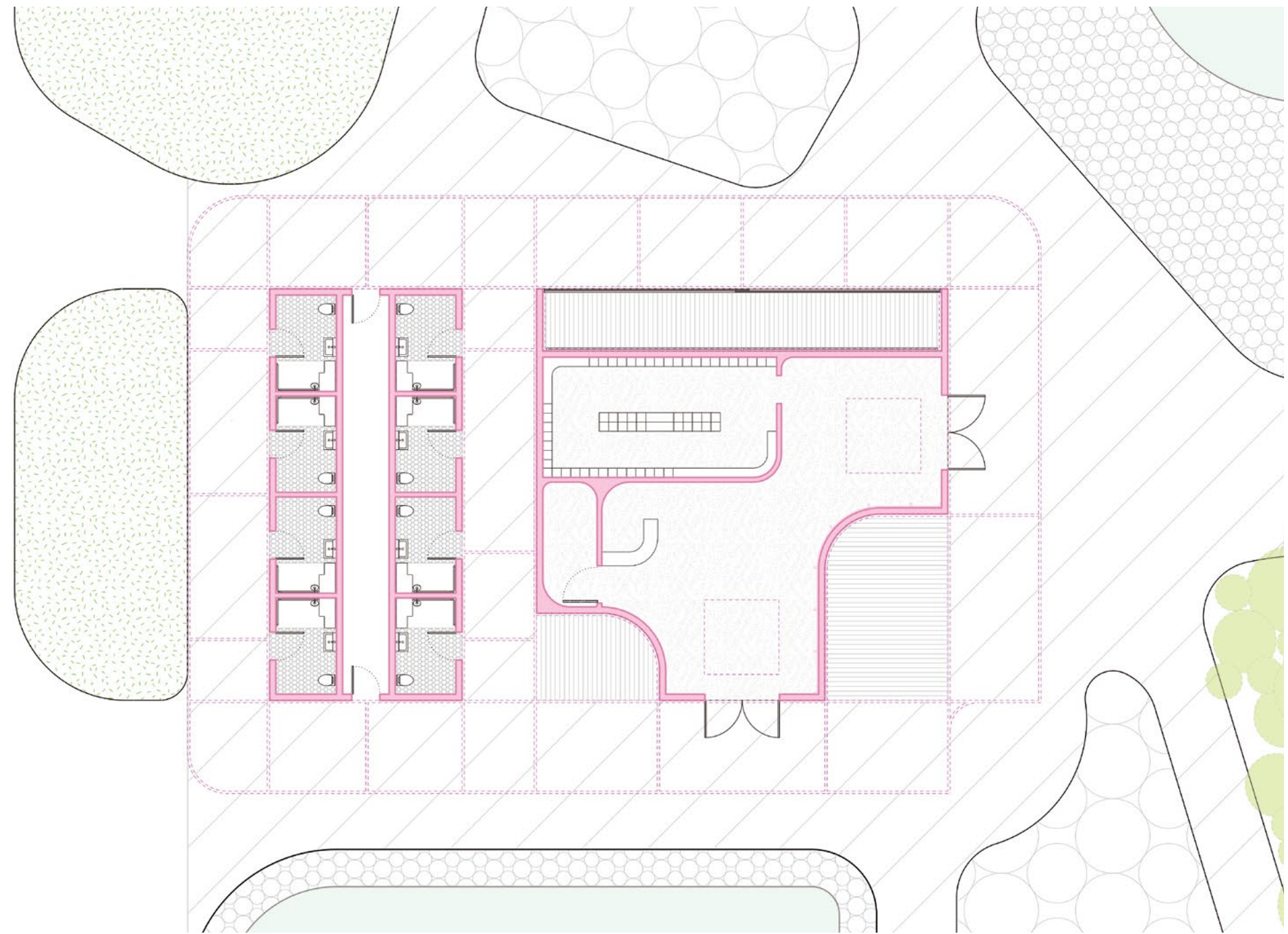
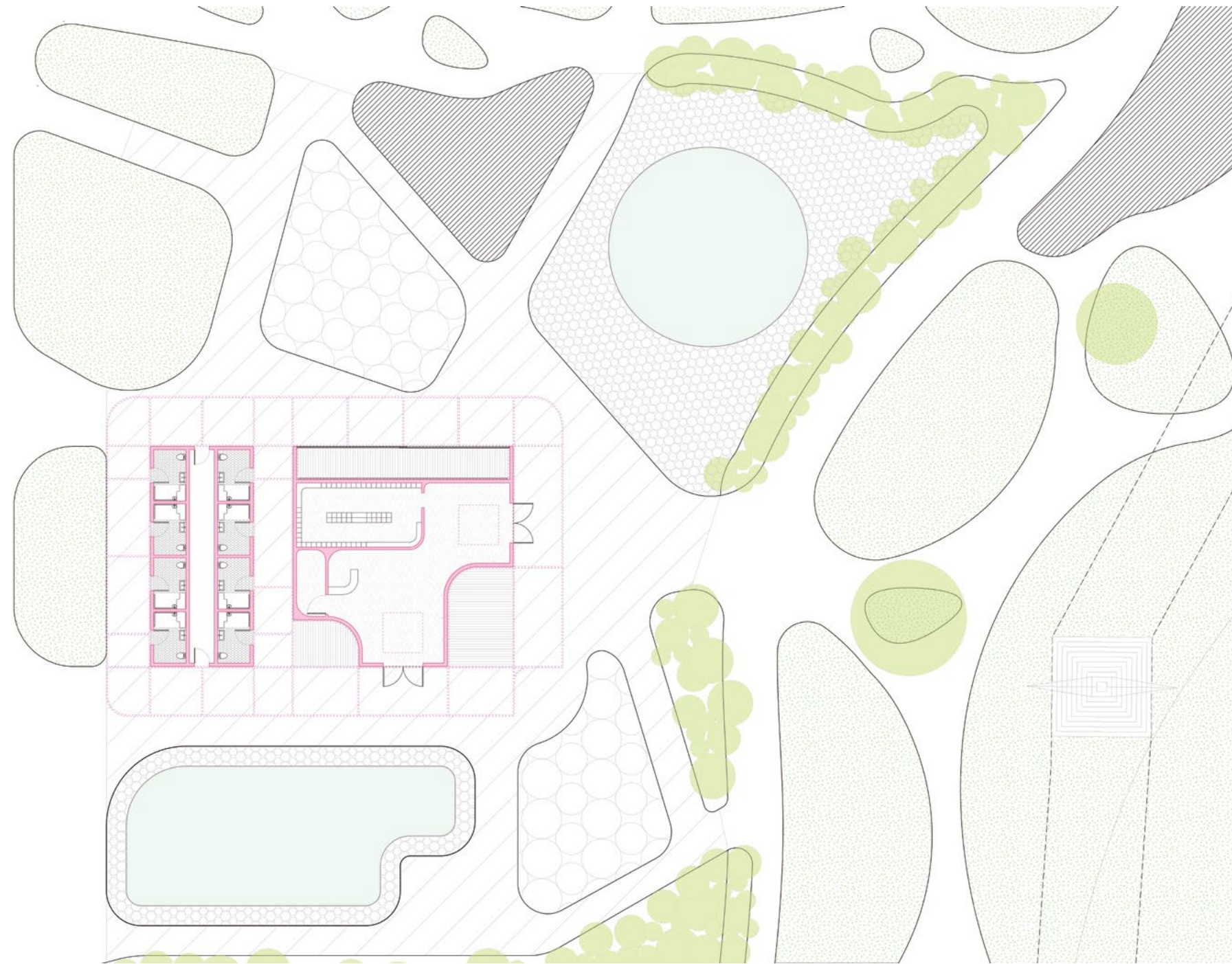
DAYCARE & LIBRARY



AQUATIC PAVILION

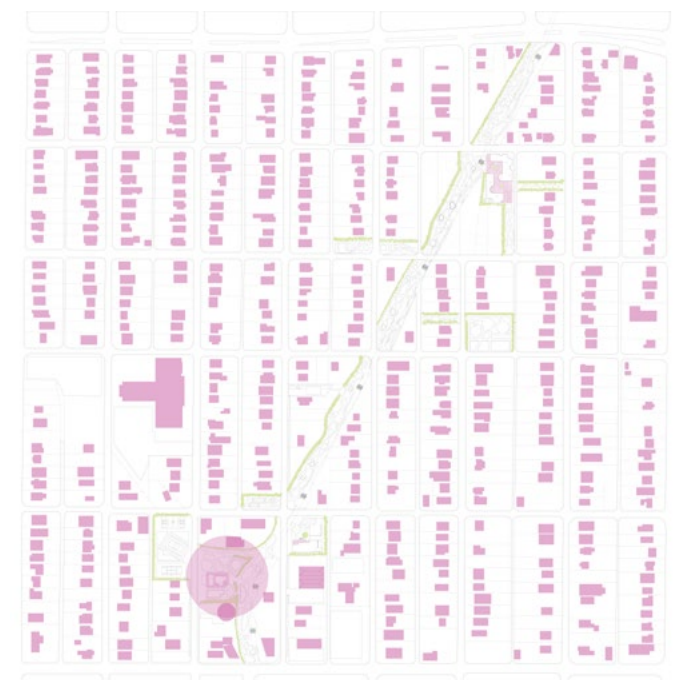
beginning our journey at the southernmost edge of the collage we move along the central compositional piece north. as we continue to move through the re-imagined walking path, filled with patches of differing material we come across the first intervention this project proposes. the aquatic pavilion. here community is built through physical education, exercise, and leisure. the openness of the site invites all in to experience the pavilion. exterior bathrooms and showers provide support for those in the community who may need it, amplifying the intentions of the project.

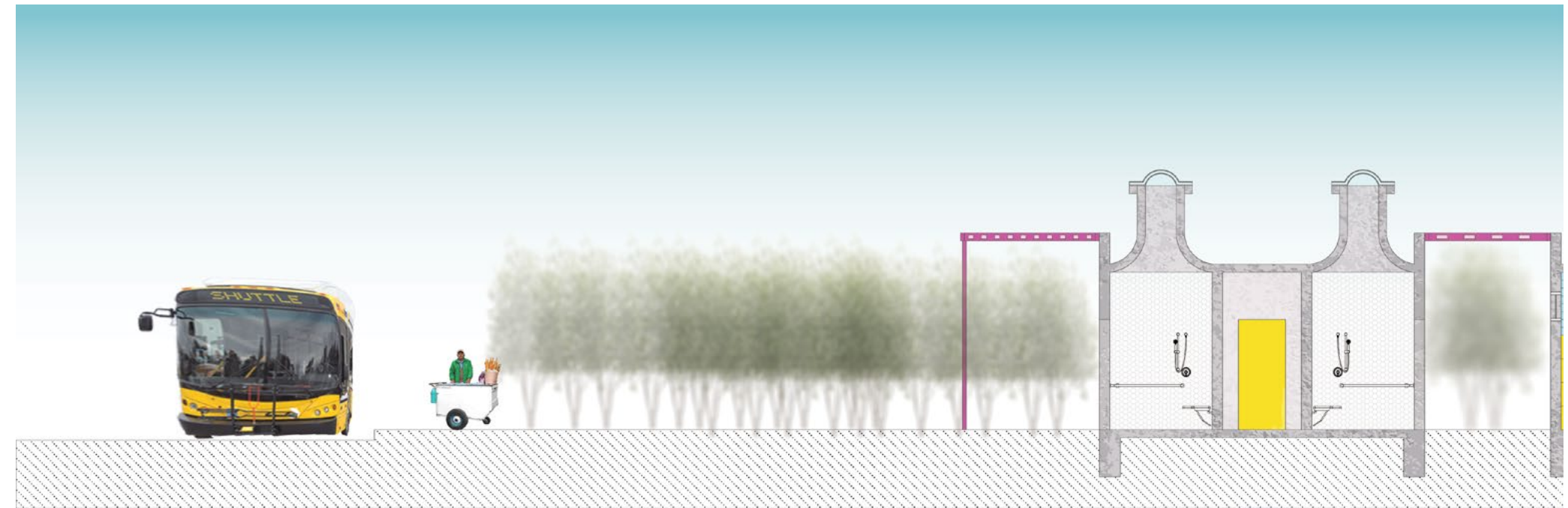
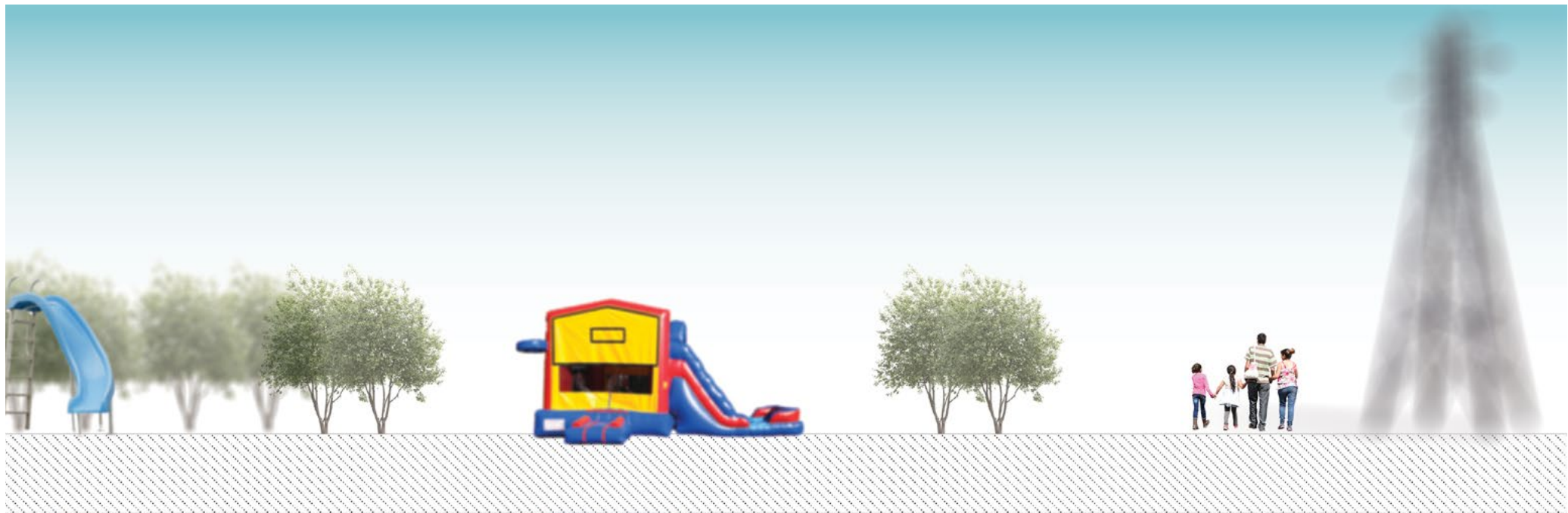
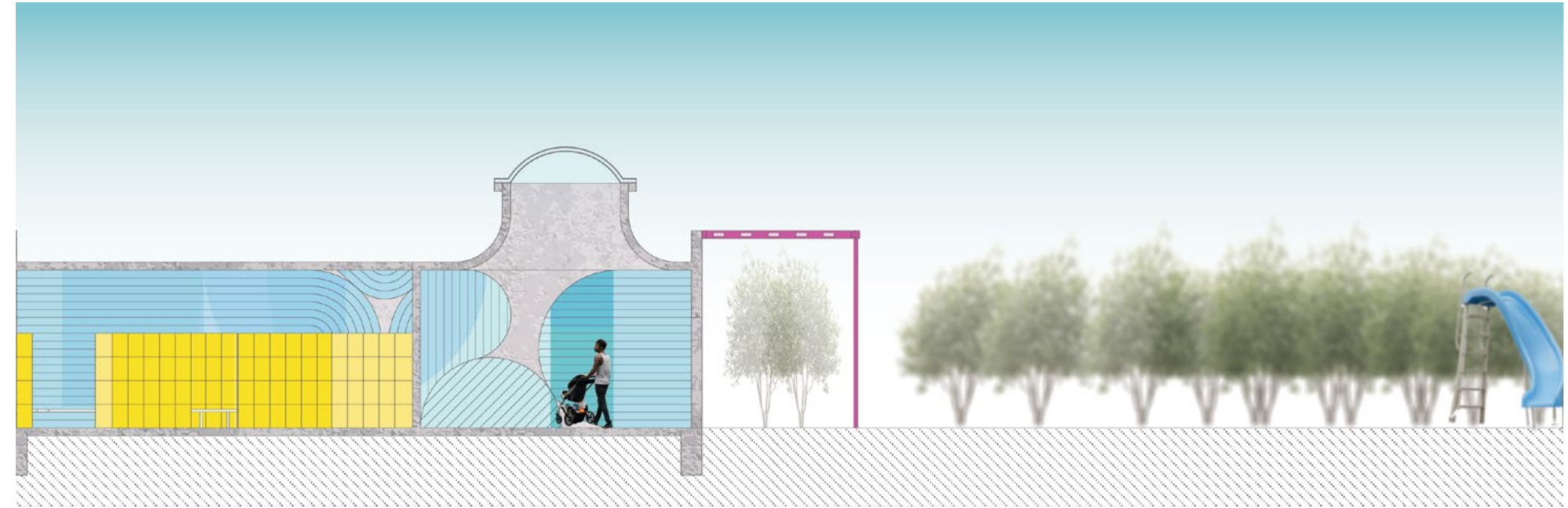
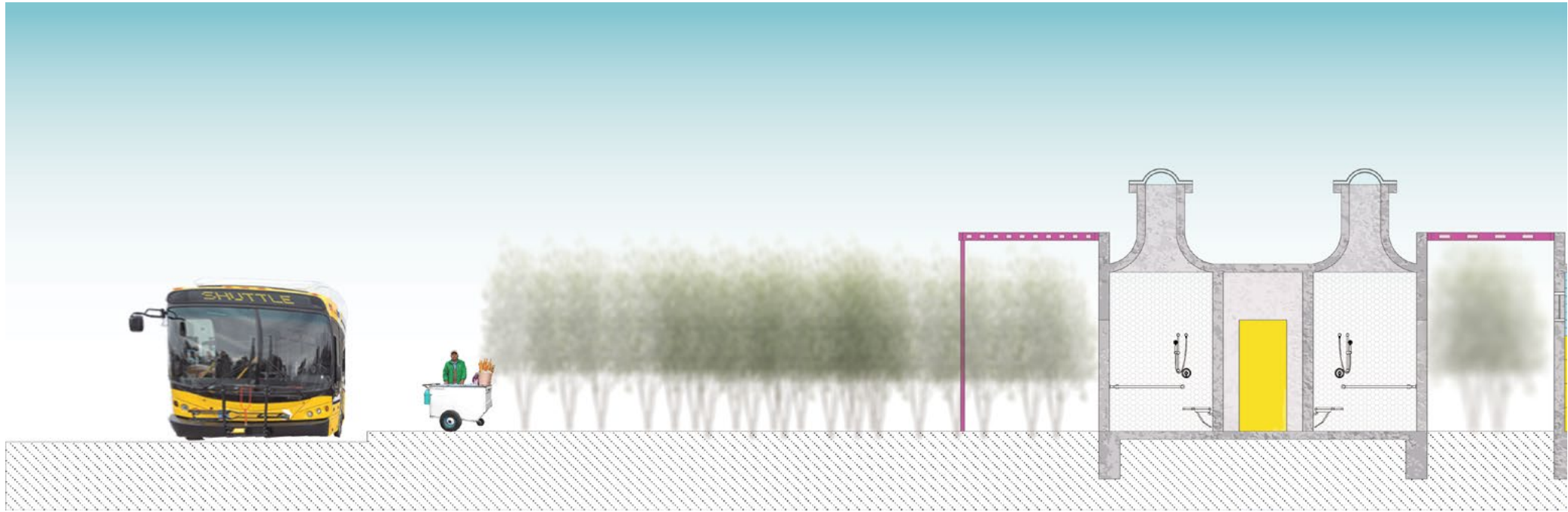
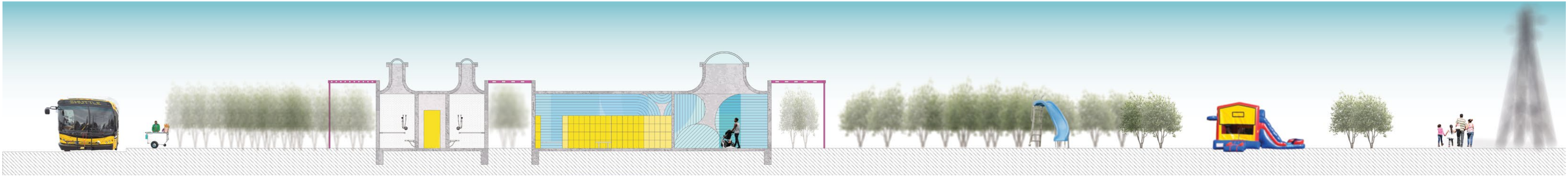




the aquatic pavilion sits central to the first empty lot of intervention acting as an icon. the site is composed of seven primary elements that add on to the overall composition of the collage. two community pools, two splash pads, the buildings, the canopy which connects the two, and paths that allow for fluid movement throughout the site. the pavilion is broken up into two massings in order to provide uninterrupted movement throughout the site. one contains communal services such as bathrooms and showers which can be accessed by anyone in the community who may need to use them.

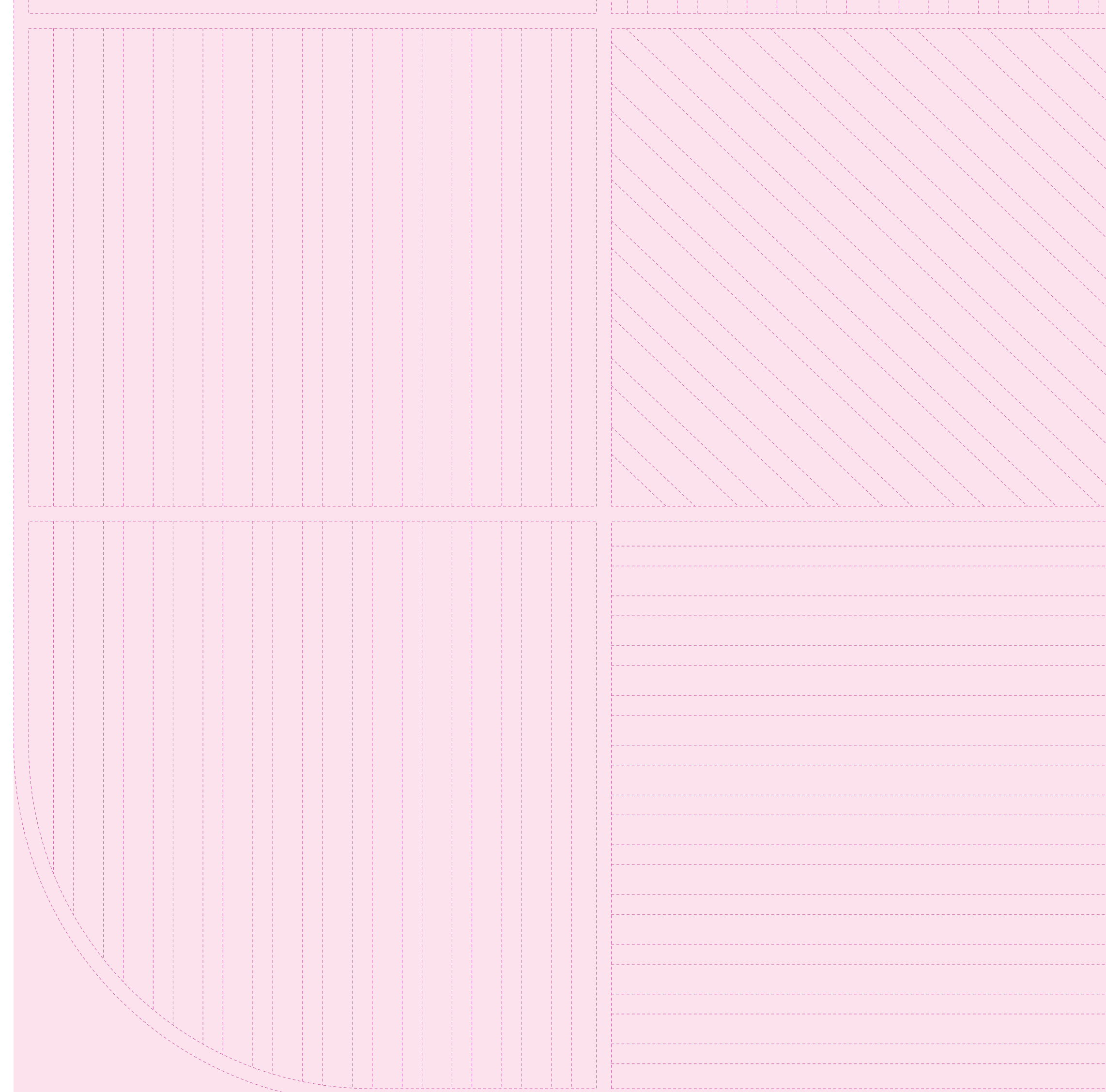
while the other provides a safe space to store belongings, rent equipment, and interact with those engaging with the aquatic program. the two masses are unified by the canopy which extends from the roof of both, and fills the void in between them. the canopy is also used as a tool to promote fluidity and blur the notion of interior and exterior space between these two masses. the pavilion provides a space for both social interaction and communal growth through physical and recreational activity.

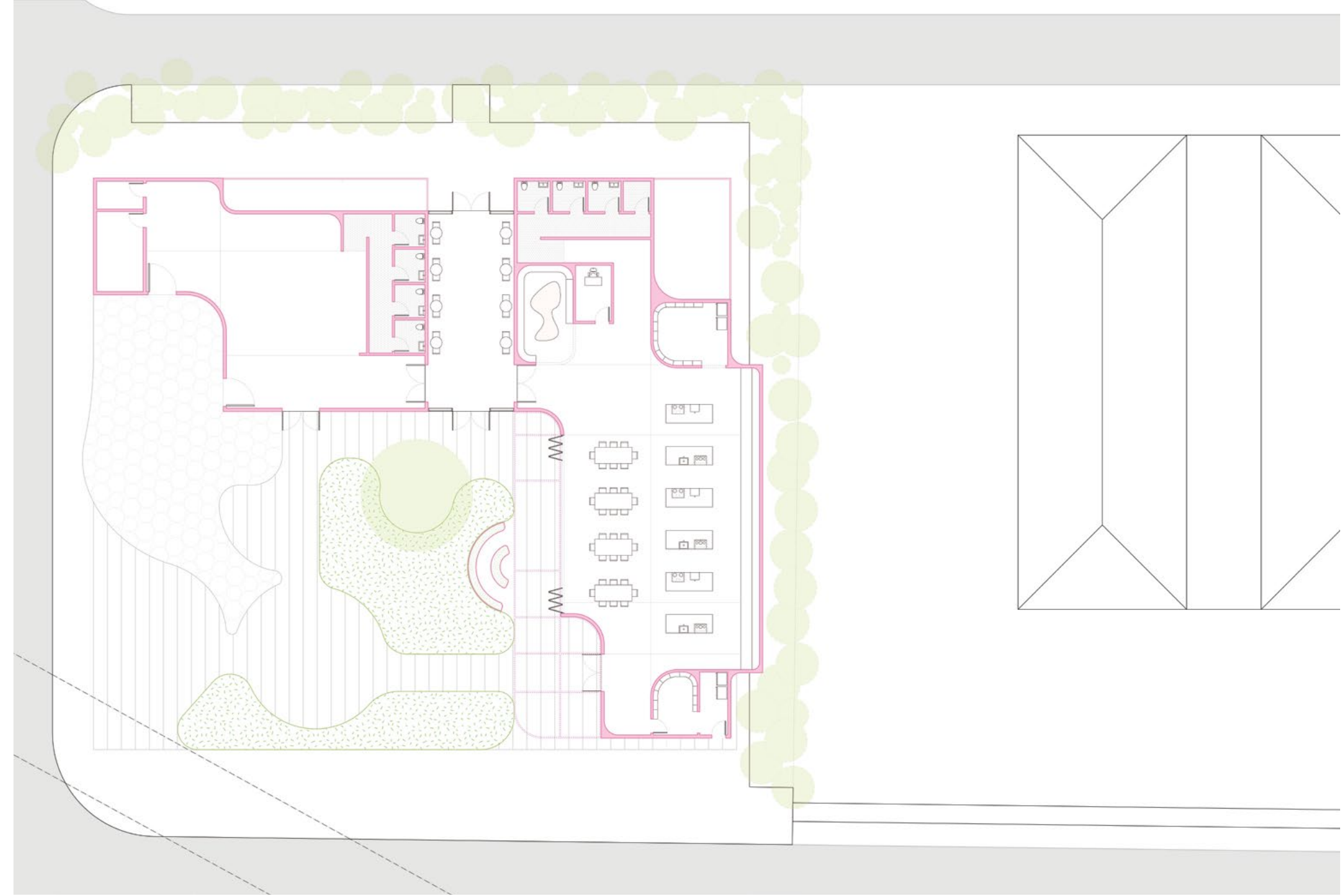
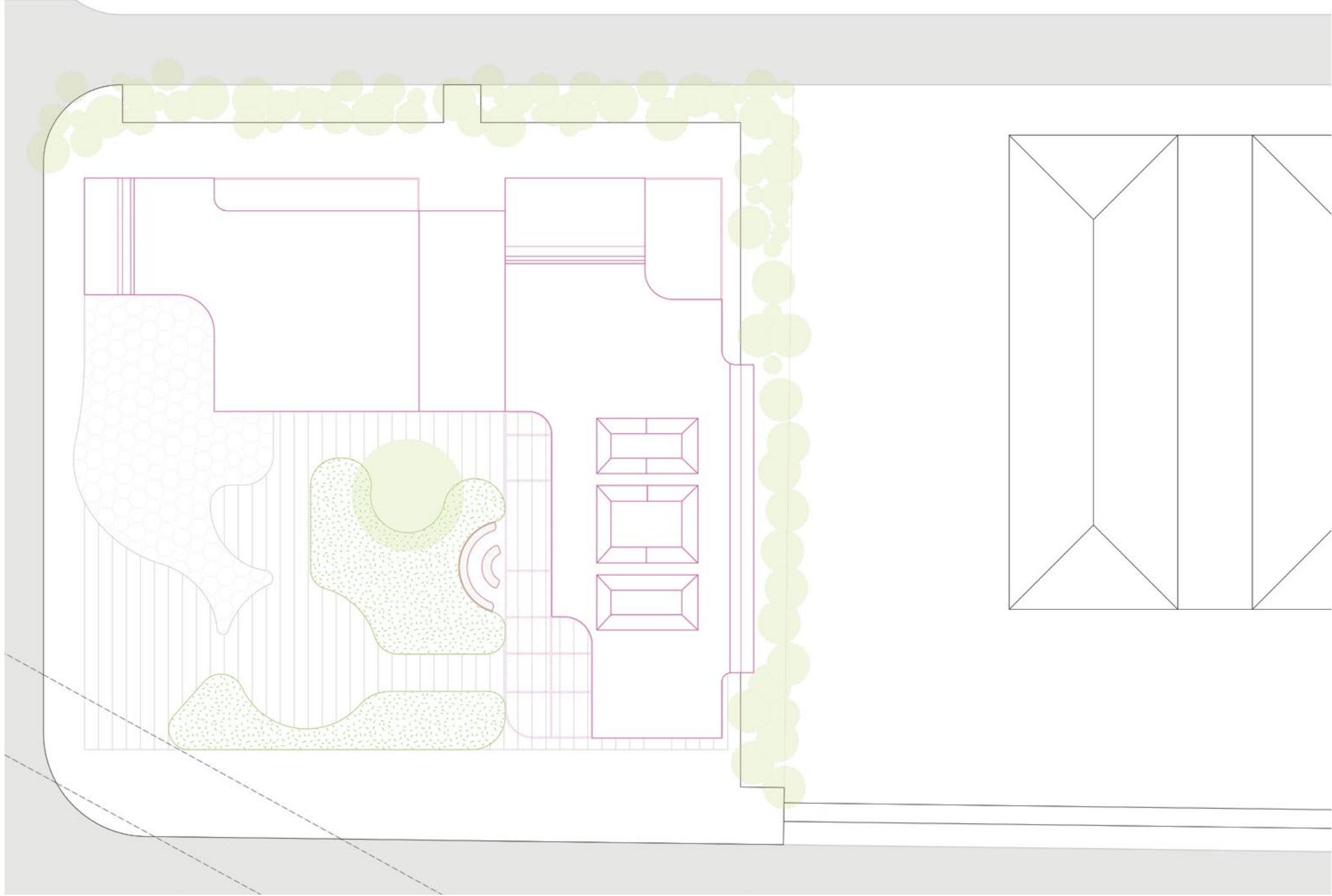


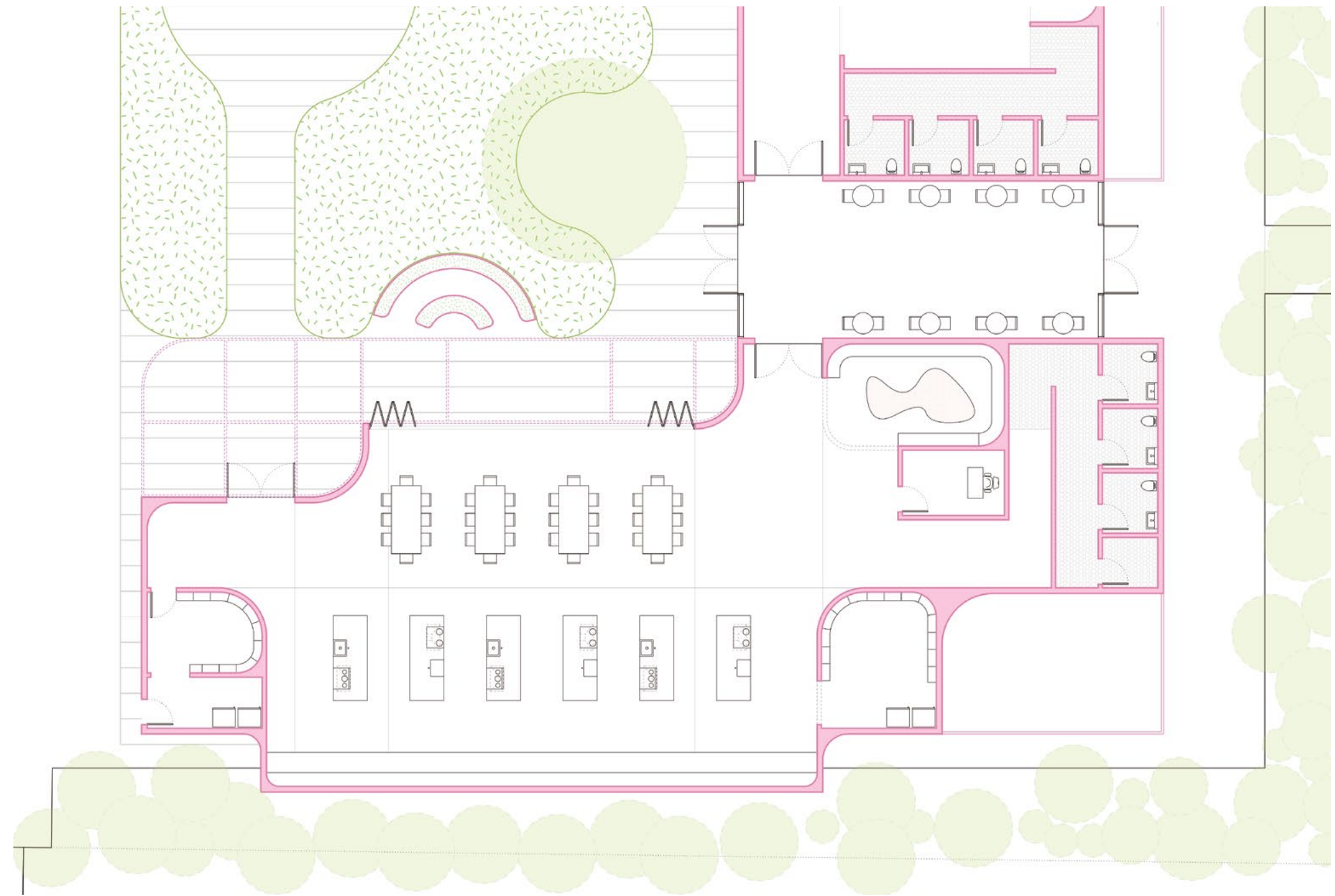
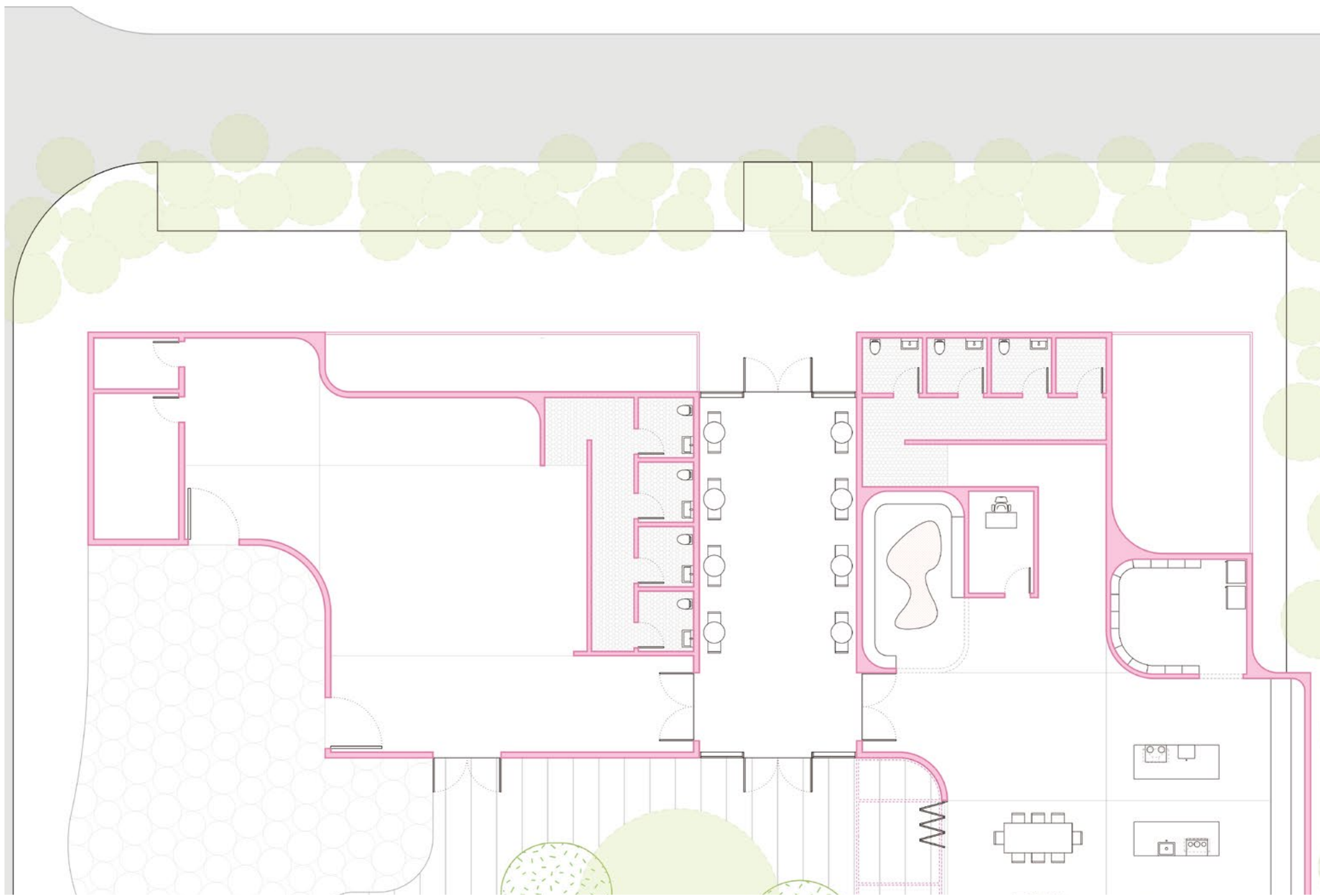


COMMUNITY KITCHEN & EVENT CENTER

as we continue to move through the composition we arrive at the second intervention of this urban collage. the community kitchen and event space. here community is built not only by sharing a meal. teaching and learning how to cook, sharing recipes, providing a safe space to be as well as providing space for the community to gather, to celebrate, educate, and even protest also amplify the goals of this project. the multiplicity of functions become moments in time, layers or even stickers that continue to add to the collage.

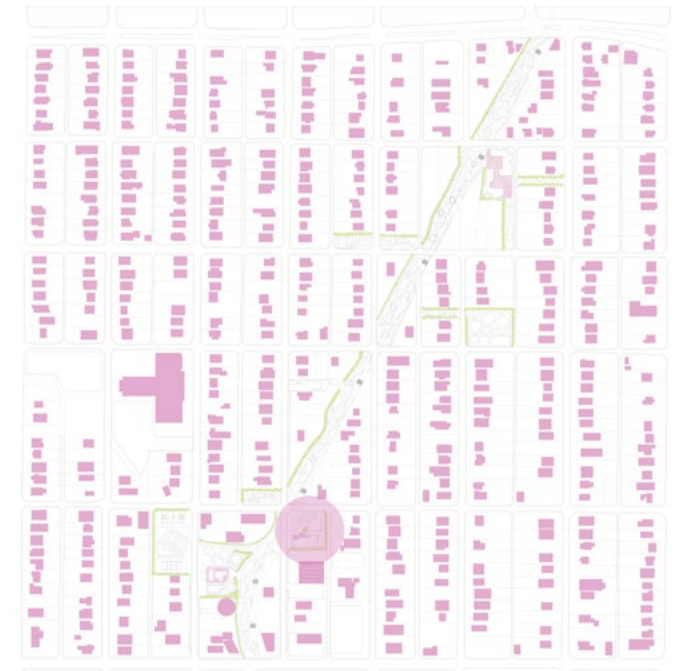






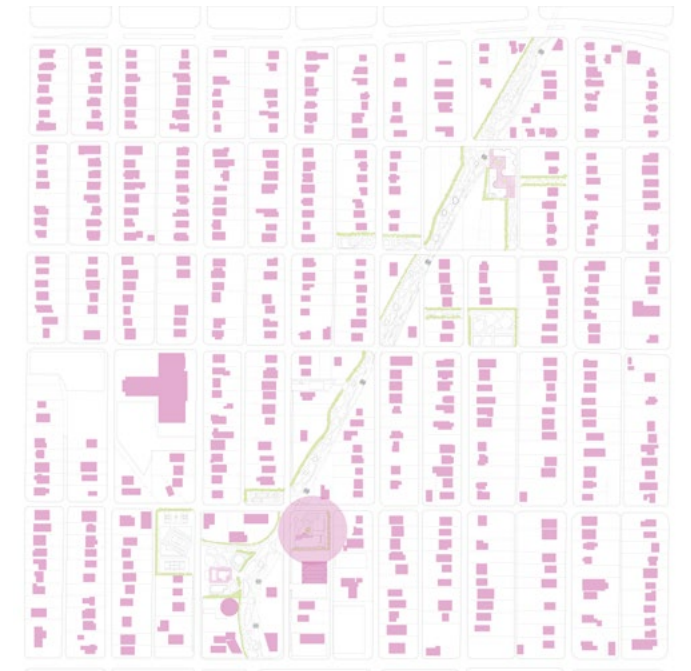
the event space along with the community kitchen approach the site as edge conditions creating a courtyard that opens up to the walking trail and the rest of project. the event space does not have a concrete or heavily prescribed program, because of this it is primarily composed of open space which has the ability to be transformed in order to fit the needs of the community. when transformed the space becomes a capsule of memories, a forever changing collage of life and social interaction. it becomes the venue for special occasions such as quinceañeras, award ceremonies, and graduations. as well as a space for master classes, protests,

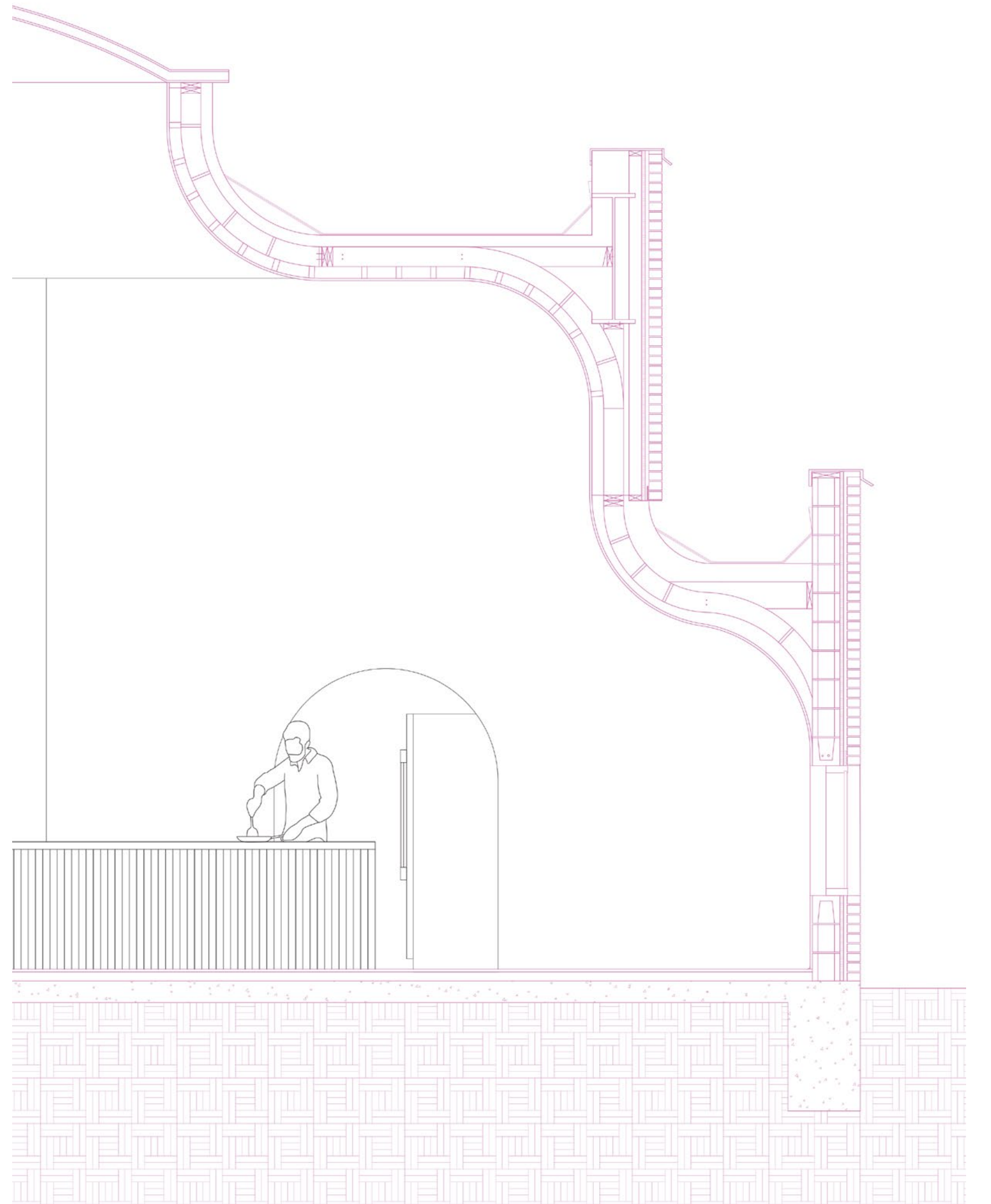
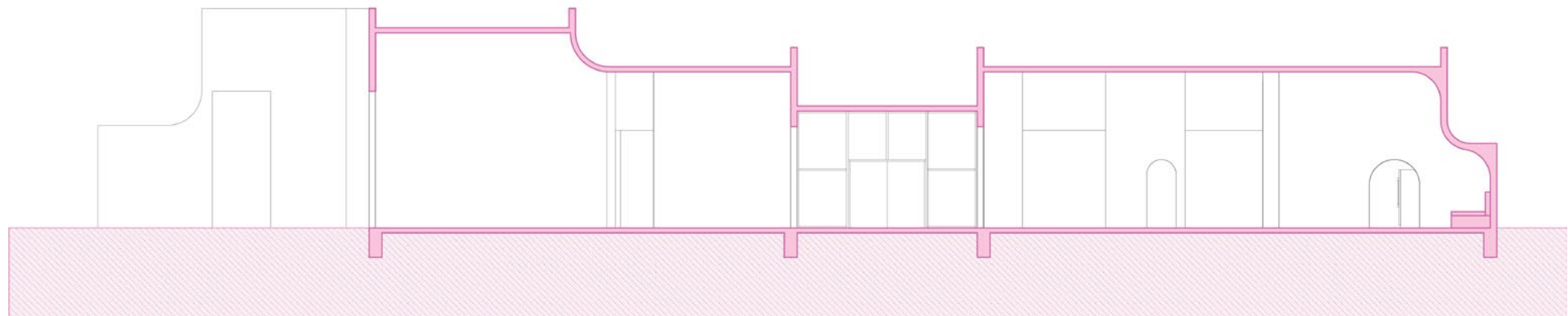
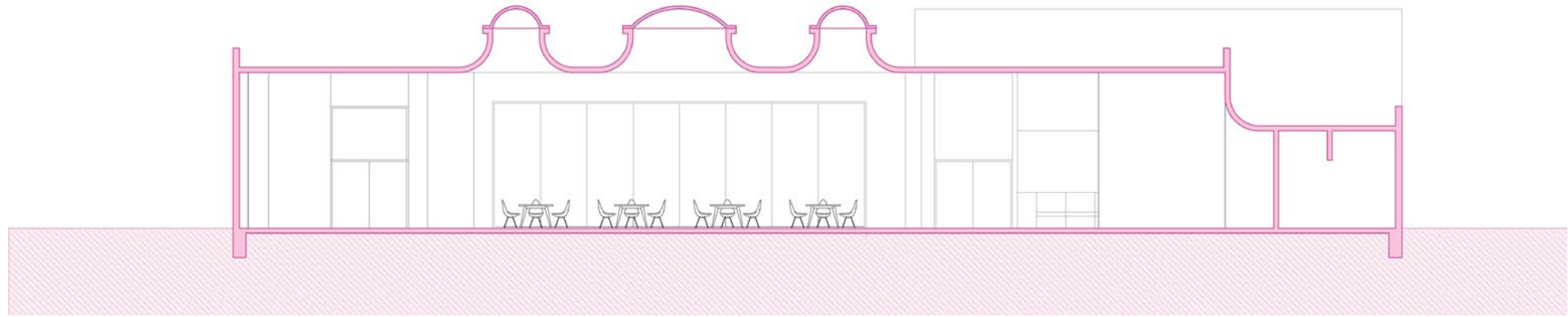
tax prep workshops, and many more everyday events. in times of crisis the space can be turned into a relief center or a shelter. its direct connection to the community kitchen allows for direct access to catering and serves as an overflow space for communal dining. the exploration of fluidity between interior and exterior space is seen in the use of large doors that open up to an exterior paved space. allowing for the events happening inside to flow out and become part of the communal realm. the building's flexibility in program allows for it to become a blank canvas every day, constantly being changed and appropriated by the community.

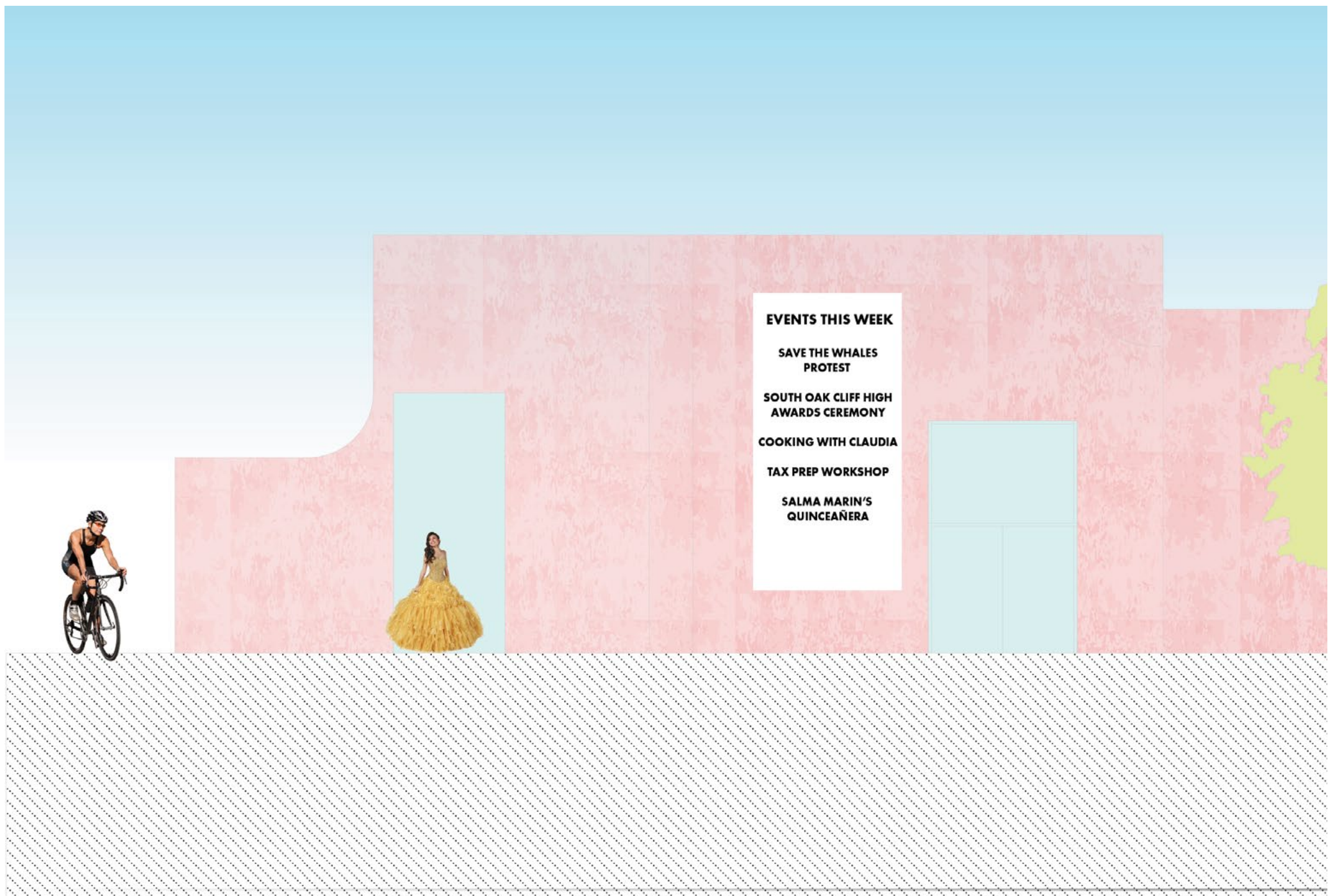
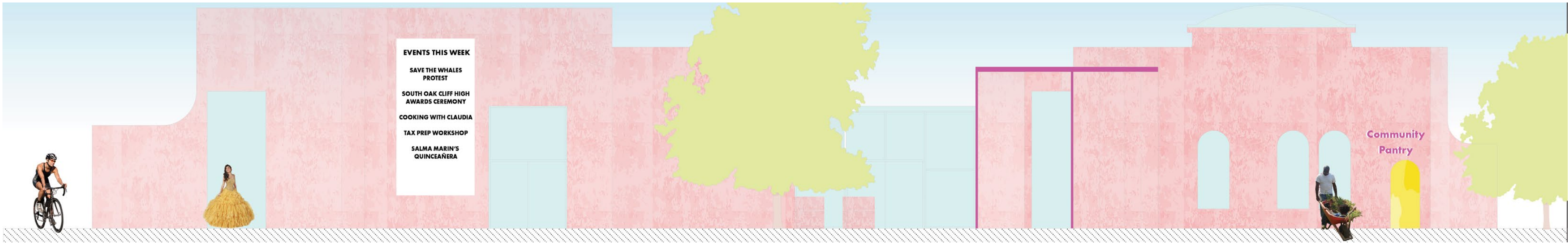


located along the southern edge of the lot the community kitchen focuses on the development of community through the sharing of meals, education of food, its preparation, and provision for those in need. the community kitchen is connected to the event space by a glass atrium which blends the notion of interior and exterior spaces, as well as functions. similar to the event space, the community kitchen prioritizes flexibility. the kitchen provides multiple cooking stations, communal seating, a small children's area, pantry, and administrative space. the cooking stations are arranged facing each other in order to

promote interaction between those using the space. the communal seating is directly across from the cooking stations and acts as a buffer between the interior and exterior spaces. this promotes interaction and fluidity within the building and the exterior space created by the building. which is then echoed by the formal use of soft curves that allow for constant movement throughout the space. interaction and communal support are furthermore explored through a community pantry with direct access from the exterior of the building for anyone who may need a meal after hours. the flexibility of the space and program allow for even the smallest of interactions to become an event bringing people together.

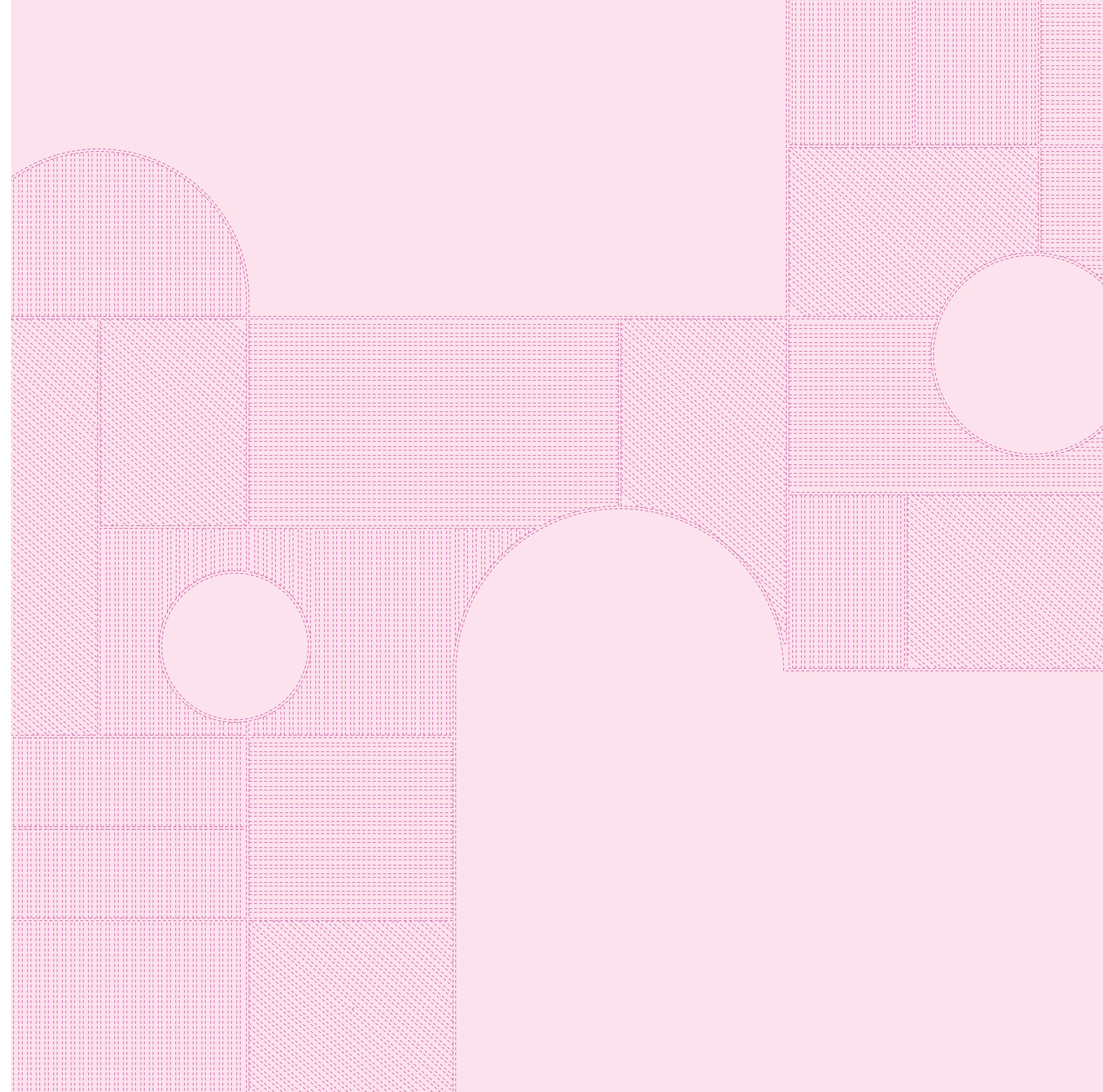


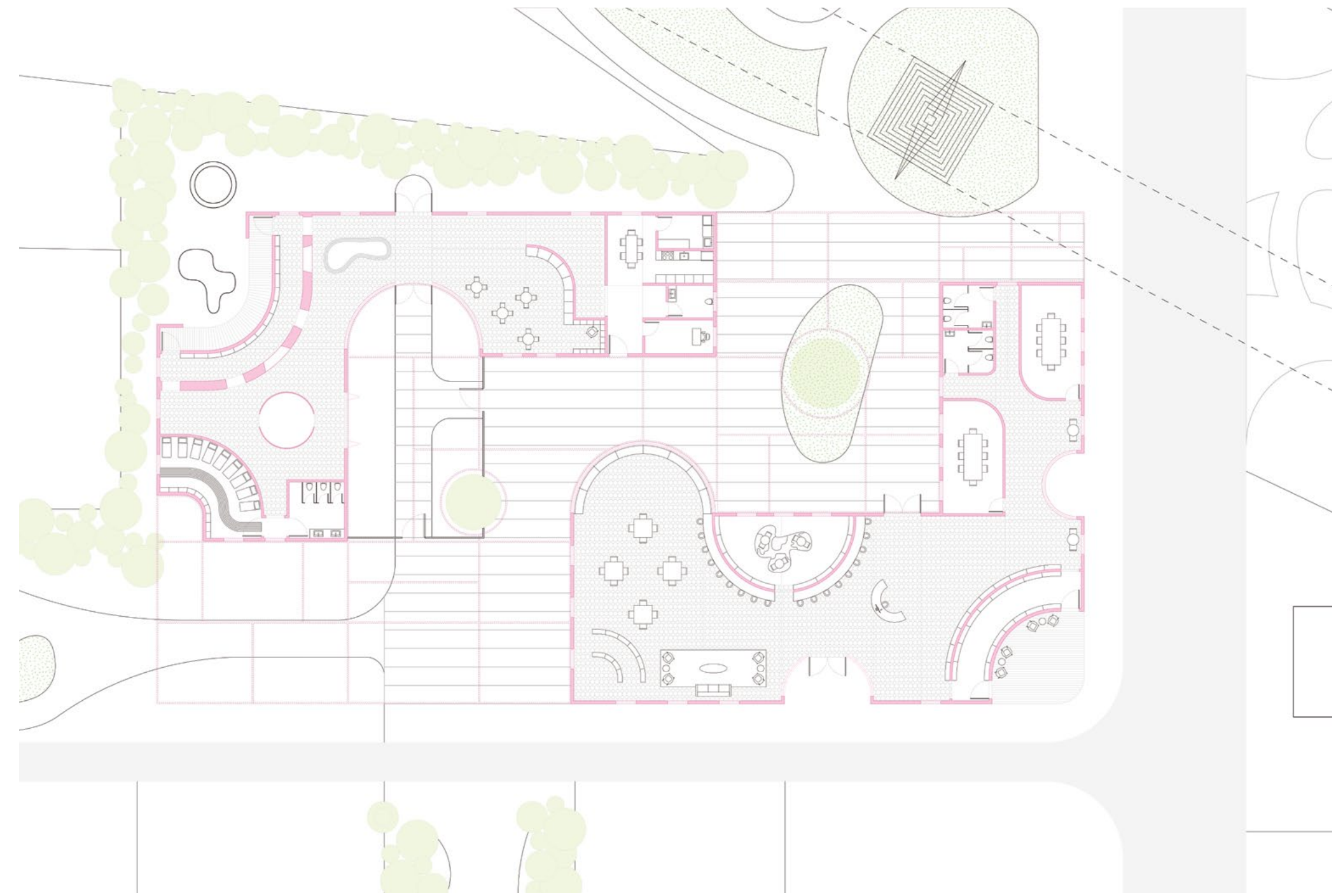
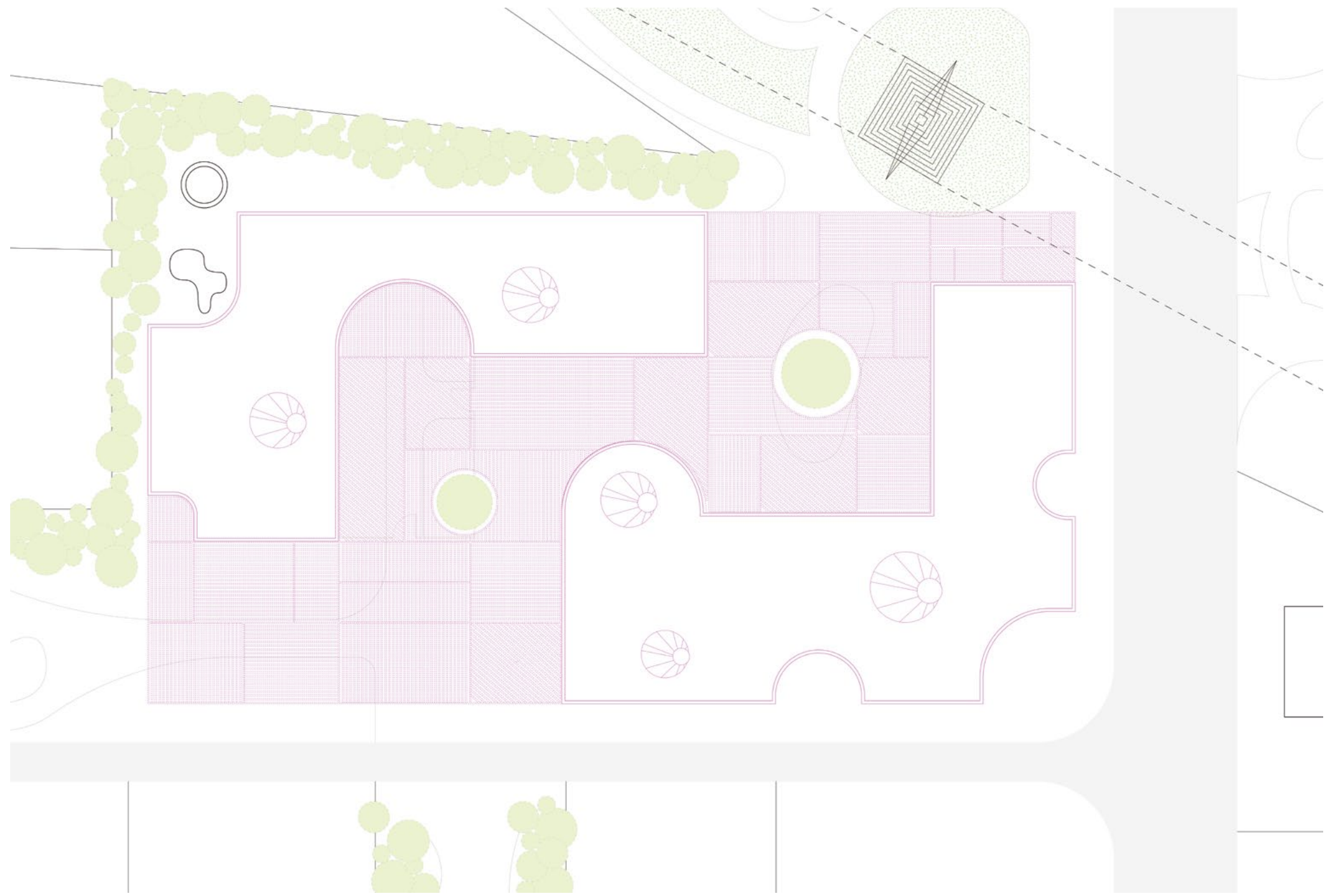


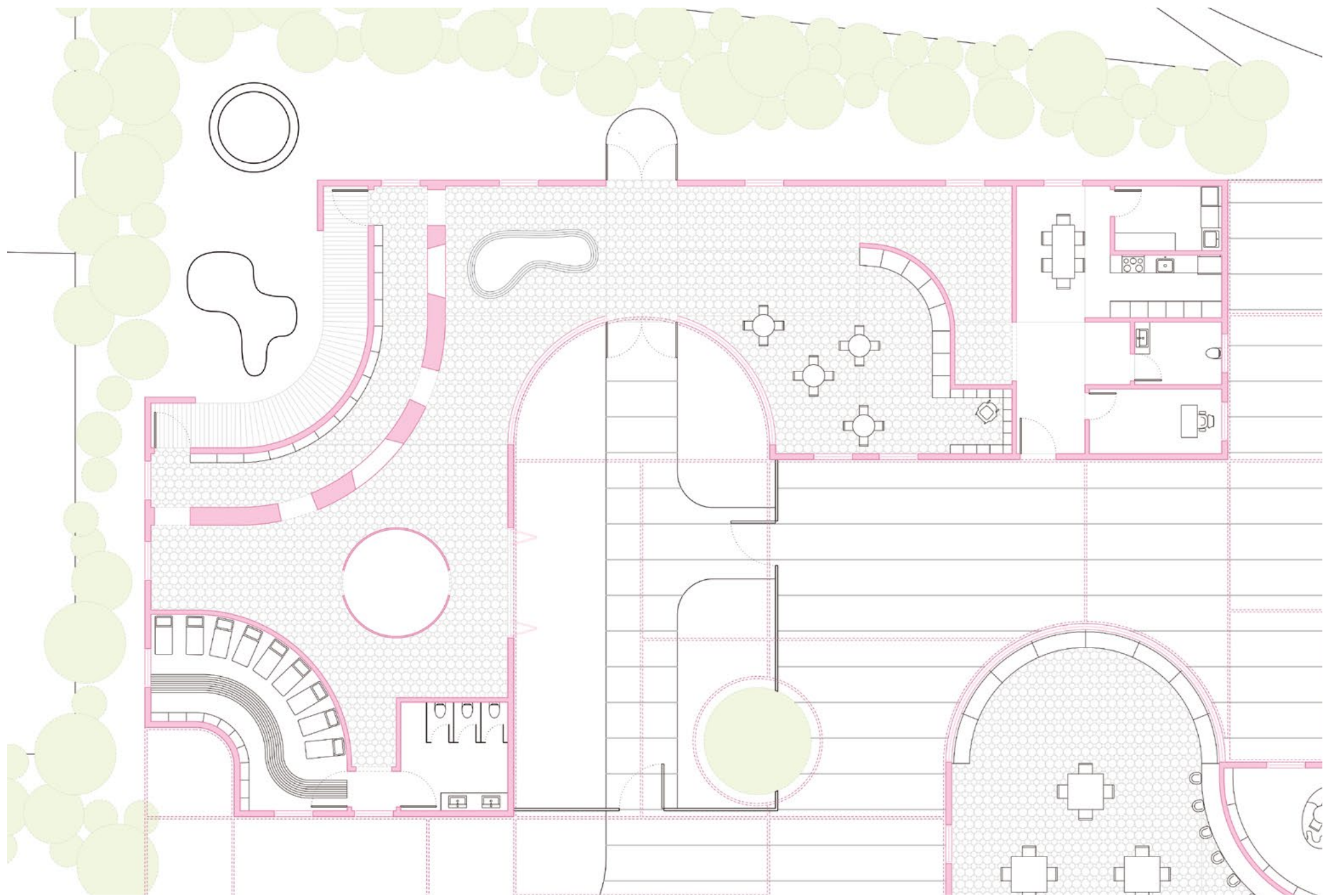


DAYCARE & LIBRARY

as we make our way to the northernmost point of the composition we approach the third and final explored intervention of the collage. the community daycare and library. here the social infrastructure of the neighborhood is strengthened through early education and development, self exploration, and access to knowledge.

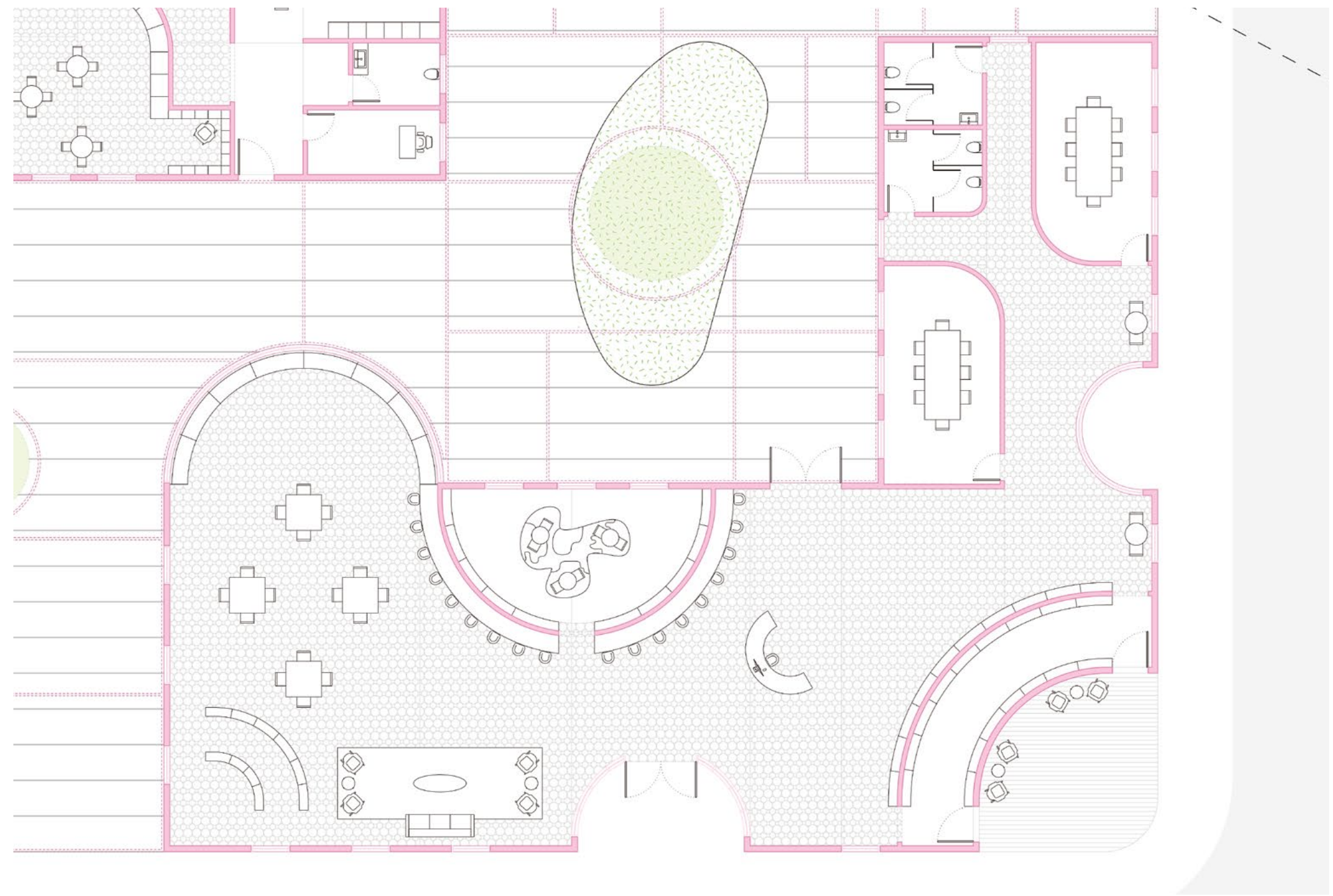
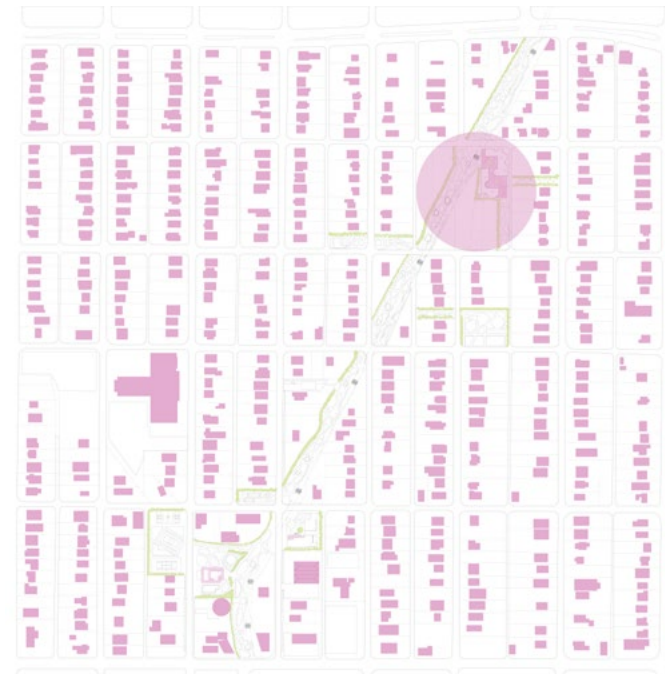






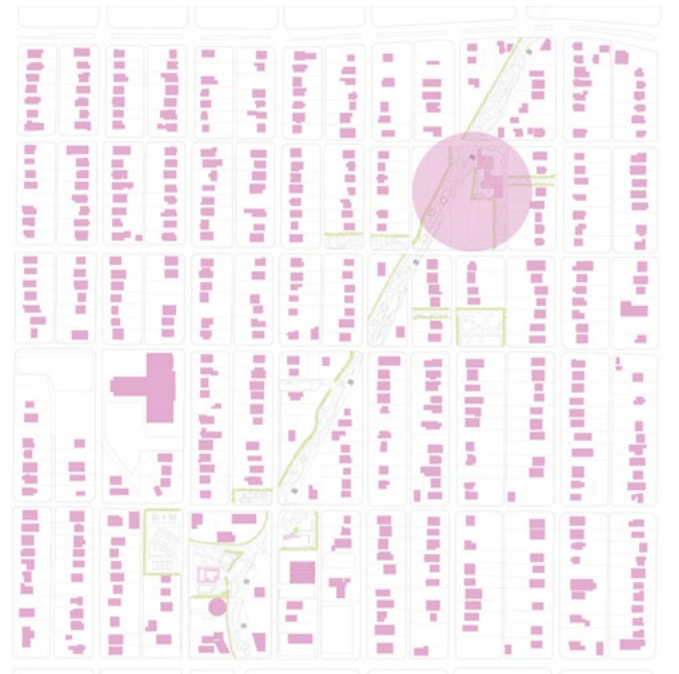
the daycare supports the community by being both a safe space for children to learn and play while their parents are working, and a hub for interaction amongst parents at drop off and pick up. it serves as a template for other possible manifestations that could then be distributed among any of the empty lots previously identified. the space follows the use of soft curves as an architectural language to promote the fluidity of movement throughout the spaces created on the interior of the building. while the use of glass accordion doors, curved glazed walls, and the canopy which connects the daycare to the library help strengthen the fluid relationship between interior and exterior spaces.

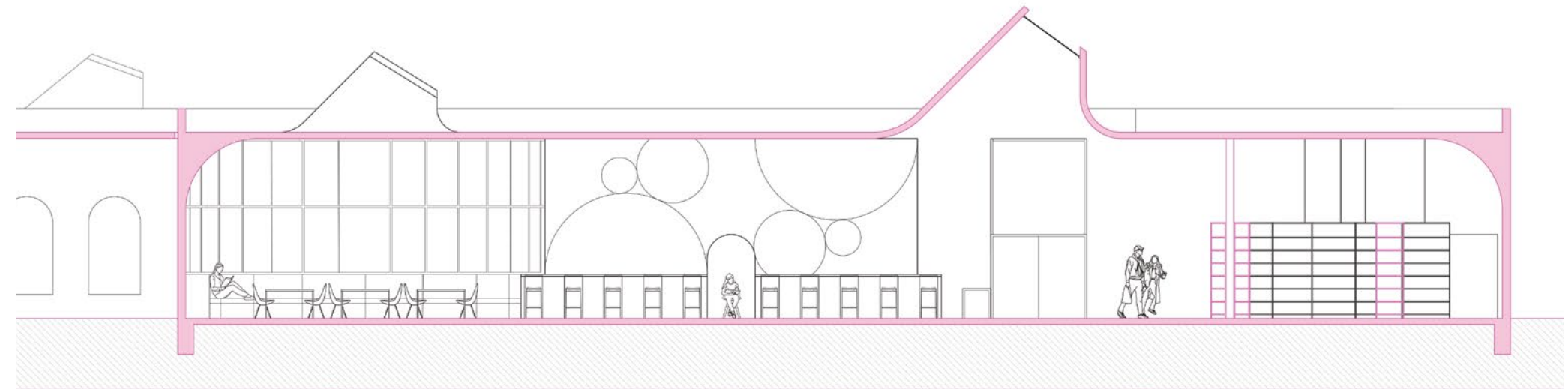
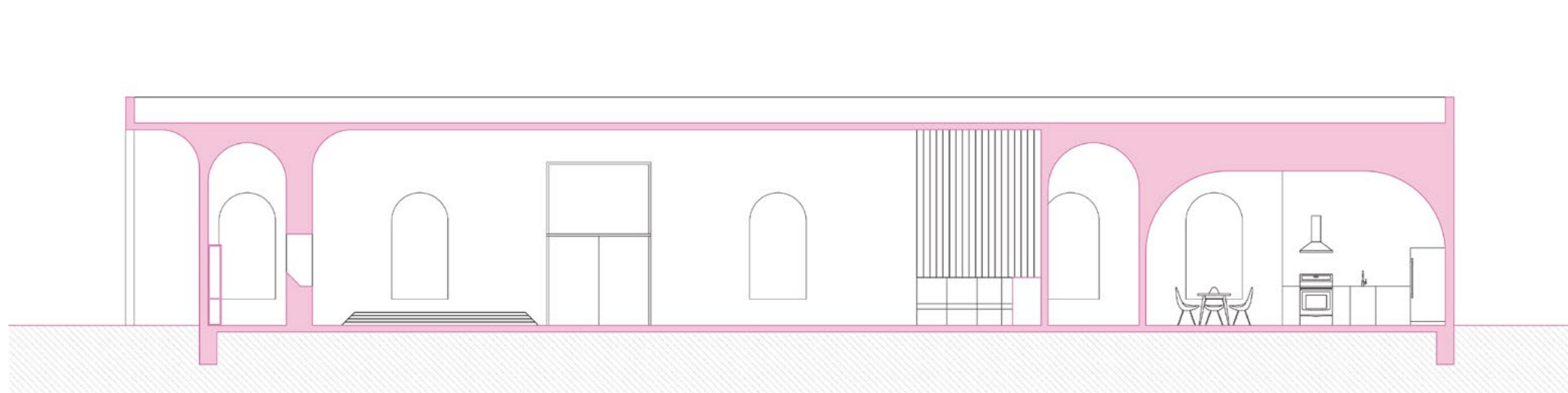
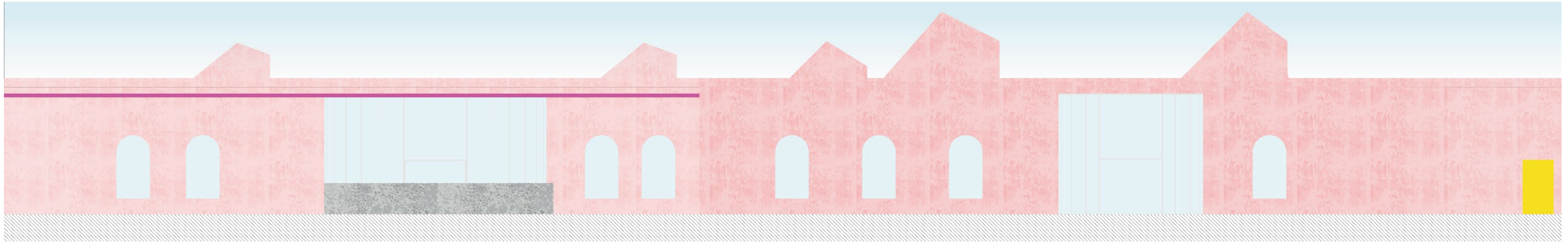
using the soft curved walls the large fluid space is broken up into four primary spaces: the nap area, the children's cubby space, the lounge, and administrative space. as the children who appropriate the space arrive they weave through the cubby space using the openings in the curved wall. while some run out the openings in the curved wall to play outside other follow the movement of the space into the lounge area where they can sit and draw, read, play and perform. as the day goes by and they tire out they can find their way to a more secluded corner of the building where they can take a nap.



the community library not only re-imagines the scale of the library, but also its supportive role in the collage of everyday life. the library is no longer only an archive. rather it becomes a vessel of knowledge and access. similar to the other interventions explored in this project the building is primarily composed of open spaces framed by curved walls that promote movement. in its new roll the library becomes a place where members of the community come to do more than just read. the spaces created by the building's form allow for flexibility in program allowing the library to transform into a community meeting hall, provide space for

essential services such as tax preparation, english as a second language courses, legal and immigration consultation, group therapy sessions, after school programs, and access to the internet. the library sits across an interior courtyard from the daycare. the courtyard is created by the puzzle like nature of the buildings which become one through the use of the canopy, providing space which is neither entirely interior or exterior. rather than facing the main street on the northern side of the lot the main entrance faces the alley on the east side. this choice echoes the intention of re-imagining the existing infrastructure and the way its used, promoting the alley as a new formal way of mobility throughout the neighborhood.





REFLECTION

this project allowed me to dig deeper into my still flourishing architectural interest. particularly the exploration of architecture at a multiplicity of scales , architecture's cultural and societal impact , and the agency a designer has to re-imagine the built environment in favor of the people rather than against it. this experience was not easy by any means whatsoever. at times I fell victim to my own doubts and fears. however, throughout the process of this project I have become a more confident designer and have grown exponentially from the very first time I sat down in a design studio. I look forward to continue exploring who I am as a designer, and have faith that the work I contribute to the field will be significant no matter the scale of intervention.

