

## ABSTRACT

Title of Thesis:               SOCIAL ENTERPRISE DEVELOPMENT:  
  A PREVENTATIVE APPROACH  
  TO HOMELESSNESS AND DISPLACEMENT  
  IN POINT BREEZE, PHILADELPHIA

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Social enterprise development focuses on creating economic value to help solve social problems. This thesis tests the viability of this concept by creating a mixed-use, mixed-income property in a low-income neighborhood in South Philadelphia. A profit-sharing financial model is used to support both affordable housing and transitional housing for homeless adolescents. The thesis uses biophilic design principles and values to explore architecture's role in healing from adolescent trauma and preventing future health issues. This thesis presents a preventative solution to social issues rather than a reactive solution. Prevention of chronic homelessness and prevention of displacement are key to addressing social injustice and help break cycles of poverty in low-income communities. This thesis exemplifies architecture's ability to provide equal access to both housing and services to help the most vulnerable members of society and help them become self-sufficient and contributing members of the community.

**SOCIAL ENTERPRISE DEVELOPMENT:**  
A PREVENTATIVE APPROACH TO HOMELESSNESS AND DISPLACEMENT  
IN POINT BREEZE, PHILADELPHIA

by

Cassandra Aaryn Huntington

Thesis submitted to the Faculty of the Graduate School of the  
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## Dedication

To the victimized youth who deserve a brighter future.

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# Chapter 1 – An Introduction to Social Entrepreneurship

## Thesis Origins

This thesis, like any thesis, continually grew and changed as more research, reflection, and design development was conducted. However, it is important to note why this thesis came to be, and to introduce the premise of this idea. This project is a joint thesis/capstone fulfilling the requirements of both the Master of Architecture and Master of Real Estate Development programs at the University of Maryland. As an integrated project it requires and allows for thinking and innovation that goes beyond design. The intention with this thesis is to explore architect-led development that focuses on social impact in addition to financial gains. The original conception of this thesis somewhat began as a critique on how typical developments are done.

Social entrepreneurship is defined by Afuah and Tucci in the *Academy of Management* as “the process of employing market-based methods to solve social problems.”<sup>1</sup> They distinguish social entrepreneurship as being mission-driven and having multiple types of bottom lines, as compared with a typical enterprise focused on maximizing shareholder value.<sup>2</sup>

## Creating Shared Value

The idea of social entrepreneurship is ultimately a response to the failures of the capitalist society and cutbacks in federal and state support to cities. Although capitalism has many benefits, including extensive opportunities to innovate and find

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<sup>1</sup> Grimes, McMullen, Vogus, and Miller, *Studying the Origins of Social Entrepreneurship: Compassion and the Role of Embedded Agency*, (The Academy of Management, 2013), 460.

<sup>2</sup> Grimes et al., *Studying the Origins of Social Entrepreneurship*, 460.

success, it also has created an extreme gap between rich and poor and generates cycles of poverty that are very difficult to get out of for the underprivileged. There are many living in poverty who could be strong, contributing members of society if given education and employment opportunities. Many of these people are victims of societal failures and damaging familial relationships. Investing in these impoverished communities is not only good for the residents' overall well-being, but it will ultimately result in improvements to the economic system as well. According to scholars in public administration,

the lack of social entrepreneurship is one of the reasons why communities stagnate. Consequently, it's important to understand how to encourage and stimulate social entrepreneurship, particularly inside struggling cities, where social entrepreneurship can help cities stimulate a healthy economic and social environment for their citizens.<sup>3</sup>

According to Michael Porter, a Professor at Harvard Business School, social entrepreneurship is the first step in moving toward a transformation of capitalism and the way that businesses function. An improved system would create a shared value that focuses not only on financial gains, but also on societal impact as a form of higher profits that produce positive societal change. Porter sees "social entrepreneurship as part of a larger movement calling for 'a more ethical and socially inclusive capitalism.'"<sup>4</sup> The idea of the shared value is not just about involving a social element, but about the ability to create both economic value and societal benefit simultaneously. Social impact projects and businesses don't have to only address this side of the equation but can also produce financial value as well.<sup>5</sup>

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<sup>3</sup> Diane M. Sullivan, *Stimulating Social Entrepreneurship*, " (Academy of Management, 2007), 77.

<sup>4</sup> Driver, Michaela, and Porter. *Social Entrepreneurship and the Transformation of Capitalism*. " (Academy of Management, 2012), 423.

<sup>5</sup> Driver, Michaela, and Porter. *Social Entrepreneurship*, 421-431.

## FINANCIAL FEASIBILITY

A social entrepreneurial approach to development that addresses community needs through partnerships and profit-sharing

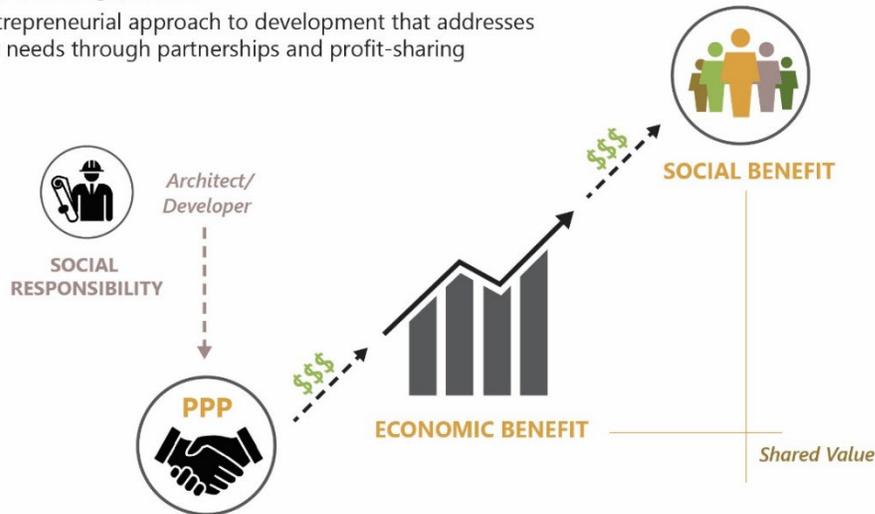


Figure 1.1 Shared Value Financial Feasibility  
(Source: Author)

### The Collective

Social Entrepreneurship has often been viewed as an individual's contribution to social good and fail to acknowledge the importance of the collective. The collective refers the many important players that are essential to make these efforts possible. Resources, including knowledge, support, and financial assistance, need to be gathered from various outside participants including stakeholders, institutions, organizations, government agencies, etc. Collective social entrepreneurship can be defined as “collaboration amongst similar as well as diverse actors for the purpose of applying business principles to solving social problems.”<sup>6</sup> (376) Fowler's (2000) definition of social entrepreneurship also places more emphasis on this idea of the collective, stating that social entrepreneurship is “the creation of viable

<sup>6</sup> Montgomery, Dacin, and Dacin, *Collective Social Entrepreneurship: Collaboratively Shaping Social Good*, (Journal of Business Ethics, 2012), 376.

socioeconomic structures, relations, institutions, organizations, and practices that yield and sustain social benefits.”<sup>7</sup>

### Urban Entrepreneurship

Social Entrepreneurship is a broad idea capable of being applied in a variety of ways addressing different social issues. One particularly interesting article titled, *Toward a Theory of Purpose-Driven Urban Entrepreneurship*, specifically addresses “placed-based entrepreneurship by highlighting the uniqueness of cities and the interplay between purpose-driven entrepreneurs and the urban places where they operate.”<sup>8</sup> This type of work typically relies on partnerships between the entrepreneur and other private and public sector actors that are trying to solve the same problems and improve the quality of life for the residents. These types of interventions are extremely important during the present rapid urbanization of cities around the world. This influx of people puts major pressures on city facilities and infrastructure causing many cities to struggle to keep up with necessary projects and improvements. This situation has made city partnerships with *citizen innovators* a welcome solution, and these urban entrepreneurial projects tend to fill voids left by the public institutions. These projects are imbedded in their context and can directly respond to the unmet needs of the community.<sup>9</sup>

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<sup>7</sup> Elmes, Justo, Whiteman, Hersh, and Guthey, *Teaching Social Entrepreneurship and Innovation From the Perspective of Place and Place Making*, (Academy of Management, 2012), 534.

<sup>8</sup> Cohen and Munoz, *Toward a Theory of Purpose-Driven Urban Entrepreneurship*, (SAGE Publications, 2015), 264.

<sup>9</sup> Cohen and Munoz, *Toward a Theory of Purpose-Driven Urban Entrepreneurship*, 264-285.

Another article speaks to the impact of context and place-making on social entrepreneurship efforts without actually referring to the idea as *urban*

*entrepreneurship*. The authors suggest that from a

phenomenological point of view, a place-based approach to social entrepreneurship highlights the way in which place, sense of place, and the phenomenological and sensory experiences of the human body unfolding in distinct places are relevant to the challenges of social entrepreneurship. They offer the social entrepreneur access to the physical and sensory inputs that are a source of valuable information and insight into the places where the social entrepreneur is trying to bring positive change.<sup>10</sup>

The authors even apply Gruenewald's (2003) four approaches to place to the idea of social entrepreneurship. First, *phenomenological*, addresses community experience, emotional investment, and aesthetic value. Second, *sociological*, addresses the people and networks most/least connected to the problem. Third, *critical*, addresses how to engage the community in the work of the enterprise. Fourth, *ecological*, addresses how local resources could contribute to the needed services as well as addressing issues of environmental sensitivity.<sup>11</sup>

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<sup>10</sup> Elmes et al., *Teaching Social Entrepreneurship and Innovation*, 538.

<sup>11</sup> Elmes et al., *Teaching Social Entrepreneurship and Innovation*, 541.

Testing the Social Enterprise Model

This thesis seeks to test the social enterprise development model with a specific, vulnerable user group while being sited in a chosen neighborhood to evaluate its financial feasibility and to explore architecture’s role in addressing societal issues. The primary mission for this project is to contribute to breaking cycles of poverty and social injustice, and ultimately to be an example of equitable development for impoverished communities. One of the major themes that runs through all aspects of the project is approaching societal issues from a preventative lens rather than a reactionary approach.

**SOCIAL ENTERPRISE DEVELOPMENT**

Applying the idea and evaluating feasibility

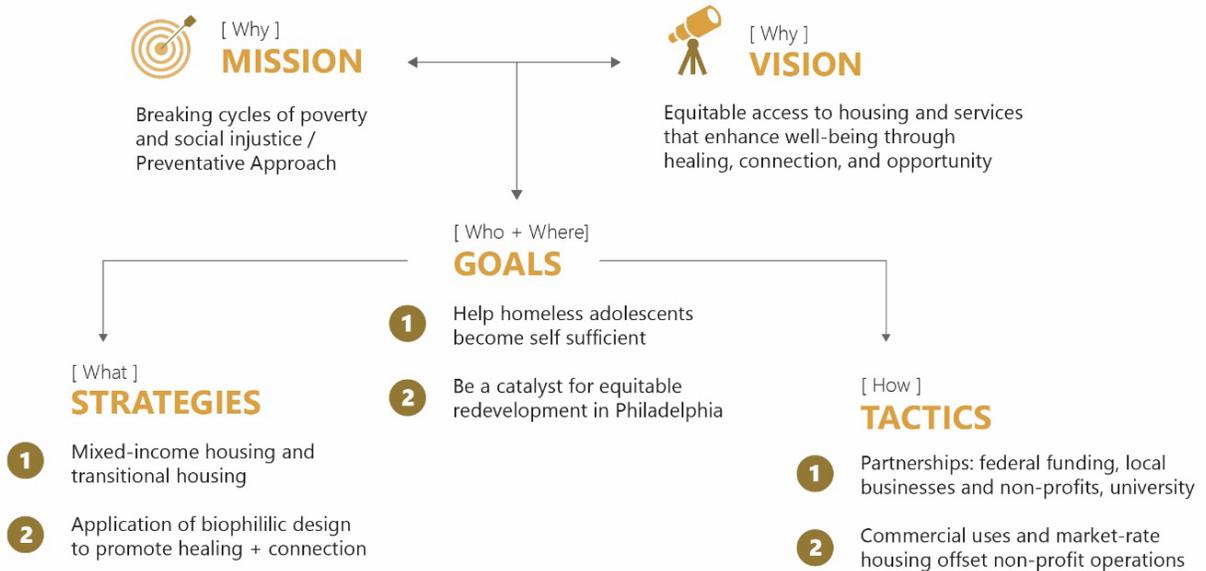


Figure 1.2 Social Enterprise Development Project Plan  
(Source: Author)

## Chapter 2 – Who are Homeless Adolescents?

### *An Introduction to Youth Homelessness*

#### **Homelessness in the United States**

In 2018, HUD reported that 553,820 people were homeless, according to the “point-in-time” count.<sup>12</sup> There are many different terms that important to know when referring to those in need. HUD has provided a useful summary of terms in their report:<sup>13</sup>

**Continuums of Care (CoC)** are local planning bodies responsible for coordinating the full range of homelessness services in a geographic area, which may cover a city, county, metropolitan area, or an entire state.

**Point-in-Time Counts** are unduplicated one-night estimates of both sheltered and unsheltered homeless populations. The one-night counts are conducted by CoCs nationwide and occur during the last week in January of each year.

**Chronically Homeless Individual** refers to an individual with a disability who has been continuously homeless for one year or more or has experienced at least four episodes of homelessness in the last three years where the combined length of time homeless in those occasions is at least 12 months.

**Unaccompanied Homeless Youth** are people in households with only children who are not part of a family with children or accompanied by their parent or guardian during their episode of homelessness

**Unsheltered Homelessness** refers to people whose primary nighttime location is a public or private place not designated for, or ordinarily used as, a regular sleeping accommodation for people (for example, the streets, vehicles, or parks).

**Sheltered Homelessness** refers to people who are staying in emergency shelters, transitional housing programs, or safe havens.

**Rapid Rehousing** is a housing model designed to provide temporary housing assistance to people experiencing homelessness, moving them quickly out of homelessness and into permanent housing.

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<sup>12</sup> Meghan Henry et al., *2018 AHAR: Part 1* (HUD Exchange, 2018).

<sup>13</sup> Henry et al., *2018 AHAR: Part 1*.

**Emergency Shelter** is a facility with the primary purpose of providing temporary shelter for homeless people.

**Permanent Supportive Housing (PSH)** is a housing model designed to provide housing assistance and supportive services on a long-term basis to formerly homeless people. HUD’s CoC program, authorized by the McKinney-Vento Act, funds PSH and requires that the client have a disability for eligibility.

**Transitional Housing Programs** provide people experiencing homelessness a place to stay combined with supportive services for up to 24 months.

Research from the University of Chicago indicates approximately 4.2 million youth, between ages 13 and 25, experience a period of homelessness annually, with 700,000 of those youth being unaccompanied between the ages of 13 and 17.<sup>14</sup> In 2018, HUD reported 36,000 unaccompanied homeless youth, according to the “point-in-time” count. Youths between 18 and 24 made up the majority at 89% (homeless adolescents). Unsheltered youth who find themselves homeless account for 51%, which is much higher than the overall unsheltered homeless population at 35%.<sup>15</sup>

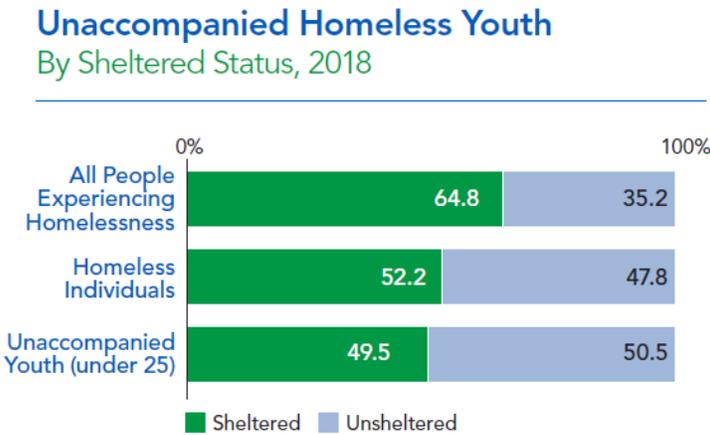


Figure 2.1 Homeless Youth Sheltered Status (Source: HUD, 2018 AHAR Part 1)

<sup>14</sup> Youth Homelessness & Human Trafficking (National Network for Youth, 2018).

<sup>15</sup> Henry et al., 2018 AHAR: Part 1.

## **Homeless Youth Terminology**

A common issue across research and reports relating to youth homelessness is the lack of universal clarity on the issue and its terminology. This lack of definition makes the existing body of research disjointed and limits the progress in the study and the search for a solution. The term, homeless youth, encompasses a large group of children and young adults with varying subcategories, making the overall group extremely broad and undefined.<sup>16</sup> Homeless youth can be categorized into several subgroups relating to their mode of entry into homelessness:<sup>17</sup>

**Systems Youth:** those who have been placed in state custody and are involved in the child welfare, juvenile justice, mental health, or chronic healthcare systems

**Non-Systems Youth:** youth who are living outside of mainstream systems and include runaways and throwaways

Non-systems youth are further classified into two groups:

**Throwaways:** youth who have been forced by parents to leave their home because belligerent behavior, social rejection, or abandonment. Throwaways denote a somewhat involuntary entry into the homeless state

**Runaways:** reasons of family conflict, alienation, and poor social relations, or to escape physical, emotional or sexual abuse

There are also three natures of homelessness which group more specific reasons for homelessness as it relates to the individual youth and/or the guardian(s):<sup>18</sup>

**Structural:** based on lack of affordable housing, employment, health benefits, or social services

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<sup>16</sup> Philisie Starling Washington, *Homeless Youth: A Concept Analysis* (Journal of Community Health Nursing, 2011), 168-78.

<sup>17</sup> Kate Durham, *Housing Youth: Key Issues in Supportive Housing* (Corporation for Supportive Housing, 2003), 4.

<sup>18</sup> Washington, *Homeless Youth*, 169-172.

**Personal:** related to divorce, drug or alcohol abuse, psychiatric illness, family conflict, neglect and mistreatment, pregnancy, LGBTQ

**Accidental:** natural disasters

Despite these different categories and various reasons for being homeless, “*homeless youths* is a concept that has evolved into a cultural colloquialism with negative connotations. Thus, these adolescents are misunderstood and lost in a maze of stereotypes.”<sup>19</sup>

### **Common Causes and Consequences**

In the same way that homeless youth is not simply defined, its causes and consequences are also extremely varied and complex. There are numerous categories that precede homelessness, and these antecedents create an interwoven web of relationships unique to each individual. This is one of the many reasons why solving this important issue is so challenging. These same sentiments also apply to the outcomes of homelessness, as explained below and illustrated in Figure 2.2 and 2.3:

Homeless youth consequences depend on youths' resilience, survival, self-efficacy, addiction, health quality, personal strengths, health risk behavior, and lack of skill development. These consequences depend on homeless youths' ability to connect with assistance and change deleterious behavior. Consequences are also determined by early intervening factors, including role models, homeless youth programs, and gang membership.<sup>20</sup>

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<sup>19</sup> Washington, *Homeless Youth*, 171.

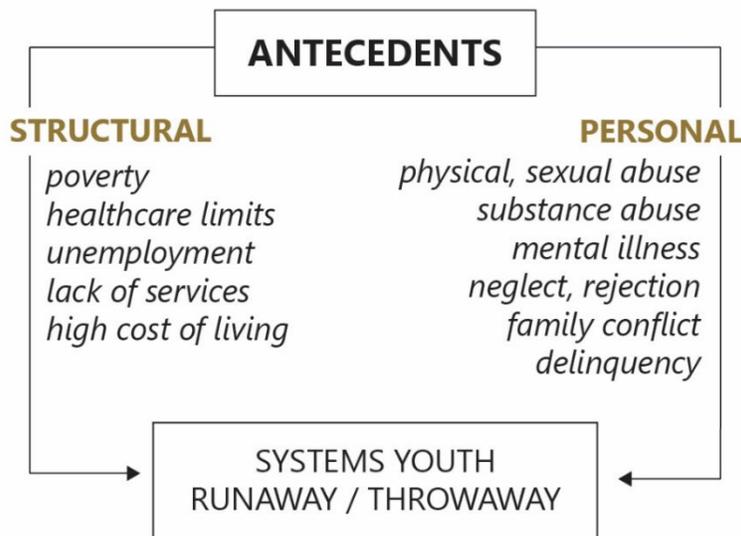
<sup>20</sup> Washington, *Homeless Youth*, 176.

## HOMELESS YOUTH [PIT COUNT]

36,000 UNACCOMPANIED YOUTH

 **89%** *between ages 18 - 24*

 **51%** *unsheltered*



Figure

*Homeless Youth Antecedents (Source: Author, Homeless Youth)*

2.2

### Problems with the Foster Care System

It is always best to keep a child with his or her family, but only if it is a safe environment. Children suffer when pulled from their family and forced to live with strangers. This should only occur when a child is truly in danger or enduring mistreatment. Therefore, the differential response system was developed. Some states have realized that not all reports of child abuse or neglect are of the same severity. Many families are struggling to make ends meet and get reported to family social services the same ways children being physically abused get reported.

“It is important to note that of the cases that child welfare workers investigate, most do not involve abuse and neglect. Many arise because of the cascading consequences of poverty—the need for groceries, utility aid, shelter, or childcare, for instance. The trauma of being removed from families, friends, schools, and familiar surroundings cannot be underestimated.”<sup>21</sup>

The importance of stability cannot be overlooked when it comes to childhood development. This stability is severely disturbed when it comes to many foster care situations. Moving from home to home, shelter to shelter, or into juvenile detention or mental health centers is common among foster care kids. These years of isolation and relocation result in more and more trauma after every upheaval. In fact, each move can set a child back four to six months in school.<sup>22</sup>

Not all issues can be treated the same; it is important to have specific solutions for different issues. Problems can be exacerbated by taking children from families who simply need help. The system should promote families staying together safely. Social workers should assess needs first, rather than jump into an investigation.<sup>23</sup> Billions of dollars are spent on foster care, but not enough is spent on preventing children from being put into foster care by simply giving their families financial aid. The government could divert some funding to help impoverished families to be able to care for their own children or by providing mental health services, therapy, groceries, health care, transport, etc. at a lower cost than providing foster care.<sup>24</sup>

In 2010, “11% of children leaving foster care age out of the system with no place to go. That’s nearly twenty-eight thousand teenagers, up sharply from a little

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<sup>21</sup> Ryan, Kevin, and Tina Kelley, *Almost Home* (Wiley, 2012), 111-112.

<sup>22</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 3.

<sup>23</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 3.

<sup>24</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 112.

more than twenty thousand a decade earlier.”<sup>25</sup> These numbers indicate that government services can never provide the kind of home that comes from stable, loving parents. Foster care kids who do not get adopted and whose foster care parents do not want to help them after their government checks stop coming are left to fend for themselves. “In one study, more than a fifth of them became homeless within a year of leaving foster care,” and as time goes on the odds get even worse—by the time they are 24 years old, 37% are homeless.<sup>26</sup>

Homelessness is not the only negative outcome of many foster care kids, but a 2009 report funded by Jim Casey Youth Opportunities discovered a strong “correlation between leaving foster care without a family and unemployment, incarceration, and unplanned pregnancy before age twenty-one.” The report also discovered that “young people who age out of foster care each year cost \$5 billion in additional costs to government and individuals for welfare and Medicaid expenses, the costs of incarceration, and lost wages and tax revenues. That price, on a human as well as fiscal scale, is far too high.”<sup>27</sup>

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<sup>25</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 107.

<sup>26</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 6.

<sup>27</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 108.

## THE FOSTER CARE SYSTEM

### 28,000 AGE OUT EACH YEAR

 **20%** *homeless within one year*

 **37%** *homeless by age 24*

### EDUCATION OUTCOMES

**70%** *want to go to college*

**3%** *graduate from college*

**25%** *don't graduate from high school*



### SUBSTANCE DEPENDENCE

**7x** *as likely to develop drug dependence*

**2x** *as likely to develop alcohol dependence*

*Figure 2.3 Aging out of Foster Care  
(Source: Author, Children's Home Society and Lutheran Social Service, and the Foster Club)*

In the past, the foster care system stopped providing aid at the age of 18, but in 2008 the Fostering Connections to Success and Increasing Adoptions Act was passed unanimously by Congress.

This law provides federal matching aid for states that support relatives who take in foster children or states that aid foster care kids up to age 21, with the requirement of working or getting an education. Studies have shown the results of this act to be very positive, specifically reporting that those who continued to receive assistance until age 21 were “three times more likely to complete one year of college and 38 percent less likely to become pregnant, compared to young people who left care at eighteen.”<sup>28</sup> As of 2017, 25 states and D.C. extended foster care beyond age 18 through Title IV-E reimbursement, enabled by the aforementioned act.<sup>29</sup>

<sup>28</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 109.

<sup>29</sup> *Extending Foster Care Beyond 18*, National Conference of State Legislatures.

## **Breaking the Cycle: A Preventative Approach**

Research suggests that the system may be waiting too long to intervene and provide youth with help. “In a very real sense, we are waiting until such young people age, become more ill, and experience more trauma before we deem them worthy of support. We need to fix this problem.”<sup>30</sup> The typical approach focuses on chronic homelessness first, while responding to youth homelessness tends to be more of an afterthought. This methodology ignores preventative measures and allows the “politics of scarcity to shape how we think about prioritization.”<sup>31</sup>

Canada has been making big strides in recent years to reduce homelessness. One major way is by studying the methods of other countries, particularly focusing on countries like Denmark, Scotland, and Belgium. A new program called “A Way Home Canada” focuses its efforts on ending youth homelessness by “helping encourage a shift from a crisis response to youth homelessness, to one that focuses on prevention and sustainable exits.”<sup>32</sup>

Helping vulnerable individuals as early as possible is essential to help break the cycle of homelessness and poverty for these young adults. By intervening early, before bad patterns emerge, at-risk youth can have better options and opportunities to help avoid chronic homelessness, health problems, and a multitude of other issues including addiction, mental illness, human trafficking, and the like. This project will focus on provided aid to unaccompanied homeless youth between ages 16 to 24, namely homeless adolescents. By helping at such a critical age, negative outcomes

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<sup>30</sup> Stephen Gaetz, *Reflections from Canada* (Cityscape, 2018), 141.

<sup>31</sup> Gaetz, *Reflections from Canada*, 139.

<sup>32</sup> Gaetz, *Reflections from Canada*, 140.

will be reduced, and equal opportunities will be provided to produce healthy, self-sufficient, contributing members of the community.

Prevention not only benefits the homeless, but it could also have significant financial benefits. “Sometimes, the right solution solves fiscal problems, as well as human ones. Homelessness is expensive, and helping young homeless people find a firm footing keeps them from becoming older homeless people, with more costly, entrenched health problems and chronic needs.”<sup>33</sup> Innovative funding sources, partnerships, and project types should be explored to respond to the idea of prevention and possible financial benefits for the public.<sup>34</sup>

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<sup>33</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 39.

<sup>34</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 110.

### Personal Testimonials

The cold, the noise, the wind, the fear—I don't know how kids bear it. They become exhausted and, eventually, sick from the cold and the worries that keep them awake. Imagine trying to get a good night's sleep in a subway car, in a rat-infested park, or in a room with someone who trades a bed for the use of your body. Imagine waking up having to figure out the next semi-acceptable place to stay!<sup>35</sup> - Tina Kelley

Street life is an inherent contradiction, providing youth an escape from a bad home situation while accepting circumstances that bring new troubles and hardships. The streets are an extremely dangerous place for anyone to live and sleep, but especially vulnerable adolescents. Because of these fears and struggles, the idea of a street community is a crucial concept, where street youth stick together and protect each other, forming “street families.” Not only are there dangerous criminals on the streets, but homeless youth even perceive the public to be “uncaring and disrespectful of their plights,” with people degrading them like garbage. Street youth typically feel isolated and disconnected from society, and “the longer you stay out there, the more disenfranchised and disempowered and non-person-like you feel.”<sup>36</sup>

The Covenant House is a non-profit organization that has provided supportive housing and services to homeless youth for the past forty years. They believe in advocating for the human rights of homeless and victimized young adults. Covenant House operates in thirty-one cities, across six countries, and is one of the largest programs for homeless youth in the United States. One of the main goals of this thesis is to explore innovative design strategies and funding mechanisms to address the needs of vulnerable members of society. In order to respond appropriately,

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<sup>35</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 40.

<sup>36</sup> Karabanow et al., *Can you be Healthy on the Street?* (Canadian Journal of Urban Research), 19-25.

understanding the experiences of this vulnerable population (in this project, runaway and throwaway adolescents) is essential for a meaningful and responsive project. Many personal accounts were reviewed in attempts to better understand experiences that homeless youth face. Many of these personal testimonies come from individuals who sought refuge at various Covenant House locations, providing insights into both their lives and the inner workings and approach of Covenant House.

### **Neglect and Abuse**

Approximately 40% of runaway and throwaway youth that have sought refuge at Covenant House have experienced some form of neglect and abuse. Oftentimes verbal and/or physical abuse is linked to a parent's issue with drug/alcohol addiction or mental illness. On the other hand, neglect can also be a major issue resulting from poverty. Overall, it is very difficult for these problems to be reduced to one cause due to their complex and layered nature.<sup>37</sup>

Neglect and abuse leave behind emotional scarring and psychological trauma on the victim. A personal account from Paulie illustrates how confusing it can be for children who experience this type of treatment from their parent(s). Paulie's father, Hank, was verbally and physically abusive, while his mother was addicted to prescription drugs, often mentally absent from home life. After Paulie received one especially brutal beating, his father drove him to school and "during the ride, Hank cried his eyes out, saying how much he loved Paulie and wanted to be his friend. Dazed, still bleeding, Paulie sat motionless, wondering what love is."<sup>38</sup> Many

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<sup>37</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 3.

<sup>38</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 20-21.

homeless youths have not experienced a parent's unconditional love and support. These types of negative experiences make it tremendously hard for them to form trusting relationships because people in their lives have never believed in them, and many adults, oftentimes their parents, have made them believe they are worthless.

An account from Benjamin included extreme physical and sexual abuse experienced both from his birth parents and his foster care home, where he was supposed to be sheltered from a dangerous home life. He frequently moved from home to home, oftentimes even going back to his own parents where the abuse continued, and he was terrified to tell anyone. Benjamin's childhood experience is a vivid representation of the many problems with the foster care system. Over the years his case record with Texas Child Welfare Agency grew to be a staggering 3,100 pages, and yet there was never a mention of trying to find him a permanent adoptive family.<sup>39</sup>

Despite the unspeakable acts of parents who neglect and abuse their children, the inherent nature of a child is to want his/her parents to love and accept him/her even after mistreatment has occurred. A young man named Keith recounts another powerful personal testimony full of extreme neglect from a drug-addicted mother who killed his father in an argument when he was very young. His mother would make him and his brothers steal food from the grocery store, and she would leave them alone for days at a time when Keith, the oldest of the three boys, was only 5 years old. One day, he was trying to make toast for himself and his brothers after his mom had not been home in a long time and they were very hungry. Keith

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<sup>39</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 3.

unknowingly used the stove to do this which made the bread and the kitchen go up in flames. The boys were saved by firemen but were separated into different foster homes after the authorities stepped in.

Keith was thankfully placed in a safe home but was unaccepting of this new home without his mom and brothers. Keith's foster mom, Miss Dawson, saw his discontentment and decided to adopt Keith along with his two brothers, uniting what was left of his family. Despite this, he was constantly waiting for his mom to come back for them, even though she had been given the opportunity and decided she did not want her sons back. Even though Miss Dawson loved the boys and provided a good home for them, Keith was so damaged by his abandonment that he continued to resent his adopted mom regardless of all that she did for him.<sup>40</sup>

During grade school, living with Miss Dawson, Keith had a recurring daydream. I will go outside and my mother will be there, and she'll be like, "I was just playing, come on, we can go home now." The fantasy transfixed him. If his mother returned, they could be a family again... As the bad memories of the hardships she put them through faded, so did vivid recollections of her features. Keith was haunted by the blur of her face.<sup>41</sup>

The psychological trauma associated with childhood abuse and neglect can "lead to serious emotional disorders and behavior problems."<sup>42</sup> The data and personal accounts reflect the indispensable need for mental health services for homeless adolescents.

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<sup>40</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 5.

<sup>41</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 158.

<sup>42</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 83.

## Human Trafficking

When kids are living on the streets, they may become prey to criminals with bad intentions. One of the major concerns for exposed and vulnerable young people is becoming an easy target for sexual exploitation. Research from various studies have conclude that 19%-40% of homeless youth are coerced into trafficking. Although exact numbers cannot be certain, using the lower end of the spectrum, at least 800,000 homeless youth are also victims of trafficking.<sup>43</sup>

Kids with no place to stay often come to the attention of pimps, who troll the streets around youth homeless shelters, hang out in nearby pizza parlors and schools, patrol bus terminals and airports, and even send young recruiters to live inside shelters to lure young people into the sex trade. They quickly find the kids who have no strong father figures in their lives, a history of foster care or sexual abuse, broken family bonds, or problems with addiction. Kids without belief in themselves or hope for their futures are vulnerable to anyone offering so much as a free lunch.<sup>44</sup>

It is essential to provide protection to runaway and throwaway adolescents before they are intercepted by people who will lead them down the wrong path by forging false relationships with them and making them promises that are not in their best interests. “The overwhelming majority of runaway, homeless, abused, and at-risk children are approached by pimps and drug dealers within 48 hours of landing on the streets.”<sup>45</sup> Kids on the street are alone, scared, lonely, and desperate, making them extremely vulnerable to the “calculated advances, deception, and manipulation tactics used by traffickers/pimps – no youth is exempt from falling prey to these tactics.”<sup>46</sup>

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<sup>43</sup> *Youth Homelessness & Human Trafficking* (National Network for Youth, 2018).

<sup>44</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 53-54.

<sup>45</sup> *Commercial Sexual Exploitation, Abuse and Trafficking of Children and Youth* (OSPI, 2015), 5.

<sup>46</sup> *Commercial Sexual Exploitation*, 6.

In 2012, seven states passed Safe Harbor for Sexually Exploited Youth Acts, which protects minors arrested for prostitution from going to juvenile detention. These laws identify these minors as victims of sex trafficking who receive protection and federal aid for shelter and services.<sup>47</sup> As of 2018, thirty-four states now have enacted Safe Harbor Laws.<sup>48</sup> Those organizations and agencies who are providing shelter and services to former trafficking victims must be aware of the struggles these individuals have endured and will continue to endure throughout the recovery process and the rebuilding of their lives.

Once they break free, trafficking victims require safe escape routes, including an education, job training, and counseling. “We need to offer them opportunities and choices, because they’re not going to go work for eight dollars an hour when they can make five hundred dollars a night,” said Lisa Ronaldson of Covenant House Vancouver.<sup>49</sup>

Not only is it essential to provide alternative career paths for sex trafficking victims, but the physical and psychological damage must be mended first. Prostituted women may have a mortality rate up to 40 times higher than the typical woman, and most victims “need long-term psychological counseling—in one study, 68 percent of prostituted people suffered from post-traumatic stress syndrome.”<sup>50</sup>

### **Mental Illness and Addiction**

Not only do many homeless adolescents suffer from mental illness (primarily anxiety and depression) and drug/alcohol abuse, but oftentimes it is a result of one or both of their parents also suffering from the same or similar problems. There is also a strong correlation between parents who suffer from mental illness and/or addiction

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<sup>47</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 68.

<sup>48</sup> *Human Trafficking Issue Brief: Safe Harbor*, (Polaris Project, 2015).

<sup>49</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 70.

<sup>50</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 56.

and children who experience neglect and abuse.<sup>51</sup> Drugs are often seen by teenagers as an escape from a horrible home life of which they had no control. One homeless adolescent said in an interview, “I am always stressed and depressed ...street kids get into drugs to deal with their lives...I get high to forget that I really don’t have anything to look forward to.”<sup>52</sup> Drugs and alcohol are frequently used by those who endure immense suffering as a means of self-medication. The overwhelming trauma, despair, hopelessness, and feelings of isolation are often expressed in irrational, explosive behavior and desperate life choices.

These real-life accounts demonstrate how difficult it is to separate the antecedents and consequences of youth homelessness. Each story shows the extensive interconnectedness of the issues, and how difficult it is to separate the reasons for homelessness. Young adults who find themselves in unsafe and unloving homes are at much greater risk of experiencing many negative outcomes. This is why early intervention and prevention is key for helping victimized teenagers overcome unfair life circumstances and lead productive lives.

### **Pregnancy**

Nearly 750,000 American teenage girls get pregnant every year, one third of whom are under eighteen.<sup>53</sup> Teen pregnancy can cause family conflict or financial hardship which may result in a teen mom becoming homeless. Creionna’s mom died when she was young, and her father went to prison for selling drugs. She lived with her grandmother for a while, but there she was mistreated. “When people looked

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<sup>51</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*.

<sup>52</sup> Karabanow et al., *Can you be Healthy on the Street?*, 17.

<sup>53</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 4.

down their noses at her and asked her why she let herself get pregnant so young, she had no idea what they were talking about. ‘I didn’t have a mother,’ she said. ‘I had nobody to guide me. I was on my own.’”<sup>54</sup>

She was fully aware that she was not prepared for the responsibility of being a parent, but she knew that she did not want to raise her child in a place full of pain and neglect. She wanted to provide a better life for her baby than she had, but unfortunately, with no high school diploma, no income, no food stamps, no official ID, it was difficult for her to know how to do that. She had a history of physical, sexual, and verbal abuse, but despite all of these problems, she managed to stay off the streets and keep away from crime. She was in the best position possible to get the help she needed to provide for her child and get her life on the right track; and that is exactly what she did.

Creionna went to Covenant House for help, where she was able to have access to seminars for job training, money management, and parenting. Covenant House even had a free day care center, which allowed her to get two jobs and study for the GED at the same time. Covenant House’s Rights of Passage Program, which provides supportive, independent housing, was all Creionna needed to create a great life for herself and her child.<sup>55</sup> Without this extra help and support she would have been at risk for the many other issues described in this chapter.

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<sup>54</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 123.

<sup>55</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Chapter 4.

## LGBTQ

The LGBTQ population is particularly at risk of homelessness as indicated by the following statistics published by Covenant House:

sexual minority youth become homeless at a disproportionately high rate, with shelters in some cities reporting that they account for up to 40 percent of their residents. Each year, an estimated 240,000 to 400,000 LGBTQ minors become homeless. Compared to straight homeless youth, they are more likely to be robbed or assaulted and three times as likely to be sexually assaulted or raped. Many feel exiled and deeply isolated. Their survival often depends on a homeless shelter <sup>56</sup>

Meagan is one such individual who was kicked out of her grandmother's house when she was seventeen after telling her that she was gay. Meagan lived with her grandmother because her mom was constantly in and out of her life, neglecting her for a life of criminal activities. Eventually, Meagan found a home at Covenant House in addition to several mother-figures who cared for her and mentored her. Because Meagan never had a reliable loving mother, she received something very valuable from Covenant House. She explained, "If I were ever to fall into trouble, I know I could count on them. They're additional moms to me." <sup>57</sup> One of them told Meagan that "the people you live with and who raised you isn't necessarily your family... When your original family rejects you, you can build a new one." <sup>58</sup>

Those who identify as LGBTQ are not only more susceptible to homelessness, but also to human trafficking, depression and suicide. According to Clinical Child Psychiatry and Psychology, "more than a third of lesbian, gay, or bisexual youth have attempted suicide, and they are up to four times as likely to do so as their straight

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<sup>56</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 184.

<sup>57</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 197.

<sup>58</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 193.

peers.”<sup>59</sup> More specifically, “more than 60 percent of homeless lesbian, gay and bisexual young people try to kill themselves at least once, twice the percentage of straight homeless youth.”<sup>60</sup> Awareness of these statistics is essential for helping young adults who are at a higher risk for dangerous paths. The importance of intervening early in the lives of these youth cannot be overstated. Preventing these vulnerable individuals from manipulation and exploitation should be a priority, and the realities facing the LGBTQ community support the relevance of this thesis.

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<sup>59</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 185.

<sup>60</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 189.

## Major Barriers Faced by Homeless Youth

### **The Hidden Homeless**

Many people in the United States are unaware of the prevalence of homeless youth, which begs the question, *why are these individuals going unseen or unnoticed by the general population?* One of the main reasons is provided by Tina Kelley, a staff writer at Covenant House:

They don't want us to know they have nowhere to go. The advocacy community has found it nearly impossible to obtain an accurate count of homeless young people, in part because they find it safer and less embarrassing to hide. Homeless kids tend to stay with friends, disappear into the woods or the alleys, and generally avoid attention, to steer clear of the people who might use, rob, or harm them. Some don't want to be sent to foster care. Some are ashamed of their unwashed bodies and ill-fitting clothes, while they live off scraps and try to make it to school or work. <sup>61</sup>

Many of these young people even hide in plain sight. They try to make themselves look as normal and clean as possible to blend in and disguise the fact that they have no place to go and may even be sleeping on the streets. But despite their best efforts to go unnoticed, they are the “hidden homeless.” <sup>62</sup>

### **From Victim to Survivor**

There is also an issue with homeless youth who are perceived but not given the help they need. This leads to a second question, *why are homeless youth not prioritized and sometimes ignored?* This can partially be attributed to the problem of social stigmas and preconceived notions that tend to be associated with homeless youth. It is “a concept that has evolved into a cultural colloquialism with negative connotations. Thus, these adolescents are misunderstood and lost in a maze of

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<sup>61</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Preface.

<sup>62</sup> Randy Christensen, *Ask Me Why I Hurt*, (New York: Broadway, 2012), 89.

stereotypes.”<sup>63</sup> It is important to break down these negative judgements in efforts to help homeless youth be understood as victims of heartbreaking childhood experiences and trauma. A new lens should be applied to how people view street youth, and even how the street youth think about themselves. These mistreated, abused, unwanted, and unloved children are survivors who need caring adults to step in and provide guidance, access to aid and services, and a safe and stable place to call home. Without these things, many of these vulnerable individuals will turn to coping mechanisms such as drug and alcohol abuse, fall prey to sex trafficking, turn to crime for money, or succumb to the trauma and develop life-threatening mental illnesses.<sup>64</sup>

So many of these children have grown up in homes where they have experienced horribly traumatic abuse and mistreatment from the adults in their lives who should be providing them with a safe environment where they are loved, supported, and nurtured during the most important psychological development stages of adolescence. Not only will these negative childhood experiences have lasting damage, but they are also a “part of the psychology of children to blame themselves for whatever goes wrong in their families.”<sup>65</sup> Broken childhoods often yield young adults who feel unworthy of love and undeserving of a better life. No one has ever believed in them, so why should they believe in themselves?

A true home has been stolen from these children, and yet, despite the odds stacked against them, with proper guidance many have been able to transcend this deficit. They are resilient and “they survive. They start to thrive, building their own

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<sup>63</sup> Washington, *Homeless Youth*, 171.

<sup>64</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 6.

<sup>65</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 5.

new lives and new relationships, with so little preparation and modeling from their earlier years,”<sup>66</sup> and despite the circumstances into which they were born. Their past was not of their own volition, but something they must cope with and overcome. However, it is a daunting task to do it on their own, which is why it is essential for people to be made aware of the issue and advocate for the youth of our nation—“generations to come depend on our success.”<sup>67</sup>

### The Issues with Shelters

“Where are you sleeping?” I asked.

“In this old house. No one lives there. It is cold at night.”

“Juan, how come you don’t stay at one of the adult shelters? You’re eighteen. You could stay at one of the shelters downtown.”

“Dr. Christensen, those are bad places.”

“What do you mean?”

His dark eyes were grave. “Bad things happen there at night.”

“What kinds of things?” I asked, curious. He was the second young person to tell me that some of the adult shelters were bad.

“Bad things, period.” I could tell he didn’t want to tell me more.<sup>68</sup>



Figure 2.4 The State of Shelters (Source: Bob Rowan)

<sup>66</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Preface.

<sup>67</sup> Cory Booker. *Almost Home*, (Wiley, 2012), Foreword.

<sup>68</sup> Christensen, *Ask Me Why I Hurt*, 98.

First-hand accounts of homeless youth have expressed difficulties when it comes to finding a safe place to sleep. They explain that in both a shelter or on the streets there is a constant fear of someone coming up to you while you are sleeping and harassing you or trying to hurt you, which causes them extreme anxiety. It is common for homeless youth to choose to sleep on the streets or in abandoned buildings rather than staying in a homeless shelter for this reason.<sup>69</sup> This revelation makes it clear that there is a serious problem with the safety and security of many shelters available to those in need. Not only is safety an important issue that needs to be addressed, but also the atmosphere is often dirty and overcrowded, certainly not an environment that emphasizes human dignity.

### **Poor Health and Limited Access to Healthcare**

A survey was conducted interviewing fifteen street youth, ages 16-24, asking them questions about their perceptions of their own health while living on the streets, and what it means to be healthy. When they were asked to define health, the majority explained their understanding of health to be a combination of physical and mental health. They included the absence of disease/sickness/pain, the ability to meet basic needs such as food, safe shelter, and hygiene, an absence of drug/alcohol abuse, and not feeling overwhelmed by stress/anxiety/depression.<sup>70</sup> “For many youth, street life was the antithesis to good health, noting that the only way to be healthy meant exiting street culture and ‘living a normal life.’ Health was directly related to homelessness by one youth who noted: ‘If you don’t have a place to stay your body just wears

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<sup>69</sup> Karabanow et al., *Can you be Healthy on the Street?*, 25.

<sup>70</sup> Karabanow et al., *Can you be Healthy on the Street?*, 16-18.

out.”<sup>71</sup> A major problem that this study found was an extreme discomfort that homeless youth feel when trying to access healthcare services from a medical professional or a hospital. They reported feeling judged, disrespected, and treated like second-class citizens, “many youth fear or feel alienated by the very people who should be able to provide assistance to them.”<sup>72</sup> Most interviewees, if they received any healthcare services, came from a drop-in center or a nurse at a youth shelter. They feel more comfortable and less judged in these “informal settings.”

In the past six months, 70% of respondents noted that they had not used an emergency room; 77% had not visited a mental health service, community health clinic or family doctor; 93% of the sample had not visited a shelter health clinic; and 85% had not visited a drug dependency service.<sup>73</sup>

This is why the work of Dr. Randy Christensen is so important. He is a pediatrician at Phoenix Children’s Hospital, and in 1999 the hospital created Healthmobile, a mobile medical unit that provides healthcare specifically to homeless youth. Dr. Christensen wrote a memoir in 2012 titled, “Ask Me Why I Hurt: The Kids Nobody Wants and the Doctor who Heals Them,” which recounts the struggles and experiences from the beginnings of Healthmobile. He quickly discovered the many ways that his education, training, and experience did not prepare him for the things that he would see and treat in the lives of homeless youth. He had to adjust to harsh realities and respond to new situations where circumstances were difficult, people were hard to reach, and funding was challenging to find.

Some of the major issues that homeless youth presented when visiting Dr. Christensen included asthma, injuries from beatings, drug and alcohol abuse,

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<sup>71</sup> Karabanow et al., *Can you be Healthy on the Street?*, 18.

<sup>72</sup> Karabanow et al., *Can you be Healthy on the Street?*, 29-30.

<sup>73</sup> Karabanow et al., *Can you be Healthy on the Street?*, 25-26.

depression, HIV/AIDS, Hepatitis, tooth abscesses and broken teeth, colds, flues, skin rashes, feet problems (“boot rot”), hunger, dehydration, food poisoning, and more. These injuries and illnesses were all things he learned how to treat in medical school and from his experience at the hospital, however, he felt completely unprepared for some of the other surprises he encountered when working with this underserved population. Dr. Christensen and his team quickly learned that typical procedures and intake forms were not suitable in this situation and one of the nurses came up with a new form with specifically catered questions that would apply and be important for homeless youth. This form later went on to be used by many other homeless organizations and agencies. They also realized that medical histories from these kids would be hard to obtain, something extremely important when treating patients. Along with adjustments that had to be made with how to run the mobile medical clinic, Dr. Christensen also had to deal with ailments that he never had to before. Situations like this happened on several occasions:

The girl came over screaming with pain, cupping her ear with one hand. Immediately I suspected a cockroach. I had learned this was common. The kids would lie down to sleep in abandoned houses and filthy camps, and the cockroaches would run right inside their ears. Baby cockroaches in particular.<sup>74</sup>

He also dealt with many kids with dental issues worse than he had ever seen:

He had a mouthful of teeth shattered by abuse and decay. He would need all of them pulled. Probably he had never seen a dentist. It had to be hard for him to eat. I felt sad. Here was a boy who probably needed dentures, and he wasn't even old enough to vote.<sup>75</sup>

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<sup>74</sup> Christensen, *Ask Me Why I Hurt*, 69.

<sup>75</sup> Christensen, *Ask Me Why I Hurt*, 75.

The sad thing is that these cases are not atypical for people who are living on the streets. They are vulnerable to all kinds of physical and mental health issues and do not have the means to access the appropriate care that they need. “One emergency health care worker stated: ‘Kids do die on the street... the physical toll it takes on the body, I mean these kids at 17 look to be about 45, it’s quite humbling.’”<sup>76</sup>

Dr. Christensen also learned about living conditions worse than he could ever imagine. One girl named Mary would come to Healthmobile repeatedly, and she slowly opened up to Dr. Christensen more and more with each visit. She told him that her father was in jail for physically abusing her and that is why she was homeless. When he asked her where she was sleeping, she referred to it as her “cozy home,” and one day she took Dr. Christensen to see it:

Mary stopped in the middle of the concrete lid. She waited expectantly. I looked around. It wasn’t until I was right next to her that I looked down. I saw what she meant. There was a small square hole in the top of the concrete lid of the overflow trap. The hole was barely large enough to admit someone her size. I knelt and peered in. The inside of the storm drain was a concrete slot, a sewage trap, bordered by dank concrete walls. The bottom was piled with dirty rags and food wrappers, some stuffed into the drainage pipes. To keep out the rats, I thought with a dismal, sick feeling. It looked like the den of a small, frightened animal. It was exactly the size and shape of a coffin. This was where our little Mary slept. This was her cozy home... Tears stood in my eyes. I couldn’t speak. Mary waited, like a child expecting praise. A faint look of worry crossed her face, as if she were contemplating the possibility that I might not like her home.<sup>77</sup>

These types of living conditions make it very difficult to recover from illness and injuries. Dr. Christensen explained in his memoir that helping homeless youth stay healthy is not as easy as simply treating the medical issue. These kids do not go home

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<sup>76</sup> Karabanow et al., *Can you be Healthy on the Street?*, 24.

<sup>77</sup> Christensen, *Ask Me Why I Hurt*, 37.

to warm, safe, clean environments with parents to take care of them. After treatment they still have nowhere to go and they end up back on the street, which further aggravates their health complications or even causes new ones.

The importance of prevention is apparent yet again, this time in relation to the financial costs accrued from the lack of prevention. “The costs of health care skyrocket, in part because preventive or routine care is not available, and poor people end up sicker or dead.”<sup>78</sup> Based on many studies over the last decade, it is now widely accepted that impoverished communities have higher mortality rates and shorter life expectancies.<sup>79</sup> This is a social equity issue that must be addressed by the general public and the government. Covenant House has started to address this issue within their own organization, and have shown financial comparisons to further support their approach:

It just makes sense to meet human needs before they become more acute. That’s how Covenant House saves society millions of dollars, with its ability to provide thousands of young people with safe shelter, affordable health-care referrals, educational programs, and employment help. Rights of Passage, our transitional living program, costs less than fourteen thousand dollars per young person, for an average stay of seven months, compared to forty-seven thousand dollars per year to keep a kid in juvenile detention in California.<sup>80</sup>

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<sup>78</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 40.

<sup>79</sup> Peter Dizikes, *New study shows rich, poor have huge mortality gap in U.S.*, (MIT News, 2016).

<sup>80</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 40.

## Childhood Trauma and Negative Health Outcomes

Not only do people living on the streets have poor health conditions and limited access to healthcare services, but they are also at a much higher risk for negative health outcomes in the future based on past childhood trauma. Important insights are gained from the evidence-based research study conducted by Doctor Nadine Burke Harris, the first Surgeon General of the state of California. She defines three different categories of childhood trauma and calls the ten subcategories *adverse childhood experiences*, or ACEs. More exposure to more ACEs results in greater risk for chronic health conditions and decreased life expectancy.

These health issues related to trauma are no longer purely focused on mental health and substance abuse but are now proven to cause detrimental physical health issues as well. With this new knowledge, preventative healthcare is more important than ever with two thirds of the general population experiencing at least one adverse childhood experience, and homeless adolescents experiencing many more.

### ADVERSE CHILDHOOD EXPERIENCES

Evidence-based research by Dr. Nadine Burke Harris

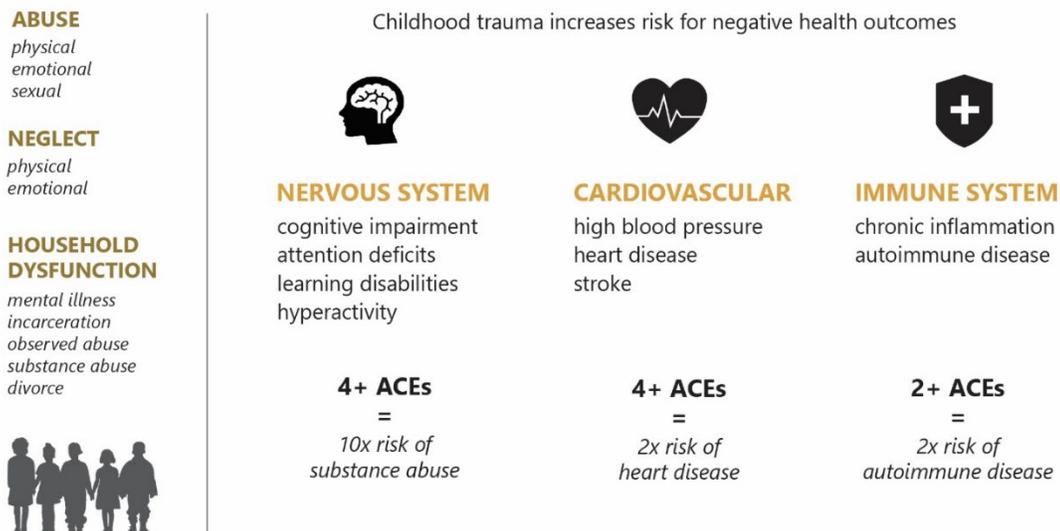


Figure 2.5 Adverse Childhood Experiences (Source: Author, Dr. Nadine Burke Harris)

## Chapter 3 – Integration not Isolation

### Integration not Isolation

#### **Internal Community: Co-Living**

It is human nature to desire community, and young people who find themselves abandoned by their own family have an even stronger longing to be valued, supported, and accepted. Transitional youth will benefit from finding solace with other adolescents who share similar past hardships and work together to improve their situation. The emphasis on the group “offers a model for the restoration of a caring family, consisting of empathetic adults and understanding peers. Such a group creates a supportive circle of others who will accompany them through their suffering.”<sup>81</sup> For these reasons, the modern concept of co-living is an appropriate model to be applied for this project. This type of living provides smaller private spaces for dwelling with shared common spaces and an emphasis on bringing together like-minded individuals who desire active community engagement. More and more this idea is being tested,

family members, relatives, neighbors, and strangers are coming together to live in groups that work for them—a bit like medieval Europe. “Today, all across the nation, Americans are living the new happily ever after,” writes the social psychologist Bella DePaulo in her 2015 book, How We Live Now: Redefining Home and Family in the 21st Century. “The ‘new’ part is that people with whom they are sharing homes and lives are not just spouses or romantic partners.”<sup>82</sup>

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<sup>81</sup> Kahn, Gloria Batkin, and dSetch Aronson, *Group Treatment for Traumatized Adolescents*, (Group, 2007), 285-286.

<sup>82</sup> Ilana E Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*, (The Atlantic, 2016).

As stated, this idea of living with people who are not immediate family is not a new concept. The origins of the human race relied upon living communally. Civilizations historically lived in large camps as hunter-gatherers depending upon one another for food, childcare, and much more. The notion of co-living is merely how people have been residing for thousands of years.<sup>83</sup>

people in medieval Europe lived with a mix of friends and extended family. At that time, single-family households were uncommon in most of the world, and Western Europe became, around the 12th century, one of the first places where households were organized around monogamous couples and their children. But these households still didn't look much like today's nuclear families. In addition to parents and their children, medieval households frequently included various townspeople, poor married couples, other people's children, widows, orphans, unrelated elderly people, servants, boarders, long-term visitors, friends, and assorted relatives.<sup>84</sup>

The notion of the single-family household really began in the 1500s, but even then, it was not common to have the resources to live alone without the support of the community. It took hundreds, if not thousands, of years for the nuclear family to become commonplace.<sup>85</sup> The idea that these transitional adolescents, who feel all alone in the world, can find a new family may conjure the hope and confidence needed to believe in themselves and their future.

The co-living model in modern society originated in Denmark in the 1960s and was used especially to help share childcare responsibilities. This style of living can attract a diverse population found in rural or urban settings in buildings that are detached, attached, or multi-family. Each project must find its own balance between the amount of private space versus public space, with the common goal of providing

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<sup>83</sup> Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*.

<sup>84</sup> Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*.

<sup>85</sup> Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*.

“not only a stable living environment, but a group of people who support you in your personal growth, goals, business, or career and your life.”<sup>86</sup> Alice Alexander, the executive director of the Cohousing Association of the United States (Coho/US), states that “humans thrive in such an environment” where the residents are able to “share life’s challenges and also celebrate together the joys of life.”<sup>87</sup>

In addition to the emotional support offered through co-living communities, this model is also more efficient for sharing responsibilities and bills, saving residents both time and money. Many of these communities offer social events, child and elder care, meal-sharing, car-sharing, and common spaces including guest rooms for visitors, laundry rooms, large kitchen and dining areas, recreation areas, co-working/telecommuting spaces, gardening/farming, theater rooms, music rooms, hot tubs, and the like.<sup>88</sup> While “the majority of American communities are designed to keep people apart,”<sup>89</sup> one of the primary benefits is the social interaction that is available in these co-living settings and the support network that results.<sup>90</sup>

### **External Community: The Public**

Not only is the community within the supportive housing project essential for the success of helping transitional adolescents, but connecting to the surrounding community and overall society is an integral part of the healing process.

To live a rewarding life, someone ideally needs to have family and friendships that provide them with self-esteem, a sense they are valued, companionship and informal support. Someone also has to feel like they are a part of society, accepted by their community and living as part of that community, not

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<sup>86</sup> Tonya McMurray, *Sharing Living: Tearing down the Walls between Family and Community*, (Forbes).

<sup>87</sup> Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*.

<sup>88</sup> Kelsi Maree Borland, *Why Co-Living is the Next Big Thing in Housing*, (GlobeSt., 2018).

<sup>89</sup> Strauss, *The Hot New Millennial Housing Trend is a Repeat of the Middle Ages*.

<sup>90</sup> Borland, *Why Co-Living is the Next Big Thing in Housing*.

stigmatised by their neighbours or by their fellow citizens. In addition, it is important for an individual to have a sense of purpose through a structured activity in which they find meaning, because this too is important in giving a sense of esteem, belonging and being part of society.<sup>91</sup>

The idea of social connection is not only important for those experiencing homelessness and past trauma, but it is a valued aspect of communities in general. This can be more difficult in urban settings than one would initially think and is a real problem with many urban neighborhoods. Despite a greater density of people within city locations, it does not automatically result in genuine social interaction and community relationships. In fact, city dwellers commonly suffer from

“social stress” – the lack of social bonding and cohesion in neighborhoods. Andreas Meyer-Lindenberg at the University of Heidelberg has shown that urban living can change brain biology in some people, resulting in reduced grey matter in the right dorsolateral prefrontal cortex and the perigenual anterior cingulate cortex, two areas where changes have previously been linked to early-life stressful experiences.<sup>92</sup>

Although, superficial social interactions are common in urban areas, “the kind of meaningful social interactions that are crucial for mental health do not come easily in cities. Social isolation is now recognized by urban authorities as a major risk factor for many illnesses.” A lack of behavioral insight in urban design can create horrible effects that must be remediated later. For example, urban renewal projects in the 1950s and 1960s brought damaging public housing projects that segregated the poor from the rest of society and resulted in “crime, squalor, and social disfunction.” This issue was not only observed after the fact, but rather this “sense of isolation from the wider community and ill-conceived public spaces, made many of them feel, in the words of British grime artist Tinie Tempah, who grew up in one, as if they’d been

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<sup>91</sup> Nicholas Pleace, *Housing First Guide*, (Housing First Europe, 2017), 3.3 Social Integration.

<sup>92</sup> Michael Bond, *The Hidden Ways Architecture Affects how you Feel*, (BBC, 2017).

‘designed for you not to succeed.’ ”<sup>93</sup> It is essential that designers of the public realm understand the aspects of neuroscience that affect how people psychologically perceive and physiologically respond to the built environment. Isolating people has not worked in the past, and architects, urban designers, and planners must explore new ways of integrating the diverse members of communities together.

The Housing First model does just this—it is a pivotal development in homeless service design, conceived by Dr. Sam Tsemberis in New York in the early 1990s, and is now used in many European countries and Canada, and more recently, the United States has started to gain interest. This program is meant for those who are homeless with high service needs and is seen as a “starting point rather than an end goal,” focused on improving health, well-being, and social support networks. The model is distinctly different because previous approaches to homelessness typically require an extended series of steps, treatment, and conditions, before consideration for housing. Housing First does just as its name implies—provides housing first and foremost without any requirements, the homeless are treated like any other tenant with a normal lease and are not subject to conditions to receive housing.

In emphasizing the importance of living an ordinary life in an ordinary community, a key goal of the original Housing First service developed by Dr. Sam Tsemberis was to “jump over” the barriers that can exist between homeless people, society and social integration. Both by appearing to be the same as everyone else and in living the same way as everyone else, the social barriers that exist between a housed citizen and a homeless person on the street or in a homelessness service, are potentially reduced... Living within and being visibly part of a community is seen by the Housing First approach as creating scope for overcoming stigmatization.<sup>94</sup>

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<sup>93</sup> Bond, *The Hidden Ways Architecture Affects how you Feel*.

<sup>94</sup> Pleace, *Housing First Guide*, 3.3 Social Integration.

Housing First focuses on providing the homeless with “ontological security,” which is that idea that providing housing results in a sense of safety and predictability that is so essential for these residents who previously felt like they did not have a place in society. By providing permanent housing for the homeless with the same choices and opportunities as the rest of society, it allows them to be confident in their living situation and believe that they have somewhere to belong.

Social integration is expected as a successful result of this housing approach and is one of the ways that Housing First seeks to improve the overall well-being of the homeless. “Social integration and health are also closely interrelated. Low self-esteem, isolation, and experiencing stigmatization have long been recognised as detrimental to physical and mental health.” Social integration is achieved in three parts: social support (being valued by others helps self-esteem), community integration (forming relationships with neighbors), and economic integration (contributing to society through paid work or volunteering).<sup>95</sup>



Figure 3.1 Housing First Core Principles (Source: Housing First Europe)

<sup>95</sup> Pleace, *Housing First Guide*.

## Chapter 4 – A Community Facing Gentrification

### City Selection: Philadelphia

Before settling on Philadelphia as the broader context for this thesis, a comparison of city statistics was analyzed to understand the context of homelessness and poverty in cities across the United States. The main cities considered included Washington D.C., Seattle, Los Angeles, Philadelphia, and San Francisco.

| City Options                | Total Population   | Total Homeless | Total Homeless | Homeless 18-24 | Families   | Foster Care Population | Below Poverty |
|-----------------------------|--------------------|----------------|----------------|----------------|------------|------------------------|---------------|
| Washington, DC              | 702,455            | 6,904          | 0.98%          |                | 45%        | 870                    | 17.4%         |
| Seattle, WA                 | 724,745            | 12,112         | 1.67%          | 11%            | 22%        | 1,500                  | 12.5%         |
| Los Angeles, CA             | 3,999,759          | 31,516         | 0.79%          | 6%             | 14%        | 28,000                 | 20.4%         |
| Philadelphia, PA            | 1,580,863          | 5,788          | 0.37%          | 8%             | 38%        | 8,020                  | 26%           |
| San Francisco, CA           | 884,363            | 6,857          | 0.78%          |                |            | 1,236                  | 11.7%         |
| <b>United States Totals</b> | <b>325,719,178</b> | <b>520,830</b> | <b>0.16%</b>   | <b>7%</b>      | <b>33%</b> | <b>437,500</b>         | <b>12.3%</b>  |

*Figure 4.1 City Statistics Comparison Chart (Source: Author, HUD Data)*

Los Angeles and San Francisco are known for their infamous tent cities where hundreds of homeless people create temporary shelters. The climate in California makes it very easy for people without a home to choose to sleep outside, which presents a relevant issue and challenge for architects and developers to make a difference in the built environment to provide permanent shelter for these individuals. Seattle also suffers from an extremely high homeless population, making it an important city to consider. The homeless population tends to aggregate in the center of the city, with more expensive real estate surprisingly on the fringes. These three cities, all on the West Coast, present serious challenges with the high population of homeless individuals, however these options would be extremely inaccessible for site

research, making them less desirable for this thesis. On the other hand, Washington, D.C. and Philadelphia were two options with easy access for on-site study and evaluation. The District of Columbia is also known for having a high homeless population, particularly with many homeless families. Philadelphia was the most unique city under consideration. This is because it is the only option in the group that does not already have extraordinarily high land costs and area median income. Philadelphia is a previously industrial American city that has only more recently become more popular for higher income households. Many people are already tackling issues of affordability on the West Coast because the rising cost of living is truly becoming a crisis, but Philadelphia has the potential to plan projects more preventatively and combat the negative aspects of gentrification.

This idea of prevention is a major theme throughout the thesis which greatly contributed to Philadelphia being the prime candidate. According to the data collection, Philadelphia had the greatest number of people living below the poverty line, at 26%, and one of the highest foster care populations out of the five cities considered, making it an appropriate location for a project that addresses cycles of poverty and the needs of homeless adolescents. All of these reasons including a personal interest in the urban design and current urban condition of Philadelphia contributed to it being the chosen city for this thesis.

Neighborhood Selection: Point Breeze

**Neighborhood Outlook**

When selecting a neighborhood for the project, the key was finding an area that is currently targeted for redevelopment. Neighborhoods close to Center City are most viable because of the recent growth of Philadelphia. Many neighborhoods surrounding Center City have already undergone redevelopment with mixed results. Some places have been able to retain more of the original residents, while others have experienced much displacement. Some of these recently redeveloped or currently redeveloping areas are Brewerytown, Fishtown, Kensington and Point Breeze. The Point Breeze neighborhood, southwest of Center City, is the neighborhood that will be further examined through this thesis.

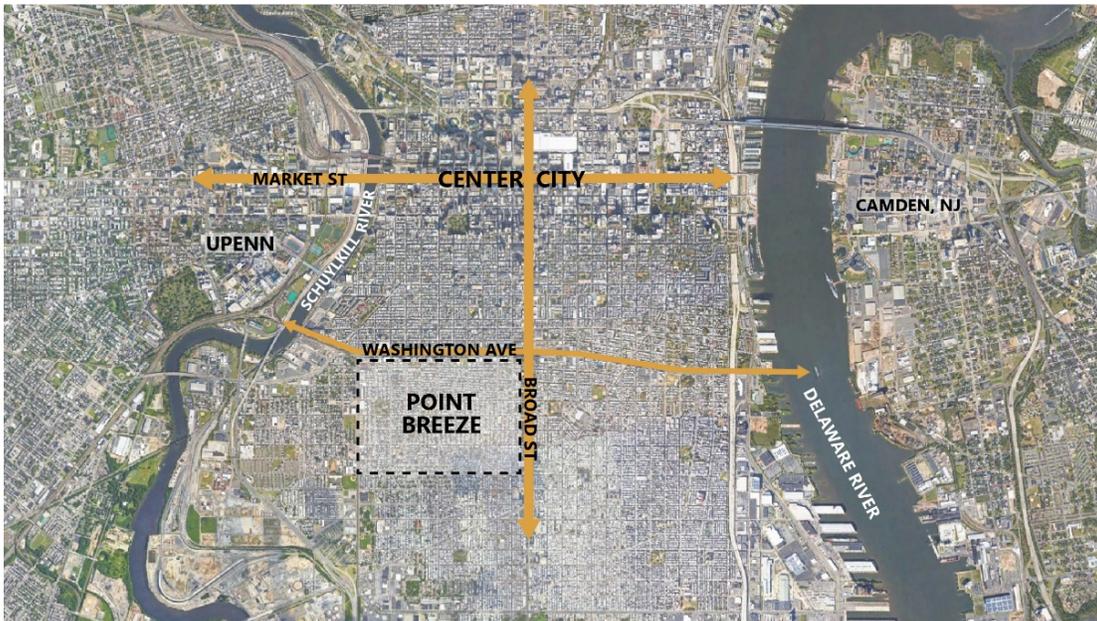


Figure 4.2 Neighborhood Location (Source: Author)

The existing neighborhood of Point Breeze has residents with strong ties to the community, and they also have strong community representation through SOSNA, the South of South Neighborhood Association, representing residents from South Street to Washington Avenue and Broad Street to the Schuylkill River. This neighborhood association is highly active and tries to negotiate community benefit agreements with developers planning projects in their neighborhoods. The current Councilman (Kenyatta Johnson) representing the South District of Philadelphia also advocates for the community as a native Point Breeze resident.

### **Neighborhood Demographics**

The median household income for this community is \$40,649, which is significantly lower than the national median of \$61,372. Not only is the Point Breeze neighborhood below the national median income, but they also have 27% of their population living below the poverty line, slightly higher than the overall city of Philadelphia.

The site is in census tract 22 which is bordered on the north by Washington Avenue and on the east by Broad Street. This tract has a population of 2,385 with 1,063 households (2.16 average size) and 380 families (3.3 average size). The median age of residents is 31.3 years younger than the median age of all Philadelphians. The poverty level is extremely low for children (77% of which are living with single parents) in this census tract with 49% living below the poverty level, while those ages 18 to 64 have 18% living below the poverty level. 30% of households are making less than \$30,000 and a staggering 16% of households are bringing in less than \$10,000.

Most residents have one car (45%) and many residents either don't have a car (29%) or have two cars (18%).

One of the most important things to note about the demographics of this area is the extreme divergence between the White and Black residents. The neighborhood is split quite evenly between Black (45%) and White (45%) residents, however there is a major disparity between these groups' income levels, educational attainment, and employment (as seen by Figure 4.3 below).

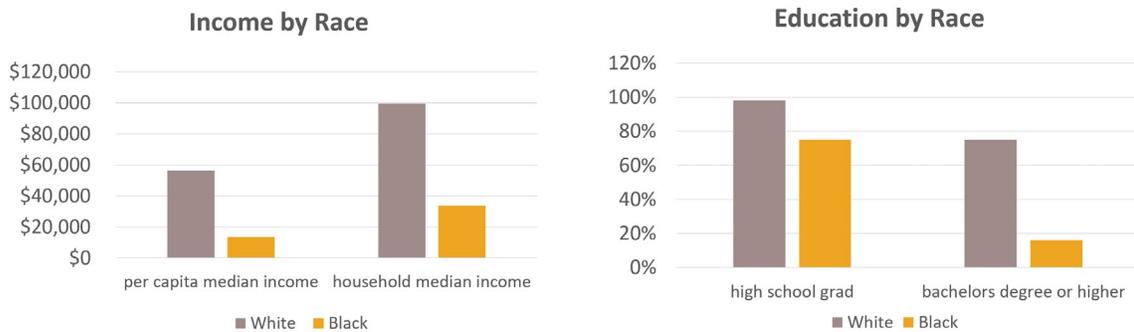


Figure 4.3 Point Breeze Demographics (Source: Author, US Census)

The Point Breeze neighborhood is not only in a prime location, ripe for redevelopment, but the residents need more public and private investment in their community. The challenge is providing this investment without displacing the current residents of this long-standing community. This further emphasizes the appropriateness of the site for a project focused breaking cycles of poverty and social injustice. This thesis will respond to the needs of the specific site chosen by not only addressing the homeless adolescents, which is an important target population, but by also providing affordable housing for the community to be an example of what socially equitable redevelopment can look like.

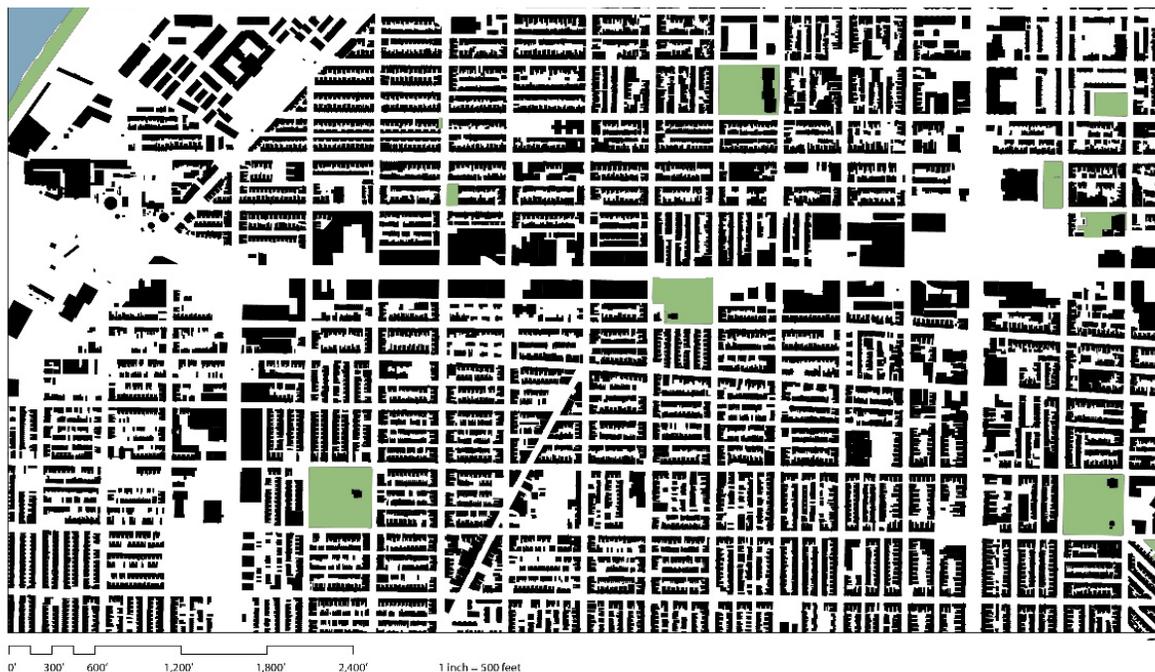
**Context: Washington Avenue Corridor**

Not only was Point Breeze selected because of its redevelopment potential, but also because of the unique corridor (Washington Avenue) that runs east/west along the northern border of the neighborhood, separating it from the Graduate Hospital neighborhood. The scarcity of public investment in Point Breeze (south of the corridor) versus Graduate Hospital (north of the corridor) is clear through the quality of the public infrastructure, level of services, and condition of buildings. The difference between these two communities can be seen in Figure 4.4 below.



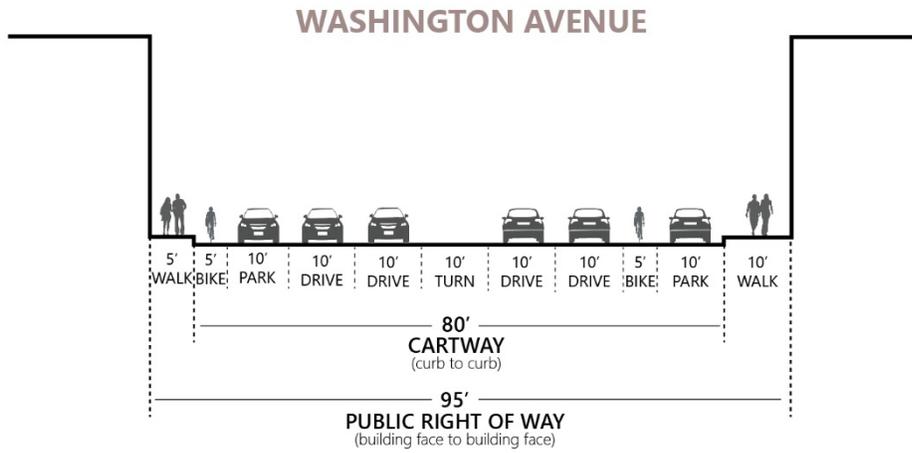
Figure 4.4 Neighborhood Comparison (Source: Author)

In addition to the neighborhoods separated by the corridor, the corridor itself is essential to analyze, as it is a main focus of this site. Philadelphia's street network has a wide variety of sizes, but typically, Philadelphia streets are quite narrow, with many one way streets throughout the city. The two major cross streets that William Penn designed for Philadelphia are Market Street (E/W) and Broad Street (N/S).



*Figure 4.5 Washington Avenue Figure Ground (Source: Author)*

Washington Avenue is an extremely wide street for the city of Philadelphia, and Broad Street is the only other urban street in Philadelphia that can be compared to Washington Avenue in terms of its width, as seen in Figures 4.5, 4.6, and 4.7.



*Figure 4.6 Washington Avenue Section (Source: Author)*

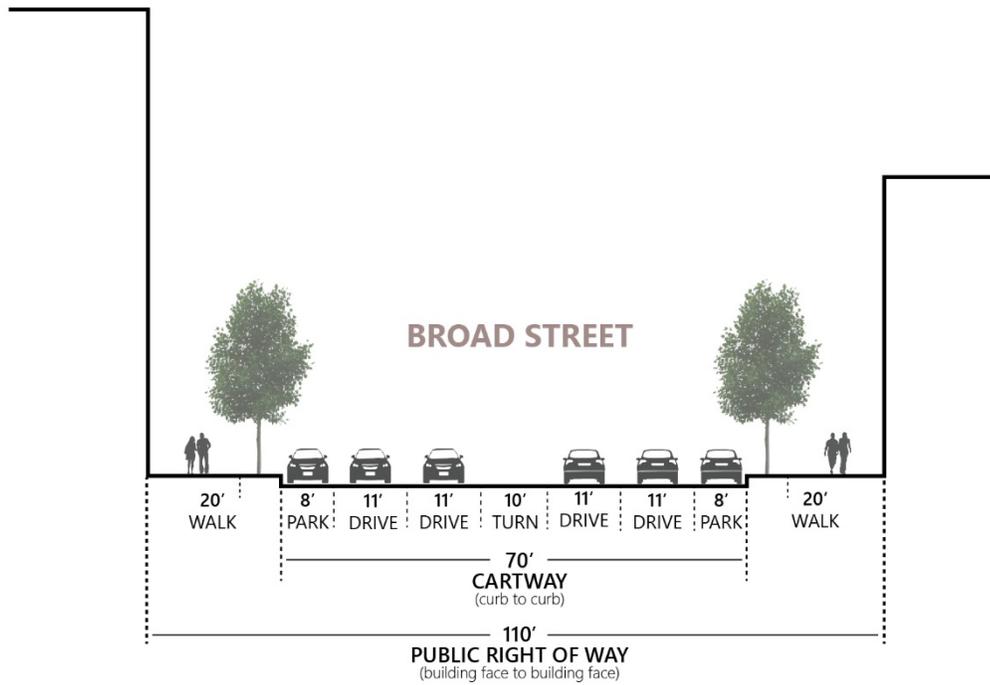


Figure 4.7 Broad Street Section (Source: Author)

Washington Avenue has primarily been used for industrial purposes due to the rail line that historically ran along the street. Although this rail has been removed, many of the buildings continue to be used for light industrial purposes, primarily manufacturing and material storage/ distribution.



Figure 4.8 Historical 1910 Sanborn Map, Washington Ave.  
(Source: OpenMaps.phila.gov)



Figure 4.9 Washington Avenue Corridor Pedestrian Experience (Source: Author)

Currently, the corridor feels somewhat uninviting for pedestrians because of its width, lack of street trees and human-scale elements (such as street furniture), lack of small shops/restaurants (porosity), and monotonous, uninviting facades. The character of the street is still quite industrial and vehicular-focused. The abutting neighborhoods greatly contrast this texture with fine-grained residential blocks with many old rowhomes and small streets. One of the major design challenges for this project is to transition between the large-scale Washington Avenue corridor along its north side and the small-scale residential neighborhood along the south.

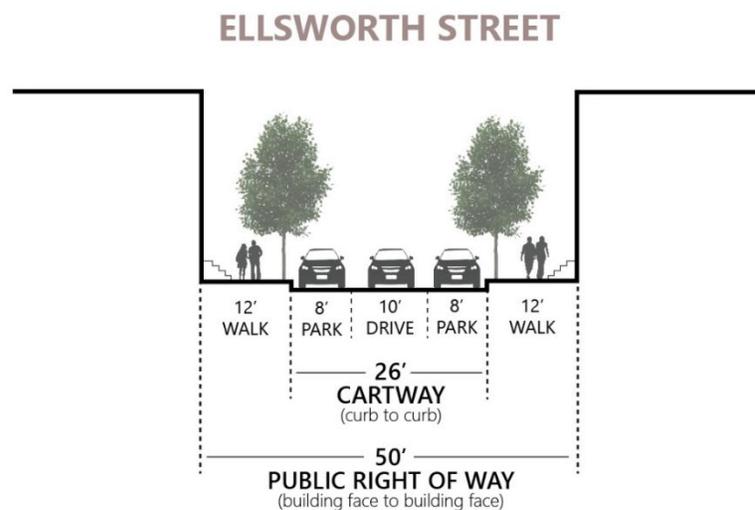
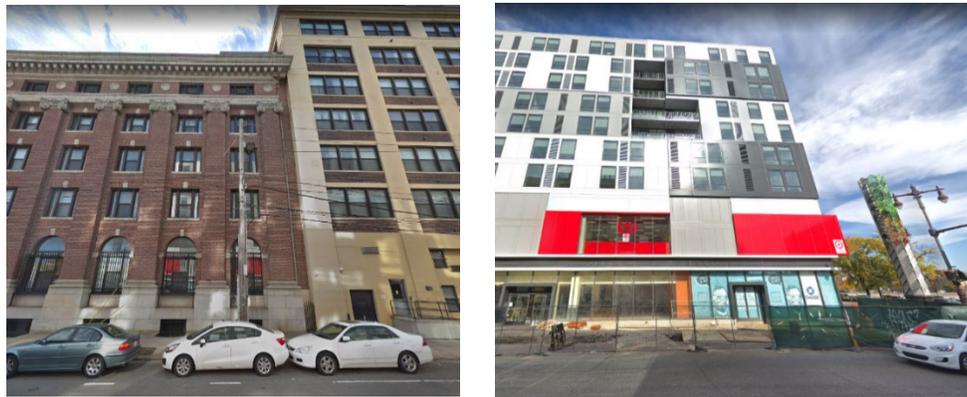


Figure 4.10 Ellsworth Street Section (Source: Author)

In recent years, Philadelphia has begun to see more growth and revitalization in the neighborhoods to the north and south of Center City, causing the nature of Washington Avenue to begin to shift. Although the vision for the future of the Washington Avenue corridor is a mix of industrial, residential, and mixed-use, Councilman Johnson has been careful not to allow the Washington Avenue corridor to be re-zoned to include mixed-uses by right in order to give the community more leverage over the developments to come. This forces developers to meet with SOSNA and himself and undergo a longer approval process in order to minimize negative effects of gentrification on this neighborhood.

There is a high-level interest from local developers in redeveloping this area, and it has the potential to look like a completely new place within the next 10-15 years, so this local planning move is very strategic. Unfortunately, even with these preventive measures in place, developers can still manage to build projects that are not in the community's best interests. This is exactly the reason this project is so important for this corridor—it will set an example for high quality architectural design and socially equitable development that is desperately needed in this gentrifying neighborhood.



*Figure 4.11 Washington Avenue, Old vs. New (Source: Google Earth Pro)*

*Site Analysis: 1600 Block on Washington Avenue*

**Site Selection**



*Figure 4.12 Site Context Illustrative Map (Source: Author)*

After analyzing the Point Breeze neighborhood, it was clear that the project would be sited along the Washington Avenue Corridor. The site had to be situated on the South side of the street as to be a part of the Point Breeze neighborhood, in addition to receiving greater southern sun exposure. Choosing a site that was close to the Broad Street intersection was important because it provided more resident services and access to public transportation options. The 1600 Block was ultimately chosen because it was the largest block allowing for a larger program and was not divided into smaller parcels, making acquisition much easier.



Figure 4.13 Public Transit / Site Access  
(Source: Author)



Figure 4.14 Site Context / Adjacent Uses  
(Source: Author)

## Existing Conditions

The site consists of almost a full city block, but it does not include the several small parcels of rowhomes along the southern edge. The site is 90,850 square feet total, approximately two acres. There is 67,916 square feet of built area touching the ground. Most of the structures are old warehouses used for material storage. The taller building on the northeast corner of the site is used as a multi-story appliance store. The majority of the buildings will be demolished to accomplish the planned project, but there is one warehouse that is worth restoring for adaptive reuse programming. The site previously housed the American Ice Company and the Republic Steel Corporation. These buildings were not of a large-enough scale to be used for factory purposes, so it is believed that there would not have been significant environmental contamination from these previous uses. No environmental remediation should be needed for the project; however, Phase I and II environmental site assessment reports would be required to confirm this assumption.

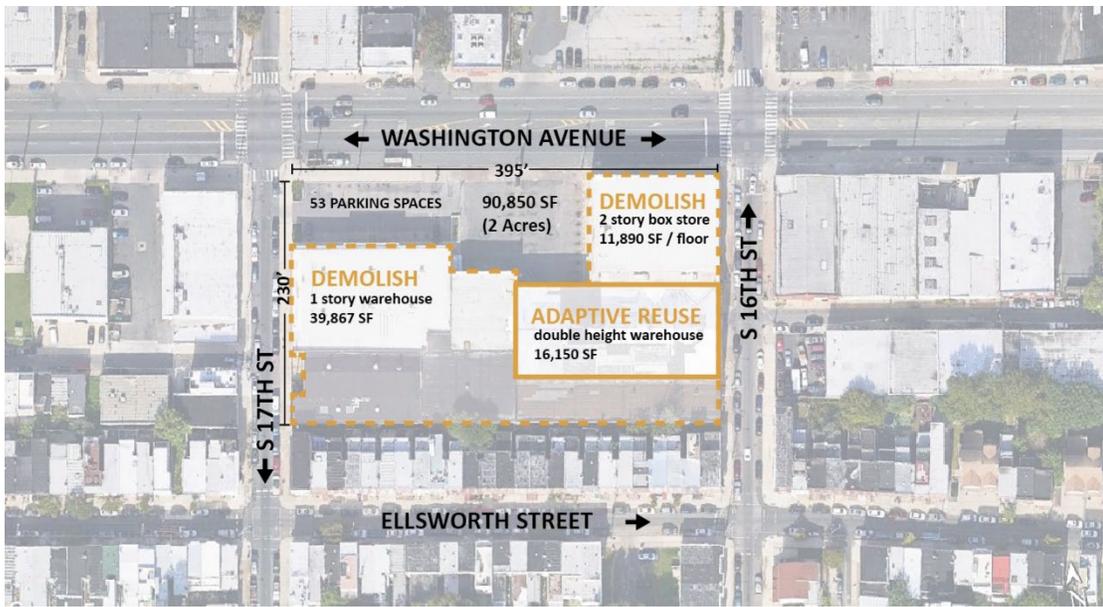


Figure 4.15 Existing Conditions Site Map (Source: Author)

## Chapter 5 - A Program for the People

### Key Provisions for Homeless Adolescents

#### **Supportive Housing**

Supportive housing is a newer approach to housing for homeless and low-income individuals that not only provides shelter, but it also integrates services needed by the residents with the goal of increasing self-sufficiency. More specifically, when it comes to supportive housing for homeless young adults, a major objective is “to achieve the same kind of balance for which parents strive when raising their own adolescents: providing enough guidance and support to ensure a sense of safety and security while also promoting healthy separation and independence.”<sup>96</sup> This service-based approach is also becoming more prevalent in affordable housing projects and mixed income developments. However this chapter will heavily focus on the programmatic needs of homeless adolescents due to the unique and sensitive nature of this user group.

There are two major categories of supportive housing programs: transitional housing and permanent housing. Transitional housing programs (TLPs and ILPs) target youth ages 16-21 who are homeless, aging out of foster care, transitioning out of juvenile detention or a mental health facility, are pregnant, etc. These programs typically offer a maximum stay of eighteen months and are restricted to those 21 and younger. These facilities are extremely service intensive and require a high level of involvement from participants and case managers. Permanent supportive housing, on the other hand, does not restrict length of stay, but typically targets homeless people

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<sup>96</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 6.

ages 18-24 of similar populations to that of the transitional housing program. There is a typical tenant-lease agreement that must be upheld by the tenant. These permanent programs also incorporate services, but these services are not mandated, and resident engagement tends to vary.<sup>97</sup>

Supportive housing designed specifically for homeless adolescents has unique challenges due to the complications of adolescent development. These projects are taking in youth and young adults during a very important psychological stage of life, in addition to further complications of past trauma. These programs benefit from a wide variety of services including therapy, rehab, healthcare, educational support, job training, and independent living skills. Even though many tenants are young, in need of assistance, and requiring guidance, they also must be viewed as adults with rights and responsibilities. At the same time, while considered independent adults, the importance of youth culture must not be lost. The program must also consider how to uniquely respond to residents that are of a transitory nature, while others want to create a more permanent home with the prospect of aging in place.<sup>98</sup>

### **Supportive Services**

The psychological needs of homeless adolescents are of a primary concern. Trauma experienced at a young age can cause significant developmental delays and mental health conditions. Normal adolescence, without the experience of trauma, includes common feelings and behaviors such as identity issues and questions, moodiness, childish behavior during stress, rule and limits testing, and a lack of long-

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<sup>97</sup> Durham, *Housing Youth Key Issues*.

<sup>98</sup> Durham, *Housing Youth Key Issues*.

term planning. These struggles are exacerbated when there is a lack of parental guidance and support. There should be supportive services that specifically focus on planning for the future, setting achievable goals, critical thinking, and self-confidence. Promoting healthy development for throwaway and runaway youth is essential when they have not typically received proper support in the past.

It may be helpful to try “non-traditional interaction strategies... in a housing environment. Typically, homeless youth have had few positive experiences with adults in their lives and they may be understandably wary of more traditional staff–client approaches to services.”<sup>99</sup> The community aspects of the program will have great influence over a resident’s experience and success. Having peer advisors can be one way to encourage community and help with conflict resolution and crisis intervention.

Peer relationships are a key facet of youth culture, and fostering relationships with and among tenants will enhance the overall stability of the project. Holding monthly or bi-monthly cultural events and/or social activities determined and organized by the youth themselves will provide opportunities for tenants to get to know one another and build community.<sup>100</sup>

In addition to psychological services and case management, two very important services are educational support and job training/career planning. A high school diploma greatly contributes to the likelihood of future employment and self-sufficiency.<sup>101</sup> Educational attainment among homeless youth is extremely low, especially among those who were previously in the welfare system (as seen in the infographic in Figure 2.3).

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<sup>99</sup> Durham, *Housing Youth Key Issues*.

<sup>100</sup> Durham, *Housing Youth Key Issues*, 18.

<sup>101</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 42.

The next step needed is job training and career planning services. This could include specific education courses and programs provided on site, vocational school, partnerships with local businesses providing internships, a business center/computer lab on site, digital literacy courses, career planning counseling, and more.<sup>102</sup> It is key to embed the belief in these young adults that they have the same opportunities for success as any other adolescent, and they are capable of a successful life.

### **Benefits of Centralization**

There are several approaches to supportive housing and services, and it can be debated as to which approach is the best option. The main two options are a network of services or a centralized location. The primary advantage of a network approach is the ability to reach more people in various communities throughout a city, creating a more dispersed urban intervention that is woven throughout the city fabric. However, several research sources presented a strong argument for the application of centralized services. When homeless youth were interviewed about their access to services, they responded with a preference for a holistic approach to their needs as opposed to, what they called, a “fragmentation of services.” Having a centralized system is a more efficient model more capable of adequately serving the target population, in addition to having greater access to funding sources.

One homeless youth said:

“If you look, everything you need is out there, but, it’s hard to get it all when it’s everywhere, like, all over the city. You gotta go here and then there and then one place is closed one day. Everything should be more centralized, but that is hard...like everything should just coincide with each other, like run on the same schedule.”<sup>103</sup>

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<sup>102</sup> Durham, *Housing Youth Key Issues*.

<sup>103</sup> Karabanow et al., *Can you be Healthy on the Street?*

A large-scale project would be able to serve a larger population, while also serving as a beacon of hope for homeless youth in the community and the surrounding areas.

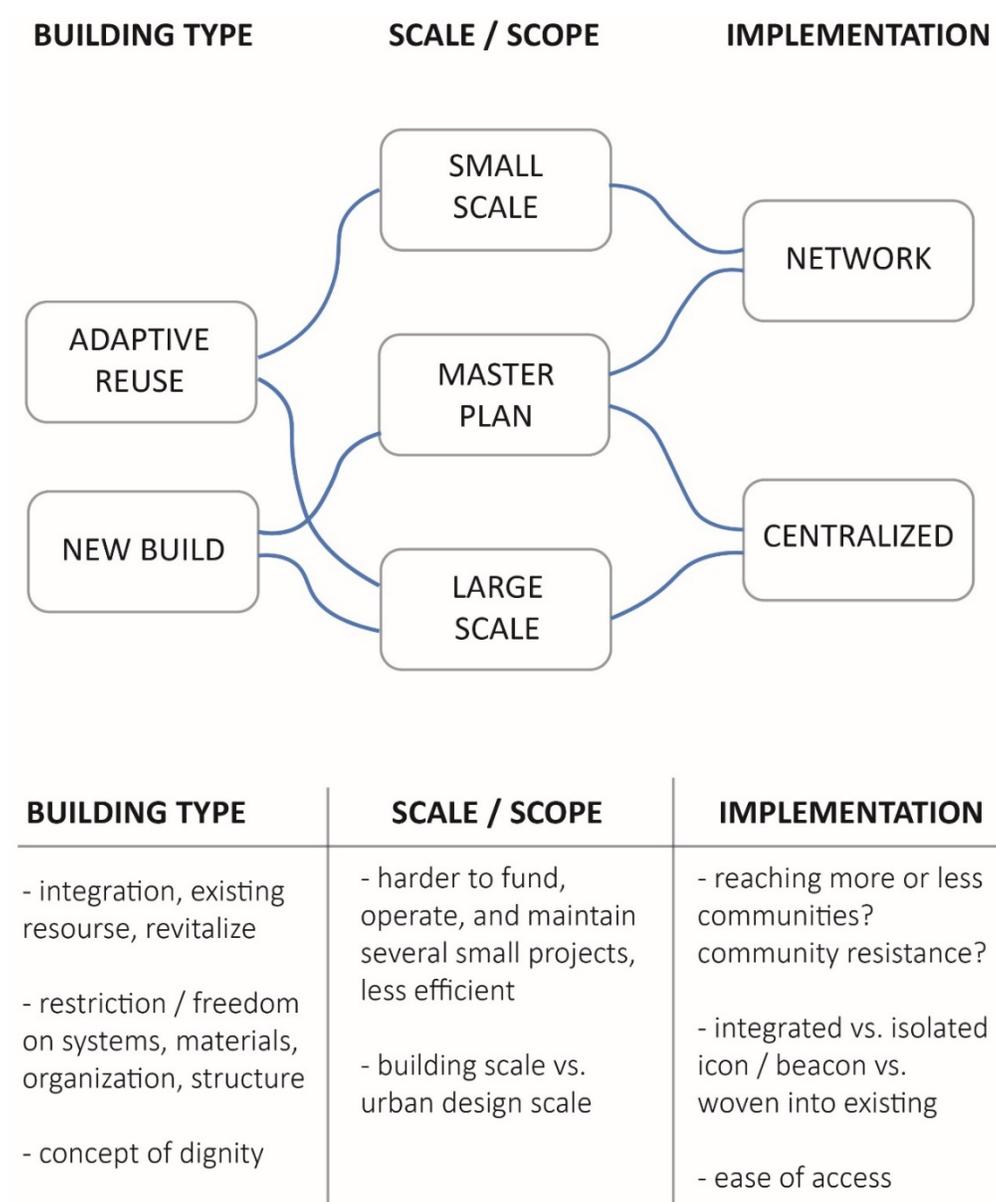


Figure 5.1 Program Organization Considerations (Source: Author)

### Building Program

The program for this thesis was developed using the research about homeless adolescents, as well as the analysis of the chosen site / neighborhood and responds to the needs of these various users. This thesis will propose a redevelopment for the site that has three guiding principles: *Support, Restore, Community*. The housing will be a reliable and safe place of refuge while the services will facilitate healing, rebuilding, and self-sufficiency. And lastly, an integrated community will be essential for acceptance and encouragement among residents.

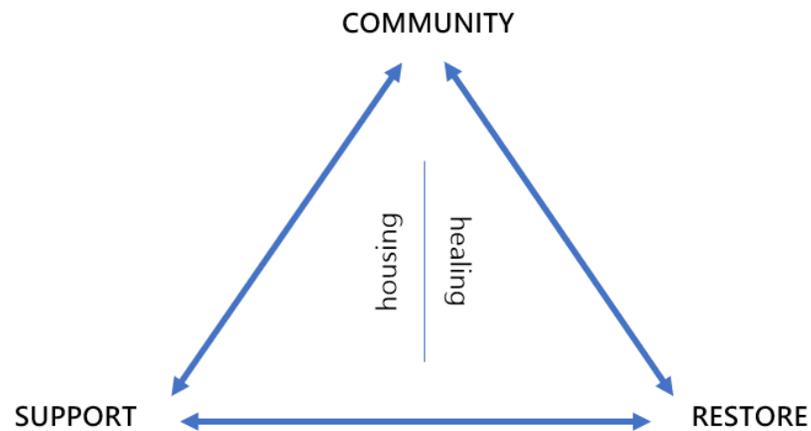


Figure 5.2 Guiding Principles (Source: Author)

The housing provided on site will have both transitional and permanent housing for homeless adolescents in addition to mixed-income housing ranging from 30% of the area median income (AMI) to market rate. Finally, outdoor spaces will be prioritized throughout the site, with both communal spaces for gathering and separate spaces for different populations and programmatic needs. These spaces are essential for the healing and restoration of the residents.

# Kit of Parts

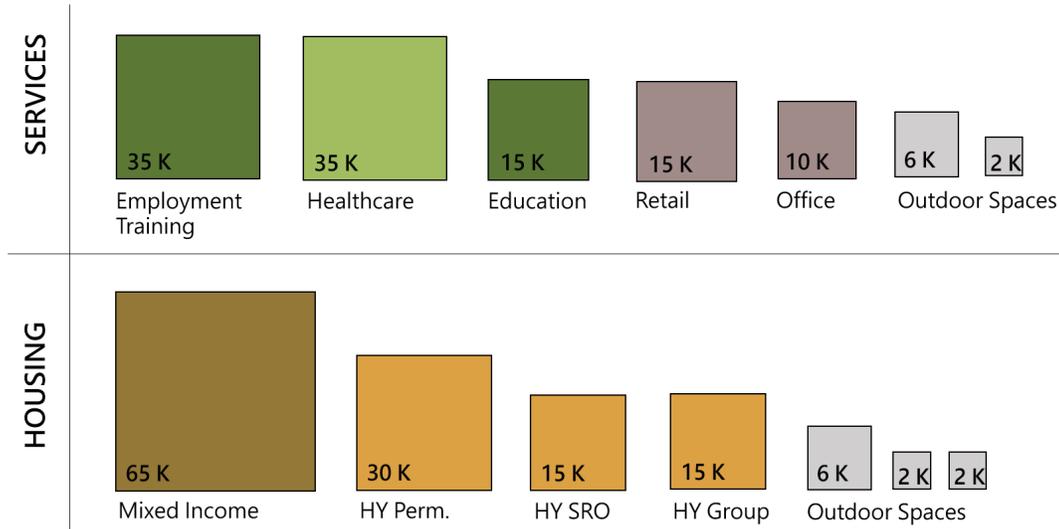


Figure 5.3 Planned Program (Source: Author)

The supportive services are equally as important as the housing component of this project. The idea of integration with the community is also a key component. The employment training center and educational services will offer learning and apprentice programs in addition to GED and SAT tutoring, complete with a testing center. These programs will be available to both the homeless adolescents living on site and members of the wider community. The same idea will be applied to the healthcare facility on site which will include primary care, physical therapy, and behavioral therapy services. Commercial space including retail and dining spaces will be provided along Washington Avenue to help revitalize the street and contribute to its transition into an active, pedestrian friendly area.

*Existing Programs for Homeless Youth in Philadelphia*

Philadelphia has recently declared goals for improving the supply of supportive services for homeless youth in the city. They have identified a lack of provisions and unmet needs of youth as a priority for state allocated funds and will support projects of this nature. In April 2018, the city underwent a youth homelessness needs assessment led by Jessica Sones, Coordinator of the City of Philadelphia Office of Homeless Services. The assessment was done over a four-month period and it focused on collaboration between public and private stakeholders and young adults currently experiencing homelessness in the city.<sup>104</sup>

Philadelphia currently has 38 transitional housing beds available for homeless youth between ages 16-24, 91 transitional beds, and 17 permanent beds for homeless youth between 18-24. These beds are provided by existing non-profit organizations in Philadelphia including Covenant House, Methodist Family Services, PathWays PA, People's Emergency Center, Valley Youth House, and Youth Service, Inc.<sup>105</sup> The assessment reports that "there is an overall lack of youth-dedicated supportive housing programs" and there is a call for investment in transitional and permanent housing interventions. The Philadelphia Continuum of Care estimated at the end of 2017 that the city is lacking "668 units of moderate or high intensity housing (such as permanent supportive housing or non-time limited housing assistance), 622 units of time-limited, moderate intensity housing (such as rapid rehousing or transitional housing), and 394 units of prevention assistance."<sup>106</sup>

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<sup>104</sup> Jessica Sones, *Philadelphia Youth Homelessness Needs Assessment*, (City of Philadelphia, 2018).

<sup>105</sup> *Office of Homeless Services*, (City of Philadelphia).

<sup>106</sup> Sones, *Philadelphia Youth Homelessness Needs Assessment*, 3.

A major category that is lacking services and funding is preventative resources for those at risk of homelessness. Several programs for the homeless restrict eligibility to those who are living in a shelter, on the street, have proof of eviction, or fleeing domestic violence. This excludes the many young adults “couch surfing” to avoid life on the streets. Many programs and funding sources also restrict assistance after turning 21, and the city recognizes the need to supply support until age 24. The study also records a lack of housing models that are designed to specifically address the unique needs of homeless youth, as outlined in the previous section.<sup>107</sup>

### Covenant House



Figure 5.4 Covenant House Infographic (Source: CovenantHouse.org)

Covenant House was introduced in Chapter 2, where personal accounts showed the common struggles and extreme needs that homeless youth face and show how these specific youth found safe-haven at one of the Covenant House locations. Covenant House, established in 1972, is the largest charity of its kind, serving a wide range of youth between ages 16-21 with 31 locations across six countries. Their records show that each year their shelters house over 11,000 people cumulatively and

<sup>107</sup> Sones, *Philadelphia Youth Homelessness Needs Assessment*.

provide services to over 80,000 runaway and throwaway youth. One of the very important principles that Covenant House emphasizes, is the need to provide any youth with immediate assistance and respond to essential needs first, such as food, clothes, a safe bed, a shower and medical care if needed. If a person decides to stay, he/she is required to make an action plan with clear steps to move forward, and the staff promises to partner with him/her to help achieve personal goals; this is their “covenant.”<sup>108</sup>

Over the years, Covenant House has thoroughly recorded the situations of the individuals that they help to better understand the circumstances and needs of the greater population of homeless youth. The Covenant House Institute uses data-driven strategies, with researchers reporting that

Only 41 percent have a high school diploma... and 40 percent of the kids had been in foster care or another institutional setting, 38 percent had experienced physical abuse, and 40 percent of the teenage girls and young women had been sexually abused. Almost 80 percent of the young people were unemployed, 63 percent lacked health insurance, and more than a quarter had been hospitalized for depression, anxiety, or other mental health issues. More than half came from a family where someone used drugs regularly. Many of the kids have been told, over and over until it echoes in their heads like a voice of their own, that they are worthless and will never amount to anything<sup>109</sup>

A comprehensive program model is used to be most helpful to the wide range of people and needs that are faced. Three levels of care are provided: Street Outreach with short-term housing and services, Immediate Care with transitional housing, and the Rights of Passage program that provides permanent affordable housing for individuals prepared for the responsibilities of independent living. The primary goal

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<sup>108</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, Introduction.

<sup>109</sup> Ryan, Kevin, and Tina Kelley, *Almost Home*, 3-4.

is to provide youth the right environment that is conducive to growth and transformation, ultimately preparing them for independent and sustainable lives.<sup>110</sup> Covenant House is a great example of a very successful program with a wide array of services in centralized locations within each city they serve. However, despite its relevance as a great programmatic case study, Covenant House has not approached the challenges of homeless youth from an architectural or design perspective. The organization finds buildings that they can use for their purposes, but they are lacking the positive impacts that intentional and innovative design can have on the program and on the lives of homeless youth.

### **Valley Youth House**

Valley Youth House, founded in 1973, is an established non-profit organization in Philadelphia with a variety of programs that explicitly assist homeless youth. Some of these services include emergency shelter, in-school programs, life development skills, transitional housing, street outreach, homelessness prevention, substance abuse help, therapeutic recreation, adventure camp, and more. This organization is an example of a de-centralized system of services with over 250 residential sites throughout the state of Pennsylvania.<sup>111</sup> Although different from Covenant House in terms of scale and approach of distribution, Valley Youth House similarly has not built any facilities of their own, therefore lacking the value of an intentional architectural intervention.



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<sup>110</sup> *Our Story: More than a homeless shelter*, (Covenant House).

<sup>111</sup> *Building Foundations, Shaping Futures*, (Valley Youth House).

## Project HOME: Gloria Casarez Residence



Figure

5.5 Project HOME Gloria Casarez Residence (Source: Shira Yudkoff)

“Project HOME is a Philadelphia non-profit organization empowering individuals to break the cycle of poverty and homelessness through affordable housing, employment, health care, and education.”<sup>112</sup> The Gloria Casarez Residence is a new construction project that broke ground in December 2017 providing 30 one-bedroom units of permanent supportive housing for young adults between 18-23 who have been homeless, are currently homeless, or at risk of becoming homeless. These units will be provided to applicants who earn 50-60% of the area median income. The building is four stories and 36,547 square feet, located in the Yorktown Philadelphia neighborhood, northeast of Center City. On-site services will include employment, education, healthcare, case management, life skills, and community-building activities. This is an extremely influential project for the city because it is the first project constructed specifically for homeless youth and is LGBTQ-friendly.<sup>113</sup>

<sup>112</sup> *Project HOME*, (Project HOME).

<sup>113</sup> *Gloria Casarez Residence*, (Project HOME).

## Chapter 6 – Healing and Connection through Biophilia

“We shape our buildings and afterwards our buildings shape us.”

– Winston Churchill, 1943

### What is Biophilic Design?

Integrating nature into architecture is often seen as a romantic notion, a luxury, superfluous, and low priority, but many people are unaware of the impact that nature has on overall health and well-being. Architects, designers, doctors, scientists, and more are beginning to become more aware of the importance of nature as seen by publications by Bill Browning and Catie Ryan, Judith Heerwagen, and Nikos Salingaros, along with many others. The idea of biophilia is that humans have an inherent tendency to want to associate with nature and life-like patterns and processes due to the way humans have “evolved in close association with the natural world. In time, humans’ successful adaptations to nature became biologically encoded.”<sup>114</sup>

Modern society is continually developing further from nature and by conquering nature with development. Technology is causing increasing hours spent indoors, away from nature, and consumed with screens and devices. Human health, both physical and mental, is greatly affected by access to nature and architectural design should respond to this human need. Successful biophilic designs will encourage repetitive, meaningful interactions with nature and incorporate learning and social support with natural spaces.<sup>115</sup>

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<sup>114</sup> Stephen R. Kellert. *Nature by Design: The Practice of Biophilic Design*, (Yale University Press, 2018), 2.

<sup>115</sup> Kellert, *Nature by Design*, 2-7.

Kellert defines eight biophilic values in his book which explain the inherent ways that people attach meaning and derive benefit from nature: <sup>116</sup>



Figure 6.1 Biophilic Design Values (Source: Author, *Nature by Design*)

1. **Affection** – emotional attachment to nature (benefits include encouraged ability to bond, care, and connect emotionally with others)
2. **Attraction** – ideas of aesthetics and beauty (benefits include feelings of harmony, intellectual and creative development)
3. **Aversion** – inclination to avoid threatening aspects of nature (benefits include safety, security, and coping skills)
4. **Control** – tendency to master and dominate nature (benefits include problem solving skills, critical thinking, and cognitive development)
5. **Exploitation** – tendency to use nature as a source of resources (benefits include enhanced practical skills)
6. **Intellect** – use of nature for advancing rational thought (benefits include observational abilities and learning)
7. **Symbolism** – employ image of nature for communication or abstract thought (benefits include capacities for language, culture, and creativity)
8. **Spirituality** – experience nature to achieve sense of meaning and connection to nature (benefits include feelings of purposeful existence increasing self-confidence, and bonding with others)

<sup>116</sup> Kellert, *Nature by Design*, 6-7.

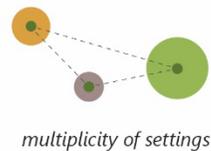
In addition to Kellert's eight values, he also introduces nine principles necessary for the successful application of biophilic design: <sup>117</sup>

1. Biophilic design... focuses on the advancement of physical and mental health, productivity/performance, and overall well-being
2. Biophilic design... creates integrated settings where the whole is greater than the sum of its parts
3. Biophilic design... encourages repeated engagement and immersion in nature
4. Biophilic design... satisfies inherent value that humans hold about nature
5. Biophilic design... creates emotional attachments to places which encourages good stewardship
6. Biophilic design... fosters feelings of membership in a community
7. Biophilic design... occurs in a multiplicity of settings
8. Biophilic design... involves an authentic experience of nature, not artificial
9. Biophilic design... enhances human relationships to natural systems and does not harm the environment

## BIOPHILIC DESIGN

Biophilia is the innate human urge to affiliate with other forms of life

### REQUIRES:



### PRODUCES:



Figure 6.2 Biophilic Design Principles (Source: Author, *Nature by Design*)

<sup>117</sup> Kellert, *Nature by Design*, Chapter 2.

And lastly, Kellert explains three basic elements of biophilic design and their attributes. These elements describe ways in which people experience nature.<sup>118</sup>

1. **Direct Experience** – physical contact with basic features of nature (light, air, water, plants, animals, landscape, views, fire)
2. **Indirect Experience** – representations of nature (patterns and processes, symbolic and metaphorical forms, images/art/natural materials, textures/colors/geometry/passage of time/aging/light, biomimicry)
3. **Experience of Space and Place** – one’s ability to understand and organize the environment due to complementary and connected parts (prospect and refuge/sightlines and security, detail with diversity and order/organized complexity, transitional spaces/indoor-outdoor zones, mobility/clear circulation, connection to context)

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<sup>118</sup> Kellert, *Nature by Design*, Chapter 3.

### *Philosophical and Psychological Responses*

The concept of natural healing uses elements of nature to encourage physical and mental well-being and can be applied in a spatial, architectural setting or in a programmatic, activity-based application. The claim that architecture can affect a person's overall well-being is supported by numerous studies and has become a topic of significant relevance in recent years, "as citizens of modern societies spend 90% of their time indoors, this is more important than ever."<sup>119</sup>

#### **Phenomenology of Space**

The concept of phenomenology refers to the study of consciousness, the human experience, and intangible feelings that result from direct interaction with objects in space. Christian Norberg-Schulz (1926-2000) was a Norwegian architect, author, educator, and theorist who was one of the premier writers of this concept. He emphasized the difference between pragmatic spaces and perceptual space. The former being the physical relationships formed between objects and the latter referring to the unique individual experience that each person has in a space which is affected by personal, past experiences, cultural influences, and personality.<sup>120</sup>

Morphology is another term used by Norberg-Schulz that speaks to the articulation of architectural forms and spatial boundaries that result in environmental character and an interpretation of mood by the experiencer. The experience of a space is also greatly affected by the ease of identification and orientation of oneself within the built

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<sup>119</sup> Kashmira Gander, *How Architecture uses Space, Light, and Material to Affect your Mood*, (The Independent, 2016).

<sup>120</sup> Christian Norberg-Schulz, *The Concept of Space*, (Existence, Space and Architecture, 1971), 9-17.

environment. This idea of identification has psychological impact on one's sense of belonging within the greater whole.<sup>121</sup>

This psychological and physiological response to space is something that has had limited application in the available services for homeless youth. This is likely due to lack of funding for architectural services. However, this thesis will emphasize the importance of design through its ability to address the needs of this target population.

## ARCHITECTURE + SELF IDENTITY

Phenomenology of Space

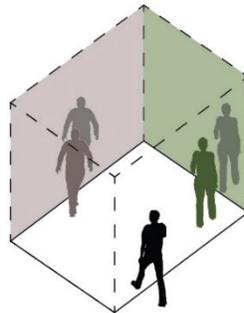
### PSYCHOLOGY

#### The Body Schema

*Our sense of self incorporates and absorbs immediate surroundings*

#### Embodied Perception

*Our extended sense of self*



*"We shape our buildings and afterwards our buildings shape us."  
Winston Churchill, 1943*

### PHILOSOPHY

#### Norberg-Schulz

Human perception of space and one's identification within the greater whole

#### Heidegger

Ideas about oneness and the forefold:

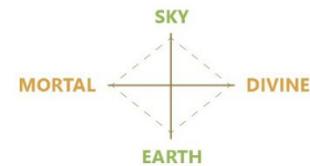


Figure 6.3 Phenomenology of Space (Source: Author)

Martin Heidegger, a German philosopher born in 1889, wrote extensively on the conceptual ideas of man's relationship to nature. He introduced the notion of "the fourfold" which includes sky, earth, mortals, and divinities. The main idea is that human beings are one with the fourfold through the act of dwelling on the earth. The concept of dwelling is further explained to mean preserving and cultivating the earth

<sup>121</sup> Christian Norberg-Schulz, *The Phenomenology of Place*, (1976), 414-427.

through the act of building. According to Heidegger, this is the way architecture should be understood and how humans should approach building on the earth. When using this lens, architecture is the method used to create space through the gathering of the fourfold. This idea can be better illustrated through the example of a bridge. The physical addition of the bridge to a natural landscape is the act needed to perceive a place around the stream—one that did not exist before the intervention of the bridge.<sup>122</sup>

Recent research on the role of nature has similar ideology to what is found in the writing of Heidegger. Despite the advances of the 21<sup>st</sup> century's civilized society, "modern people have not wiped out their primal connection to the earth, sky, water, and all living matter."<sup>123</sup> Joseph Juhasz, a professor of architecture and environmental design at the University of Colorado at Boulder, states: "What we desperately need is a connection with our blood and soil. We're estranged from our blood—ourselves as human beings, and our soil, our natural environment—at this moment in our culture."<sup>124</sup>

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<sup>122</sup> Martin Heidegger, *Building Dwelling Thinking*, (Poetry, Language, Thought, 1971), 145-161.

<sup>123</sup> Anita Rui Olds, *Nature as Healer*, (Children's Environments Quarterly, 1989), 27-32.

<sup>124</sup> Rebecca Clay, *Green is Good for You*, (Monitor on Psychology, 2001).

## Restorative Landscapes and Healing Gardens

Throughout history, utilizing nature for healing purposes has been applied to various extents; for example, medieval cloister gardens were a very common application of prioritizing the landscape within built architectural spaces.

Unfortunately, “Modern advances in technology towards healing has largely diminished the importance of nature in the healing process and this has been one

## HEALING ARCHITECTURE Biological Responses

### RESTORATIVE LANDSCAPES

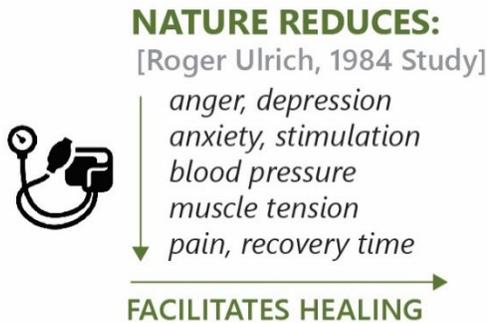


Figure 6.4 *Healing Architecture, Biological Responses*  
(Source: Author, Ulrich)

unfortunate result of the ‘cure over care’ phenomena found within many aspects of the healthcare field.”<sup>125</sup> And the idea of nature having healing properties has largely been “dismissed as peripheral to medical treatment for much of the 20<sup>th</sup> century, [but] gardens are back in style, now featured in the design of most new hospitals, according to the American Society of Landscape Architects.”<sup>126</sup>

<sup>125</sup> Betsy Severtsen, *Healing Gardens*, (University of Washington).

<sup>126</sup> Deborah Franklin, *Nature that Nurtures*, (Scientific American, 2012), 24-25.

The idea of incorporating nature into architecture has started to be applied more widely in the design of schools, mental health centers, nursing homes, and hospitals. Roger Ulrich is highly influential in this area of study and known for his evidence-based approach to using nature for healing purposes within modern medical research. His highly referenced 1984 study, published in *Science* journal, concluded that post-operative patients recover faster when they have views of nature, and are likely to have fewer complications and less medication. Ulrich has several writings addressing the notion of restorative landscapes and its positive physical and emotional effects. The positive physiological and psychological impacts of nature are not just theoretical; in fact, they have been proven through scientific research. Studies show that:

just three to five minutes spent looking at views dominated by trees, flowers, or water can begin to reduce anger, anxiety, and pain and to induce relaxation, according to the various studies of healthy people that measured physiological changes in blood pressure, muscle tension, or heart and brain electrical activity <sup>127</sup>

The healing properties of nature cannot cure disease or injuries on their own, however, it assists in the healing process and overall well-being by reducing pain and stress which strengthens the immune system, therefore allowing medical treatments to be more effective. <sup>128</sup> However, there are elements of nature that can have a more direct impact on the improvement of physical conditions. For example, “something as seemingly innocuous as an increase in negative ions in the air has been shown to ‘cure’ allergies, headaches, dizziness, depression, and asthmatic attacks”<sup>129</sup>

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<sup>127</sup> Franklin, *Nature that Nurtures*, 24-25.

<sup>128</sup> Franklin, *Nature that Nurtures*, 24-25.

<sup>129</sup> Olds, *Nature as Healer*, 27-32.

Overall, natural landscapes can help decrease distractions, increase attentiveness, reduce negative emotions, and reduce stressful thoughts.<sup>130</sup> Nature can be used for restorative and therapeutic purposes, not only for mental and physical health benefits, but also for its positive impact on social relationships.<sup>131</sup> Ulrich also explains how nature increases the “Positive Affect—including feelings of affection, friendliness, playfulness, and elation” as well as reducing “Fear Arousal.”<sup>132</sup>



*Figure 6.5 Upper Chesapeake Cancer Center (Source: Live Green Landscape)*

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<sup>130</sup> Severtsen, *Healing Gardens*.

<sup>131</sup> Clay, *Green is Good for You*.

<sup>132</sup> Roger Ulrich, *Visual Landscapes & Psychological Well-Being*, (Landscape Research, 1979), 17-23.

One of the more specific aspects of nature that contributes to its calming effect is the importance of change and motion within the environment.

When an environment provides rhythmic patterns of predictable sameness, combined with moderate diversity, what Fiske and Maddi (1961) refer to as difference-within-sameness, the senses are able to maintain optimal levels of responsivity and we feel comfortable... [For example] Natural elements such as blazing fires, babbling brooks, or gentle breezes are always in motion, undergoing predictable, yet varied transformations, which prevent boredom or withdrawal by keeping the nervous system awake. The senses, designed to detect changes in stimulation rather than to monitor constant input, require moderate changes in stimulation from the external environment.<sup>133</sup>

In addition to the importance of ephemeral changes and motion, the careful use of plant life that flowers in response to the seasonal changes helps “reinforce one’s awareness of life’s rhythms and cycles.”<sup>134</sup> Understanding the psychological importance of stimulating the senses is essential when designing both interior and exterior spaces for human interaction.

Not only is nature shown to have benefits through evidence-based research, but a workshop held in the 1980’s called “Spaces Can Heal” found that even across diverse groups, there was a consistent “subconscious image of nature as a primal source of nourishment and rejuvenation.” This workshop included over 300 participants including social workers, therapists, nurses, parents, and students who were all asked to draw a space that would help the wounded heal. The results showed that over 75% drew outdoor spaces with trees, rocks, water, sky, birds, etc., while the other drawings represented indoor spaces, but which also had some natural elements

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<sup>133</sup> Olds, *Nature as Healer*, 27-32.

<sup>134</sup> Marni Barnes and Cooper Marcus, *Gardens in Healthcare Facilities*, (The Center for Health Design, 1995).

such as potted plants or a window with a view of a natural landscape.<sup>135</sup> In addition to this subconscious acknowledgement of nature's healing power, there is an even more intriguing theoretical interpretation of the psychological importance of nature that resulted from this workshop which ties back into the idea of the fourfold.

“Pleasing settings can entice us away from ordinary concerns towards a sense of greater personal harmony and vitality,” which sets the stage for the notion that “the wounded and unbeautiful placed in natural settings arouse feelings of joy and love for self, life, and nature that were powerfully therapeutic. It was as if the embrace of nature's physical wholeness and harmony itself transmitted psychic wholeness and tranquility”<sup>136</sup>

When it comes to designing healing outdoor spaces, it is important to prioritize the elements within these four overarching categories:<sup>137</sup>

1. Sense of Control: easy access, wayfinding, areas for privacy, feeling of safety and security, light and movable furniture that can be adjusted for personal shade/sun preference
2. Social Support: different sized spaces for different activities with varying levels of privacy, clear expression of zones of uses
3. Physical Movement and Exercise: inclusion of walking loops, interactive children play areas, and potentially sporting areas
4. Access to Nature: variety of plant species, multi-layered greenery including grass, shrubbery, and trees, encourage wildlife habitats (such as birds, squirrels, butterflies, etc.), water features

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<sup>135</sup> Olds, *Nature as Healer*, 27-32.

<sup>136</sup> Olds, *Nature as Healer*, 27-32.

<sup>137</sup> Severtsen, *Healing Gardens*.

The overall goals for the design should be to create a “a sense of security, serenity, and safety—with defined seating areas, easily readable pathways, and clear designations—and remember the symbolic takes on increased meaning as we grapple with our own frailties”<sup>138</sup> Thinking creatively about how to engage as many senses as possible is encouraged, especially by including interactive elements in the design. Users of the garden should feel free to explore all spaces within the garden and should not feel restricted.



*Figure 6.6 Mercy Medical Center, Baltimore (Source: Mahan Rykiel Associates)*

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<sup>138</sup> Marni Barnes and Cooper Marcus, *Gardens in Healthcare Facilities*, 59.

An important part of the success of healing gardens is creating a peaceful and quiet place to engage with nature and experience social interaction or inward contemplation. Sometimes achieving a quiet environment can be difficult, especially if located within an urban setting. Extra design care should be spent on exploring methods for reducing noise transfer into the space. If possible, creating terraced or rooftop gardens may be one method to help reduce noise infiltrating the space if located near busy roadways.<sup>139</sup> Urban environments should be even more intentional about the design of healing gardens and restorative outdoor areas because of their limited access to these types of spaces. “Lack of a regular relationship with nature as a source of renewal may, in fact, be a major reason why urban inhabitants experience stress.”<sup>140</sup> Studies even suggest that “urban views tended to work against emotional well-being” when compared to natural views.<sup>141</sup> These findings emphasize the importance of incorporating healing landscapes into buildings within city settings in addition to the overall urban fabric.

The following tables and figures are taken from the 1995 Report for the Center for Health Care Design, conducted by Cooper Marcus and Marni Barnes. This study was done to analyze the layout, use, and benefits of existing gardens associated with four different hospitals. The study concluded that users mostly visited gardens for “relaxation and restoration from mental and emotional fatigue.”<sup>142</sup> The tables summarize findings from user surveys conducted for the report, while the figures show the analysis of the use and layout of the gardens from observation.

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<sup>139</sup> Marni Barnes and Cooper Marcus, *Gardens in Healthcare Facilities*.

<sup>140</sup> Olds, *Nature as Healer*, 27-32.

<sup>141</sup> Ulrich, *Visual Landscape & Psychological Well-Being*.

<sup>142</sup> Franklin, *Nature that Nurtures*.

*Frequency of Garden Use*

|                              | Percent |
|------------------------------|---------|
| Several times per day        | 30      |
| Occasionally/sometimes       | 27      |
| Every day                    | 18      |
| 1-2 times per week           | 14      |
| First time here              | 11      |
| (Number of respondents: 143) | 100     |

*Percent of Respondents Reporting Various Types of Mood Change*

|  | Percent |
|--|---------|
| More relaxed, less stressed, calmer, contented | 78      |
| Refreshed, rejuvenated, stronger               | 25      |
| Able to think, find answers, cope              | 22      |
| Pleased, better, more positive                 | 19      |
| Religious or spiritual connection              | 6       |
| No difference in mood                          | 5       |
| (Number of respondents: 143)                   |         |

*Percent of Respondents Who Named These Qualities as Helpful In Attaining a Mood Change*

|  | Percent |
|--|---------|
| Trees and plants<br>flowers, colors, greenery, heritage<br>trees, being in nature, seasonal changes  | 69      |
| Features involving auditory, olfactory,<br>or tactile sensations<br>birds/squirrels, wind/fresh air, water,<br>quiet, light/sun, shade, fragrances                             | 58      |
| Psychological or social aspects<br>peaceful, escape from work, openness/<br>large, privacy/secret places, oasis,<br>companionship, watching others,<br>knowing it is here      | 50      |
| Visual qualities relating to more than<br>plant materials<br>attractive landscape design, views,<br>variety of elements, textural contrast/<br>quality, differing shapes/sizes | 26      |
| Practical features<br>seating, well maintained, accessibility,<br>vending machines, smoking allowed,<br>pathways   | 17      |
| No answer or "don't know"  | 8       |
| (Number of respondents: 143)   |         |

*Percent of Respondents Using Gardens for Various Activities*

|                              | Percent |
|------------------------------|---------|
| Relax                        | 94      |
| Eat                          | 73      |
| Talk                         | 73      |
| Walk through                 | 68      |
| Stroll in the garden         | 61      |
| Outdoor therapy              | 53      |
| Wait                         | 38      |
| Visit with a patient         | 36      |
| Let their children play here | 12      |
| Work-related meeting         | 11      |
| (Number of respondents: 143) |         |

*Figure 6.7 Healing Gardens Survey Data*

*(Source: Clare Cooper Marcus & Marie Barnes, 1995 Report for the Center for Health Care Design)*

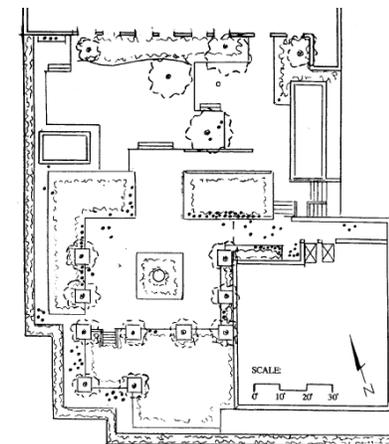
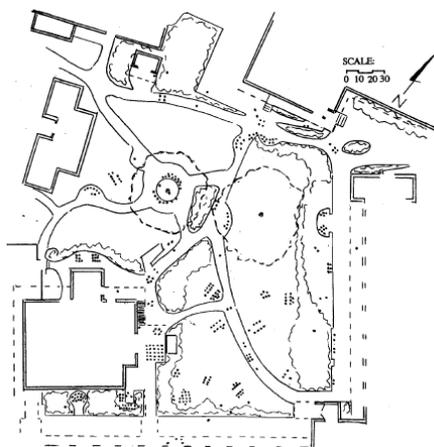
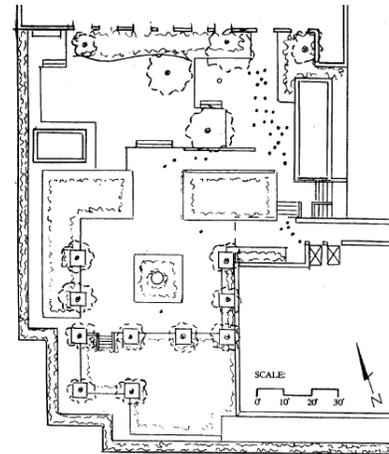
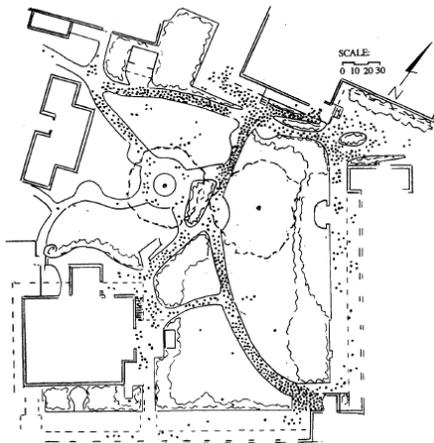
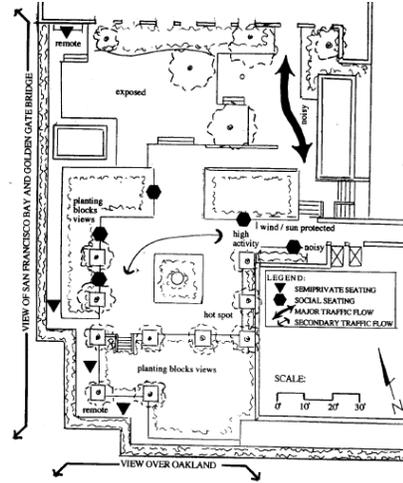
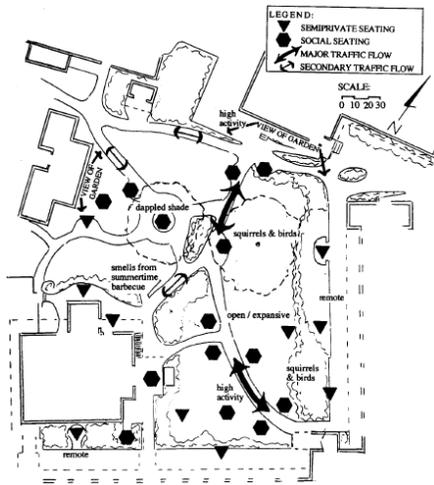


Figure 6.8 Healing Garden Observation Analysis  
 (Source: Clare Cooper Marcus & Marie Barnes, 1995 Report for the Center for Health Care Design)

## Daylight and Artificial Light

Richard J. Wurtman, a medical doctor specializing in neuroscience research at the Massachusetts Institute of Technology, stated “it seems clear that light is the most important environmental input after food, in controlling bodily function.”<sup>143</sup> This is because daylight is the primary influencer of the body’s circadian rhythm, which also encompasses the body’s biological clocks.

Circadian rhythms are physical, mental, and behavioral changes that follow a daily cycle... [and] biological clocks are an organism’s innate timing device. They’re composed of specific molecules (proteins) that interact in cells throughout the body. Biological clocks are found in nearly every tissue and organ,

and their individual rhythms and timing are directly affected by a lack of daylight which can “turn off genes that control the molecular structure of the biological clocks.” These rhythms are then controlled by the body’s master clock.

A master clock in the brain coordinates all the biological clocks in a living thing, keeping the clocks in sync... the master clock is a group of about 20,000 nerve cells (neurons) that form a structure called the suprachiasmatic nucleus, or SCN. The SCN is located in a part of the brain called the hypothalamus and receives direct input from the eyes.<sup>144</sup>

The biology of the human eye has two important parts. First, discovered in the 19<sup>th</sup> century, are “the cells of the retina involved in the formation of images, rods and cones.” Cones are activated during high light levels and communicate color and spatial perception, while rods are used during low light levels and are less precise. In more recent medical research, it has been discovered that the eye also has “specialized photoreceptors that are not directly involved in the formation of images but are rather specialized in the detection of light and related to the circadian rhythm

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<sup>143</sup> Birren, *Color and Human Response*, 13.

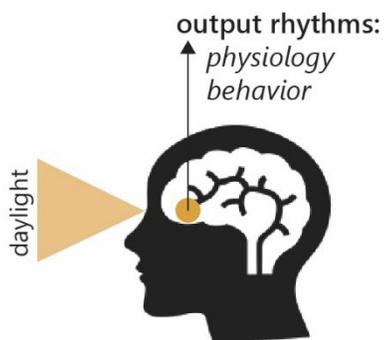
<sup>144</sup> *Circadian Rhythms*, (National Institute of General Medical Sciences, 2017).

of human beings.” The rods and cones are used to see image while the detection of light is for non-visual bodily responses. “In particular, this ‘new photoreceptor’ is a type of ganglion cell that interacts with a different part of the brain, the *suprachiasmatic nucleus*, compared to that one involved by rods and cones.”<sup>145</sup>

## HEALING ARCHITECTURE

### Biological Responses

#### NATURAL LIGHT



**suprachiasmatic nucleus (SCN)**  
 = master circadian clock  
 controls all biological clocks in body

↓  
*metabolic system*  
*digestive system*  
*hormone release*  
*sleep-wake cycle*  
*body temperature*

Figure 6.9 Circadian Rhythms  
 (Source: Author, NIGMS Education)

It must be acknowledged that light has important physiological effects on the human body. Studies show that light deprivation, or even prolonged light exposure, can have negative biological impacts on organ size, cell growth patterns, and the body’s circadian rhythm.<sup>146</sup> Circadian rhythms have the biggest effect on sleep-wake cycles, hormone release, appetite and digestion, body temperature, and more. “Irregular rhythms have been linked to various chronic health conditions, such as

<sup>145</sup> Baldanzi, *Physiological and Psychological Effect of Light*, (Sustainable Indoor Lighting, 2017).

<sup>146</sup> Birren, *Color and Human Response*.

sleep disorders, obesity, diabetes, depression, bipolar disorder, and seasonal affective disorder”<sup>147</sup> Dr. Alan Lewis from Manchester University explains that “visible light helps the human body to regulate the production of the hormone melatonin, which in turn helps to regulate our body clock, affecting sleep patterns and digestion” as well as stimulating the production of the neurotransmitter, serotonin, which reduces symptoms of depression.<sup>148</sup> More specifically, melatonin is the neurotransmitter that helps control hormonal balance, sleep, fertility, and appetite.<sup>149</sup>

The full spectrum of light is essential for human health, and yet modern society is

increasing hours indoors under the partial spectrum of fluorescent bulbs [which] effects the incidence of headaches, arthritis, stunted growth, diabetes, cancer, hay fever, infertility, hormonal imbalances, tooth decay, obesity, hyperactivity, and delinquent and criminal behaviors.<sup>150</sup>

Sadly, as society has become more advanced, the exposure to daylight and the environment has decreased. Hopefully this trend will reverse as medical research is proving the negative effects of this progression. In fact, natural light has also been proven to have psychological benefits. Studies show that daylight helps patients in hospitals recover faster, students perform better on tests, and employees labor more productively in the workplace.<sup>151</sup>

Natural light also has a phenomenological effect due to its changing nature, based upon the time of day and position and movement of clouds. Light is capable of

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<sup>147</sup> *Circadian Rhythms*.

<sup>148</sup> Kashmira, Gander, *How Arch uses Space, Light, and Material to Affect your Mood*, (The Independent, 2016).

<sup>149</sup> Olds, *Nature as Healer*.

<sup>150</sup> Olds, *Nature as Healer*.

<sup>151</sup> Gander, *How Arch uses Space, Light, and Material to Affect your Mood*.

influencing “our perceptions of all objects and spaces as changing under different conditions including motion, change, difference-within-sameness, variety, and orientation.”<sup>152</sup> The interaction of light and architecture produces a dynamic design feature, resulting in different patterns and color hues on both interior spaces and exterior façades of buildings.



*Figure 6.10 Tulum, Mexico light and texture  
(Source: Author)*

### **Sensory Stimulation**

An important aspect of mental health is sensory stimulation. Isolation and sensory deprivation are bad for one’s psychological state and the body’s willingness to heal.

Human behavior is dependent, to a great extent, on the stimulus conditions that exist in environments. When the individual, with all his sense, is exposed to these conditions, certain psychological processes are initiated. In other words, the entire behavior of the individual is initiated through his senses.<sup>153</sup>

Cognitive experiences involving thinking and learning are greatly dependent on adequate sensory stimulation. Mankind has an integral “need for variety. Blank surfaces tend to fade into neutral grey. Vision seems to degenerate unless stimulated,

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<sup>152</sup> Olds, *Nature as Healer*.

<sup>153</sup> D. Shristi, *Effect of Sensory Deprivation on Human Behaviour*, (Psychology Discussion, 2017).

and the mind itself drops into lethargy.”<sup>154</sup> Even spending too much time alone in beautiful scenic environments, such as in the mountains or along the ocean, can have negative effects on overall well-being. Despite the benefits of natural healing landscapes, extended periods of isolation are considered to be a form of deprivation.<sup>155</sup> M.D. Vernon, psychology professor and author, states:

Thus we must conclude that normal consciousness, perception and thought can be maintained only in a constantly changing environment... where there is no change, a state of sensory deprivation occurs; the capacity for adults to concentrate deteriorates, attention fluctuates and lapses, and normal perception fades.<sup>156</sup>

In addition to cognition and mental health, sensory stimulation is an important part of the perception of space and can enhance “social interaction through sensations, contemplation, and physical engagement” within the built environment. Therefore, design should “provide medium for creating an intimate connection between human beings and architecture, hence triggering the human senses in a way that viewers cannot remain as pure spectators but must become players within the spaces.”<sup>157</sup>

The importance of sensory stimulation within urban design must not be ignored. The relevance of neuroscience in the realm of design should be further incorporated, and interdisciplinary discussion should be encouraged to best create spaces and urban areas that benefit people and improve their overall well-being. In the same way that studies have been conducted to investigate the influence of color, nature, and light on the human body, these same types of studies have begun on

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<sup>154</sup> Birren, *Color and Human Response*, 100.

<sup>155</sup> Birren, *Color and Human Response*, 102-103.

<sup>156</sup> Birren, *Color and Human Response*, 97.

<sup>157</sup> Zakaria, Hassan, and Ismail. *Architecture for Healing*, (Universiti Sains Malaysia, 2018).

responses to the overall urban environment. These physiological responses are measured using the same technology including EEG (electroencephalogram) head sets to measure brain activity (indicating mental state and mood) and bracelets monitoring skin conductance (indicating arousal). The responses suggest that complex facades have positive effects, while monotonous facades have a negative effect on the mind, meaning that architectural variation is needed for mental engagement.

Charles Montgomery, a writer and urban specialist, says that the results of this study indicate “an emerging disaster in street psychology.” The seriousness of this issue is underlined by recent studies indicating that living in cities increases the risk of developing several mental health disorders including schizophrenia (two times as likely), depression, and chronic anxiety.<sup>158</sup> Urban designers and architects need to become more aware of the vital role they play in the health and happiness of people through the built world.

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<sup>158</sup> Michael Bond, *The Hidden Ways that Architecture Affects how you Feel*, (BBC, 2017).

## Chapter 7 – Precedents that House and Heal

### Affordable and Homeless Supportive Housing

#### Conway Center, DC – Wiencek Architects, 2017



*Figure 7.1 Conway Center (Source: Wiencek Architects)*

The Conway Center is SOME's, "So Others Might Eat," first new construction project, which helps impoverished individuals and families in a neighborhood with a 26% poverty rate and 30% unemployment rate. SOME is a non-profit organization that fights poverty and homelessness in the District of Columbia by providing affordable supportive housing, counseling, addiction treatment, job training, food, clothing, and healthcare services in several locations throughout the city in efforts to help vulnerable members of D.C. achieve success and long-term

stability.<sup>159</sup> The Conway Center is a mixed-use property with a healthcare facility, offices, center for employment training (CET), rehab/transitional housing, and both single adult and family affordable housing offered to those making 0 – 30% of the area median income. The project is the first of its kind in the District, taking an innovative and

“holistic approach when addressing community needs... [and] is essential to creating vibrant neighborhoods,” said Audrey Choi, CEO of the Morgan Stanley Institute for Sustainable Investing... “By combining affordable housing and healthcare, the Conway Center is a prime example of the type of forward-thinking community development that Morgan Stanley seeks to catalyze.”<sup>160</sup>

The funding sources for this \$90 million project were extremely complex, and there were many different parties involved in helping it become a reality. The capital stack included \$70 million in public funding and \$20 million from fundraising, \$10 million of which was from William Conway, Jr.<sup>161</sup> The primary funding source came through New Markets Tax Credits (NMTC) supplied by DCHE and City First Bank for the rehab/transitional units, SOME offices, and CET as well as the Healthy Futures Fund (HFF) for the healthcare center. Another major funding source was through Low-Income Housing Tax Credits (LIHTC) used for the affordable residential rental units all supplied by HFF. The third major financing component came from the D.C. Department of Housing and Community Development Housing Production Trust Fund. Smaller pieces of the capital stack were from grants and tax-exempt bonds through the Department of Housing and Urban Development (HUD).

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<sup>159</sup> *About: Fight Poverty and Homelessness, (So Others Might Eat).*

<sup>160</sup> Donna Kimura, *D.C. Development to Combine Housing, Job Training, and Healthcare*, (Housing Finance, 2015).

<sup>161</sup> *Benning Road to get Affordable Housing, Job Training, and a Medical Center*, (DCHA, 2015).

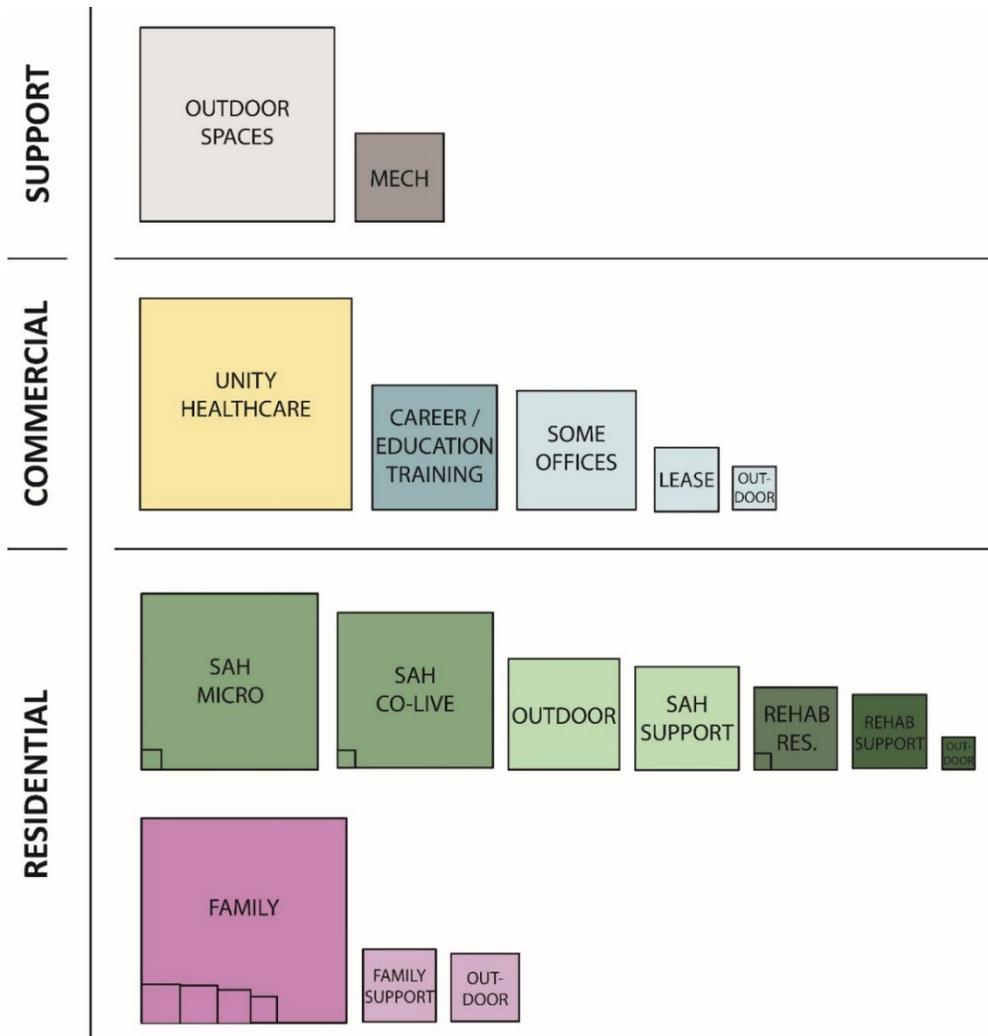
Healthy Futures Fund is a partnership between The Kresge Foundation, Morgan Stanley, and the Local Initiatives Support Corporation (LISC). LISC manages the fund and has invested \$14.7 billion since 1980 in community development projects in struggling neighborhoods throughout the country using a mix of corporate, government, and philanthropic funding sources. HFF has a total of \$200 million to contribute to projects that make healthcare services more accessible to low-income individuals across the county, with the Conway Center being the largest single receiver of this fund. More specifically, \$20.4 million was supplied as equity, leveraging Low-Income Housing Tax Credits (LIHTC) for the affordable residential units, and \$13.5 million through the New Markets Tax Credit program (NMTC) dedicated to the construction of the health center.<sup>162</sup>

This novel approach to housing and healthcare is an important idea recently supported by several organizations because “often your zip code determines your quality of health care. The co-location of health care and housing is an attempt to circumvent traditional barriers experienced by underserved communities,” according to Michael Crawford of Unity Healthcare.<sup>163</sup> The project’s success can be seen through the planning of another collaborative project between Unity and SOME, with the same focus on co-location of health services and affordable housing in a new location with a different target population.

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<sup>162</sup> Lisc, *Healthy Futures Fund Pours \$34 Million into D.C. Development*, (PR Newswire, 2015).

<sup>163</sup> Scally, Waxman, and Adeeyo, *Everything in One Place*, (The Urban Institute, 2017).



| PROGRAM      | Unity         | SOME          | CET           | Rehab         | SAH           | Family        | Mech         | Circulation   | Outdoor       | Totals         |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|----------------|
| Floor 1      | 26,462        | 3,391         | -             | -             | -             | -             | 4,228        | 5,871         | -             | 39,952         |
| Floor 2      | 10,271        | -             | -             | 10,190        | 3,394         | 2,905         | 2,186        | 2,126         | 3,582         | 34,654         |
| Floor 3      | -             | 11,567        | 12,852        | -             | -             | 1,495         | -            | 6,808         | 1,616         | 34,338         |
| Floor 4      | -             | -             | -             | -             | 12,771        | 9,037         | -            | 4,396         | 10,685        | 36,889         |
| Floor 5      | -             | -             | -             | -             | 12,771        | 9,037         | -            | 4,396         | -             | 26,204         |
| Floor 6      | -             | -             | -             | -             | 12,771        | 8,812         | -            | 4,396         | 223           | 26,202         |
| Floor 7      | -             | -             | -             | -             | 12,771        | 7,674         | -            | 4,560         | 1,033         | 26,038         |
| <b>TOTAL</b> | <b>36,733</b> | <b>14,958</b> | <b>12,852</b> | <b>10,190</b> | <b>54,478</b> | <b>38,960</b> | <b>6,414</b> | <b>32,553</b> | <b>17,139</b> | <b>224,277</b> |
| Percentages  | 16%           | 7%            | 6%            | 5%            | 24%           | 17%           | 3%           | 15%           | 8%            | 100%           |
| Efficiency   |               |               |               |               |               |               |              | <b>85%</b>    |               |                |

| UNIT TYPES | Rehab | SRO | Micro | 1Bed | 2 Bed | 3 Bed | 4 Bed | TOTALS |
|------------|-------|-----|-------|------|-------|-------|-------|--------|
| SF / unit  | 230   | 270 | 330   | 600  | 900   | 1,180 | 1,250 | 82,670 |
| Total #    | 20    | 72  | 76    | 1    | 10    | 15    | 5     | 199    |

Figure 7.2 Conway Center Program (Source: Author)

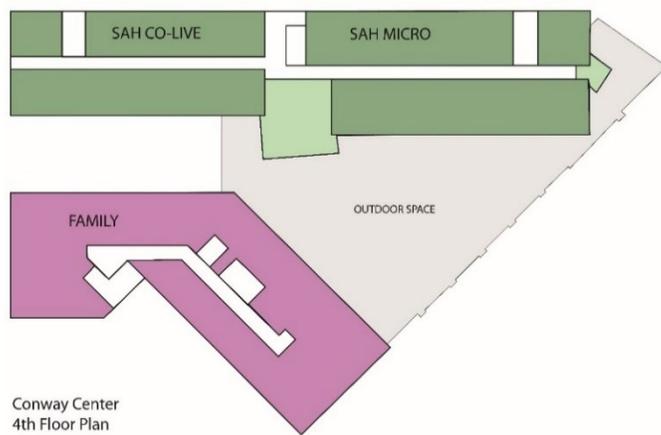
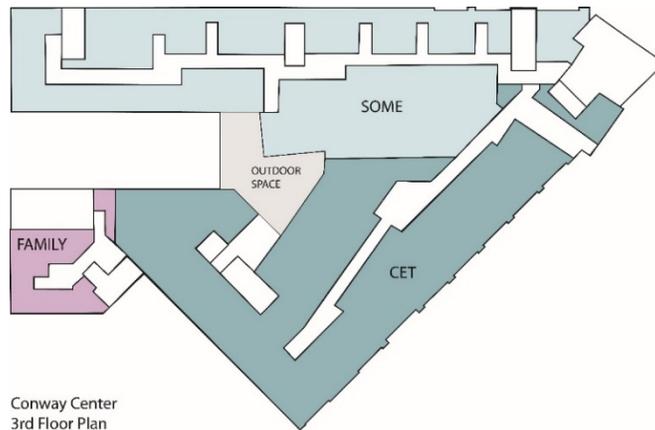
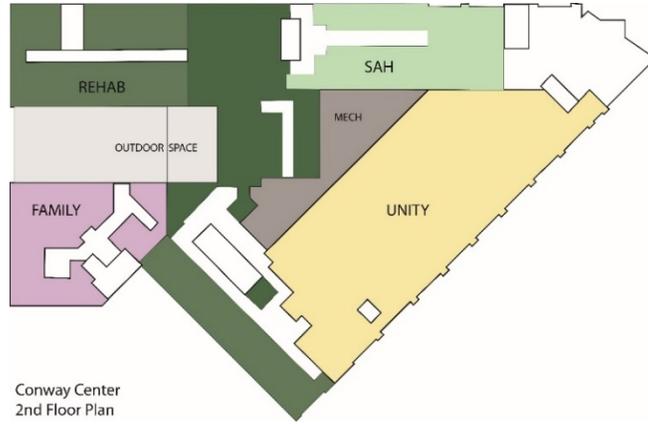


Figure 7.3 Conway Center Organization (Source: Author)

Not only is the accessibility of health services a key aspect of this project, but the provision of free employment training services also makes a huge difference in the ability for low-income families and individuals to achieve stability and independence.<sup>164</sup> While Unity Health Care occupies most of the first floor and a significant portion of the second floor (which is at ground level on the primary street adjacent to the building), the Center for Employee Training occupies about half of the floor area on the third floor. The educational programs focus on jobs in the medical administration field, and within the building, trades taught include construction, maintenance, and facilities management.

The organization of the residential portion is separated according to the user. There are three basic categories: single adult supportive housing, affordable family units, and transitional-rehab shared residences. Each type of housing has its own support staff, services, community-shared spaces, and outdoor space. This complete separation, including separate entries is an extremely important part of the design and functional organization of spaces. The transitional, rehab program is much more staff intensive, highly programmed with meetings and group outings, and access/security is an important design consideration. These units are fully subsidized, while the affordable units are paid for through 30% of the tenant's income in addition to rent subsidy vouchers from DCHA. The single adult housing is split into two types: SROs (single room occupancy) with a shared bathroom (2:1) and efficiency microunits, both of which are fully furnished.<sup>165</sup>

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<sup>164</sup> Shirley Boubert, *The Conway Center*, (NMTC Coalition, 2015).

<sup>165</sup> Site Visit and Interview with SOME Employee.

Oftentimes these types of projects face community resistance and negative social stigmas; however, the Conway Center only had minor pushback. The development team believes this was the case because the community has not seen very many new construction projects, and despite its target audience, a new project in their neighborhood would be a positive addition and would likely increase property values in the area. However, despite the many positive aspects of this project, the development does not have very much interaction with the public realm and members of the community who are not directly receiving services from the Conway Center. The project provides benefits to many people who need assistance but does not interact with the overall urban environment because of its highly specific purpose and isolated nature.

**1180 4<sup>th</sup> Street, San Francisco – Mithun | Daniel Solomon, 2014**



*Figure 7.4 1180 4th Street (Source: Bruce Damonte)*



*Figure 7.5 1180 4th Street, Urban Analysis (Source: Author)*

The Mission Bay neighborhood along San Francisco's waterfront has been redeveloped at the start of the 21<sup>st</sup> century, after its previous use as an industrial district. The 1180 4<sup>th</sup> Street project welcomes vehicles and pedestrians into the area after crossing over the McCovey Cove off the Bay. The Mission Bay street grid and block structure is distinctly different than the SOMA district to the north and that of the Design District to the southwest. The blocks of Mission Bay are of a much smaller scale, while having larger buildings occupying most of the block, typically with a courtyard typology. On the other hand, the blocks to the north are much larger while having a much finer grain within the blocks. There is limited public green space in this area of San Francisco, but surprisingly there are several small-scale open green spaces close to the project's site in the Mission Bay neighborhood. This location has comparable qualities to the selected site for this thesis, which is the Washington Avenue corridor in Philadelphia.

The building's primary use is private; however, the design emphasizes porosity and interaction with the public realm along its two main facades. The retail spaces involve the public and create an active environment along 4<sup>th</sup> Street. The façade along Channel Street, facing Mission Creek Park and the water, features an entryway into the ground level courtyard with stairs accessing the raised, green courtyard adjacent to it. Channel Street is also engaged by featuring front doors entering townhouses along the sidewalk, with the façade responding to the different program use beyond its walls and creating various levels of human scale and visual

interest along the building's longest elevation.<sup>166</sup> This attention to detail and intricate materiality of the façades is one of the main ways Daniel Solomon ensures the quality of these types of affordable housing projects. Budgetary restrictions often make it difficult to supply high quality, durable materials, yet despite this fact, the building looks beautiful and distinct in its environment because of the high level of design detailing that goes into both the interior and exterior finishes of the building.<sup>167</sup>

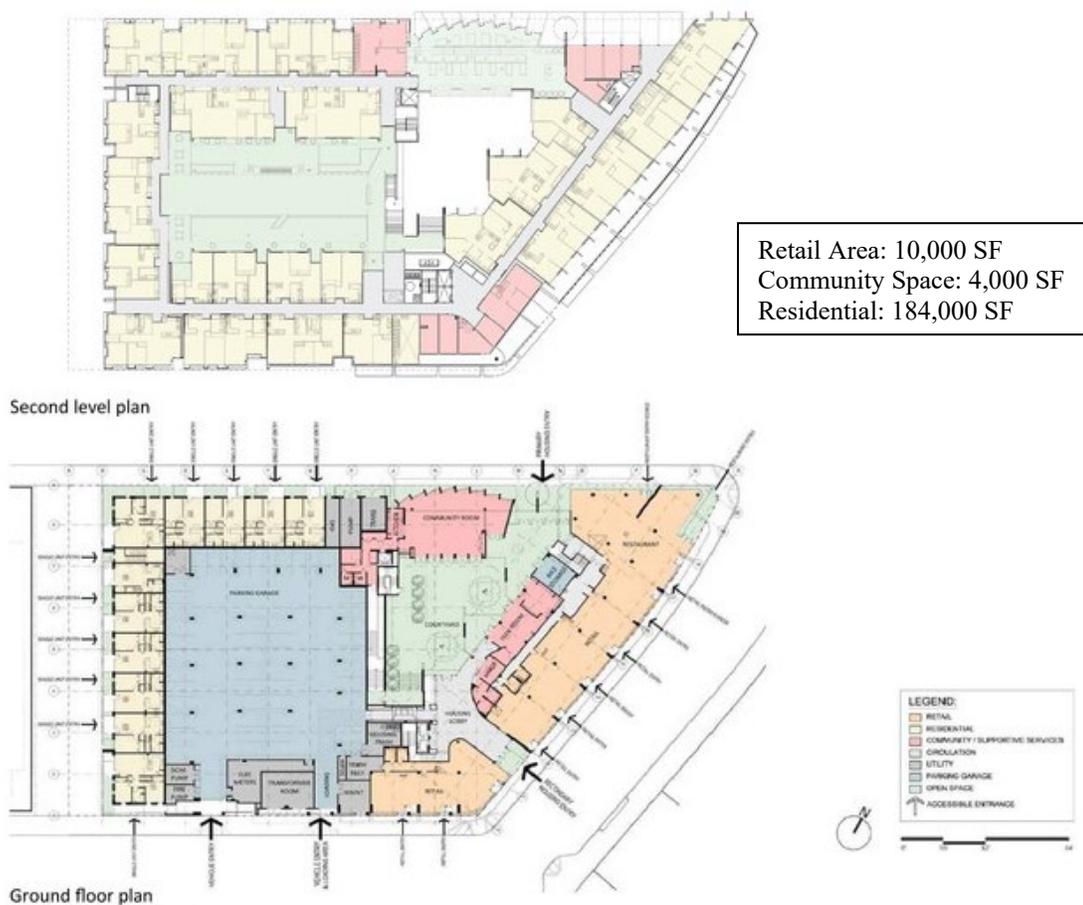


Figure 7.6 1180 4th Street, Floor Plans (Source: Mithun | Solomon)

*Design by Mithun | Solomon; Initiated as WRT/Solomon E.T.C.; with Kennerly Architecture and Planning, associate design architect; with Full Circle Architects, associate architect*

<sup>166</sup> Florencia Mena, *1180 Fourth Street*, (ArchDaily, 2016).

<sup>167</sup> Dan Solomon, Lecture Series at UMD.

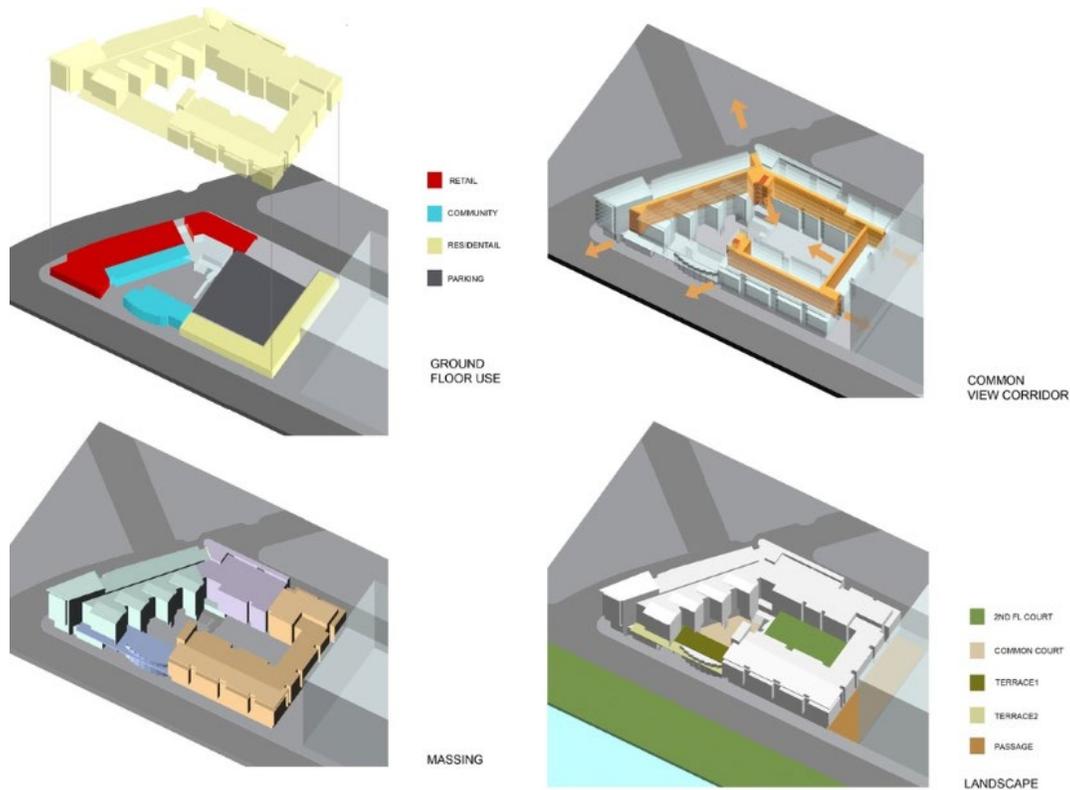
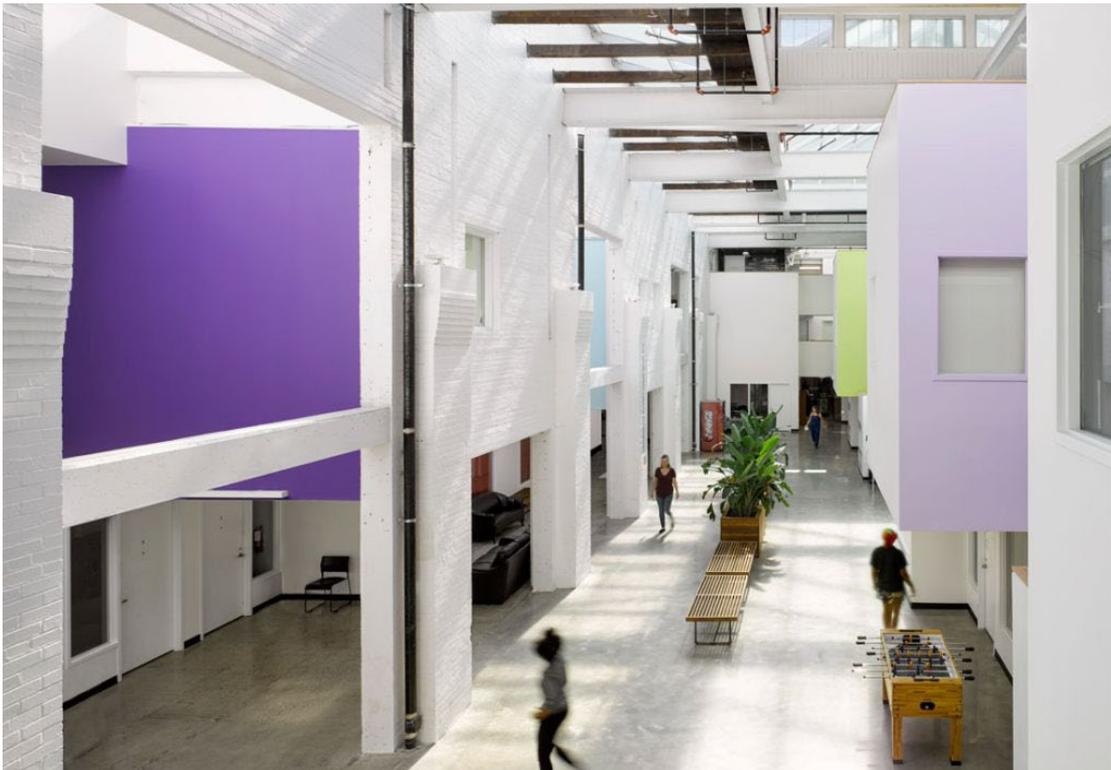
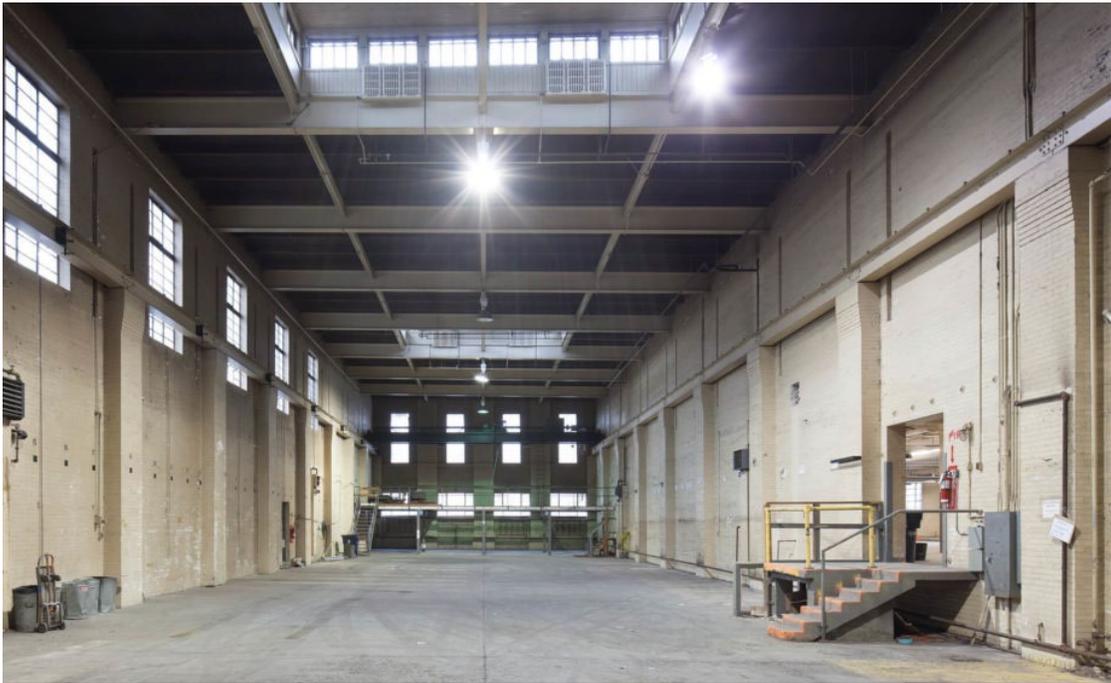


Figure 7.7 1180 4th Street, Axons (Source: Mithun | Solomon)

In addition to the urban application of this case study, the building’s program also has significant relevance for homeless youth supportive housing. 1180 4<sup>th</sup> Street is an affordable housing project with an added focus on the formerly homeless. The project not only includes 150 low-income housing units, but also retail on the ground floor, shared community spaces, a daycare center, several outdoor spaces, and supportive services for residents including counseling. The arrangement of the plan has optimized shared exterior spaces through a raised courtyard above parking, a ground level courtyard, and a terrace. These three levels of outdoor spaces are key organizing elements of the building and a common theme throughout the case studies presented in this chapter.<sup>168</sup>

<sup>168</sup> 1180 Fourth Street, (Mithun).

**Eva's Phoenix, Toronto – LGA Architectural Partners, 2016**



*Figure 7.8 Eva's Phoenix, Before/After (Source: Ben Rahn/A-Frame)  
[www.aframestudio.com](http://www.aframestudio.com)*

Eva's is an organization that strives to end youth homelessness and is dedicated to helping struggling youth have a brighter future. They have three other locations in Canada with different objectives that take an innovative and collaborative approach to the problem. Eva's Place is an emergency shelter that focuses on helping re-connect youth with their families. Eva's Satellite is also an emergency shelter, but focuses on youth with substance abuse issues and mental health needs, with the goal of harm reduction. Eva's House is a part of Eva's YOUth Belong initiative, which focuses on integrating minority youth who need long term, stable homes into the community. There are four different 4-bedroom houses, each with its own name and concentration: Eva's Home helps those from the welfare system, Eva's Hope helps those with a criminal record, Eva's Spark helps those affected by mental health issues, and Eva's Way helps LGBTQ youth.

Eva's Phoenix is the fourth location that encompasses both a unique program and a unique architectural typology. The location offers 41,200 square feet of transitional housing for homeless youth. In addition to housing, educational support and job training are also fundamental aspects of the program. The main objective of Eva's Phoenix is to help 16-24 year-olds learn independent life skills to prevent homelessness. The design of this facility is extremely interesting due to its adaptive re-use approach. The building was a warehouse that is now used as a shell for this community of youth. Smaller scale building forms are built within the existing warehouse to create a small neighborhood including ten townhouse-style units. The

result is an internal street that gives the homeless youth a sense of place, community, safety, and belonging.<sup>169</sup>



Figure 7.9 Eva's Phoenix, Floor Plans (Source: LGA Architectural Partners)

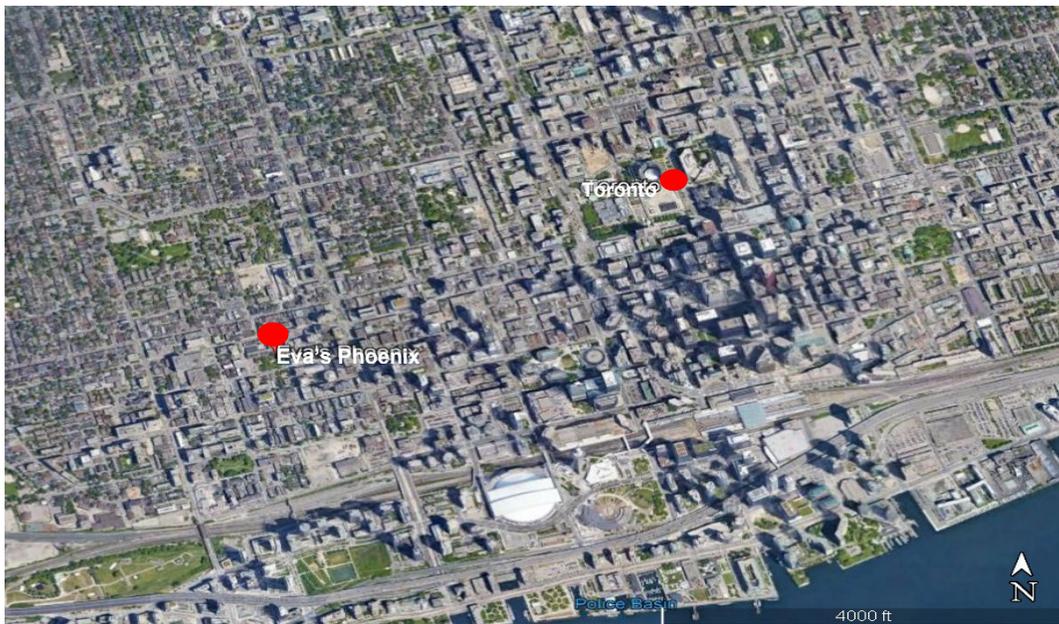


Figure 7.10 Eva's Phoenix, Context Map (Source: Author)

<sup>169</sup> *Where We Are*, (Eva's Initiatives for Homeless Youth).

Eva's Phoenix is situated in an ideal location in the center of downtown Toronto. This prime urban setting is surrounded by a mix of uses and a combination of both fine grain and large grain blocks, creating a vibrant environment that is extremely walkable. Other added benefits are the small park adjacent to the property and the abounding public transportation options that allow both residents and employees to have easy access to all that downtown Toronto has to offer. This needed intervention is not hidden from view, or pushed to the outskirts of the city, but is highly visible and integrated with its surrounding urban fabric.

An interesting vertical addition began in August 2017 and is currently under construction. This development, named Waterworks due to its original use as a 1930s waterworks warehouse, is owned by MOD Developments and Woodcliffe Properties. Diamond Schmitt Architects was hired to design an additional nine stories of residential units on top of the existing, renovated structure that is used partially by Eva's Phoenix. The plan for the building is mixed-use, including retail on the ground floor, a YMCA on the second and third floors, and a food hall abutting the public park. An astounding 300 residential units will be provided, while only 15 of them are to be set aside as affordable.<sup>170</sup> The ideas of mixing uses, mixing tenant populations, and mixing new construction and adaptive reuse are all concepts that have high relevance to this thesis, while the actual design of the architectural façade of Waterworks is not specifically being studied and is not the focus of this precedent.

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<sup>170</sup> Jullian Mirabelli, *Waterworks Redevelopment Presented to Design Review Panel*, (Urban Toronto, 2016).

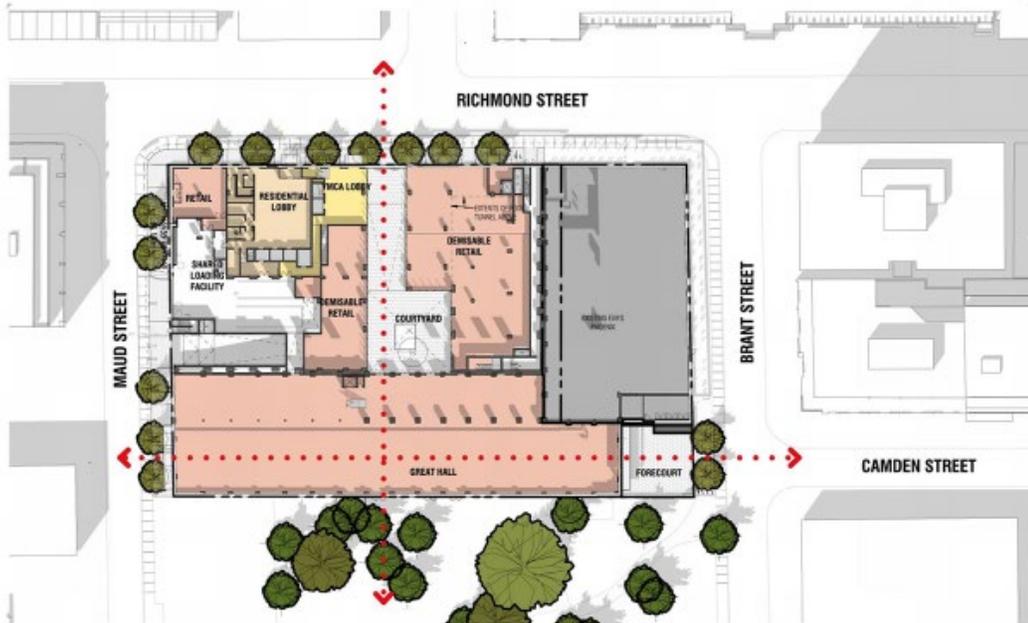


Figure 7.11 Eva's Phoenix, Waterworks (Source: MOD & Woodcliffe)

*Rehab Facilities and Healing Spaces*

**Kronstad Psychiatric Hospital, Norway – Origo Arkitektgruppe, 2013**



*Figure 7.12 Kronstad Psychiatric Hospital (Source: Pal Hoff, Helge Skodvin)*

There is a growing interest in the field of architecture to explore innovative designs for mental health treatment centers and rehabilitation facilities which focus on the environmental impacts on healing and recovery. This area of study is very intriguing, but difficult to tackle because of its qualitative and immeasurable nature. The Kronstad Psychiatric Hospital is a project that explores this type of thinking and is a great example of approaching mental health from a new perspective.

Within the last five years there has been greater acceptance of talking openly about mental health and removing the shameful connotations that were historically paired with it. This 134,550 square foot hospital allows this idea to manifest itself into an important piece of architecture within the urban core. Its inherent contradictory goals of openness and transparency paired with safety and protection create an intriguing design challenge that the architects have responded to very elegantly. Small scale spaces are carefully designed to feel domestic and safe, which contrast the three large atriums that create visual connections between different programmatic uses while simultaneously increasing daylight and air circulation. The sight lines through the building are an important design feature that helps with security as well as contributes to the wayfinding within the building. The stair and window placements create inconspicuous sightlines for staff to monitor patients, while preserving their privacy. An important aspect of a psychiatric hospital is to provide an environment that is calm, which is achieved through a logical and clear organization of spaces that helps the building users understand their surroundings, creating a sense of stability and security.<sup>171</sup>

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<sup>171</sup> Jonathan Alarcon, *Kronstad Psychiatric Hospital*, (ArchDaily, 2013).



Figure 7.13 Kronstad Psychiatric Hospital, Drawings (Source: Origo Arkitektgruppe)

Oftentimes these types of facilities have an emphasis on nature, due to its association with the psychology of healing, and are therefore situated in a more rural or scenic environment. Looking to other examples that have integrated nature into the project while being in a highly urban environment is important for the study of its typological qualities. The public plaza on the north end of the site provides an area of reprieve from its surroundings and contributes an inviting environment for the public to engage with this traditionally private, hidden, and isolated program. There are several garden terraces designed for social interaction and contemplation. Each department is paired with a specific garden, and different zones of the building have associated gardens designed with different features and functions.<sup>172</sup>

<sup>172</sup> Alarcon, *Kronstad Psychiatric Hospital*.

**Vejle Psychiatric Hospital, Denmark – Arkitema Architects, 2017**



*Figure 7.14 Vejle Psychiatric Hospital (Source: MT Hojgaard)*



*Figure 7.15 Vejle Psychiatric Hospital, Plans (Source: Arkitema Architects)*

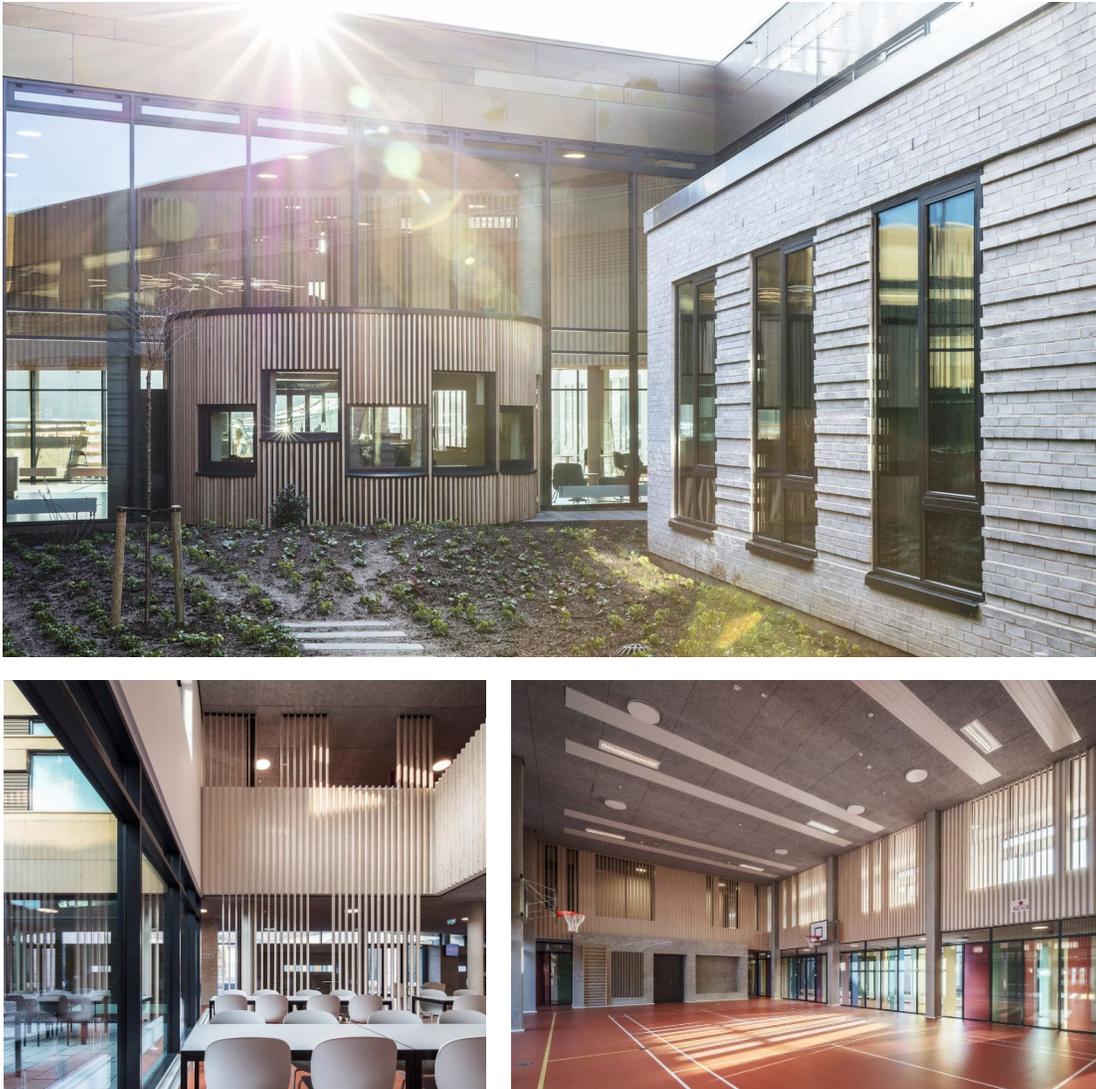
The Vejle Psychiatric Hospital is a public-private partnership that collectively designed, built, and now manages the building. While the regional context has emphasized out-patient treatment mental health facilities, the Vejle Hospital deals with more complicated behavioral issues that require an in-patient approach and thus includes 91 beds. The design of the complex continues the idea of healing architecture focusing on light, nature, outdoor space, color, transparency, physical activity, and a logical organization. By incorporating these psychological impact measures, the facility has seen a 50% reduction in the need for physical restraint of patients.

The overlap of ideas behind healing architecture is apparent between this case study and the Kronstad Psychiatric Hospital. However, there are a couple of aspects that are distinctly different. First, the location of the Vejle Psychiatric Hospital is unique because it combines elements of an urban setting with that of the countryside, with a beautiful mountainous landscape adjacent to the site creating a rather picturesque setting. The design brings in the surrounding environment through an extensive system of courtyards that help to “break down the scale, [and] merge with the landscape” and assist patient recovery.<sup>173</sup> This courtyard approach is also accomplished horizontally, as the Kronstad Hospital had to use a terraced approach because of its limited building footprint capacity. Second, the Vejle Hospital applies chromotherapy to its design through “24 hour colored light therapy integrated into the wards for calming recovery, sleep, support, elimination of depression, and preservation of a natural circadian rhythm for staff and patients.”<sup>174</sup>

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<sup>173</sup> Daniel Tapia, *Vejle Psychiatric Hospital*, (ArchDaily, 2018).

<sup>174</sup> Tapia, *Vejle Psychiatric Hospital*.



*Figure 7.16 Vejle Psychiatric Hospital (Source: Arkitema Architects / Niels Nygaard)*

The color and material palette of the project have been carefully chosen by the designers with ideas of positively impacting patients' psychological responses. The materials chosen are extremely textural and have a very intimate human scale, and the detailing of these materials have been carefully articulated in their application. The ideas of openness and transparency are combined with the need for monitoring and security while also using screening techniques to provide privacy and a clear separation of spaces.

## Chapter 8 – Design Proposal

### Project Summary



*Figure 8.1 Project Rendering: Pedestrian Link (Source: Author)*

This thesis is designed as a mixed-use, mixed income development in the Point Breeze neighborhood of South Philadelphia. It is located along Washington Avenue, an important industrial legacy/commercial corridor. The sites along Washington Avenue have recently been targeted for redevelopment due to the growth of Center City. This project is an example of equitable development for a low-income community that is facing gentrification.

The MISSION of the project is to address social injustice and contribute to breaking cycles of poverty. The design VISION provides equitable access to housing and services that will enhance occupant well-being through healing, connection, and opportunity. This thesis is an application of social enterprise development, which prioritizes social benefit in addition to economic benefit - this is the shared value.

The development STRATEGY is to combine various users and uses to create a financially feasible project while also integrating users and centralizing services to address community needs. The on-site services include healthcare, education, and employment training which are funded and run through local partnerships. The mixed-income residential units range from 30% AMI to market rate and the transitional housing units are dedicated to homeless adolescents.

This project is made financially feasible through the TACTIC of social enterprise development and key local, federal, and university partnerships. The project is heavily funded through low-income housing tax credits which contribute to the construction of the affordable and transitional housing units. The operations of the social impact uses are sustained through profit sharing from the market rate units and commercial/retail uses in the project.

## Process and Massing

### **Iterations**

Many iterations were explored for the site massing and program organization for this proposal. There are many different uses and users within the project, making the relationships between spaces vital to the success of the project. Some of the most influential considerations were as follows:

- *How much public space should be on the ground level?*
- *Should there be through-block connections? How secure does the site need to be?*
- *Should the central green space be raised or at ground level?*
- *How tall should the tallest portion of the site be?*
- *How should the building massing step down to relate both to the large-scale buildings on Washington Avenue and the small-scale rowhomes on Ellsworth Street?*
- *Should there be any townhomes on the site for group living?*
- *How should the buildings internally respond to the existing warehouse?*
- *How can the warehouse be featured so as to be seen by the passerby along Washington Avenue?*
- *Where should the health center have its ground floor entry?*
- *Should the site be designed as one large building or as several smaller buildings that relate to one another?*

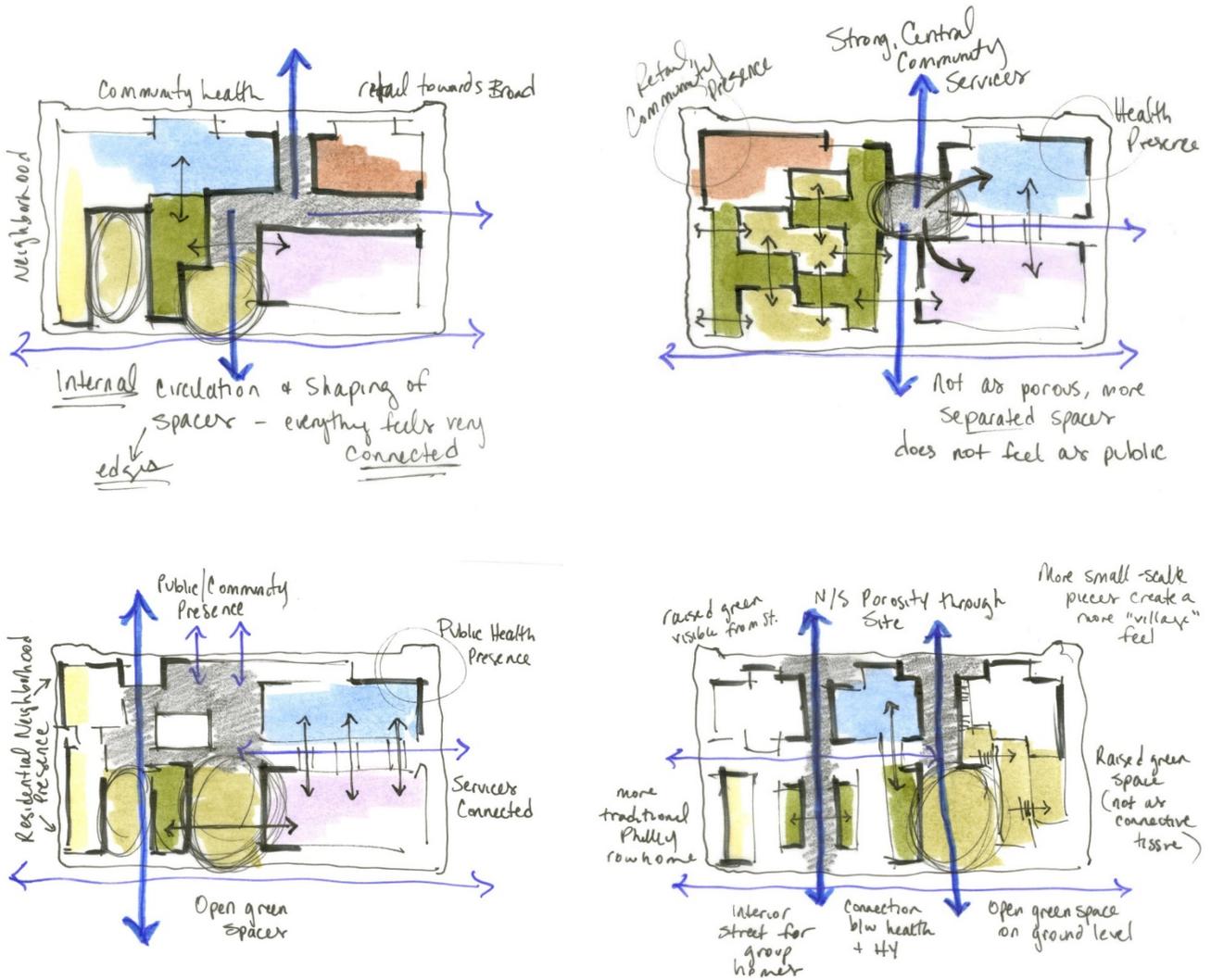


Figure 8.2 Process Sketches (Source: Author)

The sketches shown in Figure 8.2 above are a representation of several schemes that responded to these questions/considerations. These schemes were also explored using 3D prints at 1:100 scale and inserted into a context model to better consider how the proposal would fit into the existing neighborhood and contribute to the transforming nature of the Washington Avenue corridor.

The final site organization is shown below, in Figure 8.3. The site has carefully considered the locations at which the public is welcome to transverse through the site. The areas that the public is allowed are meant to be bright and lively with outdoor dining and interaction with the workshops/showrooms associated with the warehouse. These pedestrian links through the site allow for porosity, more pedestrian engagement, and greater safety because there are eyes on every part of the site. Other than the pedestrian links, the greatest areas of public interaction area long Washington Avenue with new retail/dining activities to help contribute to the new mixed-use corridor that Washington Avenue will become.

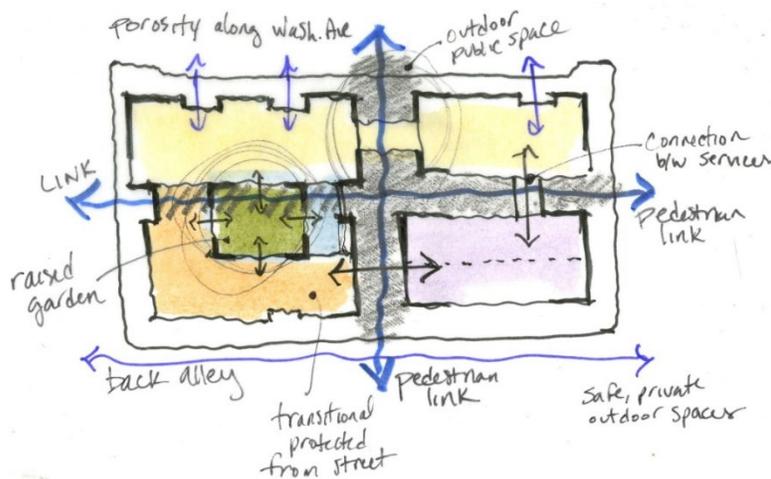
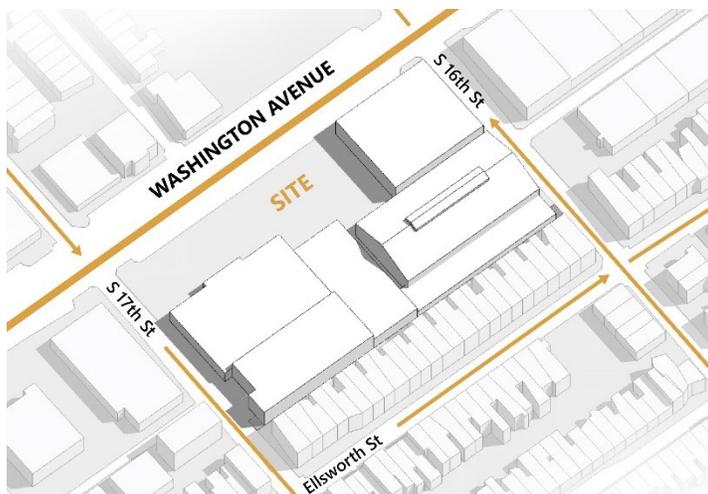


Figure 8.3 Final Scheme Process Sketch (Source: Author)

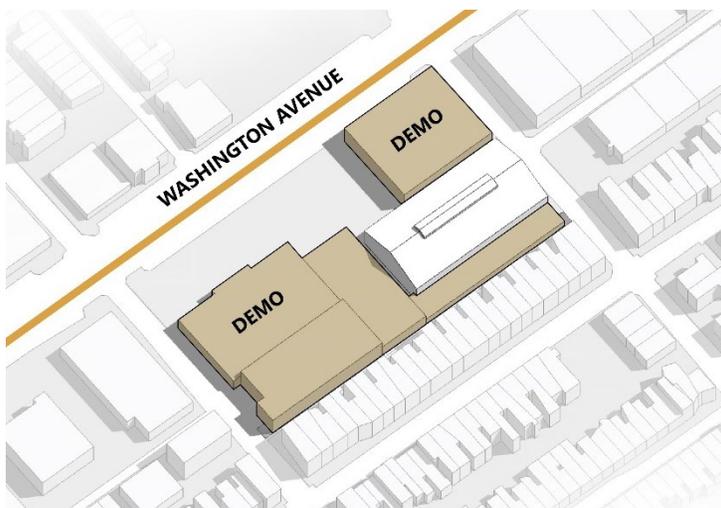
The final building massing is careful to protect both the healing garden and the transitional housing from the busyness of Washington Avenue and create a quieter, private area for these programs. The greater density of mixed-income housing is concentrated in the tallest portion of the building along Washington Avenue which reaches 80 feet in height, while the transitional housing closer to the residential neighborhood steps down and is only 50 feet tall.

### Final Massing

Existing site conditions are shown with Washington Avenue along the northern edge of the block and Ellsworth Street along the southern edge of the block.



As previously mentioned in Chapter 4, the majority of the buildings on site will be demolished, which are primarily used for material storage. One warehouse will be restored and reused.



The building site area totals 77,840 SF. A service alley has been cut along the back of the site between the existing warehouse and the existing rowhomes, which remain untouched.

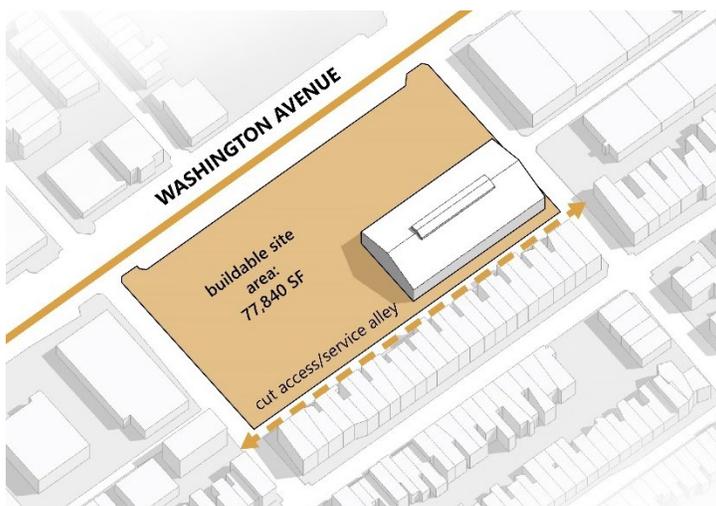


Figure 8.4 Site Conditions Diagrams (Source: Author)

The urban condition of the developing mixed-use corridor requires a strong urban edge with the tallest portion of the building along Washington Avenue. The north side of the block along Washington Ave. is 400 feet long, making it essential to break down the mass and create a through block connection. The masses coming off Washington Ave. step town towards the small-scale fabric towards the south. The diverse activities housed on the site require clear connections between programs with functional and spatial relationships between one another.

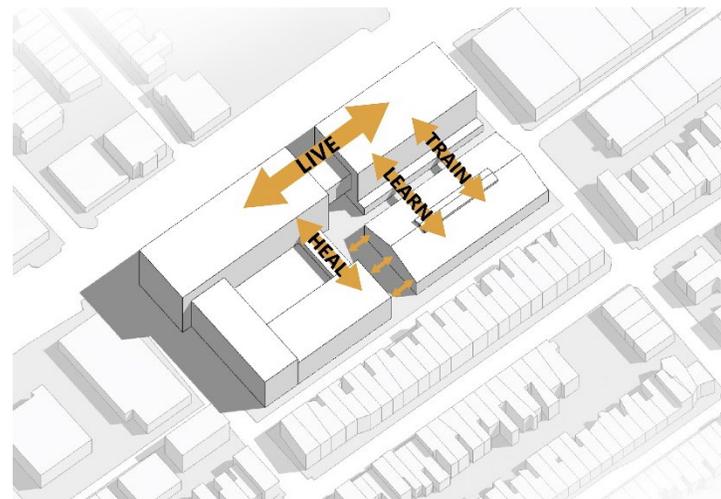
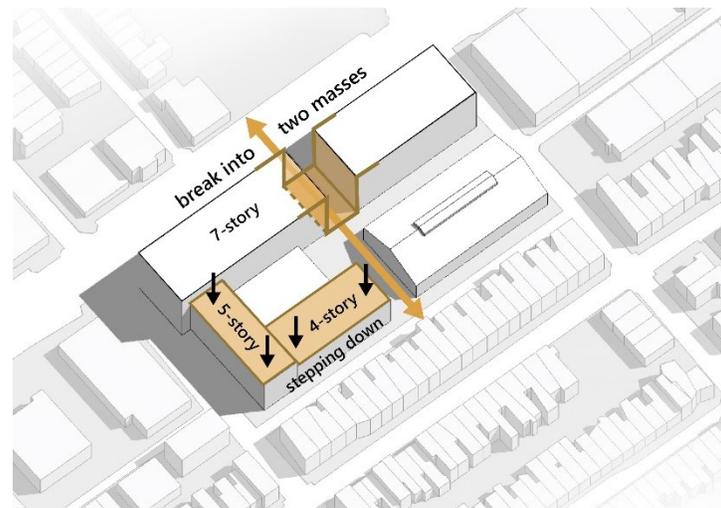
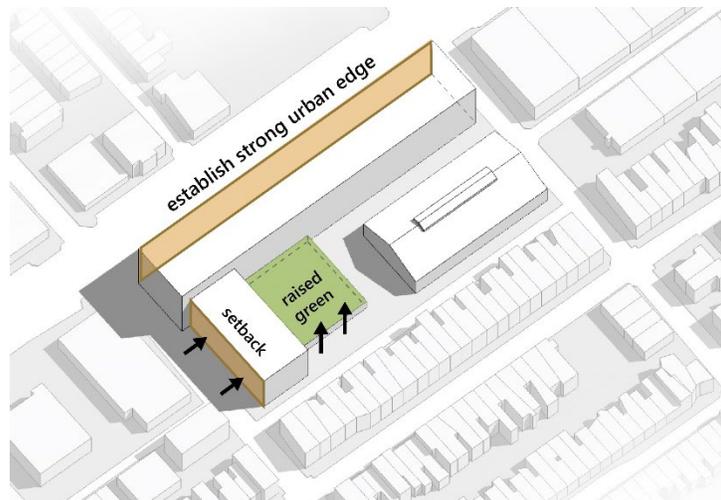


Figure 8.5 Massing Diagrams (Source: Author)

Because this building extends along the entirety of a city block, the mass must be broken down to create a pleasant street presence and experience for the pedestrian. Spaces are carved away from the façade to create a pattern of solid and void that allow for more small-scale outdoor spaces. These carvings follow the structural bay system of the concrete podium. These bays are further expressed through continued push and pull of the façade, material choices, balcony locations, and window placements. The importance of a variety of outdoor spaces at various scales were a key aspect of applying biophilic design.

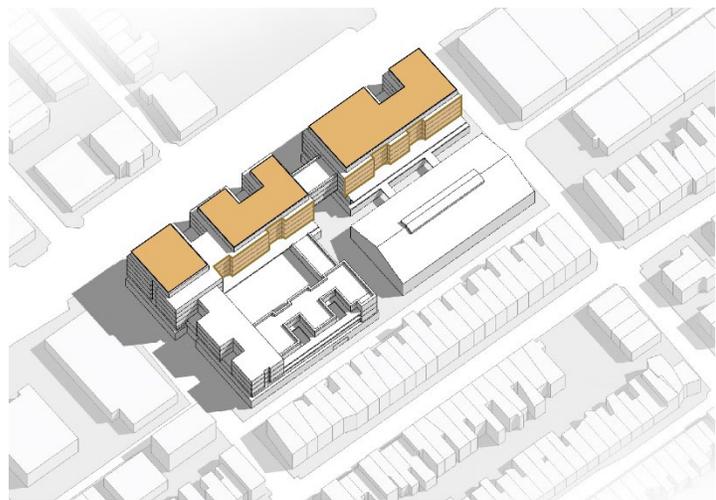
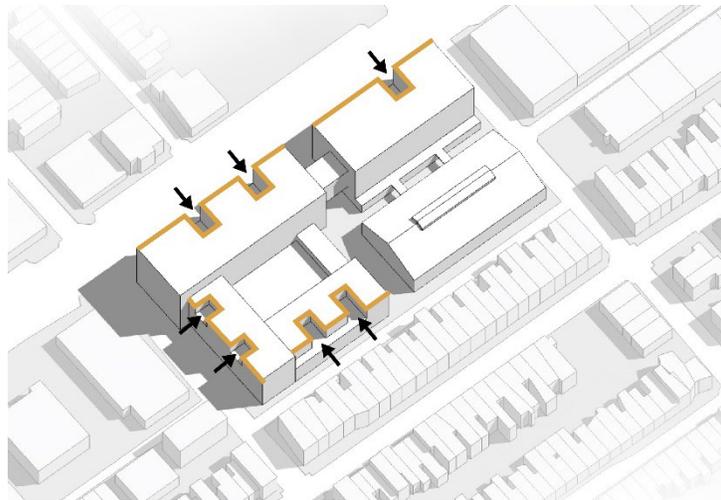


Figure 8.6 Carve Diagrams (Source: Author)

# Program Organization

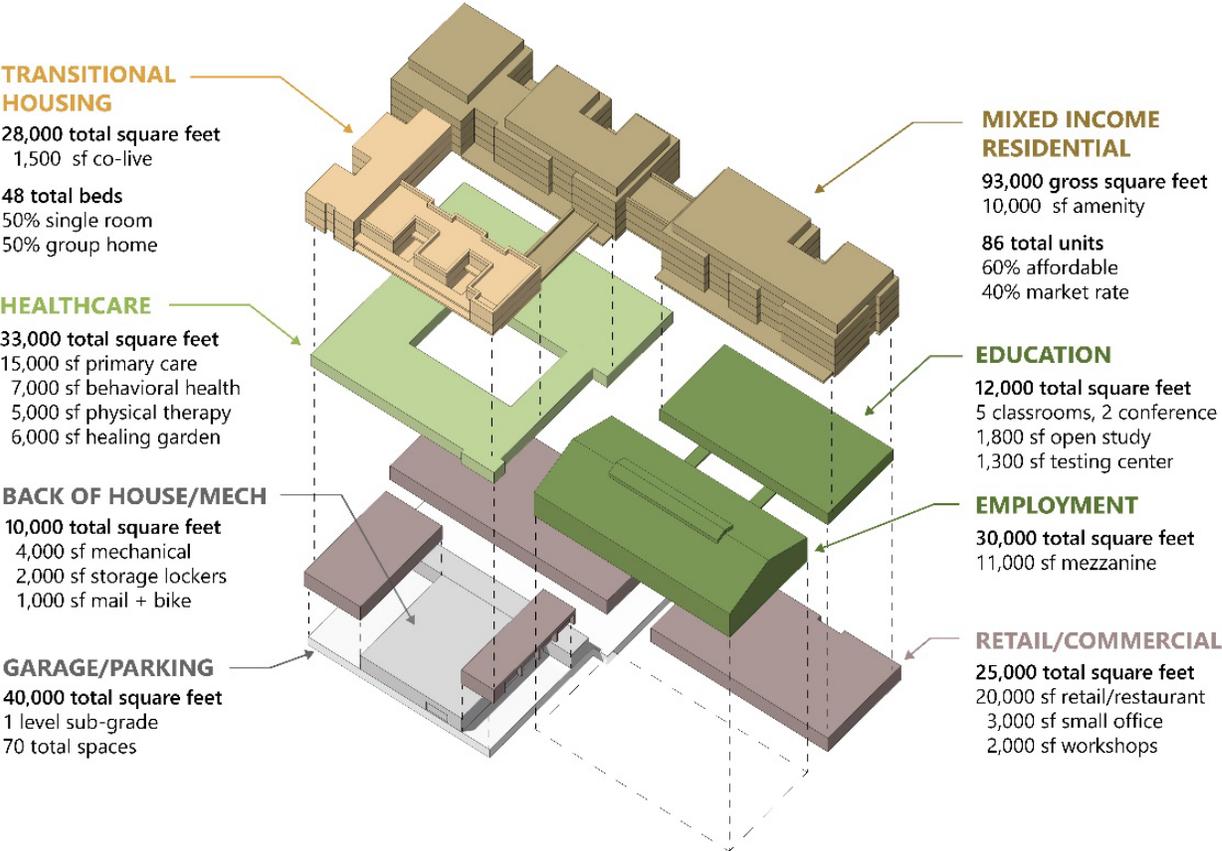


Figure 8.7 Exploded Axon, Program Organization (Source: Author)

The development totals 271,000 square feet and is primarily built out of light-wood framing sitting on top of a two-story concrete podium that contains the second-floor services and ground floor retail. The entire west portion of the building sits on top of one level of sub-grade parking with 70 spaces.

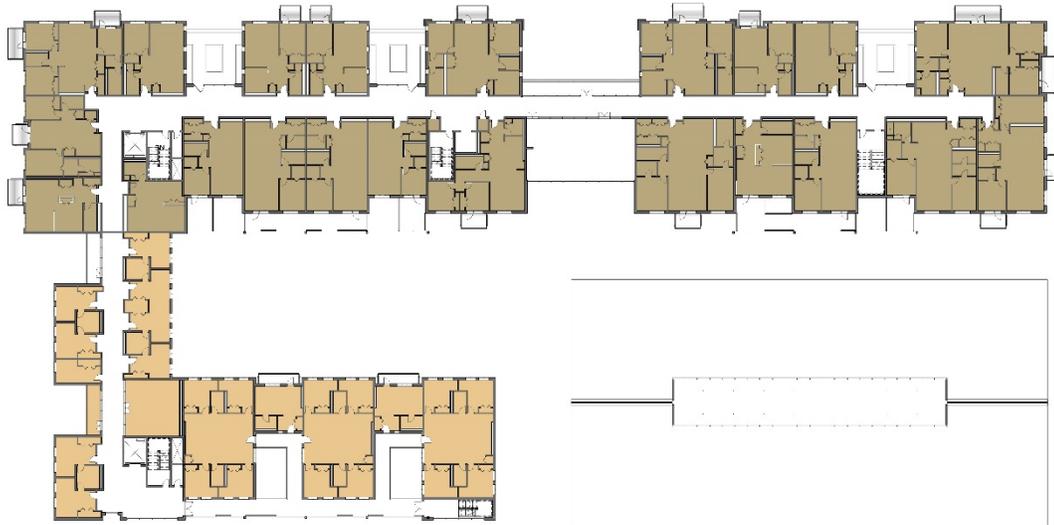


*Figure 8.8 Second Floor Plan (Source: Author)*

The second-floor plan shows both the healthcare services, education services, and employment training center. The healthcare facility wraps around a healing garden on the second level, and the education services are housed within the new construction but connects directly to the employment training center through small bridges at the new mezzanine level of the warehouse.



*Figure 8.9 Project Rendering: Pedestrian Bridge (Source: Author)*



*Figure 8.10 Typical Residential Floor Plan (Source: Author)*

The mixed-income housing totals 93,000 SF and builds 86 total units ranging from 30% AMI to market rate units. The total affordable units comprise 60% of the residential apartment units. The unit sizes range from studios up to three-bedroom. The transitional housing totals 28,000 SF and is located in the “L-shaped” portion coming off of the mixed income housing bar. Half of these units are design as single room occupancy, and half as group home units.



*Figure 8.11 Project Rendering: View from SRO Unit (Source: Author)*

## **Overall Building Design**



*Figure 8.12 Building Axon (Source: Author)*

This project was designed using biophilic design principles to facilitate healing, restoration, rebuilding, bonding, community, and overall well-being. This design approach was not only incorporated into the healthcare facility and healing garden but was a significant driver behind many aspects of this building design. The importance of indoor-outdoor zones, repeated engagement with nature, outdoor spaces of varying scales for different programmatic purposes, and natural daylight were key for every use and user of the building.



Figure 8.13 Ground Floor + Site Plan (Source: Author)

The ground floor plan illustrates the areas of the site that are open to the public—specifically the pedestrian links through the site and the retailers along Washington Avenue. The east/west pedestrian link will primarily be used by residents of the property as the link transitions from an outdoor zone to an indoor back-of-house area. Entry to the healthcare facility can be found along Washington Avenue, as can the mixed-income housing residential lobby. The transitional housing lobby is found on the side street (west), as is the education services lobby (east). There is strong interaction between the warehouse and the workshops/showrooms on the opposite side of the north/south pedestrian street to help activate this space and create an exciting, unique makerspace/retail zone.

Maintaining views to the restored warehouse from Washington Avenue was a key decision in the design. This employment training center in the existing warehouse is a unique feature on the site and it should be celebrated by its regular daily users and pedestrians walking along the corridor. The break in the mixed-income housing mass allows for a framed view of the warehouse from the entry of the site along Washington Avenue as seen in Figure 8.14 below.



*Figure 8.14 Project Rendering: Site Entry (Source: Author)*



*Figure 8.15 Project Rendering: Washington Avenue Street View (Source: Author)*

## Heal: Physical + Mental Health



*Figure 8.16 Healthcare Floor Plan (Source: Author)*

The healthcare facility is proposed to be a partnership with the University of Pennsylvania's Department of Family Medicine and Community Health. It is designed as an innovative approach to integrated healthcare design where physical and mental healthcare are delivered in a comprehensive, integrated setting. There are three distinct check-in counters clearly located along the healing garden each having

direct access points to the garden. The north check-in desk is for primary care services and dentistry. The east check-in counter is for behavior health services, and the west check-in counter is for physical therapy services. The healing garden is not only an important programmatic element of the plan, but it is also used as an organizing element in the design of the three wings. The organization of the spaces were also arranged around having clear sightlines through the spaces for both security and daylighting purposes.



*Figure 8.17 Healthcare Design Diagram (Source: Author)*



*Figure 8.18 Project Rendering: Healthcare Reception (Source: Author)*

The healing garden was designed with circulation patterns in mind, while also creating spaces for repose directly off the path. In addition, there are also “outdoor rooms” formed that create areas for stasis that relate to the programmatic uses that are adjacent to them.



*Figure 8.19 Project Rendering: Healing Garden Path (Source: Author)*



*Figure 8.21 Project Rendering: Healing Garden, Outdoor Room (Source: Author)*

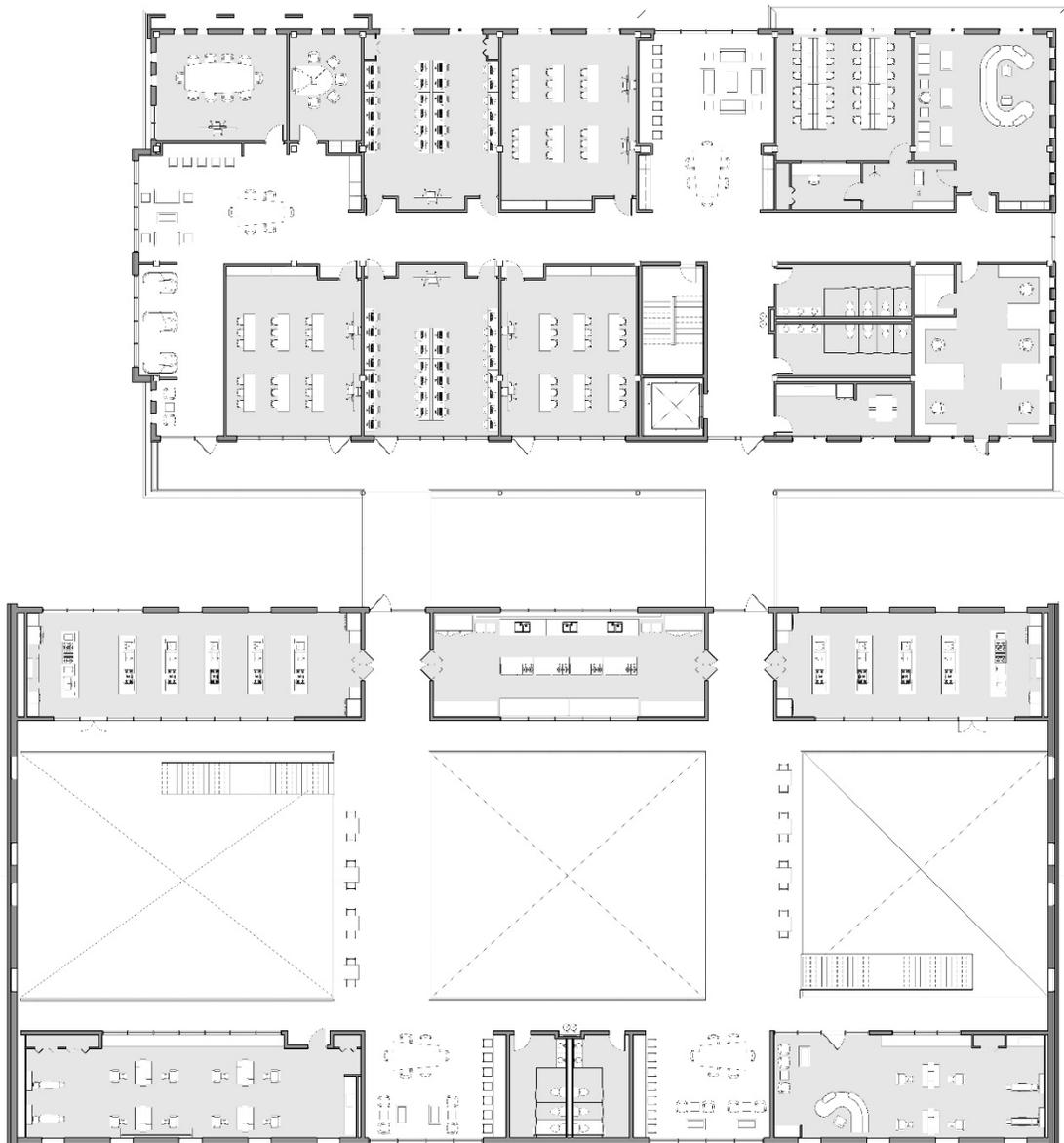


*Figure 8.20 Project Rendering: Group Therapy (Source: Author)*



Figure 8.22 Building Sections (Source: Author)

## Learn: Education + Employment Training



*Figure 8.23 Education and Employment Training Floor Plan (Source: Author)*

The education services are housed on the second floor of the new construction portion of the building and attach to the mezzanine level of the employment training center through an outdoor link. This portion of the program would be run through a partnership with Philadelphia Works, a local non-profit education/employment

training program. There are three classroom spaces, two computer labs, several small conference/meeting/study rooms, and a testing center on site for GED, SAT, GRE, and professional certifications.



*Figure 8.24 Project Rendering: Classroom (Source: Author)*

The existing warehouse will provide vocational education programs with trades requiring larger equipment located on the ground floor, such as construction, carpentry, mechanical/electrical/plumbing technology, makerspace, and manufacturing automation. A mezzanine level has been built into the warehouse that will house a culinary arts program on the northern bar and the southern bar will have a cosmetology program.



Figure 8.25 Project Rendering: Warehouse Ground Floor (Source: Author)



Figure 8.26 Project Rendering: Warehouse Mezzanine (Source: Author)



Figure 8.27 Project Rendering: Teaching Kitchen (Source: Author)

## House: Transitional + Affordable



*Figure 8.28 Residential Units (Source: Author)*

The layout of the mixed-income housing bar prioritizes natural daylight and indoor-outdoor zones through the carve outs along the north façade and the semi-communal screened balconies along the south facade. These carved out zones not only create more outdoor space for residents, but they also bring in natural light into the corridors and are placed near each of the cores to be used for wayfinding.



*Figure 8.29 Project Rendering: Mixed-Income Balcony (Source: Author)*

The southern units are strategically designed to be deeper while the northern units are wider to respond to the different daylighting potential. Lastly, the bridge connecting the east and west portions of the building create yet another zone of outdoor space and natural light while also centralizing the amenities on each level.

The transitional housing is located in the “L-shape” portion of the building coming off of the mixed-income housing bar. These units have been separated for security purposes and to help the residents form crucial bonds with other adolescents going through similar life experiences. This will help form supportive relationships that encourage healing. The design of the transitional housing wing has three stages for homeless adolescents to re-build their lives and ultimately become self-sufficient, contributing members of the community.

The first stage is the short-term, single room occupancy unit. This unit has a bed, closet, desk, and shared bathroom. There are eight units per floor (three floors total) and each floor has a co-live space with a kitchen, living room, and dining area. There are also outdoor areas located along each floor. Residents in this first stage are either trying to reconcile with family or planning to go through all three stages of the program. This stage focuses on healing through rehab and/or therapy on site.

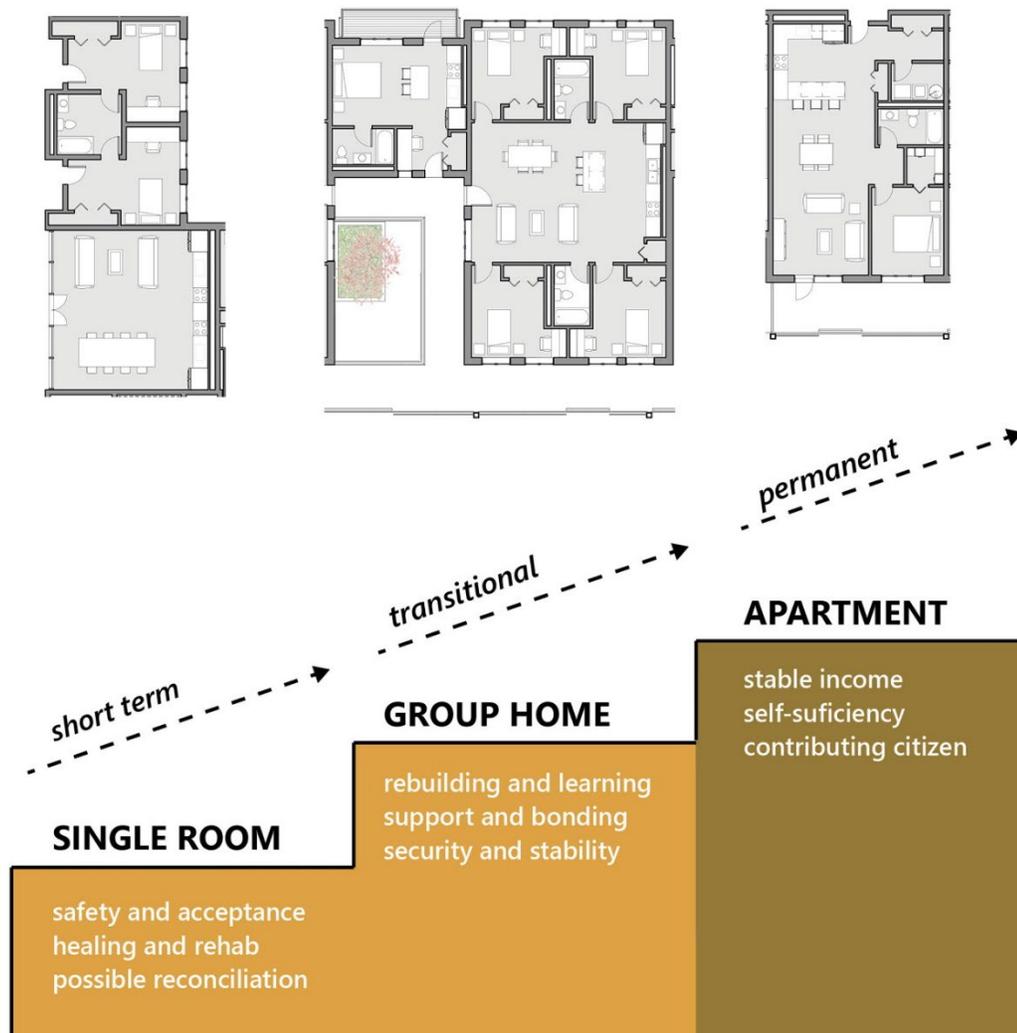


Figure 8.30 Homeless Adolescent Integration (Source: Author)

The second stage is the transitional group home unit. This unit has four bedrooms and a shared kitchen, living, and dining area. There are three group homes per floor (two floors total) with two micro-units per floor for the live-in staff. Each group home has a large front porch to create more small-scale indoor-outdoor zones and encourage small group socializing. During this stage residents are enrolled in an educational program and/or an employment training program, and later establishing stable income and general life skills.



*Figure 8.31 Project Rendering: Group Housing Porch (Source: Author)*

Once a resident can supply proof of income and feels confident in their self-sufficiency, they are able to apply for a permanent apartment unit in the mixed-income housing portion of the project where they could qualify for an affordable housing apartment.



*Figure 8.32 Project Rendering: Transitional Housing Roof Deck (Source: Author)*

The transitional housing portion of the development continues the theme of biophilic design through the integration of outdoor spaces in a multiplicity of settings, at various scales, and for various uses. These units, designed for different stages of the program, and these diverse outdoor spaces greatly enhance the residents' likelihood of having a positive outcome from the program.

## Conclusion and Thesis Defense Reflection

This thesis was defended at the School of Architecture, Planning, and Preservation on Thursday, December 12, 2019. This defense consisted of a 20-minute presentation followed by 40 minutes of questions and critique by five jurors and additional comments from faculty members of the school. The 20-minute presentation was aided by presentation slides with graphics that are primarily contained in this thesis document as well as physical models and six printed boards that were each four feet wide by eight feet tall.



*Figure 8.33 Thesis Defense Presentation Boards (Source: Author)*

The thesis received a significant amount of positive feedback from the reviewers, however there were several aspects of the design that could be further explored. The main areas of discussion fell into three overarching categories:

1. *Further Elevation Study Needed*

One of the main areas of critique were regarding the design of the building elevations and the material choices. The elevation of the building and material choices were done in a way that reflected the programmatic uses, but other methods for the exterior design may have been more successful. This was the only area of the building that appeared to be less developed than the rest of the design. It was encouraged to continue exploring this aspect of the design in the future and update the drawings for portfolio use.

2. *Separation of Transitional Housing and Mixed-Income Housing*

It was discussed during the review whether the transitional housing units and mixed-income housing units should have been more integrated. The difficulty of this design decision was acknowledged, and there was a suggestion of creating a more significant moment of physical transition at the intersection of the mixed-income bar and the transitional housing “L-shape.”

3. *Site-Planning of Pedestrian Zones*

The service alley cut along the back side of the site was questioned regarding its best use, and there were also concerns over the north/south pedestrian street through the site and its anti-climactic termination point. Significant discussion was had regarding these pedestrian zones and whether the warehouse also need a larger outdoor space associated with it.

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