

# CONNECTION THROUGH CULTIVATION

A COMPREHENSIVE DESIGN FOR ST. JAMES PLACE COMMUNITY GARDEN

by

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A REPORT

submitted in partial fulfillment of the requirements for the degree

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture, Regional and Community Planning  
College of Architecture, Planning, and Design

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Approved by:

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Dr. Katherine Nesse

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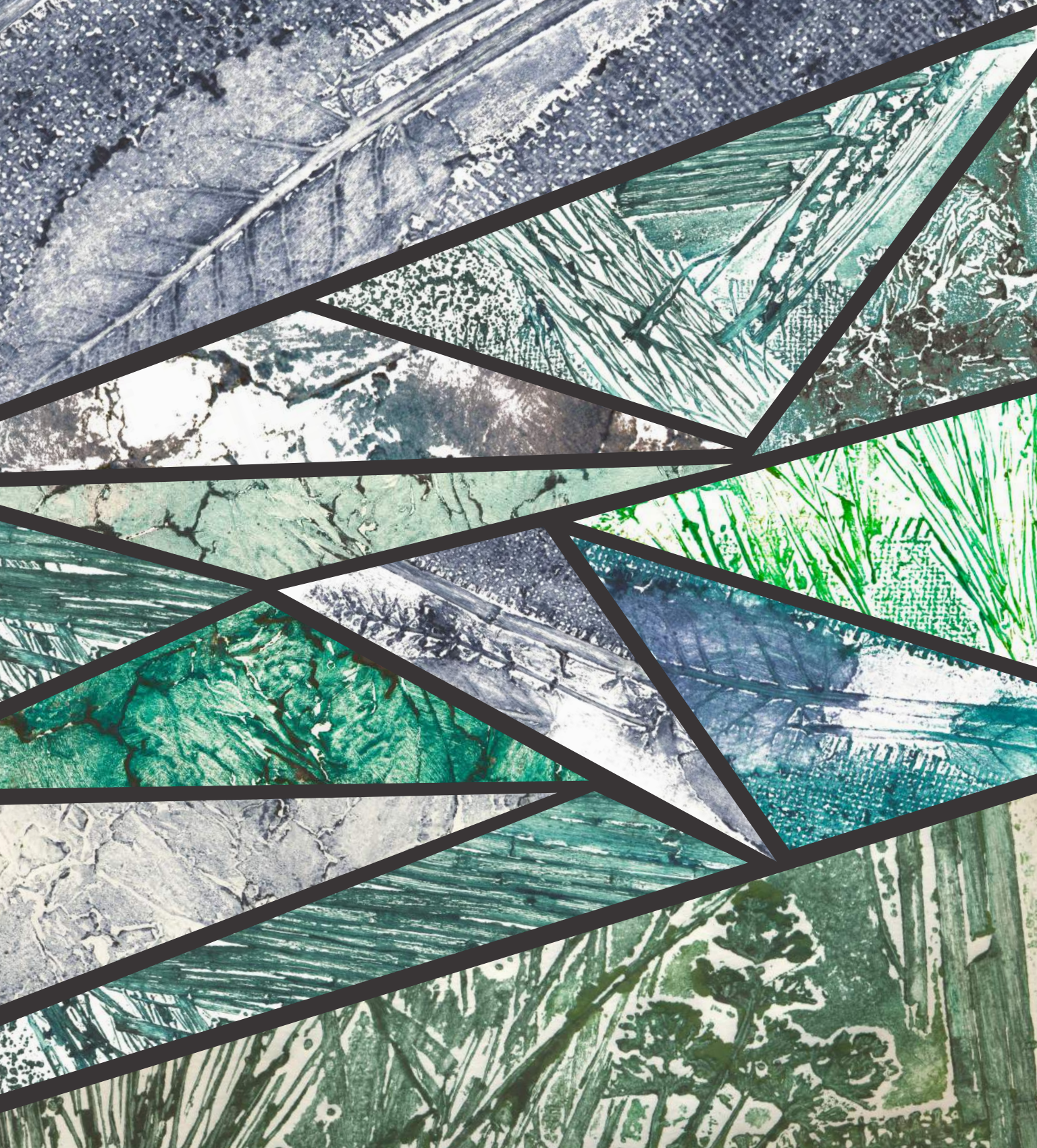
## ABSTRACT

Many cities around the United States struggle with racially segregated neighborhoods (USA on Race 2013). The existence of isolated neighborhoods continues to reinforce racial distrust and promotes stereotypes. Some of the primary negative consequences associated with residential segregation include unequal job opportunities, greater health risk, high concentrations of poverty, educational constraints, and high building and lot vacancy rates.

Residential segregation is an issue in Kansas City, Missouri along Troost Avenue. Troost Avenue is a stark racial dividing line within the city core. West of Troost Avenue, whites account for 88 percent of the population while blacks make up 93 percent of the population to the east (Troost Village Community Association 2013).

The intent for this project is to create a resource to help establish and promote social interaction within the Troost Avenue neighborhoods by creating a purpose-driven community garden at the St. James Place apartment complex. The site's unique location, positioned adjacent to other apartment complexes and subdivisions in the Citadel Neighborhood, had the potential to attract many types of users to the garden site. Through a process of literature review, surveys, interviews, and precedent study analysis, design goals were established. The design proposals for the St. James Place Community Garden focus on increasing site activity, establishing accessibility, and promoting originality.





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## ABSTRACT

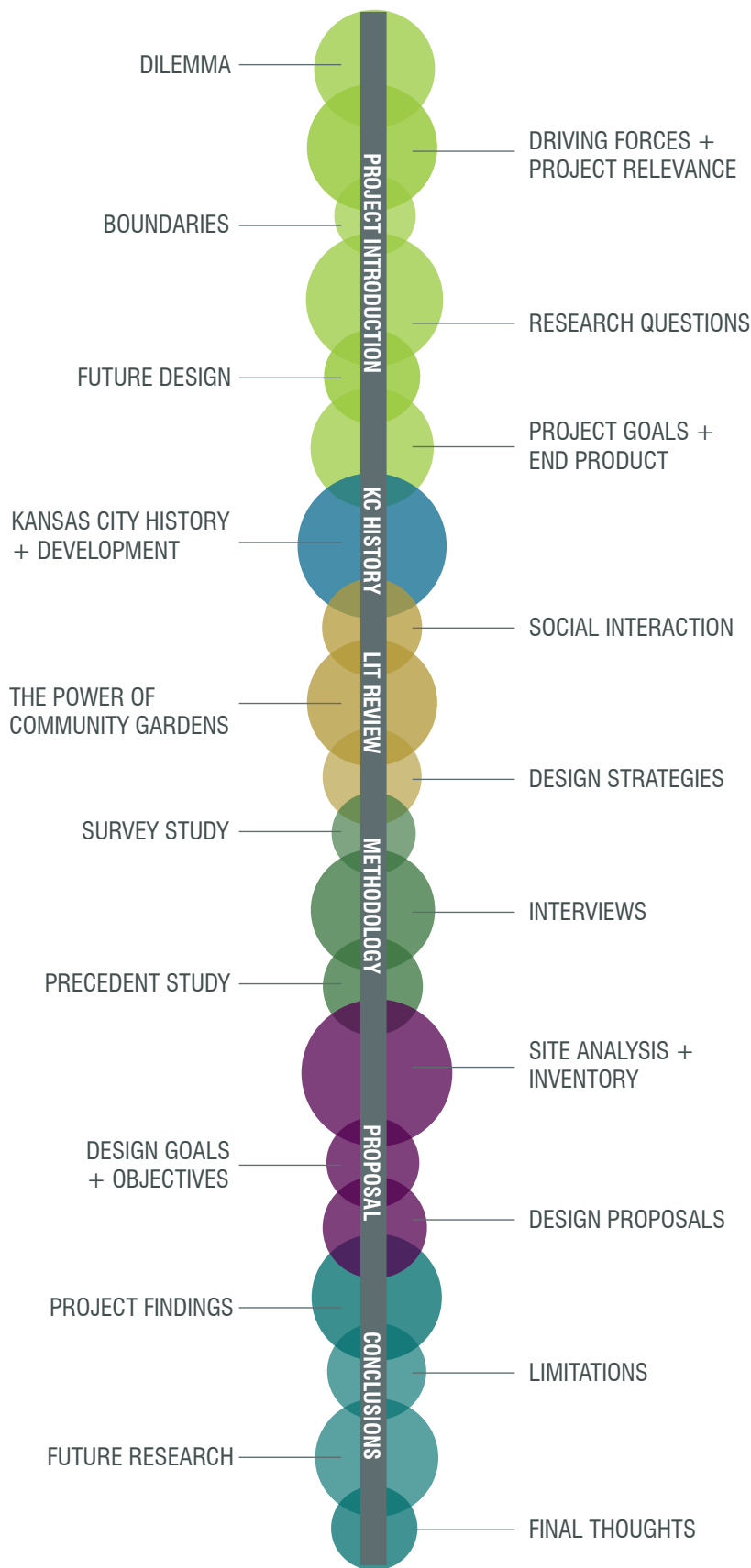
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## PERSONAL INTEREST

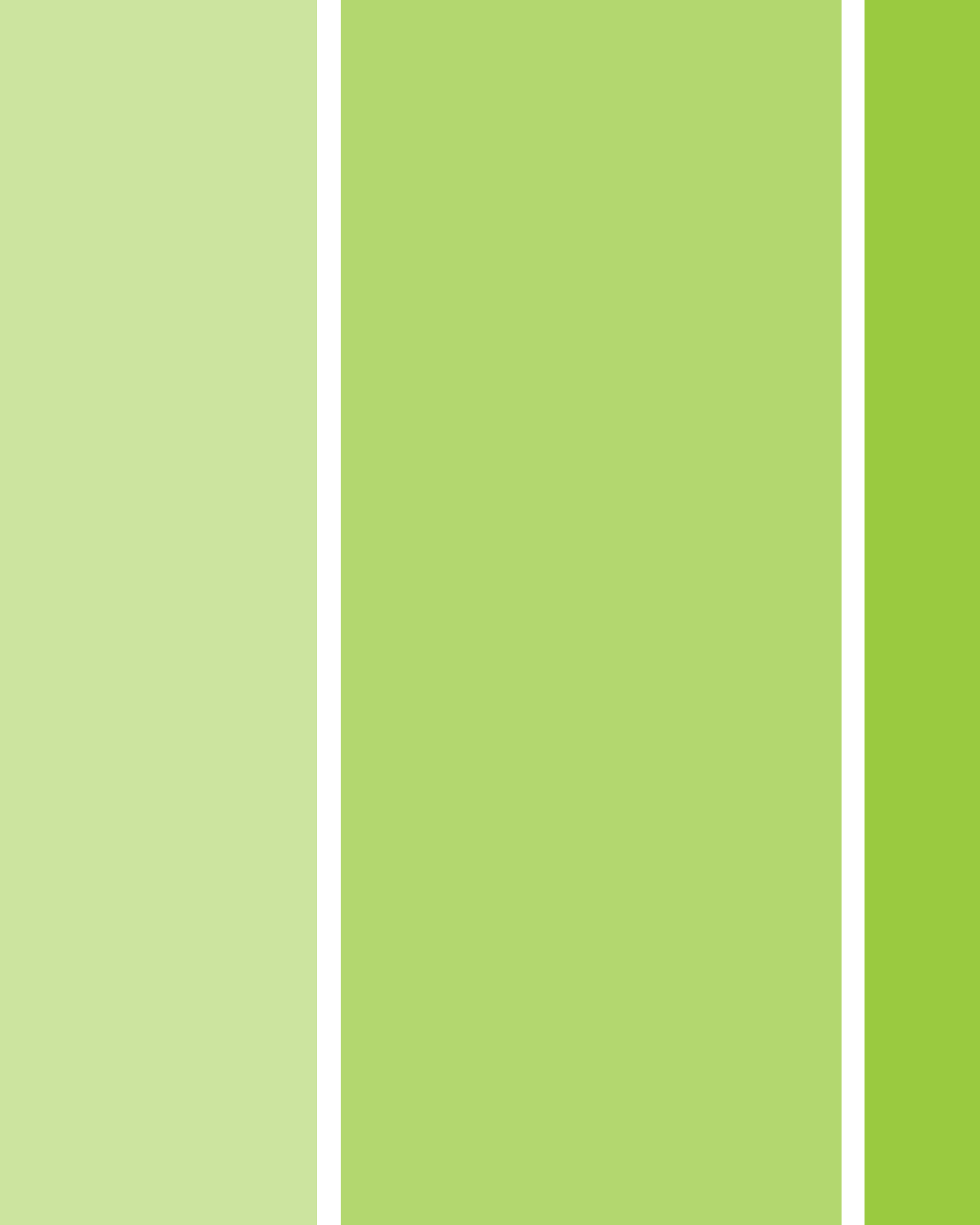
My motivations for this project stem directly from my upbringing as a child and young adult. I was raised in a small Missouri farm town where there has always been a lack of diversity. Ste. Genevieve is home to one race- white. The town is currently 95% white and 2% black (City Data 2015).

With such little diversity, Ste. Genevieve did not suffer from segregation related issues. The town as a whole has a very strong, stable sense of community where everyone looks out for each other's well-being. I was never confronted with problems pertaining to race. Being sheltered and unexposed to racial issues for so many years, I was under the assumption that segregation was an issue of the past.

As my college career progressed and I began researching and learning more about cities and communities around the world, I realized how wrong I really was. Segregation is still a major

issue today. As a landscape architect, I want to know and understand what I can do to mitigate community issues and struggles. This project has given me a deeper understanding of the social aspects of design.





# PROJECT INTRODUCTION

The driving goal of this project is to create a unique resource for the Citadel Neighborhood in Kansas City, Missouri in order to encourage social interaction and foster a stronger sense of community. This can be achieved through a re-design of an existing community garden. The final product generated from this project is an analysis of the existing conditions of the Troost Avenue Corridor, strategies for solving community issues, and design concepts for the St. James Place Community Garden, located in the Citadel Neighborhood.



## DILEMMA

Many cities around the United States struggle with racially segregated neighborhoods (USA on Race 2013). Residential segregation is defined as “separation of racial groups in urban space” (Boustan 2011). The existence of isolated neighborhoods continues to reinforce racial distrust and promotes stereotypes. Various studies prove that residential segregation is very difficult to change and greatly affects the social and economic outcomes of a community (Pettigrew et al. 2011).

The neighborhoods surrounding Troost Avenue are divided racially and economically. Figure 1.1 graphically illustrates the racial breakdown along Troost Avenue. There are many community gardens located within these segregated neighborhoods (KCCG 2013). Community gardens have the potential to increase social interaction, but it is not apparent that the existing garden designs foster such interaction among the surrounding communities.

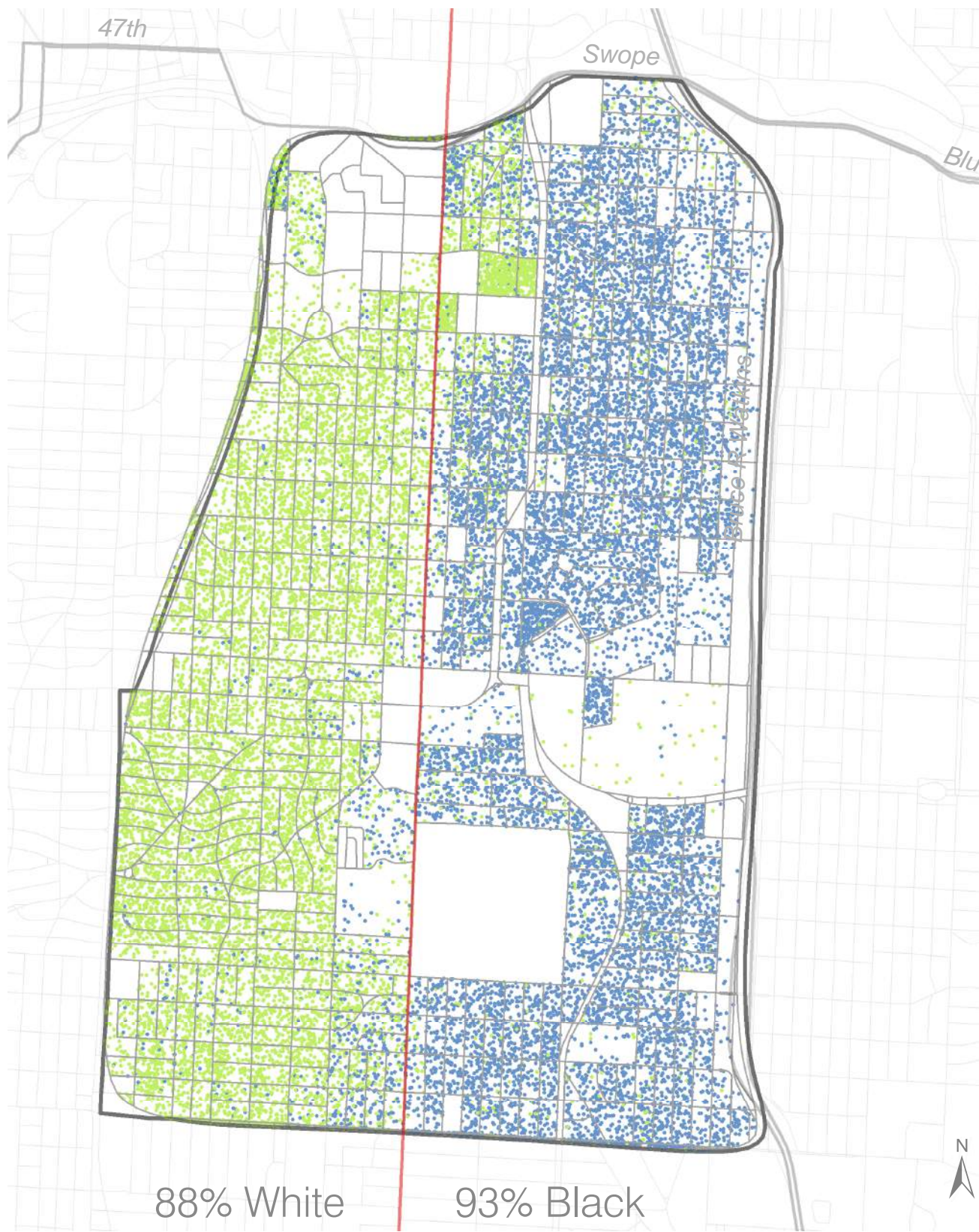


FIGURE 1.1 Racial Breakdown

## DRIVING FORCES + PROJECT RELEVANCE

Many groups throughout the years have strived to break down the racial barriers through various forms of action. Initiatives have been approved and acted upon in hopes of a more integrated city core for Kansas City. Documentaries on the city's condition have been produced with the expectation and belief that the current conditions along Troost Avenue would be transformed. Still, Kansas City struggles from the lasting issue of segregation.

Segregation is often the cause of many social issues present in cities throughout the United States today and has recently received much attention from the media. Racial struggles continue to surface and are an unfortunate part of everyday life. Issues relating to segregation and race may bring about tension, which, in turn, can cause people to turn a blind eye and become numb towards the issue. People who are living in broken communities relating to segregational issues may feel like they have

no voice or are not listened to when they do speak out. Because of this, as seen in recent media coverage in St. Louis, Missouri for example, people are acting out in negative, destructive ways in order to be heard and recognized. Landscape architects have the opportunity and skill set to give structure to many of the unspoken social issues present within communities. Social change can stem from design innovation (Hester 1989), and that is something this project hopes to accomplish.



FIGURE 1.2 Toast Wall Art

## PROJECT BOUNDARIES

This project starts broad by examining a large study boundary, the Troost Corridor. The study boundary is located in Jackson County, Missouri. Within the Troost Corridor, the project boundaries become even more defined by looking at one specific neighborhood, the Citadel Neighborhood. Within the Citadel Neighborhood, the St. James Place apartment complex serves as the project site where the existing community garden will be re-designed. Limiting the area of study for this project is necessary in order to keep the research focused and grounded.

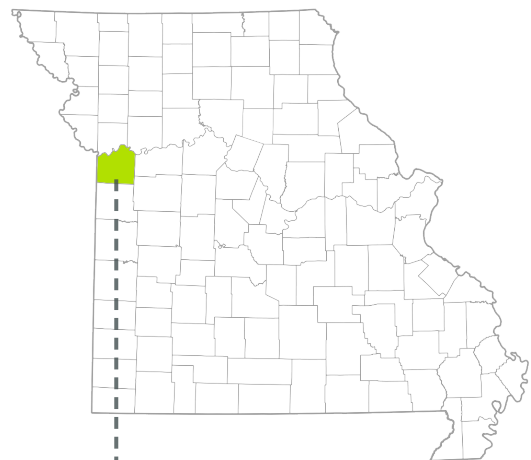


FIGURE 1.3 Jackson County, KCMO

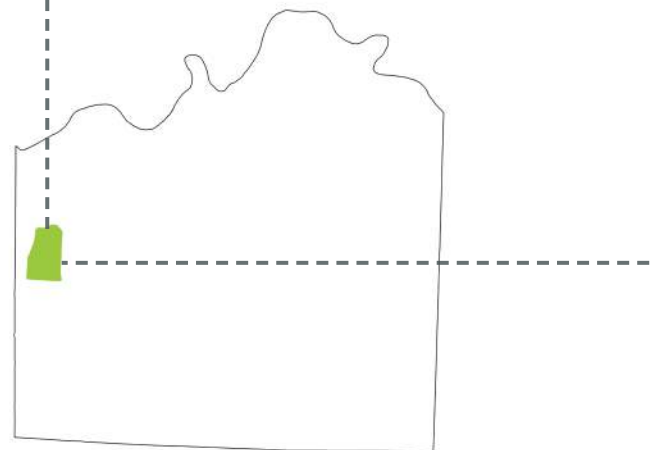


FIGURE 1.4 Troost Corridor Study Boundary





FIGURE 1.5 Citadel Neighborhood



FIGURE 1.6 St. James Place Apartment Complex



## *TROOST CORRIDOR BOUNDARY*

The physical study boundary limits of the larger study area directly correlate to an established master plan for the region, the Troost Corridor Action Plan, which was created by the Southtown Council of Kansas City in 2003. This is the primary mission of the Southtown Council in Kansas City:

“The Southtown Council strives to facilitate linkages/partnerships among the stakeholders in Southtown to create an environment for economic development and community growth; strengthen existing businesses and welcome new ones; promote Southtown resources and achievements; initiate corrective actions where needed; and maintain Southtown as a great place to live, work, and do business” (Troost Corridor Action Plan 2003).

The Troost Corridor boundary extends from 47th Street south to 75th Street, and from Highway 71, also referred to as Bruce R. Watkins, to Brookside Boulevard (Troost Corridor Action

Plan 2003). Working within a designated boundary that has already been established and studied helps keep the project grounded in reality. The goal for the Troost Corridor Action Plan is to provide the Troost neighborhoods with a wide range of design principles to apply towards future development decisions in hopes of creating an overall better environment.

The ideas that are generated from this project are intended to fit in sync with the goals identified in the existing action plan. For example, the action plan calls for “continued City sponsored ‘grass-roots’ efforts (Troost Corridor Action Plan pg. 3 2003). Furthering the development of community gardens satisfies this goal.

“It is a mess. We can’t have a part of our city... a BIG part of our city where the population density is half of what it is west of Troost Avenue. That is not sustainable.”

-- Carol Grimaldi  
Qualifications Manager & Public Engagement, KC  
(Bryce 2013)

## ST. JAMES PLACE

St. James Place is an independent living apartment complex that is located in the Citadel Neighborhood in Kansas City. The complex consists of fifty-six rentable units that may only be occupied by residents over the age of sixty-two with an annual income lower than 50% of the median regional income (Credio 2015). The community garden that currently exists at the complex has six planter beds, an area designated to in-ground planting, a walking path, and an open pavilion space.

The St. James Place Community Garden was chosen for the project site for multiple reasons. As previously stated, community gardens have the potential to increase social interaction among users. However, some of the gardens located within the study boundary are not currently designed to foster such interaction, specifically the garden at St. James Place. Two main obstacles that hinder social interaction within a community garden include the site's capability to serve as a true communal space

for the neighborhood and the site's capability to provide more than one function. Based on responses from a survey that was conducted for this project and multiple site visits, the St. James Place Community Garden is an excellent site to re-design, due to the fact that the garden encompasses both of the identified obstacles.

One of the overarching problems with the existing community garden design at the apartment complex is that the garden is aimed toward one function. Based on site visits and information gathered from research, the St. James Place Community Garden only serves one function—food production. The current design and layout of the site provides limited functions and amenities for community members. Implementing a garden that serves only one main function decreased the amount of social interaction that could potentially take place.

The second issue regarding the St. James Place Community Garden design is that it does not serve as a true communal space for the

neighborhood. Another concerning issue with the existing community garden design at St. James Place is that the garden space is not open to the general public at all. Due to the fact that the public does not have access, the opportunity for social interaction among community members is limited.

Bridging and bonding social capital through community gardens is important to consider for this project. Bridging is defined as “outward looking and encompasses people across diverse social cleavages” (Putnam 2000 pg. 22). Bonding is described as “inward looking and tends to reinforce exclusive identities and homogenous groups” (Putnam 2000 pg. 22). This project aims to bridge social capital within the Troost Avenue community. Currently, since the St. James Place Community Garden is not open for public use, bonding is only taking place between the apartment residents.

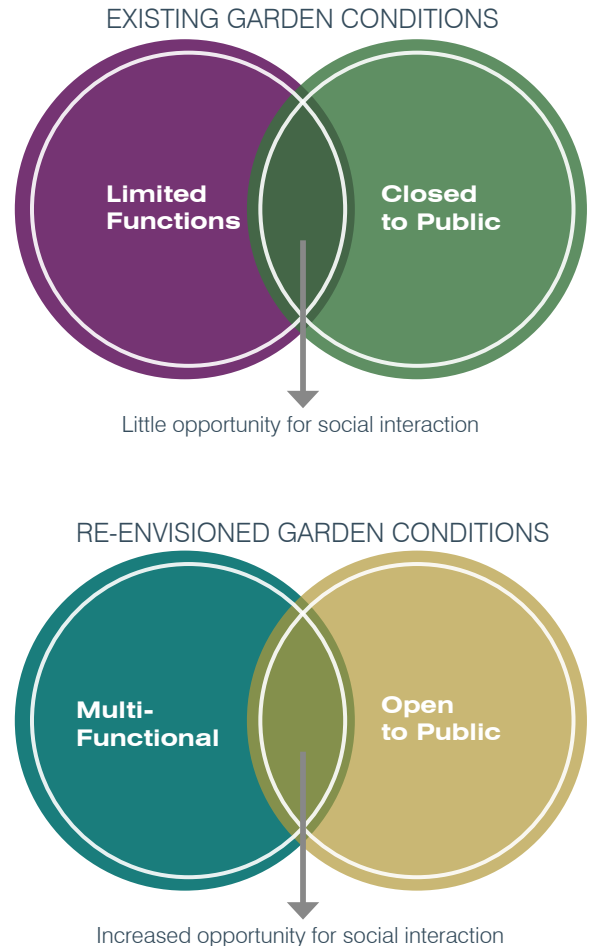


FIGURE 1.7 Existing vs Proposed Conditions



## RESEARCH QUESTIONS

What community values do garden representatives derive from the existing gardens in Kansas City, Missouri?

How can the community garden at the St. James Place apartments be re-designed to meet the needs of senior residents and also encourage social interaction within the surrounding community?

## FUTURE DESIGN PLANS

My intent for this project is to create a resource to help establish and promote social interaction within the Troost Avenue neighborhoods by creating a purpose-driven community garden for the St. James Place apartment complex. The site's unique location, positioned near other apartment complexes and subdivisions in the Citadel Neighborhood, has the potential to attract many types of users to the garden site. The design proposals for the St. James Place Community Garden focus on increasing site activity, establishing accessibility, and promoting originality.

## PROJECT GOALS + END PRODUCT

As previously stated, the driving goal of this project is to create a unique resource for the Citadel Neighborhood in Kansas City, Missouri in order to encourage social interaction and foster a stronger sense of community. This can be achieved through the re-design of an existing community garden. The final product generated from this project is an analysis of the existing conditions of the Troost Avenue Corridor, strategies for solving community issues, and design concepts for the St. James Place Community Garden located in the Citadel Neighborhood.

Additional goals include:

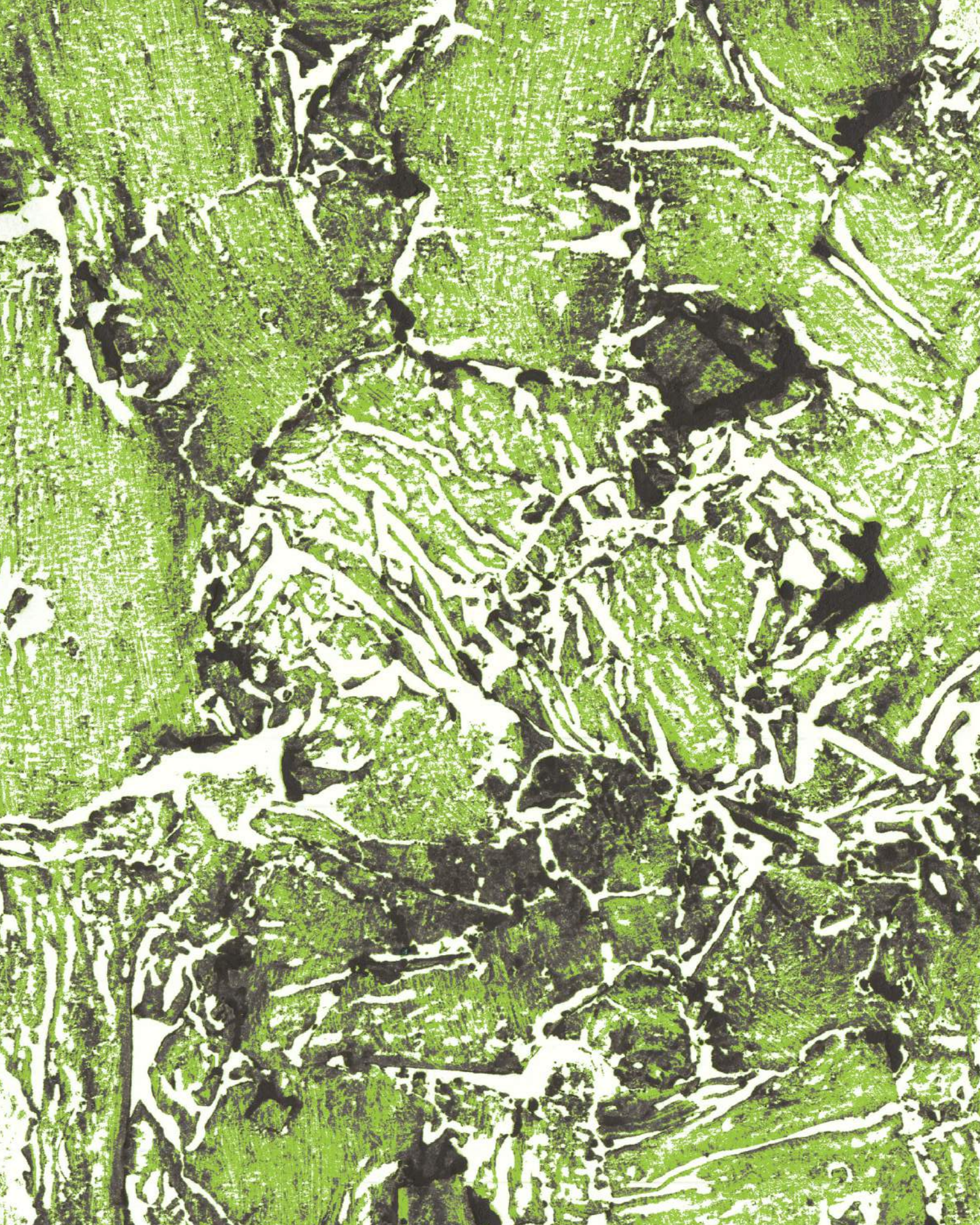
- Identifying a dilemma within the Troost Avenue neighborhood that reflects my personal interest within the profession of Landscape Architecture
- Creating a resource for stakeholders and community members that brings forth a new design idea and addresses the identified dilemma
- Synthesizing critical information from existing plans and literature in order to help inform the final project solution
- Establishing methods with realistic expectations



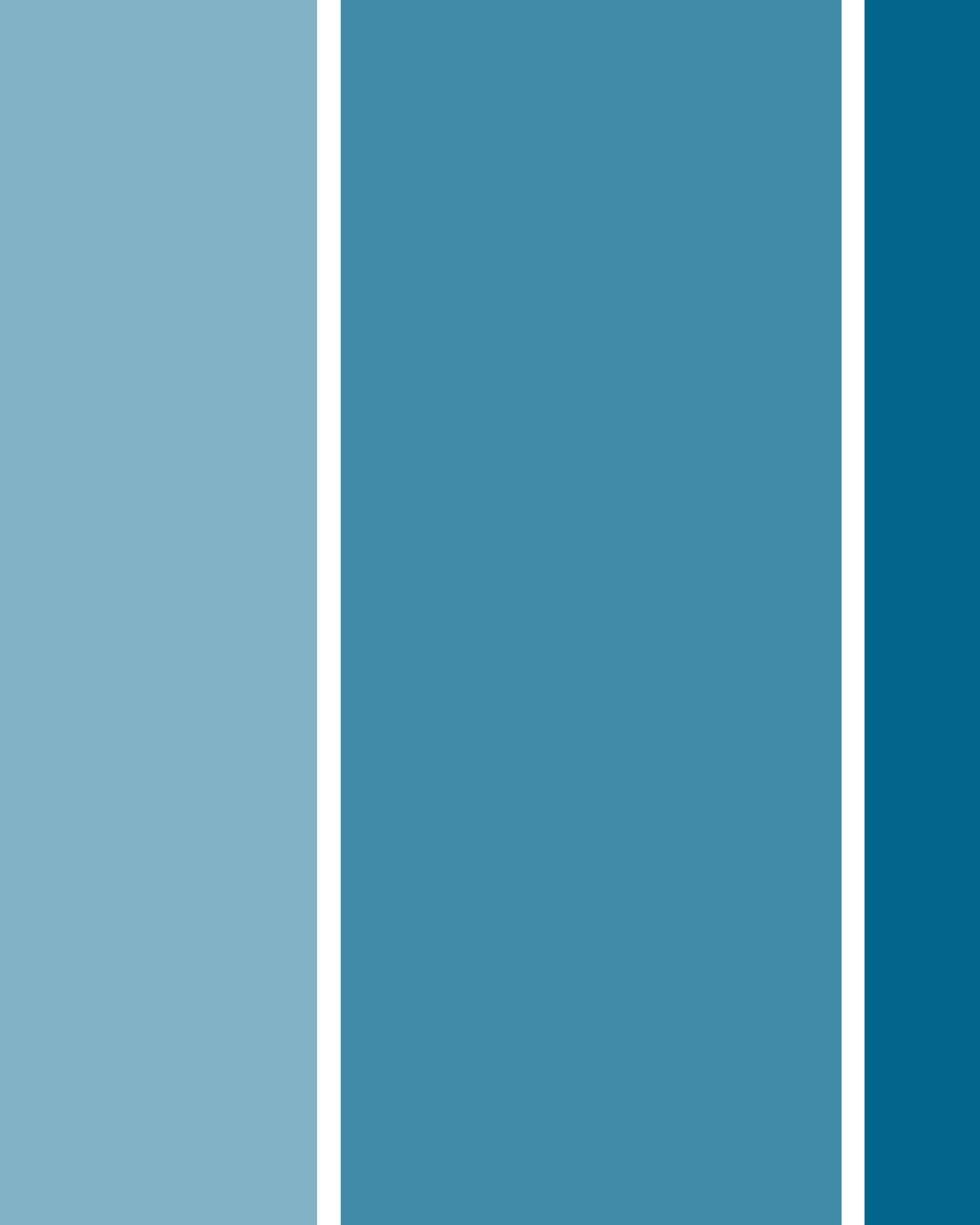
## CHAPTER CONCLUSION

Through studying the correlation between community gardens and social interaction, and developing design alternatives for the St. James Place Community Garden, this report can open a conversation with community members and stakeholders near Troost Avenue. The community can begin looking at community gardens not only as a means of food production, but also as communal spaces to foster social interaction.









# KANSAS CITY HISTORY

When considering Troost Avenue in Kansas City, Missouri, it is important to study past influences that have caused this street specifically to struggle with segregation. Race, Real Estate, and Uneven Development: The Kansas City Experience, 1900-2000, (Gotham 2002), along with Kansas City and How it Grew, 1822- 2000 (Shortridge 2012) both provide an extensive look into the historical events, underlying issues, and policies that have shaped Troost Avenue into a lasting racial dividing line.



## KANSAS CITY HISTORY + DEVELOPMENT

Kevin Gotham thoroughly examines and explains the multiple forces throughout history that have shaped the residential segregation in Kansas City. It is important to note that Troost Avenue has not always been a racial dividing line. In fact, historical data shows that segregation has not always been an issue for Kansas City. In 1900, whites and blacks resided together on the same city blocks (Gotham 2002). However, by 1950, most blacks in the Kansas City region lived in predominantly black neighborhoods in the city while whites resided in the caucasian-dense suburbs.

Even after the 1954 ruling of *Brown v. Board of Education*, segregation remained a problem. It was during this time period that Troost Avenue truly became a dividing line for the region; the school district boundary was drawn right down the street. White children went to school on the west side of Troost and black children attended school on the east (Gotham 2002).

Gotham argues that the primary force that has had the greatest influence on segregation in Kansas City is the real estate industry. He acknowledges that much of the research about residential segregation focuses on the idea that demographic change and residential patterns of an area are normal occurrences in relation to consumer demand and market dynamic. Gotham challenges this contention, stating that the real estate industry shaped the residential segregation patterns in Kansas City (Gotham 2002).

Between the 1940s and 1970s, Gotham argues that many federal programs and real estate tactics, such as blockbusting, red-lining, and slum clearance, only benefited the developers and continued to maintain residential segregation. *Race, Real Estate, and Uneven Development* discusses how the real estate industry convinced whites that blacks ruined neighborhoods and their presence lowered property values (Gotham 2002). Developers



FIGURE 2.1 White Flight Sign (Courtesy of Wikimedia Commons)

created false stereotypes that convinced whites to affiliate African American neighborhoods with high crime rates, poor school quality, and low property values (Gotham 2002).

One of the most influential people associated with the planning of Kansas City is JC Nichols (Gotham 2002). He played an important role in the overall development of the city and is known for being the founder and developer for one of the nation's first shopping districts, The Country Club Plaza. Nichols started in Kansas City and worked his way up to the real estate board of the nation (We Are Superman 2013). He was part of the Federal Housing Association (FHA), the Urban Land Institute (ULI), and the National Association of Home Builders (NAHB).

Regardless of his contributions to Kansas City, the impact JC Nichols had on residential segregation within the city was quite grave. He was one of the first developers that intentionally implemented segregational codes into his designs by coming up with the idea of racial restrictive neighborhood associations (Gotham

2002). Nichols, aided by public policies established by local leaders, created entire communities that were segregated.

“none of the lots hereby restricted may be conveyed to, used, owned nor occupied by Negroes as owners” (Gotham 2002 pg. 42)

Gotham challenges readers to think deeply about the effect real estate had on residential segregation in Kansas City. He offers insight on why it is important to consider how the real estate industry shaped a majority of the city's neighborhoods.

James Shortridge also shares in depth information and views about segregation in Kansas City. In contrast to Gotham's writing, Shortridge not only focuses on the segregational issues in Kansas City, but also provides a comprehensive timeline of various historical events that have shaped the city's development. However, for the purposes of this project, it is most important to focus on the history leading up to the current racial crisis.

“The struggle that’s happened within our culture and within our American history is well-known, but there are certain cities that kind of highlight these more than others; Kansas City being one of them. We suffer from hyper segregation.”

-- Father Paisius

Reconciliation Services, KC

(Bryce 2013)



While Gotham and Shortridge share many of the same views and cover similar topics, it is vital to analyze where they differ. The primary cause of residential segregation is a prime example. Gotham firmly believes that the real estate industry played the most important role in shaping the residential segregation patterns in Kansas City while Shortridge argues that it was the Kansas City Missouri School Board (Gotham 2002, Shortridge 2012). Shortridge focuses on how Troost Avenue became the racial wall during the 1950s when the school board decided that the street would serve as the dividing line between black and white schools (Shortridge 2012).

Shortridge also states that the problems on the east side of Troost Avenue are economic, not racial. He continues to say that the east side of the street struggles not because of the high population of blacks present, but because of lack of a solid economic base. Many businesses that used to operate near Troost Avenue disinvested in the area because there was no demand and the businesses could not profit by staying open (Shortridge 2012). The east side of

Troost suffered greatly from this disinvestment and this process has continued to contribute to the poor economic standing of the area today. Gotham challenges the belief that residential patterns of an area are normal occurrences in relation to consumer demand and market dynamics. He first explains the negative impact the real estate industry had on the way people viewed the black population.

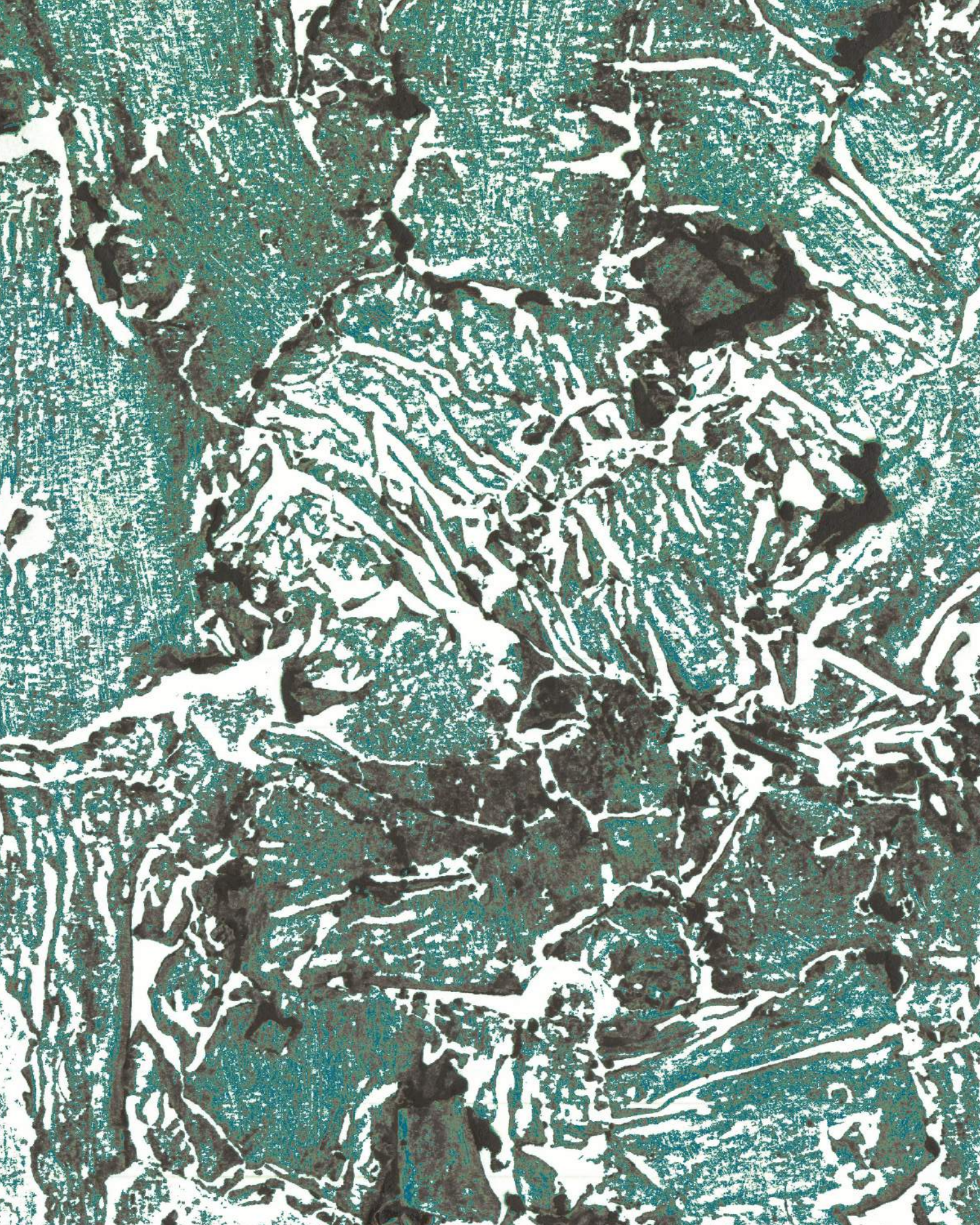
Real estate agents were successful in convincing whites that blacks ruined neighborhoods and their presence lowered property values (Gotham 2002). The real estate industry created false stereotypes that encouraged whites to associate African American neighborhoods with negative qualities. Ultimately, the problems along Troost Avenue have always stemmed from underlying racial issues, not economic problems. If the real estate industry would not have planted false stereotypes into people's minds, then businesses, potentially, would not have disinvested in the area. These false assumptions are what have contributed to many of the economic struggles for the east side of Troost Avenue.



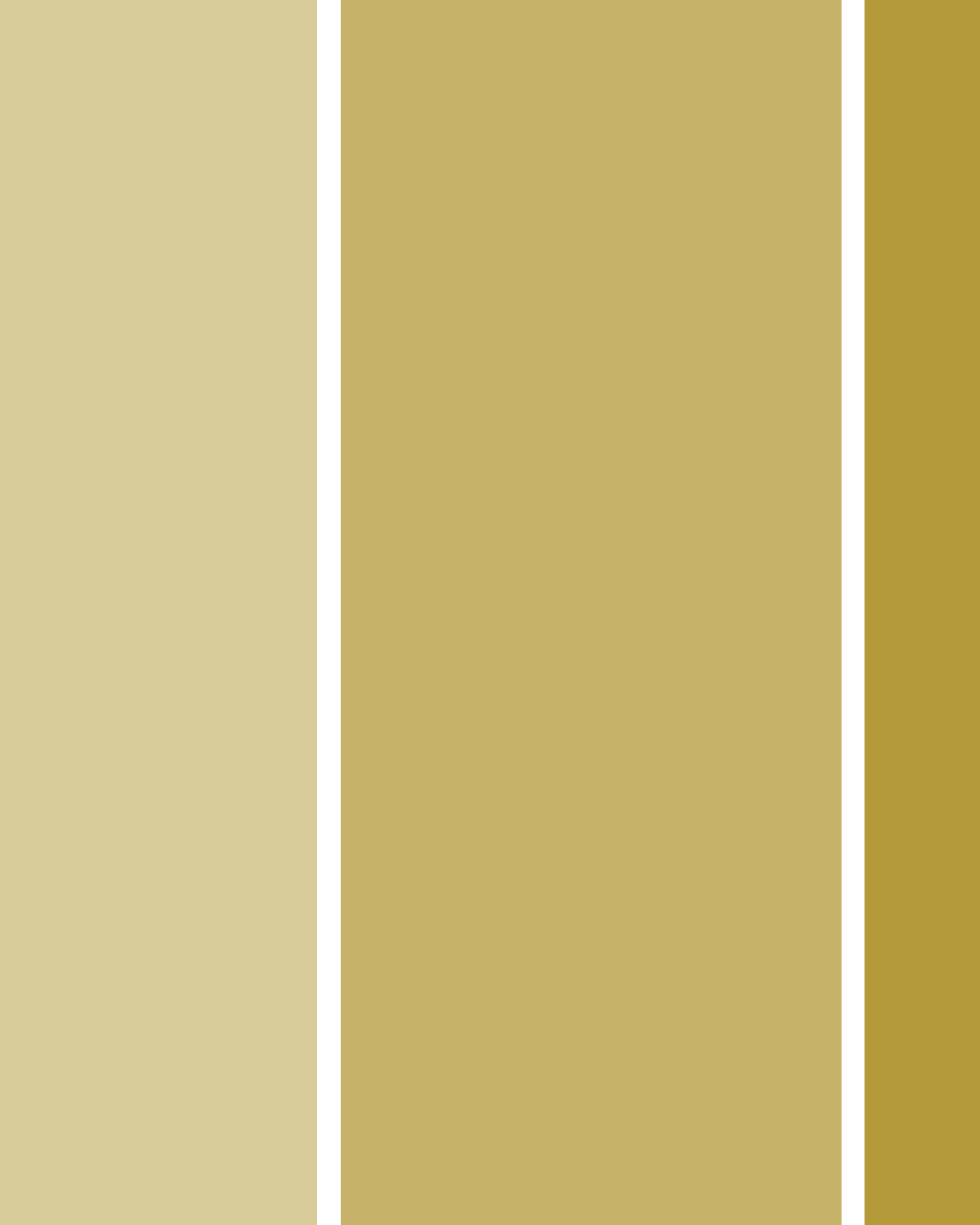
## CHAPTER CONCLUSION

The blight and segregation that plague Troost Avenue are based in complex social and economic problems that date back decades. Though a painful realization, as Rodney Knott said, “Sometimes, in order for us to move forward, we have to look in the mirror, and look at some ugly truths” (Bryce 2013).









# LITERATURE REVIEW

One important goal for this project is to study and understand how community gardens can serve as a tool for encouraging social interaction between racial groups and community members. In order to understand how gardens can effectively foster such interaction, a base knowledge concerning the overall subject must first be attained. The following literature review strives to inform the key aspects of this research and project. Synthesizing the information gathered from the review was a critical component in determining realistic projects goals and objectives.



## LITERATURE MAP

The literature map, Figure 3.1, serves as a visual representation of the topics that were researched and significant to this project along with the connections made between various sources. The literature review is divided into three main categories including social interaction, community gardens, and design strategies. The synthesis of these topics helped determine goals for the St. James Place Community Garden.



FIGURE 3.1 Literature Map



## SOCIAL INTERACTION

Identifying and studying theories that relate directly to the identified research questions helps keep the overall project focused. Understanding important theories and challenges related to social interaction, through a general and broad approach, plays a critical role in the final design proposals for the St. James Place Community Garden. This section focuses on recognizing and exploring both the theories and challenges often associated with social interaction.

### *THEORIES OF SOCIAL INTERACTION*

The cosmopolitan canopy is one of the theories related to social interaction that holds major significance to this project. A cosmopolitan canopy is defined as “settings that offer respite from lingering tensions of urban life and offer opportunity for diverse people to come together” (Anderson 2011 pg. xvi). Today, the American city is more “racially, economically, and socially diverse” than ever before (Anderson 2011 pg. 1). The concept behind this theory revolves around

the idea that under this ‘canopy’ within the city, racial borders are eliminated, giving people from different backgrounds the opportunity to interact with one another in meaningful ways (Anderson 2011). Re-designing the St. James Place Community Garden presents the Citadel Neighborhood community with the opportunity to form a cosmopolitan canopy near Troost Avenue.

Cosmopolitanism is defined as the “acceptance of space belonging to all kinds of people” (Anderson 2011 pg. 3). Cosmopolitanism within the Troost Corridor study boundary is something this project strives to achieve. Through the implementation of community gardens that are designed to encourage social interaction, a cosmopolitan canopy has the chance to evolve, allowing complete strangers to interact in a safe environment, despite the racial boundaries that are present in Kansas City today.

A second theory that provides insight on social interaction is the contact theory. As noted by

Kimberly Shinen, the contact theory is “one of the most prominent theories in the prejudice literature” (Shinen 2004 pg. 341). This theory focuses on the relationships between the black and white populations and how common misconceptions between races cause negative stereotypes within society (Shinen 2004). These stereotypes that are present within society hinder the potential development of interracial friendships and interactions. The contact theory is built around the concept that if people of different racial groups have the opportunity to engage with one another more, the amount of prejudice between the groups will decrease (Shinen 2004).

Supporters of the contact theory believe that if interracial friendships are established early on in a person's life, it is far less likely for those with a diverse friend group to become prejudice (Pettigrew et al. 2011). Having direct contact with varying groups gives people the chance to form their own opinions. Friendships are more likely to evolve if people have contact with one another. By creating their own opinions, people would not be

as easily persuaded by the many stereotypes that currently exist (Shinen 2004).

Based off empirical research previously conducted on the contact theory, it was determined that there are specific conditions in which contact should occur. These conditions include:

- Contact must not take place in a competitive environment
- Contact must be continual, not just occasional
- Contact must be personal and one-on-one
- Contact must be welcomed
- Contact must take place in a neutral setting

Many of the conditions listed above relating to the contact theory can be applied through and within a community garden. These conditions bring more validity as to how community gardens can encourage social interaction because they have the potential to serve as a leisure setting that promotes positive interracial interaction (Shinen 2004).

## CHALLENGES OF SOCIAL INTERACTION

One main challenge related to social interaction is continually brought up and addressed throughout the literature. Within our culture, both the black and white populations are well aware of the stereotypes that are associated with each respected race. When people begin to accept and deem these misconceptions as truth, often times, both consciously and unconsciously, the potential and likelihood for interracial interaction to take place significantly decreases (Jordan et al. 2012).

Studies show that even if people do not openly admit or show prejudice towards the opposite race, they are frequently concerned with how they “are being seen by others through the lens of negative stereotypes” (Jordan et al. pg. 133 2012). For example, the black population may be distressed about being viewed as unskilled, brash individuals while the white population is worried about being viewed as typical indecent members in society.

This problem revolves entirely around perception. People are constantly worrying about how others perceive them and whether their perception is accurate with how they perceive themselves (Jordan et al. 2012). Due to this notion, interracial interactions have the tendency to make people feel very anxious. Researchers have proven that the more people expected to be viewed in a stereotypical manner, the higher their anxiety was during the actual interaction (Jordan et al. 2012). Because of the high increase in anxiety that many people feel in these situations, interracial interaction is avoided more and more throughout the years.

This type of problem only hinders the chance for society to break away from segregation and stereotypes. The existence of racial segregation continues to maintain distrust. Increasing the opportunity for people to continually interact with diverse groups can help people form their own opinions and not be easily persuaded to accept the everlasting racial stereotypes in society.

Since encouraging social interaction is a main component to this project, having a clear understanding of related theories provides valid justification as to why this project is important to research. The ideas highlighted in both the contact theory and the cosmopolitan canopy theory can be applied to this research and project. Identifying the challenges that are often associated with social interaction between racial groups gives insight to why it is difficult for different racial groups to interact. This information and knowledge holds relevance to racial conditions that currently exist along Troost Avenue in Kansas City.

## *BRIDGING VS BONDING SOCIAL CAPITAL*

Different professions define and explain social capital in a variation of ways. For the purpose of this research, social capital refers to the “collective value of all social networks and the inclinations that arise from these networks to do things for each other” (Putnam 2000 pg. 19). Even though the term itself has been defined in many different ways, the overall concept of social capital remains the same; having social ties creates opportunity for people and lives are made more productive through these ties (Putnam 2000). For example, by meeting and interacting with a wide range of individuals, more social ties are made, thus improving a person’s chance of receiving a job. Social capital creates value for those people who are connected.

The concept of social capital is important to consider for this project and research because social capital is very valuable and affects every aspect of personal and community life (Putnam 2000). Currently, there is a lack of social capital between blacks and whites in Kansas City along

Troost Avenue and it shows. Through the re-design of the St. James Place Community Garden, this project strives to strengthen the Citadel Neighborhood social capital by providing opportunities to bond and bridge social networks.

As defined by Putnam in his book *Bowling Alone*, bonding is described as a form of social capital that is “inward looking and tends to reinforce exclusive identities and homogenous groups” (Putnam 2000 pg. 22). In short, bonding refers to ties that are already strong. Some examples of bonding social capital include church-based groups, specific ethnic organizations, and country clubs. Bonding networks are usually connections made between family, friends, and neighbors (Putnam 2000). Bonding networks within a community are considered strong when people with common backgrounds trust and engage with one another on a frequent basis. It is beneficial for people within a community to

have strong bonding connections to one another because it helps provide a sense of belonging and continual support (Putnam 2000).

In contrast to bonding, bridging is a form of social capital that is “outward looking and encompasses people across diverse social cleavages” (Putnam 2000 pg. 22). In short, bridging social capital refers to connecting ties that are not strong, but provide people from different backgrounds the chance to come together. Bridging networks are usually connections made between people coming from different backgrounds. Improving community social capital through bridging presents the opportunity to increase trust among diverse individuals by engaging people from different generations, cultures, neighborhoods, and religions in community events and functions.

It is important to consider both bonding and bridging social capital in the community garden design proposals for the St. James Place

Community Garden. Continuing to bond the ties that exist between the residents must be addressed. As previously stated, bonding ties are beneficial for a community because these connections provide a sense of belonging and continual support. However, connecting ties between the residents and the surrounding community is also critical to the success of this project. An even balance must be provided between bonding and bridging elements in order to help improve social interaction within the Citadel Neighborhood.

“He who plants a garden  
plants happiness. If you want  
to be happy for a lifetime,  
plant a garden.”

-- Chinese Proverbs

## THE POWER OF COMMUNITY GARDENS

A community garden is defined by the American Community Garden Association as “any piece of land gardened by a group of people” (ACGA 2014). Community garden installations vary widely around the world and have been utilized as a source for food throughout history. Today, many people are involved with community gardens for multiple reasons. The benefits that community gardens offer cities and communities are numerous. This section walks through the development of community gardens and highlights the significant benefits of gardening. This section also addresses design considerations for the elderly and touches on the advantages of public versus private gardens.



## COMMUNITY GARDEN HISTORY

The first community gardens to make an appearance in the United States were during the 1890s in Detroit, Michigan. Those who were involved with the city beautification movement were the primary people who were responsible for encouraging community gardening. Community gardens began as a way to provide land and food to the unemployed workers (Lawson 2005).

Community gardens were highly promoted during the years of World War I in order to increase food supply. In 1918, the federal government began incorporating agricultural education into school's curriculum to help grow food for those serving in the army (Lawson 2005). When the Great Depression hit in 1929, more and more people began utilizing community gardens for their own personal benefit. During this time period, people were granted individual garden plots and collaborative gardens were established to provide employment opportunities (Lawson 2005).

The importance that is put on community gardens has fluctuated throughout history, depending on the current economic standing of the country (Draper and Freedman 2010). After the Second World War, not many community gardens remained in the United States. However, it was those gardens remaining that sparked another time period of garden interest in the 1970s (Draper and Freedman 2010). Urban abandonment, rising inflations, and concerns about environmental issues are reasons why community gardening re-emerged during this period. Organizations began helping more people acquire land for growing food.

Since the recession hit in 2009, community gardens have continued to grow and develop throughout the United States (Draper and Freedman 2010). Today, community gardens continue to allow people to have access to fresh produce.

## *BENEFITS OF COMMUNITY GARDENS*

Although most of the community gardens in the 1900s were generally created as a temporary solution to food shortages and economic struggles, today, community gardens benefit individuals, families, and communities in multiple ways. Community gardens have become permanent amenities in many cities throughout the world. Not only do community gardens still support people economically, they also provide numerous social, health, and environmental benefits.

### Economic Benefits

Community gardens are an economic benefit to cities, local governments, and individuals. Many community garden projects are successful with creating new jobs and training opportunities for cities and communities (Gardening Matters 2012). It is very common for community garden projects to be introduced in areas where unemployment is high, due to the need for fresh produce for people living in low income areas. Through the implementation of a community

garden, new employment opportunities are created for a variety of people (Gardening Matters 2012).

Aside from creating new job and training opportunities for communities, growing produce in a community garden is a great way for people to save money. With the price of fresh produce constantly on the rise and food security becoming a concern, the main motivation for most people to get involved with a community garden is to save money and reduce their grocery bill (Flachs 2010). In 2010, 14.5 percent of households in the United States suffered from food insecurity. Of those households, 40% were below the federal poverty level (Community Gardens: Food Security 2015). A study done by the National Gardening Association found that the average US family with a vegetable garden plot saves an estimated \$600 each year by growing their own food (Templin 2009).

Another way that community gardens benefit cities and communities economically is through

increased property values. Multiple studies have proven that property values have increased after the implementation of a community garden in the vicinity (Seeds for Change n.d.). One study showed that community gardens raised property values in a low income neighborhood in New York by 9.5 percent within five years of opening. Another study in Milwaukee showed that the average community garden added approximately \$9,000 each year to the city tax revenue (Gardening Matters 2012).

### Social Benefits

Green spaces have always been successful with drawing people outside (The Bodine Street Community Garden 2015). Green spaces, especially in urban environments, provide people with an area to congregate and socially interact with one another. Studies found that people who live near common green spaces “had more social activities and more visitors, knew more about their neighbor, reported their neighbors were more concerned with helping and supporting one another and had stronger

feelings of belonging” (Environmental News Network 2015). Community gardens serve as one type of common green space within urban areas. These gardens have the potential to benefit cities and communities socially in a variety of ways.

One way that community gardens can socially benefit a community is by providing people with a space to meet and congregate. Gardens become areas where people within a community interact with one another on a frequent basis. This constant interaction makes it possible for people involved with gardening to forge new friendships and feel more connected to the people in their community (Cultivating Community Gardens 2013).

Another social benefit that community gardens provide is the opportunity for intergenerational connections between community members (Grow 2011). Gardening is an excellent way for seniors to share their knowledge and expertise with the younger generations. This exchange of knowledge and guidance helps

bridge the generational gap that exists in many communities today (Grow 2011).

A study done by two investigators in Sydney, Australia gives more insight as to how community gardens socially benefit communities. S. Thompson and J. Kent state in their work *Connecting and Strengthening Communities in Place* that community gardens have the potential to play an important role in social interaction in communities today (Thompson and Kent 2013). The study revolved around the “increased opportunities for local residents to socialize and develop meaningful personal relationships in a very culturally diverse neighborhood” (Thompson and Kent 2013).

The authors noted that there were many stories shared from the community members about how the garden helped break down the racial boundaries in the community. This piece of literature helps justify the basis of this project; community gardens can be utilized to help encourage social interaction between racial groups.

### Health Benefits

With the continual rise in obesity rates, health concerns have been popular topics across the United States. Two main health benefits experienced by community garden participants include increased physical activity and stress relief. In relation to physical activity, studies show that spending a half hour gardening provides the same effects as low impact aerobics (Abbott 2010). Thirty minutes of gardening can burn over one hundred calories.

Participating in a community garden provides access to fresh food. This direct access often increases the amount of fruits and vegetables that people intake. A survey in Michigan found that respondents from a gardening household ate more servings of vegetables per day than a non-gardening household (Gardening Matters 2012). Fresh produce helps support nutritional health.

Community gardens are also beneficial for mental health as well as physical health. Being

exposed to nature has shown to reduce feelings of anxiety, fear, anger, and even blood pressure (Gardening Matters 2012). Community gardens are often implemented in medical settings due to their therapeutic and restorative qualities. Simply being able to view nature has a great impact on patients and their recovery time (Gardening Matters 2012).

### Environmental Benefits

The most noteworthy environmental benefit associated with community gardens is related to reducing carbon footprint by cutting down on food miles. Food miles refer to the distance that food has to travel from where it is grown to the consumer (Abbott 2010). Food miles are measured in the amount of fuel that is used to do this. On average, food in the United States travels approximately 1300 miles from producer to consumer, thus producing an abundance of greenhouse gas emissions (Gardening Matters 2012). Growing food locally greatly decreases food miles and reduces the amount of greenhouse gas emissions into the air.

Another environmental benefit of community gardens relating to carbon footprint is the time produce spends in transit. Fruits and vegetables that are delivered to markets spend as many as seven to fourteen days on the road before even being delivered (Abbott 2010). With being in transit for that many days, almost fifty percent of transported produce spoils before even reaching the market. Growing food locally reduces transit time and lowers the amount of wasted food (Gardening Matters 2012).

Besides reducing carbon footprint, other environmental benefits of community gardens exist. Implementing gardens in urban environments helps reduce surface runoff because soil and plant materials are more absorbent than concrete or asphalt (Cultivating Community Gardens 2013). Rainwater is filtered through garden vegetation, which helps keep water sources clean. Community garden vegetation also helps reduce the heat island effect by reflecting up to twenty five percent of sun radiation (Cultivating Community Gardens 2013).

## *PUBLIC VS PRIVATE GARDENS*

As previously stated, there are many community gardens located within the Troost Corridor study boundary. Of the eleven gardens existing within the boundary, seven are closed to the public, St. James Place Community Garden being one of them. For the purpose of this project, a public garden is defined as any garden that is open or accessible to all, while a private garden is characterized as any garden that is for the use of one particular person or group of people.

Whether a garden is open to the public or used by an exclusive group immensely depends on who owns the lot that the garden is located on (Schmelzkopf 1995). Gardens that are ran and belong to city organizations and groups are often required to have open public hours, meaning that all people are welcome to visit the garden during certain hours of the day. Giving the general public access to a garden can sometimes be a source of great dispute among community members (Schmelzkopf 1995). However, there are many great ways a

community can benefit by opening a garden up to the public that generally go unrecognized.

In urban environments, easy access to green space is often lacking. Research shows that people need to be exposed to nature for good health and well-being (The Bodine Street Community Garden 2015). Opening a community garden for public use gives people who do not have a yard of their own a space to escape from the typical city lifestyle whenever they want.

Aside from allowing people to experience a garden's natural beauty, another benefit of a garden being made public is the educational opportunities that are associated with it. One important thing that community members can learn from a public garden is what plants successfully grow in the area. People can also gain a better understanding of ideal growing seasons for specific plants. Paul James from Gardening by the Yard states,

"I truly believe that public gardens are a rich source of ideas and information for home gardeners. By spending a few hours at your nearby public garden, you'll learn more about which plants grow well in your area and how to combine them in your own garden than you'll ever learn from a book or magazine or television show" (Gerber 2010).

Public gardens also open the opportunity for a community to host public workshops, classes, plant sales, clubs and societies, and community events. Such events and activities could potentially increase the amount of activity at the garden. Keeping a garden closed for public use only limits the amount of social interaction that could take place. Opening gardens for public use and enjoyment allows the space to be utilized as a true communal asset.

## ACCESSIBLE GARDEN DESIGN

By 2050, it is predicted that the population of Americans over the age of 65 will double, making the senior population approximately 83.7 million (Ortman 2014). With this increase, people over the age of sixty five will account for about twenty percent of the entire United States population. Even with the high percent of senior population present in the country, there is still a lack of understanding on what the elderly truly want and need in designs. Designers often assume they know the answer and solution, however, this assumption frequently leads to failed designs and projects. Increasing awareness and understanding on how to successfully meet the needs of the senior population is essential in the design profession as trends begin to shift.



## IMPORTANCE OF ACCESSIBLE GARDENING

The Merriam Webster Dictionary defines accessible as being “able to be reached or approached” or “able to be used or obtained” (Merriam Webster Dictionary 2015). Well stated by Larson, Hanchuck, and Vollmar in their work *Accessible Gardening for Therapeutic Horticulture*, “When thoughtfully planned, an accessible garden eliminates physical and attitudinal barriers to gardening, creating an area where people of all ages and abilities can garden” (Larson et al. 2013).

Gardening is a popular activity among seniors because it provides a wide array of benefits for their health needs. The common view in society conditions people to view old age as a decline. Gardens serve as an excellent way to “shift people’s thoughts of viewing the elderly population as powerless, passive, and dependent to active, creative, and productive” (Larson et al. 2006).

Designing gardens for the elderly requires critical knowledge in regards to their physical,

psychological, and social characteristics. Physically, participating in gardening activities provides elders with moderate exercise opportunities (EPA 2011). As people age, their physical fitness decreases causing the amount they exercise to decline. Many health professionals suggest that adults get at least thirty minutes of moderate physical activity on most days of the week (EPA 2011). Gardening activities, such as digging, planting seeds, and raking help improve their overall physical endurance and motor skills.

The psychological benefits of gardening, especially for seniors, are extremely important to consider. Gardening is something that many elderly people are familiar with. It is likely that they grew up gardening with parents or grandparents and have a solid knowledge base on gardening techniques and information. One psychological benefit elders gain from gardening is an increased level of self-esteem and confidence (Rockway 1994). Growing their

own produce and tending to a garden gives seniors something to be proud of. In many instances, the elderly were once caregivers to children or grandchildren. As one ages, it gets harder to take care of yourself, let alone another human being. Planting and caring for plants helps satisfy their need to nurture and provide for (Rockway 1994).

Another psychological benefit that gardening provides for the elderly is bringing back their optimism. It is easy for seniors to become depressed as they age due to the many changes and adjustments that must take place. By gardening, elders can gain a sense of control. They have options for choosing which plants to grow and how they want to tend their plants. Having control on aspects in their lives helps relieve stress and helps elders feel like their lives still hold purpose and meaning (Rockway 1994).

Gardens also benefit elders socially. Participating in community gardening presents the opportunity for seniors to meet people who share in the same interests. Working on gardens together and as a team helps form social bonds that would not have existed otherwise. Identifying and understanding the physical, psychological, and social benefits gardens offer to the elderly population is important for this project in order to justify why the St. James Place Community Garden should be re-designed to meet accessibility standards. If a garden is not easily accessible for seniors, they are not able to reap the multiple benefits associated with gardening activities.

## *DESIGN CONSIDERATION FOR ST. JAMES PLACE GARDEN*

As previously mentioned, St. James Place is an independent living apartment complex. There are about fifty-six residents living in the complex at any given time, all who are over the age of sixty-two. The community garden that currently exists on site has six planter beds, an area for in-ground planting, a walking path, and an open pavilion space. The layout and design of the garden does not meet accessibility standards. Understanding the design interventions that need to take place in order to meet the needs of the seniors living at the complex is important to the overall success and validity of this project.

Many of the disorders that come with age present implications for design. When a design neglects to take such disorders into consideration, it will not meet the needs of the users, resulting in a failed design. Figure 3.2, adapted from Jane Stoneham and Peter Thoday's work, gives explanations of common disorders associated with aging and provides

solutions that can be applied to garden design for elders (Stoneham and Thoday 1994).

Many of the disorders that are identified in the table can be addressed in accessible community garden design. The reduction of sensory perception is very common among aging adults. Incorporating plant materials that are highly texturized, vibrant, and fragrant help those who struggle with sensory loss still enjoy and benefit from a garden (Stoneham and Thoday 1994).

Overall, a decrease in physical mobility presents a vast range of obstacles for the elderly population. Skeletal conditions such as arthritis, various bone diseases, and osteoporosis present many complications in regards to mobility. Simple movements become painful. Due to this decline in physical mobility, the confidence that seniors once had during their younger years begins to diminish

DISORDER	IMPLICATIONS FOR DESIGN	DESIGN SOLUTIONS
Sensory loss, e.g. hearing, sight	Reduced sensory perception	Safe materials, plant selection for texture, scent, color, and safety
Neurological conditions e.g. stroke, Parkinson's disease, motor neuron disease	Reduced mobility, loss of strength and stamina, reduced agility	Unimpeded access, secure, non-slip surfaces, hand rails, raised beds, frequent resting points, choice of route lengths, interest near buildings
Reduction in intellectual, motor functions e.g. Alzheimer's	Altered mobility, tiring sensory perception, danger of wandering	Unimpeded access, interest near buildings, use of courtyards, non-hazardous materials and plants, no sudden changes in surroundings
Respiratory conditions e.g. bronchitis, asthma	Breathlessness, limited mobility, tiring easily, loss of strength and stamina	Unimpeded access, raised planters, choice of route lengths, frequent resting points, features of interest near building
Cardiovascular condition e.g. peripheral vascular disease, angina, breathlessness	Limited mobility, tiring easily, loss of strength and stamina	Unimpeded access, raised planters, choice of route lengths, frequent resting points, features of interest near building
Falls e.g. drop attacks, postural hypertension	Reduced confidence in mobility, problems from sudden changes in posture	Secure, non-slip surfaces, hand rails, non-hazardous materials and plants, raised beds
Skeletal conditions e.g. arthritis, bone disease, osteoporosis	Limited mobility, painful movement, increased risk of bone fracture, loss of strength, reduced grip	Unimpeded access, interest near buildings, use of courtyards, non-hazardous materials and plants, no sudden changes in surroundings
Incontinence	Travel can be restricted	Features of interest near buildings, choice of route length
Hypothermia	Vulnerability to extremes of temperatures	Shade and shelter

FIGURE 3.2 Disorder Consideration

(Stoneham and Thoday 1994). They become more prone to falling and tire at a quicker pace. Design solutions that are recommended for limited mobility include incorporating non-slip, secure walking surfaces for safety, locating frequent resting spots throughout the site, and implementing features of interest close to buildings so seniors do not have to venture out of their comfort zone, but are still able to enjoy the outdoors (Stoneham and Thoday 1994).

Loss of strength and stamina is another disorder that many seniors experience. Respiratory and cardiovascular conditions contribute to the decline of a person's overall strength and stamina (Stoneham and Thoday 1994). Some of the design solutions that are suggested for such disorders include incorporating raised planter beds, allowing easy access to garden elements, providing multiple route lengths and options regarding difficulty of path, and implementing frequent resting areas around a garden site (Stoneham and Thoday 1994).

One of the main aspects to successful accessible garden design is site planning. The garden design needs to take into consideration both the intended site users and the site features. The site needs to “complement, rather than compete with” its users (Larson and Meyer 2006 pg. 13). For the purpose of this project, accessibility criteria have been established for specific programming elements found within community garden design based on findings from the literature. Figure 3.3 graphically illustrates what standards are being applied to specific elements for this project. These elements include raised planter beds, table planters, water hook-ups, and paved surfaces.

First, accessibility of a garden site starts with the paths. The paths make it possible for people to move throughout the site. Accessible paths ensure safe movement and increase the amount of mobility that is present on site (EPA 2011). Providing direct, identifiable routes through

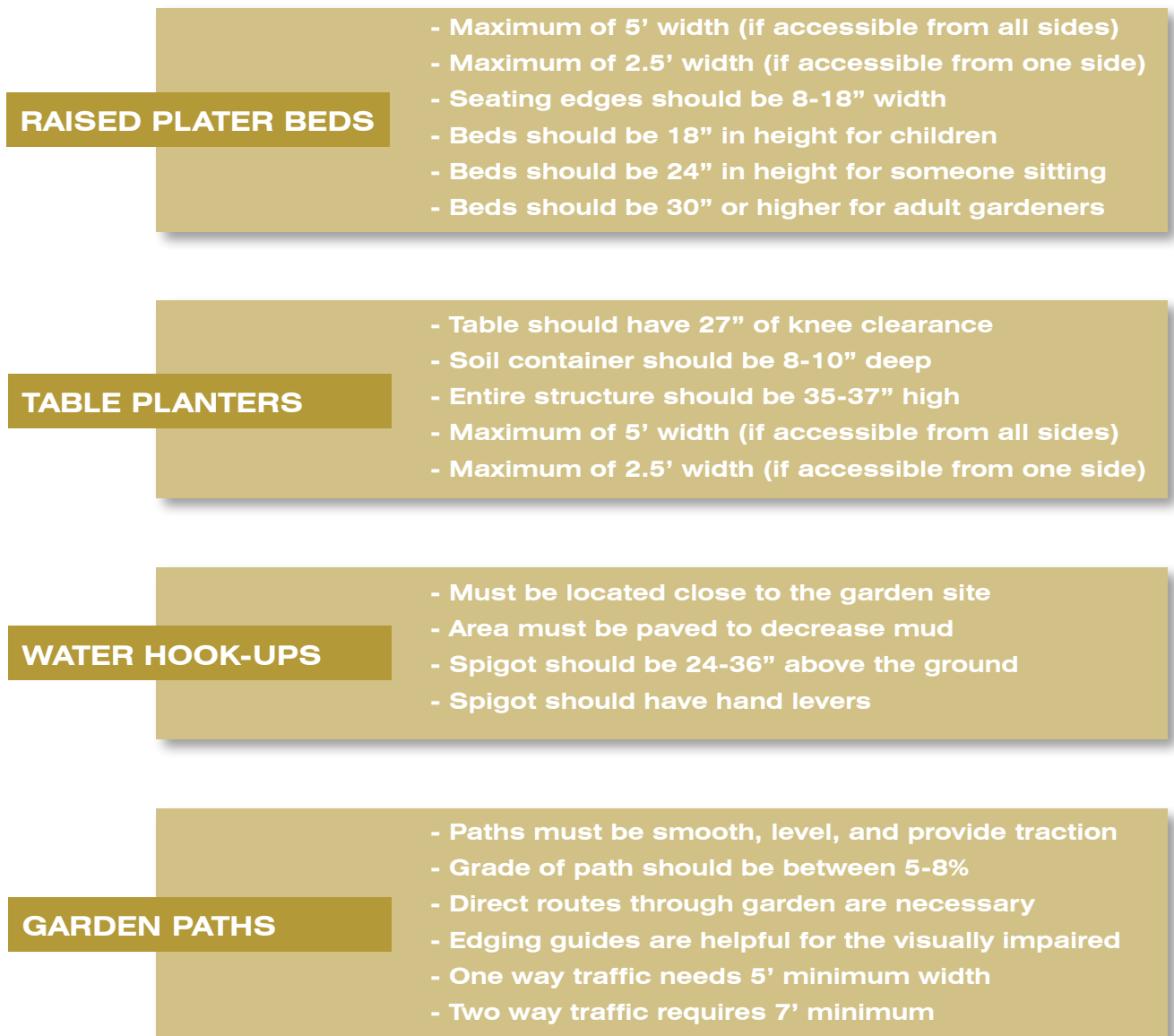


FIGURE 3.3 Accessibility Criteria

a garden site is important. Since elders often wander as they age, confusion and panic may arise if they get lost and become disoriented. The surface of accessible route must provide traction while also being smooth, stable, and level. Some common materials utilized for accessible surfaces include concrete, stone paving, asphalt, crushed stone, and non-slip wood or recycled plastic decking (National Recreation and Park Association n.d.). In order to meet ADA codes, the grade of an accessible path cannot be greater than eight percent. The surface grade is to be kept between five and eight percent (US Department of Justice 2010). Edging guides along paths can also be helpful for the visually impaired in order to ensure that people are not going to accidentally walk off the designated path. The overall width of paths needs to be considered as well. For one way traffic, a minimum of five feet is required while two way traffic requires seven feet. These path width requirements allow for wheelchairs to easily navigate around the site (US Department of Justice 2010).

Other amenities that need to meet accessibility standards in garden design are raised planter beds and table planters. Creating raised features makes gardening easier and more enjoyable for elders who lack a moderate level of physical mobility or are restricted to a wheelchair. The maximum width of a raised planter bed that is accessible from one side is two and a half feet. However, if the planter is accessible from all sides, the maximum width increases to five feet (Stoneham and Thoday 1994). Seating can be incorporated into raised planter bed design by creating an eight to eighteen inch ledge around the top perimeter. This provides adequate space for one to sit while gardening. Heights of raised beds vary depending on anticipated users and whether the bed will be used by gardeners who are standing or sitting. For standing children, raised beds should be 18 inches in height while a planter designed for adults should be 30 inches or higher. Beds that allow for a person to sit and garden should be no less than 24 inches for adults (Larson et al. 2013).

Table planters provide a good option for people who are in wheelchairs because the design allows people to comfortably sit and garden. To provide an adequate amount of space for knee clearance under the table, the planter table should be designed with 27 inches between the knees and table bottom. The actual soil container of the planter table needs to be between eight and ten inches to provide enough depth for plant growth and health. With these two stipulations, the entire table structure should be between 35 and 37 inches high. The widths of table planters are the same as those for raised planter beds; a maximum of two and a half feet if accessible from only one side and a maximum of five feet if accessible from all sides.

Lastly, the location and height of water access required consideration as well. Of utmost importance, water access and hookups need to be placed within close proximity to the gardening area. The surface under the hook up point must be paved in order to decrease the

amount of mud. Spigots should be between 24 and 36 inches above the ground to allow for easy access (Larson et al. 2013).



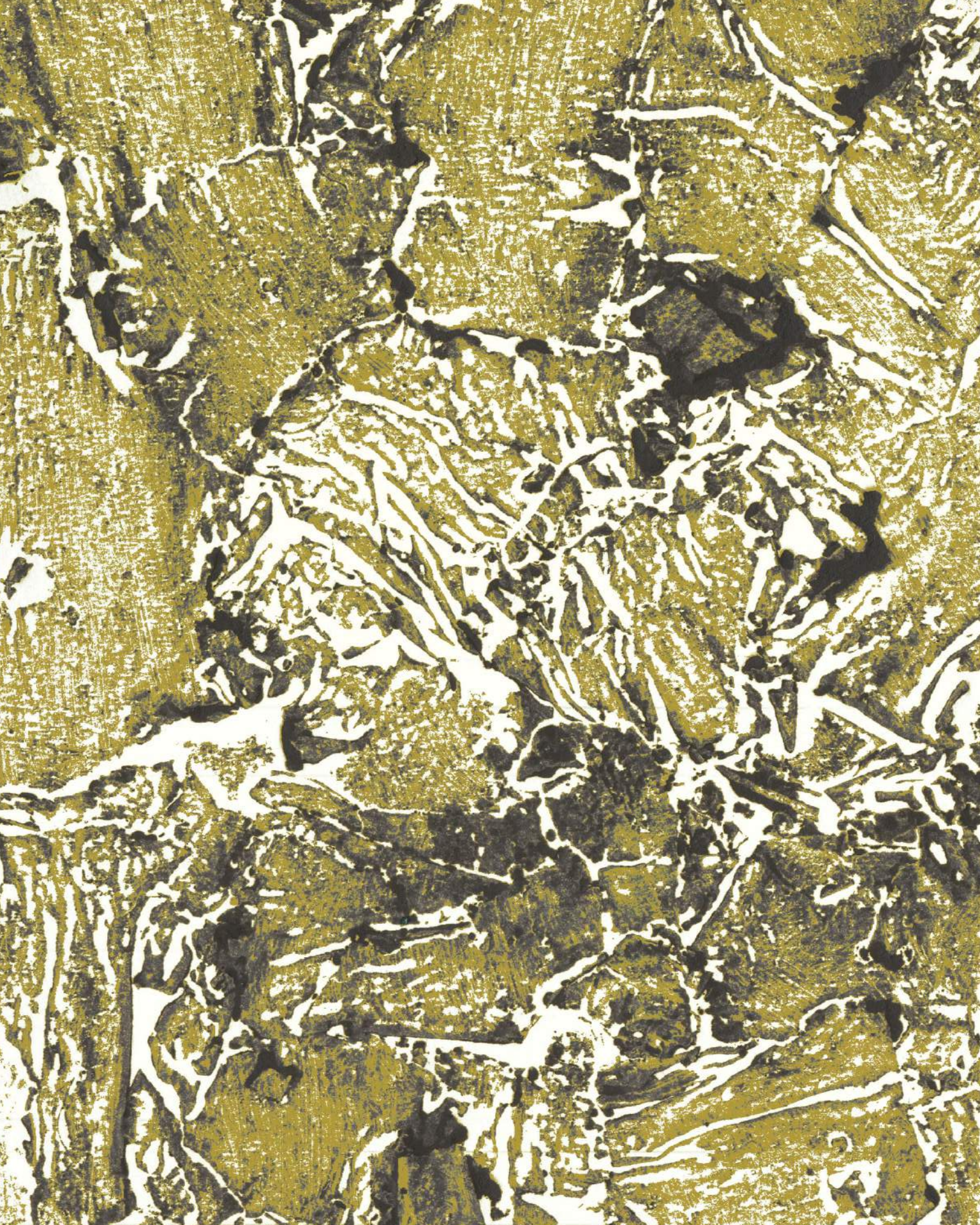
## CHAPTER CONCLUSION

Since encouraging social interaction is a main driver and concern for the re-design of the St. James Place Community Garden, a clear understanding of concepts related to the matter is required for the redevelopment of the site. A review of theories and challenges associated with social interaction provides awareness of the aspects of social interaction that need to be addressed through design. The contact theory focuses on the relationships between the black and white populations and how common misconceptions between races cause negative stereotypes within society. The cosmopolitan canopy theory targets how spaces, such as community gardens, within urban settings can offer respite from racial tension and offers opportunities for diverse people to interact within another in a safe environment. Re-designing the St. James Place Community Garden presents the Citadel Neighborhood community with the opportunity to form a cosmopolitan canopy near Troost Avenue.

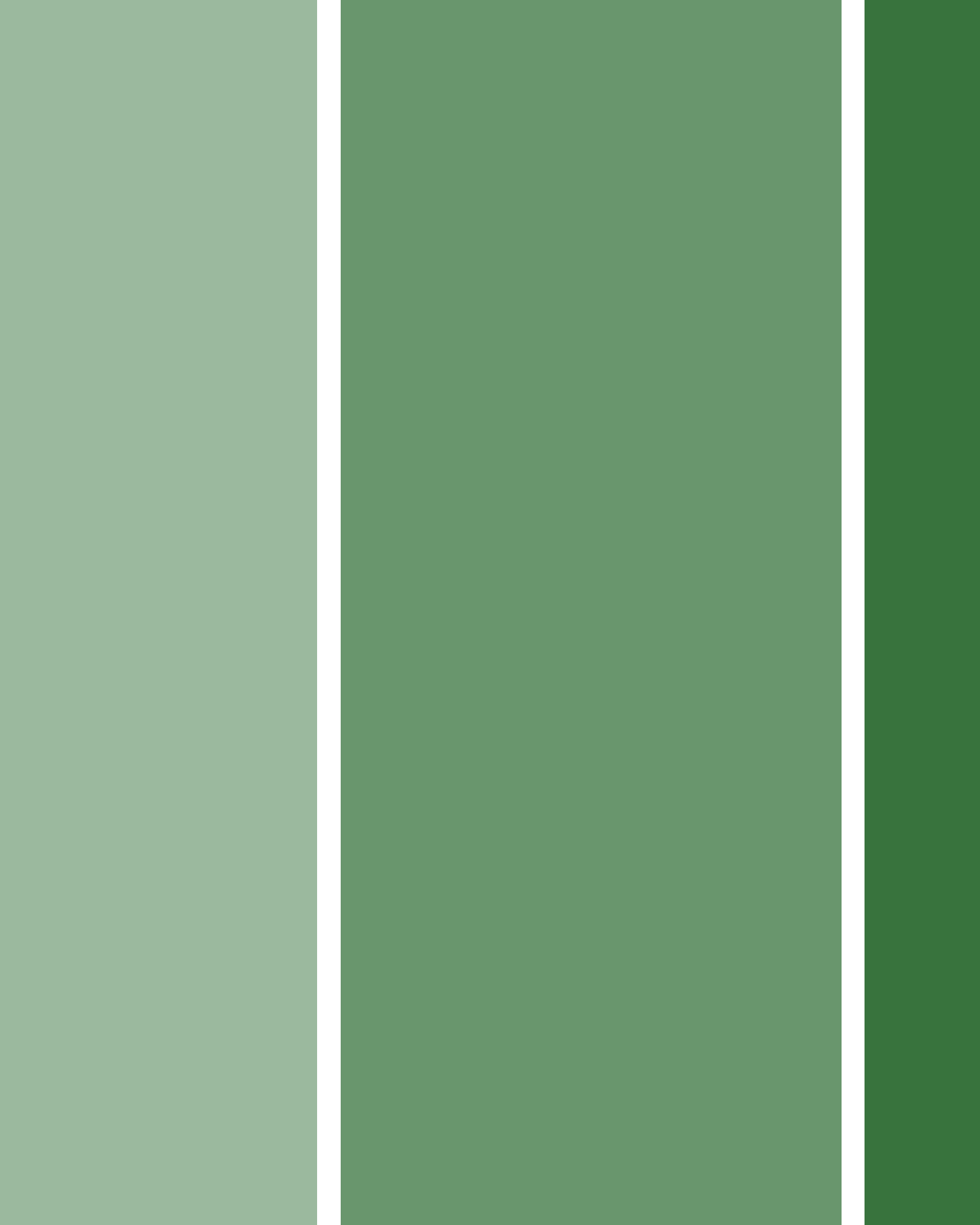
The list of benefits that community gardens offer individuals and communities as a whole is vast. Today, community gardens have become permanent amenities in cities throughout the world. Not only do these gardens continue to support people economically, they also provide numerous social, health, and environmental benefits. Allowing public garden access makes it possible for more people to reap the benefits of community gardens.

Accessibility is a critical component of this project due to the fact that the residents at St. James Place are all over the age of 62. Currently, the existing community garden at the complex does not meet accessibility standards. In order to create a successful design for the given site and intended users, accessible amenities must be considered and implemented.









## METHODOLOGY

The study of how the St. James Place Community Garden can be re-designed to promote social interaction among community members consists of three parts: conducting surveys, analyzing relevant precedent studies, and conducting interviews. Responses from the surveys and interviews provide further justification for the re-design of the existing community garden. The precedent study analysis provides suggestions for possible solutions, potential outcomes, and serves as a stimulant for creative thinking on the project topic. The following chapter explains the forms of methodology that were utilized for this project and expands on the findings and discoveries made throughout the process.





## METHODS OVERVIEW

It is important to note that the methodology process was linear. The survey study was utilized as the first stage of the procedure. The survey played an important role in the early development of this project because the responses revealed data that helped clarify and justify the site selection of St. James Place.

After the survey responses were analyzed and the site was selected, interviews were set up with residents at the apartment complex. While the survey was intended to gain a broad understanding of the community gardens within the Troost Corridor boundary, the interviews aimed to gain a deeper understanding of the St. James Place Community Garden.

Precedent study examples were selected once the survey study and interviews were both completed. The findings from these two methods, along with findings from literature, made it clear as to what specific aspects needed to be evaluated in the precedent study analysis.

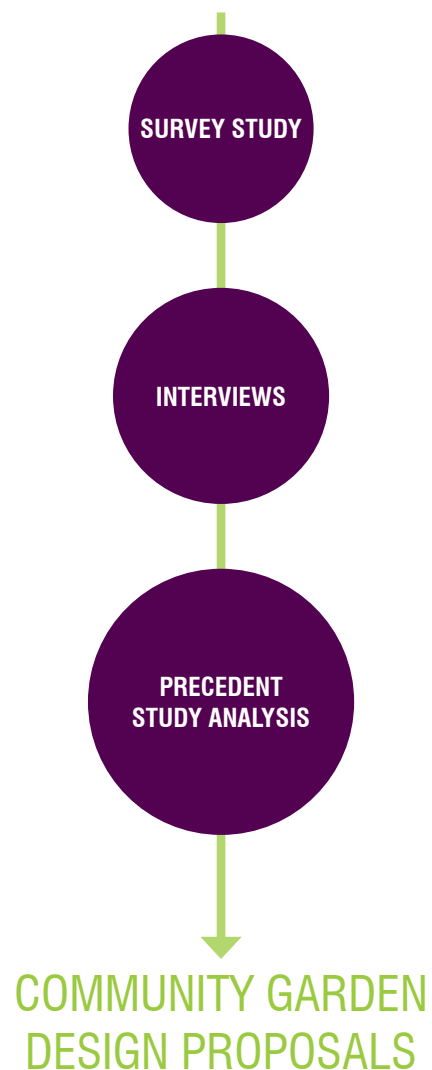


FIGURE 4.1 Methodology Overview



FIGURE 4.2 Existing Community Gardens

## SURVEY STUDY

Conducting surveys played an important role in the overall development and progression of this research and project. Prior to determining that the St. James Place Community Garden would be used at the project site, a survey was sent to garden representatives in the Troost Corridor study boundary.

The initial step in the survey process was identifying how many community gardens are located within the designated Troost Corridor Study Boundary. Determining these locations was done by utilizing the Kansas City Community Gardens. All the gardens in Kansas City that are registered through this organization are located on an updated map on the organization's website. There are currently 20 registered community gardens within the boundary. Each garden has been categorized by the organization as being either a partner garden, a schoolyard garden, or a rent-a-plot garden. Figure 4.2 on the opposite page graphically shows the location of each garden in the study boundary.

The next step in creating and conducting the survey study was determining the questions that needed to be asked and what I wanted to learn from the survey responses. The survey questionnaire was created in hopes of understanding:

- 1) the amount of social interaction taking place in the gardens
- 2) the value the representatives see the gardens contributing to the surrounding neighborhoods
- 3) the potential benefits community gardens have in a community
- 4) the functions the gardens contribute to the community
- 5) and whether more gardens are utilized for public or private use

Once the survey goals were established, the survey was then created using the Qualtrics



software. The complete list of survey questions can be found in Appendix B.

After locating all the gardens within the designated study boundary and determining the survey questions, the main representative from each garden was contacted in order to gauge their interest in participating in the survey study. The Kansas City Community Gardens made it possible to obtain the name and contact information for the representatives of the 20 gardens within the study boundary. Kansas City Community Gardens took the first step in contacting the garden representatives, and once they received an okay from the representatives to release their contact information to me, I then took it upon myself to personally contact each one individually to explain the survey process.

The representatives were contacted separately via email, asking if they would commit to answering the survey questions. If the representative stated they were willing and

interested in taking the survey, it was then sent to them via email. Of the 20 existing gardens that are located within the study boundary, 11 garden representatives completed the survey. Figure 4.3 shows the location of the gardens represented in the survey study. The map on the following page identifies which gardens are represented in the survey study.

The timeframe that was allotted to sending the survey out and receiving responses created a limitation for the survey study. Before sending the online survey out, three weeks were given to the representatives to decide if they wanted to participate. If there was no responses after those three weeks, the garden was not included or represented in the survey. If time would have allowed, it is very likely that all 20 gardens would have been represented in the survey study.

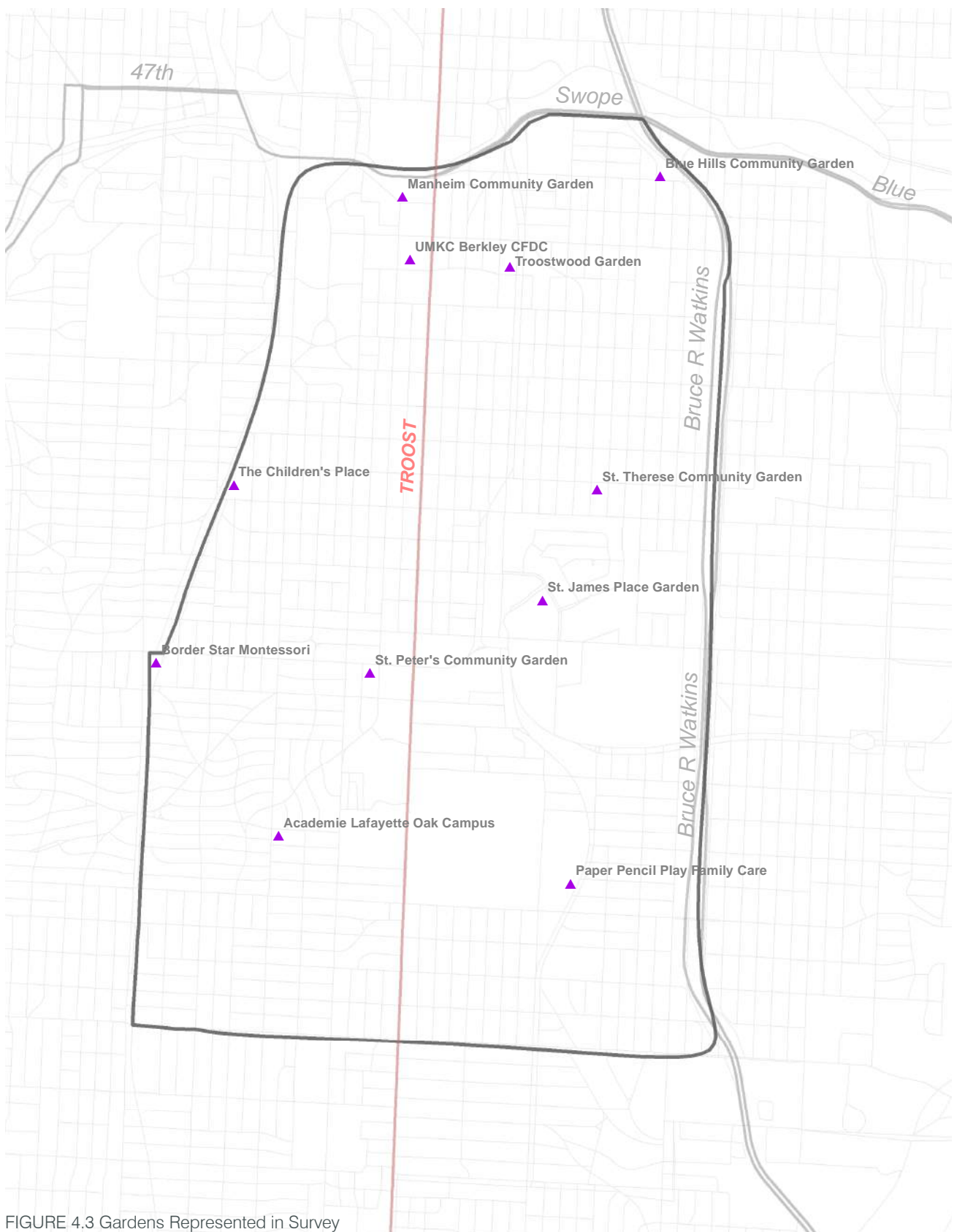


FIGURE 4.3 Gardens Represented in Survey

## SURVEY STUDY FINDINGS

Since there was not time to conduct observational studies at the community gardens, the survey study was very helpful in determining the amount of social interaction between racial groups taking place within the garden. As stated in earlier chapters, community gardens serve as excellent tools for fostering social interaction within communities. Increasing social interaction within the project site is something this project strives to accomplish. The survey responses from the garden representatives provide insight on the amount of social interaction that currently takes place within the identified community gardens in Kansas City. Of the eleven gardens that participated in the survey study, ten of the representatives identified their gardens as having some or a sufficient amount of social interaction between racial groups. Only one representative identified their garden as having little social interaction between racial groups.

A wide range of responses were given in relation to the value seen in the gardens contributing to the surrounding neighborhood communities. One main contribution mentioned many times by the representatives revolved around donating produce to local food pantries. Some of the responses also stated that the gardeners help community members in need, such as the elderly or disabled, by providing them with fresh produce from their garden. Another contribution that was identified frequently by the garden representatives was providing residents of their neighborhood access to fresh produce.

The responses regarding the potential benefits that the surveyed gardens have on their community varied as well. Providing education to younger children and members of the community is a benefit that many representatives spoke about. Many find it important to present people of their communities with knowledge about gardening so they have the experience to start their own garden.

Connecting people to nature is an additional benefit that representatives felt important. Living in the urban context limits the amount of land available for green space. Being exposed to nature during every stage of life is vital. Multiple responses stressed that the community gardens give people in their communities the opportunity to be outside and experience nature.

Figuring out what functions the gardens serve was clarified through the survey responses. The question asking about garden function and purpose gave six options: food production, recreation, education, community activism, environmental restoration, and economic opportunity. The representatives were able to select all that applied to their garden. The two most popular functions of the gardens are food production and education. Of the eleven gardens, food production is a function for eight of them while education is a function for six. Economic opportunity was not selected for being a garden function for any of the gardens.

The last significant question that the survey responses answered is whether the gardens are open to the public or closed for private use. This is important to consider for this project because private gardens are not as successful in fostering interracial social interaction as public gardens, and fostering such interaction is something this project strives to accomplish. The responses showed that only four of the eleven gardens are open to the public, the rest are closed to public use.

FUNCTION OF GARDEN		
	Frequency	Frequency (%)
Food Production	8	72%
Recreation	3	27%
Education	6	55%
Community Activism	4	36%
Environmental Restoration	3	27%
Economic Opportunity	0	0%

GARDEN TYPE		
	Frequency	Frequency (%)
Public	4	36%
Private	7	64%

AMOUNT OF SOCIAL INTERACTION		
	Frequency	Frequency (%)
None	0	0%
Little	1	9%
Some	5	45%
Sufficient	5	45%

FIGURE 4.4 Survey Frequency Tables

## *SITE SELECTION RATIONALE*

The St. James Place Community Garden was selected as the community garden site for the re-design process of this project. The garden at St. James Place is the most suitable site based off responses from specific survey questions. Firstly, the garden is closed to the public. Being closed to the general public limits the amount of social interaction that could potentially take place between the residents and other community members. The design proposals for the St. James Place Community Garden focus on increasing social interaction within the space and welcoming other community members to the site.

The second survey question and response that helped determine the site was about the garden function. The garden functions that the representatives were asked to choose from included food production, recreation, education, community activism, environmental restoration, and economic opportunity. Each representative was asked to select all of the functions that pertain to their garden from the list. The St.

James Place Community Garden provides only one function: food production. This was the only garden that did not provide more than one function. Multi-functionality is important to consider in community garden design, especially for an area like Troost Avenue where there are segregation issues. Gardens that are multi-functional are going to attract more people, therefore making it easier and possible for people to socially interact with one another.

The last survey question and response that helped determine the site was about the amount of interracial social interaction at the garden. Each garden representative was asked to rate the amount of interaction on site by choosing none, little, some, or sufficient. The St. James Place Community Garden is the only garden that has little interracial social interaction; the other ten gardens have either some or sufficient. This site presents a prime opportunity to encourage social interaction through the re-design of the community garden. Figure 4.5 on the next page shows the location of St. James Place.



FIGURE 4.5 St. James Place

## INTERVIEWS

Based on the knowledge gained from the survey responses, conducting interviews was the next step in furthering the development of this project. The interviewees are all residents from the St. James Place apartment complex. In total, six face to face interviews were conducted. Five of the interview participants are gardeners and one of them is not. Of the six participants, only one is male, the other are all female. It is also important to note that all but one of the participants are physically able to move on their own. However, one of the residents interviewed is in a wheelchair. The ages of the participants range from 62 to approximately 75.

The interview process seeks to understand the value community members see in the existing garden and how it might be used to encourage social interaction within the surrounding community. The interview questions aim to pinpoint the opinions and attitudes, as well as the values, of the residents towards the existing garden. The results from the interviews are used

in the context of this project to help justify design goals and recommend design strategies. A list of the interview questions can be found in Appendix C.

The interviews were conducted over a two day period at the apartment complex; three conducted on the first day and three on the second. The six residents that participated in the interviews were recommended by the garden representative that I was in contact with throughout the survey and interview process. Each of the participants were interviewed individually. There was not set time limit for each interview and the residents were welcome to share as much information as they pleased. Notes were taken by hand as each participant spoke and all the responses were compiled in digital format after all the interviews were complete. The following pages highlight the major findings from the interview process.



## INTERVIEW FINDINGS

Conducting interviews for this project was a great way to gain a better understanding and appreciation for the garden at St. James Place. After spending many months developing this report and project, it was my aspiration to meet the residents involved with the existing community garden. The interviews were conducted early during the spring semester.

As previously stated, all the interviews were with residents living at St. James Place. Two lists of questions were prepared prior to speaking with the interviewees; one list of questions aimed toward those who garden, the other aim toward those who do not garden.

While the list of questions asked during each interview remained unchanged throughout the process, I was personally interested in what improvements the residents believe need to be made to the garden site and what benefits the residents reap from the garden. After starting the interviews and hearing some responses, my

interests shifted. I realized for the purpose of this project, I needed to understand the residents' perception of community within the garden and how they felt the garden could affect positive social change for the neighborhood.

In terms of improvements that the residents felt should be made, there were many similarities between responses. Two main improvements that various residents feel need addressed include increasing the number of gardening plots and buildings raised planter beds. The five gardeners that were interviewed all shared similar feelings about the limited amount of space dedicated to gardening on site. With only six beds located in the garden, each bed has to be divided in half so more residents have the opportunity to grow food.

Other improvements were mentioned during the course of the interviews. One gardener stated that the placement of the beds needs to be reconsidered because the plants do not

get enough sunlight. Three of the residents, one of which is in a wheelchair, expressed their concerns with the garden path. The existing path is very narrow and has many cracks. It is not easy for residents in wheelchairs or with walkers to navigate around the site.

When asked about motivations for gardening, the responses from the gardeners were all alike. They love reaping the benefits of the fresh produce. One gardener says “Why not grow greens yourself. It’s better than going to the store. Savor the food from your own garden.” The satisfaction of growing their own produce is important to all the gardeners.

Other benefits were also identified during the interviews. One participant feels that gardening gives the residents a St. James Place more self-esteem. The participant believes that gardening makes people feel like they are worth something and are able to do things for themselves.

According to all of the gardeners that were interviewed, the garden is operated very smoothly. There is one main representative that keeps all the records associated with the garden and makes sure the plots are ready for planting each season. Surprisingly enough, none of the gardeners reported having any trouble with theft or vandalism of their plot.

All but one gardener expressed their joy about getting to share their produce with other residents in the apartment complex. One gardener says “It is important for people to share what is being grown and to share with those who maybe are not capable of gardening.” Some even mentioned that after they harvest their produce from their garden, everyone gathers in the communal kitchen and cooks a meal together. However, one gardener does not have similar views on sharing stating, “I don’t like to share because I think everyone should just garden for themselves.”

When asked if the garden is a social environment for all of the residents, the responses varied.

One gardener says that “People are always out there just sitting and relaxing.” However, another gardener says that “Not everyone gardens at the same time. When people are gardening at the same time there is social interaction.” All five gardeners that were interviewed said they usually go the garden by themselves. The garden site is closed to the general public, so there is no social interaction between the residents and the surrounding community within the garden boundary.

Interesting feedback was also given from the interview participant that does not currently garden. When asked questions relating to the reasons for not gardening, the participant simply replied “Because I am too old to be bending down to garden.” This participant thinks the garden is beautiful and is happy that the gardeners share their produce, but gardening is just not of interest. Similar to the other interviewees, interacting with residents from the surrounding apartment complex or subdivisions is non-existent. The interviewee says, “Everyone at St. James Place pretty much keeps to themselves.”

In response to the question about opening the garden up to the public, all but one of the interviewees are open to the idea of giving the public access to their garden. However, many concerns were then brought up about vandalism and theft. One of the main things that worried the gardeners about opening the garden to the public was the possibility of their produce being stolen. One gardener said that it would be nice to see and meet other people in the garden, as long as visitors leave his garden plot alone. Another gardener states “I wouldn’t mind opening it for the public to enjoy, but I still want the apartment complex to be able to keep the produce.” The gardener that was opposed to a public garden stated, “I think the garden should still remain private. If it was opened up to the public, it shouldn’t be open all the time. It would be fun to socialize with visitors though.”

All of the interview participants responded with similar answers when asked about the activities and events that take place in the garden. From the responses, it is clear that the garden is not currently utilized as a space for activities and events to take place. When asked about what

events or activities they would like to see take place in the garden, only one resident put forth an idea stating “people would like to hold events like Bar-B-Ques.”

Conducting interviews positively impacted this project by providing insight on the opinions of the residents at St. James Place. By knowing their opinions and understanding their personal aspirations for the garden, their needs and wants can be expressed through the re-design of the community garden.

It is clear that the garden’s primary function is to provide the residents at the apartment complex with a space to grow their own produce. While the garden may contribute to a sense of community for the residents, it is not currently providing a sense of community for the Citadel Neighborhood. The existing design of the community garden is indeed successful at bonding social capital between an exclusive group, the St. James Place residents. However, the design is not successful with bridging social capital between diverse groups of people. This does not mean that the garden is not successful

with what it was intended to do. In fact, the existing garden succeeds in providing the residents at the St. James Place complex with a space to grow food. However, the garden is capable of exceeding higher expectations and potential as a true community asset that could encourage social interaction.

“You don’t have a garden just for you. You have it to share.”

-- Augusta Carter



## PRECEDENT STUDY ANALYSIS

Supplementing the surveys and interviews, analyzing precedent studies is critical to the overall success and validity of this project as well. Studying various community garden installations in the United States suggests possible solutions, potential outcomes, and serves as a stimulant for creative thinking on the project topic. The goal for the precedent study analysis is to gain a better understanding of what programmatic elements need to be included in the future design of the St. James Place Community Garden.

Three categories that are significant to this project were selected for the analysis. These categories include garden designs that focus on the elderly, encouraging social interaction within community, and diversity issues similar to Kansas City. The categories were chosen in relation to the project goals, the survey and interview responses, and the site location. Figure 4.6 on the opposite page illustrates which

gardens were chosen for each of the three identified categories.

The precedents in each category are analyzed based on Mark Francis' "Critical Dimensions of Case Studies" (Francis 2009). In his writing, Francis provides a list of elements that need to be taken into consideration when performing a case study. From the provided list, key elements were selected based on how relevant the identified element was to this research and project. This critical dimension assessment composed by Francis allows me to extract information from each of the chosen examples that can help advance this proposal by identifying the successes and constraints of each project. A general overview of the precedent studies using criteria from the "Critical Dimensions of Case Studies" are found in the following pages.

FEDERAL WAY SENIOR GARDEN	Auburn, WA	designing for the elderly
FRESH START COMMUNITY GARDEN	Newport, VT	designing for the elderly
THE BACK PORCH GARDEN	Medford, NJ	designing for the elderly
LIZ CHRISTY COMMUNITY GARDEN	Manhattan, NY	designing for social interaction
BODINE STREET COMMUNITY GARDEN	Philadelphia, PA	designing for social interaction
UNITY GARDEN AT LASALLE SQUARE	South Bend, IN	designing for social interaction
THE TREEHOUSE COMMUNITY GARDEN	Grand Rapids, MI	designing for diversity
THE MOSAIC COMMUNITY GARDEN	Pottstown Borough, PA	designing for diversity

FIGURE 4.6 Precedent Study Categories



# federal way senior garden

Location	Auburn, WA
Size	.22 acre
Designer	Michael Stanley
Established	Spring 2009

Dilemma	Lack of fresh, organic produce for community consumption; area does not currently provide many spaces for social interaction between community members (Federal Way Center Garden 2015).
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Goals	<ul style="list-style-type: none"><li>• Provide fresh produce to low income community members</li><li>• Cater design to entire community</li><li>• Give the community an amenity to be proud of</li><li>• Encourage people to eat healthy and socially interact on a regular basis</li></ul>
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Process	Identifying the needs of the community and representing those needs in the design (Federal Way Center Garden 2015)
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Concept	Key design concept is the French potager- a 'beautiful feature' that serves the community (Stanley 2011)
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Community	The garden has helped send food to citizens in need of fresh food, stock local food pantries, sparked new friendships, served as a true communal space, and has caused other gardens to be implemented in the area
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FIGURE 4.7 Raised Planter Beds (Courtesy of Federal Way Community Garden Foundation)



FIGURE 4.8 Garden Tool Shed (Courtesy of Federal Way Community Garden Foundation)



FIGURE 4.9 In-Ground Planting Area (Courtesy of Federal Way Community Garden Foundation)



FIGURE 4.10 In-Ground Planting Area (Courtesy of Federal Way Community Garden Foundation)

# fresh start community garden

Location	Newport, VT
Size	.14 acre
Designer	Patricia Sear, Khris Flack, Jennifer Black
Established	2011

Dilemma	Obesity rates are high in Newport, low income families cannot afford fresh produce, neighborhood has a bad reputation for being dangerous, lack of community bond (Vermont Grown 2013)
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Goals	<ul style="list-style-type: none"><li>• Create a garden that is a cultural, economic, and social amenity</li><li>• Bridge generational gap between residents</li><li>• Encourage people of the community to live more active lifestyles</li></ul>
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Process	Community driven, ‘collecting and connecting the dots’ of the community needs and wants (Newport, Vermont 2013)
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Concept	Bridging the generational gap, site restoration, catering to the needs of community
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Community	The garden serves the community by: donating half of the produce to charity programs, hosting events like workshops, cookouts, and fairs, fostering social interaction between residents, and helping to transform negative attitudes towards the neighborhood
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FIGURE 4.11 Community Members Gardening ( Courtesy of Jennifer Bernier)



FIGURE 4.12 Aerial View of Garden Site ( Courtesy of Jennifer Bernier)



FIGURE 4.13 Children Enjoying Playground ( Courtesy of Jennifer Bernier)

# the back porch garden

Location	Medford, NJ
Size	.17 acre
Designer	Jack Carman- Design for Generations, LLC
Established	2006

Dilemma	Age has restricted residents in the retirement community to not want to venture outside, they do not utilize the existing garden space
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Goals	<ul style="list-style-type: none"><li>• Break down the barriers that keep residents from spending time outside</li><li>• Improve site conditions</li><li>• Design spaces for programming</li></ul>
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Process	Meetings with residents and employees assisted design decisions, improvements to be made to the site were presented to the community prior to implementation (Stride n.d.)
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Concept	Design concept was focused around creating a porch at the retirement community, “the porch is one of those iconic architectural elements that we all can relate to” (Stride n.d.)
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Community	The Medford Leas retirement community is served because all residents are welcome to use the porch space, the garden has helped residents interact with each other more because the design has presented the opportunity for more programming
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FIGURE 4.14 Garden Parties (Design for Generations, LLC)



FIGURE 4.15 A Summer Evening Concert (Design for Generations, LLC)



FIGURE 4.16 Summer Bar-B-Que (Design for Generations, LLC)



# liz christy community garden

Location	Manhattan, NY
Size	.17 acre
Designer	Liz Christy and the Green Guerillas
Established	April 23, 1974

**Dilemma** The increase of abandoned lots in New York, urban decay, crime, poor diets of community members, environmental issues (Brooks and Marten 2005)

**Goals**

- Repurpose a vacant trash filled lot
- Help reduce the amount of crime and illegal activity in the area

**Process** Clearing and cleaning the vacant lot, leveling out the site, laying out 60 raised planter beds, bringing in healthy soil to the site, using the 'seed bomb' tactic (The Cultural Landscape Foundation 2012)

**Concept** Environmental and social improvements, Dutch bouwerie (Dutch farm), creating curved and meandering paths that counter the strict city street grid (Marshall 2013)

**Community** The success of the garden promoted other neighborhoods in NY to clean up vacant parcels of land, everyone is welcome in the garden space, provides people an escape from the city, gardeners distribute the produce to local residents for free



FIGURE 4.17 Intimate Seating Area (Courtesy of Creative Commons Licensing)



FIGURE 4.18 Garden Equipment Area (Courtesy of Creative Commons Licensing)



FIGURE 4.19 Shade Structure Seating (Courtesy of Creative Commons Licensing)



# bodine street community garden

Location	Philadelphia, PA
Size	4.6 acres
Designer	Philadelphia Green
Established	June 1980 (The Bodine Street Community Garden 2015)
Dilemma	Vacant trash cluttered lot is unsightly for the surrounding neighborhood, action needed to be taken to reduce the amount of crime near the lot
Goals	<ul style="list-style-type: none"><li>• Crime prevention</li><li>• Repurposing a vacant lot</li><li>• Involve youth more in the community</li><li>• Improve social interaction</li><li>• High food productivity</li></ul>
Process	Neighborhood residents made design decisions for the garden, Philadelphia Green took the public’s opinions and desires into consideration when designing the garden (The Bodine Street Community Garden 2015)
Concept	The design for the garden emphasizes social interaction within the community, accommodates for a wide range of activities, and provides ecological benefits (The Bodine Street Community Garden 2015)
Community	The garden gives residents urban green space that everyone is welcome to enjoy and experience, increases the amount of social interaction between community members by encouraging everyone to grow food together, meet new people, and share gardening advice



FIGURE 4.20 People at the Party (Courtesy of Bodine Street Community Garden)



FIGURE 4.21 After Party (Courtesy of Bodine Street Community Garden)



FIGURE 4.22 Aerial View (Courtesy of Bodine Street Community Garden)



FIGURE 4.23 Garden 4 (Courtesy of Bodine Street Community Garden)

# unity garden at lasalle square

Location	South Bend, IN
Size	5 acres
Designer	Mitchell Yaciw
Established	2009

**Dilemma** South Bend residents could not easily access fresh produce, the town was a food desert, the community was broken due to racial division (Rango 2014)

**Goals**

- Bringing people together
- Providing free, healthy food
- Educating the community on gardening
- Making the garden function more like a park (Edible Michiana 2013)

**Process** The decision making and design process was highly focused around meeting the needs of the struggling community, the designers realized and acted on the community needs

**Concept** Park like garden, social, economic, and environmental benefits, utilizing the sharing framework, bringing people together who would otherwise not interact (Rango 2014)

**Community** Garden provides many educational opportunities and benefits for the South Bend community, The garden has helped the community grow in a positive way by breaking down social barriers and helping people to not fear one another anymore





FIGURE 4.24 Beekeeping Education (Courtesy of Unity Gardens)



FIGURE 4.25 LaSalle Square Unity Garden (Courtesy of Unity Gardens)



FIGURE 4.26 Youth Discovery Camp Garden (Courtesy of Unity Gardens)



FIGURE 4.27 Walking the Garden (Courtesy of Unity Gardens)

# the treehouse community garden

Location	Grand Rapids, MI
Size	.25 acre
Designer	Mitchell Yaciw Visbeen Architects
Established	2012

**Dilemma** The Baxter neighborhood is a food desert due to the lack of access to fresh food, the well-being of the community is at risk— racial segregation, drugs, violence, broken homes ,and poverty effect the Baxter community (The Treehouse Community Garden 2015)

**Goals**

- Catering to the physical and emotional needs of the community through the implementation of a shared green space
- Provide change for the neighborhood is a strong desire

**Process** The decision to implement a community garden on an abandoned lot came to be after a group of community members realized how bad residents were suffering from lack of food (Humm 2014)

**Concept** Praying, sharing, and growing; encouraging others to make change in the community (The Treehouse Community Garden 2015)

**Community** Members of the community are allowed to use the garden site for free, the garden has given people in the community something to be proud of and respect, people can grow their own food even though the town is located in a food desert





FIGURE 4.28 Garden Plots Season II (Courtesy of Matt Prowler)



FIGURE 4.29 Summer's in Full Swing (Courtesy of Matt Prowler)



FIGURE 4.30 The Treehouse Community Garden (Courtesy of Matt Prowler)



FIGURE 4.31 Garden Entrance (Courtesy of Matt Prowler)

# the mosaic community garden

Location	Pottstown Borough, PA
Size	.20 acre
Designer	Depallo Design & Planning, LLC
Established	2011

Dilemma	Site within the neighborhood used to be a park, but turned into a dangerous and unsightly area throughout the years (Montgomery County Board of Commissioners 2013)
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Goals	<ul style="list-style-type: none"><li>• Improve the quality of life for Pottstown residents</li><li>• Revitalize decaying site into a positive and unique neighborhood amenity</li><li>• Encourage healthy lifestyles through garden installation</li></ul>
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Process	Design and generation of idea for establishing a community garden took place during the development of the Washington Neighborhood Plan in 2010 (Montgomery County Board of Commissioners 2013)
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Concept	Food production, site revitalization, community building tool
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Community	Educational workshops are help for the community to attend, community organizations partner with the garden has helped grow a better sense of community in Pottstown. diverse people all use the garden and everyone works together (Montgomery County Board of Commissioners 2013)
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FIGURE 4.32 Produce Market Stand (Courtesy of Mosaic Community Land Trust)



FIGURE 4.33 Mosaic Community Garden Site (Courtesy of Mosaic Community Land Trust)



FIGURE 4.34 Shade Structure Entrance (Courtesy of Mosaic Community Land Trust)





## PRECEDENT STUDY ANALYSIS FINDINGS

The following section of the precedent study analysis illustrates and explains how each precedent relates to the design goals and objectives. The diagram provided at the beginning of each section identifies the precedents that relate to each design objective. Further explanation is given through text about how the precedents are directly responding to the design goals and objectives.

## INCREASE SITE ACTIVITY

Gathering spaces should provide opportunity for social interaction



Create varied forms of programming



Provide seasonal interest and activities



Create a site that is multi-functional



Site amenities should welcome all ages



- BPG The Back Porch Garden
- FWG Federal Way Senior Garden
- FSG Fresh Start Community Garden
- TG The Treehouse Community Garden

- LCG Liz Christy Community Garden
- BSG Bodine Street Community Garden
- UG Unity Garden at LaSalle Square
- MG The Mosaic Community Garden

### **Gathering spaces should provide opportunity for social interaction**

The urban environment often does not present communities with adequate areas for outdoor gatherings and events. Community gardens provide an ideal space for both small and large group gatherings and events to take place. Gathering spaces are important to consider in the design of a community garden. These spaces should allow for groups of all sizes to congregate, giving them opportunities for positive social interaction. It is critical that the design of the gathering spaces affords comfort between community members and gardeners. The following will analyze how comparable projects successfully implemented gathering spaces into community garden design.

Groupings of tables with multiple chairs and shade umbrellas provide residents with a comfortable social setting in the courtyard at The Back Porch Garden. The porch feature extending from the main building also provides a unique space for socializing. Movable chairs and tables can be arranged in a variety of ways to accommodate for different group sizes.

The gathering spaces at the Bodine Street Community Garden allow those who are gardening and those who are using the garden site as a relaxation space to interact easily. The gathering spaces are all located within close proximity to the garden plots and are meant to be flexible in order to accommodate for a wide range of group sizes.

The Liz Christy Community Garden design and layout acknowledges the fact that visitors come to the site alone or in small groups. This garden provides visitors with intimate gathering spaces to socially interact with one another in. There are multiple small seating areas located throughout the site that encourage people to step off the path and relax in the company of others.

Variations in gathering space types are found throughout the Unity Garden site. For example, one of the gathering spaces is dedicated to serving the demonstration garden while another gathering area is dedicated to the garden plots. The variation in size and function of the spaces promote different forms of social interaction.

## Create varied forms of programming

The examples below illustrate a wide range of programmatic elements that are incorporated into community garden design. Some of the examples provide little site programming while other examples express a higher level of programming. However, for this project, it is important to consider how these different forms can be implemented into community garden design.

Encouraging diverse groups of people to utilize a community garden site can be accomplished by designing a garden that offers various programmatic elements. The following gives insight on which precedent examples incorporate different forms of programming and how the elements increase overall site activity.

The programming at The Back Porch Garden consists of gardening amenities and seating areas. The design of the courtyard provides residents with various ways of gardening including container plants, hanging plant

baskets, and raised planter boxes. Such programming gives residents the opportunity to engage in various forms of gardening depending on their preference. Besides the gardening amenities, there are also variations in seating and gathering spaces. The porch space accommodates small groups and individual seating while the courtyard welcomes much larger groups of people. A variety of gardening methodologies and socialization spaces ensure a unique experience for visitors.

The Liz Christy Community Garden caters to New York City dwellers. This garden has transformed into a green oasis for the surrounding community and meets the needs of a wide array of users and interests. There are sinuous paths for strolling, gardening plots for food production, private seating for relaxation, water features for visual interest, and gathering spaces for socializing. These elements increase site activity by making the garden appeal to many people with varying interests and aspirations for using the site.

The main concept for the Unity Garden at LaSalle Square is that it is intended to function and feel more like a park than a community garden. The diverse forms of programming make this possible. The garden site includes areas dedicated to educational purposes through the use of demonstration and pollination gardens along with outdoor classrooms. The programming of these areas meets the needs of a specific user group. Aside from the educational benefits, the Unity Garden also has a market area for selling fresh produce. This market increases the amount of site activity because community members purchase produce from the garden site.

### **Provide seasonal interest and activities**

When designing a community garden, it is important to consider how the site can attract people year round. If the design does not include elements that provide seasonal interest or activity, the site will be desolate for many

months out of the year. The projects below illustrate successful strategies in this regard.

The Federal Way Senior Garden and the Unity Garden at LaSalle Square provide seasonal interest for garden users through the use of a greenhouse. By having a greenhouse on site, both gardens are capable of growing certain types of plants year round. This increases site activity because visitors can garden regardless of the weather conditions. A greenhouse is an excellent way to reap the physical and social benefits of gardening even after the growing season.

### **Create a site that is multifunctional**

Four of the eight analyzed precedents have characteristics of a multi-functional garden. A garden serving only one main function limits the amount of activity and opportunity for social interaction. The examples below are classified as multi-functional sites.

In addition to offering the opportunity for food production, Fresh Start Community Garden has a play area for the children of the community. The garden has transformed into a site where not only gardeners have the chance to interact with one another, but children as well. Since children are often present on site while adults are gardening, generational gaps begin to decrease. Fresh Start Community Garden serves as a social and economic hub for all ages of the neighborhood.

The Bodine Street Community Garden possesses multi-functional features as well. Aside from producing food, the garden serves the community by providing the urban area with a place to gather, rest, and play. For example, children are welcomed and encouraged to grow their own produce in the children's garden. The incorporation of flexible open spaces makes it possible for various groups to gather on site. Art murals on the garden walls add to the site's multi-functionality by encouraging people to visit

the garden for the mere purpose of rest and relaxation while viewing the art installations.

The Back Porch Garden serves as an exceptional example of how a community garden can serve as a true communal space for many people to enjoy. The design and layout of the garden affords for multi-functionality by catering to the needs of the elderly residents through the implementation of accessible garden amenities and gathering spaces. Along with catering to the needs of the residents, The Back Porch Garden provides the surrounding retirement community with a unique event and activity space that successfully welcomes the neighborhood to enjoy.

The Unity Garden gives community members the opportunity to participate in food production through the use of garden plots. However, food production only accounts for one of the functions of the garden space. This garden also provides the community with educational opportunities when visiting the site through demonstration

gardens and outdoor classrooms. Aside from food production and education, community members can sell and purchase fresh produce on site. A designated market area makes this activity possible.

### **Site amenities should welcome all ages**

It is beneficial for community garden designs to incorporate amenities that welcome and encourage all ages to use the space. Targeting only one specific age group decreases the amount of activity on site and lowers the opportunity for social interaction within the garden. The following explanations identify how the precedents successfully utilize site amenities to attract people of different age groups.

Accessibility is important to consider when designing a community garden that is intended to be used by a wide array of people and

ages. The Federal Way Senior Garden, Fresh Start Community Garden, Unity Garden, and the Mosaic Garden are all accessible to the elderly. None of the listed gardens have level changes that make it difficult for senior visitors to navigate. Along with having accessible paths and entrances to the gardens, the Federal Way Senior Garden, Fresh Start Community Garden, and Bodine Street Garden have raised planter beds that make it easier for seniors to participate in gardening activities.

Since it is desirable to attract people of all ages to a community garden site, playgrounds and designated children's gardens are two common ways that the precedent studies illustrate ways to encourage children to use and enjoy the space. Bodine Street Garden, Unity Garden, and the Mosaic Garden all have garden plots that are set aside just for children to garden in. The Fresh Start Community Garden has a playground area that attracts kids from all of the surrounding neighborhoods in the community.



# ESTABLISH ACCESSIBILITY

Provide ADA accessible paths and connections to garden



Provide gardening opportunities for all levels of physical mobility



Incorporate safety features



- BPG    The Back Porch Garden
- FWG    Federal Way Senior Garden
- FSG    Fresh Start Community Garden
- TG    The Treehouse Community Garden

- LCG    Liz Christy Community Garden
- BSG    Bodine Street Community Garden
- UG    Unity Garden at LaSalle Square
- MG    The Mosaic Community Garden

## **Provide ADA accessible paths and connections to garden**

Accessibility is a primary concern when designing for the senior population. If the site is not accessible for the intended users, the design will not be successful. With garden design, establishing site accessibility starts with paths. Paths must allow for safe movement throughout the site for all users and mobility levels. This means paths should not exceed a five percent slope at any point without a proper ramp and all ground materials must be slip resistant. The Federal Way Senior Garden, Fresh Start Community Garden, the Mosaic Community Garden and the Back Porch Garden all incorporate accessible paths into the design.

As stated, the surface material used for garden paths must be considered when designing a space for seniors. The Federal Way Senior garden utilized fine grained gravel as the material for the primary walking paths. This material provides a firm surface and also does not get slippery when wet. Mulch is used at the Fresh Start Community garden for accessible

garden paths. Mulch provides a pervious surface for the garden that is also firm enough to walk on. Mulch is also very durable and does not need to be replaced as often as gravel. The Back Porch Garden and the Mosaic Garden both use concrete as the surface material for the primary garden paths. Concrete is textured to prevent getting slippery when wet.

The Federal Way Senior garden, Fresh Start Community Garden, The Back Porch Garden, and The Mosaic Community Garden do not have any level changes or ramps in their designs, making the gardens easily accessible. Keeping level changes to a minimum removes physical barriers and makes it easier for people who lack physical mobility to navigate the site. The Federal Way Senior garden and Fresh Start Community Garden are designed at the same level as the surrounding street context and access points. The Back Porch Garden is designed on the same level as the existing floor elevation of the building.

## **Provide gardening opportunities for all levels of physical mobility**

Besides the paths, it is important to consider the accessibility of garden amenities, especially the planting beds. The layout and design of planting areas can take on many shapes, sizes, and forms. Raised planter beds and table planters are the two most common ways to make a garden accessible. The Federal Way Senior Garden, Fresh Start Community Garden, and The Back Porch garden incorporate raised planter beds into the design to account for all levels of physical mobility.

Besides providing raised planter beds for seniors, the Federal Way Senior Garden and Fresh Start Community Garden also provide gardening spaces for those who are physically able to use in-ground planting areas. Providing gardening opportunities for all levels of physical mobility is important to consider when trying to attract a wide range of people to the site. Only providing one form of gardening or the other will only attract one targeted population. This will lower site activity.

## **Incorporate safety features**

In terms of garden safety and security, implementing a fence and/or gate is important to consider. The Bodine Street Community Garden, Liz Christy Community Garden, The Treehouse Community Garden, and The Mosaic Garden all have a security fence/gate. This security feature makes it possible to open the gardens up to the public while also controlling the times that visitors have access to the site.

Fence and gate installations present a unique opportunity for adding aesthetics of the site. For example, the security fence at the Bodine Street Community Garden is artistically designed. There are colorful pieces of glass imbedded into the fence, making it more appealing and welcoming.

The Liz Christ Community Garden is located along a very busy street in New York. The fence and gate surrounding the garden is rod iron, making it very easy to see through.

Even though the fence and gate combination help with keeping unwanted guest out during certain hours, people can still see into the garden space. This tactic helps attract people to the site.

# PROMOTE ORIGINALITY

Create a unique environment for the neighborhood that does not currently exist



Improve the overall site experience



Provide the community with an environment that counters the characteristics of the city



Create a physical environment that represents the values and culture of the community



- BPG The Back Porch Garden
- FWG Federal Way Senior Garden
- FSG Fresh Start Community Garden
- TG The Treehouse Community Garden

- LCG Liz Christy Community Garden
- BSG Bodine Street Community Garden
- UG Unity Garden at LaSalle Square
- MG The Mosaic Community Garden

## **Create a unique environment for the neighborhood that does not currently exist**

In order to draw more people to the garden site at St. James Place, it is critical for the design to provide the community with an environment that is unique to its surrounding context.

Incorporating features and amenities that make people excited to visit the site will help increase site activity, giving more people the opportunity to socially interact. With much inactive space on the existing site at St. James Place, this allows for interventions to be made in order to promote the garden as being a unique asset to the community.

Fresh Start Community Garden presents an example of how a unique environment can be created for a community through a garden. Through the years, the garden has become a cultural, economic, and social amenity for the community. This garden has created a unique environment for the community in terms of the people that are drawn together at the site. One of the main goals for Fresh Start Community

Garden is to bridge the generational gap. The design encourages the elderly population in the community to participate in gardening and also welcomes the children to spend time at the garden. Accessible gardening features are incorporated for the elderly while a playground attracts many children from the surrounding neighborhoods. Furthermore, Fresh Start Community Garden participates in an 'Adopt-A-Grandparent' program where children are paired with a senior from the community and they garden together. The garden creates a unique environment where various generations have the opportunity to interact with one another.

The Back Porch Garden is successful in creating a unique environment for the retirement community at Medford Leas through the implementation of a back porch feature. With age being the main factor that restricts many seniors from venturing out and socializing, the design of The Back Porch garden gives

residents a space where they can feel safe and secure while also being able to interact with other community members. An open events space was included in the design, making it possible for Medford Leas to host events and gatherings. The retirement community benefits from the implementation of the garden because all residents are welcome to use the space at any time

With the constant hustle and bustle of New York City, the Liz Christy Community Garden creates a unique environment for city dwellers by providing a green oasis in the urban core. With natural green space lacking in most urban areas, the Liz Christy Community Garden provides people an escape from the city.

## **Improve the overall site experience**

Before the implementation of The Back Porch Garden, the courtyard space at the retirement home was greatly underutilized. Some of the site limitations that were addressed through the design include clearly deciphering walking paths from gathering spaces, reducing the amount of glare and noise within the courtyard, adding planters to the garden, screening utility equipment, and adding water features and fountains. By making improvements to the existing site, the elder residents utilize the space more. Site programming also makes it possible for them to socially interact with other community members.

A goal for many of the precedent examples revolved around beautifying a vacant lot. The Liz Christy Community Garden and the Bodine Street Community Garden are prime examples. Before the gardens were designed and implemented, the sites were abandoned, crime ridden, and trash filled. The lots were unsightly and caused negative attitudes toward the



neighborhoods. By transforming the decaying sites into community gardens, the overall site experience has been improved.

The Mosaic Community Garden also transformed a site that used to function as a park into a thriving community garden. One way that this garden had improved the site experience is through the incorporation of a market space. Locating a market on the garden site gives people another reason to visit and interact with the garden.

### **Provide community with an environment the counter characteristics of the city**

The Bodine Street Community Garden and Liz Christy Community Garden create environments that counter the characteristics of a city. The Bodine Street Community Garden succeeds in this aspect by incorporating boardwalk type paths through the garden, placing colorful

artwork on the garden walls and fences, shielding views from the garden to the city streets, and densely planting vegetation. The main feature at the Liz Christy Community Garden that helps people escape from the city elements is the meandering paths. To counter the strict grid of city streets, the garden paths allow people to wander leisurely through the site.

### **Create a physical environment that represents the values and culture of the community**

Many of the precedent studies found it important that the community garden design represents the values and culture of the community. Each of the following examples illustrates how the aspirations and background of the community are reflected through the garden design.

A high obesity rate among children and adults is a concern for the Newport, VT community. Having free access to fresh produce is critical

for this community because there are many low income families. Community needs are met through the Fresh Start Community Garden. All members of the neighborhood are welcomed and encouraged to participate in the garden in order to grow their own produce. Due to the fact that many of the families in the area are low income, there is no fee to garden at the site. The garden also encourages people to live a healthier and more active lifestyle.

The Treehouse Community Garden started as a vision that was inspired by the lack of nutritional food and educational resources in the Baxter Neighborhood. The people in the Baxter neighborhood also suffer from racial segregation, broken homes, abuse, drug addictions, poverty, and violence. The people of the neighborhood wanted to see change. The garden represents a catalyst for healing and restoration for the community. The Baxter residents strive to improve nutrition, provide knowledge and education, strengthen

community bonds, and gain a greater sense of pride for their community. These values and aspirations are highlighted through the community garden design. The garden provides individuals and families access to free, fresh produce. There are twelve raised planter beds used for food production. The garden partners with other local organizations to host events on nutrition, cooking, canning, and other educational opportunities. The events and garden plots attract people to the site, making it easy for people in the Baxter neighborhood to grow, learn, and connect with each other.

The Pottstown residents' vision for The Mosaic Community Garden focuses on nutrition, healthy eating, and growing a sense of community. The design meets the nutritional needs of the community members through the incorporation of 30 individual garden plots. Residents and organizations use the plots for cultivation throughout all growing seasons. Designing a stone patio and a wooden pergola seating area

gives the community a popular gathering place for residents to enjoy. In addition to engaging the community through gardening and public gathering spaces, educational opportunities also help build a strong sense of community. The Mosaic Community Garden partners with a local Boys and Girls Club for a youth summer program. During the summer program, children are taught gardening technique and lessons. They also help work at the gardens farmers market and assist with making improvements to the garden site.

## SYNTHESIS OF PRECEDENT AMENITIES

Many community garden amenities were identified through the precedent study analysis. The study of these garden amenities is important to understanding which types of amenities need to be implemented into the St. James Place Community Garden design in order to increase site activity, establish accessibility, and promote originality. Figure 4.35 provides a graphic representation of which amenities are found in each precedent garden.

The amenities that are found most commonly throughout the precedent studies consist of elements that are necessary for garden design such as planting areas, water hook ups, fences, seating elements, and storage units. Amenities such as greenhouses, solar panels, market areas, art pieces, bike racks, fire pits, and grills are seen less throughout the precedents. However, this does not mean that the amenities seen less are related to poor garden designs, rather they are features that add uniqueness and give identity to specific garden sites.

## PRECEDENT AMENITIES

AMENITIES	FEDERAL WAY	BACK PORCH	FRESH START	LIZ CHRISTY	BODINE STREET	UNITY GARDEN	TREEHOUSE	MOSAIC
in ground planting	●	●	●	●	●	●	●	●
raised beds	●	●	●		●		●	
hanging plants	●	●						
container plants		●			●			
demonstration garden	●					●		
pollination garden						●	●	
children's garden					●	●		●
children amenities			●				●	
fruit trees				●		●	●	
outdoor classroom						●		
market area						●		●
playground			●					
gathering space		●		●	●	●	●	
resting area	●			●				●
greenhouse	●					●		
solar panels						●		
compost bin/area				●	●	●		●
water harvesting								●
water hook up	●	●	●	●	●	●	●	●
shade structure		●		●		●		
pergola							●	●
fire pit							●	
grill							●	
main entrance	●		●		●			
fence	●		●	●	●		●	●
bike racks				●				
permanent tables		●				●	●	
permanent seating	●	●	●	●	●	●	●	●
accessible paths	●	●	●	●			●	
water feature	●			●				
art/ art piece			●		●		●	
shade umbrellas		●			●			
bee hive						●		●
plant signage			●	●				
storage unit	●		●	●	●	●	●	●

FIGURE 4.35 Precedent Study Amenities

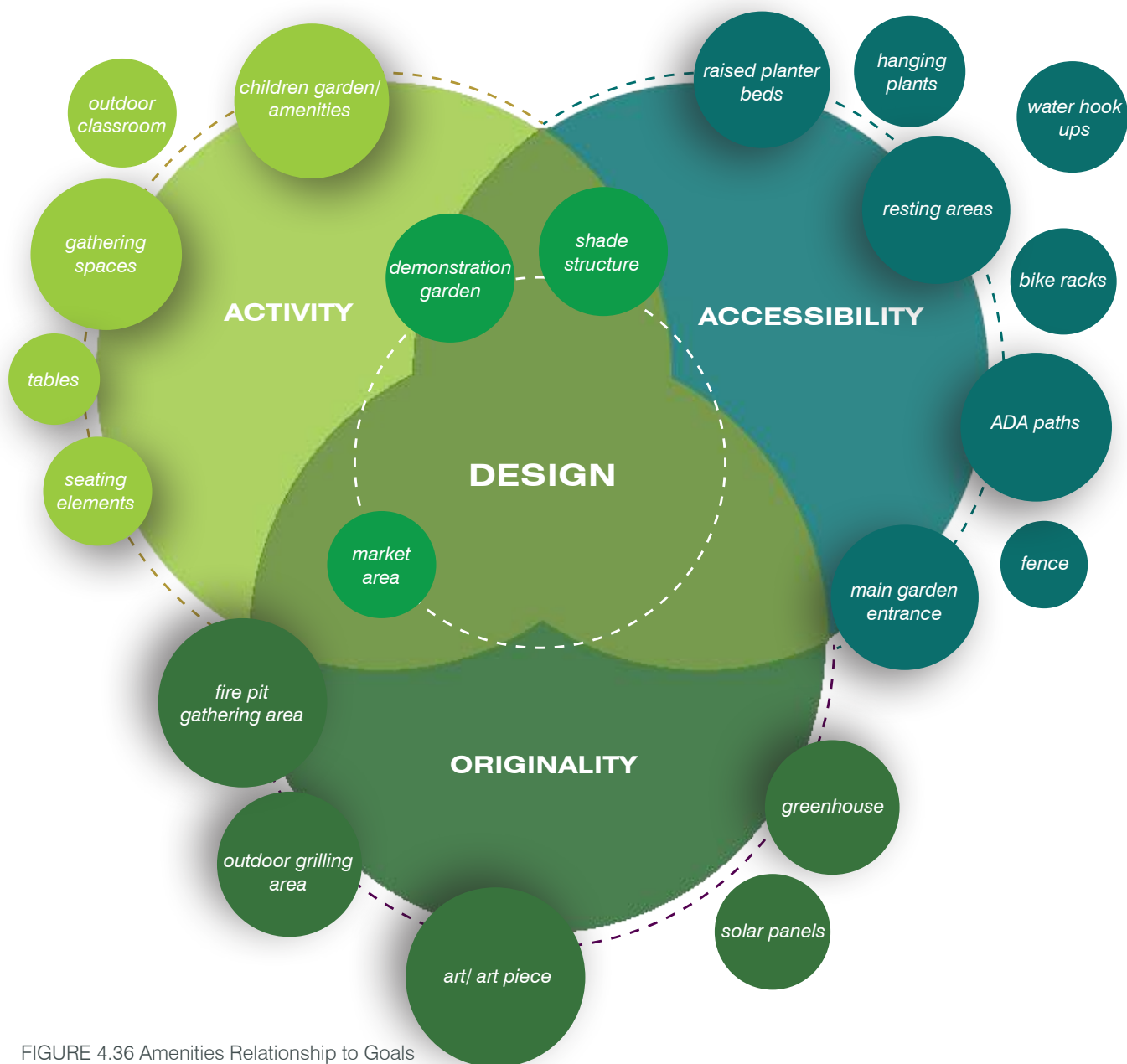


FIGURE 4.36 Amenities Relationship to Goals

## DESIGN GOALS + PRECEDENT AMENITIES

Through the precedent study analysis, specific programmatic elements have been identified that respond directly to the design goals. Figure 4.36 graphically illustrates which amenities have been associated with the goals.

The amenities from the precedent studies that are successful with increasing site activity include: demonstration gardens, market areas, children's garden and amenities, outdoor classrooms, designated gathering spaces, tables, and various forms of seating. Demonstration gardens and outdoor classrooms are great ways to attract community members to the site. The primary goal of these types of spaces is to experiment and determine which plants grow best in certain areas. Demonstration gardens and outdoor classrooms benefit communities by serving as communal learning tools. Public markets are successful at bringing people of different ages, genders, races, and ethnicity together through the experience of

food. Markets create a space where many local gardeners can come together to share and sell their food. Providing a community with a market gives people the opportunity to interact with others who share in some of the same interests. Gardens do not have to be a place where only adults can come to garden. Incorporating children's amenities into a garden site increases site activity by attracting kids from surrounding neighborhoods and blocks to the garden site. This presents opportunity for children and adults to interact with one another and bridge the generational gap that exists in many communities. Gathering spaces with seating elements and tables make it possible for groups of people to come together and socialize at the garden site, thus increasing site activity. Community events and activities can also be held in large gathering spaces.

Specific amenities are aimed toward establishing a level of accessibility within the precedent



study sites. The amenities that help make a site accessible include: raised planter beds, hanging plant baskets, resting areas, shade structures, water hook ups, bike racks, ADA paths, fences, and main garden entrances. Raised planter beds are crucial in regards to designing for accessibility. Implementing this type of planter into a garden design makes it possible for people lacking physical mobility to participate and enjoy gardening. Hanging plant baskets also allow for easy access. Resting areas and shade structures were also incorporated into many of the precedent study designs to offer gardeners and visitors respite from heat while on site. ADA accessible paths are necessary to allow for movement and easy navigation. By not designing accessible paths, the needs of potential garden users will not be met, thus causing them to not use the site. Water hook ups, main garden entrances, and fences are all logistical elements that need to be considered in every community garden design in order for it to function properly.

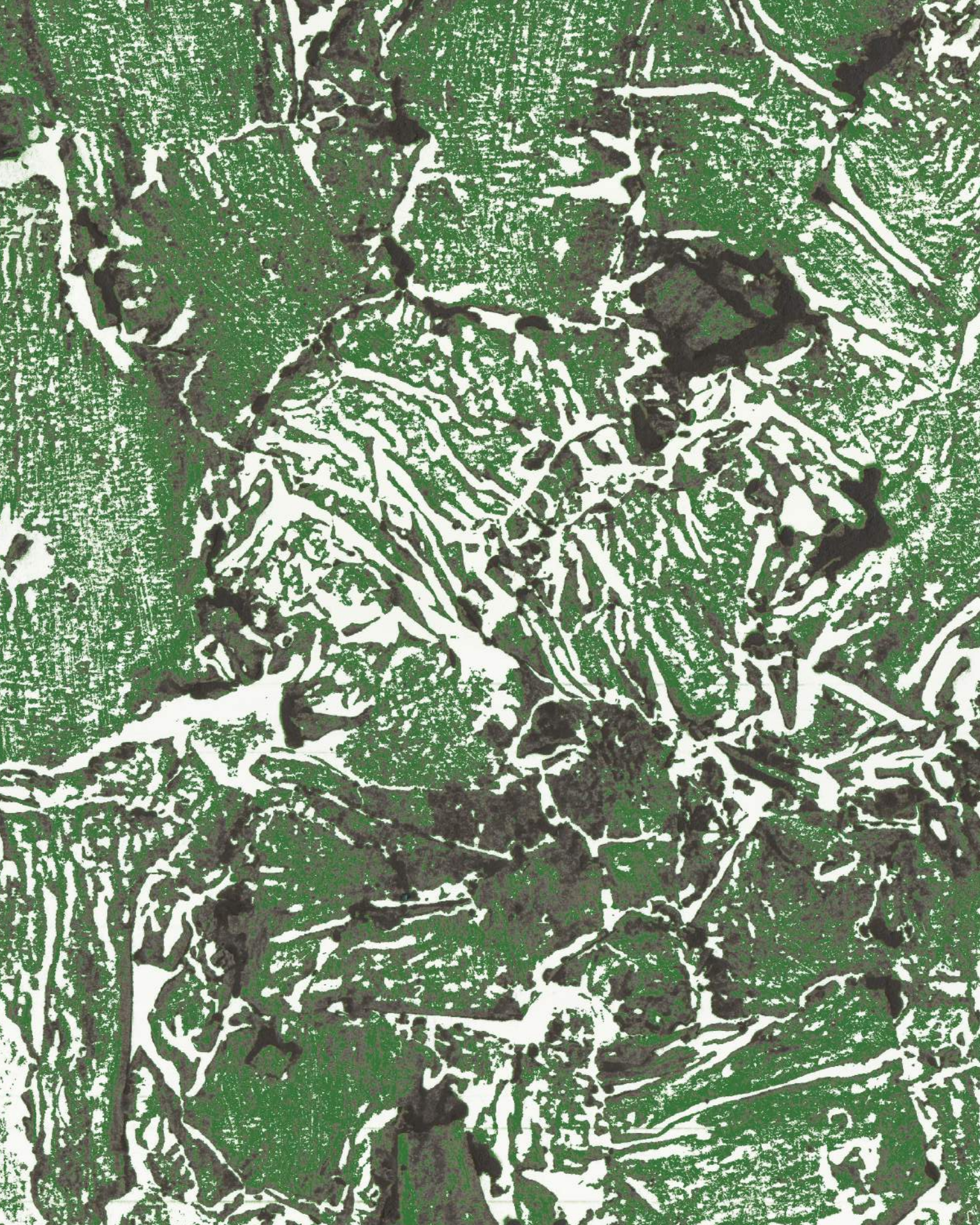
Originality is represented in the precedent studies in various ways. The unique elements that were incorporated into the designs typically represented the cultural values of the community the garden was designed for. Identified elements that brought originality to precedent study site include: market areas, fire pit gathering areas, outdoor kitchens, art and art pieces, solar panels and greenhouses. One element that helps give a community garden originality and character is a market area. Though already discussed in terms of increasing site activity, market spaces are great ways to make a community garden site stand out. There are endless possibilities for creatively designing a community garden market. Fire pits are distinct programmatic elements that promote seasonal site use. During the off season when it is too cold to grow plants and garden, the fire pit area can be utilized by community members. The same concept is similar for greenhouses. Both greenhouses and fire pits provide seasonal interest. Installing art pieces is a great way to bring originality to a

garden. The art that is chosen has the potential to be generic or specific to the garden. In the precedent studies, it was common for the community members to contribute to the art installations. Lastly, solar panels are elements that are not seen on every community garden site. Solar panels are a unique way to make the entire garden site energy efficient.

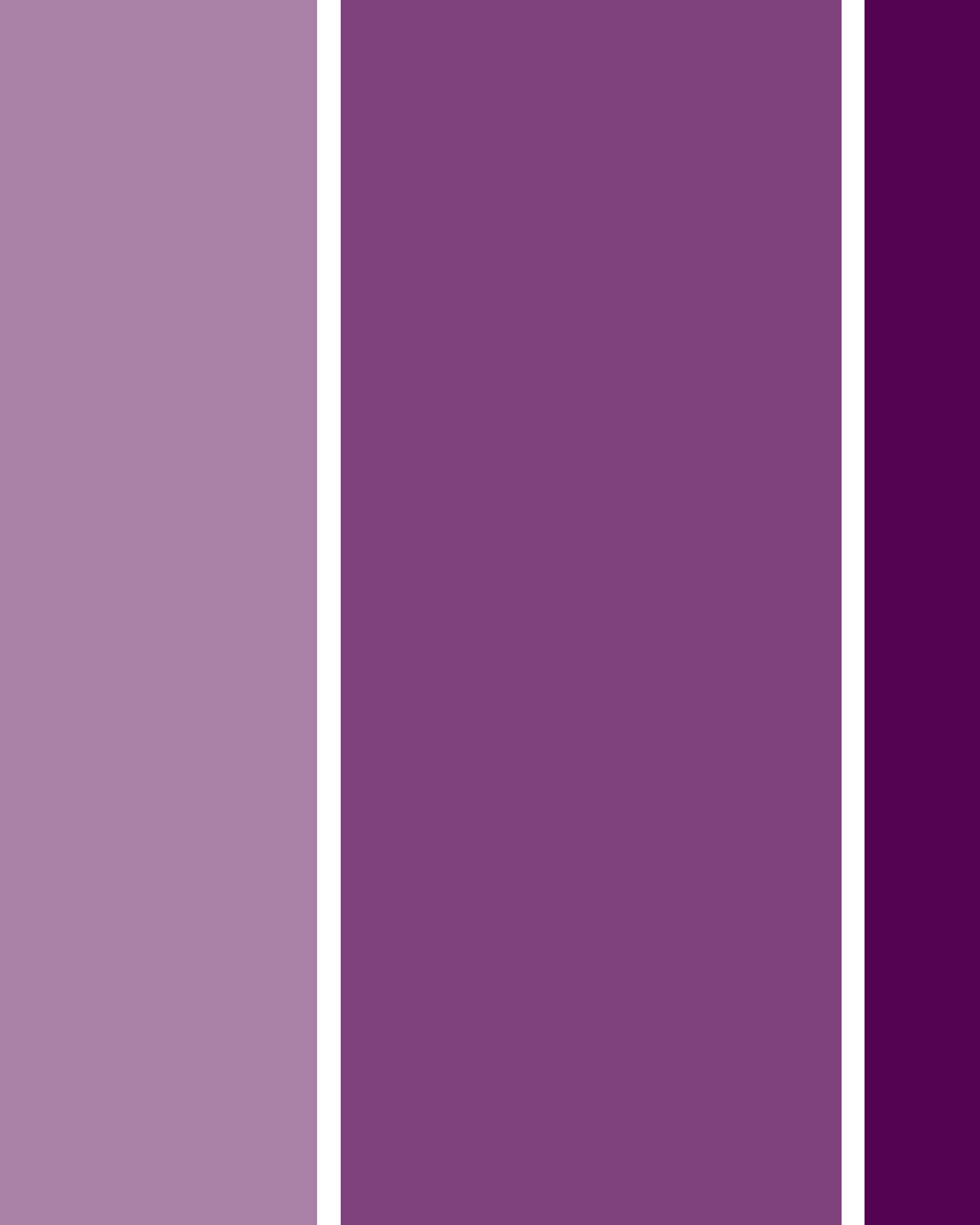
## CHAPTER CONCLUSION

The methods for this project are focused around establishing what interventions need to take place at the St. James Place Community Garden in order to meet the needs of the residents while also bridging social capital within the Citadel Neighborhood. By using a process that began with identifying a site and its users, then synthesized critical information from interview responses and precedent studies, design goals and objectives are able to be extracted and addressed. The methods discussed throughout this chapter serve as the collection of data that is used to inform the final design proposals for the St. James Place Community Garden.









## DESIGN PROPOSALS

The results and findings from the survey study, interviews, and precedent study analysis inform the re-design of the St. James Place Community Garden. The design intervention is a two-stage process, beginning with analysis. The analysis includes identifying site context, conducting site inventory and analysis, and identifying all site limitations. Following the analysis, three design proposals for the St. James Place Community Garden site were produced, based on identified design and program goals.







## SITE INVENTORY + ANALYSIS

In order to identify the current conditions of the St. James Place site, a site analysis and inventory was conducted. Understanding the surrounding site context, the existing conditions, and the site limitations from a site user perspective helped inform future design interventions. This is a critical component of the design process.

An initial site visit was made early in the fall semester, followed by one at the beginning of spring semester. The site visits were necessary and allowed for a better understanding of the scale of the site and its surrounding context in order to conduct an in-depth site analysis and inventory for the project. The maps and diagrams that were produced from the findings during the site visits are further explained in the following sections.



FIGURE 5.1 Site Context

## SITE CONTEXT MAP

Assessing the surrounding context of the St. James Place apartment complex site is a critical component in determining the types of social interactions that may already be taking place around the site. The Citadel Apartments and The Woodlands at Citadel are both apartment complexes adjacent to St. James Place. The existence of three different complexes in such close proximity to one another establishes high population density for the area. Population density is important to consider when designing with the goal to increase social interaction. The more people that are present and have the opportunity to engage with the community garden site, the more likely the amount of social interaction will increase.

Other attractions such as a strip mall, café, bank, and an office building are located within the vicinity of St. James Place. Identifying these points of interest give a basic understanding of what types of people are being drawn to the area.

## SITE PHOTOS: GARDEN PLOTS



FIGURE 5.2 In-Ground Planting Area



FIGURE 5.3 Planter Beds near Path



FIGURE 5.4 Planter Beds



FIGURE 5.5 Planter Beds during Winter





FIGURE 5.6 View Toward Apartment with Planter Beds

## SITE PHOTOS: CONTEXT



FIGURE 5.7 Existing Parking Structure



FIGURE 5.8 Existing Strip Mall



FIGURE 5.9 Site Proximity to Parking Structure



FIGURE 5.10 Strip Mall Back Side





FIGURE 5.11 View Toward Parking Lot



## SITE PHOTOS: AMENITIES



FIGURE 5.12 Path and Seating Elements



FIGURE 5.13 Water Harvesting near Patio



FIGURE 5.14 Open Pavilion Structure



FIGURE 5.15 Existing Path Conditions



FIGURE 5.16 Inside Open Pavilion

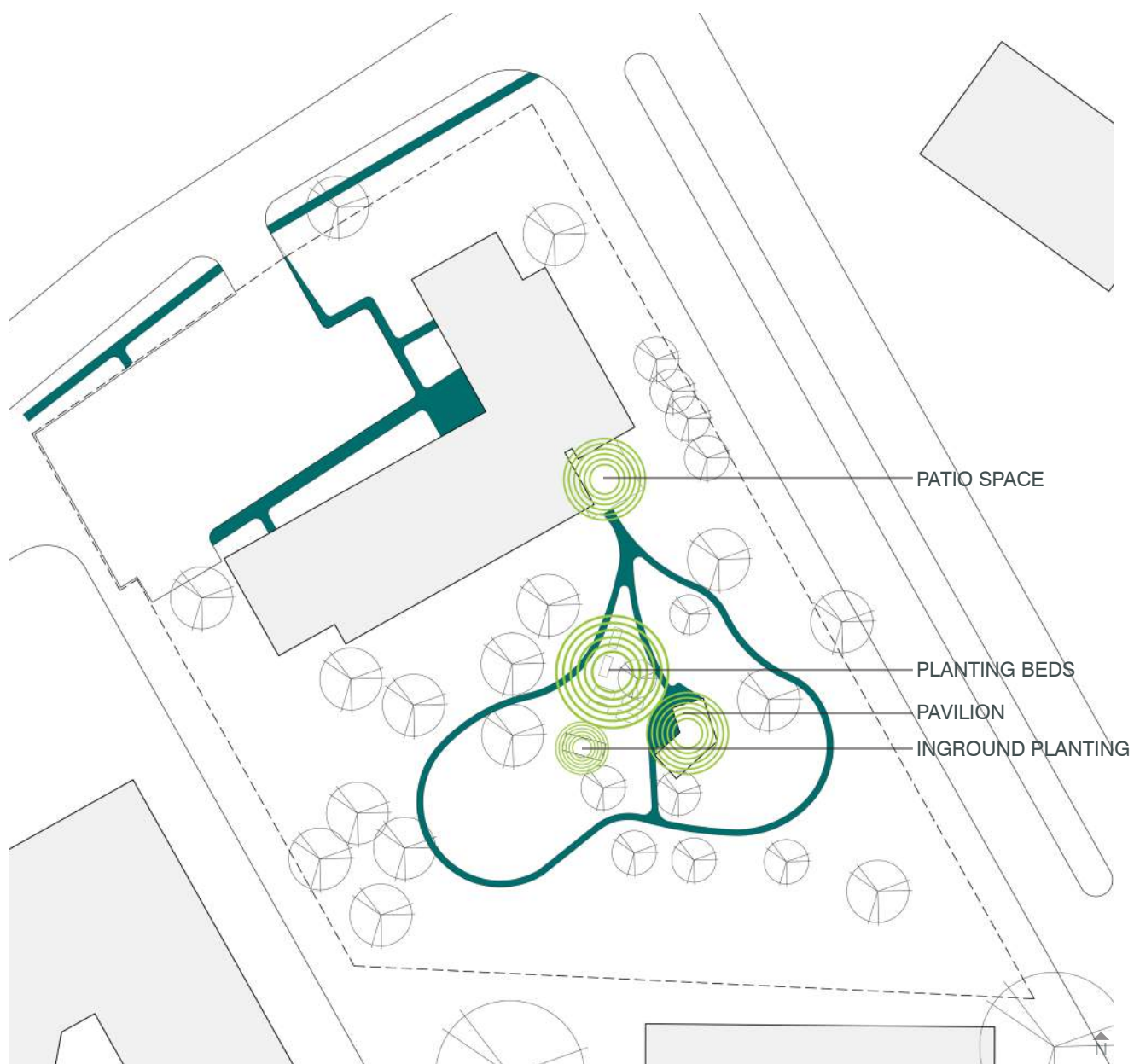





FIGURE 5.17 Circulation + Activity



# CIRCULATION + ACTIVITY

Identifying the existing activity spaces and circulation paths within the St. James Place Community Garden reveals that there are currently no accessible connections to the garden space from the parking lot, only one main circulation path exists, accessible paths do not connect to all the activity spaces, activity spaces are limited and circulation path does not offer options for residents to walk. The site offers excellent opportunities for increasing the overall site activity by providing more amenities and activity spaces.

## LEGEND

-  Existing Circulation Paths
-  Existing Activity Spaces
-  Site Boundary

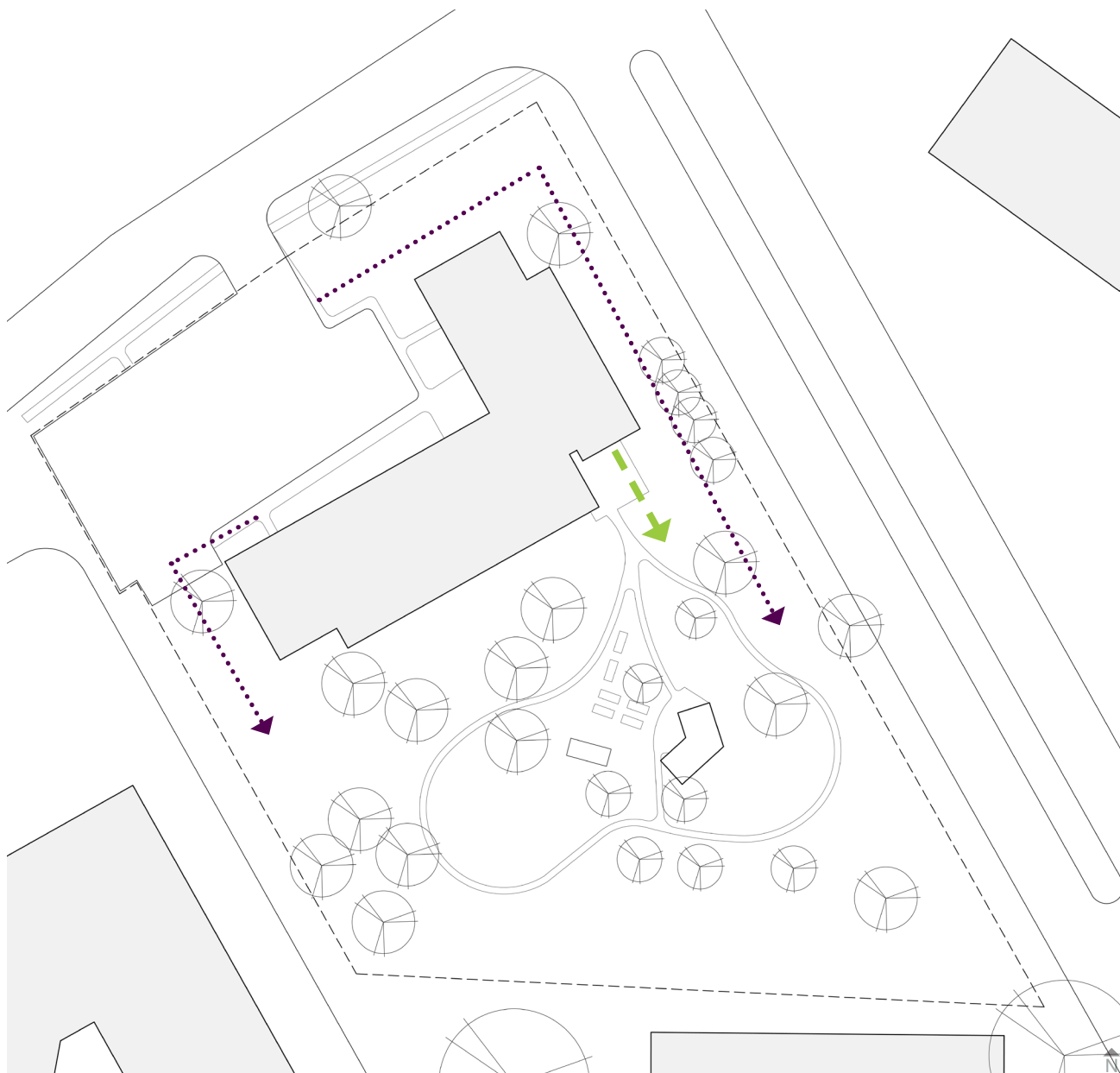


FIGURE 5.18 Site Access

## SITE ACCESS

The community garden site is currently only capable of being accessed from the inside of the St. James Place apartment complex. There is not access from the parking lot around to the garden space. However, there is space on the east and west sides of the apartment building to accommodate for accessible paths, linking the parking lot to the community garden. Creating direct routes from the front of the apartment complex will provide more opportunities for potential users to access and engage with the community garden.

### LEGEND

- ➡ Existing Access
- ..... ➡ Proposed Access
- Site Boundary









FIGURE 5.19 Site Amenities

# SITE AMENITIES

The current site design of the community garden at St. James Place offers limited site amenities for user. The existing amenities include a water harvesting device that catches rain water from the building gutters, six planting beds plus an area designated to in-ground planting, and eleven six foot seating benches. While the lack of amenities for users is unfortunate, the inactive space allows for interventions to be made in order to increase interaction between community members.

## LEGEND

-  Planting Areas
-  Seating Locations
-  Water Harvesting Device
-  Site Boundary

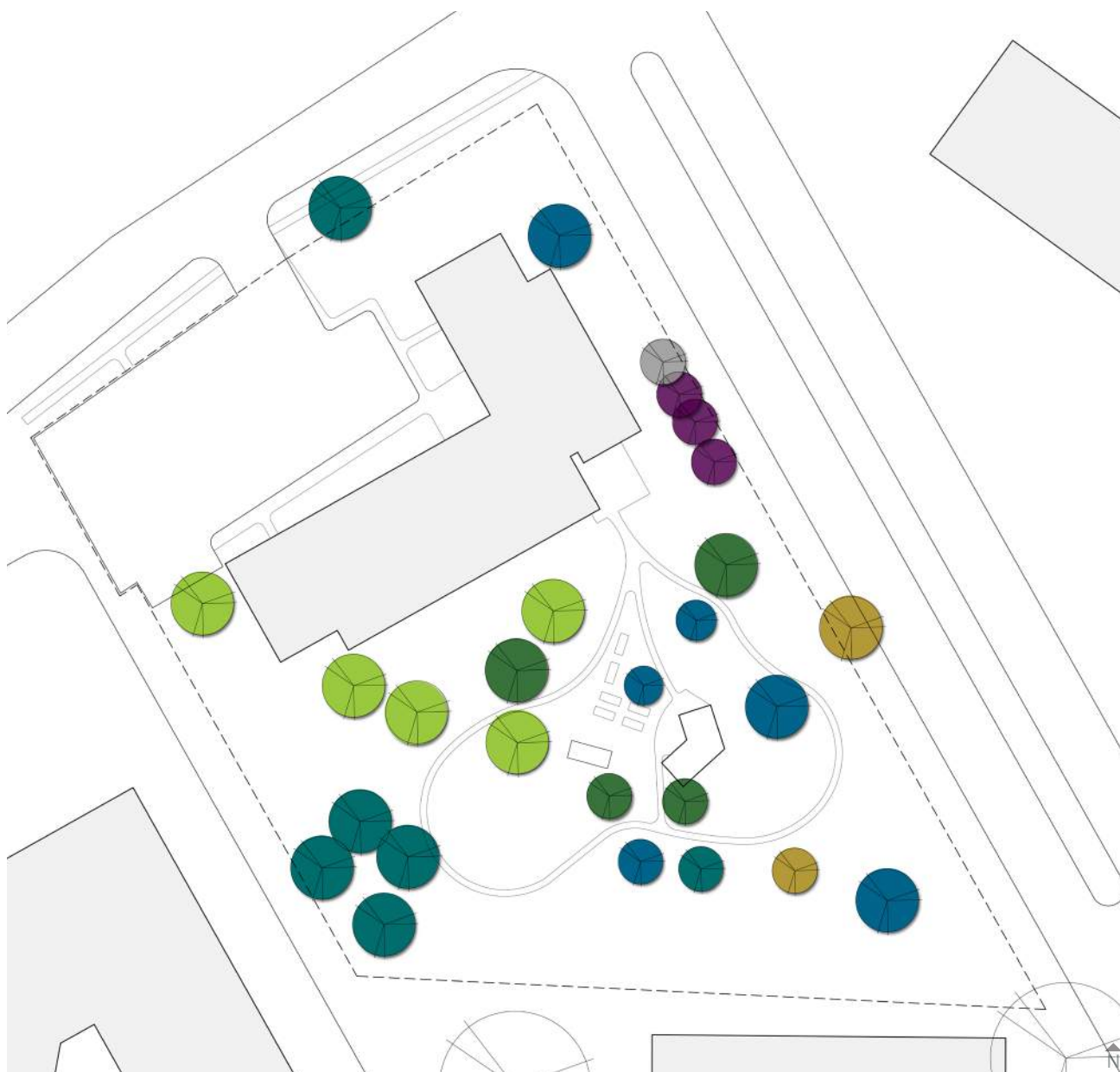


FIGURE 5.20 Site Trees

## SITE TREES

Existing site trees are important to consider for the re-design of the St. James Place Community Garden because the amount of sun and shade affects where garden plots should be located. All of the trees located on the site are in good condition. However, the Bradford Pear trees are not suitable for the site. Bradford Pear trees are very weak wooded and cause problems in areas with high winds. It was also noted by the apartment residents that the Bradford Pear trees often fall apart after storms and windy days. These trees will be removed from the site for all of the design proposals for the St. James Place Community Garden.

### LEGEND

- Crabapple
- Oriental Arborvitae
- Green Ash
- Bradford Pear
- Scotch Pine
- Ponderosa Pine
- Eastern White Pine
- Site Boundary



FIGURE 5.21 Site Topography

# SITE ELEVATION PROFILES





## SITE CONSTRAINTS

The main site constraint that places restrictions on the future design and development of the St. James Place Community Garden is the location of the water access on site. As seen in the diagram to the right, the only water source on site is located near the building. There is a water hook up connected to the building and also a water harvesting device. Because there are no other water stations dispersed throughout the site, this limits where garden beds and plots can be placed. The planting areas will have to be placed within close proximity to the water hook up for easy access.

Another constraint that must be addressed through design is the existing fence around the perimeter of the site. The fence currently do not allow access into the garden space. There is only one entrance gate located on the property and it is for vehicular access to the existing parking lot. In order to open this garden up to the public and increase site activity, more access points are incorporated into the design proposals for the garden.

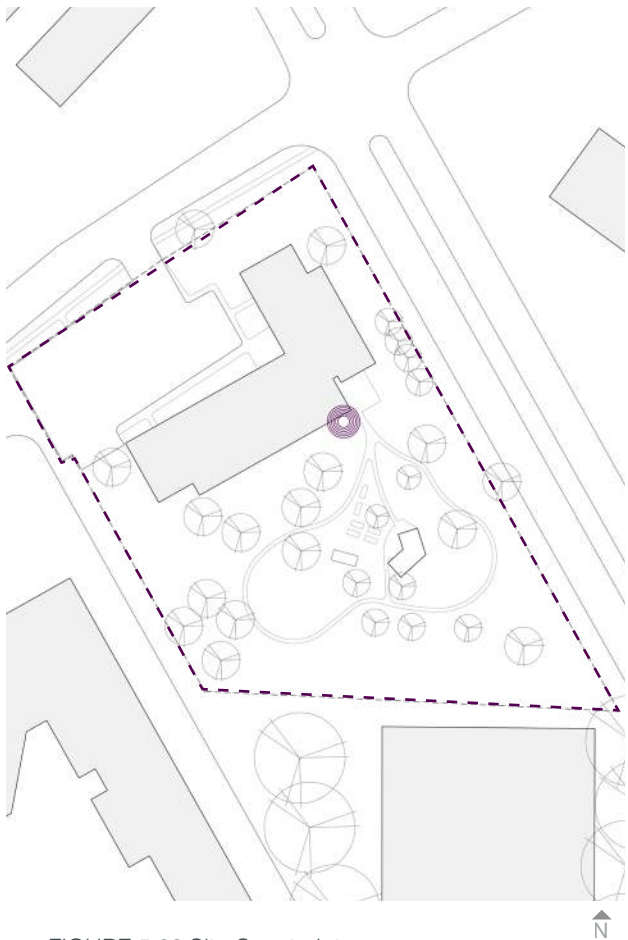


FIGURE 5.22 Site Constraints

## SITE ANALYSIS + INVENTORY CONCLUSION

The site analysis and inventory was conducted in order to gain a better understanding of the current conditions at the St. James Place apartment complex site. Knowing the existing conditions is critical for the future design proposals for the space. Common traits between the opportunities and constraints of the site were identified through this analysis in order to help inform design decisions.



## DESIGN

The final component of this master's report and project is the application of the findings from the survey study, interviews, precedent study analysis, and site analysis and inventory to the re-design of the St. James Place Community Garden. The design proposals include a variety of programmatic elements and design components that fulfill design goals and objectives. Graphic representation of supporting diagrams, site plans, sections, and perspective views will be utilized to portray the three design proposals for the site.

## DESIGN GOALS + OBJECTIVES

The design proposals for the St. James Place apartment complex aim to increase site activity, establish a high level of accessibility, and promote originality in order to meet the needs of the residents while also encouraging social interaction. The design goals and objectives identified for this project were created based on findings from the survey study, interview responses, site analysis and inventory, and the precedent study analysis. The objectives that address each goal are identified on the opposite page.

The diagrams on the following pages graphically illustrate connections made between the design goals, interview responses, design objectives, and the precedent study analysis.

## ACTIVITY

- Gathering spaces should provide opportunity for social interaction
- Create varied forms of programming
- Provide seasonal interest and activities
- Create a site that is multi-functional
- Site amenities should welcome all ages

## ACCESSIBILITY

- Create ADA garden paths and connections to garden
- Provide gardening opportunities for all levels of physical mobility
- Incorporate safety features

## ORIGINALITY

- Create a unique environment for the neighborhood that does not currently exist
- Improve the overall site experience
- Create an environment that counters characteristics of the city
- Create a physical environment that represents the values and culture of the community



# INCREASE SITE ACTIVITY

## INTERVIEW RESPONSES

- Growing produce is the main function
- Garden is not currently open to public
- Lack of social interaction
- Exercise space is needed
- Gazebo space is underutilized
- No events are currently held at garden
- Garden provides no interest for children
- Fresh produce is the main benefit
- Many spend time is garden alone
- Lack of interest for non-gardeners
- Sharing produce is important

## OBJECTIVES

- Provide opportunity for social interaction
- Create varied forms of programming
- Provide seasonal interest and activities
- Create a site that is multi-functional
- Site amenities should welcome all ages

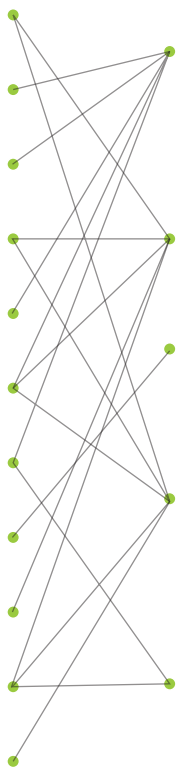


FIGURE 5.23 Increase Site Activity Connections

## PRECEDENT STUDIES

## DESIGN CONSIDERATIONS

The Back Porch Garden  
 Bodine Street Community Garden  
 Liz Christy Community Garden  
 Unity Garden

The Back Porch Garden  
 Liz Christy Community Garden  
 Unity Garden

Federal Way Senior Garden  
 Unity Garden

Fresh Start Community Garden  
 Bodine Street Community Garden  
 The Back Porch Garden  
 Unity Garden

Federal Way Senior Garden  
 Fresh Start Community Garden  
 Unity Garden  
 Mosaic Community Garden

Incorporate flexible gathering spaces  
 Open garden to public during specific hours established by residents

Provide open space for recreation  
 Provide seating for groups

Incorporate private/ individual seating  
 Place gathering spaces near gardening areas to increase social interaction

Provide gathering spaces that serve various functions

Consider greenhouse installation

Engage residents in different types of gardening techniques

# ESTABLISH ACCESSIBILITY

## INTERVIEW RESPONSES

- Incorporate raised planter beds
- Provide more garden plots
- Paths are not wheelchair/walker friendly
- Water harvesting obstructs views
- Water hookup limits plot locations
- Location of composting not successful
- Garden design not suited for disabilities
- Exercise space is needed
- Gazebo is underutilized

## OBJECTIVES

- Create ADA garden paths and amenities
- Assure accessible connections
- Provide for all levels of physical mobility
- Incorporate safety features

FIGURE 5.24 Establish Accessibility Connections

## PRECEDENT STUDIES

## DESIGN CONSIDERATIONS

Federal Way Senior Garden  
Fresh Start Community Garden  
The Back Porch Garden

Federal Way Senior Garden  
Fresh Start Community Garden  
The Back Porch Garden  
Mosaic Community Garden

Federal Way Senior Garden  
Fresh Start Community Garden  
Bodine Street Community Garden

The Back Porch Garden  
Bodine Street Community Garden  
Liz Christy Community Garden  
Treehouse Community Garden  
Mosaic Community Garden

Make garden paths ADA accessible

Provide raised planter beds and table  
planters that allow for easy gardening

Utilize path material that is smooth, non-  
slick, and firm

Design garden paths with options to  
meet the needs of mobility levels

Incorporate accessible entrance

Provide multiple resting areas and  
opportunities for shade

# PROMOTE ORIGINALITY

## INTERVIEW RESPONSES

## OBJECTIVES

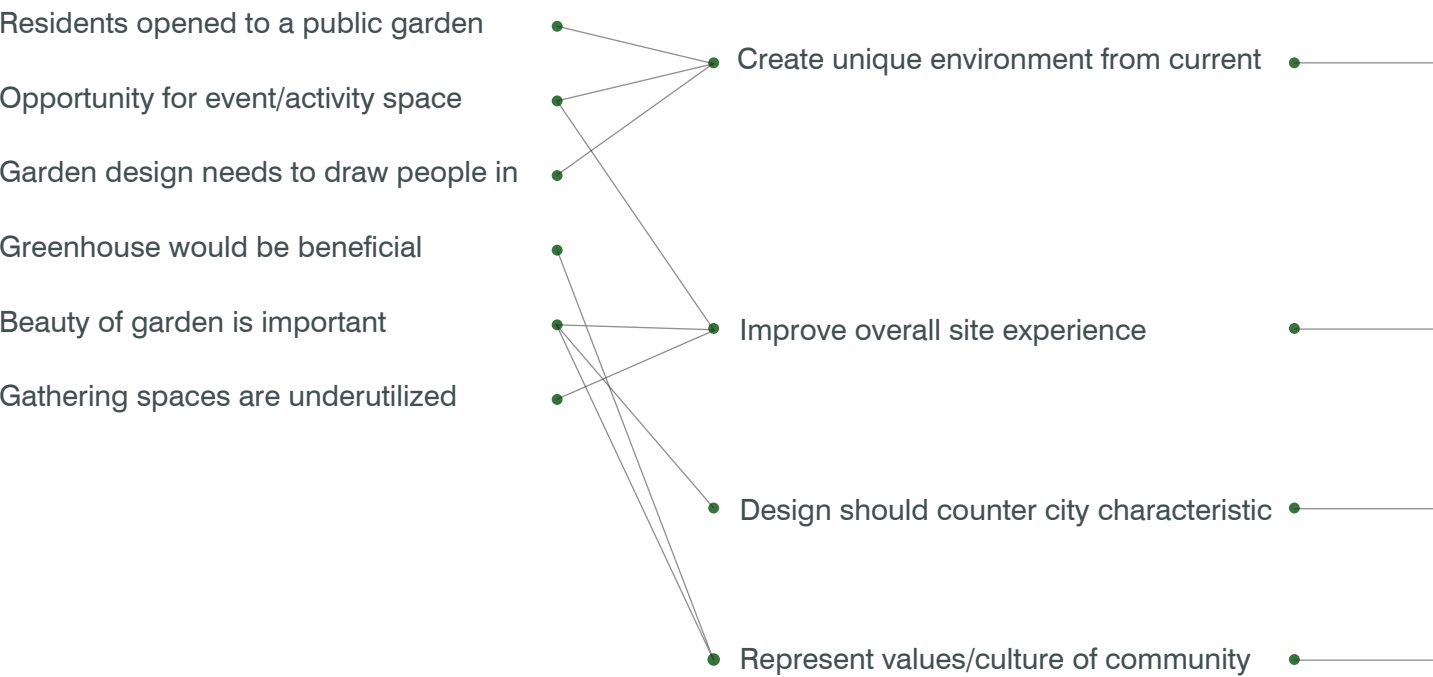


FIGURE 5.25 Promote Originality Connections

## PRECEDENT STUDIES

## DESIGN CONSIDERATIONS

Federal Way Senior Garden  
Fresh Start Community Garden  
The Back Porch Garden  
Liz Christy Community Garden  
Treehouse Community Garden

Fresh Start Community Garden  
The Back Porch Garden  
Liz Christy Community Garden  
Bodine Street Community Garden  
Mosaic Community Garden

Bodine Street Community Garden  
Liz Christy Community Garden

Fresh Start Community Garden  
Bodine Street Community Garden  
Treehouse Community Garden  
Mosaic Community Garden  
Federal Way Senior Garden

Open garden to public during hours specified by residents

Incorporate a fire pit feature

Provide more luscious flower beds

Consider greenhouse installation

Create meandering paths

Provide flexible gathering spaces



# **DESIGN CONCEPT ONE:**

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# **THE ROOTS OF WISDOM**

A particular focus for The Roots of Wisdom design was aligning the residents' aspirations for the garden with necessary cost effective amenities to optimize the garden's opportunity to increase social interaction. The amenities that are incorporated into this design strive to, first and foremost, bond social capital among the residents living at the complex, and second, bridge social capital among community members from the surrounding apartment complexes. The Roots of Wisdom plan calls for enhancing the site experience by providing variations in gathering spaces, presenting opportunities for intergenerational interactions and activities, and ultimately improving the existing site conditions. Major goals include expanding educational spaces, adding visitor destinations, sharing the beauty of the native Kansas flora, and creating accessible routes.

The main features of the garden include patio seating for the residents, in-ground planting areas and raised planter beds, an open picnic space, designated children's garden paired with a demonstration garden, and a playground. These elements are organized around accessible garden paths, providing garden users with many route options.

Although there is not one main focal point in the garden design, the site programming and

garden elements together create a relaxed, welcoming environment. Increasing the number of raised planter beds and in-ground planting areas allows for more gardening opportunity for the residents. With its close proximity to an access point, the open picnic gathering area provides a space within the site for community members to utilize. The children's garden and playground establishes a sense of uniqueness and originality for the garden. Both of these spaces aim to combine playing and learning within the garden site.

The simplicity and balance between the various programmatic elements in The Roots of Wisdom proposal accomplishes the design goals without fully redeveloping the existing site. Site activity has the potential to be increased due to incorporating children amenities and visible garden entrances. Originality surfaces in the form of unique gathering spaces and educational opportunities from the demonstration garden. Accessible paths and gardening options establishes site accessibility for all intended users. The proposal for The Roots of Wisdom garden serves as an example of how limited alterations to the existing garden site can be re-designed to promote social interaction among residents and community members while also being cost effective.



FIGURE 5.26 The Roots of Wisdom Site Plan

## Legend

- A Patio Seating
- B Water Harvesting Device
- C Umbrella Seating
- D In-Ground Planting
- E Raised Planter Beds
- F Tool Shed
- G Children's Garden/ Demonstration Garden
- H Open Pavilion Structure
- I Main Entrance
- J Designated Play Area
- K Shade Structure with Seating Below
- L Picnic Area
- M Edge Planting
- N Parking Lot Garden Access
- O Existing Parking
- P Native Planting
- Q North Garden Access
- R Open Lawn
- S Community Garden Welcome Sign
- T Resting Area with Umbrella Seating

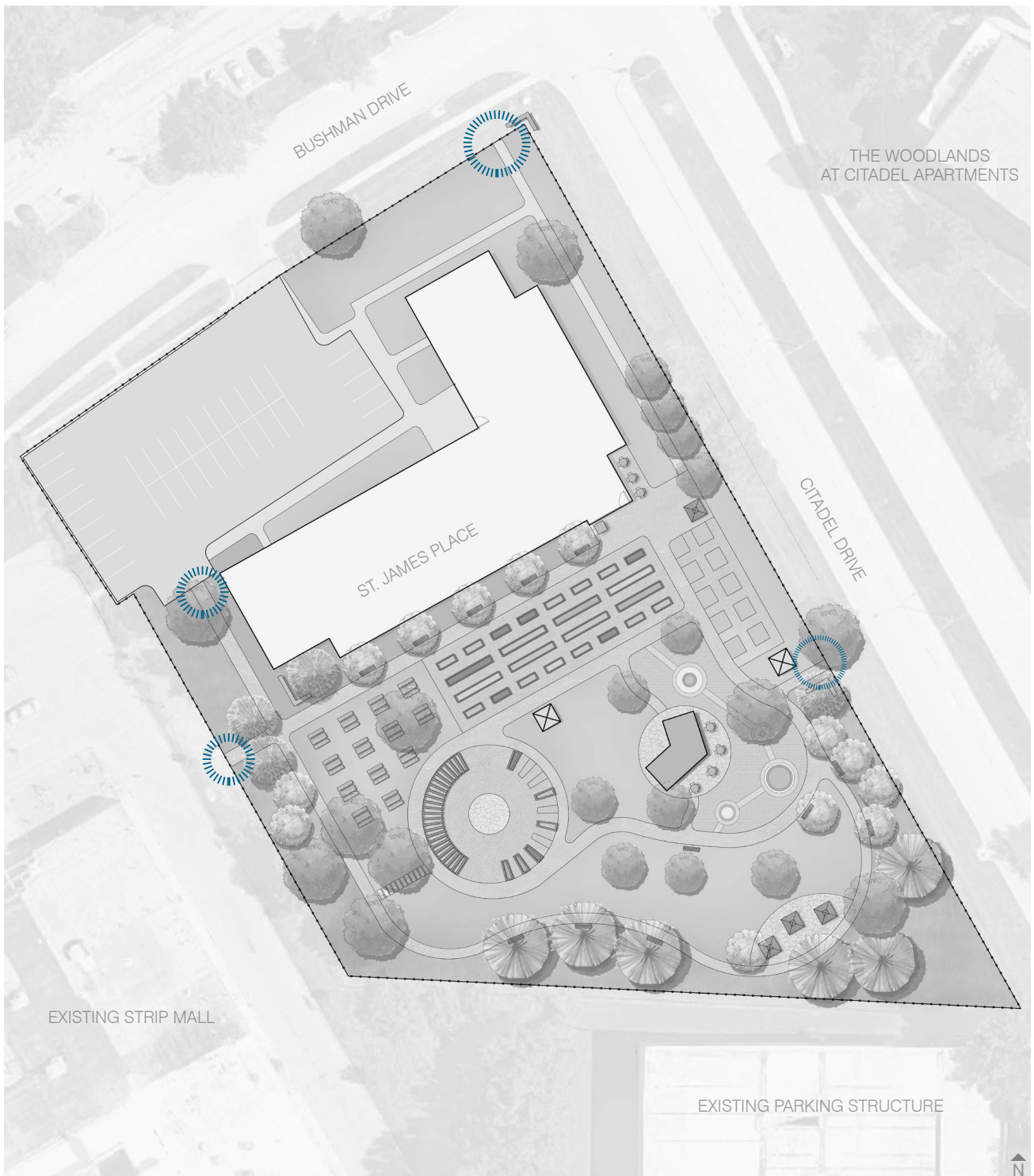


FIGURE 5.27 Proposed Access Points

## PROPOSED ACCESS POINTS

Currently, the only option for accessing the St. James Place Community Garden is through the apartment building on the southern side of the complex. The fence located around the perimeter of the complex site only has one gate access point, which is to the parking lot. The site proposal for The Roots of Wisdom design recommends three pedestrian access points and one connecting sidewalk from the parking lot. Each identified access point requires the installation of a gate.

The access point located on the far north side of the site welcomes people from Bushman Drive. Located directly north of Bushman Drive are the Citadel Apartments. The north entrance location is intended to attract residents living those apartments to the community garden site. The residents from The Woodland Apartments are able to access the site from an east entrance. An entrance is also located on the west side of the site near the existing strip mall. A parking lot is located behind the strip mall. The west entrance is intended to grant access to visitors that park in the existing parking lot.



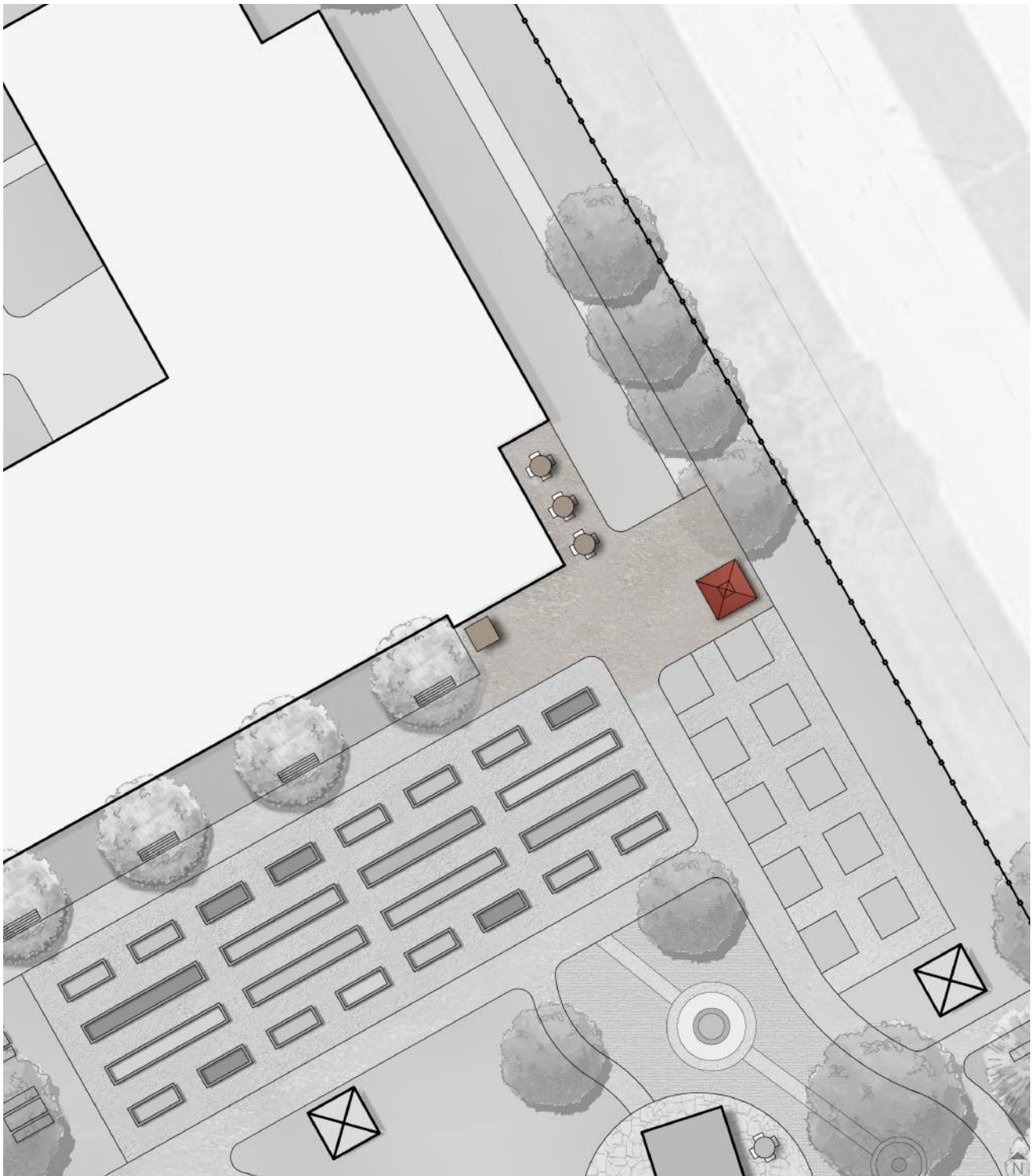


FIGURE 5.28 Patio Seating



## PATIO SEATING

The patio area provides residents with a gathering space within close proximity to the building. This space creates an opportunity to draw the residents outside without having to travel far. Three movable tables make it possible for small groups to gather in the space. It is important to provide points of interest near the building for the elderly residents that do not feel comfortable venturing far from the building. Locating the patio adjacent to the garden plots presents opportunity for social interaction between those sitting on the patio and the gardeners.

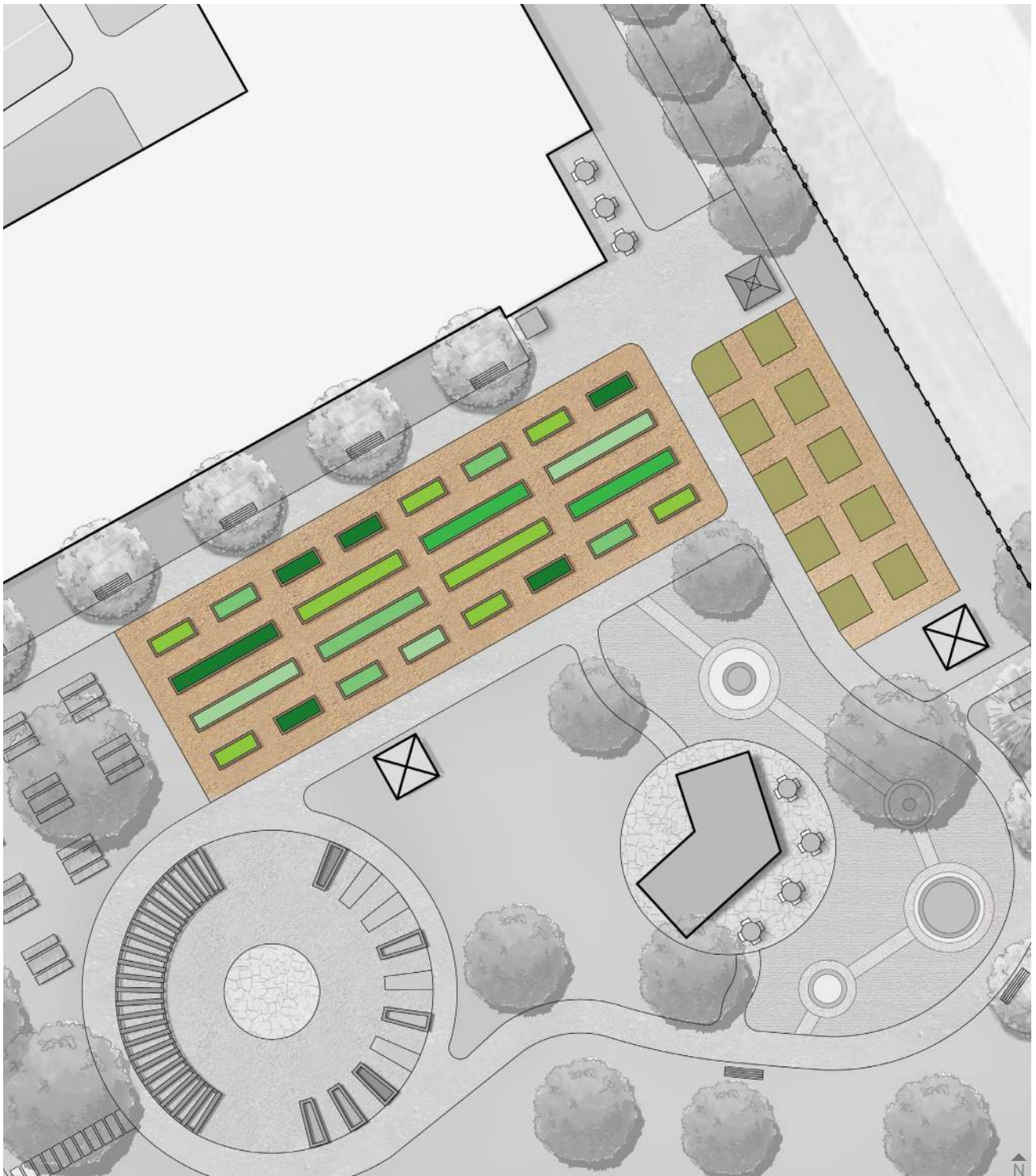


FIGURE 5.29 Community Garden Plots

## COMMUNITY GARDEN PLOTS

The community garden plots are also located near the building to allow for easy access by the residents. The design provides variation in the plot sizes. Altogether, there are 24 raised planter beds located within the garden area. Sixteen of the beds are 4 foot wide by 10 foot long in size. The remaining eight raised planter beds are 4 foot wide by 15 foot long. Each of the raised planter beds are 30 inches in height and had an eight inch seating ledge. Ten in-ground planting plots, each eight foot by nine foot in size, are located toward the far east side of the site. These in-ground plots give options other than raised planter beds to those who participate in gardening.

The residents at St. James Place will have first choice on all gardening plots. If there are still open gardening spaces after the residents have chosen, the remaining plots can be used and rented by community members. This will help bridge social capital between the residents and the Citadel Neighborhood community.

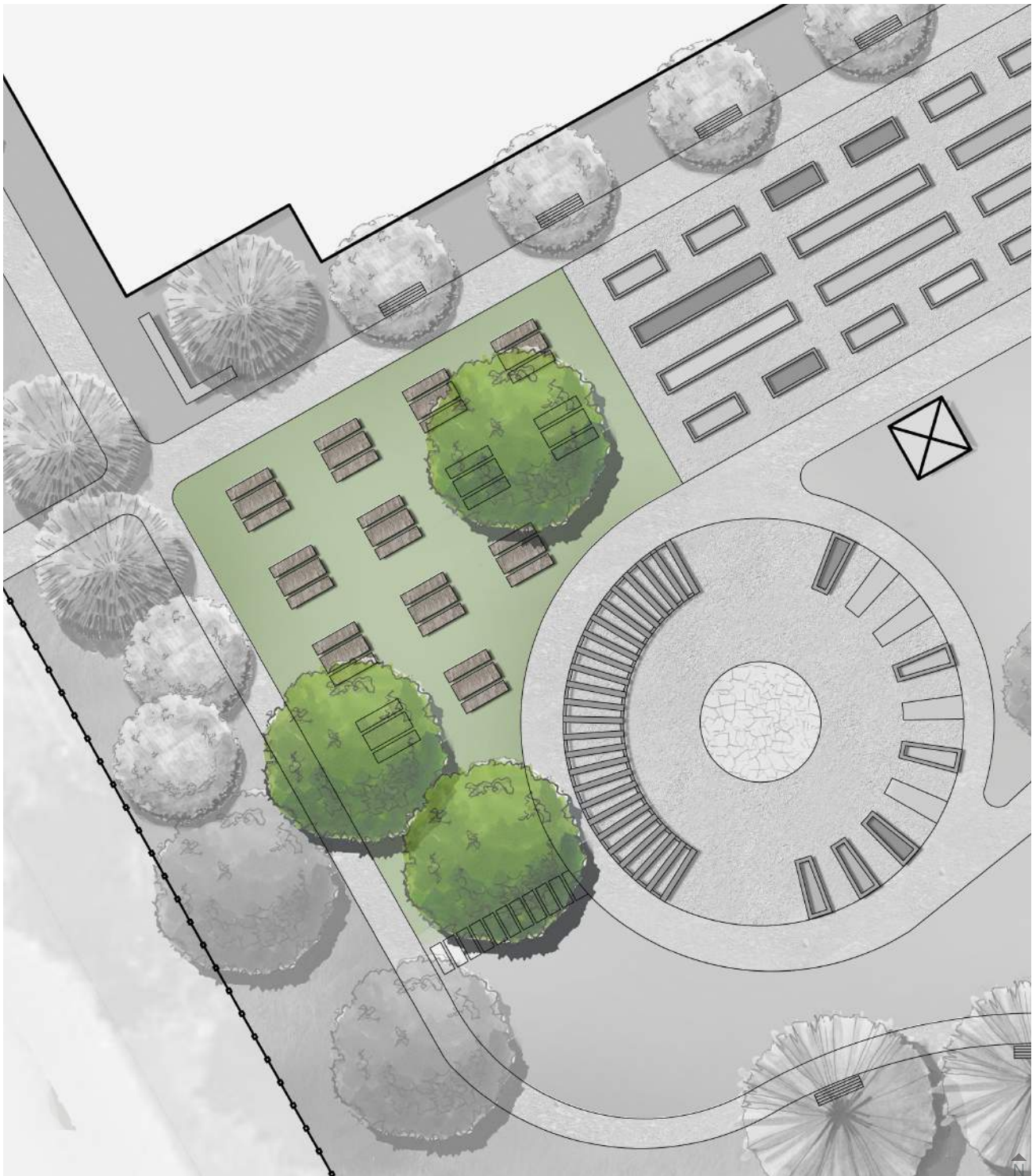


FIGURE 5.30 Picnic Area

## PICNIC AREA

A picnic area is located on the western side of the site near a proposed access point. This is a communal gathering space with thirteen picnic tables where all members from the community are welcome to interact with one another whether it is for a picnic, casual meetings, larger events, or individual enjoyment. It is easily accessible from the parking lot or the west gate entrance. The tables can easily be moved in order to accommodate for various user needs. The picnic area is an excellent space for potential users to eat lunch, meet up with friends, relax, or simply enjoy the outdoors and activities going on in the garden.



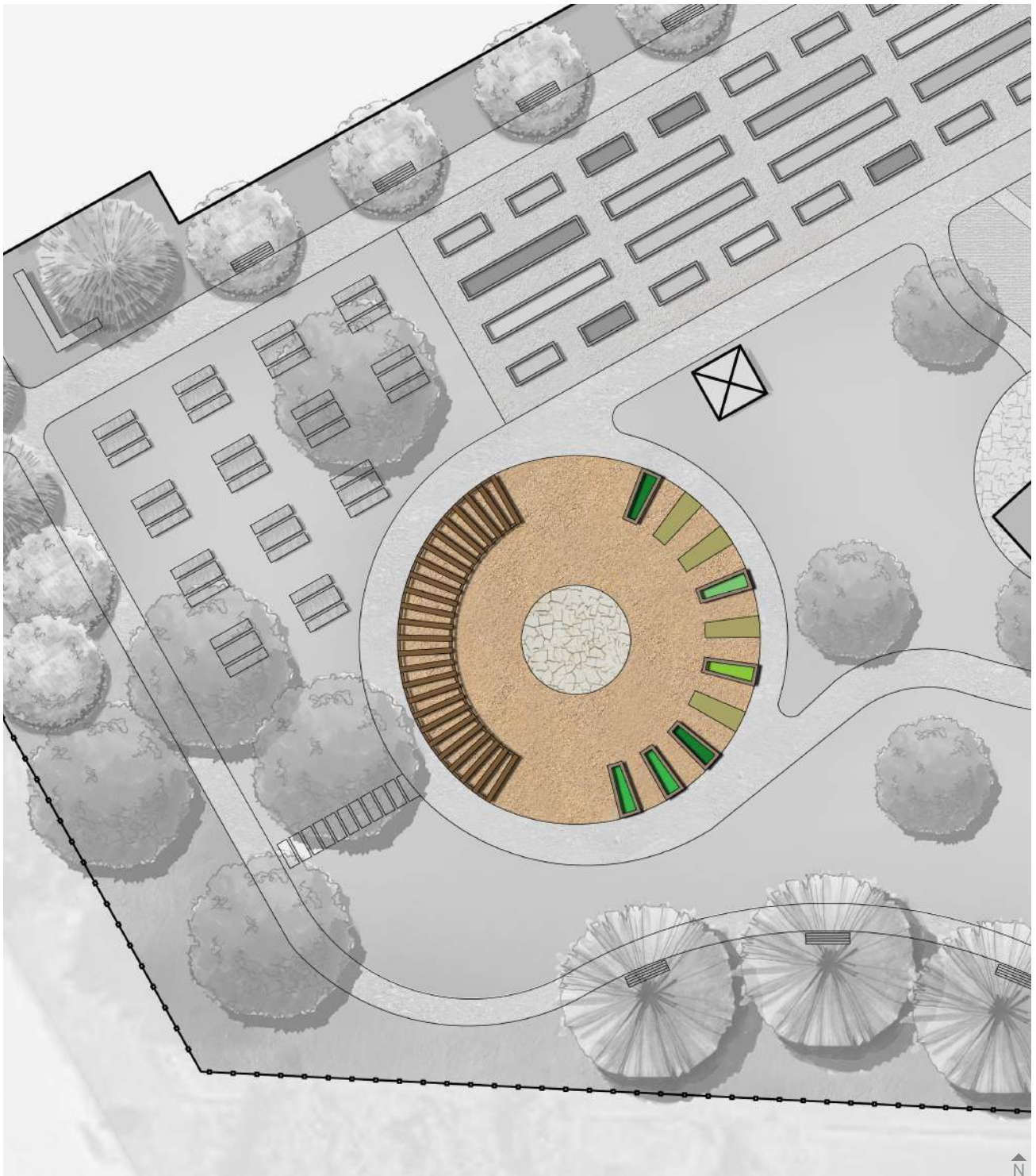


FIGURE 5.31 Children's + Demonstration Garden

## CHILDREN'S GARDEN + DEMONSTRATION GARDEN

The children's garden and demonstration garden are located adjacent to the picnic area on the western half of the site. This space consists of a pergola shade structure with seating underneath, a central presenting patio, six raised planter beds, and four in-ground planting plots. The purpose of this area is to encourage children to participate in gardening activities within the garden site. Many residents stated during the interviews that their grandchildren often visit them and enjoy spending time outside. Specific plots could be used by the children of the community to experiment and gain knowledge about gardening. The senior residents could share in their experience and help the children with their plots. Elders and children gardening together helps close the generational gap and forges new relationships.

This space also presents opportunity to serve as a demonstration space. If only half of the plot were dedicated to children usage, the other

half could serve as demonstration plots. The circular area allows enough space for people to gathering near the plots for classes and lessons on gardening. The location of the demonstration and children's garden is easily accessible and visible from the west side entrance of the garden.



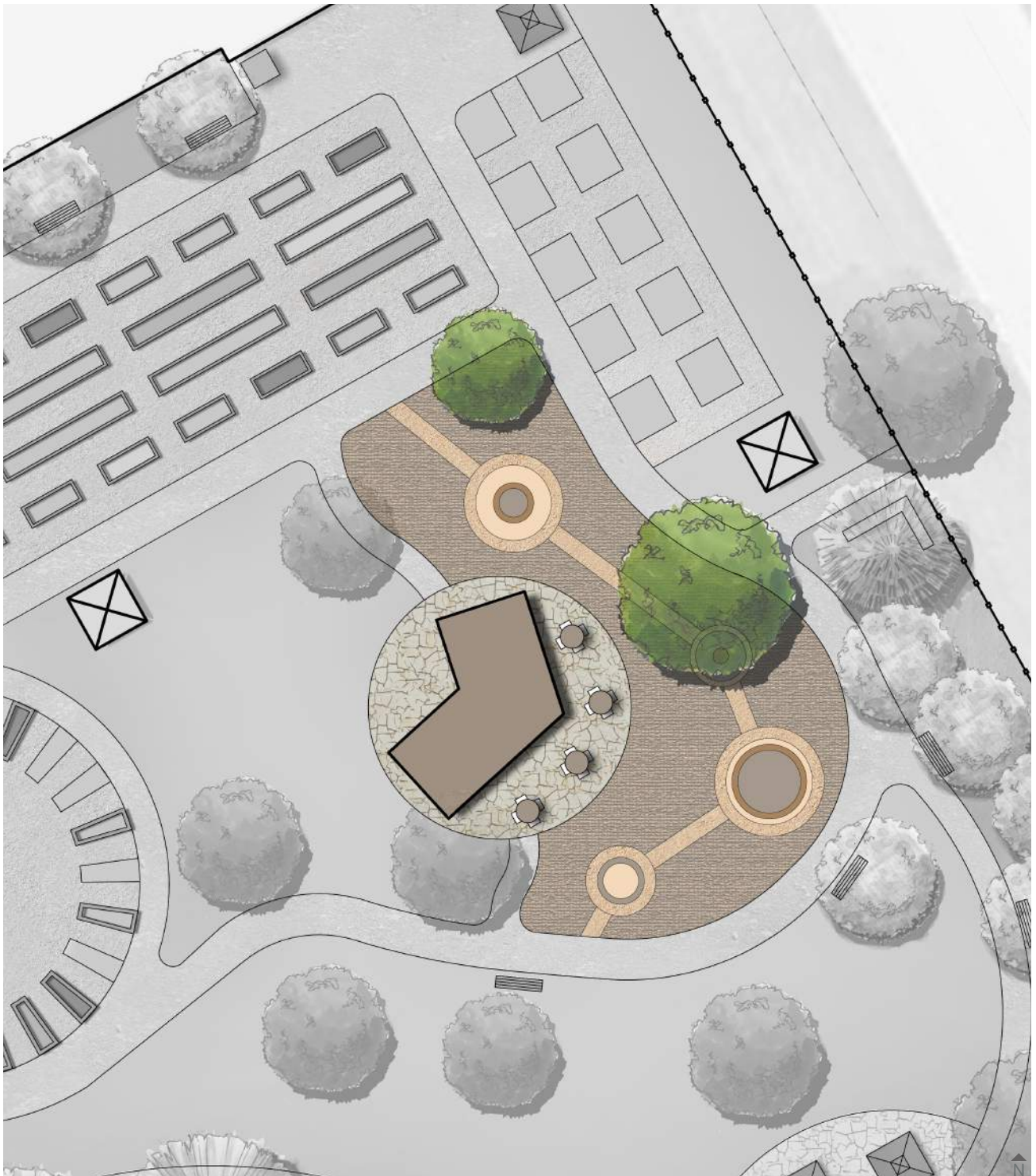


FIGURE 5.32 Playground Area

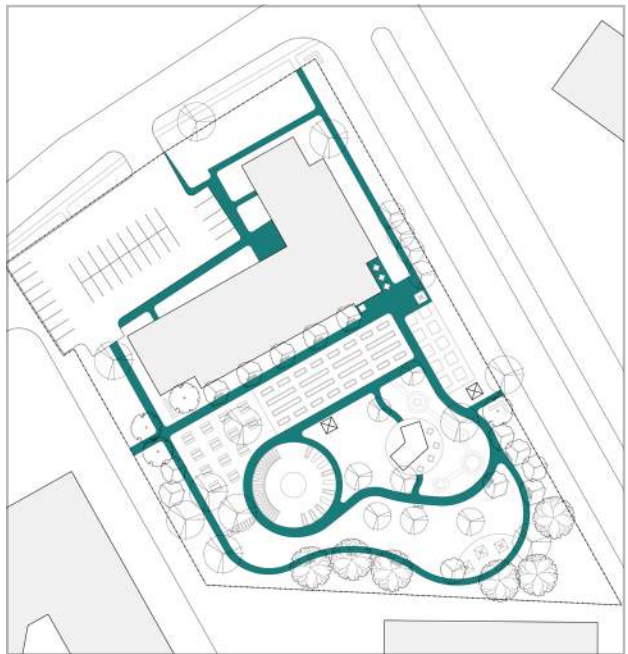
## PLAYGROUND

In conjunction with the children's and demonstration garden, a playground is located directly east of those plots. The playground and children's gardening area are connected by an accessible path. The playground creates more opportunity to draw younger users to the site. The eastern most access point leads directly to the playground, making it easy for children find. Instead of using typical playground equipment, the playground space is intended to encompass a variation in natural playscape elements such as hollow logs, boulders, sandboxes, tree stumps, and natural paths. A resting area on the backside of the open pavilion provides seating for children or parents and grandparents that may be watching their children while they play.

## CIRCULATION



EXISTING PATHS



PROPOSED CIRCULATION ROUTES

FIGURE 5.33 Existing vs Proposed Circulation

## TREE COVERAGE



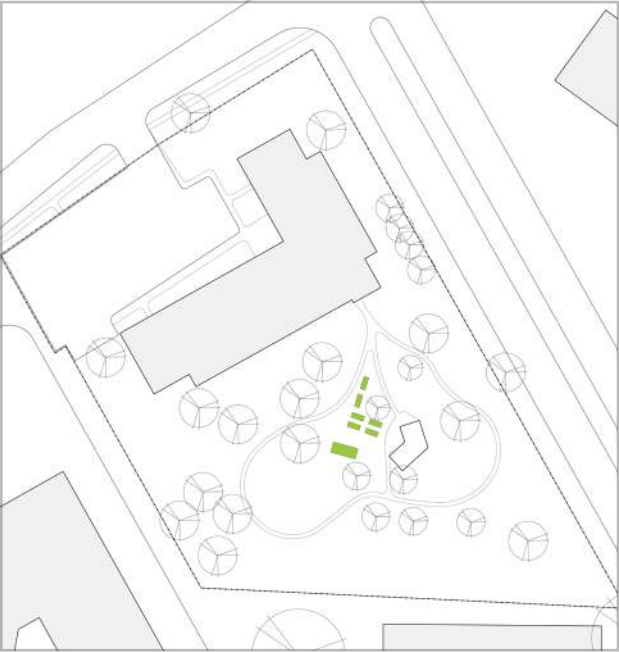
EXISTING SITE TREES



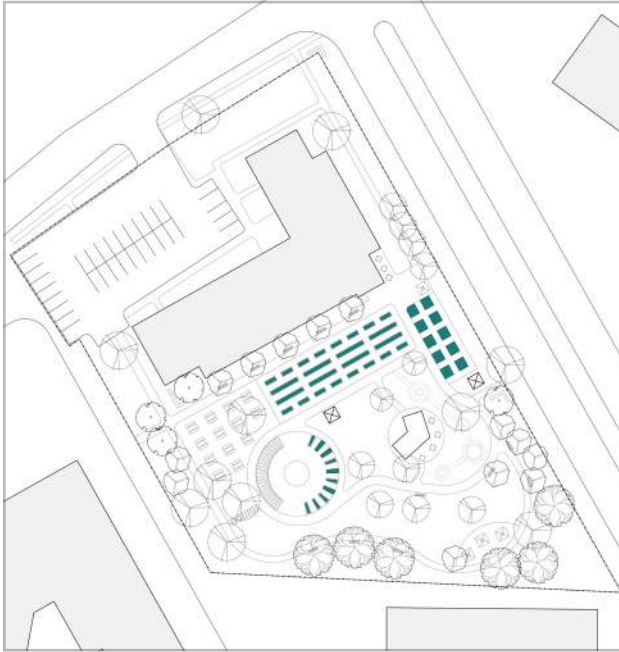
PROPOSED + EXISTING TREES

FIGURE 5.34 Existing vs Proposed Tree Coverage

GARDENING OPPORTUNITY



EXISTING GARDEN PLOTS



PROPOSED GARDENING OPTIONS

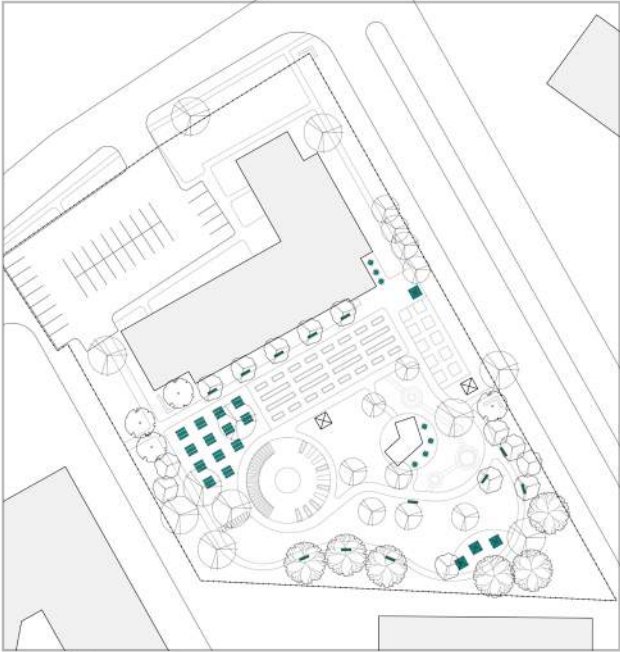
FIGURE 5.35 Existing vs Proposed Gardening Opportunity



SITE SEATING



EXISTING SITE BENCHES



PROPOSED SEATING ELEMENTS

FIGURE 5.36 Existing vs Proposed Seating

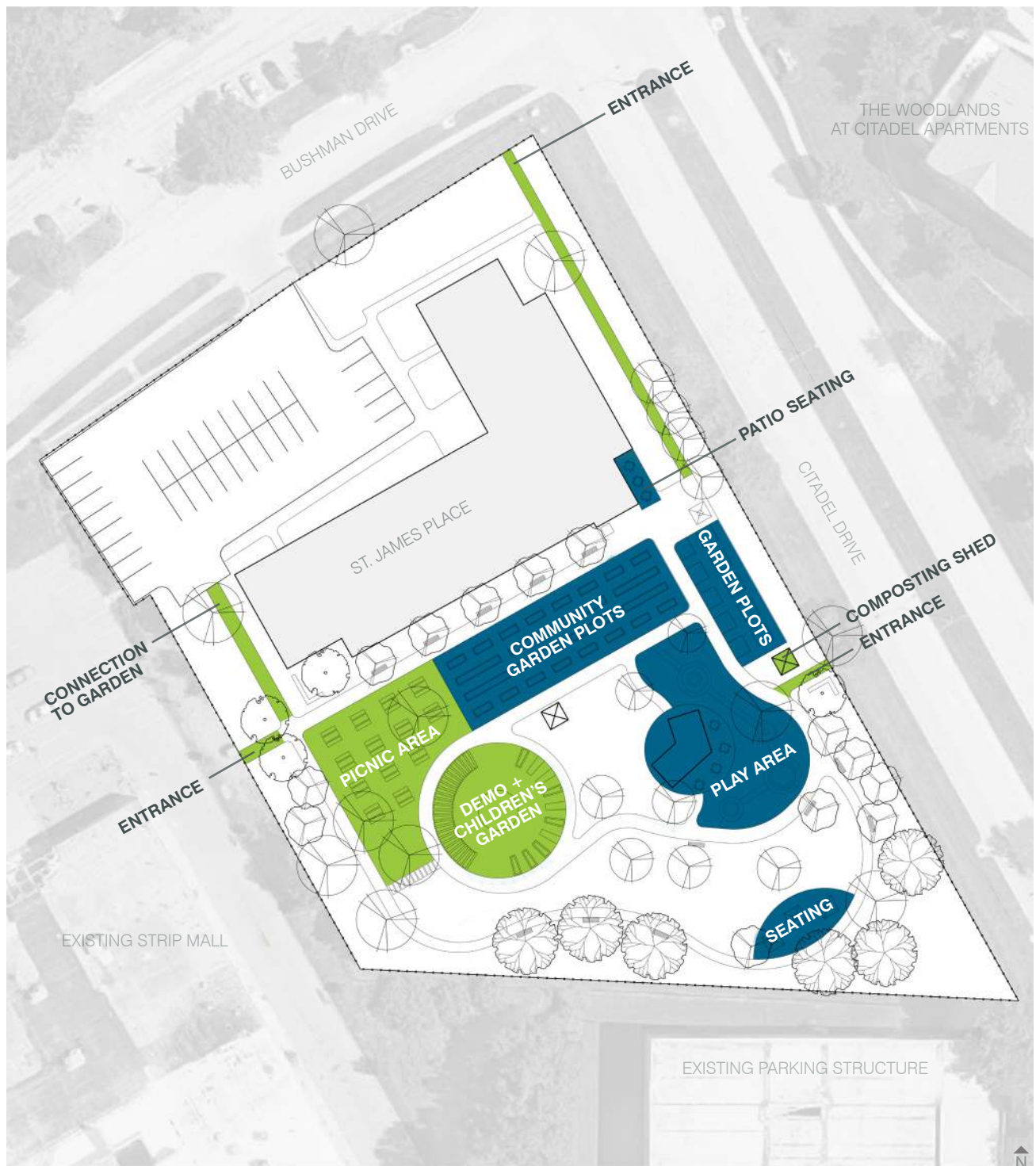


FIGURE 5.37 Bridging vs Bonding Elements

- Bonding Elements
- Bridging Elements



The main focus for The Roots of Wisdom design proposal is to first and foremost bond social capital among the residents living in the complex. The features within the design that aim to bond social capital include the community garden plots, the designated playground area, and two small gathering spaces with seating.

The community garden plots are utilized as a bonding mechanism because the plots are intended for the resident's use. Providing the complex with accessible gardening beds encourages more residents to participate in gardening related activities, thus providing more opportunity for social interaction. The designated playground area is utilized as a bonding mechanism because the area will be used most by the residents' grandchildren. The residents that were interviewed stated that grandchildren are frequent visitors of the garden site. Providing a play area for their grandchildren continues to bond relationships between residents and the resident's grandchildren. The last features that serve as bonding features on the site include small seating and gathering areas. The patio space that is located near the apartment complex encourages the residents to utilize the outdoor space at their own convenience for small gatherings. The seating area located on the southern end of the site is also intended as a bonding feature for the residents due to its size. The area is not large enough to host big events or accommodate a large group of people. It is a more intimate seating area that residents can use when they want to venture away from the apartment complex.

Three of the features incorporated into the design proposal for focus on bridging social

capital between the residents at the complex and the surrounding community. The three bridging features include the open picnic area, the community composting shed, and the demonstration and children's garden. These three features are intended to increase social interaction between the residents at St. James Place and the Citadel Neighborhood community.

The open picnic area is utilized as a bridging mechanism for the community because the space is large enough to accommodate and host community events and gatherings. People are welcome to use the space for larger gatherings, or to simply eat their lunch and relax. Locating the picnic area close to a proposed access point and the complex building increases the chance for social interaction between community members and residents. The second feature that aims to bridge social interaction is the community composting shed. This shed is located right next to the main garden entrance off Citadel Drive. People from the neighborhood can utilize the composting area as a shared community resource. Giving the community access to this feature has the potential to encourage more community members to utilize the site on a frequent basis. The last feature that presents bridging opportunity within the garden is the demonstration and children's garden. This area provides educational opportunity for the community. The design of the space allows for groups to gather for things such as gardening classes and demonstrations. Welcoming members from the Citadel Neighborhood to participate in such activities presents another opportunity for the residents to interact with other people outside the complex.

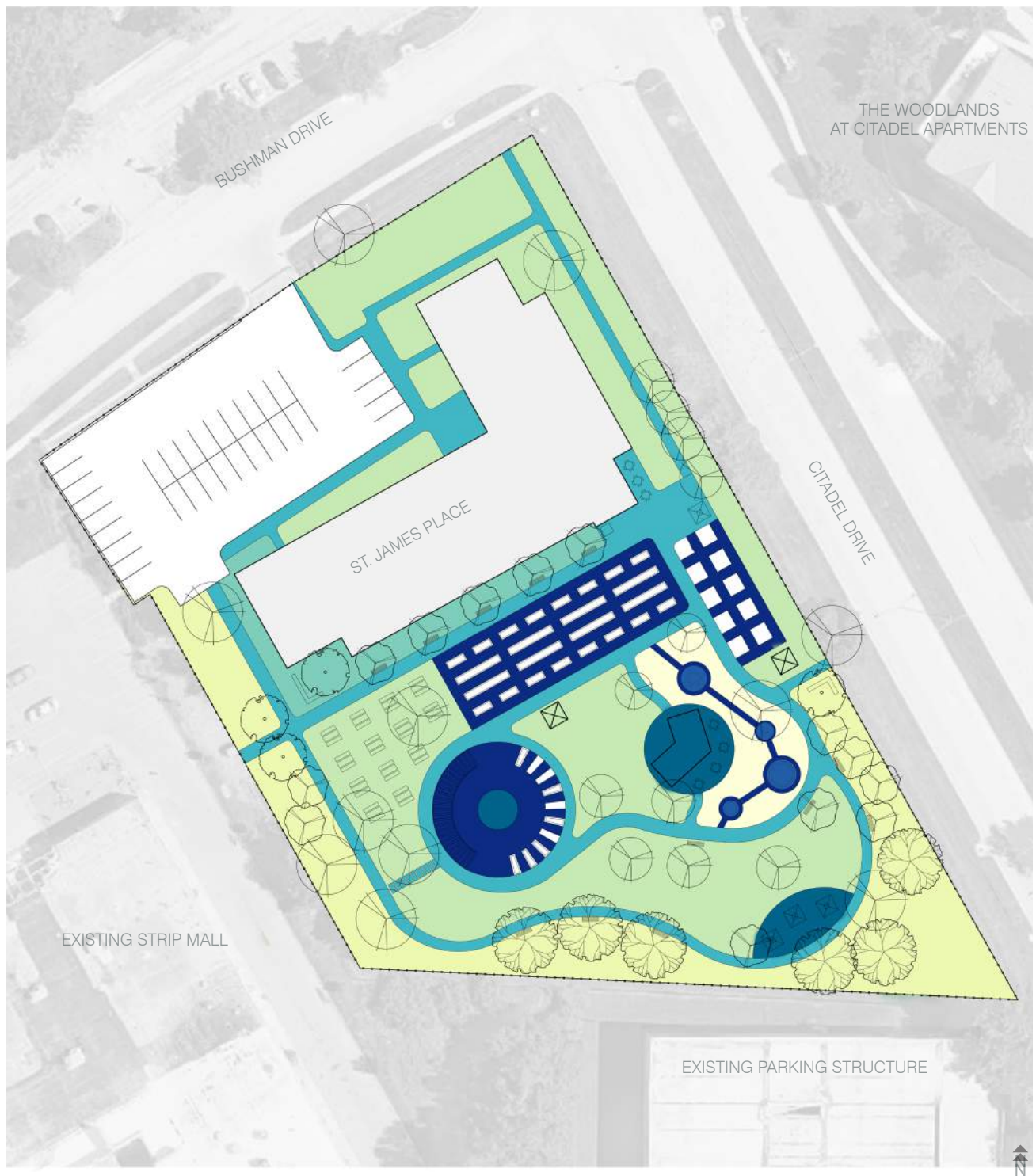


FIGURE 5.38 Site Materials

MATERIALITY

<u>Material</u>	<u>Approximate Square Footage</u>
 Turf Grass	25,049 sq/ft
 Edge Planting	3,488 sq/ft
 Decomposed Granite	10,324 sq/ft
 Recycled Concrete	2,967 sq/ft
 Wood Chips	3,864 sq/ft
 Concrete	14,327 sq/ft
 Native Planting	16,035 sq/ft
 Colored Concrete	706 sq/ft





FIGURE 5.39 A Weekend Picnic



FIGURE 5.40 Lessons at The Roots of Wisdom Garden



## GARDEN SPACES



FIGURE 5.41 Enjoying the great Outdoors

# **DESIGN CONCEPT TWO:**

---

# **GARDEN CRISP KITCHEN**



The Garden Crisp Kitchen design was conceived based on responses from the interview process and the analysis of precedent studies. The design incorporates gathering spaces, raised and in-ground gardening plots, and recreational opportunities. The plan focuses on bridging social capital within the Citadel neighborhood community and serves as a basis for residents at the St. James Place apartment to engage in community social interaction through the variety in site programming.

The goal of the vision is to provide both residents from the apartment complex and people from the surrounding community a space that is welcoming to all in order to ensure opportunity for social interaction. A key goal is to develop a site plan that can accommodate a mix of site activities while also establishing a high standard of accessibility and promoting originality. There are four main elements encompassing the site plan: an outdoor kitchen, the community garden plots, a fire pit gathering area, and the Wildflower Wonder Walk.

The focal point of the Garden Crisp Kitchen design is the outdoor kitchen area. The kitchen area provides the community with a unique feature and space that allows people to come together through the process of cooking and sharing food. The second key element of the design is the creation of a fire pit gathering area that affords multi-seasonal site use. The third key element of the site plan is the community garden plots. Both in-ground planting areas and raised planter beds are represented in the design. The last key element of the Garden Crisp Kitchen design is the Wildflower Wonder Walk. This walking path provides the residents and community members with a natural setting that encourages relaxation and rejuvenation.

Through the incorporation of these four key elements, the site is designed to welcome members from the surrounding Citadel Neighborhood community. In addition, making the site accessible greatly benefits the residents at St. James Place. Through the various programmatic elements represented in the design, the existing community garden at the apartment complex is transformed into a vibrant new feature for the neighborhood.



FIGURE 5.42 Garden Crisp Kitchen Site Plan

## Legend

- A Patio Seating
- B Water Harvesting Device
- C Gateway Entrance
- D Entrance Sign
- E In-Ground Planting
- F Community Garden Plots
- G Umbrella Seating
- H Open Pavilion Structure
- I Neighborhood Composting Area
- J Garden Crisp Kitchen
- K Community Table
- L Raised Planter
- M Garden Bulletin Board
- N Garden Access Path
- O Existing Parking
- P Welcome Sign
- Q Access Gate to Garden
- R Tool Shed
- S Fire Pit Area
- T Wildflower Wonder Walk

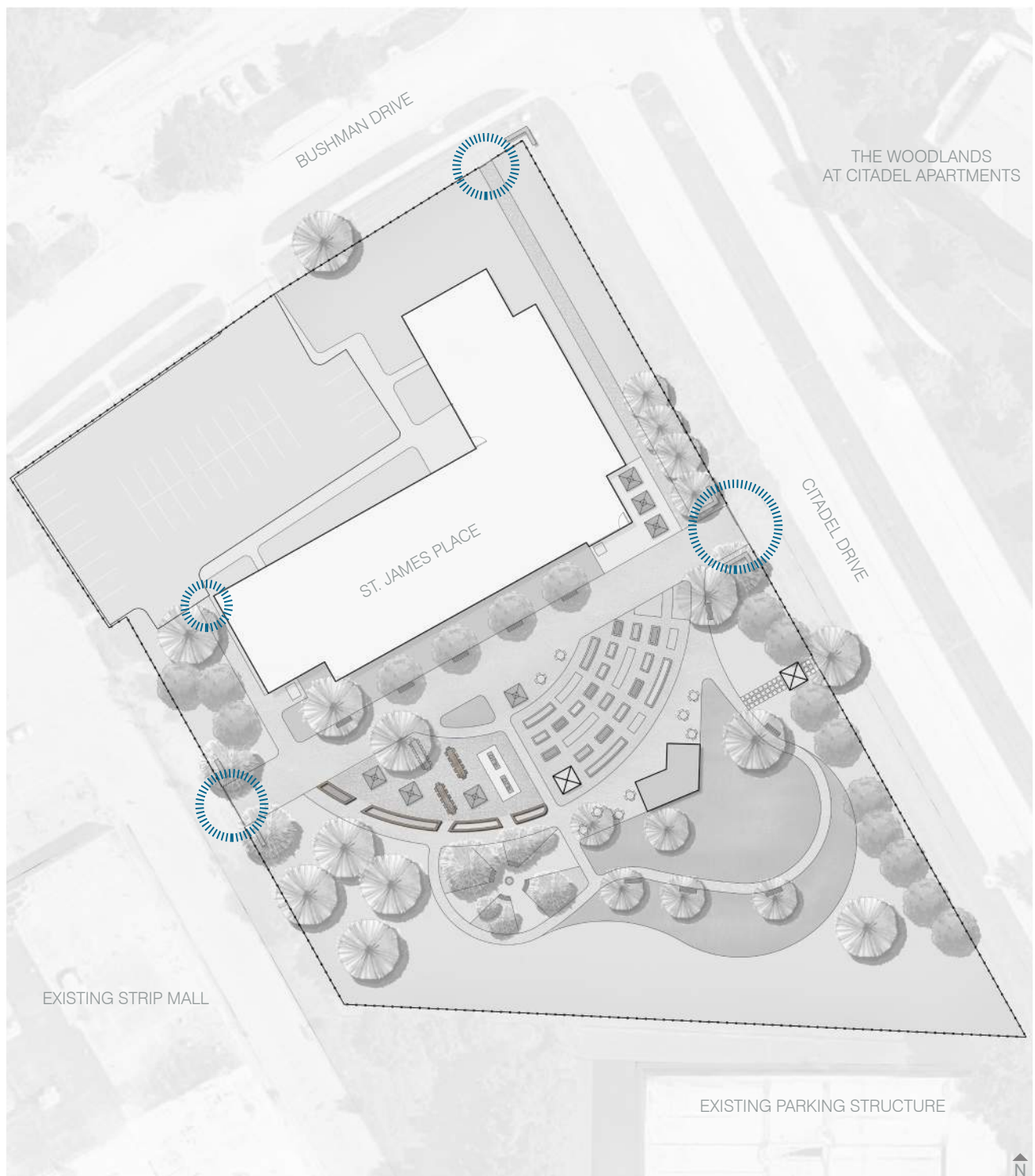


FIGURE 5.43 Proposed Access Points

## PROPOSED ACCESS POINTS

Currently, the only way to access the garden site is through the building doors on the south side of the building. In order to allow public access to the St. James Place Community Garden site, three gate entrances are recommended for this proposal along with a sidewalk connection from the existing parking lot. Since the existing fence runs around the entire site perimeter, gates would have to be installed at three of the proposed entrance points. The main, grand entrance to the garden is located on the east side of the property along Citadel Drive. Directly across from the eastern entrance is the west entrance, located on the same axis. The west entrance is located near the existing strip mall off site. A northern entrance to the site is located off Bushman Drive. All three of the proposed access points help promote site visibility, encouraging community members to enter the garden space.



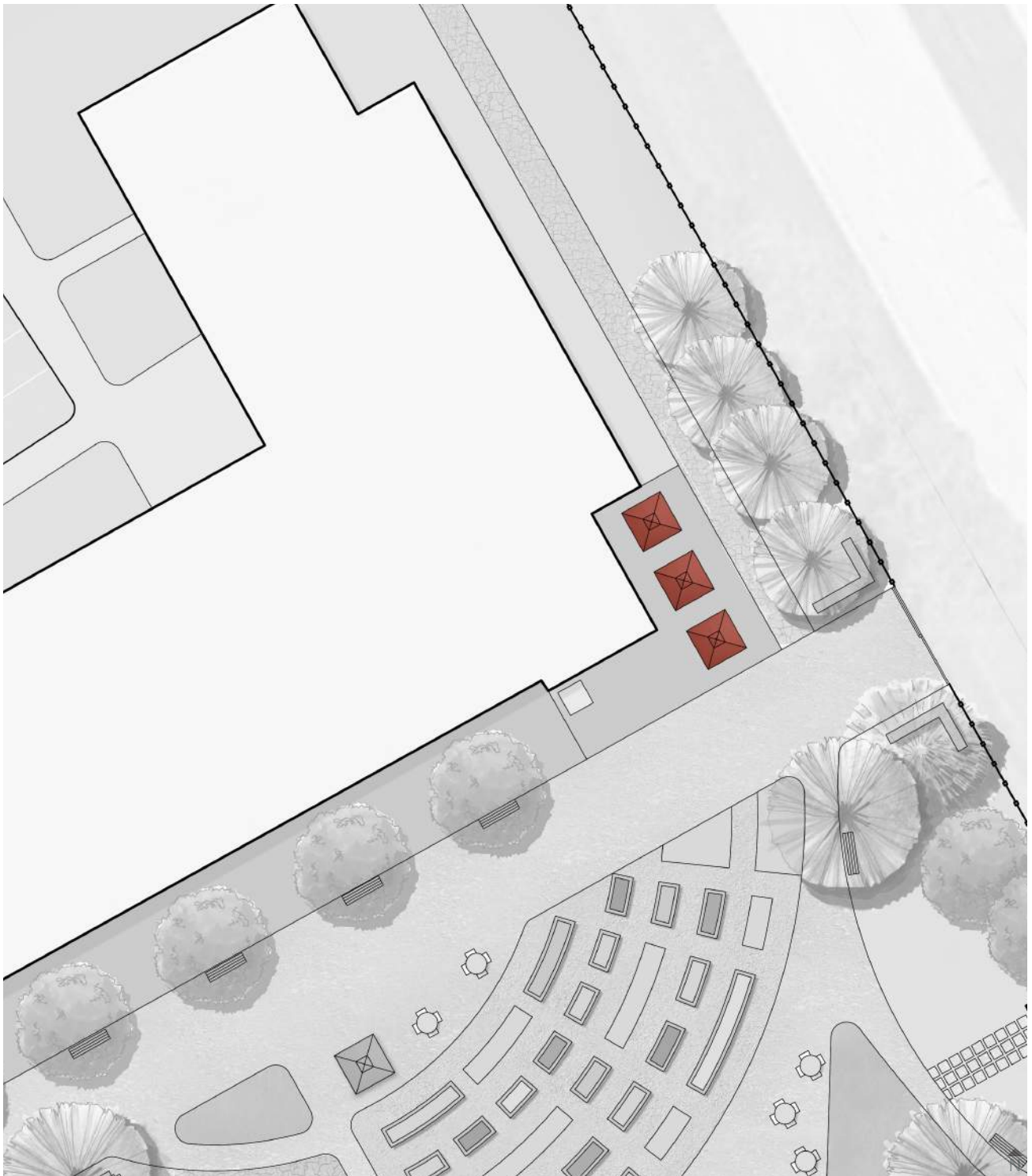


FIGURE 5.44 Patio Seating



## PATIO SEATING

The patio area provides residents with a gathering space within close proximity to the building. This space creates an opportunity to draw the residents outside without having to travel far. Three umbrella tables provide shade to those utilizing the space. It is important to provide points of interest near the building for the elderly residents that do not feel comfortable venturing far from the building. Locating the patio adjacent to the garden plots presents opportunity for social interaction between those sitting on the patio and the gardeners.



FIGURE 5.45 Community Garden Plots

## COMMUNITY GARDEN PLOTS

The garden plots, both raised planter beds and in-ground planting plots, are arranged along an arc to follow the bend of the path. The entire gardening area is located close to the building with the intention of making them easy to access for the elderly residents. In total, there are twenty raised planter beds and six in-ground plots, all varying in size. Each plot, whether it is in-ground or raised, is approximately four foot wide by ten foot long and the larger plots are approximately four foot wide by fifteen foot long. Two larger in-ground plots are located in the northeast corner of the gardening space. For convenience, a tool shed is located in the southwest corner, giving gardeners a place to store equipment.

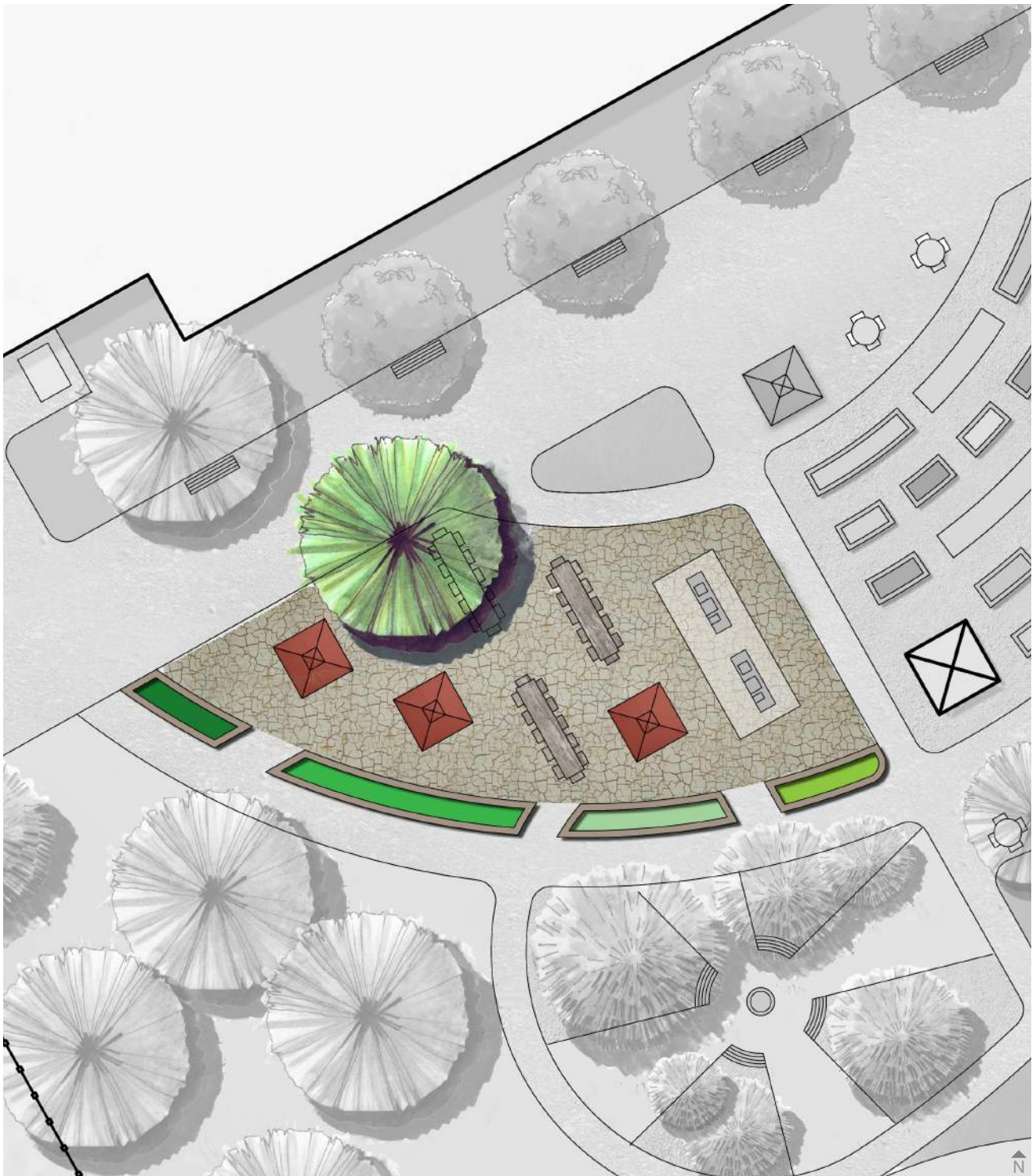


FIGURE 5.46 Outdoor Kitchen



## OUTDOOR KITCHEN

As many of the residents stated during the interview process, they like to harvest their produce and use it to cook together in the apartment complex kitchen. To provide a unique element to the garden site, the installation of an outdoor kitchen is the main element for the Garden Crisp Kitchen design. The space is designed with two cooking areas that include a stove top, grill, and washing station. The cooking area is located under an overhead structure to provide shade to those preparing food. Two community tables and three umbrella tables provide ample seating for large groups of people coming together to share in the experience of food and cooking.

The outdoor kitchen becomes a vibrant social hub for gatherings at the garden site. This space strives to help build a sense of community, which is currently missing in the Citadel Neighborhood. The outdoor kitchen serves as an exciting new attraction for community members that is affordable and fun. Food that is grown in

the garden can be harvested and immediately cooked all within the garden site. Events and activities, such as cooking classes and pot luck dinners, could be held at the St. James Place Community Garden. The outdoor kitchen has the potential to become a destination point for the community.



FIGURE 5.47 Fire Pit Gathering Area



## FIRE PIT GATHERING AREA

To help increase site activity during all seasons of the year, a fire pit gathering area is incorporated into the design directly south of the outdoor kitchen space. The implementation of a fire pit opens many opportunities to increase site activity and altogether provide many benefits.

First, this space serves as an entertainment factor. A fire pit is a great way to bring people together in the outdoors. The fire pit feature can serve as the centerpiece for gatherings and events. Its location near main entrances on site and along accessible walking paths make it easy for community members and residents to access. This area, with overhead tree coverage and seating, can also serve as a more intimate space for individuals who are looking for relaxation.

Second, outdoor fire pits provide opportunities for making food. Although this area is not as well equipped as the outdoor kitchen space, there is still opportunity to roast marshmallows

or kebabs over the open flame. One of the main benefits of the fire pit area is that it has the potential to increase site use during the colder months. They are always in season and it is a great way to bring people together in a unique, cozy, welcoming environment.



FIGURE 5.48 Wildflower Wonder Walk

## WILDFLOWER WONDER WALK

The Wildflower Wonder Walk presents the community garden site with a really unique, beautiful feature for the residents. This space consist of an accessible path that winds through the southern end of the community garden site. The path is surrounded by a mix of native planting and wildflowers. Seating is located along the path under the tree canopies to allow for shade and rest while wandering through the vegetation rich area. The Wildflower Wonder Walk is intended to be used for relaxation and reflection for individuals.

CIRCULATION



EXISTING PATHS



PROPOSED CIRCULATION ROUTES

FIGURE 5.49 Existing vs Proposed Circulation

## TREE COVERAGE



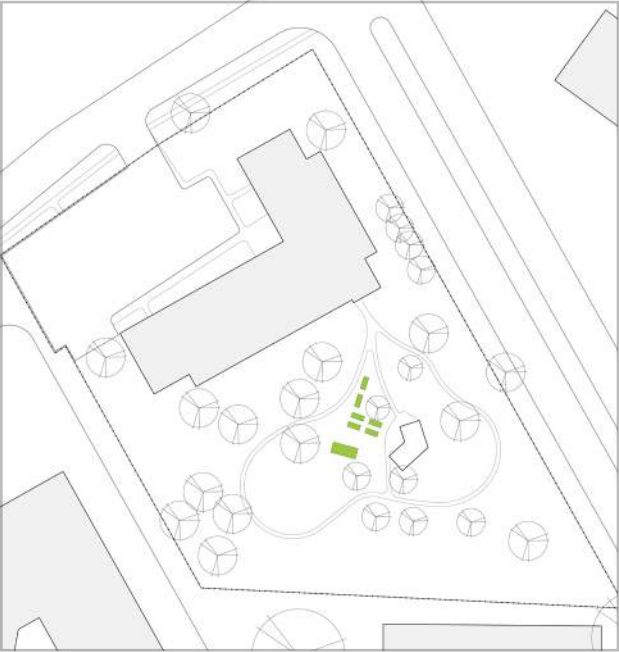
EXISTING SITE TREES



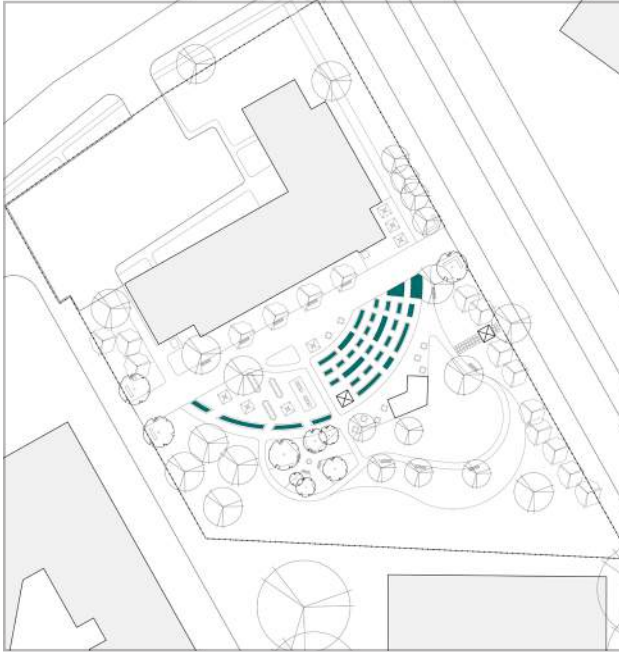
PROPOSED + EXISTING TREES

FIGURE 5.50 Existing vs Proposed Tree Coverage

GARDEN OPPORTUNITY



EXISTING GARDEN PLOTS



PROPOSED GARDENING OPTIONS

FIGURE 5.51 Existing vs Proposed Gardening Opportunity



SITE SEATING



EXISTING SITE BENCHES



PROPOSED SEATING ELEMENTS

FIGURE 5.52 Existing vs Proposed Seating

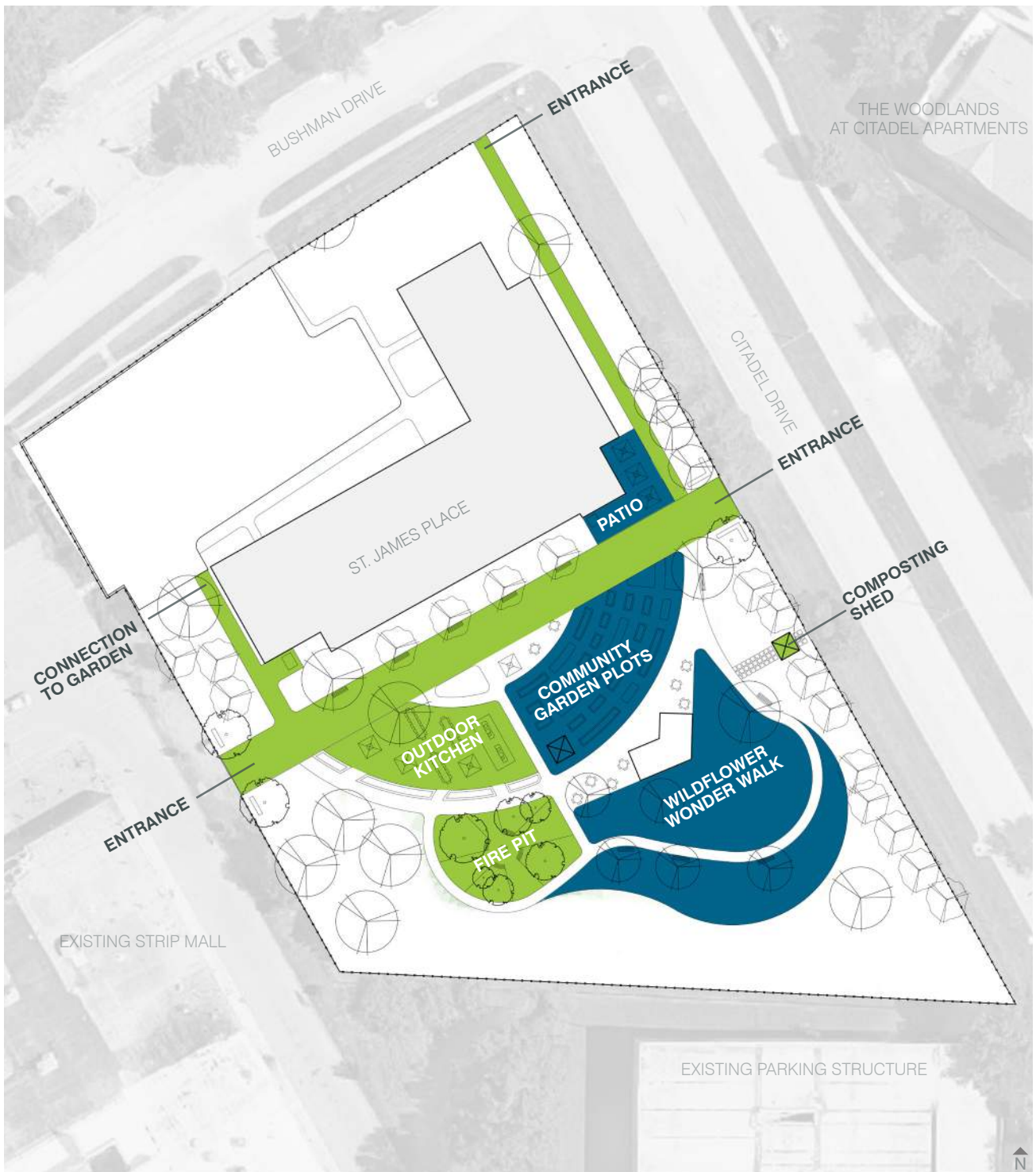


FIGURE 5.53 Bridging vs Bonding Elements

- Bonding Elements
- Bridging Elements

Similar to The Roots of Wisdom proposal, the Garden Crisp Kitchen design allows for both bridging and bonding social capital to take place on the garden site. The specific elements that have more of a focus on bonding social capital between the residents include the outdoor patio area near the complex building, the accessible garden plots, and the Wildflower Wonder Walk.

To begin with, the patio space that is located near the apartment complex encourages the residents to utilize the outdoor space at their own convenience for small gatherings. The area is not large enough to host big events or accommodate a large group of people. It is a more intimate seating area that residents can use for their own convenience and enjoyment. The accessible garden plots serve as a bonding feature because the plots are intended mainly for the resident's use. Providing the complex with accessible gardening beds encourages more residents to participate in gardening related activities. More opportunity for gardening provides the residents with an activity, thus providing more opportunity for social interaction. The last feature that strives to bond relationships between the residents is the Wildflower Wonder Walk. This area presents the community garden site with a really unique, beautiful feature for the residents to explore individually or with others from the complex. The path is intended to be used for relaxation and reflection purposes.

Three of the features incorporated into the design proposal for the Garden Crisp Kitchen

focus on bridging social capital between the residents at the complex and the surrounding community. The three bridging features include the outdoor kitchen, the community composting shed, and the fire pit area. These three features are intended to increase social interaction between the residents at St. James Place and the Citadel Neighborhood community.

The outdoor kitchen becomes a vibrant social hub for gatherings at the garden site that strives to help bridge social capital between the residents and community, which is currently missing in the Citadel Neighborhood. The outdoor kitchen serves as an exciting new attraction for community members that is affordable and fun. The outdoor kitchen encourages people to come together through the experience of food. The second feature that aims to bridge social interaction is the community composting shed. The shed is located right next to the main garden entrance off of Citadel Drive. People from the neighborhood can begin to utilize the composting area as a shared community resource. Giving the community access to this feature has the potential to encourage more community members to utilize the site. The last feature that bridges social capital within the garden is the fire pit area. This space serves as an entertainment factor during all seasons of the year. An outdoor fire pit is a great way to bring people together from all ages. This space can be utilized by the community for small or large gatherings and events.

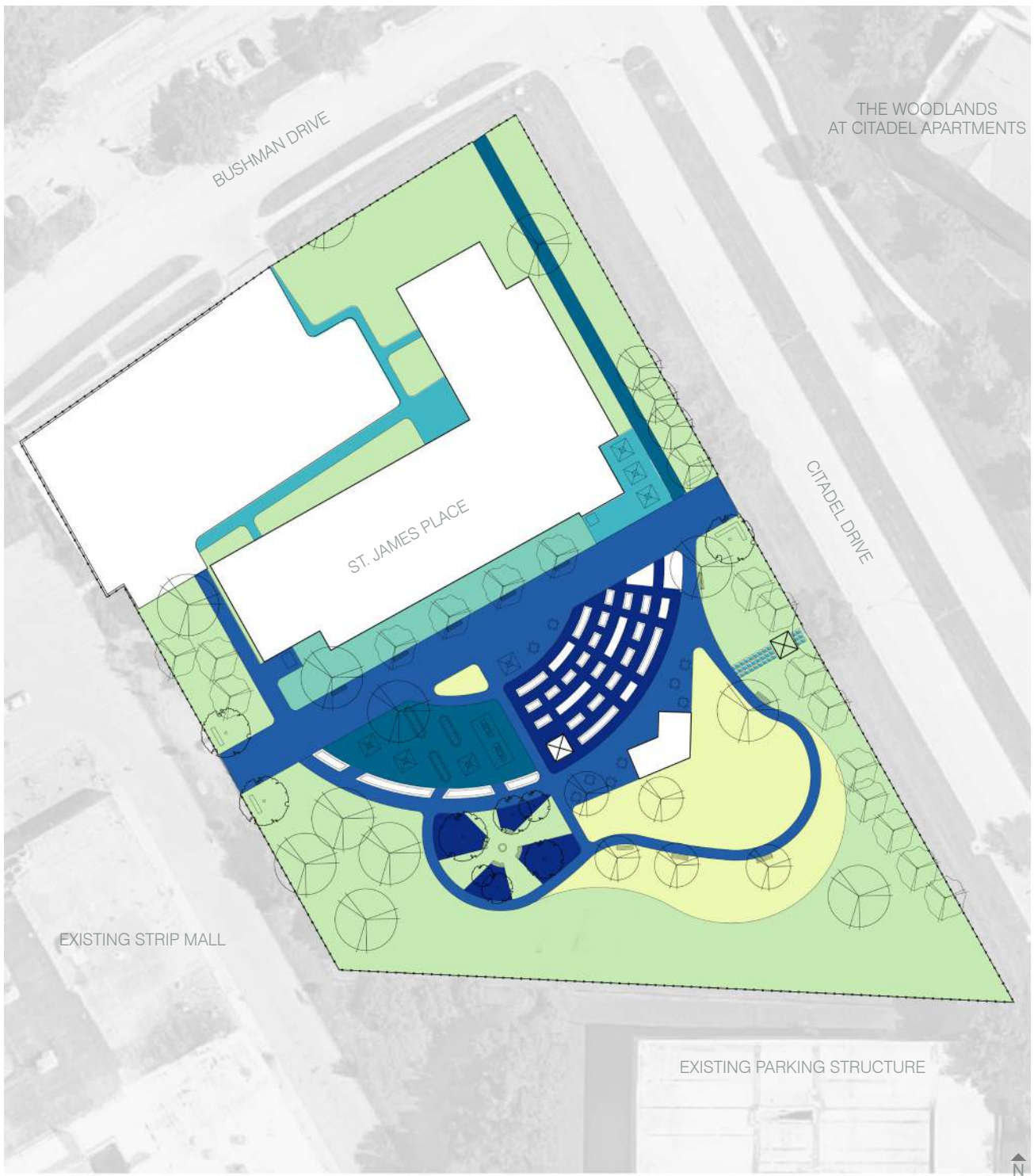


FIGURE 5.54 Site Materials

# MATERIALITY

<u>Material</u>	<u>Approximate Square Footage</u>
 Turf Grass	38,424 sq/ft
 Edge Planting	3,107 sq/ft
 Decomposed Granite	6,122 sq/ft
 Recycled Concrete	5,043 sq/ft
 Colored Concrete	13,299 sq/ft
 Concrete	3,318 sq/ft
 Native Planting	5,719 sq/ft





FIGURE 5.55 Evening Spring Dinner



FIGURE 5.56 Sunset Fire Gatherings



## GARDEN SPACES



FIGURE 5.57 Early Morning Wildflower Stroll

# **DESIGN CONCEPT THREE:**

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## **FRESH PRODUCE MARKET**

The Fresh Produce Market design presents the Citadel Neighborhood with an opportunity to become a future destination point for community members interested in selling and purchasing fresh produce. This design serves primarily as a base for the St. James Place residents and community members to share produce with one another and offers flexible spaces for potential community events to take place on site.

Although there's a central focus on the market area, the site provides a wide variety of enticing amenities for the entire community. A grand entrance sequence is located on the east side of the site off Citadel Drive, allowing for more visibility and interest from the street view. Upon arrival, guests are exposed to open views of the garden and are guided into the site by a pedestrian boulevard lined with trees.

The area dedicated to the market is located directly off the main entrance for ease of access. Covered seating, community tables, a shade structure, and a community bulletin board are all found within this designated area. A grand open lawn adjacent to the community market serves as open recreational space that has the flexibility to be programmed for community events if needed.

The community garden plots and planting areas are conveniently located in close proximity to both the main entrance and the apartment complex. The gardening area provides accessible options for the senior residents while also allocating enough beds and in-ground planting plots for community members who wish to participate in community gardening as well. Critical elements such as tool sheds, seating, and resting areas are incorporated near the garden plots.

A garden plaza, located on the west side of the site, offers shaded respite for gardeners and visitors. Surrounded entirely by raised planters and trees, the space serves as a more intimate area that is intended to be used for relaxation and light gardening activity. The plaza design incorporates potted plants and accessible raised planter tables. The potted plants and planter tables can easily be moved to redefine space within the plaza area.

The harmony created between the community market space, planting areas, and garden plaza aims to exceed a high level of social interaction within the St. James Place Community Garden site. The variations in site amenities and programming presents a site design that is multi-functional, accessible, and is reflective of the community's values and culture.



FIGURE 5.58 Fresh Produce Market Site Plan



## Legend

- A Patio Seating
- B Water Harvesting Device
- C Seating Bench
- D Tool Shed + Composting
- E Raised Planter
- F Garden Plaza
- G Container Plants
- H Stepping Stone Path
- I Community Garden Plots
- J Umbrella Seating
- K In-Ground Planting
- L Entrance Sign
- M Gateway Entrance
- N Garden Fresh Market Area
- O Overhead Shade Structure
- P Community Table
- Q Backyard Fruit Tree Orchard
- R Parking Lot Connection
- S Existing Parking
- T Welcome Sign

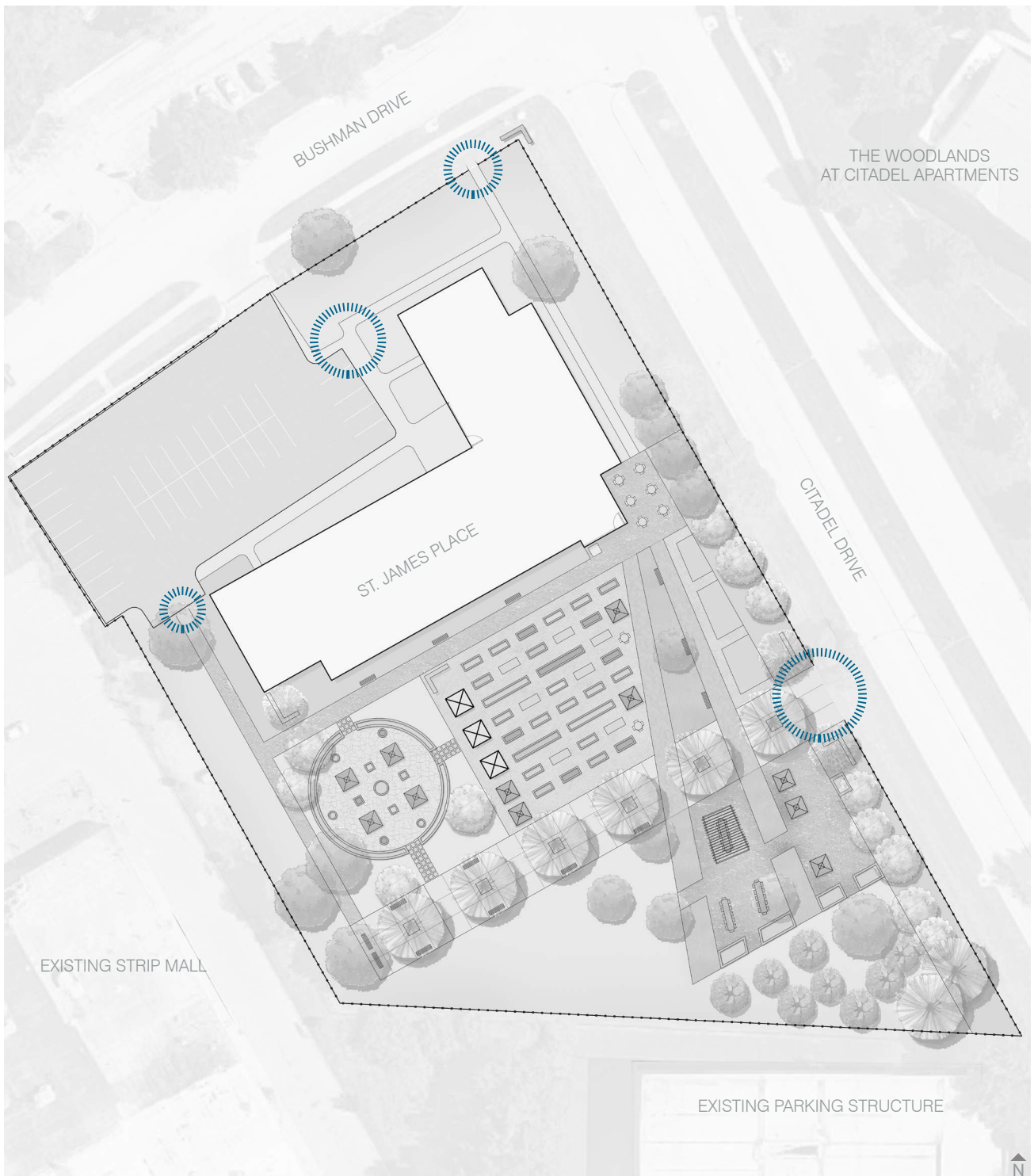


FIGURE 5.59 Proposed Access Points



## PROPOSED ACCESS POINTS

Currently, the only option for accessing the St. James Place Community Garden is through the apartment building on the southern side of the complex. The fence located around the perimeter of the complex site only has one gate access point, which is to the parking lot. The site proposal for the Fresh Produce Market recommends two access points from the adjacent streets and two access points from the existing parking lot. The two access points located off streets require the installation of a gate since the existing fence currently does not allow entrance.

The access point located on the far north side of the site welcomes people from Bushman Drive. Located directly north of Bushman Drive are the Citadel Apartments. The north entrance location is intended to attract residents living those apartments to the community garden site. The residents from The Woodland Apartments are able to access the site from an east entrance. This is the main entrance to the garden site. It is large, open, and welcoming for community

members. Two connections are made from the existing parking lot to the garden. There are currently no paths that connect the parking lot to the garden. Proposing two connections will allow accessible access for those utilizing the parking lot in front of the complex building.

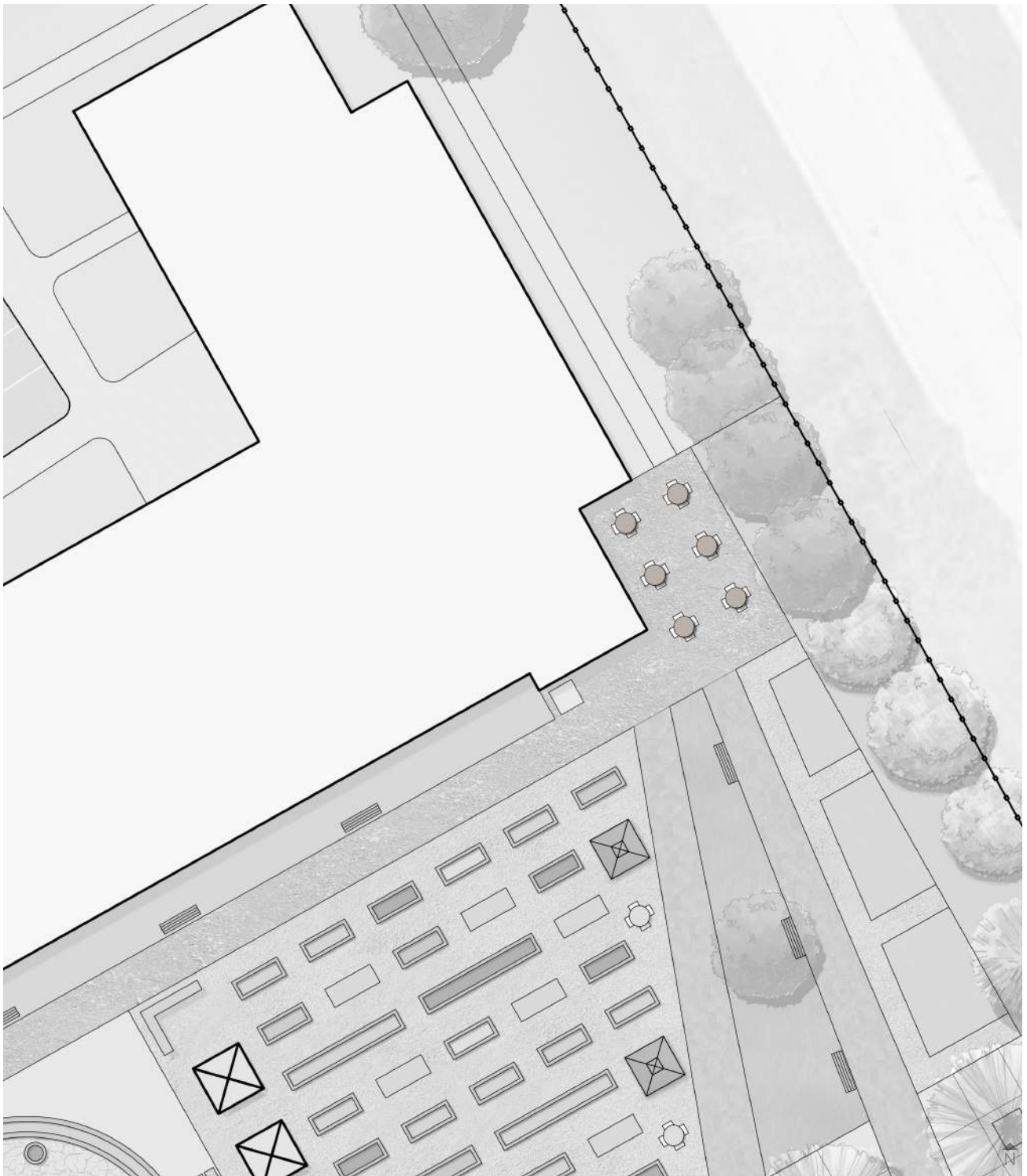


FIGURE 5.60 Patio Seating

## PATIO SEATING

The patio area provides residents with a gathering space within close proximity to the building. This space creates an opportunity to draw the residents outside without having to travel far. Six tables provide seating and a place to relax for the residents. It is important to provide points of interest near the building for the elderly residents that do not feel comfortable venturing far from the building. Locating the patio adjacent to the garden plots presents opportunity for social interaction between those sitting on the patio and the gardeners.

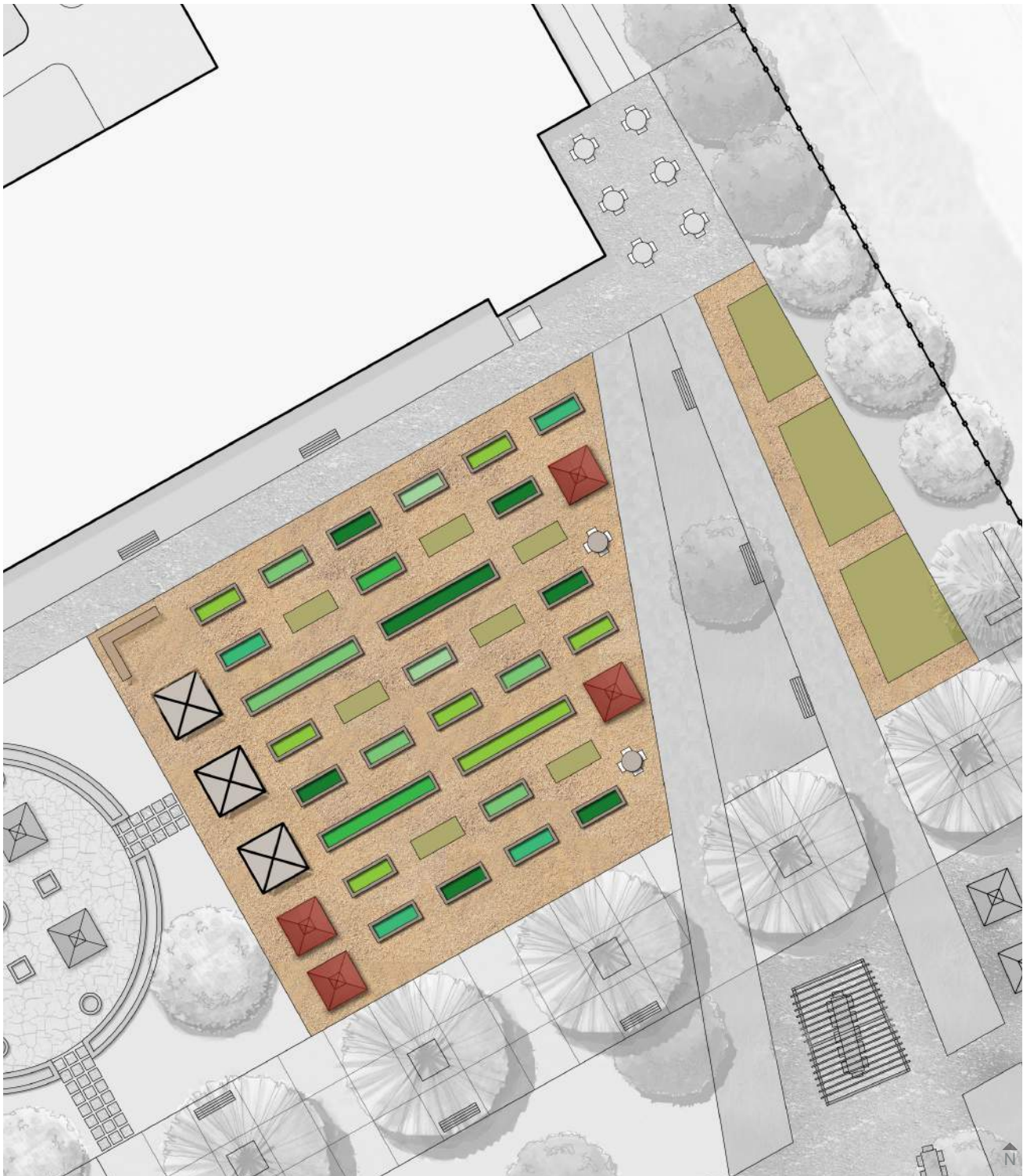


FIGURE 5.61 Community Garden Plots

## COMMUNITY GARDEN PLOTS

The garden plots, both raised planter beds and in-ground planting plots, are located close to the building with the intention of making them easy to access for the elderly residents. In total, there are 27 raised planter beds and 10 in-ground plots. With the large amount and increase of community garden plots on site, the design plans for the residents to first choose how many plots they would like to garden. After the residents have picked, the remaining plots have the opportunity to be rented out and gardened by community members.

The smaller raised planter beds are 10 feet long by 4 feet wide by 30 inches in height. The larger raised planter beds are 15 feet long by 4 feet wide by 30 inches in height. There are in-ground plots that are also 10 feet long by 4 feet wide by 30 inches in height along with larger areas located on the far east side of the site. For convenience, two tool shed and a composting area are located on the west side of the planting area, giving gardeners a place to store equipment that is easily accessible. Seating is provided near the plots to allow for rest and shade for those gardening.





FIGURE 5.62 Garden Plaza



## GARDEN PLAZA

As previously stated, the garden plaza offers shaded respite for residents and gardeners. Surrounded entirely by raised planters and trees, the space serves as a more intimate area that is intended to be used for relaxation and light gardening activity. The plaza space is located at the end of the main entrance boulevard on the west side of the site, away from the market activity.

Shaded umbrella seating and, container plants, and table planters are located within the garden plaza space. The container plants and table planters provide residents with another form of accessible gardening. Both the table planters and container plants are easy to move, so the layout of the space is flexible.

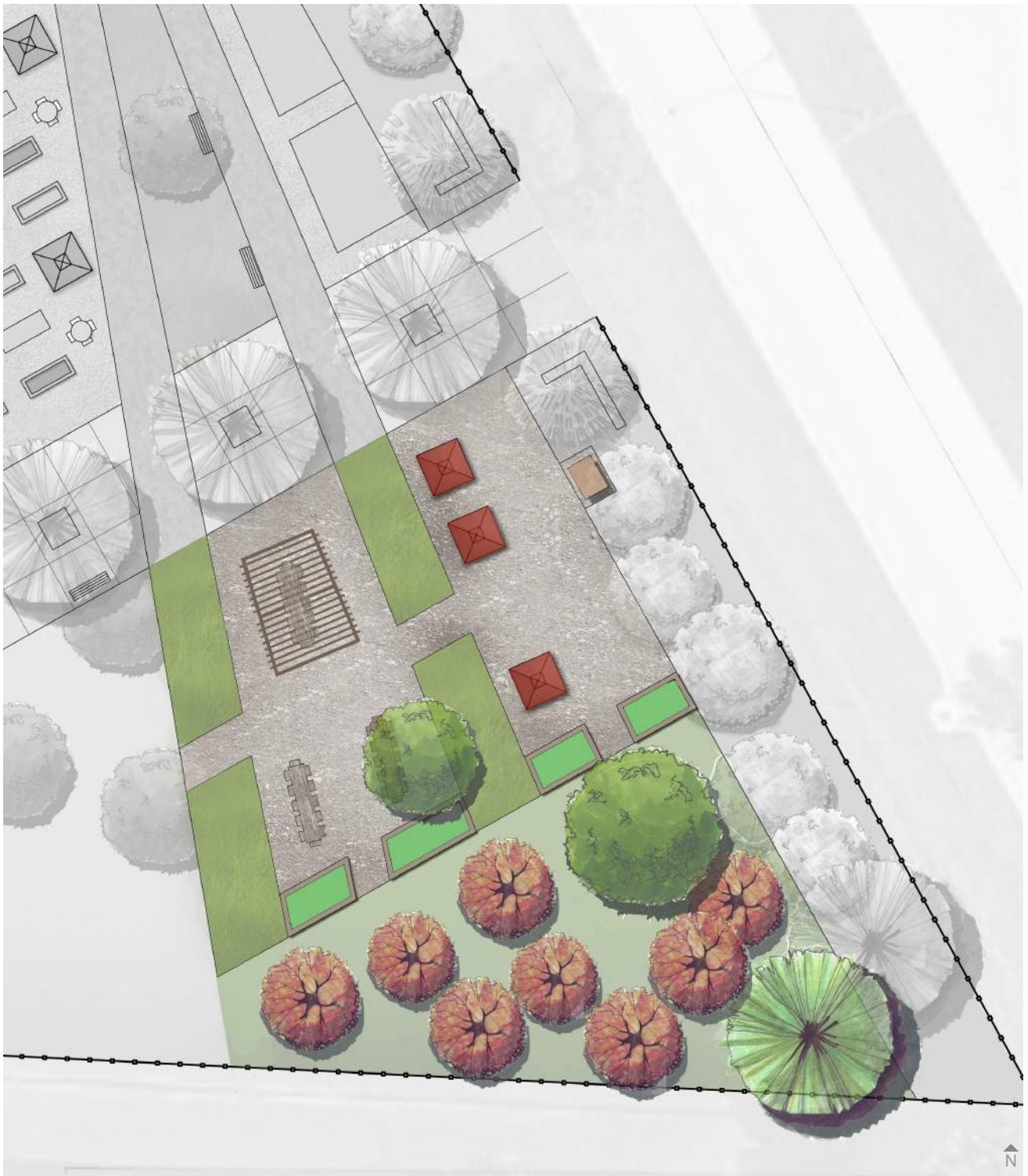


FIGURE 5.63 Fresh Produce Market

## FRESH PRODUCE MARKET

The Fresh Produce Market area is located on the south east side of the site, directly off the main entrance from Citadel Drive. The market serves as a community amenity that welcomes people from the Citadel Neighborhood to the site to sell and purchase fresh produce. Covered seating, community tables, a shade structure, a community bulletin board, and a fruit orchard are all found within this designated area.

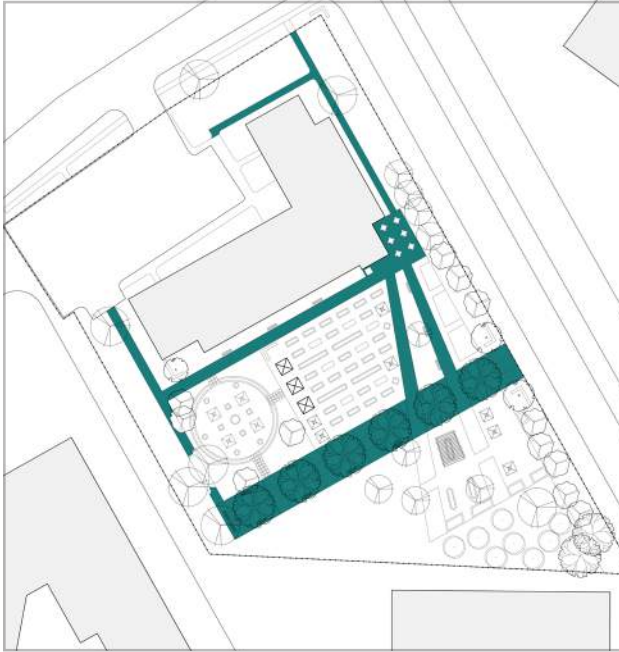
The design of the public market space plans for flexibility and a variety of uses. The open nature of the market design allows for tents and stands to be set up directly off the main garden entrance for when the market is open. Large community tables and shaded seating encourages people to gather and socialize while visiting the market. The community bulletin board makes it possible to easily publicize garden events and the dates the market is open. The fruit orchard is another feature that can be shared and enjoyed among community members.

Public markets have the potential to become socially diverse public places in a community. This is because markets bring people of different ages, genders, races, and socioeconomic standings together in one location. The implementation of a fresh market within the St. James Place Community Garden presents the opportunity for residents and community members to interact.

CIRCULATION



EXISTING PATHS



PROPOSED CIRCULATION ROUTES

FIGURE 5.64 Existing vs Proposed Circulation

## TREE COVERAGE



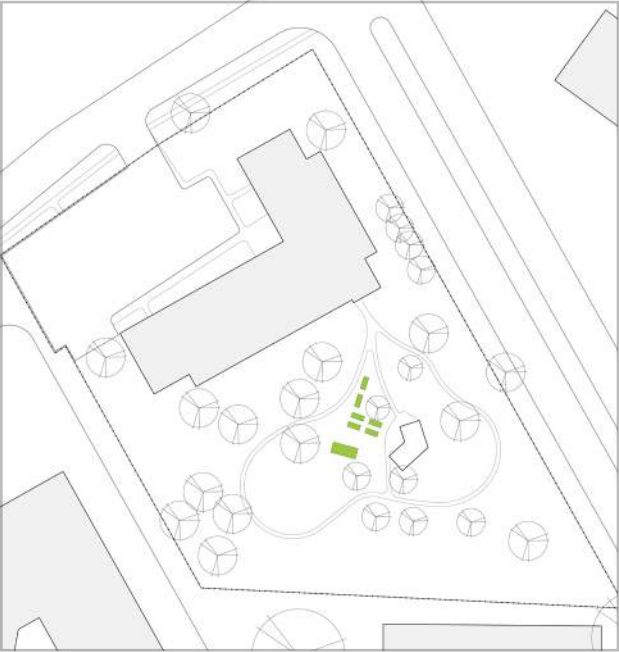
EXISTING SITE TREES



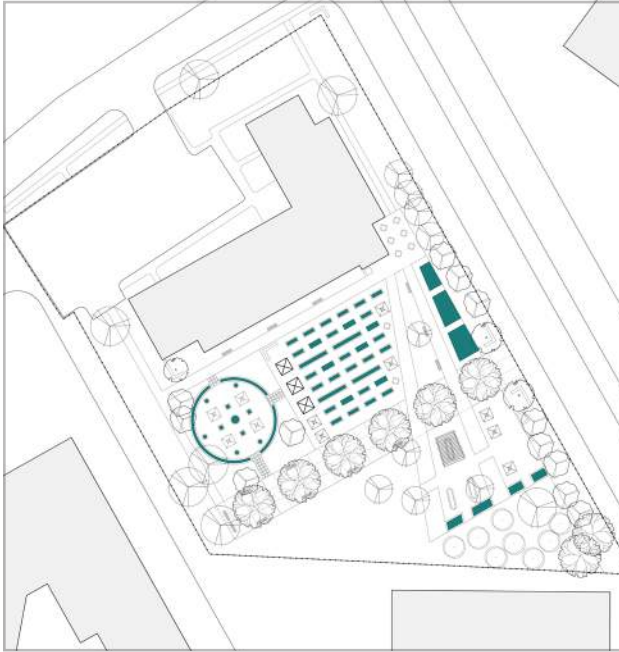
PROPOSED + EXISTING TREES

FIGURE 5.65 Existing vs Proposed Tree Coverage

GARDEN OPPORTUNITY



EXISTING GARDEN PLOTS



PROPOSED GARDENING OPTIONS

FIGURE 5.66 Existing vs Proposed Gardening Opportunity



SITE SEATING



EXISTING SITE BENCHES



PROPOSED SEATING ELEMENTS

FIGURE 5.67 Existing vs Proposed Seating

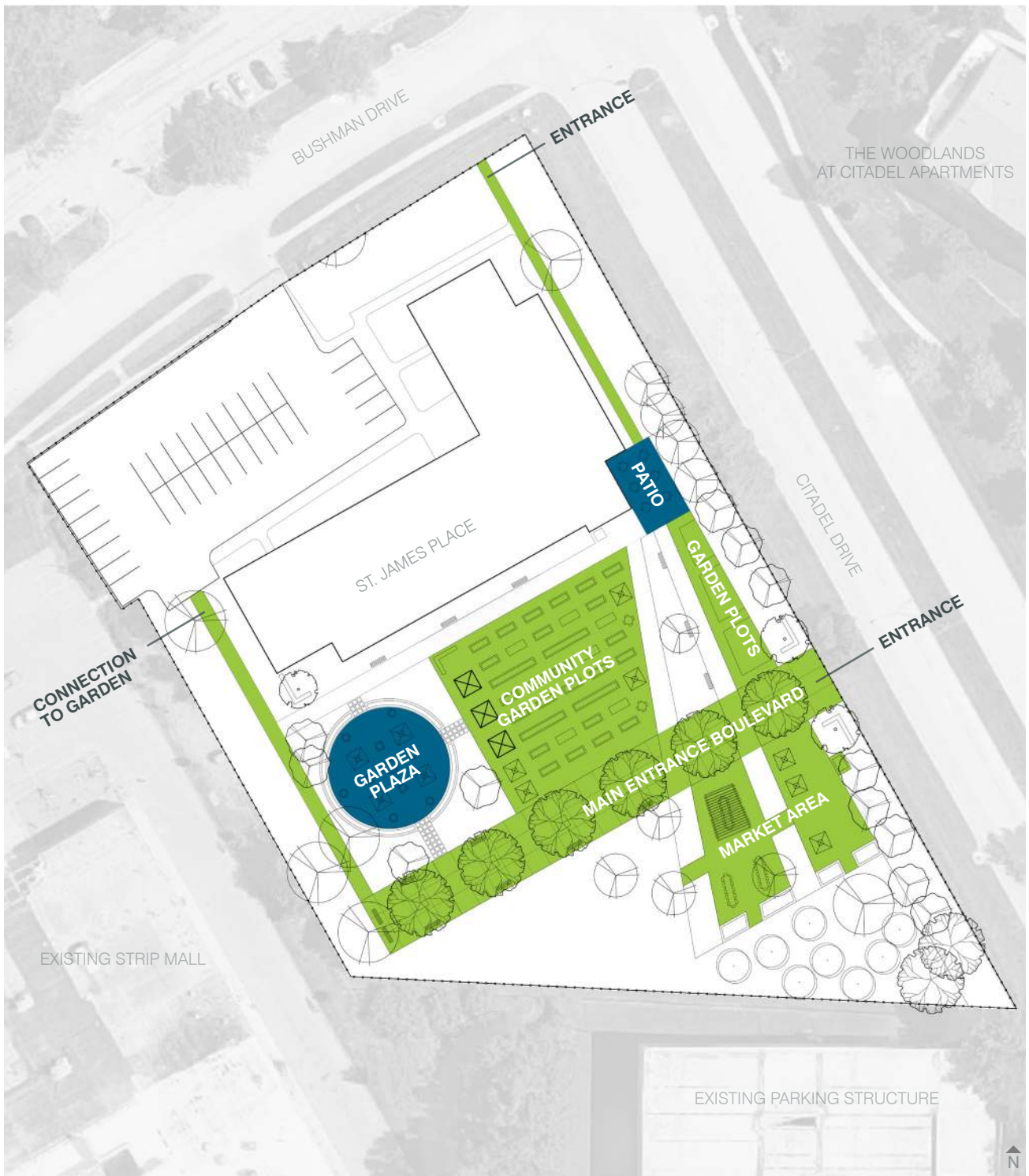
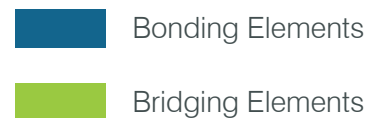


FIGURE 5.68 Bridging vs Bonding Elements



Like The Roots of Wisdom and Garden Crisp Kitchen, the Fresh Produce Market proposal also incorporates features of bonding and bridging into the design as well. However, out of all three proposals, the design for the Fresh Produce Market places the most focus on bridging social capital between the community members and the residents. The bridging features incorporated into the design include the community garden plots and the community market area.

The market area plays a critical role in bridging social capital between the residents and other community members in the Citadel Neighborhood. Incorporating this market amenity into the garden design at St. James Place serves as a base for the residents and community to share produce with one another and offers flexible spaces for potential community events to take place. The market area is located right off the main garden entrance, making it visible from the street and easily accessible for the surrounding community. Public markets have the potential to become socially diverse public places in a community. This is because markets are successful at bringing people of different ages, genders, races, and socioeconomic standings together in one location. The implementation of a fresh market within the St. James Place Community Garden presents the opportunity for residents and community members to interact with one another on a frequent basis. The second feature that aids in bridging social capital

within the garden are the community garden plots. Unlike the previous two designs where the plots were intended to be used only by the residents, the Fresh Produce Market design incorporates enough planting areas for both public and resident use. With the large amount and increased number of community garden plots on site, the designs plans for the residents to first choose how many plots they would like to garden. After the residents have picked, the remaining plots can then be rented out and gardened by community members. Giving public access to the garden plots would help increase the amount of social interaction between residents and community members because they would be working within close proximity to one another and sharing the same interests.

Bonding features have also been considered in this design proposal. The two features that would more so help bond social capital between the residents at the complex include the patio space and the garden plaza. The patio seating area provides the residents with a gathering space within close proximity to the building. This space creates an opportunity to draw residents outside for small gatherings and relaxation. The garden plaza also serves as a bonding feature for the site design. This plaza space provides more space than the patio area, resulting in more seating and gathering opportunities. The space is intended to be used mainly by the residents for small gatherings or apartment events and activities.

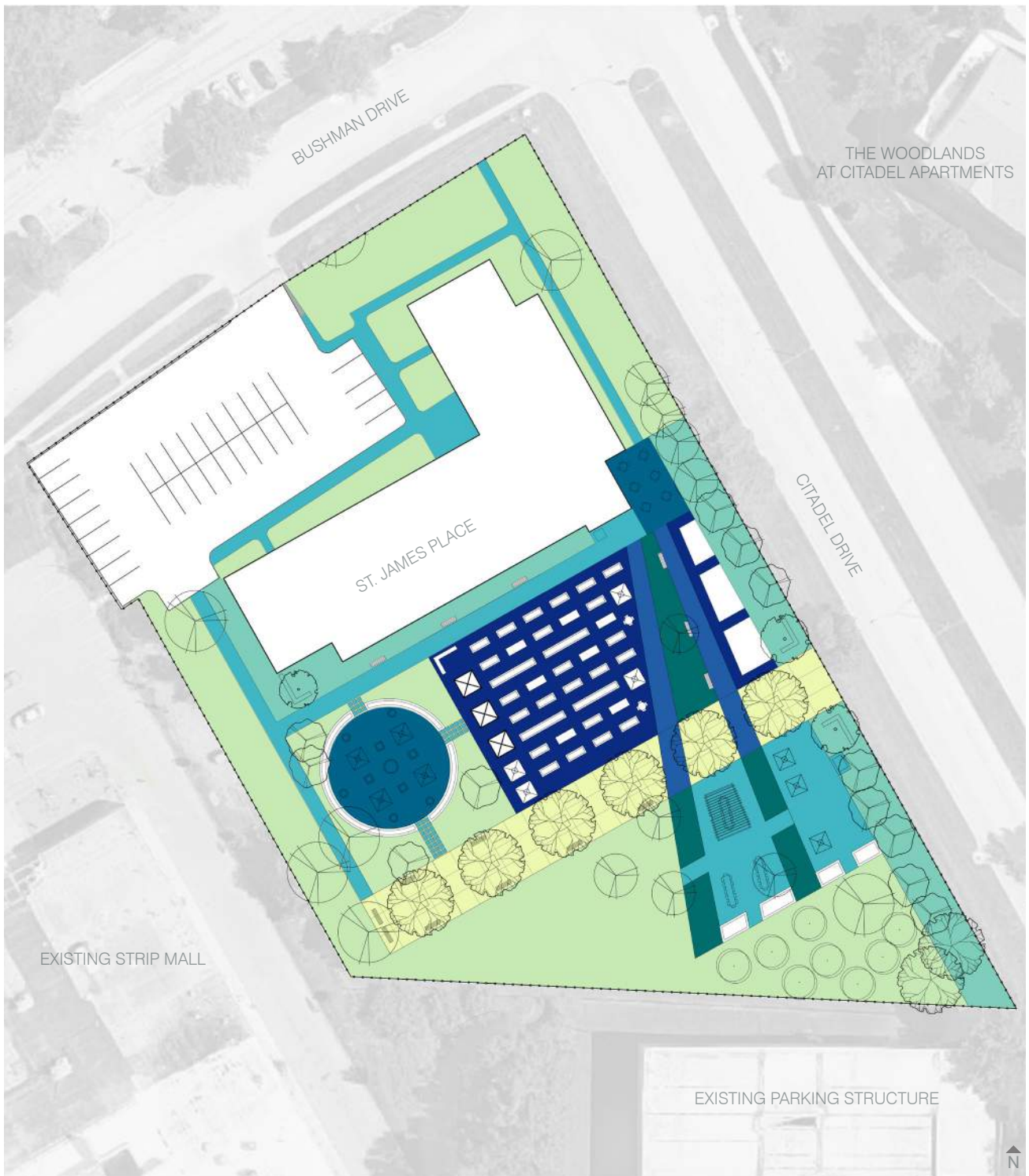


FIGURE 5.69 Site Materials



# MATERIALITY

<u>Material</u>	<u>Approximate Square Footage</u>
 Turf Grass	32,849 sq/ft
 Edge Planting	8,839 sq/ft
 Decomposed Granite	9,174 sq/ft
 Recycled Concrete	3,631 sq/ft
 Concrete Pavers	7,665 sq/ft
 Colored Concrete	2,342 sq/ft
 Concrete	12,205 sq/ft
 Native Planting	3,153 sq/ft



FIGURE 5.70 Relaxing on the Garden Plaza



FIGURE 5.71 Busy Saturday Produce Market





## CHAPTER CONCLUSION

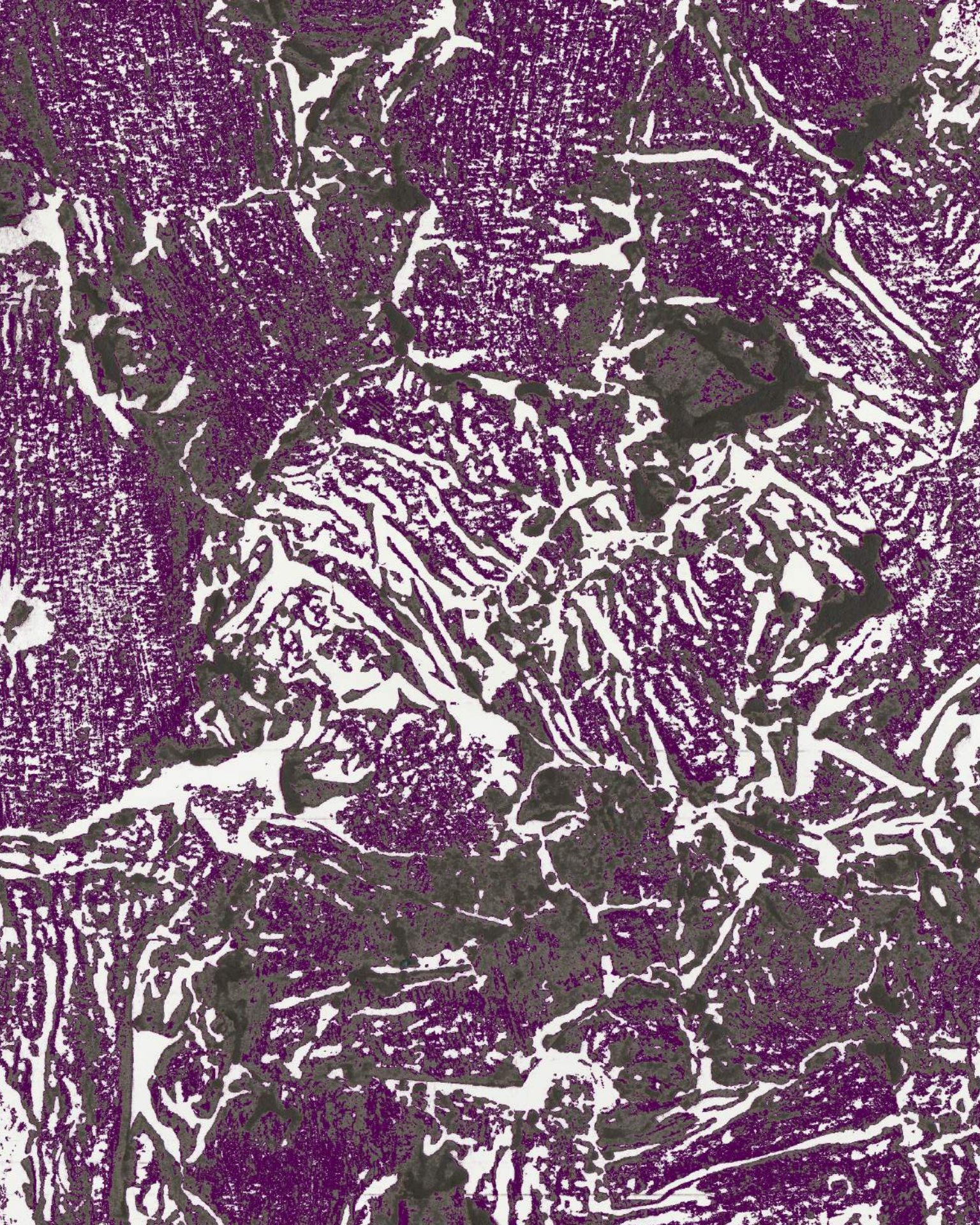
The three design proposals for the St. James Place Community Garden are derived from the findings from literature, the survey and interview responses, and the precedent study analysis. Based on the design goals and objectives that address increasing site activity, establishing accessibility, and promoting originality, the design proposals present the Citadel Neighborhood community with unique communal spaces that have the opportunity to afford social interaction.

Each design focuses on specific ways that social interaction can be increased and encouraged within the garden space. The Roots of Wisdom concept focuses on how designated gathering spaces and children amenities can continue to bond social capital between the residents while also working to bridge social capital between the residents at St. James Place and surrounding apartment complexes. The Garden Crisp Kitchen design targets the use of an outdoor kitchen space as a means to encourage community members to use the site.

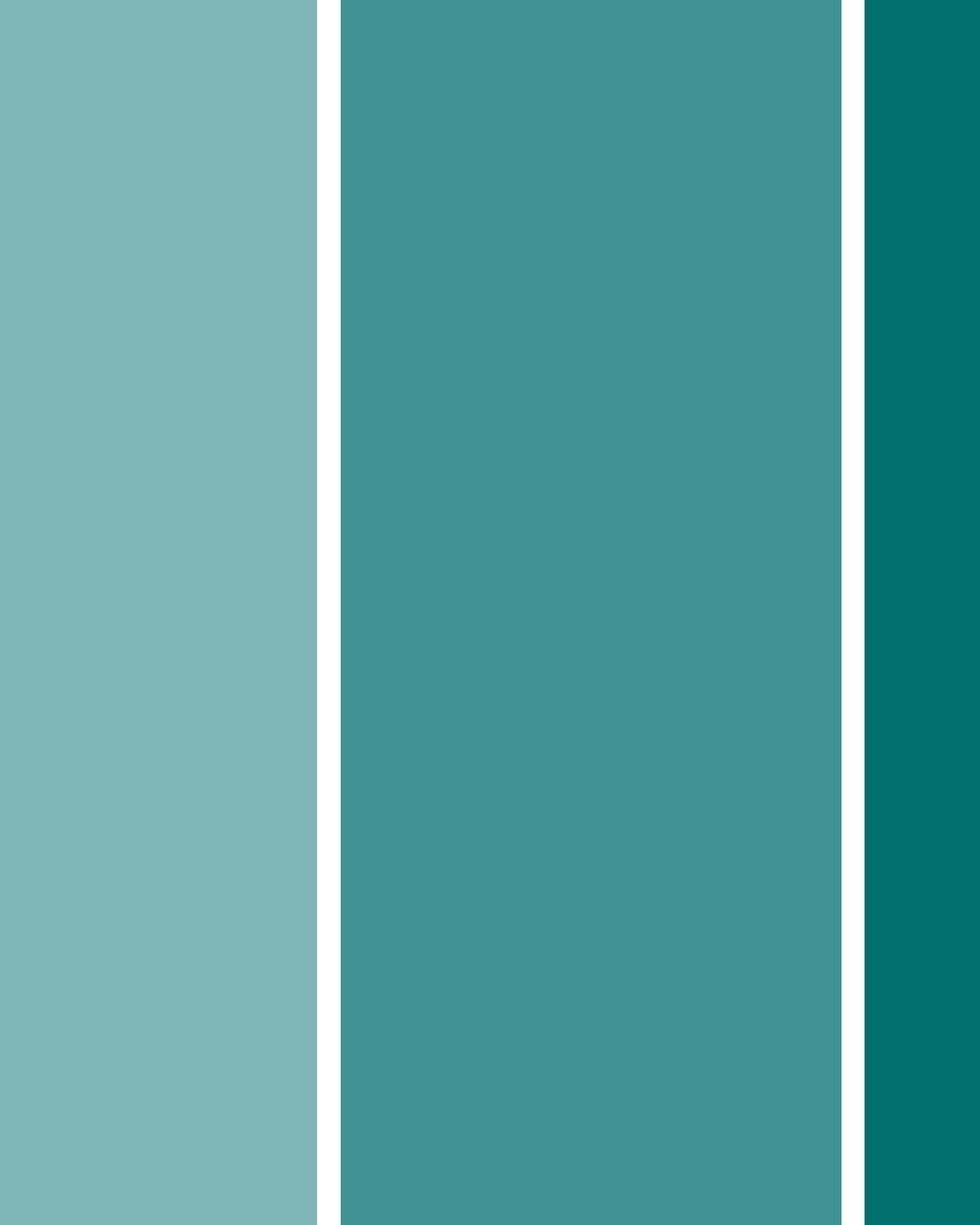
The Market Fresh Garden design incorporates a community market area into the design in order to create a destination point for community members interested in sharing and selling produce.

By creating three different design scenarios, more options are explored for increasing social interaction on site. As previously stated in this report,









# PROJECT CONCLUSIONS

The knowledge and experience gained from completing this Master's report and project was rewarding in both personal and professional measures. The research and drive of the overall project led to creating alternative designs for the St. James Place Community Garden. By developing three design proposals for the site, the outcomes from this project can be used as a resource by local stakeholders and community members of the Troost Corridor area. The final chapter of this book summarizes the project and clearly states how the research questions were answered. This chapter also discusses the limitations of the project and how the project could be researched further in the future.







## PROJECT SUMMARY

The research conducted for this project lead to the final completion of three alternative design proposals for the St. James Place Community Garden. The design solutions reflect a vision of the garden as not only a space for producing food, but also as a tool for encouraging social interaction within the surrounding community. Through a process of establishing project goals, reviewing relevant literature, conducting surveys and interviews, and site analysis and inventory, the proposals for the St. James Place Community Garden are successful representations of how community garden design can begin to serve and impact the community while still meeting the needs of the residents. In the future when development opportunities arise, these proposals could be beneficial for stakeholders in the Troost Corridor area.

Characteristics of a successful community garden design that serves as a tool for fostering social interaction include: providing areas that welcome social interaction such as gathering

spaces and seating areas, creating varied forms of programming such as recreational spaces, providing seasonal interest and activities such as fire pits, creating a site that is multifunctional by incorporating flexible spaces, providing amenities that welcome all ages such as playgrounds, children's gardens, and accessible gardening for the elderly, and creating a unique environment that reflects the community's values and culture.

This project has made an argument for the consideration of community garden design as a tool for encouraging social interaction within the Citadel Neighborhood community, and in broader context, the Troost Corridor community. The proposed site programming for the St. James Place Community Garden can be applied to other gardens in the Troost Corridor, presenting the area with more opportunities for social interaction between racial groups.

## RESEARCH QUESTIONS + OUTCOMES

*What community values do garden representatives derive from the existing gardens in Kansas City, Missouri?*

The advantage of understanding the value garden representatives derive from existing gardens in Kansas City was beneficial to the design proposals for the St. James Place Community Garden. Identifying what community values the representatives felt most important about the gardens was gathered through the survey study of the existing gardens in the Troost Corridor study boundary. As previously stated, 11 garden representatives completed the survey. The question that was asked in order to extract this information was: How does the garden contribute to the community?

A wide range of answers were given in response to this question. One main contribution mentioned many times by the representatives

revolved around donating produce grown in the garden to local food pantries. Some of the responses also stated that the gardeners help community members in need, such as the elderly or disabled, by providing them with fresh produce on a frequent basis. Education was another community contribution that many representatives identified. Many find it important to present the people of their community with the knowledge they need on gardening so they have experience to start and manage their own. Lastly, connecting people to nature is another value representatives see in their community gardens. Living in the urban context limits the amount of land available for green space. Being exposed to nature during every stage of life is vital for health and well-being. Multiple responses stressed that the community gardens give people in their community the opportunity to be outside and experience nature at their convenience.

Even though only one garden site was selected for the re-design process, the responses from the survey helped give me a better understanding of the overall culture of the gardens in the Troost Corridor study boundary. Having insight on this perspective from the representatives made it possible to create a physical environment that represents the values and culture of the Troost community in each of the three design proposals.

*How can the community garden at the St. James Place apartments be re-designed to meet the needs of senior residents while also encouraging social interaction within the surrounding community?*

Much consideration was given to the programmatic elements that were incorporated into each of the three design proposals in order to answer this research question. Specific elements of each design focus on meeting the needs of the elderly residents and encouraging social interaction within the Citadel Neighborhood. The following breakdown of each design specifically states which elements meet the needs of the elderly and which elements help with encouraging social interaction in order to answer the identified research question.

## DESIGN CONCEPT ONE: THE ROOTS OF WISDOM

### *MEETING THE NEEDS OF THE ELDERLY*

#### **Accessible raised planter beds**

The existing site does not currently provide any accessible gardening options for the residents. The design proposal incorporates over 20 accessible raised planter beds for the residents to utilize.

#### **Accessible garden paths**

The garden paths that exist today are not the proper width in order to accommodate for full accessibility. The paths are also not smooth, creating many challenges when navigating through the site. The Roots of Wisdom design proposal calls for the paths to be resurfaced and widened.

#### **Multiple resting and seating areas**

Providing frequent areas for rest and relaxation is important when designing for the elderly population due to the fact that with age comes

a decrease in the level of physical mobility. Everyday task become more and more difficult for seniors. This design proposal incorporates a wide variety of seating and gathering areas for the elderly residents. Picnic tables, umbrella seating, benches, and small gathering areas are located strategically throughout the site to provide spaces to rest.

#### **Points of interest near building**

As people age, their confidence decreases. It is normal for seniors to become unsure with their surroundings and want to stay within close proximity to familiar features. Creating points of interest near the building gives the elderly residents the opportunity to still enjoy the garden while staying close to the building for comfort. The garden plots, patio, playground and picnic area are all within close proximity to the building for the convenience of the residents.

## *ENCOURAGING SOCIAL INTERACTION*

### **Picnic area**

This is a communal gathering space with multiple picnic tables. All members of the community are welcome to utilize this space for picnics, casual meetings, large events, or individual enjoyment.

### **Demonstration + children's garden**

The purpose of this space is to encourage children and other community members to participate in gardening activities within the site. This area also presents the opportunity to serve as a demonstration space. The circular area allows enough space for people to gather near the plots for classes and lessons.

### **Playground area**

Although the playground area will be used mainly by the residents' grandchildren, this space still presents opportunity to encourage

social interaction by drawing younger users to the site by providing unique natural playscape elements for them to interact with.

### **Community composting**

The community composting shed is located right next to the main entrance from Citadel Drive. People from the neighborhood can utilize the composting area as a shared community resource. Giving the community access to this feature has the potential to encourage more community members to utilize the site on a frequent basis.

## **DESIGN CONCEPT ONE: GOALS + OUTCOMES**

It is important to show the relationship between the design goals and final design decisions. The explanation for specific programmatic elements and features can be found in the previous design chapter. However, the opposite page clearly shows which programmatic elements and features address each design goal objective for The Roots of Wisdom design proposal.



## INCREASE SITE ACTIVITY

- |    |  |       |  |
|----|--|-------|--|
| 1) | Provide opportunity for social interaction | ● — ● | Picnic area, demonstration garden, playground, community composting area |
| 2) | Create varied forms of programming         | ● — ● | Gardening, recreational, educational programming                         |
| 3) | Provide seasonal interest and activities   | ● — ● | Playground can be used during multiple seasons                           |
| 4) | Create a site that is multi-functional     | ● — ● | Educational, gardening, and play opportunities                           |
| 5) | Site amenities should welcome all ages     | ● — ● | Raised planter beds, childrens' garden and playground                    |

## ESTABLISH ACCESSIBILITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create ADA garden paths and connections to garden                   | ● — ● | Primary paths widened to 7 feet, three proposed garden entrances provide accessible connections to garden site |
| 2) | Provide gardening opportunities for all levels of physical mobility | ● — ● | Accessible raised planter beds, in-ground planting areas   |
| 3) | Incorporate safety features   | ● — ● | Fence around perimeter of property, gates at all garden entrances  |

## PROMOTE ORIGINALITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create a unique environment for the neighborhood that does not exist                  | ● — ● | Designated communal spaces, demonstration garden     |
| 2) | Improve the overall site experience   | ● — ● | Improved paths, more amenities and functions         |
| 3) | Create an environment that counters characteristics of the city                       | ● — ● | Winding paths, vegetation, natural elements          |
| 4) | Create a physical environment that represents the values and culture of the community | ● — ● | Children's garden, playground, gardening opportunity |

## DESIGN CONCEPT TWO: GARDEN CRISP KITCHEN

### *MEETING THE NEEDS OF THE ELDERLY*

#### **Accessible raised planter beds**

The existing site does not currently provide any accessible gardening options for the residents. The design proposal incorporates over 20 accessible raised planter beds for the residents to utilize.

#### **Accessible garden paths**

The garden paths that exist today are not the proper width in order to accommodate for full accessibility. The paths are also not smooth, creating many challenges when navigating through the site. The Garden Crisp Kitchen design proposal calls for the paths to be resurfaced and widened.

#### **Multiple resting and seating areas**

Providing frequent areas for rest and relaxation is important when designing for the elderly population due to the fact that with age comes

a decrease in the level of physical mobility.

Everyday task become more and more difficult for seniors. This design proposal incorporates a wide variety of seating and gathering areas for the elderly residents. Umbrella seating, benches, and small gathering areas are located strategically throughout the site to provide spaces to rest.

#### **Points of interest near building**

As people age, their confidence decreases. It is normal for seniors to become unsure with their surroundings and want to stay within close proximity to familiar features. Creating points of interest near the building gives the elderly residents the opportunity to still enjoy the garden while staying close to the building for comfort. The garden plots, patio, and outdoor kitchen are all within close proximity to the building for the convenience of the residents.

## *ENCOURAGING SOCIAL INTERACTION*

### **Outdoor kitchen**

The outdoor kitchen space becomes a social hub for gatherings at the garden site. The kitchen strives to build a sense of community in the Citadel Neighborhood. The outdoor kitchen serves as an exciting new attraction for community members. Events and activities, such as cooking classes and pot luck dinners, can be held at the St. James Place Community Garden.

### **Fire pit area**

The fire pit area serves as an entertainment space that has the potential to increase site activity during all seasons of the year. This feature serves as the centerpiece for gatherings and events and is open for all members of the community to use.

### **Community composting**

The community composting shed is located right next to the main entrance from Citadel

Drive. People from the neighborhood can utilize the composting area as a shared community resource. Giving the community access to this feature has the potential to encourage more community members to utilize the site on a frequent basis.

## **DESIGN CONCEPT TWO: GOALS + OUTCOMES**

It is important to show the relationship between the design goals and final design decisions. The explanation for specific programmatic elements and features can be found in the previous design chapter. However, the opposite page clearly shows which programmatic elements and features address each design goal objective for the Garden Crisp Kitchen design proposal.

## INCREASE SITE ACTIVITY

- |    |  |       |  |
|----|--|-------|--|
| 1) | Provide opportunity for social interaction | ● — ● | Outdoor kitchen, fire pit area, community composting |
| 2) | Create varied forms of programming         | ● — ● | Gardening and recreational opportunities             |
| 3) | Provide seasonal interest and activities   | ● — ● | Fire pit area and Wildflower Wonder Walk             |
| 4) | Create a site that is multi-functional     | ● — ● | Gardening and social opportunities                   |
| 5) | Site amenities should welcome all ages     | ● — ● | Raised planter beds, fire pit, outdoor kitchen       |

## ESTABLISH ACCESSIBILITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create ADA garden paths and connections to garden                   | ● — ● | Primary paths widened to 7 feet, three proposed garden entrances provide accessible connections to garden site |
| 2) | Provide gardening opportunities for all levels of physical mobility | ● — ● | Accessible raised planter beds, in-ground planting areas   |
| 3) | Incorporate safety features   | ● — ● | Fence around perimeter of property, gates at all garden entrances  |

## PROMOTE ORIGINALITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create a unique environment for the neighborhood that does not exist                  | ● — ● | Outdoor kitchen area, fire pit               |
| 2) | Improve the overall site experience   | ● — ● | Improved paths, more amenities and functions |
| 3) | Create an environment that counters characteristics of the city                       | ● — ● | Winding paths, vegetation, natural elements  |
| 4) | Create a physical environment that represents the values and culture of the community | ● — ● | Outdoor kitchen space                        |

## DESIGN CONCEPT THREE: FRESH PRODUCE MARKET

### *MEETING THE NEEDS OF THE ELDERLY*

#### **Accessible raised planter beds**

The existing site does not currently provide any accessible gardening options for the residents. The design proposal incorporates over 25 accessible raised planter beds for the residents to utilize.

#### **Accessible garden paths**

The garden paths that exist today are not the proper width in order to accommodate for full accessibility. The paths are also not smooth, creating many challenges when navigating through the site. The Fresh Produce Market design proposal calls for the paths to be resurfaced and widened.

#### **Multiple resting and seating areas**

Providing frequent areas for rest and relaxation is important when designing for the elderly population due to the fact that with age comes

a decrease in the level of physical mobility.

Everyday task become more and more difficult for seniors. This design proposal incorporates a wide variety of seating and gathering areas for the elderly residents. Umbrella seating, benches, and small gathering areas are located strategically throughout the site to provide spaces to rest.

#### **Points of interest near building**

As people age, their confidence decreases. It is normal for seniors to become unsure with their surroundings and want to stay within close proximity to familiar features. Creating points of interest near the building gives the elderly residents the opportunity to still enjoy the garden while staying close to the building for comfort. The garden plots, patio, and garden plaza are all within close proximity to the building for the convenience of the residents. The market area, even though its on the southern end of the site, is located along a direct path from the complex.



## *ENCOURAGING SOCIAL INTERACTION*

### **Community garden plots**

Unlike the previous two designs where the plots were intended to be used only by the residents, the Fresh Produce Market design incorporates enough planting areas for both public and resident use. With the large amount and increased number of community garden plots on site, the designs plans for the garden plots to be distributed to the residents first and then rented to community members. Giving public access to the garden plots would help increase the amount of social interaction between residents and community members because they would be working within close proximity to one another and sharing the same interests.

### **Community market area**

The market area is located right off the main garden entrance, making it visible from the street and easily accessible for the surrounding community. Public markets have the potential

to become socially diverse public places in a community. This is because markets are successful at bringing people of different ages, genders, races, and socioeconomic standings together in one location. The implementation of a fresh market within the St. James Place Community Garden presents the opportunity for residents and community members to interact with one another on a frequent basis.

## **DESIGN CONCEPT THREE: GOALS + OUTCOMES**

It is important to show the relationship between the design goals and final design decisions. The explanation for specific programmatic elements and features can be found in the previous design chapter. However, the opposite page clearly shows which programmatic elements and features address each design goal objective for the Fresh Produce Market design proposal.

## INCREASE SITE ACTIVITY

- |    |  |       |  |
|----|--|-------|--|
| 1) | Provide opportunity for social interaction | ● — ● | Community garden plots, market area                |
| 2) | Create varied forms of programming         | ● — ● | Gardening, recreational, and marketing opportunity |
| 3) | Provide seasonal interest and activities   | ● — ● | Market area  |
| 4) | Create a site that is multi-functional     | ● — ● | Gardening and social opportunities                 |
| 5) | Site amenities should welcome all ages     | ● — ● | Raised planter beds, market area                   |

## ESTABLISH ACCESSIBILITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create ADA garden paths and connections to garden                   | ● — ● | Primary paths widened to 7 feet, three proposed garden entrances provide accessible connections to garden site |
| 2) | Provide gardening opportunities for all levels of physical mobility | ● — ● | Accessible raised planter beds, in-ground planting areas   |
| 3) | Incorporate safety features   | ● — ● | Fence around perimeter of property, gates at all garden entrances  |

## PROMOTE ORIGINALITY

- |    |   |       |  |
|----|---|-------|--|
| 1) | Create a unique environment for the neighborhood that does not exist                  | ● — ● | Market area                                  |
| 2) | Improve the overall site experience   | ● — ● | Improved paths, more amenities and functions |
| 3) | Create an environment that counters characteristics of the city                       | ● — ● | Vegetation, natural elements, fruit trees    |
| 4) | Create a physical environment that represents the values and culture of the community | ● — ● | Market area, community garden plots          |

“The days of waiting for government to solve all problems -- whether they’re city, state, or federal -- are over.”

-- Sly James  
Mayor of KC  
(Bryce 2013)

## PROJECT LIMITATIONS

Various limitations confined this project from reaching its maximum potential of a high quality, purpose driven community garden design that encourages social interaction within the Citadel Neighborhood. One limitation that affected the overall success of this project was not having enough time to conduct observational studies at the St. James Place Community Garden. Observational studies would have benefitted the overall outcome of the project because the findings would have given more insight as to how the residents currently use the space. Observing and documenting how the space is used would have also helped highlight what site constraints exist.

Another limitation that affected this project was not visiting the garden site during peak growing seasons. The site was only visited around late October and early January. Both site visits were very beneficial; however, there was not much site activity during these time periods. Experiencing the site during growing seasons would have

provided a better understanding about how people interact on site. For example, it would have been valuable to see how gardeners interact with one another and also how gardeners and non-gardeners interact. Being on site during times with nice weather and higher amounts of activity would have also helped determine which areas of the garden are most used.

The last limitation that affected the overall success of this project was not making contact with the management of the St. James Place apartment complex. Speaking with the owners of the complex would have been beneficial in regards to understanding what their aspirations are for the garden site. Knowing their objectives may have altered the final design proposals for the space. The owners would have also been able to say whether or not the proposed re-design could potentially turn into a reality.





## FUTURE RESEARCH

Due to the time constraints of this past year, certain components of this project were not studied and addressed as in depth as I would have liked, given the allotted time. If this project was researched further, more attention would be spent on incorporating participatory design of the St. James Place Community Garden into the design process.

The final design proposals for the St. James Place Community Garden were based on the findings from selected literature, the survey study, interviews, a precedent study analysis, and the site analysis and inventory. To further transform this project into an extremely successful community garden that encourages social interaction within the Troost Corridor community, participatory design should be added to the methods.

Participatory design efforts would make it possible for a wide variety of stakeholders within the community to give insight on the design

proposals for the site. Conducting various design charrettes with community members throughout the entire design process would highly involve the community and further ensure that the final design meets the community's needs and expectations. By having clear understandings of what people want and expect from the design, the more successful the design will actually be.

## FINAL THOUGHTS

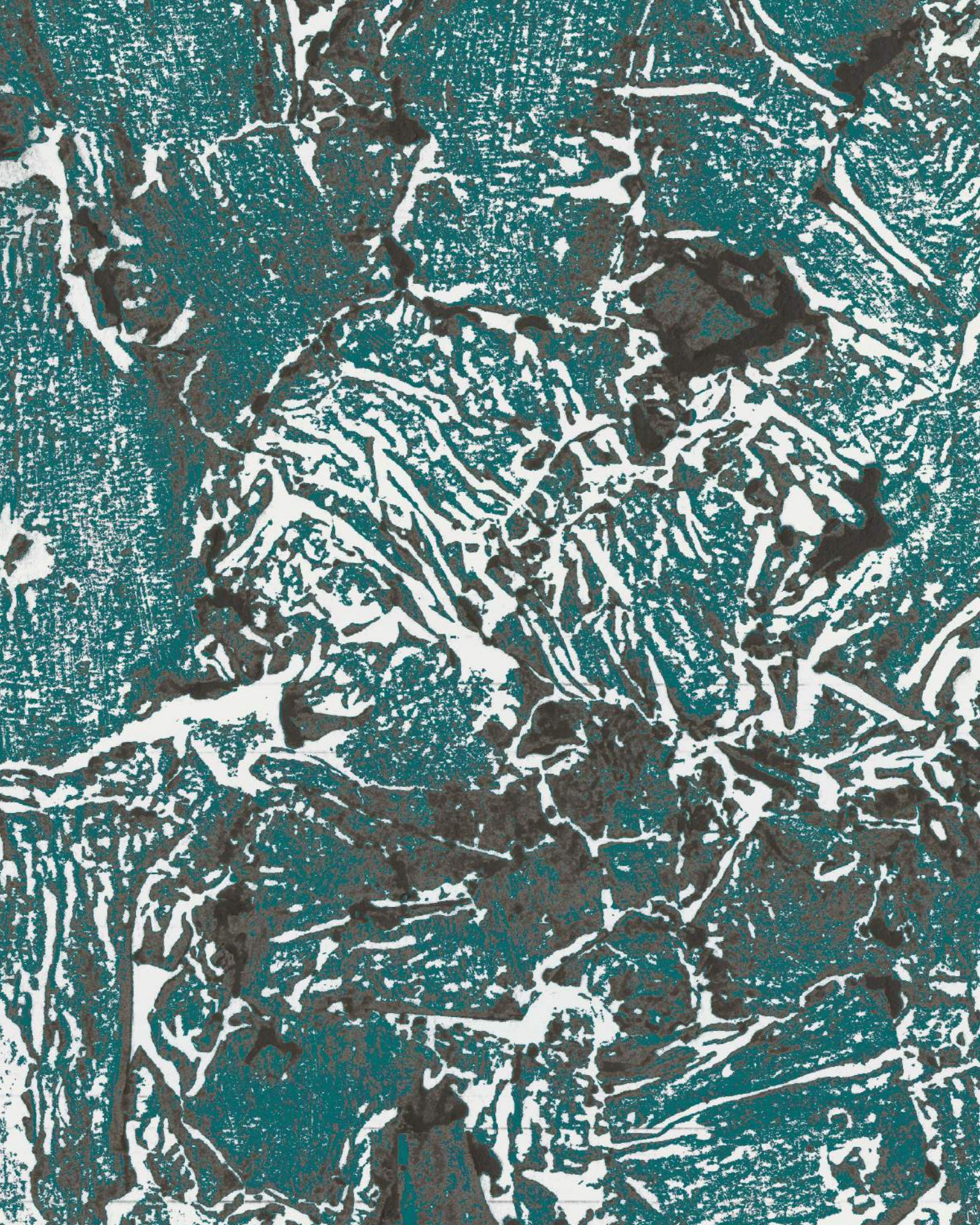
As clearly identified and explained in this project, Kansas City struggles with racial segregation, especially along Troost Avenue. The central interest of this report and project was to examine one tool that presents great potential for encouraging social interaction within communities. That tool is community gardens.

There are approximately 470 existing community gardens registered with the Kansas City Community Garden association and a number of other organizations and individuals throughout the city that own community gardens (KCCG 2014). With such a solid system of gardens already existing, the principles and overall nature of these community gardens can help bridge the gap between two very segregated races in Kansas City. The methodology created for this project has the opportunity to be replicated and applied to other community gardens in Kansas City. The survey that was created can be utilized to gain a better understanding of the existing community gardens in a different area of Kansas

City. The questions I used during the interview process can also be replicated and applied to another community garden site in Kansas City.

It is unrealistic to think that through the implementation or re-design of community gardens, racial and social conflicts in Kansas City will be solved. That is not what this project was set out to accomplish. Community gardens alone cannot erase large, lasting issues like segregation. Assuming that any garden installation will solve an ongoing problem is setting the entire idea and effort up for failure. Furthermore, the research presented in this project suggests that community gardens can begin to “satisfy cultural values and help people feel that they are doing something to improve their situation” (Lawson 2005 pg. 293). These common shared resources within the city can become meeting points for people to seek advice, meet up with neighbors, host community events, and ultimately, help make life more enjoyable and satisfying for people.







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**FIGURE 5.35** Brewster, Ashley. 2015. *Existing vs Proposed Gardening Opportunity*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.36** Brewster, Ashley. 2015. *Existing vs Proposed Seating*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.37** Brewster, Ashley. 2015. *Bridging vs Bonding Elements*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.38** Brewster, Ashley. 2015. *Site Materials*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.39** Brewster, Ashley. 2015. *A Weekend Picnic*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.40** Brewster, Ashley. 2015. *Lessons at The Roots of Wisdom Garden*. SketchUp + Photoshop.

**FIGURE 5.41** Brewster, Ashley. 2015. *Enjoying the Great Outdoors*. SketchUp + Photoshop.

**FIGURE 5.42** Brewster, Ashley. 2015. *Garden Crisp Kitchen Site Plan*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.43** Brewster, Ashley. 2015. *Proposed Access Points*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.44** Brewster, Ashley. 2015. *Patio Seating*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.45** Brewster, Ashley. 2015. *Community Garden Plots*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.46** Brewster, Ashley. 2015. *Outdoor Kitchen*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.47** Brewster, Ashley. 2015. *Fire Pit Gathering Area*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.48** Brewster, Ashley. 2015. *Wildflower Wonder Walk*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.49** Brewster, Ashley. 2015. *Existing vs Proposed Circulation*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.50** Brewster, Ashley. 2015. *Existing vs Proposed Tree Coverage*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.51** Brewster, Ashley. 2015. *Existing vs Proposed Garden Opportunity*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.52** Brewster, Ashley. 2015. *Existing vs Proposed Seating*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.53** Brewster, Ashley. 2015. *Bridging vs Bonding Elements*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.54** Brewster, Ashley. 2015. *Site Materials*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.55** Brewster, Ashley. 2015. *Evening Spring Dinner*. SketchUp + Photoshop.

**FIGURE 5.56** Brewster, Ashley. 2015. *Sunset Fire Gatherings*. SketchUp + Photoshop.

**FIGURE 5.57** Brewster, Ashley. 2015. *Early Morning Wildflower Stroll*. SketchUp + Photoshop.

**FIGURE 5.58** Brewster, Ashley. 2015. *Fresh Produce Market Site Plan*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.59** Brewster, Ashley. 2015. *Proposed Access Points*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.60** Brewster, Ashley. 2015. *Patio Seating*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.61** Brewster, Ashley. 2015. *Garden Plaza*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.62** Brewster, Ashley. 2015. *Garden Plaza*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.63** Brewster, Ashley. 2015. *Fresh Produce Market*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.64** Brewster, Ashley. 2015. *Existing vs Proposed Circulation*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.65** Brewster, Ashley. 2015. *Existing vs Proposed Tree Coverage*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.66** Brewster, Ashley. 2015. *Existing vs Proposed Garden Opportunity*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.67** Brewster, Ashley. 2015. *Existing vs Proposed Seating*. AutoCAD + Photoshop + InDesign.

**FIGURE 5.68** Brewster, Ashley. 2015. *Bridging vs Bonding Elements*. AutoCAD + Photoshop + InDesign.

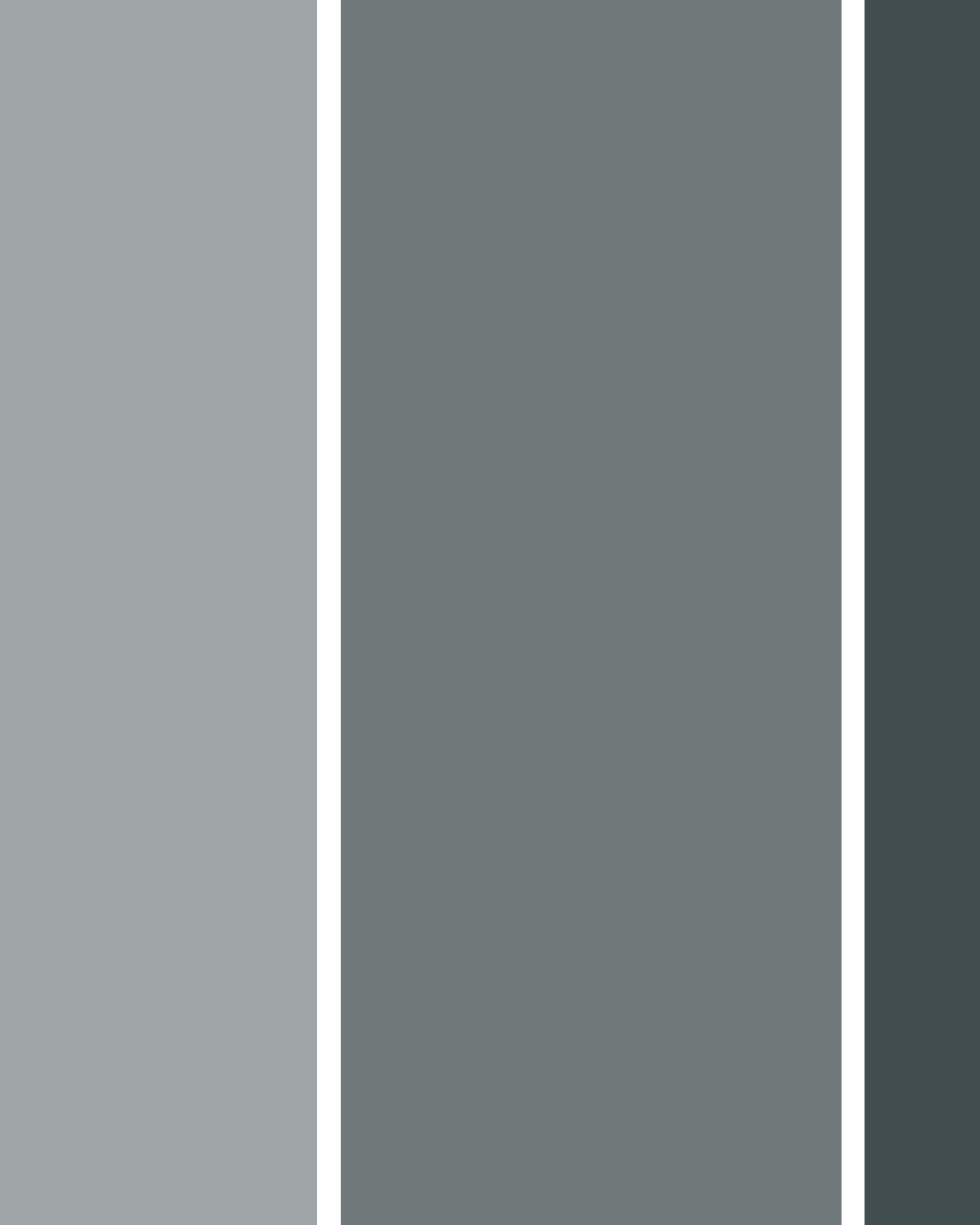
**FIGURE 5.69** Brewster, Ashley. 2015. *Site Materials*. AutoCAD + Photoshop + InDesign.

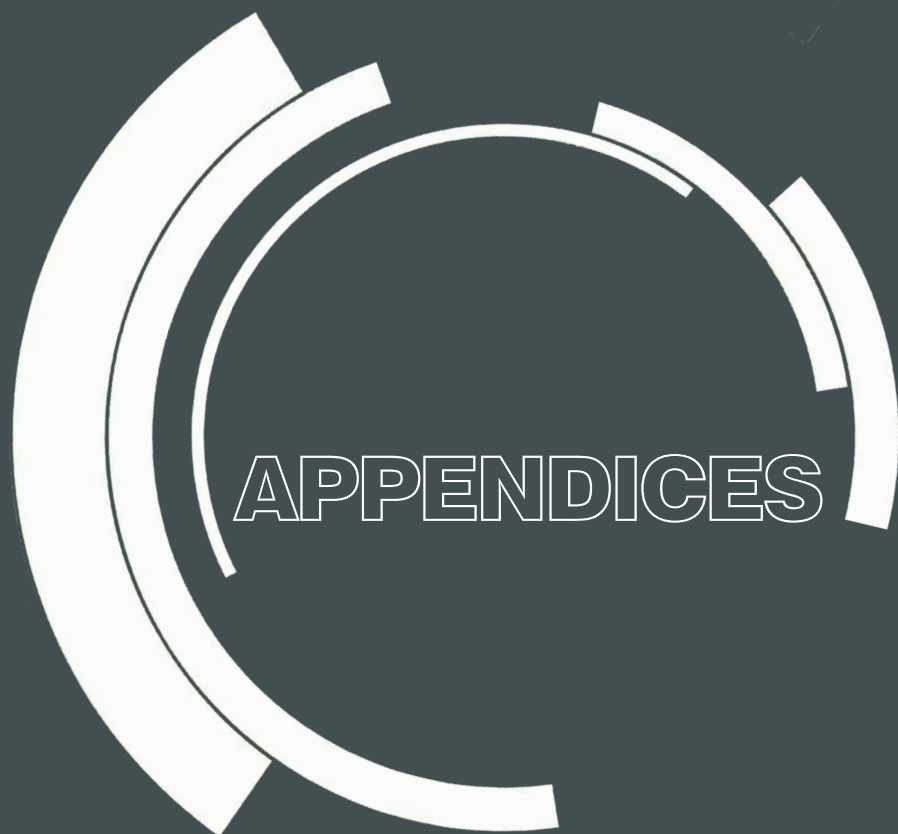
**FIGURE 5.70** Brewster, Ashley. 2015. *Relaxing on the Garden Plaza*. SketchUp + Photoshop.

**FIGURE 5.71** Brewster, Ashley. 2015. *Busy Saturday Produce Market*. SketchUp + Photoshop.









# APPENDICES

## APPENDIX A

### Glossary Terms

**Black Population-** “refers to a person(s) having origins in any of the Black racial groups of Africa” (US Census Bureau 2011)

**Bonding Social Capital-** form of social capital that is “inward looking and tends to reinforce exclusive identities and homogeneous groups; examples of bonding social capital include ethnic fraternal organizations, church-based women’s reading groups, and fashionable country clubs” (Putnam 2001 pg. 22)

**Bridging Social Capital-** form of social capital that is “outward looking and encompasses people across diverse social cleavages; examples of bridging social capital include the civil rights movement, many youth service groups, and ecumenical religious organizations” (Putnam 2001 pg. 22)

**Community-** “an interacting population of various kinds of individuals in a common location” (Merriam-Webster Dictionary 2014)

**Community Garden-** “any piece of land gardened by a group of people” (ACGA 2014)

**Community Garden Purpose/Function-** what specific activity the garden is intended to accomplish and provide

**Interracial Social Interaction-** meaningful interaction between the black and white population

**Private Garden-** gardens that are not open for the general public to access

**Public Garden-** gardens that are open for the general public to access

**Race-** “an unstable and ‘decentered’ complex of social meanings constantly being transformed by political struggle; race is a concept which signifies and symbolizes social conflicts and interests by referring to different types of human bodies” (Omi and Winant 1994 pg. 19)

**Residential Segregation-** “the degree to which members of a majority are all crowded together in space” (Freeman 1970 pg 30)

**Segregation-** “when people who are culturally or otherwise related to each other tend to live in separate areas within the urban community” (Freeman 1970 pg 30)

**Site Boundary-** the St. James Place Apartment Complex grounds

**Socioeconomics-** “of, relating to, or involving a combination of social and economic factors (Merriam-Webster Dictionary 2015)

**Social Interaction-** “meaningful connections to other human beings” (Macias 2008 pg 1089)

**Troost Avenue Community-** residents living within the Troost Corridor Study Boundary

**White Population-** “refers to a person(s) having origins in any of the original people of Europe, the Middle East, or North Africa” (US Census Bureau 2011)

## APPENDIX B

### Survey Questionnaire



**Garden Information****Q1. What is the name of the garden you are associated with?**

**Q2. How long has the garden been established?**

**Q3. Has the garden been actively cultivated in the past 9 months?**

- ☐ Yes
- ☐ No

**Q4. What year was the garden's first growing season?**

**Q5. Is there a larger organization that manages/owns or otherwise collaborates in the garden? Please list the names of the organizations below.**

**Q6. What is the primary purpose of the garden? Please rank each function on a scale of 0-3.  
0= not a purpose of the garden    3= primary purpose of the garden**

	0	1	2	3
Food Production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economic Opportunity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community Activism	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental Restoration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Click to write Statement 7	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q7. Does the garden have: (select all that apply)**

- ☐ Visible garden sign
- ☐ Clearly defined site boundary
- ☐ Clearly defined pathways
- ☐ Clearly defined plot boundaries
- ☐ Designated outdoor classroom space

- ☐ Main/threshold entrance
- ☐ Allocated social gathering spaces (groupings of chairs and tables)
- ☐ Seating spaces (benches, chairs, tables)
- ☐ Overhead shade structure (canopies, pavilions, canvas covering)
- ☐ Steps
- ☐ Boundary fence
- ☐ Locked gate
- ☐ Decorations
- ☐ Art
- ☐ Defined storage area(s)
- ☐ Storage building(s)
- ☐ Raised planter beds
- ☐ In-ground planting
- ☐ Community compost bin or area(s)
- ☐ Lighting
- ☐ Parking near site

**Q8. What is done with food produced from the garden? Select all that apply.**

- ☐ Donated to charitable organization
- ☐ Taken for personal consumption by garden members and volunteers
- ☐ Sold for profit
- ☐ Free to take by the community

**Q9. How does the garden contribute to the community? Explain below.**

**Q10. On average, how many days out of the week during each season are people present at the garden site? Please select one per season.**

	0-2	3-4	5-6	Everyday
Summer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fall	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q11. Which days are the most popular working times? Please select one per season.**

	Weekdays	Weekends
Summer	<input type="radio"/>	<input type="radio"/>
Fall	<input type="radio"/>	<input type="radio"/>
Winter	<input type="radio"/>	<input type="radio"/>
Spring	<input type="radio"/>	<input type="radio"/>

**Q12. How would you classify the ages of garden visitors? Please rank each age group on a scale of 0-3.**  
 0= none 1= few 2= some 3= most

**NOTE:** Garden users are defined as those who are not members of the garden and do not own a garden plot. Their interaction with the garden is for the mere purpose of curiosity or a learning experience.

	Click to write Column 1		Click to write Column 2	
	None	Few	Some	Most
Children under the age of 10 years old	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teenagers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Young adults without children at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Families	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retired adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q13. How would you classify the age of garden coordinators? Please rank each age group on a scale of 0-3.**  
 0= none 1= few 2= some 3= most

**NOTE:** Garden coordinators are defined as those whose main task is to ensure the garden is functioning properly and can assist garden members that need help. Garden coordinators are those who also help organize events for the garden.

	Click to write Column 1		Click to write Column 2	
	None	Few	Some	Most
Children under the age of 10 years old	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teenagers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Young adults without children at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Families	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retired adults	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q14.**

We have distinguished between 3 main activities associated with community gardens below:  
**Cultivating, Recreation, and Gleaning.**

Please consider the following descriptions related to this research to answer the next question.

**Cultivating Definition-** actively participating in food production either on their own plot or a shared plot between community members; primary reasons to come to the garden site include managing and tending to plants

**Recreation Definition-** participation is for leisure and enjoyment; primary reasons to come to the garden site may include relaxing and socializing

**Gleaning Definition-** gathering of produce after a harvest; primary reason to come to the garden site includes picking up produce after a harvest

How many people over the course of the year participate in the following. Please select one per category.

	0-5	6-10	11-15	16-20	More than 20
Cultivating	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gleaning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other <input type="text"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Q15. Is the garden open to the public?**

☐ Yes. Explain how below.

☐ No. Explain why not below.

**Q16. How would you rank the amount of interaction between different racial groups at the garden?  
Please rank on a scale of 0-3.**

None Little Some Much

**Q17. Please select any problems with theft or vandalism that have been an issue in the garden:**

- ☐ Produce being stolen
- ☐ Defacing of property
- ☐ Fence/gate broken or damaged
- ☐ Chairs and tables stolen
- ☐ Illegal dumping or trash
- ☐ Trespassing
- ☐ Other

**Q18. What are the top three problems the community faces? Please describe below.**

**Q19. How many miles away from the garden do you live?**

**Q20. What is your primary form of transportation to the garden site?**

**Q21. On a weekly basis, how many hours do you spend at the garden? Please select one.**

- ☐ None
- ☐ 1-5
- ☐ 6-10
- ☐ 11-15
- ☐ 16-20
- ☐ More than 20

**Q22. Do you wish to receive a copy of:**

- ☐ Survey summary
- ☐ Final report
- ☐ Both

**Q23. If you wish to receive a copy of the survey summary and/or the final report, please provide contact information below.**

Name	<input type="text"/>
Address	<input type="text"/>
	<input type="text"/>
APT, Suit	<input type="text"/>
City	<input type="text"/>
State	<input type="text"/>
Postal Code	<input type="text"/>
Phone Number	<input type="text"/>
Email	<input type="text"/>

## APPENDIX C

### Interview Questionnaire

#### Interview Questions for Non-Gardeners

1. Do you ever visit the community garden? If so, why?

2. What is your overall impression of the garden?

3. What is your reason for not participating in the garden?

4. Are there implications with the garden that has kept you from participating?

5. Are there improvements that you see could be made?

6. Are there any incentives that would encourage you to participate?

7. Do you participate in other activities within the apartment complex? If so, which ones?

8. Are there other organizations that partner with the apartment complex?

9. Do you interact with other people from surrounding apartment complexes? If so, where do you typically interact with them at?

10. Can you tell me more about the surrounding neighborhoods?

11. What do you like most about the neighborhood/area?

12. What are some of the problems the area/neighborhood face today?



### Interview Questions for Garden Users

1. Do you know what was on site before the garden was implemented?

2. Is there a membership to join the garden?

3. Can you tell me how the garden is administered and how the responsibility for caring for the garden is shared among the members?

4. How often do you visit the garden during growing seasons?

5. How long is your typical garden visit?

6. Why do you participate in gardening?

7. Whom do you usually go to the garden with? A group? Yourself?

8. What do you usually do when you go to the garden?

9. What are the benefits you see in gardening?

10. Are there any events held at the garden? If so, what type and do you participate?

11. What events to you wish the garden would host?

12. Do you participate in other activities within the apartment complex? If so, which ones?

13. Are there other organizations that partner with the apartment complex?

14. Do you wish the garden offered other functions other than just food production? If so, what other functions do you wish the garden provided?

15. What is the most unique aspect of the garden?

16. Are you satisfied with the garden site? Why or why not?

17. What improvements could be made in the garden?

18. What implications do you see concerning the garden?

19. Is the garden a social environment for gardeners? For non-gardeners?

20. Do you interact with other people from surrounding apartment

complexes? If so, where do you typically interact with them at?

21. Can you tell me more about the surrounding neighborhoods?

22. What do you like most about the neighborhood/area?

23. What are some of the problems that the area/neighborhood faces today?

24. Would you be interested in opening the existing garden to the public? Why or why not?

25. Do you think the garden has the potential to expand? If so, in what ways?

