



Development of the Youth

Jeremy M. Bickel

How can design contribute to the development of the country's youth?

Thesis Abstract

This thesis presents research on the benefits well designed youth centers can have on children as they grow into adulthood. The typology of this project is a center for the study of children maturation. The site is in Minot, ND, which is in the midst of major growth and development in response to the booming oil industry. The project's theoretical premise/unifying idea is: Architecture can contribute to a better understanding of the process of childhood maturation.

Keywords Youth Center
Development
Child
Interact
Grow

Project Typology A center for the study of childhood maturation.

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Supporting Premises Properly designed buildings have been shown to enhance the development of young children.

Childhood development is influenced in part by forces outside of the family.

Young children develop in groups as well individually.

The positive development of children can be assured through the experiences they receive in early childhood education.

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Project Justification As the city of Minot grows rapidly, as the population expands, the children of the city will grow up in a booming economy. The ways that they grow and mature in this environment can be studied and provide insight into characteristics the built environment needs to exhibit to help see these children through to maturity.

User/Client Description

OWNER

This childhood maturation research center is to help understand and better the maturation development of the youth of Minot, ND. This center will be owned by the Minot Public School System; managed by afterschool program directors, college child education students, and other volunteers experienced with the youth.

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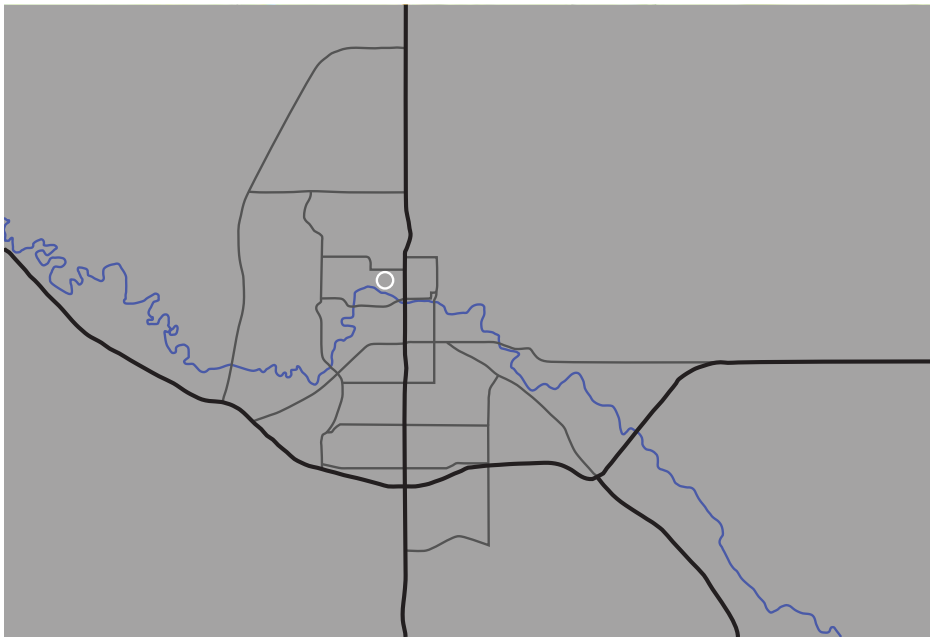
USERS

The main users of the building and its program will be the youth of Minot. The building will need to be easily accessible and usable for anyone with a disability. There will be spaces available (interior and exterior) for the interaction of children with one another, along with spaces for social development. The building will acquire steady usage during the week after hours of when school is let out, as well as during the weekend. There will be a minimal requirement for parking, which is intended for staff and parents or guardians, whom are picking up or dropping off children. Most children will arrive on afterschool bus routes, bikes, walking, or parent drop off. The space is open to the youth, so there will be many different cultural, social, ethnic and economic backgrounds of the children using the facility.

Site Information

REGION

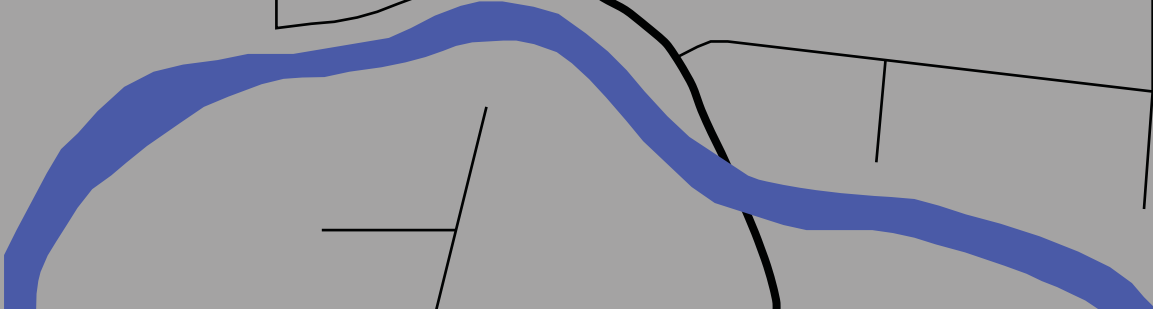
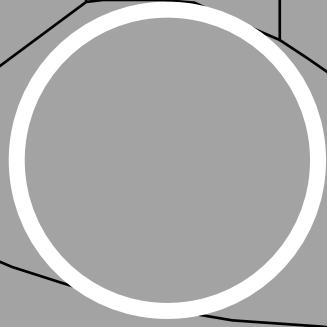
Minot, ND is located in the central region of North Dakota. The city is located on the lower end of the Souris River, which starts and ends in Canada.

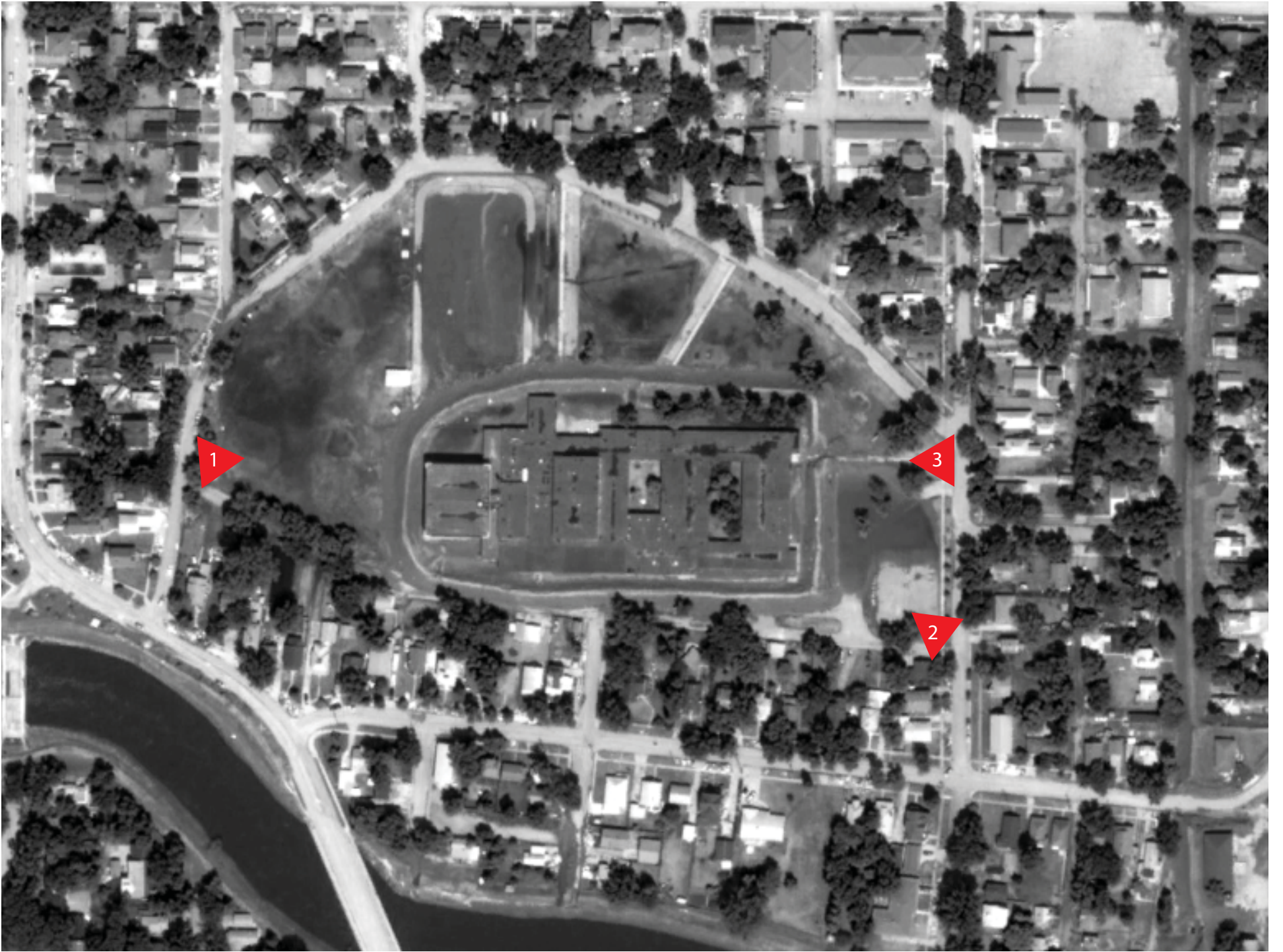


CITY

Minot is to be considered one of the larger cities in the state of North Dakota. The population of Minot according to the 2010 Census is 40,888. The city became in existence in 1886 when railroad work stopped for the winter.

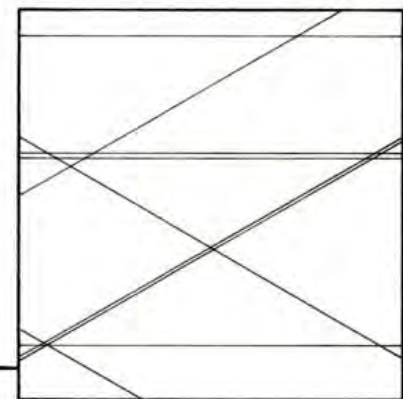
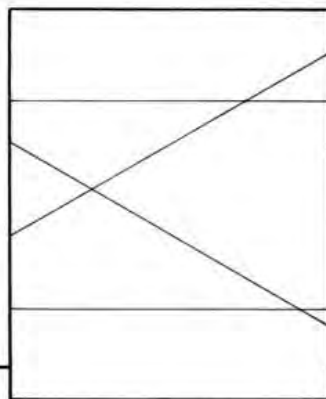
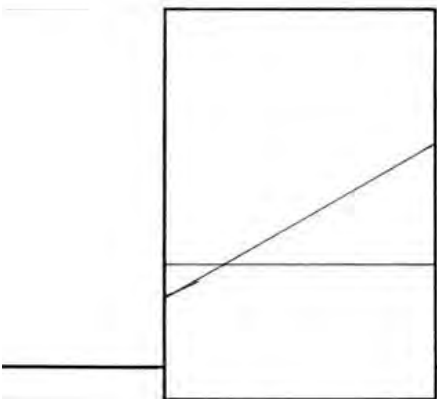
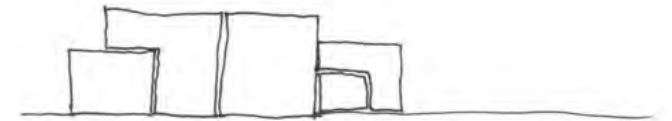
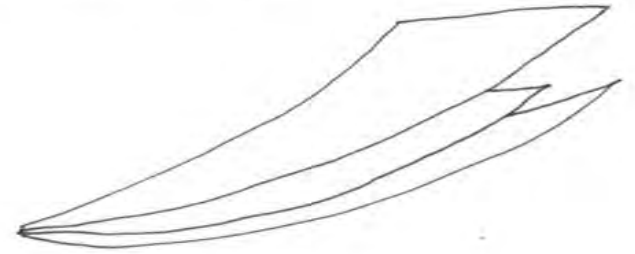
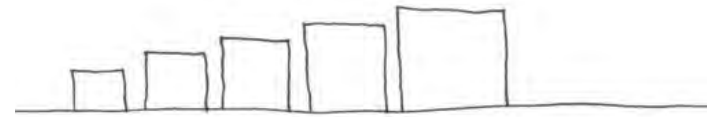
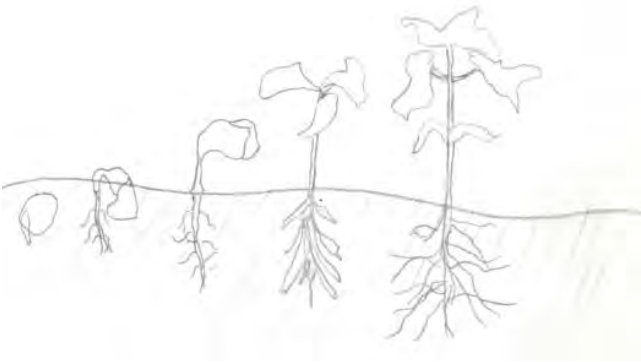
Minot State University

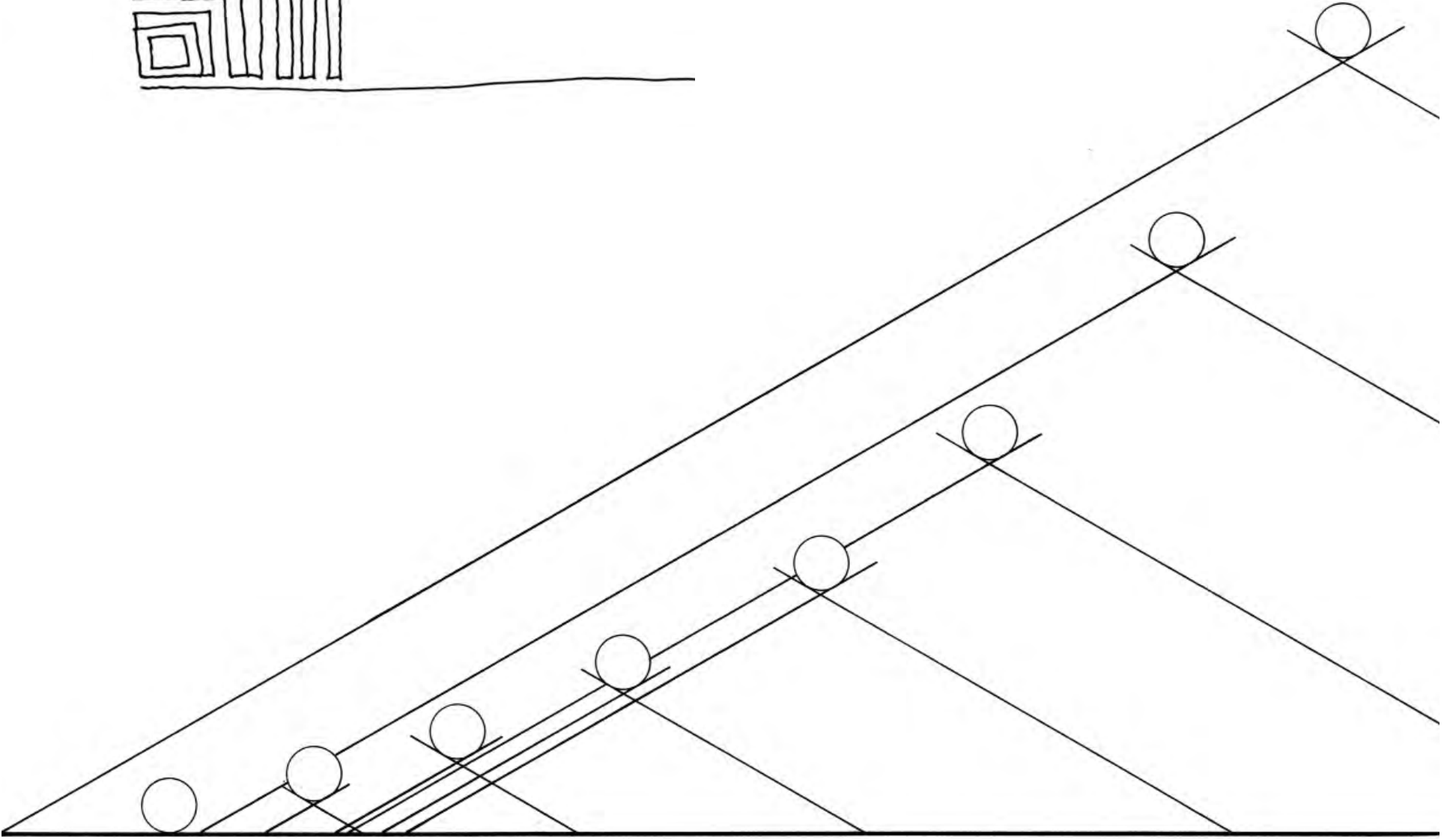




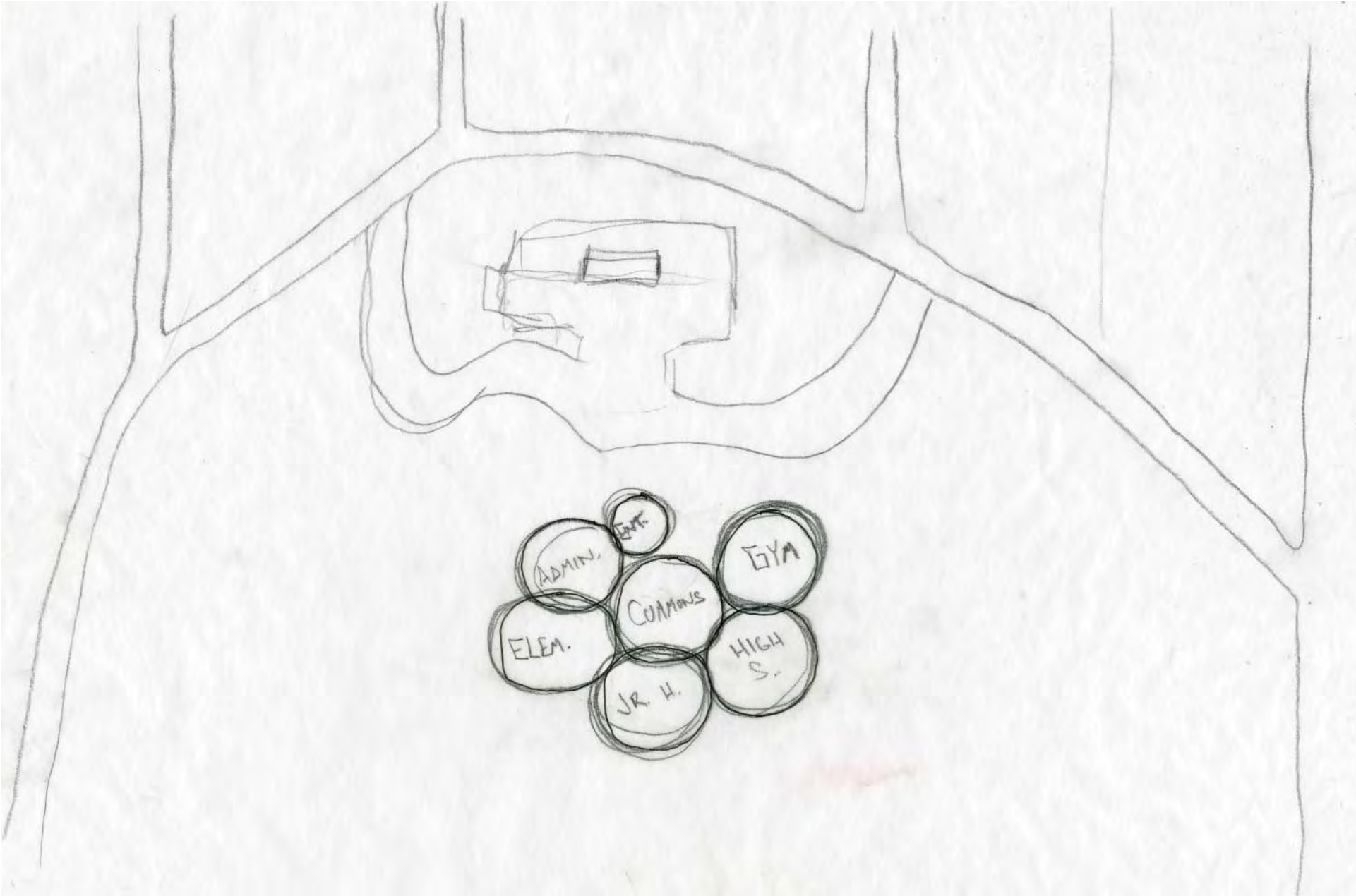


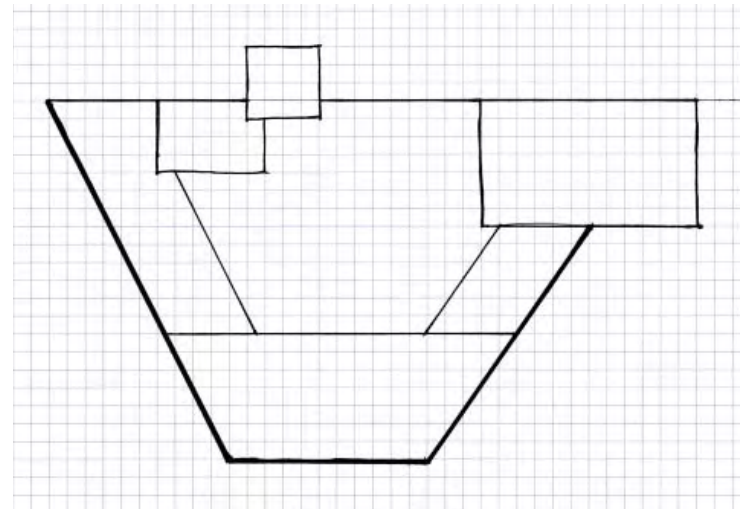
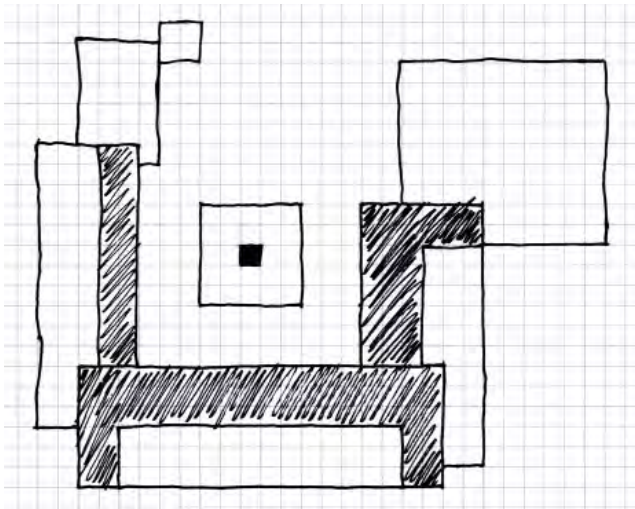
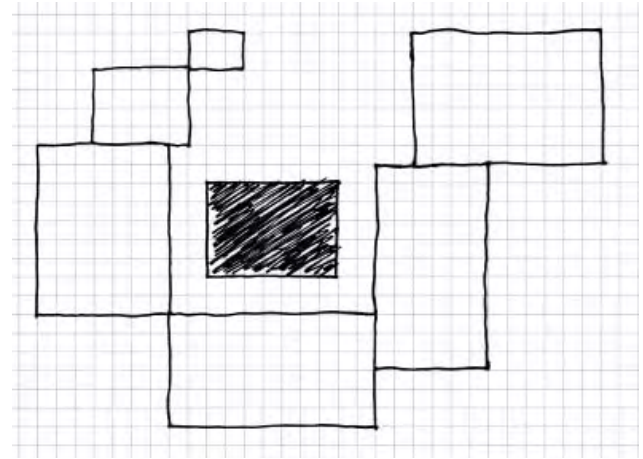
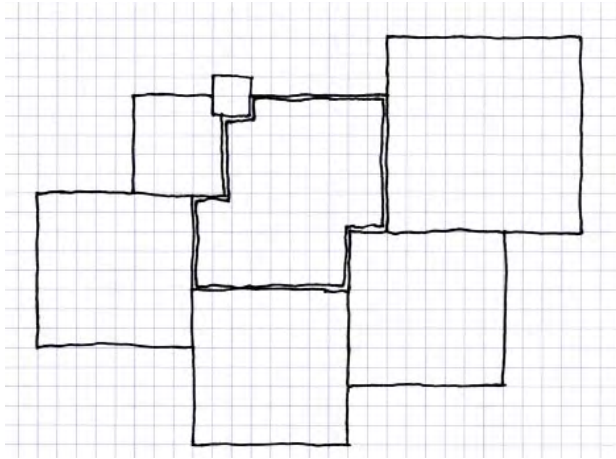
Inspirational Sketches

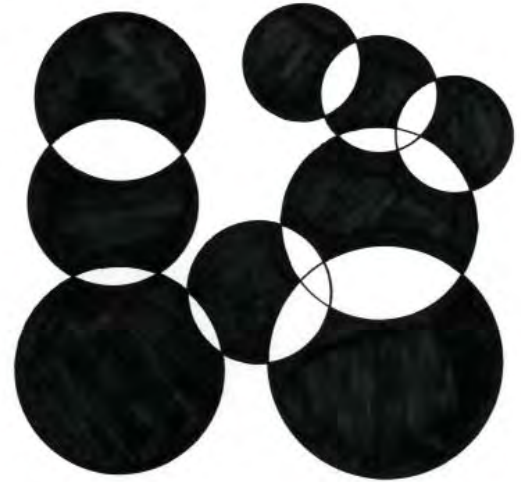
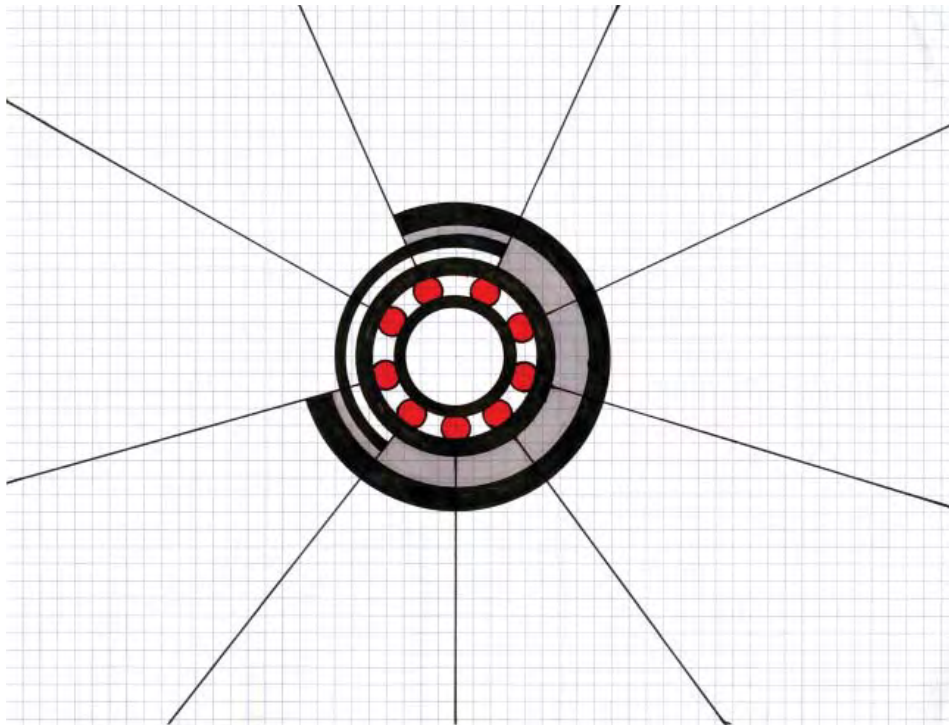
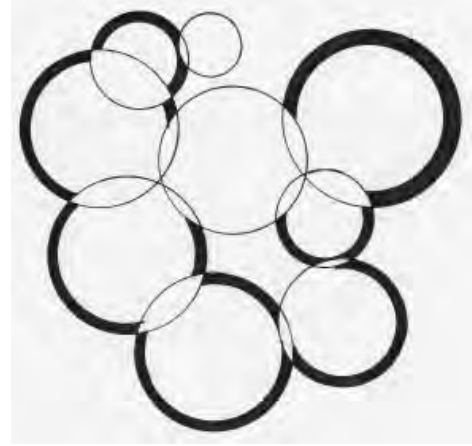
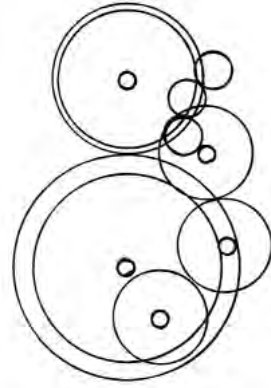
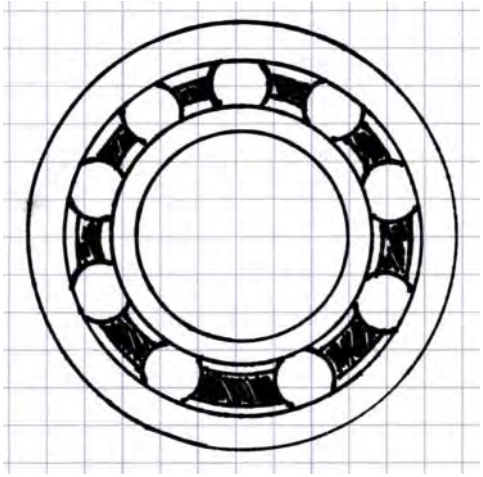


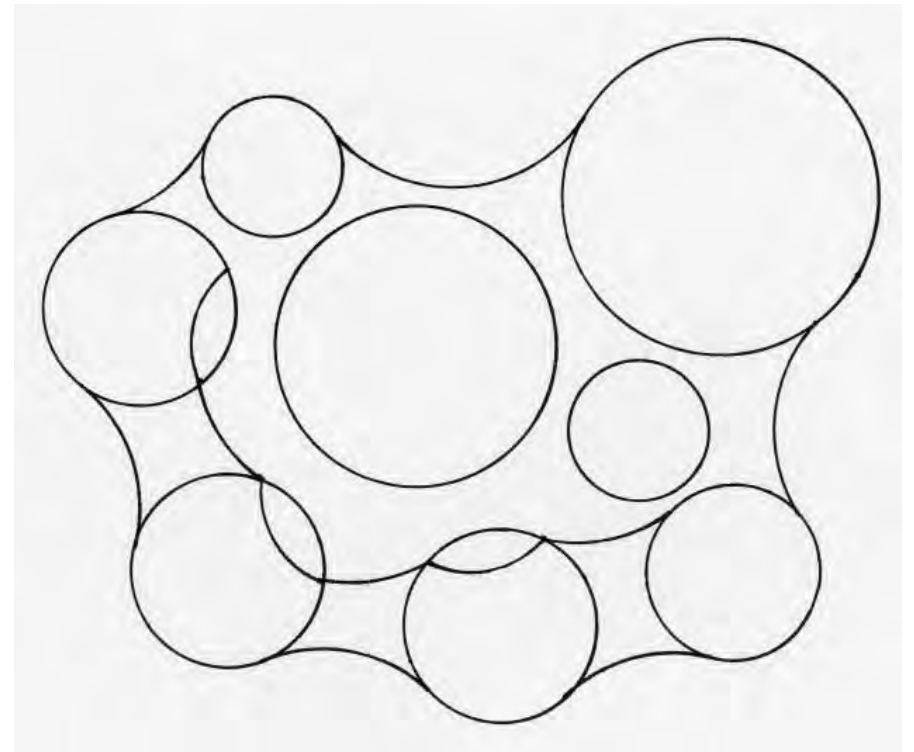
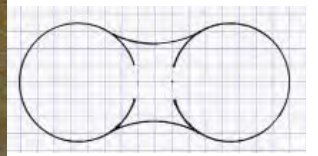
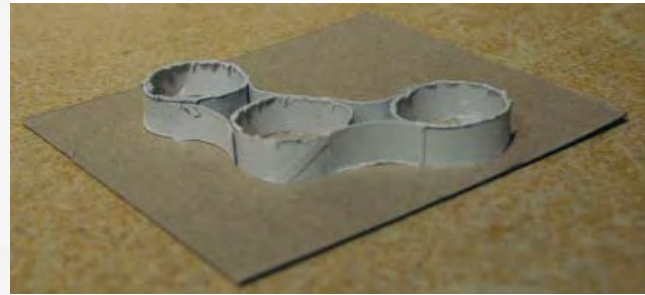
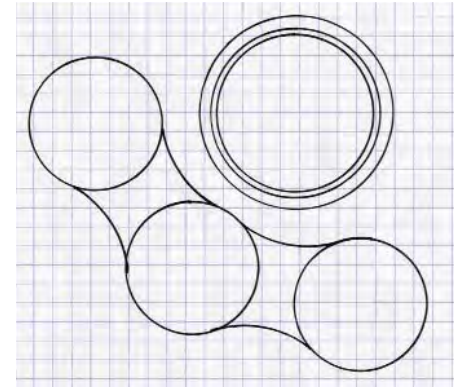
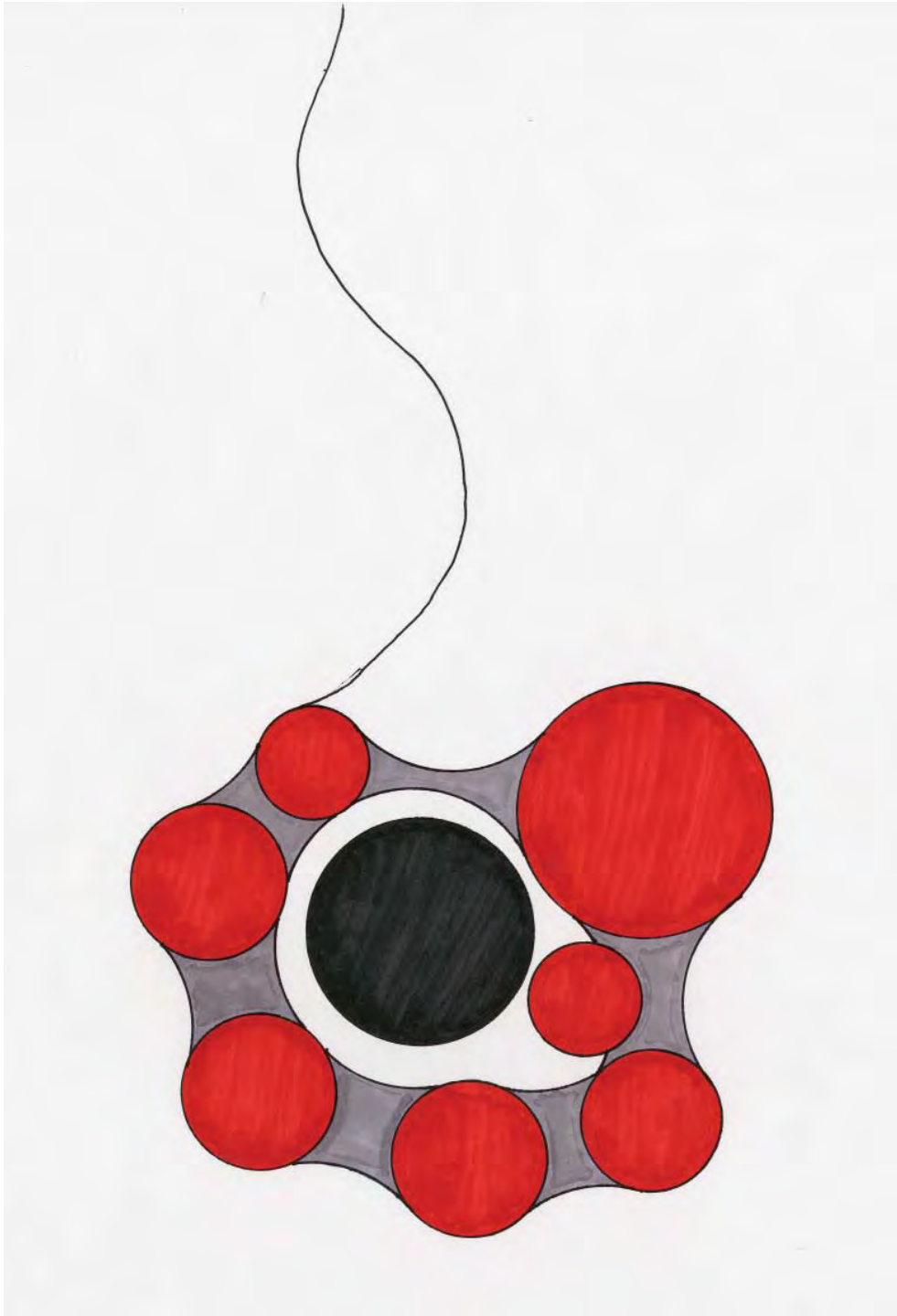


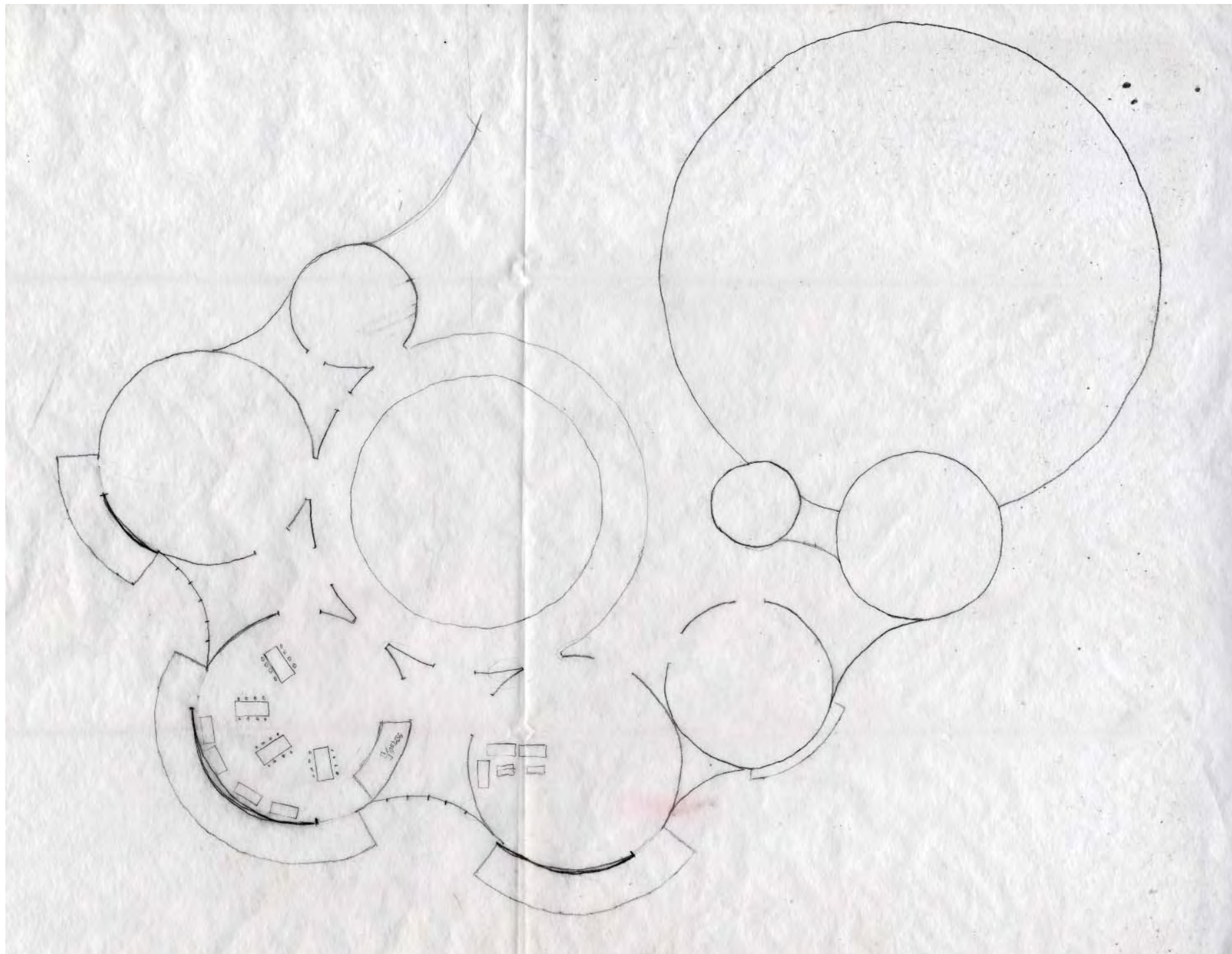
Spacial Organization





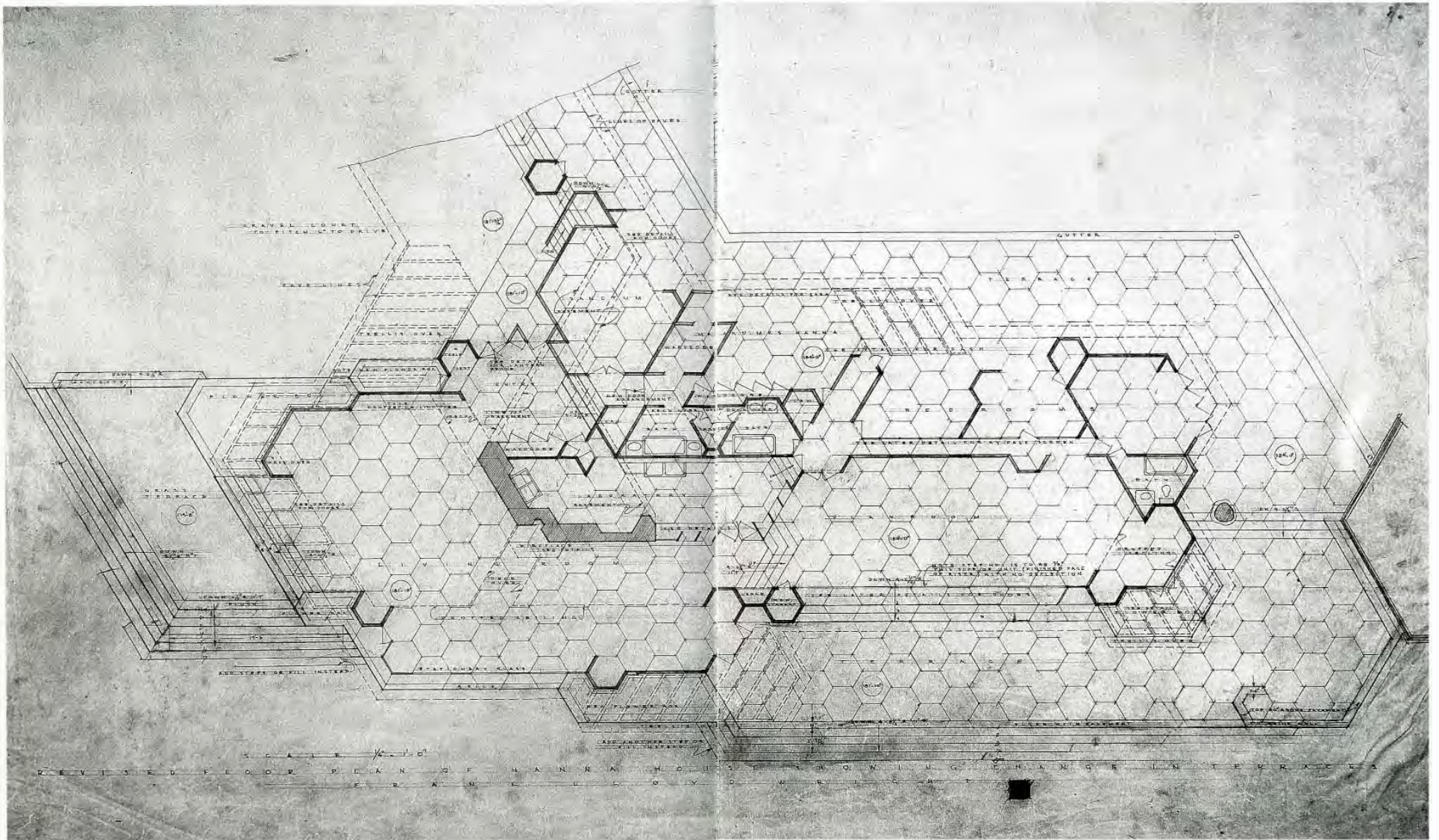






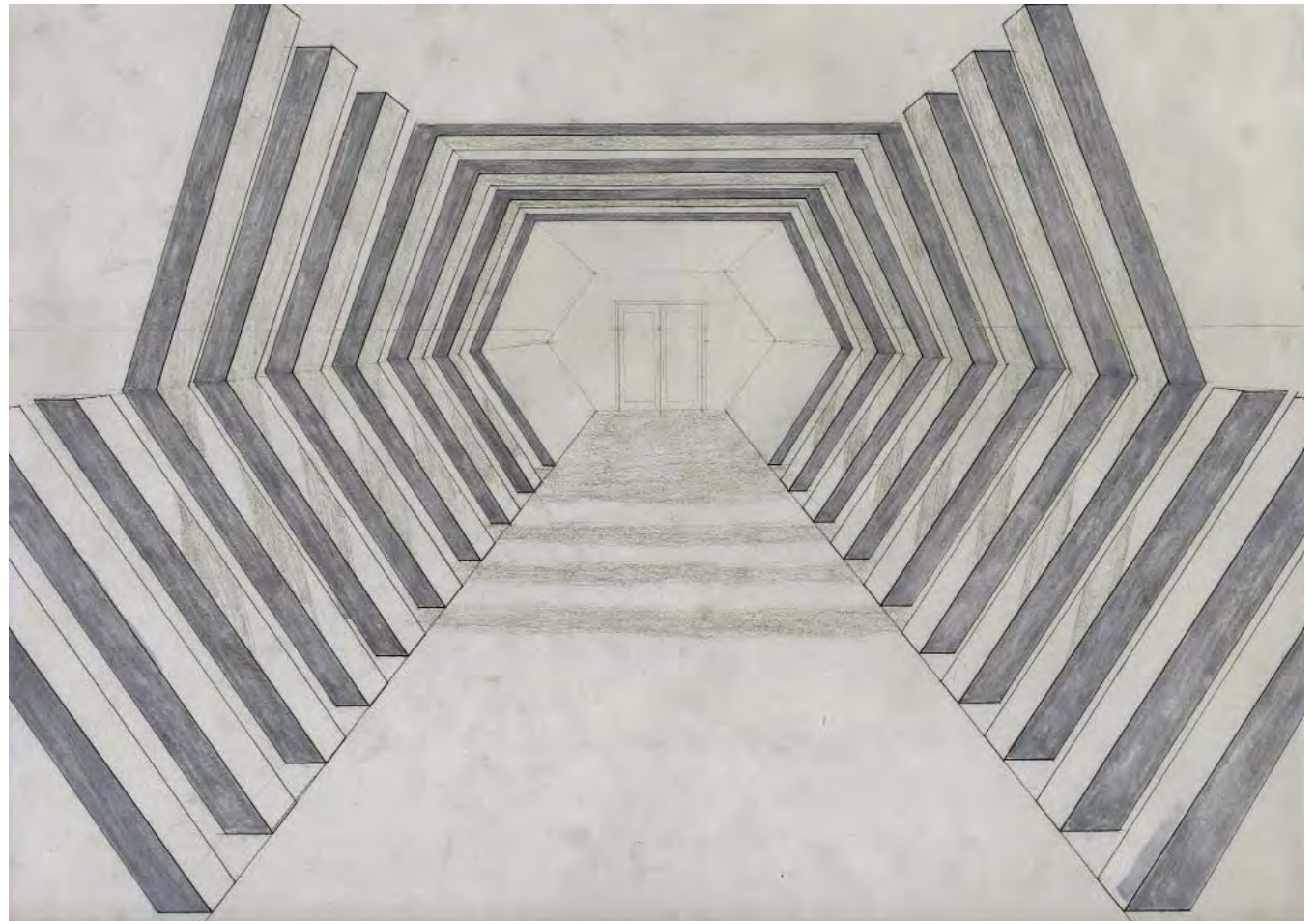
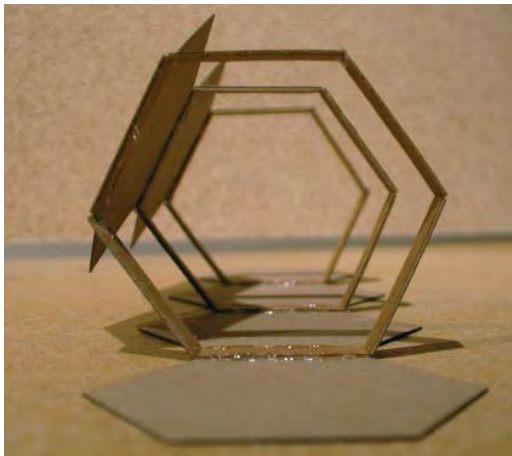
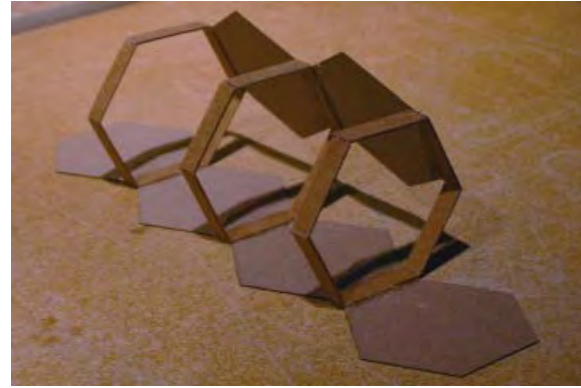
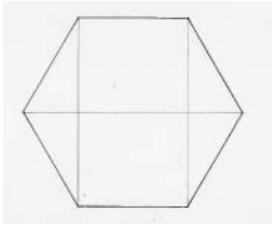
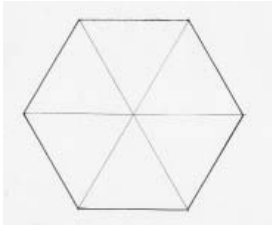
Frank Lloyd Wright: *Usonian Houses*

“Honeycomb House”, Stanford, California, 1936



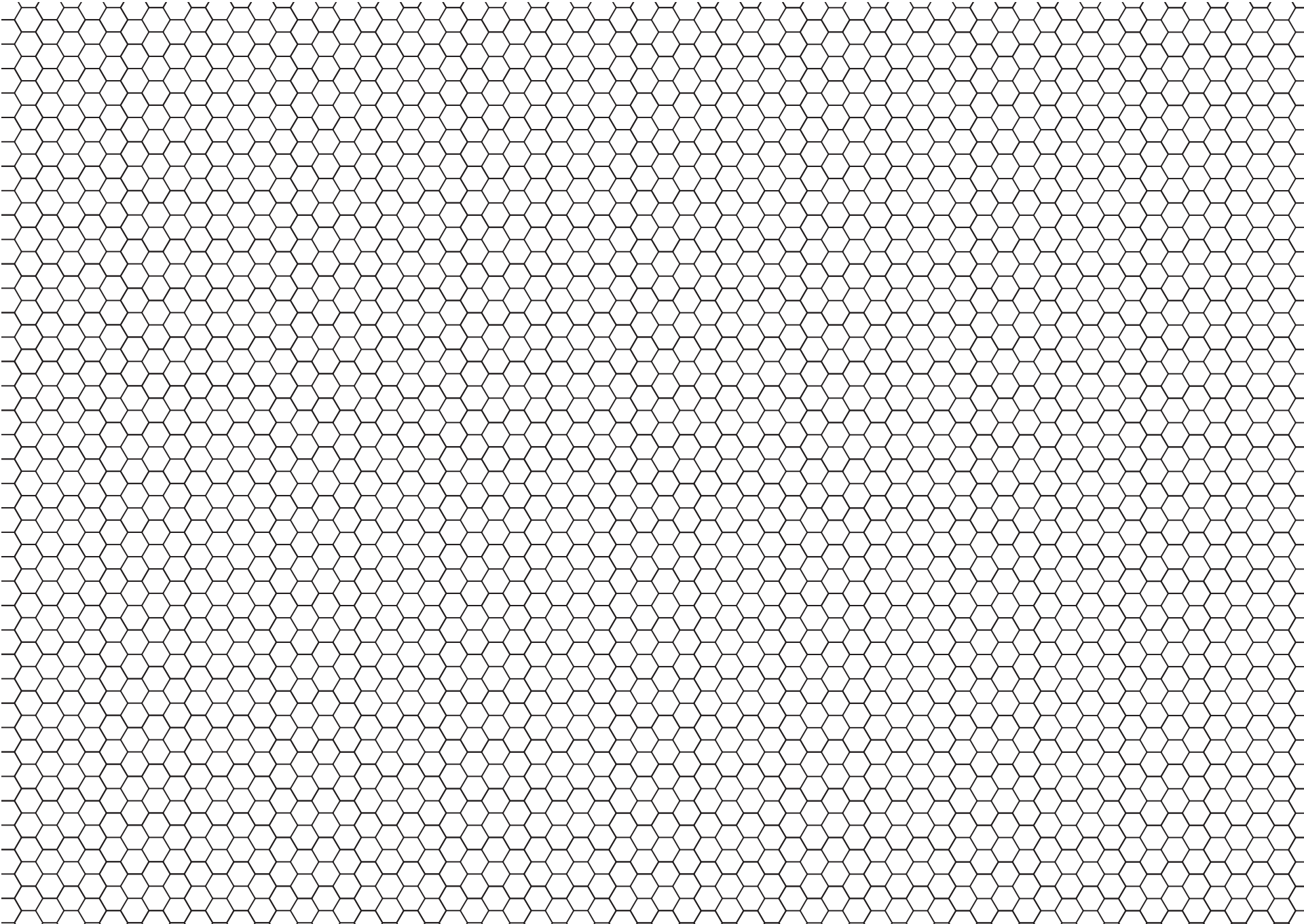
Plan

Hexagon Exploration

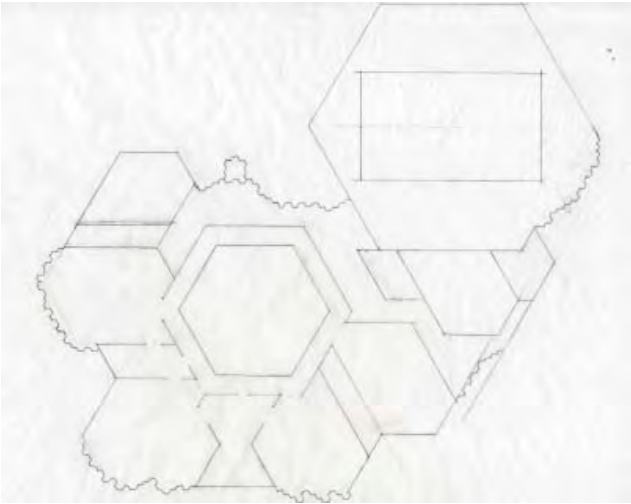
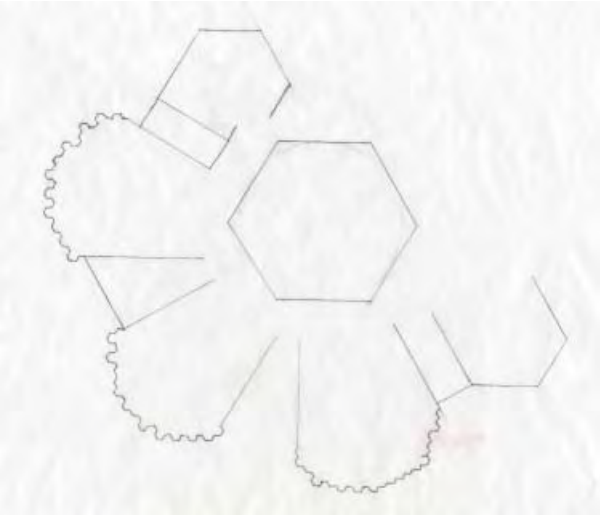
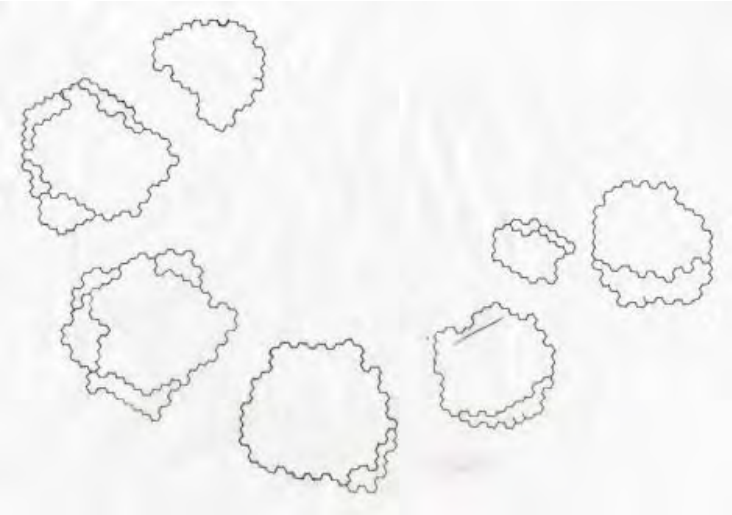


Hexagon size used in F.L.W's "Honeycomb House".

Each segment of the hexagon is 2'-2" in length.



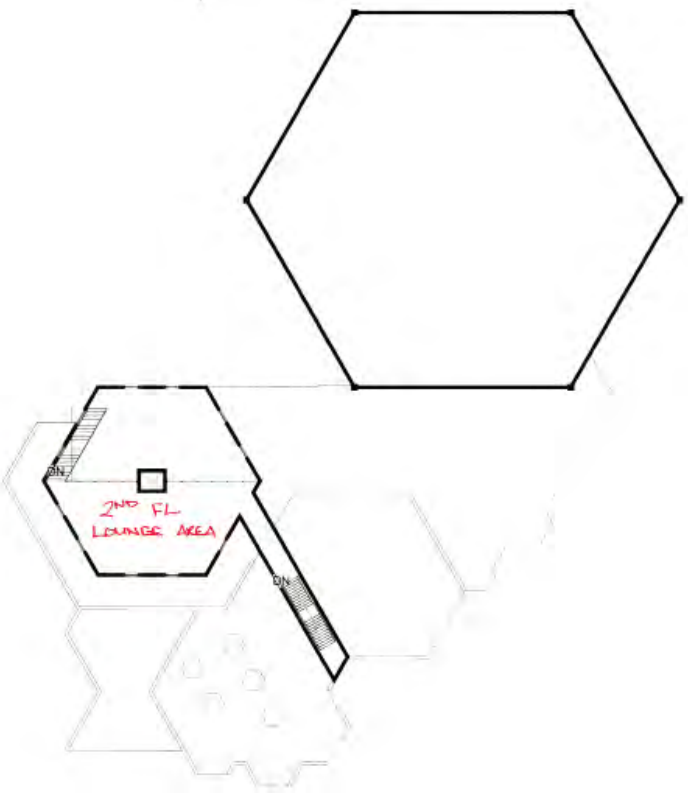
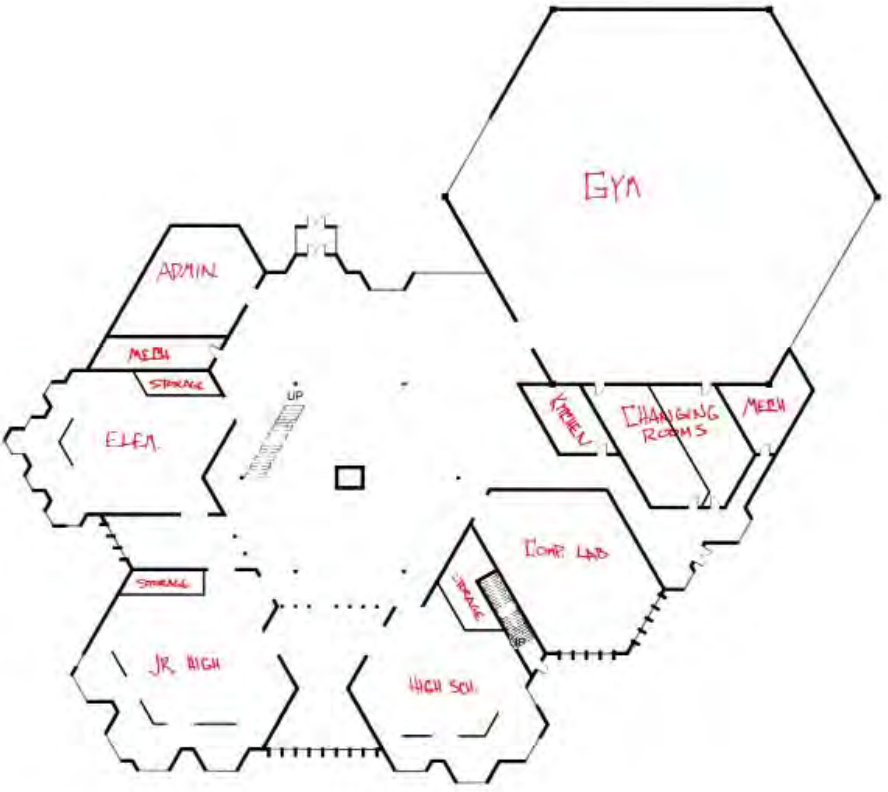
Exploring the 2'-2" grid with my building's layout.



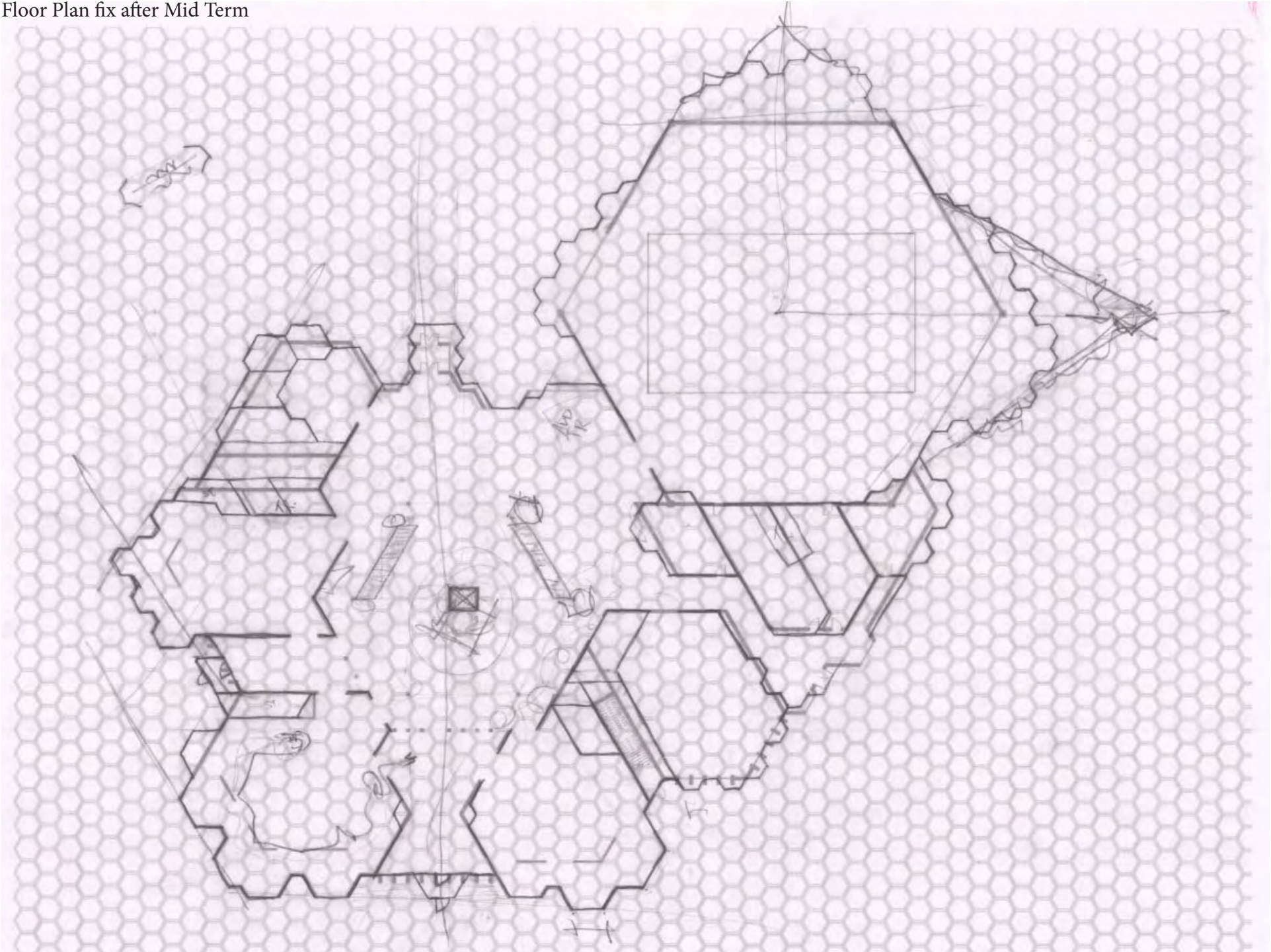
Doubled F.L.W's segment length to 4'-4" and used those dimensions for the superstructure.



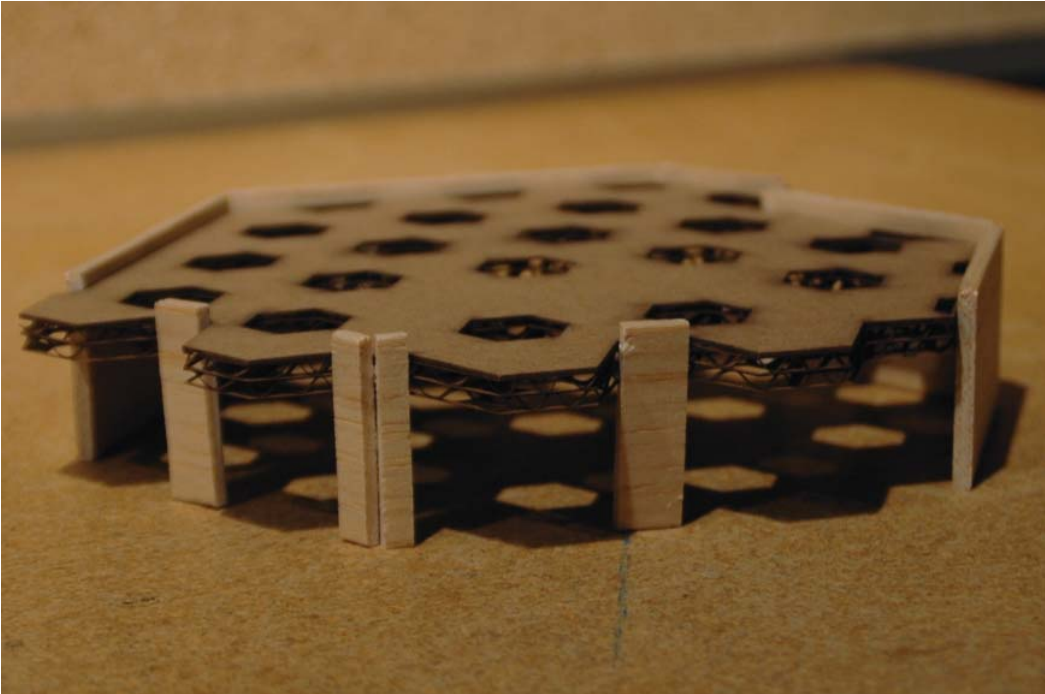
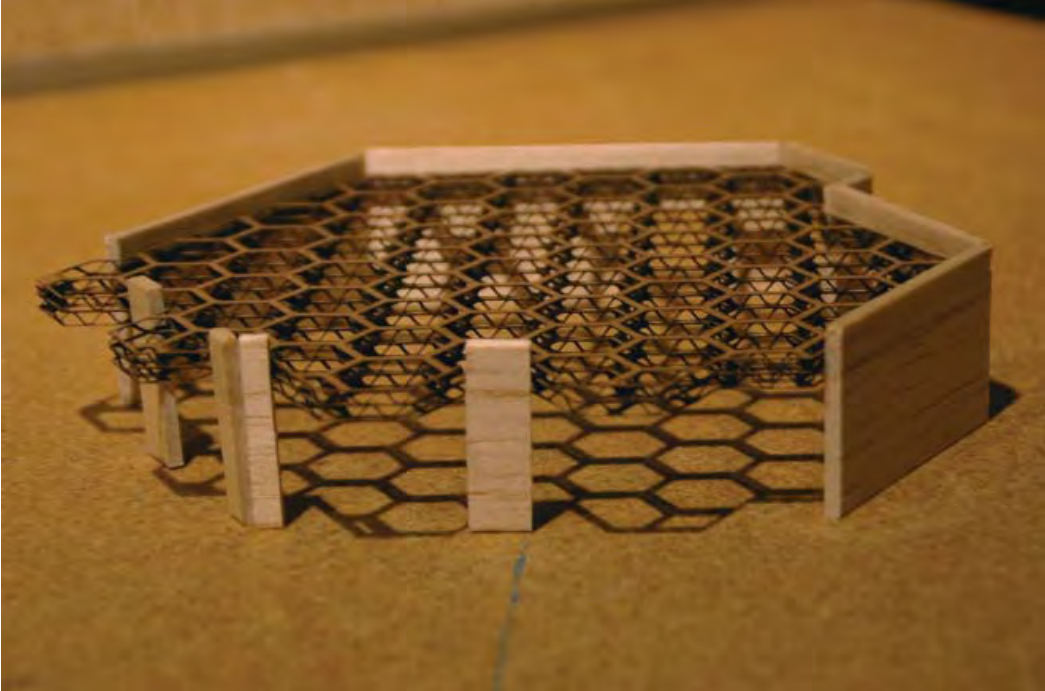
Floor Plans at mid term.



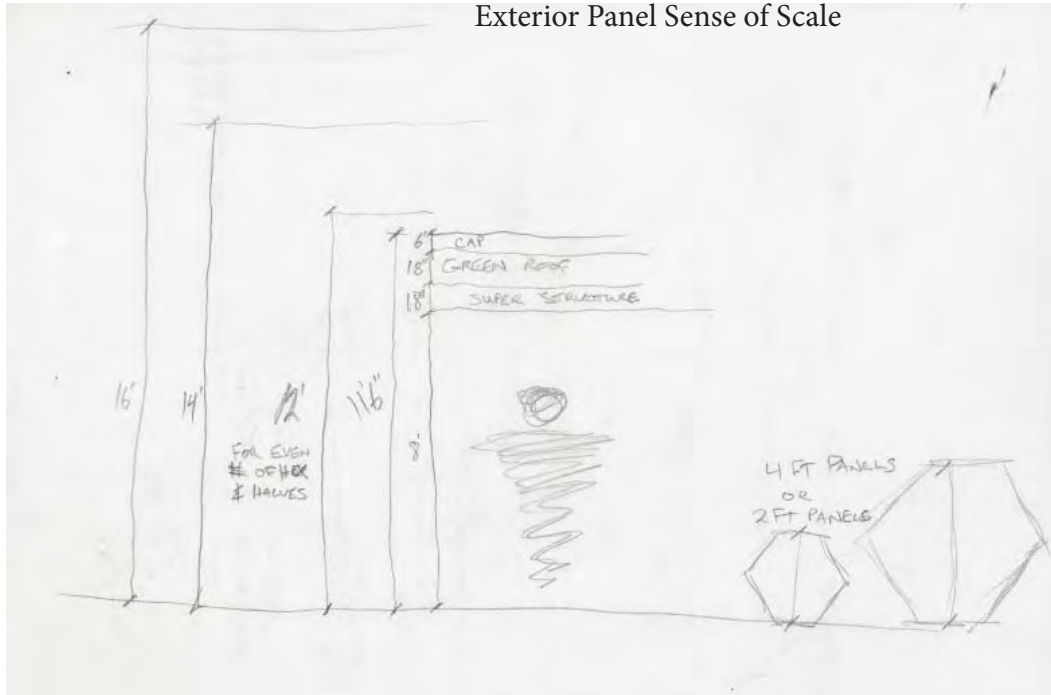
Floor Plan fix after Mid Term



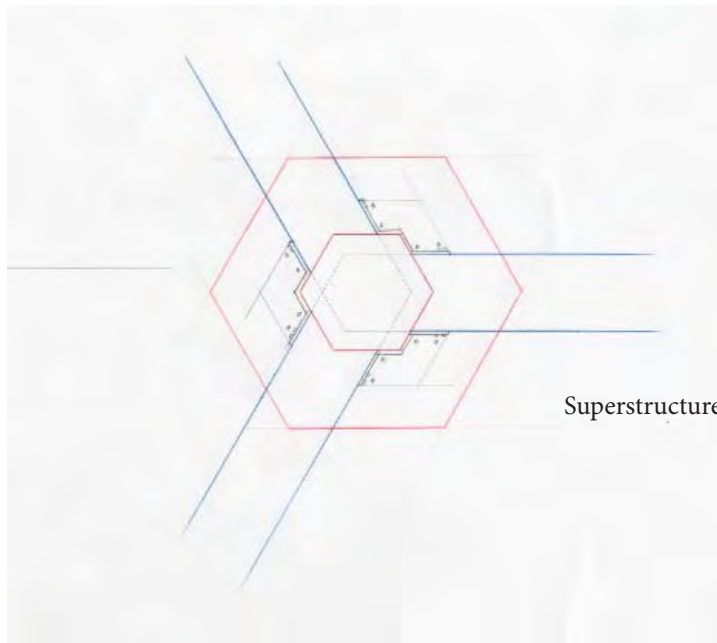
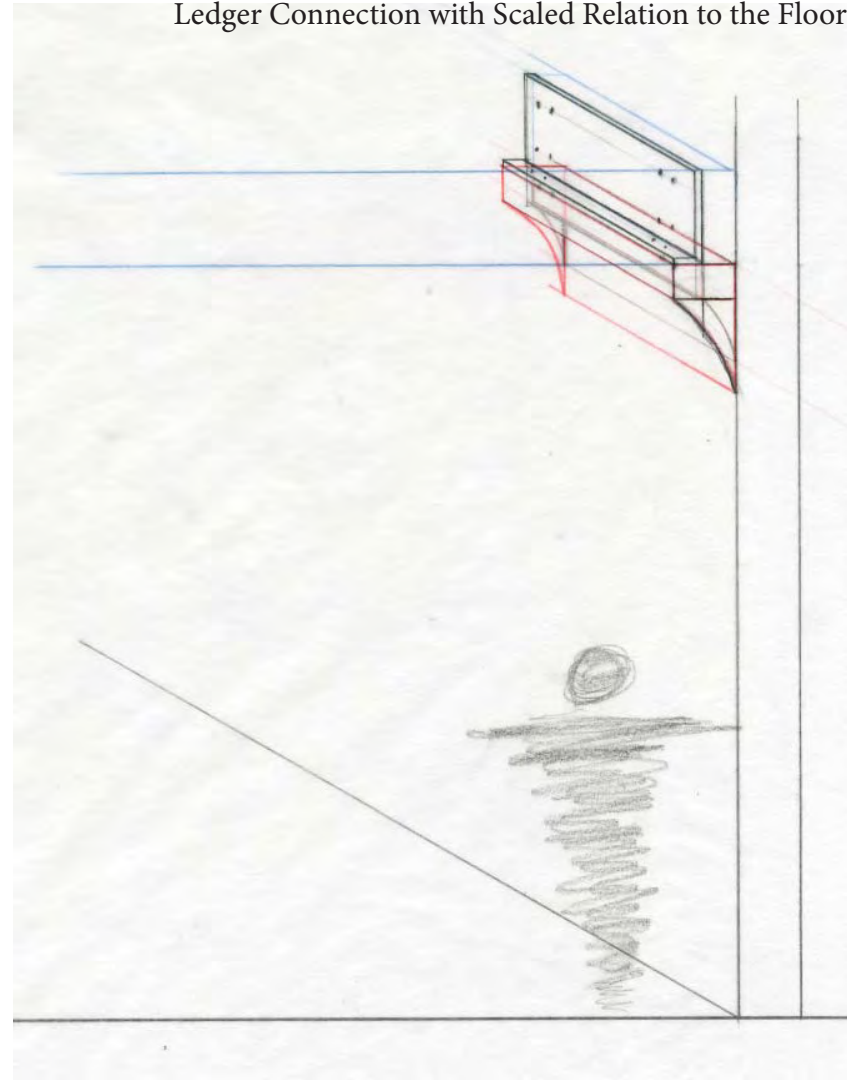
Superstructure Model



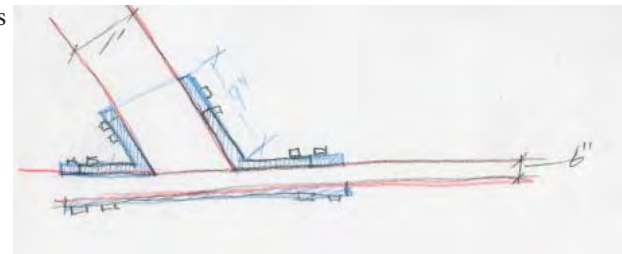
Exterior Panel Sense of Scale

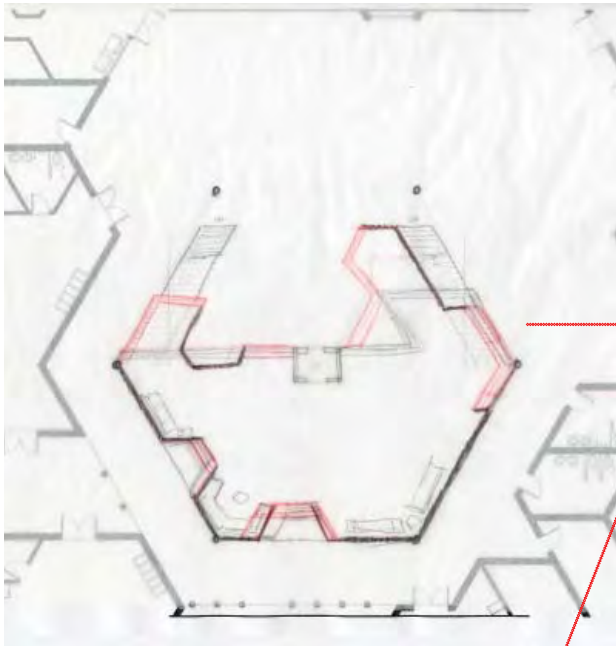


Ledger Connection with Scaled Relation to the Floor

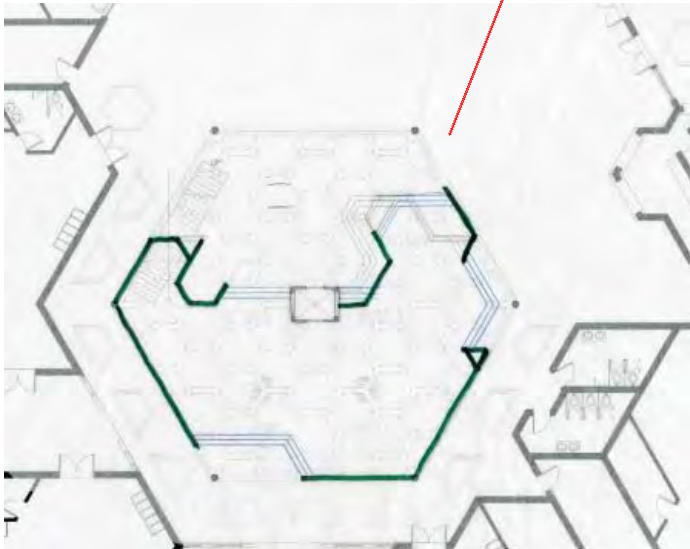
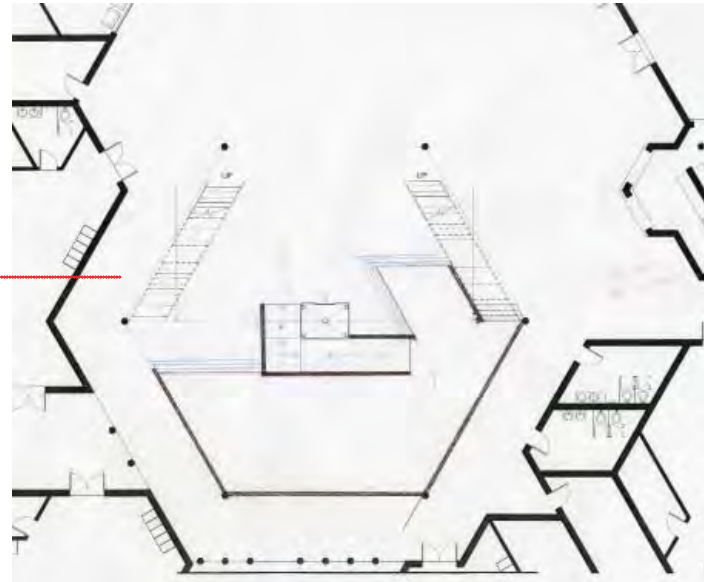


Superstructure Connection Sketches

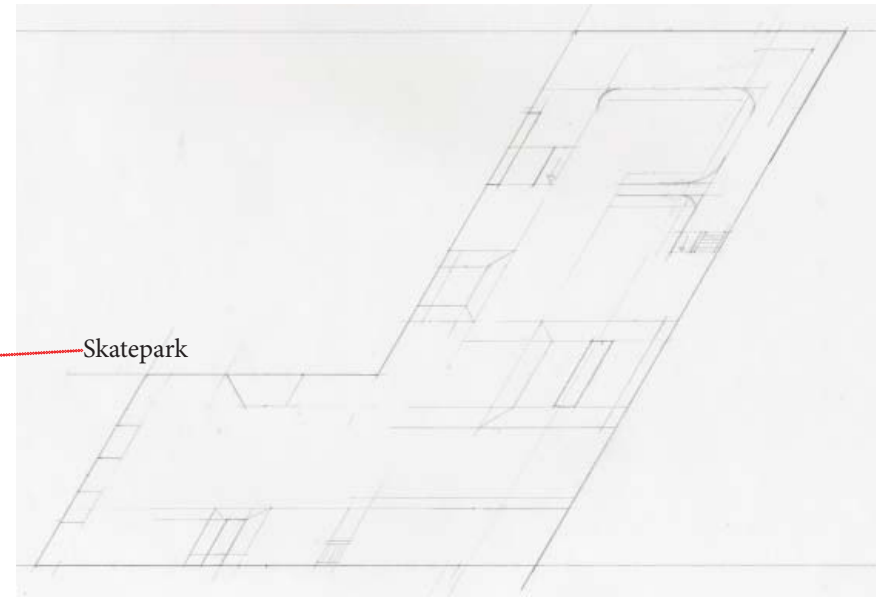
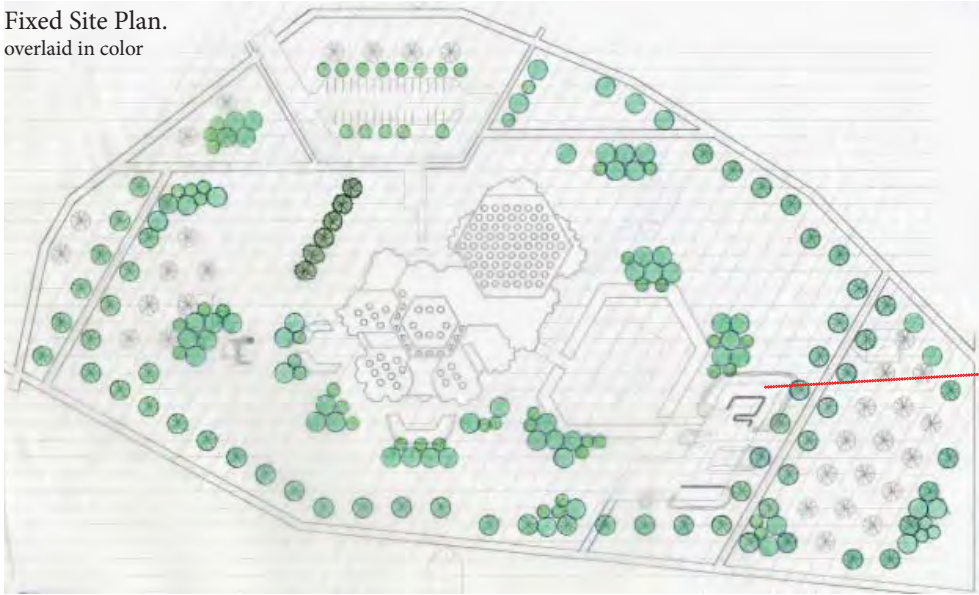




Atrium Sketches



Fixed Site Plan.
overlaid in color



Finalized Site Plan.

BIRCH MAPLE HONEY LOCUST

Final Drawings

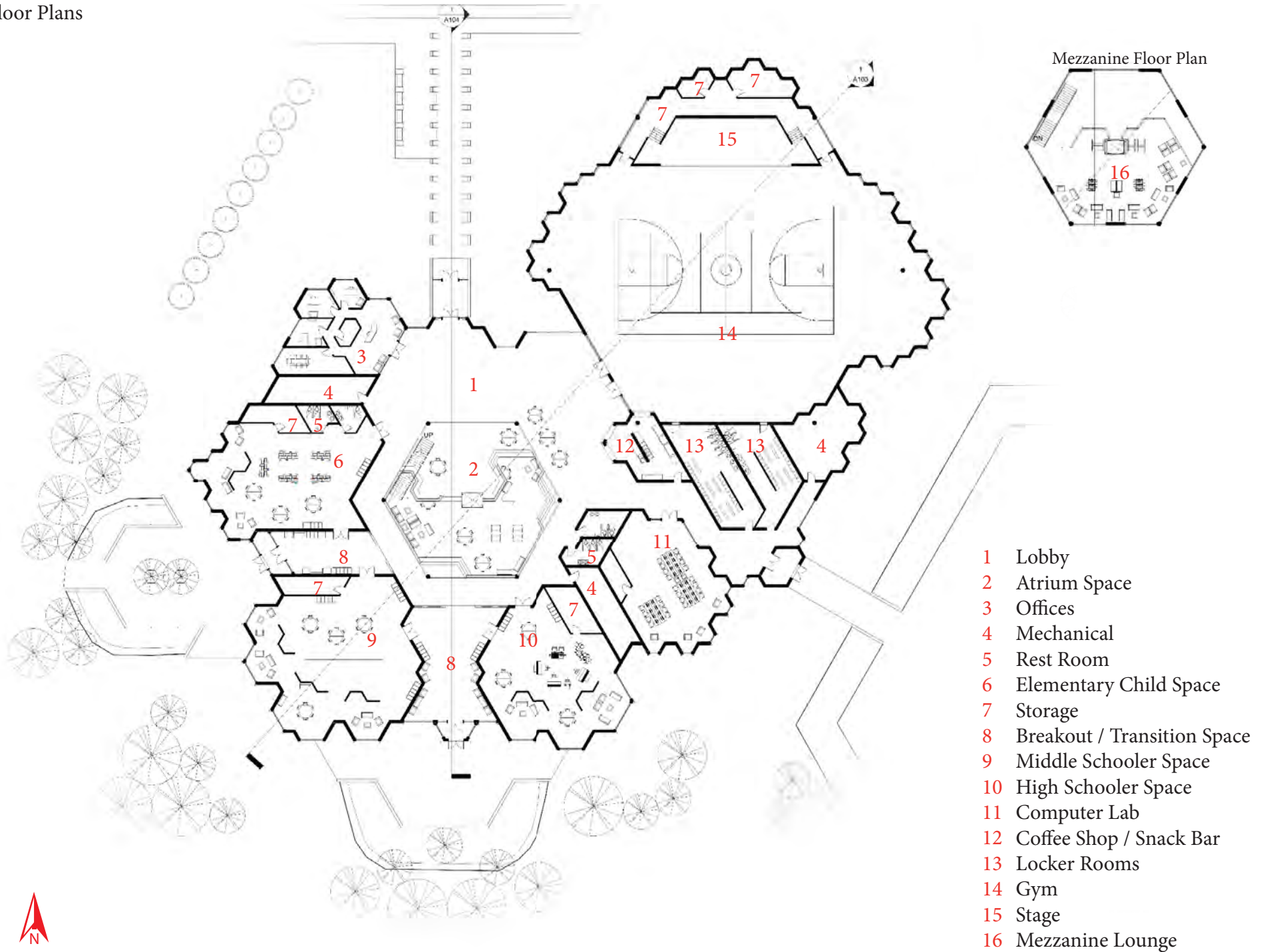
Bird's Eye View from SE corner of Site



Site Plan

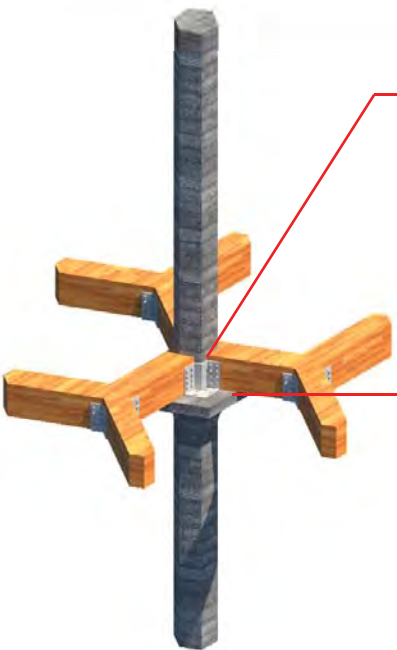


Floor Plans





Section Going NE to SW



Wood Glulam Beam
Connections to Wood Plank
Formed Concrete Column



Wood Glulam Beam Connections



Concrete Ledger

Wood Plank Formed Concrete Walls

Exterior Panels: Weathered Steel
Zinc
Copper



Section Going North to South

Exterior Entry Perspective



Interior Entry Perspective



Perspective from Atrium Step-Up



Mezzanine Perspective



Perspective of Elementary Child Space



Thank You.

Questions?