

# Homeless Center

Transitional Housing for Homeless Families



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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

Masters of Architecture In Architecture

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Key Words:

Homeless

Family

Transitional

”It’s about providing homelike characteristics, but at a more fundamental level it’s about providing choices for families...what they eat, what they’re going to do, and when. So what we attempted to do was identify a way to return control and a sense of hominess”

– David Berry



# Abstract

## Homeless Center

Transitional Housing for Homeless Families

Homelessness in D.C. has been on the rise for a while but now it is getting to the point where it is becoming a major issue. In one year, according to a Department of Housing report (November 2016), homeless in Washington, D.C., rose by 14.4 percent. As a result, the Mayor has proposed a plan to end homelessness with seven shelters, one in each ward of DC. The shelter that this thesis is proposing would be a combination of a typical homeless center with the added benefits of an overall rehabilitation center. These features combined will provide a place where the homes can transition from their current state to a state where they can then support themselves and their families.

# General Audience Abstract

## Homeless Center

Transitional Housing for Homeless Families

Homelessness is a rising problem in the Washington, D.C. area. Families with children are now the most dominant homeless population in the D.C area due to the gap between a living wage and an actual wage. Through study and analysis, it was noted that a one night shelter was not effective in ending homelessness but a therapeutic, rehabilitation center is. From these ideas, it was decided that a six month to one year residency homeless center would be the best thing to design to better help the growing homeless population.

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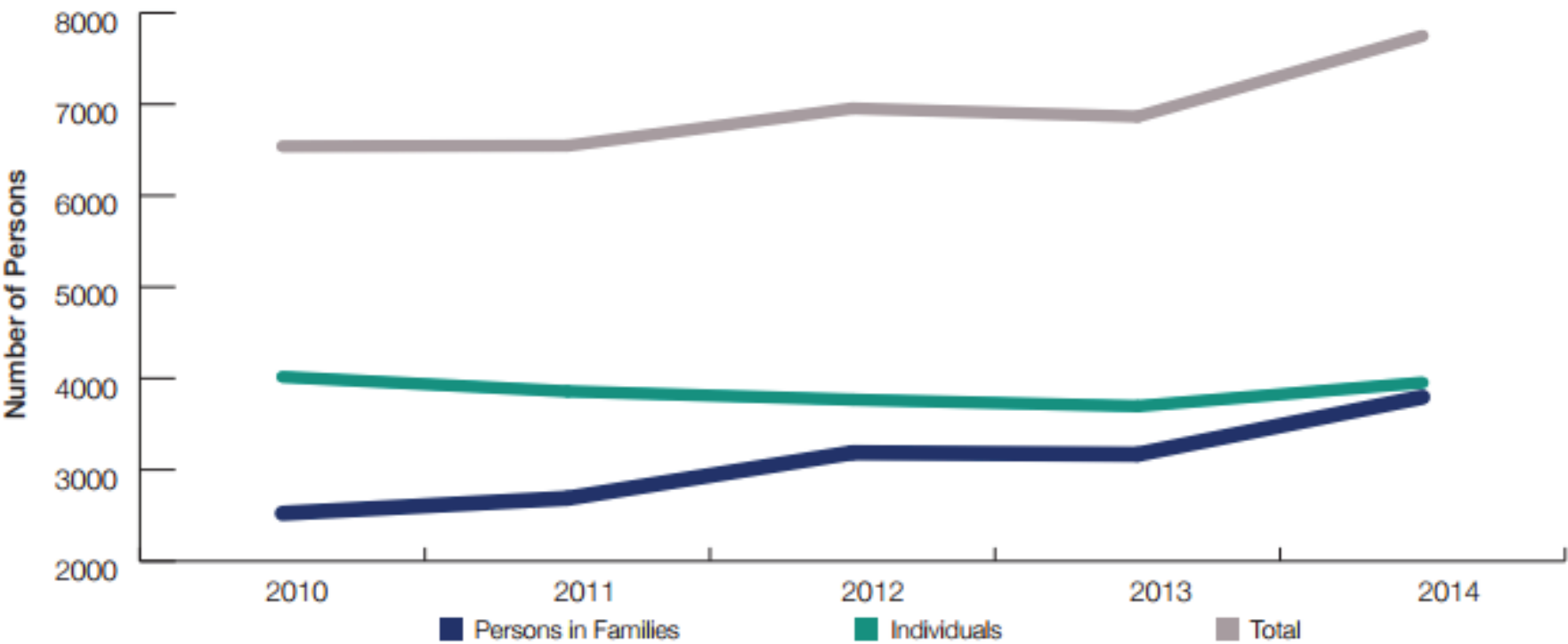
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# The Problem and DC Homeward Plan

The homeless population in Washington D.C. has been increasing due to rising housing cost and a lack of affordable housing. With more and more people residing in homeless center there is a need for more housing to shelter the increasing homeless population. This is where the Homeward DC Program comes in. This program seeks to build enough shelters by the year 2020 so that homelessness in D.C. will be "a rare, brief, and non-recurring experience". With this in mind, I set out to design a homeless center that would be located in Washington, D.C.



**Point In Time (PIT) Count.** Every January, cities across America spend one night doing a comprehensive count of people experiencing homelessness. The PIT only captures people who are unsheltered and sheltered (in emergency shelter or transitional housing), but not people that are doubled-up. Although people flow in and out of the system throughout the year, the PIT provides a snapshot that allows us to compare change in the population over time.

Figure 1: Chart showing number of homeless families and individuals in D.C. through the years

Most homeless shelters are designed to house only for one night instead of giving the homeless permanent residency. By designing a facility in which the homeless have temporary housing and are able to receive career and psychological help, they are being given the opportunity to get back on their feet and find a job and support themselves. As a result of the design of this center, the homeless population will be reduced.

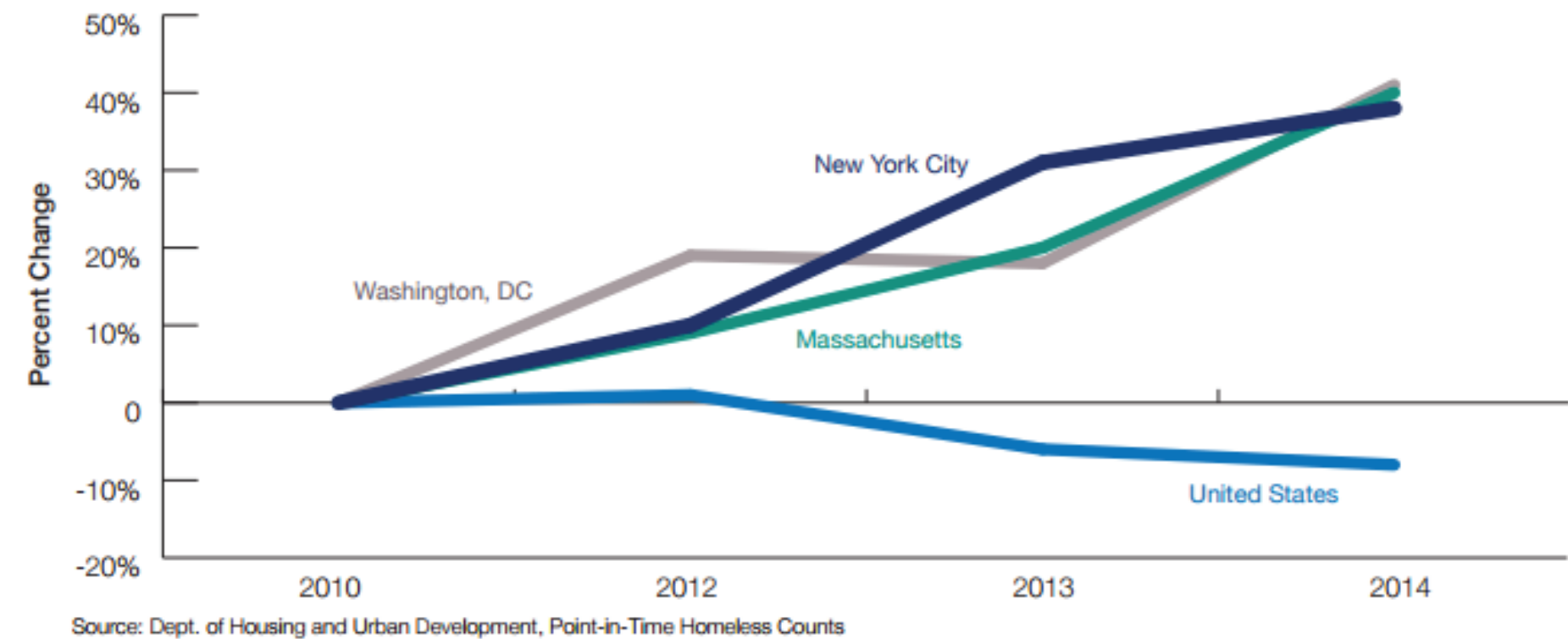


Figure 2: Chart showing the percentage change of homelessness in major cities compared to the US average

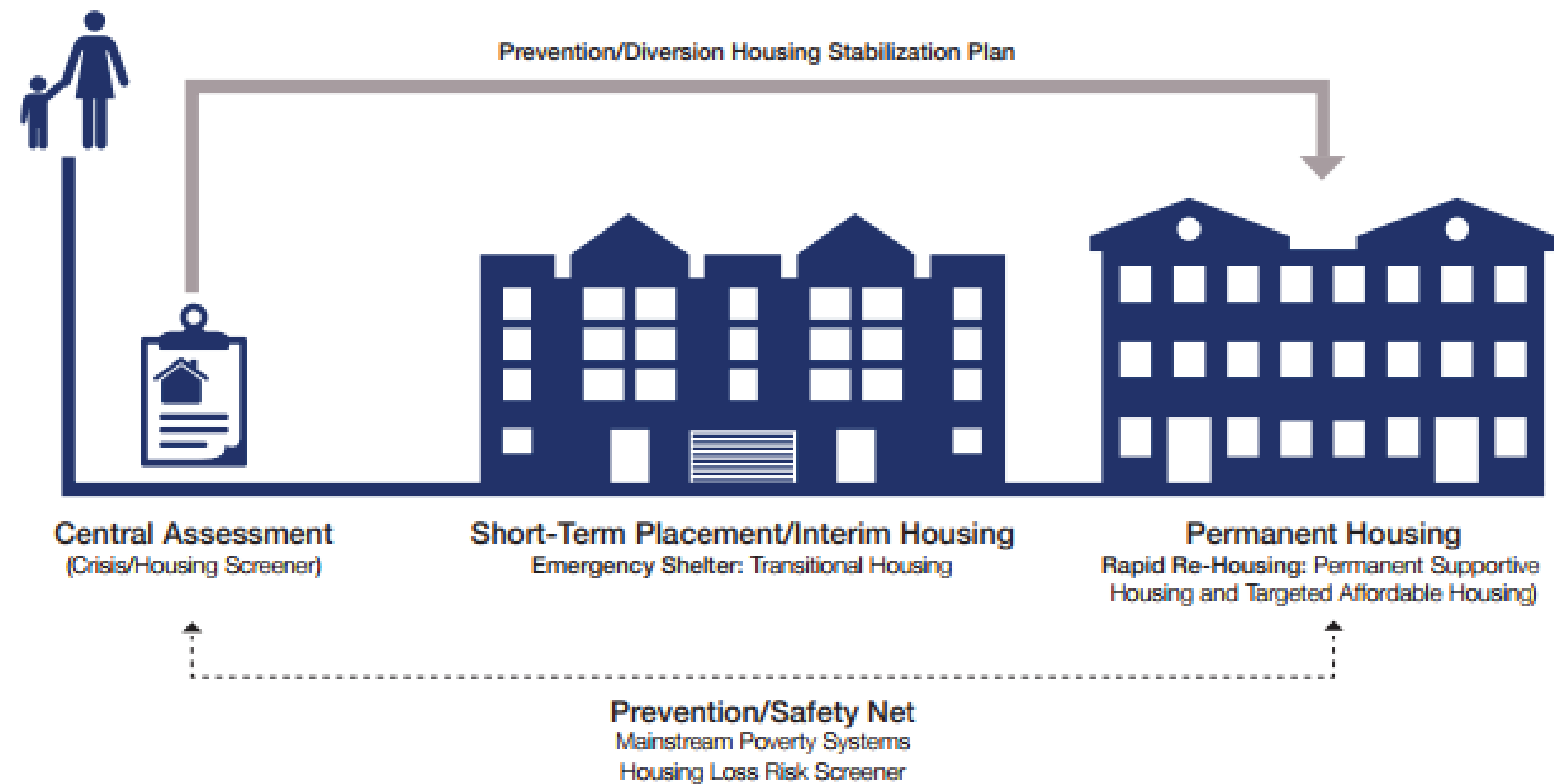


Figure 3: Sample housing pathway



## The Site

Prior to starting the design phase, I studied the facts presented by the Homeward 2020 plan and learned that families with children are the predominate homeless population so I decided to make that my target group. Following the ideals of the plan, I decided my homeless center would fall into the transitional housing category as defined by the plan. I also decided to use a site, in Ward 1, that was predetermined by the plan.

# Site Images

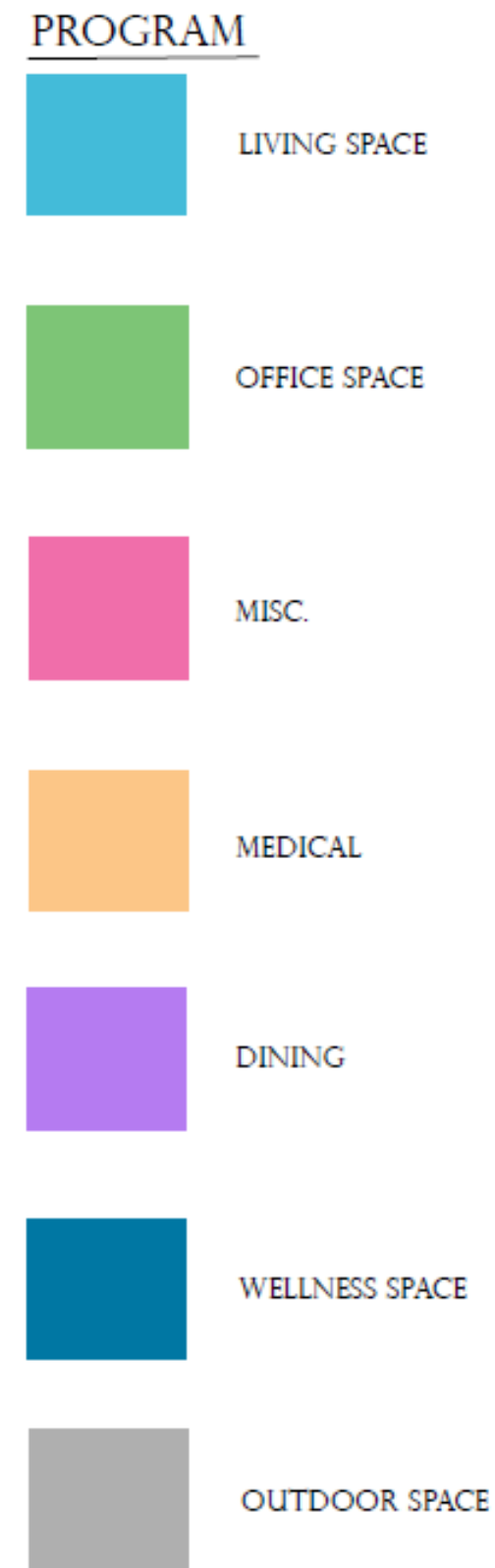




## 7

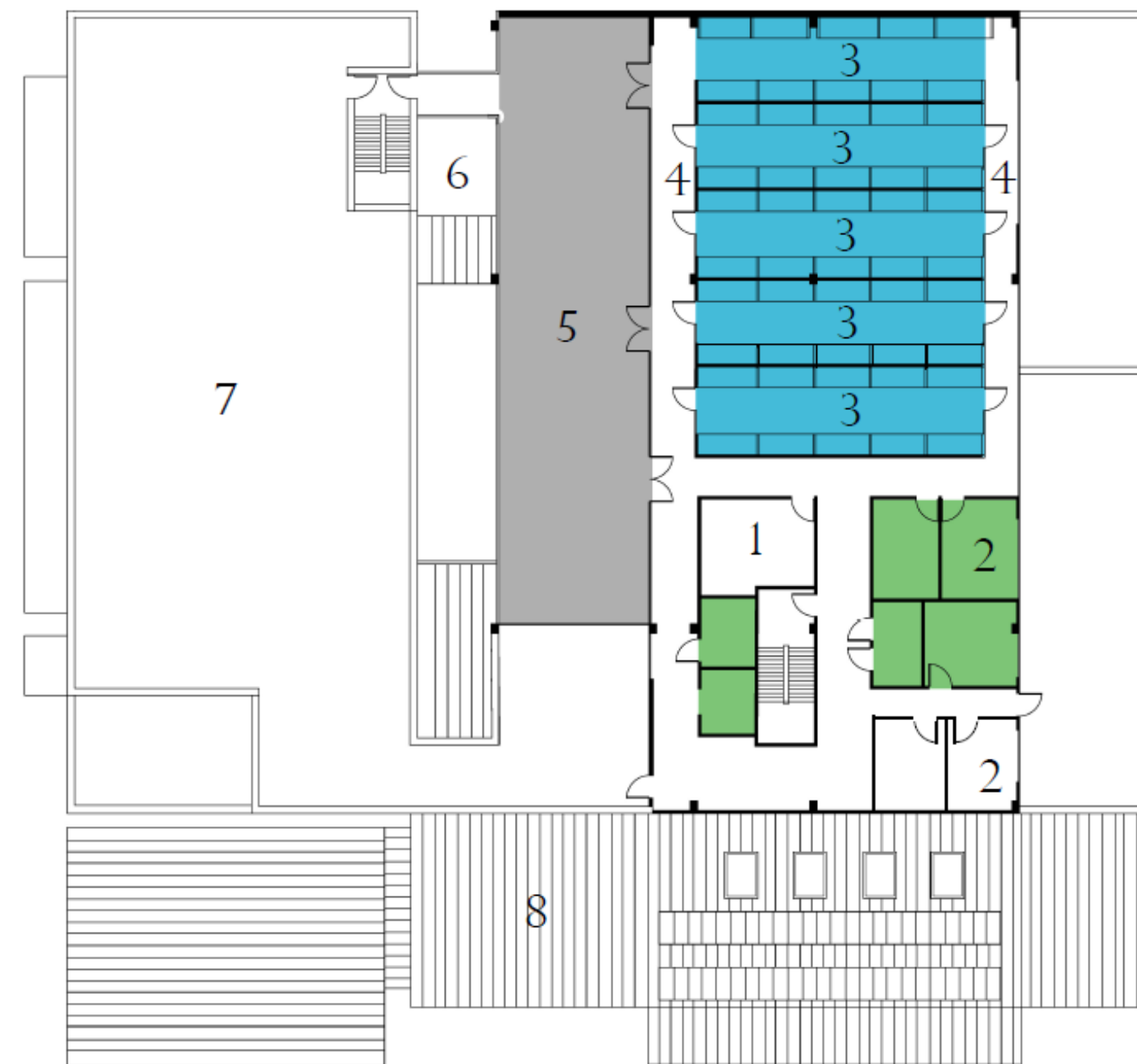
Austin Resource Center for the Homeless

When trying to determine what facilities and features were needed to support and help the residents of the center I looked at a very similar example. The Austin Resource Center for the Homeless, located in Austin, Texas incorporates a myriad of facilities that are designed to help and house occupants for a night. The Center was completed in May 2004 and the architect was Murray Legge.





SECOND FLOOR



THIRD FLOOR

# Precedents – Spatial Plans

The dynamics of public and private space are very important in a homeless center. The facility has to be public enough so that supervising officials can step in where needed but also private as to give the homeless population their own space. In studying the Austin Center, I realized a third zone, the transitory private zone, need to be added. Transitory private zones are spaces where the level of privacy varies based on the occupants.

## PUBLIC V. PRIVATE



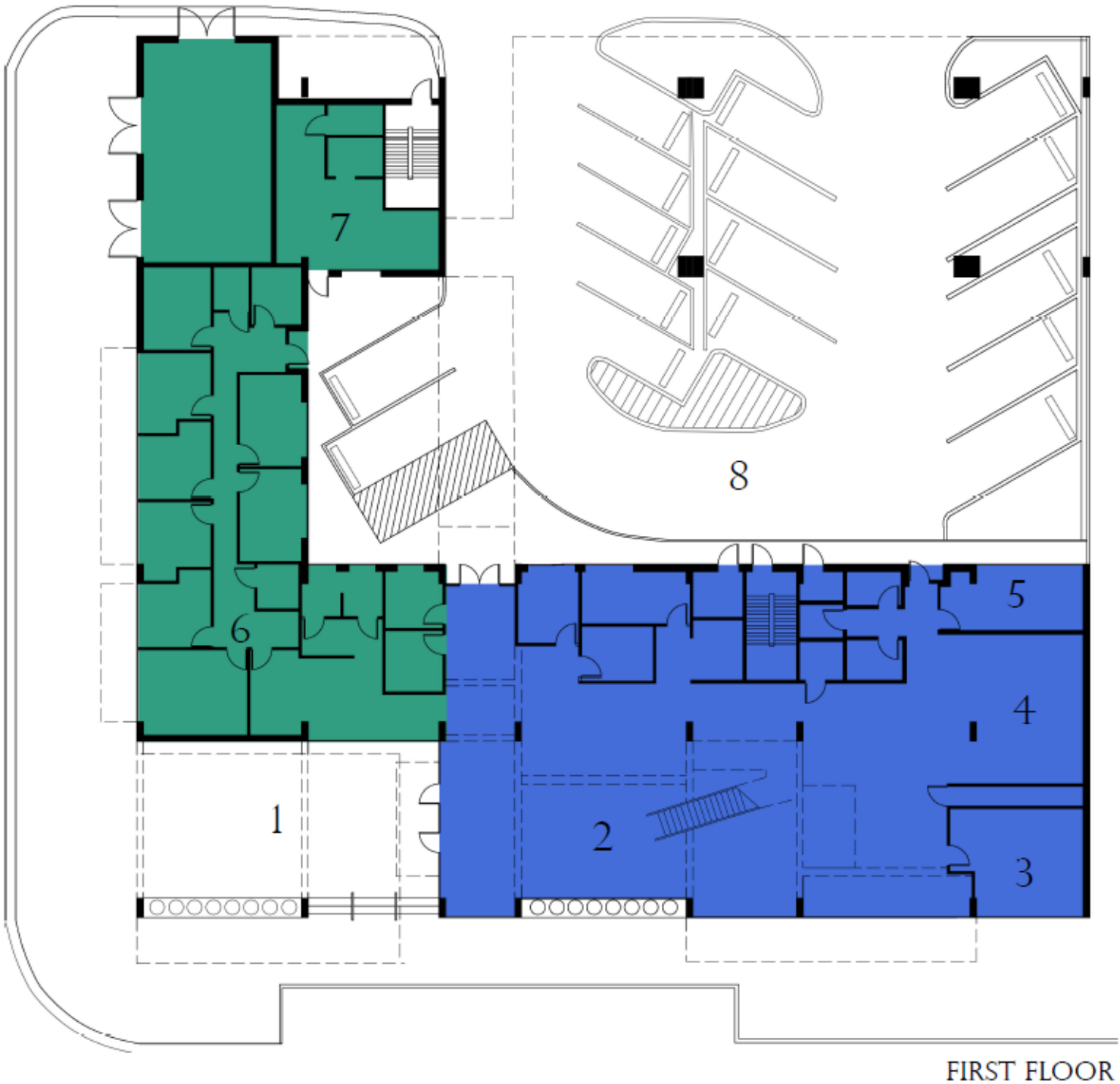
PRIVATE



TRANSITORY PRIVATE



PUBLIC

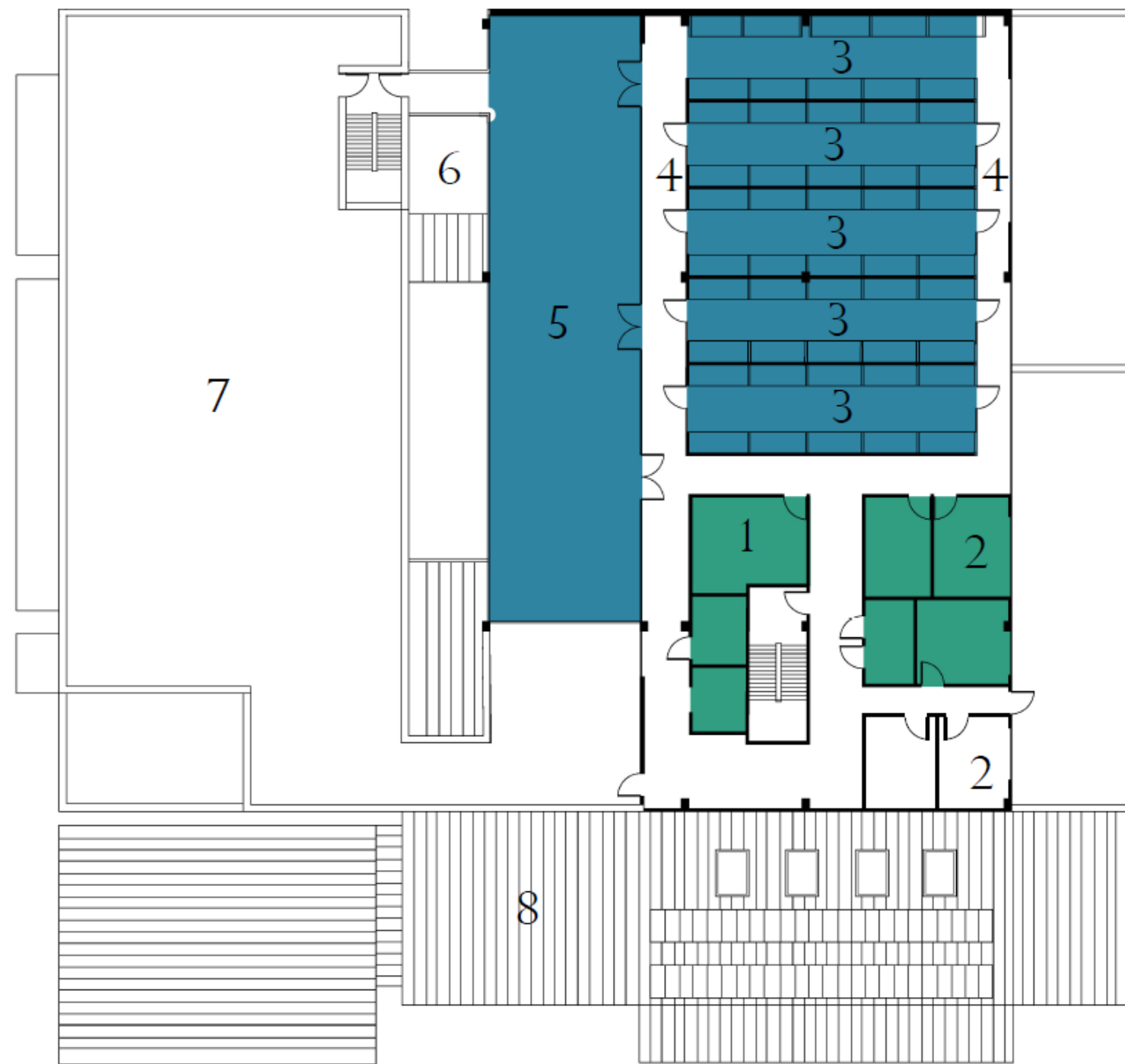


FIRST FLOOR





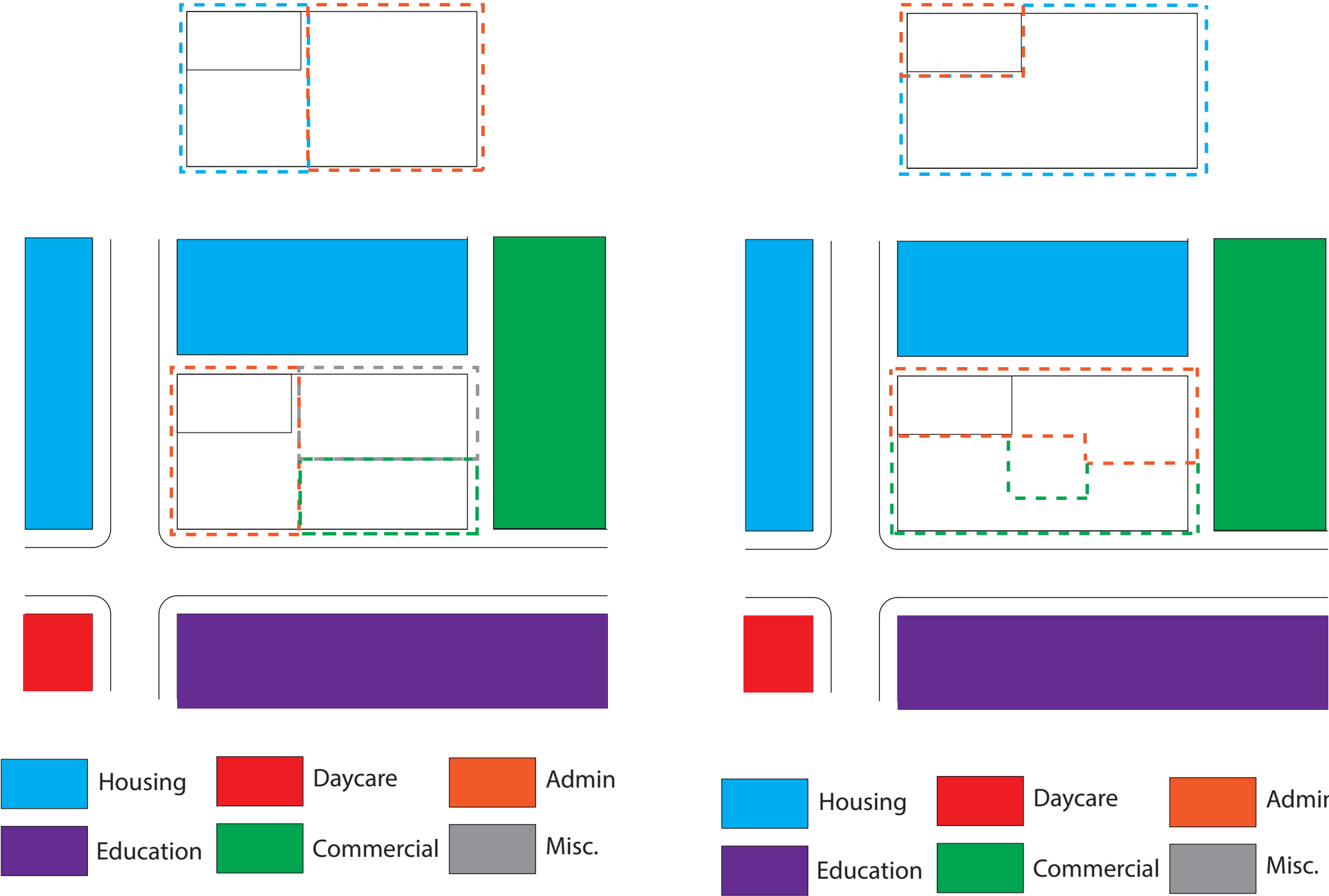
SECOND FLOOR



THIRD FLOOR

# Design Process

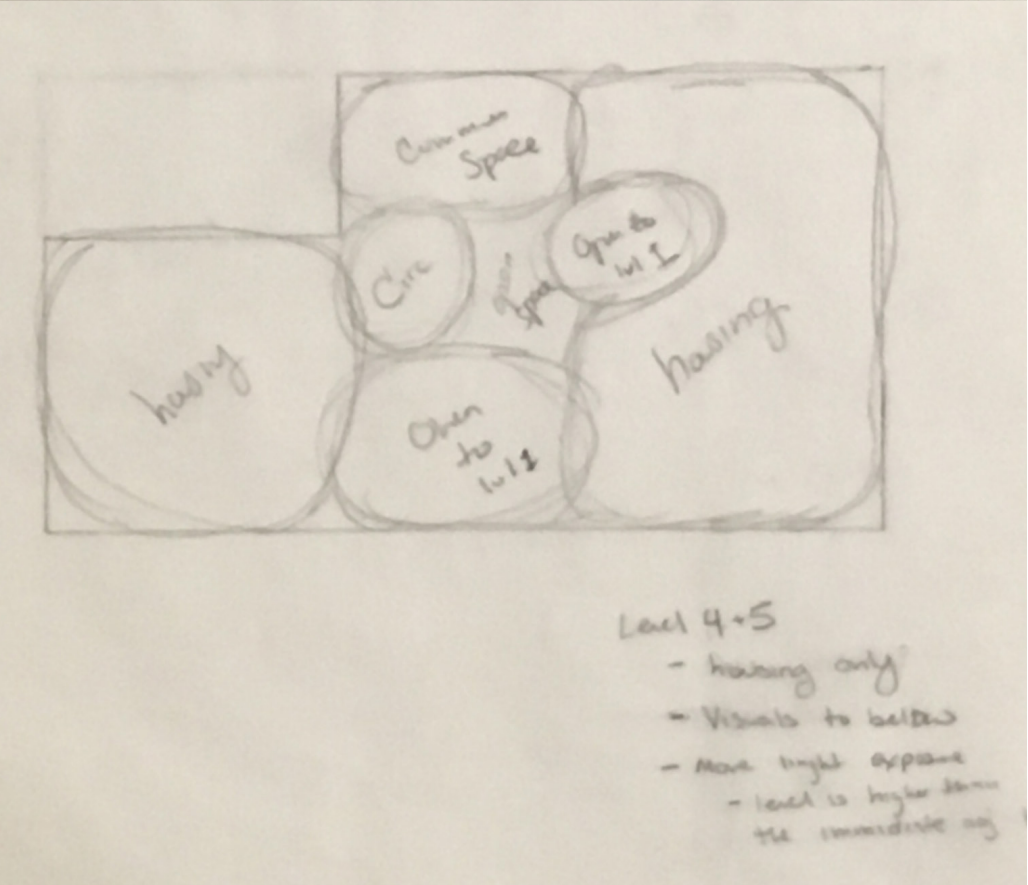
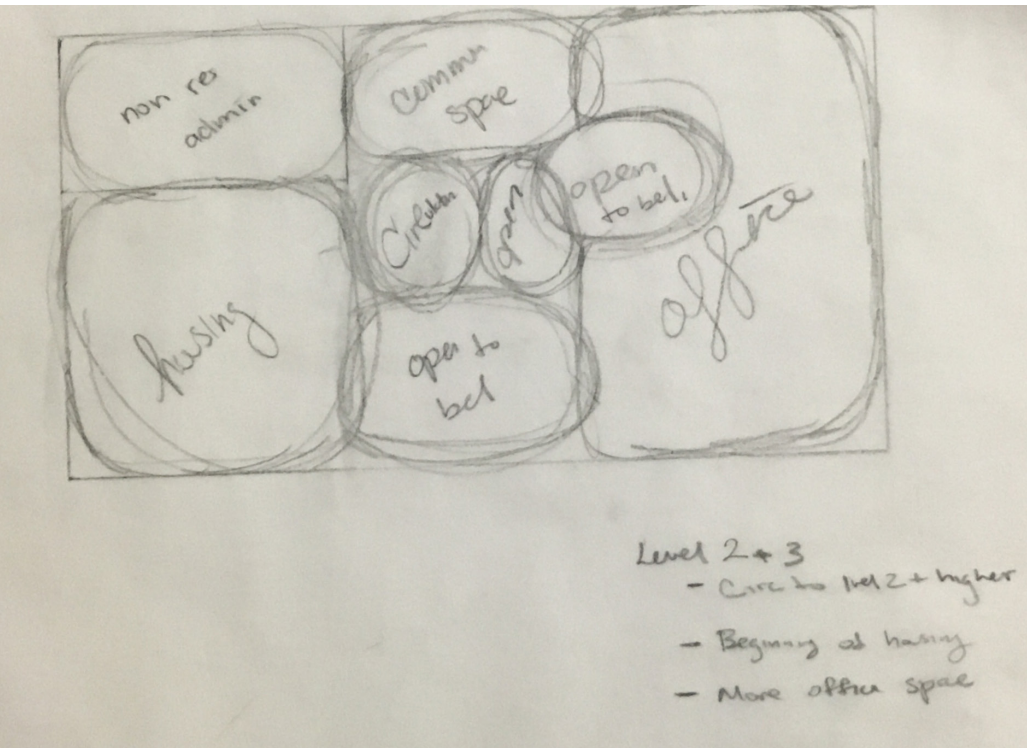
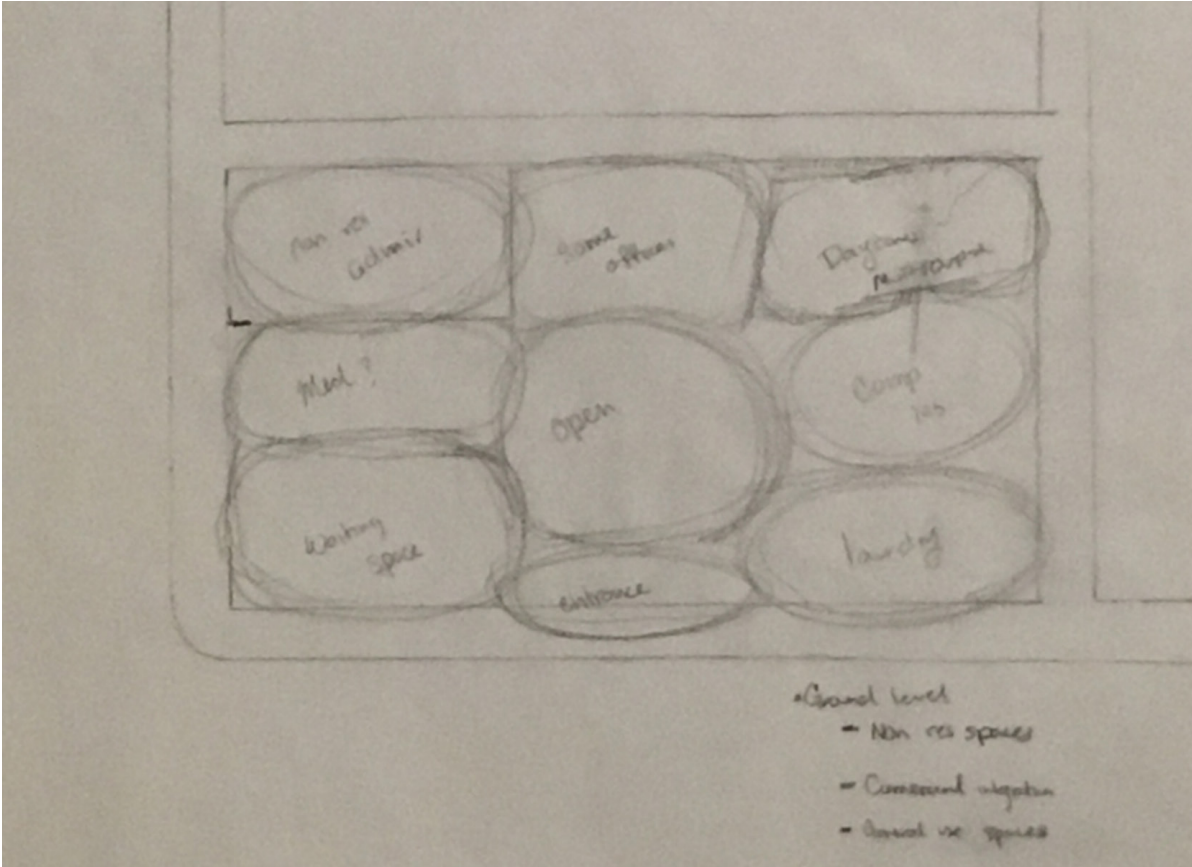
After studying the Homeward 2020 plan and the Austin Center, the design began on my project. After an initial look at the site and the surrounding buildings, a few zones were noted: the commercial zone to the south and east, the housing zone to the west and a more private, secluded zone to the north. With those zones in mind, I created an initial spatial layout and subsequent section.



In the initial concept sketches the ground level is showing commercial, daycare, and medical areas.

The second sketch shows levels two and three in which the housing is on the right and the office space is on the left. In the center of this level, there is a common space as well as two openings to the levels below.

The third sketch shows levels four and five. On these levels the housing is now on the left and right of the center space, which is the same as in the second sketch.



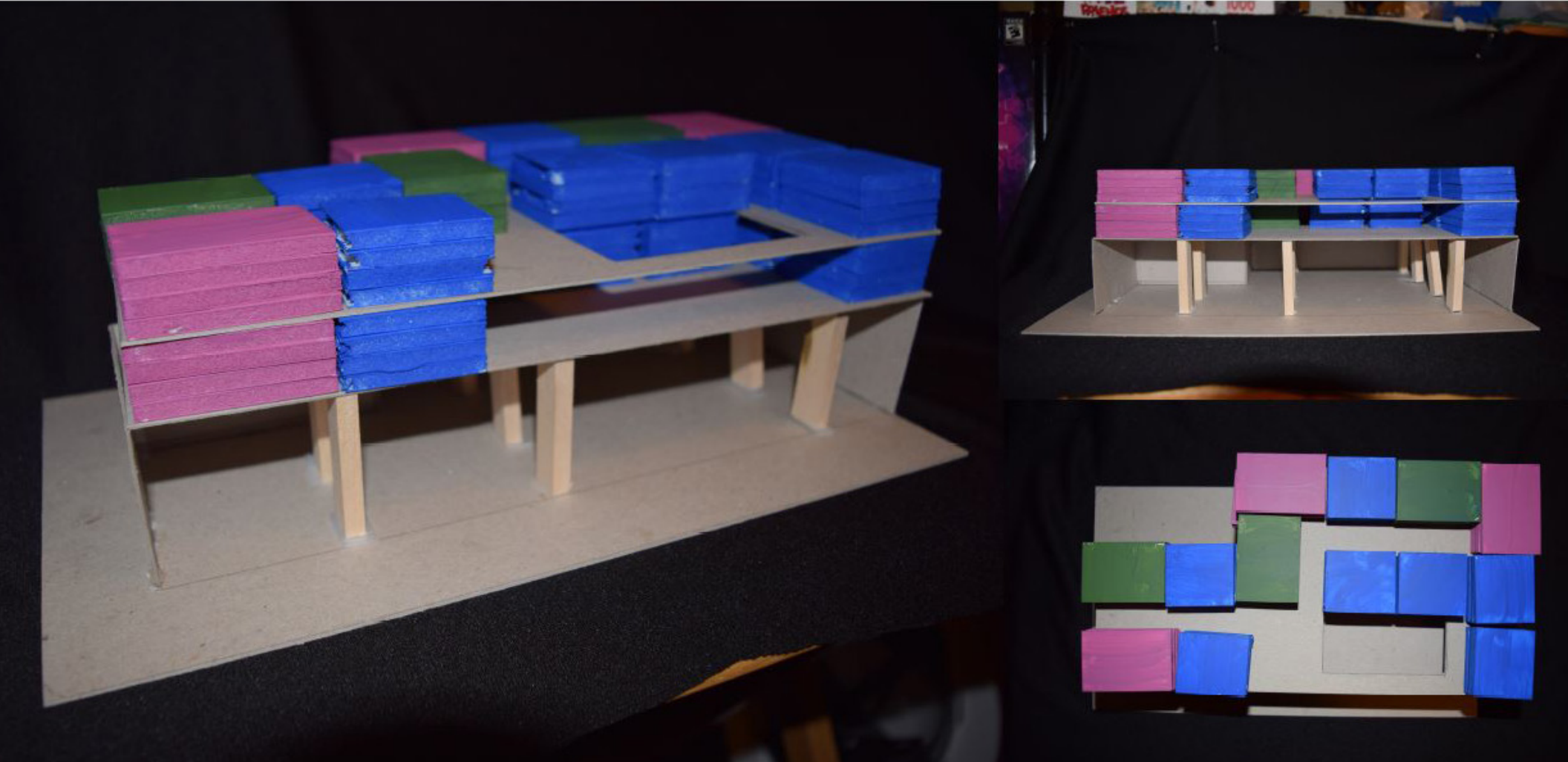
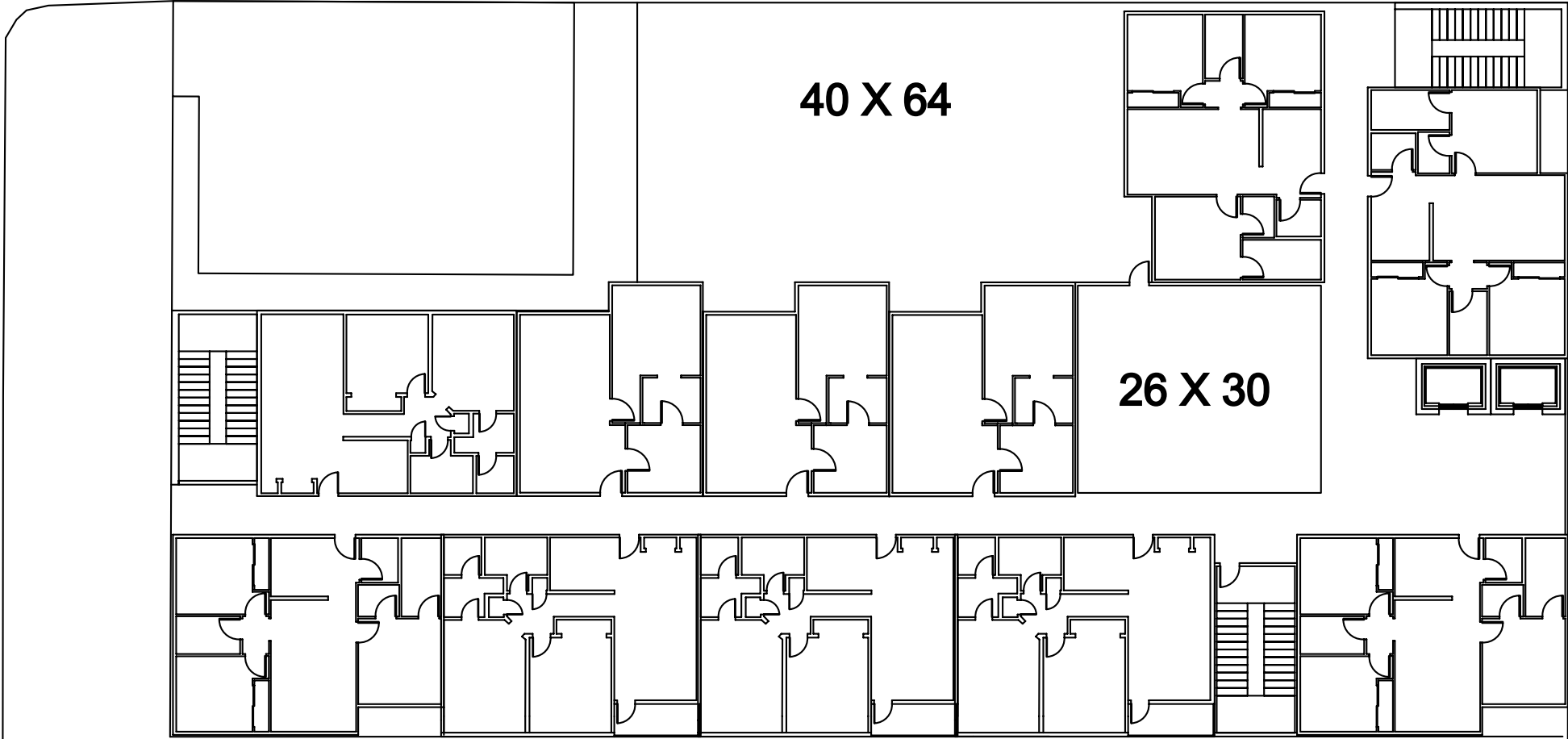


This section displays the initial ideas about the spatial characteristics of the building. The center space shows a common gathering space in which families can interact. It is a place to see and be seen. The left shows a sample of the housing that will be there and the right shows offices.



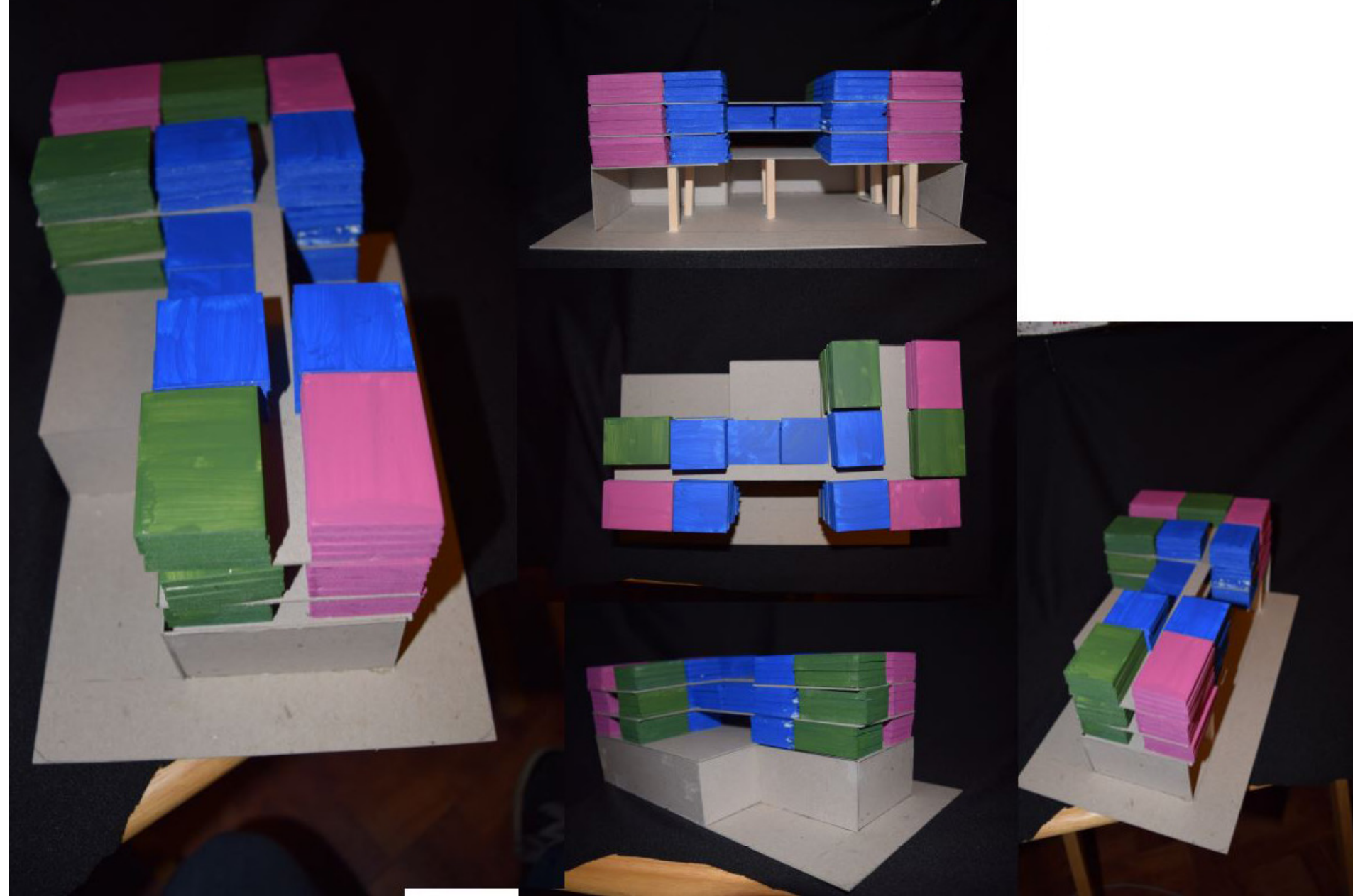
# Floor Plan Models

After coming up with an initial layout, I evaluated my work and realized I was not prioritizing that housing in a way that was proper for a homeless center so several study models were done to explore different housing configurations with blue being one bedroom unit, green being two bedroom units, and pink being three bedroom units. After settling on version 3, more sections were done to get a sense of the spatial quality of the new configuration.

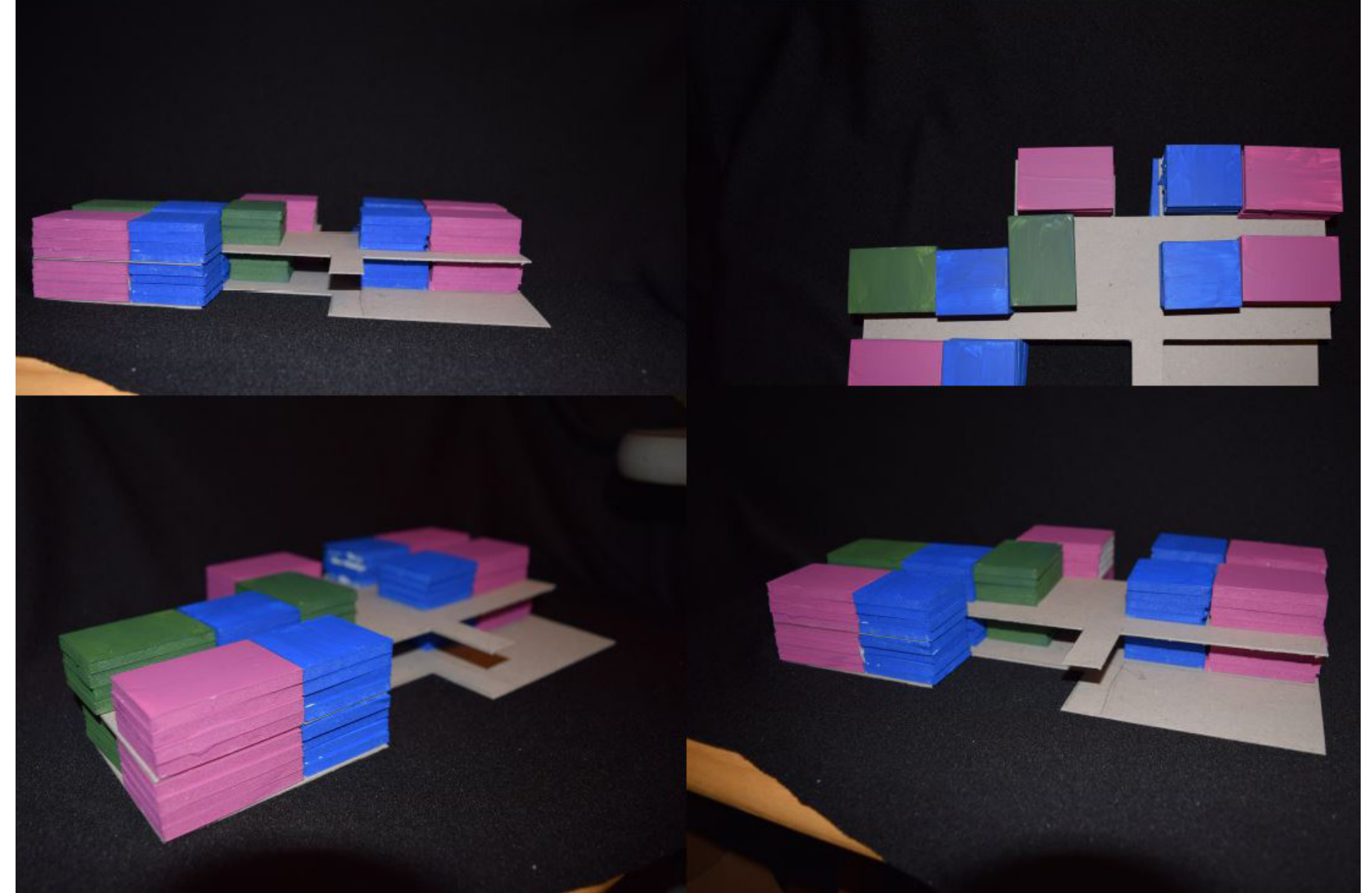


This iteration shows a layout in which the opening to below has been shifted to the right to allow for a more centralized common space. There are 14 one bedroom units, 6 two bedroom units, and 6 three bedroom units.





This layout, which became the basis for the final plans, has the opening in the center with units on both sides in a L-shape configuration. This layout also incorporates an outdoor, resident only balcony to the North. This configuration has 10 on bedroom units, 9 two bedroom units, and 9 three bedroom units. In the final design, some of the stacked one bedroom units become two level three bedroom units.



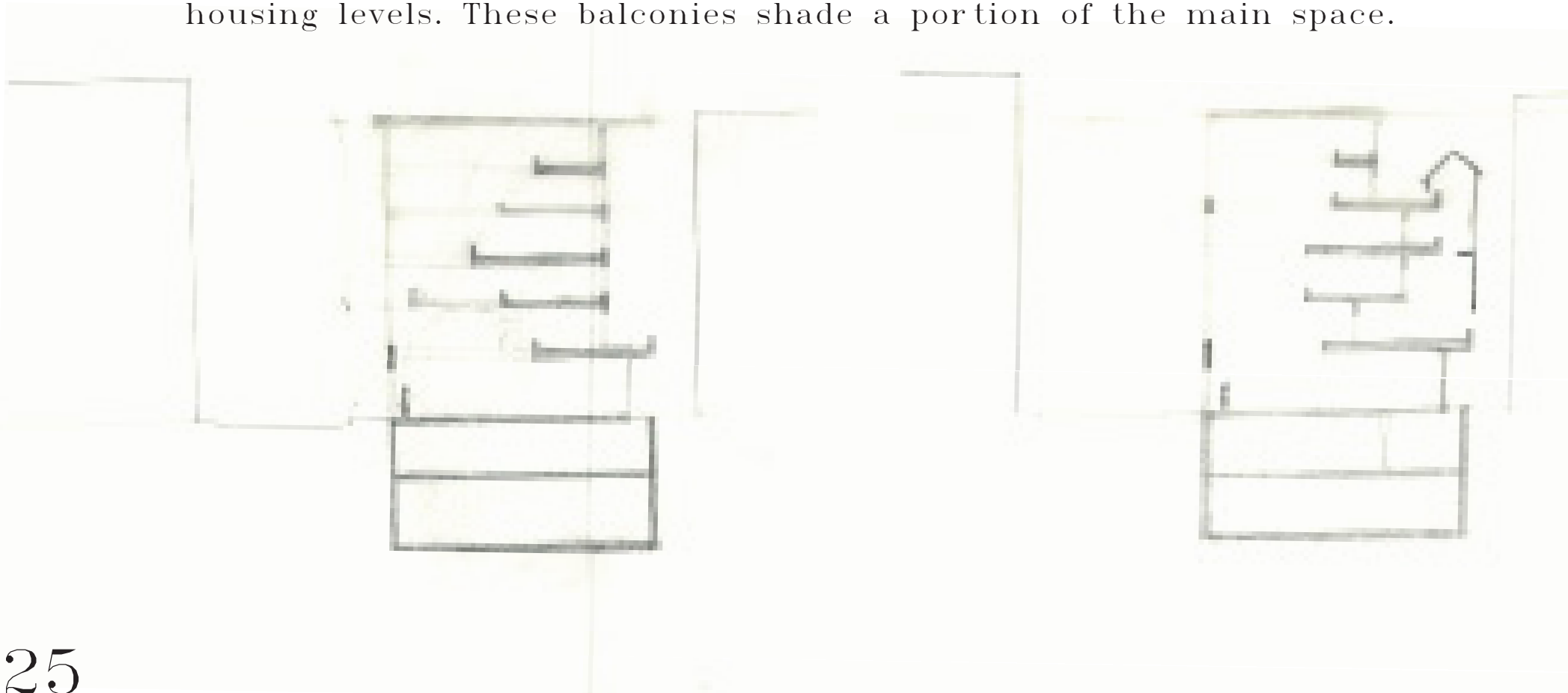
In this layout, two more opening were added: one to the left and one to the north. This unit includes 8 on bedroom units, 4 two bedroom units, and 8 three bedroom units.

# Section sketches

After coming up with a layout, more sections were done to explore the spatial conditions between the atrium, on the left, and the resident balcony to the right.

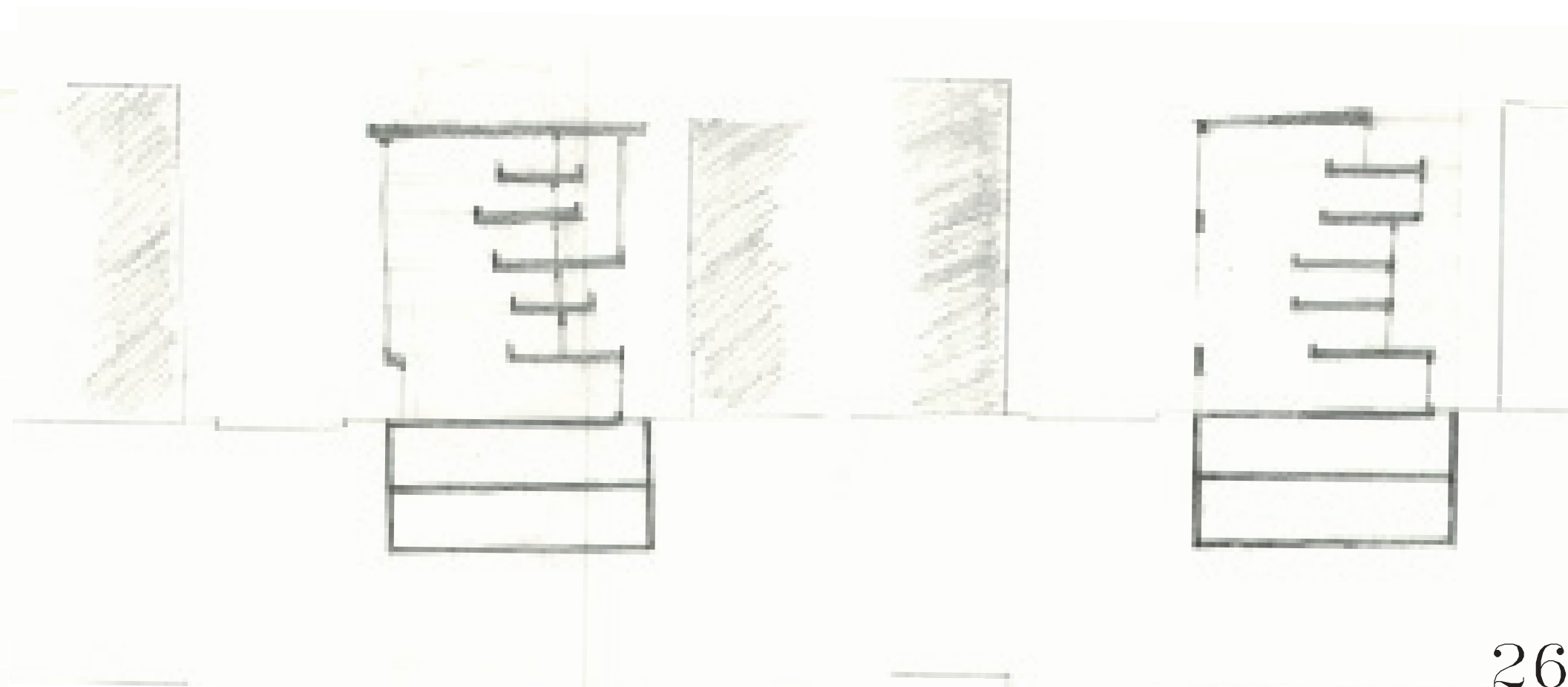
The first sketch shows a very open and staggered atrium from the ground level and an exterior residential balcony with the roof as covering.

The second sketch shows the opposite of the first sketch on that the atrium is not as staggered but the resident space has been staggered. Additional resident balconies were added to the third and fourth housing levels.



The third sketch shows a slightly staggered atrium and different types of residential balconies. The main balcony is shaded slightly by a balcony on the second level and the fourth and fifth level balconies are enclosed into a larger balcony that starts on the third housing level.

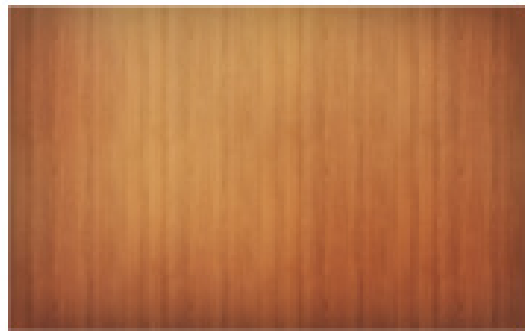
The fourth sketch shows a similar balcony to the third sketch. The difference comes in the way the balconies are formed. The main balcony is completely covered by an enclosed area on the fourth housing level.





# Material Precedents

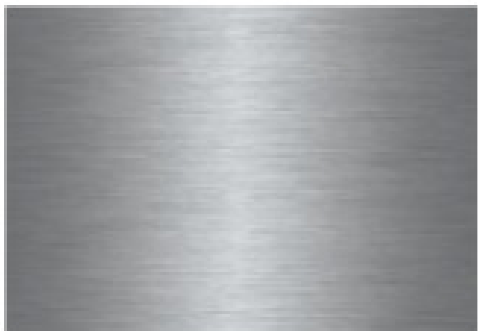
The next step was to find materials that were durable, looked nice, and were functional. Wood, metal, and concrete were materials that could be the most versatile in terms of use and finish.



Wood

- Benefits:
- Easy to clean
  - Elegant and simplistic
  - Natural Beauty
  - Warm and Calming
  - Safe, Light, and strong
  - Flexibility
  - Variety of finishes

- Drawbacks:
- Fires
  - Moisture



Metal

- Benefits:
- Strength
  - Ductility
  - Uniformity
  - Additions to existing structures
  - Longer spans

- Drawbacks:
- Maintenance cost
  - Fireproofing cost



Concrete

- Benefits:
- Durability
  - Low maintenance cost
  - Non-combustible
  - Can withstand high temperatures
  - Soundproofing
  - Resistant to wind/water

- Drawbacks:
- Weight



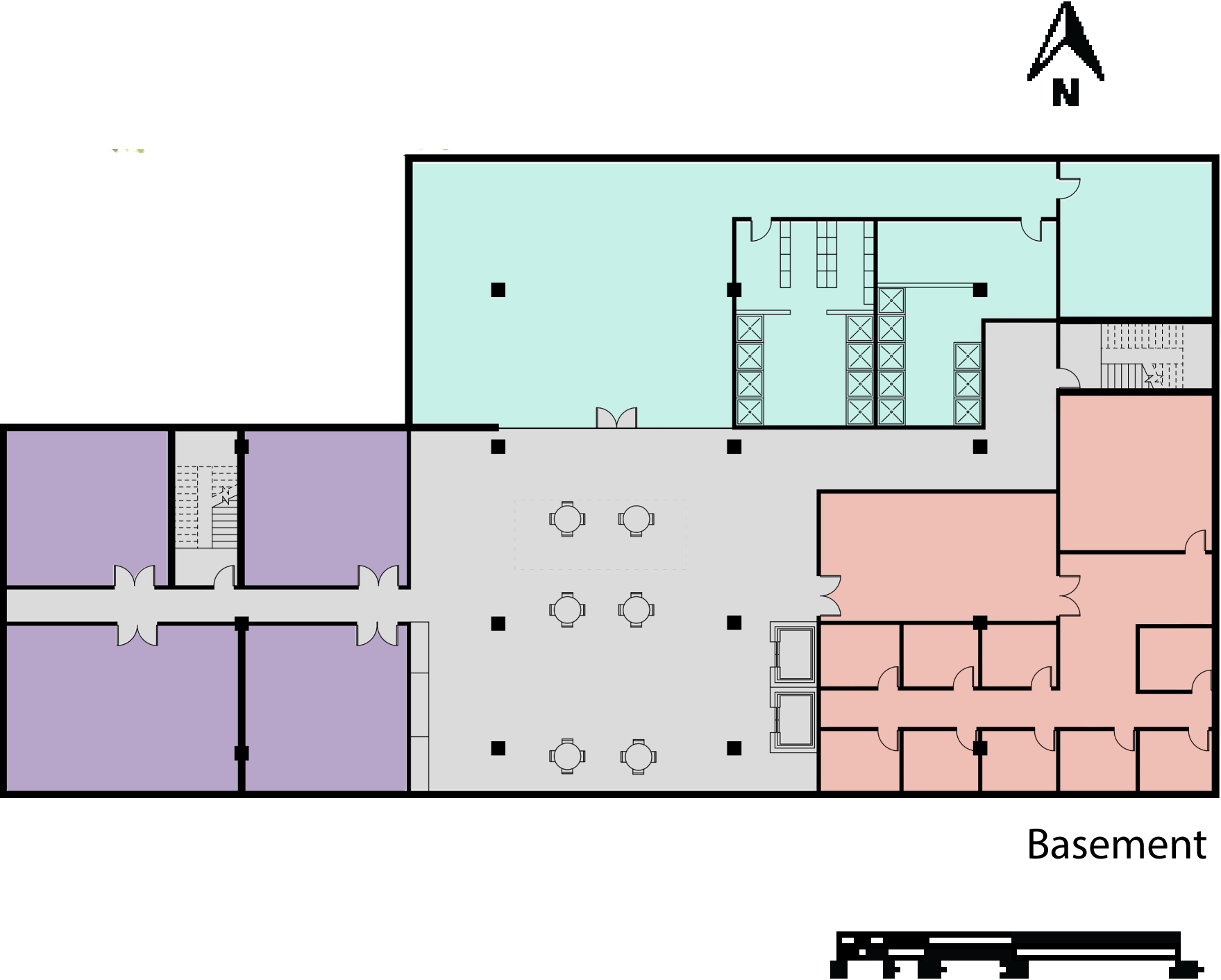
Figure 4: Existing spaces



# Final Design Floor Plans – Spatial

The final design creates a space not only where the homeless and their families have shelter, but it also creates a controlled environment where the homeless and public can interact in order to help the homeless re-integrate into society.

- One Bedroom Units
- Two Bedroom Units
- Three Bedroom Units
- Resident Gathering Space
- Cirrculation
- Restaurant
- Parking
- Restrooms
- Administrative Space
- Laundromat
- Gym
- Medical Ward
- Misc.

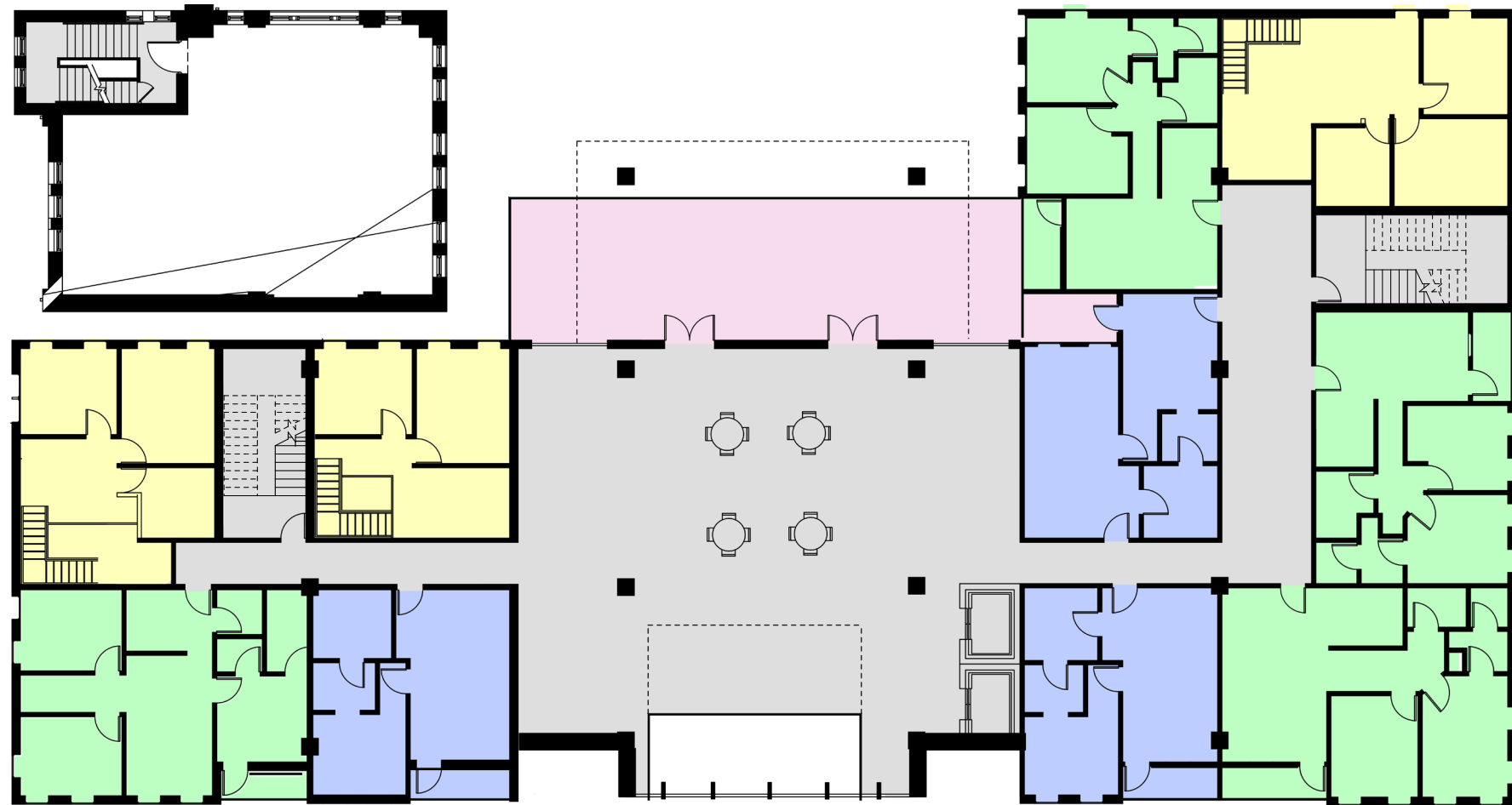




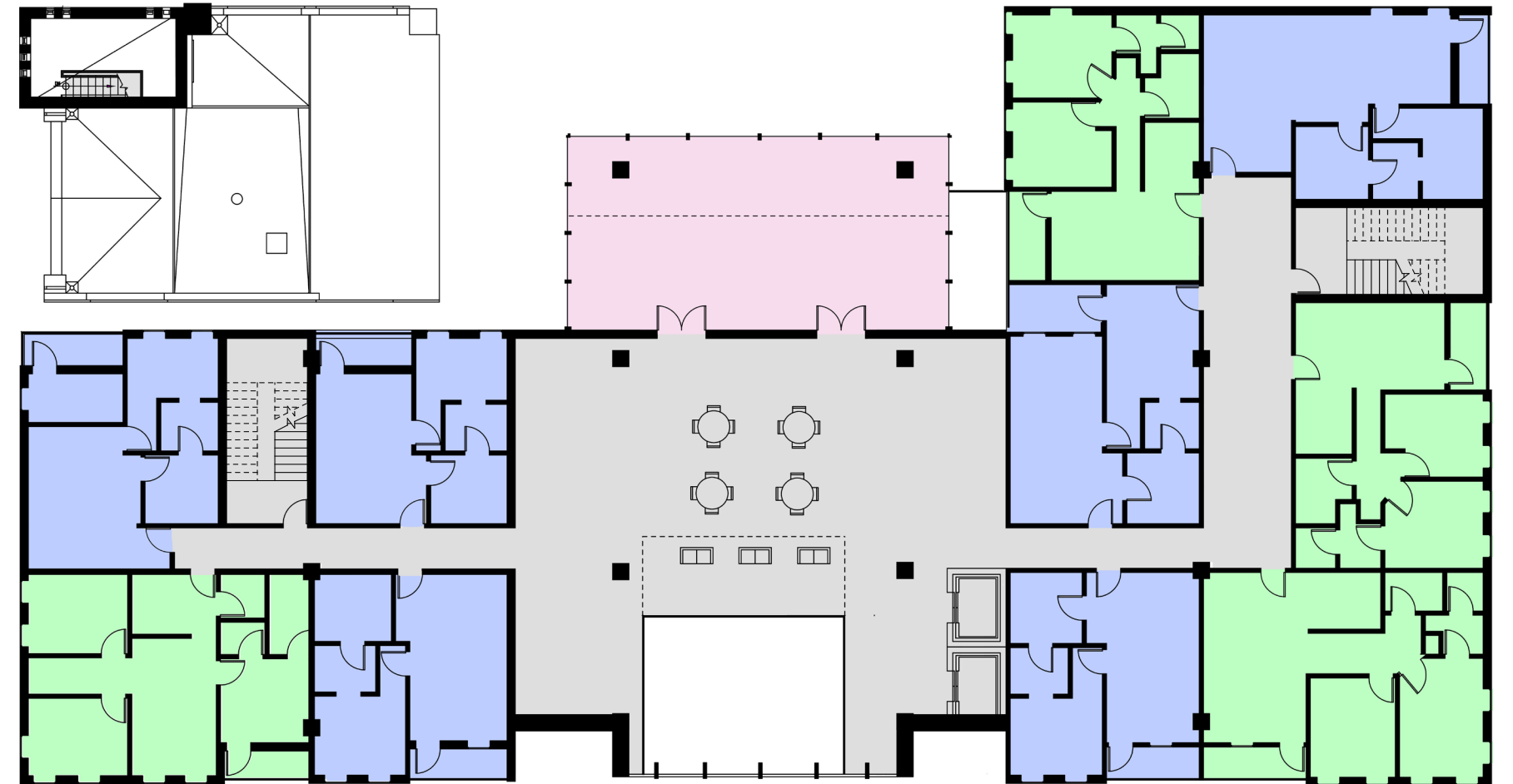
Ground Level



Level 2

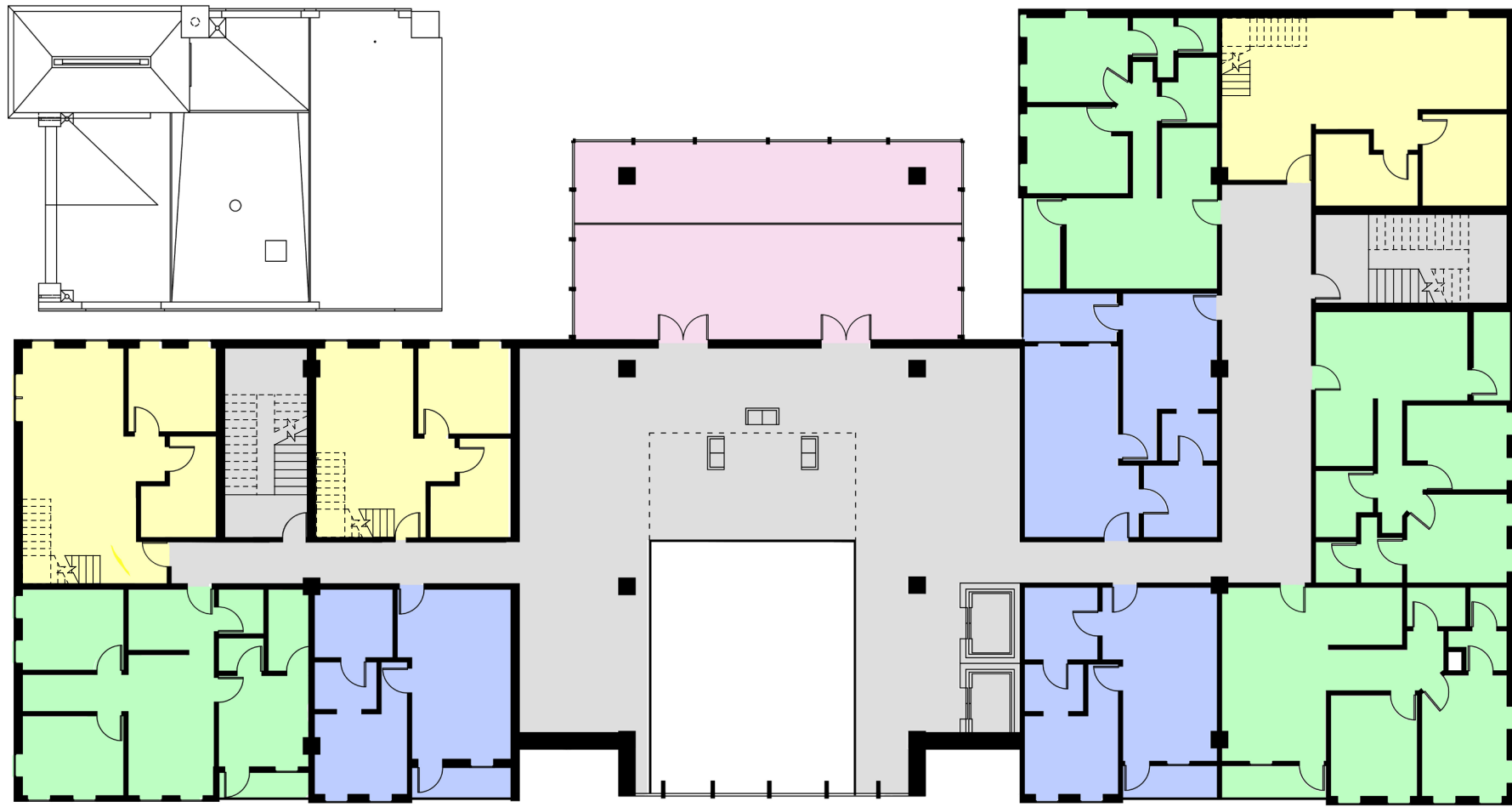


Level 3

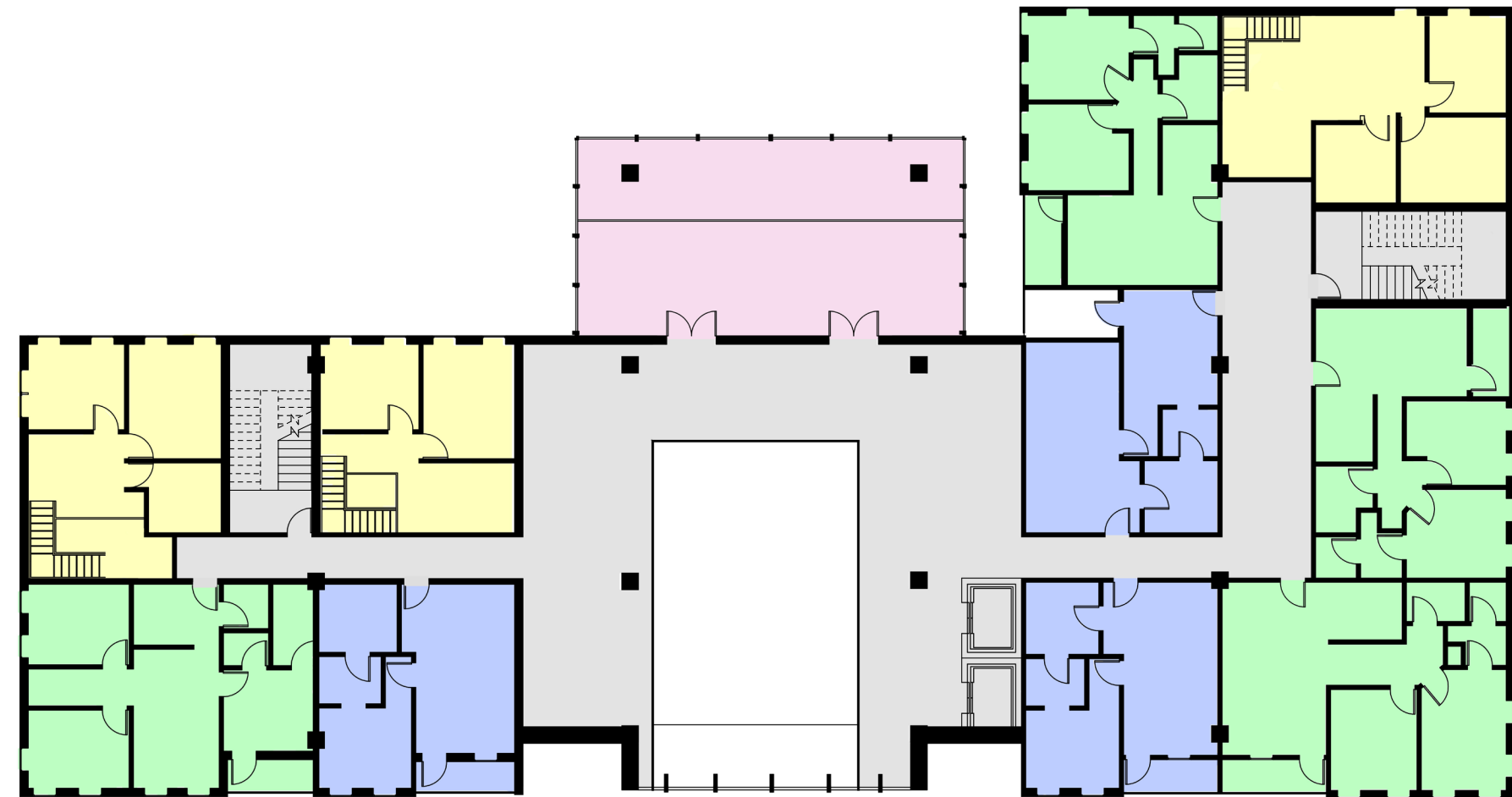


Level 4





Level 5

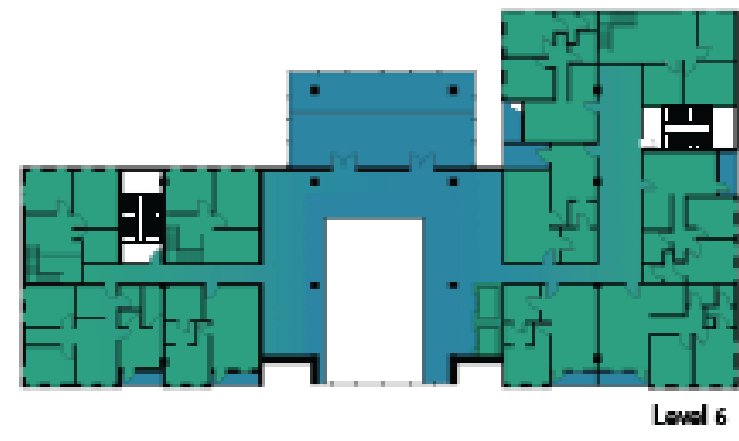
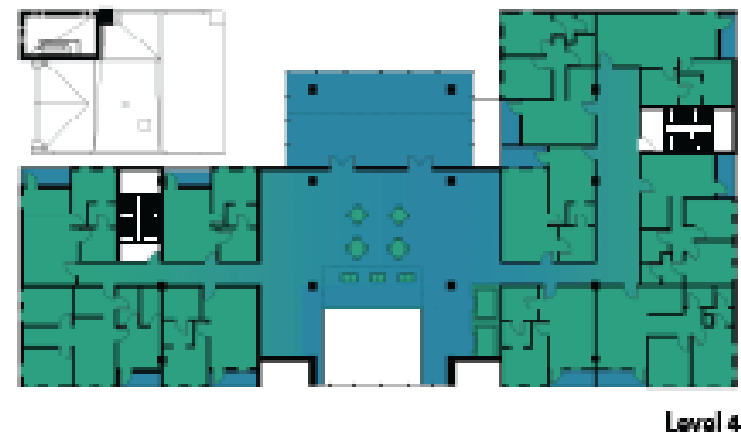
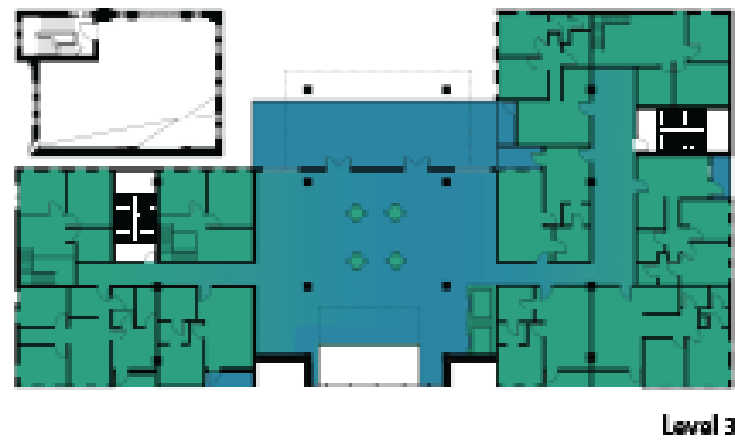
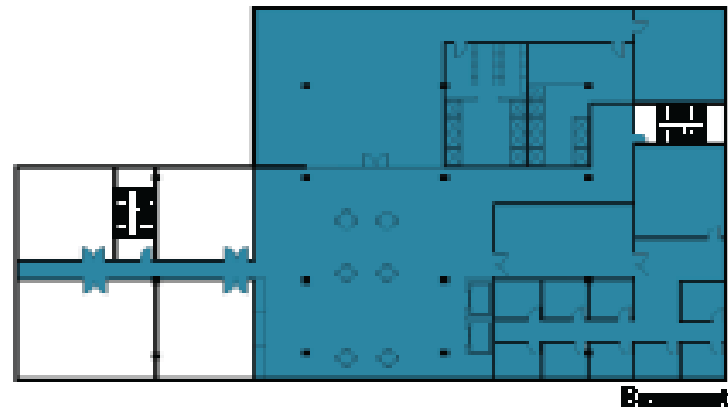


Level 6



# Floor Plans – Public/ Private

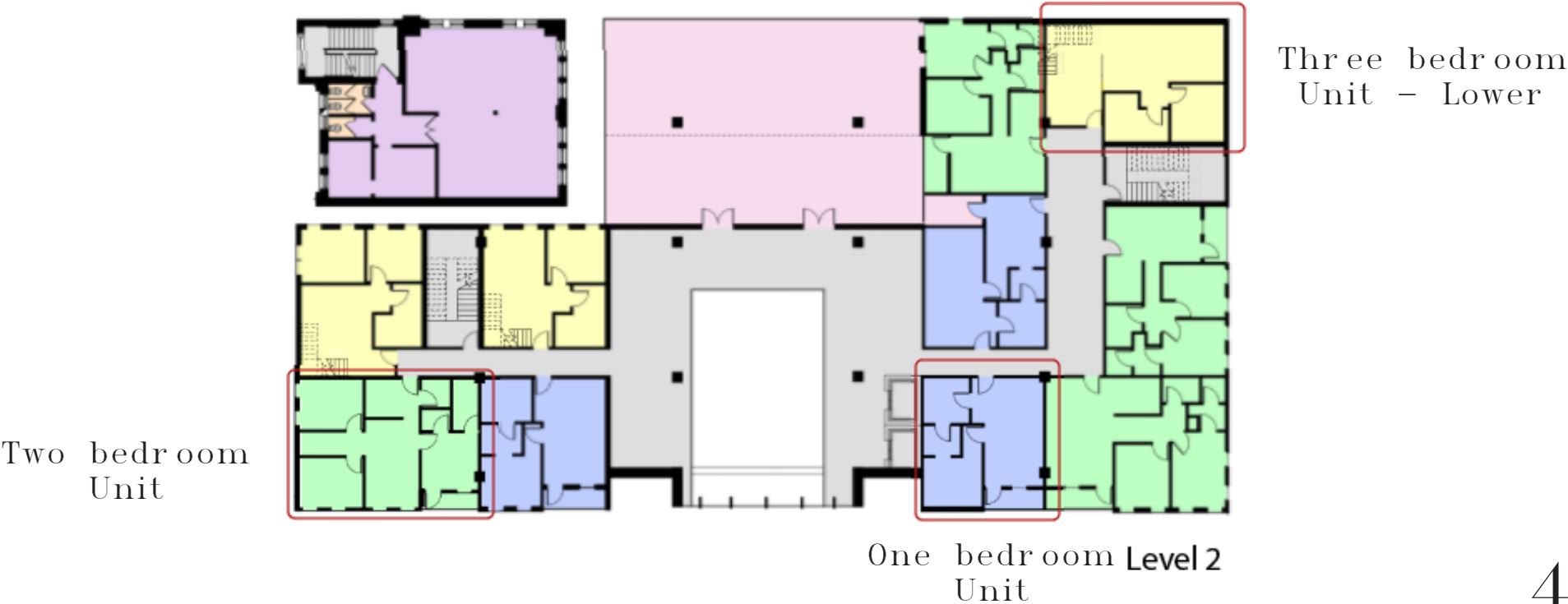
With this design it is important to show how the public and private can intermix in the transitory private areas. The transitory private areas are key as these spaces can further the homeless populations integration into society.





# Detailed Unit Floor Plans

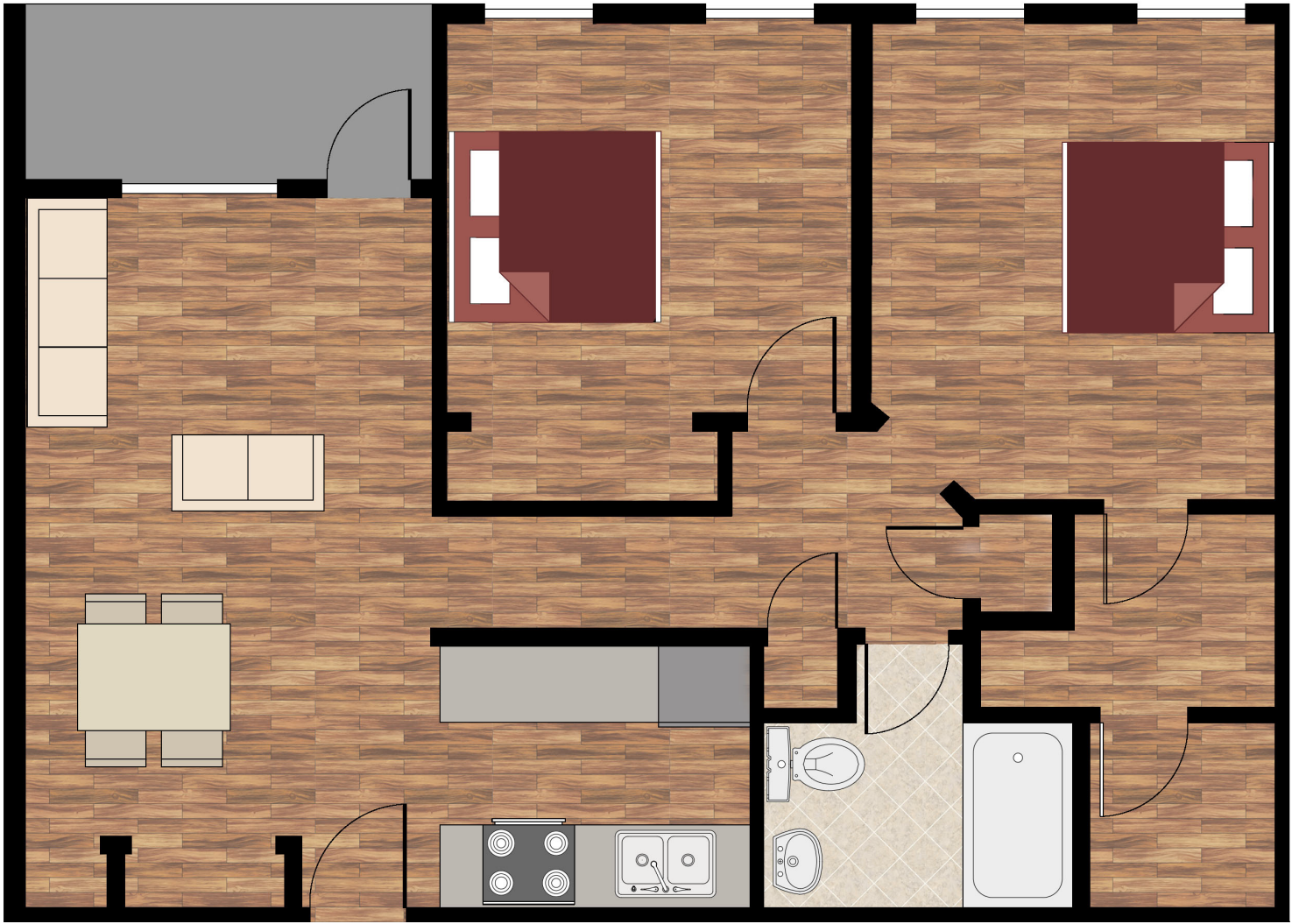
Units were designed to provide ample space and privacy for the occupants. In most cases each occupant gets their own room and they have a private living room in addition to the common area shared by all residents.



One Bedroom Unit



Two Bedroom Unit



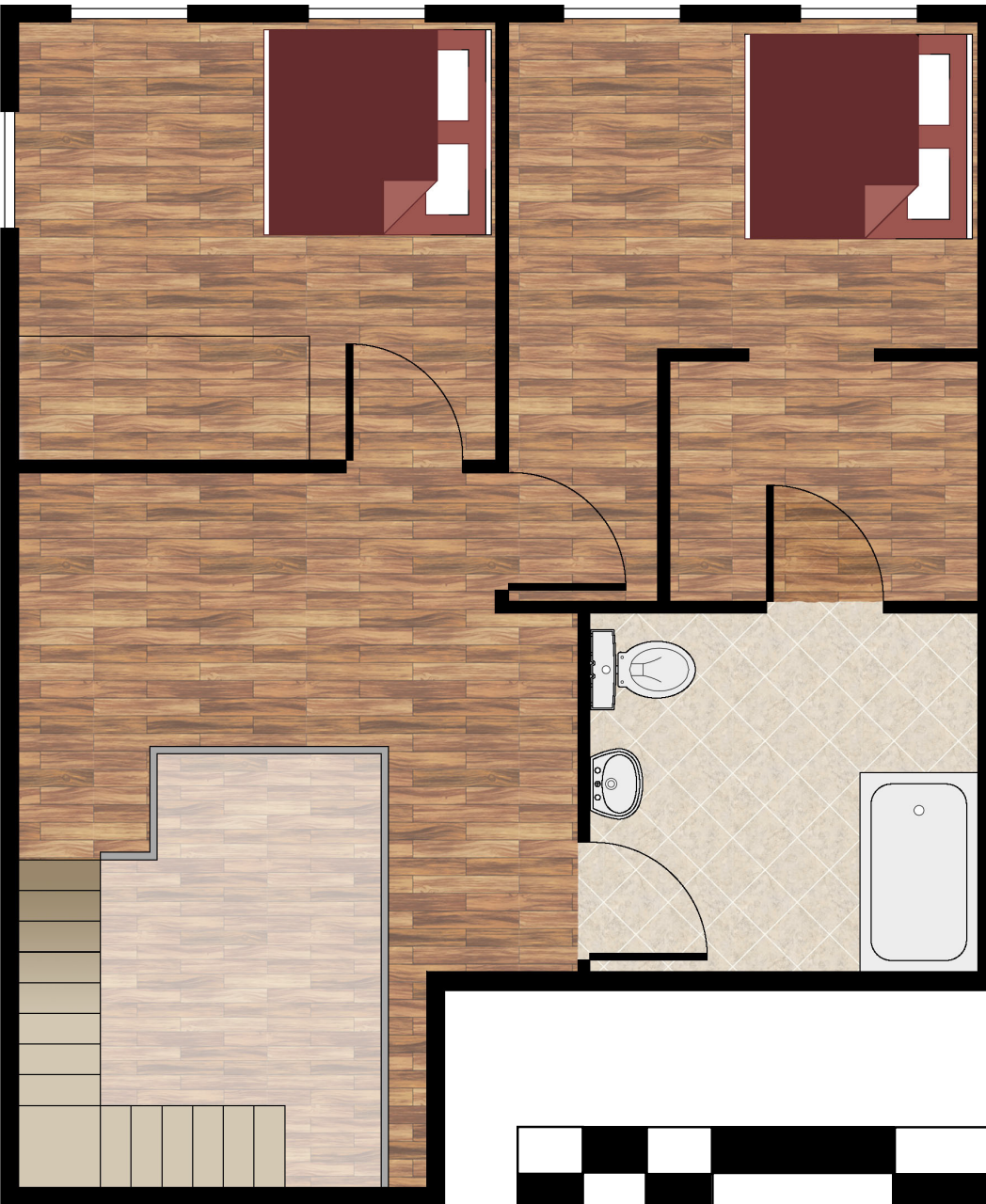
0 5 10 20



Three Bedroom Unit – Lower



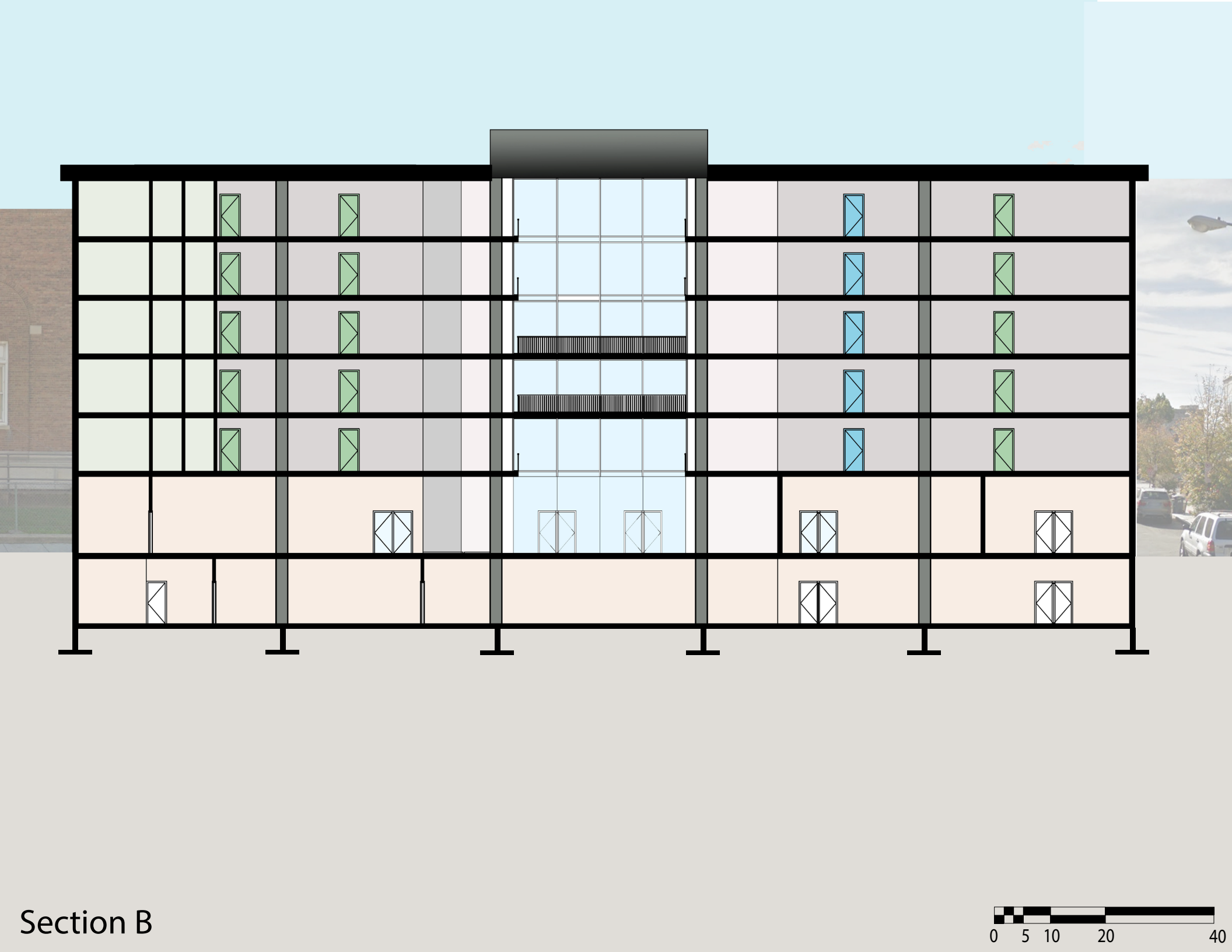
Three Bedroom Unit – Upper



0 5 10 20

# Sections, Elevations and Renders

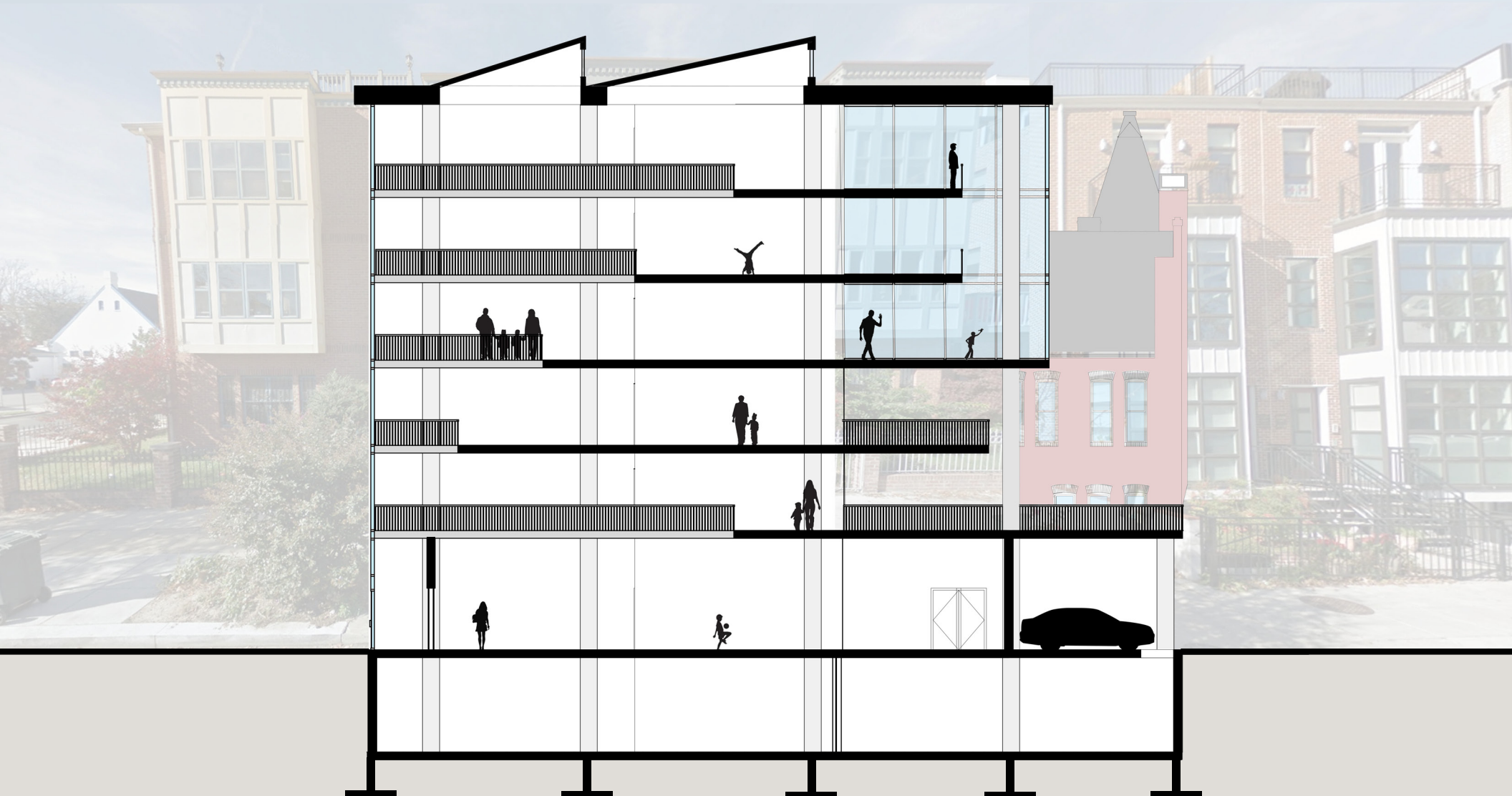
Following the example of the initial spatial section, the next drawings are meant to show the character of the building. From children playing in the common space, to the unit type making its presence known on the façade, the building is all about making the residents feel safe, at home, and making sure they can make a successful transition into permanent residence. The longitudinal section is looking toward V Street NW and is showing how the doors to the units are color coded based on the unit type. Blue is one bedroom and green is two bedroom.



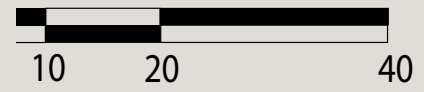
Section B



Section A



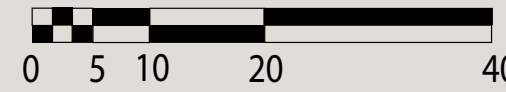
This drawing is showing a cross section through the building with the user groups shown.



Section B

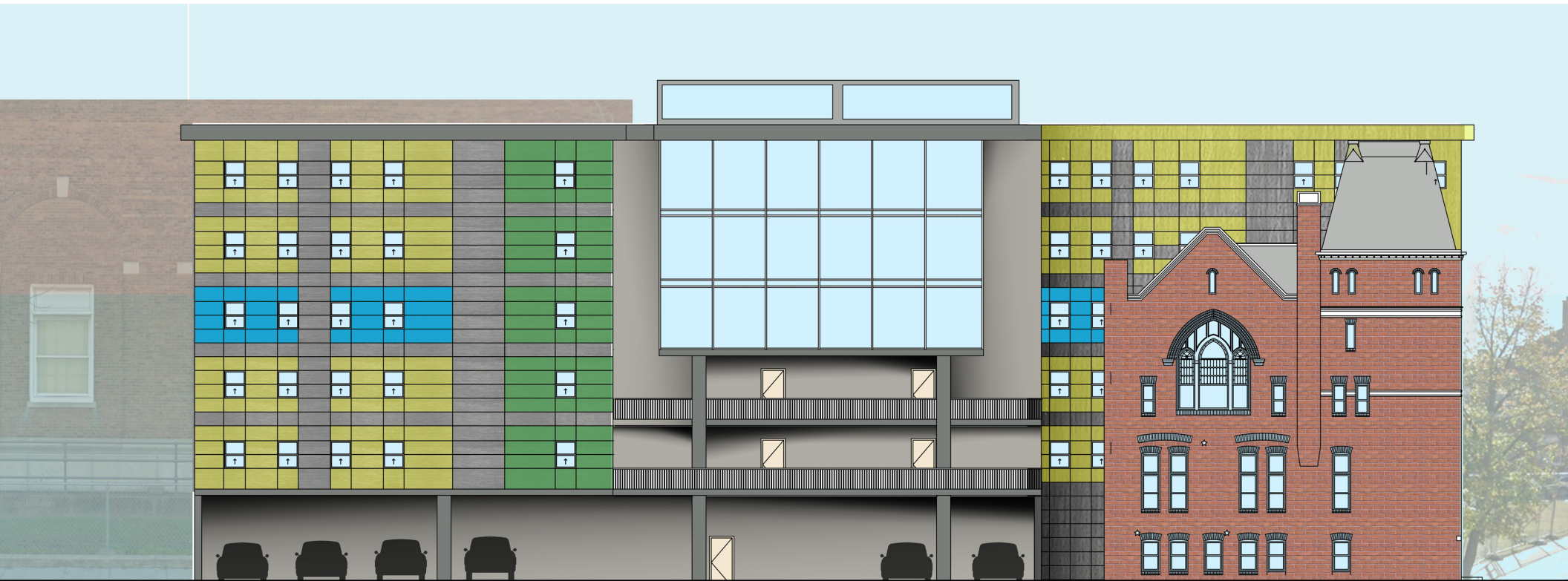


This cross section shows the spatial characteristics of the building. Each housing level will be similar but have small features that give it its own identity. The left portion of the basement is storage and the right portion is a fitness center.

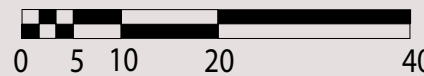
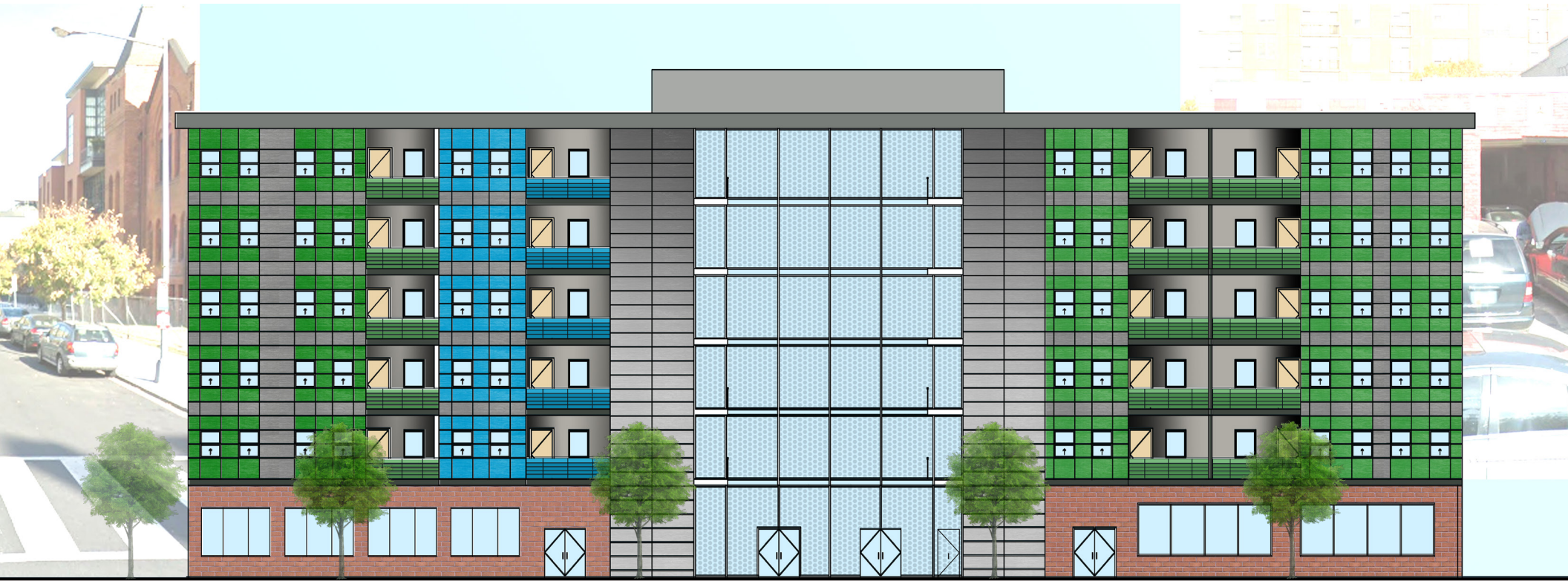




North Elevation: Rear



South Elevation: Front







View from the second housing level looking  
toward the South



View from the inside of the double high resident  
balcony





View from the third housing level

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All precedent images unless otherwise noted are from Google

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A Tables and information explaining the cause of DC homelessness

B Chart explaining Different housing program models

Table 3: ED Count of Homeless Children/Youth (School Year 2009/2010 – School Year 2012/2013)

Jurisdiction	SY 09/10	SY 12/13	Percentage Change
United States	938,948	1,258,182	34%
Disctrict of Columbia	2,499	3,766	51%

Accessing Affordable Housing

In 2014, DCHA completed an outreach campaign to an estimated 70,000 households on its waitlist to confirm continued need for housing assistance, removing households that had moved, no longer met income eligibility requirements, or had been housed through another program. Approximately 41,000 households have affirmed their need for housing assistance and remain active on the waitlist.

Causes of Homelessness

Thirty years ago, homelessness was predominantly experienced by single adults. Homelessness among children did not exist in the same way it does today. Economic downturns have historically led to an increase in the number of people experiencing homelessness. In the last three decades, however, with ever-growing income inequality in the US, the number of people experiencing homelessness has remained high even in good economic times.

The increase in homelessness is the result of a convergence of three key factors: the loss of affordable housing; wages and public assistance that have not kept pace with the cost of living; and the closing of state psychiatric institutions without the concomitant creation of community-based housing and services.

Housing Affordability in the District

A number of recent studies confirm that the District is not only one of the least affordable cities in America, but that there is a severe shortage of housing that is affordable to households at the lowest income levels.

The issue of housing affordability in the District of Columbia is particularly glaring when the District's minimum wage is compared to its housing wage, which is the minimum hourly wage a full-time worker must earn to afford a two bedroom rental home at the HUD-estimated Fair Market Rent (FMR).<sup>4</sup> As shown in Table 4, a person earning the 2014 minimum wage in the District would need to work nearly three full-time jobs –approximately 120 hours a week – to afford a decent two bedroom rental home.<sup>5</sup>

Table 4: Housing Wage vs Minimum Wage in the District of Columbia

2014 Housing Wage	\$28.25
2014 Minimum Wage	\$9.50
Disparity (housing wage: minimum wage)	2.97x

Figure 5: Tables and information explaining the cause of DC homelessness

Table 7: Program Model Categories

"Front Porch" Services	Short-Term Placement/ Interim Housing	Permanent Housing
Daytime Service Center	Outreach Beds	Rapid Re-Housing (RRH)
Central point of access for households seeking homeless assistance services.	Very small, specialized shelter for hard-to-reach individuals, often with severe and persistent mental illness.	Short- to medium- term supportive services and housing subsidy.
"Front Porch" Services	Short-Term Placement/ Interim Housing	Permanent Housing
Street Outreach	Emergency Shelter	Targeted Affordable Housing (TAH)
Engagement services for hard-to-reach, chronically homeless individuals sleeping on the street.	Short-term emergency housing for the majority of households entering the homeless services system.	No or light touch supportive services with long-term housing subsidy or affordable unit. Not available directly from shelter. TAH may be used as a step-down strategy for PSH clients or a step-up strategy for RRH clients (as recommended by assessment).
Prevention/Diversion	Transitional Housing	Permanent Supportive Housing (PSH)
Assistance at front door of shelter system to prevent housing loss and stabilize households outside of shelter.	Therapeutic, communal environment for special populations (e.g., victims of domestic violence and individuals with substance abuse issues)	Intensive, wrap-around supportive services and long-term housing subsidy or affordable unit.

Program Models

The second major building block of the plan is our program models matrix. The matrix outlines the program models needed within three broad categories of the homeless services system to achieve goals related to the preventing and ending homelessness.

- “Front Porch Services” are those provided to residents before they reach the front door of the homeless services system (the front door being the shelter system). This may include services to both households that are *literally homeless* as well as households at *imminent risk* of losing their housing.
- “Interim Housing” refers to housing that is time limited in nature and is designed to provide a safe, stable environment for households while they work on a permanent housing solution. To help with stabilization, some interim housing may provide specialized services for individuals and families seeking support in a communal environment.
- “Permanent Housing” is housing in which the client is the leaseholder and can remain in the unit as long as they choose. The rental assistance and services provided to the client may be short- to medium-term (such as in Rapid Re-Housing) or it can be of a long-term nature (Permanent Supportive Housing and Targeted Affordable Housing).

Key Points

**Homelessness is unacceptable, and it is expensive.** Homelessness did not always exist in America the way it does today. And here, in our nation’s capital, it is particularly unacceptable. A response focused on shelter is both expensive and ineffective. We have learned much about what works, and it is time to invest in solutions.

**Person-Centered Response.** We aim to provide person-centered, trauma-informed care that respects the dignity and ensures the safety of all individuals and families seeking assistance. Progressive engagement that is respectful of participant choice and attuned to participant safety and confidentiality needs will inform data collection efforts, level of services provided, and location/type of housing accessed.

**There are no “homeless people,”** but rather people who have lost their homes and deserve to be treated with dignity and respect. We believe deeply in the strengths and assets of people who are experiencing homelessness, believe in the value of having their voices at the planning table, and remain committed to supporting each and every individual in fulfilling their potential.

Figure 6: Chart explaining Different housing program models