SOUTHSIDE RETRACE

Strategies to

Retain
Redefine
Reconnect

Public Housing in South Omaha

Community Planning and Design Studio
Landscape Architecture and Regional & Community Planning
Kansas State University


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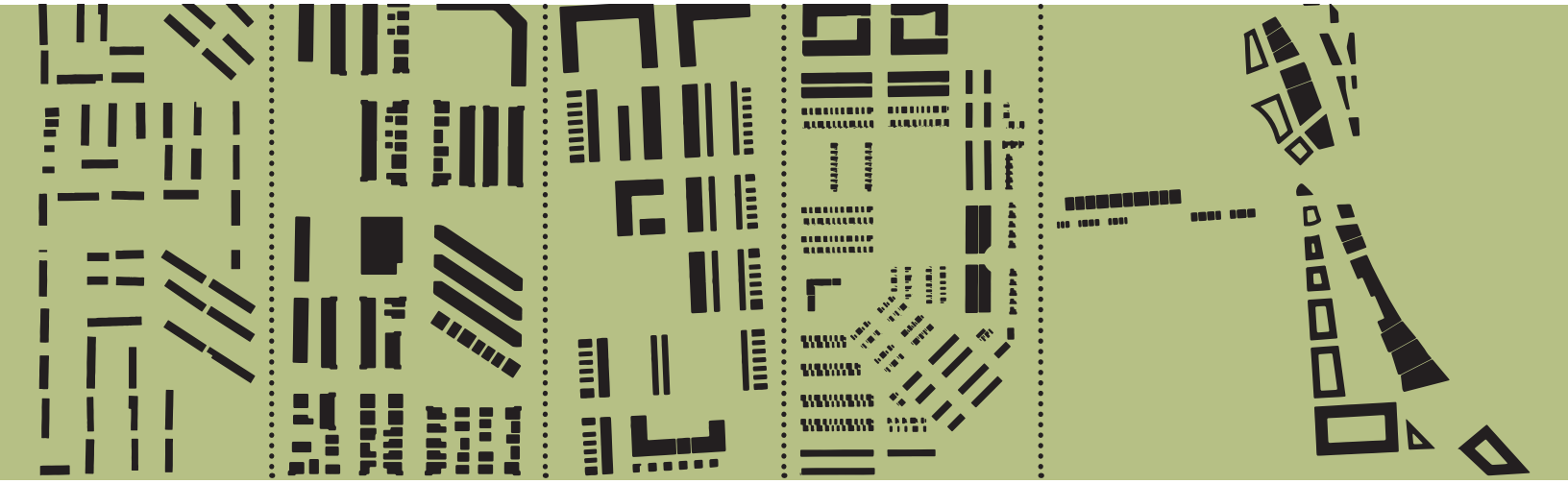

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Southside Retrace:
Strategies to Retain, Redefine, and Reconnect Public Housing in South Omaha

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SOUTHSIDE RETRACE

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1 INTRODUCTION

1.1

Executive Summary

The Omaha Housing Authority (OHA) is at a critical crossroad. Southside Terrace public housing infrastructure has exceeded its functional lifespan and needs to be replaced. The cost to maintain the 75-year-old structures is no longer viable for OHA, which intends to demolish the site and rebuild. OHA has applied for a HUD Choice Neighborhood Planning Grant and envisions rebuilding the community to better serve its 1,300 residents, roughly half of whom are Sudanese or Somali refugees. How can the redevelopment address the needs of residents during and after redevelopment? How can the lives of residents be improved, and what kinds of housing should be built? How should the new community integrate with its surroundings? This book, Southside Retrace: Strategies to Retain, Redefine, and Reconnect Public Housing in South Omaha, presents ideas for stimulating dialogue about the future of Southside Terrace. Four planning and design proposals provide different redevelopment approaches, ranging from immediate low-impact design to visionary planning strategies for the future.

Retrace

Southside Retrace: Strategies to Retain, Redefine, and Reconnect Public Housing in South Omaha addresses the future of Southside Terrace public housing community (Fig. 1.1.1). Twelve mid-level landscape architecture students in an intensive 8-week Community Planning and Design studio completed the work during the summer of 2016. The studio was co-led by Associate Professor Blake Belanger and Associate Professor Howard Hahn. The effort was supported with funding from Kansas State University's Technical Assistance to Brownfields (TAB), and would not have been possible without the support of Blase Leven, Program Coordinator. We are also grateful for the support and guidance from OHA leadership and staff, South Omaha community service providers, and our external reviewers.

In this section, the Executive Summary, we first introduce the foundational tenets that guided all the studio proposals. We then briefly outline the most salient dilemmas and opportunities that emerged through critical mapping and stakeholder discussions. Lastly we summarize the four planning and design proposals that emerged through the studio, identifying strategies that we believe offer the greatest potential. While we recognize our studio proposals do not solve all the challenges faced by OHA, we believe they provide innovative strategies for reimagining the future of Southside Terrace.

Maps referenced by number can be found in Appendix A.

Retain, Redefine, and Reconnect

The Southside Retrace proposals address three vital considerations in redeveloping Southside Terrace: **retaining** vulnerable populations within close proximity of needed community services during and after construction; **redefining** quality of life and housing for residents and newcomers; and **reconnecting** the new community with the surrounding neighborhood.

Retain

Why should public housing be retained at the Southside Terrace location in the future?

The simple answer is location, location, location. The current location is within walking distance of existing support infrastructure, the grouping of many dwelling units provides efficiency for property maintenance, and the site is a large enough parcel to accommodate both residential buildings and common open space. Perhaps most importantly to the refugee populations, retaining a community in this location facilitates existing social-cultural networks needed for people to assimilate to American culture.

Southside Terrace is near more community service providers than any other OHA property by an order of magnitude (Fig 1.1.2.). Girls Inc, YMCA, Indian Hills Elementary School, Metropolitan Community College, The Salvation Army Kroc Center, The Stephen Center and other employment and empowerment providers are located within a half-mile walk of the community (Fig 1.1.3.).



Figure 1.1.1. Birdseve Aerial of Southside Terrace (Nyp 2016, Map 3.4a). Southside Terrace housing is barracks-style on a steeply sloping site.

Not all residents take advantage of the opportunities furnished by the service-providers, however child-care, meal programs, emergency housing, recreation facilities, and after-school activities, among others, are vital programs for many residents. The local service-providers are generally non-profit organizations receiving funding from grants and philanthropic sources. Without these nearby service providers, OHA would need to bear the burden of such expenses, or allow the residents to go without needed support programs. In addition, many of the service providers rely upon one another to function, creating a symbiotic network of support for at-risk populations. Dispersing residents during and/or after site redevelopment threatens to fragment and weaken the fragile network of support currently established around the Southside Terrace site (Fig 1.1.4.).

OHA manages properties in many locations throughout Omaha. Some dwelling units are clustered together by the hundreds, others are widely distributed in “scatter properties.” All of these properties are maintained by OHA facilities personnel. Currently 362 units are clustered together at Southside Terrace in a relatively concentrated geographic area. If OHA distributes Southside Terrace

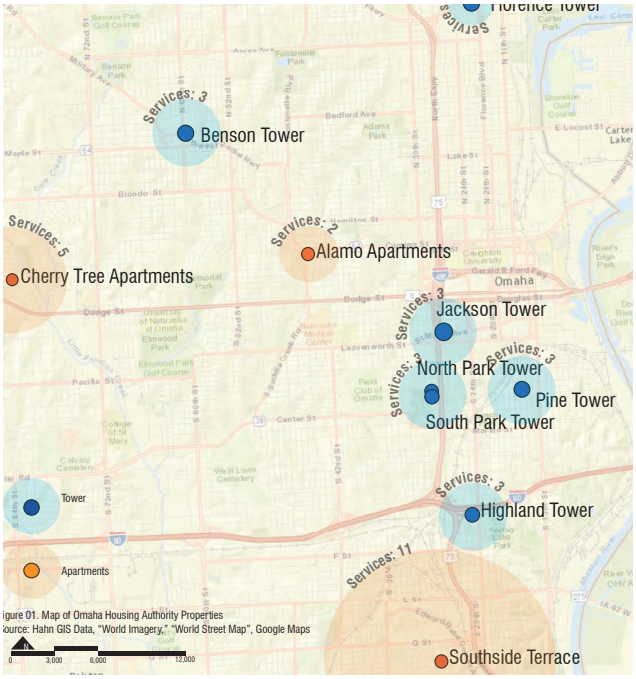


Figure 1.1.2. Southside Terrace has the Most Social Support Services Among OHA Properites (Finck 2016, Map 2.5a)

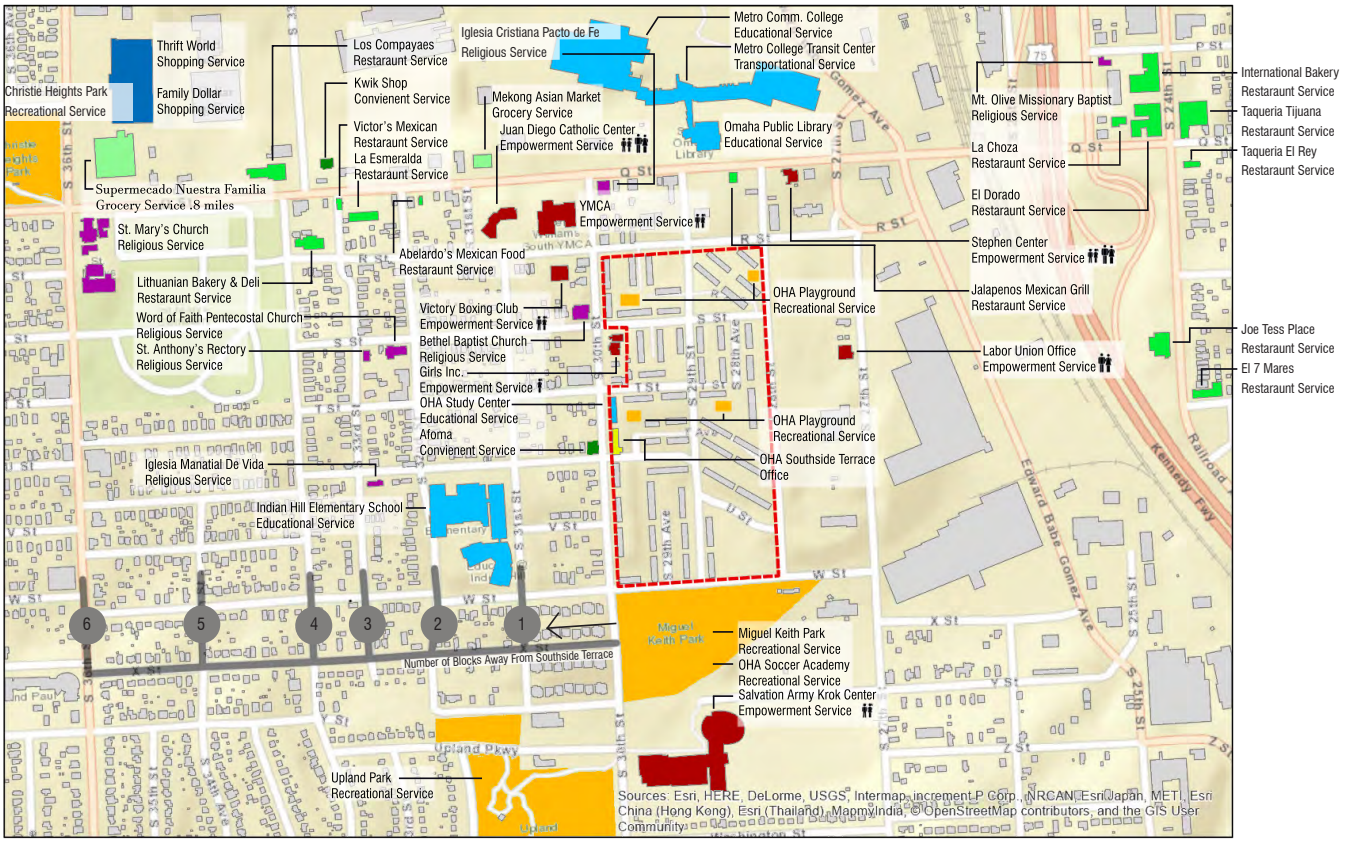


Figure 1.1.3. Southside Terrace is Located within a Half-mile Walk to Many Goods and Services (Brown 2016, Map 2.1)

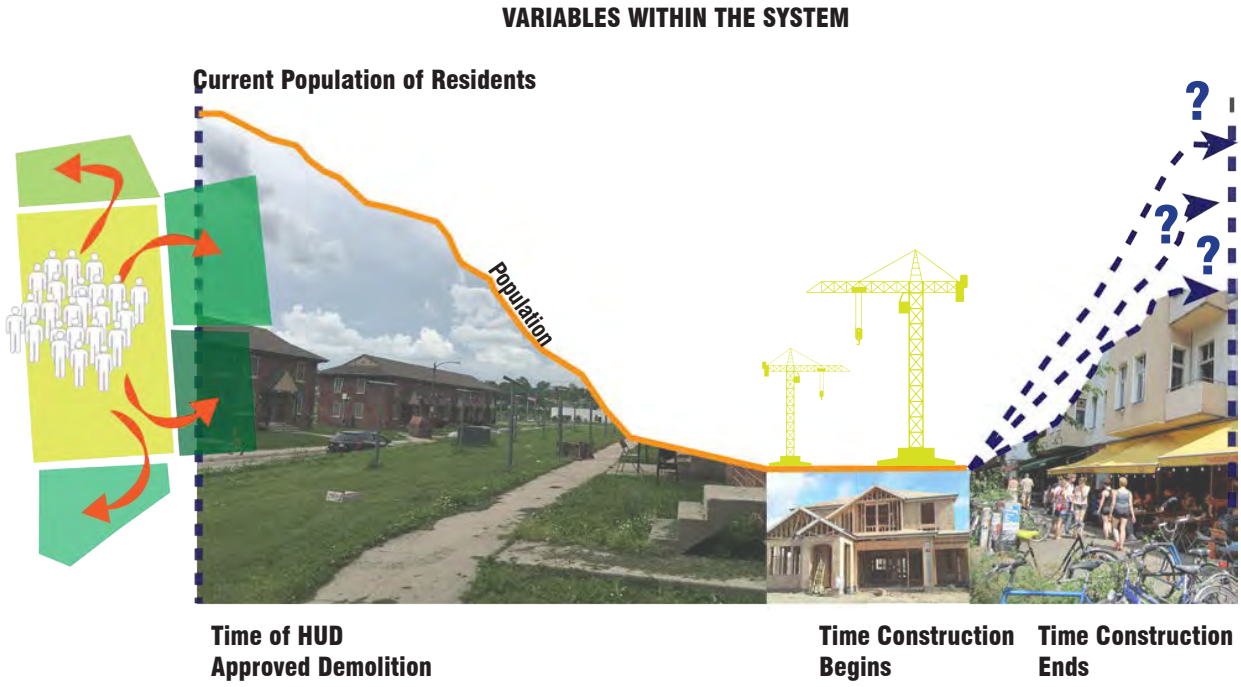


Figure 02. The Retention of Southside Terrace Population if Relocated Close to the Current Site will Depend on Influx of Mixed Income Population or the Adjustment of Public Housing Admissions
Source: https://flic.kr/p/9VasmK, https://commons.wikimedia.org/wiki/File:Home_under_construction.JPG, Blake Belanger 2016, James Hanlon 2009, Robert Chaskin 2013



Figure 03. If Southside Terrace Population is Displaced to Different Parts Omaha, the Return Rate of Former Residents will be Questionable
Source: https://flic.kr/p/9VasmK, Blake Belanger 2016, James Hanlon 2009, Robert Chaskin 2013

Figure 1.1.4. Phasing Construction Provides Continuous Residential Presence (Finck 2016, Map 2.6a). The fragile support-services network relies upon the ability to serve vulnerable populations. If Southside Terrace residents are dispersed during construction, service providers may be at risk of losing funding. Also see Maps 2.6b, 2.6c, and 2.7.

residents across the city, it would reduce efficiency and further tax OHA's already stretched maintenance resources. Along the same lines, concentrating new residences on the existing 31-acre site provides opportunities for shared common space unavailable if residents were scattered in smaller properties throughout the city.

Currently, the primary strategy for relocating residents during construction is OHA-provided Section 8 housing vouchers. The vouchers allow residents to find their own housing with landlords who accept vouchers as rent payment. While some residents welcome the opportunity to find their own place to live, others rely heavily on the existing cultural networks in Southside Terrace. For these people, especially refugees who are still assimilating to American culture, maintaining social connections are vital for childcare, meal preparation, and cultural traditions, among other needs. In order for cultural networks to remain intact, a socially sensitive and strategic construction phasing plan could enable them to stay on-site or within immediate proximity of the existing site.

In summary, it's important to retain current residents within close proximity of existing services and community organizations to ensure residents are getting needed support programs, to maintain the network of providers that depend on serving the Southside Terrace residents, and to sustain social networks for at-risk populations. All of the *Southside Retrace* proposals consider construction phasing that prioritizes resident proximity to services (example, Fig 1.1.5). Refer to Appendix A, Maps 2.2 - 2.12 for more detailed research on retaining residents in close proximity to services, and phasing concepts to accomplish that goal.

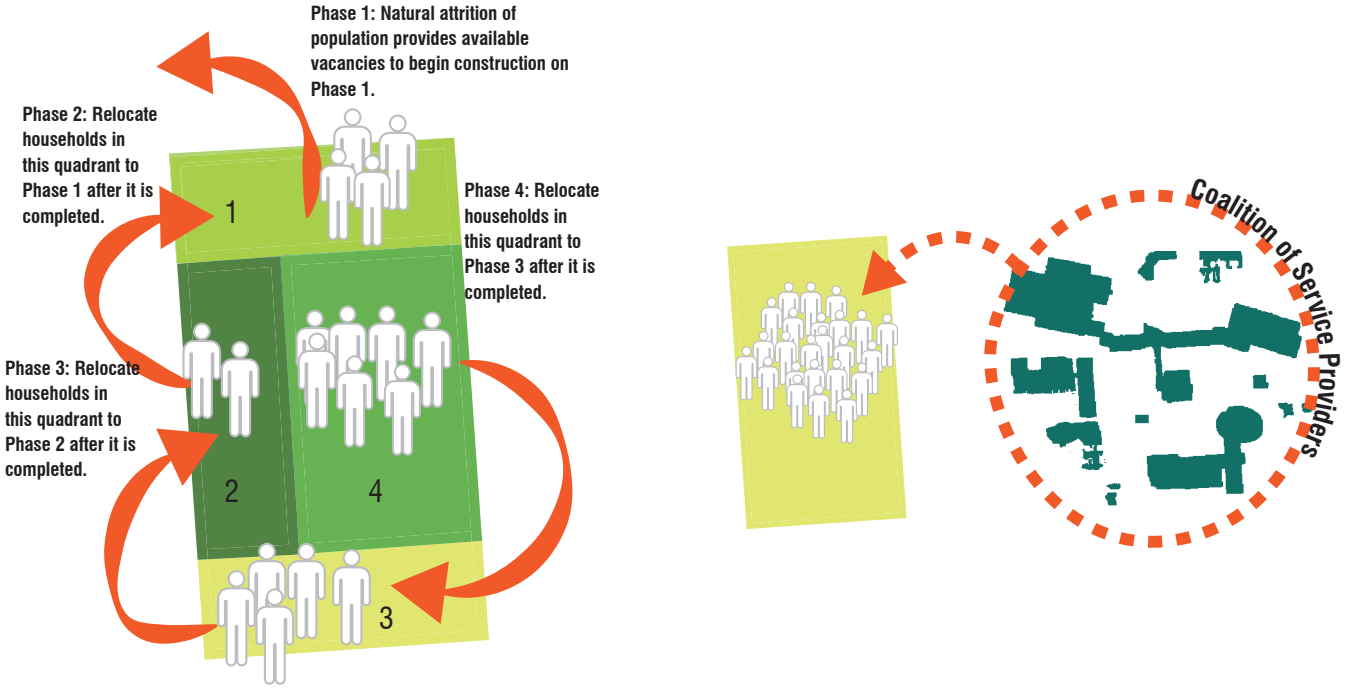


Figure 1.1.5. Keeping Southside Terrace Communities Close (Finck 2016, Map 2.7). Strategic redevelopment phasing will help retain residents within close proximity of the existing Southside Terrace site. Doing so will keep at-risk populations close to services, maintain service providers' support base, and sustain important socio-cultural networks for existing residents. Also see Maps 2.8-2.12.

Redefine

Why is it important to improve the quality of life for Southside Terrace residents?

Residents currently endure unsafe conditions due to street layout, building configuration, and poor lighting performance, which inhibit police patrols and natural surveillance within the community (Figs 1.1.6 and 1.1.7). Locations of community infrastructure, particularly common dumpster locations and car maintenance are health hazards and create visual nuisance. The community currently lacks adequate outdoor common space facilities for recreation and other community activities. Southside Terrace also lacks adequate indoor common space. An existing study center, retrofitted by merging two former dwelling units, serves residents on a limited basis, but the community lacks indoor space for job training, empowerment classes, child care, and other needs. The The *Southside Retrace* proposals address all of these issues to varying degrees, improving the quality of life for residents and neighbors.

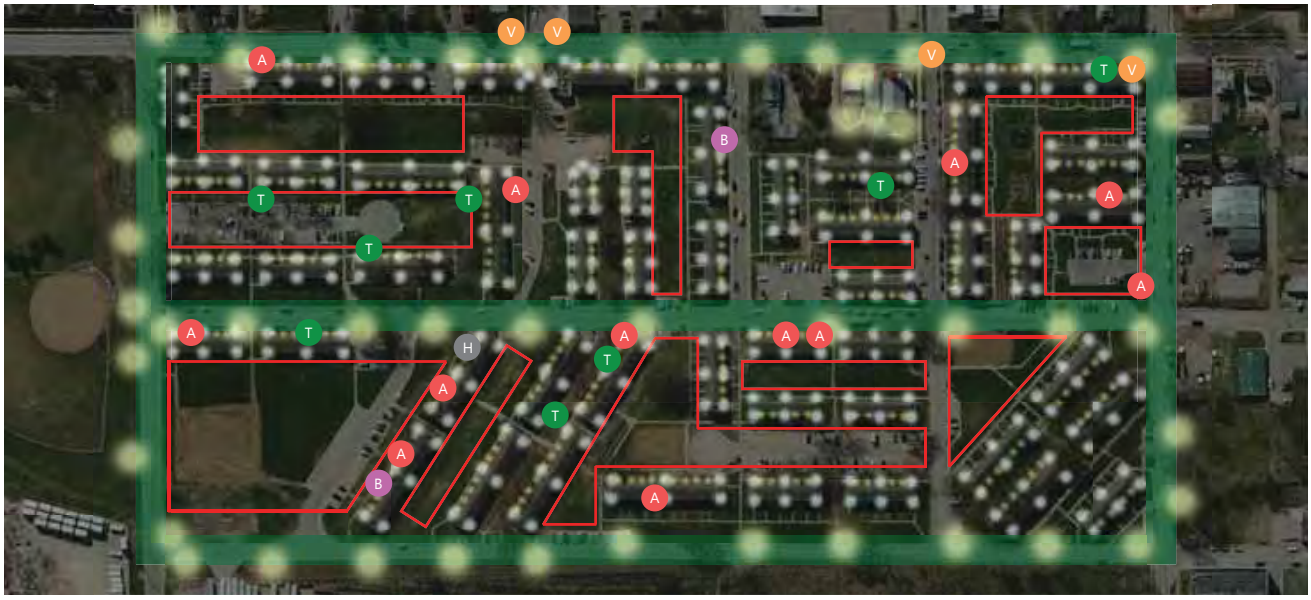
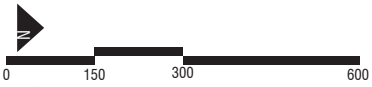
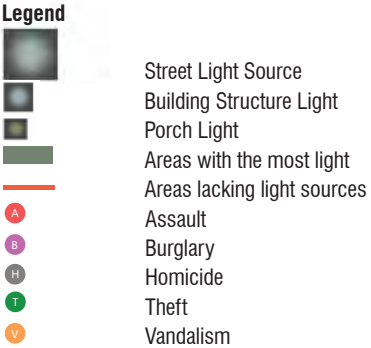


Figure 01. Locations of various crimes within Southside Terrace from January 1 to June 1, 2016 occurring between 5 p.m. and 5 a.m.
Source: GIS, CrimeMapping





Inquiry: How does the location of light sources within the Southside Terrace development correlate with crime activity?
Key Extractions: Locations of various criminal acts within Southside Terrace from January 1 to June 1, 2016; sources of light
Methodology: Data regarding crimes in the area of Southside Terrace was collected from the period between January 1 to June 1, 2016 which occurred between 5 p.m. and 5 a.m. and was projected onto the light source location map to reveal any correlation between the two sets of data. Areas lacking light sources were also identified.
Conclusions: It appears that many of the crimes in the area occur within or adjacent to the building structures with a greater majority occurring in areas that lack light sources (12 in well lit areas, 15 in poorly lit areas). Although this is not a significant margin, there is some correlation between areas with less lighting and more criminal activity.

Figure 1.1.6. The Majority of Criminal Activity Occurs in Poorly Lit Areas (Corrie 2016, Map 4.7). Between January 1 and June 1, 2016, poorly lit areas were the setting for 7 of the 13 reported violent crimes (assault and homicide) and 8 of the 14 reported non-violent crimes (burglary, theft, and vandalism).

Unsafe street layout and building configuration

- Existing site has poor natural surveillance and many escape routes and hiding places (Maps 4.4-4.5)
- Long walkways from parking areas make people vulnerable to criminal activity (Map 1.5).
- Poor lighting results in dark zones across the site (Fig 1.1.6 and Maps 4.4, 4.6, and 4.7)
- A “soft edge” is transitional space between public areas and private residences, and is important for maintaining privacy and natural surveillance (Gehl 1986). Front porches, patios, and gardens are examples of soft edges. Currently there is only a very small stoop in the front yards, and back yards are undefined, reading as continuous shared space. Resident possessions are frequently stolen and/or vandalized. There is a need to balance between visibility/safety using Crime Prevention Through Environmental Design (CPTED) and establishing defined household exterior space.(Maps 4.3-4.5)



Figure 1.1.7. Southside Terrace Design Increases Opportunities for Criminal Activity (Brown 2016, Map 4.5). The current site configuration prevents natural surveillance from occurring in several significant areas of the site. Gaps between buildings create hiding places and escape routes for criminals. Also see Maps 4.3 - 4.7.

Unhealthy environmental conditions

- Dumpsters are exposed and poorly maintained, with garbage frequently overflowing onto parking surfaces and lawn areas (Maps 1.8-1.10 and 4.24)
- Bed bugs and cockroaches are endemic
- Poor ADA access and potentially hazardous stairs, especially during winter months (Map 4.2)
- Sidewalks along streets are very narrow without a safety buffer between pedestrians and moving vehicles.
- Personal vehicle maintenance occurs in public spaces without adequate safety precautions
- The site is virtualy devoid of ecosystem services to promote healthier environmental conditions (Fig 1.1.8 and Maps 3.2-3.3)

There are inadequate facilities for job training, business incubators, classes (language, computing, American culture, cleaning/home maintenance, hygiene and health), etc. for children and adults

- Currently two residential units have been converted to a study center. The center is undersized and has to double as storage for tables and chairs used for outdoor events.
- Currently newcomers from other countries are not provided with orientation to American culture. This may not be the responsibility of OHA, but the Authority could provide interior building space for service-providers to teach classes.
- There is no indoor meeting space for residents



Figure5: Porposed Community Garden (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Cultural, Supporting, Provisiong



Figure6 (d-olwen-dee, 2012)

Community Garden

Community garden is a place can grow small amount vegetables and crops. It can provide an opportunity for children to learn. During food production, plants will need full-sun or part sun and need to be a well drained area. The best place for community garden should be located at south side of the site But there are also some vegetables need to grow in a shaded area, such as spinach, cabbage and broccoli. There are still several place at north side of the site is suitable. (Phipps, 2016)



Figure7: Porposed Butterfly Garden (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Cultural, Supporting, Provisiong

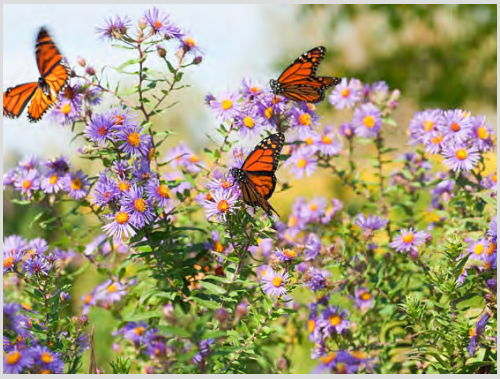


Figure8 (Champion, 2012)

Butterfly Garden

Most butterflies like the sun and open area to fly, locate south side of the site is the best area for a butterfly garden. A butterfly garden can provide aesthetic use to the site, the flowers can achieve pollination to the site, which is a kind of ecosystem services. It is also a good place to relax and for children to play and learn about nature.
(in.gov, 2016)

Figure 1.1.8. Bring Ecosystem Services to Southside Terrace (Sun 2016, Map 3.3). The site plan and landscape design currently provide very little ecosystem services to the community. Including ecosystem services in the redevelopment plan would potentially improve quality of life for the residents. Also see Maps 3.1-3.2.

- There is no outdoor meeting space
- There is no indoor or outdoor event space
- There are no opportunities for residents to start businesses. There are no internet / printing places, restaurants and/or kitchen, and woodworking shops

Southside Terrace is engineered on very steep slopes (Fig 1.1.9). It lacks comfortable common space for activities, such as community gardening, playgrounds, picnicking, and outdoor cooking. Common spaces such as these would provide opportunities for people of different backgrounds to meet and get to know each other on a neutral ground (Fig 1.1.10 and Maps 4.13-4.19).

- Aside from a few small playgrounds, there are few places for people to do things outside, especially for pre-teens and teenagers. (Maps 4.1-4.2)
- Most common space is very steeply sloped and unusable for most outdoor activities. Residents' needs are not supported by the current site plan (Maps 4.1-4.2).
- There is no space for gardening except for limited foundation plantings adjacent to residences

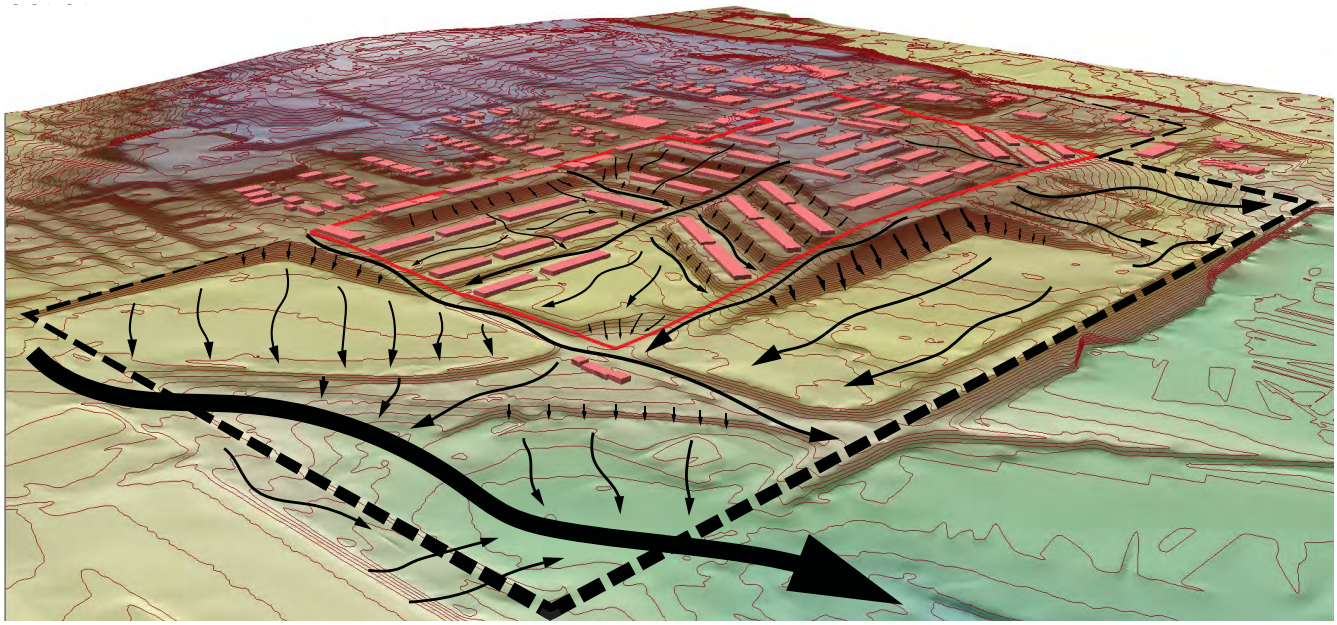


Figure 1.1.9. Steep Slopes Create Unusable Common Space Areas (Nyp 2016, Map 3.5). The current site configuration utilizes steep terraces to create flat building pads. The remaining "in-between" common spaces are often too steep for many uses. Also see Maps 3.4-3.7



Comparing Orenco Station, Oregon to Southside Terrace:
-Dwellings are organized around greenspaces, with their fronts facing streets and/or common spaces.
-Along arterial roads which see higher speeds, pedestrian pathways are offset further from the street.
-Large networks of pedestrian pathways promote pedestrian safety and walkability.
-Increased building density and smaller lot size maximizes room for public space.
-A mix of housing types is employed: apartments, cottages, lofts, townhouses.
(Stanilov & Scheer, 2004)

Figure 1.1.10. Common Space Case Study: Orenco Station, Portland Oregon (Lanning 2016, Map 4.13). The common space at Southside Terrace is currently haphazardly distributed. Redevelopment plans should focus on common space as one of the primary form-giving land uses. Orenco Station and other New Urbanist communities use common space for organizing street networks, building orientation, and community programming. Also see Maps 4.14-4.19 and 4.24-4.25.

Why is it important to provide a mix of housing types for a variety of income levels?

- Currently, residents who want to remain in the community, must remain in subsidized housing. “Moving up” means “moving out.” There is no opportunity for residents to get off subsidies and remain in Southside Terrace. Providing a mix of housing opportunities within the new community plan would allow for residents of subsidized housing to transition off subsidies and still stay within the same community. (Maps 4.19-4.20)
- Since Southside Terrace provides subsidized housing to low-income households, poverty is highly concentrated. Introducing mixed-income housing will de-concentrate poverty.
- Mixed income housing is potentially more appealing to neighbors who live in the adjacent neighborhood
- Mixed income housing will potentially provide economic catalyst to the district (Maps 4.19-4.20)
- Mixed income housing sets the stage for subsidized residents to expand social networks, creating educational and/or economic opportunities
- Mixed income housing, including some market-rate housing, would attract developers and investors to collaborate in public/private partnerships. In previous public housing projects, notably HOPE VI projects, public/private partnerships provided needed funding for construction. It’s worth noting that an argument against public/private partnerships is that in some similar projects in the past, the subsidy requirements are increased, preventing some current residents from moving back (Hanlon 2010). Bottom line: with private investors in the picture, there are higher expectations for property maintenance, quiet hours, respecting neighbors, and respecting common space. (Map 4.8)

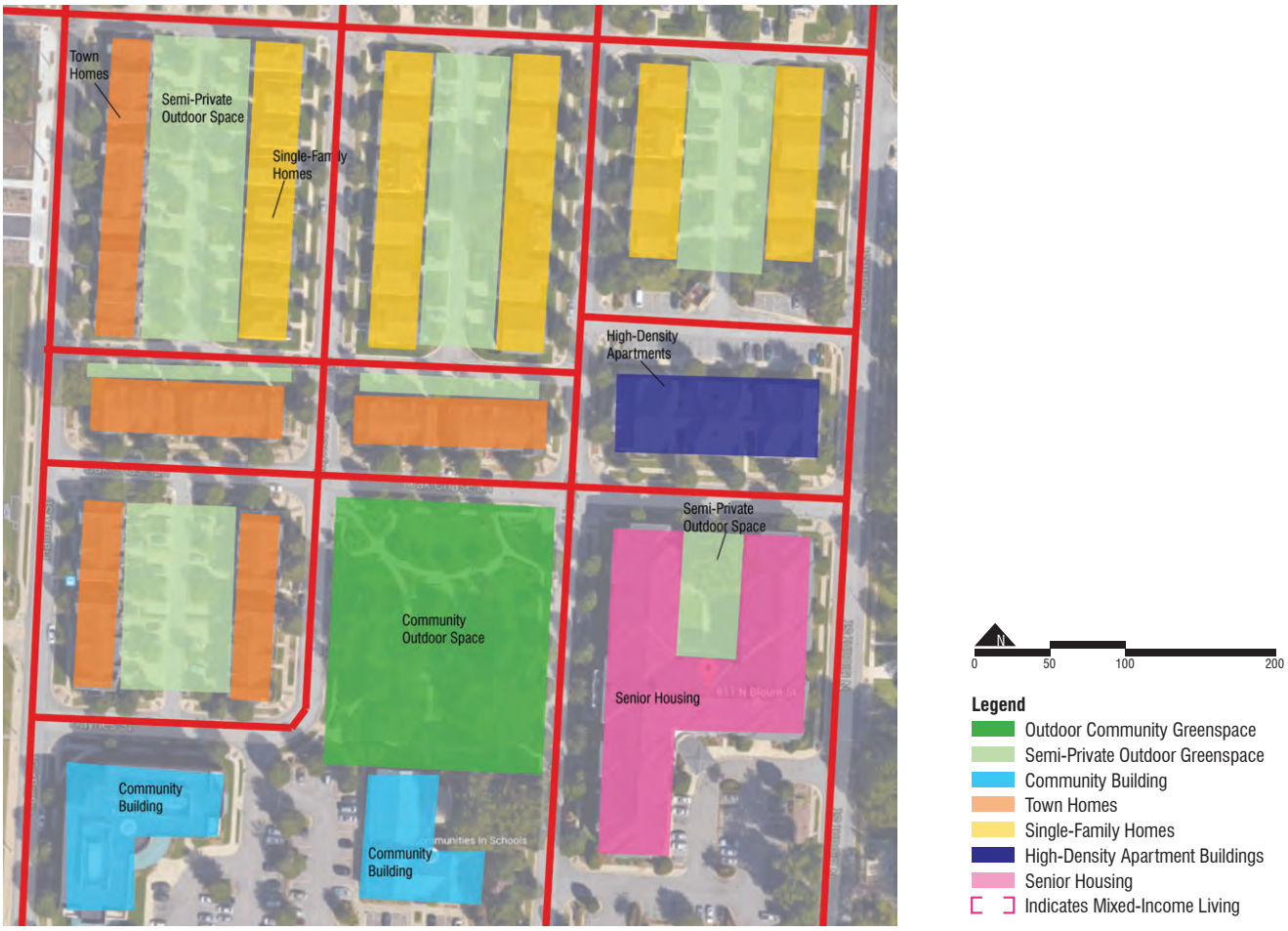


Figure 1.1.11. Mixed Use and Mixed Income Development Case Study: Capitol Park, Raleigh, North Carolina (Lemken 2016, Map 4.19). Southside Terrace is currently single land use with one housing type. Redevelopment plans, like Capitol Park in Raleigh, NC, should integrate a mix of uses and housing types. Mix of uses provides nearby amenities and employment opportunities; and mix of housing types allows residents to move from subsidized housing into affordable or market-rate housing and remain in the same community. Also see Maps 4.20-4.28.

Reconnect

Why is it important to create stronger connections to the surrounding neighborhood?

- A new development at the Southside Terrace site could leverage the 17,000 annual average vehicle trips per day on Q Street as a retail/commercial opportunity (Maps 4.27-4.28)
- Q street provides good opportunity for SST residents to establish higher visibility for new businesses (Maps 4.27-4.28)
- Provide better physical access (ped and bike) to nearby community facilities and employment, including improved crosswalks, sidewalks, and bike lanes (Map 2.2).
- OHA should be prepared to integrate Southside Terrace with long-term transit planning, including transportation authority Bus Rapid Transit plan and visionary Light Rail Transit planning.(Fig 1.1.12 and Maps 1.1-1.3)
- Improved transportation, pedestrian provisions, and economically viable Q St business could serve as district-wide catalyst. This would benefit Southside Terrace residents by providing additional jobs and services within immediate proximity.
- Strengthen ties between community partners
- Strengthen social networks between Southside Terrace residents and residents of adjacent neighborhood
- Better physical connections between SST and neighborhood will improve police patrol access for entire neighborhood (Map 1.5)

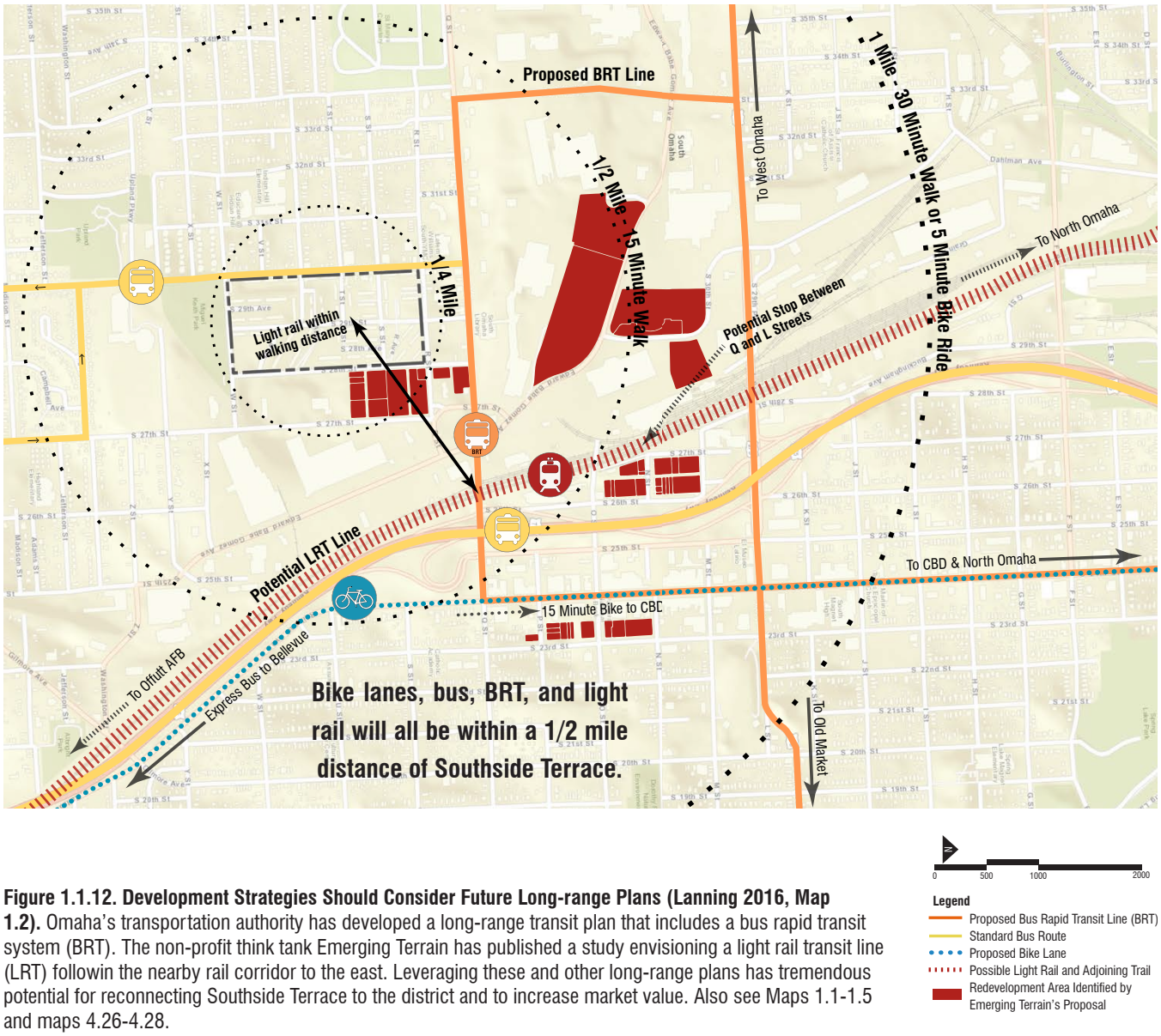


Figure 1.1.12. Development Strategies Should Consider Future Long-range Plans (Lanning 2016, Map 1.2). Omaha's transportation authority has developed a long-range transit plan that includes a bus rapid transit system (BRT). The non-profit think tank Emerging Terrain has published a study envisioning a light rail transit line (LRT) followin the nearby rail corridor to the east. Leveraging these and other long-range plans has tremendous potential for reconnecting Southside Terrace to the district and to increase market value. Also see Maps 1.1-1.5 and maps 4.26-4.28.

Southside Retrace Proposals

In the pages that follow, we introduce the four *Southside Retrace* planning and design proposals. Each of the four studio proposals presents a different approach to redevelopment, based upon geographic areas of redevelopment, topographic manipulation, phasing strategies, and time horizon. Three of the proposals follow a traditional master planning model, with detailed site plans including park and civic space design, street layout, building footprints, vehicle parking areas, and ecological planning. The fourth proposal, *Southside Catalyst*, studies a larger geographic area and looks further into the future. Acknowledging that longer time horizons usually involve greater uncertainty, *Southside Catalyst* presents a bold vision of long-range potential for the district, and an adaptive strategy for the Southside Terrace site itself.

To understand some of the changes proposed, we compare measurable characteristics between existing conditions at Southside Terrace and three of the proposals (Fig 1.1.13). *Southside Catalyst* was excluded from the metric analysis because the proposal's flexible strategy allows for a range of possible outcomes.

Figure 1.1.14 presents plan images of the four Southside Retrace proposals and defines the design parameters guiding each concept.

To conclude the Executive Summary, we present two tables that articulate how each proposal specifically addresses the overall studio goals to **retain** residents in close proximity to resources, **redefine** quality of life for residents, and **reconnect** Southside Terrace to the surrounding neighborhood and district (Tables 1.1.1 and 1.1.2).

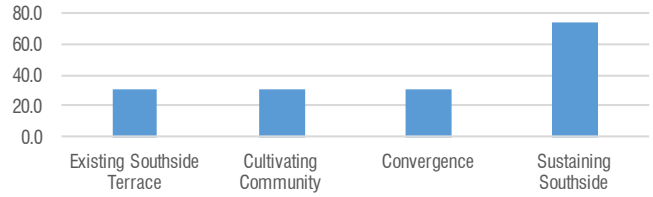
Applying *Southside Retrace*

It's possible that OHA and other project partners could consider any one of the proposals as a concept for further development into an implementable master plan. It's also possible to extract valuable ideas and concepts from each proposal and reassemble them into a hybrid master plan that incorporates virtues from each proposal. For example, social infrastructure and park design strategies from *Cultivating Community* could be combined with the "main street" concept from *Convergence* and the green infrastructure approach taken by *Sustaining Southside*.

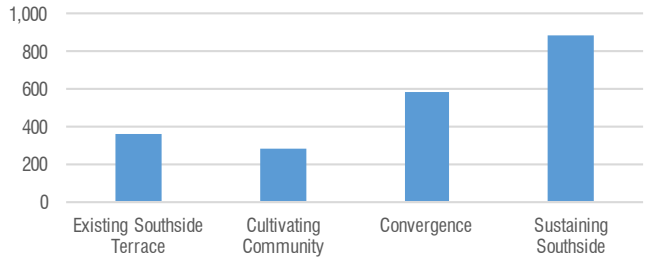
Appendix A includes about 100 critical maps, most of which we believe is new information never before prepared for Southside Terrace. The maps alone provide a tremendous resource for guiding the thinking of future redevelopment.

We hope this studio work is valuable to OHA, the neighborhood, City of Omaha decision-makers, civic leaders, as well as planners and designers in the Omaha region. We also hope this book will inspire housing authorities more broadly to consider innovative planning and design strategies in public housing. Mostly, we hope our ideas will help improve the quality of life for the current and future residents of Southside Terrace and the surrounding neighborhoods.

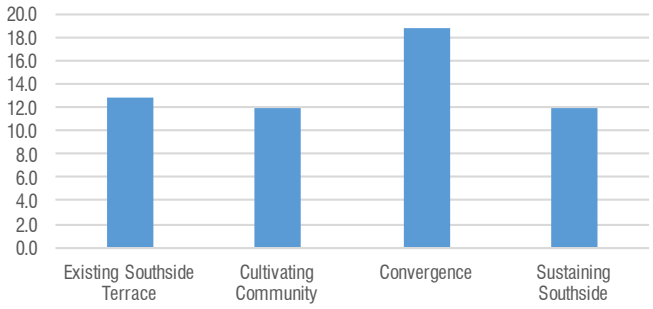
Comparing the Metrics of Three Proposals



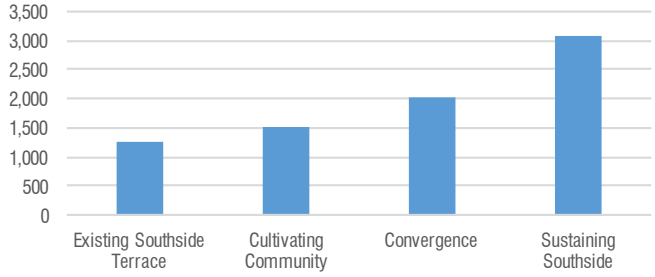
Community Land Area (acres)



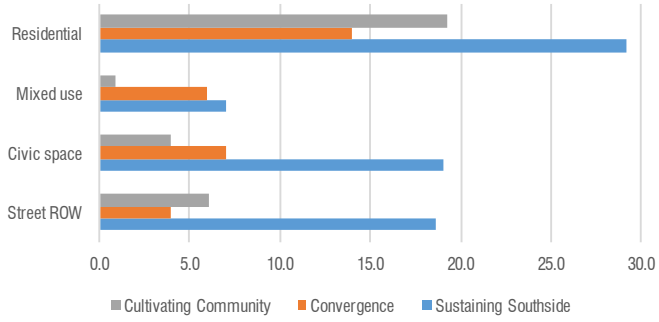
Total Dwelling Units



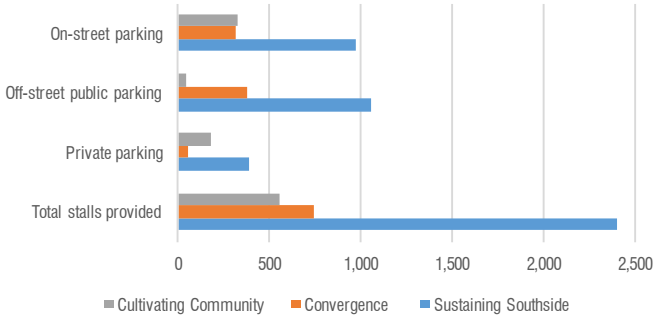
Density (dwelling units / acre)



Projected Community Population



Land Use (acres)



Parking Allocation

Figure 1.1.13. Comparing the Metrics of Three *Southside Retrace* **Proposals (Belanger 2016).** *Cultivating Community* is most similar to the existing community in terms of total dwelling units and projected population. *Sustaining Southside*, with a significant increase in land area, proposes the largest increase in dwelling units and population. *Southside Catalyst* was excluded from this comparison due to the proposal's conceptual site strategy. This data was compiled directly from the site plan proposals. See chapters 2-5 for more detailed information.

Southside Retrace Proposals

Cultivating Community

Promoting Social Interaction through Public Space

Brian Corrie, Wei Sun, Josh Sundine

(See Chapter 2)



Design parameters: Design is confined to existing site boundaries and largely retains existing topography

Convergence

Strengthening Connections For Southside Terrace

Skylar Brown, Anthony DePriest, Bre Nelson

(See Chapter 3)



Design parameters: Design is generally confined to existing site boundaries, and the site can be significantly regraded.

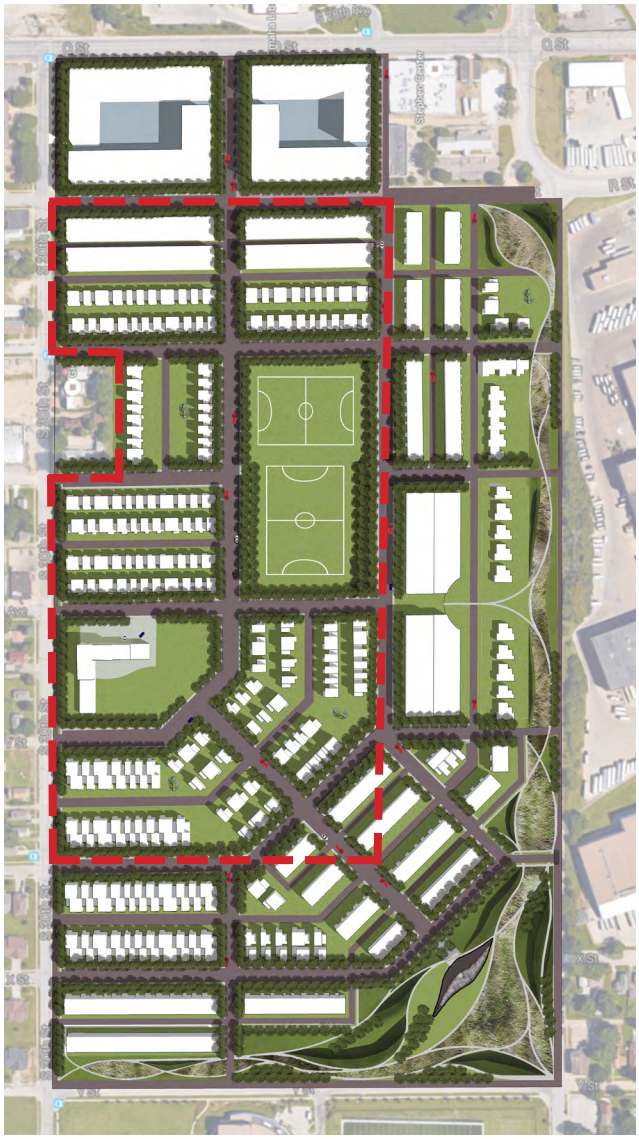
Figure 1.1.14. Comparing the *Southside Retrace* Proposals (Belanger 2016). The four *Southside Retrace* proposals provide a range of planning and design alternatives for consideration. Reading from left to right, the proposals increase in scale, time horizon, and topographic manipulation. The first three proposals use a traditional master planning model. *Southside Catalyst* presents a conceptual framework plan that can be adapted for a range of potential future scenarios. Images were compiled directly from the site plan proposals. See chapters 2-5 for more detailed information.

Sustaining Southside

Expanding and Preserving the Community

Andrea Lemken, Chandler Nyp, Rachel Rankin

(See Chapter 4)



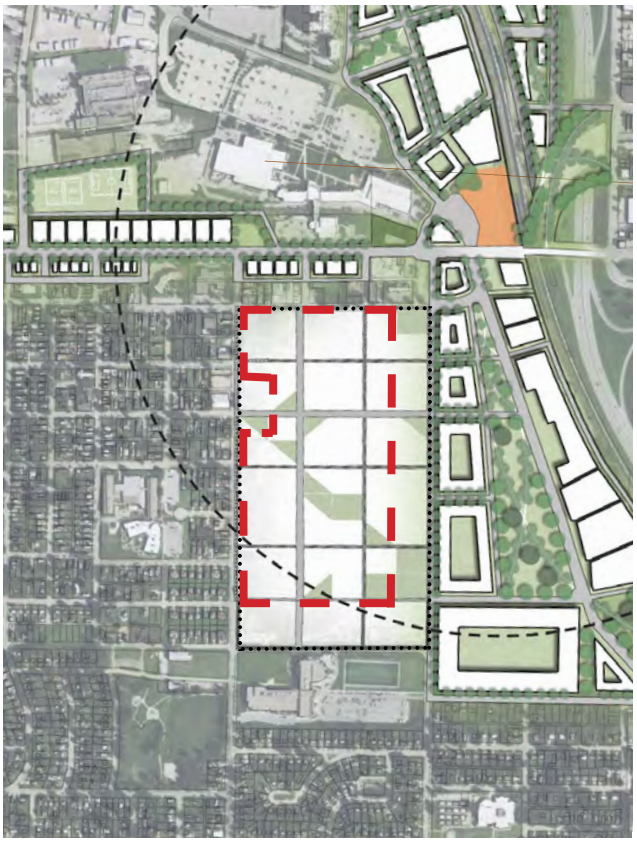
Design parameters: Design is allowed to consider adjacent parcels to the north, east, and south, and the site can be significantly regraded.

Southside Catalyst

Connecting Southside at a District Scale

Caroline Finck, Evan Lanning, Astrid Wong

(See Chapter 5)



Design parameters: Design considers longer range district-level connections and integration to take advantage of future employment, transit, social, and environmental benefits.

RETAIN

In what ways will public housing be retained within the proposed development at Southside Terrace?



Cultivating Community

Promoting Social Interaction through Public Space

Brian Corrie, Wei Sun, and Josh Sundine

(See Chapter 2)

Proposal reduces the overall number of dwelling units from 362 to 280, 60% of which will remain as low income units.
Larger dwelling unit sizes provide more square footage per person throughout all housing options.

Retains the large quantity of social services provided to Southside Terrace residents by OHA and partnering non-governmental organizations.

Promotes stronger community engagement through designed outdoor public spaces.



Convergence

Strengthening Connections For Southside Terrace

Skylar Brown, Anthony DePriest, Bre Nelson

(See Chapter 3)

The majority of residents will be retained on-site through phasing during reconstruction to maintain network of partner organizations providing social support services.

Increases amount of public and affordable housing.

Supplying new on-site social services, improving safety, and providing more social and recreational amenities will improve the quality of life for residents.

Table 1.1.1. Detailed Design Strategies to Retain, Redefine, and Reconnect: *Cultivating Community* **and** *Convergence* **(Belanger 2016).**

REDEFINE

How will the proposed developments improve the quality of life for residents and provide for a mix of housing types for various income levels?

Provides consistent, unifying outdoor public green spaces throughout the site to serve residents of all income levels and promotes social interaction.

Introduces both affordable and market rate housing to increase ownership of private property over time.

Creates different sized dwelling units within various housing types to provide affordable housing options at various levels of income

Mixed use development will offer more retail and employment opportunities within the community.

Promenade functions as a spill-out space to provide more social interaction opportunities.

Civic spaces create opportunities for gatherings.

New building layouts provide an increase in natural surveillance.

Different varieties of buildings offers many different housing opportunities to increase mixed income.

RECONNECT

How does the proposed redevelopment create strong connections to the surrounding neighborhoods?

Environment is designed to encourage pedestrian circulation from the adjacent neighborhood into the site and proposed park system.

Housing design is more consistent with the scale and form of buildings in the surrounding context.

Business incubator space and mixed use development will provide opportunities and services to Southside Terrace and the entire neighborhood.

Centralized green space acts as a welcoming mat for the surrounding neighborhood.

New services draws in the surrounding neighborhood.

Civic spaces offer opportunities for festivals and gatherings throughout the year.

RETAIN

In what ways will public housing be retained within the proposed development at Southside Terrace?



Sustaining Southside

Expanding and Preserving the Community

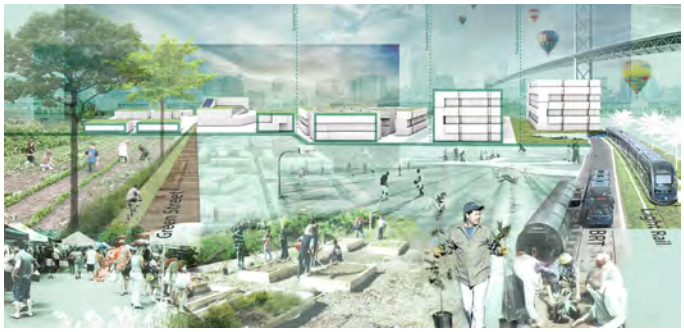
Andrea Lemken, Chandler Nyp, Rachel Rankin

(See Chapter 4)

Mixed income, market-rate, and higher density housing options will be used help attract investment partners to co-develop adjacent parcels which provide more housing type and layout options

With site expansion, there is opportunity for more efficient site grading across larger areas, easier phase sequencing, and fewer constraints posed by existing interior roads.

Promoting closer connections to Q Street, the proposal seeks additional housing and employment options by expanding to the adjacent north parcels.



Southside Catalyst

Connecting Southside at a District Scale

Caroline Finck, Evan Lanning, Astrid Wong

(See Chapter 5)

The overall site phasing plan preserves and expands the Southside Terrace population while the site is under phased reconstruction.

Infuses the present subsidized housing within Southside Terrace's district with market rate and affordable housing to generate a larger population and stimulate the district's commercial markets.

Better utilizing existing and future transit opportunities will allow Southside Terrace's population to have better access to surrounding areas.

Table 1.1.2. Detailed Design Strategies to Retain, Redefine, and Reconnect: *Sustaining Southside* **and** *Southside Catalyst* **(Belanger 2016).**

REDEFINE

How will the proposed developments improve the quality of life for residents and provide for a mix of housing types for various income levels?

Orienting housing parallel with the streets increases natural surveillance, reduces “blind” areas, and enhances overall safety.

Every unattached residence has a carport/garage, increases resident space, convenience, and safety.

Site regrading has reduced the need for terraces or extreme slopes, increased ADA accessibility, and promotes greater pedestrian mobility.

Diverse housing types will feel less institutional.

Numerous park and recreational spaces are provided. The proposed wetland ecosystem redefines the use of open space as an educational, recreational, social,and aesthetic amenity.

RECONNECT

How does the proposed development create strong connections to the surrounding neighborhoods?

This proposal seeks to partner with outside investors to expand into adjacent eastern parcels to replace a warehouse facility with medium-density residences.

The existing street layout has been extended into the proposed site.

Proposes revitalization of the Q Street corridor to the north, which will increase opportunities for new business ventures, employment, and services for Southside residents.

Forging and enhancing pedestrian connections from Southside Terrace to the community services.

The development of a bus rapid transit and/or a light rail line to connect the district to Omaha and draw mixed incomes to the area for housing and employment.

New sections of mixed use development and market rate housing will potentially provide more capital and business incubator opportunities for Southside Terrace residents.

The incorporation of green infrastructure and linkages to other district wide green infrastructure will provide ecologic, environmental, and health enhancements.

Connecting and integrating Southside Terrace into a new district helps provide mutual benefits to both. District development will enhance the Q street corridor, integrate more transit options, connect across Highway 75 to southern 24th Street via a new Q Street bridge, and incorporate higher density housing to the east of Southside Terrace.

Strengthens existing service provider network through a service provider coalition to improve communication and coordination to serve Southside Terrace more effectively.

Citations

Gehl, Jan. 1986. "'Soft Edges' in Residential Streets." *Scandinavian Housing and Planning Research* 3 (2): 89–102. doi:10.1080/02815738608730092.

Hanlon, James. 2010. "Success by Design: HOPE VI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." *Environment and Planning* A 42 (1): 80–98.

Figure 1.1.1

Nyp, Chandler. 2016. Google Earth Aerial View Looking South from the Northern Site Boundary. Source Data: Google Earth. (See Map 3.4a in Appendix A)

Figure 1.1.2

"Southside Terrace has the Most Social Support Services Among OHA Properites"
(See Map 2.5a in Appendix A)

Caroline Finck: W3_CF01_6K_SouthsideTerrace hastheMostSocialSupportServicesAmongOHAProperties. PDF

Finck, Caroline. 2016. Map of Omaha Housing Authority Properties. Source data: Hahn GIS Data, "World Imagery," "World Street Map", Google Maps. Accessed through Kansas State University TAH server. Accesssed June 7, 2016.

Figure 1.1.3

"There Are a Variety of Services In and Near Southside Terrace"
(See Map 2.1 in Appendix A)

Skylar Brown: W2_SB01_7.2K_Classification_ ServicesProvided.PDF
Brown, Skylar. 2016. Services in Southside. Douglas County GIS. Source Data: "Site Boundary", "Building_Footprints_2010", "ArcOnline_World Street Map". Accessed June 13, 2016.
Brown, Skylar. 2016. Services in Southside. Source Data: Google Maps. 2016. Omaha, NE. 41°12'09.2"N 95°57'21.8"W. Accessed June 13, 2016.

Figure 1.1.4

"Systematic Effects of Population Displacement"
(See Map 2.6a in Appendix A)

W3_CF02_.5K_ SystematicEffectsofPopulationDisplacement.PDF

Figure 02:
Finck, Caroline. 2016. Retention of Southside Terrace Population if Relocated Close to the Current Site Depending on Influx of Mixed Income Population or the Adjustment of Public Housing Admissions. Source Data: https://flic.kr/p/9VasmK, https://commons.wikimedia.org/wiki/File:Home_under_construction.JPG, Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Figure 03:
Finck, Caroline. 2016. If Southside Terrace Population Were Displaced to Different Parts of the City Impacts the Return Rate of Residences Combined with the Introduction of Mixed Income Populations. Source Data: https://flic.kr/p/9VasmK Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Figure 1.1.5
"Keeping Southside Terrace Communities Close"
(See Map 2.7 in Appendix A)
Caroline Finck: W2_CF02_.5K_
StrengtheningSocialServicePartnerships

Finck, Caroline. 2016. Developing a Service Provider Coalition. Source Data: Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations,

Figure 1.1.6
"How Does Lighting Affect Public Safety?"
(See Map 4.7 in Appendix A)

Brian Corrie: W2_BC02_300_LightingSafety.pdf

Figure 01:
Corrie, Brian. 2016. "Locations of various crimes within Southside Terrace from January 1 to June 1, 2016 occurring between 5 p.m. and 5 a.m." Source Image: Google Earth. Omaha, NE: 41°12'8.10" N / 95°57'22.75" W / Eye Elevation: 5752ft.

Figure 1.1.7
"Southside Terrace Design Increases Chance For Crime"
(Seem Map 4.5 in Appendix A)

Skylar Brown: W3_SB02_3.6K_Dilemma_CPTED.PDF

Brown, Skylar. 2016. Ways to Minimize Crime with CPTED. Douglas County GIS. Source Data: "Site Boundary", "Building_Footprints_2010", "ArcOnline_World Street Map". Accessed June 13, 2016.

Figure 1.1.8
"Bring Ecosystem to Southside Terrace "
(See Map 3.3 in Appendix A)

Wei Sun: W3_WS04_70_StrategyMap.PDF

Figure5:
Sun, Wei. 2016. Proposed Community Garden. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure7:
Sun, Wei. 2016. Proposed Butterfly Garden. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure 1.1.9
"Steep Slopes and Consequent Drainage Patterns Impact Expansion Potential"
(See Map 3.5 in Appendix A)

Chandler Nyp: W3_CN06_Perspective_3DTopoDrain.PDF

Nyp, Chandler. 2016. Site Context Topography Map. Source Data: Douglas County GIS "Building Footprints" "Contours 2010" "Site Boundary" "Hill Shade."

Figure 1.1.10
"Trends in Suburban Morphology"
(See Map 4.13 in Appendix A)

Evan Lanning: W2_EL01_S2016_SuburbanMorphology.pdf

Lanning, Evan. 2016. Figure Ground Diagram of Orenco Station, Portland, Oregon. Source data: Google Maps https://www.google.com/maps/@45.5345973,-122.917067,16z. Accessed June 3, 2016.

Text Citations:
Birch, E. L. (1980). Radburn and the American Planning Movement The Persistence of an Idea. Journal of the American Planning Association, 46(4), 424-439.
Stanilov, K., & Scheer, B. C. (2004). Suburban form: An international perspective. New York: Routledge.

Figure 1.1.11
"Mixed-Use & High-Density Housing Creates Connections to Surrounding Neighborhood"
(See Map 4.19 in Appendix A)

Andrea Lemken: W3_AL02_OpportunityMap.PDF

Figure 1.1.12
"Future Transportation System In South Omaha & Southside Terrace Could Bring Changes"
(See Map 1.2 in Appendix A)

Evan Lanning: W3_EL05_S2016_SST-FuturePublicTransportationOpportunity.PDF

Lanning, Evan. 2016. Future Public Transportation Amenities Near Southside Terrace, Relative Travel Distances, and Proposed Rail Corridor Development. Source data: ArcGIS "ArcOnline_World Street Map". Accessed June 10, 2016.

Emerging Terrain, 2013."Belt Line_June 2013.pdf - Belt Line_Final.pdf." Accessed June 10, 2016. https://dl.dropboxusercontent.com/u/8268618/Belt%20Line_Final.pdf.

Omaha-Council Bluffs Metropolitan Area Planning Agency, 2014."2014_2-11-BikeMap-Bid-Document_REDUCE.pdf.". Accessed June 10, 2016. http://mapacog.org/wp-content/uploads/2015/11/2014_2-11-BikeMap-Bid-Document_REDUCE.pdf.

Omaha-Council Bluffs Metropolitan Area Planning Agency, 2015 "MAPA_2040LRTP_Final_December.pdf." Accessed June 10, 2016. http://mapacog.org/wp-content/uploads/2015/12/MAPA_2040LRTP_Final_December.pdf.
Omaha Metro. 2016. "Omaha Metro System Map." Accessed June 10, 2016. http://www.ometro.com/index.php/bus-system/system-map/#bus-routes.

Figure 1.1.13
Comparing the Metrics of Three *Southside Retrace* Proposals.

Belanger, Blake. 2016. Comparing the Metrics of Three *Southside Retrace* Proposals. Source data: Metrics were compiled from data presented by each proposal in Chapters 2 through 5 of this document.

Figure 1.1.14
Comparing the *Southside Retrace* Proposals

Belanger, Blake. 2016. Comparing the *Southside Retrace* Proposals. Source data: Images were compiled directly from the site plan proposals. "Design parameters" were provided by the course professors. See chapters 2-5 for image authorship and more detailed information.

Table 1.1.1
Detailed Design Strategies to Retain, Redefine, and Reconnect: *Cultivating Community* and *Convergence*.

Belanger, Blake. 2016. Detailed Design Strategies to Retain, Redefine, and Reconnect: *Cultivating Community* and *Convergence*. Source data: Photomontage drawings and strategy statements were provided by student teams as noted in the table. See chapters 2 and 3 of this document for full image citations and more detailed information.

Table 1.1.2

Detailed Design Strategies to Retain, Redefine, and Reconnect: *Sustaining Southside* **and** *Southside Catalyst*

Belanger, Blake. 2016. Detailed Design Strategies to Retain, Redefine, and Reconnect: *Sustaining Southside* and *Southside Catalyst.* Source data: Photomontage drawings and strategy statements were provided by student teams as noted in the table. See chapters 4 and 5 of this document for full image citations and more detailed information.

1.2

Omaha Housing Authority and Southside Terrace Residents

Who is OHA?

The Omaha Housing Authority (OHA) works with Housing and Urban Development (HUD) to provide housing and family services for low and moderate income individuals throughout the city of Omaha. Public housing, Section 8 housing, and senior housing are all affordable housing types provided by the OHA through rent subsidies. The Authority also works to provide family services through job training, self-sufficiency programs, and homeownership programs to assist families and individuals of Omaha. Currently, over 2,700 public housing units and over 3,700 Section 8 units are administered by the Authority.



Figure 1.2.1. OHA Partners Speak with Student Group: Students and OHA partners discuss aspirations for Southside Terrace during partner meeting on May 27th (Hahn 2016).



Figure 1.2.2. Southside Catalyst Team Presents to OHA at Final Presentation (Hahn 2016).

What is Southside Terrace?

Southside Terrace is a 30-acre public housing community located four miles south of Downtown Omaha. Southside Terrace was one of the first public housing communities built in the United States in the 1940's. Its history and longstanding legacy is important to the residents of Southside and continues to shape the character of their community. Approximately 1,500 people currently live at Southside Terrace in 362 units which vary in size. Family sizes within Southside Terrace vary greatly, with residents living in units with up to 7 rooms.



Figure 1.2.3. History of Southside Terace: A plaque located at the Southside Terrace office indicates the history of Southside (Hahn 2016).

Who are Southside Terrace Residents?

Southside has a very diverse, unique, and complex community dynamic that shapes the character of Southside. Roughly half of the residents belong to Sudanese or Somali refugee groups, and around 80% of the population at Southside does not speak English as their first language. Each smaller group within the community is strongly unified, and relies on each other for social and moral support. Because of the strong support system residents receive and the many services provided within close proximity around the neighborhood, residents typically desire to stay at Southside instead of using it as a temporary place to live.



Figure 1.2.4. Southside Terrace Kids Play Soccer Outside

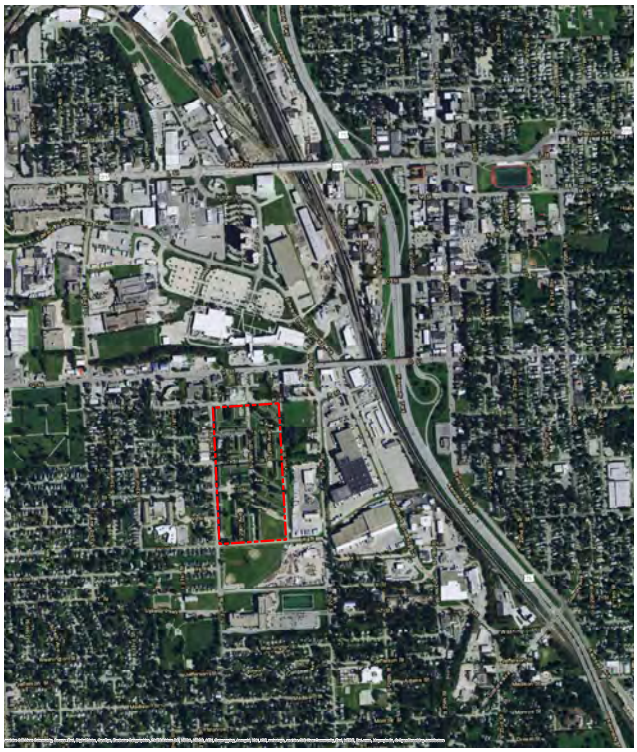


Figure 1.2.5. Southside Terrace in Relation to Downtown Omaha: Southside Terrace is located about four miles south of Downtown, right off of I-75 (Hahn 2016).



Figure 1.2.6. Aerial of Southside Terrace (Lemken 2016).



Figure 1.2.7. Terracing at Southside Terrace (Finck 2016).



Figure 1.2.8. Clotheslines Flank Southside Terrace (Finck 2016).



Figure 1.2.9. Southside Terrace (Finck 2016).

1.3

Studio Intent and Methods

What is our Studio About?

This work is associated with the Kansas State University LAR 646 *Community Planning and Design Studio* and supporting seminar led by Associate Professors Blake Belanger and Howard Hahn of the Department of Landscape Architecture and Regional & Community Planning (LARCP). The intensive 8-week studio is comprised of 12 mid-level landscape architecture students who are entering graduate studies.

The existing buildings of Southside Terrace have exceeded their functional lifespan, and the OHA intends to rebuild the community in order to better serve the social, environmental, and economic needs of the residents. The Community Planning and Design Studio partnered with TAB and OHA to provide visionary ideas for redeveloping Southside Terrace.

What are our Goals and Objectives?

The objective of the *Community Planning and Design Studio* was to study Southside Terrace and its surroundings, meet with residents and local partners, research precedent communities, and then apply this information to generate resilient community designs. Research and design will be focused around finding ways to better serve the social, environmental, and economic needs of the Southside Terrace residents. Based upon meetings with partners and Southside Terrace residents, it was evident that there was a strong desire to keep current residents at Southside instead of giving out Section 8 vouchers to move the residents away from their current home. As a result, finding design strategies that will keep current residents at Southside Terrace during construction and redevelopment was a main priority.

Methods

Background Research

The *Community Planning and Design Studio* began the project by gaining background knowledge through research on the following topics:

- Omaha
  Context, history, culture, demographics
  Social, economic, ecological aspects
- Public housing
  History of public housing in the United States
  Public housing in Omaha
- The Omaha Housing Authority
- Southside Terrace and context

Seminar readings about public housing and the dynamics of urban poverty, new urbanism, community planning, safety, landscape architecture, and critical mapping supplemented our research and helped inform design. Exploration of a compelling research question helped to build a foundation for being able to synthesize and analyze different aspects of the Southside Terrace redevelopment project.

On May 26-27, 2016, the *Community Planning and Design Studio* traveled to Omaha to become acquainted with the City, to visit Southside Terrace, and to meet with Southside Terrace partners and affiliates. During the initial site visit to Southside Terrace, “Four Trace Concepts in Landscape Architecture” by Christophe Girot was used for guidance. The four concepts discussed in this reading served as a tool for landscape investigation and design while visiting the Southside Terrace site for the first time. The four trace concepts include:

- *Landing*:
  Initial reaction to the site
- *Grounding*:
  Discovering & understanding the site after initial visit
- *Finding*:
  The act and process of searching the thing discovered
- *Founding*:
  Synthesizing Landing, Grounding, Finding to bring new ideas to the surface



Figure 1.3.1. Southside Terrace Site Visit: A group of students receive a tour from Ohmaha Housing Authority representatives during a site visit on May 27th (Hahn 2016).

Critical Mapping

Critical mapping engages us in a investigative process to examine the potential for critical design strategies for developing visionary ideas for the redevelopment of Southside Terrace. Mapping, as suggested by James Corner in "The Agency of Mapping," consists of Fields, Extracts, and Plottings. Each week during critical mapping, we cycled through three phases of activity based on Corner's theory: Fields, Extracts, Plottings, and Distillation.

Throughout the process of critical mapping, we explored a wide range of information from a variety of sources. We analyzed, synthesized, and graphically represented data to generate classification, correlation, comparative, evaluation, and strategy maps. This extensive foundation of critical maps revealed themes involving social, economic, and physical opportunities and dilemmas which helped guide us in the design process. The final critical maps were categorized into four groups: Context and Site Conditions; Residents, Services, and Phasing; Ecology and Physiography; and Spatial Organization and Programming. A full set of the critical maps are presented in Appendix, section A-1.

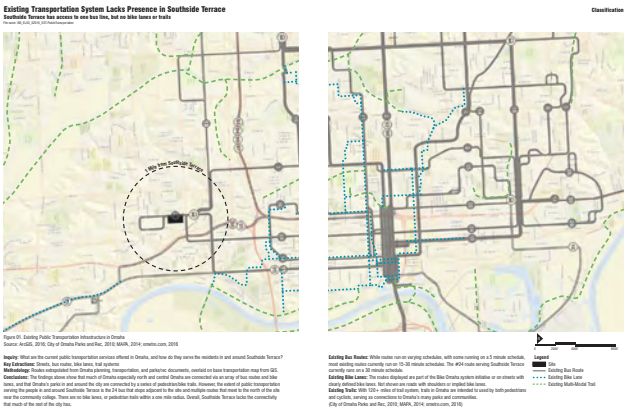


Figure 1.3.2. Example of Context and Site Conditions

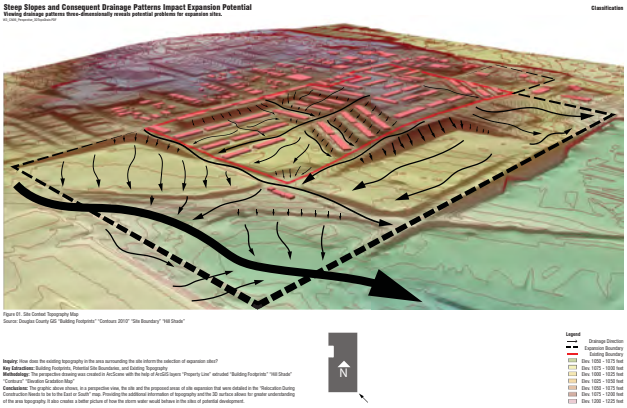


Figure 1.3.3. Example of Ecology and Physiography

Design Phase

The design phase began in the final four weeks of our class. Design teams of three were formed according to each students' Statement of Intent, which defined his or her specific interests in the studio project. Throughout the schematic design phase, two reviews during Weeks 5 and 6 occurred where students presented to stakeholders and project partner reviewers for feedback on their process. Schematic designs for each team were due at the end of Week 6 when students then began final production.

Final production occurred throughout Weeks 7 and 8 and posters, presentation slides, and a book were all part of the final deliverables. These final deliverables included: a background analysis summarized in text, maps, and infographics; preliminary site development concepts and graphics; and projected metrics that summarize development quantities and environmental services.

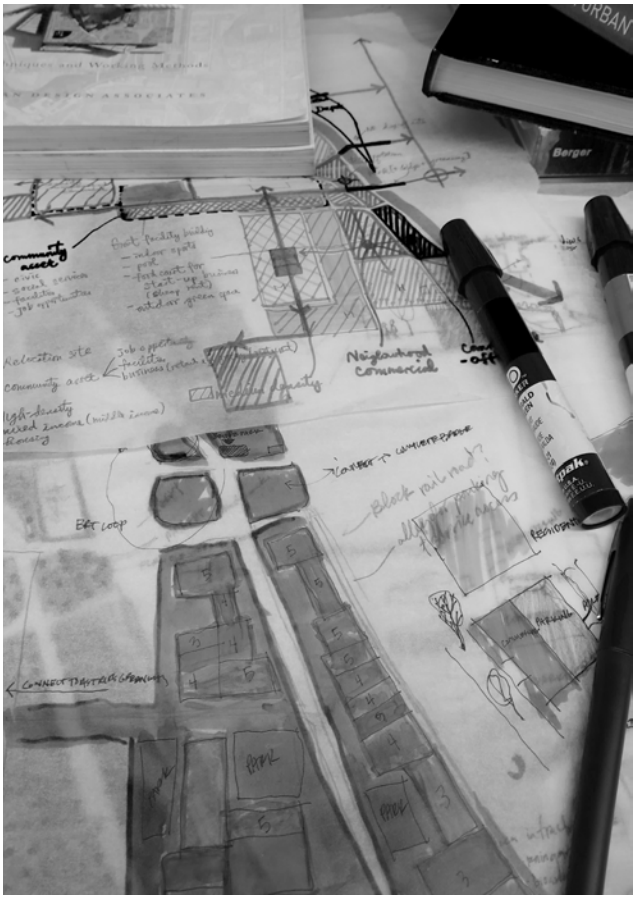


Figure 1.3.4. Schematic Design Process Work (Hahn 2016).

Collection of Southside Terrace Partners Input

On May 27, 2016, the *Community Planning and Design Studio* met with Southside Terrace partners and affiliates, which included Omaha Housing Authority employees, to discuss concerns and the most important amenities and aspects to be included in the redevelopment of Southside Terrace. After group discussion, which included two students and two to four Southside Terrace partners for each group, the top five to seven most important factors were written down from every group. Southside partners and affiliates voted for what he or she considered to be the most important factors. Each partner or affiliate was given 6 stickers to place next to any factor or factors as a vote of preference. These votes helped prioritize the wants and needs for the Southside Terrace community.

After tallying the votes and evaluating key amenities and aspects suggested by Southside Terrace partners and affiliates to be implemented during the redevelopment of Southside Terrace, and as seen in Figure 1.3.7., it was found that partners generally requested to have more physical site amenities be implemented. Social considerations involving the community of Southside and its surrounding neighborhood were also very important to the revitalization of Southside Terrace. Most ideas for improvement were focused around community, safety, retention of the different cultures present at Southside Terrace, and the well-being of Southside Terrace residents.



Figure 1.3.5. Partner Workshop and Discussion: A student group meets with Southside Terrace partners to discuss their goals and aspirations for the future of Southside Terrace (Hahn 2016).

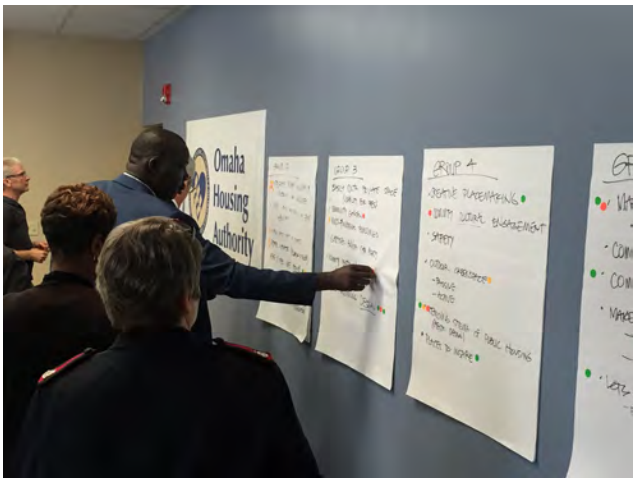


Figure 1.3.6. Partners Take a Vote: Each partner was asked to vote for ideas and aspirations they felt were most important to be included for the redevelopment of Southside Terrace (Hahn 2016).

Survey of Southside Terrace Residents

On June 16, 2016, the *Community Planning and Design Studio* visited Omaha to meet with the residents of Southside Terrace at the local YMCA. All residents were welcome and were split up into four different rooms based on the language they spoke. The four different language groups included English, Somalian Somalian, Spanish, and Dinka. Students split up into four teams of three in order to be present in every group, and translators were provided for each non-English speaking room. Residents were given a survey to complete which included questions about open space at Southside Terrace, the amount of space available in their households, the demographics of their households, and their access to jobs, services, food, and other needs.

After completing the survey, residents expressed their ideas for the future of Southside and what visionary ideas could improve their community. Concerns that residents had about their current living conditions were also voiced and taken into consideration throughout the design phase. At the end of the meeting, each resident was given a note-card to write down his or her top 5 priorities that were discussed during the meeting. Many of the ideas and concerns expressed were about overall safety, indoor and outdoor community amenities, increases in unit square footages, an increase in the sense of ownership throughout the community, and details about where they would live during the redevelopment of Southside. The feedback that was received from the resident workshop helped to guide our design process and prioritize what site features and amenities were a priority for Southside residents. A tabulation of the survey results can be found in Appendix, section A-2.

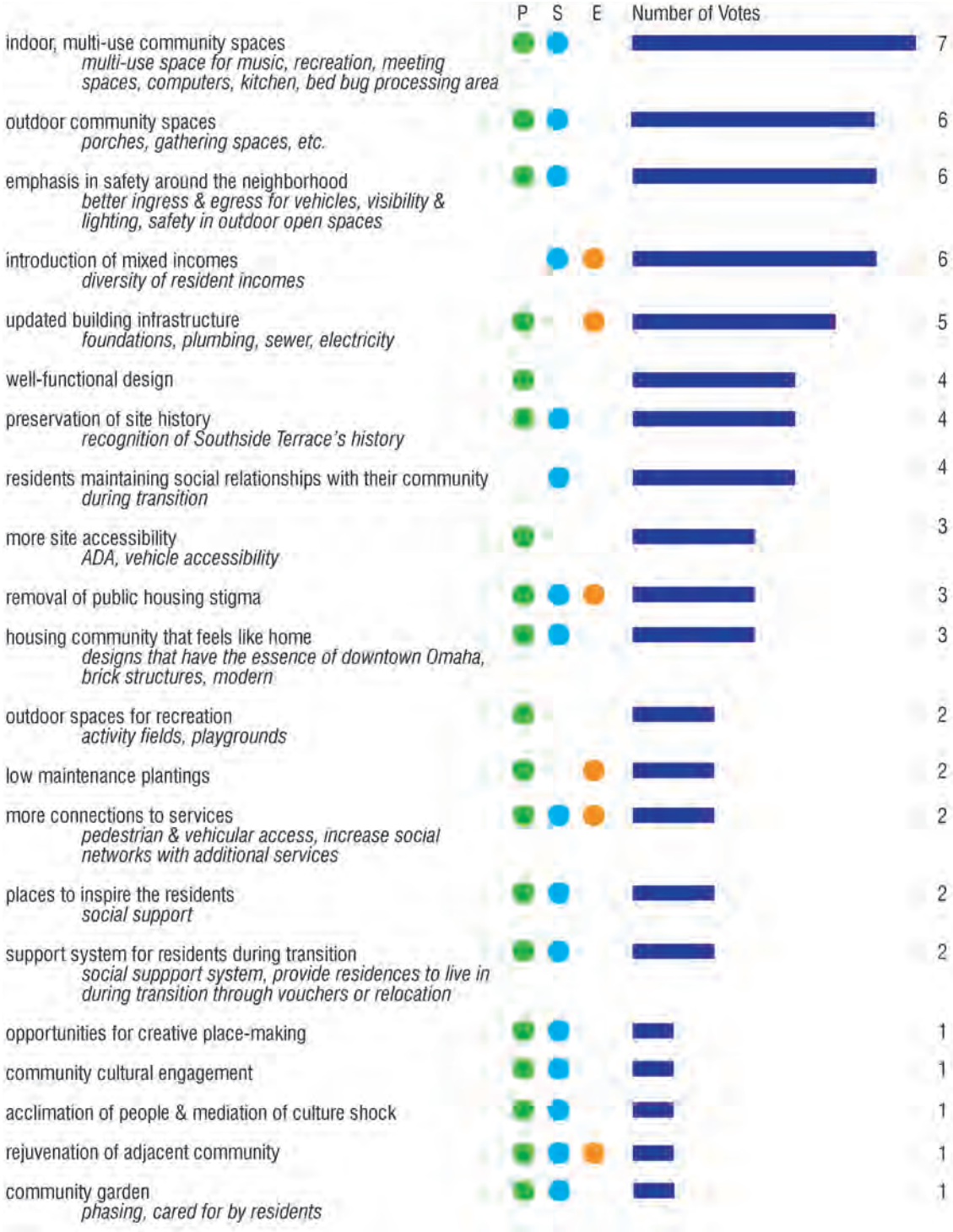


Figure 1.3.7. Partner Voting Results

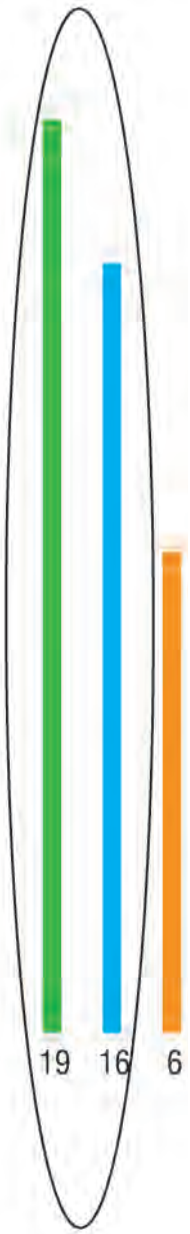


Figure 1.3.8. Tallying of Physical Amenities, Social Aspects, and Economic Goals

Legend

- Physical Amenities (P)
- Social Aspects (S)
- Economic Goals (E)
- Number of Votes

1.4

Context Analysis

History

Over the span of its history, South Omaha can be hailed as a gateway for people new to America. Since industrialization in the late 19th century, the meatpacking industry and stockyards have attracted immigrants from all over the world, which has led South Omaha to become a rich mix of people and cultures today. Early in the stockyard's history most, immigrants came from Southern and Eastern Europe. Remnants of this are evident in some businesses located in South Omaha, such as the Lithuanian bakery. Over time after the meat packing industry peaked, the industry grew smaller, attracting other industrial enterprise along with more immigrants. Many of these immigrants are Latinos, Africans, and Asians. Some have arrived in the area as refugees from Somalia, Sudan and other countries. The mix of culture can especially be seen on 24th Street where cultural food markets and even a Chinese-mexican taqueria can be found. (Jared, 2016; visitomaha.com, 2016)

Until the mid-20th century, South Omaha was an important streetcar suburb with streetcars running along Q, L and 24th Streets. From then on the neighborhood declined, and has been at the attention of the Omaha Planning board being highlighted as an area of blight. Progress to combat this is at work, with revitalization projects such as the 24th Street District Revitalization project, which has transformed 24th Street into a place that celebrates the rich diversity and character of south Omaha. The goal of projects like this, is to make the transition from an industrialized community into one that is more livable and celebrates the diversity and history of this community. (Jared, 2016; visitomaha.com, 2016; rdgusa.com, 2016)

Omaha Culture

Omaha has its roots in a rich diversity of populations and ways of life. It is a true Midwest city founded by the Omaha and Ponca Tribes that once settled the area, the pioneers that colonized in the 1800's, the railroad workers and meat packers that industrialized the city, and the countless others that have built it up through the decades. Because of this background, the diverse people of Omaha seek to follow the namesake and meaning of "Omaha" and "go against the wind"; do what many others don't, and define themselves in their own ways, offering an ever expanding swathe of cultural offerings. (Anderson, 2007; & visitomaha.com, 2016)



Figure 1.5.1. South 24th Street Revitalization project, designed by RDG Plannign and Design (rdgusa.com, 2013)



Figure 1.5.2. Stock yards, South Omaha, Nebraska. Note the L Street bridge on the right. (Library of Congress, 1908)

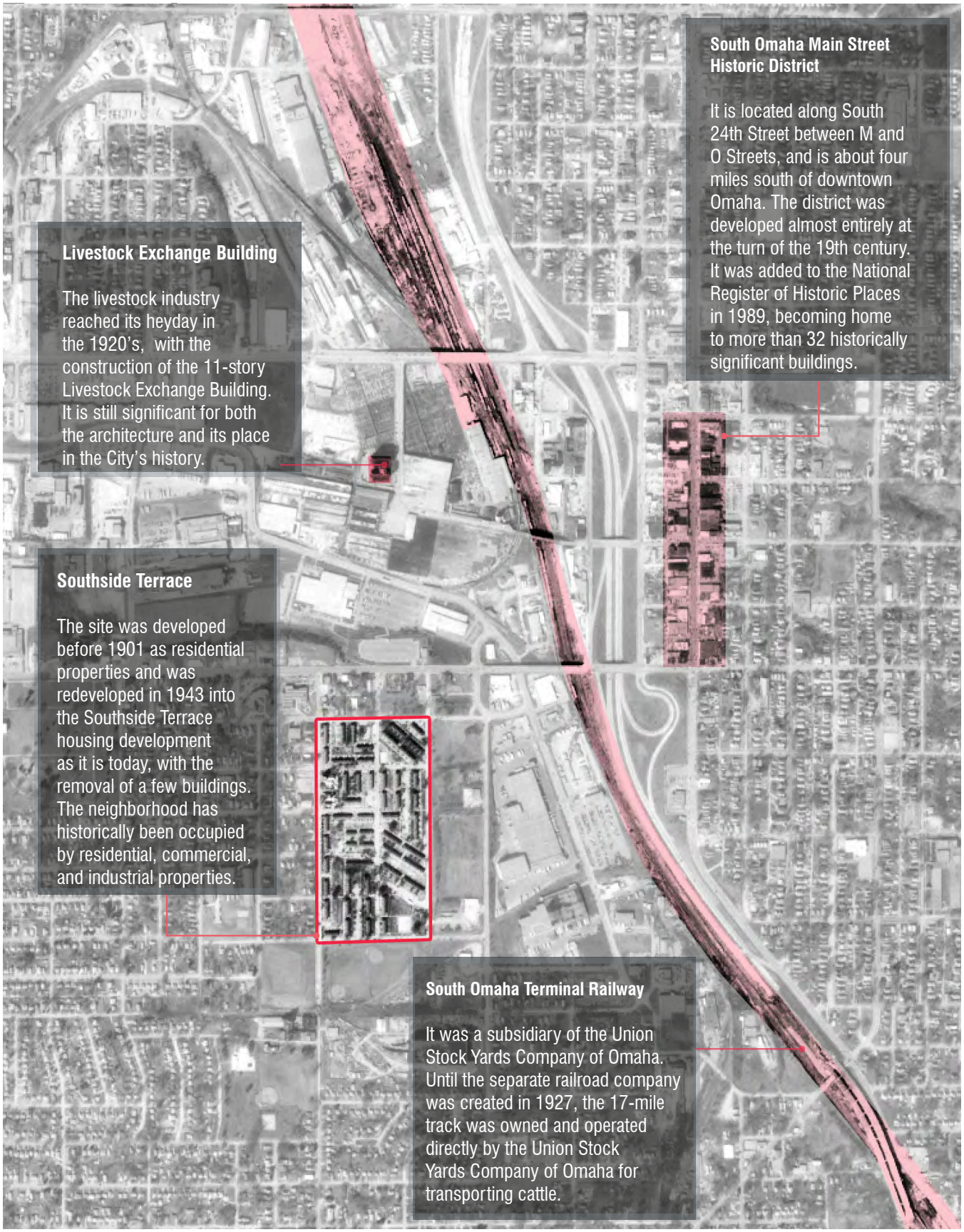


Figure 1.5.3. History in South Omaha (Wong, 2016)

Topography

Southside Terrace gets its name from the surrounding topography and steep terraces that sit between houses. The site's design is highly influenced by the topography, where its buildings are placed on flat slabs between the steep terraces. The result is that the site and its context are very steep incrementally rather than gradually. Such steep topography creates a large dilemma for redevelopment of the site. Suitability maps demarcating the most difficult areas for regrading guided the design.

As for the drainage of this area, the north-central area of Southside Terrace has a ridgeline going through it diverting the water north and south. The lowest point is along the southeast corner, of the Site, where the majority of the Site's runoff is directed.

Surrounding the Site, the topography is steep but not to the degree of Southside Terrace. Much of grade is due to the surrounding industrial area which has flattened their parcels creating extremely steep grades at the periphery of individual lots.

Overall the unique topography of this area offers many challenges and opportunities for the redevelopment of Southside Terrace and its surroundings.



Figure 1.5.4. Slope suitability map (Nyp, 2016)

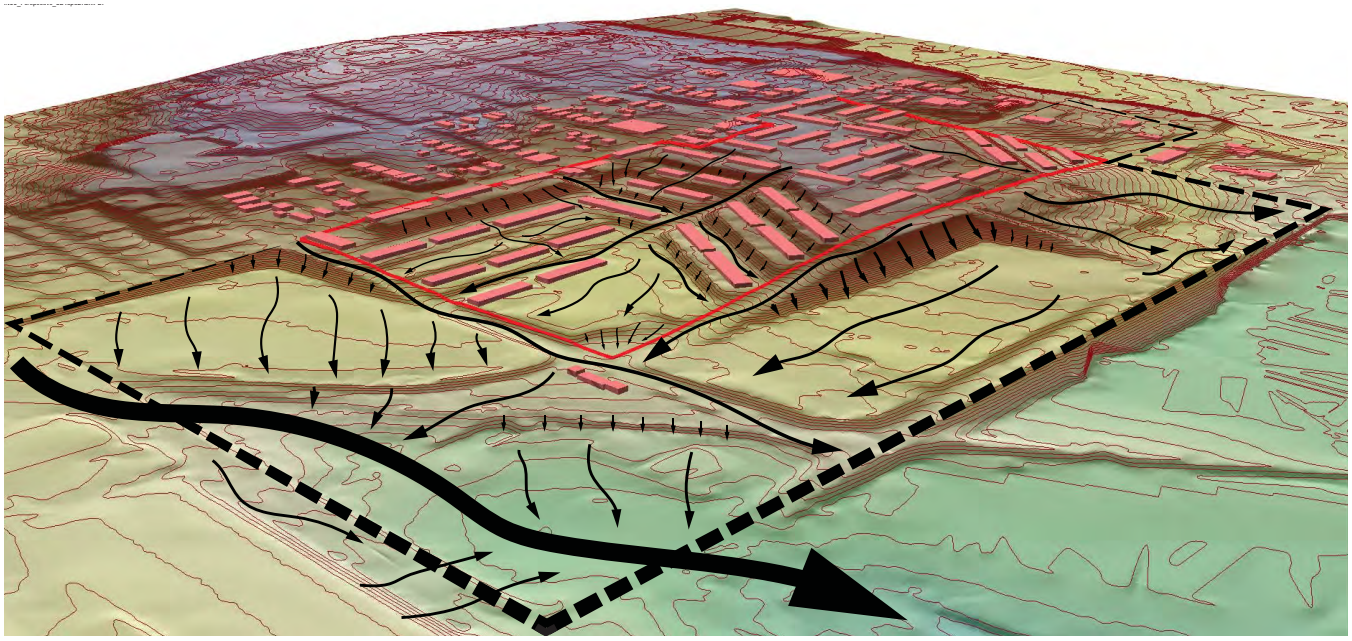


Figure 1.5.5. Site context topography map (Nyp, 2016)

Surrounding Assets

Near Southside Terrace are a number of assets for the community including:
- grocery
- social support services
- churches,
- schools and higher education
- restaurants,
- stores, and
- parks and Recreation fields

Nearest to Southside Terrace and within walking distance are the social support services which are discussed more in Chapter 1.6. Other assets are generally beyond the comfortable distance for those walking, requiring a car to reach. This is especially true for the surrounding grocery stores, the nearest of which is the Supermercado Nuestra Mexican supermarket about 3/4 mile away from Southside Terrace. Other important assets like schools, parks, and fields are also generally beyond reach for Southside Terrace residents. The difficulty of accessing these vital assets is an important dilemma to recognize for the redevelopment of Southside Terrace.

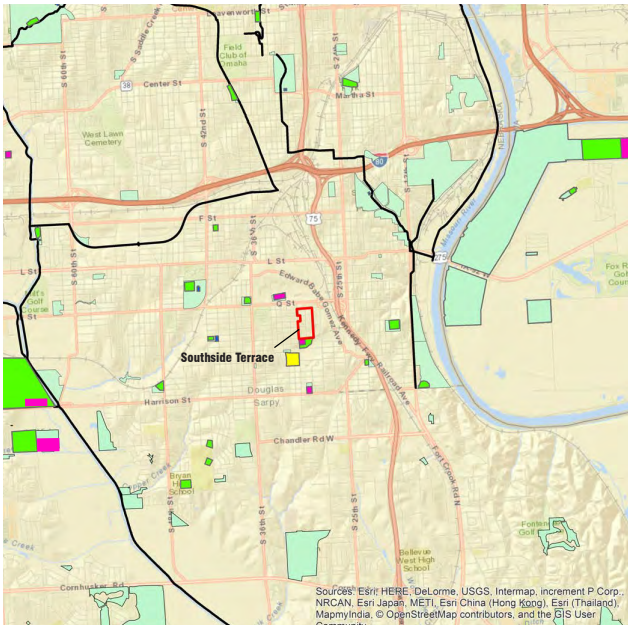


Figure 1.5.6. Parks, Athletic Fields, and Pools/Sprayground Locations in Omaha (DePriest, 2016)

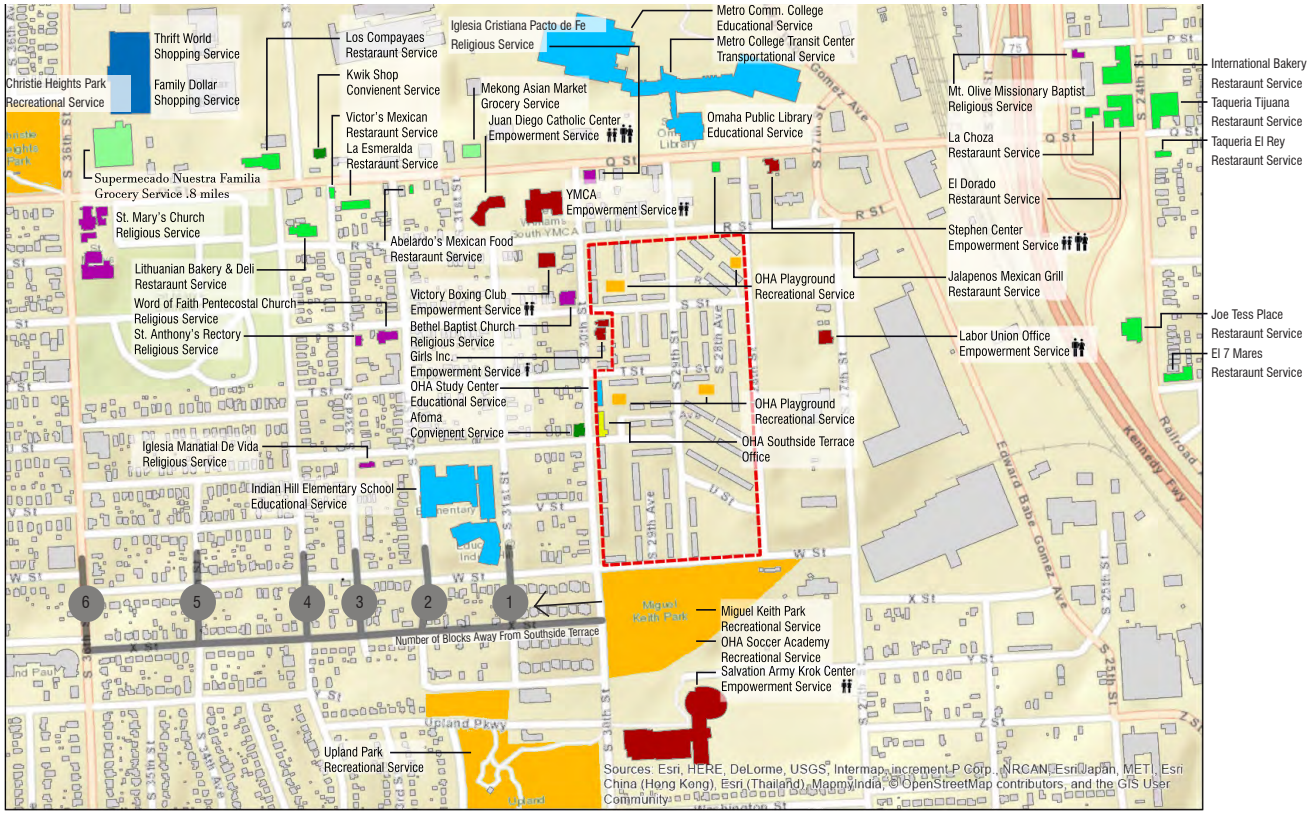


Figure 1.5.7. Services in Southside (Brown, 2016)

Land Uses

Around Southside Terrace is mix of multiple land uses. The following outlines the general characteristics of the areas land uses:

Industrial

The majority of the land use around Southside Terrace is industrial due to the once booming meat packing industry to the north. While much of this land is still used for industry, reductions in the meat packing industry has made way for other businesses such as freight, shipping and logistics, and manufacturing.

Commercial

Commercial land use around Southside terrace is primarily reserved along arterial roads such as, L, Q, 24th, and 33rd Streets. The majority of these commercial areas are scattered strip malls, parking lot fronted single use stores, or large goods/services stores. The only pedestrian-oriented commercial district is the 24th Street corridor which is more pedestrian oriented with on-street parking, marked cross-walks, and wider sidewalks. Currently in the area there is no high density commercial development such as business offices.

Residential

The majority of the residential land around Southside Terrace is zoned as high density single-family residential (R4) or urban residential (R5). Around 24th Street and Southside Terrace is multiple-family medium density residential (R7). There is no single-family low density residential (R1-R3) or high density multiple-family residential (R8) within the area.

Mixed Use

Around Southside Terrace there is little mixed land use except for 24th Street which combines both commercial and residential development. Overall, Omaha is pushing to increase areas of mixed use.

Other

Near Southside Terrace are a number of schools and other institutional uses. Metropolitan Community College South is directly north of Southside Terrace, as well the South Omaha Library. The area around Southside Terrace lacks green space with just Uplands Park to the southwest.



Figure 1.5.8. Figure ground (Wong, 2016)



Figure 1.5.9. Residential zoning (Wong, 2016)

Transit System

The transportation system around Omaha is one that is still highly centered around the personal vehicle. Omaha has seen a push for alternative transport such as bike lanes, trail systems, and bus networks, and has proposed some such as BRT, Streetcar, and/or Light Rail.
For the area around Southside Terrace itself, there is hardly any alternative transportation available except for the 24 Bus route which runs on a 30 minute schedule.

Omaha Metro (Bus)

While routes run on varying schedules, with some running on a 5 minute schedule, most existing routes currently run on 15-30 minute schedules like those around Southside Terrace. The Metro plans on converting the majority of its routes into BRT routes over the coming decades.

Bus Rapid Transit

Bus rapid transit is a bus service operating at higher frequency and speed, sometimes with its own lanes. By 2040 Omaha plans to convert the majority of its urban bus lines into BRT, including those near Southside Terrace.

Bike Infrastructure

Omaha has been pushing for more clearly defined bike lanes, which are part of the "Bike Omaha" system. Omaha plans on implementing many more bike lanes within the future, however, the area near Souhside Terrace does not appear to be part of this plan.

Trail Systems

Currently Omaha has over 120+ miles of trails and plans to continue expanding this infrastructure in order to connect the city's many parks and recreation areas. Due to the area around Southside Terrace lacking these spaces, their are no plans for such infrastructure near to the site.

Boulevards and Green Streets

Omaha plans to revitalize its historic boulevard network and implement numerous greenstreets across the city to promote pedestrian walkability and alternative transport.

Light Rail

Comprehensive planning and design of a rail system was explored by Emerging Terrain a non-profit design firm in 2013. The team laid out the rail corridor and envisioned redevelopments surrounding the mostly unused line.
(City of Omaha Parks and Rec, 2010; MAPA, 2014; MAPA, 2015, ometro.com, 2016)

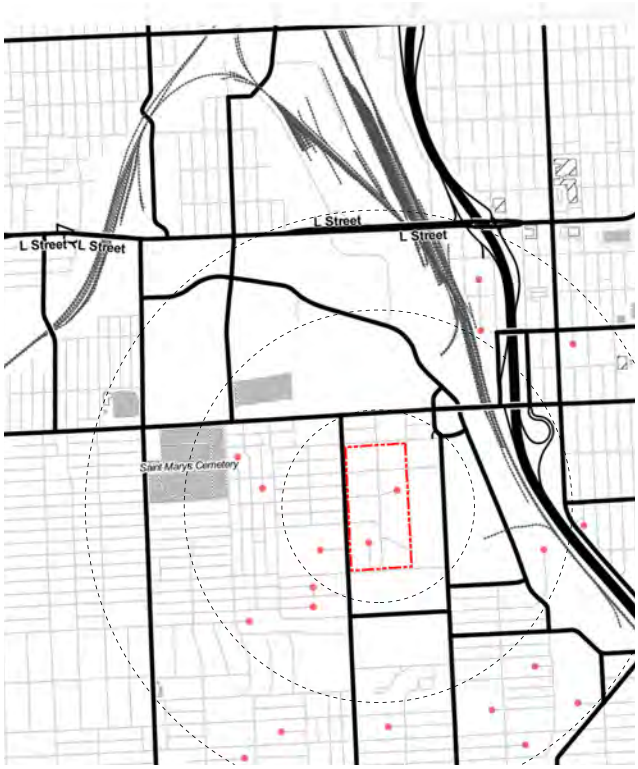


Figure 1.5.10. Street grid and walk circles (Wong)

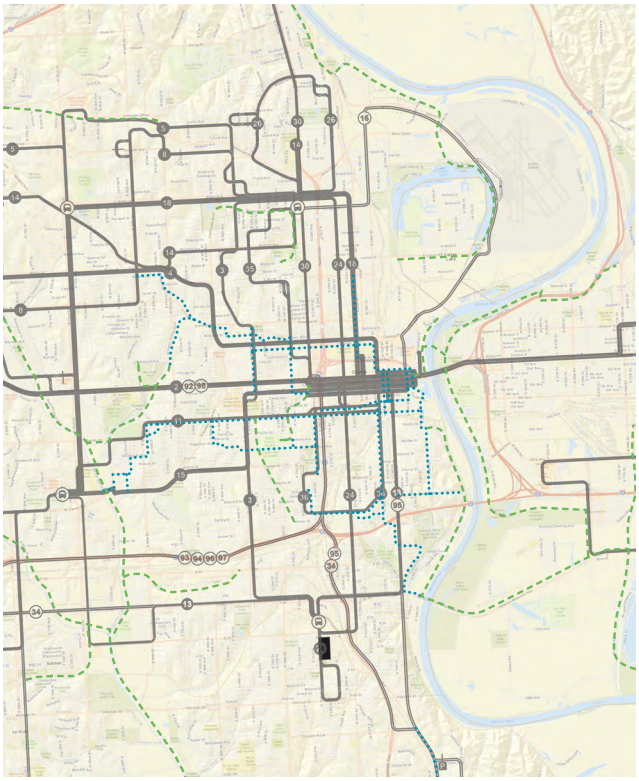


Figure 1.5.11. Existing transportation in Omaha (Lanning, 2016)

Existing Land Use

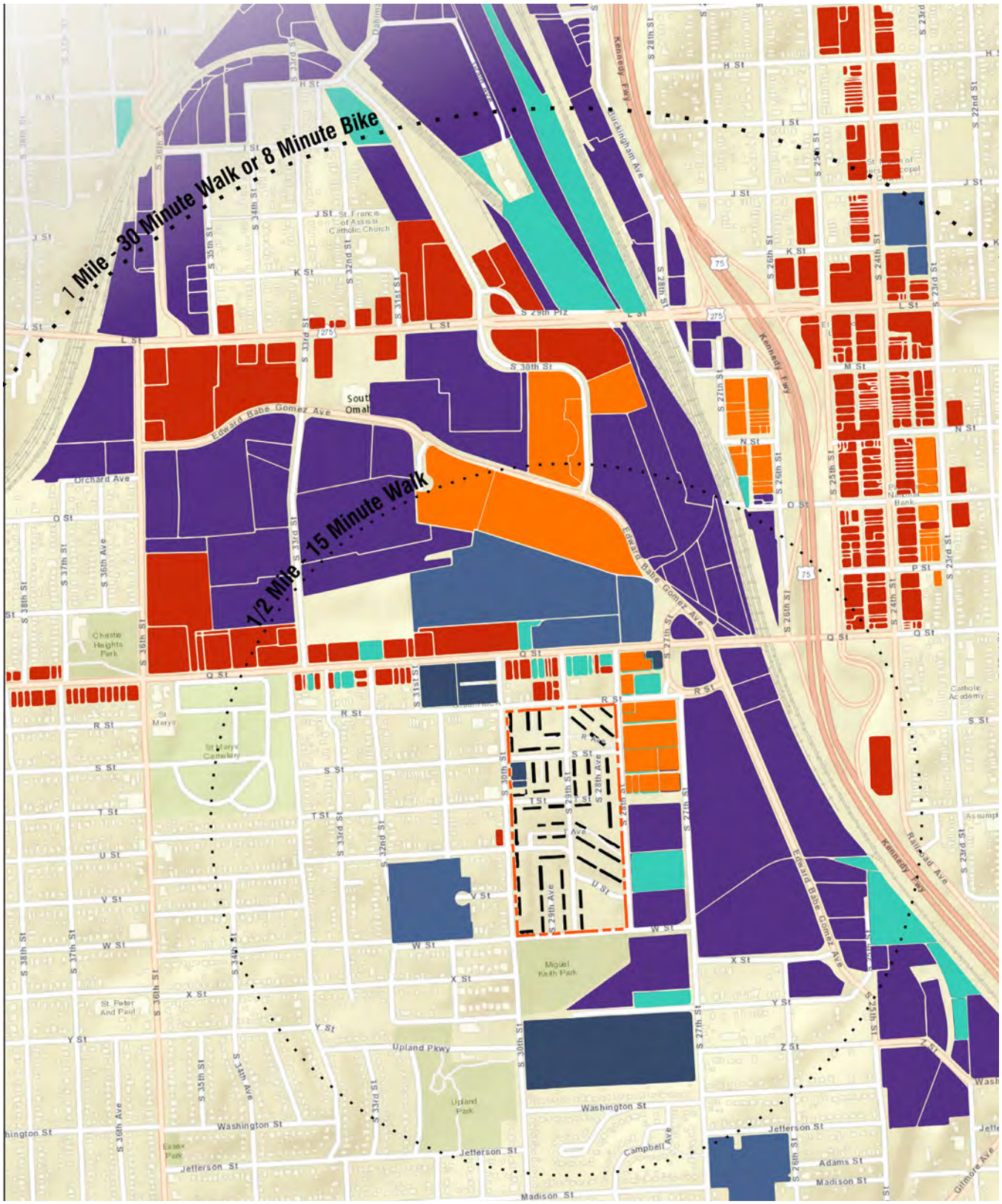


Figure 1.5.12. Existing land use (Lanning, 2016)

Commercial
Douglas County GIS

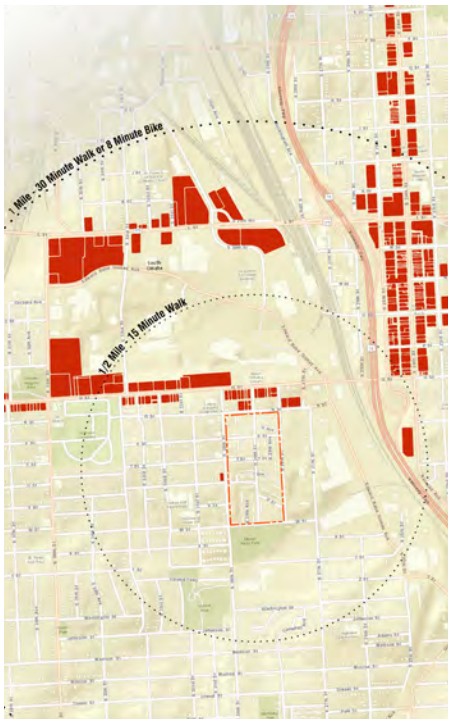


Figure 1.5.13. Commercial (Lanning, 2016)

Industrial
Douglas County GIS

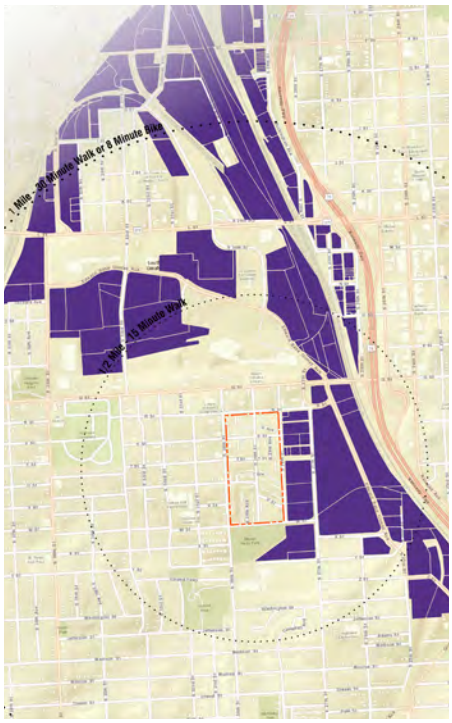


Figure 1.5.14. Industrial (Lanning, 2016)

Parcels for Redevelopment
Emerging Terrain

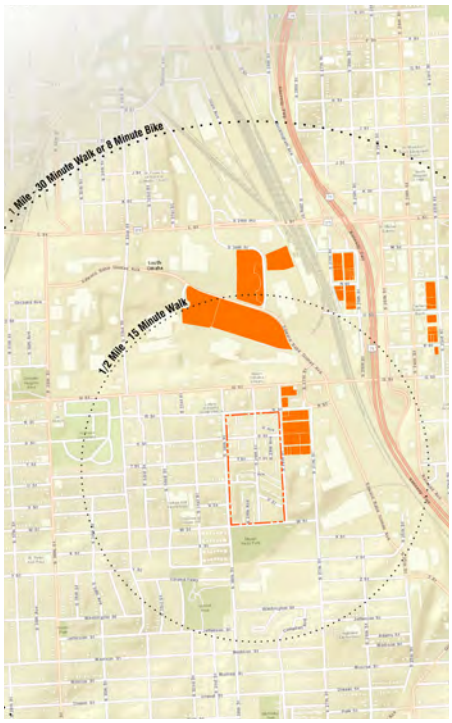


Figure 1.5.15. Redevelopment (Lanning, 2016)

Schools
Douglas County GIS



Figure 1.5.16. Schools (Lanning, 2016)

Social Services
Douglas County GIS



Figure 1.5.17. Social services (Lanning, 2016)

Vacant or Abandoned Parcels
Douglas County GIS

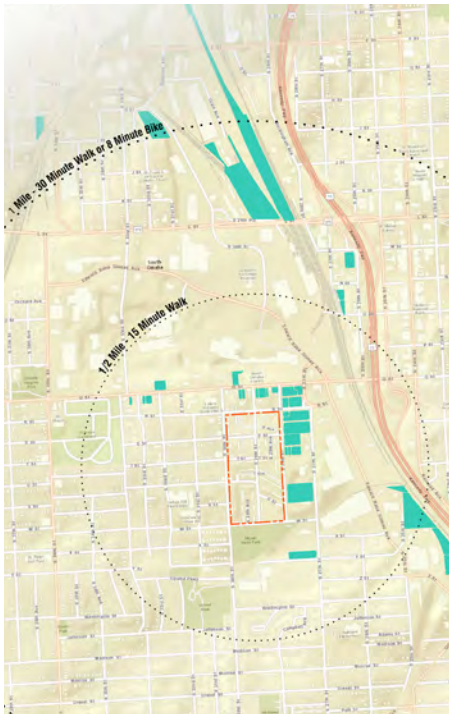


Figure 1.5.18. Vacancies (Lanning, 2016)

Existing and Proposed Transportation

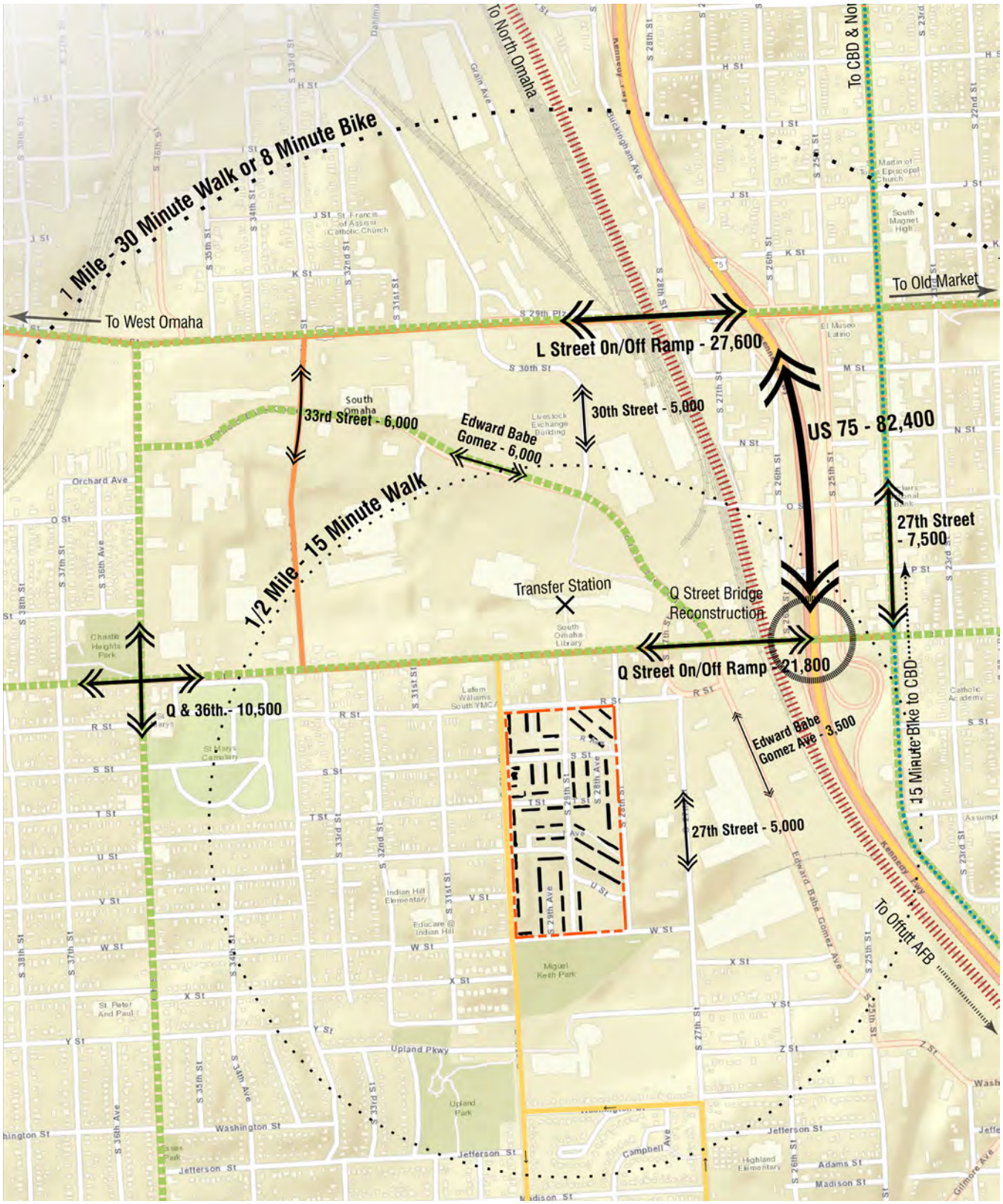


Figure 1.5.19. Existing and proposed transportation (Lanning, 2016)

Proposed & Existing Bus/BRT
Omaha Metro & MAPA



Figure 1.5.20. Bus/BRT (Lanning, 2016)

Future Green Streets
RDG Planning and Design



Figure 1.5.21. Green streets (Lanning, 2016)

Proposed Bike Routes
MAPA



Figure 1.5.22. Bike (Lanning, 2016)

Traffic Counts
MAPA



Figure 1.5.23. Traffic counts (Lanning, 2016)

Proposed Bridge
MAPA



Figure 1.5.24. Bridges (Lanning, 2016)

Proposed Light Rail Corridor
Emerging Terrain



Figure 1.5.25. Light rail (Lanning, 2016)

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Figure 1.5.5.
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1.5

Service Providers

SERVICES PROVIDED TO THE RESIDENTS

Social Support Services

The depth and range of social support services provided to Southside Terrace exceeds any other public housing development in Omaha. The Omaha Housing Authority provides some level of on-site services, but heavily relies on a group of non-governmental partners to meet residents' needs through supplemental support. Existing partnerships are strong and provide a myriad of services ranging from child care to vocational training. A few of the most prevalent services offered for youth are provided by Girls Inc., the YMCA and Indian Hill Educare, which is an early education program. Social services for adults include the YMCA Culture Center, Juan Diego Catholic Charity Center, and the Stephen Center, which provides assistance to people who are homeless, addicted, or poor. The investment in the children of Southside Terrace is unprecedented compared to other OHA properties, especially in terms of close geographic proximity to the people being served. Southside Terrace residents are within walking distance to eleven social service providers.

The social services available are free or offered at reduced cost. Some of the supportive services employ Southside Terrace residents allowing the service organization to build connections to Southside Terrace because the people working there better understand the needs of fellow residents. Southside Terrace's community, especially the refugee population, is in many ways supported and empowered by the social services, English classes, food, and other services enable residents to maintain cultural connections while adjusting to a new settlement environment. Many of the individuals involved in providing support services are highly committed, passionate, and concerned about the welfare of Southside Terrace residents.

Figure 1.5.1:
Finck, Caroline. 2016. Map of Systematic Support. Source data: Hahn GIS Data, "World Street Map" Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations.

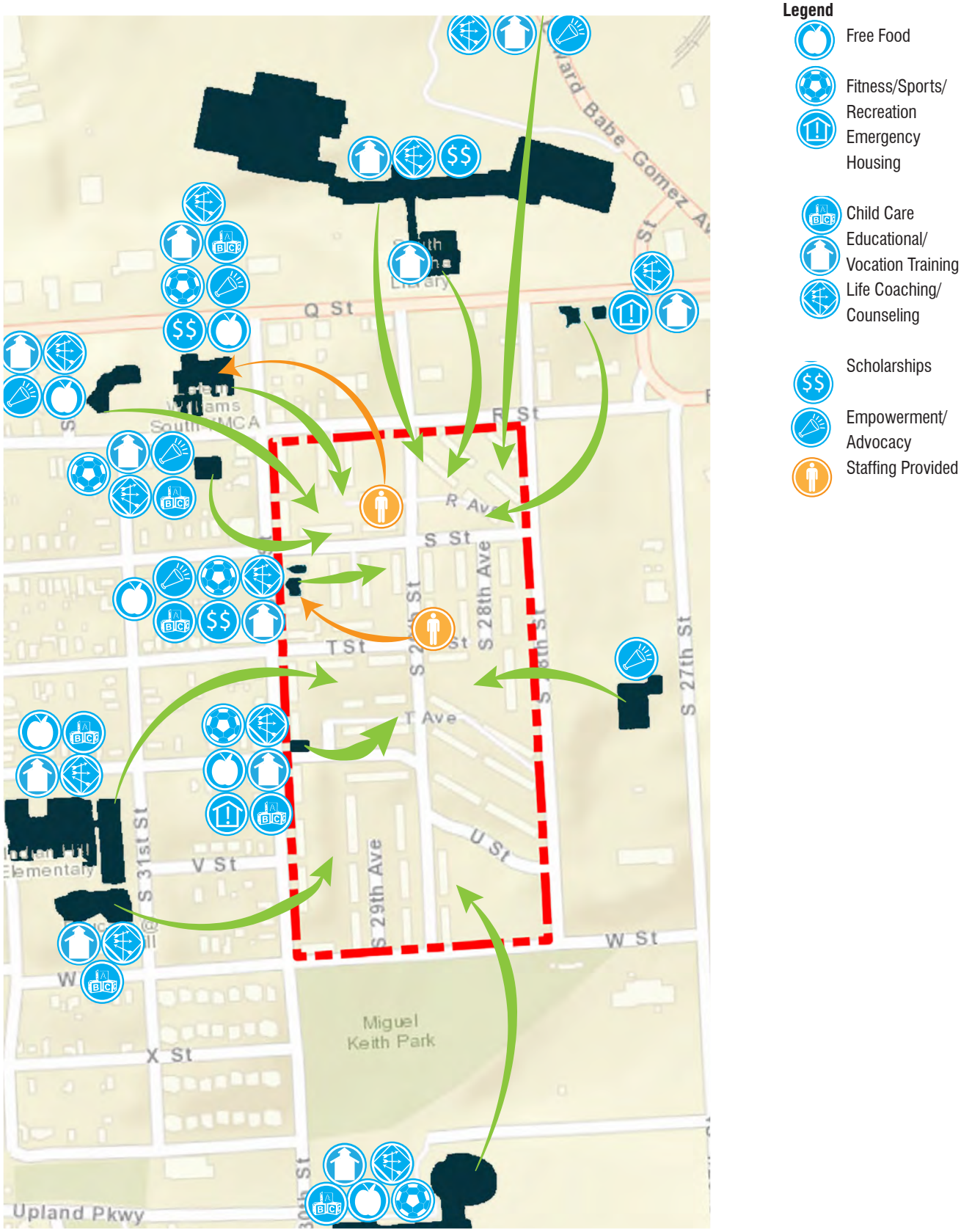


Figure 1.5.1. Social Support Services Provided to the Residents

1.6

Design Goals and Objectives

“Cultivating Community”

Design Parameters: Retain existing site boundaries and topography
The intent of this proposal is to promote social interaction opportunities through the creation of more public open space. This was accomplished by integrating new housing structures into the existing slopes to reuse the terraces formerly occupied by housing. Careful design attention was paid to the building/street orientation, and linking green spaces framed by buildings. Numerous recreation and social infrastructure amenities were distributed across the site for equitable access. The number of dwelling units decreased from 362 to ___, but space per person increased from ___sf to ___sf.



“Convergence”

Design Parameters: Retain existing site boundaries, but grading can significantly change.
Convergence seeks to strengthen connections between Q Street to the north and the neighborhood to the east. A dominant north-south “Main Street” promenade provides spatial ordering and draws commercial development from a revitalized Q Street southward into Southside Terrace. Mixed commercial/ residential buildings are proposed along the promenade. A portion of first story commercial frontage along the promenade could feature culturally-based food, product, or service businesses, and employ local residents. Recreational and community features include soccer fields, Slope Park, an amphitheater, community gardens, Inspiration Plaza, Sculpture Park, and Meadowlark wetlands park. Mixed housing types of higher density provide 584 dwelling units (60% increase).



“Sustaining Southside”

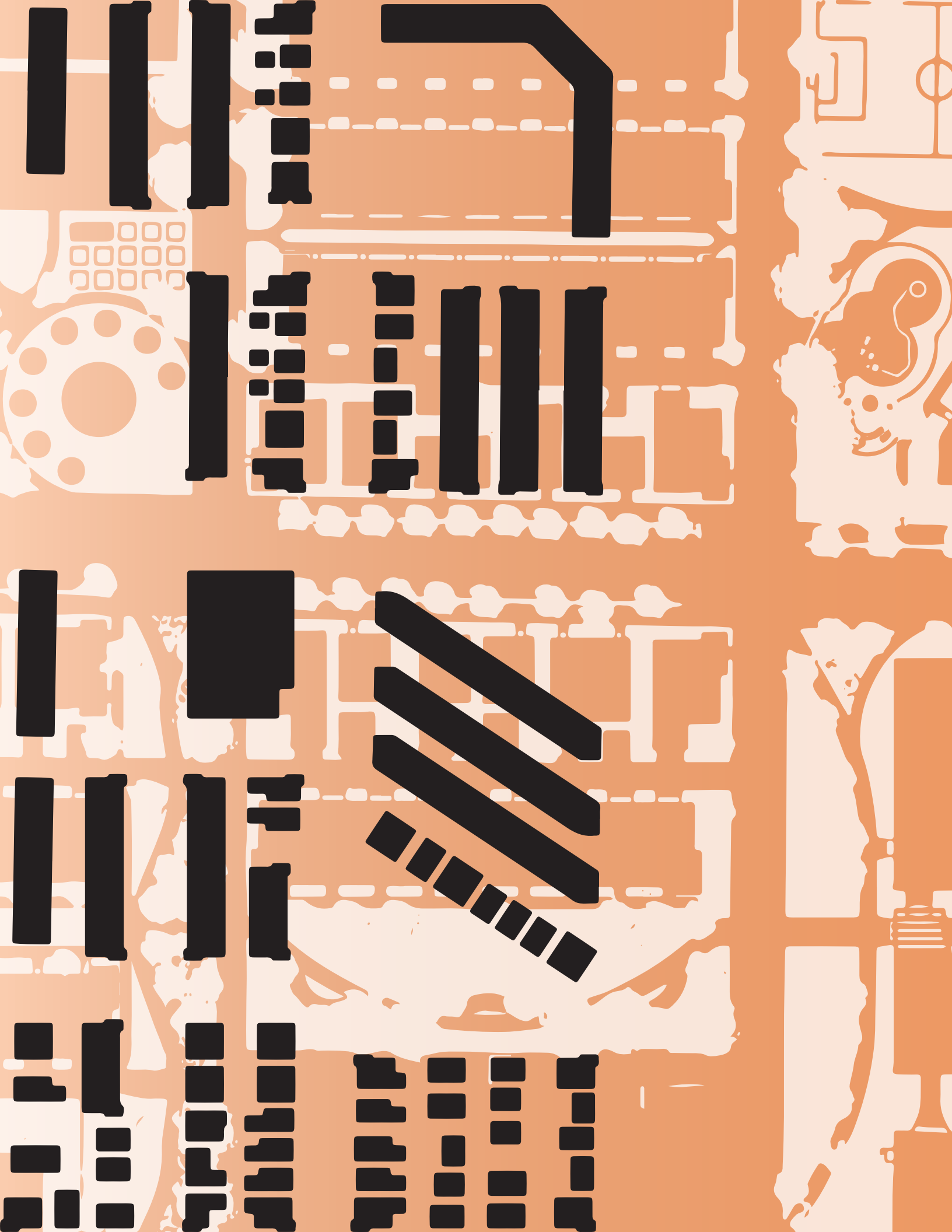
Design Parameters: Site boundary expands and extensive regrading takes place
Sustaining Southside takes advantage of adjacent properties to expand the current site boundary and co-develop a diverse mix of subsidized, affordable, and market-rate housing though private developer partnerships. The site expands into underutilized adjacent parcels to the north, east, and south. With expanded site area and the opportunity to reconfigure internal roads, housing, and recreational spaces, extensive regrading supports a new community character. Ecological function is also restored by establishing a drainage system and ephemeral wetland on the south and east sides of the site. New amenities include soccer fields, a community center and gardens, and greenspace throughout. Mixed housing types including mixed-use apartments, live-work townhouses, and single family attached and detached, provides 886 dwelling units (__% increase).



“Southside Catalyst”

Design Parameters:
At the most ambitious scale, Southside Catalyst examines the potential emergence of a transit oriented development (TOD) district based on the confluence of many transportation linkages and underutilized parcels within one-quarter to one-half mile radius of Southside Terrace. Although the future of the surrounding context is beyond the control of OHA, and the timeframe exceeds the schedule for redeveloping Southside Terrace, it makes sense to look ahead to advocate for new possibilities. Small beginnings like establishing a closer ties to a revitalized Q-Street corridor is a step in that direction. These proposals are presented in more detailed in the following chapters.





2

CULTIVATING COMMUNITY

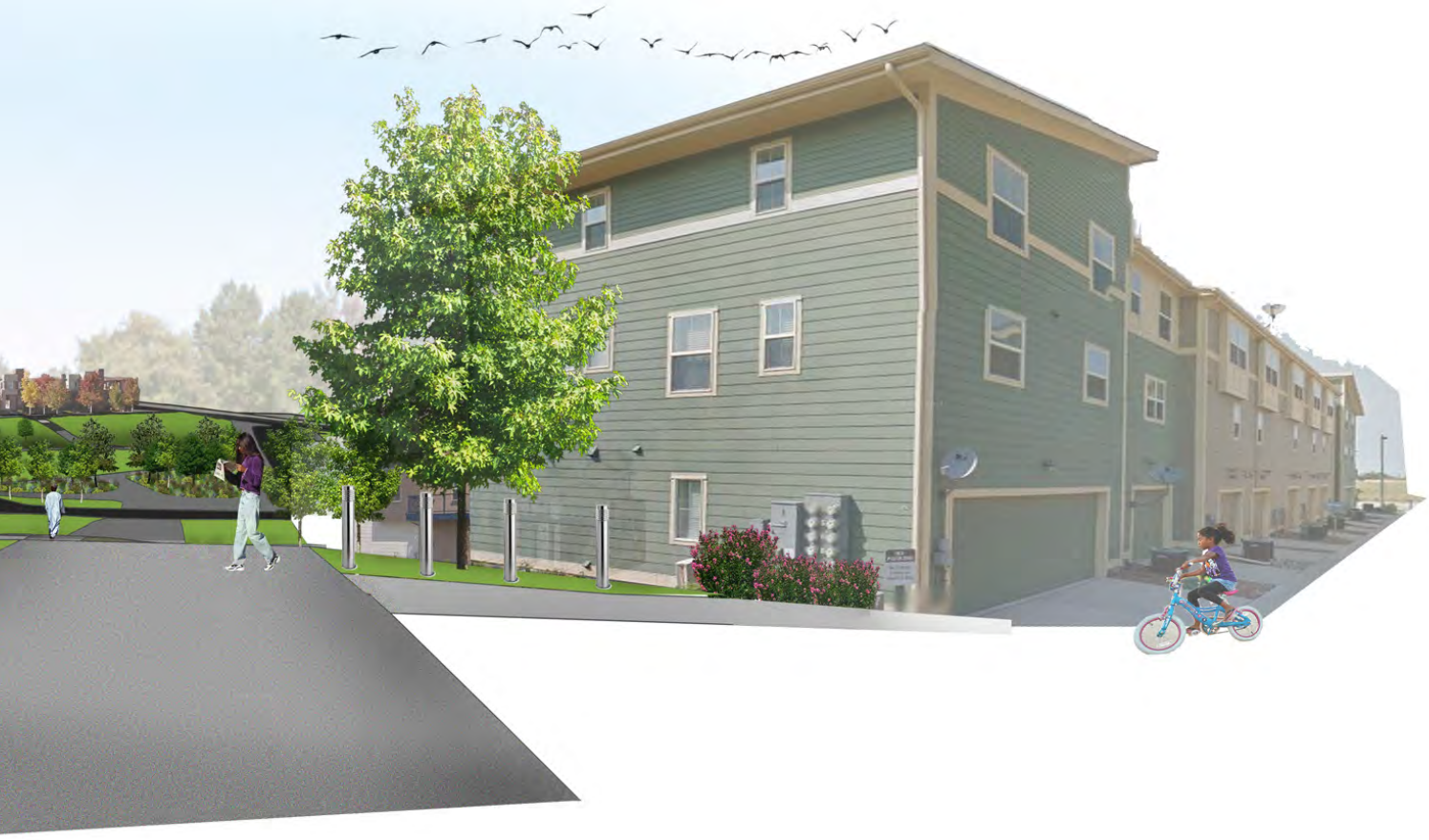


Cultivating Community

Promoting Social Interaction Though Public Space

Building upon the existing sense of community at Southside Terrace, while increasing the array of housing options, Cultivating Community provides more outdoor amenities and stronger integration into the surrounding context.

BRIAN CORRIE
WEI SUN
JOSH SUNDINE



Cultivating the Southside Terrace Community

Design Parameters

- Design within existing site boundary
- Retain existing topography
- Phase construction to retain residents on site

Design Concept Statement

'Cultivating Community' is a design proposal that provides an array of housing options, promotes social interaction, and increases the overall site amenities for residents of the Southside Terrace development.

Project Goals

1. Community Engagement



Figure 2.1: Oracle Plaza acting as versatile gathering space (Sun, 2016)

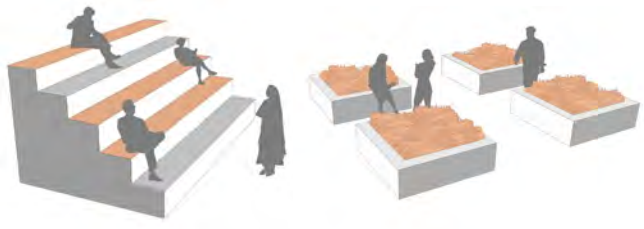




Figure 2.2: Social infrastructure occurring throughout site (Corrie, 2016)

2. Utilize existing topography

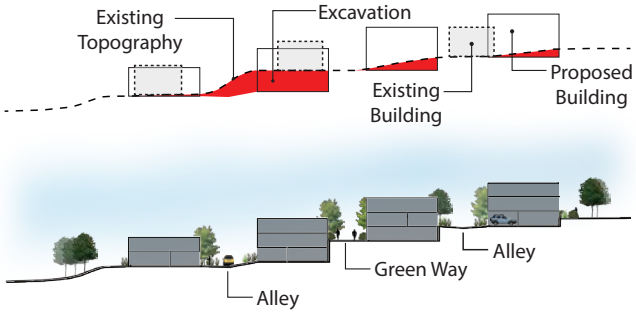


Figure 2.3: Topographic Strategy in order to create flat public space (Sundine, 2016)

3. Safety through street design



Figure 2.4: Eyes on the Street Components to natural surveillance (Sundine, 2016)

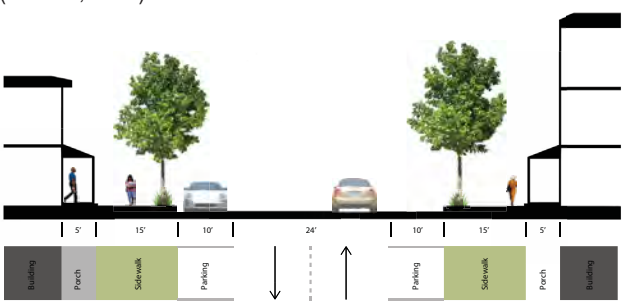


Figure 2.5: Two-Way Street provides ample room for pedestrians (Corrie, 2016)

Project Background

This design proposal provides future residents of Southside Terrace with a neighborhood design that enhances the existing strong sense of community. Currently, the existing steep slopes, lack of diverse housing options, and scarcity of site amenities has reduced the overall functionality both physically and socially. The future of this development primarily relies on building upon this sense of community by resolving programmatic issues related to public space. 'Cultivating Community' explores the option of redeveloping Southside Terrace within the existing site boundary and topography. This poses the unique challenge of retaining as many current residents as possible while introducing more housing options, improving the amount of site amenities, and utilizing the existing topography as an advantage. With these conditions in mind, the primary goal of the proposal is to promote social interaction through an array of public spaces that provides opportunities for community engagement within the site and interaction with the surrounding neighborhood.

4. Increase variety of housing



Figure 2.6: Housing Variety serves diverse resident population (Corrie, 2016)

5. On site phasing strategy

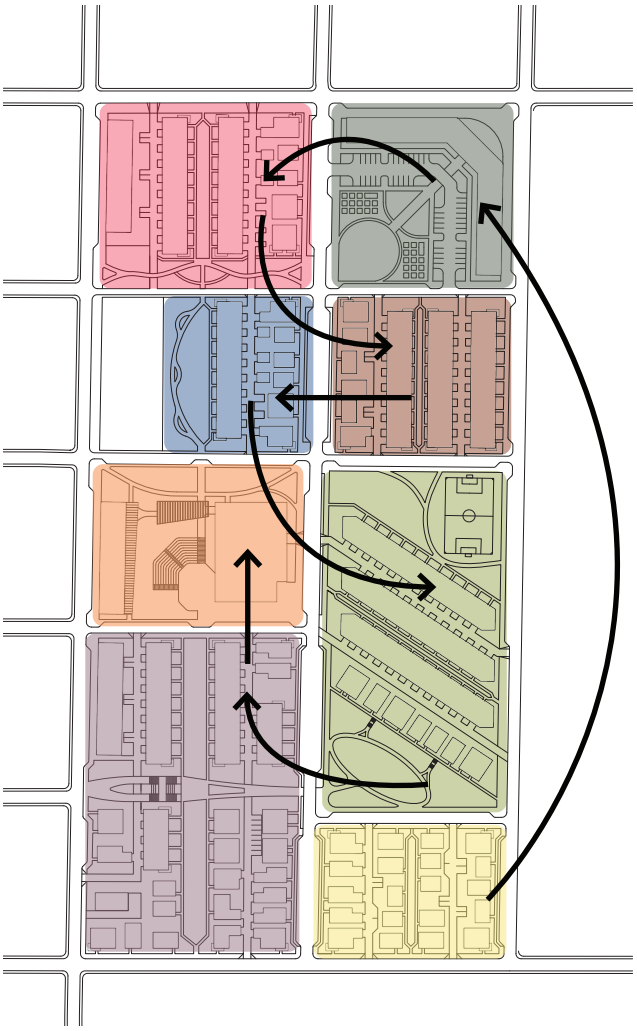


Figure 2.7: On-Site Phasing to retain resident population and services (Sun, 2016)

Design Framework

Public Spaces for Community Engagement

The first component of the conceptual framework is built upon the idea of public space acting as a catalyst for social interaction. With this in mind, the proposed park and pedestrian greenway system not only connects the site physically, but provides residents with the opportunity to engage with neighbors. Within this system, there are four designated parks which provide space for community activities, recreation, and leisure. This linked park system is convenient for residents throughout the Southside Terrace property and provides new opportunities for social interaction to build upon the existing sense of community. This system is also integrated with mixed use development to promote use from residents to the neighborhood to the west.



Figure 2.8: Oracle Plaza acting as versatile gathering space (Sun, 2016)



Figure 2.9: New Boundaries - Entrance from adjacent neighborhood through East-West pedestrian green way (Sundine, 2016)



Figure 2.10: Site Design Around Public Space - Creates greenway system that connects site and provides opportunities for social interactions (Sun, 2016)

Design Framework

Social Infrastructure

Providing spaces for social interaction is the secondary component to the design framework that defines where activities should occur throughout the site. This social infrastructure works in tandem with the park system to provide residents opportunities to meet with one another, host community events, and for other recreational activities. Although these activities may not physically be designed into the program, it was important to provide the open spaces needed to accommodate such activities.



Figure 2.11: Active Streets - Wide street design provides space for cultural festivals and other community events (Sun, 2016)



1 Outdoor Seating



2 Amphitheater



3 Market



4 Playground



5 Fireplace



6 Outdoor Cooking



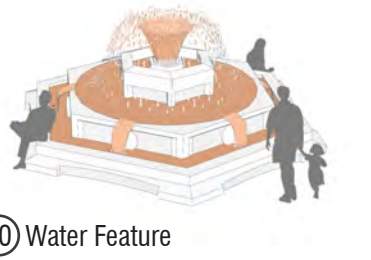
7 Play Water



8 Soccer Field



9 Green Alley



10 Water Feature



11 Patio



12 Community Garden

Figure 2.12: Social Infrastructure - Framework of activities that can occur throughout the site to promote social interaction amongst residents (Corrie, 2016)



Figure 2.13: Cultivating Community Site Plan (Sundine, 2016)

Greenway Enlargements

Corridor Park



Plan not to scale



Figure 2.14: Corridor Park - Provides access to greenway system from the north (Sundine, 2016)

Heritage Park



Plan not to scale

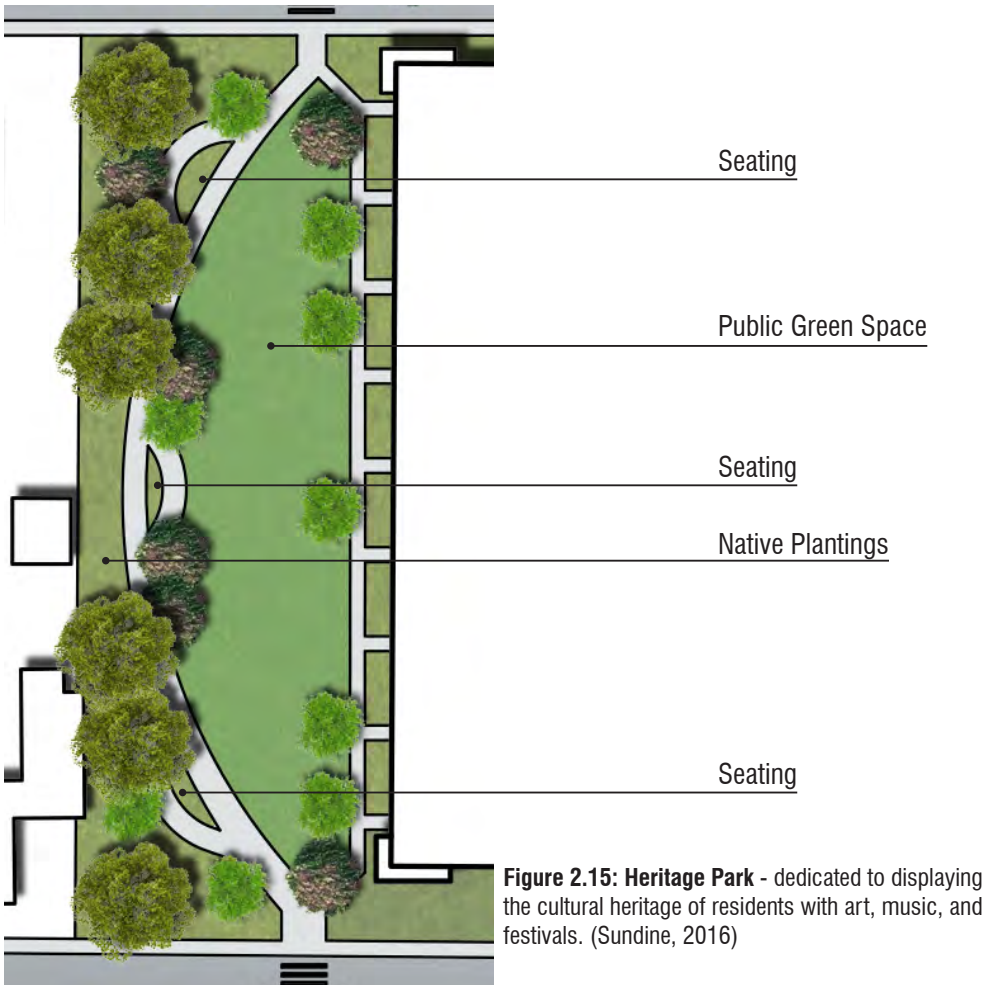


Figure 2.15: Heritage Park - dedicated to displaying the cultural heritage of residents with art, music, and festivals. (Sundine, 2016)

Community Center/Amphitheater



Plan not to scale

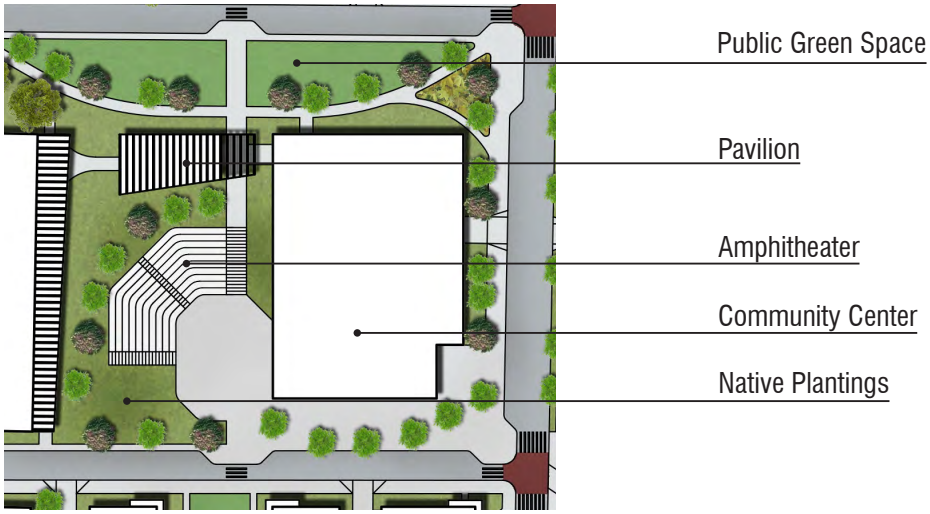


Figure 2.16: Community Center and adjacent amphitheater space and acts as the major gathering space (Sundine, 2016)

V Street Landing



Plan not to scale



Figure 2.17: V Street Landing - Provides entryway from neighborhood to the west and gives overlook to the Ellipse Park (Sundine, 2016)

Site Amenity Enlargements

Oracle Plaza



Plan not to scale

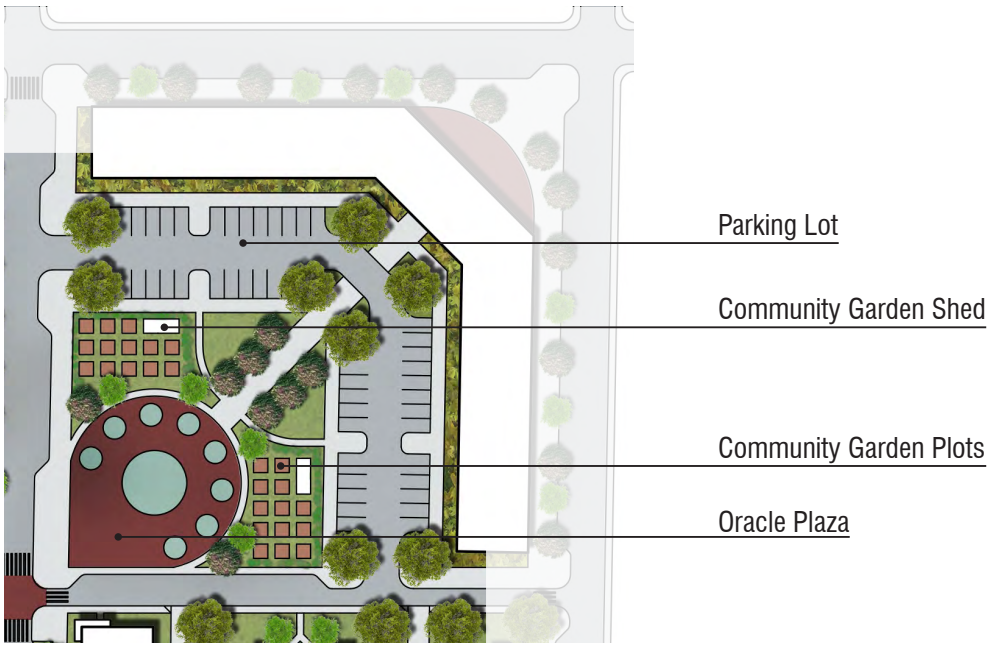


Figure 2.18: Oracle Plaza - Versatile plaza for water features, social gathering, and markets which can utilize the adjacent community gardens (Sundine, 2016)

Recreation Park



Plan not to scale



Figure 2.19: Recreation Park - Provides space for a U8 soccer field and a site centralized playground (Sundine, 2016)

Ellipse Park



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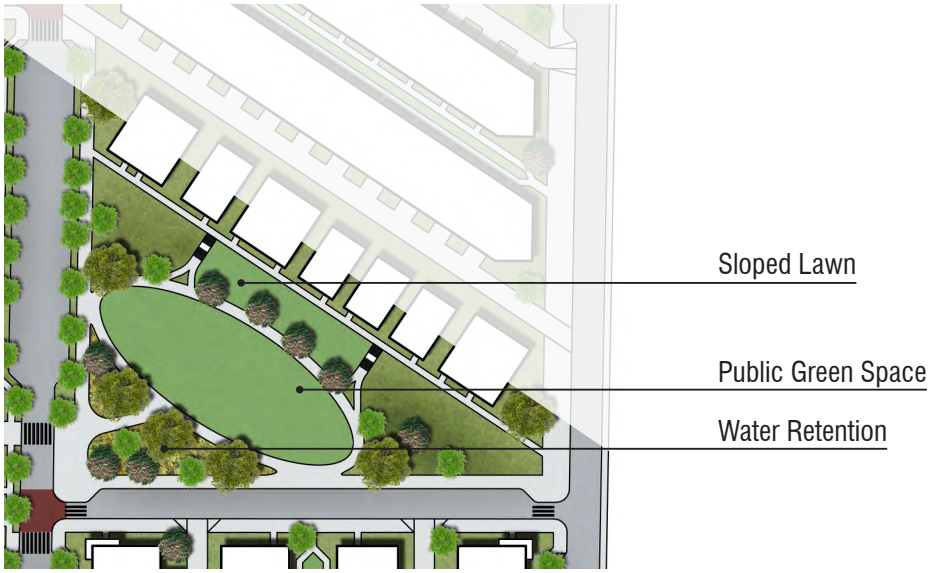


Figure 2.20: Ellipse Park - Leisure park hosts open lawn areas and a walking loop which runs adjacent to a naturalized water retention area (Sundine, 2016)

Residential Greenway



Figure 2.21: Communal Space - Greenway runs between residential units and provides semi-private spaces for each dwelling unit (Sundine, 2016)

Topography as an Asset

Creating Flat Public Space

Working with the existing topography created a unique challenge when creating public space. There is a ridge line that dissects the site with an approximate 80' grade change from the north side of the site to the south. Currently, extreme slopes occur between residential buildings which reduces space that could be used for public use. In order to create more usable flat spaces, buildings are proposed to be integrated into slopes and act as retaining walls. This strategy allowed for three level row houses to be placed on the severe slopes and provide vehicular access to the structures with parking for each dwelling unit. This aided in reducing the overall amount of on-street parking and preserving more flat public space.

Integrating buildings into slopes to create usable public space



Figure 2.22: Residual spaces between dwellings (Sundine, 2016)



Figure 2.23: Severe slope conditions (Sundine, 2016)

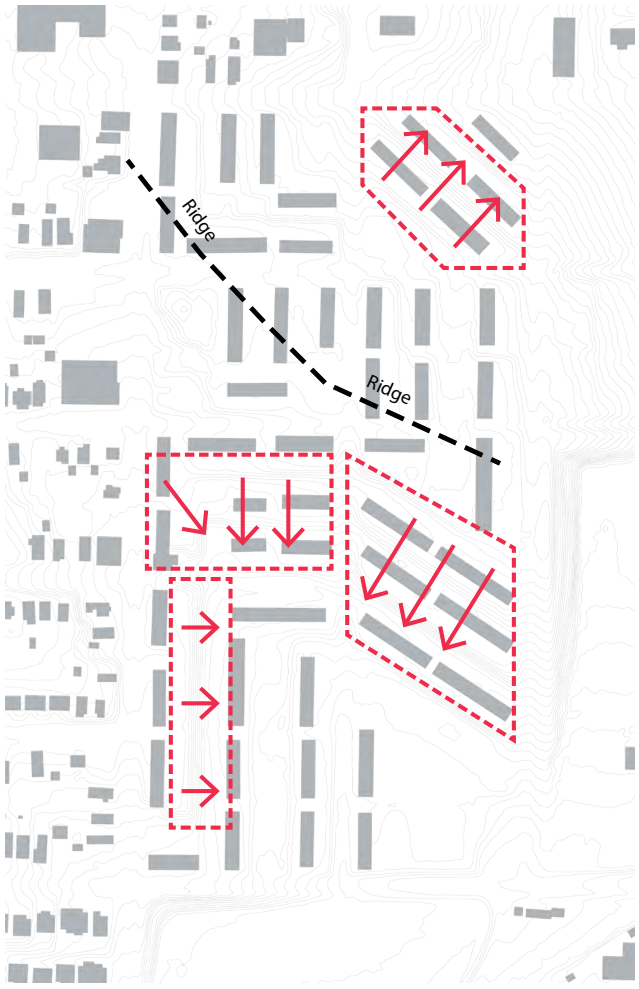


Figure 2.24: Areas of severe grade change (Sundine, 2016)

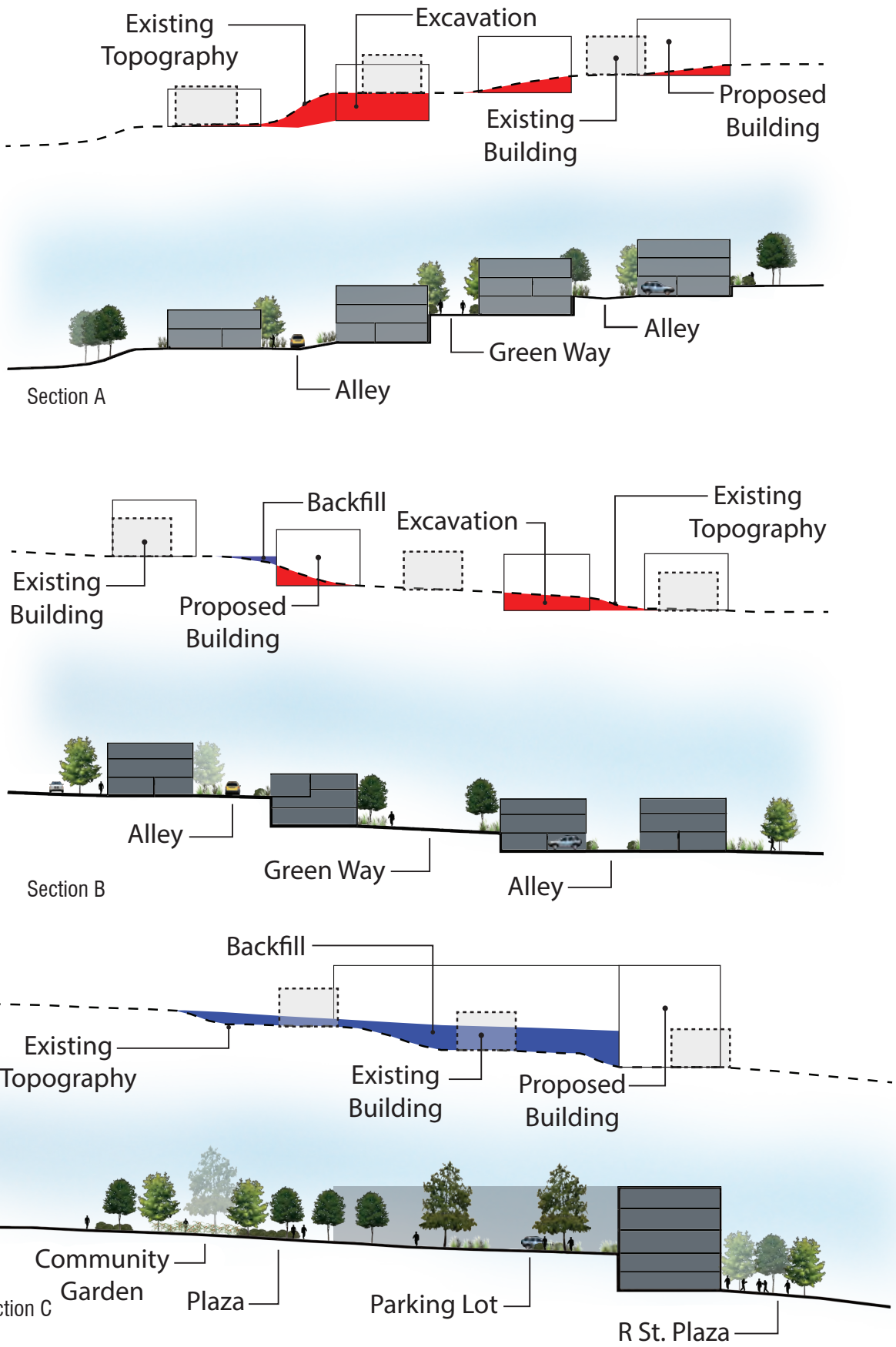


Figure 2.25 Topographic Strategies - Using buildings as retaining walls to take advantage of flat land as public space (Sundine, 2016)

Safety Through Street Design

Street Orientation

Existing streets on the site were aligned primarily based on extreme slopes which created problems with vehicular circulation within the site. There are many current instances where street to building orientations decrease visual sight lines which affects safety. Tying into the existing street grid to the west was the first step in resolving these issues. To do this, a street hierarchy was designed to provide access to the residences and the entirety of the site. Together this grid system allowed buildings to be oriented toward the streets and improve sight lines.

Improving vehicular circulation and sight lines with street layout

Street Types



Figure 2.26 Street hierarchy (Sun, 2016)

Vehicular Circulation

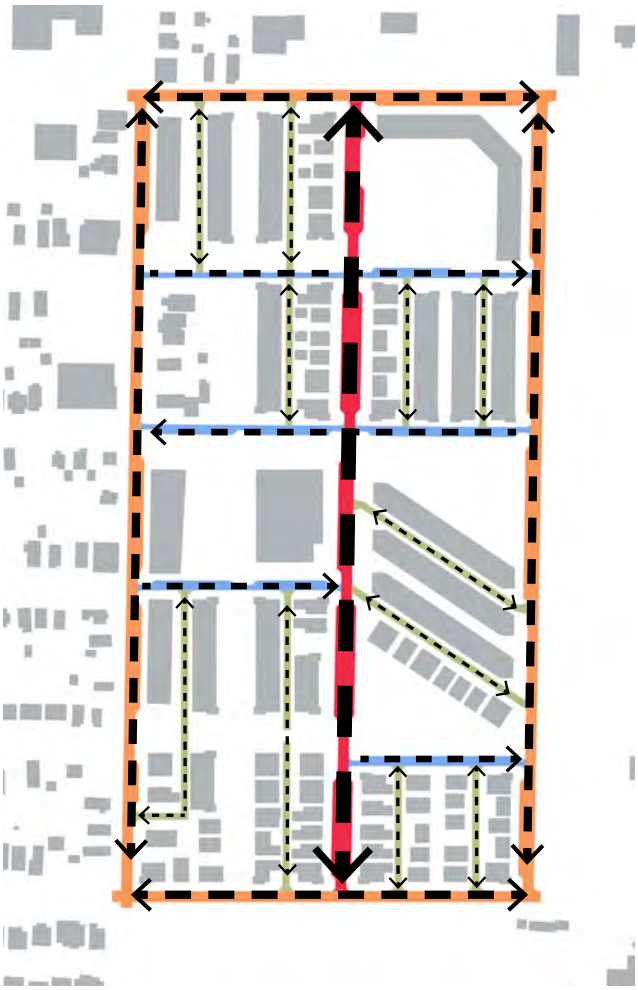
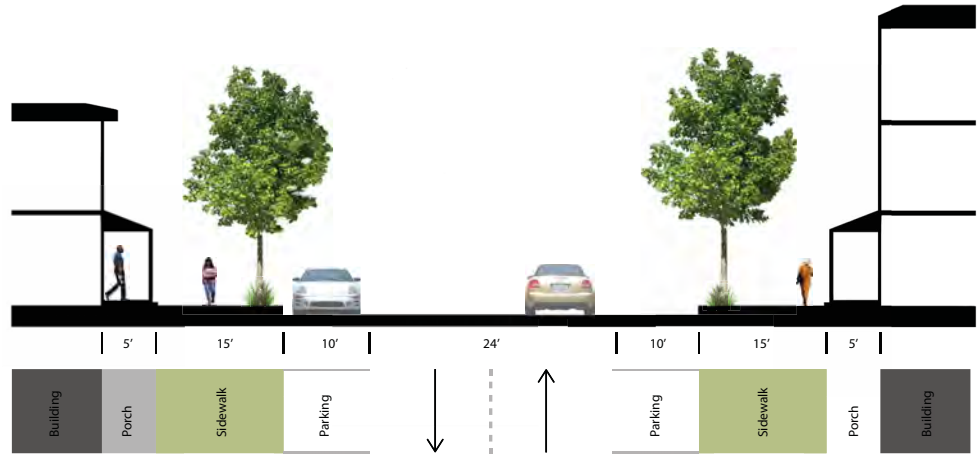
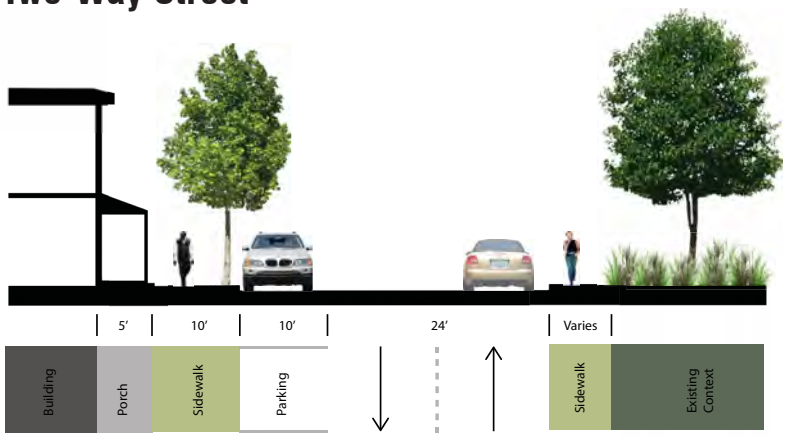


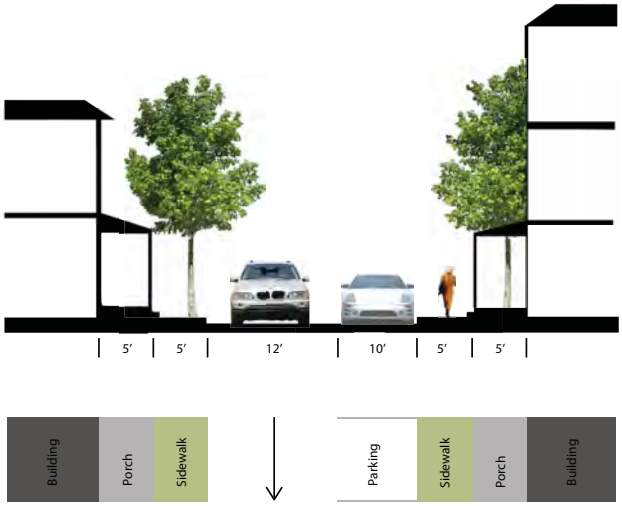
Figure 2.27 Vehicular Circulation (Sun, 2016)



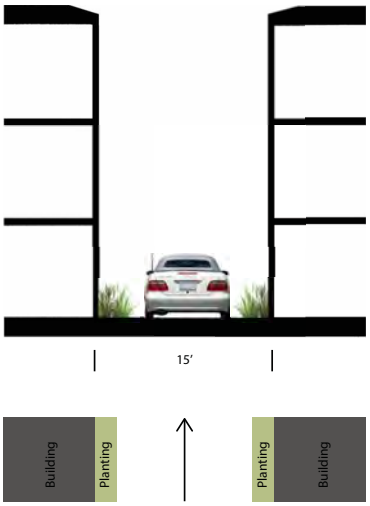
Two-Way Street



Peripheral Streets



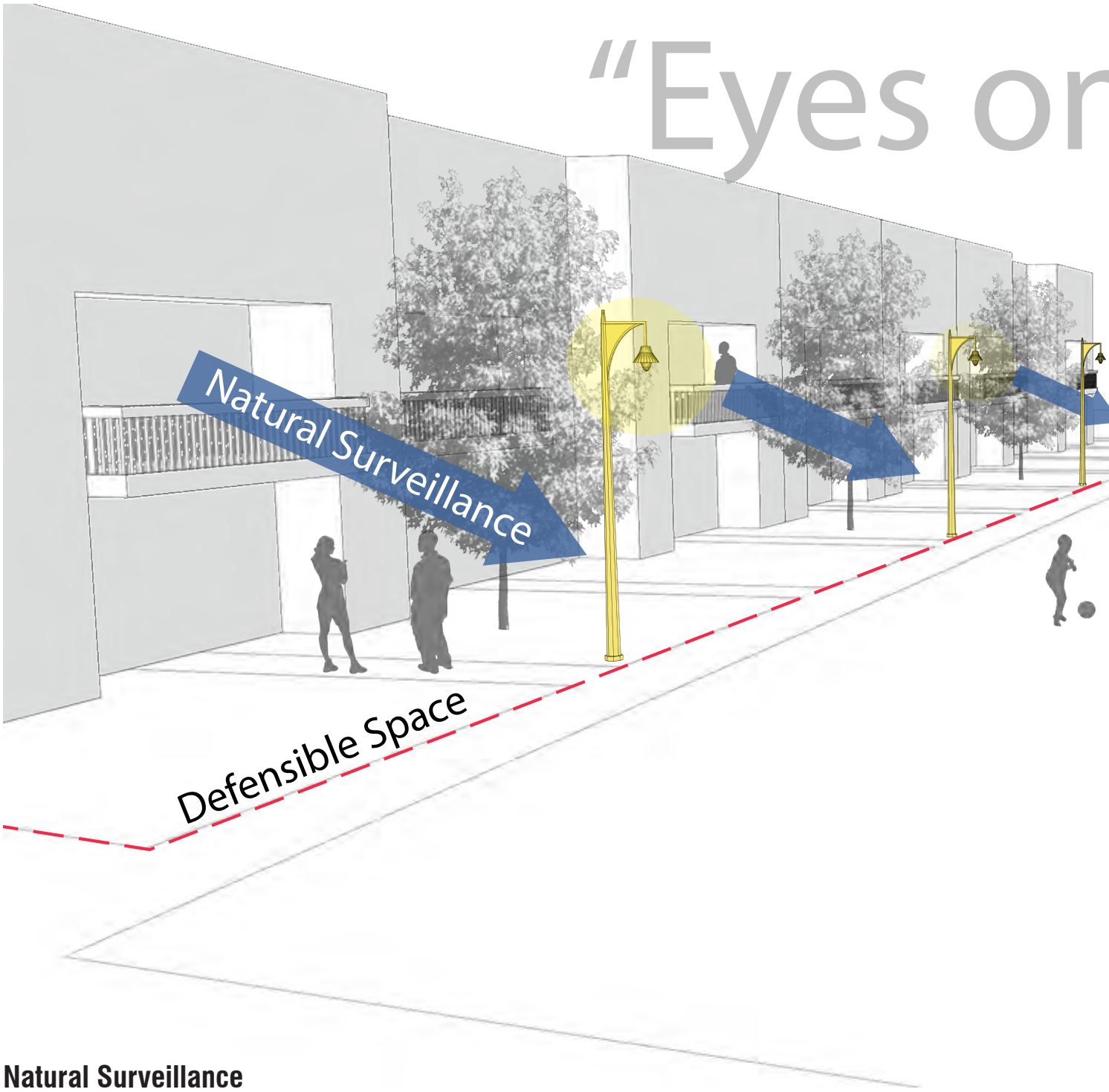
One-Way Street



Alley

Figure 2.28 Street Sections - Illustrates the general size of buildings and their relationship to the different street types (Corrie, 2016)

Safety Through Street Design



Natural Surveillance

The concept of natural surveillance is a way to increase safety throughout the community. This is primarily done through providing residents with defensible space (areas that they feel a personal responsibility for) so they are inclined to watch the street and deter criminal activity. Building orientation also has a large impact on the success of keeping eyes on the street and was a large influence on the overall site design.

n the Street”

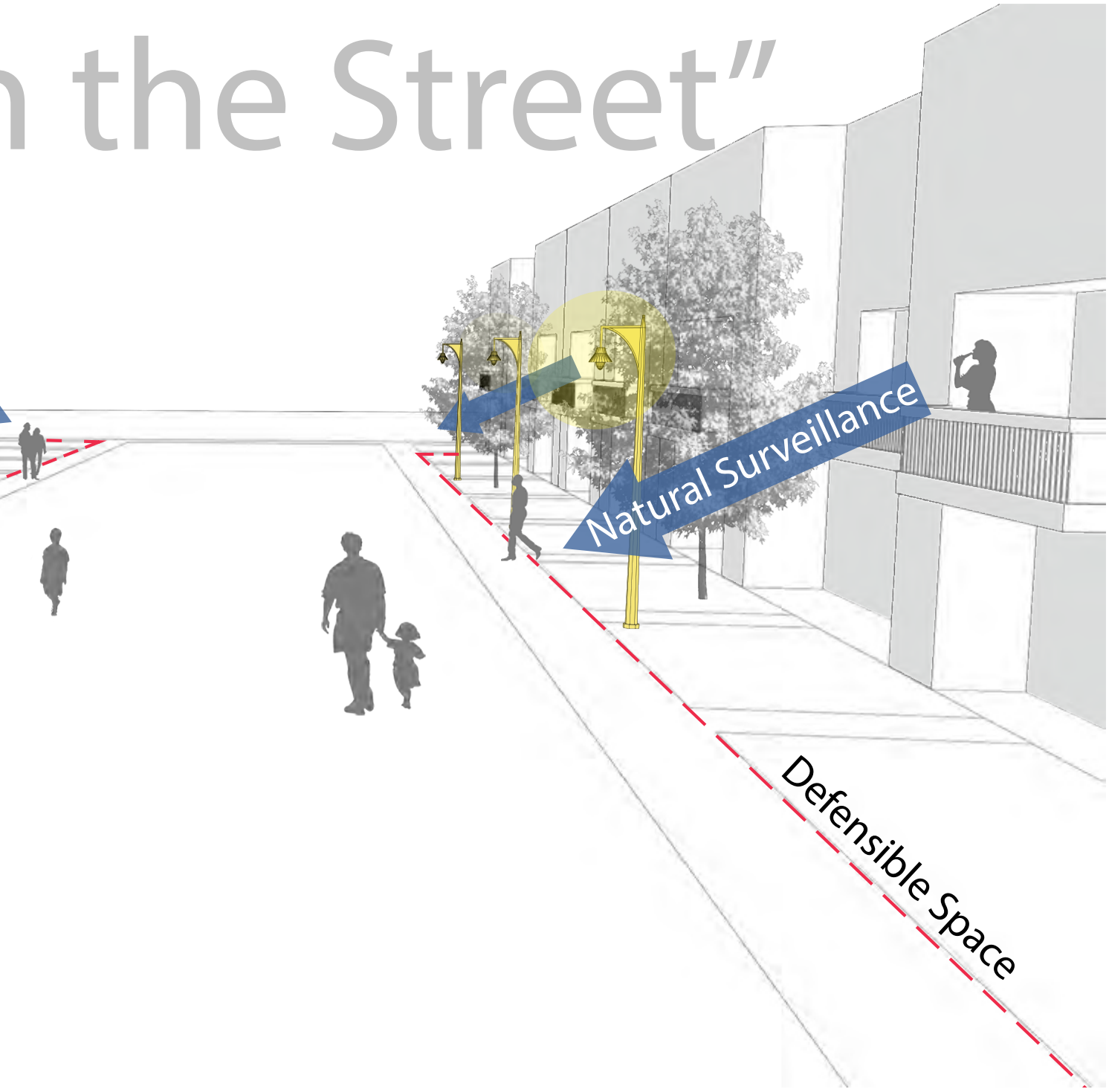


Figure 2.29 Eyes on the Street - Shows how natural surveillance can improve site safety through building orientation towards the streetscape (Sundine, 2016)

Increasing Housing Options

Housing Diverse Family Sizes

Southside Terrace currently provides subsidized housing for approximately 1259 residents in 362 dwelling units. These units have been retrofitted to provide more space for larger family sizes. Providing a variety in housing types and unit sizes will better service the resident population and provides opportunities to incorporate affordable and market rate housing options. The intent of providing these options is to inspire residents in subsidized housing to reach ownership of market rate units through system of increasing unit sizes. Overall, this housing plan increases the amount of square footage per person by approximately 30% and retains around 168 subsidized units, and creates 56 affordable and 56 market rate units.



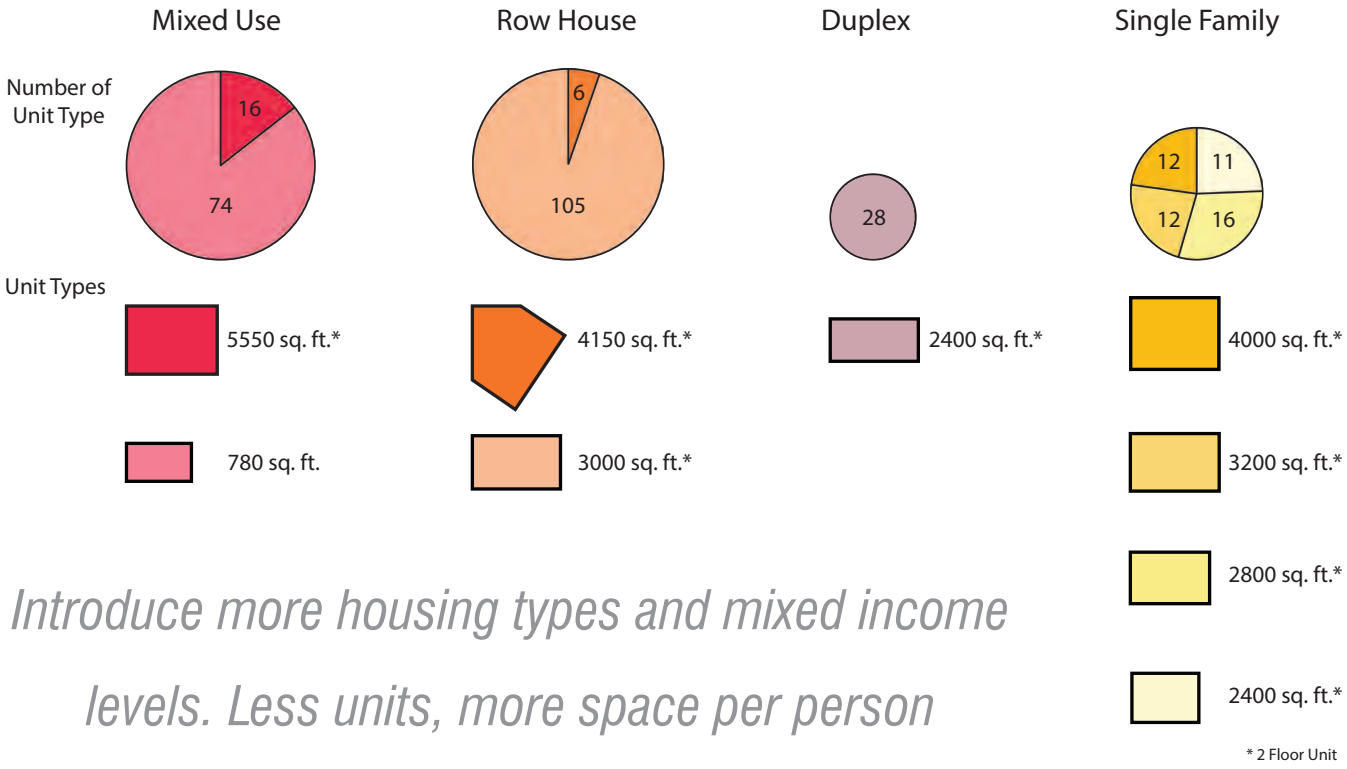
Comparative Data

Current Number of Dwelling Units:	362
Projected Total Number of Dwelling Units:	280
	-82
Current Number of Residents:	1259
Projected Total Number of Residents:	1496
	+237
Estimated Sq. Ft. per Person - Existing:	350
Estimated Sq. Ft. per Person - Proposed:	475
	+125

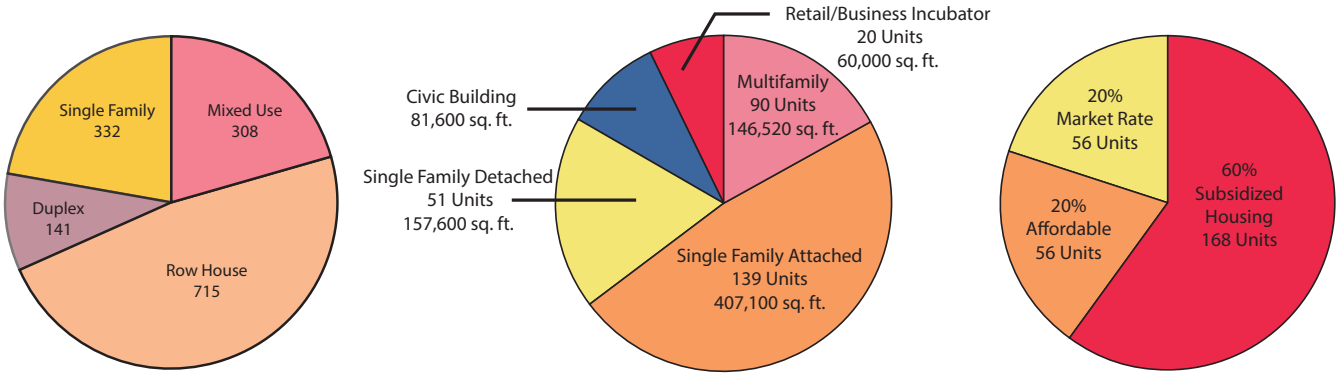
Legend

- Mixed-Use: Large Unit
- Mixed-Use: Small Unit
- Row House: Large Unit
- Row House: Small Unit
- Duplex
- Single Family Units
- Community Center

Figure 2.30 Housing Variety - Housing types and sizes are distributed to ease the transition from the adjacent neighborhood to higher density units along the east and provide more housing options for the diverse resident population (Corrie, 2016)



Introduce more housing types and mixed income levels. Less units, more space per person



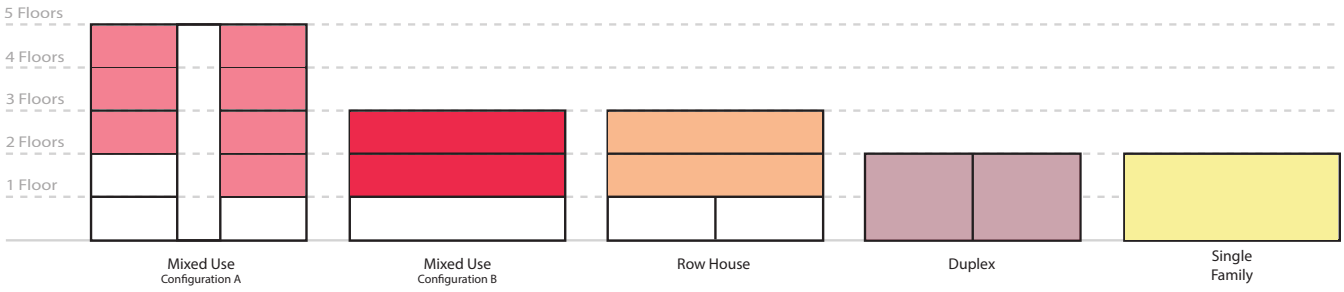


Figure 2.31 Housing Metrics - Data in accordance with the variety of housing options and income levels (Corrie, 2016)

Site Metrics

Dwelling Units per Acre

Southside Terrace has the potential to integrate with a new development district emerging from nearby regional assets. The overall average number of dwelling units per acre for the proposal is approximately 12 with the highest density occurring in the northeast block of the site. Increased housing density throughout the site was important in order to accommodate the large resident population and reserves more land for public space.

Managing density and land use to provide more site amenities

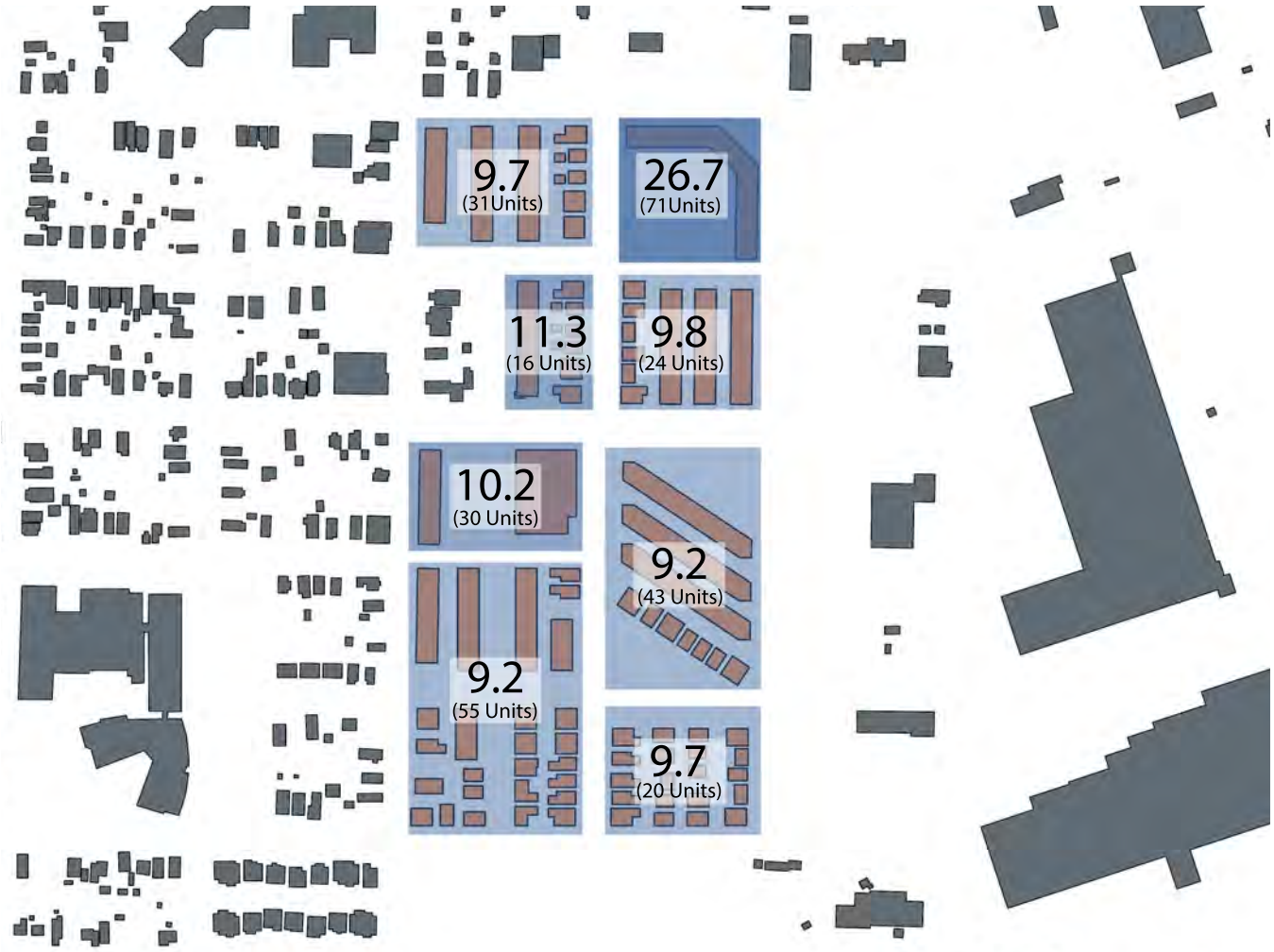


Figure 2.32 Density of housing units per acre (Sundine, 2016)

Land Use

Balancing the amount of land needed for residential development and public space was imperative to maximize the opportunity for community engagement in the outdoor spaces.

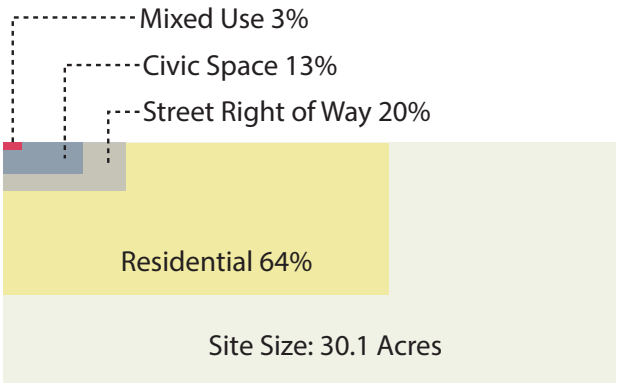


Figure 2.33 Percentages of land use (Corrie, 2016)

Parking

The existing street layout and lack of flat spaces made parking a rather limited commodity for the residents of Southside Terrace. Proposing more private parking garages in the dwelling units and more organized on-street parking reduces the overall amount of land required for parking while still providing enough spaces per housing unit.

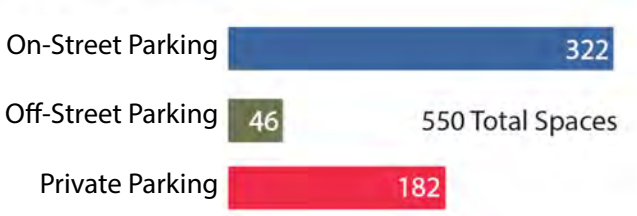


Figure 2.34 Cumulative parking spaces (Corrie, 2016)



Figure 2.35 Land usage across site (Sun, 2016)

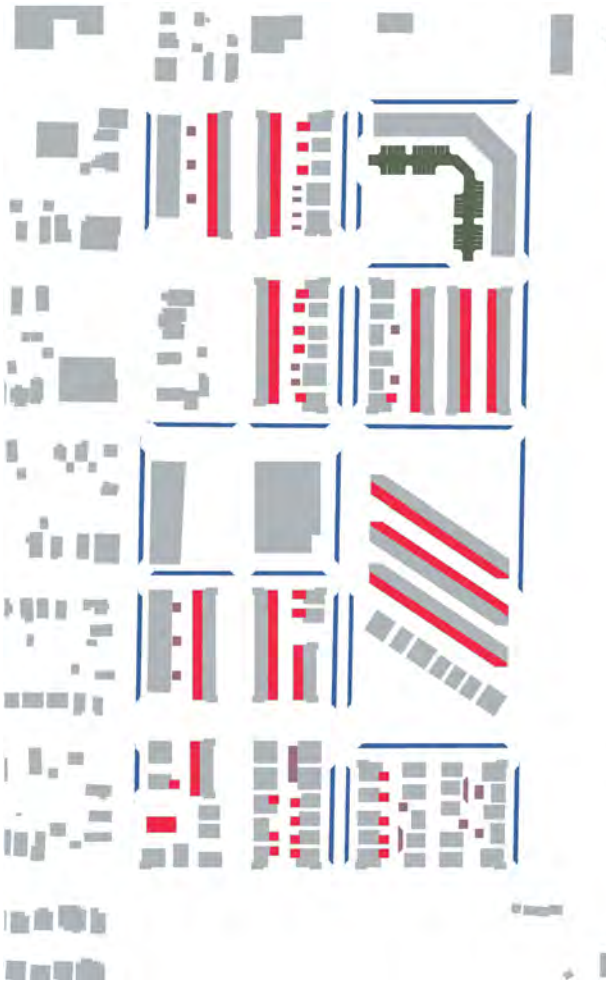
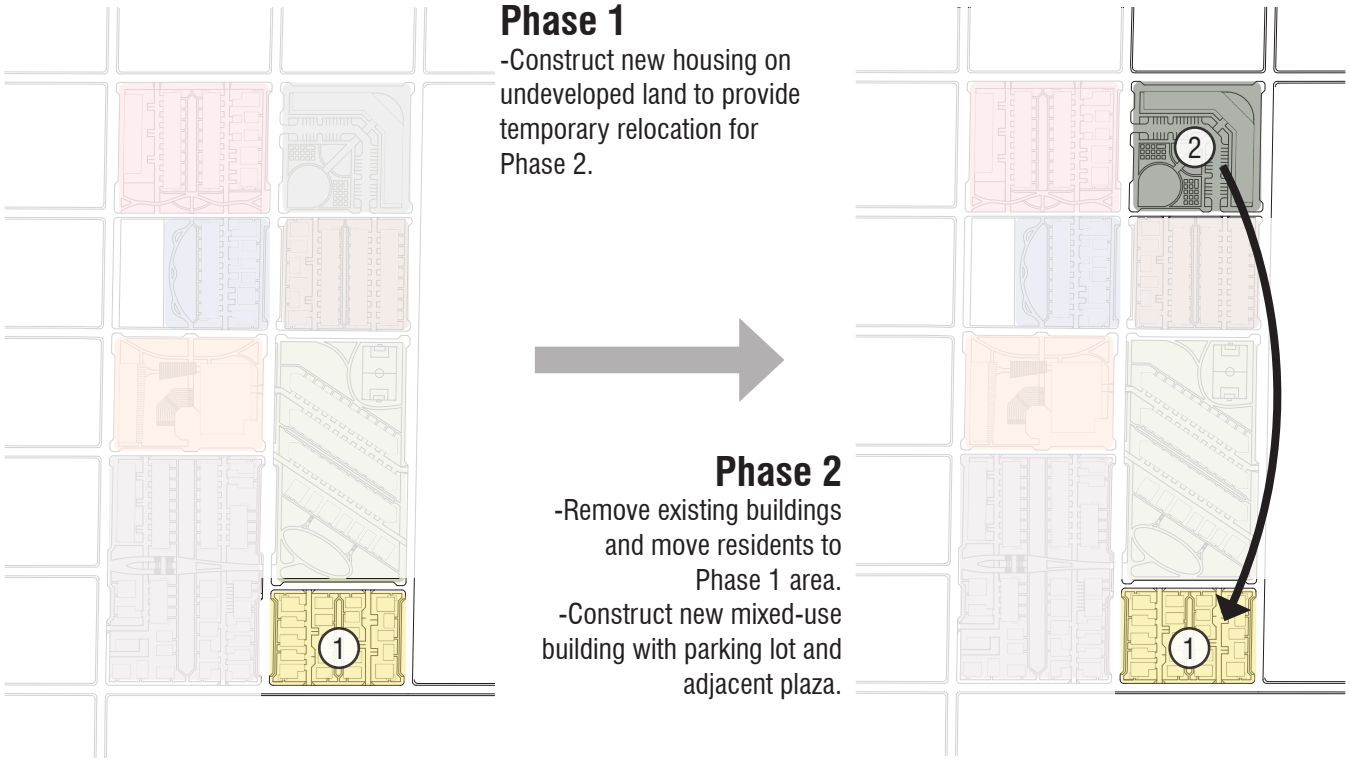


Figure 2.36 Parking locations (Sundine, 2016)

Phasing Strategy



Keeping resident population on site

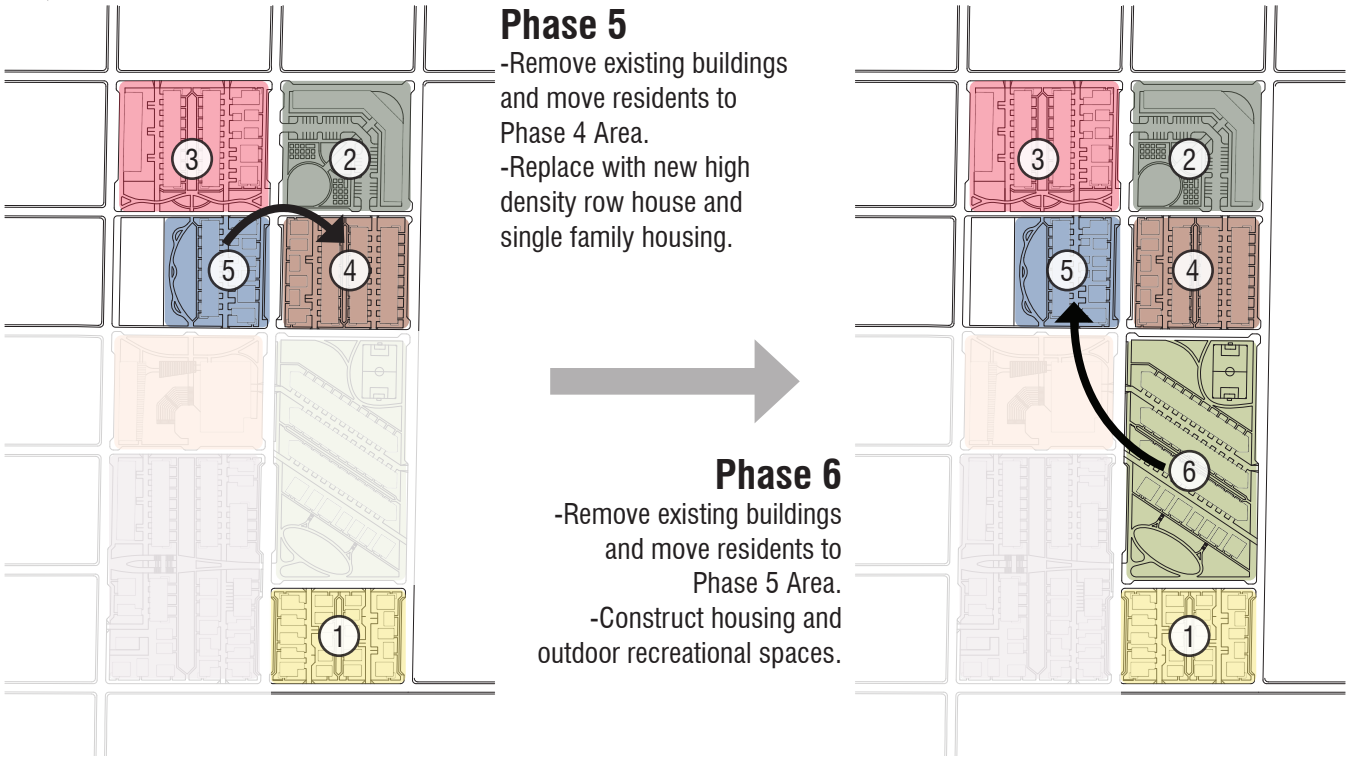
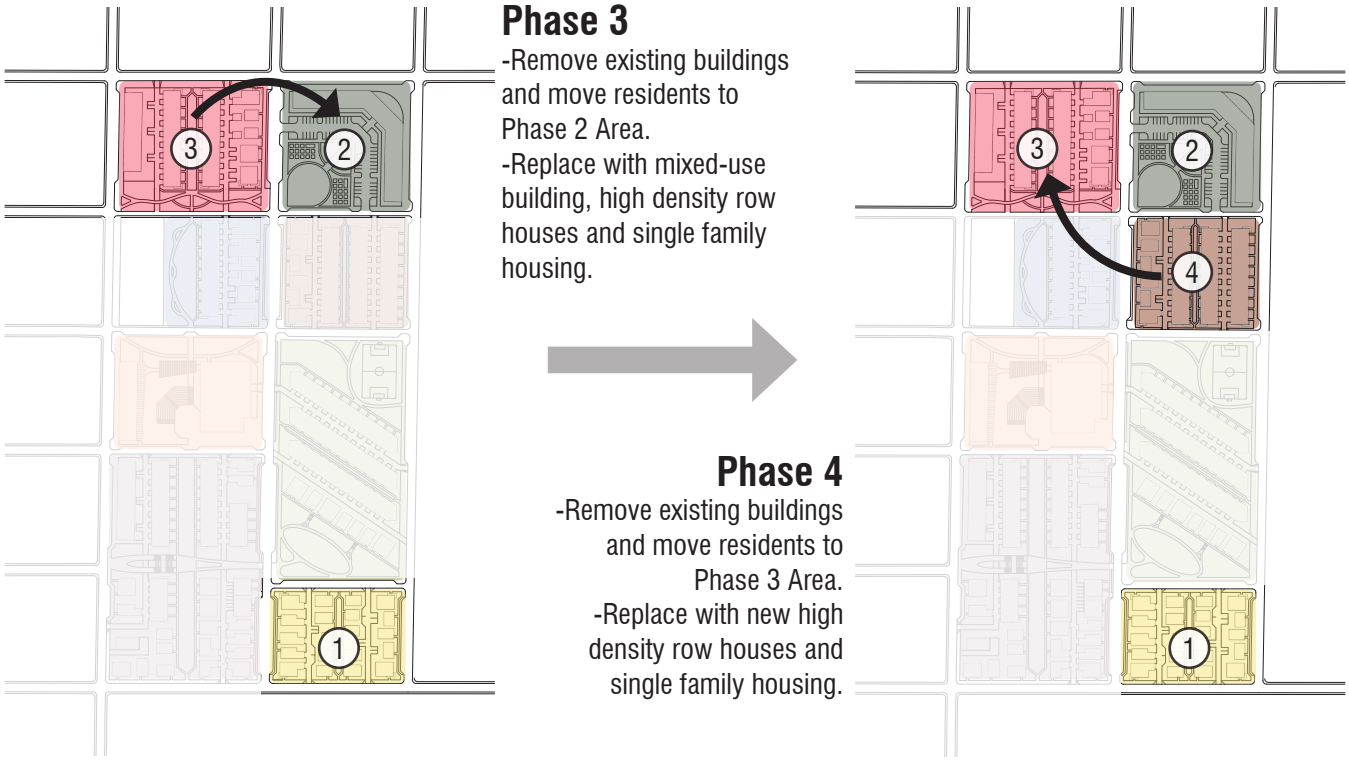


Figure 2.37: On site phasing strategy - aims to retain majority of the residential population on site while construction occurs (Sundine, 2016)



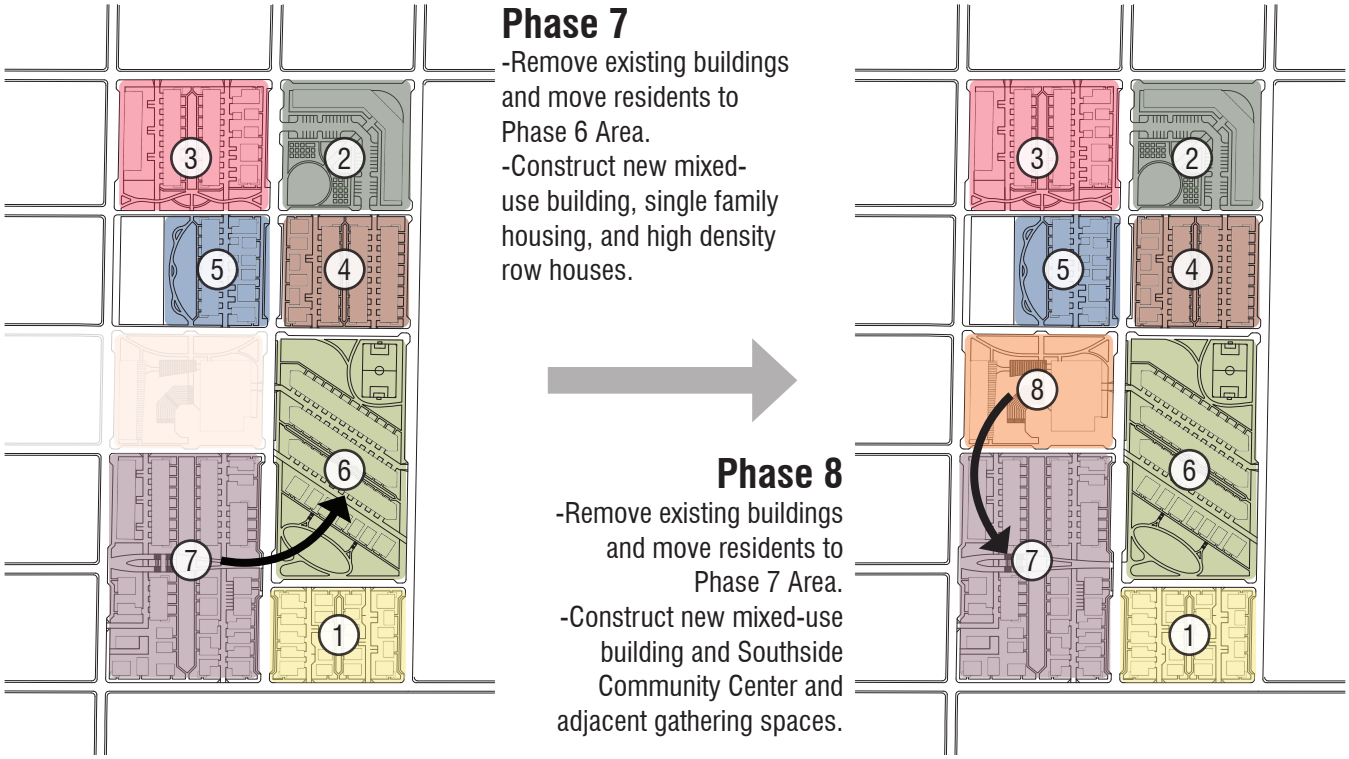
Phase 3

-Remove existing buildings and move residents to Phase 2 Area.
-Replace with mixed-use building, high density row houses and single family housing.

Phase 4

-Remove existing buildings and move residents to Phase 3 Area.
-Replace with new high density row houses and single family housing.

Preserving community support system



Phase 7

-Remove existing buildings and move residents to Phase 6 Area.
-Construct new mixed-use building, single family housing, and high density row houses.

Phase 8

-Remove existing buildings and move residents to Phase 7 Area.
-Construct new mixed-use building and Southside Community Center and adjacent gathering spaces.

Cultivating Community



Conclusion

Southside Terrace's existing strong sense of community acted as inspiration for promoting community engagement within the framework of the proposed public space system. Cultivating Community achieves social interaction with a site design built around public space while also increasing the amount of housing options, providing more site amenities, and promoting a safe environment for all residents within the existing site boundary and topography.

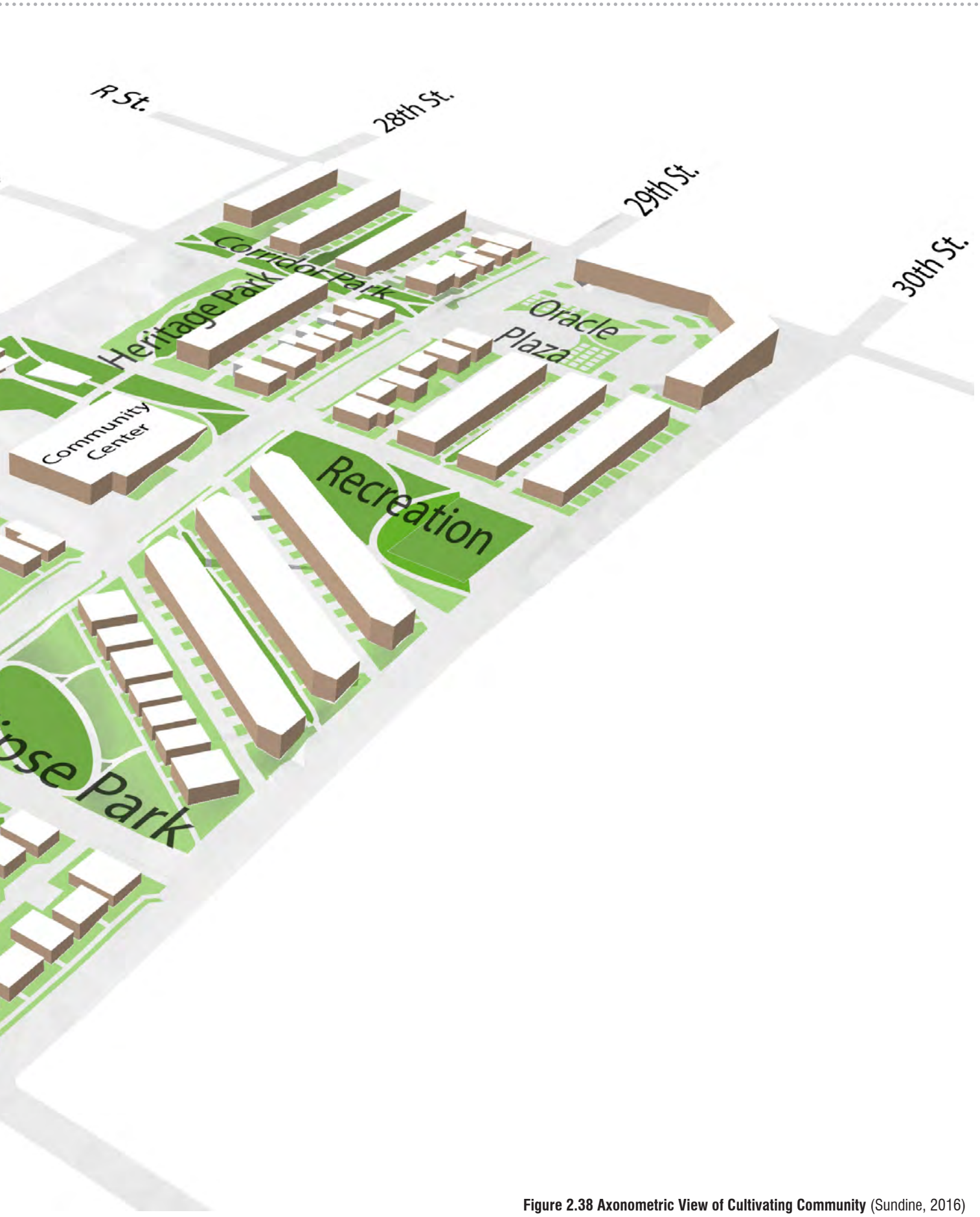


Figure 2.38 Axonometric View of Cultivating Community (Sundine, 2016)

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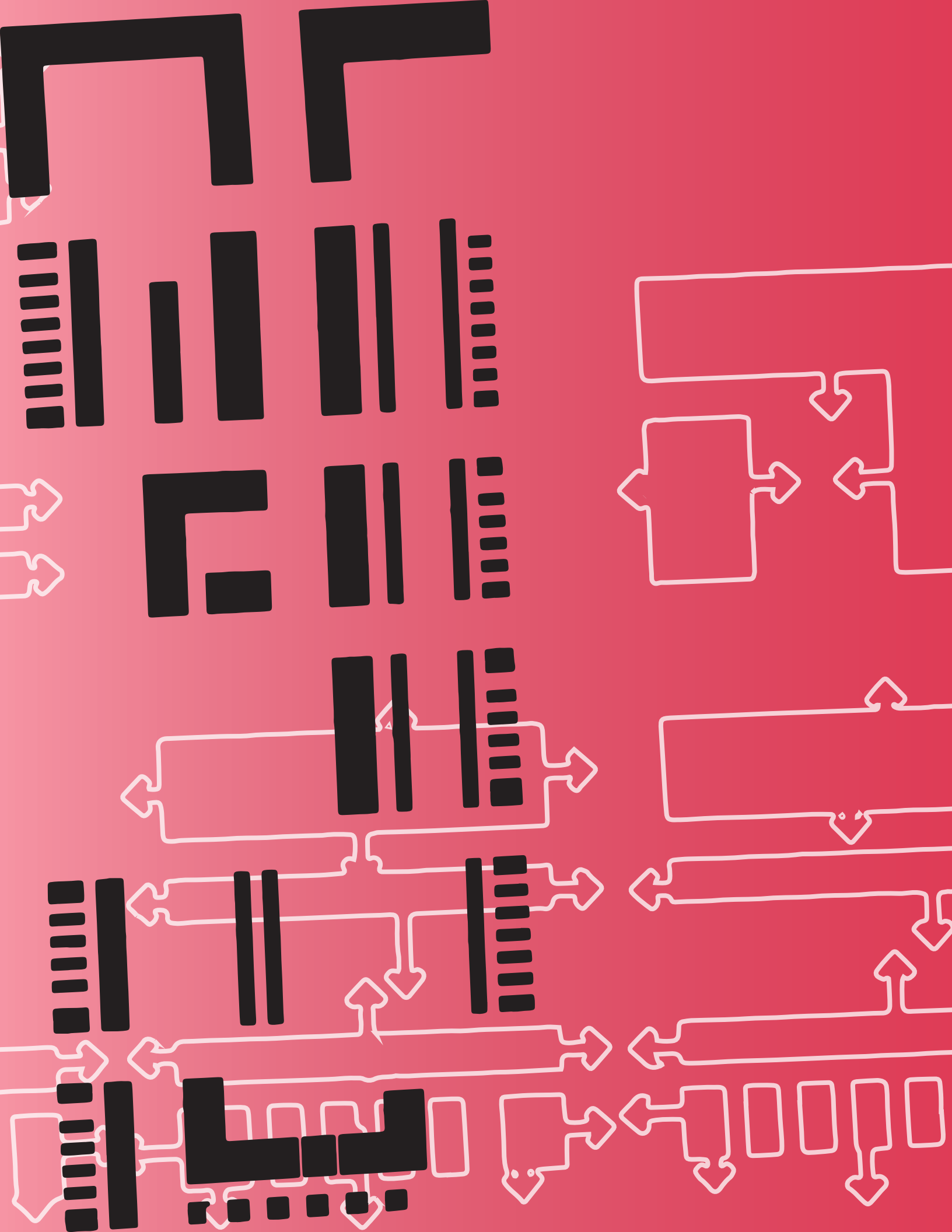
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3
CONVERGENCE



Convergence

Strengthening Connections for Southside Terrace

In order to promote greater social interaction among Southside Terrace residents and the surrounding neighborhood, Convergence uses two major strategies: a mixed-use "Main Street" extending the community to Q Street and a mix of housing types matched to a variety of income levels.

SKYLAR BROWN
ANTHONY DEPRIEST
BRE NELSON



Challenges Ahead

Existing Conditions

Southside Terrace is a site replete with issues involving topographical change, lack of natural surveillance, uninspired housing structures, a lack of on-site social and recreational amenities and a weak connection to Q Street.

Topography Poses Challenges

Southside Terrace currently uses terracing as its primary way of dealing with slopes. When terracing is not being utilized the site has steep slopes that do not meet ADA requirements and are generally unsafe for residents and guests.

Lacking Eyes on the Street

Due to slopes on site, buildings have been oriented to fit the terracing. While this is more cost-effective, it also poses challenges for natural surveillance. The current building orientations are either facing back to back, front to back, or front to front. This decreases the "eyes of the street" of the site and creates more opportunities for criminal behavior to take place. The idea of natural surveillance works as residents monitor their own area and call the police when necessary. Criminals are less likely to participate in an illegal activity when they perceive a risk of being watched. Buildings which do not face the street pose more challenges with sight lines. The site is also lacking necessary lighting along streets and pathways making it easier for criminal activity to take place. Another issue are the gaps between buildings which create opportunities for persons of interest to avoid being seen by police officers and escape on foot.



Figure 3.1 Example of current topography in Southside. (Brown, 2016)

Uninspired Housing Structures

The current facades defining Southside Terrace housing lacks detail and interest. Although considered home, there is little opportunity for residents to enjoy any personal exterior spaces, and extend much care for the unit.

Lacking Social and Recreational Amenities

Southside Terrace has many connections with youth empowerment services, but it lacks services for adults. The site also does not have any common space for residents, and children use any form of green space, no matter how unsuitable, for recreational activities.

Connections With Q Street

Q Street is a major arterial street with approximately 17,000 cars traveling on it per day. This should provide many commercial opportunities, but unfortunately many buildings are vacant or underutilized. The pedestrian zones are unsafe due to obstacles being in the passageways, lack of buffering from traffic, damaged sidewalks, lack of shade, and lack of pedestrian-friendly street lighting.



Figure 3.2 Example of issues with Q Street. (Brown, 2016)



Figure 3.3 Example of the issues with intersections on Q Street. (Brown, 2016)

Scenario 2:

Redevelopment and phasing is largely confined to the existing site and major regrading can take place internally, but proposed grade must meet periphery streets.

Key Points

- Develop a strong identity
- Bring people of different backgrounds together
- Develop a safe environment
- Promote ecological sustainability
- Improve the physical connection between Q Street and Southside Terrace
- Increase safe internal and external access and circulation for pedestrians and vehicles.
- Develop economic stimulus



Figure 3.4 Site Plan Rendering. (Nelson, 2016)

Site Plan Legend

A - Community Center
B - Inspirational Plaza
C - Promenade
D - Slope Park
E - Sculpture Park
F - Recreation Field
G - OHA Office
H - Meadowlark Park

Planning Strategies

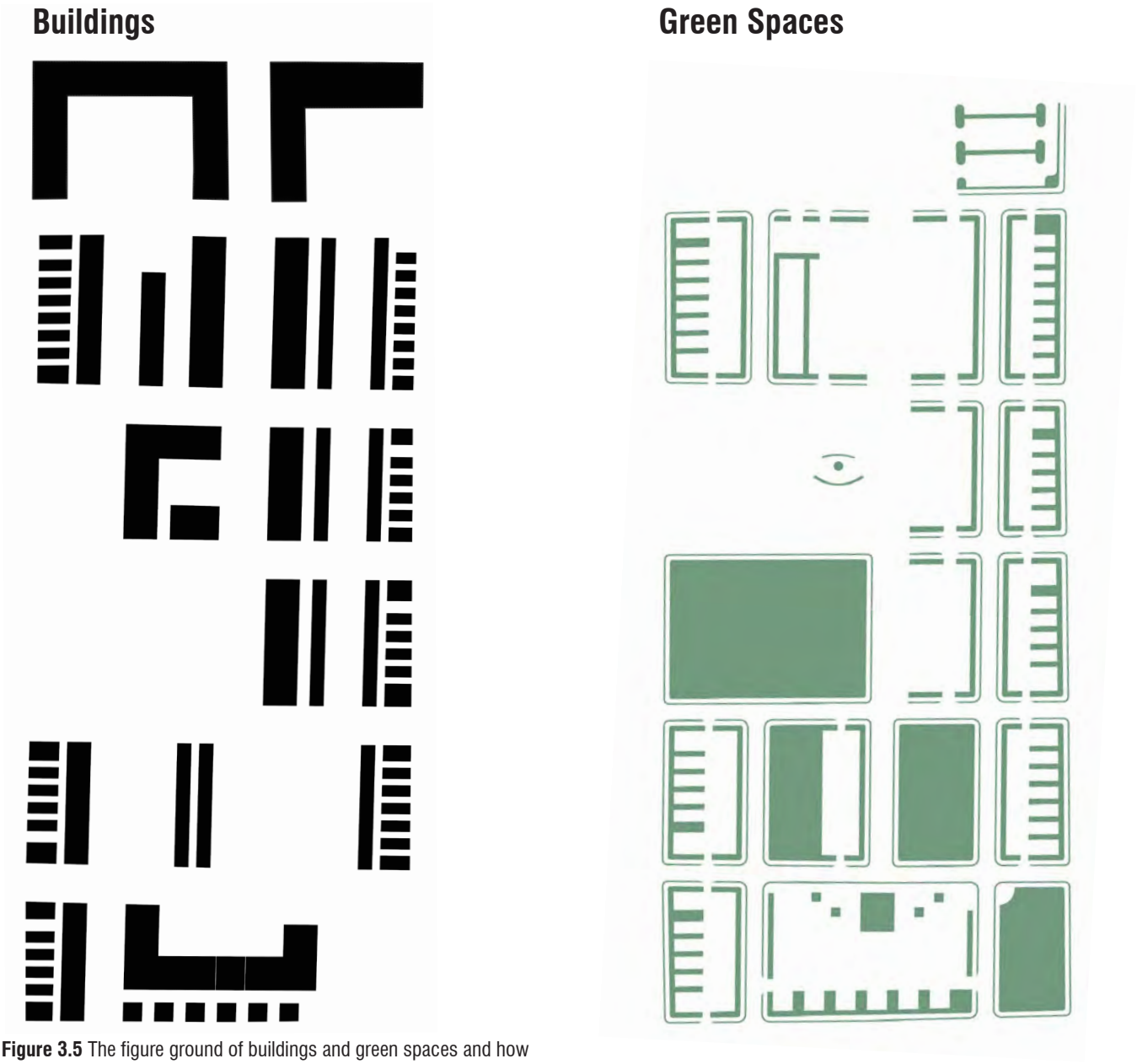


Figure 3.5 The figure ground of buildings and green spaces and how they interact with the site. (Nelson, 2016)

Mixed Use - Commercial

Revitalization of Q Street, located just one block north of Southside Terrace would offer business employment and social opportunities for residents. The ground floor of these mixed-use buildings would contain commercial development, such as banks, restaurants, clothing stores, pharmacies, and business incubators owned by residents of Southside. Above the commercial spaces would be residential apartments. Depending on the building, the number of floors dedicated for residential use would be either 2 to 5, giving the building a total of 3 to 6 floors. Increasing the number of floors increases the density of the site, which allows for the success of the commercial "Main Street" spine development.

Medium Density

Medium density development contains row homes strategically located near greenspace or near the commercial district. Each row home faces out onto the street with an alley for vehicular access.

Low Density

Low density development is achieved by constructing single family detached homes as well as duplexes. These buildings are placed on the outer edges of Southside Terrace to better integrate with the surrounding community.

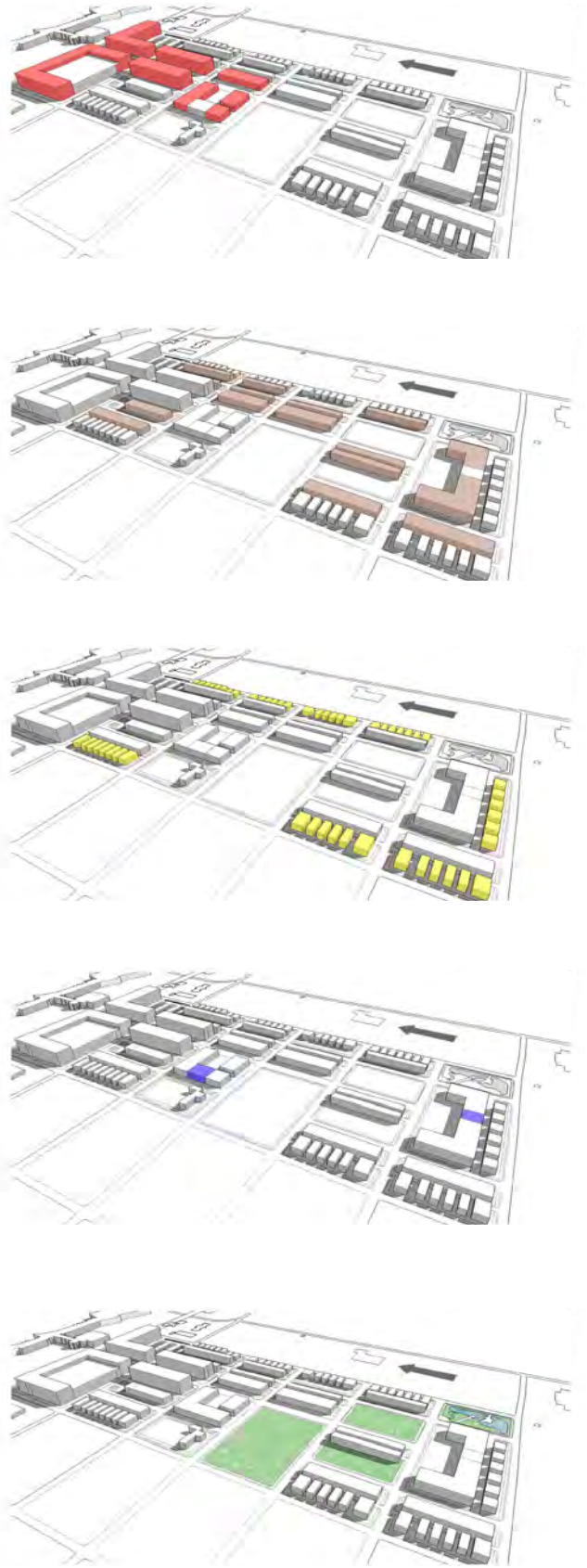
Civic Space

The community center is centrally located to provide similar access conditions for all residents of Southside. The terminating feature of the Main Street would be the new OHA office, which would have a live-in maintenance worker who resides directly above.

Park System

The Parks are located on the southern portion of the site to respond to existing topographical challenges. The parks provide a variety of atmospheres through educational opportunities, ecosystem services, and by encouraging recreational activity.

Figure 3.6 Diagram illustrating the different Land Uses on Site (DePriest, 2016)



Planning Strategies

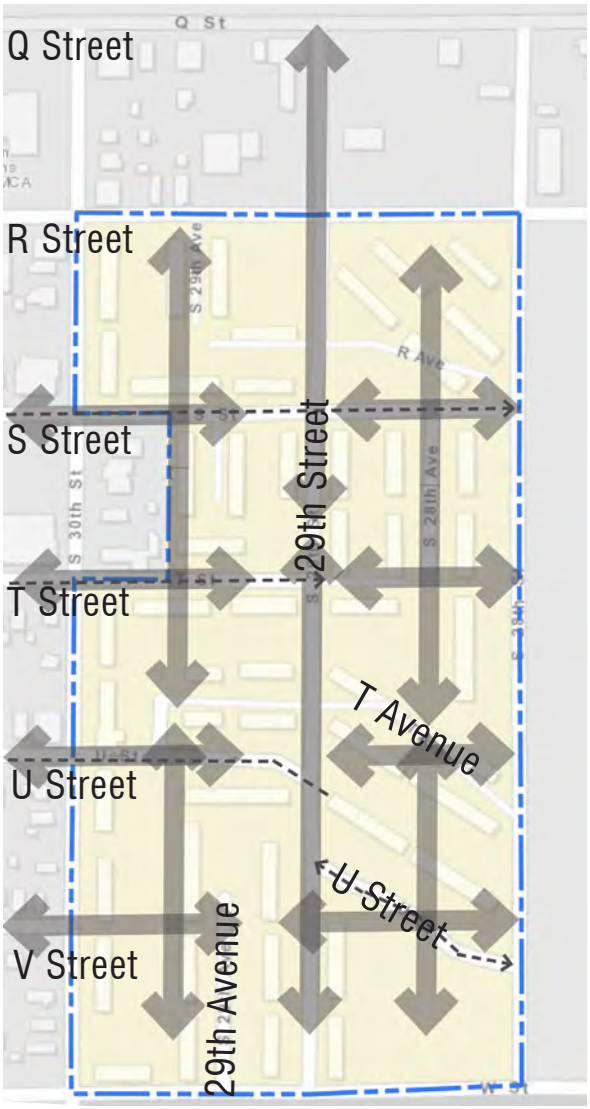


Figure 3.7 Redeveloping the Southside Terrace Street Grid. (Nelson, 2016)

Grid System

When setting up the street grid, it was important to connect to the surrounding context and street layout. The east-west streets through Southside Terrace extend from the adjacent neighborhood to the west. New north-south streets branch off of existing streets. South 29th Street was widened and extended through the site to terminate at the Omaha Housing Authority's office to provide circulation and access in both directions. New Meadowlark Street was based upon the existing South 28th Avenue. The Inspirational Street was created along the boundary of the site between the proposed community center and the existing Girls Inc. All north-south streets are bidirectional and feed all the way through the site.



Figure 3.8 Proposed bus stop locations on 29th street. (Brown, 2016)

Proposed Bus Stop Locations

Currently Southside Terrace has four bus stops located on the western edge of the site. In Convergence, we are proposing to have only three bus stops on site. The first is located at the northern edge of 29th and Q Street for easy access to the commercial area. The second bus stop is located at Slope Park for easy access to the park, community center and commercial area. Finally, the third bus stop terminates at the end of 29th and V Street for easy access to the OHA office and the nearby parks.

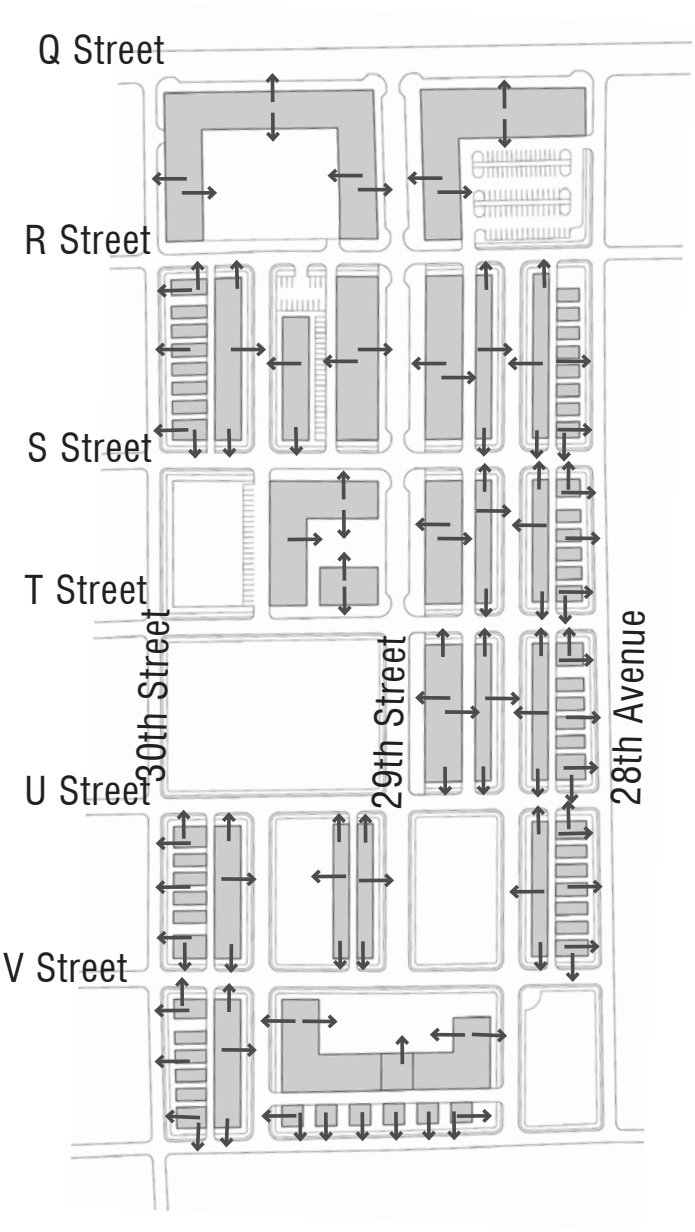


Figure 3.9 Diagram illustrating how natural surveillance is achieved with the proposed design. (Nelson, 2016)

Natural Surveillance

In order to improve safety, it was important to incorporate the idea of "natural surveillance," a term coined by Jane Jacobs who had a noted influence on urban planning. This concept draws on having "eyes on the street" from the front of buildings. This will not only discourage unwanted activity but also will create a sense of safety for residents. The proposed buildings run north-south with the building fronts facing towards the streets. This orientation will require stepping the row units to follow the topographic grade.



Figure 3.10 Public housing example of a multi-family residential unit at Sheppard Square in Louisville, KY. (DePriest, 2016)

Housing Precedents

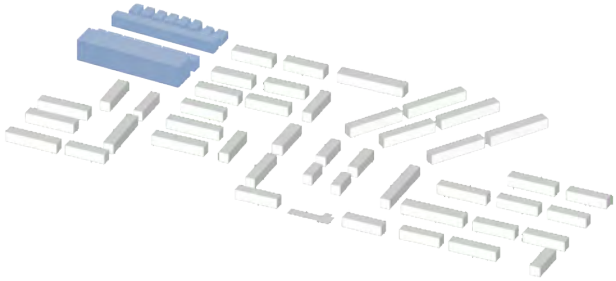
Sheppard Square in Louisville, KY is a public housing development under reconstruction. In order to create greater natural surveillance, the corner duplex unit is rotated. This makes every street have a continuous street wall with constant surveillance. The same effect occurs in the row home housing development, the Enclave at Arundel Preserve Townhomes, located just outside Baltimore.



Figure 3.11 Example of how row housing can be used to absorb slope. The Enclave at Arundel Preserve, Dorsey, MA (DePriest, 2016)

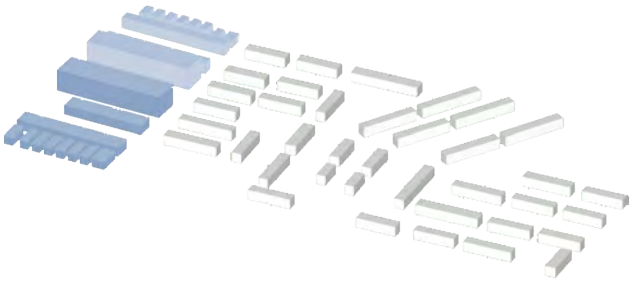
To accommodate natural surveillance on the east-west streets, the ends of the row-homes and duplexes were rotated to face these streets. All of the proposed housing is orientated to not only face the streets, but to also face the green spaces and increase safety in the park system. Lastly, the use of natural surveillance in the alley ways is accompanied by two or three story balconies used by residents.

Phasing Strategies



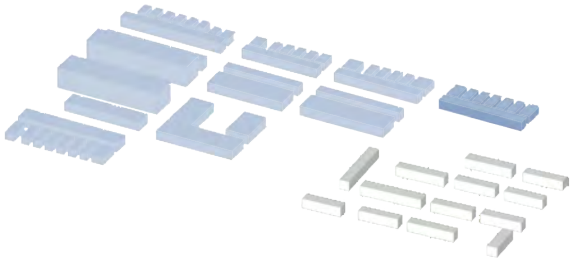
Phase 1

Halt addition of new residents filling monthly vacancies to begin accumulating vacant buildings and flexible rehouse the residents on site. Possible utilization of Section 8 vouchers might accelerate the process. Once the overall resident population has sufficiently decreased, the northeast corner can be demolished and rebuilt.



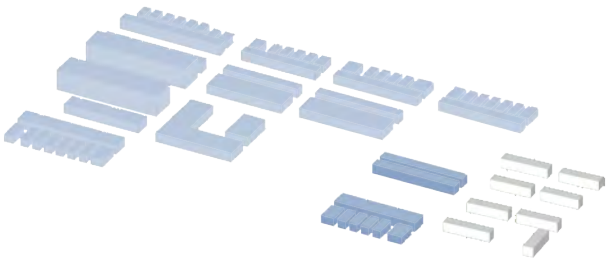
Phase 2

Move residents from the northwest area into the new northeast development. After moving is complete, begin Phase 2 construction.



Phase 5

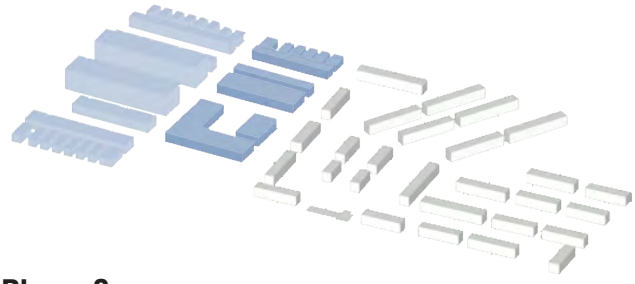
Move residents into newly developed areas, and begin Phase 5 construction.



Phase 6

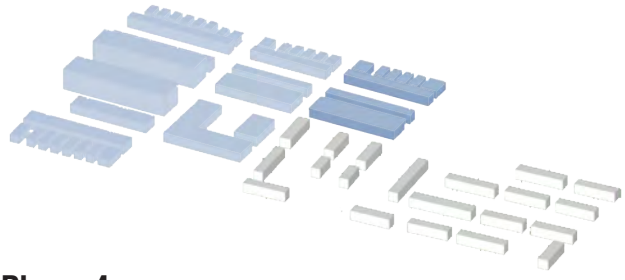
Move residents to newly developed areas, and begin Phase 6 construction.

Figure 3.12 Proposed phasing strategies to be implemented for the Southside Terrace that retain residents during redevelopment. (Nelson, 2016)



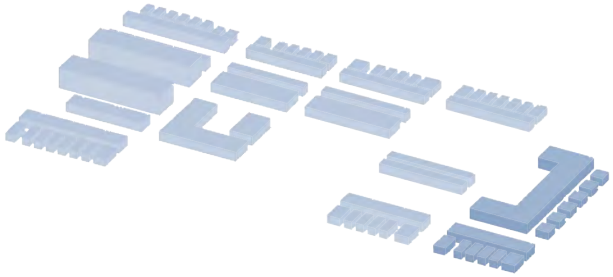
Phase 3

Move residents into newly developed area. Once the moving process is complete, begin Phase 3 construction.



Phase 4

Move residents into newly developed areas, and begin Phase 4 construction.



Phase 7

Move final residents into newly developed areas, and begin the final stage of the construction process.

Re-envisioning Access



Figure 3.13 A walk through the promenade on 29th Street. (DePriest, 2016)

A New Main Street Promenade

29th street is the most active street because of its central axis location, as a “Main Street” with commercial development towards the north and residential towards the center and south. The installment of a promenade along the “Main Street” is designed to create opportunities for shoppers to relax, gather, eat, and progress safely through the area. This promenade or “Green Spine” acts as a way to navigate the commercial area as well as connect with the other parks on site.

Re-envisioned Community Streets

Re-envisioning the roadways of Southside Terrace was necessary to create a cohesive design that functions more efficiently. When redesigning the network of vehicular and pedestrian access along the secondary and tertiary streets it was important to widen for two-way traffic and allow at least side street parking on one side of the street. The pedestrian network was also redeveloped with shade trees, lighting, and a buffer from vehicular traffic. Alley ways have also been implemented for trash services, and garage access for vehicles.



Figure 3.14 Locations of Section Cut lines across roadways (Brown, 2016).



Figure 3.15 Example of how alley ways can be more inviting and not carry the stigma of being unappealing. Stapleton, CO (DePriest, 2016)

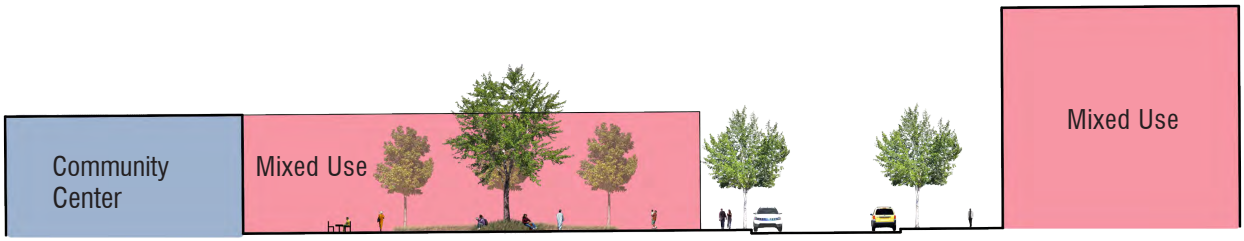


Figure 3.16 Section Cut AA demonstrates how the "Main Street" works with the different developments along its axis. (Nelson, 2016)

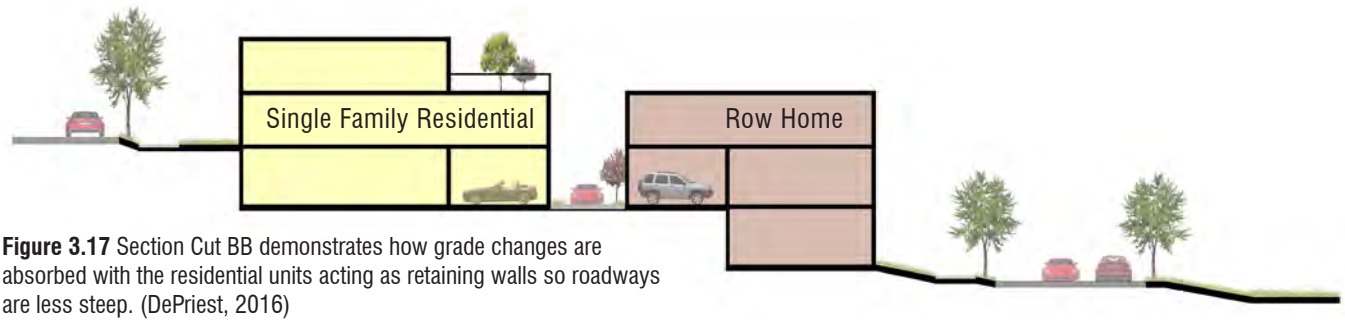


Figure 3.17 Section Cut BB demonstrates how grade changes are absorbed with the residential units acting as retaining walls so roadways are less steep. (DePriest, 2016)

Inspirational Momentum

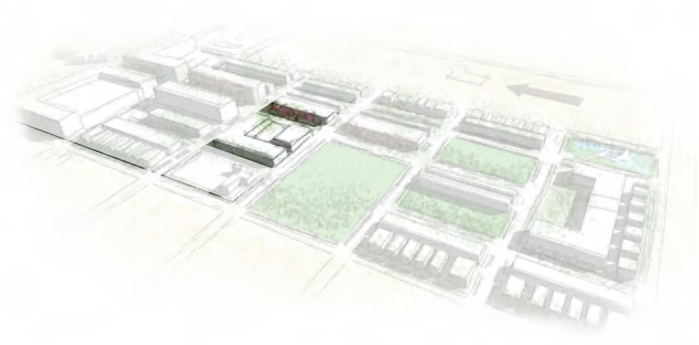


Figure 3.18 Location of Inspirational Plaza and Promenade. (Brown, 2016)

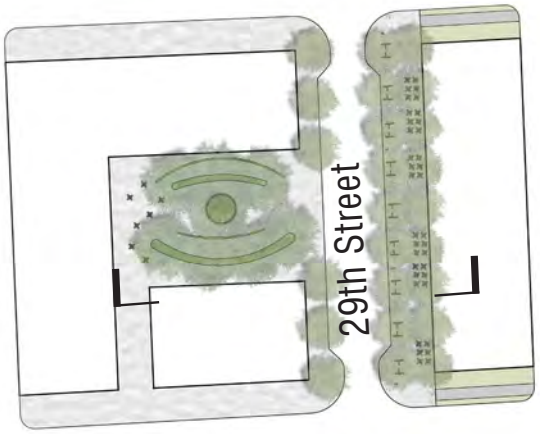


Figure 3.19 Enlarged Plan of Inspirational Plaza and section of Promenade (Brown and Nelson, 2016)

Inspirational Plaza

The goal of the plaza space is to promote social integration and inspiration. Through research in LAR 650, Bre Nelson put together a framework plan on how to achieve these goals. This can be done in multiple ways such as: storytelling, designing with time, emotional design, "connectedness", sense of belonging and involving the residents in the design process. This will allow residents and visitors to experience a sense of place and increase overall engagement. Due to desire to maintain a cultural connection among a large number of Somalian refugees currently located at Southside Terrace, the plaza design was based upon a Somalian proverb, “Either be a mountain, or lean on one.” This proverb is fitting due to its encouraging nature of growth and strength. The center of the plaza contains a grass mound with a single tree in order to signify “being a mountain.” Surrounding the large mound are two smaller, U-shaped mounds with smaller trees. These are used to represent the idea of both leaning on the mountain, as they wrap around the central mound, but also represent growing into the mountain as well. These mounds can be used as seating, as well as shade, and provide a moment of time for users to reflect. To ensure the plaza space is not exclusive to the Somalian population, a single band in the pavement will wrap around the central mound. This band will have the proverb written in different languages that make up the site to allow each resident to engage in the overall meaning.

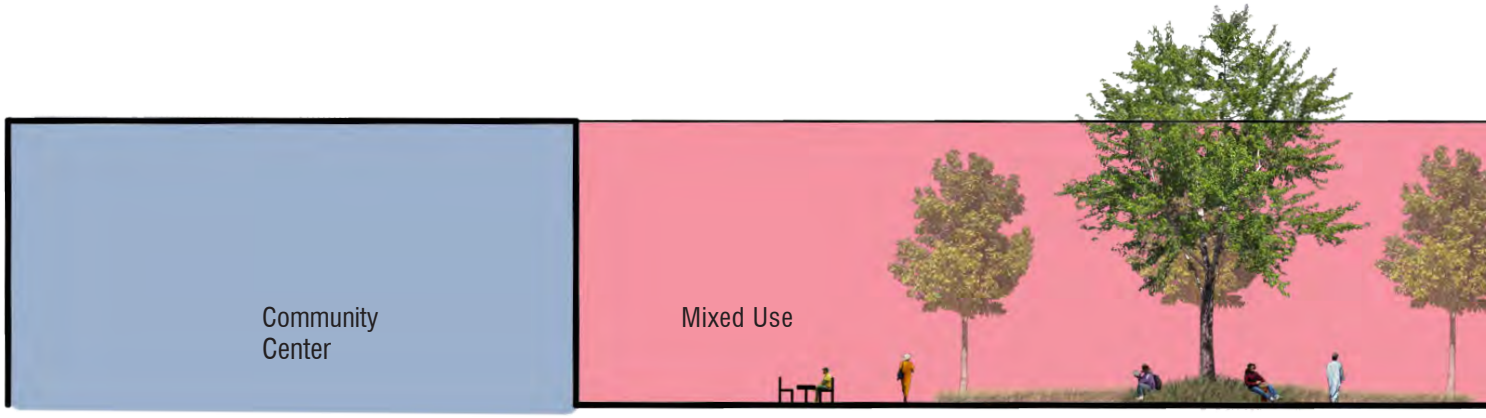
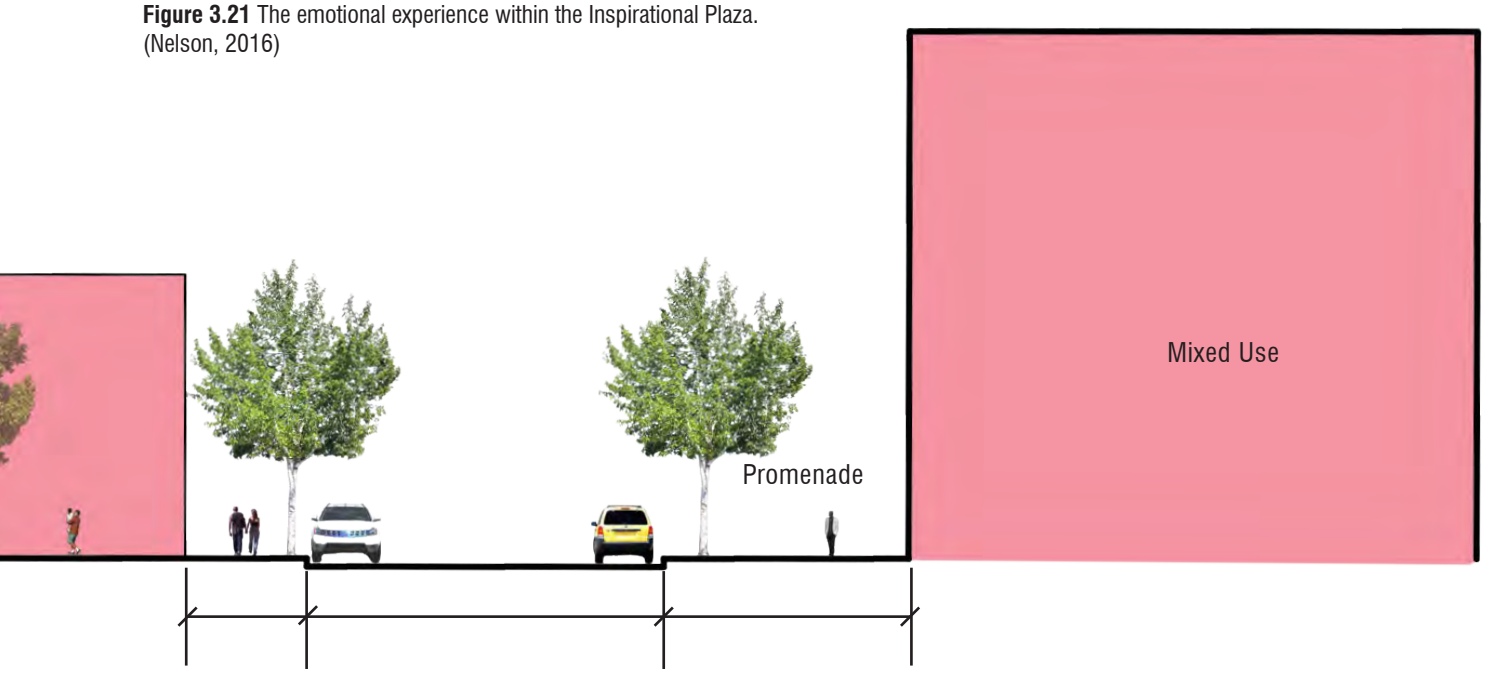


Figure 3.20 Section Cut illustrating how the Inspirational Plaza works with the Community Center and the “Main Street”. (Nelson, 2016)



Figure 3.21 The emotional experience within the Inspirational Plaza. (Nelson, 2016)



Slope Park



Figure 3.22 Location of Slope Park within Southside Terrace. (Brown, 2016)



Figure 3.23 Enlargement of Southside Terrace. (DePriest, 2016)

Slope Park

At just over two and a half acres, Slope Park is the largest of the four parks located on site. The northeast corner contains a number of community garden plots dedicated to the residents of Southside. This would allow them to grow and maintain their own food, as well as gain agricultural education and responsibility through gardening. Equipment such as wheelbarrows, rakes, shovels, along with other equipment could be rented or borrowed from the community center located just to the north. The highest tier of the terrace gardens would be universality accessible with raised planters to allow everyone the opportunity to experience gardening. An amphitheater is located in the northwest corner of the site. This amphitheater could hold cultural ceremonies and celebrations, community meetings, as well as leisure activity. Community events that would occur here include theater in the park, live music, and movie in the parks. A hillside playground entertains children while also accommodating the ever-present issue of topography. Climbing walls and slides would be built directly into the slope. Where the slope becomes level, a traditional playground is added. Picnic tables are placed in and around the trees to provide a shaded outdoor environment where families are able to share a meal.



Figure 3.24 Section Cut of the Community Gardens. (DePriest, 2016)



Figure 3.25 Precedent of parks built for sloping hills and how it can be implemented into Southside Terrace.
Queenston Park, Coquitlam, British Columbia (DePriest, 2016)



Meadowlark Park

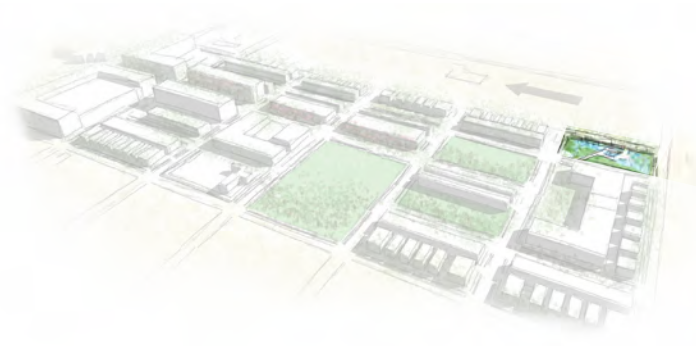


Figure 3.26 Location of Meadowlark Park. (Brown, 2016)

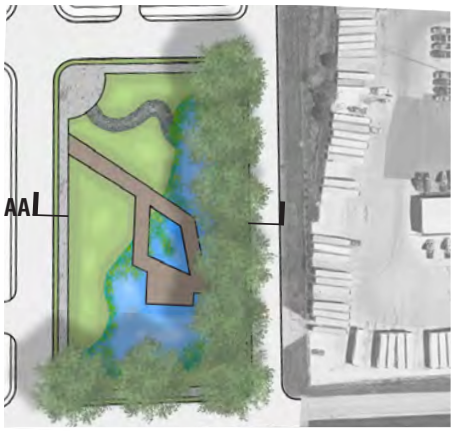


Figure 3.27 Enlarged plan of Meadowlark Park. (Brown, 2016)

Meadowlark Park

Meadowlark Park is located in the southeast portion of Southside and will retain stormwater and support native vegetation and wildlife. Meadowlark Park is not only a nature preserve but also offers opportunities for observation and education.

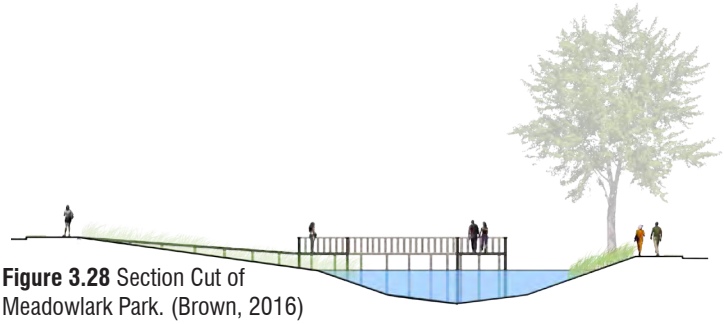


Figure 3.28 Section Cut of Meadowlark Park. (Brown, 2016)



Figure 3.29 An emotive response to how Meadowlark Park can provide educational experiences as well as being utilized for sustainability. (Brown, 2016)

Inspiring Futures

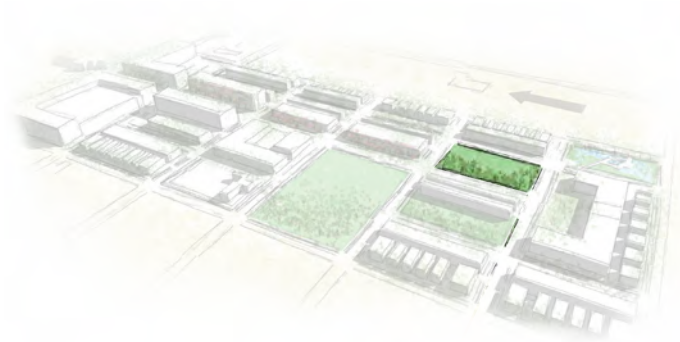


Figure 3.30 Location of the Recreational Field. (Brown, 2016)



Figure 3.31 The emotive experience of how the recreational field can lead to a future in athletics and education. (DePriest, 2016)

Recreation Park

One block will be dedicated to an official soccer field. Behind the northern goal, a large hill was provides parents a place to sit and watch their kids. This hill gives the young athletes the feeling of playing professionally by having "fans in the stands", and to inspire them to dream big.



Figure 3.32 Location of the Sculpture Park. (Brown, 2016)



Figure 3.33 The emotive response to how playing in the sculpture park can a new outlook on art and inspire artist to achieve. (DePriest, 2016)

Sculpture park

The popularity of public sculptures in Omaha has been growing in popularity in recent years. To match this trend, sculptures have been implemented into the design. These sculptures would double as play equipment for children. By having interactive sculptures, the goal is to have the kids see a new side of art while inspiring them to create their own.

Resolving Key Points

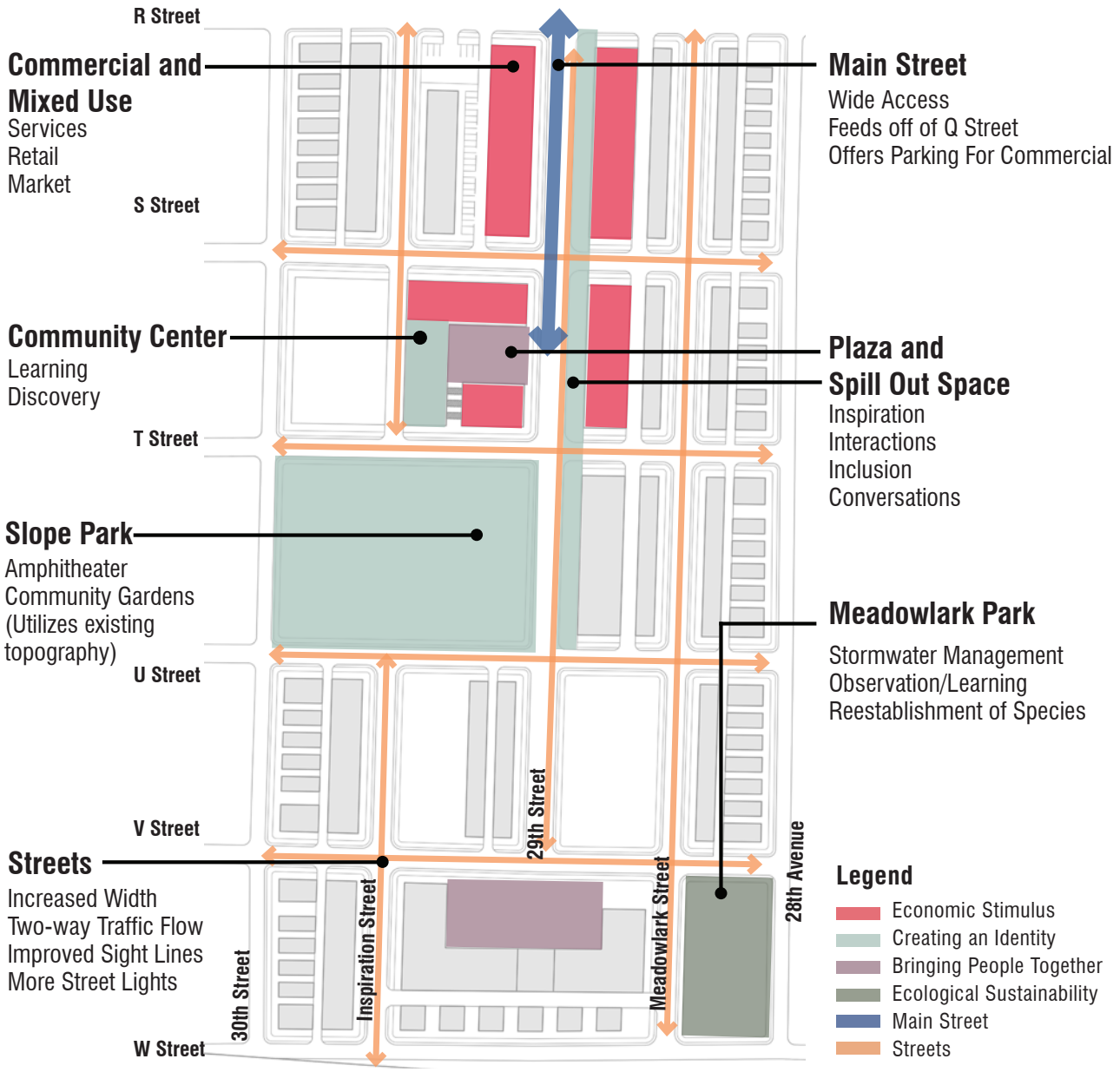


Figure 3.34 Analysis of Key Points and how they relate back the design. (Nelson, 2016)

Conclusion

Southside Terrace is a strong community that has excellent services nearby. By retaining current residents, introducing new people, strenghtening current connections to services and building new ones Southside Terrace can become a strong example for public housing. Within this proposal for Southside Terrace it was important to provide economic stimulus with new job opportunities as well as new locations to purchase goods and services. Creating an identity for Southside is important to instill the sense of place and develop a destination. Bringing people together to strenghten bonds and build a community. make the sustainability of the site and provide new experience with it. Reinvisioning the circulatory systems and making them more efficient as well as making the area a safer community for residents and visitors.

Metrics

Number of Units



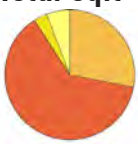
Legend

- Apartments - 368
- Rowhomes - 164
- Single Family Homes - 34
- Duplexs - 18

Total Units - 584

Existing Units - 362
Additional Units - 222

Total sqft



Legend

- Apartments - 361,580
- Row homes - 140,900
- Single Family Homes - 87,820
- Duplex - 74,190

Total - 664,490

Parking



Legend

- Garages/Carports - 52
- On Street - 317
- Parking Lots - 378

Total Proposed Spots - 747

Total Existing Spots - 375
Additional Spots - 372

Land Use (Acres)



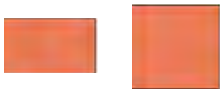
Legend

- Residential - 14 Acres
- Civic - 7 Acres
- Mixed Use - 6 Acres
- Streets - 4 Acres

Total - 30 Acres

Building Footprints

Apartments
1 Bedroom - 700 sqft
2-4 Bedroom - 1,000 sqft



Rowhomes
1,200sqft - 1,800 sqft



Duplex
1,000 sqft - 1,500 sqft
per floor



Single Family
1,100 sqft -1800 sqft
per floor

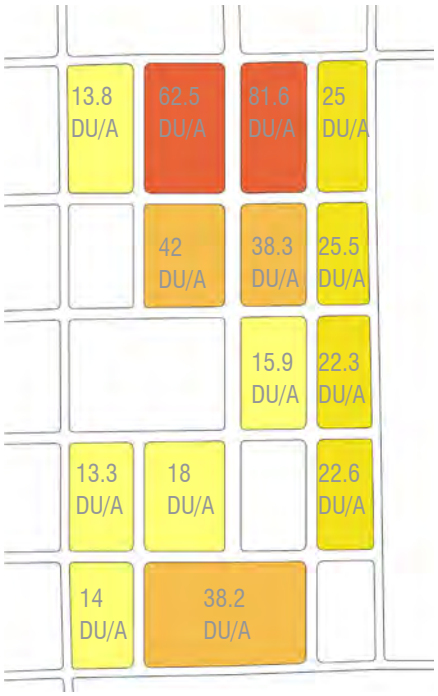


Figure 3.35 Illustrations of the metrics for the proposal of Southside Terrace. (DePriest, 2016)

Block Density (Units per Acre)

- High Density
- Mid - High Density
- Low - Mid Density
- Low Density

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Figure 3.35

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4

SUSTAINING SOUTHSIDE



Sustaining Southside

An Ecological Approach to Expanding and Preserving the Southside Community

The third proposal recommends that Southside Terrace expands to adjacent properties that are currently under-utilized and have potential to strengthen the community. A constructed wetland ecosystem would serve as a sustainable, social, educational, and aesthetic addition to the community.

CHANDLER NYP
ANDREA LEMKEN
RACHEL RANKIN



Figure 4.01. The Overlook (Nyp & Rankin, 2016)

Project Expansion Through Partnerships

Integration Into the Neighborhood

Southside Terrace Neighborhood

Southside Terrace currently feels isolated among residential, commercial, and industrial properties. However, non-government organizations are located within 1-2 blocks and provide social support services that are an asset to the community and Southside Terrace.

Current Southside Terrace Boundary

The building type, architectural style, orientation, and street layout are inconsistent within the neighborhood. If current residents remain on-site during redevelopment and grading is limited, phases of construction would be more challenging within the current site boundary.



Figure 4.02. Southside Terrace (Rankin, 2016)

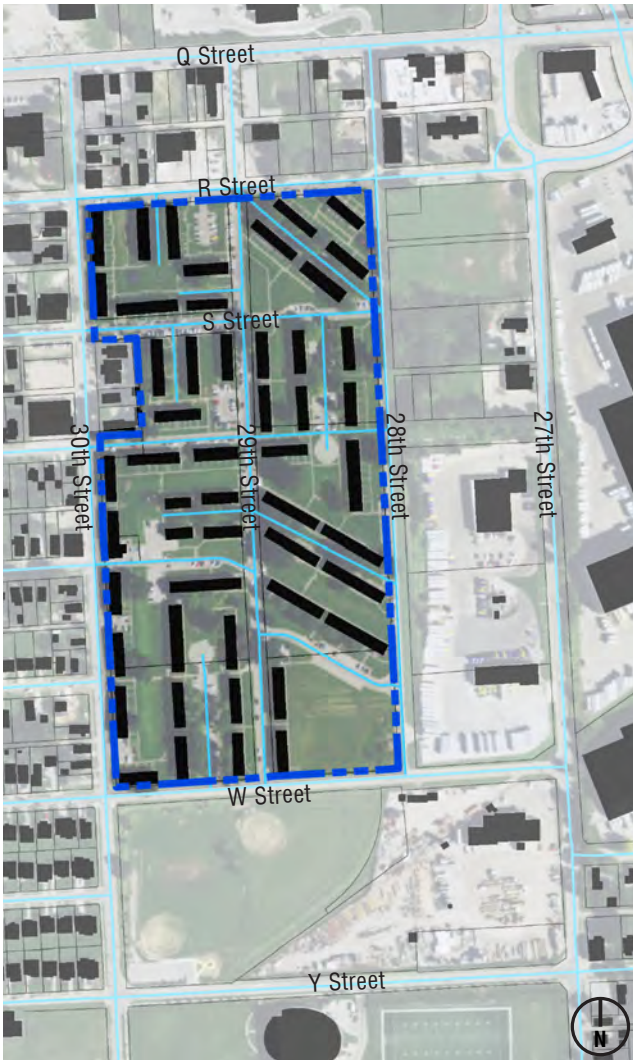


Figure 4.03. Current Southside Terrace boundary (Rankin, 2016)

Proposed Expanded Project Boundary

Southside Terrace is surrounded by underutilized, generally large parcels to the north, east, and south sides. Busy Q Street is one block to the north. This expansion fulfills the needs of the redevelopment and takes advantage of the underutilized potential of surrounding parcels.

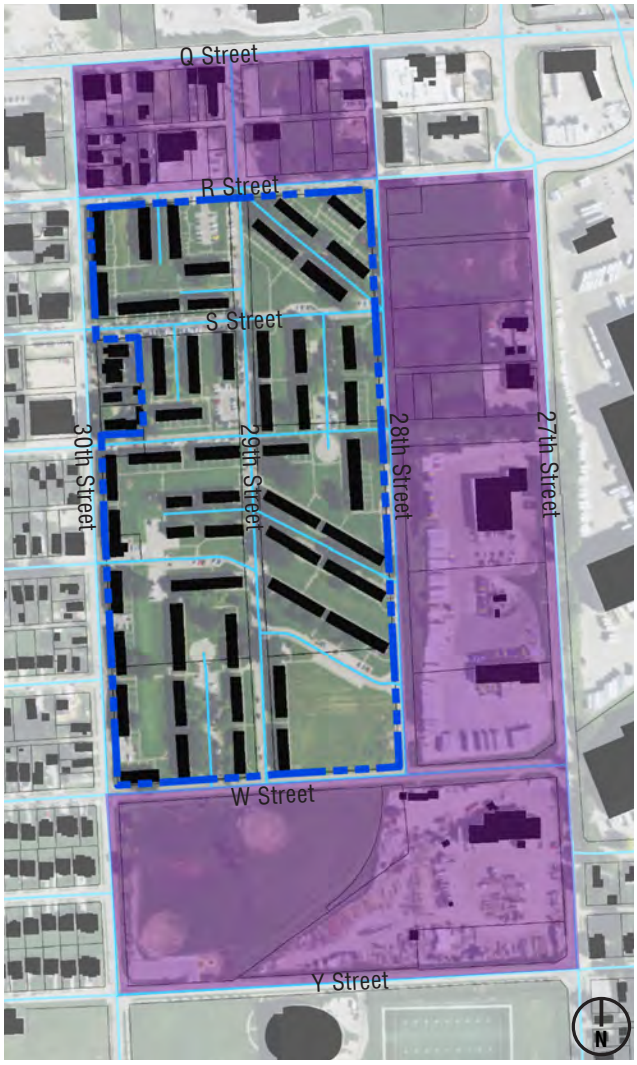


Figure 4.04. Proposed expanded project boundary (Rankin, 2016)

Design Proposal

Q Street and the parcels surrounding Southside Terrace have good redevelopment potential under the right conditions. Coordinating redevelopment with adjacent parcels through private-public partnerships would mutually benefit all parties.

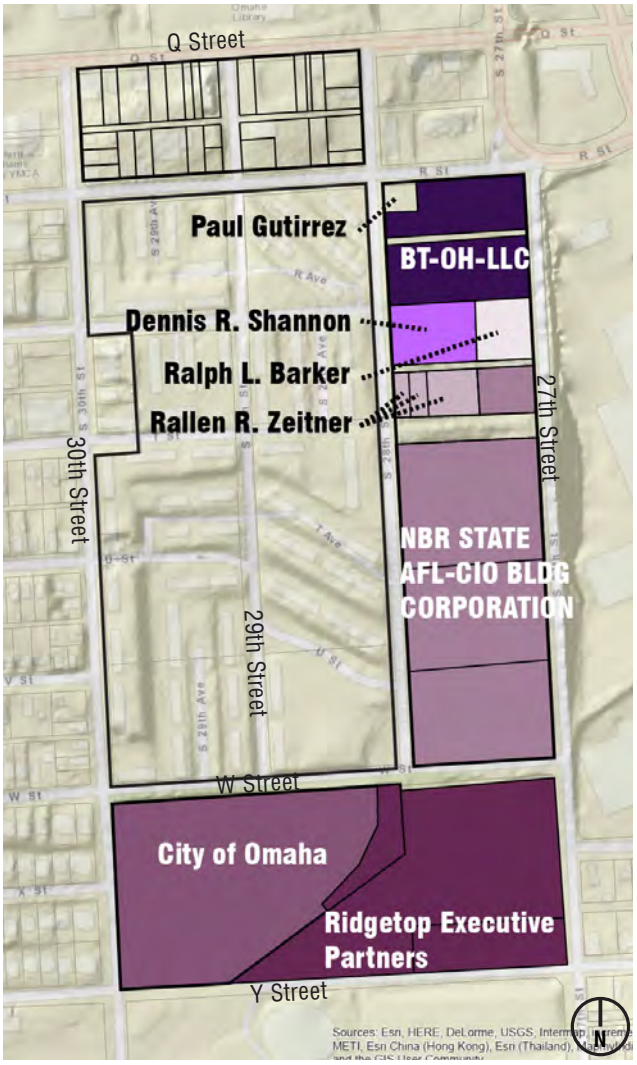


Figure 4.05. Adjacent parcel ownership (Lemken, 2016)

Adjacent Opportunities

North - Q Street Opportunities Corridor

These two mixed-use blocks along Q Street are underutilized and have great potential for directly connecting Southside Terrace to revitalized Q Street activity and services.



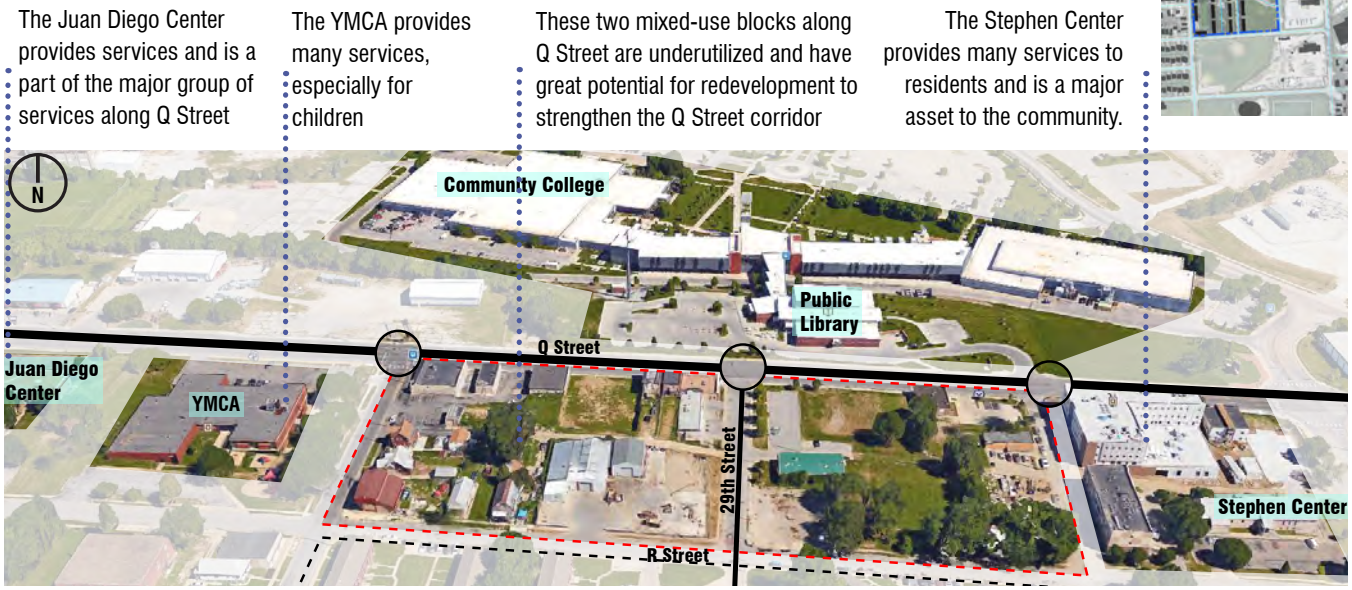


Figure 4.06. North - Q Street opportunities corridor (Lemken, 2016)

Northeast - Underperforming Parcels

This undeveloped parcel has underutilized potential to connect existing Southside Terrace to Q Street and Southern Omaha. Due to major topography changes along 27th Street, this parcel overlooks Southwestern Omaha and provides Southside Terrace with views of the surrounding city. Close proximity to the Stephen Center is also a major asset to developing at this location.





Figure 4.07. Northeast - underperforming parcels (Lemken, 2016)

South - Large Open Parcels

The industrial lot has potential to connect Southside Terrace with services provided by the Kroc Center and to the residential neighborhood to the south. The use of the baseball fields led to the proposal of providing recreational fields at the center of Southside Terrace so that they are more accessible to Southside residents.



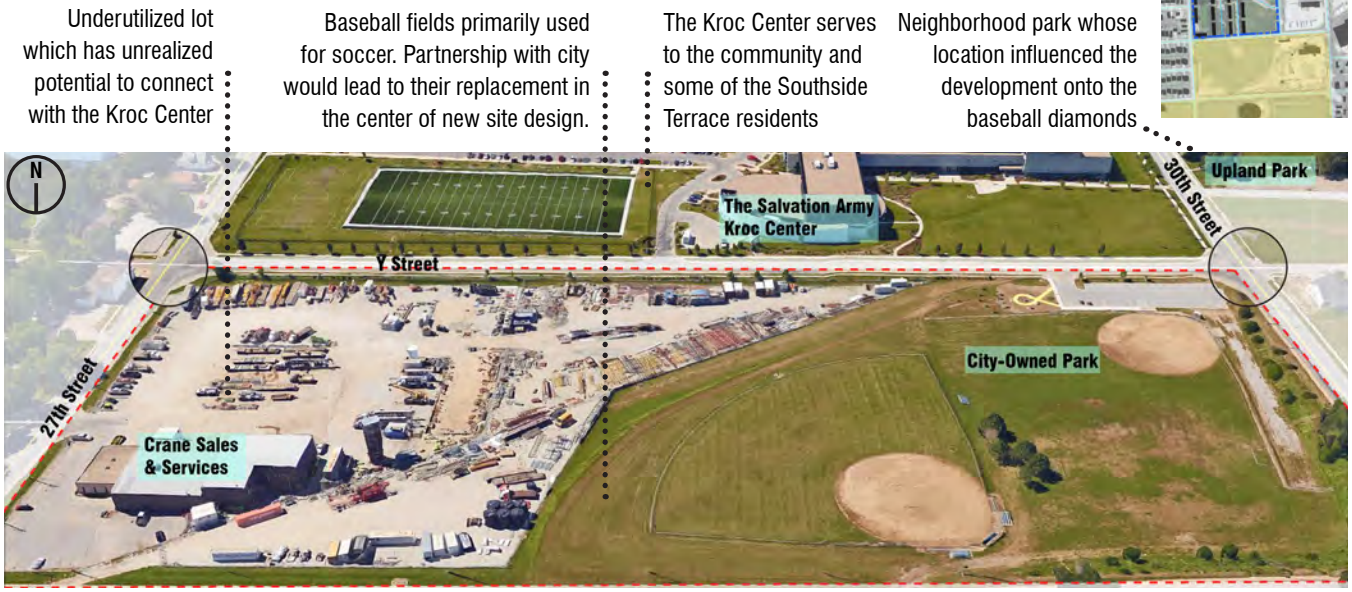


Figure 4.08. South - large open parcels (Lemken, 2016)

Southeast - Underperforming Parcels

This underperforming parcel has potential to connect existing Southside Terrace to Q Street and Southern Omaha. Developing on this parcel would eliminate the industrial band of parcels and help to create a more cohesive residential neighborhood. The buffer of trees and vegetation along 27th Street screens views of industrial lots to the east of Southside Terrace.





Figure 4.09. Southeast - underperforming parcels (Lemken, 2016)

Site Analysis and Suitability

Topography

The image on the right illustrates how the buildings on the terraced portions of the site have steep slopes dictating the open space. These steep slopes pose problems of accessibility and drainage, which were identified as two major challenges for redeveloping Southside Terrace.



Figure 4.10. Excessive terracing (Sundine, 2016)

Terraced Slopes

The terracing system has clearly created a lot of areas that are in need of regrading to accommodate new layout patterns due to steep current slope.

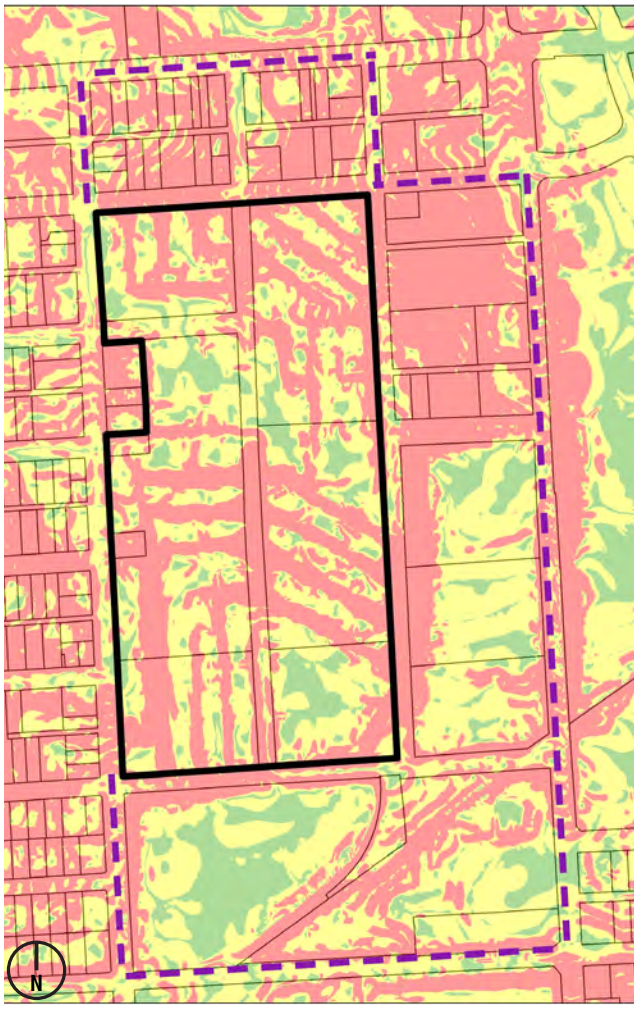


Figure 4.11. Terraced slopes (Nyp, 2016)

Ridgeline

A major feature of the site is a ridgeline that runs northwest to southeast and divides drainage north and south, as illustrated by the elevation map.

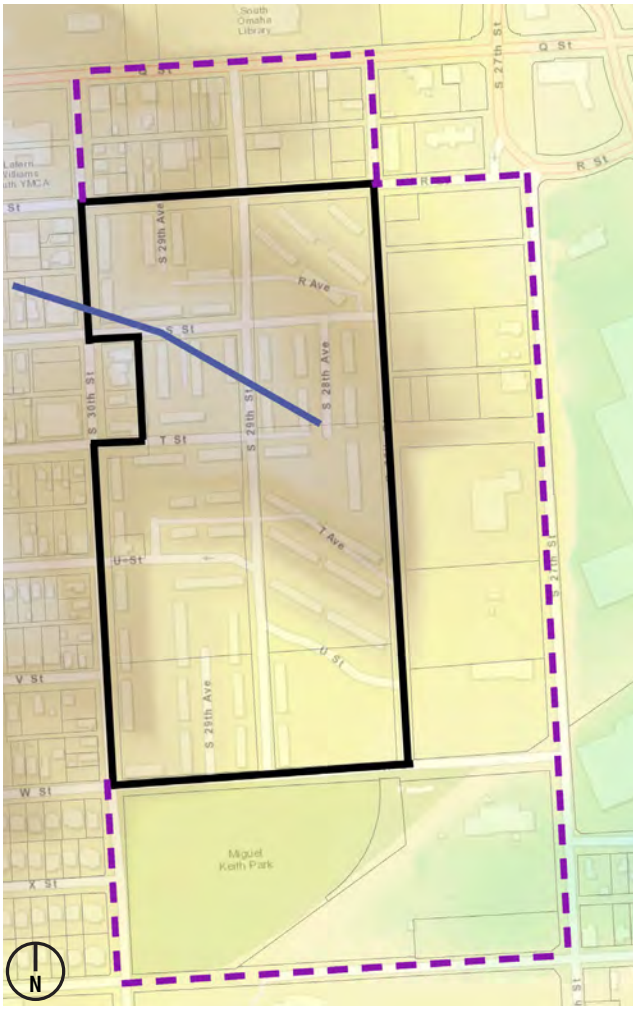


Figure 4.12. Ridgeline divides drainage (Nyp, 2016)

Analysis

In the analysis phase, all of the information in the previous diagrams was absorbed and some ideas were identified to address those issues. The idea of expanding beyond the current site boundaries would provide more space to reshape terraces during sequential phasing for residents to remain on-site.

Drainage

This 3D view clearly shows the existing terraces and drainage patterns of the site. A wetland serving as drainage retention is proposed for the southeast corner of the site.

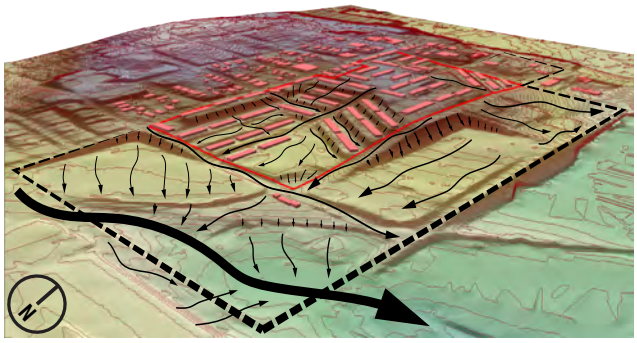


Figure 4.13. Drainage (Nyp, 2016)

Terraces

The areas most affected by the terraced of topography are highlighted. These are the areas in greatest need of regrading and connect the existing site to the expanded areas. These are the steepest slopes on the site.

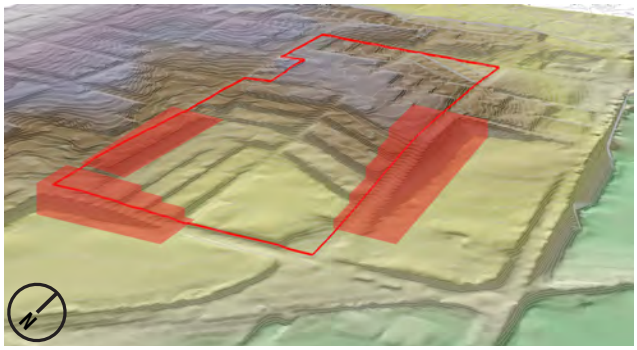


Figure 4.14. Terraces (Lemken, 2016)

Site Suitability

Levels of suitability were assigned to areas of the site based on topography. Challenges and opportunities were outlined to guide design progression.

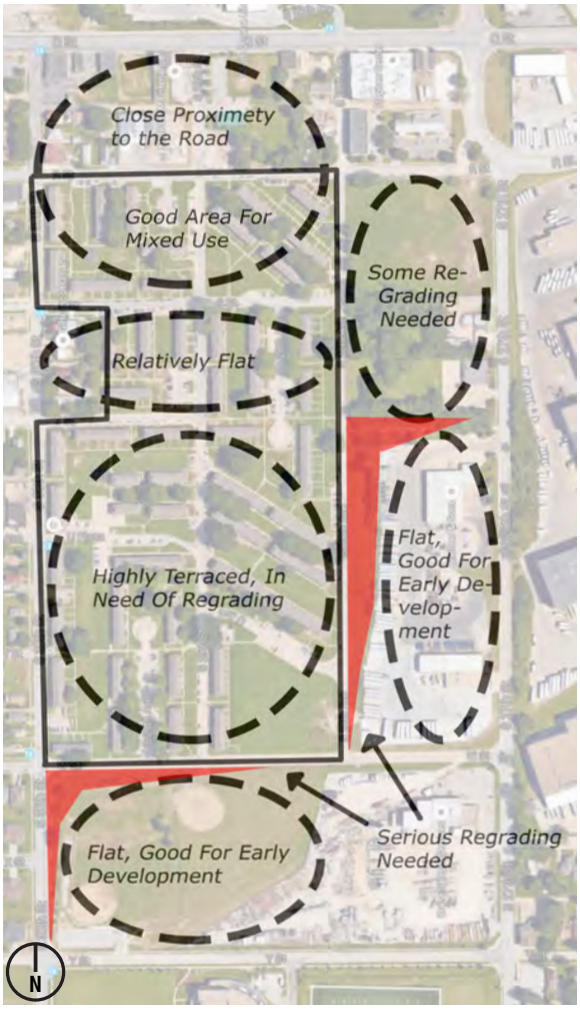


Figure 4.15. Site suitability (Nyp, 2016)

Design Proposal



Figure 4.16. Proposed site plan (Lemken, Nyp, & Rankin, 2016)



Figure 4.17. Sustaining Southside: A neighborhood view (Lemken, 2016)

Sustaining Southside

Sustainable Initiatives

Designing a constructed ecosystem to capture and filter stormwater runoff is the sustainable move for the redevelopment of Southside Terrace. There are many more smaller moves toward sustainability including: solar panels on top of the community center, wide sidewalks and comfortable streets for better walkability, and green infrastructure.

Usable Outdoor Space

Southside Terrace currently has greenspace, but it has limited activity because of the steep slopes, occupied terraces, and building orientations. Centralized open space that is safe, easily accessible, and multi-purpose will fulfill the need for usable outdoor space and create site identity. Additionally, "pocket" areas with playgrounds and pavilions provide the residents with multiple options for playing and socializing. The site currently has multiple playgrounds throughout the site, all of which were heavily used, so this would maintain consistency.

Community Space

Besides the Omaha Housing Authority offices located on the western border, there is currently no centralized building or space for community services and activities. The adjacent organizations and businesses serve the residents, but needs easily surpass their capacities. There is a need for controlled environments available to schoolchildren, as the current site has converted a housing unit into an afterschool area offering some computers and snacks. The proposed community center could meet many unfulfilled needs.

Variety of Housing Types

The residential units range from one bedroom apartments to eight-bedroom single family homes. Different unit sizes are dispersed throughout the site for deconcentration of population densities.

Community Amenities

Activity Spaces

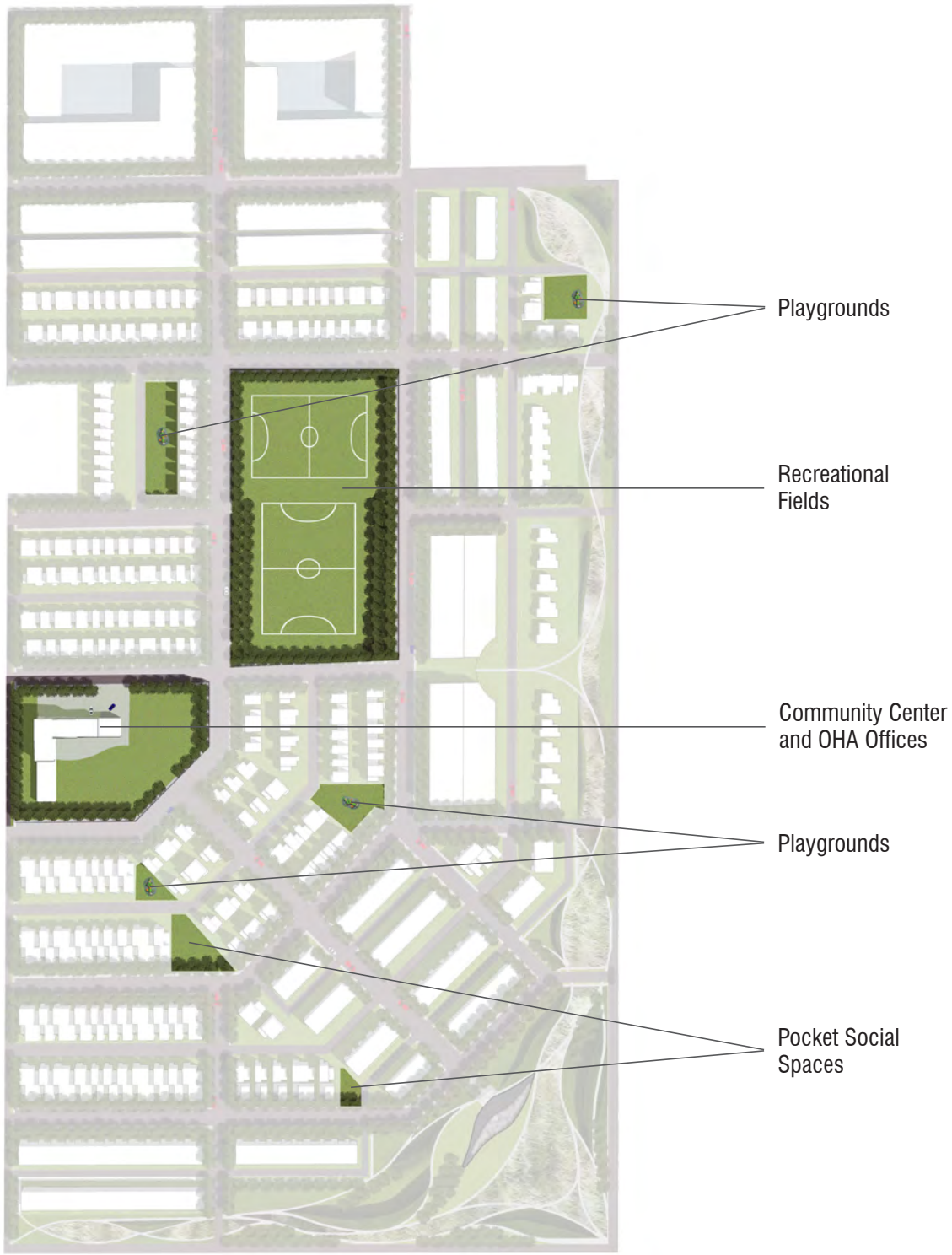


Figure 4.18. Activity spaces (Lemken, Nyp, & Rankin, 2016)

Outdoor Recreation

A centralized park with soccer fields provides easy access for the entire community to use large and open recreational space. This field replaces the current one to the south that would be redeveloped. Soccer is the most popular sport currently played at Southside Terrace, and the fields give children the opportunity to have fun in a healthy environment. There are also several playgrounds scattered throughout Southside Terrace that provide a close amenity. Outdoor cooking, pavilions, and other amenities form "pocket" social spaces for residents of all ages.



Figure 4.19. Streetscape adjacent to park (Rankin, 2016)

Community Center

Southside Terrace has a strong community identity, but there is a need for a centralized hub of services to fulfill various needs in the community. The proposed Community Center would contain the OHA offices, an ESL Center, library, computer lab, kitchen, bedbug processing center, auto repair area, first aid station, meeting room, activity space / event room, a cultural center, laundry facilities, indoor basketball courts, and a storm shelter. The Community Center block would additionally have outdoor basketball courts, a community garden, solar panels on the roof, and an event plaza.



Figure 4.20. Community Center (Lemken, 2016)

Community Amenities

Constructed Ecosystem

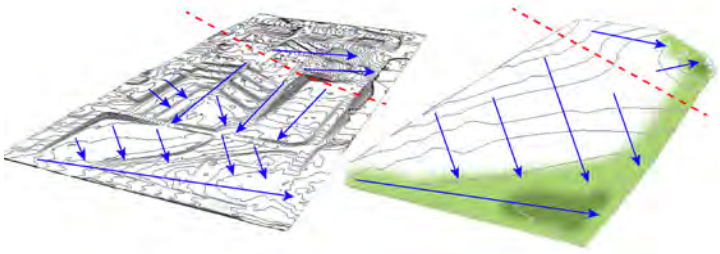


Figure 4.21 Existing and proposed grading (Nyp & Rankin, 2016)



Figure 4.22 Strategic greenspace (Lemken, Nyp, & Rankin, 2016)

Sustainable Initiatives

The need for stormwater management on such a hilly site creates an opportunity for a constructed wetland detention area, which coupled with a community space and nature trails can create a beautiful amenity for the Southside Terrace Community. This community space dubbed “The Overlook” is connected to the main axis from the Community Center to the constructed wetland, and offers a place for barbecues and social events as well as private events like wedding receptions. Another benefit is the educational opportunities to teach the residents about the ecology and sustainability.

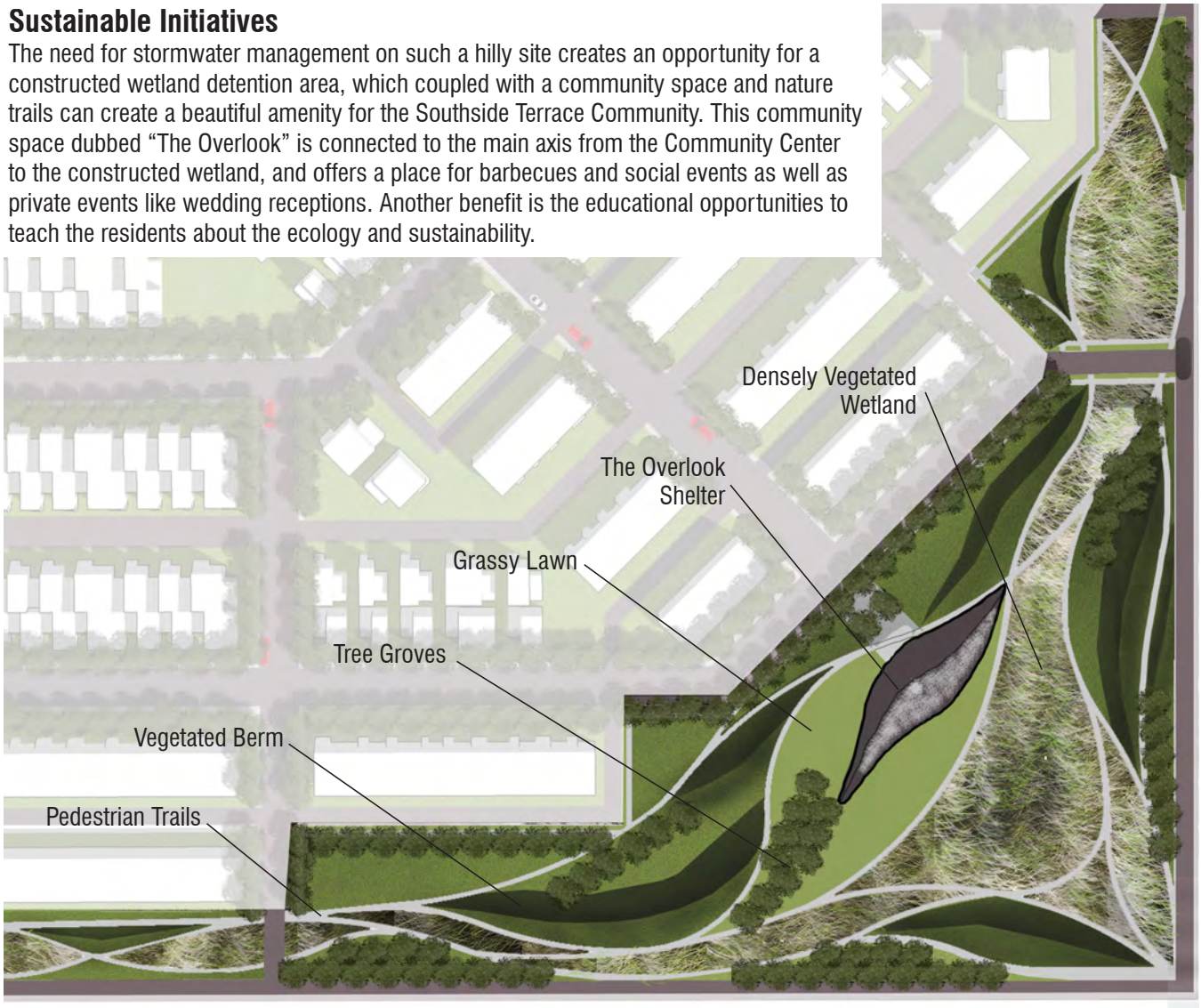


Figure 4.23 Ecosystem callouts (Nyp, 2016)



Figure 4.24. The Overlook (Nyp & Rankin, 2016)

Site Layout

Street Hierarchy

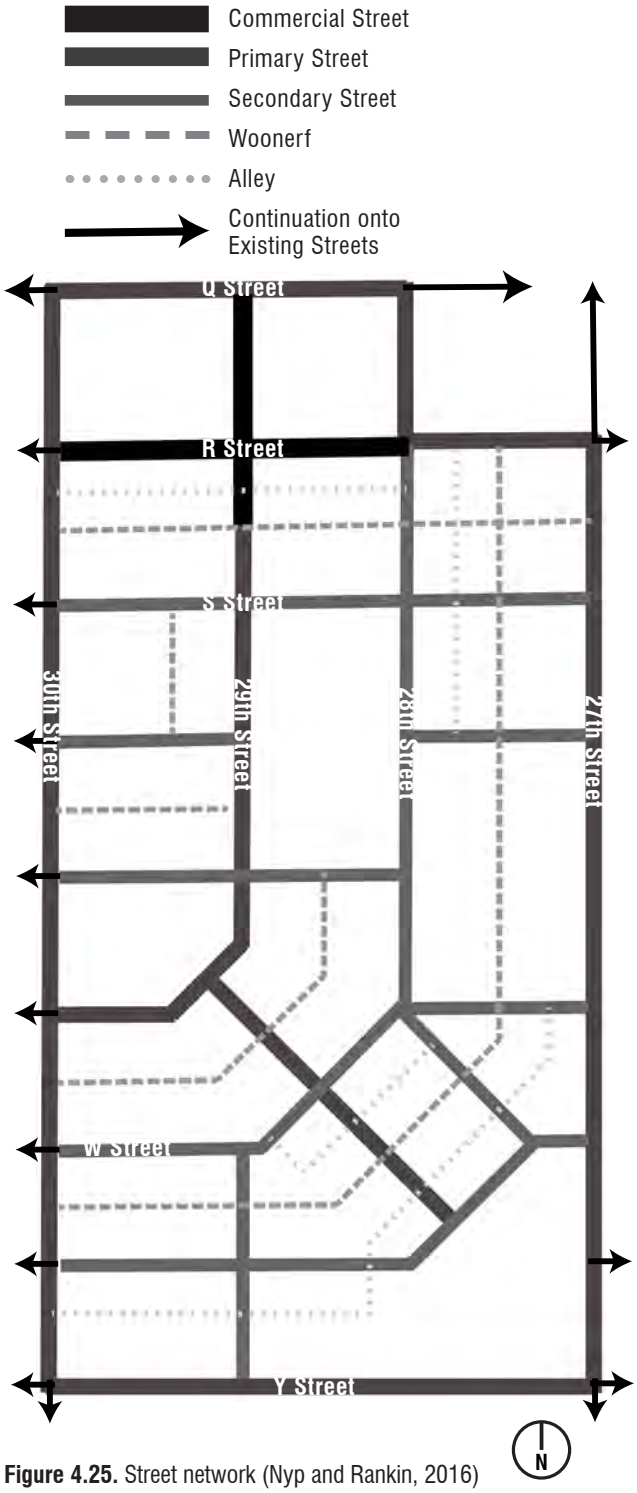


Figure 4.25. Street network (Nyp and Rankin, 2016)

Woonerf Concept

Road on the front of higher-density buildings slows down the flow of traffic for the pedestrian, but is still car-accessible and addresses drainage. It is wider and more open than an alley for multi-purpose activities.



Figure 4.26. Swedish Woonerf (Rankin, 2016)

Alley Concept

Garage-oriented passageways behind the backs of lower-density homes. Feels safer due to sense of ownership.



Figure 4.27. Stapleton, Colorado alley (Rankin, 2016)

Figure-Ground

Seeing just the footprints of buildings in black shows the architectural differences between the residential, commercial, and industrial properties surrounding Southside Terrace.

Existing Southside Terrace

There is a distinct difference between the housing currently at Southside Terrace and the residential zones to the west and southeast. The linear and long institutional-like row housing of Southside Terrace does not fit the context of the neighborhood. There is also no buffer between the housing and the industrial properties to the west. The services and businesses to the north on the Q Street corridor are interrupted by vacant properties and an unplanned mixture of small commercial and residential properties.



Figure 4.28. Existing figure-ground (Rankin, 2016)

Proposed Southside Terrace

Although denser than the surrounding neighborhood, the housing style and unit size are much more consistent with the surrounding context than before proposed redevelopment. The row houses are larger and line up with the existing houses. Existing streets are continued onto the site for better integration and accessibility. The topography and proposed vegetation provide a buffer to the other industrial properties. Mixed-use development to the north fills the under-performing gap on Q Street.

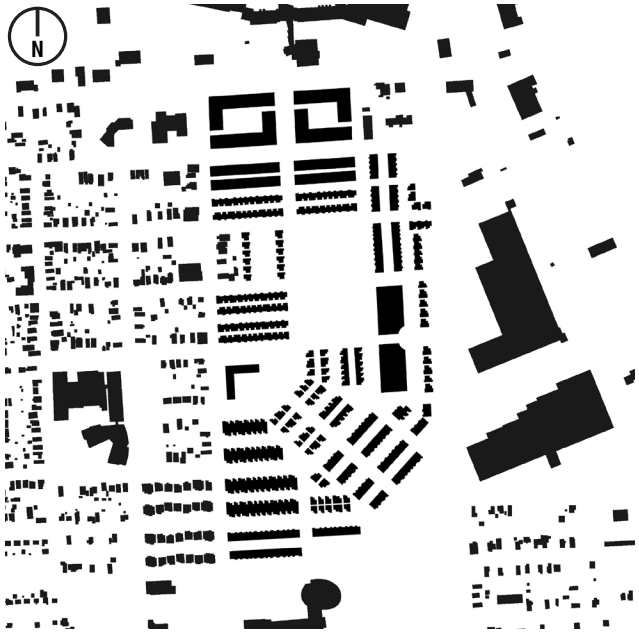
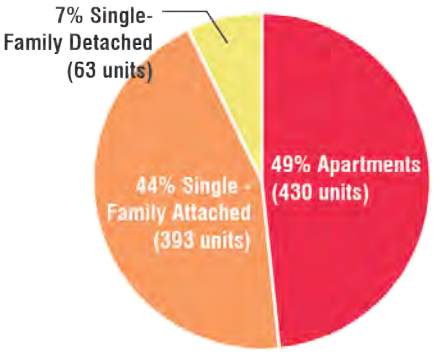


Figure 4.29. Proposed figure-ground (Rankin, 2016)

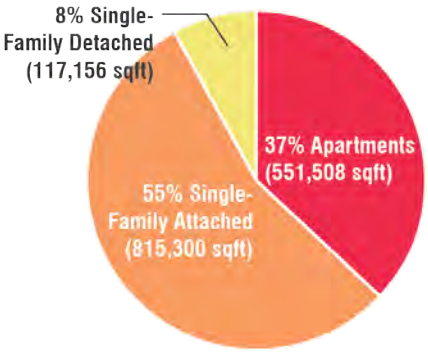
Project Metrics

Proposed Housing

Dwelling Unit Type



Dwelling Unit Square Footage



Housing Type

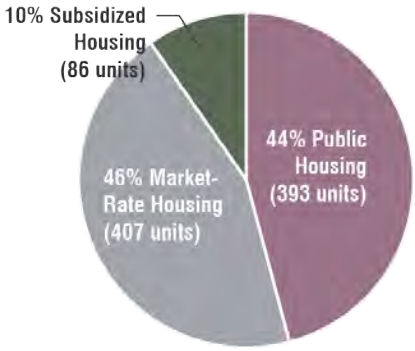


Figure 4.30. Site metrics (Rankin, 2016)

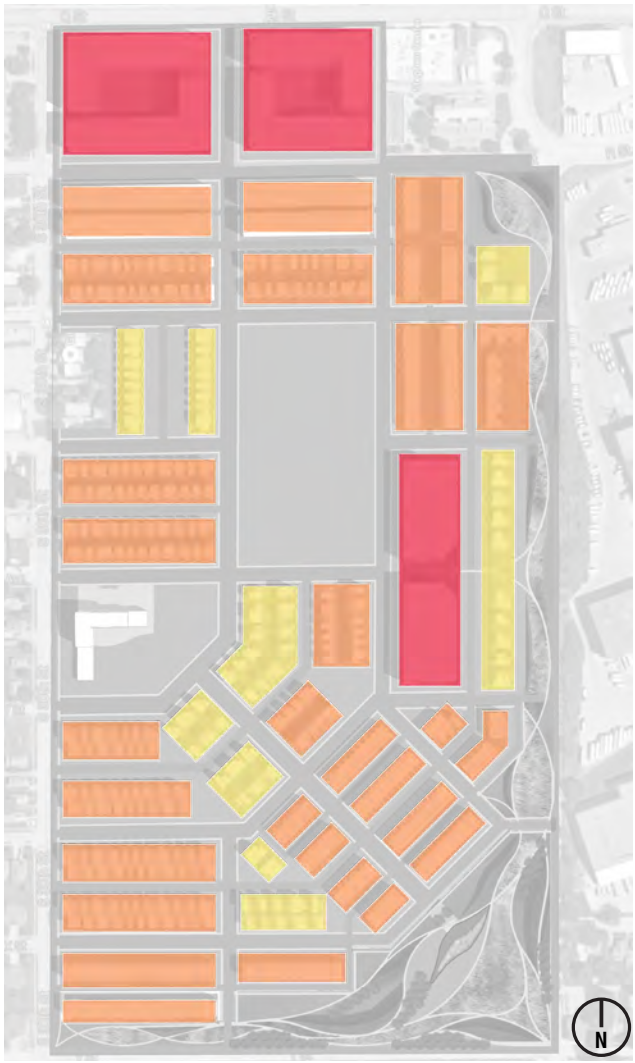


Figure 4.31. Dwelling unit types (Lemken, 2016)

Single Family Attached & Detached 2 Story w/ Carport

2 BR: 1297 sqft
3 BR: 1587 sqft
4 BR: 1732 sqft
5 BR: 1962 sqft
6 BR: 2192 sqft
7 BR: 2457 sqft
8 BR: 2732 sqft

Single Family Attached 2 Story w/ Garage

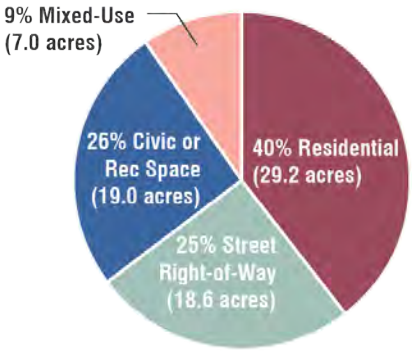
2 BR: 1635 sqft
3 BR: 1965 sqft
4 BR: 2130 sqft
5 BR: 2390 sqft
6 BR: 2695 sqft
7 BR: 2955sqft
8 BR: 3270 sqft

Single Family Attached & Detached 1 Story w/ Carport

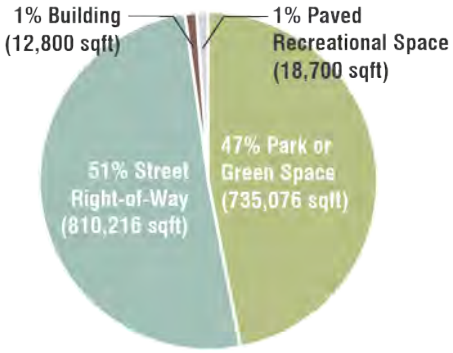
1 BR: 1082 sqft
2 BR: 1282 sqft
3 BR: 1582 sqft

Land Use

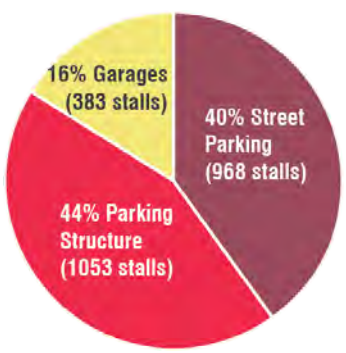
Property Use



Civic Property Use



Parking Type



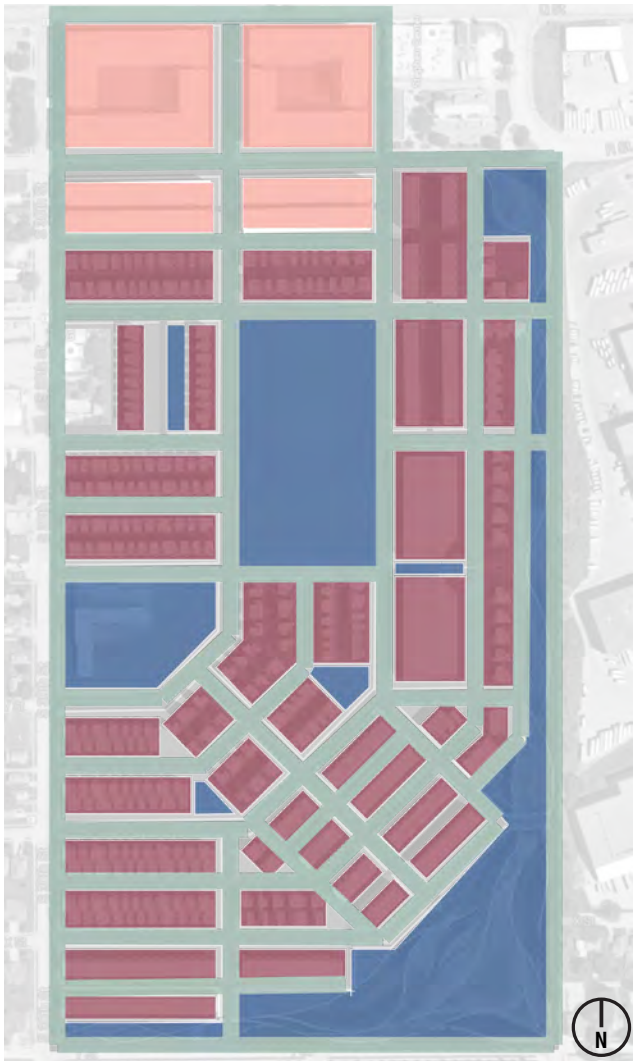


Figure 4.32. Land use(Lemken, 2016)

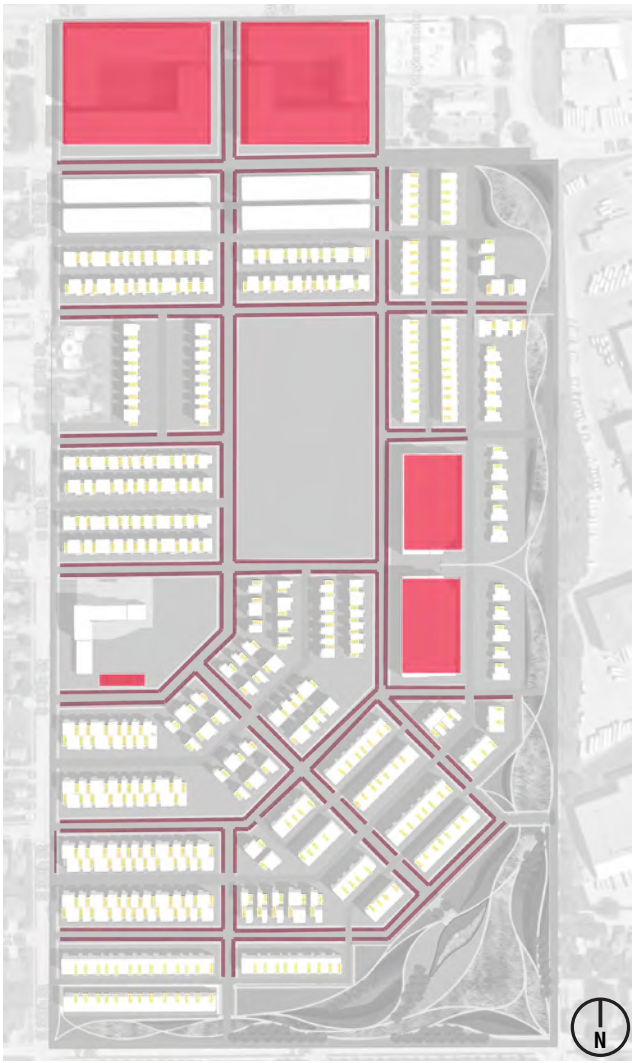


Figure 4.33. Parking type (Lemken, 2016)

Strategic Phasing Plan

Expansion Eases Construction Through More Strategic Phasing

Existing Southside Terrace



Figure 4.34. Before phasing (Rankin, 2016)

Proposed Southside Terrace



Figure 4.35. Final phase (Nyp & Lemken, 2016)



Figure 4.36. Phase 1 (Lemken, 2016)

Phasing begins with development two blocks to the north along Q Street, with mixed-use commercial and high-density apartments



Figure 4.37. Phase 2 (Lemken, 2016)

Residents from the southern portion of the site move to the newly developed high-density residential buildings to the north on Q Street.



Figure 4.38. Phase 3 (Lemken, 2016)

Construction of residential units and the wetland on the southern portion of the site. Expansion to two parcels to the south get started.



Figure 4.39. Phase 4 (Lemken, 2016)

Residents from the center of the site move to the new housing developments to the south.



Figure 4.40. Phase 5 (Lemken, 2016)

By partnering with surrounding landowners, the OHA could begin to develop market-rate housing on the parcels to the east.



Figure 4.41. Phase 6 (Lemken, 2016)

The remaining residents move to available housing on the newly constructed housing from previous phases.

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Figure 4.03
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Figure 4.06
Lemken, Andrea. 2016. “North—Q Street Opportunities Corridor.” Kansas State University, LAR 646. Photo Diagram. Source Image:

- Omaha, Nebraska: 41°12’19.26” N / 95°57’16.68” W / Elevation: 1131 feet / Eye Altitude: 1568 feet.

Figure 4.07
Lemken, Andrea. 2016. “Northeast—Underperforming Parcels.” Kansas State University, LAR 646. Photo Diagram. Source Image:

- Omaha, Nebraska: 41°12’13.66” N / 95°57’14.29” W / Elevation: 1128 feet / Eye Altitude: 1601 feet.

Figure 4.08
Lemken, Andrea. 2016. “South—Large Open Parcels.” Kansas State University, LAR 646. Photo Diagram. Source Image:

- Omaha, Nebraska: 41°11’57.01” N / 95°57’18.78” W / Elevation: 1111 feet / Eye Altitude: 1595 feet.

Figure 4.09
Lemken, Andrea. 2016. "Southeast—Underperforming Parcels." Kansas State University, LAR 646. Photo Diagram. Source Image:
- Omaha, Nebraska: 41°12'07.82" N / 95°57'13.97" W / Elevation: 1126 feet / Eye Altitude: 1601 feet.

Figure 4.10
Sundine, Josh. 2016. "Excessive Terracing." Kansas State Univserity LAR646 2016. Photo.

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Figure 4.14
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Figure 4.15
Nyp, Chandler. 2016. "Suitability Diagram." Kansas State University LAR646 2016. Diagram. Source: Accessed June 2016. Google Earth Aerial Photography. Illustrator image.

Figure 4.16
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Figure 4.17
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- Omaha, Nebraska: 41°12'11.28" N / 95°57'26.61" W / Elevation 1191 feet / Eye Altitude: 2085 feet.

Figure 4.18
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Figure 4.28
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Figure 4.30
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Figure 4.31
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Figure 4.32
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Figure 4.33
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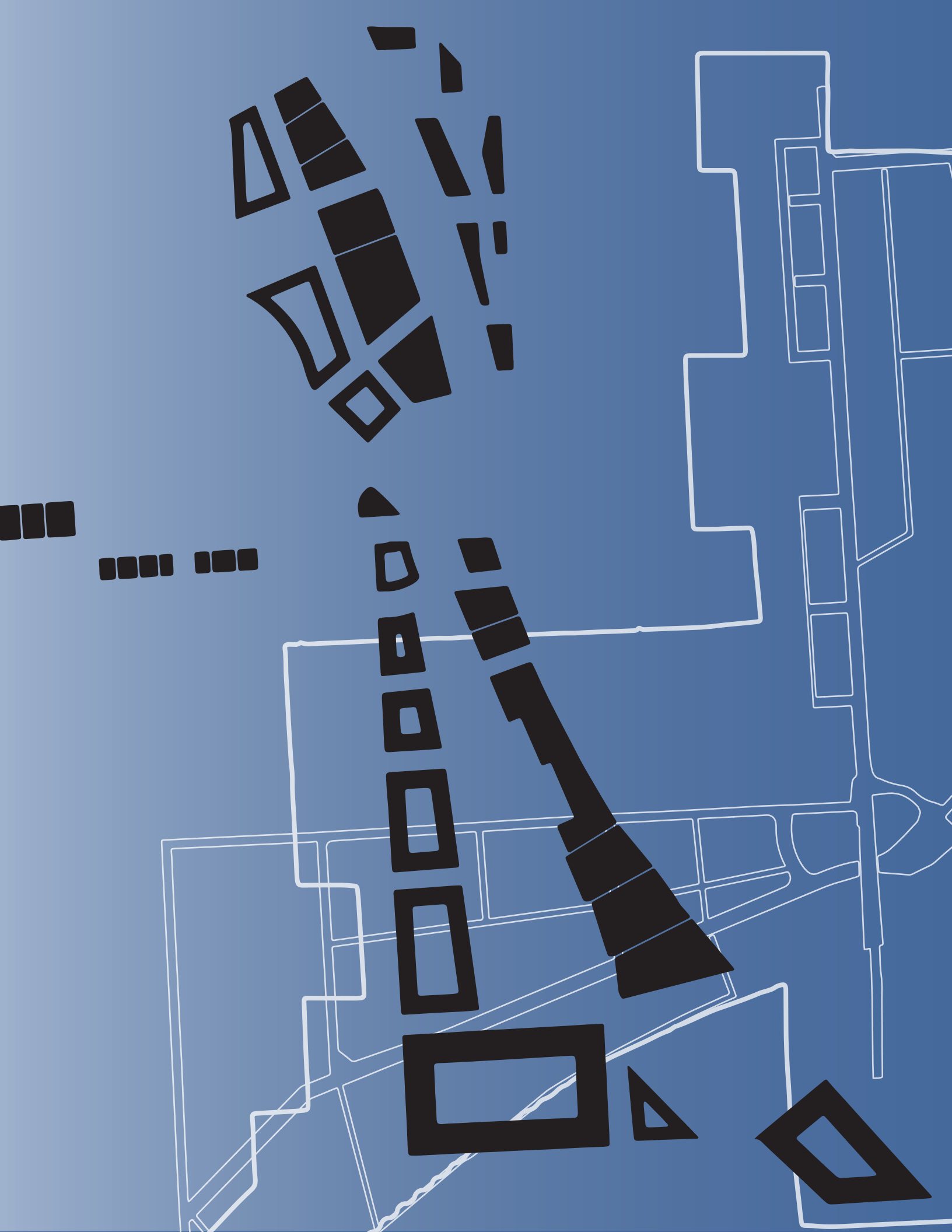
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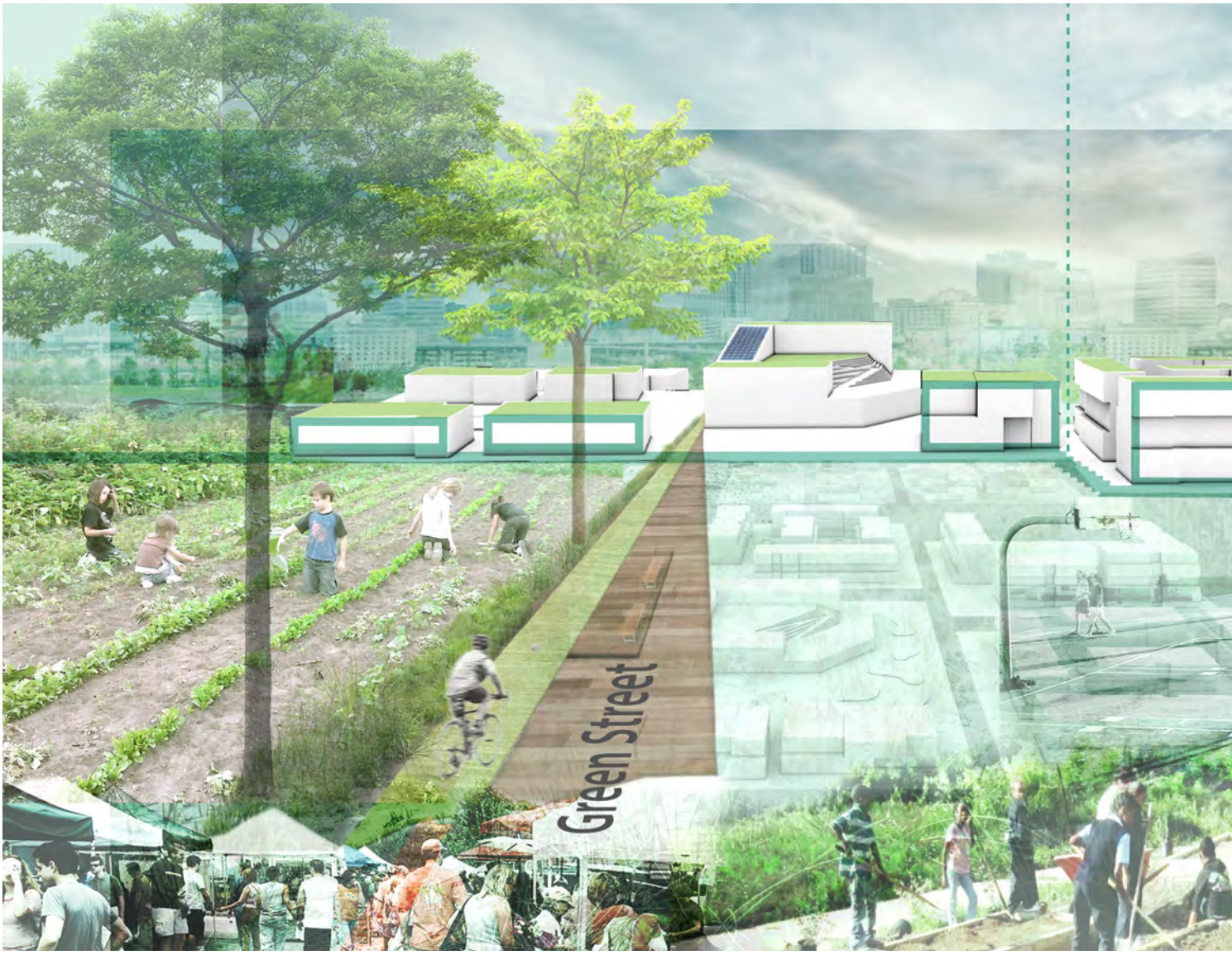
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5
SOUTHSIDE
CATALYST

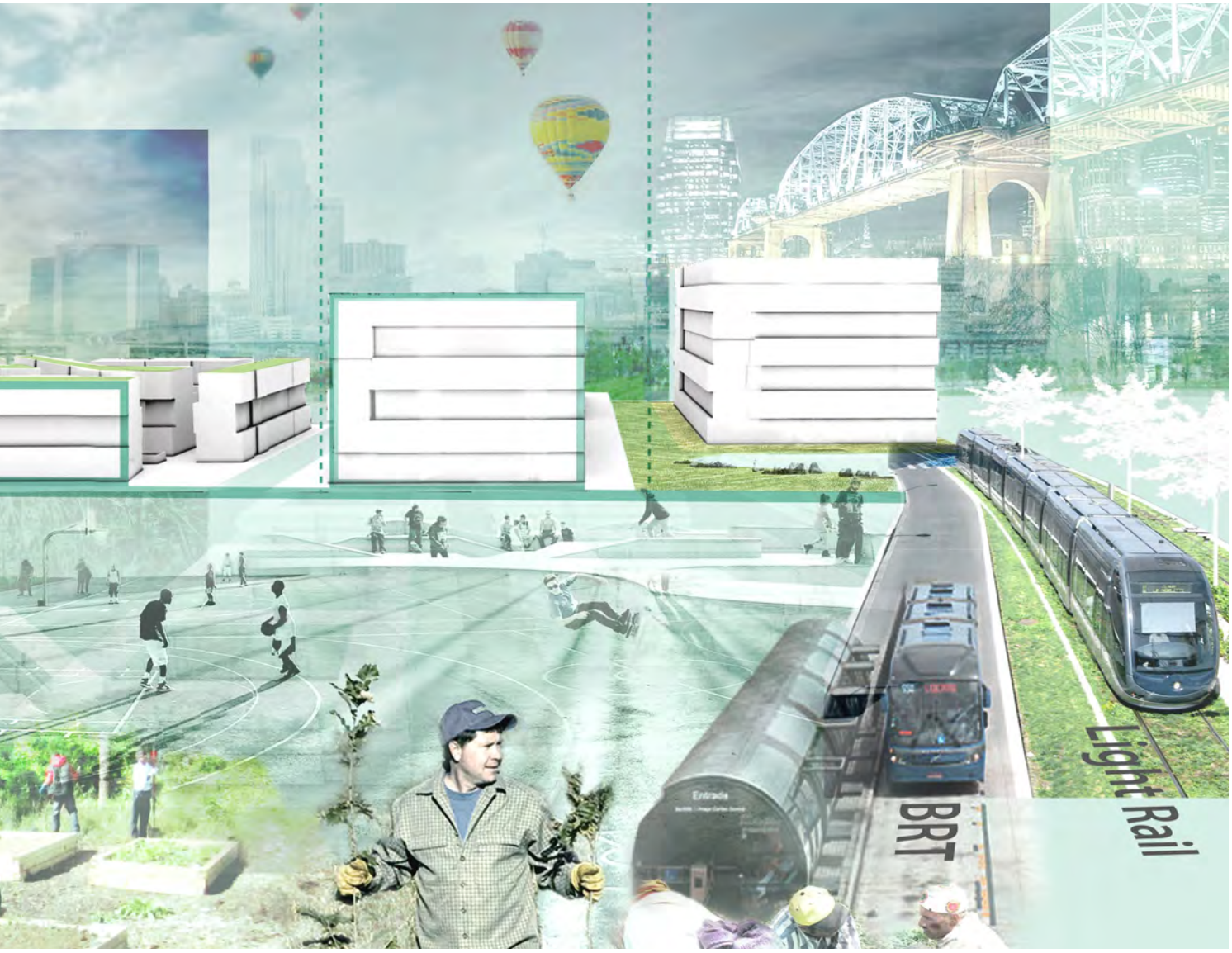


Southside Catalyst

Exploring connections to a future district.

Cultural diversity of the residents of Southside Terrace is a key component of a proposed district that features new social, employment, and transit opportunities that unify and extend existing proposals advanced by others.

CAROLINE FINCK
EVAN LANNING
ASTRID WONG


Light Rail
BRT

Goals and Overview

Overview

Southside Catalyst addresses the reimagining of Southside Terrace at a district scale, recognizing the intricate layers of social, economic, cultural and physical infrastructure that support Southside Terrace's community. The presence of the Metropolitan Community College, proximity to social services, existing rail corridor, Highway 75 and culturally diverse populations characterize the district's potential to grow through existing and future proposals.

Redeveloping the Q Street Corridor and linking to existing and future transit infrastructure could be the main drivers in catalyzing district level development, extending benefits to Southside Terrace residents. In turn, the rich culture of Southside residents could contribute to the dynamicism of an emerging district. As a regional attraction, the district could serve as a market for products and services offered by Southside Terrace residents.

Driving Vision

1. Retain the current residential population of Southside Terrace in the future and during reconstruction.
2. Forge stronger connections with the neighborhood surrounding Southside Terrace to integrate communities, balance gentrification and redevelopment,and retain current social services.
3. Connect Southside Terrace to existing and future transportation networks providing access to Omaha and beyond.

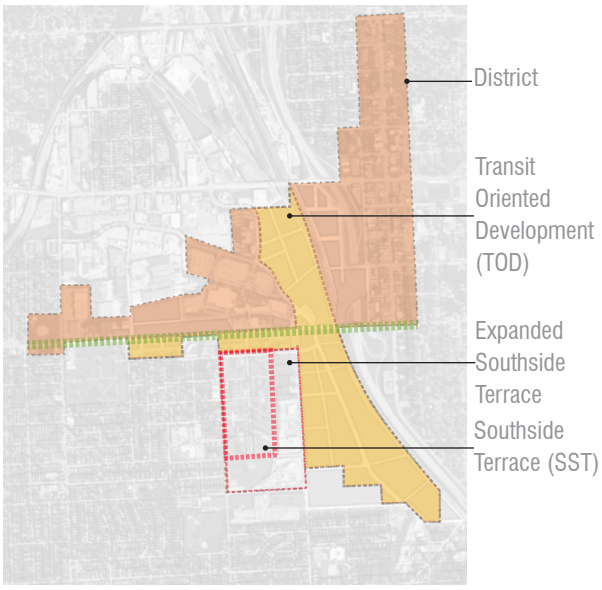


Figure 5.1 Connecting and integrating Southside Terrace to district development. (Wong 2016)

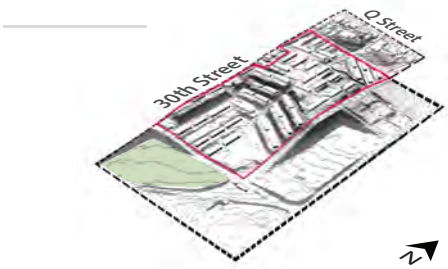


Figure 5.2 Phasing strategy and expansion into neighboring parcels minimizes population displacement. (Wong 2016)

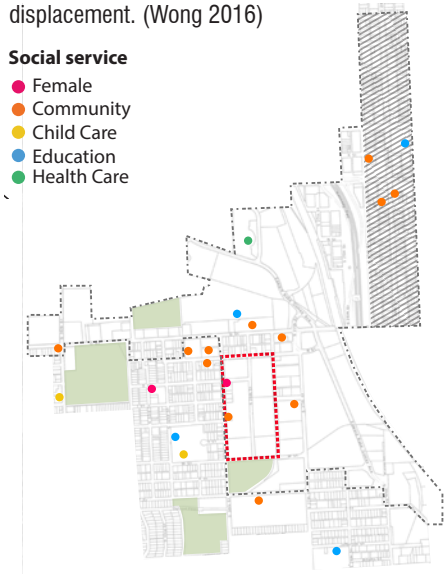


Figure 5.3 Forge stronger connections to the community that surrounds and supports Southside. (Wong 2016)

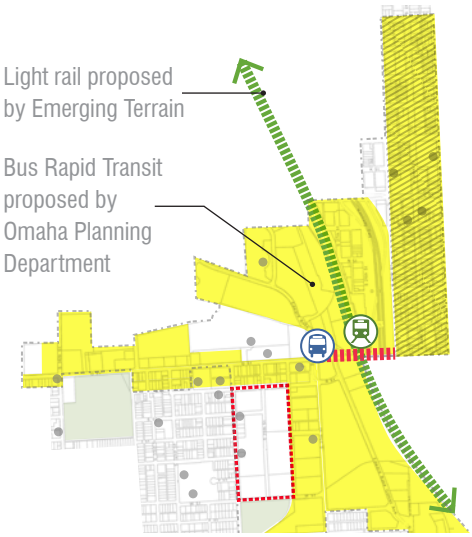
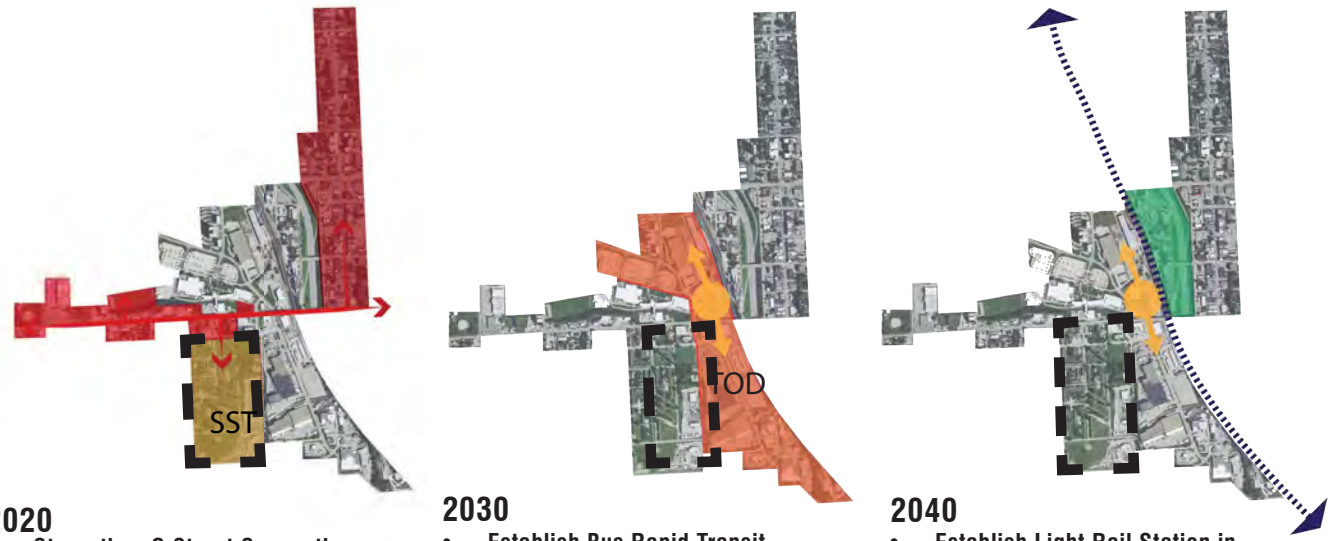


Figure 5.4 Connect Southside Terrace to Omaha using existing and proposed transit opportunities. (Wong 2016)



2020

- **Strengthen Q Street Connections Corridor**
- **Enhance 24th Street's current redevelopment to coordinate with Q Street Corridor.**
- **Expansion of Southside Terrace**

2030

- **Establish Bus Rapid Transit Station (BRT) near rail line**
- **Transit and TOD Area**

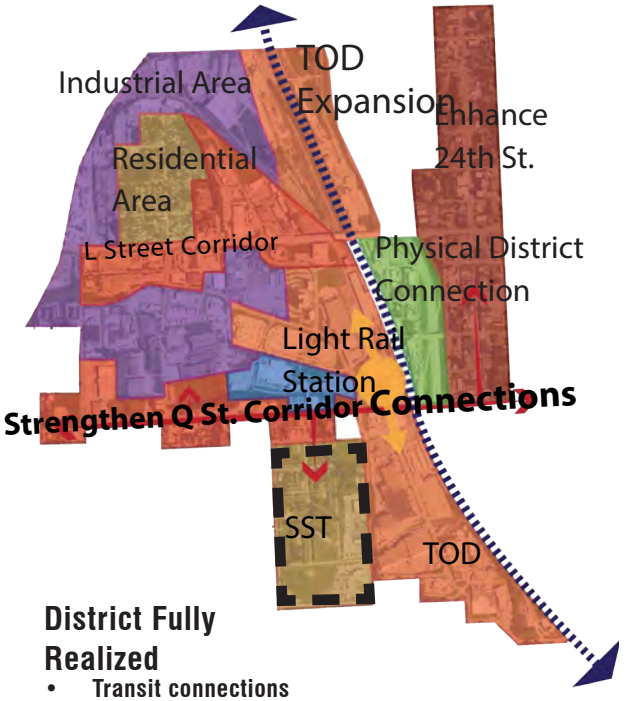
2040

- **Establish Light Rail Station in conjunction with the BRT**
- **Physical connection to 24th Street uniting the district expanding TOD.**

Figure 5.5 Use the Q Street mixed-use corridor and BRT/LR connections to promote a new district catalyzing associated development and more social and mixed income opportunities. (Finck 2016)

Design Goals

1. Redefine Southside Terrace district by promoting the concentration of multiple cultures, expressions, and activities which could contribute to the district as a regional destination.
2. Build upon nearby transit resources like Highway 75 and the existing rail corridor, to provide convenient access to future bus rapid transit (BRT) and light rail transit (LRT).
3. Refine and enhance connections to existing assets and attractions within the district, including 24th St.
4. Create green infrastructure to handle district stormwater and provide recreational opportunities.
5. Provide more mixed use and mixed income housing within the district.
6. Retain existing Southside Terrace residents to preserve the efficiencies of nearby social support partners.



District Fully Realized

- **Transit connections**
- **Q Street Corridor and 24th Street connection**
- **Southside Terrace expansion**
- **TOD establishment and expansion**

Transportation and Land Assessment

Light Rail Transit Station

A light rail line was proposed by Emerging Terrain in 2013 that would redevelop the rail corridor abandoned in the 1980s. Building off this proposal, the location of a light rail station in South Omaha has multiple possibilities. The northern half of South Omaha, serviced by a Gilmore Avenue location, has projected the most local job and population growth. Locating a light rail station on Q Street could catalyze growth in population and business by establishing a transit oriented development (TOD). The light rail station and large tracts of vacant industrial use properties has the potential to entice developers to the area.

Although support for the light rail line seems to have stalled at present, planning for rail transit is important to consider years ahead of installation. Light rail draws developers, people, and businesses to an area creating a lasting transportation oriented development. Coordinating multiple modes of public transportation to be accessible and convenient helps ensure the longevity and success of transit oriented development.

Many times public and financial support for light rail systems can change quickly and compound interest in development adjacent to transit. For example, in Kansas City, MO a light rail proposal was voted down nine times before being approved and installed earlier this year.

Bus Rapid Transit Station

Support for bus rapid transit (BRT) proposed by The Omaha Planning Department is progressing faster than the light rail proposal, and is intended to function in a similar manner to light rail. BRT lines that travel through the district have already been proposed in extended transportation plans from MAPA. Locating a BRT stop in the same proposed transit park as light rail ensures easy access to multiple modes of transportation in an easily navigable location.



Figure 5.6 Kansas City street car created a TOD district rejuvenating the downtown of Kansas City. (“KC Streetcar” 2013)

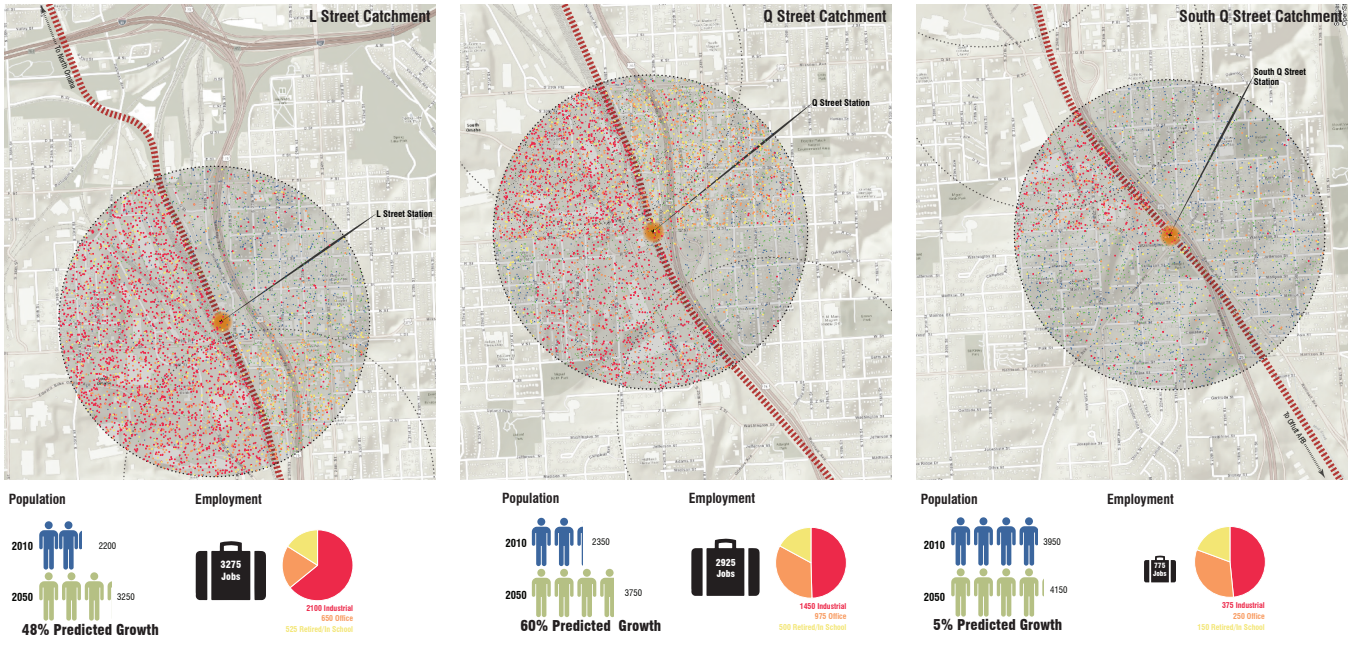
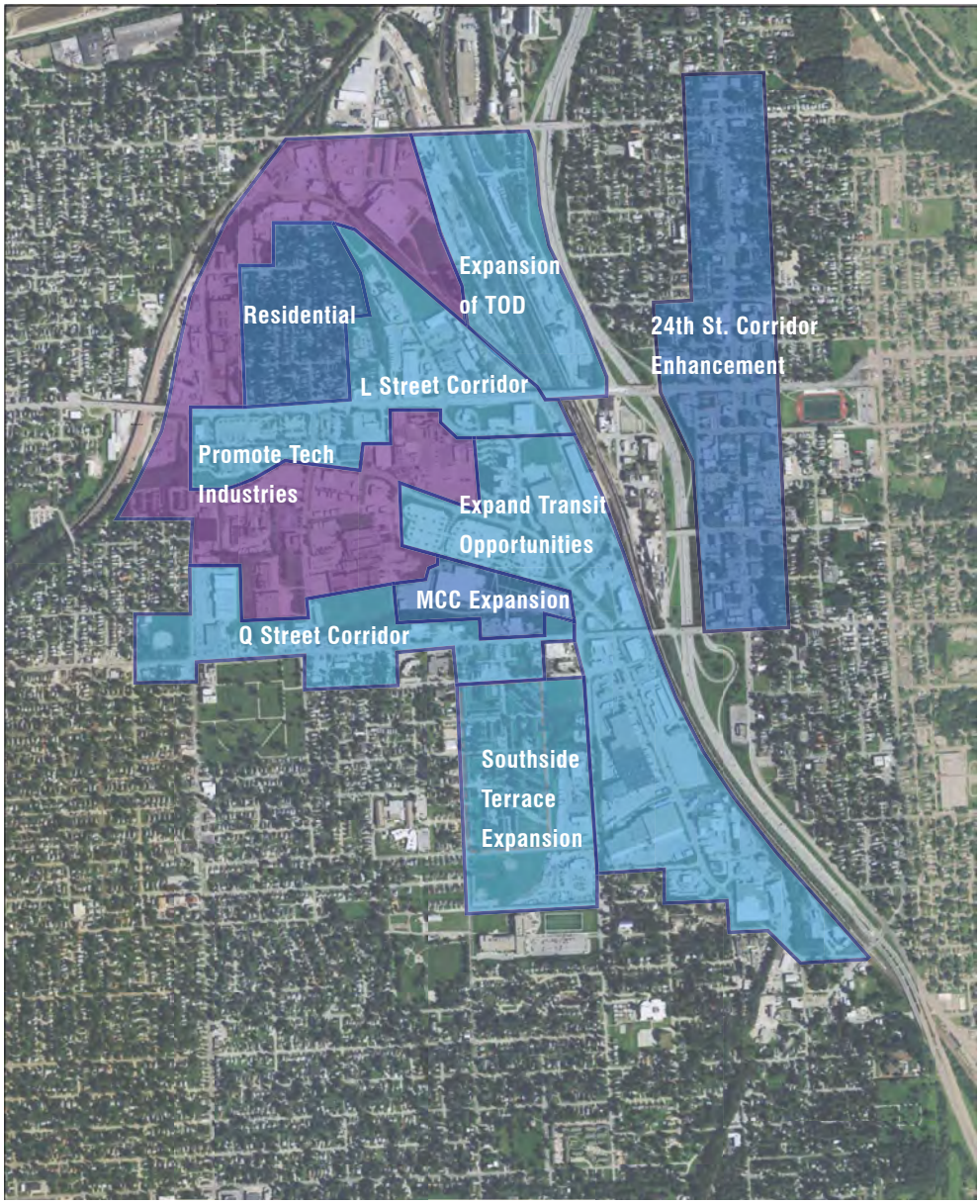


Figure 5.7 Light rail catchment areas and analysis. (Lanning 2016)



Planning, policy incentives, major design changes



Planning, policy incentives, minor design enhancements



Planning and policy incentives



Figure 5.8 The new proposed district would be developed in phases of intervention prioritized by utilizing both local and outside human capital and financial partners. (Finck 2016)

District Boundary Assessment

Policy and planning incentives could be proposed to infuse new land uses into the district. Once the area develops as TOD, industries more compatible with for residential and commercial land uses than meat packing and cold storage may move in. The blue areas of minor design changes and policy and planning incentives address existing conditions of redevelopment, implementing minor design changes to incorporate the goals of this project. The light blue areas are the focus for this design proposal.

District Street Assessment

Street Analysis

As a whole, the streets within this district are not pedestrian or bicycle friendly, and contain little to no green infrastructure. Q Street in particular lacks key pedestrian connections to social support providers and neighborhood assets available to the Southside Terrace population.

With improved pedestrian access, safer street crossings, and an enhanced streetscape, Q Street and other district streets could better promote social interaction and businesses.

Arterial Roads



Q Street
- 4 Lanes
  - No median
  - No on-street parking
- Speed: 35 MPH
- Sidewalk against road
  - Poor condition
- Buildings with varied setbacks
- Lack of vegetation
- Historic Streetcar Route



Q Street Bridge
- 4 Lanes
  - No Median
- Speed: 35 MPH
- Sidewalk against road
  - Small guardrail at bridge edge
  - Small concrete barrier from road
- In need or repairs or reconstruction



24th Street
- 2 Lanes
  - Angled parking both ways
  - No median
- Speed: 30 MPH
- Large Sidewalk
  - Widened sidewalk at crossings
- Street trees
- Historic district and streetcar route



L Street
- 4 Lanes
  - No on-street parking
  - Median divded
- Speed: 35 MPH
- Sidewalk against road
- Is also US Highway 275
- Varied street vegetation



Edward Babe Gomez Avenue
- 2 Lanes
  - No on-street parking
  - Center-lane median
- Speed: 35 MPH
- Sidewalk offset from street
- Street trees along sidewalks

Collector Roads



R Street
- Lanes not painted (2 lane)
  - On street parking
- Speed: 25 MPH
- Offset sidewalks
- Once brick, but paved over
- Varied street vegetation



South 30th Street (South of Q Street)
- Lanes not painted (2 lane)
  - On street parking
- Speed: 25 MPH
- Offset and street adjacent sidewalks
- Varied street vegetation



South 30th Street (North of Q Street)
- 2 Lanes
  - No on-street parking
  - Center-lane median
- Speed: 25 MPH
- Sidewalk offset from street
- Small street trees along sidewalks



28th Street
- Lanes not painted (2 lane)
  - On street parking limited
- Speed: 25 MPH
- Sidewalk on west side only
  - Against street
- Minimal street vegetation



W Street
- Lanes not painted (2 lane)
  - On street parking
- Speed: 25 MPH
- Sidewalks adjacent to street
- Lack of vegetation

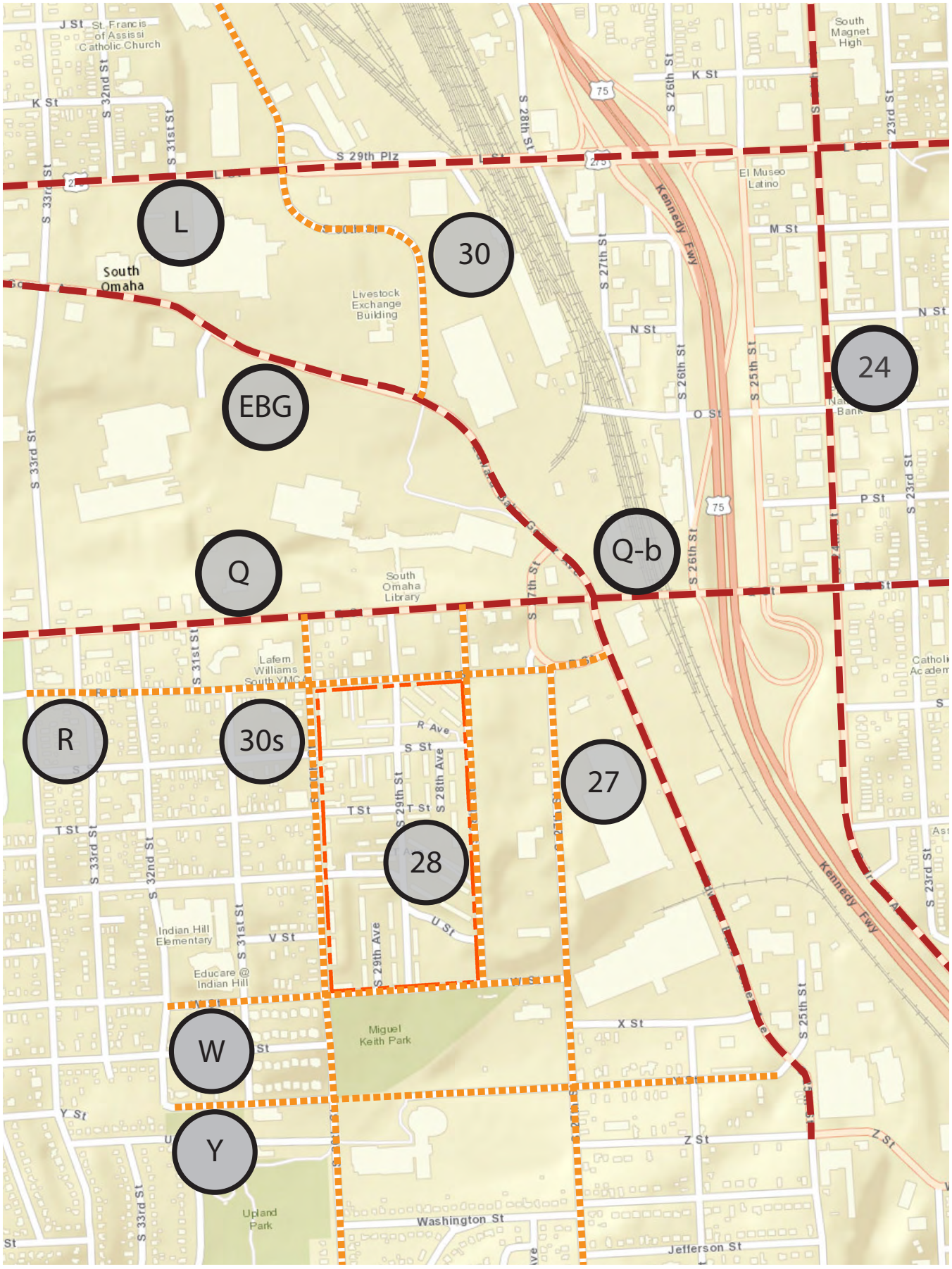


Y Street
- Lanes not painted (2 lane)
  - On street parking
- Speed: 25 MPH
- Offset sidewalks
- Various vegetation along south



27th Street
- Lanes not painted (2 lane)
  - No on-street parking
- Speed: 35 MPH
- No sidewalks
- No vegetation

Figure 5.9 Street views and map locations illustrate the narrow sidewalks that are too close to the street providing a hazardous streetscape experience. (Lanning 2016)


L
30
EBG
24
Q
Q-b
R
30s
27
28
W
Y
South Omaha
Livestock Exchange Building
South Omaha Library
Lafern Williams South YMCA
Indian Hill Elementary
Educare @ Indian Hill
Miguel Keith Park
Upland Park
El Museo Latino
South Magnet High
Kennedy Fwy
S 29th Plz
K St
N St
O St
P St
M St
R Ave
S St
T St
U St
V St
X St
Y St
Z St
Washington St
Jefferson St
S 23rd St
S 25th St
S 26th St
S 27th St
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J St St. Francis of Assisi Catholic Church

District Plan

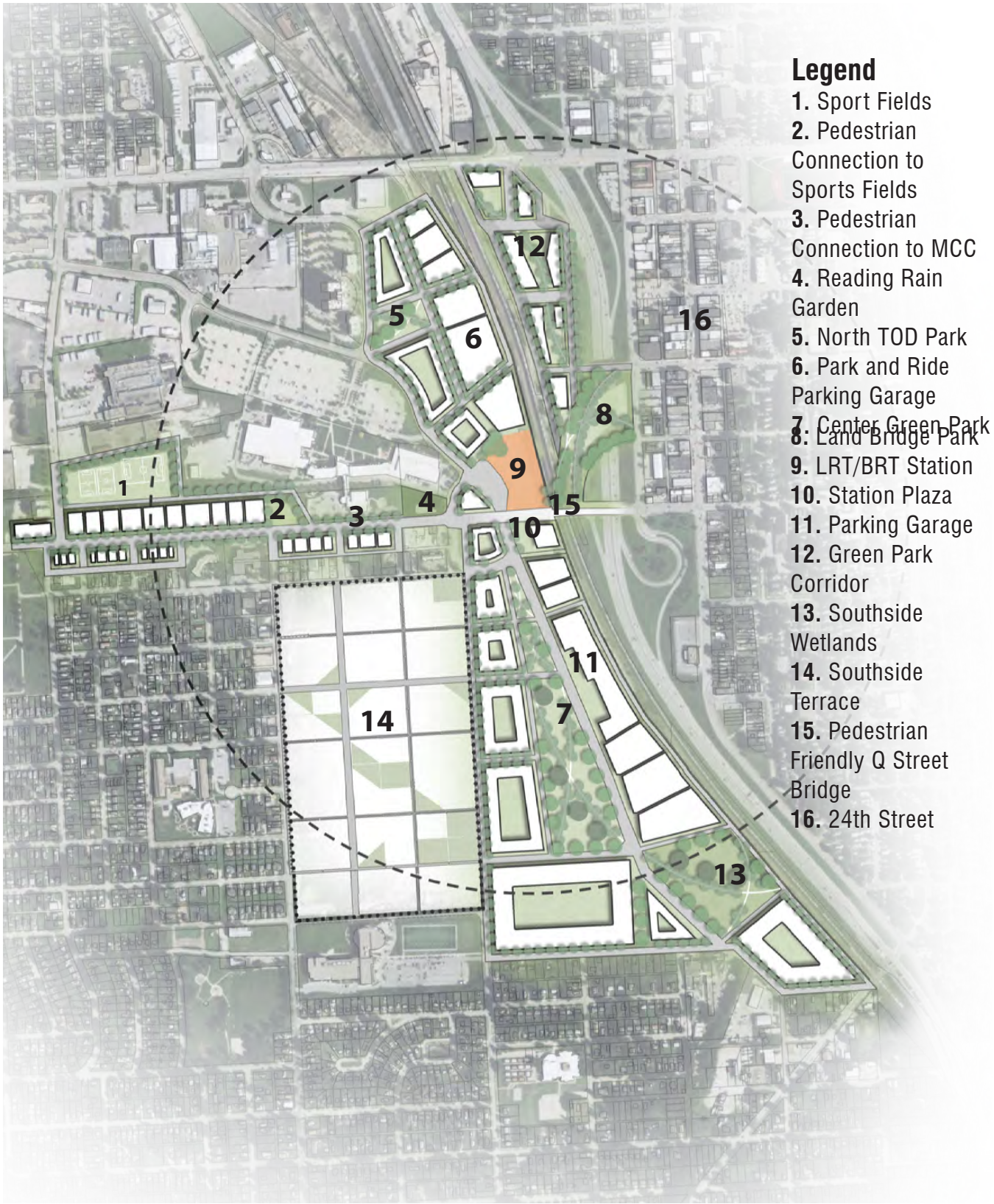


Figure 5.10 District site plan with a half-mile measuring circle around the transit station shows station accessibility. (Lanning 2016)



Figure 5.11 District looking South showing TOD, transit options, and how the proposal connects over Highway 75 to the existing 24th Street redevelopment. (Finck 2016)

A District is Born

A vibrant Q Street is envisioned as a central east-west corridor in the emerging district. It links important educational, social services, transit, and business assets together. Important to Southside Terrace, it is only one block to the north.

The transit station, regardless if it is light rail, bus rapid transit or both, is the epicenter of density and development of mixed-use and mixed housing development of the district. Adjacent to the transit station is a parking garage for a park and ride program as well as a plaza linking the station under the bridge to the Center Green Park corridor, infusing the district with ecology and recreation. Southside Terrace could be an integral part of the TOD district and is close to key distinct assets.

The proposed Landbridge Park physically connects 24th Street development across Highway 75 to the transit station uniting the district through a public space. Land bridge parks are seen around the country, uniting cities across highways including: the Rose F. Kennedy Greenway in Boston, Klyde Warren Park in Dallas, CityArchRiver Project in St. Louis, and Olympic Sculpture Park in Seattle.

Land Use,Mixed Housing and Density

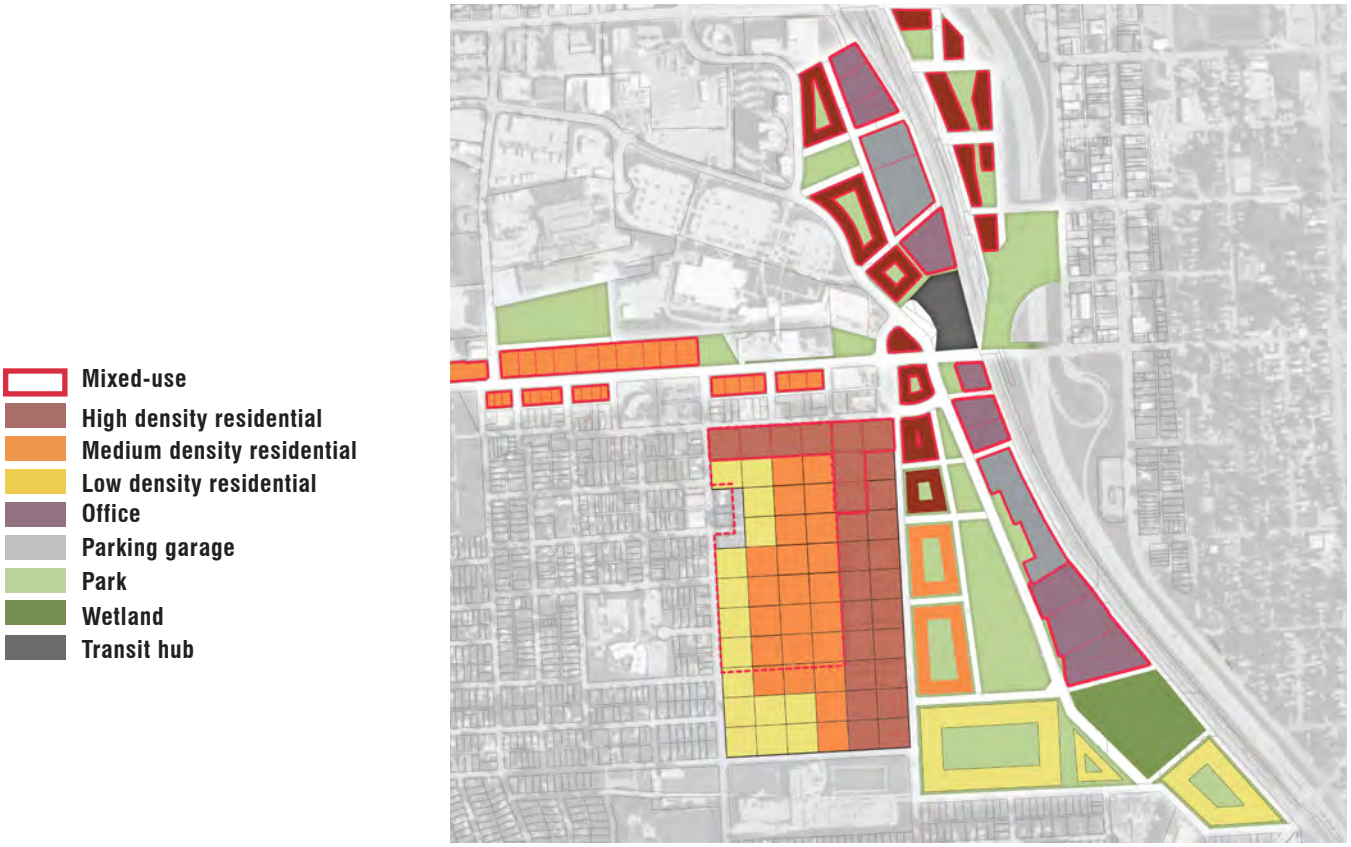


Figure 5.12. Land use within the district reflects location in relation to the transit station. (Wong 2016)

Utilization of New District

At the center of the district development is the transit station surrounded by mixed-use buildings of offices, commercial uses, and residential units.

The concentration of commercial and office use correlates with convenient access by commuters from the BRT, LRT, and/or Highway 75.
The buildings in the TOD district that border the highway and rail line are mixed-use, characterized by commercial uses on the ground floor and offices on the upper floors. Businesses will be visible from Highway 75, and the buildings act as a sound barrier for the areas to the west.

On Q Street, mixed-use commercial and residential provide a space to business incubators to allow Southside Terrace residents and the surrounding neighborhood to become entrepreneurs. In addition, Q Street business and employment provide a stepping out program of subsidized housing by allowing residents to remain in the community, but still utilize social services and receive culture support even after they no longer require subsidized housing.



Figure 5.13 Representations of housing density and types vary throughout the district. (Finck 2016)

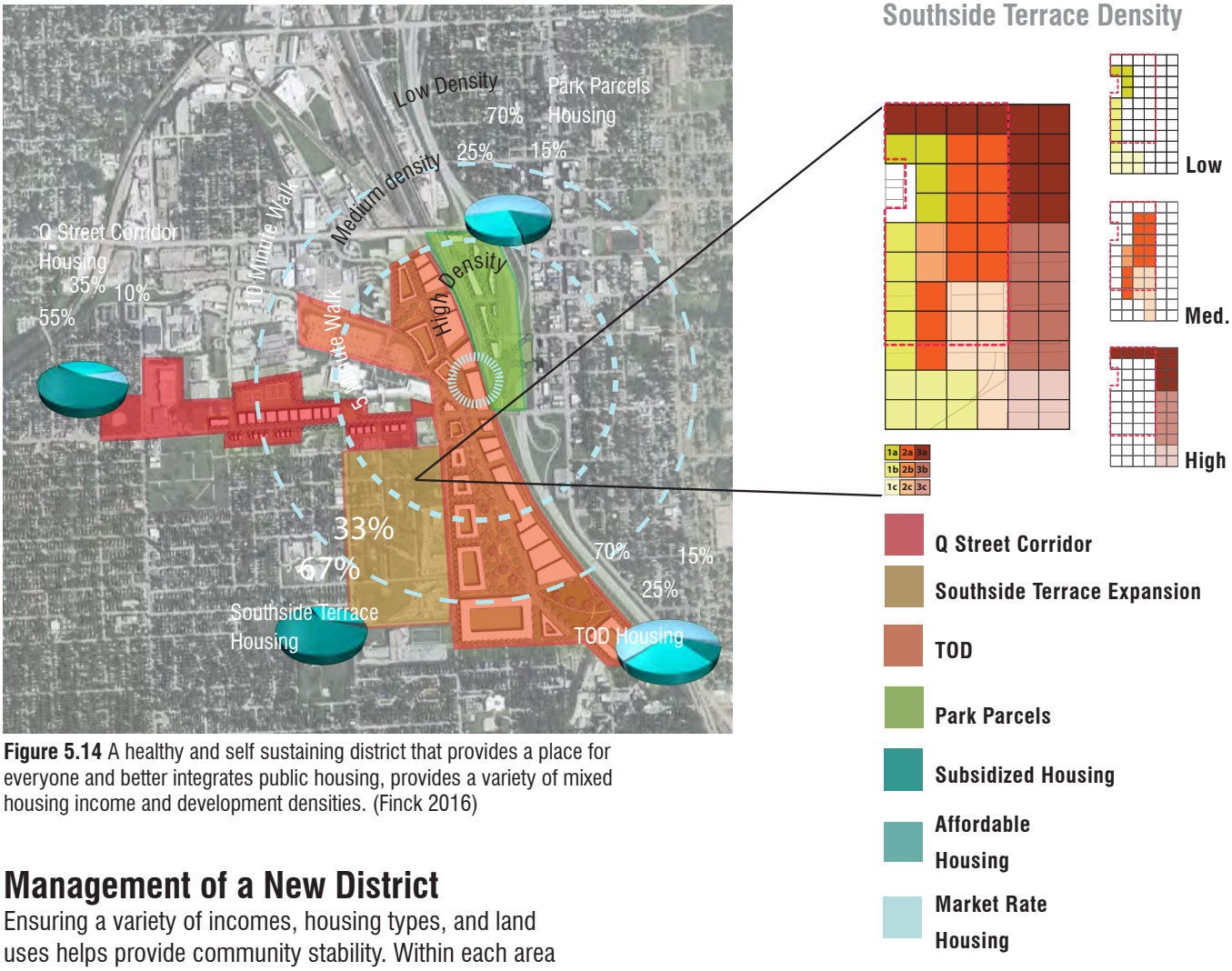
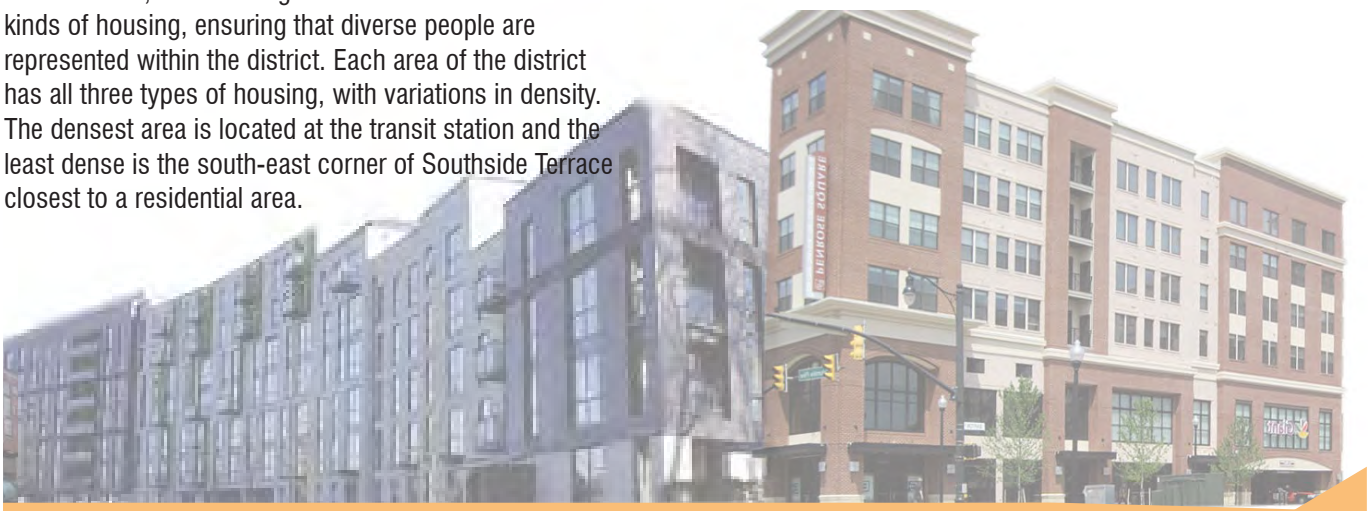


Figure 5.14 A healthy and self sustaining district that provides a place for everyone and better integrates public housing, provides a variety of mixed housing income and development densities. (Finck 2016)

Management of a New District

Ensuring a variety of incomes, housing types, and land uses helps provide community stability. Within each area of the district, there are high concentrations of different kinds of housing, ensuring that diverse people are represented within the district. Each area of the district has all three types of housing, with variations in density. The densest area is located at the transit station and the least dense is the south-east corner of Southside Terrace closest to a residential area.



High Density Apartments

Mixed-use High Density Apartments

Q Street Corridor

Connections and Commercialism

Q Street Corridor sits at an integral location that connects Southside Terrace to the rest of the district and the transit station. The transit station, located beside the Q Street Bridge, would have access from the bridge as well as pedestrian and vehicular drop-off capabilities. If both the light rail and rapid bus transit were implemented, commuters could walk seamlessly across the plaza as they change modes of transportation.

The Station Plaza stretches underneath the bridge and serves as a community market area on weekends. This community market is within easy walking distance of Southside Terrace and provides an outlet for buying and selling fresh produce. Next to the community market area is a proposed skate park that claims less desirable space underneath the bridge and provides recreation.

The new bridge being proposed has already been identified by the City of Omaha as a replacement location. The new bridge would be a complete street bridge with pedestrian access, bicycle lanes and enough space to pause and look out at the district.

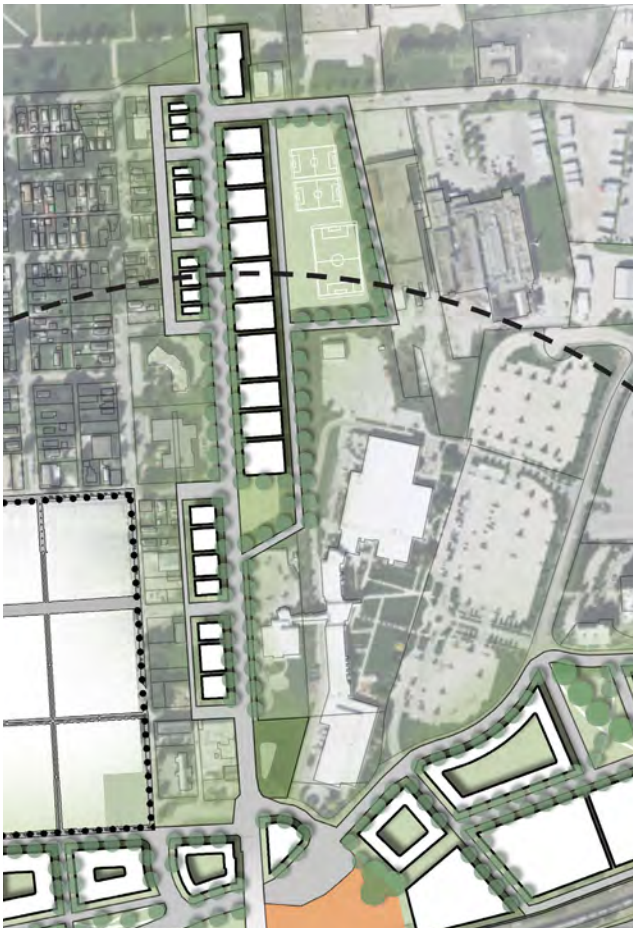


Figure 5.15 Q Street becomes a corridor of commercial, residential and business incubation benefiting the residents of Southside Terrace. (Lannning 2016)

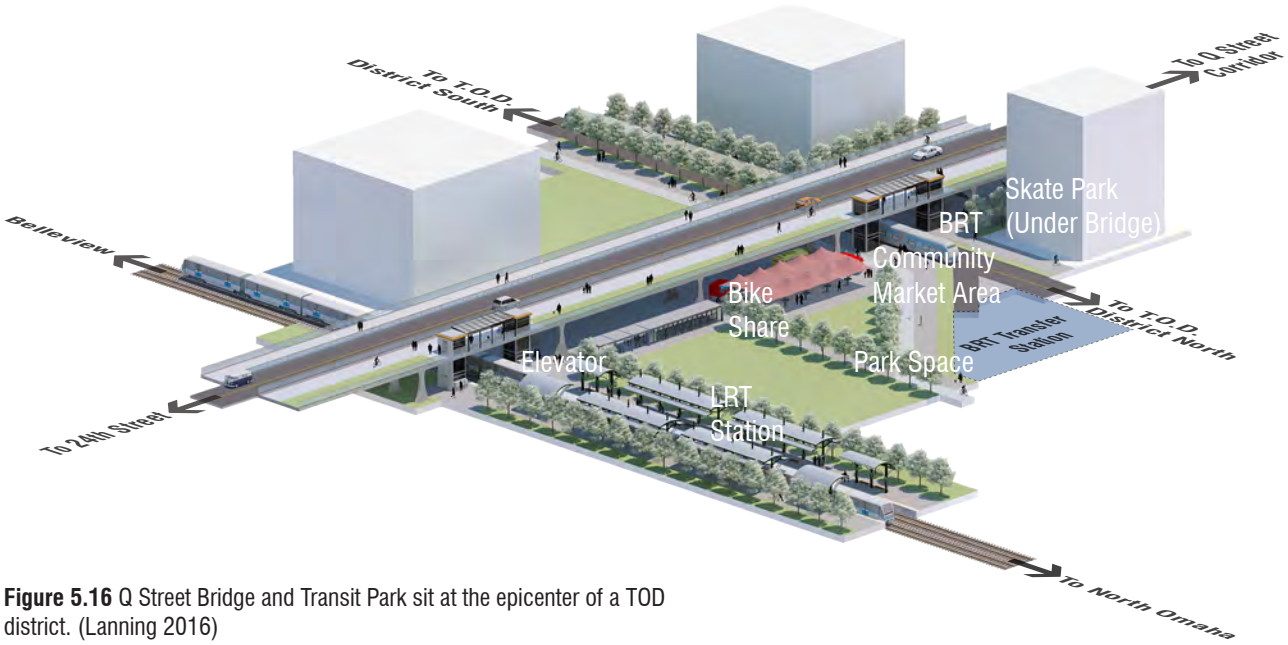


Figure 5.16 Q Street Bridge and Transit Park sit at the epicenter of a TOD district. (Lanning 2016)



Figure 5.17 Early conceptual visioning of the Q Street Bridge as a gathering place for transportation, community involvement and recreation. (Lanning 2016)

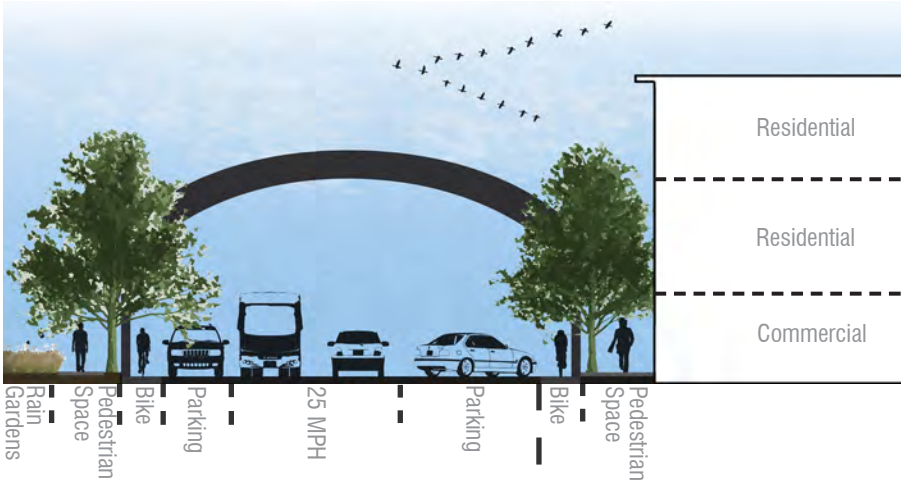


Figure 5.18 District entry is announced with monumentation near Q Street Bridge. (Lanning 2016)

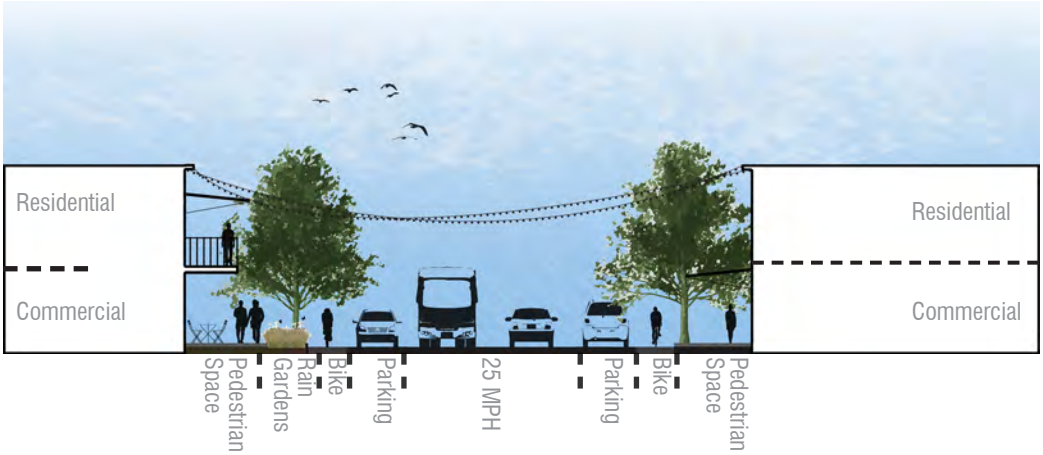


Figure 5.19 As a main district asset, Q Street is proposed to be a major east-west green street that provides a safe, vibrant, and entertaining mixed-use corridor. (Lanning 2016)

Transit Oriented Development

Connections and Commercialism

The transit oriented development (TOD) extends off Q Street and crosses the rail corridor to connect the parcels located on an island between Highway 75 and the rail line. These parcels are disjointed from the community; bridging the island to both sides of the district with a land bridge physically unifies the district allowing for more crossover of activities and festivals. Connecting 24th Street and Q Street strengthens both from two corridor attractions to an attractive district.

The importance of including a mixed-use mixed density TOD is to provide financial support and mixed income to the Southside Terrace neighborhood, offsetting the cost of retaining subsidized and affordable housing. To maintain mixed housing distribution throughout the district, covenants and policies will ensure that development to accommodates a variety of housing types and income levels, to prevent gentrification impacts on Southside Terrace.

The mixed-use housing at the north end of the site is located near Metropolitan Community College, providing housing options for students and faculty.

A second parking garage located in the middle of the southern portion of the TOD is wrapped in commercial use on the street front. Having a parking structure located in the middle of the TOD area allows visitors to easily access the shops and restaurants without interrupting the streetscape with a parking lot. It also serves as a park and ride.

In the City's proposal for a light rail system, a rail trail was also suggested as a pedestrian link the city. To build upon that suggestion, a trail and park system reaches from the southern end of the TOD, beginning as a district wetland, and stretches all the way to the northern most tip of the district along the rail line.

Green streets are utilized throughout the street grid system, conveying and dispersing stormwater, and keeping it out of the combined sewer overflow system. The wetland area is located at the lowest point in the district enabling the treatment of stormwater.



Figure 5.20 TOD offers a variety of property and use options for visitors, developers and current residents of the area. (Lanning, 2016)



Figure 5.21 Green infrastructure stretches through the district in the form of rain gardens, wetlands, green streets, parks, and trail systems. (Finck 2016).



Figure 5.22 The Central Green Park and other greenspaces provide spatial organization and enhanced opportunities for social interaction. (Finck 2016)



Figure 5.23 Topography and natural drainage systems create opportunity for storm water treatment using wetlands which also serve as a recreation amenity. (Finck 2016)

Phasing Plan

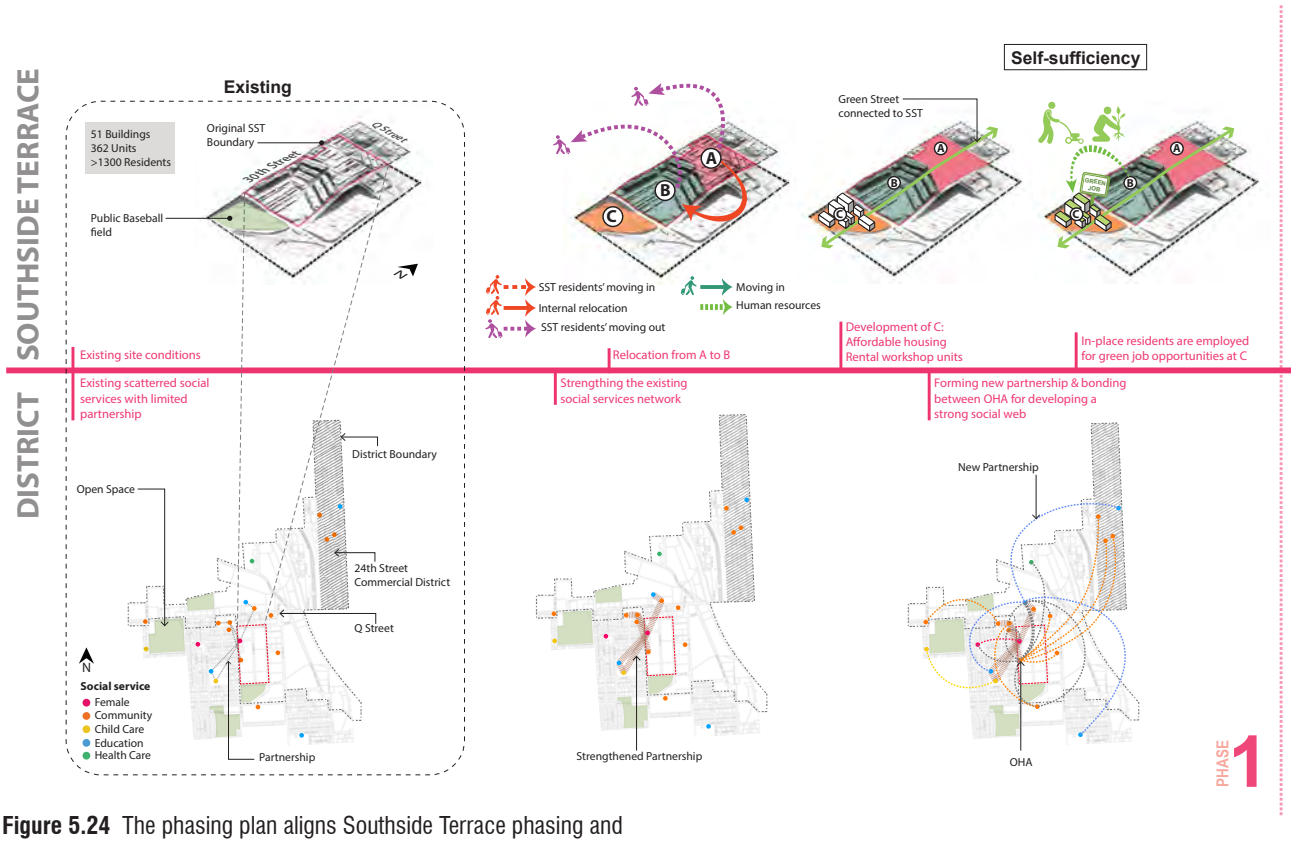


Figure 5.24 The phasing plan aligns Southside Terrace phasing and district phasing to show how they correlate. (Wong 2016)

Two Scales, One End Result

Retaining Southside Terrace residents throughout the phasing and construction process is one of the key drivers of the Southside Catalyst proposal. Retention requires meticulous planning and alignment with the other goals of the district. The first part of phasing, to unite the service providers in a service provider coalition task force, ensures continued communication and coordination of their services. Existing partnerships are strong, but it is important to ensure that no aspect of existing services to the Southside Terrace residents is overlooked. The depth and range of support services provided to Southside Terrace exceeds any other housing development in the city and OHA plays a key role in those partnerships.

In the first phase on Southside Terrace, residents relocate from the northern section of Southside (A) to the middle section (B). initiationg construction on the north side first establishes a key connection to Q Street. It is also the easiest section for the first phase of construction. The next phase is for the southern most parcel (C) to be developed into housing for the residents. Parcel C is currently a city-owned baseball field that could be acquired by making a land swap agreement with the city and future land developers that a percentage of land be set aside for district parks. Next, residents move to parcel C, with potential employment opportunities in further parcel construction.

The redevelopment of B includes mixed-use and mixed-income housing because it is the last section to be constructed due to topography. In this way, mixed-use and mixed income are infused to Southside Terrace provide to more employment and quality of life opportunities.

The development of Southside Terrace will integrate with the emerging district around it, provide cultural benefits and broaden options for residents at Southside. Connectivity to the surrounding neighborhoods and Omaha will increase service support and opportunities for resident.

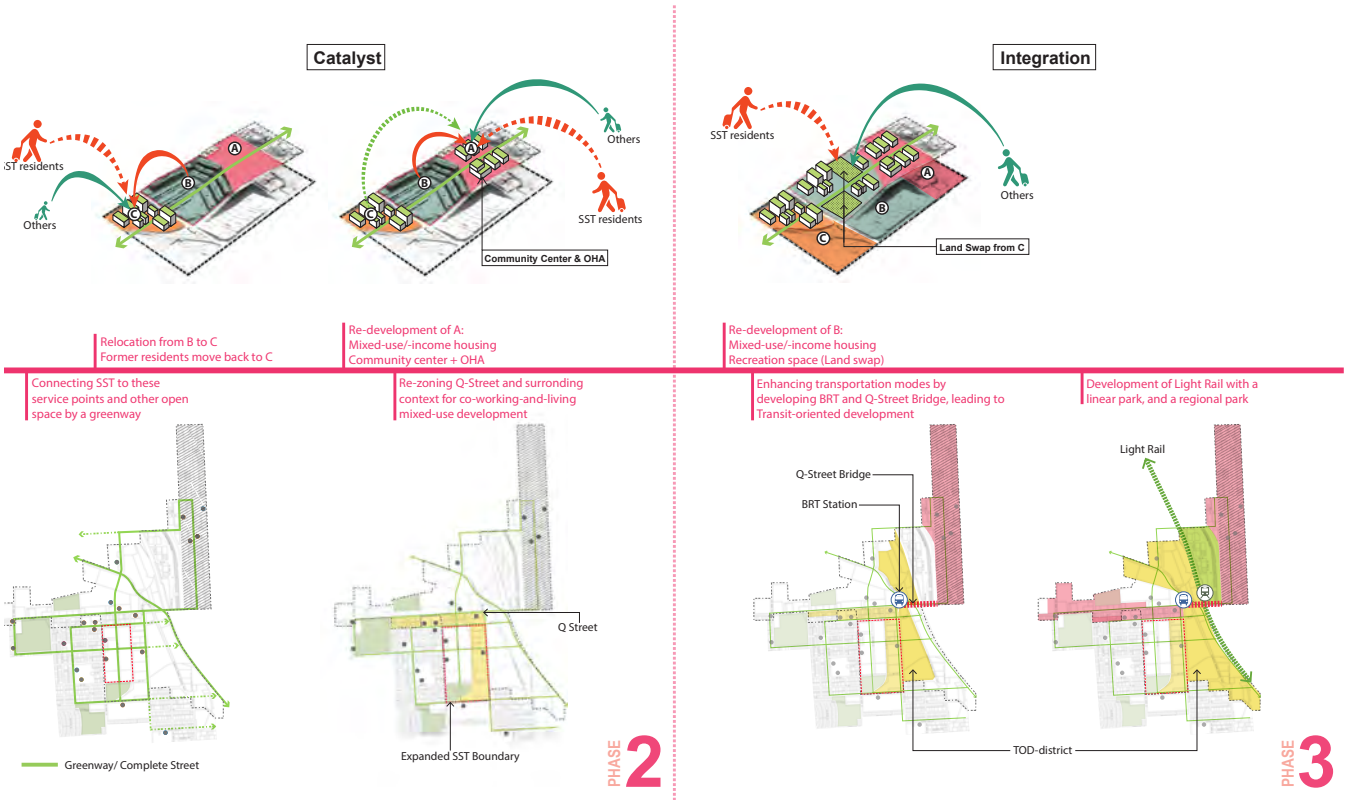




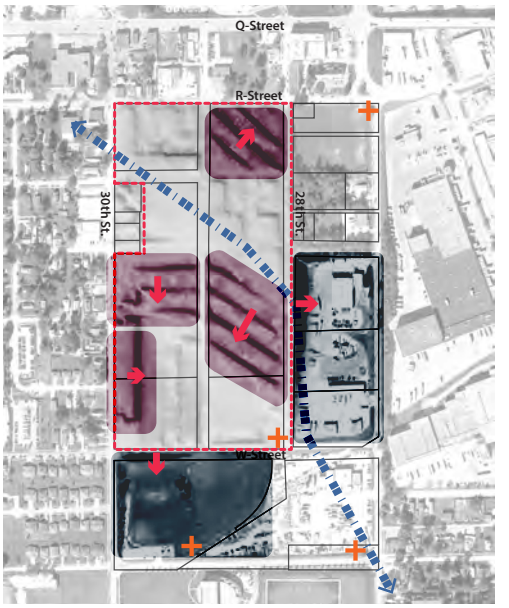
Figure 5.25 A land swap agreement with the city allows Southside Terrace to extend to the south allowing for residents to stay in the area while under construction. (Finck 2016)

Southside Terrace Site Design

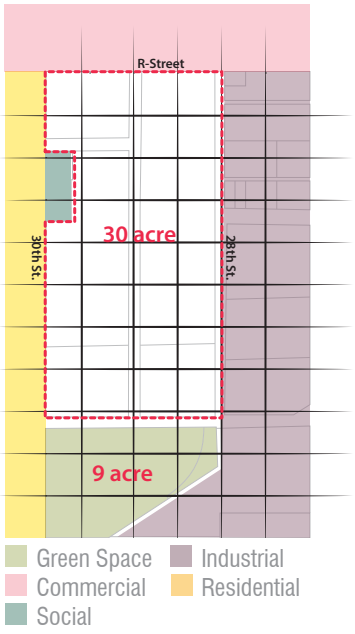
Components of a Typology

To make a topology model of how buildings could be laid out and their density, a grid to structures the site around social and green infrastructure. Two main green streets cross, extending to the street grid beyond. The most dense area of Southside Terrace is the northeastern corner, closest to Q street and the TOD. At its most dense location, Southside Terrace will be 30 dwelling units per acre; at its least, 5 dwelling units per acre for single family homes located in the southwest plots.

Within Southside Terrace, a diversity of housing types and styles including market rate, affordable and subsidized housing connect Southside Terrace to the surrounding community and give current residents the option of remaining in the community once they no longer require subsidized housing.

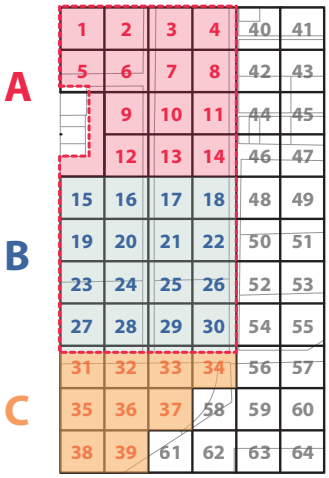


Site Analysis



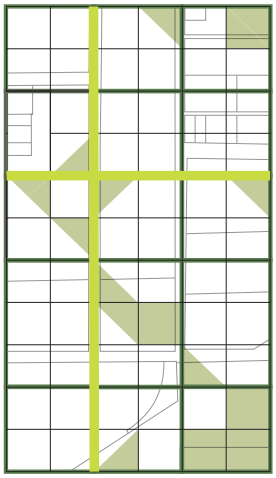
Existing Land use

Organized by grid of 64 one-acre plots.



Typology Organization

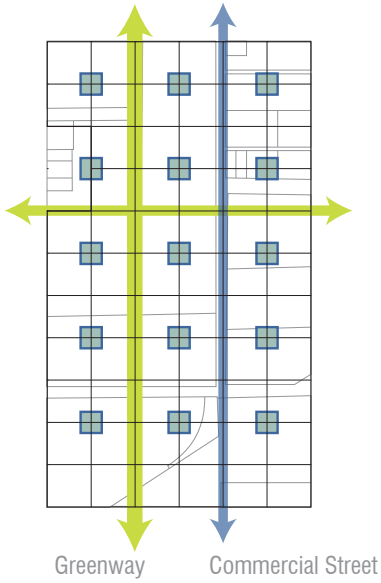
Green resources distributed via land swap with the city.



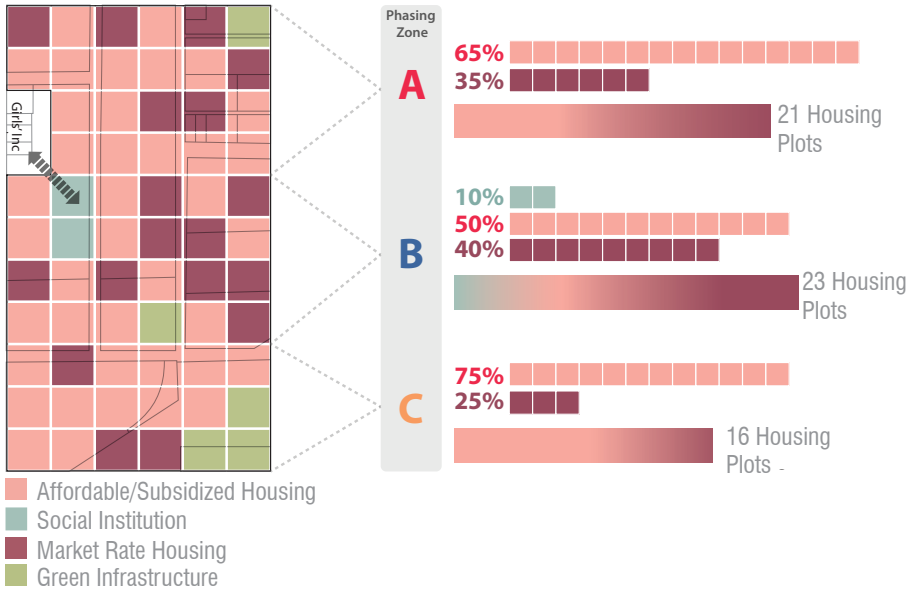
Green Infrastructure

Figure 5.26 A systematic typology drives the Southside Terrace model providing sustainability and integration to the community while destigmatizing public housing. (Wong 2016)

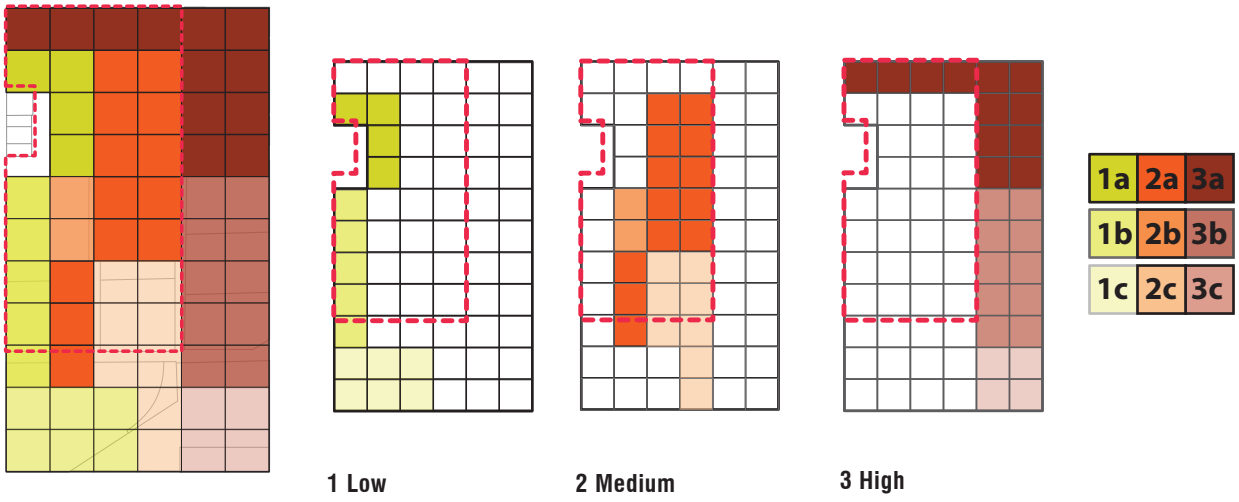
Plot modules ensure equity of social amenities.



Social Infrastructure



Mixed Income Ratios



1 Low **2 Medium** **3 High**

Housing Density

Figure 5.27 Density and housing type comprise a key strategy for destigmatizing and retaining Southside Terrace residents through the duration of construction. (Wong 2016)

Southside Terrace Typological Approach

A Sustainable Model

The housing units are arranged around green space and include a intensive green roof for agriculture. The placement and orientation of each structure ensures that natural surveillance can take place, to help keep the neighborhood safe. Providing a variety of bedroom options is important because of the variety of cultures present at Southside with larger families.

The use of balconies allows for each family to have safe, private outdoor space that they can control. These spaces also aid in natural surveillance.

Not representing a literal layout, a typology model was developed to demonstrate the relationships between density greenery (Figure 5.29). More open green space allows for more programming such as community gardens, sports fields, fitness trails and work out zones, and outdoor gathering spaces.

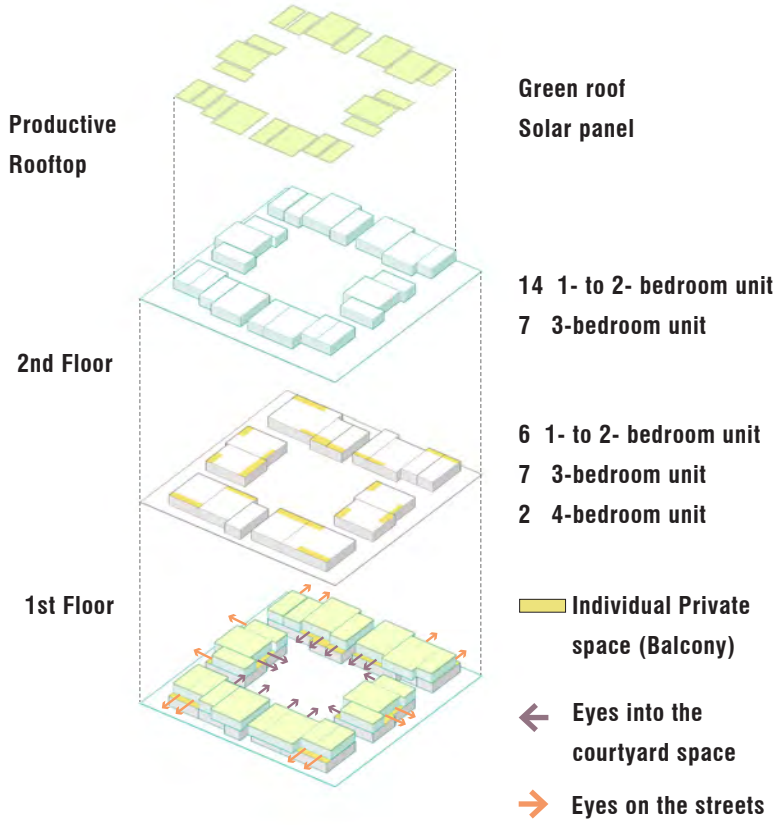


Figure 5.28 The building typology provides multiple uses and incorporates safe private outdoor space. (Wong 2016)

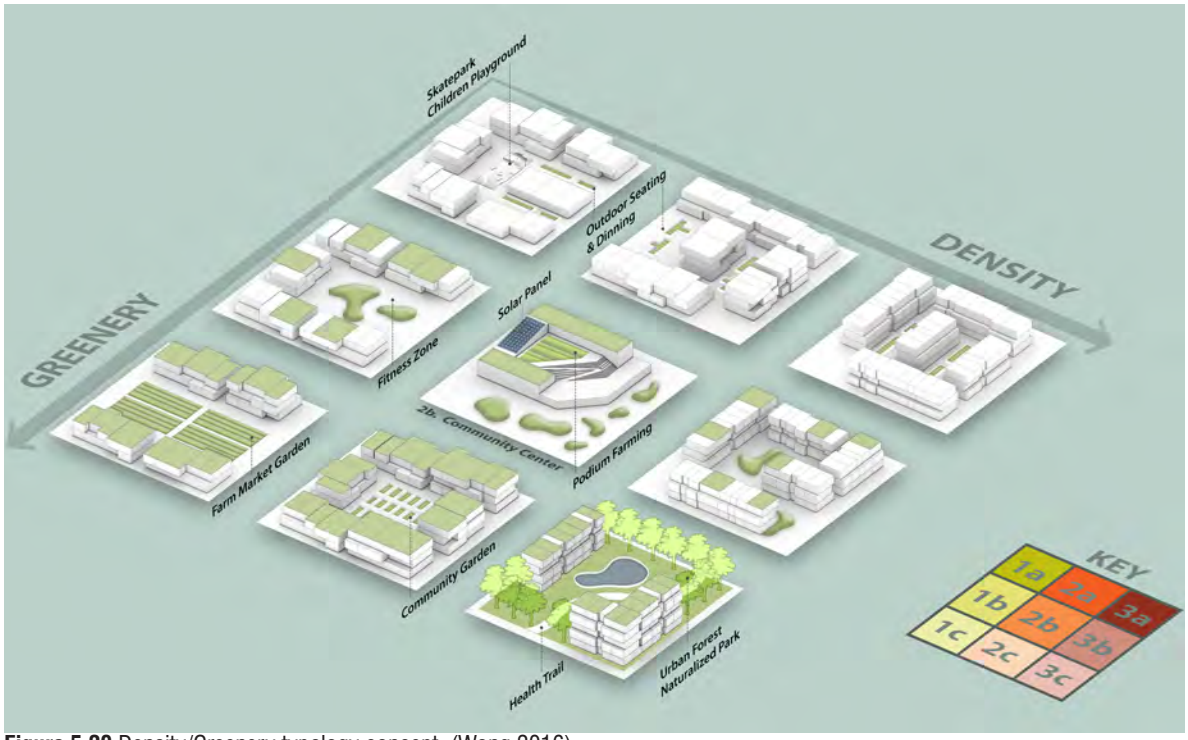


Figure 5.29 Density/Greenery typology concept. (Wong 2016)



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Figure 5.23
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Figure 5.26

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Figure 5.27

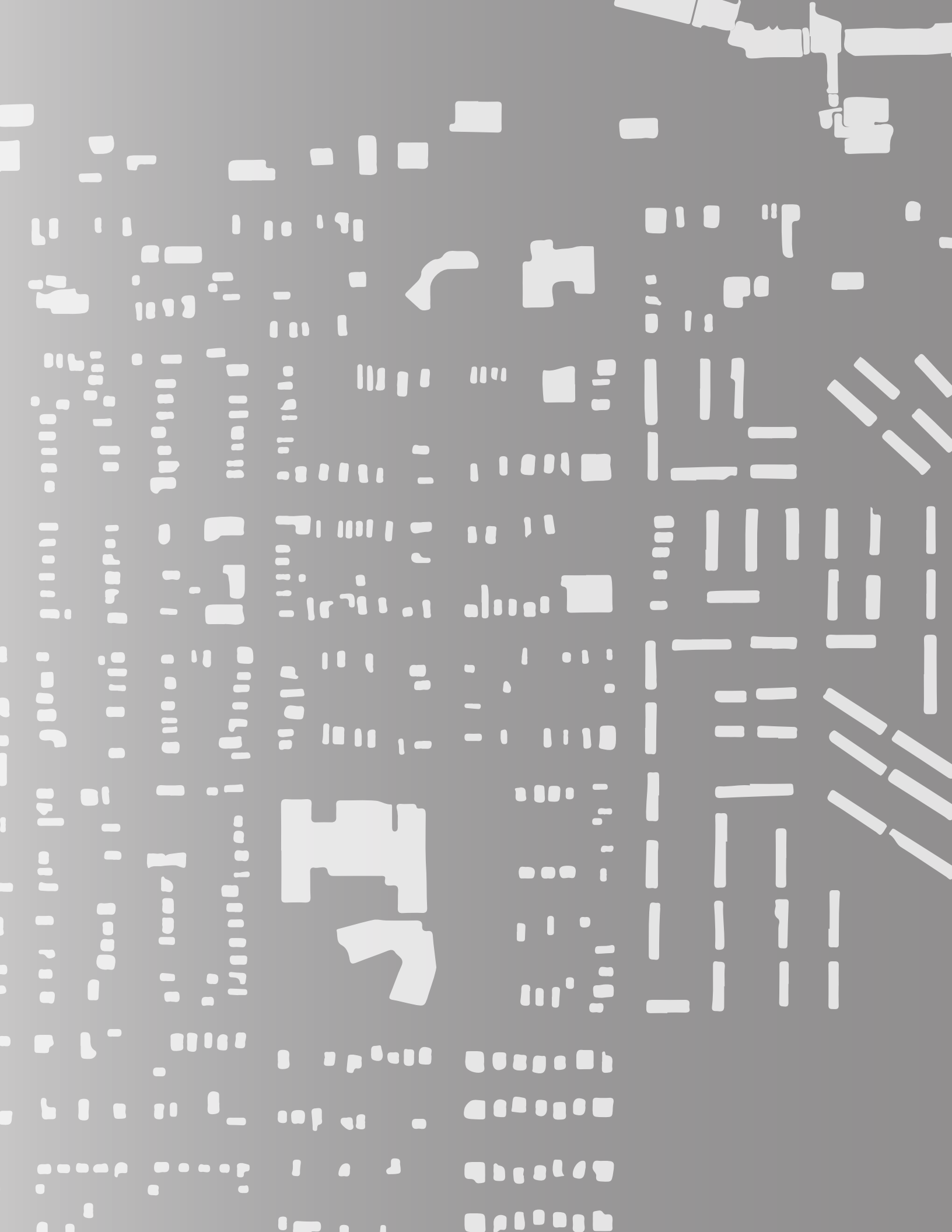
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Figure 5.28

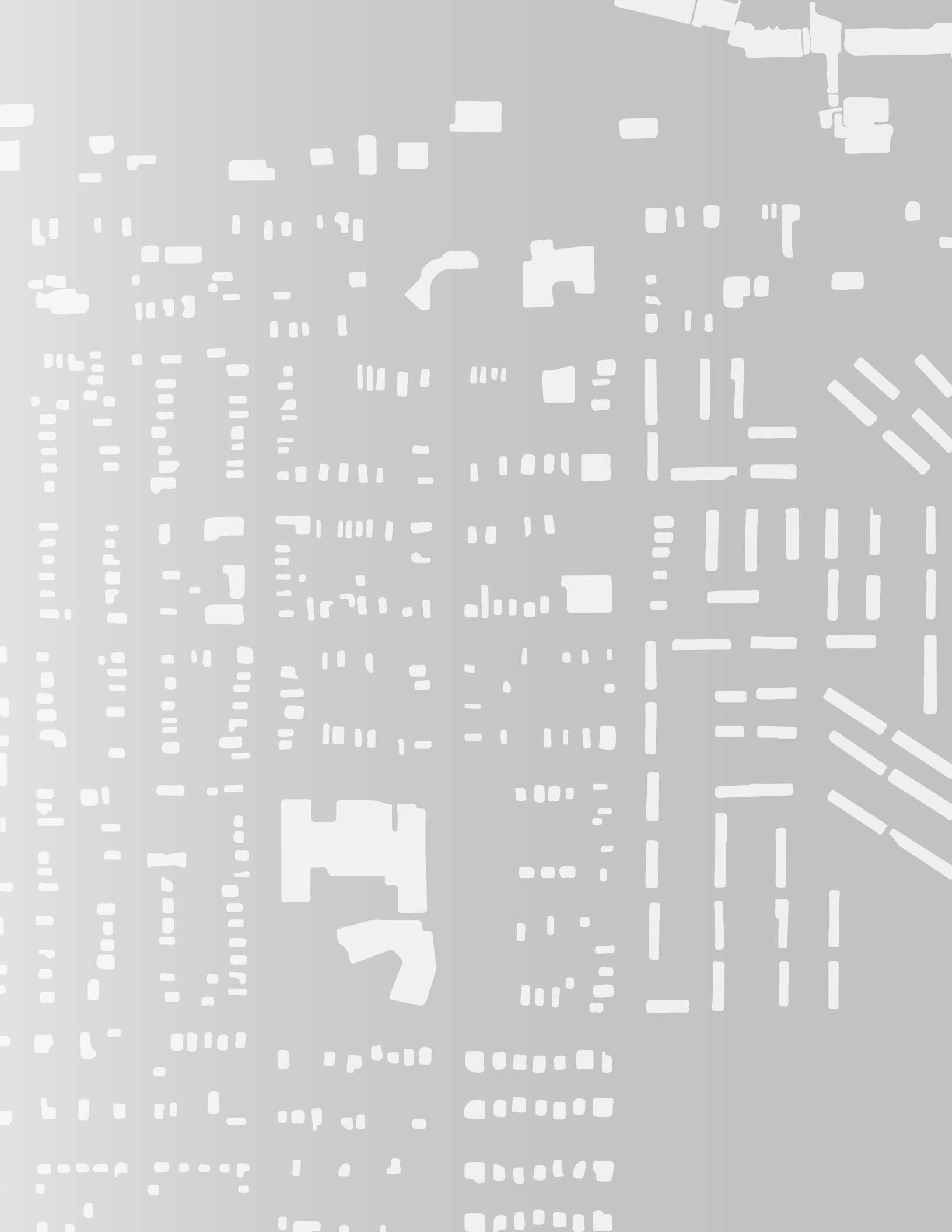
Wong, Astrid. 2016. “Density Typology.” Photoshop image.

Figure 5.29

Wong, Astrid. 2016. “Density Typology.” Photoshop image.



APPENDICES



A

Critical Maps

Critical Mapping

Early in the semester, a method of mapping, research, and design called "Critical Mapping" was used. More than simply gathering and mapping information, Critical Mapping seeks to classify, correlate, and compare site information across a broad spectrum of topics for the directed purpose of identifying dilemmas and opportunities, leading to design strategies. The intent of critical mapping is to (1) help students address wicked problems, those problems with many dynamic interrelated variables, (2) teach students to be adept at shifting between analysis and design, and (3) quickly identify, synthesize, prioritize, and evaluate critical information in generating design strategy.

Mapping relied on Geographic Information Systems (GIS) data supplied by Douglas County, ARCGIS Online, Google Earth imagery, maps and data from city agencies, data published by non-profit organizations, and historical maps and data. Maps were created using ESRI ARCGIS, Adobe Illustrator, and/or Adobe Photoshop. Adobe InDesign was used for page layout.

Critical Mapping Process

Critical Mapping is a cyclical method of working, requiring students to move quickly between critical inquiry, evaluation, creative design and planning, back to critical inquiry, and so on, thus allowing the studio to begin unfolding proposals as information is still becoming available. Each student developed two maps during the second week of the semester, created in a particular order: Truth Map and then an Evaluation Map. This process helped the class better understand conditions, develop planning and design ideas, and develop arguments for their recommendations. During the third week of the semester, each student created three maps: Truth Map, Evaluation Map, and Strategy Map. The Critical Mapping Framework was adapted by our Professors from the book "Writing Arguments: A Rhetoric with Readings."
(Ramage et al 2012). Figure A.1 details the inquiries, goals, and activities associated with each type of critical map.

Truth Maps

These maps draw out significant conditions from the expanse of available data. There are three types of Truth Maps: classification maps extract and categorize site conditions; correlation maps identify two or more variables and investigate possible relationships; and comparison maps compare study area conditions with an implemented design in another location or with practices being used elsewhere.

Evaluation Maps

The second type, Evaluation Maps, build on the Truth Map findings and assess existing conditions relative to community agendas, project goals, and/or planning vision. These findings are documented as opportunity maps or dilemma maps.

Strategy Maps

Lastly, Strategy Maps identify ways to leverage opportunities or overcome dilemmas. Intended to inspire a vision for the future, the Strategy Maps collectively point toward policy and/or design decisions.

Every map is guided by a focused research inquiry, intended to draw out conclusions salient to the overall project. Students define their question, discuss their methods, and describe their findings in writing to support the graphic mapping. A "headline" serves as more than just a map title, but draws the audience's attention to key conclusions from the mapping exercise.

Critical Mapping Framework				
	Claim Type*	Research Inquiry	Critical Map Type	Description
Truth Maps	definitional	To what group does this thing (these things) belong?	Classification	Maps that extract and categori things or conditions in a study
	causal	What conditions or processes correlate to phenomena?	Correlation	Maps that identify correlations potential reasons why a certai dition has come to be in a par place. Correlations have at lea related variables.
	resemblance	How is our site like another site?	Comparative	(1) Maps that compare curren ditions with an implemented d in another location (precedent (2) Maps that compare curren ditions or strategies of our site conditions or practices that ar used elsewhere.
Value Maps	evaluation	What do these site conditions mean for the goals of our project?	Dilemma or Opportunity	Maps that apply the agendas o client, stakeholder, or designer current site conditions.
	proposal	How can we change undesirable conditions or introduce something new and desirable?	Strategy	Maps that make a claim about to accomplish one or more pr goals. Strategies proposed sh be big moves that lay the foun for future action, and often rec additional research.

"*Critical mapping types are based on 5 claim types used for making arguments.
Ramage, John D., John C. Bean, and June Johnson. 2010. Writing Arguments : a Rhetoric with Readings. Vol. 8th. New York:

	Goal	Activities	Examples
ize area.	Categorize things for the purpose of simplifying complex conditions and identifying relationships. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Measuring, extracting, coding, plotting	Identifying differences in street types, building types, land use, or ecosystem health. Identifying proximity of extractions to one another.
s and n con- ticular st two	Describe why something has come to be. - OR - Describe the consequences of past actions. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Relating, extracting, coding, plotting	Explaining potential causes for vacancy in an area, erosion in a particular location, or land values.
t con- esign study). t con- e with e being	Emphasize similarities and differences. Conclusions from this map should set the stage for identifying dilemmas and/or opportunities.	Comparing, extracting, coding, plotting	Identifying an urban design proposal from another city and placing it in our study area to see how it might fit. Comparing budget spending in another city to that of our study area. (Later - comparing one of your strategies to those implemented in another place to evaluate cost, timeframe, or another unknown.)
of a r to	Identify either (1) obstacles to achieving goals or (2) locations or processes well positioned for achieving goals. Conclusions from this map should set the stage for identifying one or more design strategies.	Applying, evaluating, abstracting	Dilemma: Infrastructure that limits desired growth expansion. Specific conditions that prevent desirable pedestrian environments. Developed areas that prevent ecological connections. Opportunity: Vacant or partially vacant parcels. Large contiguous parcels, or parcels that could be easily assembled for redevelopment.
t how oject ould dation quire	Propose new ideas for accomplishing goals. Conclusions from this map should articulate how the strategy will overcome dilemmas or leverage opportunities, and should identify how to move forward. What additional information is needed? Should it be combined with one or more different strategies?	Projecting, proposing, abstracting	Proposing new infrastructure to bridge gaps in connectivity. Proposing new land use policy that will promote desired redevelopment. Proposing new forms of transportation. Proposing green infrastructure solutions that accomplish multiple goals.

Pearson Longman. “

A

Critical Maps

Context and Site Conditions

Existing Transportation System Lacks Presence in Southside Terrace

Southside Terrace has access to one bus line, but no bike lanes or trails

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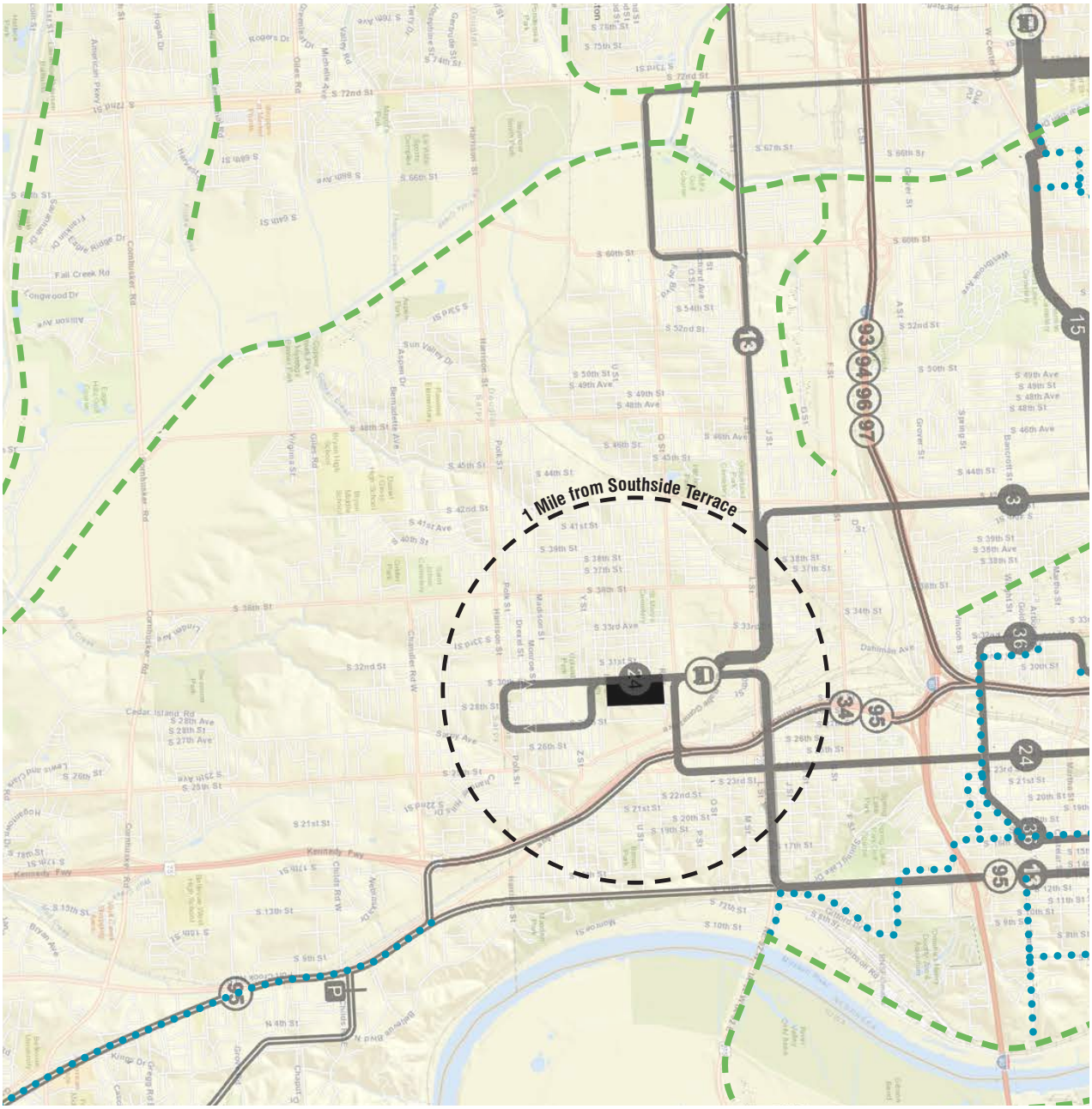
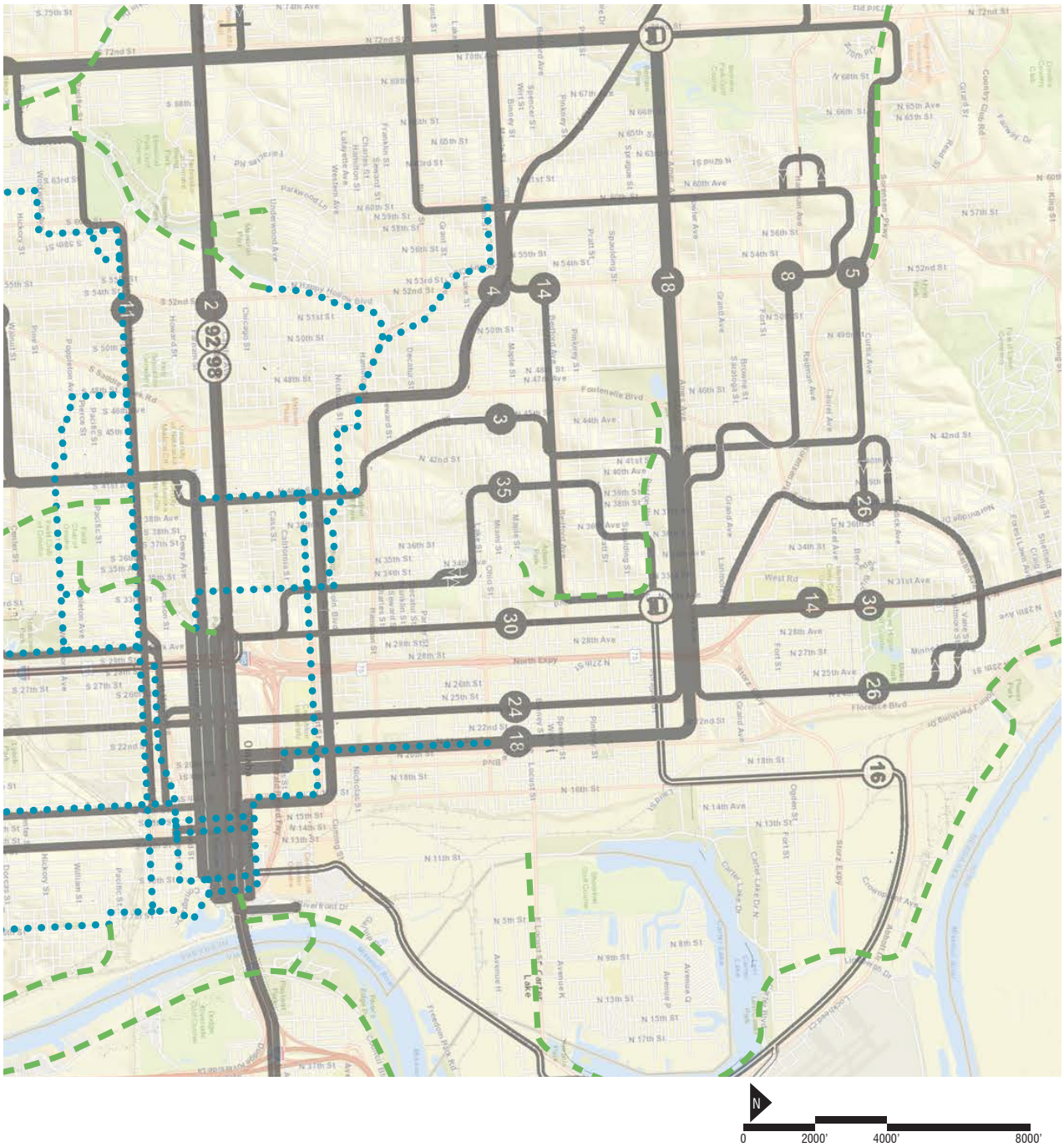


Figure 01. Existing Public Transportation Infrastructure in Omaha
Source: ArcGIS, 2016; City of Omaha Parks and Rec, 2010; MAPA, 2014; ometro.com, 2016

Inquiry: What are the current public transportation services offered in Omaha, and how do they serve the residents in and around Southside Terrace?
Key Extractions: Streets, bus routes, bike lanes, trail systems
Methodology: Routes extrapolated from Omaha planning, transportation, and parks/rec documents, overlaid on base transportation map from GIS.
Conclusions: The findings above show that much of Omaha especially north and central Omaha are connected via an array of bus routes and bike lanes, and that Omaha's parks in and around the city are connected by a series of pedestrian/bike trails. However, the extent of public transportation serving the people in and around Southside Terrace is the 24 bus that stops adjacent to the site and multiple routes that meet to the north of the site near the community college. There are no bike lanes, or pedestrian trails within a one mile radius. Overall, Southside Terrace lacks the connectivity that much of the rest of the city has.



Existing Bus Routes: While routes run on varying schedules, with some running on a 5 minute schedule, most existing routes currently run on 15-30 minute schedules. The #24 route serving Southside Terrace currently runs on a 30 minute schedule.
Existing Bike Lanes: The routes displayed are part of the Bike Omaha system initiative or on streets with clearly defined bike lanes. Not shown are roads with shoulders or implied bike lanes.
Existing Trails: With 120+ miles of trail system, trails in Omaha are intended to used by both pedestrians and cyclists, serving as connections to Omaha's many parks and communities.
(City of Omaha Parks and Rec, 2010; MAPA, 2014; ometro.com, 2016)

Legend
- Site
- Existing Bus Route
- Existing Bike Lane
- Existing Multi-Modal Trail

Future Transportation System Will Better Connect the City

Omaha's future transportation network looks promising, especially for currently underserved Southside Terrace

File name: W3_EL04_S2016_SST-FuturePublicTransportation

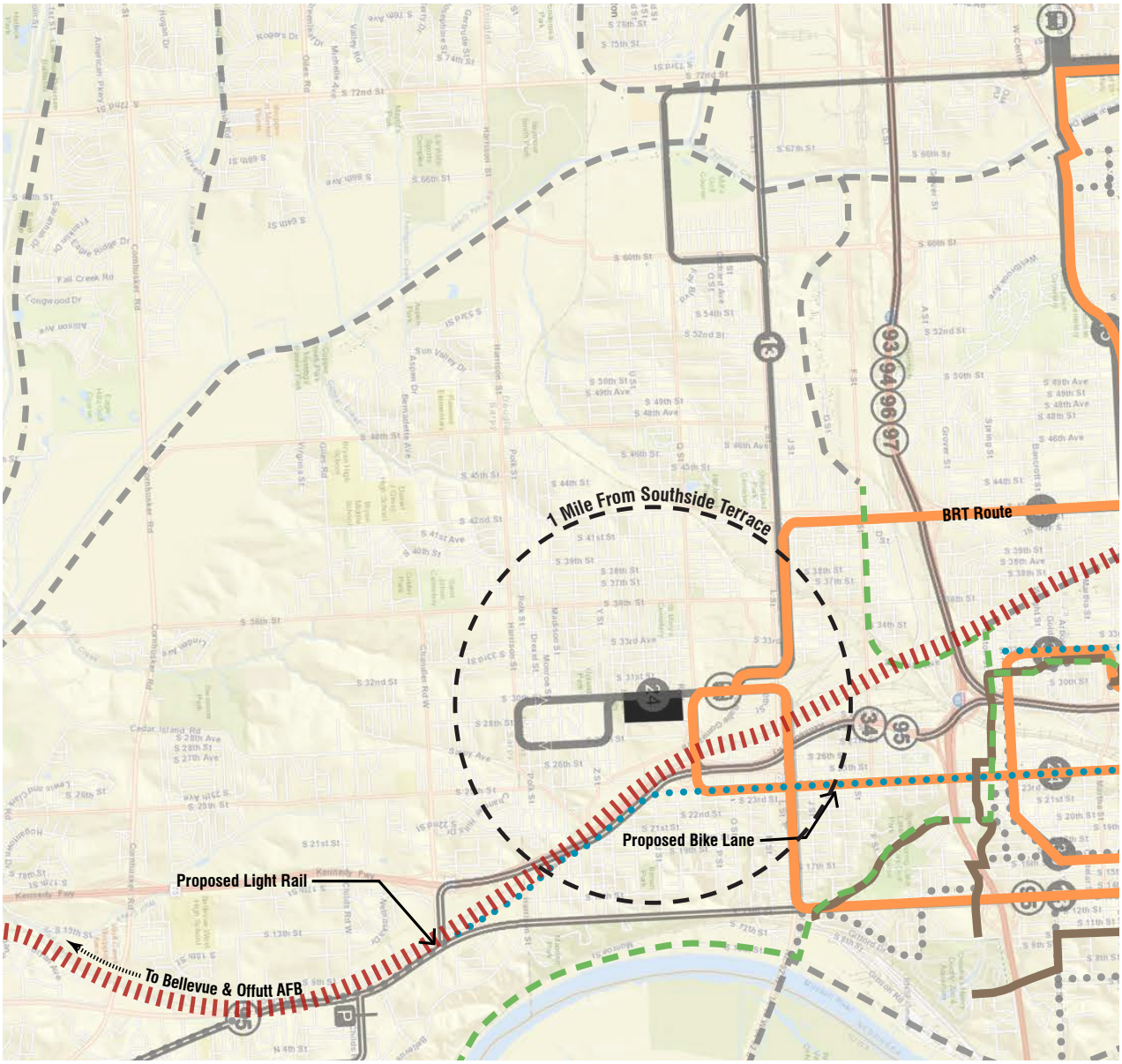
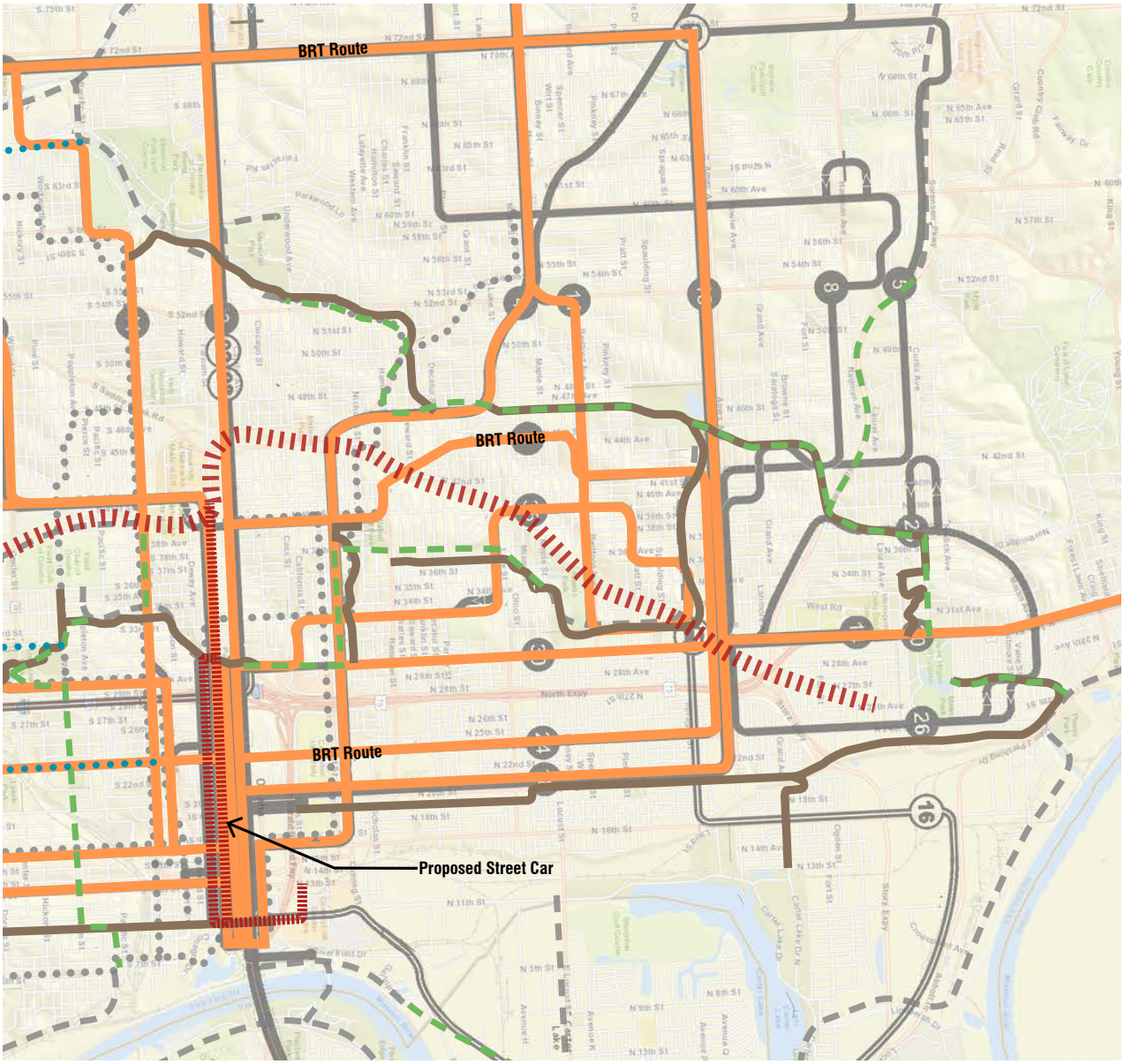


Figure 01. Possible Future Transportation Infrastructure in Omaha
Source: ArcGIS, 2016; City of Omaha Parks and Rec, 2010; City of Omaha Parks and Rec, 2010; Emerging Terrain, 2013; MAPA, 2014; MAPA, 2015, ometro.com, 2016

Inquiry: What are the proposed future public transportation services for Omaha, and how does Southside Terrace fit in with that plan?
Key Extractions: Streets, bus routes, bike lanes, trail systems, BRT routes, streetcar route, possible light rail route, proposed boulevards.
Methodology: Routes extrapolated from Omaha planning, transportation, and parks/rec documents, overlaid on base transportation map from GIS.
Conclusions: The future plans for Omaha's public transportation system shows that it is an ever expanding system. While many existing services are being expanded upon, many new services are planned or proposed to be implemented sometime within the future, which includes a downtown streetcar system, improved bus system through BRT lines, green streets and revitalized boulevards, and a light rail system. For Southside Terrace many of these proposed services will be within the vicinity of a one mile radius to the site, and greatly improve the lacking existing transportation network. BRT lines to the north, a bike line that connects to the south and downtown will greatly improve connectivity to the city. While all of these are little steps, a light rail system could radically change Omaha's connectivity, especially Southside Terrace, acting as a catalyst for growth of the rail's adjoining communities into more mixed use transit orientated developments.



Bike Lanes: Omaha plans on implementing many more bike lanes within the city as it moves forward with implementing more green streets, boulevards and more pedestrian friendly infrastructure.

Trail Expansion: Omaha plans to continue expanding its extensive network of trails to connect the cities parks, recreation areas, and ecological areas.

Bus Rapid Transit (BRT): Bus rapid transit is bus service operating at higher frequency and speed, sometimes with its own lanes. Omaha plans to convert a large portion of its busiest downtown routes into BRT lines.

Streetcar: Omaha is planning to implement a modern streetcar service along Farnam and Hartney streets downtown, serving the central business district, old market district, the hospital and Century Link Center.

Light rail: Comprehensive planning and design was explored by Emerging Terrain a non-profit design firm in 2013. The team laid out the rail corridor and envisioned redevelopments surrounding the mostly unused line.

Boulevard Revitalization & Greenstreets: Omaha plans to revitalize its historic boulevard network and implement numerous greenstreets across the city to promote pedestrian walkability and alternative transport.

N

0 2000' 4000' 8000'

Legend

- Southside Terrace
- Existing Transportation Infrastructure
- Future Bike Lane
- Future Trail Expansion
- Proposed Bus Rapid Transit BRT Route
- Proposed Streetcar Route
- Possible Light Rail & Trail System
- Future Boulevard Revitalization

Future Transportation System In South Omaha & Southside Terrace Could Bring Changes

Transportation Proposals for Omaha would Improve Connectivity and Catalyze Redevlopement In and Around Southside Terrace

File nam: W3_EL05_S2016_SST-FuturePublicTransportationOpportunity.PDF

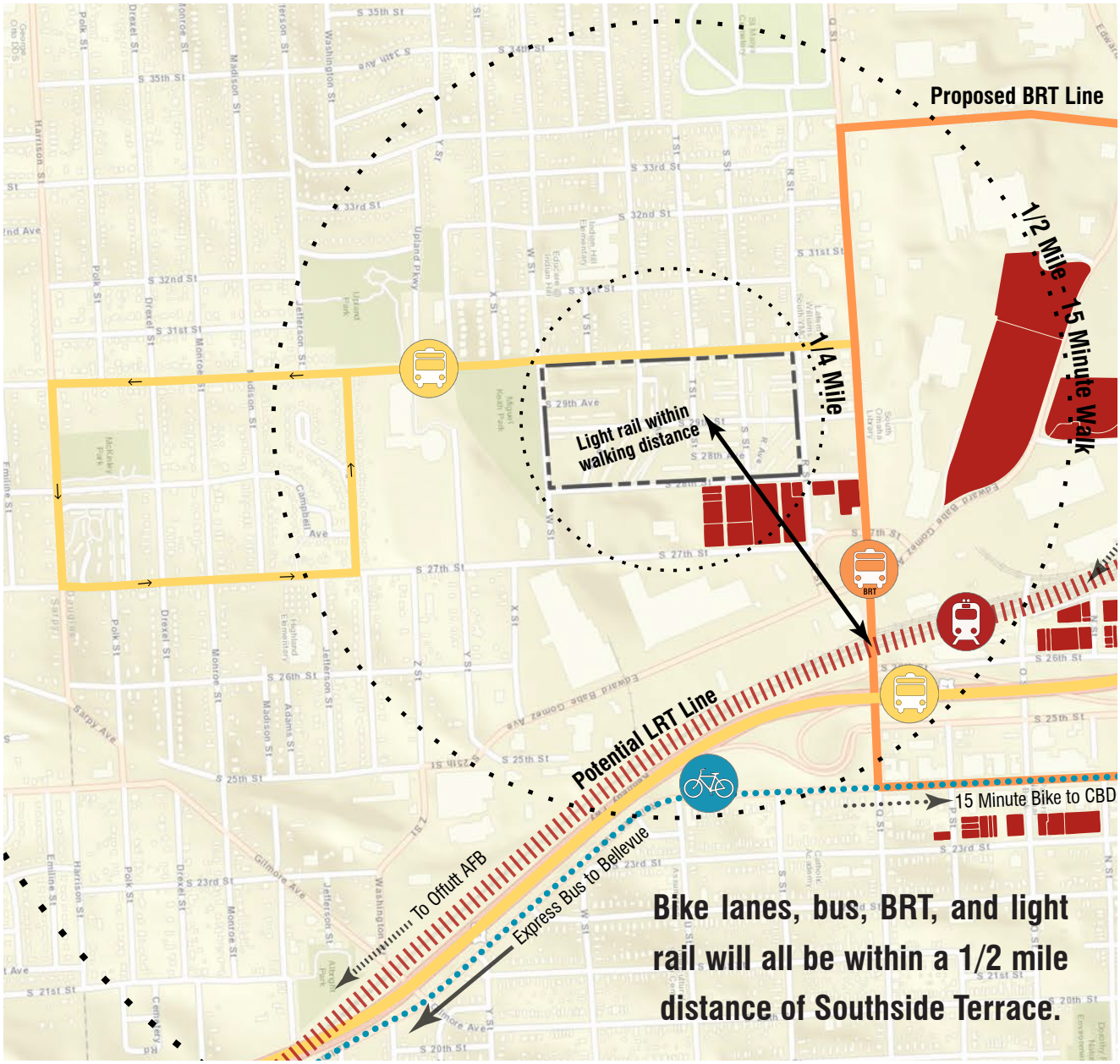
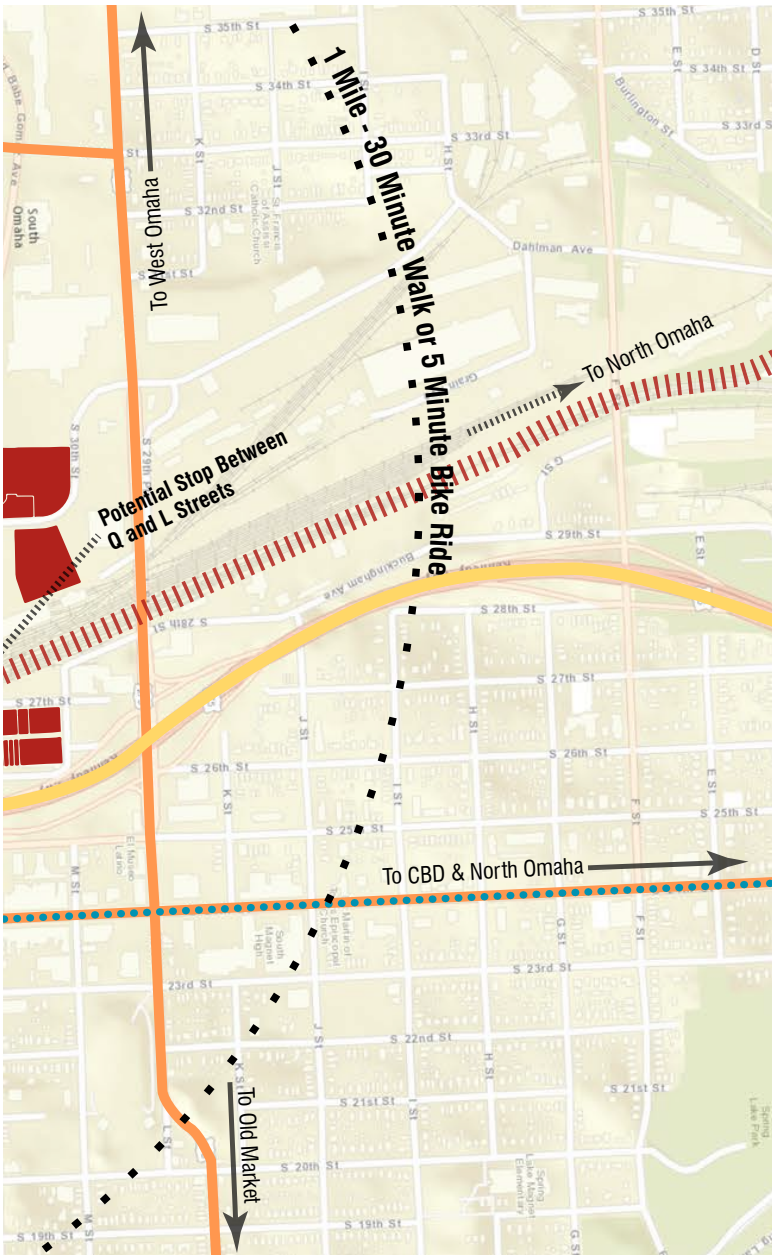


Figure 01. Future Public Transportation Amenities Near Southside Terrace, Relative Travel Distances, and Proposed Rail Corridor Development
Source: ArcGIS, 2016; Emerging Terrain, 2013; MAPA, 2014; MAPA, 2015, ometro.com, 2016

Inquiry: What future public transportation infrastructure is within the direct vicinity of Southside Terrace, and what is the potential of these systems?
Key Extractions: Streets, bus routes, proposed BRT routes, proposed bike lanes, possible light rail route, proposed light rail redevelopment parcels.
Methodology: Routes extrapolated from Omaha planning, transportation, and parks/rec documents, overlaid on base transportation map from GIS.
Conclusions: Looking at the future public transportation proposals near Southside Terrace, especially the proposed light rail, it shows many opportunities. The biggest opportunity is that Southside Terrace, the surrounding community, and the parcels identified by Emerging Terrain can be redeveloped into more transit oriented developments, to better connect the residents of the area to Omaha and beyond. Along with the light rail, the proposed bike lane along 24th street and the new BRT services, which are all within 15 minute or less walking distance of the New Southsde Terrace can be built to utilize these services. The area along Southside Terrace is still lacking access to the cities large trail networks, and the area lacks more pedestrian friendly green streets, and bike lanes. These services could be expanded upon in addition to the other officially proposed transit infrastructure.



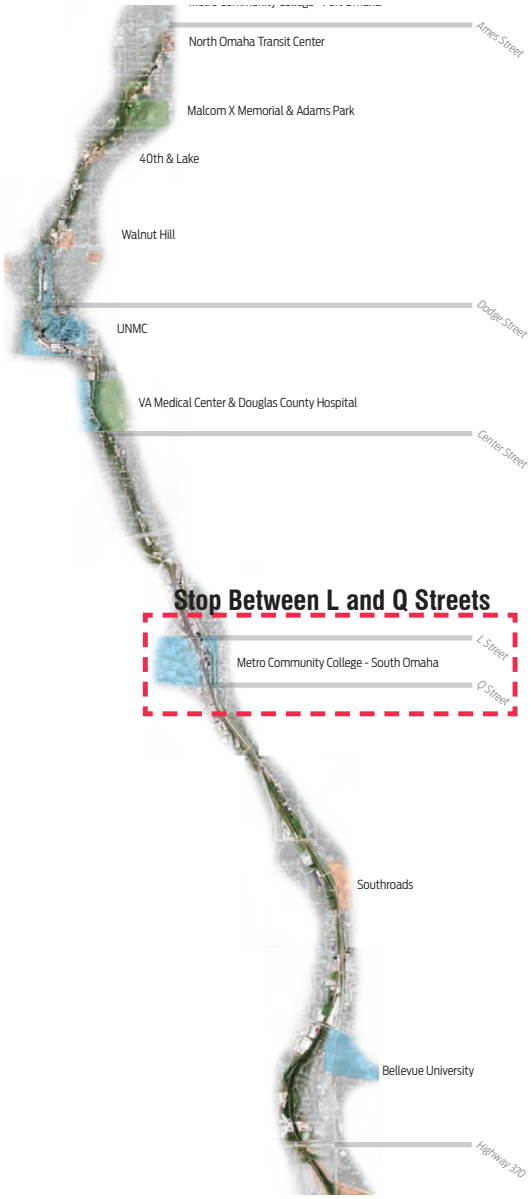


Figure 02. Omaha Belt Line Proposal
Source: Emerging Terrain, 2013

Legend

- Proposed Bus Rapid Transit Line (BRT)
- Standard Bus Route
- Proposed Bike Lane
- Possible Light Rail and Adjoining Trail
- Redevelopment Area Identified by Emerging Terrain's Proposal

About the Light Rail: The Omaha Belt Line

The Omaha Belt Line is a corridor of rail built in the 19th century to connect the cities industrial sectors. By the late 20th century however, much of it was abandoned, leaving the corridor empty and undeveloped. Today that corridor still sits empty, with many of Omaha's key districts within its vicinity. Non-profit Emerging Terrain proposed a design for this corridor in 2013, envisioning it as service that connects Omaha socially and economically. Part of Emerging Terrain's proposal, is to leverage existing vacant, under-utilized, or obsolete, parcels that would be suitable for creating transit oriented developments within a half mile walk of proposed stations. Stretching from North Omaha, as far south as Offutt AFB, the line would pass within a half mile of Southside Terrace. In emerging Terrain's proposal they highlight the area between L and Q streets as an area for a potential stop. A stop along here could greatly transform South Omaha and greatly influence the redevelopment of Southside Terrace. (Emerging Terrain, 2013)

“Q Street Rail Corridor”; Light Rail as a Catalyst for Change

A lightrail line running nearby Southside Terrace would greatly impact the surrounding neighborhood and could greatly

File name: W3_EL06_S2016_SST-LightrailStrategy.PDF

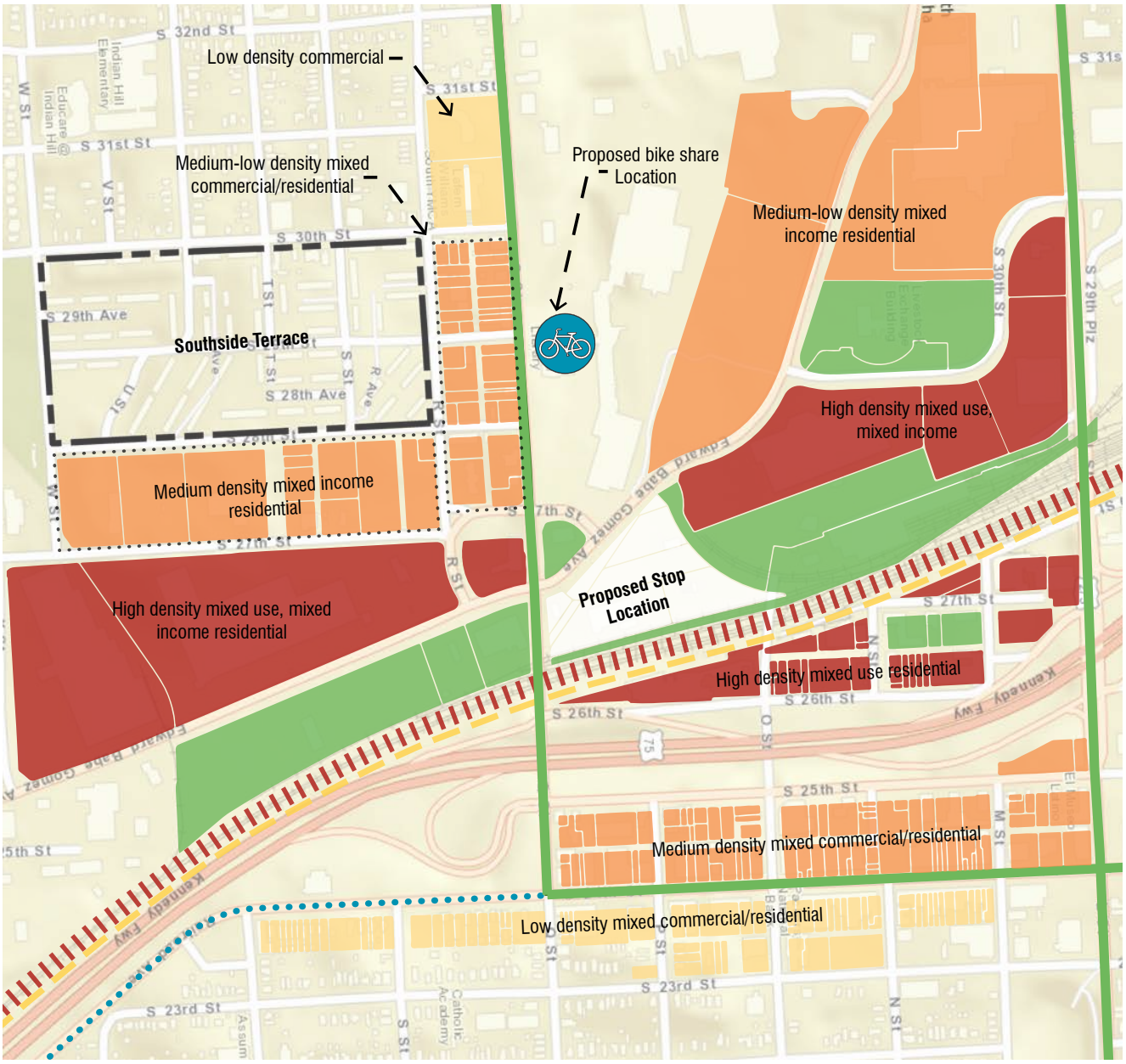


Figure 01. Transit Oriented Redevelopment Strategy for “Q Street Rail Corridor”
Source: ArcGIS, 2016; Emerging Terrain, 2013; MAPA, 2014

Inquiry: How might a potential light rail station nearby Southside Terrace effect the growth and development of the surrounding community, and how can the new Southside Terrace design account for these factors as well?
Key Extractions: Streets, proposed light rail route, parcels
Methodology: Rail route derived from Emerging Terrain’s proposal, overlaid on ArcGIS base map. Parcels extracted from ArcGIS
Conclusions: By having a light rail stop around Q street, the communities surrounding Southside Terrace could be transformed into an innovative mixed use, mixed income transit oriented development. the developements would enable many residents of Southside Terrace to be connected to the larger city around them, and would make them part off a diverse community. The Q Street Corridor would revitalize a community that has been struggleing for years, and provide countless economic and social benefits for residents.

Legend
- High Density
- Medium Density
- Low Density
- Open Space
- Proposed Light Rail Line
- Proposed Complete Street

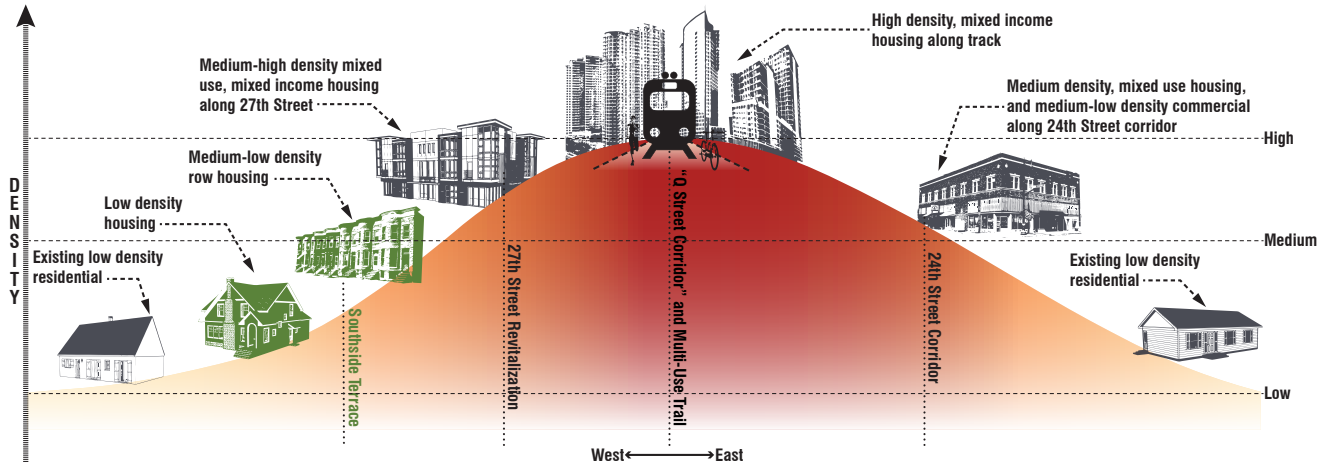


Figure 02. Density Gradient for "Q Street Rail Corridor" Development

Q-Street Rail Corridor

Building off of the proposal from Emerging Terrain, and there proposed stop somewhere between Q and L streets, having a stop closer to Q street would be most beneficial to Southside Terrace and the surrounding community. Having a stop near Q street would serve Metropolitan Community College South Omaha, the commercial district along 24th street, and the surrounding neighborhoods. The hope for such a light rail station is that it would catalyze the building of more transit oriented developments as mentioned in Emerging Terrain's proposal. Development would spread out from high density to low density. Along the tracks would be high-density mixed use, mixed income housing, with green spaces at their center. Moving east density would gradually decline to medium density mixed use along the 24th street district, then on to the exiting low density neighborhood. West of the tracks along 28th and Q Streets would see medium density mixed use housing and then the existing low density housing. In Southside Terrace itself, density would be highest, closest to these proposed developments along Q and 28th streets, then fade to more low density housing to the west and south. To further benefit these transit oriented communities would be to expand upon the proposed future transit infrastructure of BRT lines and bike lanes. A complete street, a street that is pedestrian friendly, and alternative transport centered, with bike lanes, large pedestrian right of way and bus stops would further enhance the "Q Street Corridor". Having these complete streets along Q, L, and 24th Streets are desired. Lastly, residents of Southside may still have to walk 1/2+ miles to get to these other developments so a bike share location along Q street by Omaha Community College South is proposed.

Case Study: The Bridgeland Neighborhood, Calgary, Alberta, Canada

One of Calgary's many transit oriented developments is Bridgeland located in northeast Calgary. With phasing beginning in 2000 and on into today, the community has seen a high degree of redevelopment along its rail corridor and bus network. This acessable transportation system has made Bridgeland highly regarded for its pedestrian connectivity. Directly north of the light rail are high density mixed use apartment buildings, and further north the density of residences falls down to medium density residences. In this medium density area, on a once large vacant lot is a public housing project of around 30 units. While not totally similar to the community around Southside Terrace, a lot can be learned from looking at the Bridgeland neighborhood in Calgary, Canada.

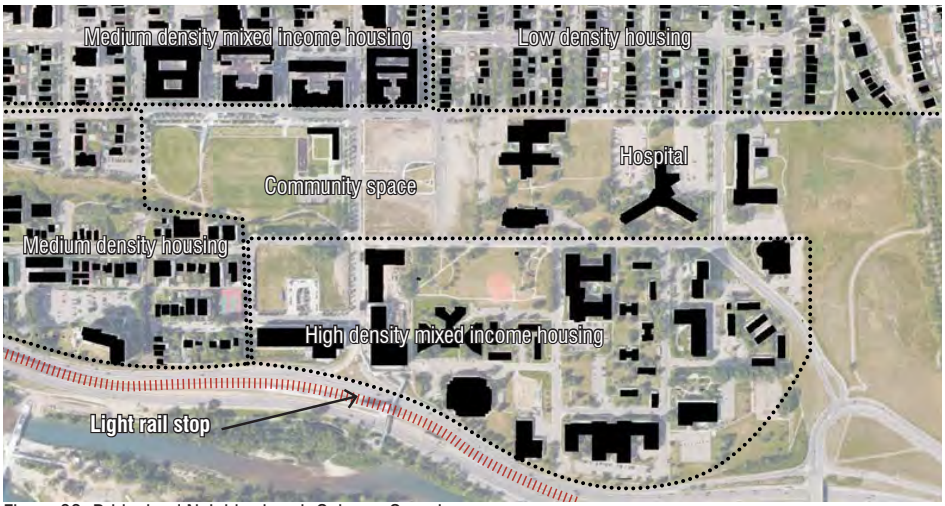


Figure 03. Bridgeland Neighborhood, Calgary, Canada

How Can Southside Terrace Residents Access Employment, Goods and Services?

Southside Terrace is located for walkability, biking, and transit

W2_BN01_3.6K_TransportationModes.PDF

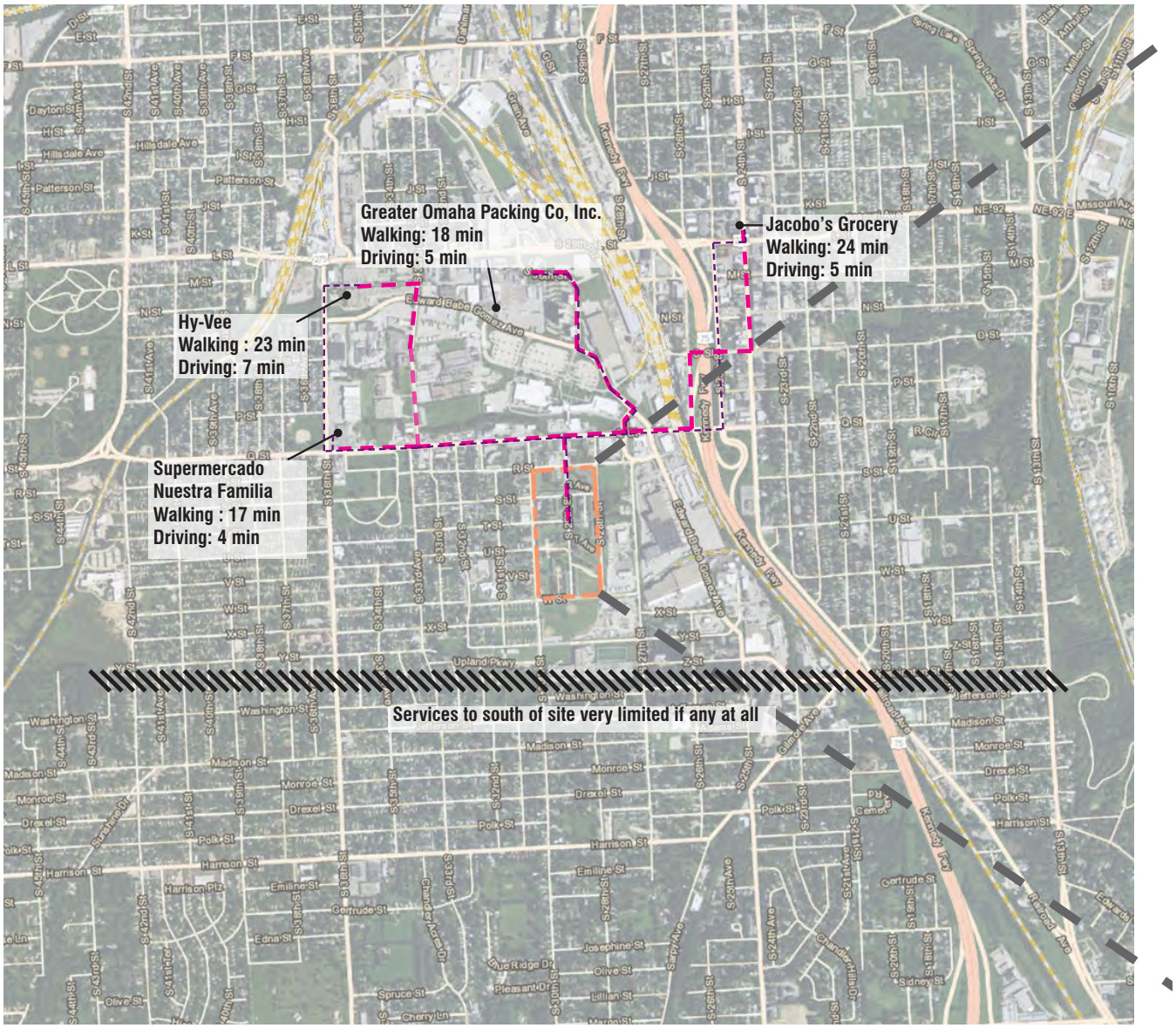


Figure 01. Travel Time to Far Services
Source: GIS, Google Maps

Inquiry: How do different modes of transportation serve Southside Terrace?
Key Extractions: Bus stops, Destinations, Vehicular and Pedestrian routes
Methodology: Aerial view and building masses taken from GIS. Bus stops, points of interest, and parking lots located from Google Maps and layered on top of GIS view. Routes found by observation from site visit.
Conclusions: Overall, Southside Terrace is located within range of many different modes of transportation. There are many bus stops, as well as many services, located within walking distance. There are currently no bike routes on or around the site, however, commuting by bike could occur on sidewalks or streets. There are an estimated 300 parking spots in parking lots, and an estimated 75 spots for on-street parking, which may occur on three streets in Southside Terrace and one street on the exterior.

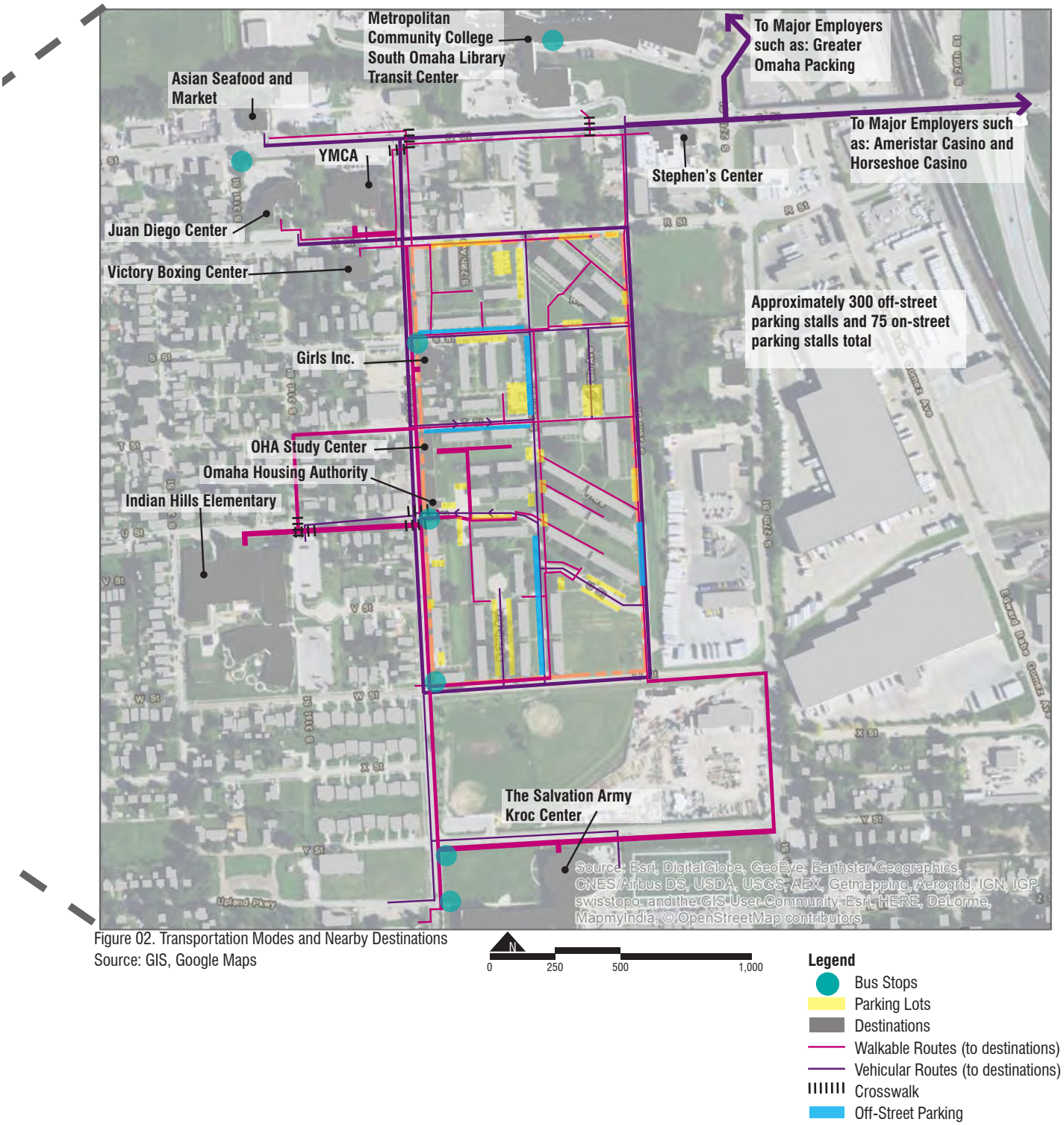


Figure 02. Transportation Modes and Nearby Destinations
Source: GIS, Google Maps

Southside Terrace has Limited Vehicle Access and Long Walking Distances

Fragmented Street Network and One-way Streets; Parking is Far from Homes

W2_BN01_.36K_SiteAccessDilemma.PDF

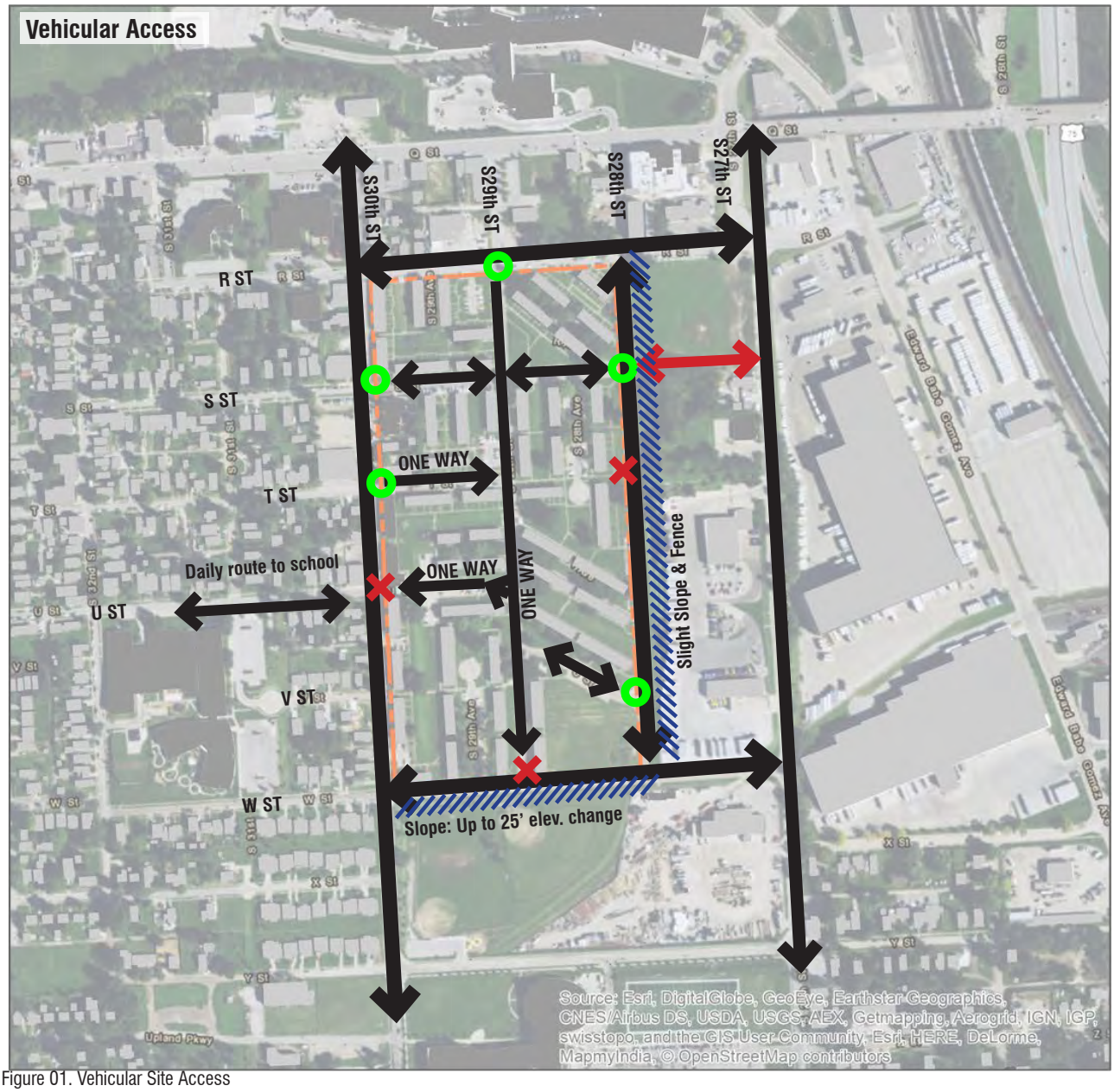
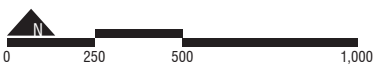


Figure 01. Vehicular Site Access
Source: GIS



Legend

- No Vehicular Access into Site
- Vehicular Access into Site
- Circulation Routes
- Desired Circulation Routes (Not Currently Existing)
- Pedestrian Circulation Barrier

Inquiry: How accessible is Southside Terrace?
Key Extractions: Access and No Access Points, Streets within and adjacent to Southside Terrace
Methodology: Through observation and Google maps, site circulation and access points were overlaid on top of GIS Map.
Conclusions: Southside Terrace is difficult to access, which will decrease safety and efficiency. The west side of the site has three total streets for site circulation: access into the site can only be on T and S streets, and exiting the site may only be done on S and U streets. The north and south ends of the site are only accessible by S 29th Street and the south side has no vehicular access. Along the east edge of the site, there are access points by U Street and S Street, however, there is no direct access from 27th Street. Overall, the site is difficult to access due to one way streets and limited direct access from exterior streets.

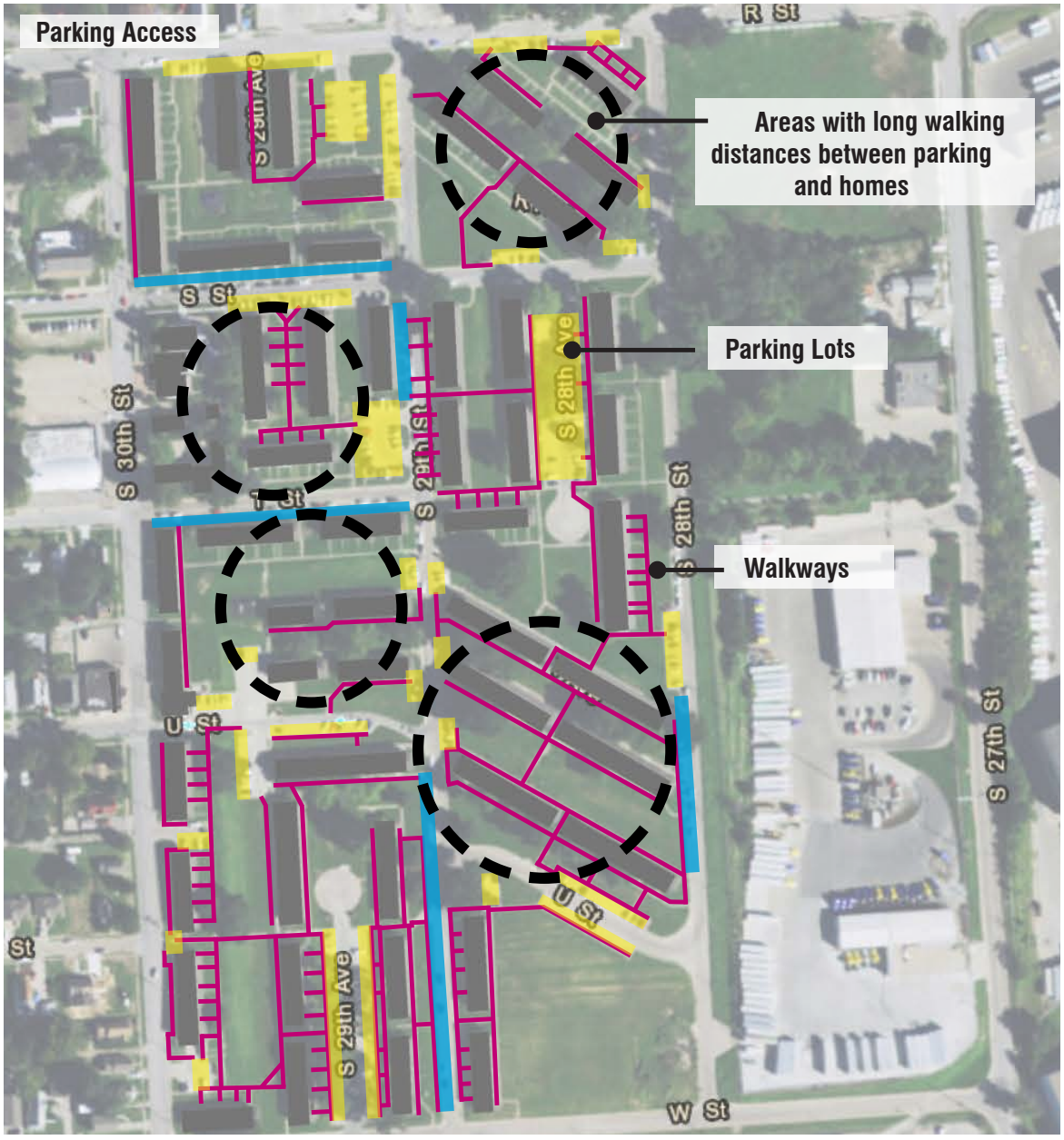


Figure 02. Routes to Parking Lots
Source: GIS, Google Maps

Conclusions: Although there are many parking lots and much off street parking provided by Southside Terrace, accessibility poses a challenge when walking from parking spots to specific living units. Not only does steep terrain offer a challenge for movement, the distance from parking to units adds to these accessibility challanges. Only few units are located with direct access to parking, which raises concern for safety at night when walking long distances from parking to a unit (circled areas in diagram).

Southside Terrace Children are at a Disadvantage

Bryan High School graduates are 4th in graduation rates out of 7

W2_JS01_7K_GradRate.PDF

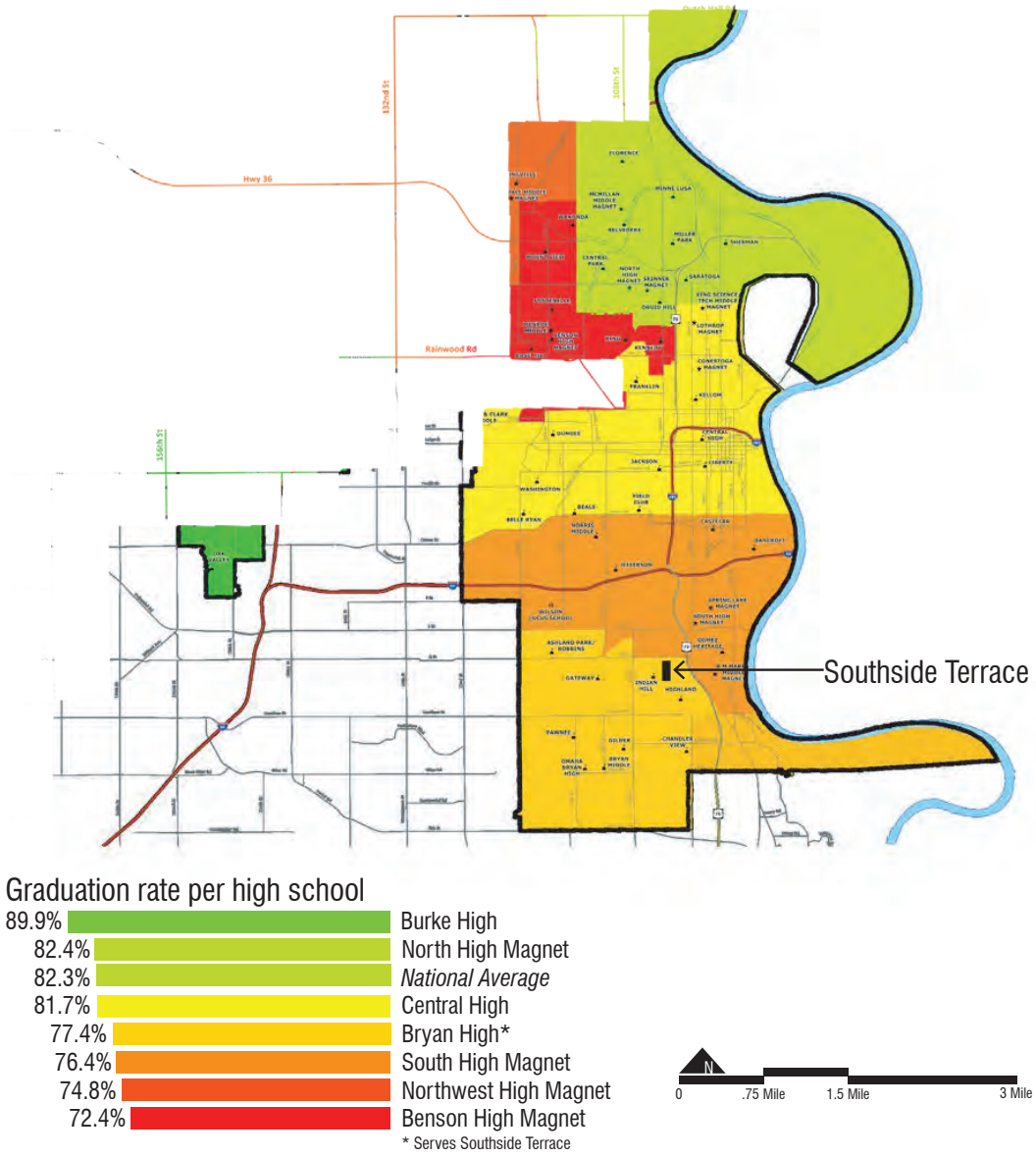
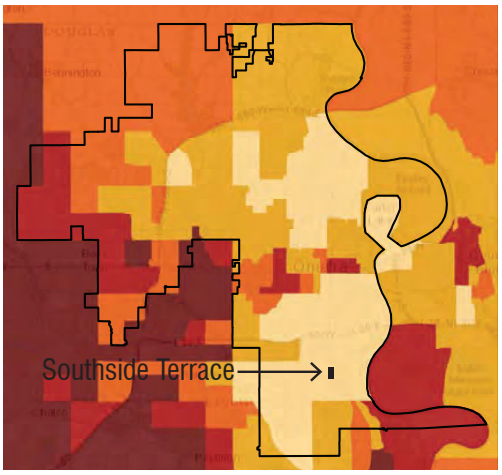


Figure 01. High School Graduation Rate in Omaha Public Schools
Source: Graduation rates information based upon Omaha Public Schools 2014

Inquiry: What are the correlations of graduation rates of high schools in Omaha Public Schools?
Key Extractions: 2014-2015 Public high school data of Omaha Public School District, Omaha crime rates, Omaha Poverty, Omaha child opportunity index.
Methodology: Information was gathered from various websites, school names, school boundaries, locations, graduations rates, pupil-teacher ratios, total populations, ACT scores, post secondary education, poverty index, crime rate index, and education opportunity index. This information was then placed into tables and mapped in ArcGIS.
Conclusions: Children located within the Bryan High School feeder schools are at a lower disadvantage of graduation rates in comparison to other high schools in Omaha Public Schools. The supporting evidence of poverty rates and educational opportunity correlate that students in Bryan High School feeder schools a lower rate of graduation.



Children at Southside Terrace have very low education opportunity

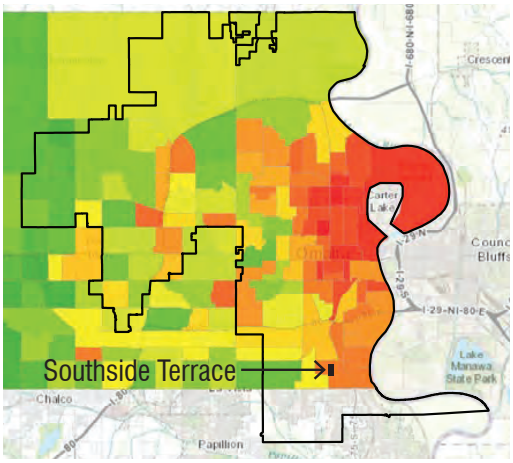
Figure 02. Educational Opportunity Index

(The Child Opportunity Index is calculated based on Education, Health & Built Environment and Neighborhood Social & Economic Opportunity indicators.

Source: ArcGIS 2015

Legend - N.T.S.

- Very High
- High
- Moderate
- Low
- Very Low



Children at Southside Terrace are in more poverty

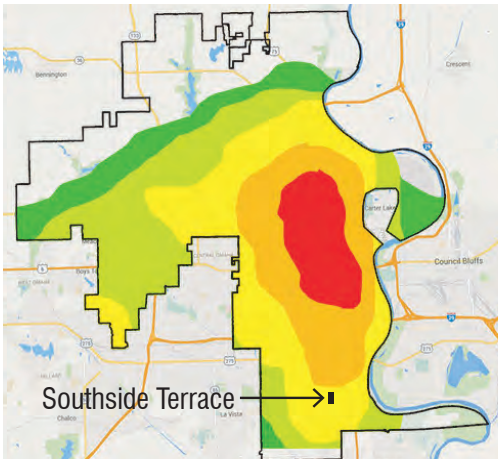
Figure 03. Douglas County Poverty Map

Source: ArcGIS 2015

Legend - N.T.S.

Less Poverty < 2 per poverty

More Poverty > 29 per poverty



Children near downtown Omaha are at high risk

Figure 04. Crime Heat Map

Source: CrimeMapping.com 2016

Legend - N.T.S.

More Crime

Less Crime

			Average Pupil-Teacher Ratio				
OPS High Schools	**Graduation Rate Rankings**	**Graduation Rates**	**High School** *Low = Better*	**K-12 Average** *Low = Better*	**Total Student Population**	**ACT**	**Pursuing Post-Secondary Education**
Burke High	**1**	**89.9**	**17.57**	**16.34**	**2,003**	**20.9**	**74.8**
North High Magnet	**2**	**82.4**	**18.42**	**15.31**	**1,566**	**20.2**	**63.9**
Central High	**3**	**81.7**	**17.89**	**15.84**	**2,344**	**20.9**	**70**
Bryan High*	**4**	**77.4**	**19.1**	**17.92**	**1662**	**16.9**	**50.2**
South High Magnet	**5**	**76.4**	**19.03**	**17.85**	**2,379**	**17.3**	**48.5**
Northwest High Magnet	**6**	**74.8**	**18.05**	**16.66**	**1,570**	**18.3**	**50.2**
Benson High Magnet	**7**	**72.4**	**17.98**	**16.17**	**1,273**	**16.6**	**72.9**
OPS AVERAGE		**79.28**	**18.26**	**16.9**	**1828**	**18.7**	**61.5**

Figure 05. Statistics of high schools within Omaha Public School District

Source: Omaha Public Schools 2014-2015

Bad

Good

* Serves Southside Terrace

Community Organizations Give Attention to the Youth in Omaha

Northstar and Girls inc. are promoting a better life for youth in Omaha

W2_JS02_7K_Girlsinc.PDF

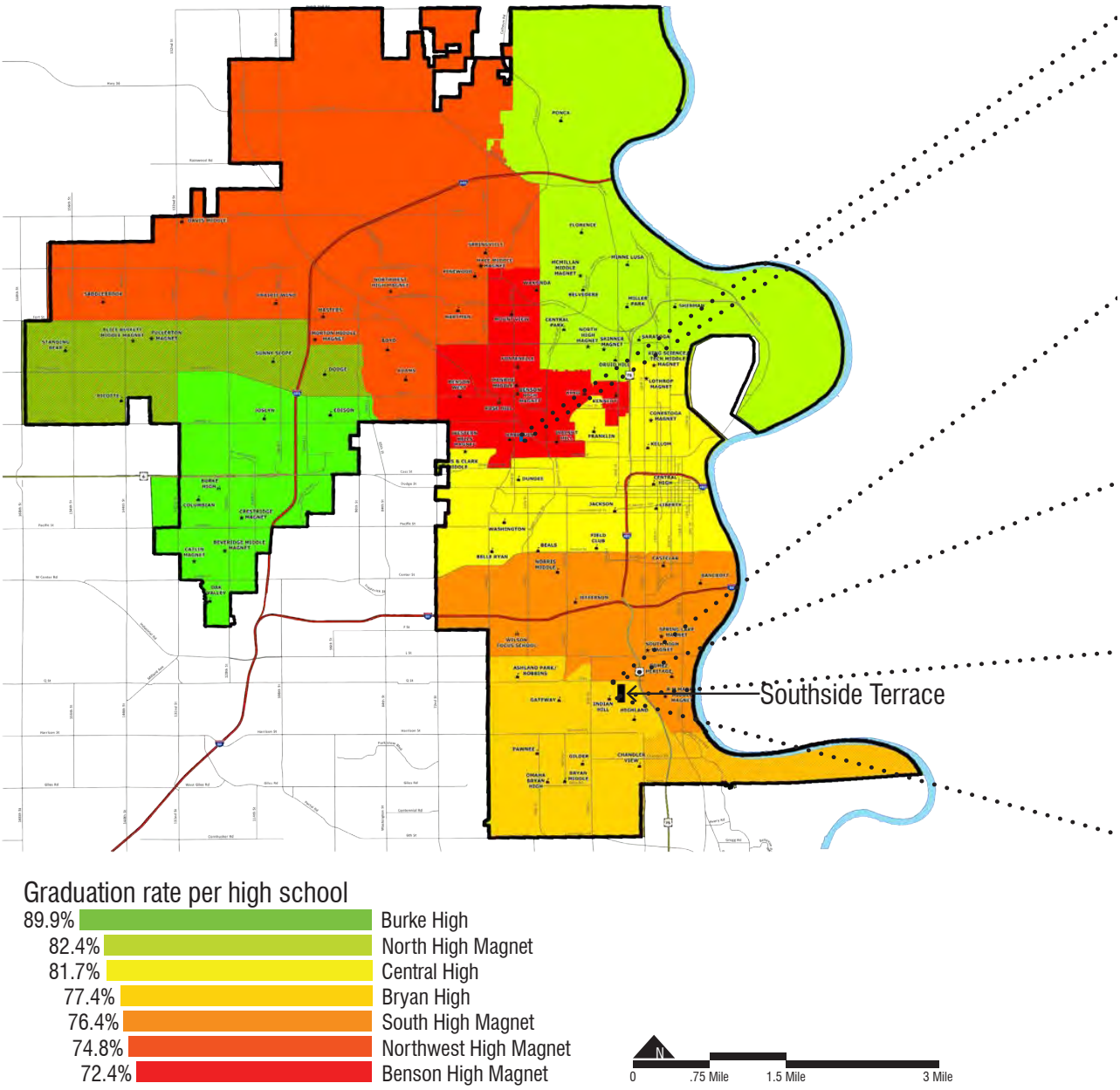


Figure 01. High School Graduation Rate in Omaha Public Schools
Source: Graduation rates information based upon Omaha Public Schools 2014

Inquiry: What engagements can create better opportunities for youth within boundaries of Omaha Public Schools?
Key Extractions: Locations of foundations, synthesized census data, graduation rates
Methodology: After gathering information from various foundations in Omaha, statistics about youth in Omaha, and graduation rates in Omaha Public Schools. The information from community organizations were organized by services offered, organization dilemmas, and distances from Southside Terrace,
Conclusions: Community organizations are trying to promote the well-being of the youth in Omaha. Girls inc is located less than .5 miles from Southside Terrace, Northstar is located 10 miles from Southside Terrace, and the YMCA is located less than .5 miles from Southside Terrace. The children at Southside have strong attention from surrounding community organizations to promote a better life.

NORTHSTAR

Tutoring
Food
Childcare
Life Counseling
Recreational Activities
Vocational Training
Scholarships

Facts of boys in Omaha

6 in 10 black children live blow poverty line in Omaha

44% Nebraska African-American males will graduate high school

6 in 10 young black men, age 20-34 in prison did not complete high school

1 in 10 inmates have post-secondary degrees

North Star Foundation located 10 miles from Southside Terrace

YMCA located less than .5 miles from Southside Terrace

girls inc.

Tutoring
Food
Childcare
Life Counseling
Recreational Activities
Vocational Training
Scholarships

Facts of girls in Omaha

1 in 4 girls will not finish high school

78% of girls under 17 are unhappy with their bodies

3 in 10 girls will become pregnant before the age of 20

1 in 5 girls will be a victim of childhood sexual abuse

Girls inc. located less than .5 miles from Southside Terrace

Southside Terrace is Located in the Omaha Area of Combined Sewers

A future water quality goal is to seperate stormwater from sanitary sewer flows

W3_AW03_0.3K_Utility.PDF

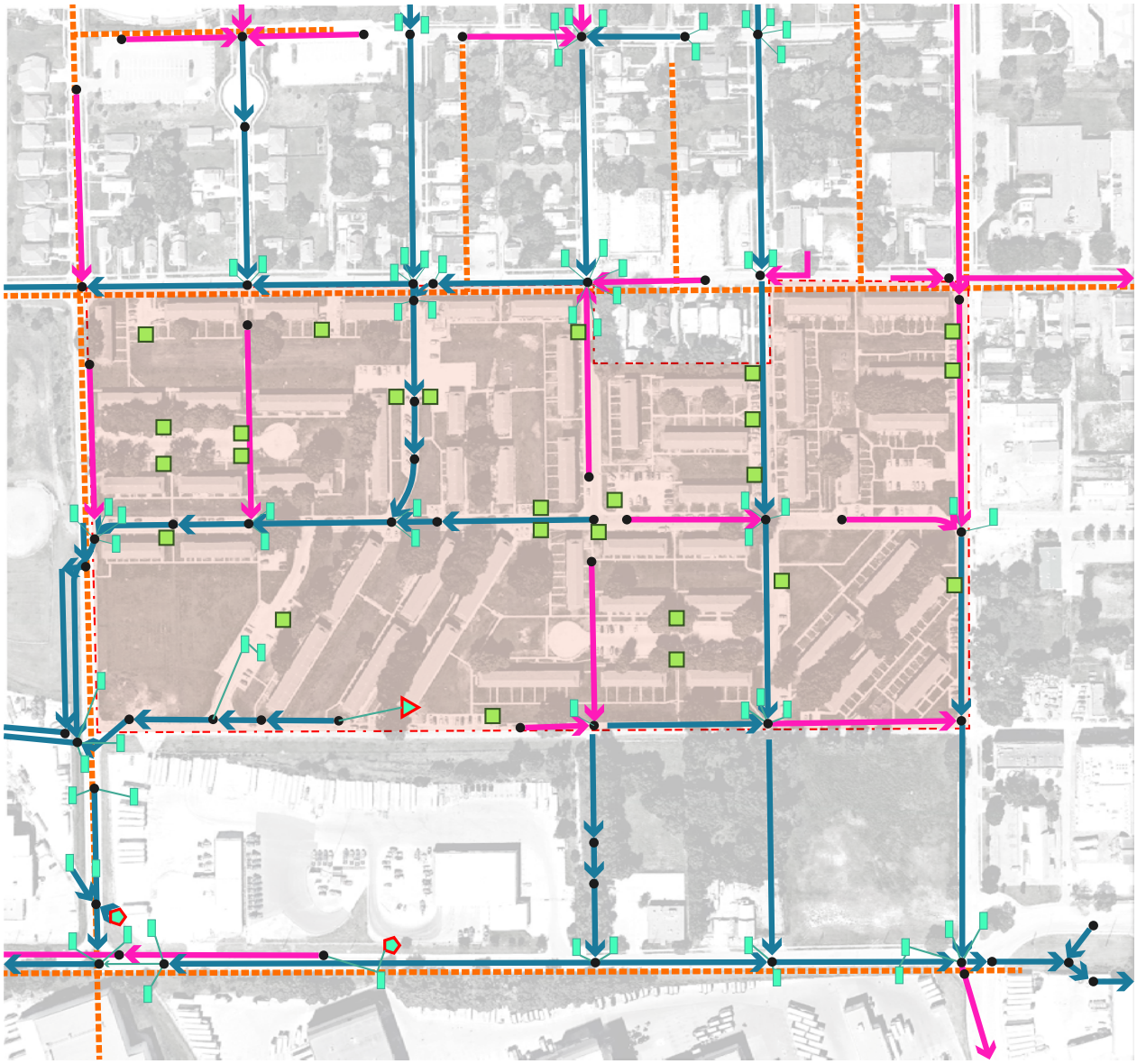


Figure 01. Utility Map
Source: Douglas County GIS Viewer, Google Earth

Inquiry: What are the types of utility services involved in Southside Terrace, and their respective service providers?
Key Extractions: Combined sewer system, trash collection, natural gas, portable water, electricity
Methodology: Within 1-block offset distance, sewer lines and garbage collection points are mapped to reveal the underground utilities that will have to be taken into account in future design
Conclusions: There are mainly five utility services located in Southside Terrace, provided by four service providers. They include: the sanitary and storm sewer system provided by the City Department of Public Works (DPW); potable water source by Metropolitan Utility District (MUD); waste collection by Wasteline; and electricity by Omaha Public Power District (OPPD). As shown in Figure 01, the sewer system mainly follows the street layout and drains water from West to East, where the Missouri River Waste Water Treatment Plant is located adjacent to the river. Garbage collection points are located beside parking lots and along the streets, facing the entrance of the residential buildings. The southeast side of the site has the fewest number of garbage containers. City power lines run along S30th Street and W Street, without cutting across the neighborhood.

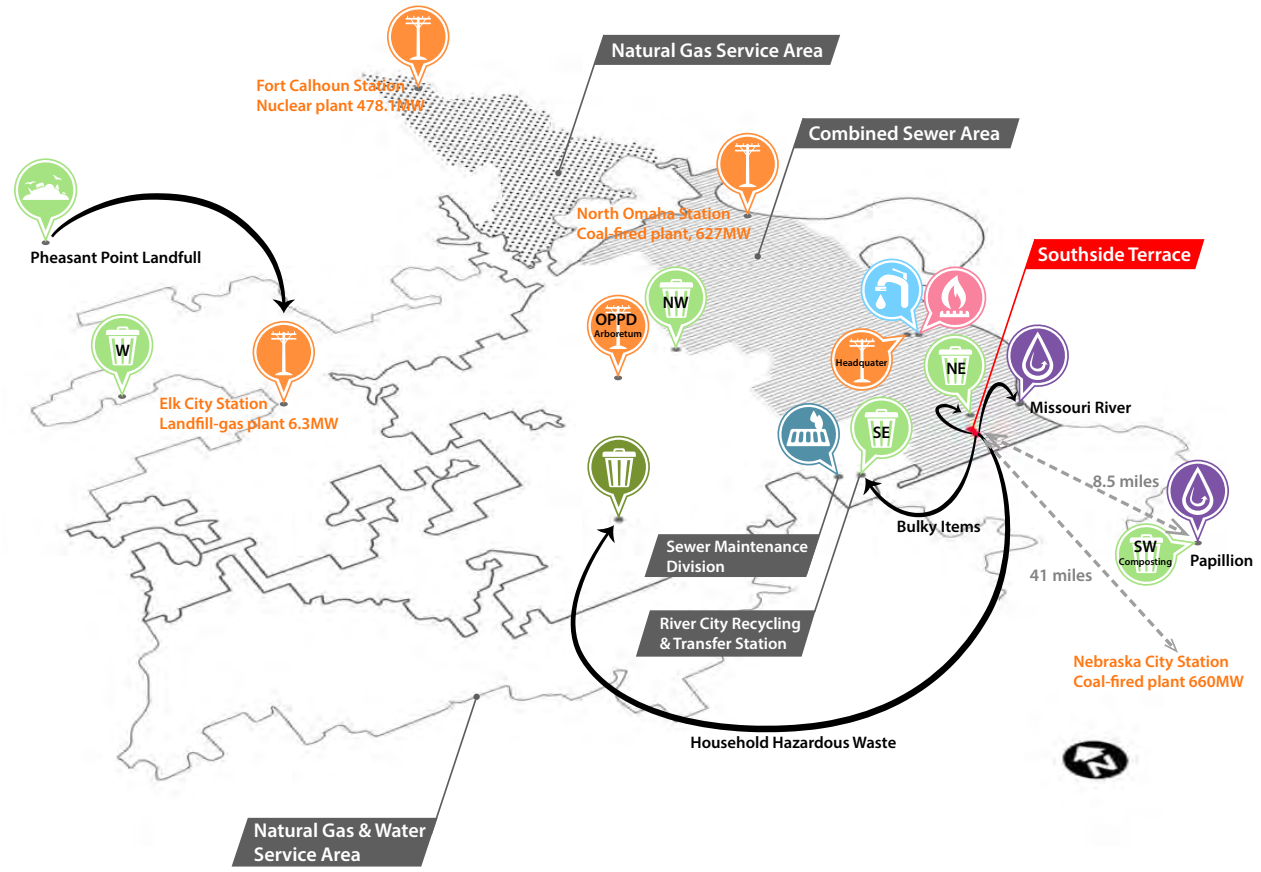


Figure 02. Service Area of Utility Providers
Source: Omaha Public Power District (OPPD), Department of Public Work (DPW), Wasteline, Metropolitan Utility District (MUD)

Legend

- Recycling drop-off site
- Landfill
- UnderTheSink Household hazardous collection
- OPPD power station facility
- MUD potable water facility
- Sewage treatment plant
- MUD natural gas facility
- DPW Storm sewer utility

Inquiry: How do the utility services provided to Southside Terrace connect to the larger context of the whole city?
Key Extractions: Recycling drop-off site, household hazardous collection, landfill, potable water, storm sewer, natural gas, sewage treatment plant
Methodology: By mapping the utilitiy facilities in the City of Omaha, assumptions in their relationship with Southside Terrace are drawn based on the function and geographical location of the facilities.
Conclusions: Southside Terrace is within the natural gas and water service area. The City of Omaha sewer system consists of three types of collection systems: sanitary, storm and both, which are divided by terrain into the Missouri River System and the Papillion Creek System. Located in the Missouri River sewer system, Southside Terrace was included in the combined system, which leads to two major treatment facilities in Missouri River and Papillion Creek. The Papillion Creek Wastewater Treatment Facility is also the location for Omaha's composting operations. Yardwaste is composted and sold to the public. Southside Terrace receives electricity from OPPD, which is a publicly owned electric utility that serves 800,000 poeple. Other energy facilities include a landfill-to-gas plant in Elk City Station, a nuclear plant in Fort Calhoun Station, and wind farms all over the state.

Existing Site Design Does Not Address Visual Impact and Efficiency of the Utility System

Garbage cans, pipe leakages, overhead power lines bring about significant influence in visual quality and other social problems

W3_AW04_0.6K_Utility_System.PDF

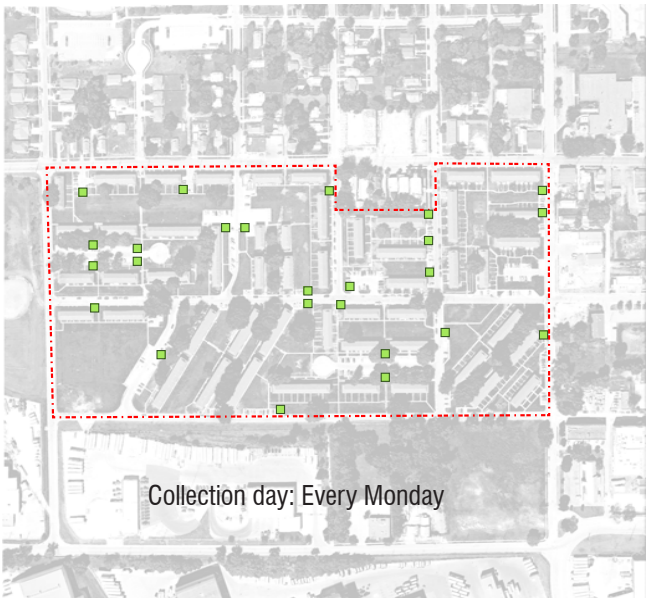


Figure 01. Garbage Collection Point
Source: Google Earth, Wasteline

Legend
Garbage Collection





Residents mis-place bulky items beside garbage cans.
insects, or even light garbage are likely to be blown into streets.





Garbage containers are located near to household entrance and playgrounds.



Garbage containers are well exposed in open space and along streets without any screening.

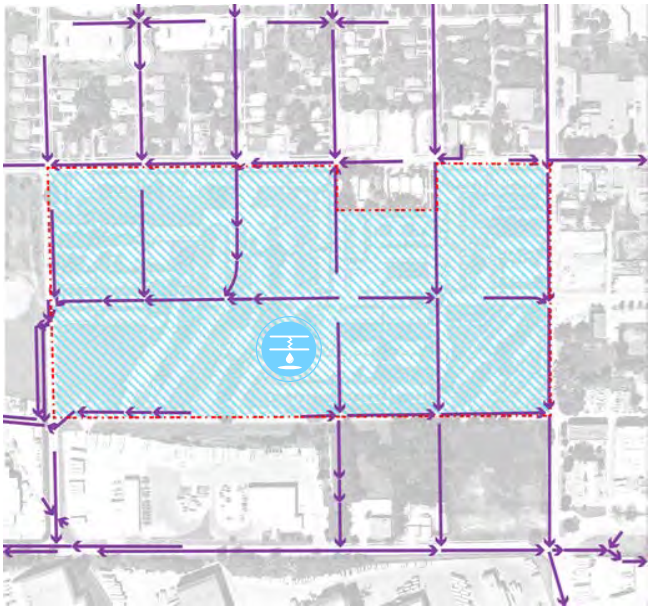


Figure 02. Combined Sewer System
Source: Douglas County GIS Viewer, OHA

Legend
Sewer lines
Occurance of water pipe leakage

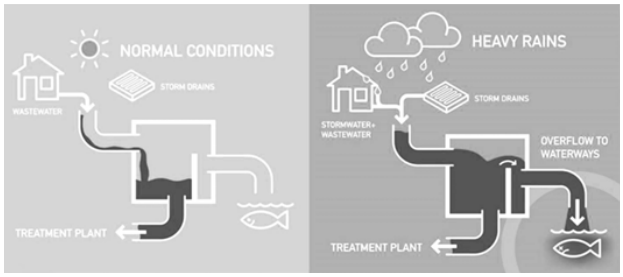


Figure 03. Operation of a combined sewer system in normal and wet condition
Source: http://whenitrains.commons.gc.cuny.edu/research-overview/

Inquiry: How do utilities in Southside Terrace perform, in terms of visual quality and efficiency?
Key Extractions: Garbage collection, combined sewer system, pipe leakage, power lines, visual quality
Methodology: From observation and information found from the particular service providers, actual performance is depicted by photo reference.

Conclusions:
Figure 01 illustrates the existing conditions of the garbage collection points, where bulky items were disposed and much litter was found on ground. Although Wasteline collects garbage every Monday, curbside disposal does not include builky items such as furniture. There are also a lack of recycling and composting facitities in Southside Terrace.

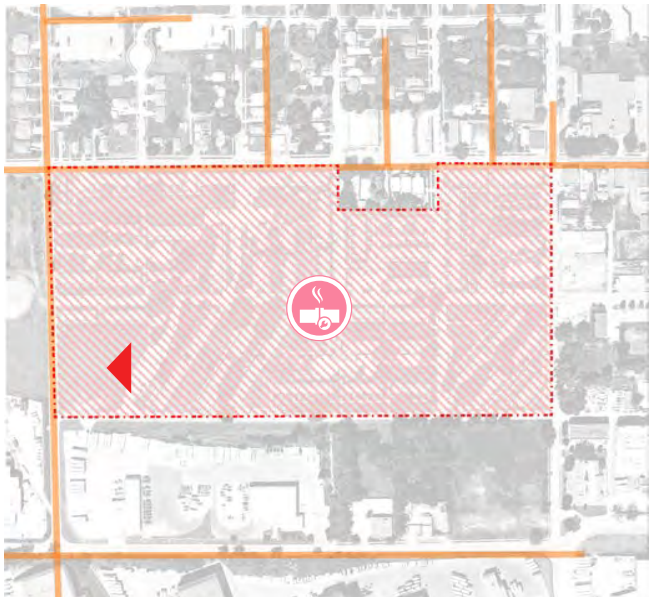
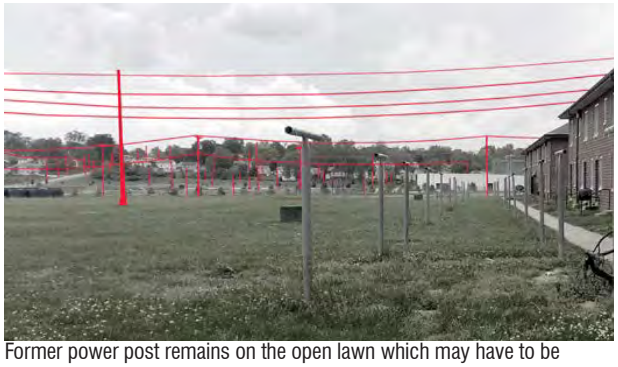


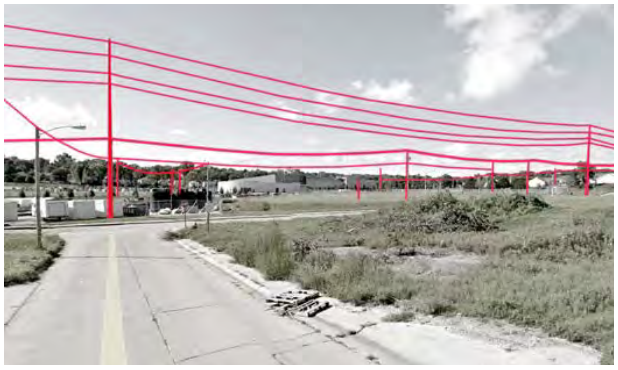
Figure 04. Power Lines
Source: Google Earth, OHA

Legend

- No natural gas service currently provided
- Gas pipe leakage
- Viewpoint



Former power post remains on the open lawn which may have to be removed for better utilize the space.



A significant number of power lines affect the visual quality surrounding the site. Trees are restricted from being planted in the power line easement.

N

0 300 600 1200 Feet

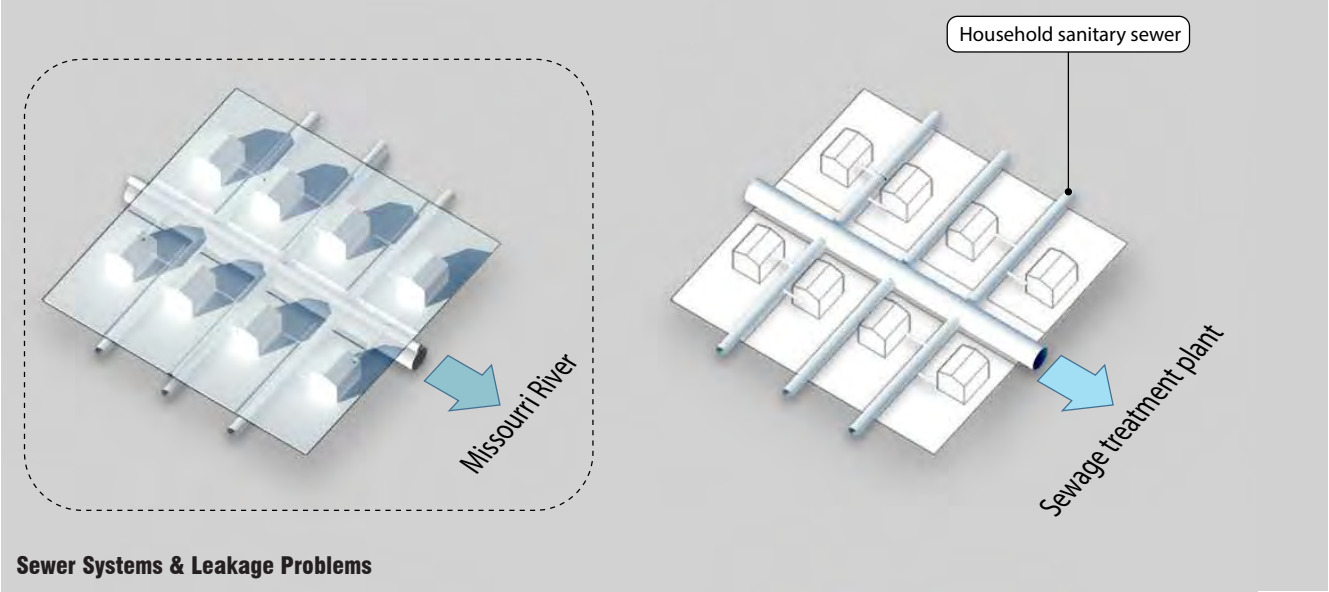
Figure 02 shows that both surface runoff and sanitary greywater are collected in a combined sewer system, which generally flows from the west to the east. This decreases the water quality of the Missouri River. In addition, Southside Terrace also has leakage problems in water pipes.

Figure 04 foucses in the visual impact brought by the strands of overhead pwer cables. Apart from decreasing the visual quality, the power lines also generate design concerns in development and tree plantings. Appropraite vegetation that is compatible in the power line zone has to be selected. Southside Terrace also has a large electricity demand. One of the reasons is that there is no provision of natural gas. Existing gas pipes are not in use, but still have leakage problems, which sometimes pose safety issues to the residents.

Green Infrastructures and Landscape Design Can Mitigate Infrastructural Problems

Problems in the sewer and pipe systems, waste management, and power lines are addressed by better landscape planning

W3_AW05_GreenInfrastructure.PDF



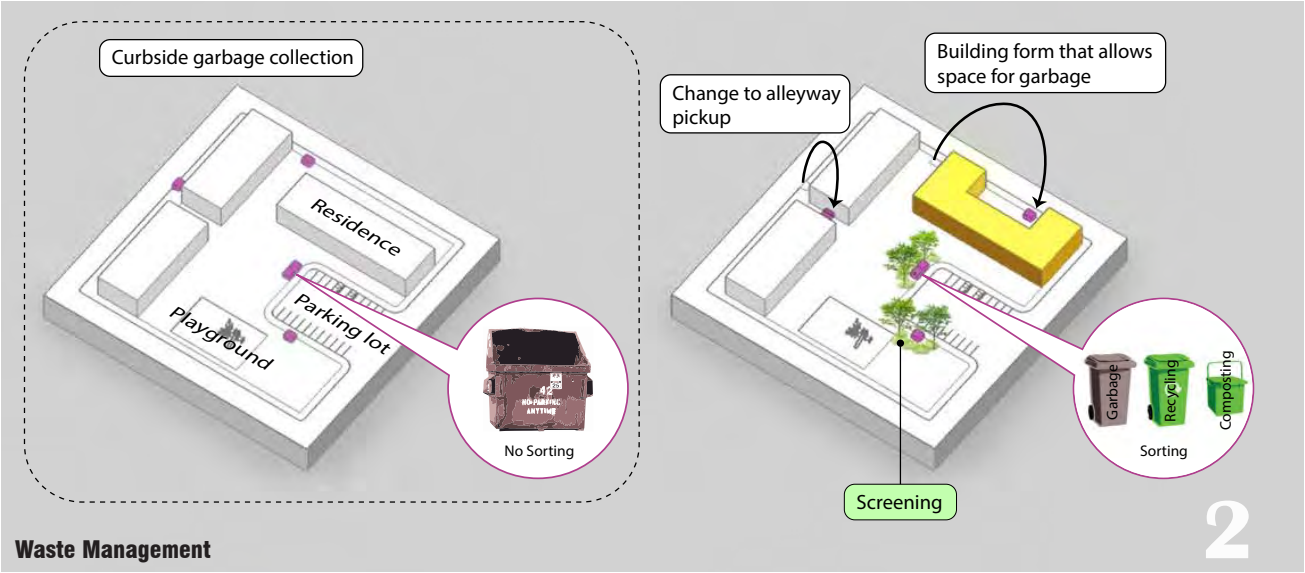
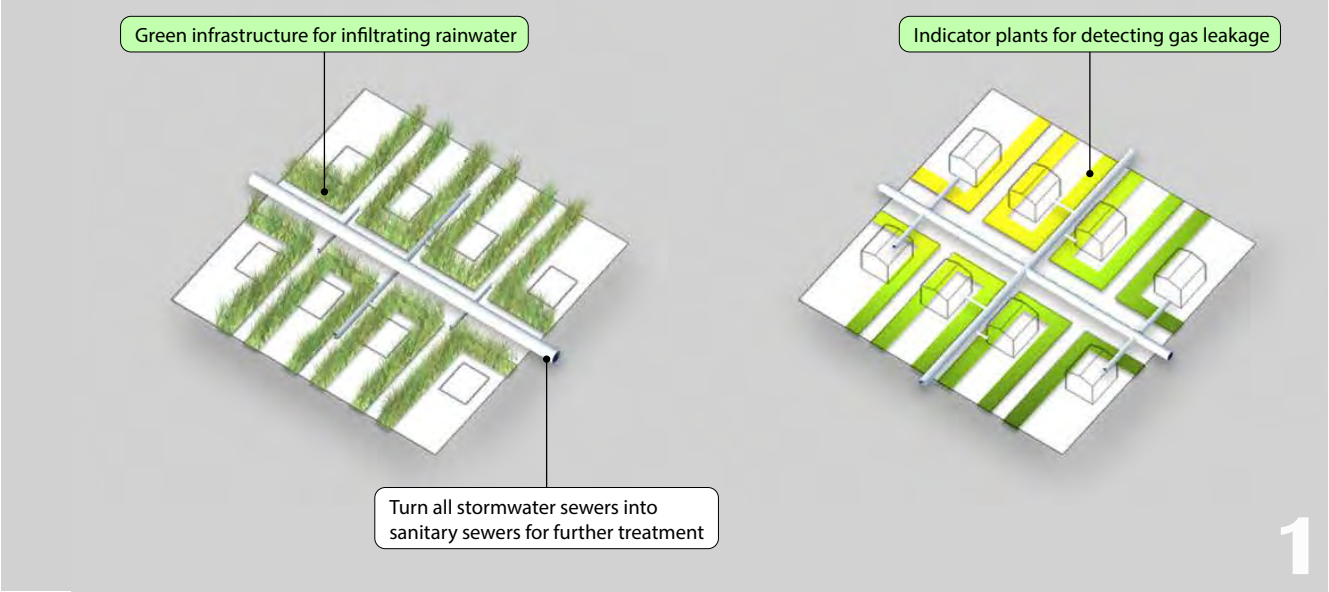
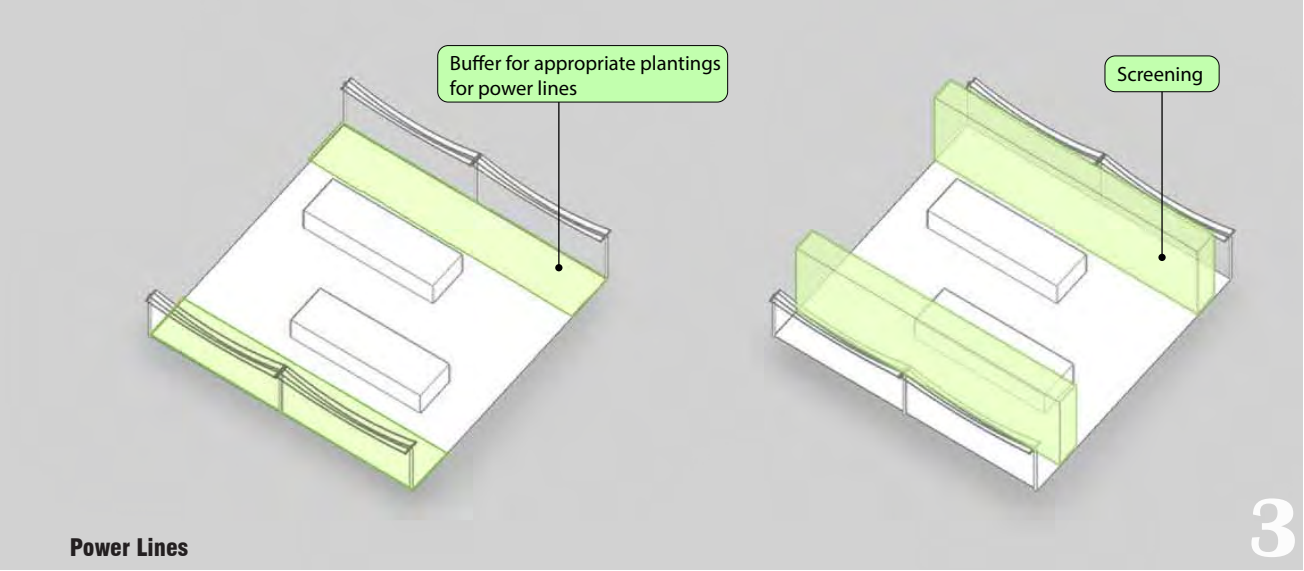


Figure 01. Conceptural Strategic Diagram
Source: Author

Inquiry: How to strategically overcome the dilemma about the existing utilities through planning and landscape design?
Key Extractions: Sewer systems; leakage; waste management; power lines; green infrastructure
Methodology: Exisiting conditions and proposed mitigation strategies are conceptualized by diagrams and minimal descriptions.
Conclusions: The first strategy addresses the underground pipe systems including the combined sewers and abandoned gas pipes. The combined sewer system is connected to a larger city context (Refer to Figure 02 in Map W3_AW03_0.3K_Utility) and pipe leakage is a recurring risk for Southside Terrace residents. Instead of proposing large-scale construction work, green infrastructures such as street plantings or retention areas can be considered to capture and infiltrate rainwater instead of using the existing stormwater sewers to drain runoff. Since the stormwater sewers are connected to the sanitory sewers for greywater, river contaimination can occur during large storms when treatment facilities are overwhilemd. Street plantings at strategic locations can also serve as an indicator for gas leakage. Any abnormal wilt and death of those plants indicate possible leakage points. The second figure is proposing better treatment in the garbage collection sites through design of building form, alleyway pickup instead of curbside storage, and also screening as another form of green infrastructure.





Legend

Existing condition

Strategy that involves green infrastructure

The third diagram shows the significant visual effect produced by the surrounding power lines. Though vegetation is restricted within the power line easement, adjacent screening can be introduced or power utilities can be undergrounded.

Soccer and Baseball Fields are Plentiful And Relatively Close to Southside

There is less opportunity to practice on a football field or to go to the pool

W3_AD03_100K_AthleticFieldLocation.PDF

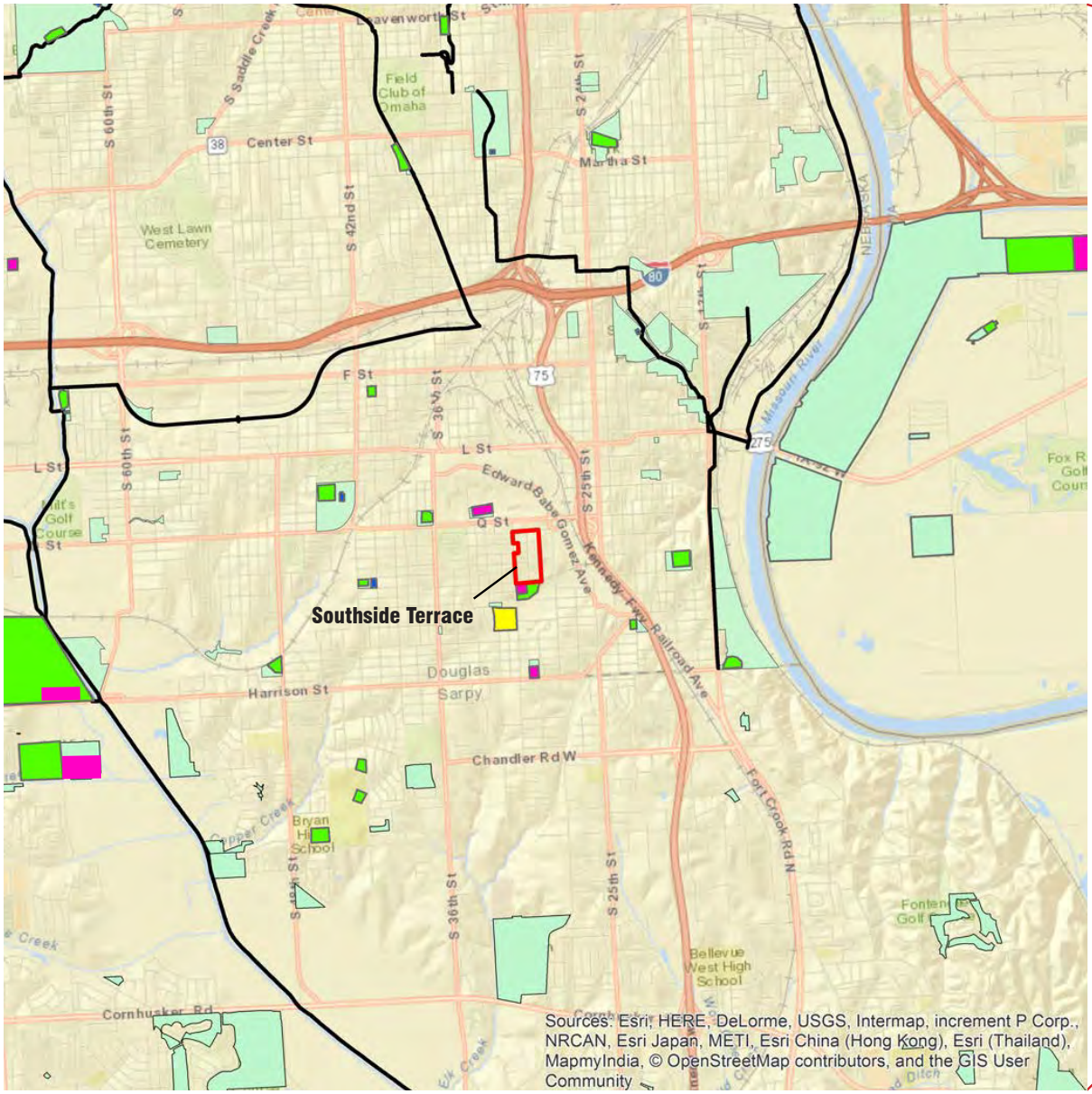


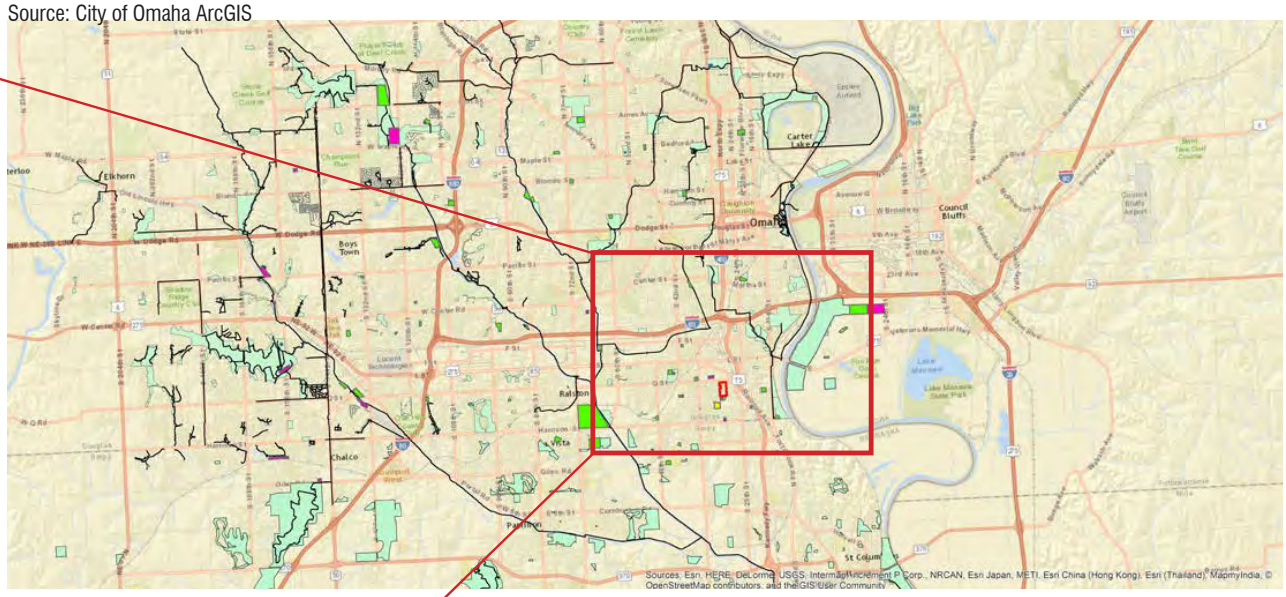
Figure 01. Parks, Athletic Fields, and Pools/Sprayground Locations in Omaha
Source: City of Omaha ArcGIS

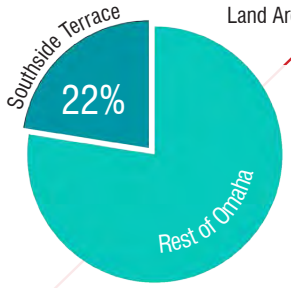
Inquiry: Do the residents of Southside Terrace have easy access to a variety of athletic fields?
Key Extractions: Athletic Fields in Omaha
Methodology: By using the City of Omaha's Park and Rec website, athletic field locations were mapped through the use of ESRI ArcGIS program
Conclusions: It appears that residents who live in Southside Terrace do not have a variety of athletic fields within a close proximity. Fields within a walkable distance are entirely soccer or baseball, limiting the outdoor sport options that youth can play. Conclusions can also be drawn that the closer to one gets to the central core of Omaha, the less athletic fields available are.

Legend

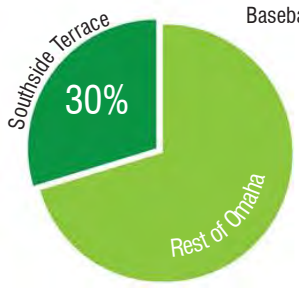
- Baseball Fields
- Soccer Fields
- Pool
- Sprayground
- Parks
- Trails
- Southside Terrace

Figure 02. Context Map
Source: City of Omaha ArcGIS

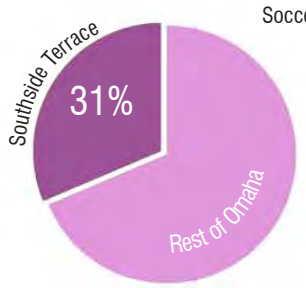




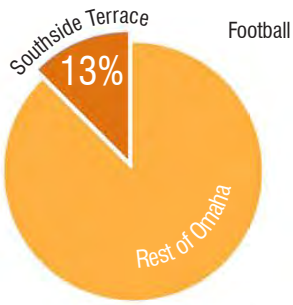
The Land area covered in the southside terrace context map (left) is just over 22% of the entire data set, concluding that there is an above average concentration of parks near the site.



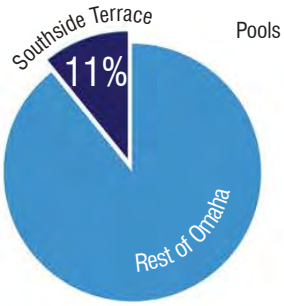
There are more baseball fields than any other type of field throughout the city of Omaha. Around one-third of the baseball fields are located within an approximate 3 mile radius of Southside Terrace.



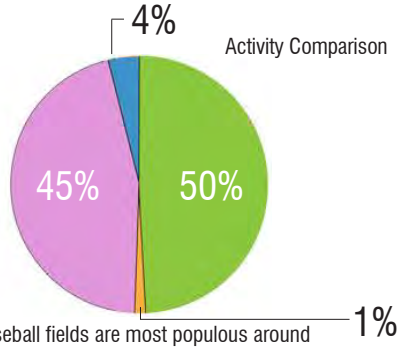
Soccer fields are the second most common type of outdoor active recreation fields that are provided to the public. Similar to baseball, around one-third of all soccer fields are located within the Southside Terrace context map (left)



With only one football field near Southside, the residents do not have very much opportunity to play on an dedicated field.



There are two pools and a sprayground within the context of the Southside Terrace.



Baseball fields are most populous around Southside Terrace comprising nearly half of all the outdoor recreation activity. Soccer fields come in a close second with 45%. Pools count for nearly 5% and football fields count for only just above 1%.

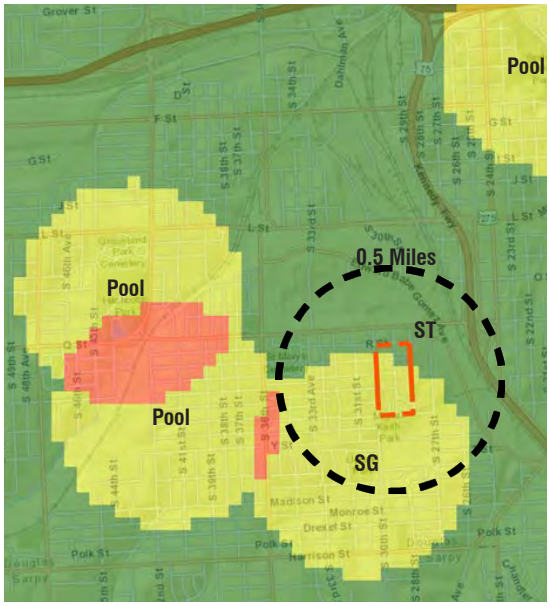
Figure 03. Relational Diagrams
Source: City of Omaha ArcGIS

Southside Residents Have Little Walkable Access to Football Fields and Pools

Athletic fields near Southside Terrace are sparse and do not provide enough opportunity to the residents

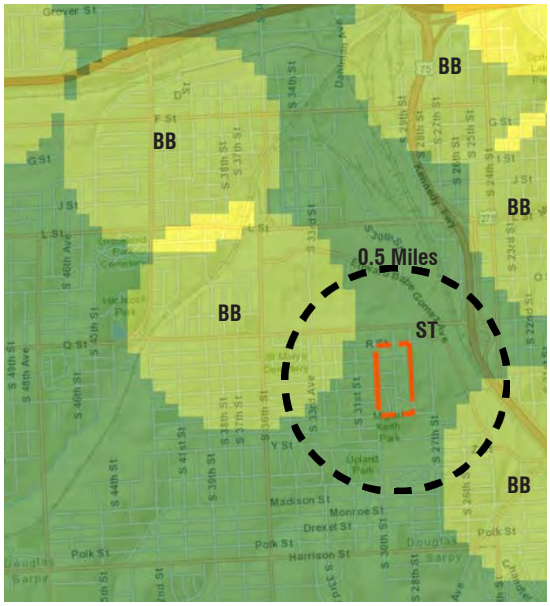
W3_AD04_50K_RecreationOpportunity.PDF

Pools and Sprayground



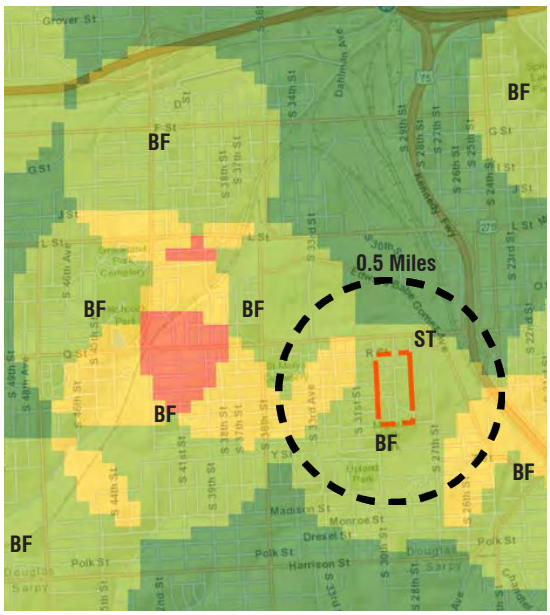
The only access to a public water recreation park is a small sprayground located to the southwest of Southside Terrace. This sprayground borders on the half mile walkability for some of the residents and may not be easily reached. There are no pools within a half mile radius of the site.

Outdoor Basketball Courts



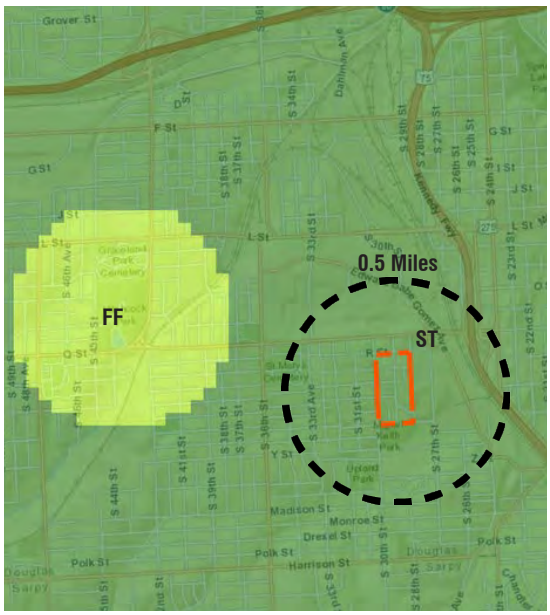
Since the removal of a basketball court at Southside Terrace, the residents do not have access to an outdoor court within a half mile walking distance. Opportunity presents itself to bring a court back to the residents.

Baseball Fields



Although Southside Terrace has easy access to a few baseball fields directly to the south, these diamonds are not regularly maintained and current not playable due to their poor condition.

Football Fields



No football field is within a half mile walking distance of Southside Terrace. Children you wish to play recreationally or in an organized team must be drove or bussed to the field, limiting their opportunity to train.



Figure 01. Recreation Activity Density
Source: City of Omaha ArcGIS

Omaha Park Density

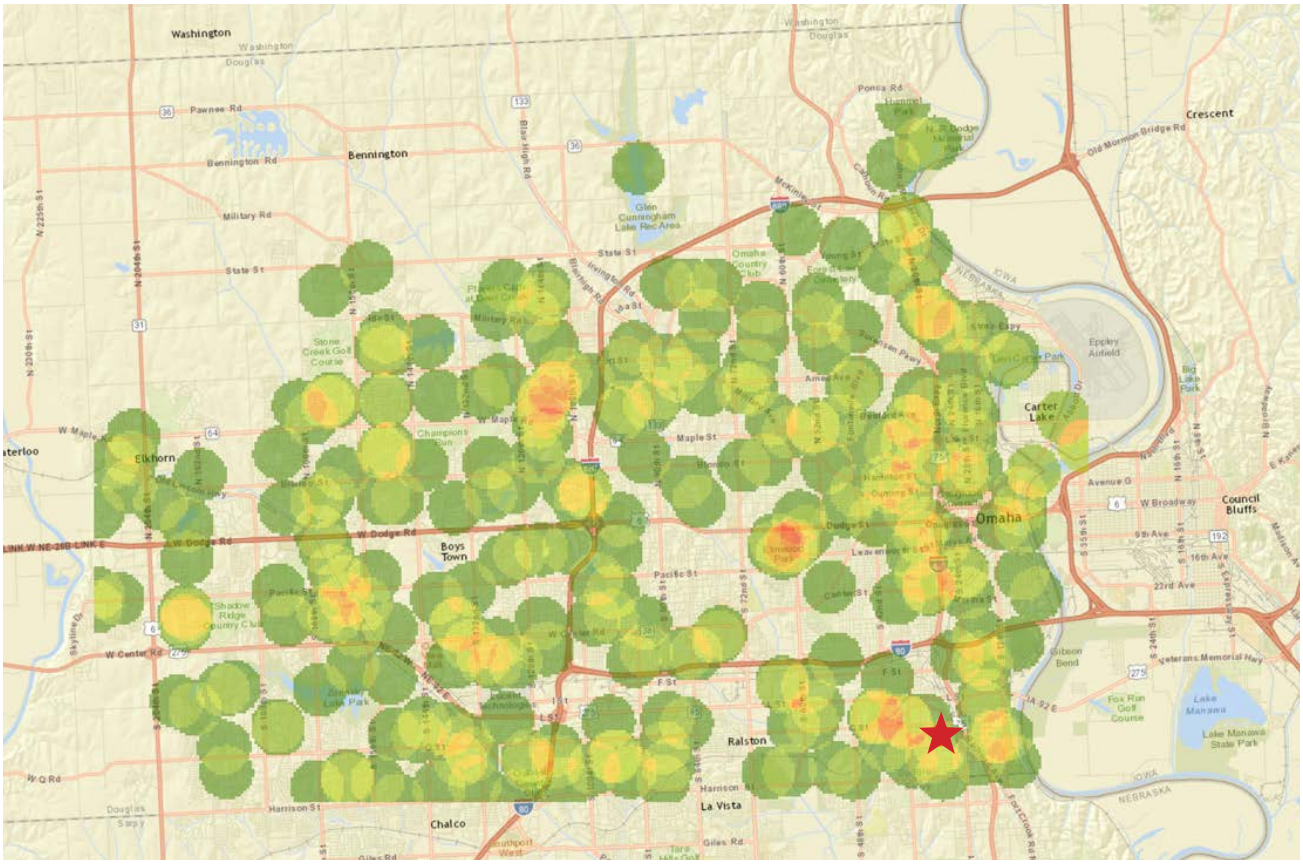


Figure 02. Park Density
Source: City of Omaha ArcGIS

Inquiry: Do the residents of Southside Terrace have easily accessible athletic fields and pools within walking distance of half a mile?
Key Extractions: Park data, Baseball Fields, Football Fields, Pools/Spraygrounds
Methodology: Omaha Parks and Rec GIS data was complied and a heat map was created with buffer radii of half a mile.
Conclusions: When mapping the athletic field locations it can be seen that Southside Terrace lacks convenient access to a variety of different outdoor recreation grounds as well as pools and spraygrounds. Having these parks within a close proximity allows for the children to easily and safely walk to the park, play, and come home without disrupting the busy life of the parents. Close proximity also allows greater access.

The Eastern Border to Southside Could Be A Viable Sports Complex

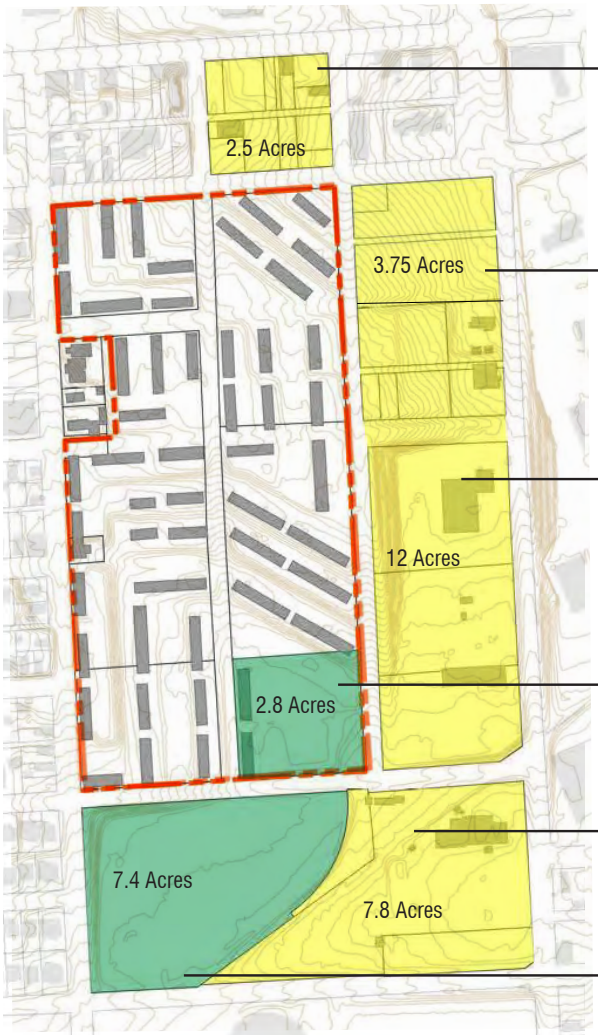
With large tracts of connecting land, the eastern border of Southside Terrace has great potential

W3_AD05_600_RecreationStrategy.PDF



Figure 01. Potential Recreation Expansion
Source: City of Omaha ArcGIS

Inquiry: Where can recreational fields be placed in close proximity to Southside Terrace?
Key Extractions: Parcel data, building footprints
Methodology: Google Maps was used to quickly find possible locations for sports facilities. These were classified as to the probability that they could be acquired and the potential that each site possessed.
Conclusions: Eastern and Southern tracts of land are very large and would allow for a multitude of various sports field to be built. These tracts are large enough to accomidate a dedicated sports facility that could draw large crowds and new life to the Southside Terrace neighborhood. Existing conditions of these plots of lands influences their potential, such as slope and ground cover.



The properties along Q street would add a defining green edge to the hectic roadway. A variety of smaller sports fields can be placed here. Issues arise in the purchasing of multiple parcels as well as busy traffic.

This parcel of land is ideal for sports field because it is currently an open field , but topography issues that would need to be addressed.

Owned by UPS, this large tract of land would allow for the construction of a small sports complex that could bring in large crowds, as well as supporting the needs of the OHA soccer club.

With minimal effort, this small parcel of land owned by the OHA could easily become a starting point for new recreational fields for the residents of Southside Terrace.

Although it is mostly covered in concrete, this tract of land is relatively flat and could provide a crucial connection to the other proposed sites along the Southside Terrace's eastern border.

Currently owned by the city, the baseball and soccer fields at this park are in poor condition and with some maintenance could become a viable option for additional recreational fields.

Tennis Courts: 78' x 36' Approx. 0.06 Acres


Basketball Courts: 84' x 50' Approx. 0.1 Acres


Hockey Rink: 200' x 85' Approx. 0.4 Acres


Soccer Field: 330' x 210' Approx. 1.6 Acres


Football Field: 360' x 150' Approx. 1.2 Acres


Baseball Field: 300' Radius Approx. 1.6 Acres


Driving Range: *Varies


Outdoor Ampitheater: *Varies


Water Park: *Varies


Hillside Playgrounds: *Varies (Not to Scale)

Figure 02. Proposal Recreation Field Sizes and Comparisons
Source: City of Omaha ArcGIs

A

Critical Maps

Residents Services and Phasing

There Are a Variety of Services In and Near Southside Terrace

Food, Recreation, Empowerment Services, Places of Worship, and Schools are Within One Mile

W2_SB01_7.2K_Classification_ServicesProvided.PDF

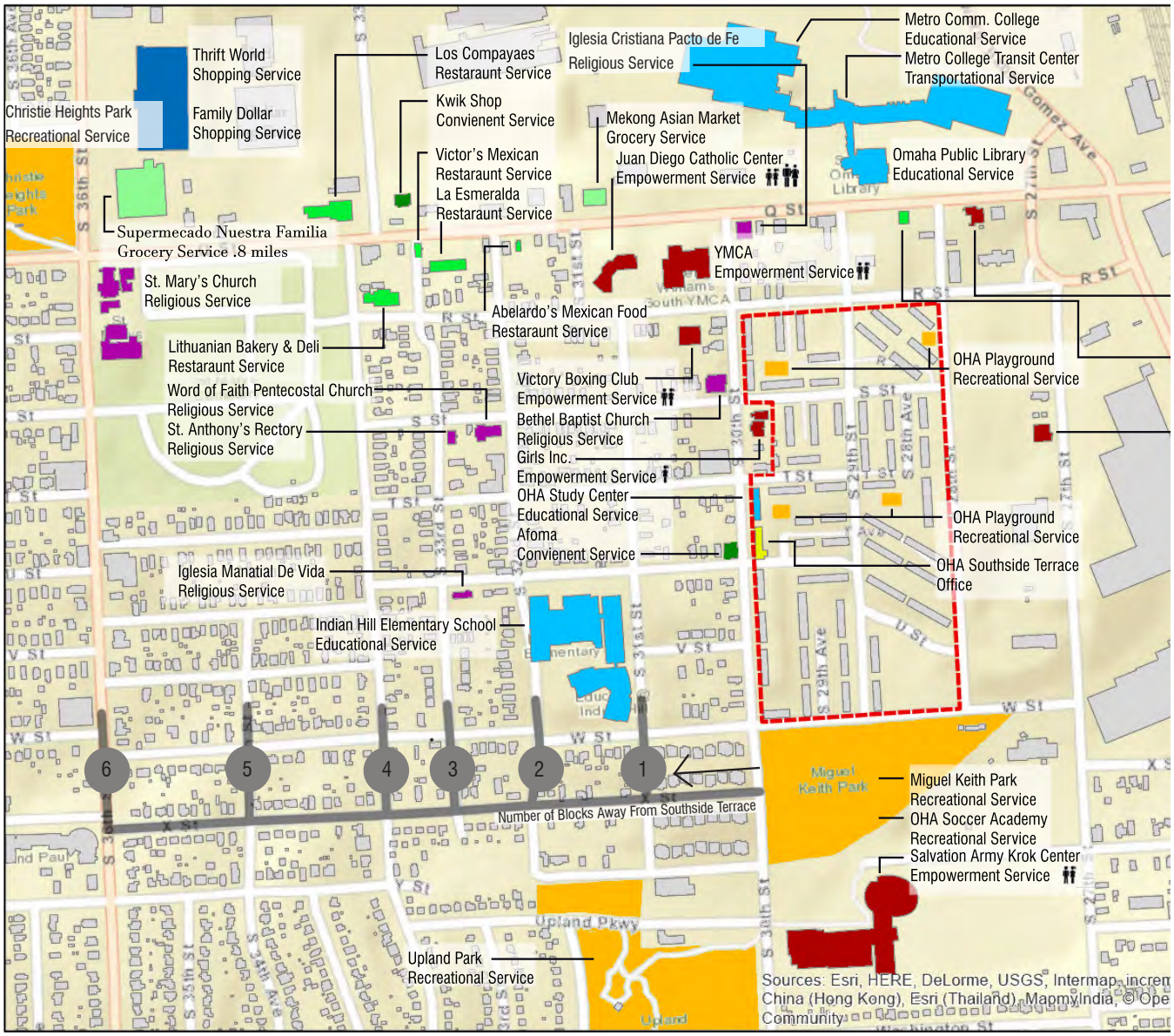
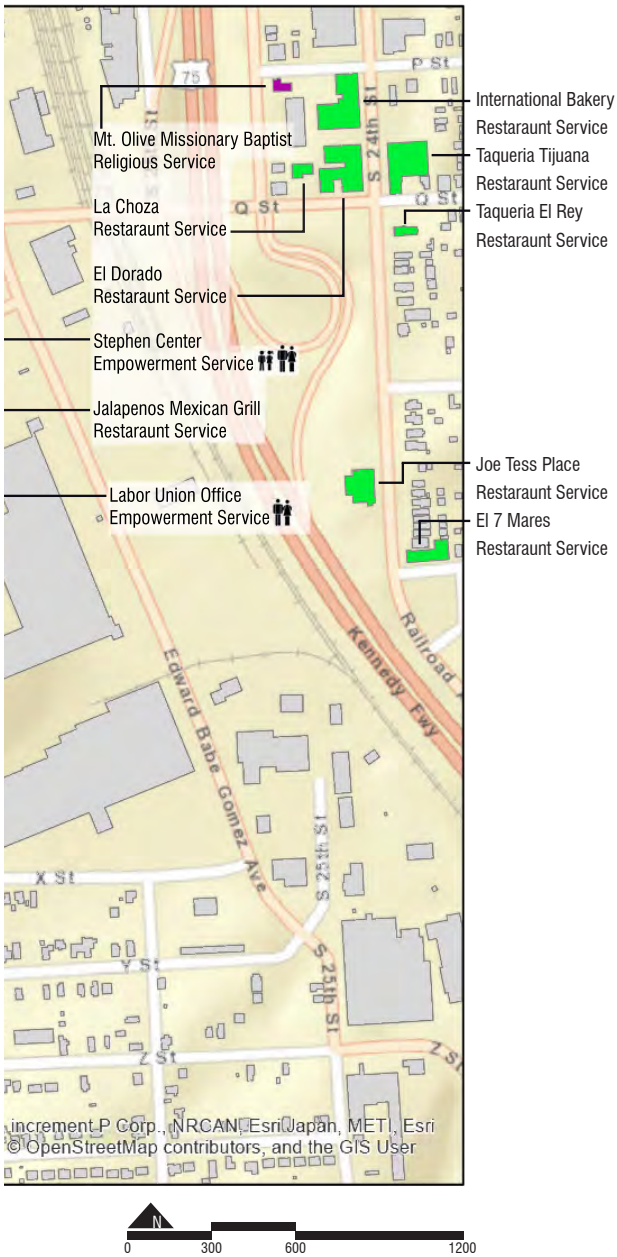


Figure 01. What Services Are Provided For The Residents Of Southside Terrace?
Source: GIS and Google Maps

Inquiry: What Services are provided in and around Southside Terrace?
Key Extractions: The surrounding context of Southside Terrace provides many different services.
Methodology: Extracting maps from GIS and analyzing google maps to find services provided in the area.
Conclusions: The residents of Southside Terrace and the surrounding neighborhood have access to many different services. The surrounding area has many different Mexican restaurants, a couple convienent stores, and a couple grocery stores. Southside Terrace residents also have access to Empowerment services such as Girls Inc., the YMCA, Juan Diego Catholic Center, and many others. The area also has a couple educational facilites as well as a few areas for recreation. These recreational areas include the playgrounds on site, Miguel Keith Park, with the soccer and baseball fields to the south, and Upland Park to the south.

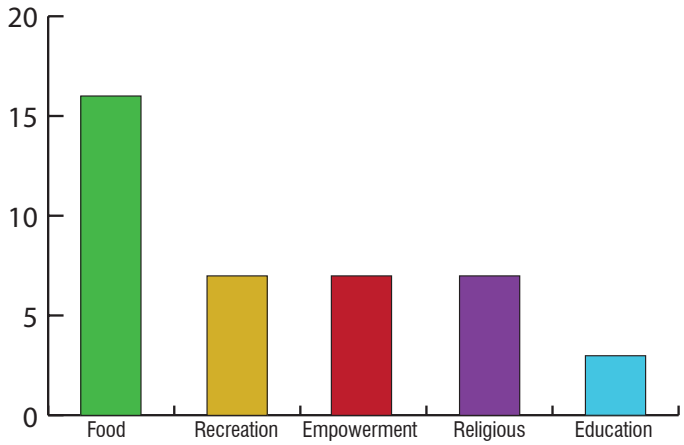


Legend

- Food - Grocery
- Food - Restaraunt
- Food - Convienent Store
- Recreation
- Education
- Shopping
- Religious
- Empowerment
- OHA Soutside Terrace Office
- Youth Empowerment
- Adult Empowerment

Summary of Information

All sources of food are to the north of the site except for the Afoma Convienent across 30th street from the OHA Southside Terrace Office.
The nearest major grocery store is .8 miles away from the residents.
The nearest shopping center is .9 miles away from the residents.
The majority of restaraunts are Mexican.
There are many 7 different denominations of churches around Southside.
Elementary school and Cummunity College are within two blocks.
All of the youth services are within a one block.



Q Street Sidewalks and Intersections Pose Pedestrian Issues for Southside Residents

Southside Terrace Residents Have Issues Accessing Services North of Q Street

W2_SB02_7.2K_Dilemma_ServicesProvided.PDF

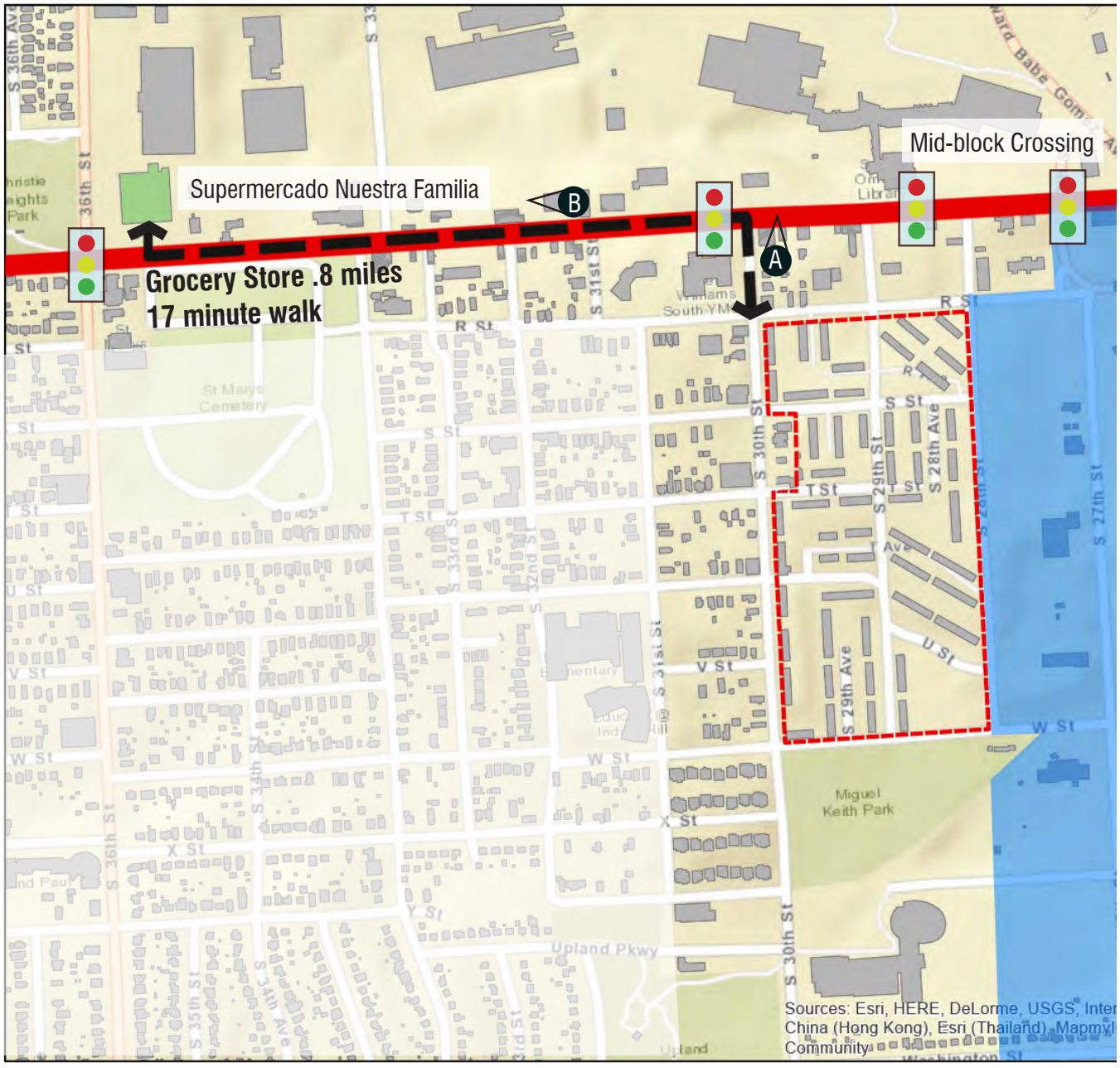


Figure 01. Difficulties accessing services north of Q street?
Source: GIS and Google Maps

Inquiry: What difficulties are there accessing services North of Q street?
Key Extractions: The context of Southside Terrace.
Methodology: Extracting maps from GIS and analyzing google maps for better understanding of interactions with Q street.
Conclusions: It is difficult for residents of Southside terrace to access the nearest grocery store because of its distance from the site and the difficulties crossing Q Street. Q Street currently has four stop lights the residents of Southside Terrace can utilize to reach the nearest grocery store and other services North of Q street. The road is very busy and also has poor sidewalks for pedestrians. The most direct route to the grocery store also does not have any shade for pedestrians, so hot days during the summer make the approximately 17 minute walk uncomfortable for residents. There is no direct acces to the public library and transit center to the north. The residents are required to use a mid-block crossing rather than creating a stop light intersection on Q street and 29th.





Legend
- Q Street
- Area Lacking Services
- Path of Best Access
- Grocery Store
- Stop light intersection



30th and Q street Intersection: The sidewalks south of Q street are large and allow a good flow of traffic for pedestrians. Q steet does not have any indicator of a crosswalk on the West side of the intersection.

Legend
- Q Street
- Sidewalk
- Cross Walk



Pedestrian way along Q street: The sidewalks south of Q street are newer but small, and the sidewalks to the north of Q street are much older and decrepid. Both sidewalks are interrupted by fire hydrants, light poles, and service lone poles. There is also a lack of crosswalks for the residents in Southside Terrace and the surrounding neighborhood. The sidewalks also have very few trees along it which makes the conditions to walk to the grocery store and other services exposed and uncomfortable.

Legend
- Q Street
- Sidewalk

Summary of Issues

Northern sidwalks are damaged
Lack of shade along sidewalk
Powerlines and Fire Hydrants disrubt pedestrian flow
Nearest major grocery store is .8 miles away
Lack of effective spacing for crosswalks
Only crosswalks are painted at stop lights
Sidewalks are not wide enough for effective use when groups pass

Map 01

Southside Terrace is Well Supported by Social Services

Concentration and rang of services is efficient and convenient to residents.

W2_CF01_.5K_SouthsideTerraceisWellSupportedbySocialServices.PDF

1. YMCA

- Tutoring
- Life Counselling
- Sports/ Recreation
- Vocational Training
- Senior Center Activities
- Childcare
- Food
- Scholarships

Geographic Range: Undefined

Donors: Private Individuals, UPS, Union Pacific, OHA, Omaha Nitro Soccer Club, KE Flex Construction, Scheels, Thermal Services, Sysco, Omaha Community Foundation, Executive Janitorial Corporation

2. Catholic Charities Juan Diego Center

- Food Pantry
- Immigration Legal Assistance
- Vocational Training
- Family Activities

Geographic Range: Undefined

Partners: YMCA, Unknown others

3. Victory Boxing Club

- Tutoring
- Life Counselling
- Childcare
- Vocational Training

Geographic Range: Undefined

Partners: UPS, Omaha Community Foundatoin, Hope Community Church, St. Andrews United Methodist Chirch, Flatland Church, Glad Tidings, Bellevue Christian Church.

4. Girls Inc.

- Tutoring
- Education
- Food
- Childcare
- Sports
- Vocational Training
- Scholarships
- Life Counseling

Geographic Range: Undefined

Partners: African Culture Connection, Boys and Girls Club of Manhattan,Girl Scouts, Omaha Public Library, Omaha Public Schools, YMCA, and much more

5. Omaha Housing Authority

- Tutoring
- Education
- Childcare
- Food

Geographic Range: Omaha

Partners: : American Classifieds, Boy Scouts of America, Boys and Girls Club, Clark Connection Group, Creighton University, Girls Inc., InfoUSA,Metropolitan Community Colledge, Omaha Public Schools, YMCA, Omaha Symphony, Omaha Weed and Seed, YouthBuild Program, Loves Jazz and Arts Center, Neighborhood Networks, Omaha Small Business Network

6. Indian Hill Elementary School

- Housing
- Education
- Life Counselling
- Vocational Training

Geographic Range: Indian Hills School District

Partners: Northern Natural Gas, South YMCA, Keep Omaha Beautiful, Girls inc., Optimist Club of South Omaha, HyVee

7. Educare

- Tutoring

Geographic Range: Indian Hills School District

Donors: Susan Buffet Foundation, William and Ruth Scott Family Foundation, Lozier Foundation, UPS, First National Bank, CBS Home Real Estate and More

8. Refugee Empowerment Center

- Education
- Vocational Training
- Life Counseling
- Empowerment

Geographic Range: Undefined

Partners/Donors: Unknown

9. Metropolitan Community College

- Education
- Tutoring
- Vocational Training
- Life Counseling

Geographic Range: Douglas, Washington, Dodge, and Sarpy Counties

Partners: PlayLab, Nebraska Arts Council, Midlands Foundation, Nebraska Correctional Youth Facility, Nebraska Department of Correctional Services, Central Community College, WasteCap Nebraska, Joslyn Institute, OSHA, SkillsUSA, Books by the Busload, DREAM, University of Nebraska, and many more

10. South Omaha Public Library

- Programming for kids
- Internet access

Geographic Range: Undefined

Partners: Metropolitan Community College, Friends of Omaha Public Library, Literacy Center, Douglas County Health Department, small bussineseses and many more

11. Stephen Center

- Emergency Housing
- Vocational Training
- Life Counseling

Geographic Range: Undefined

Donors: Abes Trash Inc, Amazon Smile Business Foundation, American National Bank, Bellevue University, Alan and Suzanne Brinkman, Church World service Inc., Doctors Wives Club of Omaha, Mount Olive Church Sunday School, Union Pacific Corporation, and many more...

12. Nebraska AFLO-CIO

- Job Advocacy
- Empowerment

Geographic Range: South Omaha

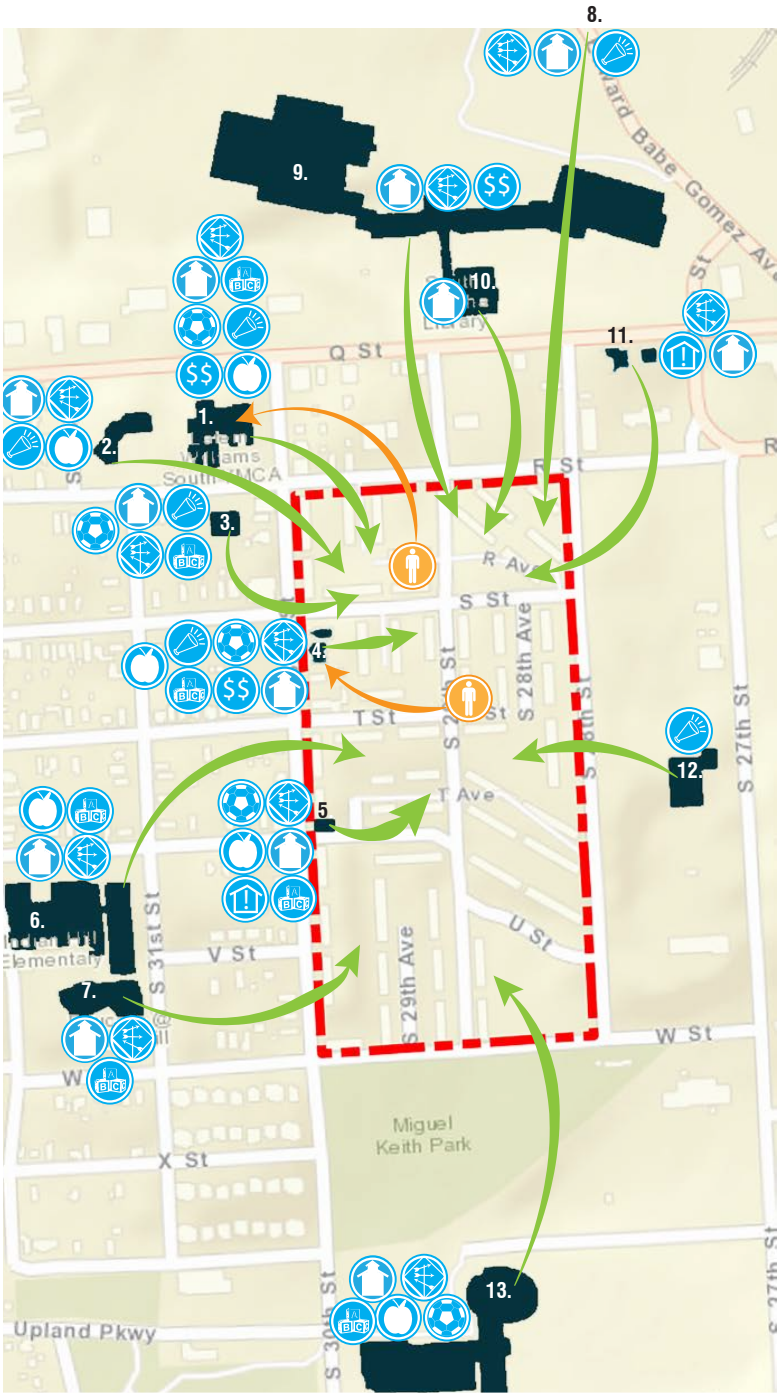
Donors/Partners: Unknown

13. Salvation Army Kroc Center

- Food
- Sports
- Childcare
- Tutoring
- Vocational Training

Geographic Range: South Omaha

Partners: Stephen Center, Sheltering Tree, OMNI Behavioral Health, OHA, Omaha Public Schools, Omaha Polince Department, Omaha Conservatory Music, Omaha Symphony, Latino Center of the Midlands, Boys Town, STEP UP Omaha, City of Omaha, SONA



Classification

Legend

- Free Food
- Fitness/Sports/ Recreation
- Emergency Housing
- Child Care
- Educational/ Vocation Training
- Life Coaching/ Counseling
- Scholarships
- Empowerment/ Advocacy
- Staffing Provided

Figure 1. Systematic Support
Source: Modified ArcGIS

Inquiry: How are the social service providers linked to each other and Southside Terrace?

Key Extractions: Building footprints, Social Services, Demographics, and Funding

Methodology: Organizations providing support services for Southside Terrace were identified, basic information was gathered from their respective websites, and the locations were mapped. Each organization was then contacted to request supplemental information. Close proximity to Southside Terrace was the common denominator between the various support organizations.

Conclusions: If the Southside Terrace population was relocated off site or offered Section 8 vouchers, either permanently or temporarily during extended site construction, many surrounding support organizations would be forced to close or relocate. Without close support services, many residents would not return. If residents were widely dispersed and support costs were picked up by the City of Omaha, delivery would not be cost effective.

Strengthening Social Service Partnerships

The current collaboration between social service organizatoins could be expanded to increase impact.

W2_CF02_.5K_StrengtheningSocialServicePartnerships.PDF

1. Excahnge of resources between the Omaha Public Library and the Metropolitan Community College.
2. The Juan Diego food pantry provides food for the YMCA to provide free meals to children.
3. Girls Inc. walks to the YMCA to use their facilities and to eat their free meals.
4. The OHA donates money to the YMCA and the YMCA provides subsidized membership for the Southside Terrace community.
5. Girls Inc. walks to Indian Hills Elementary to eat free meals. Many of the girls that attend Girls Inc. are from Indian Hills Elementary.
6. Indian Hills Elementary and Educare work together to provide an education for the children of the district, working with English-learners and engages parents in reading activities for the children.
7. YMCA and Victory Boxing share gym.
8. Girls Inc. is supported by OHA.
9. OHA financially supports the YMCA.
10. Undefined.
11. Undefined.
12. Undefined.
13. Undefined.

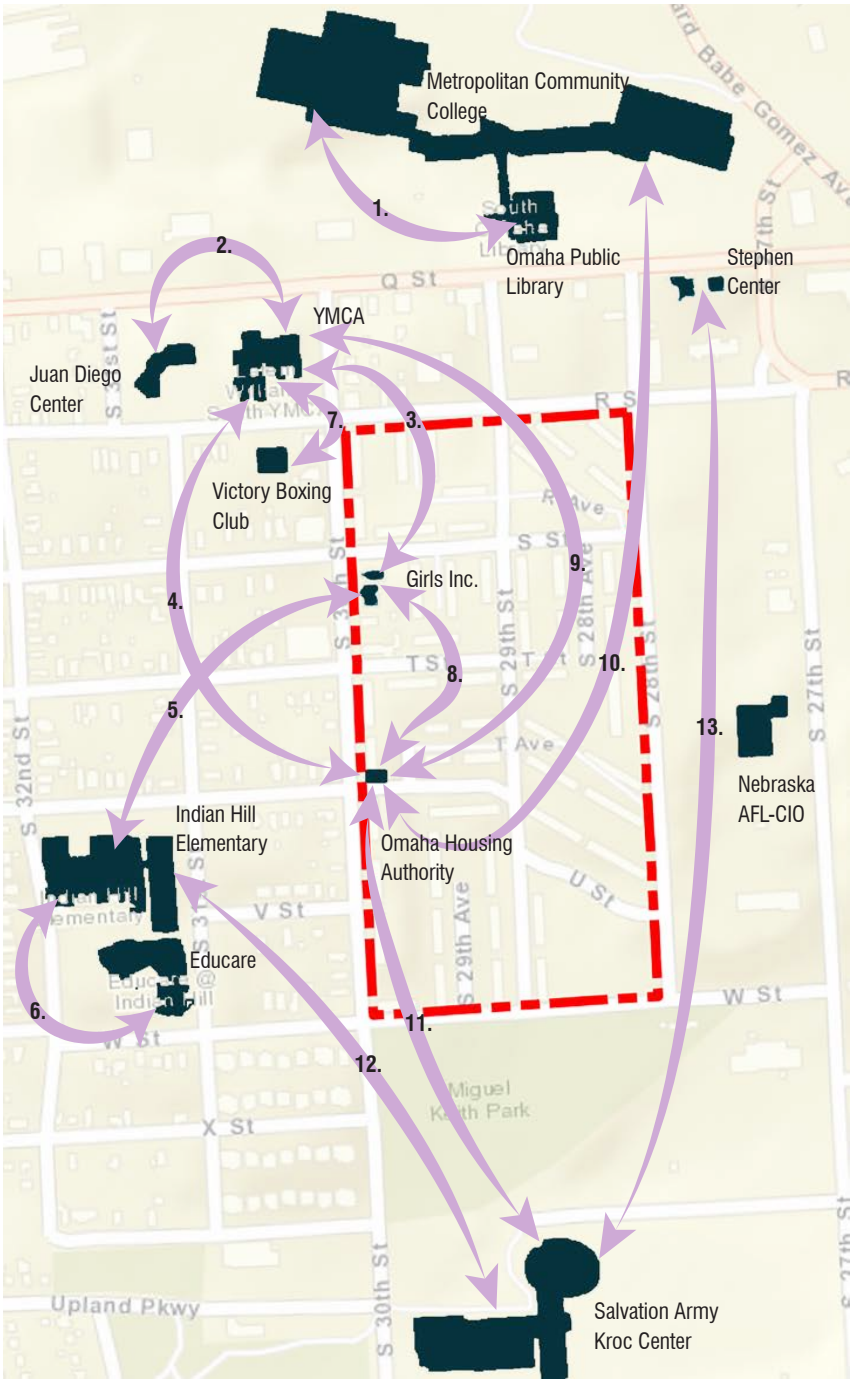


Figure 01. Existing Social Service Partnerships
Source: Hahn GIS Data, “World Imagery,” “World Street Map”

Inquiry: How could collaboration within the social services community be enhanced and diversified?
Key Extractions: Building footprints, Social Services, Demographics, and Funding
Methodology: I Identified elements of the system and researched each entity involved and cross checked them against one another. Then I contacted each organization individually requesting more data.
Conclusions: The service community providers are already very interconnected and support one another to support Southside Terrace. From this map it is clear to see the three concentrations of services provided at the YMCA, Girls Inc., and OHA. Other service providers could work together more efficiently to provide more services and services that are not redundant. The support system could be stronger with increased cross pollination between organizations.

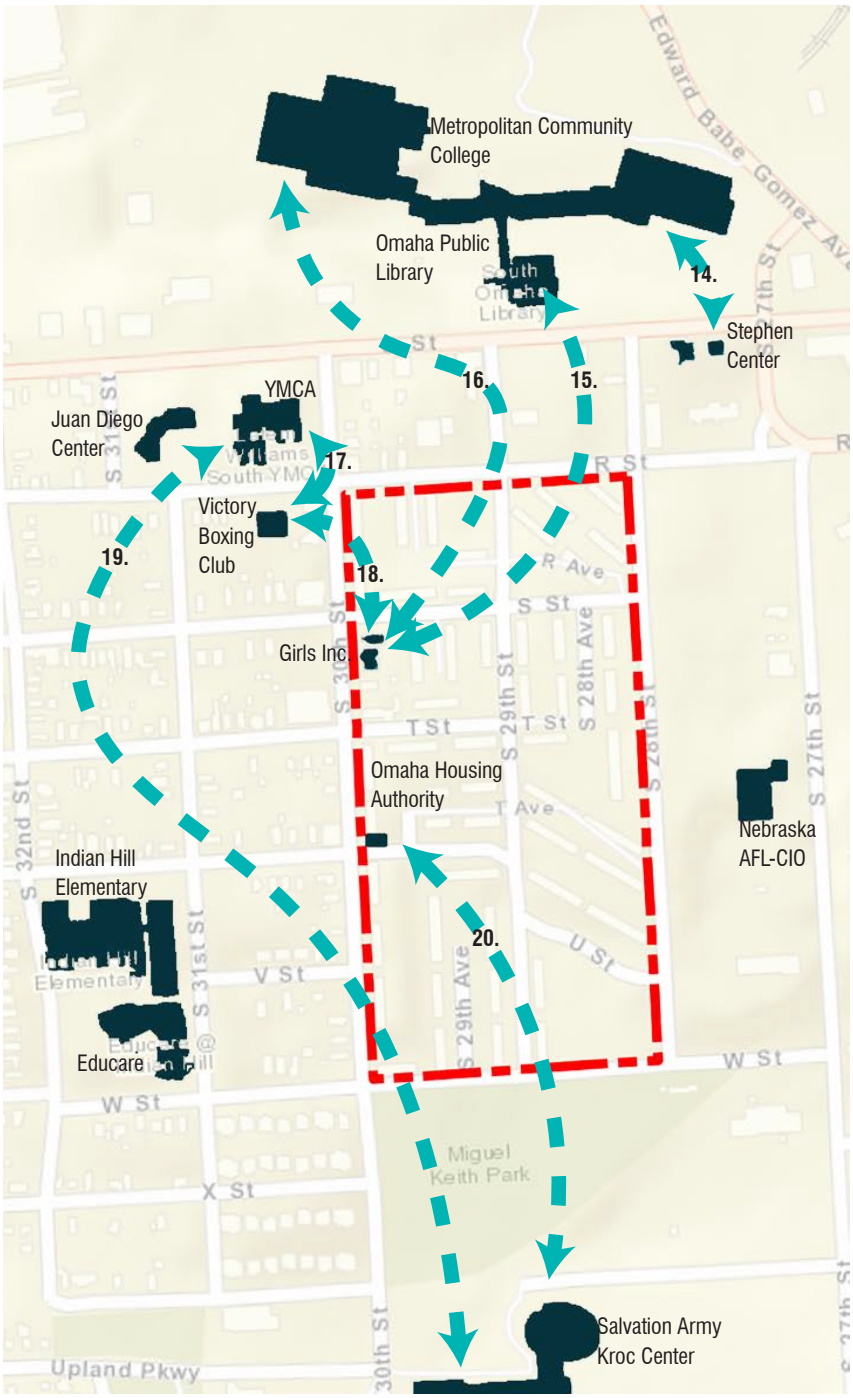


Figure 02. Proposed Social Service Partnerships
Source: Hahn GIS Data, "World Imagery," "World Street Map"

14. The Metropolitan Community College and the Stephen Center could share resources to provide skilled training for the people the Stephen Center serves.
15. The Public Library could provide some reading programs for Girls Inc. and other youth organizations to attend.
16. Girls Inc. could partner with the Community College to provide girls with college preparatory classes to prepare for college. The Community College could send over tutors to the Girls inc. location if needed.
17. The YMCA and Victory Church Boxing Club could share facilities and instructors to expand each's capacity to serve as a recreation facility further.
18. Girls Inc. and Victory Boxing could work together to allow girls to learn boxing and increase fitness.
19. The YMCA and the Kroc Center could communicate to provide free meals for children strategically so that no child ever has to miss a meal. They could also share facilities. For example, the Kroc Center has a pool, the YMCA does not.
20. The Kroc Center and OHA could partner similarly to how the YMCA and OHA partner to expand service provided to the residents.

Southside Terrace has the Most Social Support Services Among OHA Properites

Residents depend on social support services and resist relocation.

W3_CF01_6K_SouthsideTerracehastheMostSocialSupportServicesAmongOHAProperties.PDF

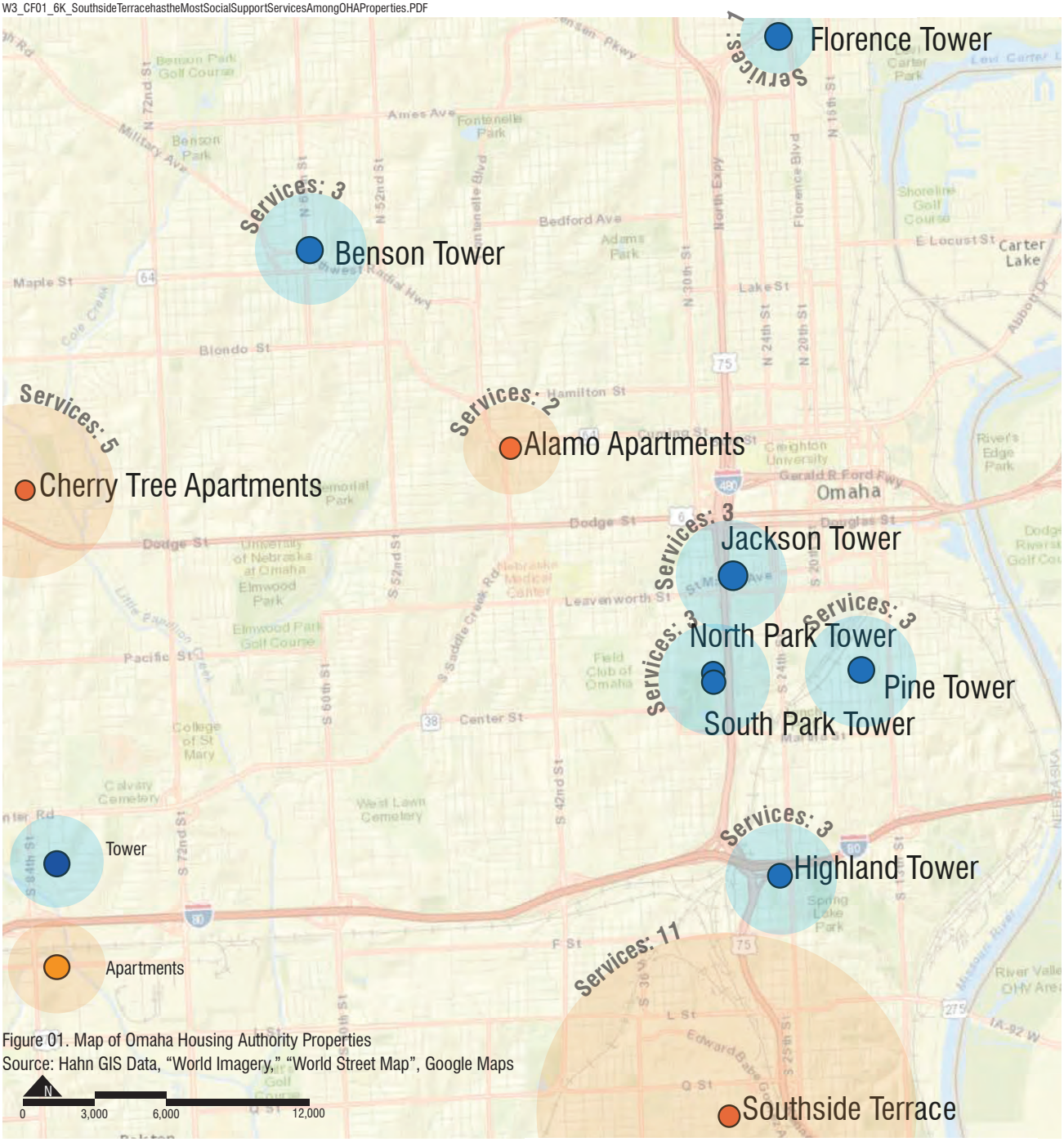
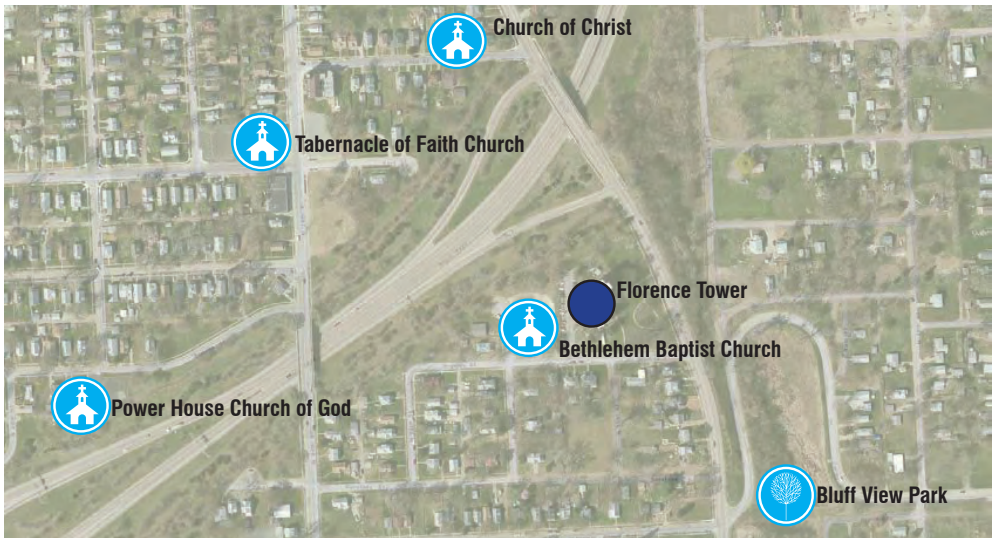


Figure 01. Map of Omaha Housing Authority Properties
Source: Hahn GIS Data, "World Imagery," "World Street Map", Google Maps

Inquiry: How are the other properties owned by Omaha Housing Authority supported by service organizations?
Key Extractions: Street Map, World Imagery
Methodology: OHA properties were located on OHA's website and entered into GIS to see how they all related to one another. Next I used Google Earth to locate service organizations surrounding the housing developments and noted the stores, churches and services available to residences. Information about each service was gathered from their respective websites.
Conclusions: The other public housing developments around the city of Omaha do not have the same density of services provided at Southside Terrace, nor do they have the diversity. This map illustrates the rareness of Southside Terrace's support network, thus making it more valuable to retain. The services provided to the other public housing developments around the city primarily rely on churches and religious affiliations to distribute service. Many of the sites lack community and connectivity to surrounding neighborhoods and lack the community. Some have parks adjacent or nearby, which is an amenity to consider for the suture of Southside Terrace.



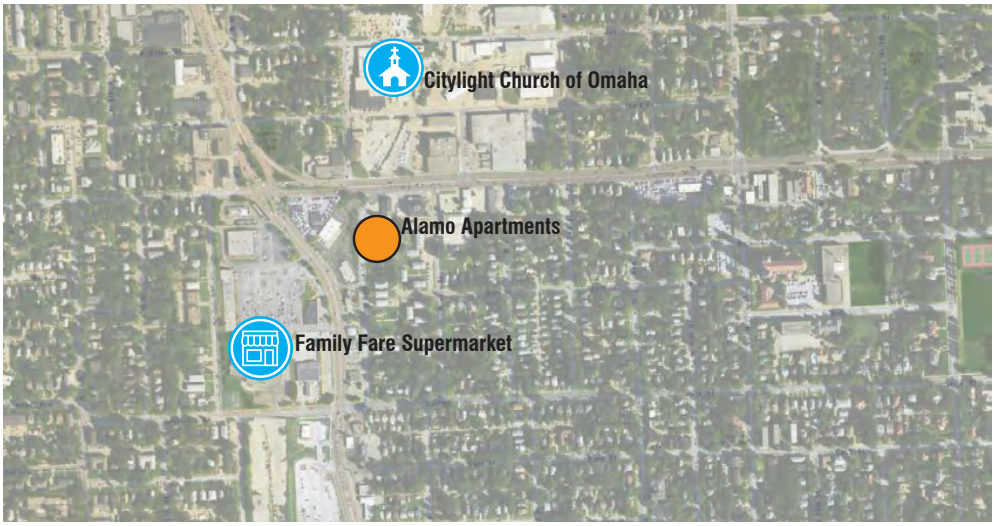
Florence Tower

- Location: NE Omaha
- Number of Units: 106
- Size of Unit: 1-2 Bedrooms
- Housing Format: Apartments in tower
- Services nearby: Churches
- Amenities: Bluff View Park



Benson Tower

- Location: Bensen
- Number of Units: 106
- Size of Units: 1 Bedroom
- Housing Type: Apartments in tower
- Services nearby: Churches, Walgreens, elementary school
- Amenities: Gallaher Park, restaurants and shops



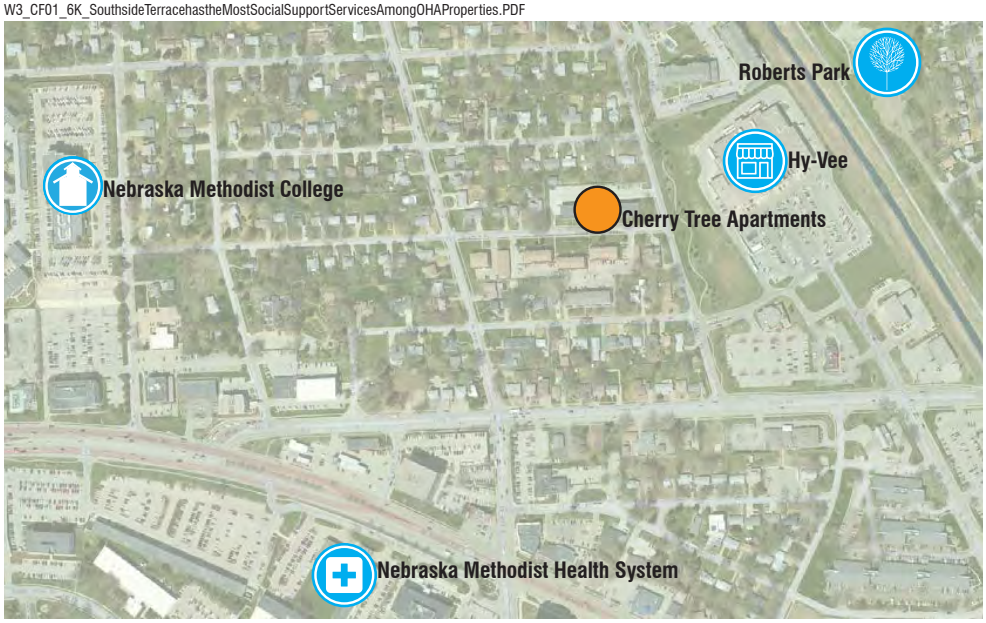
Alamo Apartments

- Location: Central Omaha
- Number of Units: 14
- Size of Units: 1-2 Bedroom
- Housing Type: Apartments
- Services nearby: Churches, near Nebraska Medicine
- Amenities: Stores, restaurants
- Note: Highways adjacent to Alamo Apartments pose barriers to services and amenities.

Southside Terrace has the Most Social Support Services Among OHA Properites

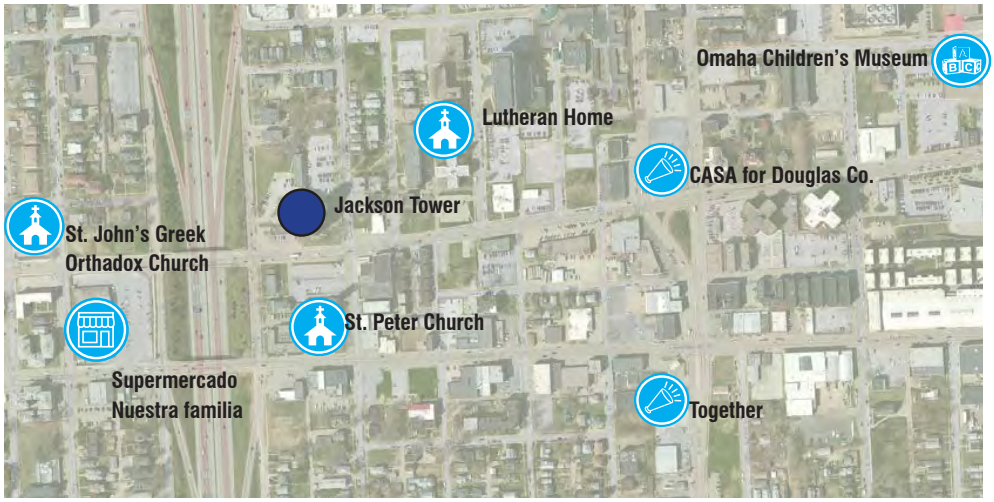
Residents depend on social support services and resist relocation.

W3_CF01_6K_SouthsideTerracehastheMostSocialSupportServicesAmongOHAProperties.PDF



Cherry Tree Apartments

- Location: Central Omaha
- Number of Units: 30
- Size of Units: 1-2 Bedroom
- Housing Type: Apartments
- Services nearby: Churches, Hy-Vee, Nebraska Methodist College, Nebraska Methodist Health System
- Amenities: Stores, restaurants, Roberts Park



Jackson Tower

- Location: Midtown Omaha
- Number of Units: 208
- Size of Units: 1-2 Bedroom
- Housing Type: Apartments in tower
- Services nearby: Churches, CASA, Together
- Amenities: Stores, restaurants, Omaha Children's Museum
- Note: CASA stands for Court Appointed Special Advocate and they advocate for children in the foster care system. Together is a service that helps families in extreme poverty to rebuild housing stability.



North and South Park Towers

- Location: Field Club
- Number of Units: 218
- Size of Units: 1-2 Bedroom
- Housing Type: Apartments in tower
- Services nearby: Churches, Columbus Community Center, inCOMMON Community Development
- Amenities: Stores, restaurants, Hanscom Park, Columbus Park and restaurants and stores
- Note: inCOMMON Community Development is an organization that helps bring people out of poverty and give them the tools to be successful.



Pine Tower

- Location: Southeast Omaha
- Number of Units: 144
- Size of Units: 1 Bedroom
- Housing Type: Apartments in tower
- Services nearby: Churches, Columbus Community Center, No More Empty Cups
- Amenities: Stores, restaurants, Columbus Park
- Note: No More Empty Cups is a non-profit coffee shop cafe that seeks to connect the community with food.

Highland Tower

- Location: Highland Park
- Number of Units: 106
- Size of Units: 1-2 Bedroom
- Housing Type: Apartments in tower
- Services nearby: Churches, Union, South Magnet High School
- Amenities: Stores, restaurants, Highland Park, Spring Lake, Henry Doorly Zoo and Aquarium

Figure 02. Maps of Omaha Housing Authority Properties
Source: Hahn GIS Data, "World Imagery," "World Street Map", Google Maps

Systematic Effects of Population Displacement

Displacing the Southside Terrace population could force closure of surrounding support services.

W3_CF02_.5K_SystematicEffectsofPopulationDisplacement.PDF

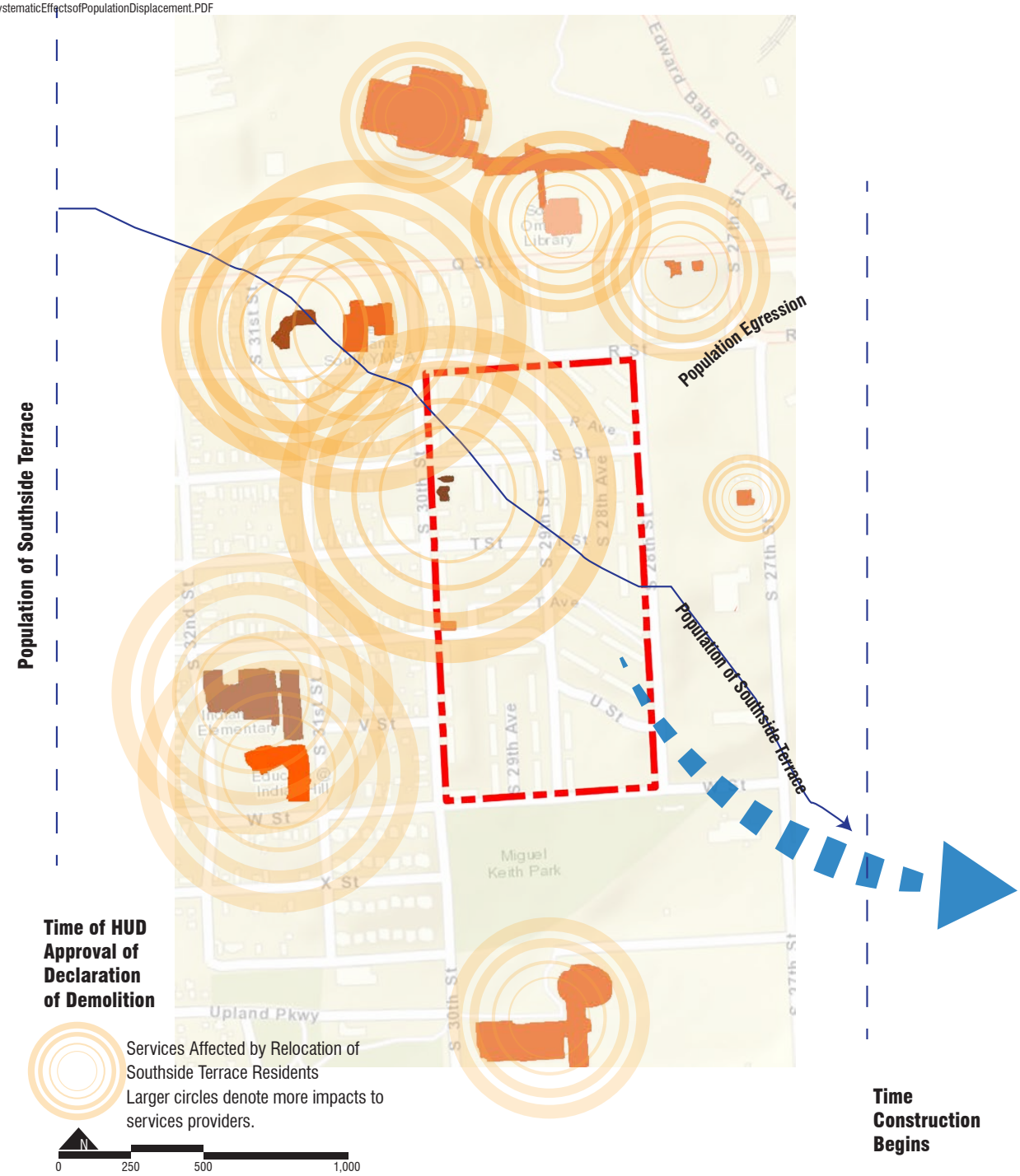


Figure 01. Decline in Population of Southside Terrace Between the Approval of Demolition and the Beginning of Construction
Source: Blake Belanger 2016, Hahn GIS Data, “World Street Map” 2016
Inquiry: How will the population and service organizations of Southside Terrace be affected by the construction process?
Key Extractions: Building footprints, services provided
Methodology: I mapped the organizations in GIS and synthesized information from interviews to produce graphics in Illustrator.
Conclusions: All service providers will be affected, except for Victory Boxing because according to Reverand Servando no boys from Southside terrace go there, and the population will be effected as soon as HUD approves demolition from OHA. OHA vacancies do not need to be filled after demolition is approved, causing a steady decline in population until construction commences.

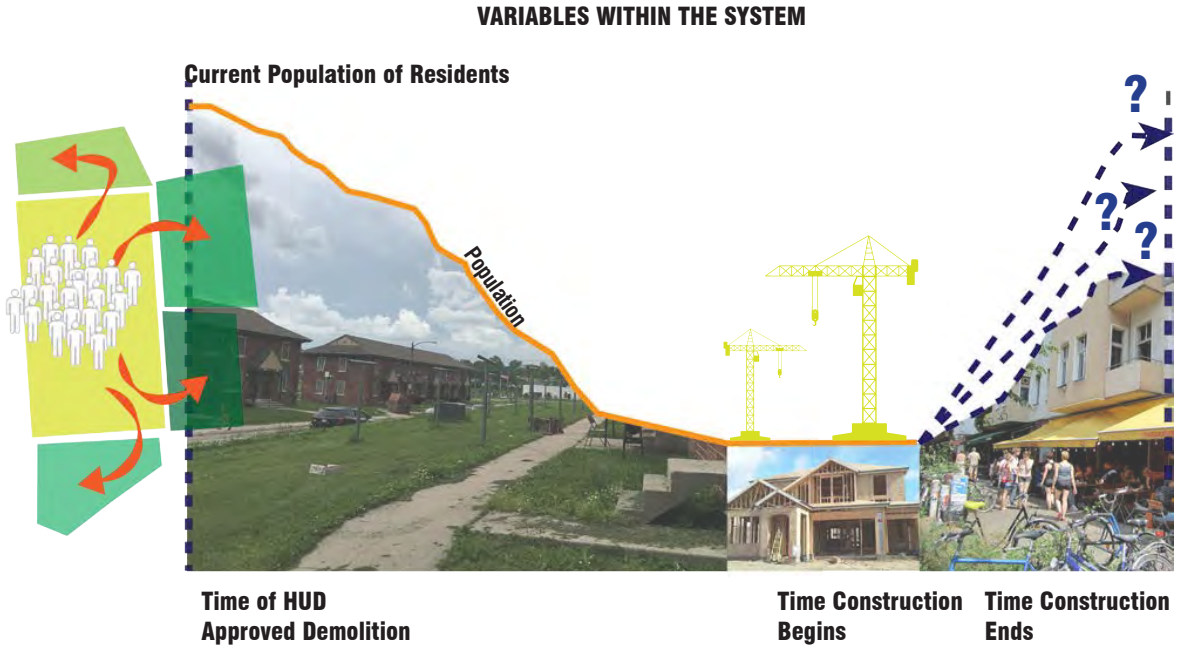


Figure 02. The Retention of Southside Terrace Population if Relocated Close to the Current Site will Depend on Influx of Mixed Income Population or the Adjustment of Public Housing Admissions
Source: https://flic.kr/p/9VasmK, https://commons.wikimedia.org/wiki/File:Home_under_construction.JPG, Blake Belanger 2016, James Hanlon 2009, Robert Chaskin 2013

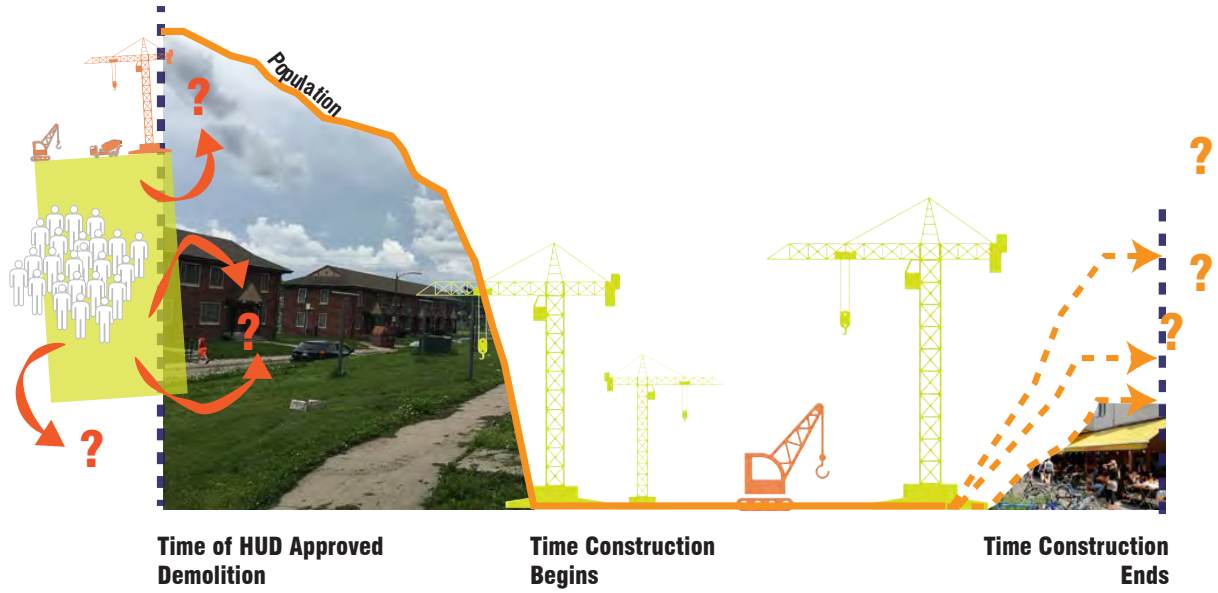


Figure 03. If Southside Terrace Population is Displaced to Different Parts Omaha, the Return Rate of Former Residents will be Questionable
Source: https://flic.kr/p/9VasmK, Blake Belanger 2016, James Hanlon 2009, Robert Chaskin 2013

Inquiry: How will the systematic support system of Southside Terrace be effected with displacement for construction?
Methodology: Extrapolations from research
Conclusions: The population of Southside Terrace will decline until construction commences while the OHA is not filling monthly vacancies. Depending on the influx of mixed income populations and whether the regulations for housing application approval will be adjusted to make affordable housing more exclusive will influence the number of original residents who return. If the population is housed nearby the current site, the chance of people not coming back is less than if they move into the city and are no longer connected to their community.

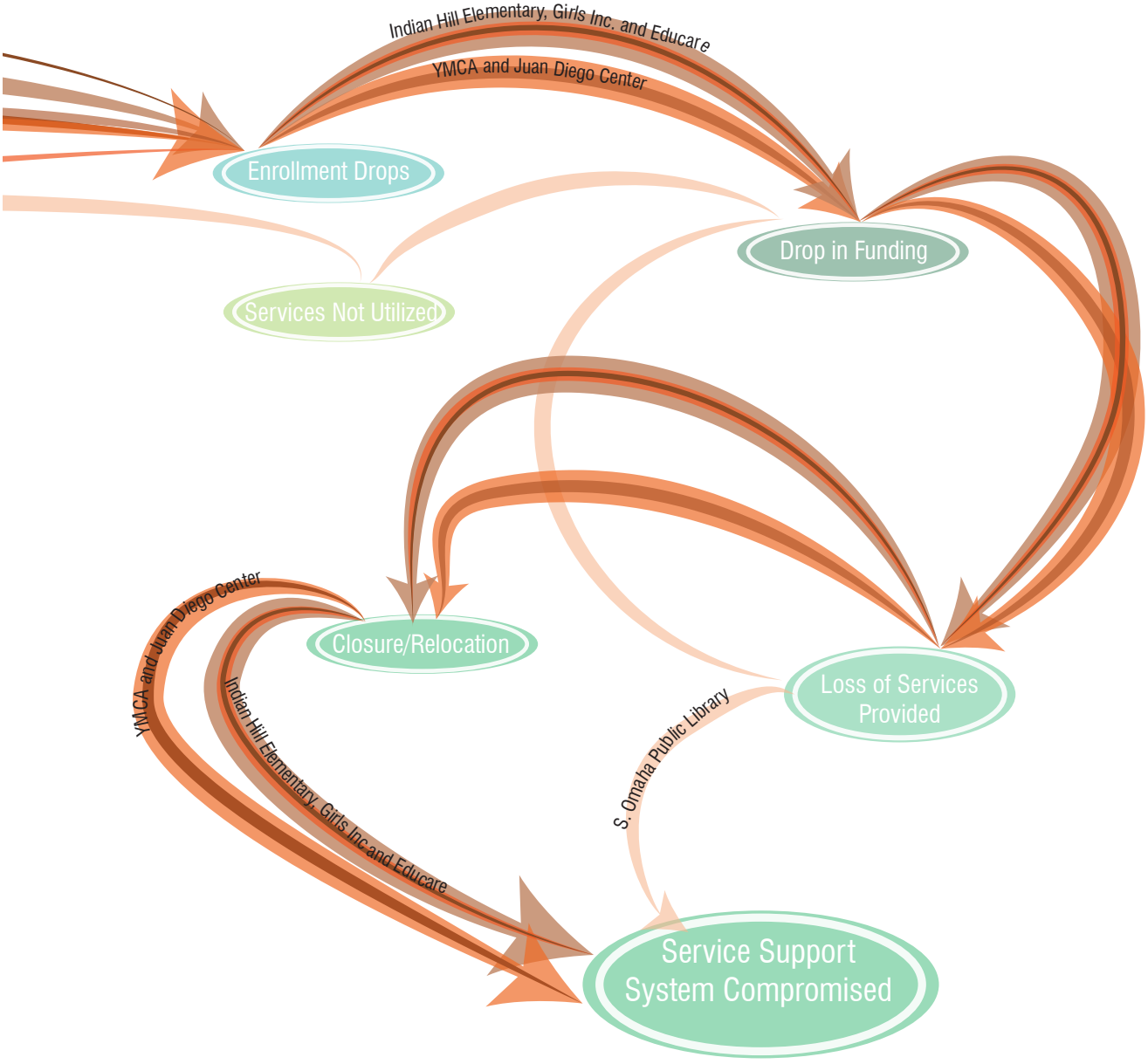
Systematic Effects of Population Displacement

Displacing the Southside Terrace Population Could Have and Unforeseen Snowball Effect

W3_CF02_.5K_SystematicEffectsofPopulationDisplacement.PDF



Figure 04. Systematic Effects if the Population of Southside Terrace is Displaced
Source: Hahn GIS Data, "World Street Map" 2016, Marque Snow, Mara Martinez 2016, websites of: Educare,S. Omaha Public Library, Juan Diego Center
Inquiry: What would happen to the system of support if the residents of Southside Terrace were temporarily or permanently relocated?
Key Extractions: Building Footprints
Methodology: I gathered information from interviews, tours of service providers, read off websites and deduced this system.
Conclusions: The system that supports Southside Terrace is linked together in many ways and depends on the population to provide service or operate at all. Many of the service providers link together in the "Drop in Enrolment" stage because they pull from the same pool of people and their services build on one another.


Indian Hill Elementary, Girls Inc. and Educare
YMCA and Juan Diego Center
Enrollment Drops
Drop in Funding
Services Not Utilized
YMCA and Juan Diego Center
Closure/Relocation
Indian Hill Elementary, Girls Inc. and Educare
Loss of Services Provided
S. Omaha Public Library
Service Support System Compromised

Systematic Effects of Population Displacement

Displacing the Southside Terrace Population Could Have and Unforeseen Snowball Effect

W3_CF02_.5K_SystematicEffectsofPopulationDisplacement.PDF

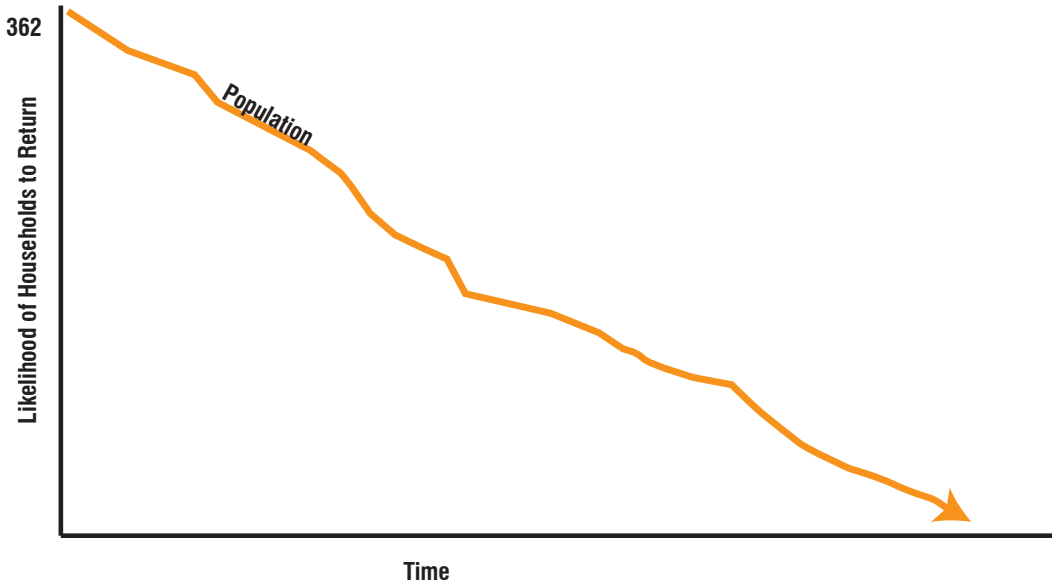


Figure 05. The Longer the Construction Takes, the Less Likely Households Will Return to Southside Terrace
Source: Blake Belanger 2016, James Hanlon 2009, Robert Chaskin 2013
According to precedent studies, for example Park DuValle, in general the longer the construction time, the less likely previous residents will return.

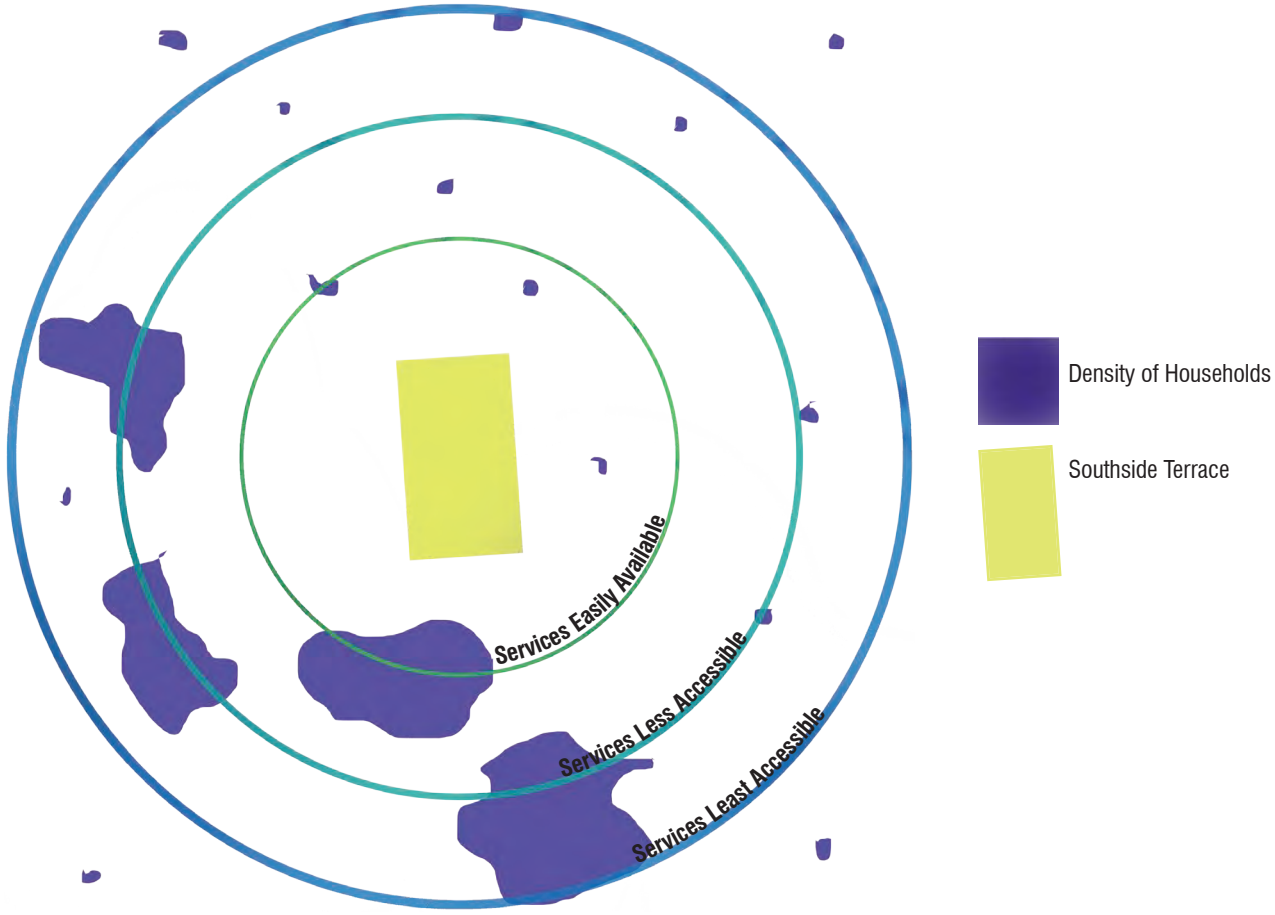


Figure 06. Density of Relocation Housing vs. Distance from Services at Southside Terrace
Source: James Hanlon 2009, Robert Chaskin 2013
The more concentrated and closer to Southside Terrace enables the continued support for the social services nearby. .The more distant and dispersed the relocation of residents, the less support available for them.

Keeping Southside Terrace Communities Close

With phasing and communication, Southside Terrace's sense of community can be preserved.

W3_CF03_noK_KeepingSouthsideTerraceCommunitiesClose.PDF

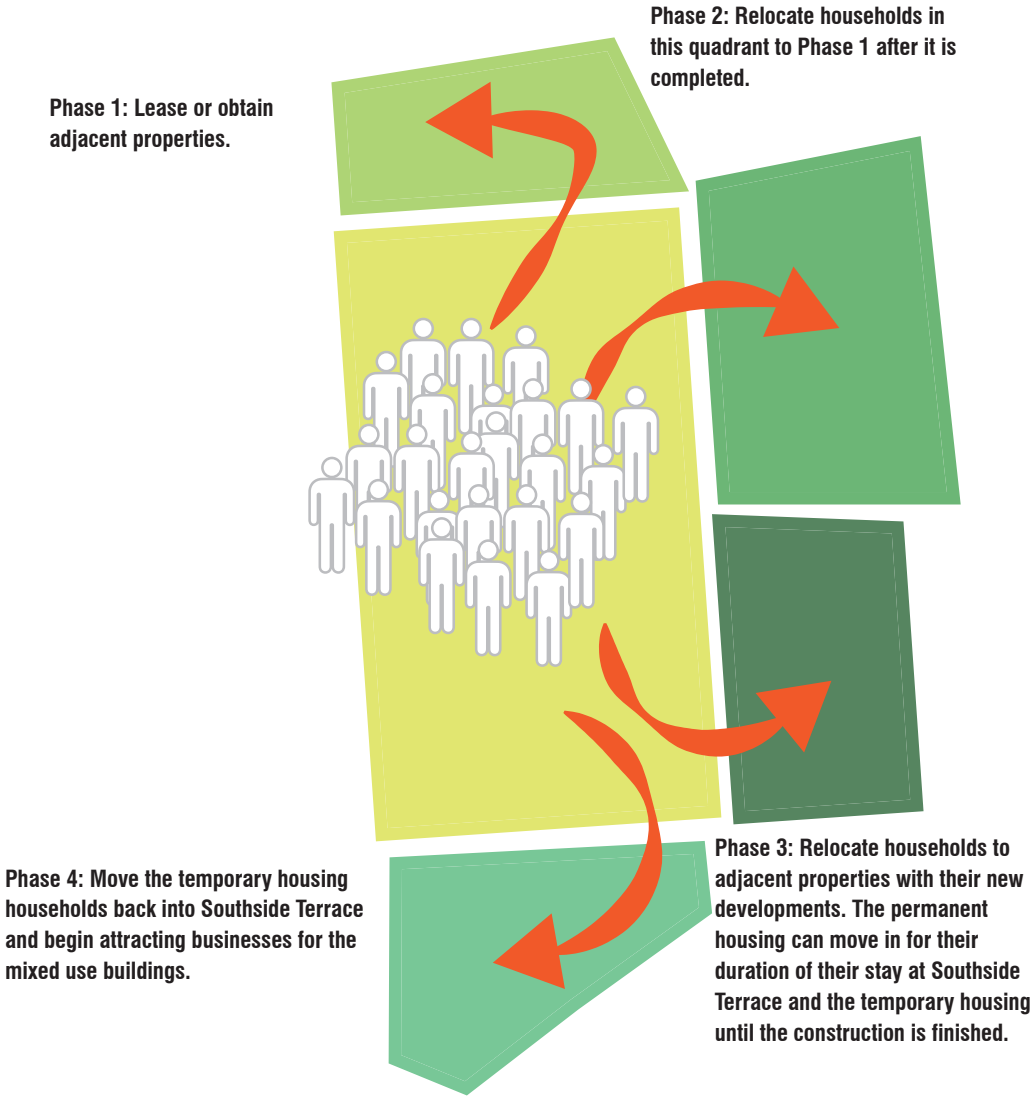


Figure 01. Phasing Strategies to Keep Southside Terrace's Population Near Services
Source: Rachel Rankin's Map of Phasing

Inquiry: How can Southside Terrace's population keep within distance of the community of service support?
Methodology: I looked for adjacent properties that could be acquired and refernenced Rachel Rankin's research to propose a loose phasing plan.
Conclusions: It is important to keep Southside Terrace's population near its current site to maintain its unique strong concentration of service providers. This can be accomplished by careful phasing by aquiring adjacent properties or by phasing and relocating within the site. The adjacent land can be aquired through leasing, in which case temporary housing would be installed, or through purchasing, where permanent development would take place. If land were bought, it would be advantageous to develop permanent structures on them because if a mixed income population is introduced, more housing will be needed to accomodate the previous occupants and the new comers. The desire for mixed use buildings was indicated in our meeting with the stake holders on May 27, 2016.

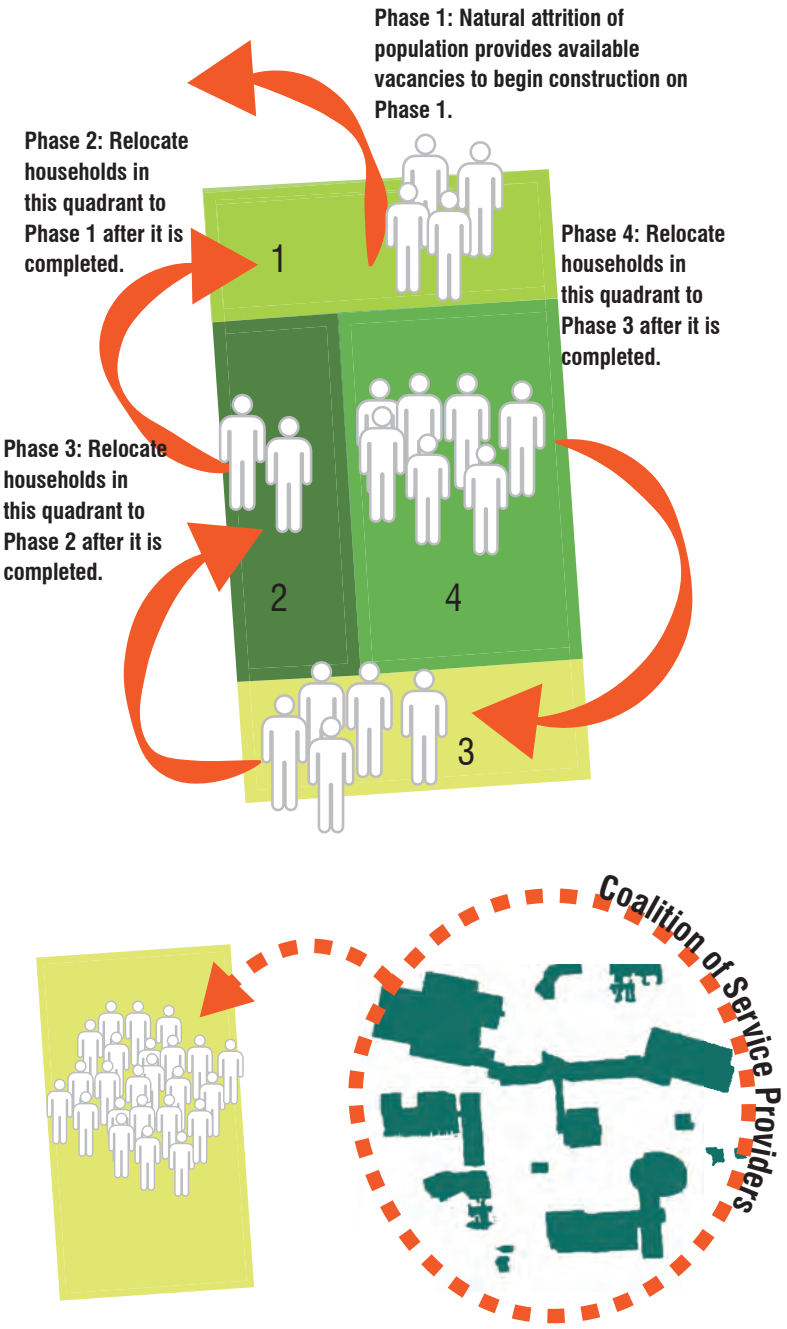


Figure 02. Developing a Service Provider Coalition
Source: Marque Snow, Mara Martinez 2016, websites of: Educare,S. Omaha Public Library, Juan Diego Center

Inquiry: How can Southside Terrace's service provider community become stronger?
Key Extractions: Building Footprints
Methodology: I looked for adjacent properties that could be acquired and refernenced Rachel Rankin's research to propose a loose phasing plan.
Conclusions: If the service providers could band together and communicate more, their quality and efficiency of services provided could increase significantly. Through communicating with each service provider it was discovered that there are inefficiencies and misconceptions in place that could be easily remedied with more communication.

Potential Sites for Relocating Southside Terrace Residents During Construction

There are large parcels to the south and east, and high-visibility parcels to the north.

W2_RR01_6K_Classification-Map.PDF



Figure 01. Adjacent Properties
Source: GIS, Google Maps

Inquiry: How can the Omaha Housing Authority best accommodate the residents during phasing and construction process on the redevelopment of Southside Terrace? Is expanding to adjacent properties a viable option?

Key Extractions: In order to keep the Southside Terrace residents near their current homes, social networks, and other amenities, the Omaha Housing Authority must consider expanding into adjacent properties.

Methodology: Qualifications of site suitability were determined through current land use, presence of buildings, land cover, lot condition, parcel occupation frequency, proximity and accessibility to Southside Terrace, topography, lot size, and other unique characteristics.

Conclusions: Every zone consists of unique properties that will have their own challenges and opportunities in consideration of proposed land use, phasing, and construction processes. In order to determine site suitability, the various challenges and opportunities for each parcel will need to be weighed against each other.

Zone Characteristics
Figure 02, Source Data: ESRI GIS, Site Observations

	Current Land Use	Building Presence	Land Cover	Lot Condition	Parcel Occupation Frequency	Accessibility to Southside	Topography	Other	Area
A	Commercial	3 average buildings	Mostly grass, some paved and dirt areas	Partially developed, run-down	Occasional	Close proximity, very accessible	Moderate slope	Approaching vehicles see this zone first	112,523 sq. feet
B	None	None	Mostly grass, some trees	Undeveloped	Infrequent	Close proximity; some slopes reduce accessibility	Large gradual hill	Owned by UPS	221,245 sq. feet
C	Mostly industrial, some commercial	2 large buildings, 2 offices, scattered sheds	Paved, some landscaping	Developed but run-down, some lots are well-kept	Occasional	Close proximity; medium slopes in some locations	Steep slopes on edges for flat lots	Multiple lots and owners	448,795 sq. feet
D	Industrial	1 large storage building	Paved	Developed, maintained	Occasional	Adjacent site	Mild gradual slope to south	Irregular lot shape	342,050 sq. feet
E	Recreational	None	Turf with minimal paving	Developed, well-kept	Frequent	Close proximity; topography is challenging	Very steep slope on northern edge; otherwise flat	Irregular lot shape	325,161 sq. feet



View 1 - Zone 'A' looking southeast. There are 3 average-sized commercial buildings. Some portions look well-maintained, but mostly it is run-down.
Figure 03, Source: Google Maps



View 2 - Zone 'B' looking southeast. The site is not clearly unoccupied by buildings, structures, or people. Just a large gradual hill.
Figure 04, Source: Google Maps



View 3 - This is between Zone 'B' and 'C' looking east. There is a vegetative border with some type of drainage structure separating them.
Figure 05, Source: Google Maps



View 4 - Zone 'C' looking northwest. This area has 3 buildings and is primarily paved, with some shed-like structures.
Figure 06, Source: Google Maps



View 5 - Zone 'D' looking southeast. This area has one building, but is completely paved for parking and storage. The edges are grassy slopes.
Figure 07, Source: Google Maps



View 6 - Zone 'E' looking northeast. No buildings; the site is currently used for recreational activities and has sports-related structures.
Figure 08, Source: Google Maps

Phasing Requires Consideration of Expansion

Relocation during construction needs to be close to Southside's current community services.

W2_RR02_6K_Opportunities-Map.PDF

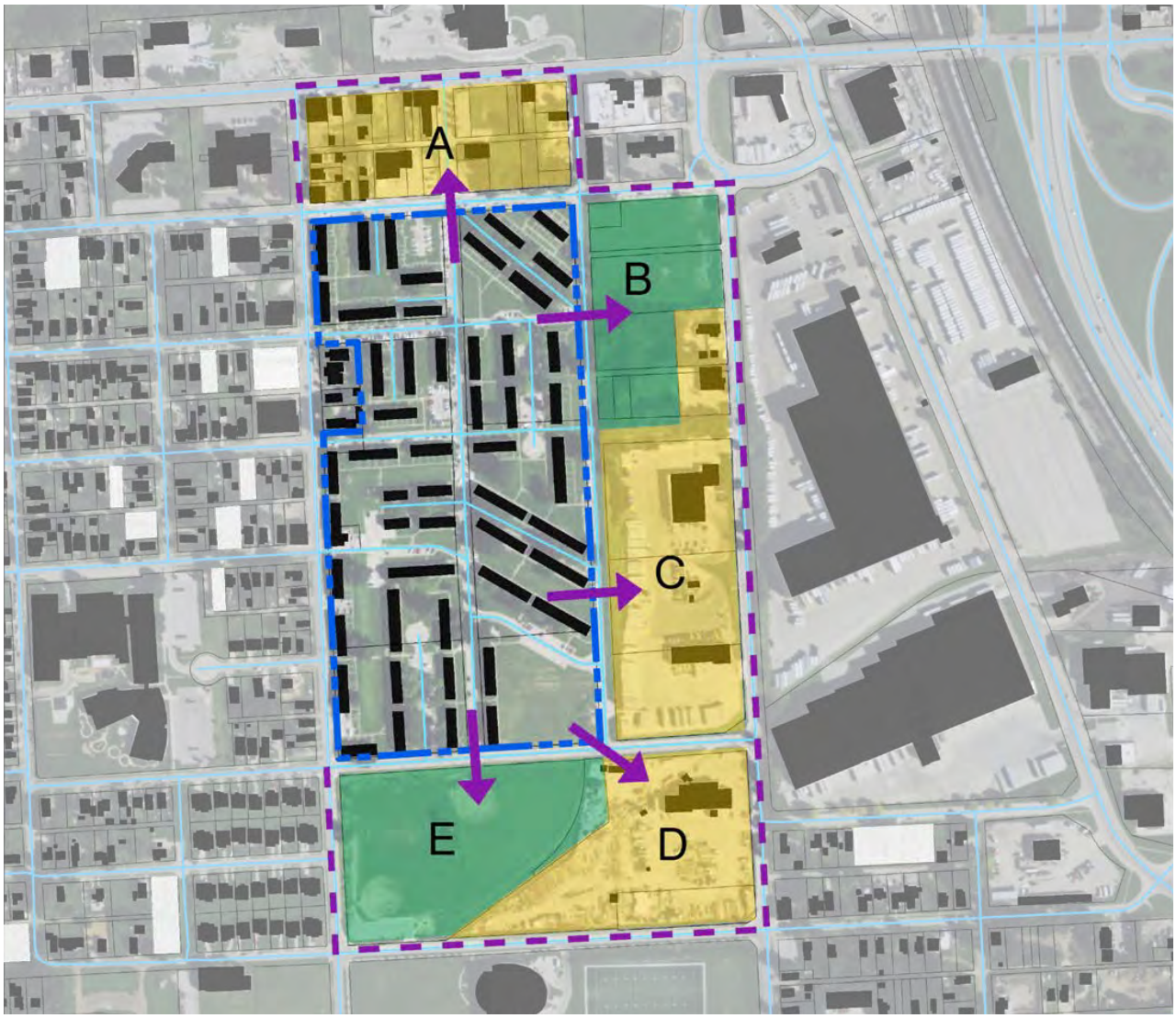
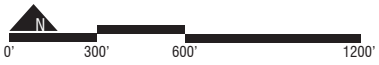


Figure 01. Potential Relocation and/or Expansion Opportunities
Source: GIS, Google Maps

Inquiry: Where will the residents of Southside Terrace live during construction of the new site?
Key Extractions: Very limited areas for temporary relocation, but the most suitable area would be the lots directly to the east and/or south.
Methodology: Qualifications of site suitability for temporary relocation and/or permanent expansion were the presence of buildings, condition of lot, frequency of parcel occupation, lot size/grouping, and topography.
Conclusions: Every zone has its own unique challenges and opportunities, which will need to be addressed for the suitability of proposed land use, phasing, and construction processes. Zone 'A' will be a difficult property to develop because of the many land owners and property types, but is highly desired for the connection to Q Street. Zone 'B' has no existing structures and appears not to be in use, but is one large gradual hill with bordering trees. Zones 'C' and 'D' are in use as an industrial lots, which may be difficult to develop because of the business owners. Zone 'E' is perhaps the least challenging zone because it is currently owned by the city and is primarily flat except for the steep slope on the northern edge.



Figure 02. Existing Site Characteristics
Source: GIS, Google Maps

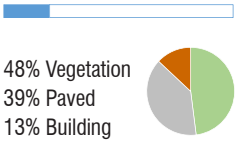


Legend
- Vegetative Surface
- Paved Surface
- Building / Structure
- 2 ft Contours

Key Extractions: There is clearly very defined green and paved spaces. The topography, for any of the zones, will be challenging.

Zone A:

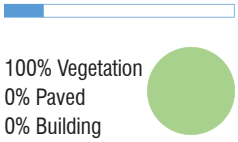
20% Additional Land



48% Vegetation
39% Paved
13% Building

Zone B:

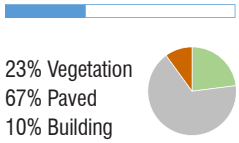
17% Additional Land



100% Vegetation
0% Paved
0% Building

Zone C:

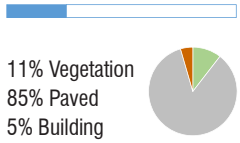
35% Additional Land



23% Vegetation
67% Paved
10% Building

Zone D:

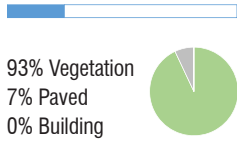
26% Additional Land



11% Vegetation
85% Paved
5% Building

Zone E:

25% Additional Land



93% Vegetation
7% Paved
0% Building

Relocation of Residents During Construction is Possible

Relocation during construction needs to be close to Southside's current amenities.

W3_RR01_6K_Classification-Map.PDF

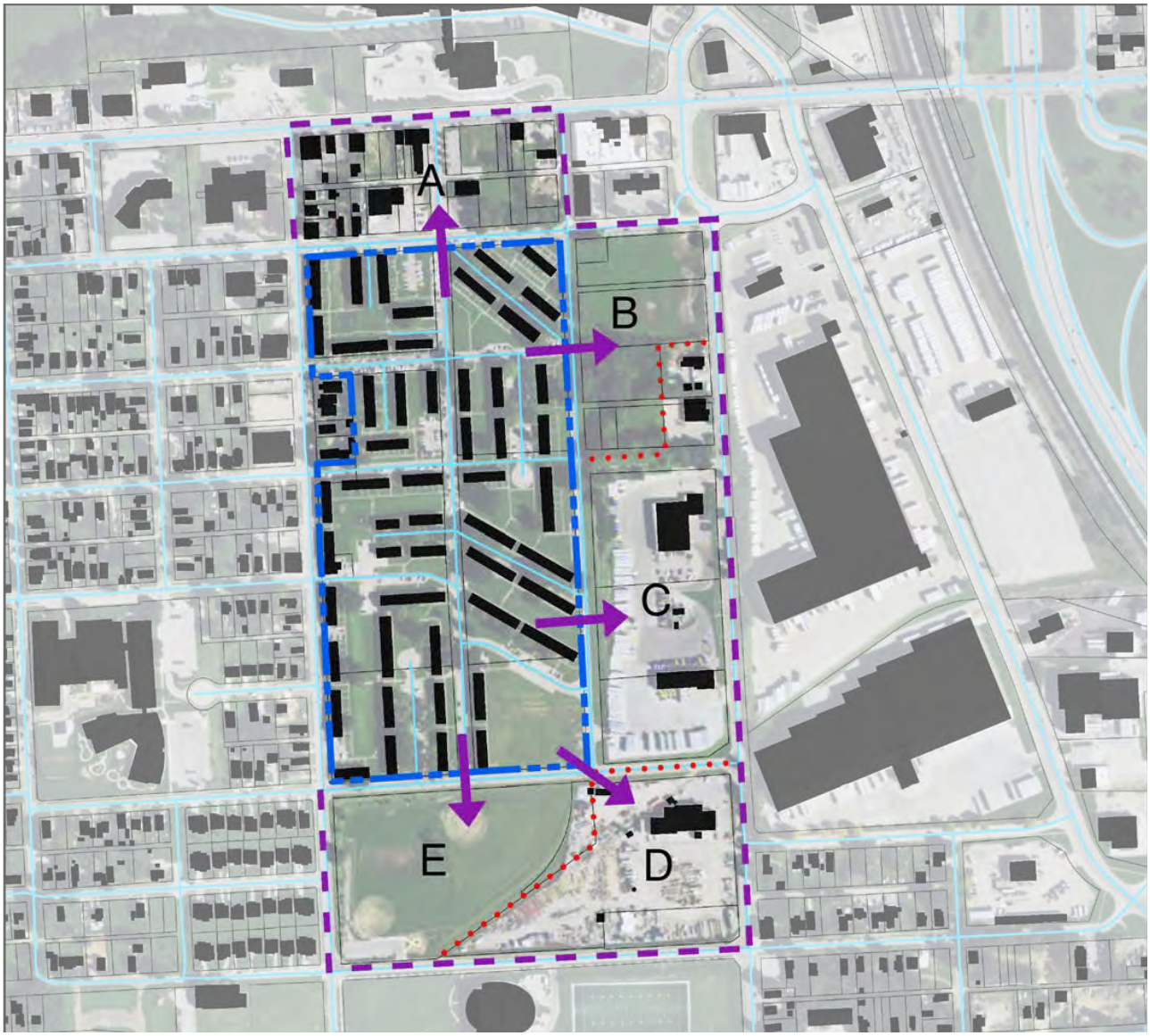


Figure 01. Potential Relocation and Expansion Opportunities
Source: GIS, Google Maps

Inquiry: Should Southside Terrace relocate off-site during construction? Where are the most suitable sites?
Key Extractions: Keeping the residents close to their established community is vital. There is potential for the adjacent properties to be expanded onto and used for redeveloping Southside Terrace.
Methodology: Different zones are combined in strategic ways to show the various design and phasing challenges and opportunities. These combinations are explored to ensure thorough analysis.
Conclusions: Proposal 1 is the least ideal because it is the smallest size, but the most likely to occur because it has the smallest initial cost; Proposals 2 and 3 are more ideal for designing because they are larger, but less likely because they involve acquiring property and working with developers; Proposal 4 is the most ideal for phasing and design because it is the largest, but the least likely to occur because of the amount of property involved and the Omaha Housing Authority's financial limitations. Property acquisition and partnerships will be necessary for any expansion to be considered.

Proposal 1: No Expansion



This proposal involves no expansion at all. Although this option would be the least ideal, it is still valuable because it may be the most likely to occur. Phasing would involve having to wait for enough people to slowly vacate, where then the remaining residents would relocate to other units on the current property. The current number of units is 362, and it would take at least a year for just 1/3 of the site to vacate through natural attrition. Smart phasing and construction would be required, but the overall efficiency would be significantly lower. There are many challenges to construction processes while people are still inhabiting the site.

Proposal 2: Expanding North and South



This proposal expands north and south onto zones A, E, and part of D. This option would extend the current border, and still has significant unit capacity, projected at 153 units, 42% more. Zone A is occupied by multiple commercial lots, but the exposure to Q Street could be very beneficial to Southside Terrace and provides opportunity for mixed-use development. Zone E is owned by the City of Omaha, so acquiring it could be easy, but the recreational fields are an asset to the community. And acquiring a third of zone D would be difficult, but there would be more connectivity to the Kroc Center.

Proposal 3: Expanding East



This proposal expands west to zones B and C. This option would extend the current border and has the highest unit capacity, projected at 185, 51% more. This means more than half of the residents could be relocated during the first phase of construction. A majority of these two zones is owned by UPS, and some are dispersed private owners, so buying these properties may prove challenging. Other challenges include the integration of the topography and the unsightly views east onto the industrial lots.

Proposal 4: Expanding North, South, and East



This proposal would be expanding to all of the proposed zones A, B, C, D, and E. It appears that this would be the most beneficial in terms of both connectivity and the amount of space by expanding north, south, and east. Projected capacity would be 401 units, 111% more, meaning that the entire site could be relocated at once for construction. Tackling the grading issues would also be easier with all of these zones connected. However, acquiring every single proposed zone would likely require public-private partnerships.

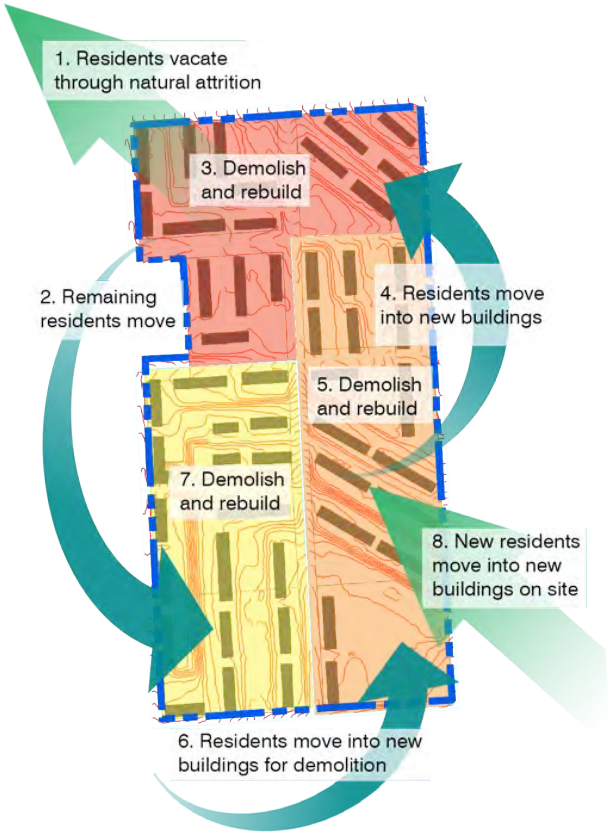
Relocation of Residents Can Occur by Expanding into Adjacent Properties

Relocation during construction needs to be close to Southside's current amenities, and nobody should be displaced.

W3_RR02_6K_Opportunities-Map.PDF

Proposal 1: No Expansion

This option must be considered if no additional sites can be acquired. This proposal is the least ideal because of inefficiency, construction restraints, and design complications.



Opportunities

- Very cheap; most cost-effective
- No other properties would need to be acquired
- Might be the most realistic option in terms financial considerations

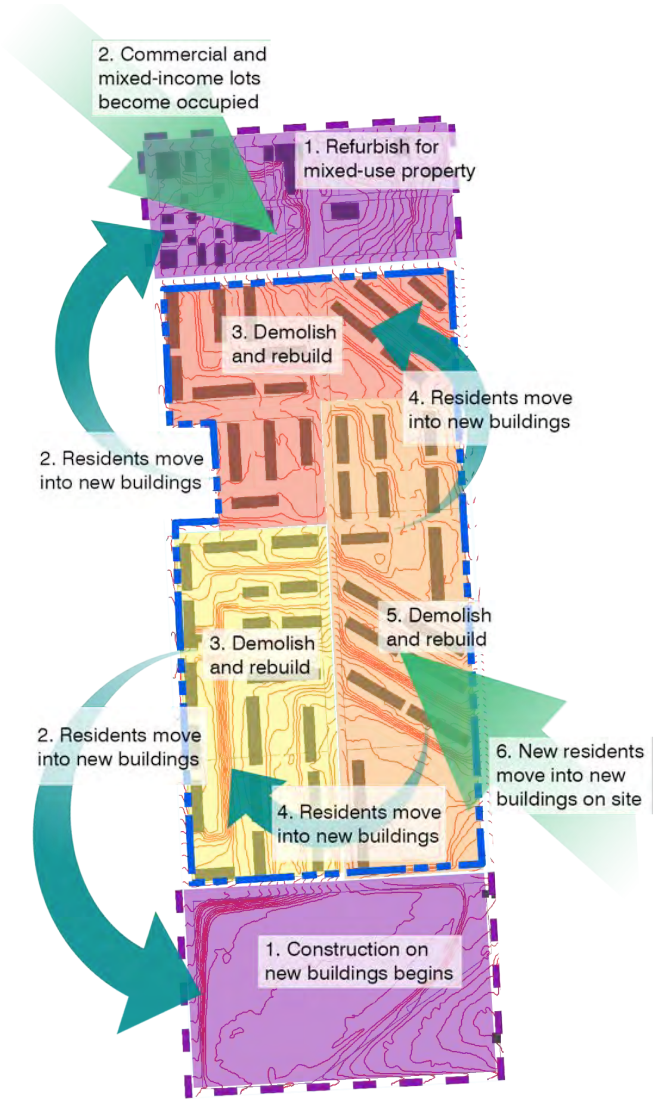
Challenges

- Very time-inefficient
- Would make residents move multiple times
- Natural attrition would have to occur, taking an uncertain amount of time and slowing down the process
- No additional residents
- Terraced topography limited to surrounding streets
- Construction processes interfered by site being sectioned
- Less mixed-use and mixed-income opportunities

Figure 01. Proposal 1 Phases
Source: ArcGIS

Inquiry: How should the Omaha Housing Authority best accommodate the current Southside Terrace residents during construction and redevelopment processes through phasing?
Key Extractions: Keeping the residents close to their established community is vital. There is potential for the adjacent properties to be acquired and used for expanding Southside Terrace. Nobody should be displaced during the construction process.
Methodology: The proposed zones were combined in multiple ways for potential phasing plans for Southside Terrace.
Conclusion: There are clearly many more challenges with Proposal 1 than Proposal 2 due to the lack of available space for people, causing problems for the residents, design, and construction. Proposal 2 would save time, money, resources, and have more benefits in the long run with opportunities for outside families to be a part of public housing at Southside Terrace. Since there are waiting lists to live at the current site, there will be even more people wanting to live in the newly developed buildings in the strong community.
Proposal 2 will have a phasing plan that is further explored in the next map series.

Proposal 2: Expanding North and South



The second proposal is promising because the adjacent properties have a reasonable chance of being acquired. These expansions would speed up construction and be overall more efficient, but would involve commercial development and temporarily removing baseball fields.

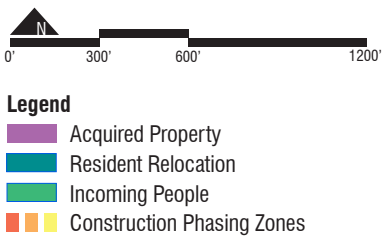
Opportunities

- More room for construction processes to occur at once
- About 1/3 of residents could relocate to new buildings at the same time during construction
- Adjacent properties
- Opportunities for new residents
- Exposure to Q Street
- Connectivity to Kroc Center
- Commercial and mixed-use opportunities
- Fairly realistic because of property owners

Challenges

- Temporarily take away recreational fields
- Terraced topography and steep slopes
- Acquiring all of the properties to the north
- Developing commercial properties is a risk

Figure 02. Proposal 2 Phases
Source: ArcGIS

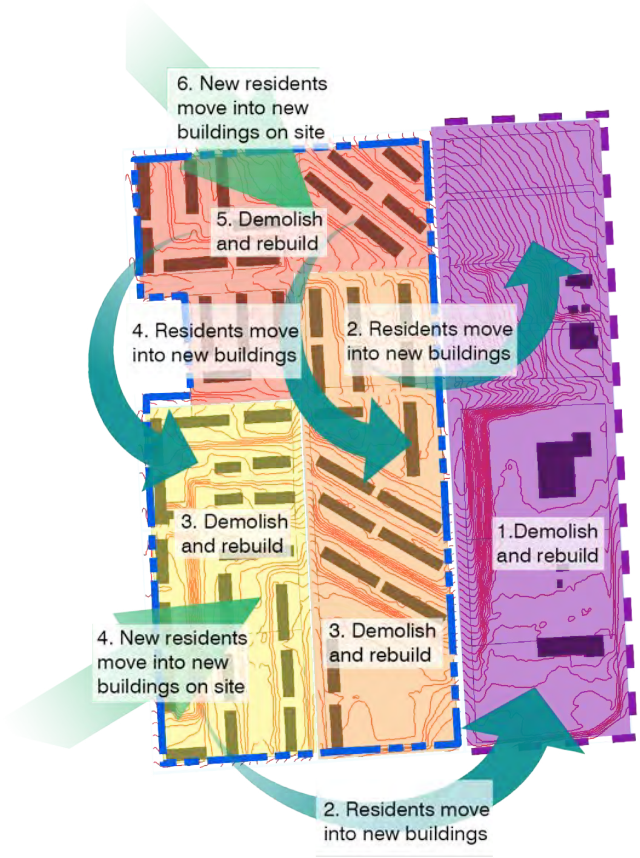


Relocation of Residents Can Occur by Expanding into Adjacent Properties

Relocation during construction needs to be close to Southside's current amenities, and nobody should be displaced.

W3_RR03_6K_Opportunities-Map.PDF

Proposal 3: Expanding East



The third proposal is also ideal because the adjacent properties are large parcels owned by companies that the Omaha Housing Authority has good relationships with. These companies may be willing to sell or partner in a redevelopment project. This option would have even more room for expansion to speed up construction processes, but the site challenges may balances out the advantages.

Opportunities

- More room for construction processes to occur at once
- About 1/2 of residents could relocate to new properties for construction at the same time
- Adjacent properties.
- Opportunities for new residents
- Maintains geometry of current border
- Fairly realistic because of lot sizes and property owners

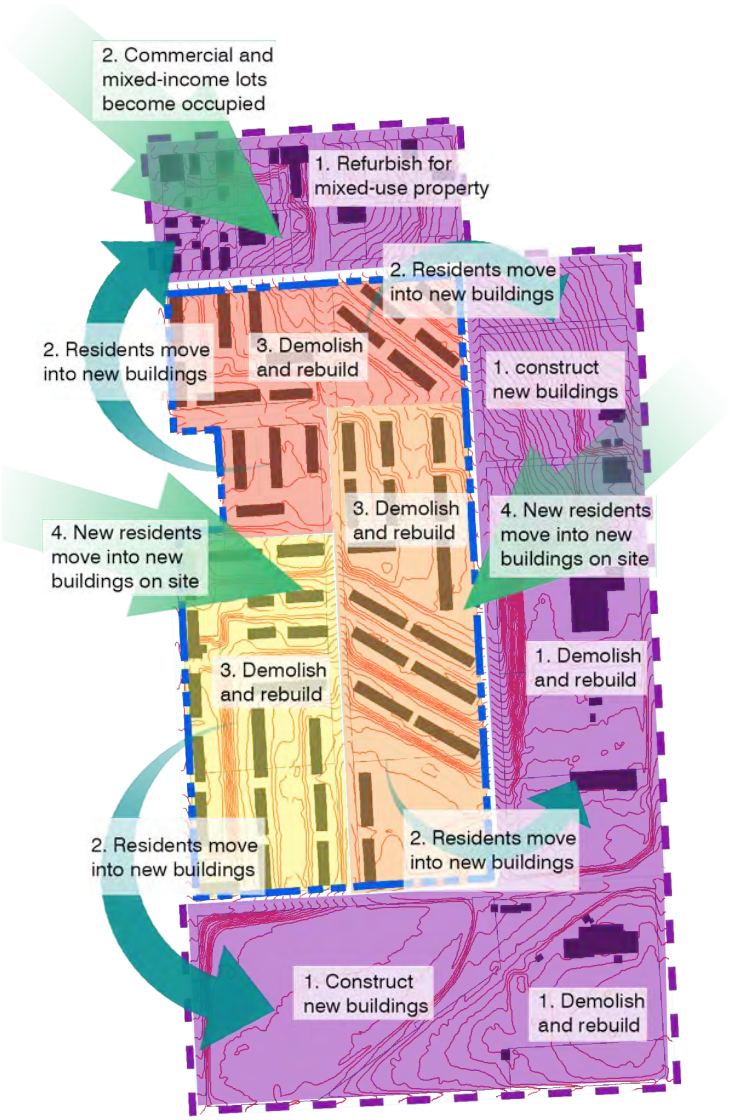
Challenges

- Terraced topography and steep slopes
- Industrial properties with possible contamination issues
- Not as many mixed-use opportunities
- Some properties may be difficult to acquire
- Views onto adjacent sites are not ideal

Figure 03. Proposal 3 Phases
Source: ArcGIS

Inquiry: Should Southside Terrace relocate off-site during construction? Where are the most suitable sites?
Key Extractions: Keeping the residents close to their established community is vital. There is potential for the adjacent properties to be acquired and used for expanding Southside Terrace. Nobody should be displaced during the construction process.
Methodology: The proposed zones were combined in multiple ways for potential phasing plans for Southside Terrace.
Conclusion: There are more challenges with Proposal 4 than Proposal 3 due to the lack of available funding for that much expansion to occur. Although more people would seem to be a good thing, it is possible for that large of a population to cause problems. Additionally, the likelihood of acquiring all of those adjacent properties is just too slim to actually consider for further exploration. However, thinking on a large scale in such an optimistic fashion is still beneficial to the project.
Proposal 3 will have a phasing plan that is further explored in the next map series.

Proposal 4: Expanding North, South, and East



This fourth proposal involves the most land acquisition. It is the most ambitious proposal and is only possible through various partnerships with developers and local businesses. Because of the complicated processes and many land owners, this proposal would be likely the least probable to actually happen. However, it is critical to think of ambitious and out-there ideas in order to create unique designs.

Opportunities

- The most room for expansion and relocation
- All current residents could relocate for construction at the same time.
- Opportunities for mixed-use and mixed-income
- Exposure to Q Street
- Connection to Kroc Center
- Thinking big for the future

Challenges

- Development of mixed-use and mixed-income is a risk
- Massive regrading for the many terraces and steep slopes
- Involves the most amount of construction and resources
- Unsightly industrial lots
- Possible contamination on industrial sites
- Least realistic option because of resources, budget, number of properties, and large scale of expansion

Figure 04. Proposal 4 Phases
Source: ArcGIS



Legend
- Acquired Property
- Resident Relocation
- Incoming People
- Construction Phasing Zones

Smart Planning and Phasing is Crucial for the Convenience of the Residents

Site phasing and construction should be the most efficient while the least inconvenient.

W3_RR03_6K_Strategy-Map.PDF

Proposal 2: Expanding North and South

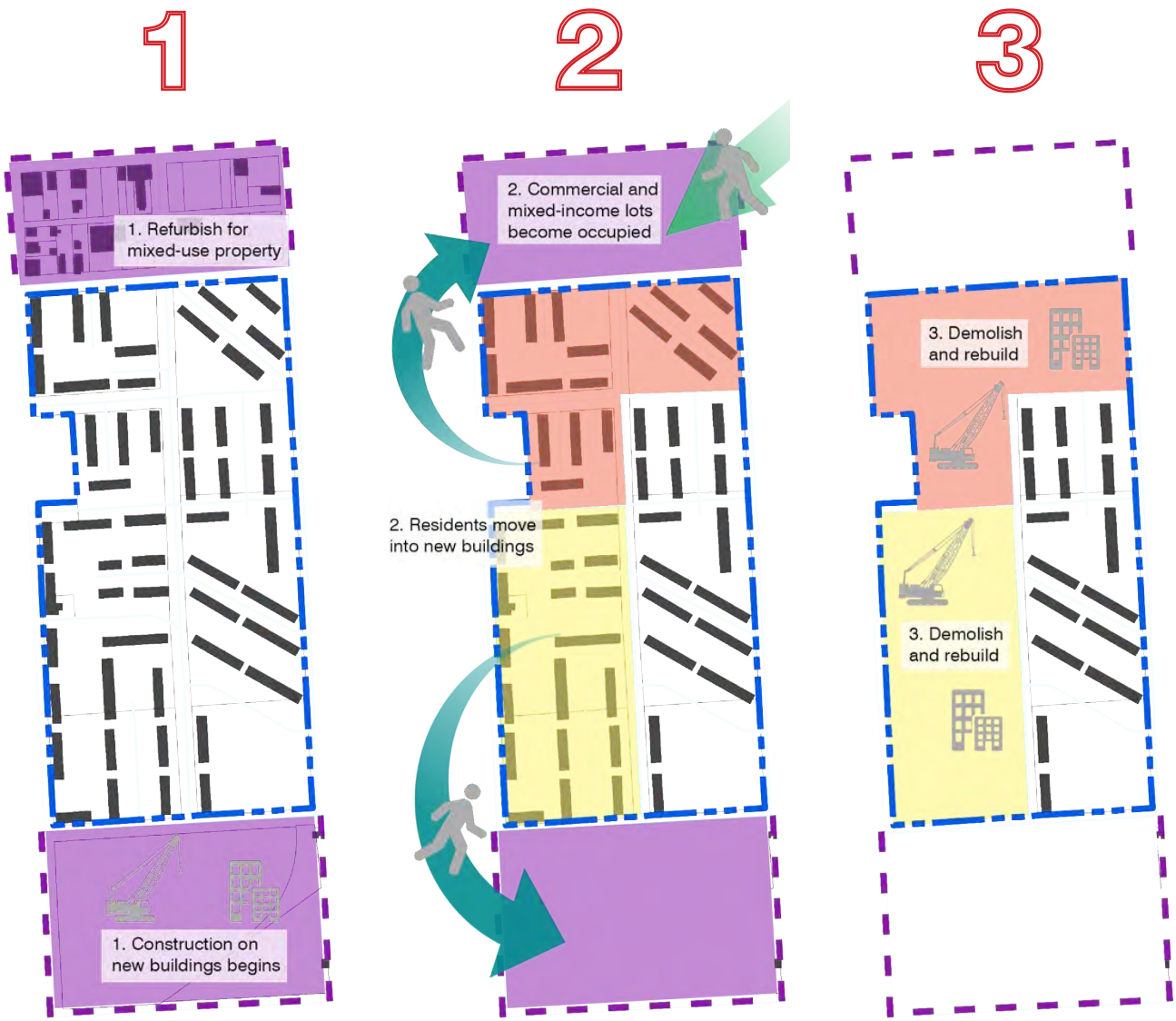
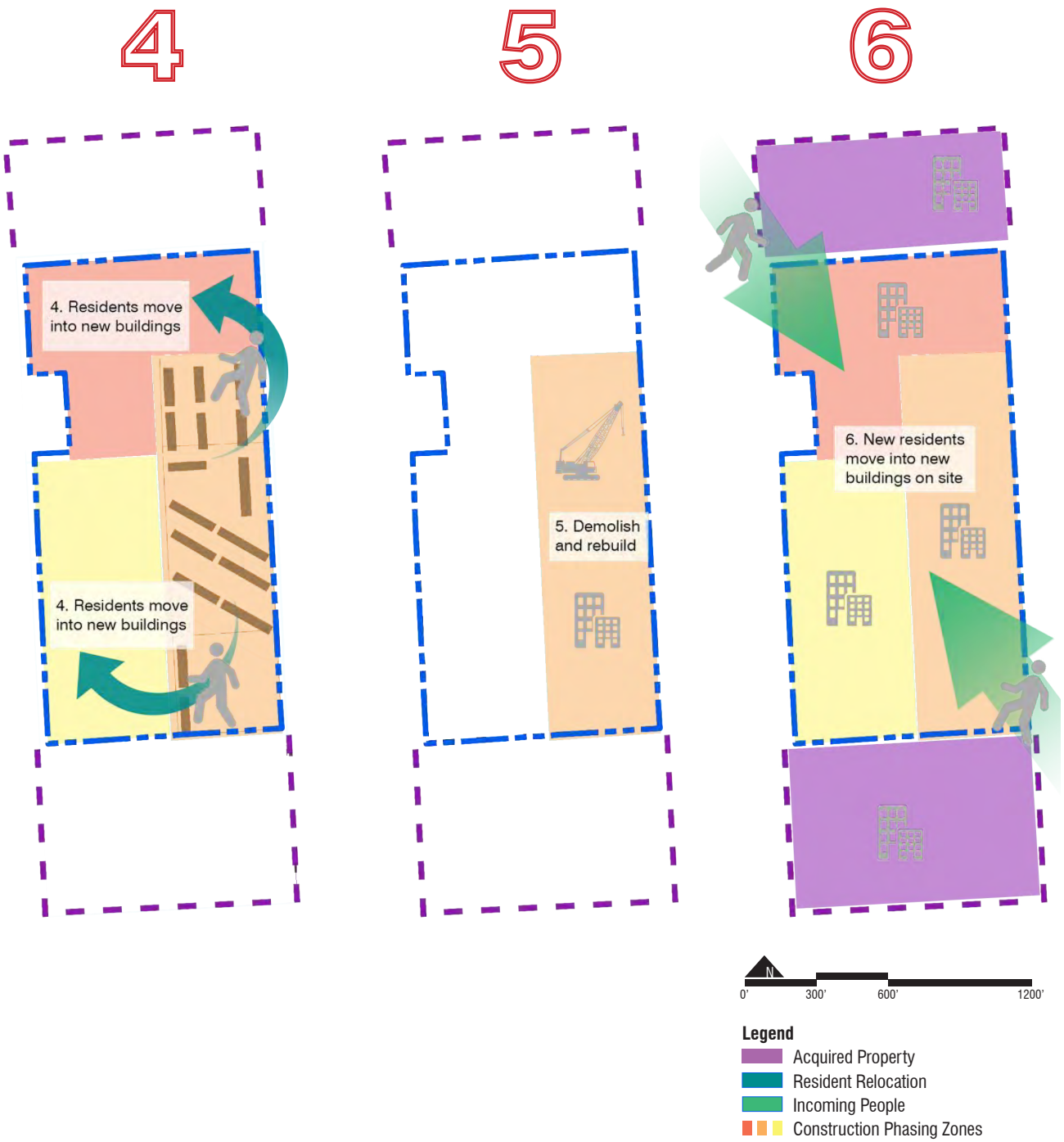


Figure 01. Proposal 2 Phasing Plan
Source: ArcGIS

Inquiry: Should Southside Terrace relocate off-site during construction? Where are the most suitable sites?
Key Extractions: Keeping the residents close to their established community is vital. Nobody should be displaced during the construction process.
Methodology: The proposed zones were combined in multiple ways for potential phasing plans for Southside Terrace. Phasing was determined through population movement, construction processes, and building development. Considerations included topography, parcel ownership, resident convenience, access to amenities, social infrastructure, and time.
Conclusions: Proposal 2 is a viable phasing plan for the expansion of Southside Terrace and the relocation of its residents. Maintaining the social infrastructure and close proximity to amenities was vital to the phasing plan in order for population retention and acquisition of new residents. Multiple construction processes can occur at once, there would be high exposure to Q Street, and the city-owned zone to the south would be likely to work with. However, the new Southside Terrace would likely need to replace the recreational fields and the multiple parcels and property owners to the north would require development partnerships.


4
5
6
4. Residents move into new buildings
4. Residents move into new buildings
5. Demolish and rebuild
6. New residents move into new buildings on site
N
0'
300'
600'
1200'
Legend
Acquired Property
Resident Relocation
Incoming People
Construction Phasing Zones

Smart Planning and Phasing is Crucial for the Convenience of the Residents

Site phasing and construction should be the most efficient while the least inconvenient.

W3_RR03_6K_Strategy-Map.PDF

Proposal 3: Expanding East

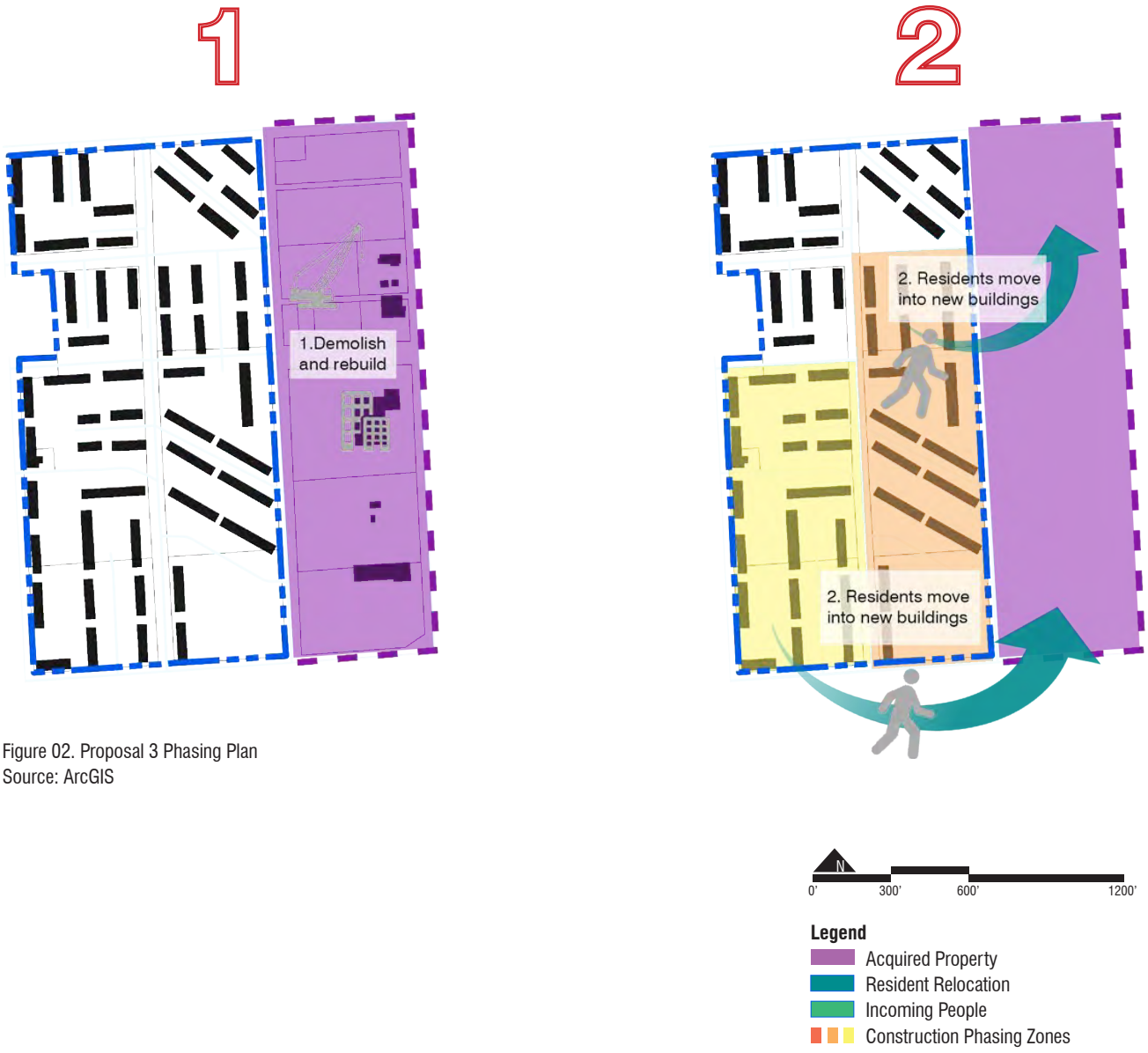
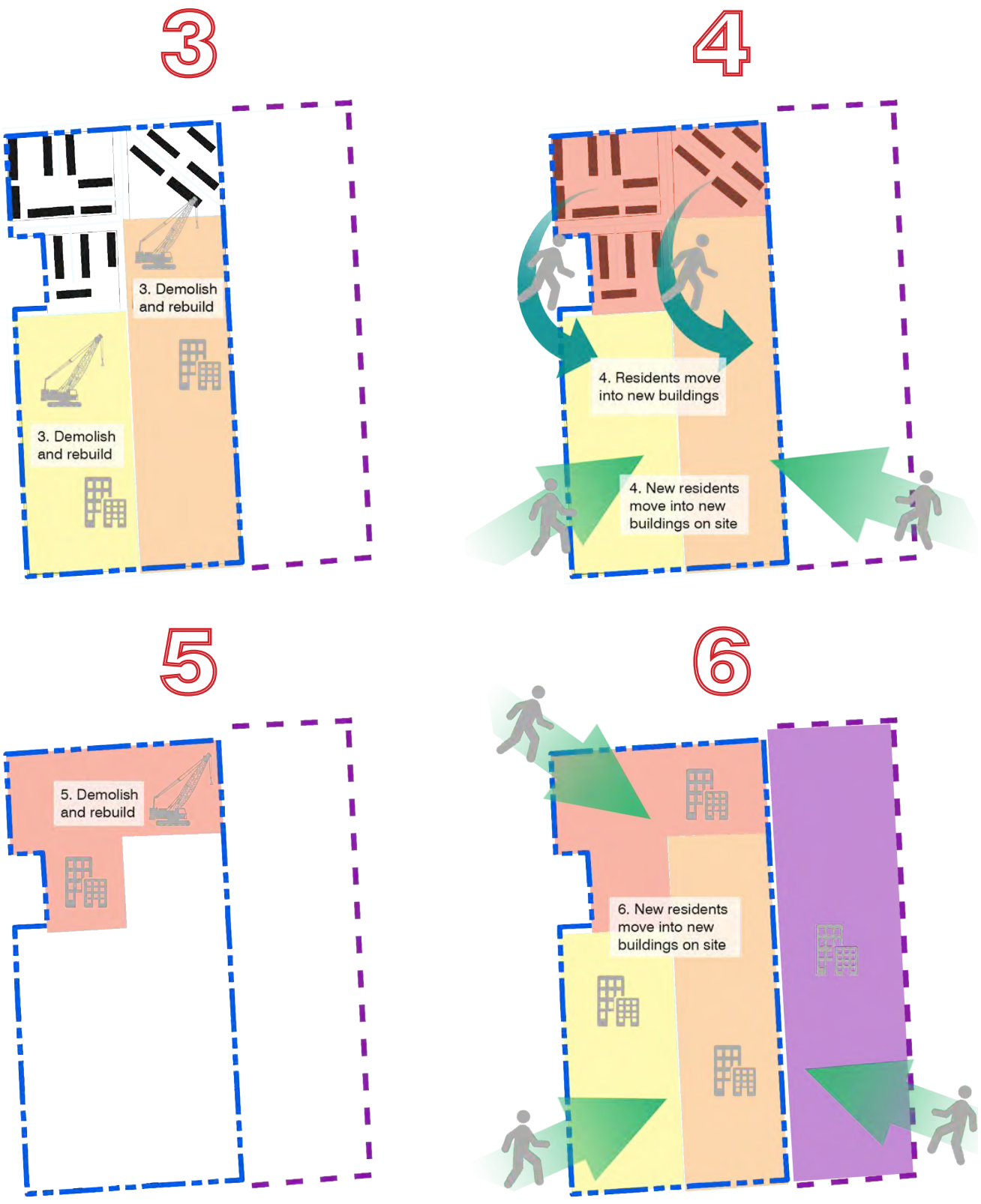


Figure 02. Proposal 3 Phasing Plan
Source: ArcGIS

Inquiry: Should Southside Terrace relocate off-site during construction? Where are the most suitable sites?
Key Extractions: Keeping the residents close to their established community is vital. Nobody should be displaced during the construction process.
Methodology: The proposed zones were combined in multiple ways for potential phasing plans for Southside Terrace. Phasing was determined through population movement, construction processes, and building development. Considerations included topography, parcel ownership, resident convenience, access to amenities, social infrastructure, and time.
Conclusions: Proposal 3 is a viable phasing plan for the expansion of Southside Terrace and the relocation of its residents. Maintaining the social infrastructure and close proximity to amenities was vital to the phasing plan in order for population retention and acquisition of new residents. A majority of the acquired parcels is currently owned by UPS, so a partnership with them would be vital. Compensating for the unsightly views to the east is also going to be necessary.


3
3. Demolish and rebuild
3. Demolish and rebuild
4
4. Residents move into new buildings
4. New residents move into new buildings on site
5
5. Demolish and rebuild
6
6. New residents move into new buildings on site



Critical Maps

Ecology and Physiography

Ecosystem at Southside Terrace

Soil Map, Hardiness Zone, Ecoregion, Solar Radiation, Wind Rose, Precititation and Temperature

W3_WS01_300_Ecosystem.PDF

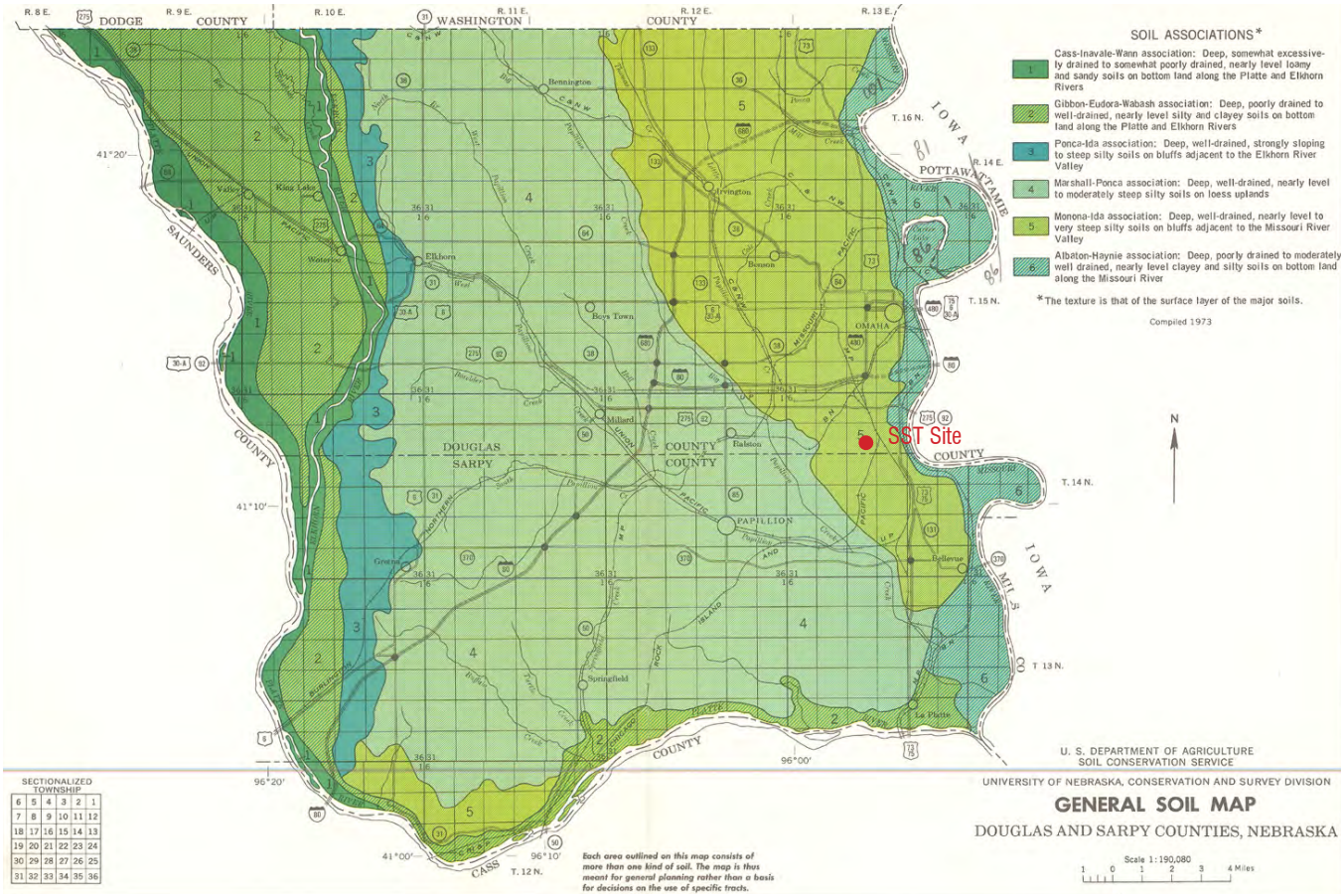


Figure 1: Omaha Soil Map Monona-Ida association: Deep,well-drain,nearly level to very steep silty soils on bluffs adjacent to the Missouri River Valley. (Source: nrcs.usda.gov, 2016)

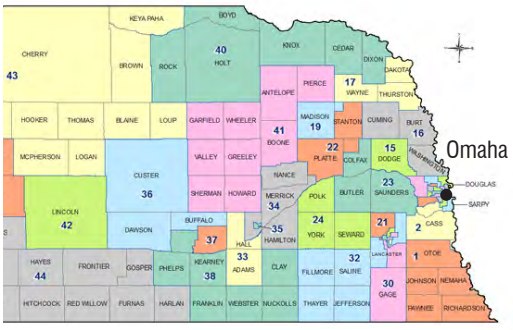


Figure 2: Nebraska Hardiness zone
USDS Hardiness zone is a geographically defined area in which a specific category of plant life is capable to grow. Omaha is located in Zone 5b, which the low temperature is from -15 °F to -10 °F
(Source: gardeningknowhow.com, 2016)



Figure 3: Nebraska Ecoregion
Omaha is located in the tall-grass prairie of ecoregion.
(Source: loessal.blogspot.com, 2016)

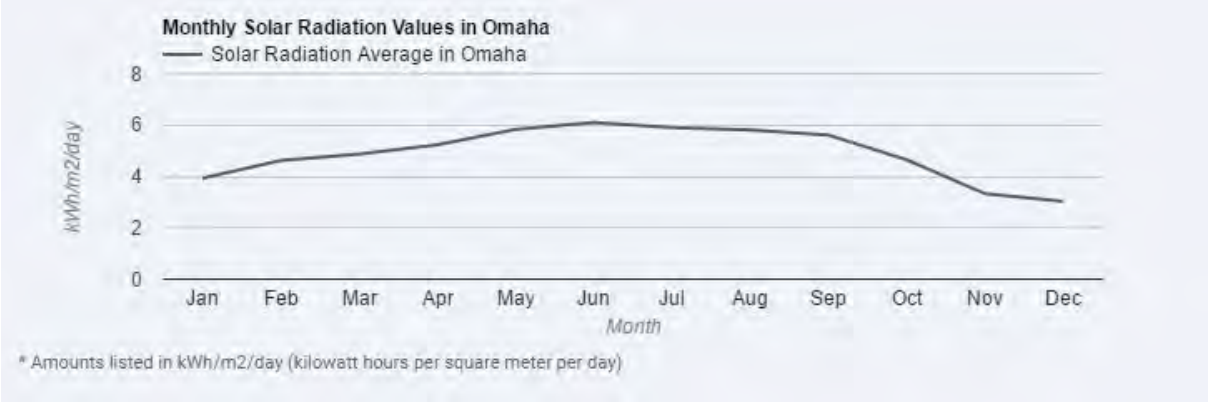


Figure 4: Omaha Solar Radiation (Source: solarenergylocal.com, 2016)

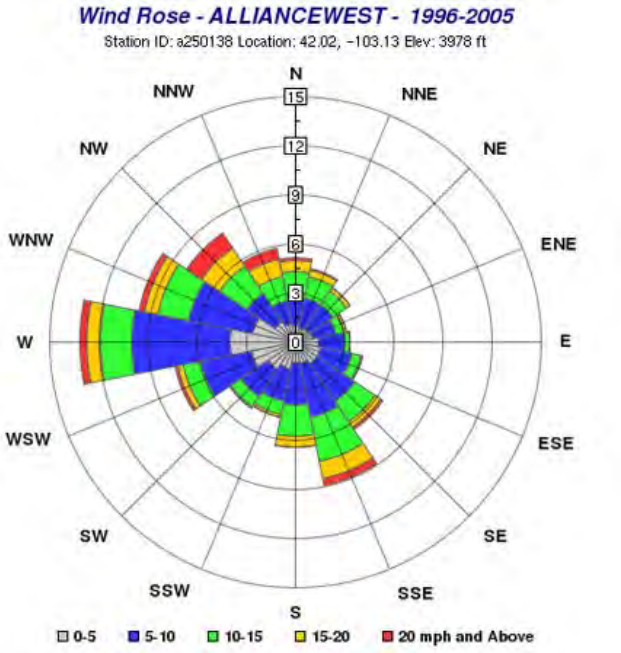


Figure 5: Omaha Wind Rose
Showing the wind direction, Omaha most wind is coming from west side, and southeast of the state
(Source: snr.unl.edu, 2016)

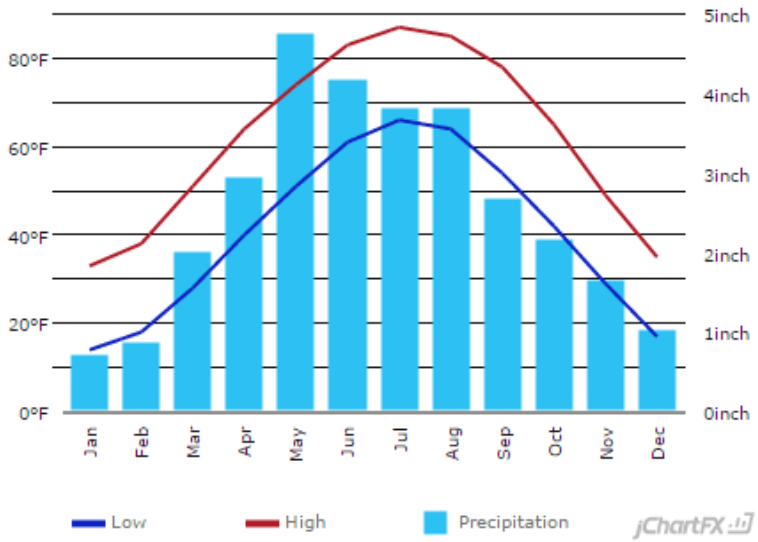


Figure6: Omaha Annual Precipitation and Temperature
(Source: usclimatedata.com, 2016)

Inquiry: What is important character of local ecosystem?
Key Extractions: Soil Map, Hardiness Zone, Ecoregion, Solar Radiation,
Methodology: Researching from National Weather Service, USDA Soil Service, Nebraska Solar Energy Service
Conclusions: Southside Terrace soil is deep, well-drain, nearly level to very steep silty soil on bluffs adjacent to the Missouri River Valley. Hardiness zone is 5b, which the low temperature is from 15 °F to -10 °F and locates in the tall-grass prairie ecoregion. Winds are primarily from the west, northwest, and southeast, and annual rainfall is 27 inches.

Land Cover at Southside Terrace

Existing tree, groundcover, building, hard-scape

W3_WS01_150_Vegetation.PDF



Figure 01. Land cover map
Source: ArcGIS, “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”

Inquiry: What is the land-cover on the site?
Key Extractions: Existing vegetation, native species.
Methodology: Using Google Earth to locate each tree and using Google Earth street view to look the size of the tree ar South-Side Terrace.
Conclusions: On Southside Terrace, most area on the site is covered by turf, and there are some medium size trees along the street. There are also some large size and old tree with beautiful form and provide lots of shade on the site. But in the future design, due to the grade change, most of the tree will be taken down. Some large size tree with beautiful tree we can try to keep it



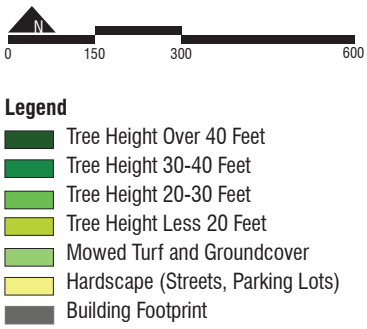
Figure2: Arieal View of Southside Terrace of land cover (Source: Google Earth, 2016)



Figure3: Mowed lawn area, most of grass are growing with good condition. (Sun, 2016)



Figure4: Large size tree can provide shade in the summer, people also relax under the tree in the summer. (Sun, 2016)



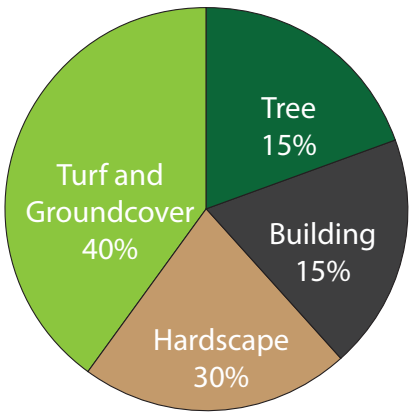


Figure5: Pie Chart of Landcover (Sun, 2016)

Trees in Good Condition ; Little Ecosystem Services Provided

Existing tree condition, good form tree should preserve and provide more ecosystem service on the site

W3_WS02_150_DilemaMap.PDF



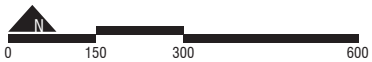
Figure 01. Existing Tree Conditon
Source: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”



Fgiure2: Trees are planted in a row along the street, create a shade space and an entrance, also help to frame space (Source: Google Earth)



Figure3: Large tree mass provide shade for people relax in the summer. (Sun, 2016)



Legend

- Tree with nice form and in a good condition, should try to preserve in the future design
- Tree with nice form but in bad condition (On slope, On sidewalk), should do special treatment in future design
- Row of trees frame a shade space and creates a entrances area
- Large tree mass, provide a large shade area

Ecosystem Service Provided by existing Southside Terrace site

Humankind benefits in a multitude of ways from ecosystems (greenfacts.org, 2016)



0%

Ecosystem Service- Provisioning: Products obtained from ecosystems, such as food, water, minerals, medicinal resource, energy. (esa.org, 2016) Features: Farmland, Wells, Mine, Power Station



0%

Ecosystem Service- Supporting: necessary for the production of all other ecosystem services (esa.org, 2016). Such as, nutrient recycling, primary production, soil formation, Pollination.



6.7%

Ecosystem Service-Cultural: Nonmaterial benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences (esa.org, 2016) Feature: Playground, Rest Area, Social Activities, Historical Feature, School, Science Center, Using of Nature Books/Film



19.6%

Ecosystem Service-Regulating: Benefits obtained from the regulation of ecosystem processes, such as carbon sequestration and climate regulation, waste decomposition and detoxification, purification of water and air (esa.org, 2016).Feature: Trees, flowers, water ponds

Figure 4: Ecosystem Service (ArcGIS "Building_Footprints_2010", "SouthsidePL", "Arconline_WorldStreetMap")
Inquiry: What tree we should preserve and what ecosytem we should provide in the future design?
Key Extractions: Existing tree condition, Site ecosystem service
Methodology: Using Google Earth to look at each tree's grow condition and analysis if the tree should be preserved, also using Google Earth to look and analysis the ecosystem service on the site, and using AutoCad to calculate each element's area and got the percentage.
Conclusions: South-Side Terrace's tree are growing in the good condition and present healthy form. But there are a lots of trees are growing on the slope, if we want to preserve these tree, we will need some special treatment during the construction time. On the site, there are very less ecosystem service, in the future design, we can include community garden, naturalized pond, more playground and education elements to bring ecosystem in our site.

Bring Ecosystem to Southside Terrace

Naturalized Pond, Naturalized Playground, Community Garden, Butterfly Garden, Urban Forest

W3_WS04_70_StrategyMap.PDF

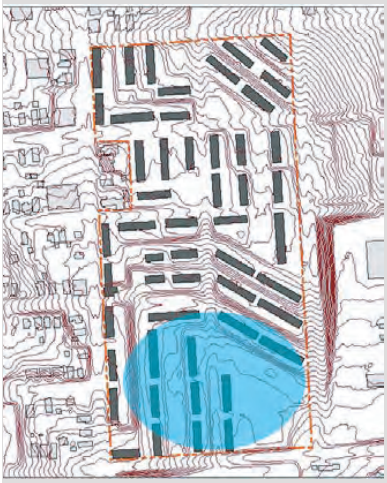


Figure1: Porposed Natutalized Pond (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Regulating, Supporting, Provisiong



Figure2 (Downes, 2007)

Natutalized Pond

Stromwater at Southside Terrace are flowing to the south-east corner. This area can be designed with a wetland or naturalized pond to attract wildlife. It can also provide a water treatment that the wetland vegetation can help remove pollutants before the water enter to underground, the water can also be collected as gray water for toliet use of car wash use. Some safety design can be included to provide opportunity for children play during the summer time.

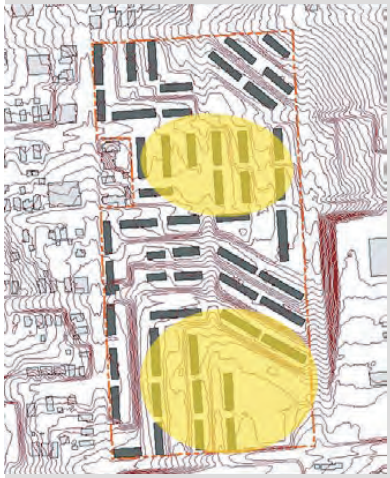


Figure3: Porposed Natutalized Playcound (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

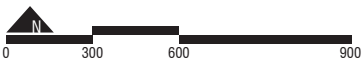
Ecosystem Service Achievement: Cultural, Regulating



Figure4 (Williiams, 2013)

Naturalized Playground

Naturalized Playground is using natural elements for children to play. Children can have more opportunities for learning about nature and for more creative and cooperative play. (playgroundprofessionals.com, 2015) These playground can build on the flat area, but also can be built with slopes. Slope is also away that children can play. In the map is showing some large flat area and some existing slopes that children are using.



Inquiry: How to bring ecosystem to Southside Terrace?
Key Extractions: Naturalized Pond, Naturalized Playground, Community Garden, Butterfly Garden, Urban Forest
Methodology: After analysis ecosystem service at Southside Terrace, purpose natural elements or gardens to the side
Conclusions: Southside Terrace has few ecosystem services. Currently, however there are opportunities to introduce ecosystem services in a development proposal. Naturalized pond can help collected stormwater and improve water quality, naturalized playground can provide an area for children to play by using natural elements and also help children learn about nature, community garden can achieve provisioning ecosystem service to our site and it is also an area can help children to learn about agriculture, butterfly garden can achieve supporting ecosystem service to our site and provide aesthetic use, urban forest can bring wildlife to our site and regulating service through purification of air.



Figure5: Porposed Community Garden (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Cultural, Supporting, Provisiong



Figure6 (d-olwen-dee, 2012)

Community Garden

Community garden is a place can grow small amount vegetables and crops. It can provide an opportunity for children to learn. During food production, plants will need full-sun or part sun and need to be a well drained area. The best place for community garden should be located at south side of the site But there are also some vegetables need to grow in a shaded area, such as spinach, cabbage and broccoli. There are still several place at north side of the site is suitable. (Phipps, 2016)



Figure7: Porposed Butterfly Garden (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Cultural, Supporting, Provisiong



Figure8 (Champion, 2012)

Butterfly Garden

Most butterflies like the sun and open area to fly, locate south side of the site is the best area for a butterfly garden. A butterfly garden can provide aesthetic use to the site, the flowers can achieve pollination to the site, which is a kind of ecosystem services. It is also a good place to relax and for children to play and learn about nature.
(in.gov, 2016)



Figure9: Porposed Urban Forest (Source: ArcGIS "Building_Footprint_2010","Douglas_Contors_2010"

Ecosystem Service Achievement: Cultural, Regulating, Provisiong



Figure10 (Svob, 2014)

Urban Forest

Ecosystem of trees and other vegetation in and around communities that may consist of street and yard trees, vegetation within parks and along public rights of way or water systems. It can provide communities with environmental, economic and social benefits and habitat for wildlife.
1. North side forest can block winter winds.
2. Center forest provide a natura area to near our site and near neighborhood.
3. South side forest can provide large shade area and bring in cool air during summer time

Bird's Eye Aerials Looking South and Southwest

Comparisons of aerial photography and three dimensional maps illustrate slope and site features.

W3_CN03_Perspective_ContextTopo.PDF

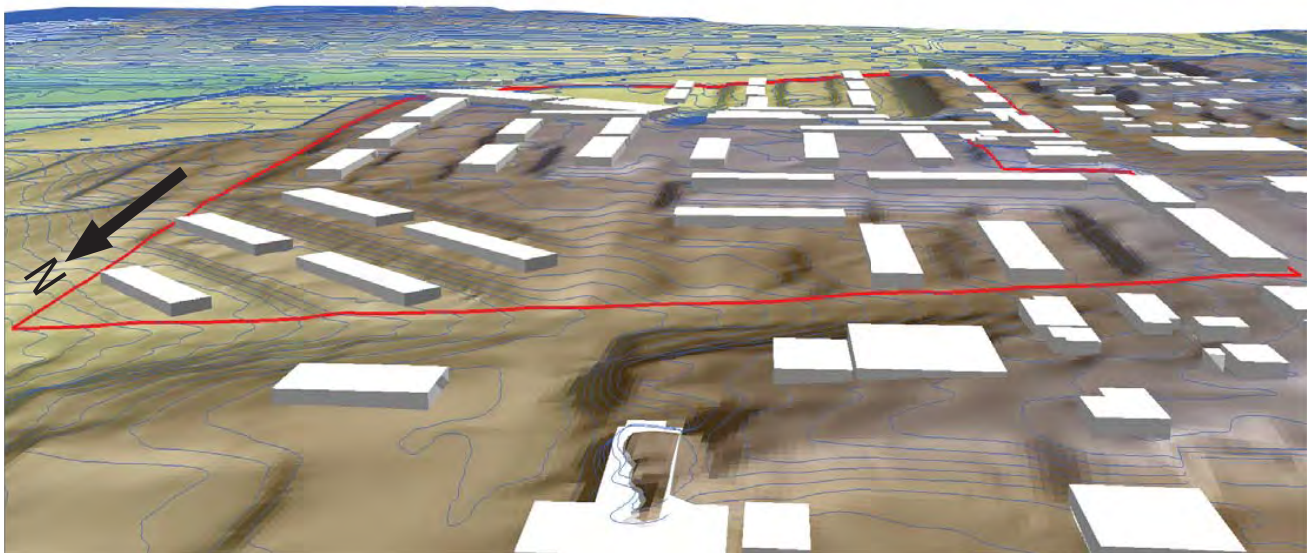


Figure 01. Site Context Topography View Looking South From the Northern Site Boundary
Source: Douglas County GIS "Building Footprints" "Contours 2010" "Site Boundary" "Hill Shade"



Figure 02. Google Maps Aerial View Looking South From the Northern Site Boundary
Source: Google Maps

Inquiry: What information can be gathered by looking at the site with only the topography?
Key Extractions: Google Earth Aerial Photography, Building Footprints, Potential Site Boundaries, and Existing Topography
Methodology: The perspective drawing was created in ArcScene with the help of ArcGIS layers "Property Line" extruded "Building Footprints" "Hill Shade" "Contours" "Elevation Gradation Map". The Aerial Photography was retrieved from Google Earth through screen shot captures and edited in Photoshop.
Conclusions: The idea behind viewing the site with no distractions (like trees, streets, vegetation) is to really observe the topography. Viewing the 3D surface of the topography next to the Google Earth aerial photography allows for easy comparison between the reality of the Google Earth image and the abstract representation of the site in the 3D view. These images provide a deeper understanding of the relationship between slope, built features and trees.

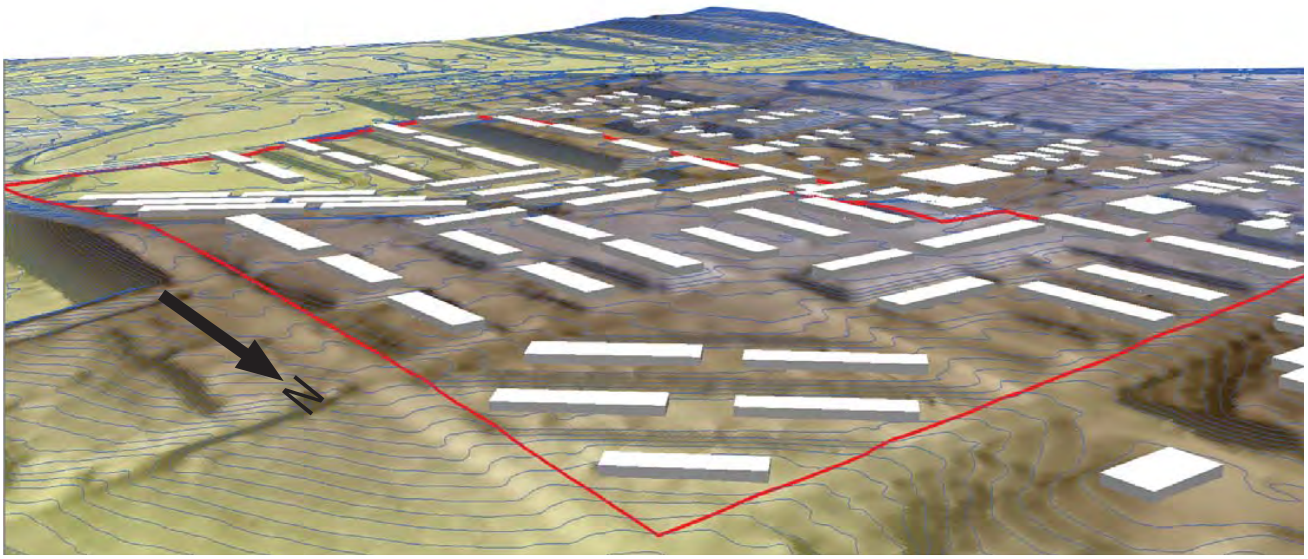


Figure 03. Site Context Topography View Looking South West From the North Eastern Corner of the Site Boundary
Source: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade”



Figure 04. Google Maps Aerial View Looking South West From the North Eastern Corner of the Site Boundary
Source: Google Maps





Bird's Eye Aerials Looking West and North

Comparisons of aerial photography and three dimensional maps illustrate slope and site features.

W3_CN04_Perspective_ContextTopo.PDF

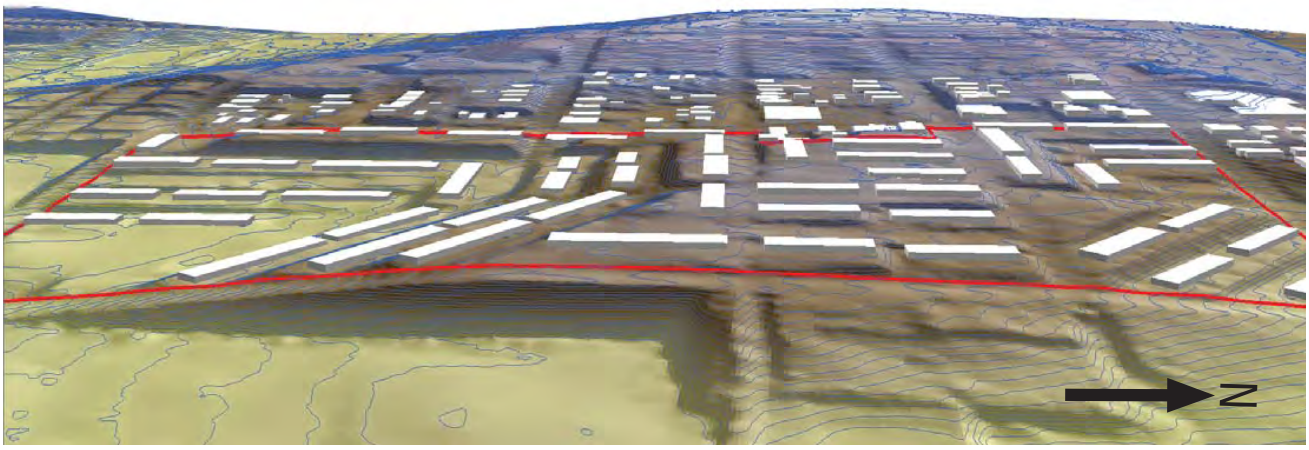


Figure 01. Site Context Topography View Looking West From the Eastern Site Boundary
Source: Douglas County GIS "Building Footprints" "Contours 2010" "Site Boundary" "Hill Shade"



Figure 02. Google Maps Aerial View Looking West From the Eastern Site Boundary
Source: Google Maps

Inquiry: What information can be gathered by looking at the site with only the topography?
Key Extractions: Google Earth Aerial Photography, Building Footprints, Potential Site Boundaries, and Existing Topography
Methodology: The perspective drawing was created in ArcScene with the help of ArcGIS layers "Property Line" extruded "Building Footprints" "Hill Shade" "Contours" "Elevation Gradation Map". The Aerial Photography was retrieved from Google Earth through screen shot captures and edited in Photoshop.
Conclusions: The idea behind viewing the site with no distractions (like trees, streets, vegetation) is to really observe the topography. Viewing the 3D surface of the topography next to the Google Earth aerial photography allows for easy comparison between the reality of the Google Earth image and the abstract representation of the site in the 3D view. These images provide a deeper understanding of the relationship between slope, built features and trees.

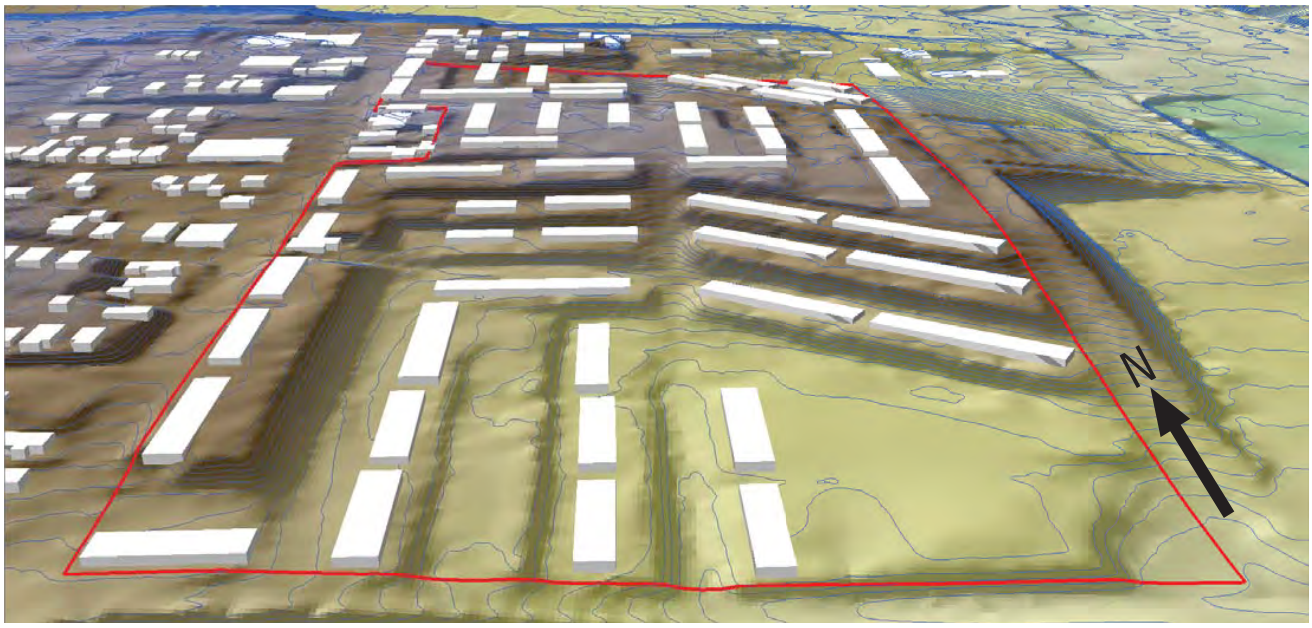
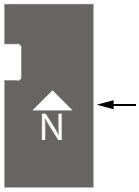


Figure 03. Site Context Topography View Looking North From the Southern Site Boundary
Source: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade”



Figure 04. Google Maps Aerial View Looking North From the Southern Site Boundary
Source: Google Maps





Bird's Eye Aerials Looking North East and East

Comparisons of aerial photography and three dimensional maps illustrates slope and site features.

W3_CN05_Perspective_ContextTopo.PDF

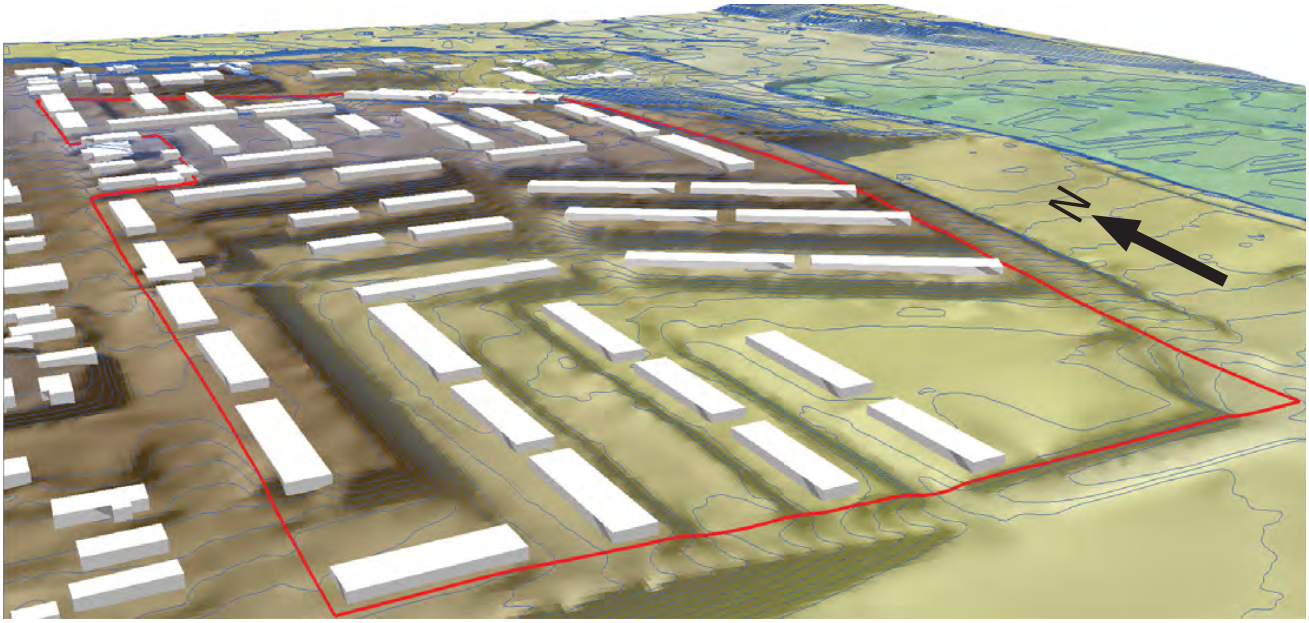


Figure 01. Site Context Topography View Looking North East From the South Western Corner of the Site Boundary
Source: Douglas County GIS "Building Footprints" "Contours 2010" "Site Boundary" "Hill Shade"



Figure 02. Google Maps Aerial View Looking North East From the South Western Corner of the Site Boundary
Source: Google Maps

Inquiry: What information can be gathered by looking at the site with only the topography?
Key Extractions: Google Earth Aerial Photography, Building Footprints, Potential Site Boundaries, and Existing Topography
Methodology: The perspective drawing was created in ArcScene with the help of ArcGIS layers "Property Line" extruded "Building Footprints" "Hill Shade" "Contours" "Elevation Gradation Map". The Aerial Photography was retrieved from Google Earth through screen shot captures and edited in Photoshop.
Conclusions: The idea behind viewing the site with no distractions (like trees, streets, vegetation) is to really observe the topography. Viewing the 3D surface of the topography next to the Google Earth aerial photography allows for easy comparison between the reality of the Google Earth image and the abstract representation of the site in the 3D view. These images provide a deeper understanding of the relationship between slope, built features and trees.

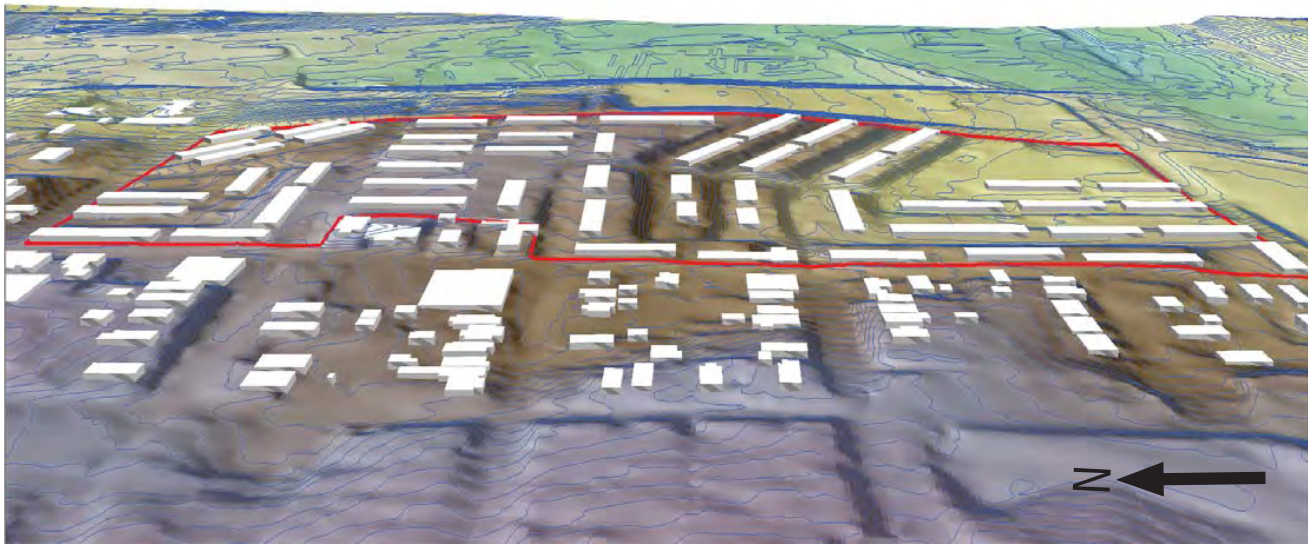
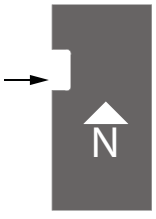


Figure 03. Site Context Topography View Looking East From the Western Site Boundary
Source: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade”



Figure 04. Google Maps Aerial View Looking East From the Western Site Boundary
Source: Google Maps





Steep Slopes and Consequent Drainage Patterns Impact Expansion Potential

Viewing drainage patterns three-dimensionally reveals potential problems for expansion sites.

W3_CN06_Perspective_3DTopoDrain.PDF

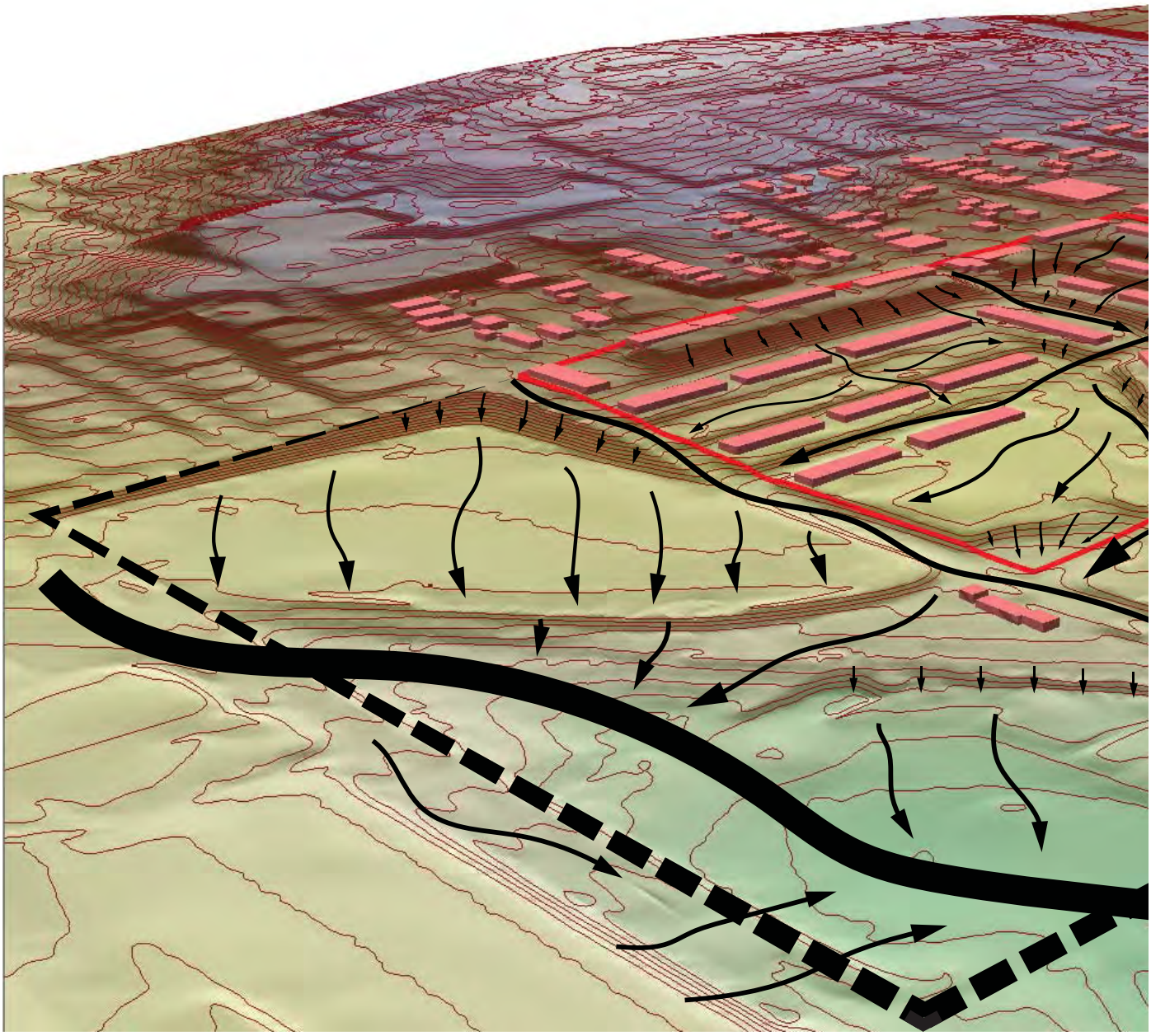
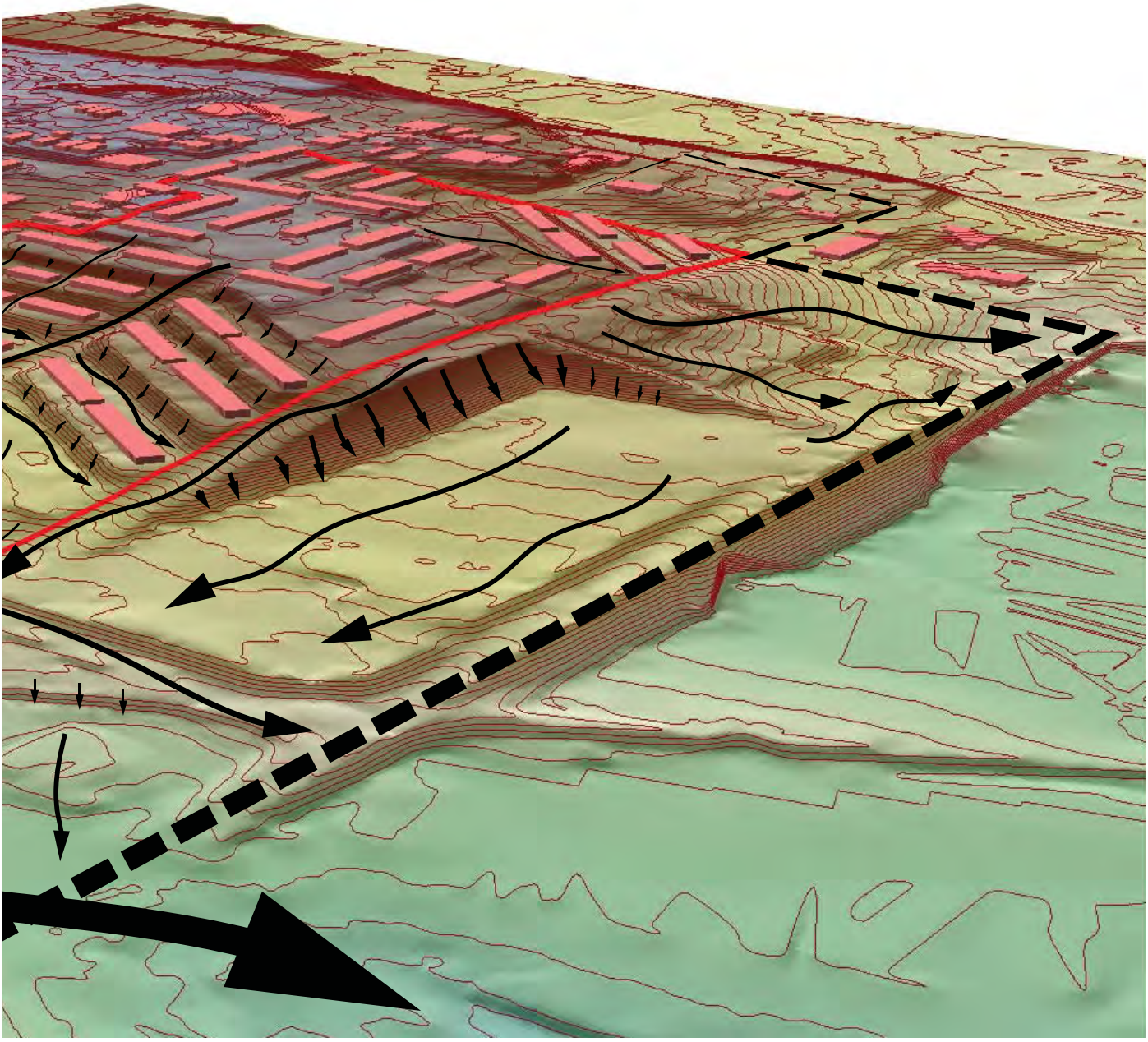


Figure 01. Site Context Topography Map
Source: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade”

Inquiry: How does the existing topography in the area surrounding the site inform the selection of expansion sites?
Key Extractions: Building Footprints, Potential Site Boundaries, and Existing Topography
Methodology: The perspective drawing was created in ArcScene with the help of ArcGIS layers “Property Line” extruded “Building Footprints” “Hill Shade” “Contours” “Elevation Gradation Map”
Conclusions: The graphic above shows, in a perspective view, the site and the proposed areas of site expansion that were detailed in the “Relocation During Construction Needs to be to the East or South” map. Providing the additional information of topography and the 3D surface allows for greater understanding of the area topography. It also creates a better picture of how the storm water would behave in the sites of potential development.





Legend

- Drainage Direction
- Expansion Boundary
- Existing Boundary
- Elev. 1050 - 1075 feet
- Elev. 1075 - 1000 feet
- Elev. 1000 - 1025 feet
- Elev. 1025 - 1050 feet
- Elev. 1050 - 1075 feet
- Elev. 1075 - 1200 feet
- Elev. 1200 - 1225 feet

Steep Slopes Present Challenges For Property Expansion

The surrounding area greatly influenced the site topography, which in return affected building placement.

W3_CN07_3600_ExZoneViability.PDF

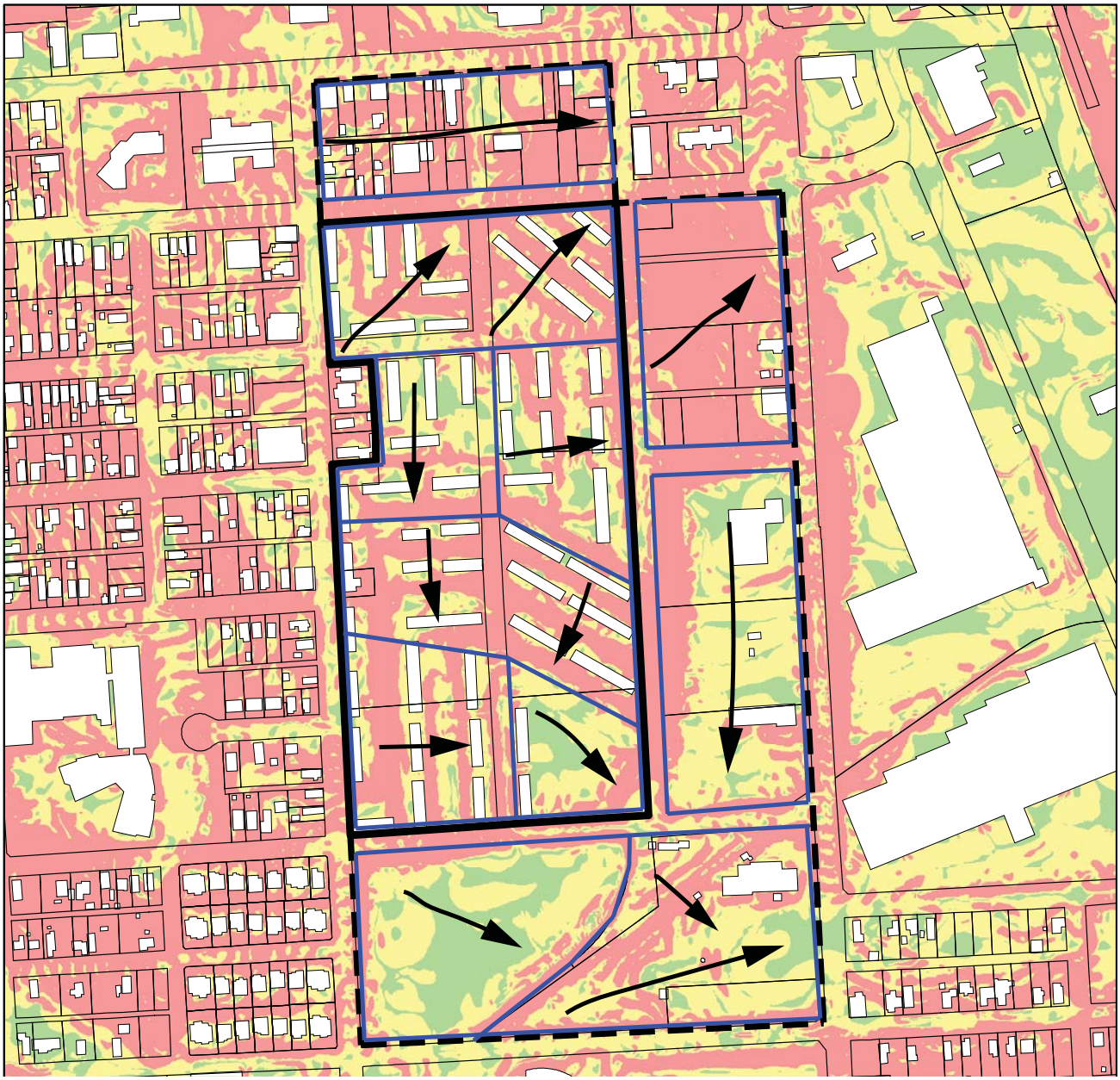


Figure 01. Site and Proposed Site Zone Delineation Map
Source: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade”

Inquiry: What zones for expansion are topographically suitable?
Key Extractions: Building Footprints, Potential Site Boundaries, and Existing Topography
Methodology: The Zone Delineation Map was created in ArcGIS with layers “Building Footprints” “Contours 2010” “Site Boundary” and “Hill Shade”. The Zone Suitability Map was created by tracing the Zone Delineation Map in Adobe Photoshop.
Conclusions: Figure 1 shows the topography of the site categorized by slopes into a suitability map. Overlain on top of that map is a map delineating zones based on the suitability map. Then the drainage of the zone was identified by looking at the prior 3D Site Topography Context Map. These zones and their drainage arrows were then overlain on a site contour map, which was used to identify key spot elevations on the corners of the zones. With these spot elevations and the zone drainage arrows, the average slope of the zone was calculated and then categorized in order to determine which zones were flat, moderately sloped and highly sloped. This information will be useful when creating schematic grading plans.

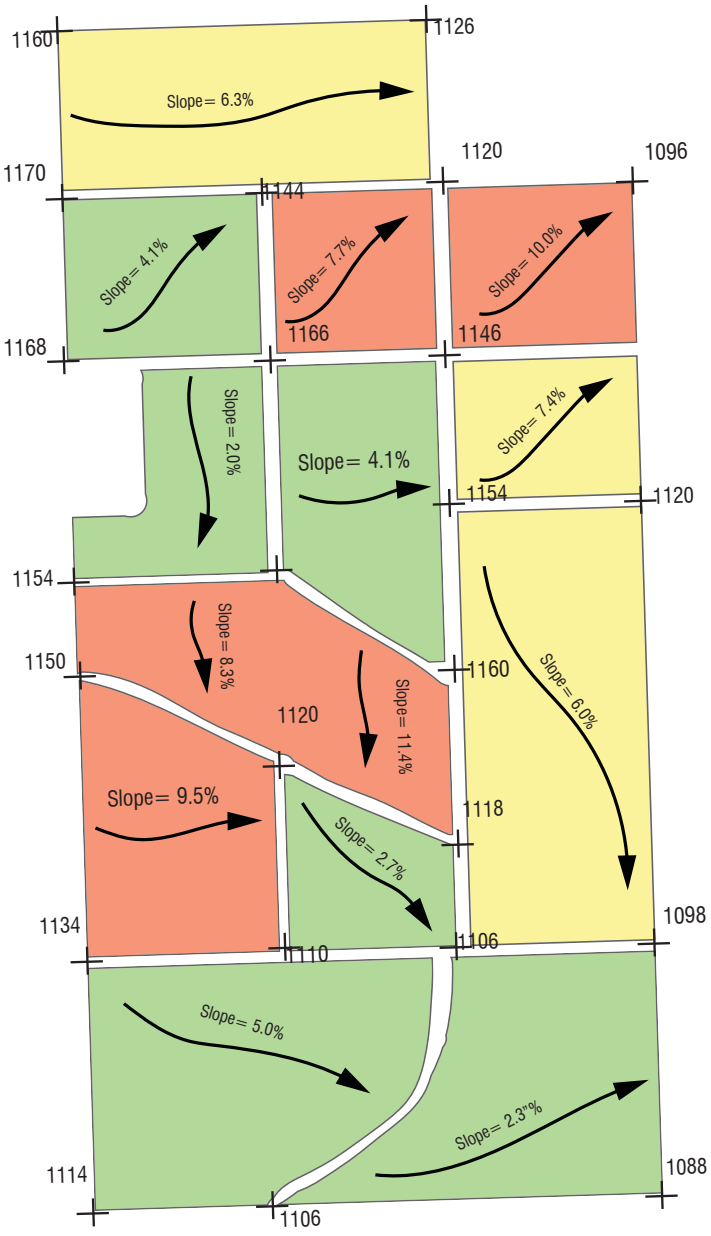
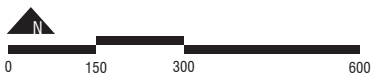


Figure 02. Zone Suitability Map
Source: Douglas County GIS "Slope Suitability" "Contours 2010" "Site Boundary" "Hill Shade"



Legend

- Drainage Arrow
- Site Boundary
- Avg. of below 5%
- Avg. of 5 to 7.5%
- Avg. of above 7.5%

Grading Strategies For Current Southside Terrace Boundaries

Arcing terraces and linear terracing.

W3_CN08_3600_TopoStrat.PDF

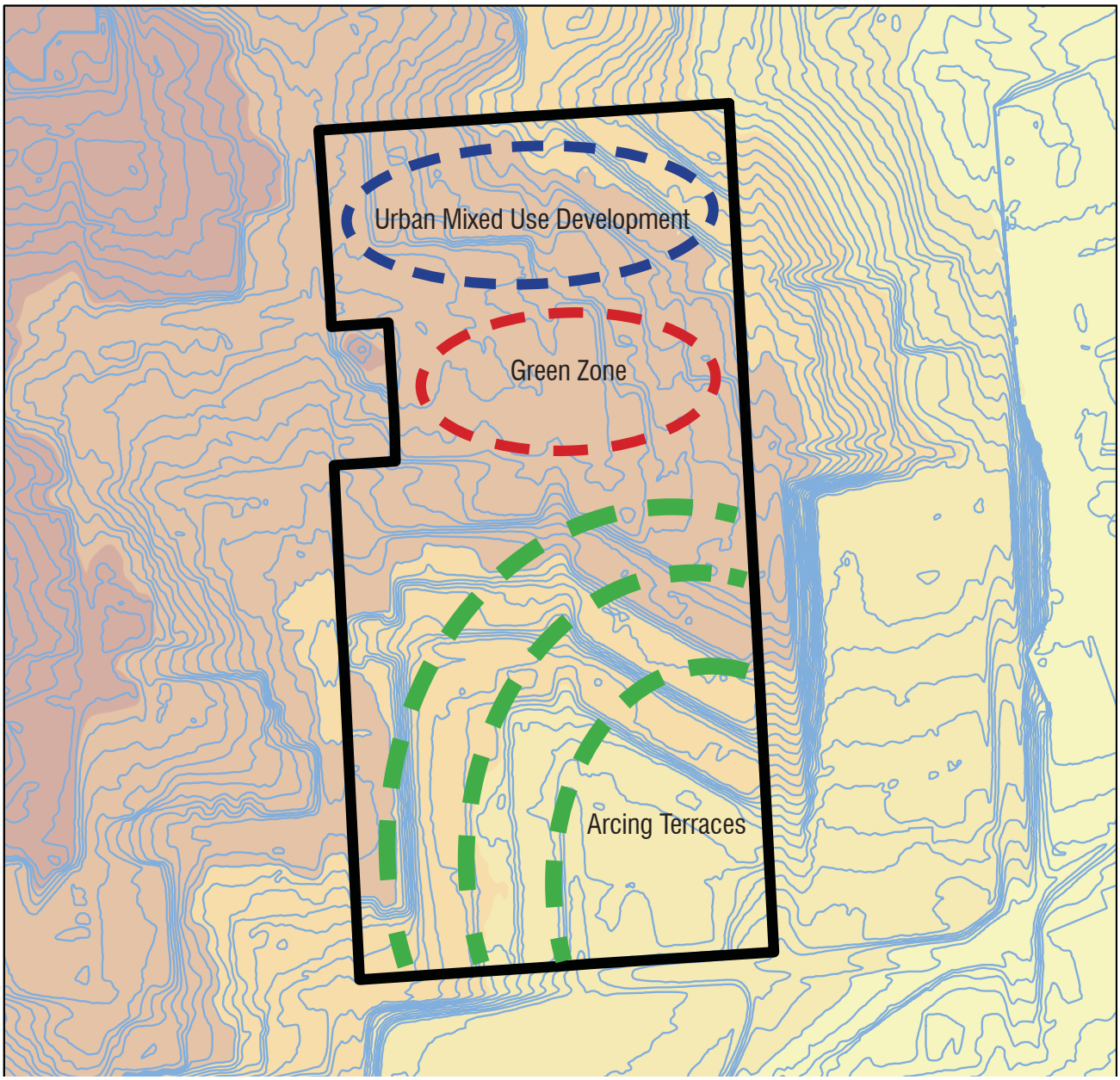


Figure 01. Strategy Map for the Existing Site Emphasizing Terraces That Wrap Around the Lower Section
Source: Google Maps

Inquiry: What design strategies could be employed to create an effective terracing system?
Key Extractions: Google Earth
Methodology: The Maps were retrieved from Google Earth through screen shot captures and were edited in Adobe Photoshop.
Conclusions: The graphics above show different configurations of the potential site design with the topography as a main design driver. These maps are very rough and show potential land uses only at its earliest stage. One idea identified during research was the potential to use the natural ridge line as a way to separate the low income housing and the higher income housing developments.

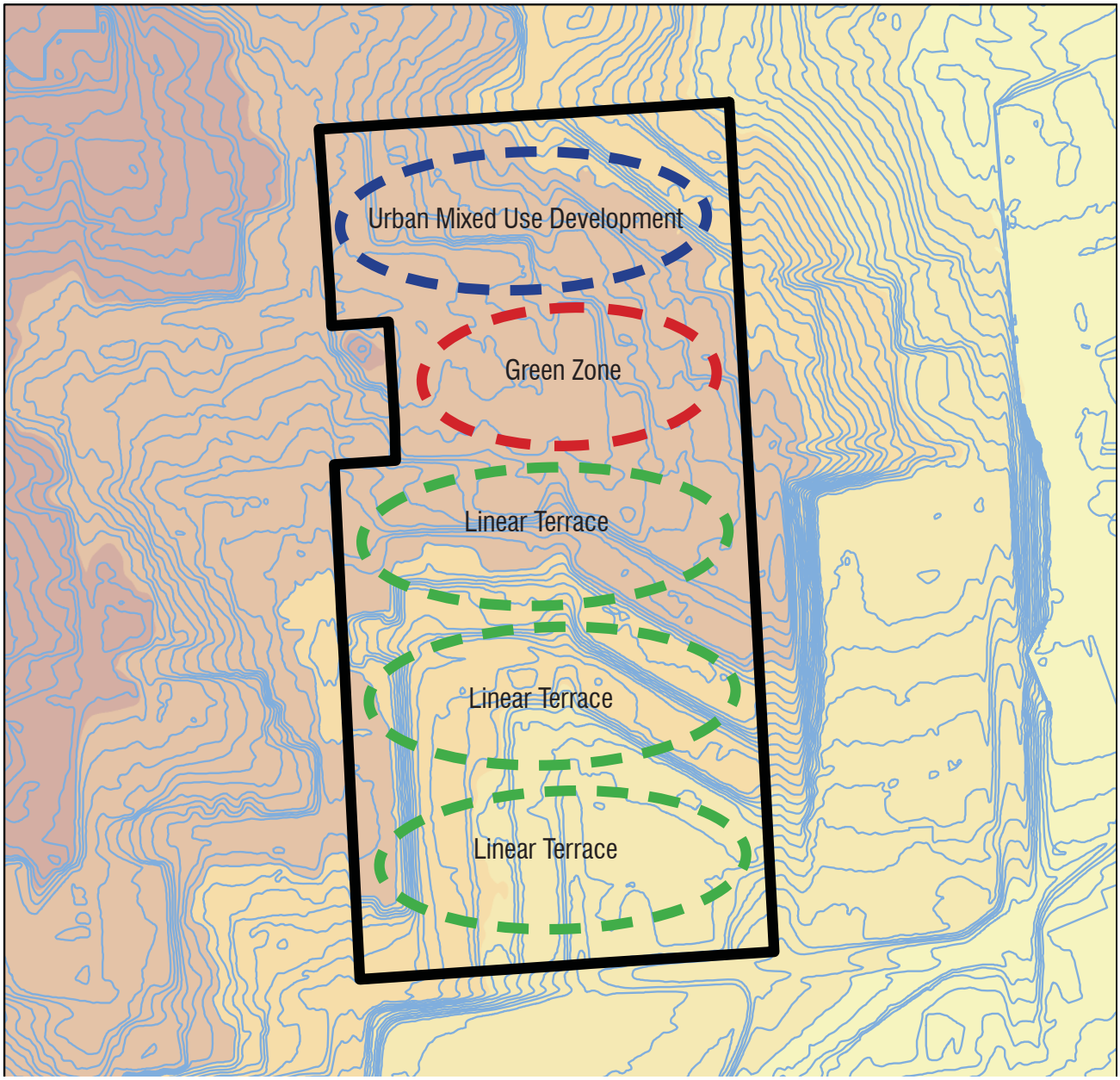


Figure 02. Strategy Map for the Existing Site Emphasizing Terraces That Run East to West
Source: Google Maps

Legend

- Site Boundary
- Green Zones
- Terraces
- Mixed Use Developments

Grading Strategies Including Adjacent Parcels

North/ south or east/west terracing.

W3_CN09_3600_TopoStrat.PDF

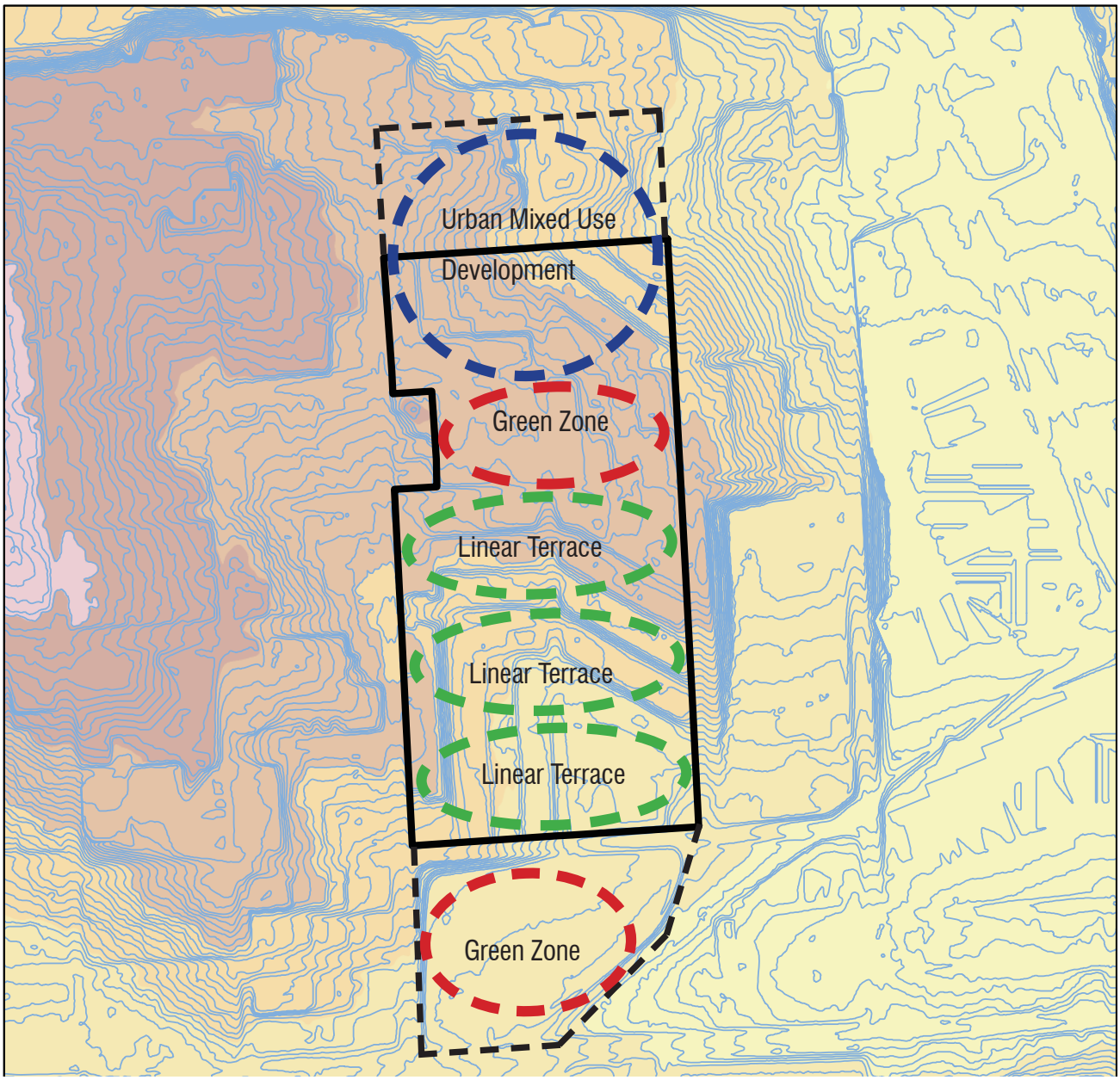


Figure 01. Strategy Map for Expansion Including Sites to the North and South of the Existing Site
Source: Google Earth

Inquiry: What design strategies could be employed to create an effective terracing system?
Key Extractions: Google Earth
Methodology: The Maps were retrieved from Google Earth through screen shot captures and were edited in Adobe Photoshop.
Conclusions: The graphics above show different configurations of the potential site design with the topography as a main design driver. These maps are very rough and show potential land uses only at its earliest stage. One idea identified during research was the potential to use the natural ridge line as a way to separate the low income housing and the higher income housing developments.

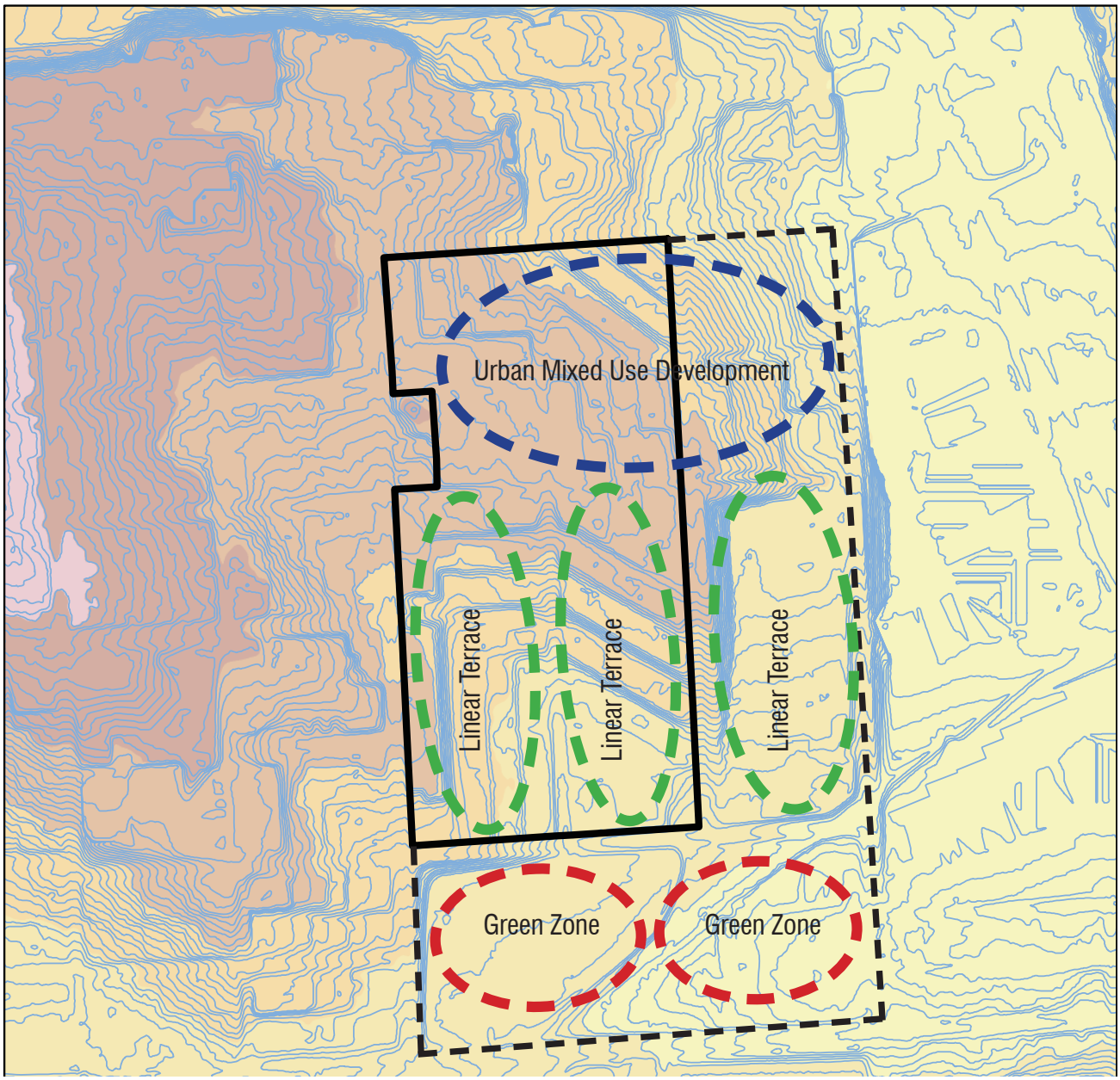


Figure 02. Strategy Map for Expansion Including Sites to the South and East of the Existing Site
Source: Google Maps

Legend

- Site Boundary
- Green Zones
- Terraces
- Mixed Use Developments



Critical Maps

Spatial Organization and Programming

Intended Exterior Spaces Are Not Supporting Observed Residents' Needs

Limited usable spaces exist between buildings and lack of community facilities are forcing residents to appropriate sidewalks, steps, clothes-line areas, and narrow flat lawns for play and social activities

W2_AW01_0.24K_Program-VS-Usage.PDF

Figure 01. Historical Open Space Program
Figure 02. Current Occupation and Appropriation of Open Space
Source: Douglas County GIS Viewer, Google Earth, author

Inquiry: To evaluate whether the existing and historical open spaces can satisfy residents' daily needs
Key Extractions: Clothes-line areas, play facilities, sidewalks, communal path, private path, active & passive activities
Methodology: By identifying the physical programs and outdoor activities, the existing and historical usage in open space is compared to the observed actual usage.
Conclusions: The existing exterior spaces provided are limited to address a fundamental needs based on functionality such as paved paths, open-air laundry, and sporadic play equipment for children.
For instance, the neigborhood streets only support vehicular and pedestrian movement, as well as accessing individual apartments. No community amenities such as benches are provided along the streets for social activities. Further, the clothes-line areas restrict the linear space at the back of residential buildings to only hanging clothes, failing to seize the opportunities of those spaces as a multi-functional area for community uses.
Another map (Figure 02) reveals how the residents actually use the programmed or non-programmed space by adapting to the site conditions, such as the topography, narrow spaces between buildings, trees, etc. They appropriate outdoor leisure and social activities for themselves.
It can be concluded that many programmed spaces are appropriated as a multi-functional space. From observation, steep slopes that reduce usable space restrict activites. Children and teenagers could use more connected and flat area for group activites. The community also needs more outdoor seating.



Source: Photo IV: http://articles.chicagotribune.com/2013-10-06/news/; Photo VI: http://douglassalumni.blogspot.com/2012_09_01_archive.html



Figure 01. Historical Open Space Program

Legend
- Building footprint
- Playground & sport field
- Clothes line area
- Sidewalk
- Communal path
- Private path
- S Restrictive slope

N
0 120 240 480 Feet



Figure 02. Current Occupation and Appropriation of Open Space

Legend

- Informal passive activity
- Informal play activity
- Flat area for potential active play activity
- Observed passive activity
- Observed active activity
- Observed mix-used area

N

0 120 240 480 Feet



Learn from the Past and Present to Reimagine Future Community Programs

Historical failure, existing patterns and appropriation of space inspire need for new design guidelines

W2_AW02_0.3K_FutureProgram.PDF



Figure 01. Previous locations of removed recreational facilities
Source: Google Earth

Legend

Removed recreactional facilities
100 Ft distance defining resident disturbance zone



Figure 02. Location of existing trees and appropriated seating areas (Photo labels refer to W2_AW01_0.24K_Program-VS-Usage: Figure 02)
Source: Google Earth

Legend

Sitting area
Tree

Inquiry: Consideration of future programs and favorable site conditions
Key Extractions: Recreational facilities, trees, sitting areas, flat areas, staircase locations
Methodology: Different programmed and appropriated usages in open space were analyed in terms of the influential site components that encourage or prohibit those activities.
Conclusions:

Figure 01 illustrates the proximity of the removed recreational facilities to the residence. These removed facilities were previously active sport courts before 2010. One of the reason for their removal was because usage generated much noise during daytime and at night, which became a nuisance to residents, suggesting that designers have to be more careful in locating active sport programs near to residential buildings.

Figure 02 explores the relationship between appropriated outdoor seating areas and the presence of trees. As shown by the photos, residents like sitting at the door steps, or on their own chairs at the front porch of their apartment, or under a big tree. Trees are aligned with the buildings and are typically located on the front or semi-private sides of building, limiting community activities. It is suggested that the future design consider more street trees along paths to be a destination for social interactions.



Figure 03. Location of existing play area and appropriated activity area (Photo labels refer to W2_AW01_0.24K_Program-VS-Usage: Figure 02)
Source: Google Earth

Legend

Flat areas for potential active play activity

Informal play area



Figure 04. Location of staircases
Source: Google Earth

Legend

Staircase

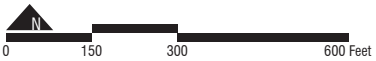


Figure 03 shows how sporadic the formal play areas are located, with the southern part of the site underserved. Photos I, III, IV, and V reveal the similar standard play equipment on all the four play areas, suggesting a rather limited choice in play activities provided by the formal play areas. Children and teenagers are offen forced to play on streets and narrow spaces between houses or on slopes.

Figure 04 further depicts how the stairs fragment the site. Future play activities may utilize the existing topography for more inspiring play activities.

CPTED Guidelines Minimize Chances Of Crime

Developing A Sense Of Territory For Residents Results In Greater Respect And Care Of Southside Terrace.

W3_SB03_3.6K_Strategy_CPTED.PDF



Figure 01. Proposed Design Following CPTED Guidelines.
Source: GIS and Observation

Inquiry: What effects will CPTED have on criminal activity in Southside Terrace?
Key Extractions: Proposed Design For Southside Terrace.
Methodology: Following the Crime Prevention Through Environmental Design (CPTED) standards and applying them to a new design.
Conclusions: Southside Terrace currently has many discrepencies in design so it is necessaryto adjust the overall design of the site to better perform in deterring criminal activity. By eliminating blindspots and having direct lines of sight it is easier for residents to self police Southside. By creating private areas with see-through fences it gives the residents a sense of privacy and ownership in the area. This will make the area feel more like home. Having a larger civic space centralized will make it easier for residents to develop relationships together and also provide more activities for the residents

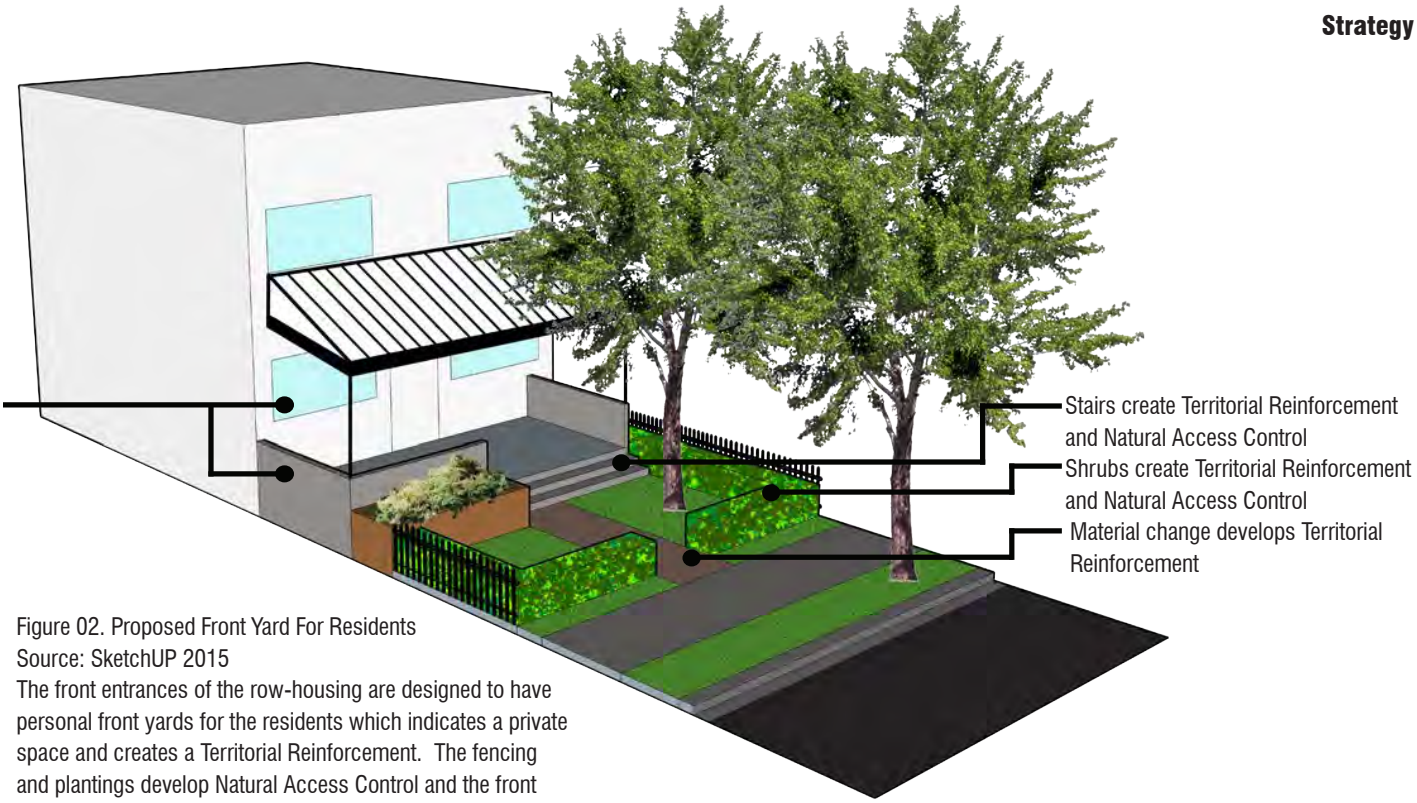


Figure 02. Proposed Front Yard For Residents
Source: SketchUP 2015
The front entrances of the row-housing are designed to have personal front yards for the residents which indicates a private space and creates a Territorial Reinforcement. The fencing and plantings develop Natural Access Control and the front porch and windows increase the ability for residents to have Natural Surveillance.



Figure 03. Complete Street In Stockholm, Sweden
Source: Smart Growth America (2015)
By implementing a complete street along 29th it will make the transition towards a mixed income mixed use housing development better. By having businesses and housing on 29th it will increase pedestrian traffic which would increase the Natural Surveillance in the area.

Southside Terrace Design Achieves Some (CPTED) Guidelines

Safety of community can improve with better natural surveillance, access control, and territorial reinforcement.

W2_SB01_7.2K_Classification_CPTED.PDF



Figure 01. How Southside Terrace conforms with Crime Prevention Through Environmental Design?
Source: GIS and Observation

Inquiry: How well does the design of Southside Terrace protect its residents from crime?
Key Extractions: Design Features within Southside Terrace.
Methodology: Reviewing the Crime Prevention Through Environmental Design (CPTED) standards which are Natural Surveillance, Natural Access Control and Territorial Reinforcement and how they apply to Southside Terrace.
Conclusions: Southside Terrace has many descrepensies when it comes to natural surveillance. Many areas are hard to view and offer hiding positions for criminals. The is also lacking in Natural Access Control and everything appears to be public space if someone is not on the front or back stoop. They also has no territorial reinforcement except for the stoops and the clothes lines used by the residents.

Natural Surveillance - Achieved through design and maintenance that allows people engaged with their everyday activities to easily observe the space around them, and is also meant to eliminate hiding spots for criminals.
Achieve by:
- Appropriate lighting
- Low/see through fences
- Removal of areas that offer concealment
- Adding windows, doors, and walkways to better improve observation of surroundings.

Natural Access Control – Achieved by using physical elements to eliminate criminals from accessing semi-private and private spaces, in turn deterring the chances of them wanting to use a space they should not be using. If something feels uncomfortable for someone to commit a crime in an area, then they are less likely to commit it there.
Achieved for semi-private and private spaces :
- Properly located entrances and exits
- Fencing
- Landscaping
- Lighting

Achieved within Public Spaces:
- Signs
- Paving Change
- Strips of nature
- Anything delineating a unique area

Territorial Reinforcement – People are more inclined to protect an area that they feel is more their own. Identifying intruders is easier if known that they should not be in the area.
Achieved by:
- Low Fences
- Pavement Change
- Art
- Signs
- Landscaping to express ownership



Figure 02. Well Established Natural Surveillance
Source: Google Street View

Legend
Natural Surveillance
Public Walk
Street Lights

29th street accomplishes Natural Surveillance well because it is the primary street people will use for travel. The street also has adequate lighting at night for pedestrians making it easier for people to notice anything unusual in the area.



Figure 03. Poorly Established Natural Surveillance
Source: Google Street View

Legend
Blocked Views

This area fails in Natural Surveillance because of the hiding spots offered by the numerous cars, buildings and elevation change. It would be very difficult for an individual to notice a crime happening in the area.



Figure 04. Well Established Natural Access Control and Well Established Territorial Reinforcement
Source: Google Street View

Legend
Natural Access Control
Territorial Reinforcement

This area is the private homes to the east of Southside Terrace. This area is a good example of Natural Access Control and Territorial Reinforcement because it creates a barrier from the public egress and develops a semi-private and a private space for the owners.



Figure 05. Poorly Established Natural Access Control and Poorly Established Territorial Reinforcement
Source: Google Street View

Legend
Natural Access Control
Clothes Lines

The residential units in Southside Terrace have very poor to average delinitation towards Natural Access Control and Territorial Reinforcement. The units have stoops for the residents which marks a sign of property as well as having the concrete pathways and clothes lines marking a territory for the residents.

Southside Terrace Design Increases Chance For Crime

Southside Terrace Buildings Leave Gap For Criminal Activities.

W3_SB02_3.6K_Dilemma_CPTED.PDF



Figure 01. Locations that Criminal Activities can take place?
Source: GIS and Site Observation

Inquiry: What issues in Southside increase the possibility for criminal activity?
Key Extractions: Design Features within Southside Terrace.
Methodology: Reviewing the Crime Prevention Through Environmental Design (CPTED) Guidelines which are Natural Surviellance, Natural Access Control, and Territorial Reinforcement and how they apply to Southside Terrace.
Conclusions: The Southside Terrace buildings create many hiding spots for criminal activities as well as opportunitites for persons of interest to run and avoid the police when they are inspecting the area. The open area to the southeast of Southside Terrace also is an issue because it is a wide open area without any lighting, making it a good place for criminal activitities.

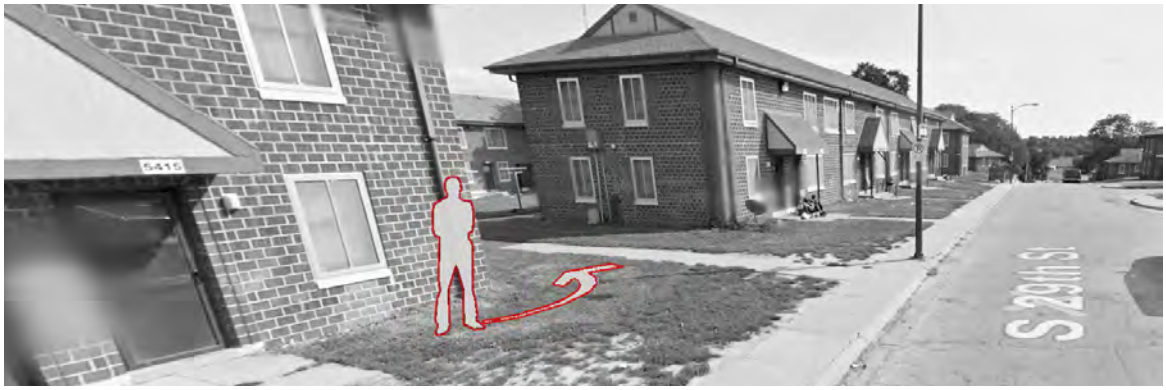


Figure 02. Easy Escape For Criminals
Source: Google Street View
Criminals are able to hide from law enforcement and other individuals that try and stop crime. The criminals can hide inbetween the buildings and escape pursuit on foot. It would also be easy for criminals to conduct criminal activities inbetween the buildings without being seen form a patrol car on the street until immediately adjacent to the space between buildings.



Figure 03. Poor Front Yard Territorial Reinforcement
Source: Google Street View
Residents of Southside Terrace are lacking in Territorial Reinforcement because they do not have clear indicators of the property they live on. The indicators that show their property are the sidewalks that residents share with another resident and the drain pipes and overhead lights dividing the grass front yard. The area appears to be completely public and does not create a divide between the public and private spaces.

Legend
- Paved Entrance
- Front Yard
- Suggested Property Line



Figure 04. Poor Back Yard Territorial Reinforcement
Source: Google Street View
Residents of Southside Terrace are lacking in Territorial Reinforcement because there is no indication of property boundaries in the back yard. The clothes line develop a sense of property and in turn develops a sense of Territorial Reinforcement, but this is still weak and is completely open to the public.

Legend
- Clothes Lines
- Suggested Property Line

Gathering Spaces Lack Lighting

Light sources along site periphery are present, but missing from internal site spaces

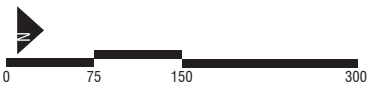
W2_BC01_150_ExistingLighting.pdf



Figure 01. Southside Terrace at night
Source: GIS

Inquiry: What are the lighting conditions within the Southside Terrace development?
Key Extractions: light source locations
Methodology: After locating all light sources using Google Street View within the Southside property boundary and adjacent streets, a light distribution symbol was overlaid on an aerial photograph to illustrate which areas were provided some light from various sources. These symbols merely represent the general type of light and their locations and is not based upon isolux data. All porch lighting is assumed to be on in the diagram above simply to show where these lighting features occur.
Conclusions: The lighting at Southside Terrace primarily focuses on the street illumination along with building fronts and periphery streets. Lighting conditions on the streets and parking lots within the development are poor to non-existent with the exception of South 29th Street. There is no lighting for any of the outdoor gathering spaces or pathways within the site that would render them usable at night. Future lighting plans for the site should aim at illuminating pedestrian circulation paths, parking lots, and program elements that could potentially be used at night and increase safety.





Legend

- Street Light Source
- Building Structure Light
- Porch Light
- Areas with the most light
- Areas without light sources

How Does Lighting Affect Public Safety?

Examining frequency of crime, vehicular circulation, and sight lines.

W2_BC02_300_LightingSafety

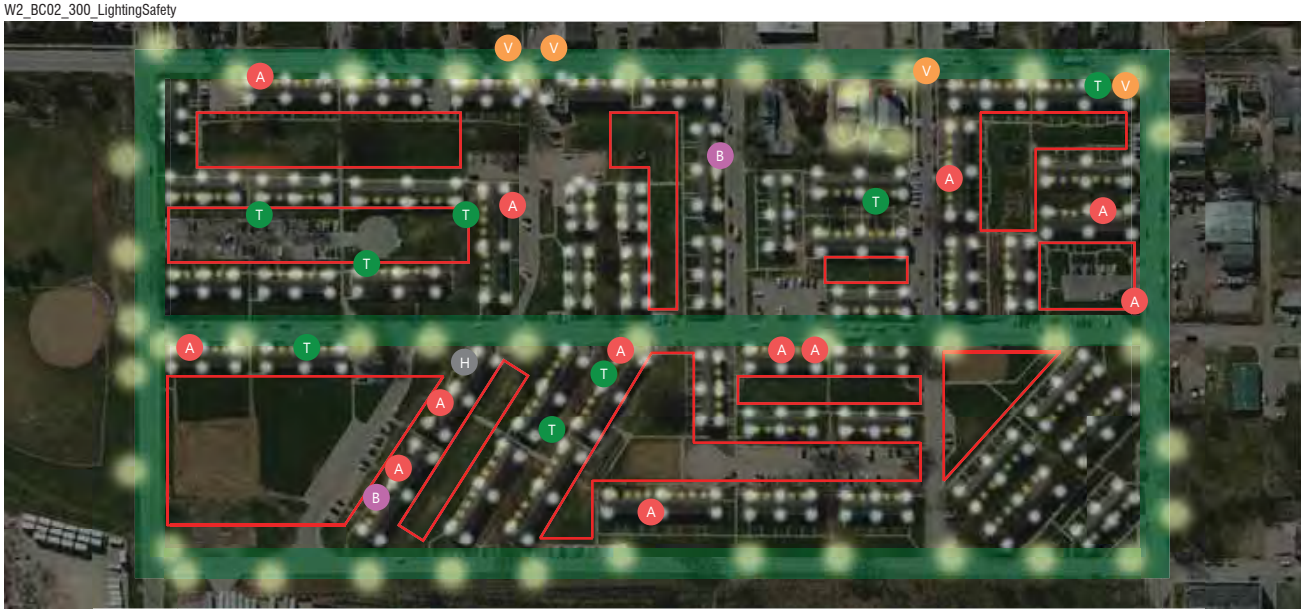


Figure 01. Locations of various crimes within Southside Terrace from January 1 to June 1, 2016 occurring between 5 p.m. and 5 a.m.
Source: GIS, CrimeMapping

Inquiry: How does the location of light sources within the Southside Terrace development correlate with crime activity?
Key Extractions: Locations of various criminal acts within Southside Terrace from January 1 to June 1, 2016; sources of light
Methodology: Data regarding crimes in the area of Southside Terrace was collected from the period between January 1 to June 1, 2016 which occurred between 5 p.m. and 5 a.m. and was projected onto the light source location map to reveal any correlation between the two sets of data. Areas lacking light sources were also identified.
Conclusions: It appears that many of the crimes in the area occur within or adjacent to the building structures with a greater majority occurring in areas that lack light sources (12 in well lit areas, 15 in poorly lit areas). Although this is not a significant margin, there is some correlation between areas with less lighting and more criminal activity.

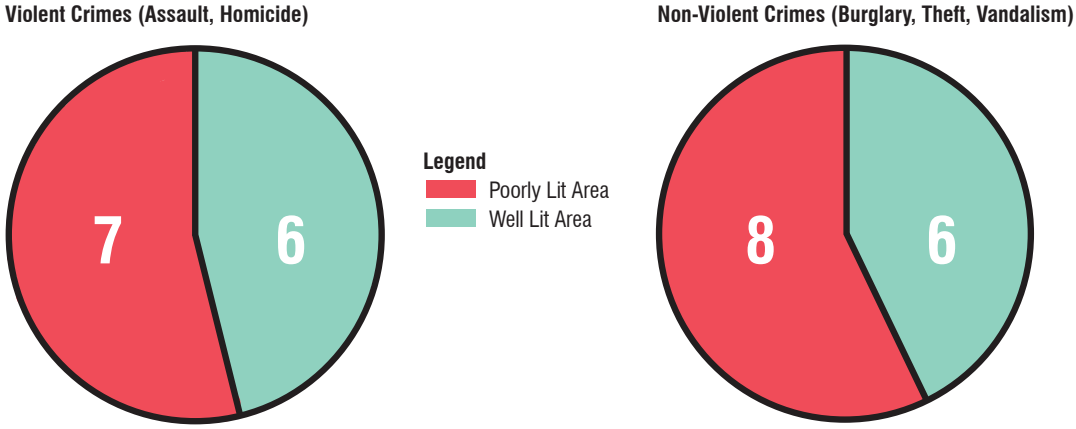


Figure 02. Crime occurrence in relation to lighting conditions

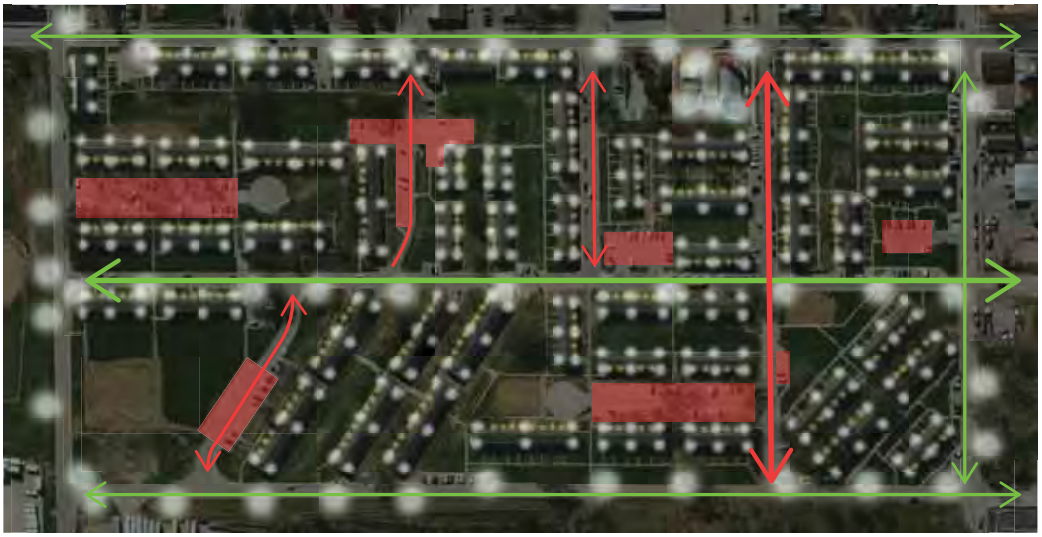


Figure 03. Vehicular circulation and parking at Southside Terrace Not to Scale
Source: GIS, Site observation

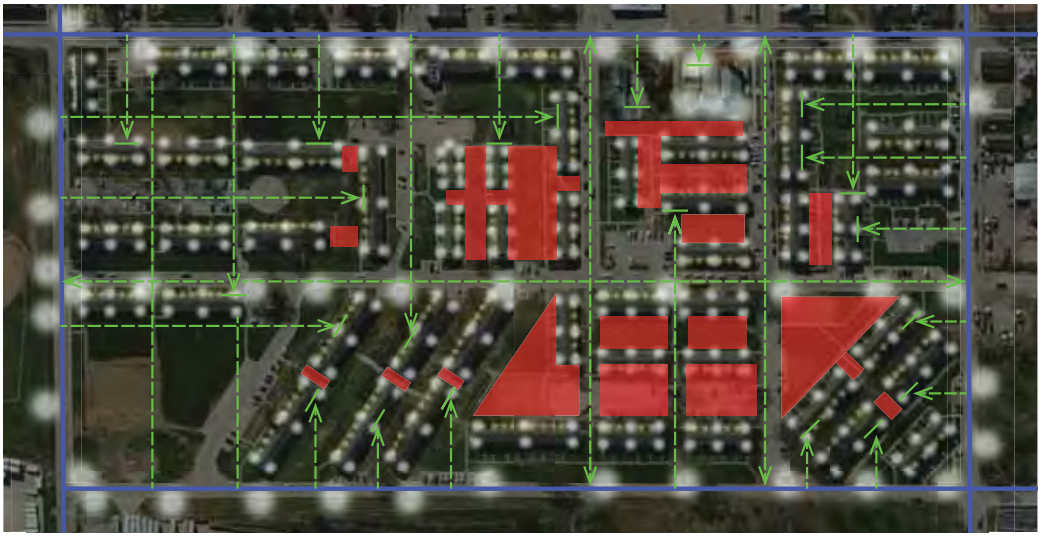


Figure 04. Sight lines into site from periphery streets and related indiscernible areas. The periphery streets are the typical route for law enforcement working the area. Not to Scale
Source: GIS, Site observation

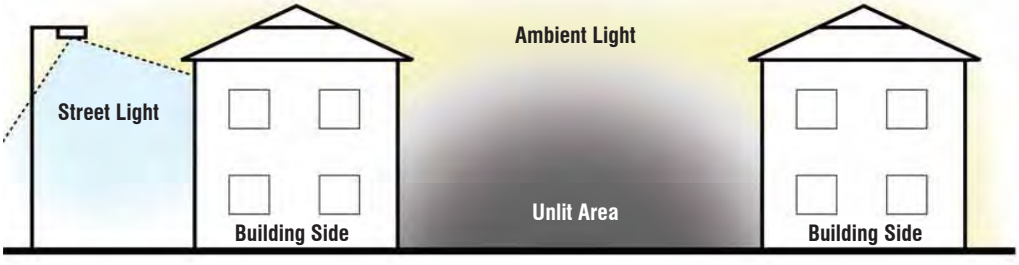


Figure 05. Unique lighting situation seen in the internal areas of Southside Terrace in which buildings block ambient and street lights.
Source: Site Observation

Aspirations of Southside Terrace Partners Show Balance Between Social & Physical Improvements

Votes by partners show a variety and diversity of wants and needs for Southside Terrace

W2_AL01_SynthesisOfPartnerEngagement

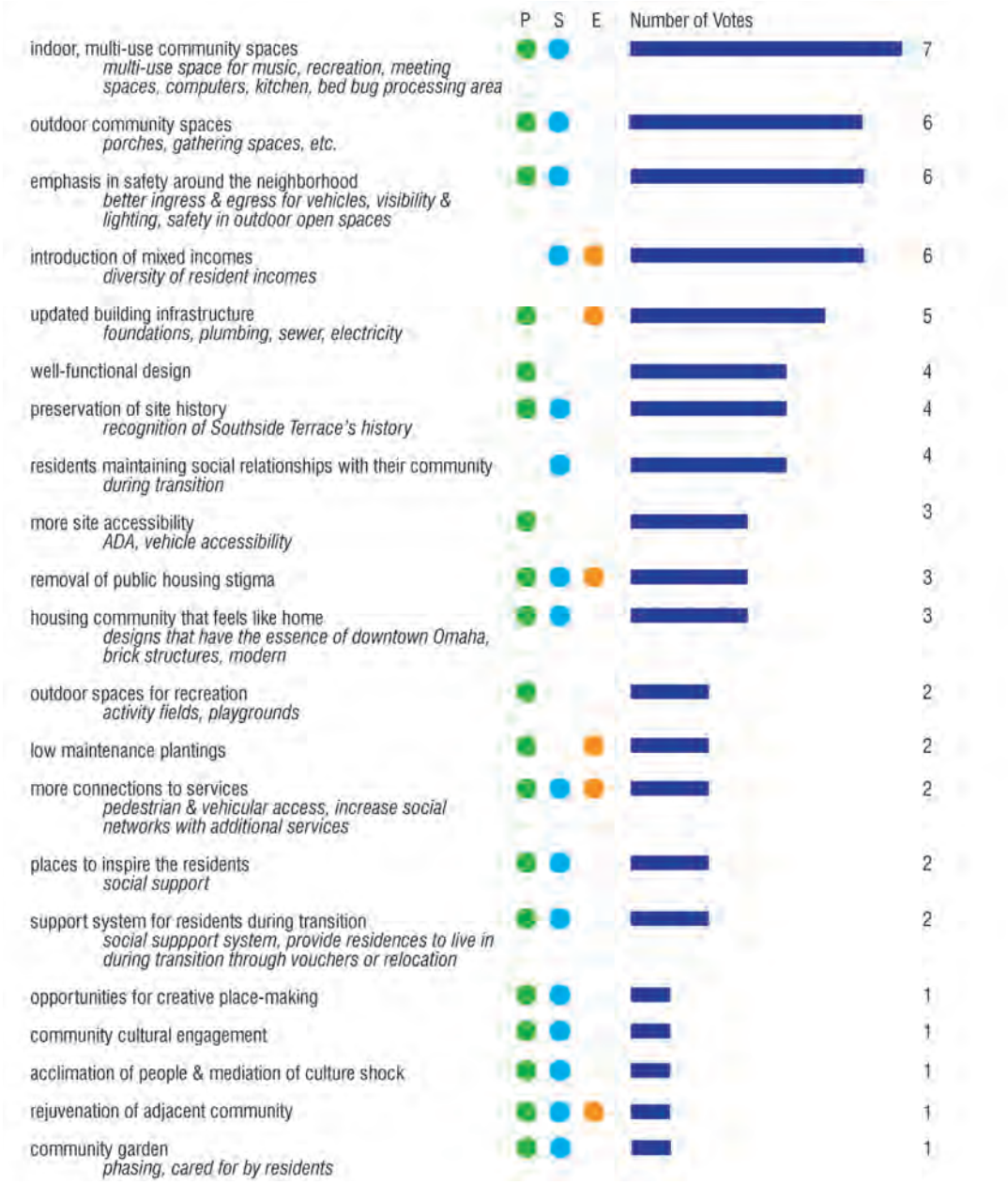


Figure 01. Partner Voting Results
Source: Lemken 2016

Inquiry: What amenities are Southside Terrace partners and affiliates expecting to be implemented during the redevelopment?
Key Extractions: Votes taken on the most important amenities to be included in the redevelopment of Southside Terrace.
Methodology: On May 27, 2016, Kansas State's LAR 646 Community Planning and Design class met with Southside Terrace partners and affiliates to discuss the most important amenities and aspects to be included and considered in the redevelopment of Southside Terrace. The top 5-7 most important factors were written down from every group, and then Southside Partners and affiliates, which included Omaha Housing Authority employees, were asked to vote for what they considered to be the most important factors. Each partner or affiliate was given 6 stickers to place next to any factor or factors as a vote of preference. These votes helped prioritize the wants and needs for the Southside Terrace community.
Conclusions: Partners generally requested to have more physical site amenities be implemented during the redevelopment of Southside Terrace. Social considerations involving the community of Southside and its surrounding neighborhood were also very important to the revitalization of Southside Terrace.

Examples of Public Housing Communities with Amenities Desired for Southside Terrace:

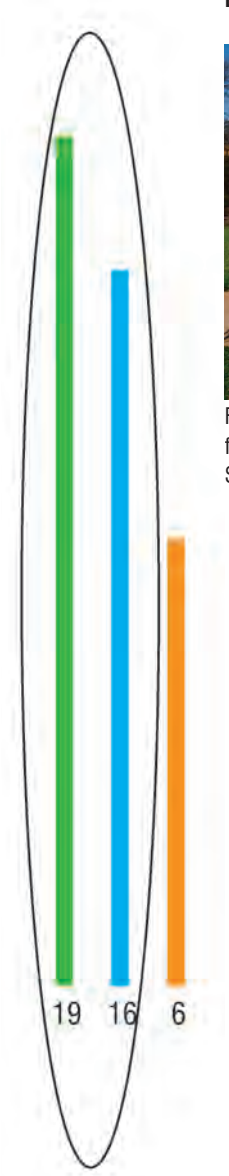


Figure 02. Tallying of Physical Amenities, Social Aspects, & Economic Goals
Source: Lemken 2016



Figure 03. Chavis Heights: Centralized open space for recreation at a HOPE VI redevelopment.
Source: J Davis Architects 2008



Figure 04. Capitol Park: A well-lit green space allows for easy & safe accessibility through the site.
Source: J Davis Architects 2004

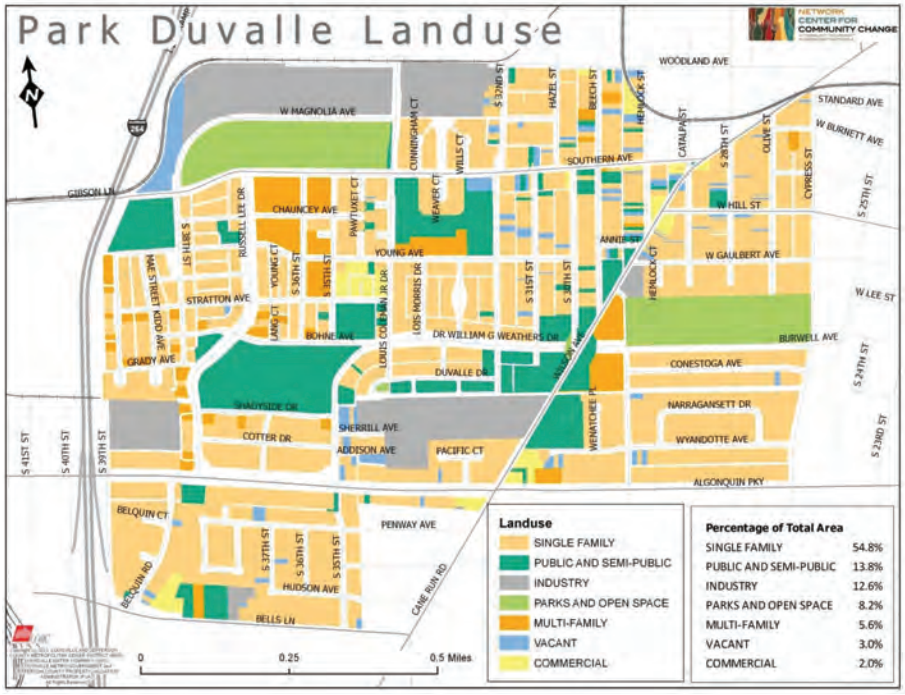


Figure 05. Different landuses & family living types contribute to the success of Park DuValle in Louisville, Kentucky.
Source: Network Center for Community Change 2014

Legend

- Physical Amenities (P)
- Social Aspects (S)
- Economic Goals (E)
- Number of Votes

Existing Site does not Support Top Desired Aspirations For Southside Terrace

Due to Challenging Topography, Many Desired Features Would be Difficult to Implement

W2_AL02_4K_DilemmaSynethisOfPartnerAspirations.PDF

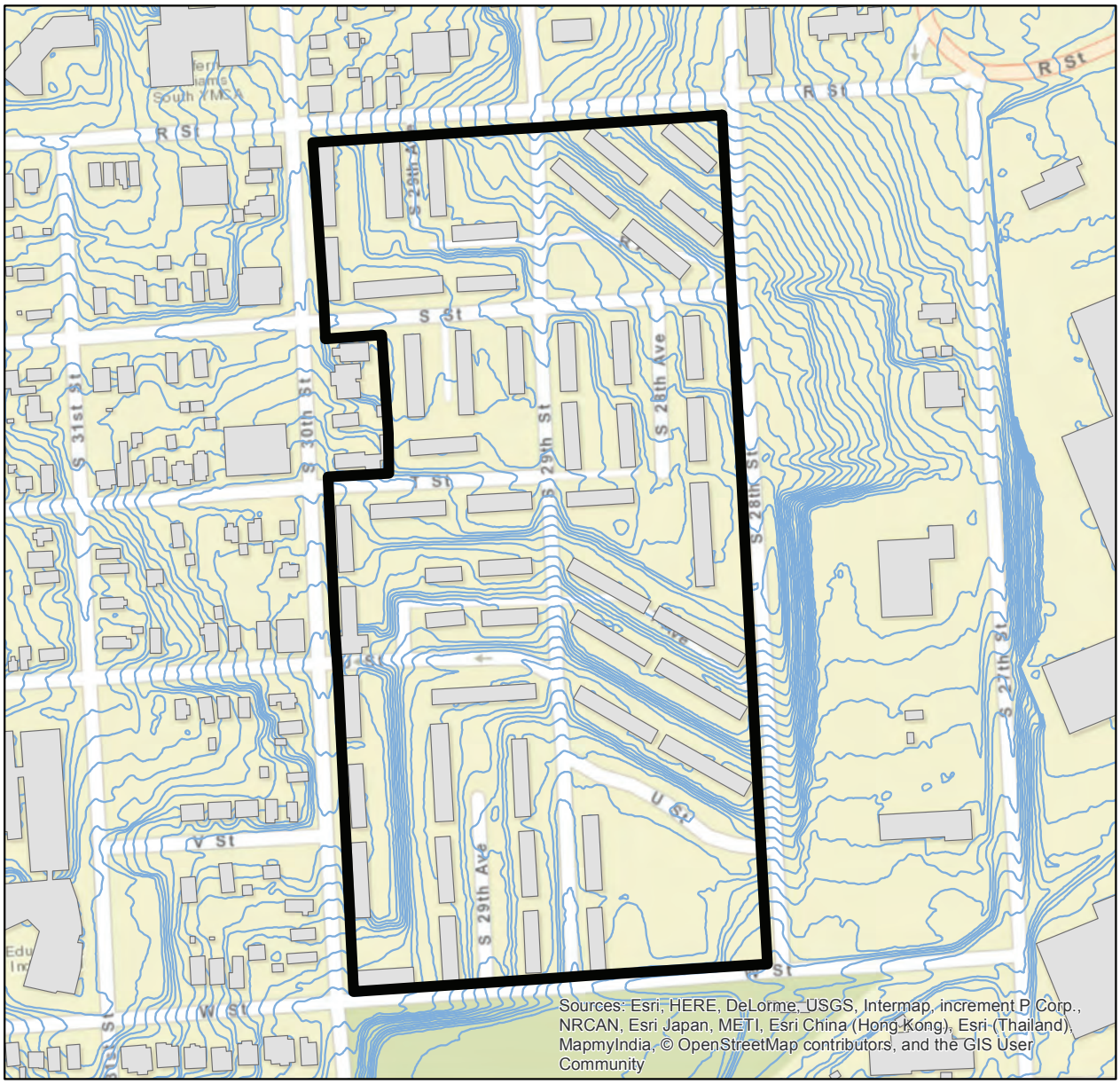


Figure 01. Existing Topography Map of Southside Terrace
Source: Douglas County GIS "Building Footprints" and "Contours" (2010)

Inquiry: Would many of the top desired aspirations for the redevelopment of Southside Terrace be able to be implemented with current site conditions?
Key Extractions: Existing site topography, building footprints
Methodology: The amount of existing open space was compared to the amount of indoor and outdoor top desired amenities which would take up a considerable amount of space.
Conclusions: Through comparing the amount of land which the buildings take up and the amount of open space available that does not have a steep slope with the amount of amenities desired for Southside Terrace that take up open space, it is concluded that the existing site does not support all of the top desired amenities. General estimations for the dimensions of top desired amenities were used during comparison.

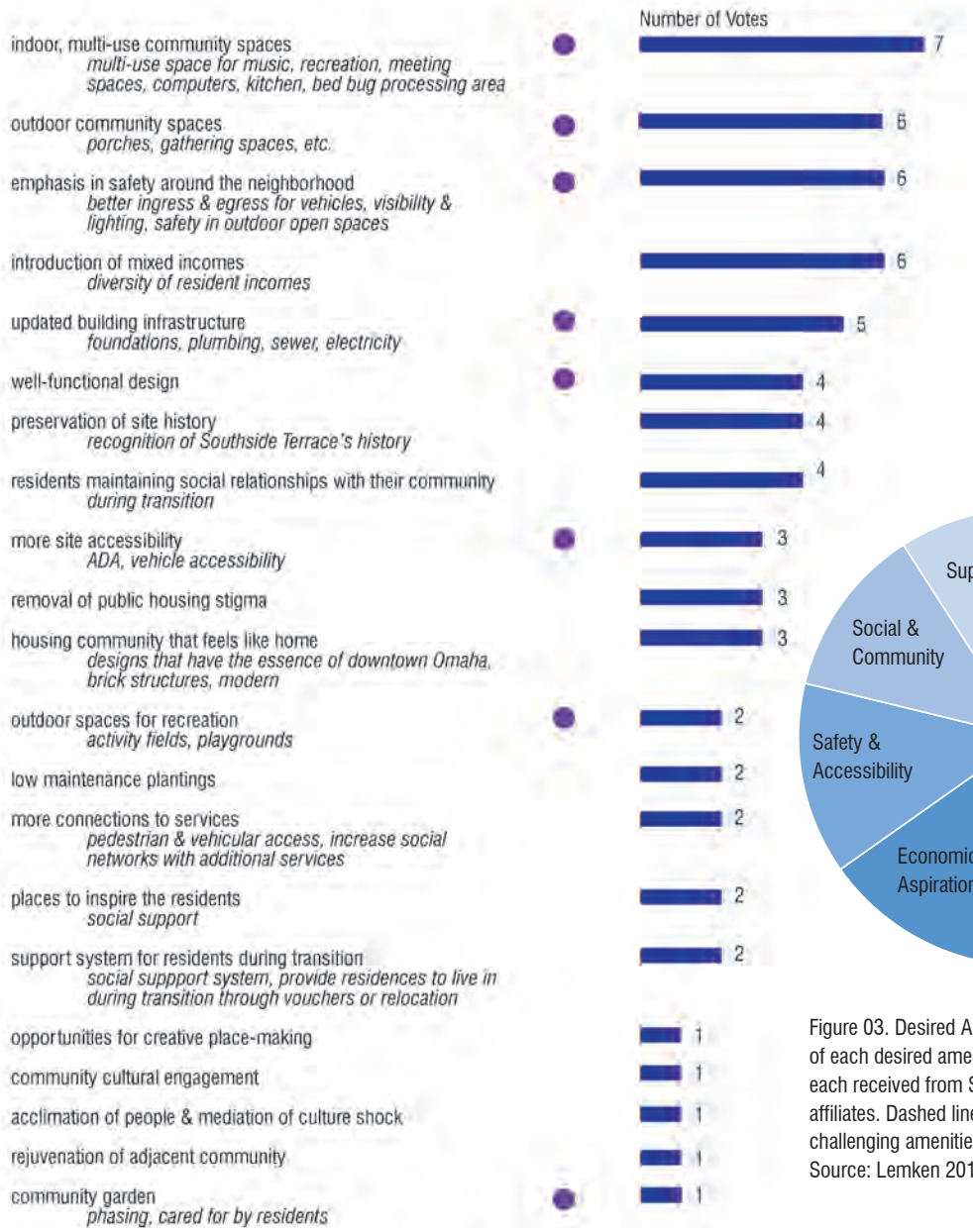


Figure 02. Amenities which would be challenging to provide for Southside Terrace due to steep slopes.
Source: Lemken 2016

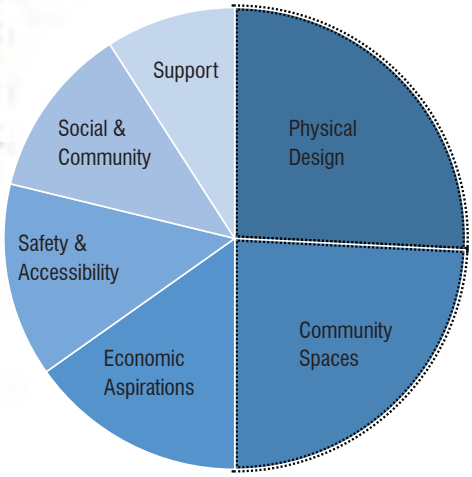


Figure 03. Desired Amenities Classified: Classifications of each desired amenity relative to the amount of votes each received from Southside Terrace partners and affiliates. Dashed lines reveal categories which include challenging amenities.
Source: Lemken 2016



Physical Design	Votes
updated building infrastructure	5
well-functional design	4
preservation of site history	4
low maintenance plantings	2
more connections to services	2

Safety & Accessibility	
emphasis in safety	6
more site accessibility	3

Community Spaces	Votes
indoor, multi-use community spaces	7
outdoor community spaces	6
outdoor spaces for recreation	2
community garden	1

Social & Community Support Groups	
housing community that feels like home	3
places to inspire the residents	2
community cultural engagement	1
acclimation & mediation of culture shock	1
opportunities for creative place-making	1

Economic Aspirations	Votes
introduction of mixed incomes	6
removal of public housing stigma	3
rejuvenation of adjacent community	1

Support During Transition	
residents maintaining social relationships	4
support system during transition	2

Amenities which provide challenges

Southside Terrace's Density Differs From Modern Social Housing Precedents

Comparing Southside's composition and scale to renown housing developments around the world.

W3_BC03_800_GlobalComparison.PDF

Southside Terrace: Omaha, Nebraska

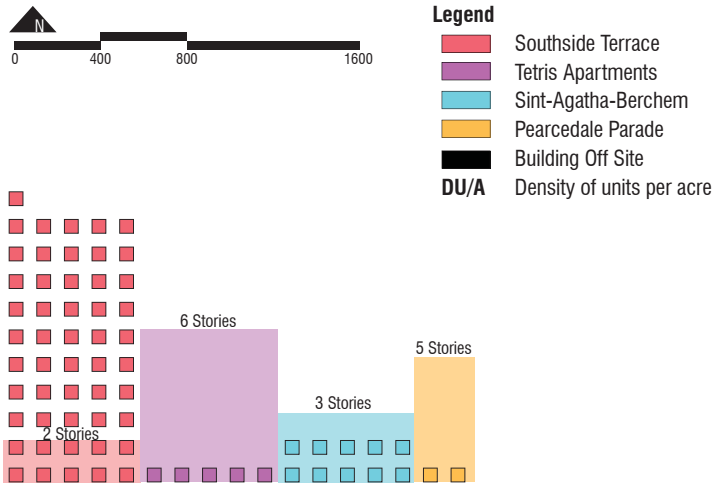


Figure 01: Figure Ground Diagram of Southside Terrace: Omaha, NE
Source: Google Maps



Figure 02: Topographic challenges and building orientation of Southside Terrace (Corrie, 2016)





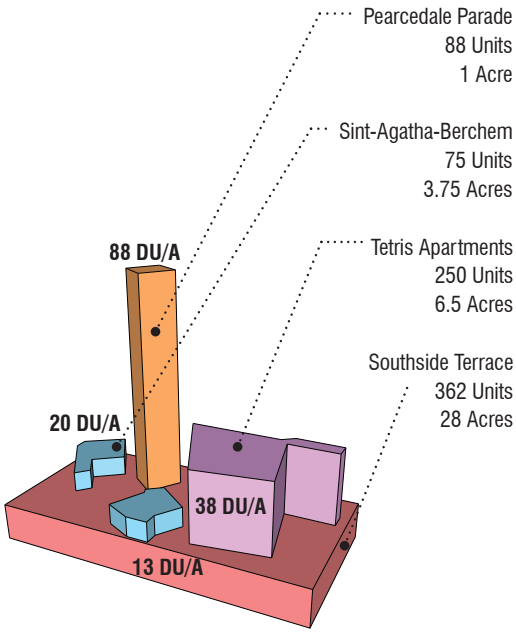


Figure 03: (Above) Illustrating number of buildings and building height at each site
Figure 04: (Right) Comparing site size, number of units, and density

Inquiry: How does Southside Terrace compare to other housing developments around the world?
Key Extractions: Site scale, context, and density
Methodology: After examining 30 precedents of modern social and public housing, 3 were selected based on size, similar characteristics, and forms that were relevant to the current site conditions seen at Southside Terrace. Images were paired with figure ground diagrams depicted at the same scale to show overall context and form.
Conclusions: Southside Terrace compared to the precedents contains more residents and therefore has a larger overall footprint. It is evident through the studies of other developments that multistory, more densely populated structures can reduce the overall size of the project allowing for other mixed uses to be incorporated to create a stronger neighborhood fabric. Its also important to note how differently these developments responded to their context to connect with surrounding neighborhoods.

Tetris Apartments: Ljubljana, Slovenia



Figure 05: Figure Ground Diagram of Tetris Apartments: Ljubljana, Slovenia Source: Google Maps



Figure 06: Angled balconies to direct views away from highway

Pearcedale Parade: Melbourne Australia



Figure 07: Figure Ground Diagram of Pearcedale Parade Housing Project: Melbourne, Australia. Source: Google Maps



Figure 08: Higher density structures can sill provide private outdoor space

Sint - Agatha - Berchem: Brussels Belgium

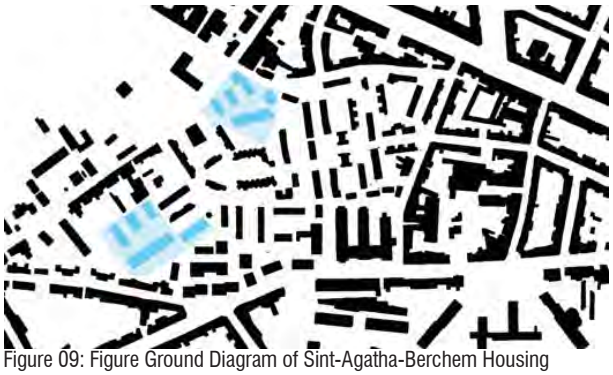


Figure 09: Figure Ground Diagram of Sint-Agatha-Berchem Housing Project: Brussels Belgium. Source: Google Maps



Figure 10: Back yards of units at Sint-Agatha-Berchem housing development

Southside Has Potential To Integrate Context While Retaining Density

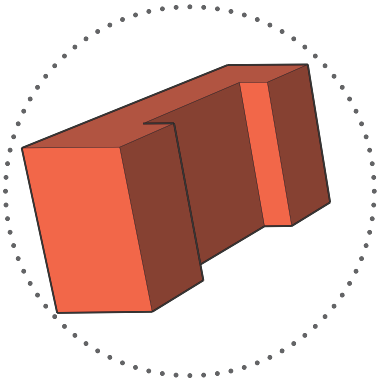
Integrating multi-functional buildings with medium density can create stronger sense of community

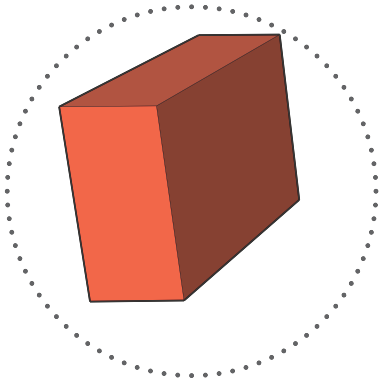
File Name: W3_BC04_500_ContextIntegration

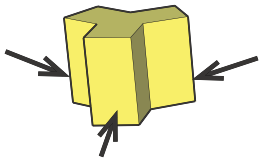












Pruitt-Igoe

Cut off from surrounding context.

North St. Louis, MO
Completed: 1954
33 Buildings
11 Stories
2,800 Units
Demolished in 1976

Pros: - Was an innovative concept at the time for a planned development to help accommodate the growing city of St. Louis

Cons: - Buildings were not designed with residents' needs in mind.
- Development did not integrate into the surrounding context and had no interaction with community.
- Large scale vacancy in initial years cause downward trend of funding and maintenance

Cabrini - Green

Cut off from surrounding context.

North Chicago, IL
Completed: 1940-60's
23 Buildings
7-19 Stories
3,607 Units
Demolished 1995-2011

Pros: - Constructed to help industry workers returning from WWII.
- Located in affluent area of Chicago.

Cons:
- Buildings themselves were poorly constructed and maintained.
- Over the years became separated from surrounding community which concentrated poverty.

Queensbridge

Strong community support, concentrated poverty.

Queens, New York, NY
Completed: 1939
29 Buildings
6 Stories
3,142 Units
Functioning

Pros: - Built to help industry workers returning from WWII.
-Strong community initiatives

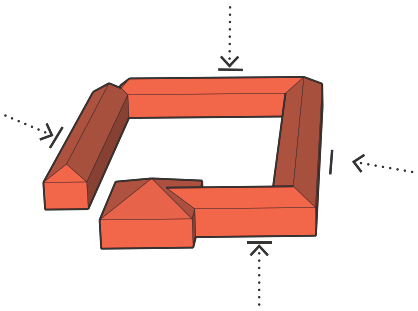
Cons: - Buildings themselves were poorly constructed and maintained.
- Concentrated poverty with no mix income opportunities.

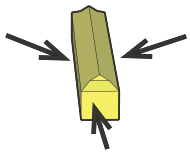
Inquiry: How can housing developments remain moderately dense while still connecting with the surrounding context?
Key Extractions: Different types of housing structures, positive and negative aspects of different developments, opportunities to improve Southside Terrace
Methodology: After selecting a variety of different housing developments at different densities, an analysis of the successes and shortfalls of each was determined. Of these successful aspects, a conceptual opportunities diagram was derived to illustrate potential changes to Southside Terrace in the future
Conclusions: Southside Terrace has the potential to remain moderately dense while still being able to incorporate more mixed-use and mixed income programming. The site itself can also accommodate neighborhood amenities to act as a node for community interaction.

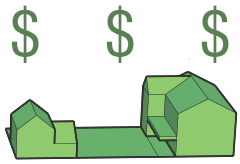












Yates Village

Increased crime due to poor visual sight lines.

Schenectady, NY
Completed: 1963
8 Buildings
2 Stories
300 Units
Functioning

Pros: - Building designs create private outdoor courtyards for social interaction
- Internal streets are fenced only for resident use.

Cons: - Crime and vandalism is a problem with poor visual sight lines.
- No opportunities for mixed-use or income.
- Deteriorating structures and lack of maintenance.

Southside Terrace

Strong community support, large land use, no mixed use or incomes.

South Omaha, NE
Completed: 1940
51 Buildings
2 Stories
358 Units
Functioning

Pros: - Strong neighborhood amenity system and sense of community.
- Overall user needs are met by the site's amenities

Cons: - Has no real integration into the surrounding neighborhood fabric which creates social separation.
- Site consumes a large area with no mixed-use functions

Sheppard Square

Mixed income, community amenities.

Louisville, KY
Completed: 1942
90 Buildings
2-3 Stories
454 Units
Redeveloped

Pros: - Redeveloped to include mixed income residents and is modeled more after a suburban neighborhood rather than a separated housing development.
- Community center and outdoor space facilitates social interaction.

Cons: - Does not have mixed-use opportunities to draw revenue.

Legend
- Desirable Attribute
- Moderately Desirable Attribute
- Undesirable Attribute

Figure 01. How have housing developments responded to context and density over time?
Source: (Corrie, 2016) Google Earth, Google Street View

Southside Has Potential To Integrate Context While Retaining Density

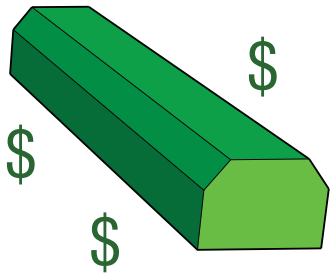
Integrating multi-functional buildings with medium density can create stronger sense of community

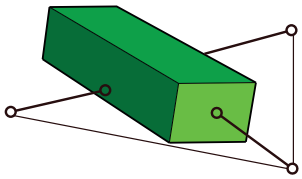
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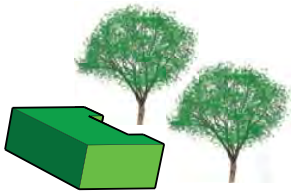












Tetris Apartments

Mixed-use and income, design is context sensitive.

Ljubljana, Slovenia
Completed: 2007
5 Buildings
6 Stories
250 Units
Functioning

Pros: - Provides mixed-use and income opportunities.
- Design is context sensitive.
- Modern design provides aesthetic ownership and care from residents.
- Site resides in more densely populated housing which helps blend into neighborhood.

Cons: - Located off main circulation paths into a terminating point which reduces access.

Pearcedale Parade

High density, context sensitive.

Melbourne, Australia
Completed: 2010
2 Buildings
5 Stories
84 Units
Functioning

Pros: - Location allows for residents to be within walking distance of surrounding amenities.
- Lack of formal outdoor space is compensated with private balconies.
- Larger unit sizes and mixed-income

Cons: - Located between residential and commercial districts which reduces the sense of community.
- No strong outdoor spaces due to confined site size.
-No opportunities for mixed-use.

Sint-Agatha-Berchem

Smaller sub-communities, communal outdoor spaces.

Brussels, Belgium
Completed: 2012
10 Buildings
3 Stories
75 Units
Functioning

Pros: - Site is fragmented into two areas so that surrounding neighborhood is integrated into the development.
- Private outdoor spaces for each dwelling.
- Communal green space and adjacent park
- Located next to retail and downtown area within walking distance.

Cons: -Due to building layout and user density, there is a smaller amount of units that can be provided.

Legend

- Desirable Attribute
- Moderately Desirable Attribute
- Undesirable Attribute

Figure 01. How have housing developments responded to context and density over time?
Source: (Corrie, 2016) Google Earth and Google Street View

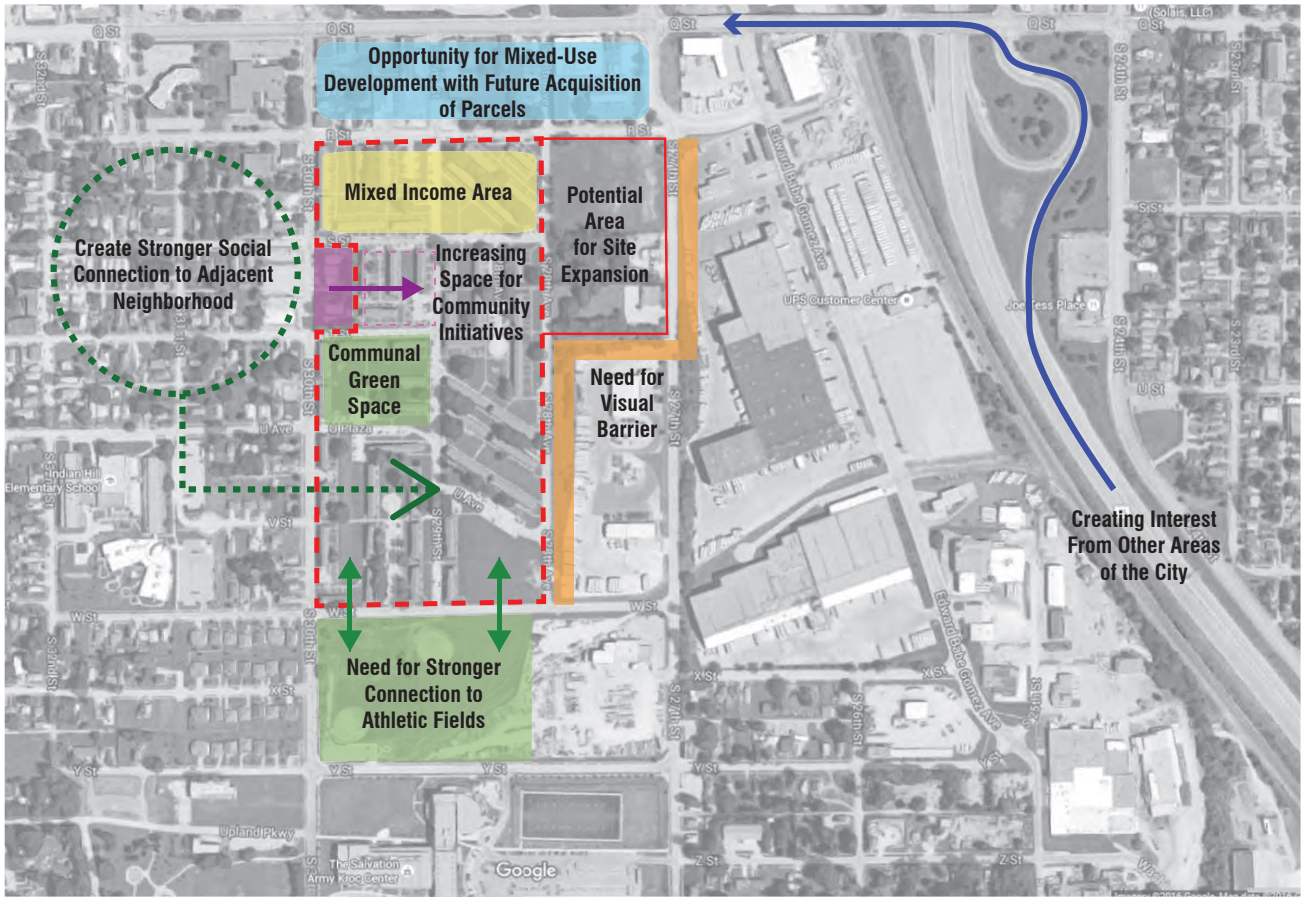


Figure 02. Opportunities for Southside Terrace
Source: (Corrie, 2016)

Inquiry: How can housing developments remain moderately dense while still connecting with the surrounding context?
Key Extractions: Different types of housing structures, positive and negative aspects of different developments, opportunities to improve Southside Terrace
Methodology: After selecting a variety of different housing developments at different densities, an analysis of the successes and shortfalls of each was determined. Of these successful aspects, a conceptual opportunities diagram was derived to illustrate potential changes to Southside Terrace in the future
Conclusions: Southside Terrace has the potential to remain moderately dense while still being able to incorporate more mixed-use and mixed income programming. The site itself can also accommodate neighborhood amenities to act as a node for community interaction.

Increasing Density Can Create New Opportunities For Southside Terrace

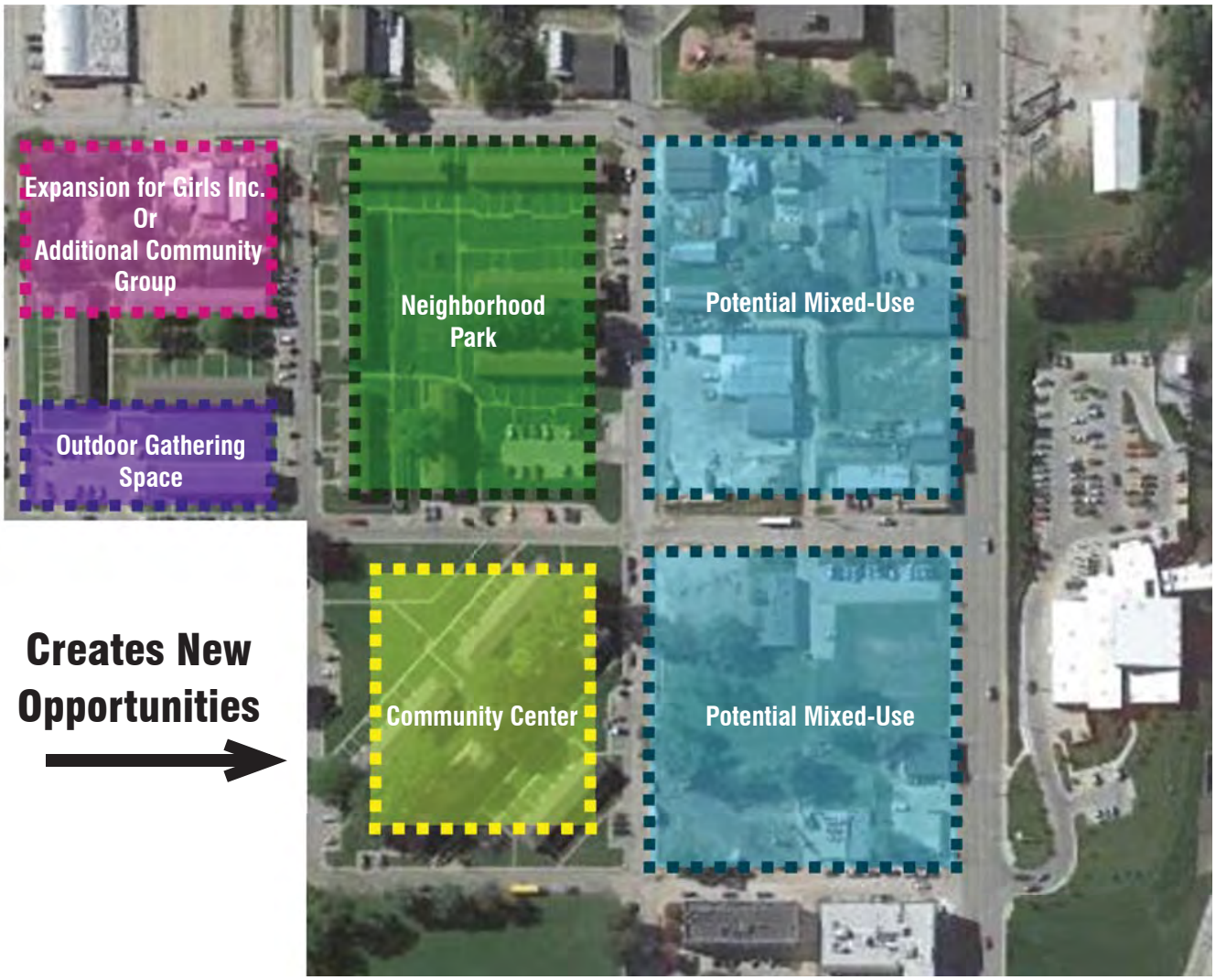
Re-imagining the function of spaces and density at Southside Terrace

File name: W3_BC05_200_DensityandFunction.PDF



Figure 01. Density can create opportunities
Source: (Corrie, 2016) Google Earth.

Inquiry: What will be the approximate density and functional uses of buildings for Southside Terrace?
Key Extractions: Residential density, and functions of space
Methodology: After extracting successful practices from precedent studies, a spatial comparison map was created. This map illustrates that by densifying the current building layout (not including reorientating structures) a larger amount of open, usable space is created. This is not to show actual locations of residential buildings, but rather shows the amount of space consumed by more densely populated buildings
Conclusions: After using the existing building footprints to create larger (taller) building structures the same amount of units can be created while saving approximately 8 acres of land belonging to Southside Terrace for other programmatic elements. Of the 362 existing units at Southside, 322 could be preserved simply by densifying the existing layout scheme.


Expansion for Girls Inc.
Or
Additional Community
Group
Neighborhood
Park
Potential Mixed-Use
Outdoor Gathering
Space
Creates New
Opportunities
Community Center
Potential Mixed-Use


Existing Building
Scheme
362 Units
Densifying
Existing Building
Footprints
315 Units
Approximately 8 Acres
of Green Space Gained

Trends in Suburban Morphology

Comparing Southside Terrace with Orenco Station, Radburn, and Highpoint

File name: W2_EL01_S2016_SuburbanMorphology.pdf

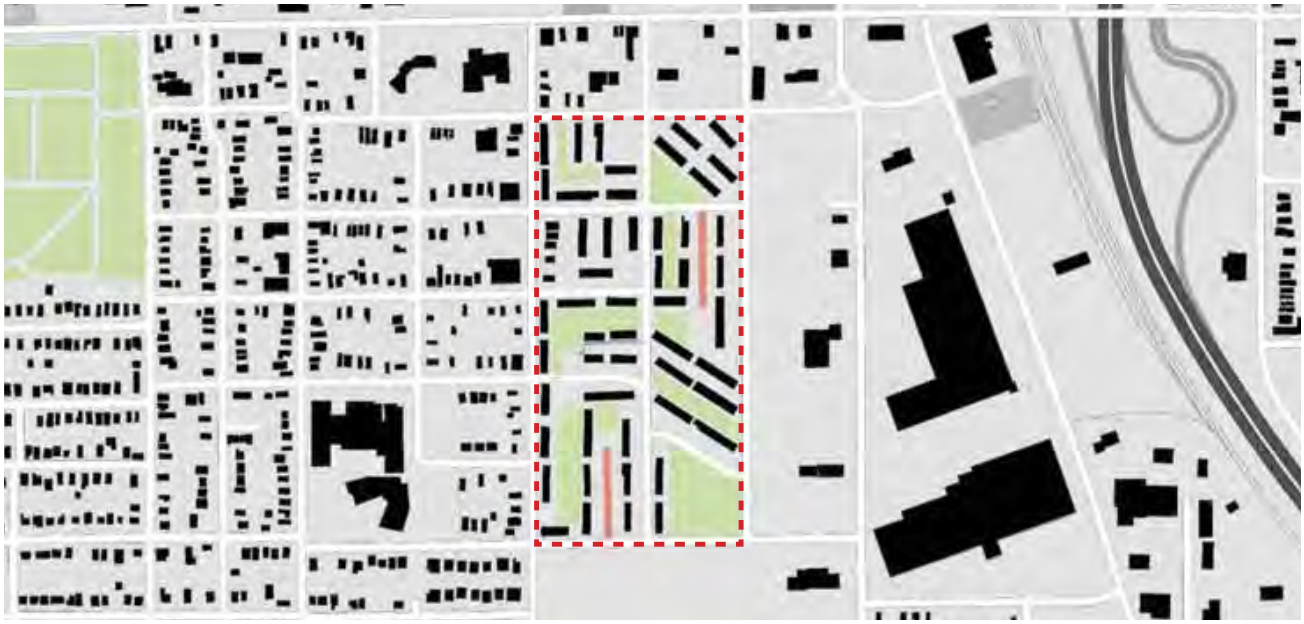


Figure 01. Figure Ground Diagram of Southside Terrace, South Omaha, Omaha, NE
Source: Google Maps, modified by Lanning

Orenco Station, Portland, Oregon - 1995

"New Urbanism"



Comparing Orenco Station, Oregon to Southside Terrace:
-Dwellings are organized around greenspaces, with their fronts facing streets and/or common spaces.
-Along arterial roads which see higher speeds, pedestrian pathways are offset further from the street.
-Large networks of pedestrian pathways promote pedestrian safety and walkability.
-Increased building density and smaller lot size maximizes room for public space.
-A mix of housing types is employed: apartments, cottages, lofts, townhouses. (Stanilov & Scheer, 2004)

Figure 02. Figure Ground Diagram of Orenco Station, Portland, OR
Source: Google Maps, modified by Lanning

Inquiry: How does the community morphology around Southside Terrace compare to innovative suburban communities?
Key Extractions: Buildings, Parks, Streets
Methodology: Case Studies were found from literature; maps were created using Google Maps manipulation and Photoshop.
Conclusions: Compared to contemporary suburban developments, Southside Terrace and its surrounding neighborhood contrast greatly. Most notably is the lack of centralized public common space/s, which in turn informs building layout. The shown communities utilize small and large green space as central gathering spaces, they minimize streets by using cul-de-sacs or more dense building-street configurations, they're compositionally more organic rather than gridded, and lastly, they maximize pedestrian walkability with greenbelts, large sidewalks, and/or more pedestrian right-of-way. While larger in size, these examples of innovative suburban community developments can be studied, researched, and compared for the redesign of Southside Terrace and it surroundings to create a more efficient, sustainable, and livable community.

Radburn, Fair Lawn, New Jersey - 1928
"The Garden City"



Figure 03. Figure Ground Diagram of Radburn, Fair Lawn, NJ
Source: Google Maps, modified by Lanning

Comparing Radburn, New Jersey to Southside Terrace:
-Cul-de-sacs minimize bisecting roadways and organize the building layout. In turn, with the density of dwellings, public space is maximized.
-A large network of connected pedestrian greenbelt and public space to the back of the residents' creates a central gathering space.
- Houses face the street maximizing visibility and access
(Birch, 1980)

Highpoint, Seattle, Washington - 2004
"Sustainable Urbanism"



Figure 04. Figure Ground Diagram of Highpoint, Seattle, WA
Source: Google Maps, modified by Lanning

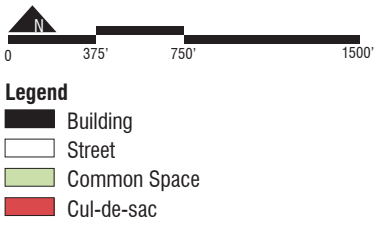
Comparing Highpoint, Washington to Southside Terrace
-Increased building density allows for more public space.
-The community is organized around large green space, while each block is organized around smaller green spaces.
-Sustainable, eco-friendly technology and greenspace is implemented to reduce storm runoff and promote the growth of native ecosystems.
(www.seatlehousing.org, 2016)

About the Communities:

Orenco Station, Portland, OR: Started in 1995, this transit oriented, new-urbanist development was planned to have around 1800 housing units across 200 acres calling on a design scheme similar to that of early 20th century garden cities. Utilizing smaller lots, this community seeks to minimize land use and promote more shared greenspace. (Stanilov & Scheer, 2004)

Radburn, Fair Lawn, NJ: Started in 1928, the Radburn neighborhood, a western suburb or New York City is one of the earliest examples of community planning. While vehicles were the primary design consideration of this community, the ideas of the neighborhood planning unit and garden city are in full force. The community of around 650 housing units features a network of pedestrian paths and greenspace and is one of the first communities to use cul-de-sacs. (Birch, 1980)

Highpoint, Seattle, WA: Redeveloped beginning in 2004, the Highpoint neighborhood in Seattle is a prime example of the sustainable urbanism movement. Spread across 120 acres, the redesign of what was partially 716 public housing units calls for 1700 affordable housing units, 425 of which are run by the Seattle housing authority. The core idea behind the community is low impact sustainable design, healthy living, and accessible community services. (www.seatlehousing.org, 2016)



Southside Terrace Lacks Adequate Usable Central Common Space

Analysis of community planning precedents shows Southside Terrace lacks thoughtful site design and usable exterior spaces

File name: W2_EL02_S2016_SST-Greenspace

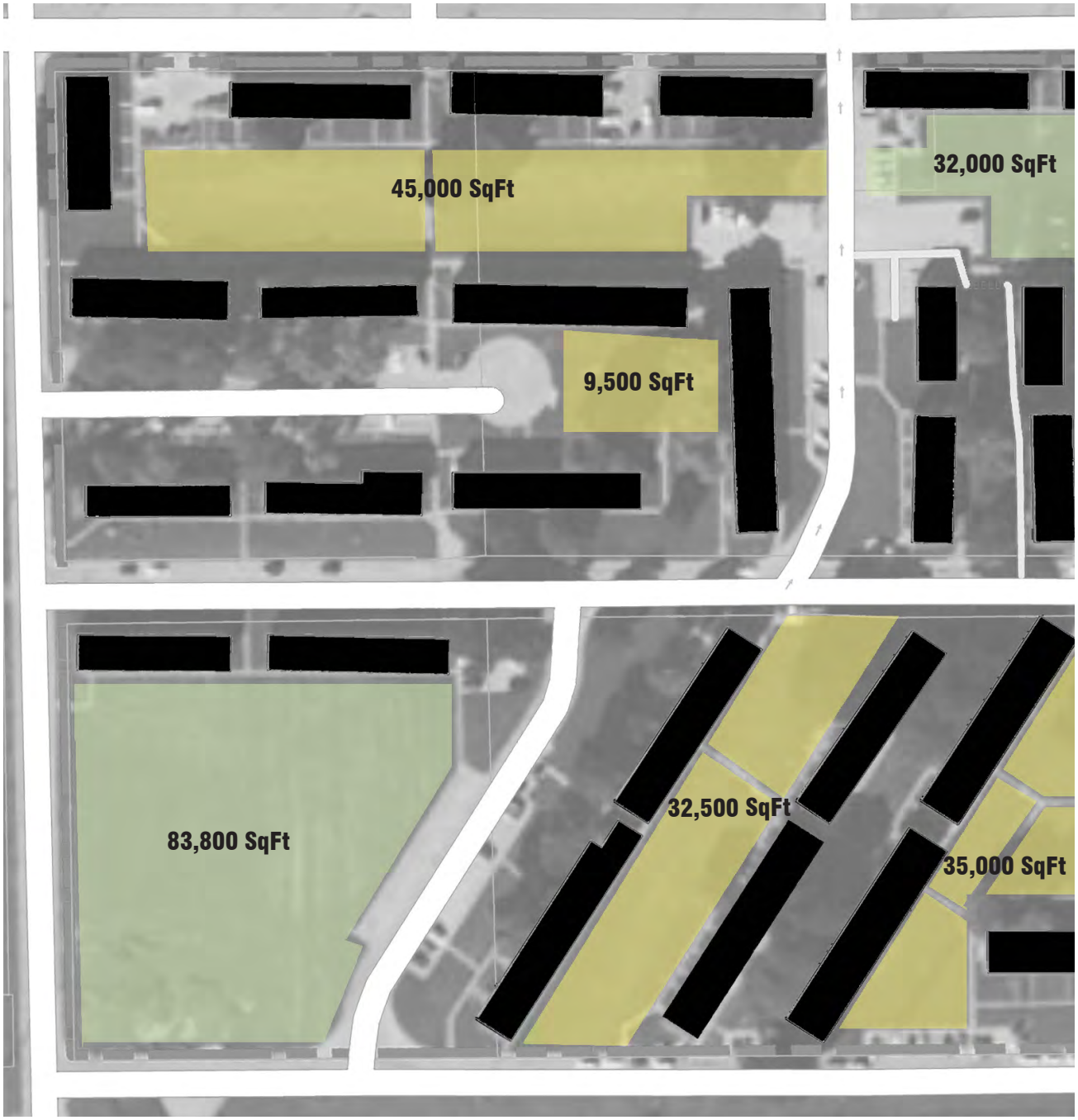
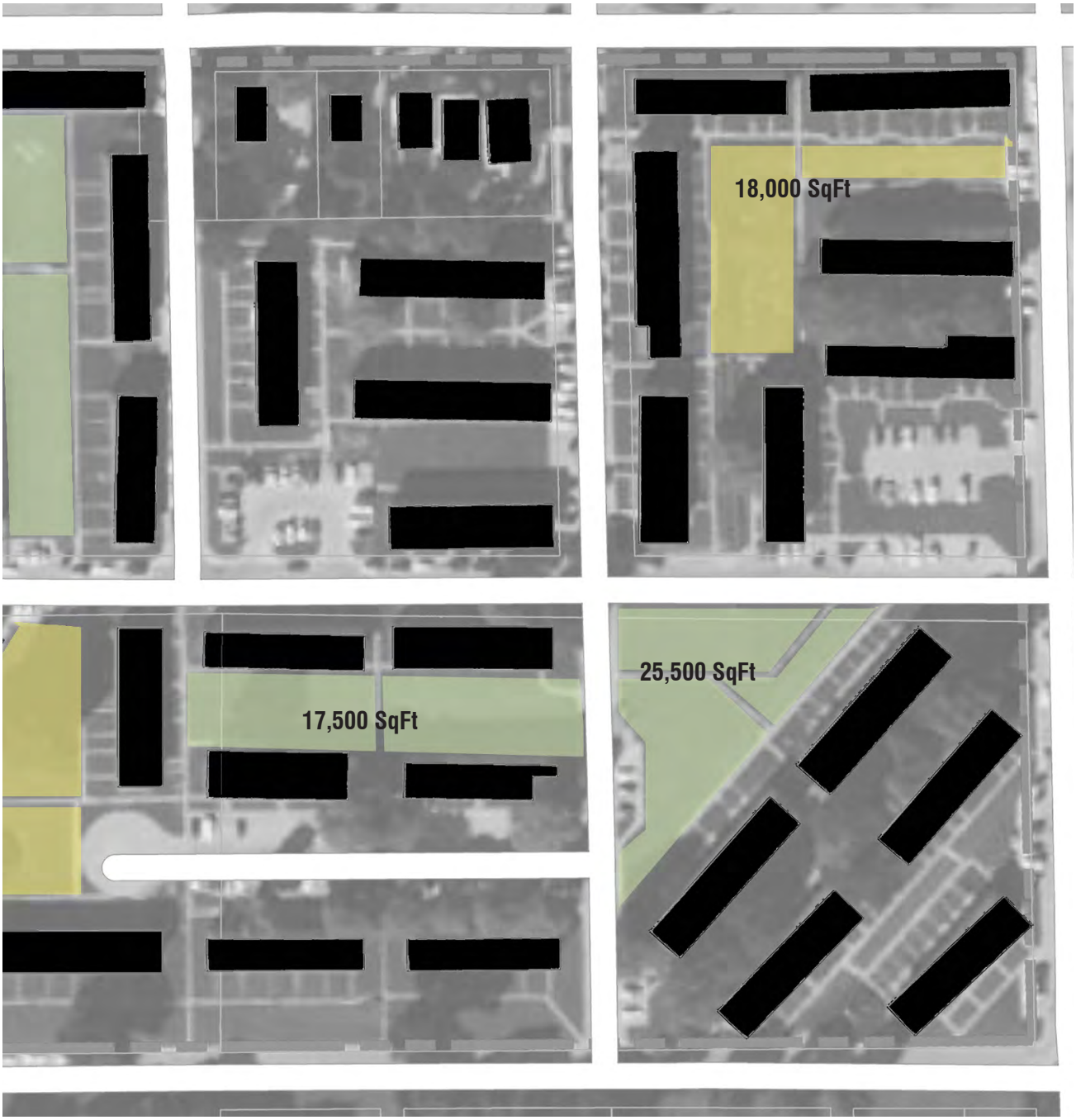
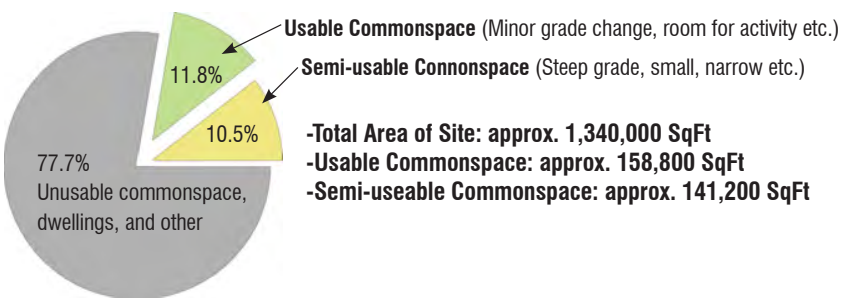


Figure 01. Figure Ground and Green Space at Southside Terrace
Source: Google Maps, Modified by Lanning

Inquiry: What is the composition of Southside Terrace's commonspace, and how much of that space relative to the total area of the site is useable?
Key Extractions: Buildings, Streets, Commonspace
Methodology: Created with Google Maps manipulation and Photoshop. Square footage calculated with ESRI GIS.
Conclusions: After comparing the layout of Southside Terrace to that of other contemporary community designs, its clear that Southside Terrace lacks central common space/s that the building layouts revolve around. While Southside Terrace's buildings sit adjacent to commonspace, many of these spaces are limited in use as they are very fragmented and/or haphazard in configuration. Many are too small, intersected by pathways cutting through them, or or too steep to accomodate any adequate use.

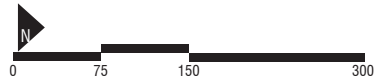




Usable Commonspace (Minor grade change, room for activity etc.)

Semi-usable Connonspace (Steep grade, small, narrow etc.)

-Total Area of Site: approx. 1,340,000 SqFt
-Usable Commonspace: approx. 158,800 SqFt
-Semi-useable Commonspace: approx. 141,200 SqFt



Legend

- Building
- Street
- Usable Common Space
- Semi-usable Common Space
- Unusable Common Space

How SouthSide Terrace Stacks Up

Comparing Southside Terrace's planning and design methods to other housing complexes

W2_AD01__ComparisontoOtherCities

Southside Terrace, Omaha, Nebraska

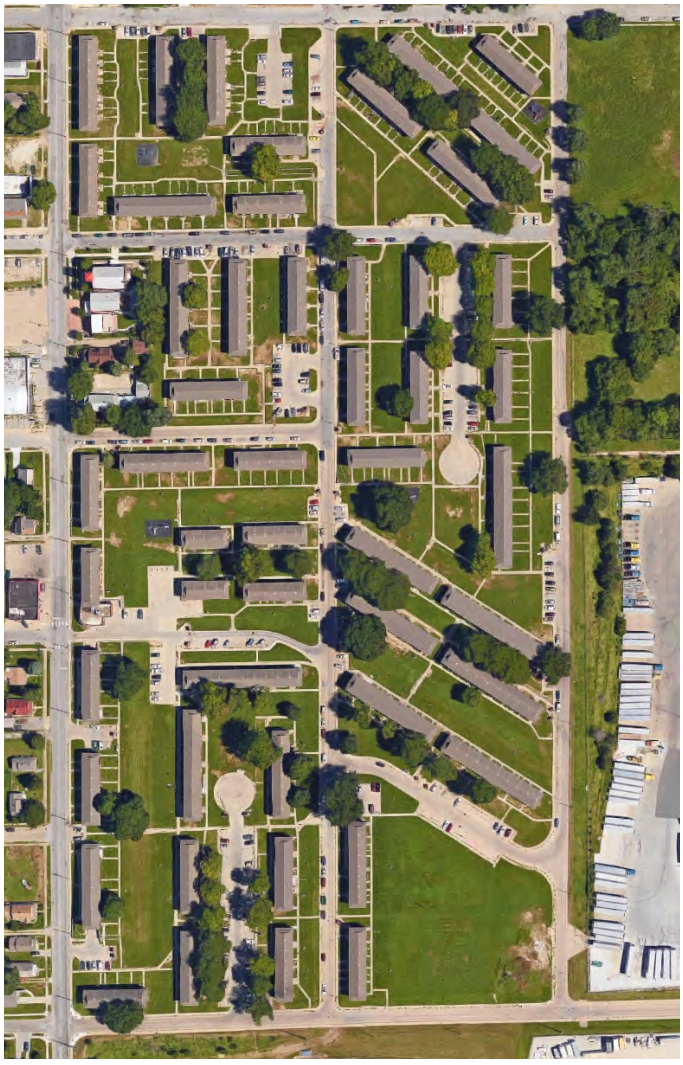


Figure 01. Southside Terrace
Source: maps.google.com



Figure 02. View of current Southside Terrace conditions
Source: Google Street View

Located in Southern Omaha, the public housing community of Southside Terrace contains 51 buildings, 362 units, and over 1200 residents. The two story buildings are typically oriented along a geometry which corresponds to the grid of the Omaha street system, while some buildings are angled at approximately 45 degrees from the grid. Adjusting to the topography of the site is thought to be the rationale for building arrangement. It can be seen that some structures face each other, the road, or the back of another building, without consistent rationale as to why. The road network contains both one way and two way streets and can make way finding through the site difficult. One way streets were introduced for security concerns and patrolling. Accessibility concerns throughout Southside are present due to the large changes in topography (ohauthority.org).



Figure 03. Image showing steep slopes at Southside Terrace
Source: Google Street View

Inquiry: How does Southside Terrace compare to other public housing communities?
Key Extractions: Comparing building and planning models of public housing
Methodology: Online research of cities with comparable population and similar public housing structure design. Google maps was used to idenify key design characteristics.
Conclusions: Conclusions drawn from map include ideas of spatial planning methods of buildings and green spaces. When looking at a variety of other projects, building diversity improves the overall aesthetic of the site. This diversity includes a mix of housing types (single family detached and attached, multi-family, apartments, etc.), a mix of incomes, and a variety of planning methods as to not create monotony throughout the site. Successful precedents feature, public transit modes having frequent stops within walking proximity.



Figure 04. Parkview Terrace
Source: maps.google.com

Parkview Terrace: Tulsa, Oklahoma



Figure 05. Conditions of Parkview Terrace
Source: maps.google.com

The City of Tulsa's public housing was chosen due to similarities with Omaha's population as well as their similar geographic location in the Midwest (census.gov). Comparisons can be drawn in the building form and lack of a unified planning method. Green spaces are unintentional in form and do not directly encourage recreational activity. The main roadway restricts and controls access to the site as to not allow unwanted visitors. Parkview Terrace offers many after school activities for children as well as programs for parents (tulsahousing.org).

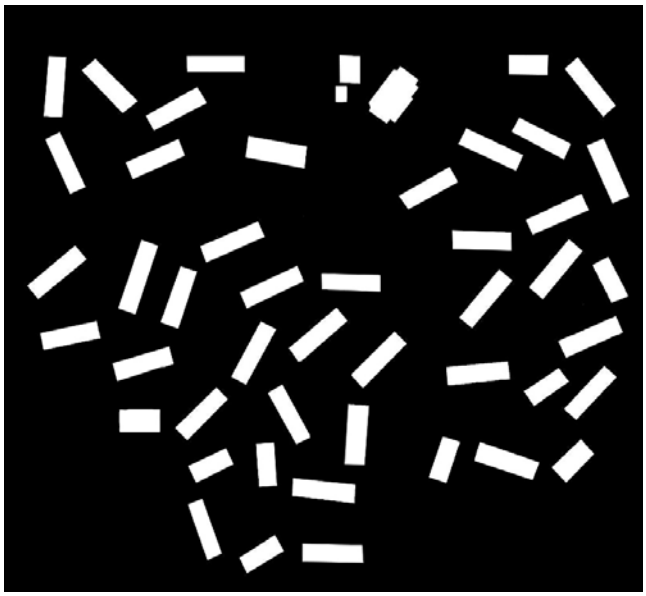


Figure 06. Unorganized Building Planning
Source: maps.google.com, Modified by Anthony DePriest

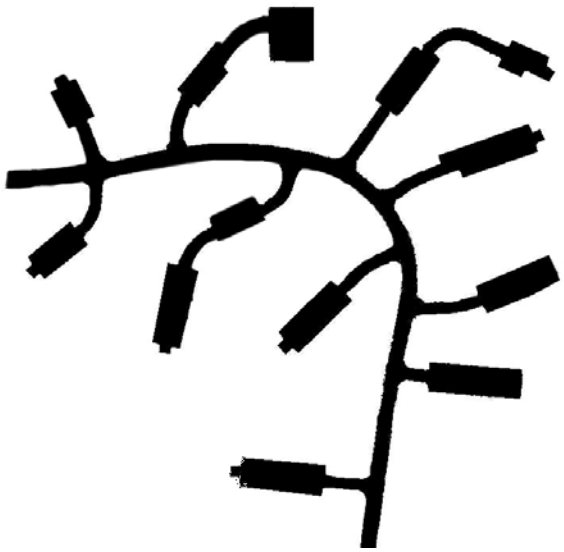


Figure 07. Disconnected Road Network
Source: maps.google.com, Modified by Anthony DePriest

Unsystematic Structure Arrangement
The randomly placed building layout lacks consistent planning model and implies little thought about outdoor space programming. Recreational areas are left-over, odd shaped spaces between buildings. With no planned recreation area, children and adults are less likely to be active, contributing to an unhealthy life style and higher obesity rates.

Potentially Dangerous Road Conditions
The road and parking lot layout provides users of the site difficulty in accessing some residential dwellings and has the potential to be dangerous during an emergency. Due to the "dead-end" parking organization, emergency vehicles can easily be blocked from reaching their destination.

How SouthSide Terrace Stacks Up

Comparing Southside Terrace's planning and design methods to other housing complexes

W2_AD01_4K_ComparisontoOtherCities

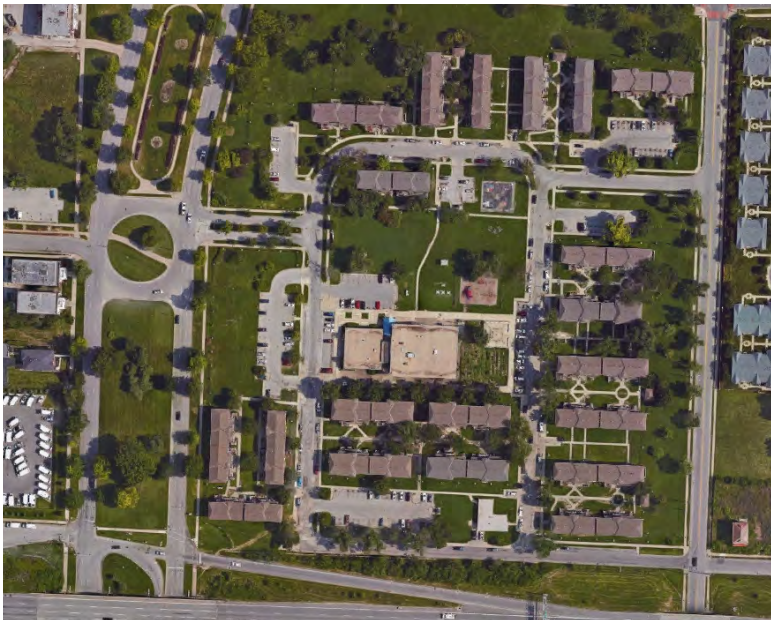


Figure 08. Theron B. Watkins Homes
Source: maps.google.com

Theron B. Watkins Homes: Kansas City, Missouri



Figure 09. View of the Theron B. Watkins Homes
Source: Google Street View

The Theron B. Watkins Homes in Kansas City, Missouri offer traditional apartment housing as well as townhouses. A community center is located on site with recreational activities for children, childcare, and after-school activities. The "clone stamp" building layout allows for quick construction but reduces design aesthetics (hakc.org).



Figure 10. Key Concepts Drawn through the Design of the Theron B. Watkins Homes
Source: Map from maps.google.com, modified by Anthony DePriest

Pros and Cons of Theron B. Watkins Homes

The orientation of the buildings perpendicular to the road provides numerous instances where sight lines are reduced and dark spaces adjacent to the sidewalk are created at night. This is problematic for safety concerns by promoting areas where crime can exist and reducing the ability of patrol cruisers chasing down a culprit. The centrally located recreation and community center encourages children to be active and supplies services to the community.



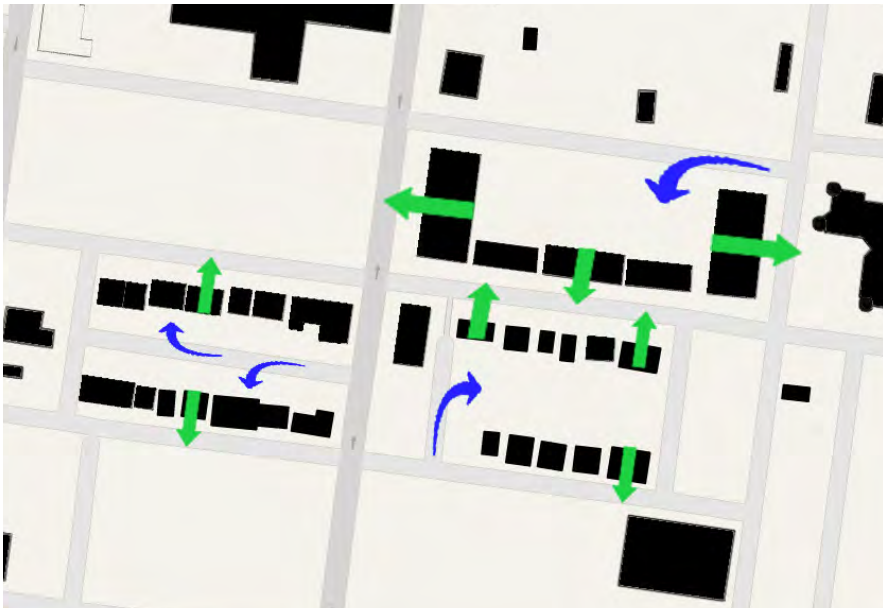
Sheppard Square: Louisville, Kentucky

Louisville is home to one of the most progressive public housing programs in the nation. The blocks of Sheppard Square are diverse in income and housing types, with apartments, duplexes, and single family homes on individual blocks (lmha1.org).

Figure 11. Sheppard Square
Source: maps.google.com



Figure 11. Mixed Residential Sturctures
Source: Google Street View



Planning Principles of Sheppard Square
This Louisville community is designed around the traditional city block. The various building types are organized so that they create an outward facing street wall, rather than traditional public housing establishments which are inwardly facing. This outward orientation creates a greater sense of security due to the principle of natural surveillance. Parking for residents is supplied through a back alley or parking lot, which reduces traffic along the streets creating a safer environment for children.

Figure 10. Key Concepts Drawn through the Design of Sheppard Square
Source: Map from maps.google.com, modified by Anthony DePriest

How SouthSide Terrace Stacks Up

Comparing Southside Terrace's planning and design methods to other housing complexes

W2_AD01_4K_ComparisontoOtherCities



Figure 14. Becontree Community
Source: maps.google.com

Becontree: Dagenham, UK



Figure 16. Rowhomes at Becontree
Source: Google Street View

The Becontree development in Dagenham, England, is comprised of dense cottages and narrow streets. The public housing, or council housing, is the largest such development in the UK, containing over 100,000 inhabitants and contains over 27,000 units. Street layout and planning has no standard form or pattern and the methodology is unknown (Gee, 2014).

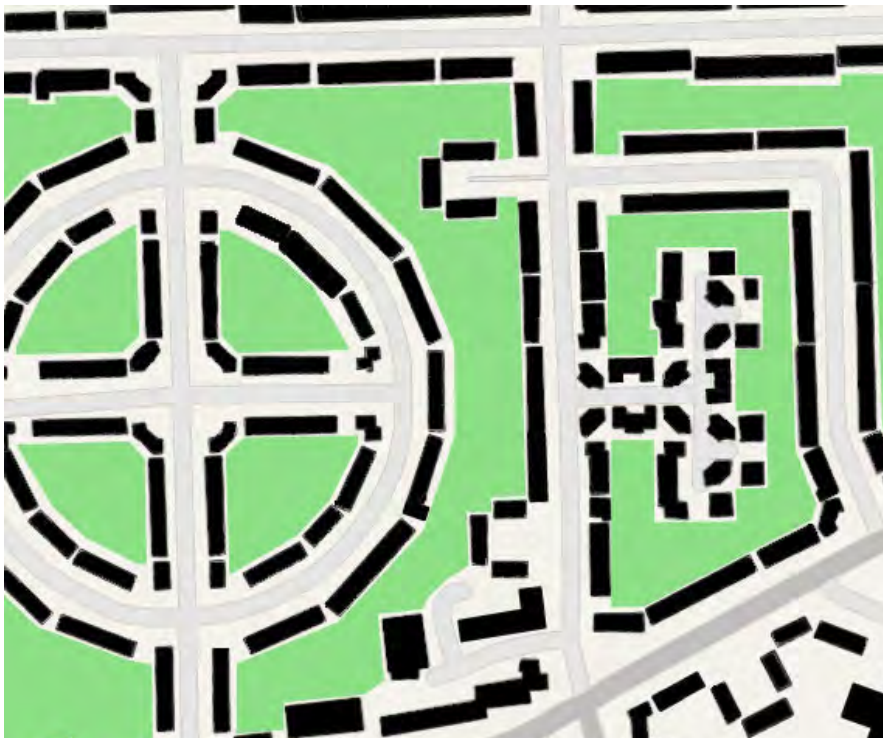


Figure 15. Private Gardens at Becontree
Source: map from maps.google.com, Modified by Anthony DePriest

Creating Density and Private Gardens

This public housing development in England creates private gardens for each household. Private gardens would allow residents to have their own private outdoor area at the cost of possible public recreation spaces. The increase in private inhabitant-dedicated outdoor space would also permit more residents to obtain and care for pets. The density of the housing allows for a greater collection of usable outdoor areas without so much being "leftover" from building arrangements.

Lessons From Public Housing in Other Cities

Several extracted lessons might be appropriate for Southside Terrace

W2_AD02_500_LessonsLearned

Lessons From Parkview Terrace - Tulsa, Oklahoma

Street and building planning methods at the Parkview Terrace public housing community appear to be disconnected and haphazardly scattered throughout the site. An organized planning effort can encourage outdoor activities, increase safety, and influence the design behind the structures to create a higher aesthetic appeal.

Gird Layout
Improved Way-Finding
Increased Site Lines

Potentially Faster Driving Condition

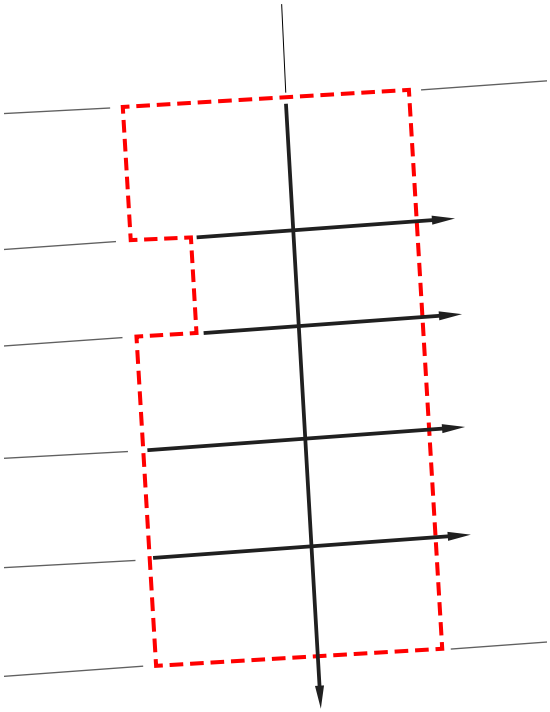


Figure 01. The Creation of Crossroads
Source: Created by Anthony DePriest

Lessons From Theron B. Watkins - Kansas City, Missouri

At the Theron B. Watkins homes in Kansas City, Missouri, a centrally located space provides the inhabitants of the community with a variety of services. The central structure supports child care, tutoring, and after school activities. An outdoor green space is located adjacent to the community center and contains a playground and a large field for both organized and unorganized recreation.

Centralized Community Amenities
Equal Proximitey for All Residents

Primarily for Community Residents Only

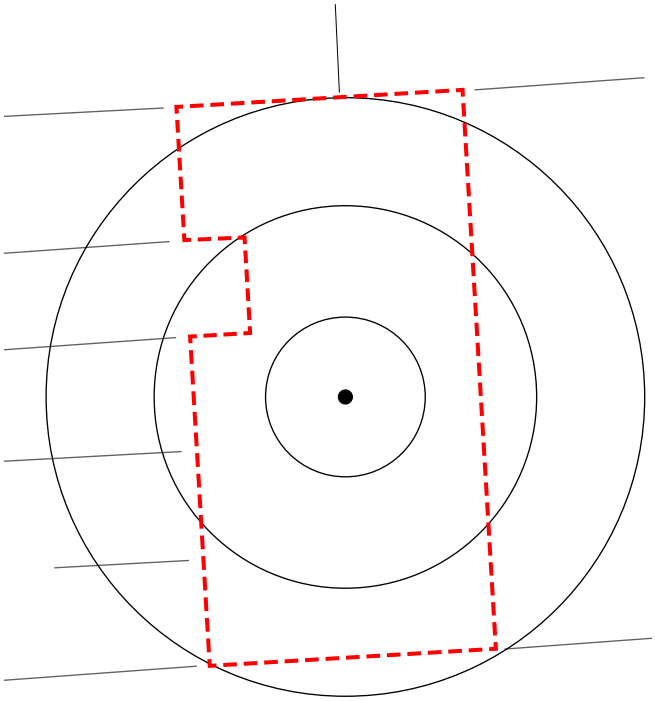


Figure 02. Centralized Community Amenities
Source: Created by Anthony DePriest

Inquiry: What can we learn from previous public housing community developments?
Key Extractions: Planning methods of a verity of cities
Methodology: I looked at a variety of different public housing projects and synthesized what worked and what did not work. The key extractions were mapped through the use of ArcGIS and Illustrator.
Conclusions: Many ideas can be drawn from previous public housing community developments. The most fundamental effort made in a new public housing development should revolve around the initial planning model and methodology. If the community lacks a care of design and critical thinking, then the chances of the project being considered “successful” or “highly rated” greatly decrease.

Lessons From Sheppard Square - Louisville, Kentucky

Planning methodology at the Sheppard Square in Louisville consists of have mixed income housing incorporated with public housing. The community contains apartment buildings and single/multi family homes. These structures all face the street to create a “street wall” and a unique identity for the community.

Buildings Facing Streets
Increased Safety
Variety of Housing

Mixed Income could Displace Public Housing Population

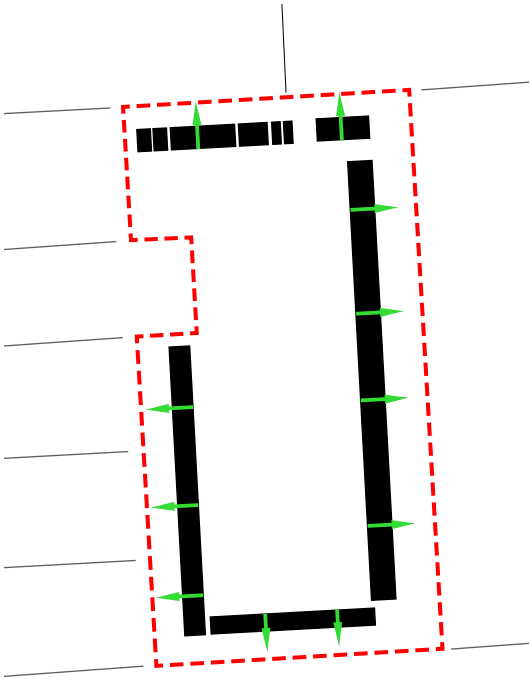


Figure 03. Outward Facing and Mixed of Incomes
Source: Created by Anthony DePriest

Lessons From Becontree - Dagenham, UK

Although Becontree is outside the United States, many lessons can be learned from the development. One such lesson is the use of individual private outdoor spaces. This could create a sense of ownership leading to a greater sense of pride within the community. This would also allow spaces for residents to care for pets.

Private Space
Sense of Ownership
Allows Pets

Maintenance

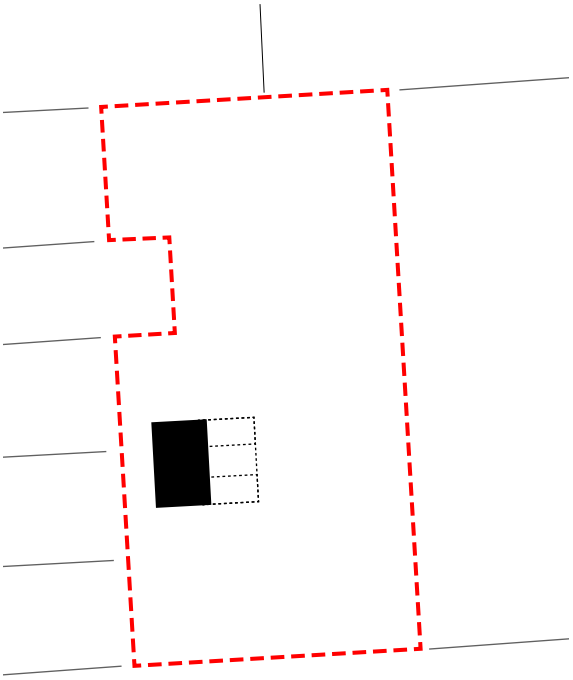


Figure 04. Privatizing Some Public Space
Source: Created by Anthony DePriest



Successful Public Housing Communities Have Enclosed & Centralized Outdoor Parks

Enclosed and centralized parks create a sense of privacy and community at the core of the public housing neighborhood

W3_AL01_400_SuccessfulPublicHousingBuildings.PDF

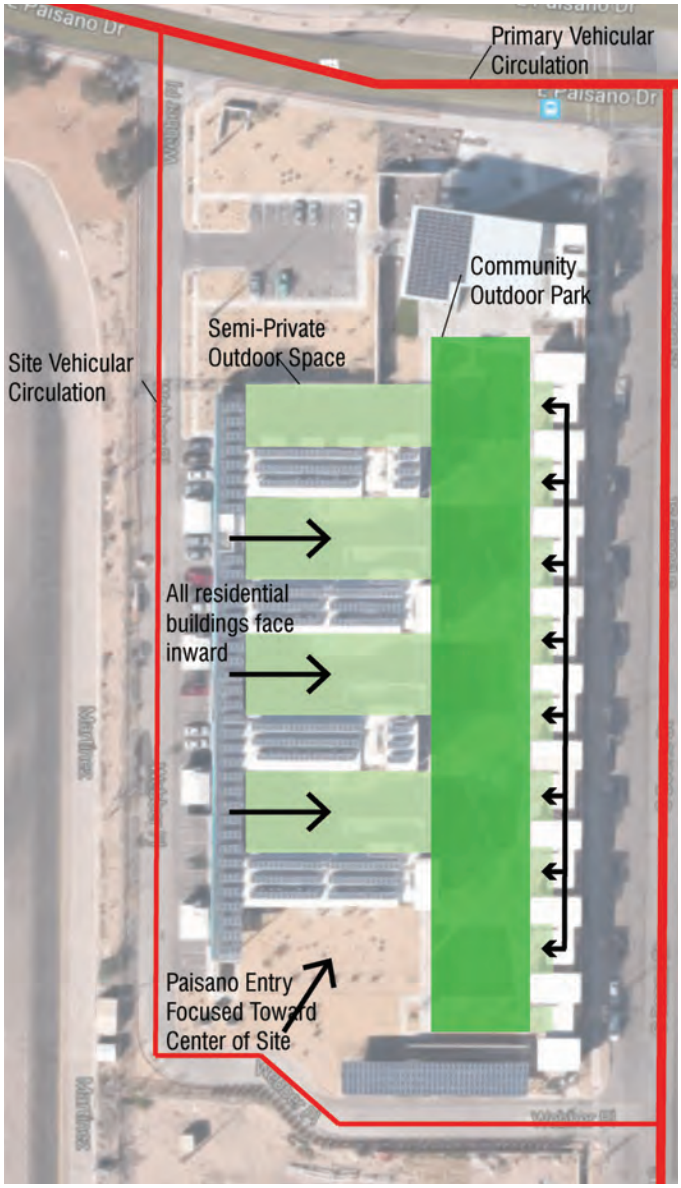


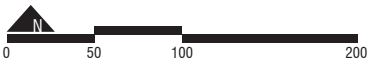
Figure 1.0. Paisano Green Community: Building layouts and orientations, and outdoor spaces with varying degrees of enclosure are shown at Paisano Green Community, a Senior Housing Project in El Paso, Texas. All residential buildings are oriented inwards and face their backs to the surrounding streets and neighborhood.
Source: Andrea Lemken 2016



Figure 1.1. Centrally located community park at Paisano Green Community. Paisano is the first Net Zero, fossil fuels free, LEED Platinum, affordable housing community in the United States (Housing Authority of the City of El Paso, 2016).
Source: Ramerez 2012



Figure 1.2. Semi-private outdoor gardens with patios located between each building nook.
Source: Ramerez 2012



Inquiry: How do different building footprints, layouts, and orientations affect the outdoor spaces within the housing community?
Key Extractions: Building layouts and orientations, locations of outdoor spaces, site context
Methodology: Precedents of different public housing communities across the United States were examined by studying the building layouts and orientations, and the outdoor spaces which were located throughout the neighborhoods.
Conclusions: At Paisano Green Community, the implementation of a centrally located park, which is enclosed by surrounding buildings, creates a successful community space which is easily accessible to all residents living at Paisano. The buildings also create different degrees of enclosure for residents to enjoy semi-private outdoor spaces. At Capitol Park, the majority all residences have direct access to semi-private outdoor space or to a community park. A relationship is created between each single-family home by placing the backs of the homes to face each other. The front of the each building type at Capitol Park also maintains a relationship with the street it faces by having open lawns and welcoming building entries. By surrounding all of the Hilliard Homes community with parks, paths, and plazas, all residential buildings have equal access to outdoor community spaces.



Figure 2.0. Capitol Park: Building layouts and varying types of outdoor spaces are shown at Capitol Park, a mixed use housing community in Raleigh, North Carolina.
Source: Andrea Lemken 2016

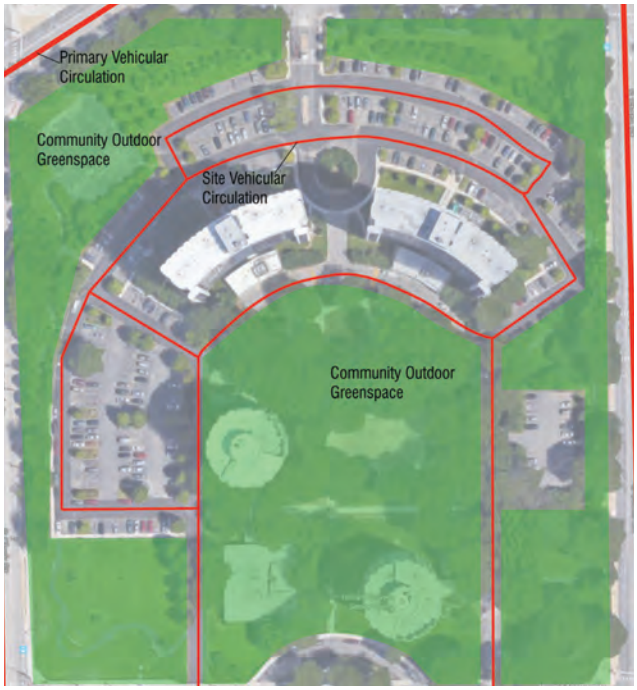


Figure 3.0. Hilliard Homes: Building layouts and community outdoor spaces at Hilliard Homes in Chicago, Illinois.
Source: Andrea Lemken 2016

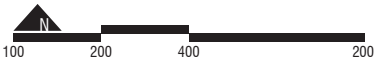


Figure 2.1. Centrally located community park at Capitol Park.
Source: Capitol Area Development 2009



Figure 3.1. Tower locations at Hilliard Homes.
Source: Google Earth 2016





Legend

- Community Outdoor Greenspace
- Semi-Private Outdoor Greenspace
- Primary Vehicular Circulation
- Vehicular Circulation within Paisano

Centrally Focused Outdoor Parks are Disconnected from Context

A community looses opportunity for street activity and connections with surrounding buildings when focused inward

W3_AL02_DilemmaMap.PDF

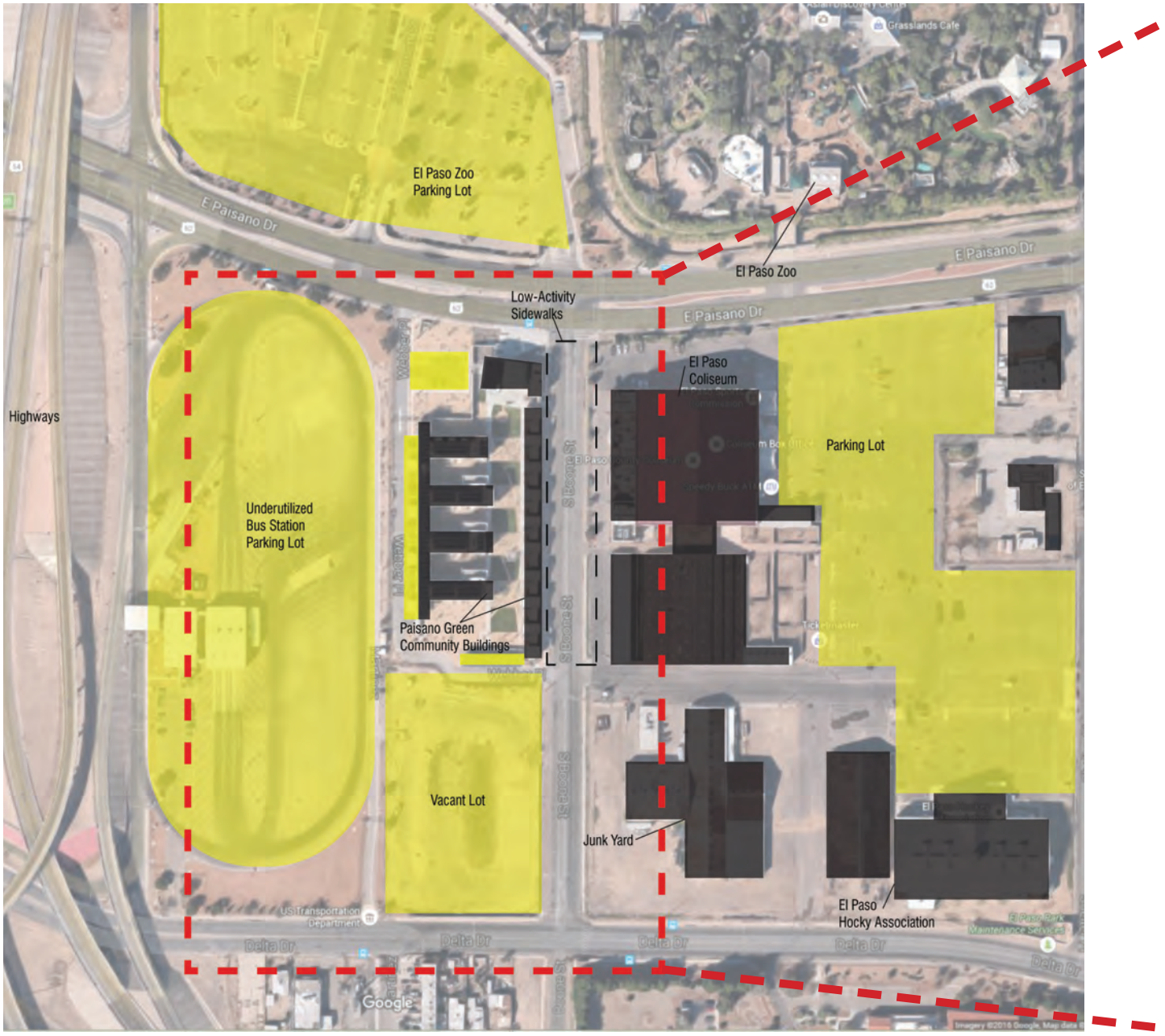


Figure 1.0. A comparison between the amount of parking lots, vacant lots, and building space around the Paisano Green Community site.
Source: Andrea Lemken 2016

Inquiry: What is the relationship between a site and its surrounding neighborhood when the site is focused inward toward outdoor spaces?
Key Extractions: Building layouts and orientations, locations of outdoor greenspaces, surrounding neighborhood context
Methodology: The use of Paisano's neighboring sites was studied to understand the relationship between Paisano Green Community and the surrounding neighborhood.
Conclusions: Every building at the Paisano Green Community faces inward to enclose its outdoor community park. The streets which surround Paisano are low on activity because there are no unit entrances from the public street and every site amenity is located within its gates. This concentrated inward focus creates a reduction in the connection between site and the surrounding neighborhood which leads to under-utilized streetscapes.

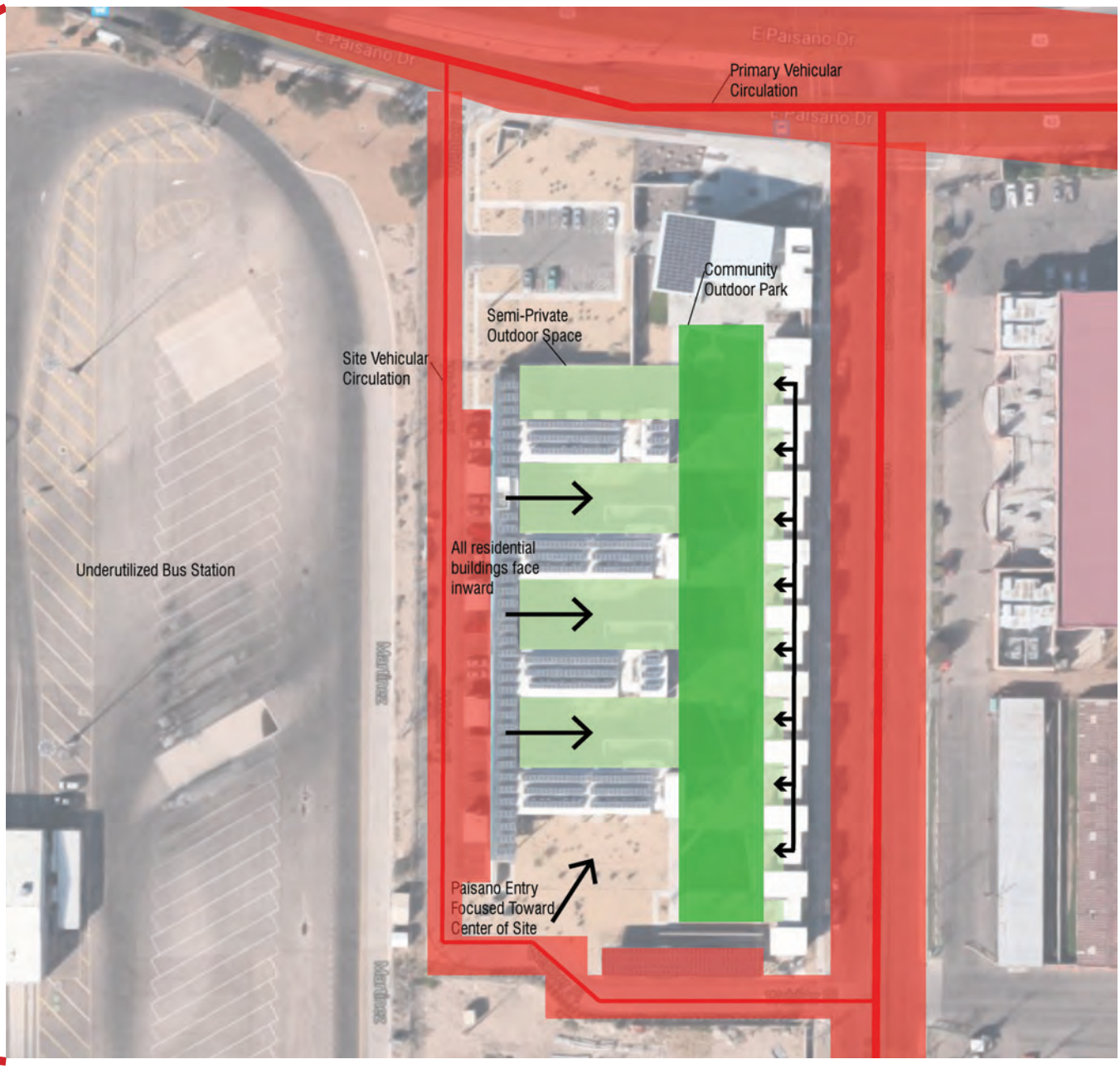


Figure 1.1. The inward facing orientation of all the buildings at Paisano Green Community results in under-utilized streetscape and a loss of connection between the Paisano Community and context. Source: Andrea Lemken 2016

N

0 50 100 200

Legend

- Community Outdoor Greenspace
- Semi-Private Outdoor Greenspace
- Surrounding Streets which Paisano Buildings Face Away From
- Buildings
- Parking Lots

Mixed-Use & High-Density Housing Creates Connections to Surrounding Neighborhood

The integration of mixed-income families and different building types leads to more connections

W3_AL02_OpportunityMap.PDF



Figure 2.0. Building layouts of Capitol Park showing different building uses, and the location of outdoor community and semi-private spaces. Source: Andrea Lemken 2016

Inquiry: How do mixed-income and high-density housing units affect the community of public housing neighborhoods?
Key Extractions: Building layouts and orientations, locations of outdoor greenspaces, building type and use
Methodology: The use of each building and the type of all buildings were studied. The relationship between building types and outdoor greenspaces was considered when analyzing the level of accessibility that each building type had to community and semi-private outdoor greenspaces.
Conclusions: In both case studies, the neighborhoods are mixed-use, and have mixed-income living and different building types. The dispersal of different building types and building uses allows a chance for every resident to have equal access to outdoor greenspace. At Capitol Park, at least one of each building type is located within one block of the centrally-located community park. This allows for any resident wishing to live at Capitol Park to have the potential to live in a home that is within close distance to the community outdoor greenspace. The integration of building types and family incomes increases the community bonds by giving equal opportunity to all residents. At Hilliard Homes, the use of towers for residential living gives equal opportunity for all residents to have access to its outdoor parks and plazas. By surrounding the gated community with parks and recreational spaces, a transition is formed between the site and its neighborhood, which increases connectivity between the two.



Figure 3.0. Building layouts of Hilliard Homes showing different building uses and outdoor greenspace locations.
Source: Adapted by Andrea Lemken 2016



Legend

- Outdoor Community Greenspace
- Semi-Private Outdoor Greenspace
- Community Building
- Town Homes
- Single-Family Homes
- High-Density Apartment Buildings
- Senior Housing
- Indicates Mixed-Income Living

Integration of Mixed-Incomes Can Increase Options for Affordable Housing

Residents looking for affordable housing will have more options and opportunities in communities with mixed-income living and different building types

W3_AL03_StrategyMap.PDF

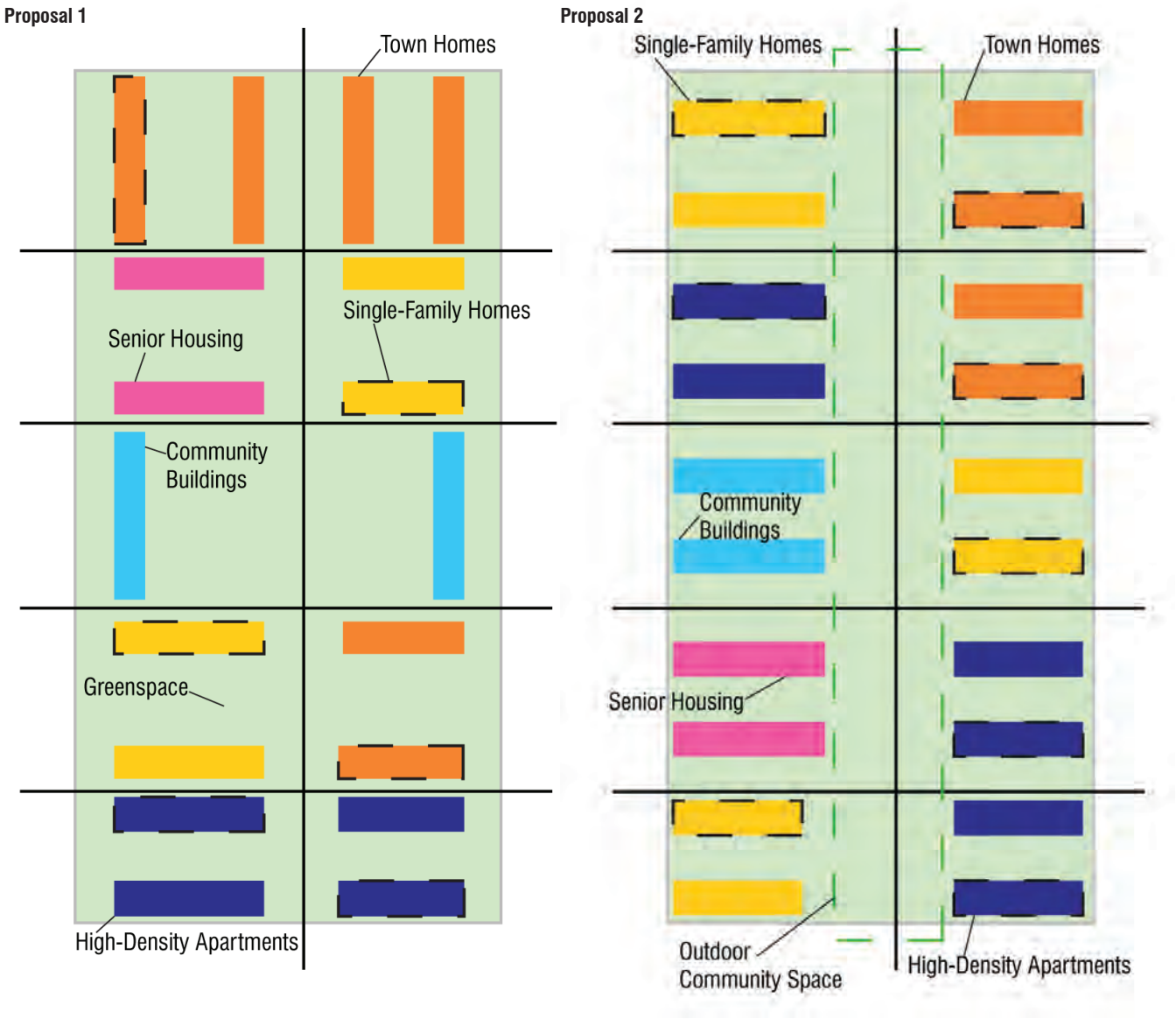


Figure 1.0. Two proposed strategies for the redevelopment of Southside Terrace.
Source: Andrea Lemken (2016)

Inquiry: What can mixed-income housing offer to potential and existing residents?
Key Extractions: Building layouts and orientations
Methodology: Successful strategies from the public housing precedents were selected to create an abstraction of a proposal for Southside Terrace.
Conclusions: The use of mixed-income housing and different building types allows for potential and existing residents to have more opportunities and choices when deciding to live at Southside Terrace. By surrounding Southside Terrace with green streetscapes and parks, the buildings along the border of the site will have a better relationship with the surrounding neighborhood by creating a transition zone between the streets and the site. The use of centrally located parks and plazas allows for easy access by all residents across the site. Having a variety of housing types, such as apartments, town homes, single-family homes, and senior housing, a wide range of age groups will be attracted to live at Southside Terrace. This would give the opportunity to a resident to potentially change housing types while still living within the same community if desired.



Figure 2.0. Single-family homes at Capitol Park in Raleigh, North Carolina.
Source: J. Davis Architects (2011)



Figure 3.0. Town homes facing centrally located community outdoor space at Capitol Park in Raleigh, North Carolina.
Source: J. Davis Architects (2011)

Key Strategies Used from Precedents

- Different housing types and housing densities
- Mixed-income living
- Green streetscapes
- Buildings oriented toward the street to create relationship
- Buildings facing each other to increase safety
- Buildings shaped around centrally located parks and plazas
- Dedicated senior housing
- Varying degrees of outdoor spaces for private use and for community use

Legend

- Greenspace
- Community Building
- Town Homes
- Single-Family Homes
- High-Density Apartment Buildings
- Senior Housing
- Indicates Mixed-Income Living

Southside Terrace Has Little Internal Street Frontage Consistency

Inconsistency applies to both the peripheral and internal streets

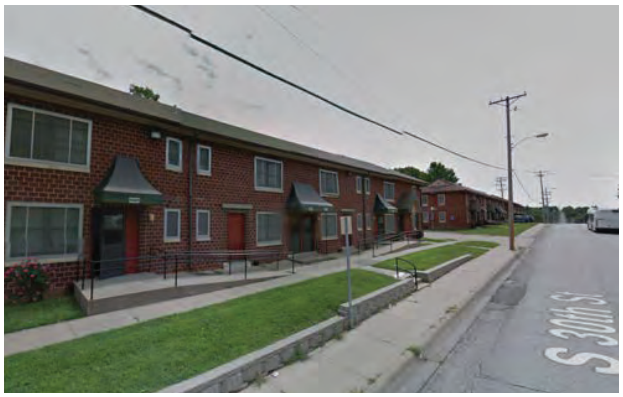
W3_JS01_300_SSTInternalEdges.PDF



Figure 01. Southside Terrace Street Edges
Source: ArcGIS, "Building_Footprints_2010, Street Centerlines," Modified by Josh Sundine

N
0 150 300 600

Inquiry: What are the internal edges of streets at Southside Terrace?
Key Extractions: Building Footprints, Street Center Lines, Southside Terrace Boundary, Views of Different Edge Types
Methodology: After gathering information of building footprints and streets, the sense of edges could be determined by the alignment of building to street relationships. The delineation of edge types are based upon relativeness of each classification.
Conclusions: Southside Terrace has no sense of arrival when entering into many of the access points. The edges along any streets are not consistent throughout the 30-acres. Strong edge boundaries are created by buildings placed parallel to the street. Moderate edges are defined, but do not have a strong sense of edge because of building setbacks. Weak edges most commonly found are buildings that are aligned perpendicular to the nearest street. Edges that do not have any type of boundary does not give any sense of threshold



Strong Edge (02)
Figure 02. Strong edge along S. 30th St. is created from a close building relationship to the street and public domain of building front
Source: Google Street View



Moderate Edge (03)
Figure 03. Moderate edge along S 28th St. is created from offset of building relationship to street and private domain of building back
Source: Google Street View



Weak Edge (04)
Figure 04. Weak street edge along S 28th St. from perpendicular orientations of buildings. Most occur due to topography
Source: Google Street View



No Edge (05)
Figure 05. No physical feature defines the edge on W St. and S 28th Ave
Source: Google Street View

Legend
- Strong Edge (parallel to street)
- Moderate Edge (Parallel, but far set-back)
- Weak Edge (perpendicular to street)
- No Edge
- Building Footprints
- Street Center Lines

Southside Terrace Has Diverse Adjacent Land Uses and Edge Conditions

Inconsistent peripheral edge conditions created by separate structures, set-backs, and topography

W3_JS02_300_SSTExternalEdges.PDF

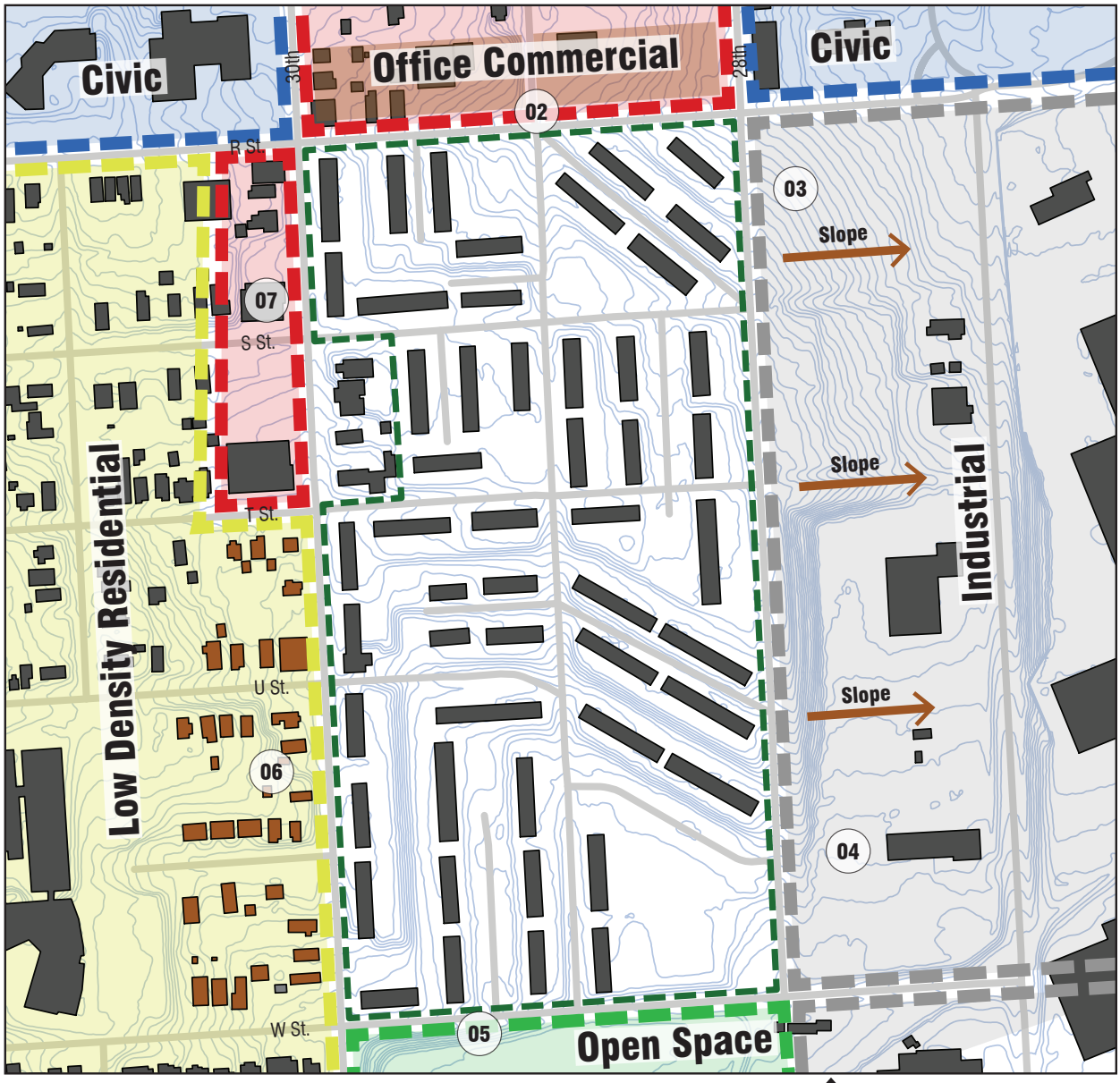


Figure 01. Southside Terrace External Edges
Source: ArcGIS, "Building_Footprints_2010, Street Centerlines, Future_Land_Use_Omaha" Modified by Josh Sundine

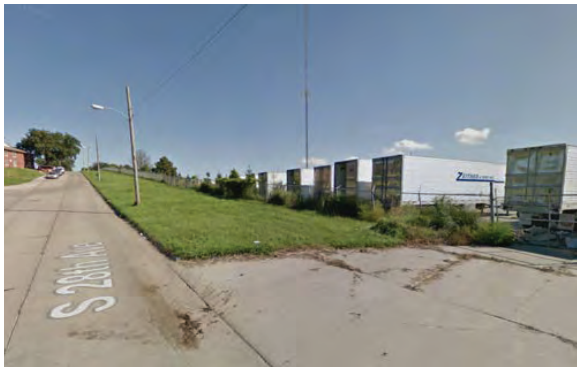
Inquiry: What are the edge conditions along peripheral streets at Southside Terrace?
Key Extractions: Building Footprints, Street Center Lines, Land Uses, Views of Surrounding Edges
Methodology: Surrounding land uses and topography were graphically depicted on a figure-ground map to show key relationships between building edges and the surrounding context. Google Streetview images were then selected along the periphery streets further illustrate the edge conditions around the site.
Conclusions: The blocks surrounding Southside Terrace are highly variable in terms of visual character. The northern edge consists of commercial buildings with poor views and conditions. The eastern edge consists of a downward slope leading towards industrial buildings, with distant views of the other side of the valley. The southern edge consists of open recreational fields in poor/moderate conditions and the seven year old Kroc Recreation Center. The western edge consists of a mixture of residential and commercial buildings with vacant lots in moderate condition.



Northern Edge (02)
Figure 02. Mixture of commercial buildings and vacant lots
Source: Google Street View



North Eastern Edge (03)
Figure 03. The block along the northeast edge is an open field that overlooks industrial buildings and distant residential neighborhoods
Source: Google Street View



South Eastern Edge (04)
Figure 04. The block along the southeast edge of Southside is a storage yard for semi trailers
Source: Google Street View



Southern Edge (05)
Figure 05. The block along the southern edge looks over recreational fields out towards the Kroc Center
Source: Google Street View



South Western Edge (06)
Figure 06. The southwestern edge consists of 1-2 story low density residential.
Source: Google Street View



North Western Edge (07)
Figure 07. The land use along the northern edge 30th St. is office commercial. The buildings are a mixture of commercial and residential types
Source: Google Street View

Legend

- Industrial
- Open Space
- Low Density Residential
- Off-Site Influences
- Office Commercial
- Civic

Strong Edge Priority to Enhance Street Quality

On-site and off-site influences create a complex understanding for future improvements to Southside Terrace

W3_JS03_300_SSTStreetPriority.PDF

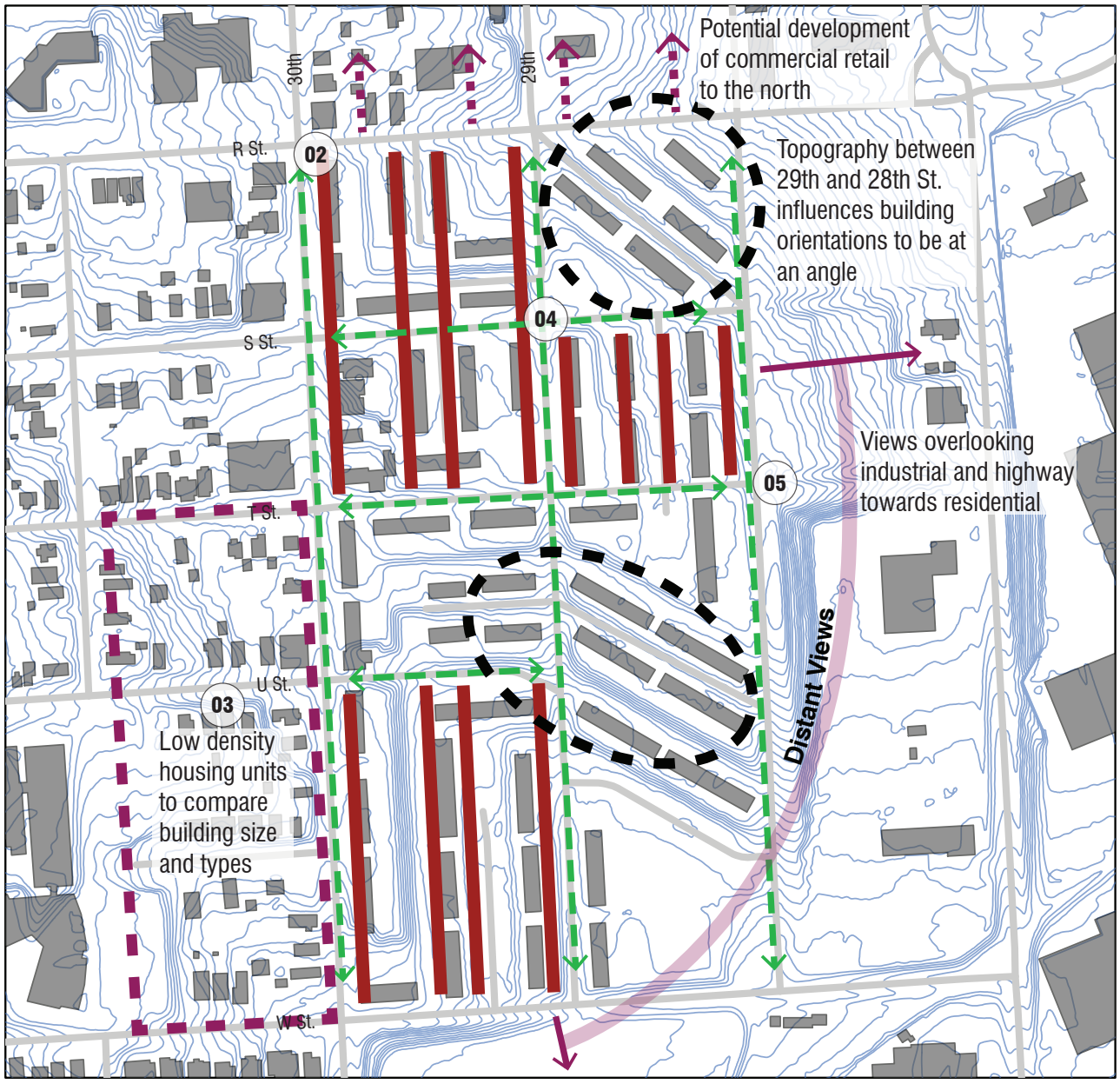


Figure 01. Southside Terrace Edge Opportunities
Source: ArcGIS, "Building_Footprints_2010, Street Centerlines, 2ft_Contours" Modified by Josh Sundine

Inquiry: What opportunities can create a holistic design, addressing the complex relationships?
Key Extractions: Building Footprints, Street Center Lines, Contours, Southside Terrace Boundary
Methodology: After identifying the existing edge conditions of Southside Terrace, a reorientation of buildings was applied to a figure ground and topography map to illustrate the potential dilemmas and opportunities that come with the restructuring of building to street relationships.
Conclusions: The redesign of Southside's edge consistency can improve the overall aesthetic and function of the site. Reorienting buildings so that they are parallel with the existing grid of streets can improve many of the underlying problems that currently affect the site such as visual sight lines, lack of mixed-use development, context separation, and overall views in and out of the site. Figures 2-4 illustrate opportunities to create stronger building to street relationships.

Opportunities at Southside Terrace



Figure 02. The corner of R St. and S 30th St. is highly visible to many drivers and provides an opportunity for way finding.
Source: Google Street View, modified by Josh Sundine



Figure 03. Residential housing across 30th St. illustrates the stark difference in building types that exist compared to Southside.
Source: Google Street View, modified by Josh Sundine



Figure 04. S 29th St. is a desirable location residential developments since the street runs through the entirety of the site and easily accessible.
Source: Google Street View, modified by Josh Sundine



Figure 05. The edge on 28th St. has opportunities for good views with a proper management of vegetation
Source: Google Street View, modified by Josh Sundine

Legend

- Orientation of Gridded Streets
- Dilemmas Caused by Topographical Changes
- Areas of Opportunity
- Contours
- Orientation of Buildings to Street Grid

Introducing Multiple Street Types Can Improve Southside Terrace

Street types and orientation can benefit pedestrian safety and edge consistency.

W3_JS04_300_SSTStreetSafety.PDF



Figure 02. New Street and Building Layout with Minimal Grading Change
Source: ArcGIS, "Building_Footprints_2010, Street Centerlines," Modified by Josh Sundine

Inquiry: What street type and orientation can enhance the safety and livelihood of Southside Terrace?
Key Extractions: Building Footprints, Street Center Lines, Precedents of Street Types
Methodology: From the National Association of City Transportation Officials book, *Urban Street Design Guide*, a list of street designs for urban settings. Based upon the location and size of Southside Terrace three street types were selected that would best fit Southside Terrace. After selecting the three types, the goal of laying out streets and buildings was to keep a minimum change to the grading and the existing street patterns. To consider the existing topography problems, space between buildings is allowed to not disrupt the street organization.
Conclusions: The combinations of yield street, neighborhood street and green alley throughout Southside Terrace creates a hierarchal system of street layouts. Aligning the streets and buildings in the same orientation allows for a densification of buildings, allowing for more open community green space throughout Southside Terrace. The system between streets and buildings in Figure 02 reflects the existing topography maintaining a minimalistic design that does not involve regrading the entire site.



Yield Street

2-way yield street used in residential environments expect drivers to drive at low speeds. Mixture of off-street and on-street parking utilization of 40-60% or less (NATCO, 2013).

- Minimum intrusion of driveway on sidewalk
- Provide safe and inviting places to walk and good access to local amenities
- Planting zones create opportunities for street trees, bioswales, pervious strips, and rain gardens

Figure 03. Yield Street
Source: Urban Street Design Guide, 2013, pg. 17. Modified by Josh Sundine



Neighborhood Street

Local streets in residential neighborhoods often under utilize spaces for play and leisure. Combining stormwater management features, curb extensions, vertical speed control elements, and bicycle facilities encourage safe speed and meter through traffic (NATCO, 2013).

- Differentiated lanes encourages lower travel speeds and reduce crash rates as lane width decreases.
- Left-side bike lanes reduce the risk of dooring conflicts and are an effective treatment for most neighborhood streets.
- Raised crosswalks or curb extensions maintain safe travel speeds and reinforce the residential nature of the street.

Figure 04. Neighborhood Street
Source: Urban Street Design Guide, 2013, pg. 16. Modified by Josh Sundine



Green Alley

Residential alleys have low traffic volumes and infrequent repaving cycles, resulting in uninviting or unattractive space. Green alleys use sustainable materials, pervious pavements, and effective drainage to create an inviting public space for people to walk, play, and interact (NATCO, 2013) .

- Pedestrian-scale light fixtures that focus their illumination toward the ground and minimize light pollution are recommended.
- Alley greening and maintenance may be initiated and carried out by local residents or neighborhood associations.
- Alleys may be operated as pedestrian-only environments or as shared streets. Use bollards, signs, and design features that make clear the intended alley users.

Figure 05. Green Alley
Source: Urban Street Design Guide, 2013, pg. 24. Modified by Josh Sundine

Building Orientation is highly variable at South-Side Terrace

Existing Site Condition with Building Orientation and Spacing Using on existing South-Side Terrace

W2_WS01_300_ClassificationMap.PDF



Figure 1. Building Orientation, Space Using and Circulation
Source: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”

Inquiry: What are the current building facing and spacing using in South-Side Terrace?
Key Extractions: Building front, Circulation, Clothing Wire Place, Parking, Dumpster
Methodology: After visiting South-Side Terrace and doing inventory, on circulation and building orientation, the spacing between each building and access to the site.
Conclusions: The existing site has covered a lot amount clothing hanging space that not a lot people are using it. Building orientation is not consistent, there are small area of front porch and has large back side building area which is covered with clothing hanging and without wire.



Figure 2: South-Side Terrace housing front side building photo view
Most of the buildings are facing the street, and has a small front porch area, some people are having some planting in front of the buiding. (Sun, 2016)



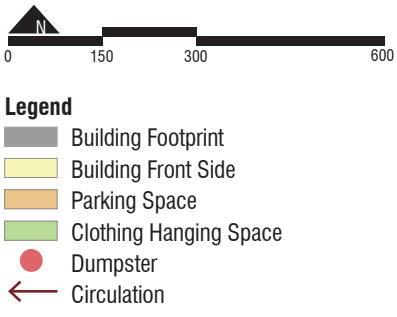
Figure3: South-Side Terrace housing back side building photo view
There are large area of clothing hang place at back side of the building, most of them area empty without wire on it. Only few people are still using it. (Sun, 2016)



Figure 4: South-Side Terrace Road
Most of the road are one way access, and has parking along the road. Some the parking are 45 degree angle parking, some of the parking are parallel parking along the street. (Corrie, 2016)



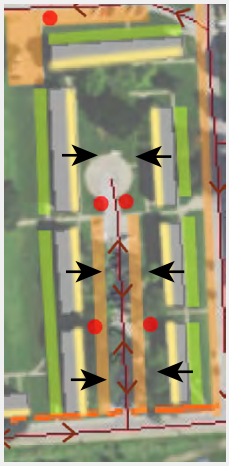
Figure 5: Building Front Green Space
Some of building are facing to a large green space with steep slope. People are using the green space for relaxing and enjoing the shade in the summer. The steep slopes limit activity. (Sun, 2016)



Inconsistent Building Configurations Create Poorly Designed Public Space

Site building has three types of configuration

W2_WS02_70_DilemmaMap.PDF





Building Facing Front to Front

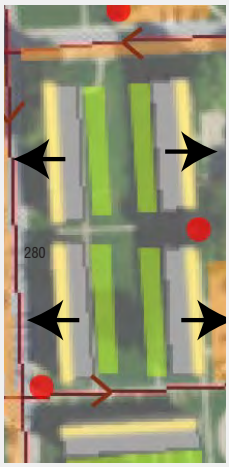
Using for Public Space

Building facing front to front can create a public space bewteen building, the space can be used for parking, or be used as a front proch for children to play.

Green Space defined by front side of building

Street defined by front side of building

Figure1: Source: ArcGIS "Building Footprint_2010","Douglas_Contors_2010"





Building Facing Back to Back

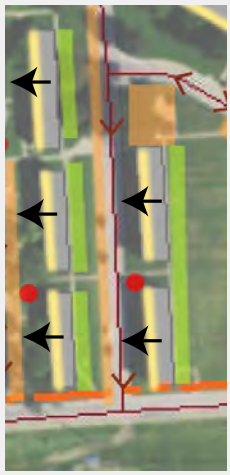
Using for Private Space

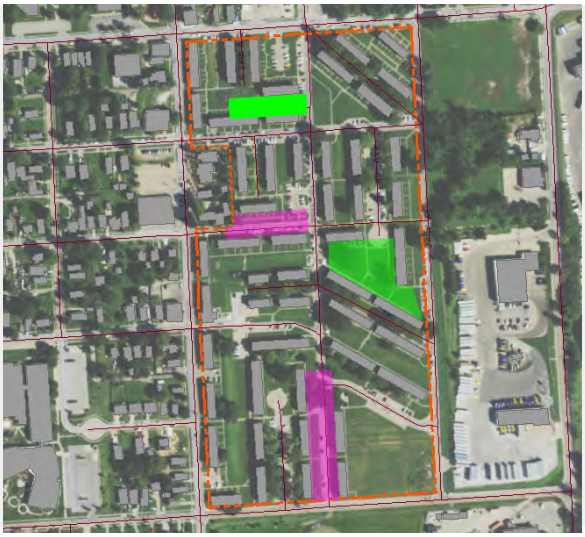
Building facing back to back can create a private space, it can be used as a backyard for children to play, if it is a green space, it can be a place for people to relax

Green Space defined by front side of building

Street defined by front side of building

Figure2: Source: ArcGIS "Building Footprint_2010","Douglas_Contors_2010"





Building Facing Front to Back

Poor condition, hard to define space

Building facing front to back is hard to create either public space of private space. This type of building configuration should be avoid in future design.

Green Space defined by front side of building

Street defined by front side of building

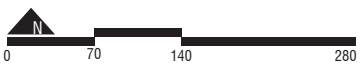
Figure3: Source: ArcGIS "Building Footprint_2010","Douglas_Contors_2010"

3 Types of Building Configuration On the Site



South-Side Terrace has three types of building configuration, and they are inconsistent mixed locating on the site.

Figure4: Source: ArcGIS “Building Footprint_2010”,”Douglas_Contors_2010”



Inquiry: How dose building configuration affect space forming?
Key Extractions: Building Configuration facing front to front, back to back, front to back.
Methodology: Using google Map to define three types of housing configuration. Then using Google Earth to look at each housing facing to.
Conclusions: Building configuration is not consistent at South-Side Terrace. There are 3 types of the configuration on the site, building orientation facing front to front, can be used as a public space for each building. Building facing back to back, the space building between can be defined as a private space on the site, so the building should not face to a street, facing to a green space is good condition. The building configuration facing front and back, is hard to define a space, it lacks privacy also can not be used as public space. In the future design, we need to avoid building configuration to be front facing back, and building back side facing street, try to design green space to provide privacy.

Different Land Uses on all sides of Southside Terrace

Southside Terrace is surrounded on each edge by commerical, industrial, and residential.

W3_BN01_24K_AdjacentNeighborhoods.PDF

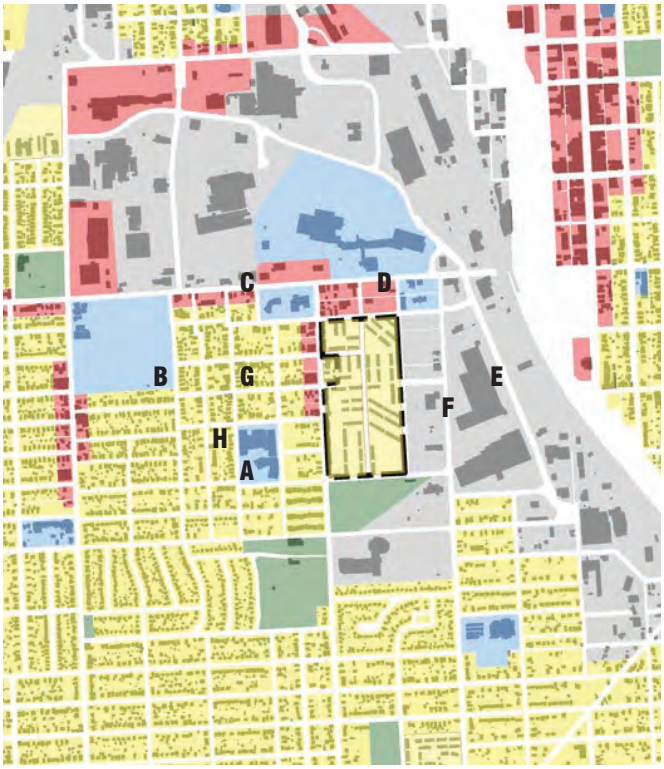


Figure 01. Adjacent Neighborhoods Context
Source: GIS, Google Maps

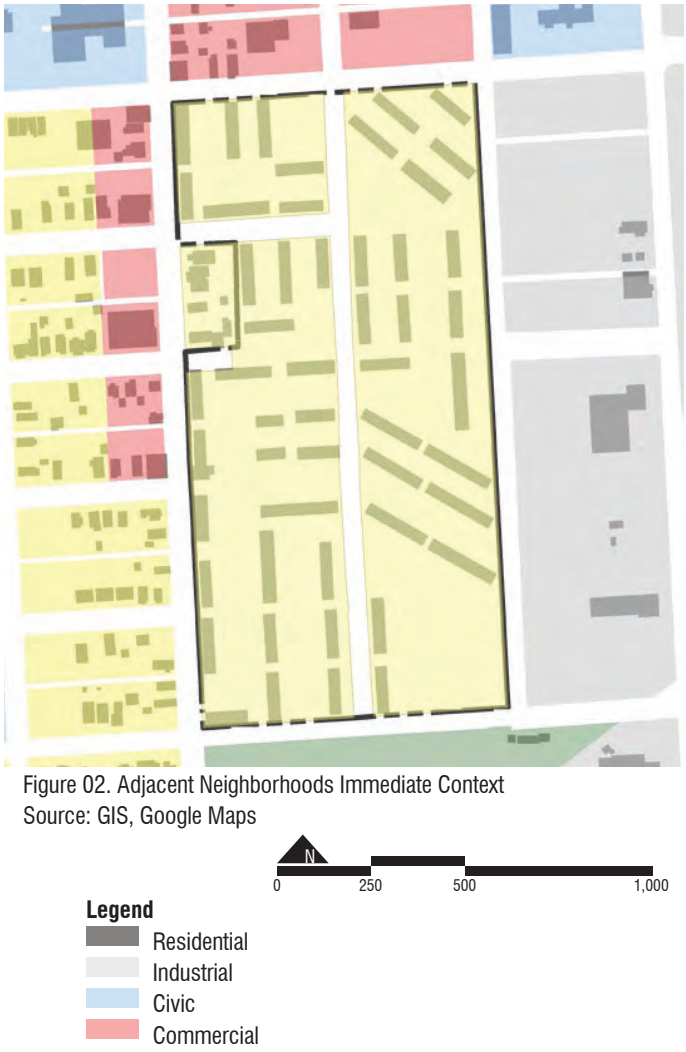


Figure 02. Adjacent Neighborhoods Immediate Context
Source: GIS, Google Maps

Inquiry: What are the characteristics of the surrounding neighborhoods?
Key Extractions: Vacant lots, industrial lots, residential characteristics
Methodology: Boundaries for each area were determined by aesthetic qualities, as well as by general use in the area. This was based off of observation with assistance from google earth and zoning information provided by GIS.
Conclusions: Southside Terrace is surrounded on all sides by the four different areas: residential, industrial, civic and commercial. This creates diversity and opportunity for the site. Each edge has a distinct visual quality as well as distinct zoning guidelines that regulate land use and site performance standards (Omaha Zoning Ordinance, 2006). There is clear evidence of care in the residential and civic areas. Evidence of care is less apparent in the industrial area, and the commercial area shows evidence of neglect. The commercial and industrial areas do not provide adequate safety for pedestrians due to the lack of a green buffer between the sidewalk and the street. Lastly, the commercial and industrial areas have a significantly low amount of usable green space, while the civic and residential areas have a fair amount.



Figure 04. View of Indian Hills Elementary School
Source: Google Earth (2014)



Figure 05. View of St. Mary's Cemetery
Source: Google Earth (2014)

Civic: Civic space is similar in views to residential space, it is rather kept with ample green and lawn space. Sidewalks are tucked behind a pedestrian buffer for safety. Zoning requires a maximum building coverage of 40% and the rest of the site to be maintained landscaping, this keeps sites pleasant to view.



Figure 06. View of Q Street to East
Source: Google Earth (2014)



Figure 07. View of Q Street to West
Source: Google Earth (2014)

Commercial: The street is lined with small businesses and restaurants with parallel parking on the south side of the street. The buildings are older and the sidewalks bump right up against Q Street with no buffer. The area is unkept, however, there are zoning requirements to control site maintenance. Commerical zoning allows for the site to be 70% building coverage, reducing green space.



Figure 08. View of Edward Babe Gomez Ave.
Source: Google Earth (2014)



Figure 09. View of S 27th Street
Source: Google Earth (2014)

Industrial: The industrial neighborhood is classified as heavy industrial and contains large buildings, chain-link fences, and parking lots. Sidewalks are placed directly against streets with no pedestrian buffer. Visually, the area is kept but there is no necessary zoning requirement for landscaping needs. Zoning allows for 90% of the site to be building coverage, reducing the sight of vegetation.



Figure 10. View of T Street to East
Source: Google Earth (2014)



Figure 11. View of S 32nd St, South of Indian Hills Elementary school
Source: Google Earth (2014)

Residential: Each house has its own character with a front porch, driveway and off-street parking. The street contains mature trees and ample sunlight, as well as a turf grass barrier between street and sidewalk. The sight is relatively kept, with traces of consistant usage. Zoning requires a maximum of 35% of the site to be building coverage, leaving ample room for vegetation and lawn space.

Q Street Becomes Important Factor for Southside Terrace

Q Street has opportunity to draw in people to site once revitalized

W3_BN01_6K_QConnection.PDF

Opportunity Map

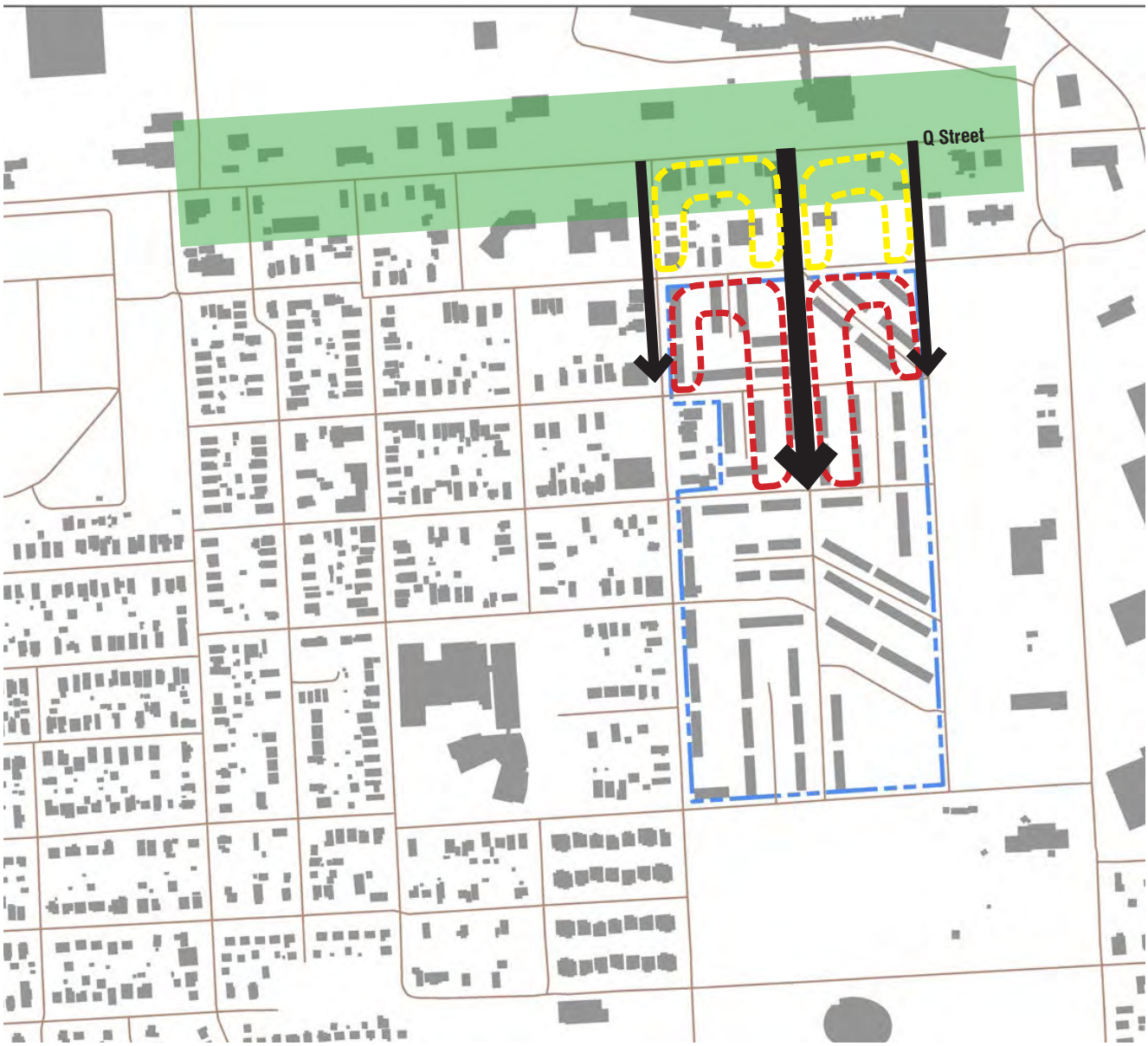
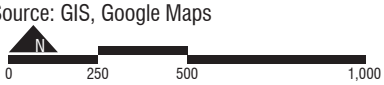


Figure 01. Q Street Opportunities
Source: GIS, Google Maps



Legend

- Q Street Connections
- Direct Opportunities (within Southside Terrace)
- Desired Opportunities (outside Southside Terrace)
- Future Opportunities

Inquiry: How can the connection to Q Street lead people to Southside Terrace?
Key Extractions: Direct Opportunities, Desired Opportunities, Future Opportunities
Methodology: By the use of site observation and google maps, the condition of the streets and buildings were determined.
Conclusions: There is an opportunity to leverage Q street and draw people to Southside Terrace due to high traffic and amount of usage. Entering the site from Q Street in three areas (S 30th St, S 29th St, and S 28th St), there is opportunity for S 29th St to become a “main street” when attracting people to the site. Along these three access point from Q Street will be opportunity for areas bordering the street to have business, restaurants, and other desirable locations for people to want to enjoy. The entry points are restricted to S Street for S 30th St and S 28th St entrances, and restricted to T Street for S 29th Street entrance due to topography. Southside Terrace slopes from North to South, therefore, once too steep of a hill, visitors entering by vehicle will have restricted view into the site.



Figure 02. Q Street Current Condition
Source: GIS, Google Maps

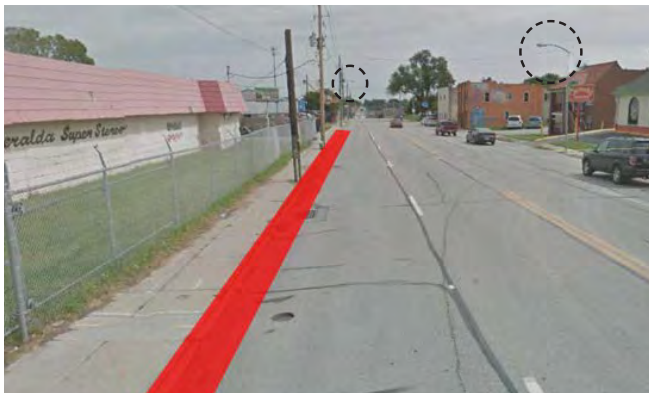


Figure 03. Sidewalk Safety
Source: Google Maps



Figure 04. Sidewalk Safety
Source: Google Maps



Inquiry: How does Q Street Impact Southside Terrace?
Key Extractions: Vacant lots, Abandoned businesses, Pedestrian Safety
Methodology: By the use of site observation and google maps, the condition of the streets and buildings were determined.
Conclusions: Because of the strong connection between Q Street and Southside Terrace, it is important that safety and preformance is improved. Currently, the sight of Q Street is controlled by vacant lots, abandoned businesses, and other unsightly views. The safety of Q Street is also a concern due to lack of lighting and pedestrian accessibilty. The sidewalks border directly against Q Street, without a buffer, making it unsafe for walkability. Q Street also lacks in crosswalks, which create challenge for crossing the street. The lighting along Q Street is sparce, only staggering street lights roughly every 100-150 feet. This will make it harder to see at night, and thus creating zones where pedestrians will feel unsafe.

Southside Terrace's "Main Street"

S 29th Street has opportunity to become a main street

W3_BN01_6K_MainStreetStrategy.PDF

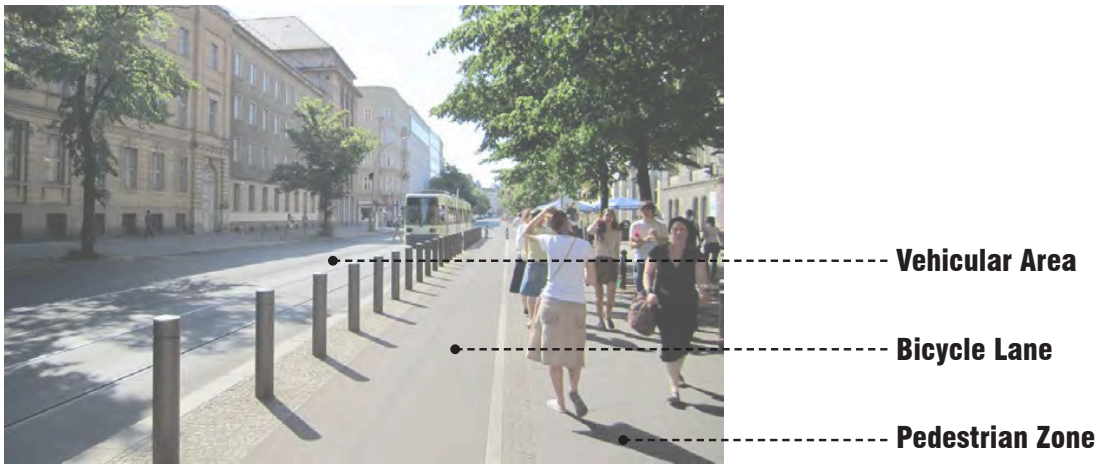


Figure 01. Complete Street
Source: (La Citta Vita, 2011)



Figure 02. Complete Street
Source: (La Citta Vita, 2011)

Inquiry: How can S 29th Street become a destination spot?
Key Extractions: Wide Streets, Outdoor space, Multi-Use spaces, Complete Street
Methodology: Building footprints and site boundary created in GIS, then layered with information in InDesign
Conclusions: Currently, S 29th St is not a destination. Therefore, by planning destinations and adding provisions for pedestrians, there is opportunity for activity on the streets. This will add ease of access as well as add bike lanes and buffer zones for pedestrians to safely walk parallel to the street. The idea of the complete street can be see in places such as Portland, Oregon. With the addition of multi-use buildings, the ground level of the building may be shops, cafes, or restaurants, and the upper levels be residences. This will allow for activation of the street by creating outdoor space for users to spill out onto large sidewalks, thus creating a public and interactive space for many different users as well as for residents of Southside Terrace.



Figure 03. Main Street Strategy
Source: GIS



Legend

- Complete Street
- Pedestrian Zone
- Hypothetical Building Footprint
- Entering from Q Street

A

Critical Maps

Citations

Map Citations

1. Context and Site Conditions

Map 1.1a

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Map 1.1b

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Map 1.2

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Map 1.3

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Map 1.8

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Astrid Wong: W3_AW03_0.3K_Utility.PDF

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"Soccer and Baseball Fields are Plentiful and Relatively Close to Southside"
Anthony DePriest: W3_AD03_100k_AthleticFieldLocations.PDF

Figure 1:
DePriest, Anthony. 2016. Parks, Athletic Fields, and Pools/Spraygrounds Locations in Omaha. Source Data: ArcGIS "ArcOnline_World Street Image" "SouthsidePL" "Trails" "Parks."

Figure 2:
DePriest, Anthony. 2016. Context Map. Source Data: ArcGIS "ArcOnline_World Street Image" "SouthsidePL" "Trails" "Parks."

Figure 3:
DePriest, Anthony. 2016. Rational Diagrams. Source Data: ArcGIS "Parks_and_Rec_Facilities."

Map 1.12

"Southside Residents Have Little Walkable Access to Football Fields and Pools"
Anthony DePriest: W3_AD04_30k_RecreationOpportunity.PDF

Figure 1:
DePriest, Anthony. 2016. Recreation Activity Density. Source Data: ArcGIS "Parks_and_Rec_Facilities."

Figure 2:
DePriest, Anthony. 2016. Park Density. Source Data: ArcGIS "Parks_and_Rec_Facilities."

Map 1.13

"The Eastern Border to Southside Could Be a Viable Sports Complex"
Anthony DePriest: W3_AD05_600_RecreationStrategy.PDF

Figure 1:
DePriest, Anthony. 2016. Potential Recreation Expansion. Source Data: ArcGIS "Building_Footprints_2010" "SouthsidePL" "Parcels."

Figure 2:
DePriest, Anthony. 2016. Proposal Recreation Field Sizes and Comparisons. Source Data: ArcGIS "Building_Footprints_2010" "SouthsidePL" "Parcels" "Douglas_2ft_Contours_2010."

2. Resident, Service, and Phasing

Map 2.1

"There Are a Variety of Services In and Near Southside Terrace"
Skylar Brown: W2_SB01_7.2K_Classification_ServicesProvided.PDF

Figure 1:
Brown, Skylar. 2016. Services in Southside. Douglas County GIS. Source Data: "Site Boundary", "Building_Footprints_2010", "ArcOnline_World Street Map". Accessed June 13, 2016.
Brown, Skylar. 2016. Services in Southside. Source Data: Google Maps. 2016. Omaha, NE. 41°12'09.2"N 95°57'21.8"W. Accessed June 13, 2016.

Map 2.2

"Q Street Sidewalks and Intersections Pose Pedestrian Issues for Southside Residents"
Skylar Brown: W2_SB02_7.2K_Dilemma_ ServicesProvided.PDF

Figure 1:
Brown, Skylar. 2016. Pedestrian Issues within Southside. Douglas County GIS. Source Data: "Site Boundary", "Building_Footprints_2010", "ArcOnline_World Street Map". Accessed June 13, 2016.

Figure 2:
Brown, Skylar. 2016. 30th and Q Street Intersection. Source Data: Google Earth. 2016. Omaha, NE. 41°12'20.27"N 95°57'27.89"W. Accessed June 13, 2016.

Figure 3:
Brown, Skylar. 2016. Pedestrian Way Along Q Street. Source Data: Google Earth. 2016. Omaha, NE. 41°12'18.73"N 95°57'43.39"W. Accessed June 13, 2016.

Map 2.3

"Southside Terrace is Well Supported by Social Services"
Caroline Finck: W2_CF01_.5K_ SouthsideTerraceisWellSupportedbySocialServices.PDF

Figure 01: Finck, Caroline. 2016. Map of Systematic Support. Source data: Hahn GIS Data, "World Street Map" Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/ south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10,

2016. http://www.educareomaha.com/locations.

Map 2.4

"Strengthening Social Service Partnerships"
Caroline Finck: W2_CF02_.5K_ StrengtheningSocialServicePartnerships.PDF

Figure 01: Finck, Caroline. 2016. Map of Existing Social Service Partnerships. Source data: Hahn GIS Data, "World Street Map" Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations.

Figure 02: Finck, Caroline. 2016. Map of Proposed Social Service Partnerships. Source data: Hahn GIS Data, "World Street Map" Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations.

Map 2.5a

"Southside Terrace has the Most Social Support Services Among OHA Properites"
Caroline Finck: W3_CF01_6K_SouthsideTerrace hastheMostSocialSupportServicesAmongOHAProperties.PDF

Figure 01: Finck, Caroline. 2016. Map of Omaha Housing Authority Properties. Source data: Hahn GIS Data, "World Imagery," "World Street Map", Google Maps. Accessed through Kansas State University TAH server. Accesssed June 7, 2016.

Map 2.5b

"Southside Terrace has the Most Social Support Services Among OHA Properites"
Caroline Finck: W3_CF01_6K_SouthsideTerrace hastheMostSocialSupportServicesAmongOHAProperties.PDF

Figure 02: Finck, Caroline. 2016. Map of Omaha Housing Authority Properties. Source data: Hahn GIS Data, "World Imagery," "World Street Map", Google Maps. Accessed through Kansas State University TAH server. Accesssed June 7, 2016.

Map 2.6a

"Systematic Effects of Population Displacement"
W3_CF02_.5K_ SystematicEffectsofPopulationDisplacement.PDF

Figure 01:
Finck, Caroline. 2016. Decline in Population of Southside Terrace Between the Approval of Demolition and the Beginning of Construction. Source Data: Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Hahn GIS Data, "World Street Map" 2016, Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/.

Figure 02:
Finck, Caroline. 2016. Retention of Southside Terrace Population if Relocated Close to the Current Site Depending on Influx of Mixed Income Population or the Adjustment of Public Housing Admissions. Source Data: https://flic.kr/p/9VasmK, https://commons.wikimedia.org/wiki/File:Home_under_construction.JPG, Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Figure 03:
Finck, Caroline. 2016. If Southside Terrace Population Were Displaced to Different Parts of the City Impacts the Return Rate of Residences Combined with the Introduction of Mixed Income Populations. Source Data: https://flic.kr/p/9VasmK Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Map 2.6b

"Systematic Effects of Population Displacement"
Caroline Finck: W3_CF02_.5K_ SystematicEffectsofPopulationDisplacement.PDF

Figure 04:
Finck, Caroline. 2016. Systematic Effects if the Population of Southside Terrace is Displaced. Source Data: Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations,

Map 2.6c

"Systematic Effects of Population Displacement"
Caroline Finck: W3_CF02_.5K_ SystematicEffectsofPopulationDisplacement.PDF

Figure 05:
Finck, Caroline. 2016. he Longer the Construction Takes, the Less Likely Households Will Return to Southside Terrace, Source Data: Vacancy information provided by Blake Belanger obtained from OHA in phone conversation on June 6, 2016, Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Figure 06:
Finck, Caroline. 2016. Density of Relocation Housing vs. Distance from Services at Southside Terrace. Source Data: Information about return rates of residents and the influx of mixed income and raised requirements for qualifying for housing as well as density of houseing from: Hanlon, James. "Success by Design: HOPEVI, New Urbanism, and the Neoliberal Transformation of Public Housing in the United States." Master's thesis, Southern Illinois University Edwardsville, 2009. Environment and Planning 42 (2010): 80-98. Information about return rates of residents and the influx of mixed income populations and housing density from: Chaskin, Robert. "Integration and Exclusion: Urban Poverty, Public Housing Reform, and the Dynamics of Neighborhood Restructuring." ANNALS, AAPSS, May 2013, 237-67. Accessed May 2016. Http://ann.sagepub.com/.

Map 2.7

"Keeping Southside Terrace Communities Close"
Caroline Finck: W2_CF02_.5K_ StrengtheningSocialServicePartnerships

Figure 01:
Finck, Caroline. 2016. Phasing Strategies to Keep Southside Terrace's Population Near Services Source Data: Rachel Rankin's Phasing Map

Figure 02:
Finck, Caroline. 2016. Developing a Service Provider Coalition. Source Data: Information about YMCA, Juan Diego Center and Indian Hill Elementary involvement with Southside Terrace from Marque Snow via a facility tour held on May 27, 2016. Information about Girls Inc. from Mara Martinez via facility tour held on May 26, 2016, Information about S. Omaha Public Library's programs available to Southside Terrace Residents from: http://www.omahapubliclibrary.org/south-omaha-library. Information about the enrollment at the Metropolitan Community College from Shannon Snow from an interview on May 26, 2016. Information regarding Stephen Center from: http://www.stephencenter.org/about-us/. Information about the Kroc Center from an email from Major Thielke on June 6, 2016. "Juan Diego Center." Catholic Charities Archdioceses of Omaha. 2016. Accessed June 10, 2016. http://www.ccomaha.org/who-we-are/centers/juan-diego-center.html, "Omaha Locations." Educare Omaha. 2016. Accessed June 10, 2016. http://www.educareomaha.com/locations,

Map 2.8

"Potential Sites for Relocating Southside Terrace Residents During Construction"

Rachel Rankin: W2_RR01_6K_Classification-Map.pdf

Figure 01:
Rankin, Rachel. 2016. "Adjacent Properties." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Basemap.

Figure 02:
Rankin, Rachel. 2016. "Zone Characteristics." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Site Observations.

Figure 03:
"View 1." Source Image: Google Earth. Omaha, NE: 41°12'19.36" N / 95°57'20.43" W / Elevation: 1138ft. 2016.

Figure 04:
"View 2." Source Image: Google Earth. Omaha, NE: 41°12'15.66" N / 95°57'15.80" W / Elevation: 1121ft. 2016.

Figure 05:
"View 3." Source Image: Google Earth. Omaha, NE: 41°12'09.88" N / 95°57'14.79" W / Eye Elevation: 1164ft. 2016.

Figure 06:
"View 4." Source Image: Google Earth. Omaha, NE: 41°12'00.32" N / 95°57'11.06" W / Eye Elevation: 1112ft. 2016.

Figure 07:
"View 5." Source Image: Google Earth. Omaha, NE: 41°11'56.11" N / 95°57'16.62" W / Elevation: 1099ft. 2016.

Figure 08:
"View 6." Source Image: Google Earth. Omaha, NE: 41°11'56.12" N / 95°57'23.86" W / Elevation: 1128ft. 2016.

Map 2.9

"Phasing Requires Consideration of Expansion"

Rachel Rankin: W2_RR02_6K_Opportunities-Map.pdf

Figure 01:
Rankin, Rachel. 2016. "Potential Relocation and/or Expansion Opportunities." Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Basemap. Source Data: Site Observations.

Figure 02:
Rankin, Rachel. 2016. "Existing Site Characteristics." Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Topography, Parcels, Basemap. Source Data: Site Observations.

Map 2.10

"Relocation of Residents During Construction is Possible"

Rachel Rankin: W3_RR01_6K_Classification-Map.pdf

Figure 01:
Rankin, Rachel. 2016. "Potential Relocation and Expansion Opportunities." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Basemap.

Figure 02:
Rankin, Rachel. 2016. "Proposal 1: No Expansion." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Site Observations.

Figure 03:
Rankin, Rachel. 2016. "Proposal 2: Expanding North and South." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Site Observations.

Figure 04:
Rankin, Rachel. 2016. "Proposal 3: Expanding East." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Site Observations.

Figure 05:
Rankin, Rachel. 2016. "Proposal 4: Expanding North, South, and East." Source Data: Douglas County, NE, County of Pottawattamie, ESRI. Site Observations.

Map 2.11a

"Relocation of Residents Can Occur by Expanding into Adjacent Properties"

Rachel Rankin: W3_RR02_6K_Opportunities-Map.PDF

Figure 01: Rankin, Rachel. 2016. “Proposal 1: No Expansion.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Topography. Source Data: Site Observations.

Figure 02: Rankin, Rachel. 2016. “Proposal 2: Expanding North and South.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Topography. Source Data: Site Observations.

Map 2.11b

“Relocation of Residents Can Occur by Expanding into Adjacent Properties”
Rachel Rankin: W3_RR02_6K_Opportunities-Map.PDF

Figure 03: Rankin, Rachel. 2016. “Proposal 3: Expanding East.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Topography. Source Data: Site Observations.

Figure 04: Rankin, Rachel. 2016. “Proposal 4: Expanding North, South, and East.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels, Topography. Source Data: Site Observations.

Map 12.a

“Smart Planning and Phasing is Crucial for the Convenience of the Residents”
Rachel Rankin: W3_RR03_6K_Strategy-Map.PDF

Figures 01 - 06: Rankin, Rachel. 2016. “Proposal 2: Expanding North and South <Phases 1- 6>.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels. Source Data: Site Observations.

Map 12b

“Smart Planning and Phasing is Crucial for the Convenience of the Residents”
Rachel Rankin: W3_RR03_6K_Strategy-Map.PDF

Figures 07 - 14: Rankin, Rachel. 2016. “Proposal 3: Expanding East <Phases 1- 6>.” Source Imagery: Douglas County, NE, County of Pottawattamie, ESRI. Building_Footprints_2010, Parcels. Source Data: Site Observations.

3. Ecology and Physiography

Map 3.1a

“Ecosystem at Southside Terrace”
Wei Sun: W3_WS01_150_Vegetation.PDF

Figure1:
Sun, Wei. 2016. Land Cover Map. Source Data: ArcGIS “Building_Footprint_2010”,” Douglas_Contors_2010” Accessed June 10, 2016.

Figure2:
Sun, Wei. 2016. Figure 02. Source Data: Google Earth. 2016. Omaha, NE. 41 °12’07.41”N 95 ° 57’27.91”W.

Figure3:
Sun, Wei. 2016. “Mowed lawn.”

Figure4:
Sun, Wei. 2016. “Single Tree Form.”

Figure5:
Sun, Wei. 2016. Pie chart of landcover.

Map 3.1b

“Land Cover at Southside Terrace”
Wei Sun: W3_WS01_300_Ecosystem.PDF

Figure 1:
Omaha Soil Map: Accessed June 08, 2016 from http://www.nrcs.usda.gov/wps/portal/nrcs/main/ne/soils/

Figure 2:
Nebraska Hardiness Zone: Accessed June 08, 2016 from http://www.gardeningknowhow.com/planting-zones/nebraska-planting-zones.htm

Figure 3:
Nebraska Ecoregion: Accessed June 08, 2016 from http://loessal.blogspot.com/2010/09/no-shortgrass.html

Figure 4:
Omaha Solar Radiation: Accessed June 08, 2016 from http://solarenergylocal.com/states/nebraska/omaha/.

Figure 5:
Omaha Wind Rose: Accessed June 08, 2016 from http://snr.unl.edu/data/climate/wind.aspx.

Figure 6:
Omaha Annual Precipitation and Temperature: Accessed June 08, 2016 from http://www.usclimatedata.com/climate/omaha/nebraska/united-states/usne0363
Image pond: https://flic.kr/p/2ohybn

Map 3.2

"Trees in Good Condition ; Little Ecosystem Services Provided"
Wei Sun: W3_WS02_150_DilemaMap.PDF

Fgiure1:
Sun, Wei. 2016. Existing Tree Condition. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure2:
Sun, Wei. 2016. Figure 02. Source Data: Google Earth. 2016. Omaha, NE. 41 °12'07.41"N 95 ° 57'27.91"W

Figure3:
Sun, Wei. 2016. Tree Mass

Fgiure4:
Sun, Wei. 2016. Ecosystem Services. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

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Map 3.3

"Bring Ecosystem to Southside Terrace "
Wei Sun: W3_WS04_70_StrategyMap.PDF

Figure1:
Sun, Wei. 2016. Proposed Naturalized Pond. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure2:
Downes, Stephen. Parlee Beach. July 22, 2007. Accessed June 10, 2016. https://flic.kr/p/2ohybn, usage license https://creativecommons.org/licenses/by-nc/2.0/

Figure3:
Sun, Wei. 2016. Proposed Naturalized Playgound. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure4:
Williams, Tim. Playground. November 06, 2013. Accessed June 10, 2016. http://www.news.com.au/national/south-australia/adelaide-firm-swanbury-penglase-pitches-plans-for-a-multimillion-dollar-nature-playspace-in-the-south-parklands/story-fnii5yv4-1226754247043

Figure5:
Sun, Wei. 2016. Proposed Community Garden. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure6:
d-olwen-dee. 17 Waverley Community Garden. November 20, 2012. Accessed June 10, 2016. https://flic.kr/p/duKNMH, usage license https://creativecommons.org/licenses/by/2.0/

Figure7:
Sun, Wei. 2016. Proposed Butterfly Garden. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure8:
Champion, Carol. butterfly garden. July 19, 2012. Accessed June 10, 2016. https://flic.kr/p/cAeXG9.

Figure9:
Sun, Wei. 2016. Proposed Urban Forest. Source Data: ArcGIS "Building_Footprint_2010"," Douglas_Contors_2010" Accessed June 10, 2016

Figure10:
Svob, Oliver. Walking through the park. December 26, 2014 Accessed June 10, 2016. https://flic.kr/p/qxJcSC

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Map 3.4a

“Bird’s Eye Aerials Looking South and Southwest”
Chandler Nyp: W3_CN03_Perspective_ContextTopo.PDF

Figure 1:
Nyp, Chandler. 2016. Site Context Topography View Looking South from the Northern Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 2:
Nyp, Chandler. 2016. Google Earth Aerial View Looking South from the Northern Site Boundary. Source Data: Google Earth.

Figure 3:
Nyp, Chandler. 2016. Site Context Topography View Looking South West From the North Eastern Corner of the Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 4:
Nyp, Chandler. 2016. Google Earth Aerial View Looking South West From the North Eastern Corner of the Site Boundary. Source Data: Google Earth.

Map 3.4b

“Bird’s Eye Aerials Looking West and North”
Chandler Nyp: W3_CN04_Perspective_ContextTopo.PDF

Figure 1:
Nyp, Chandler. 2016. Site Context Topography View Looking West from the Eastern Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 2:
Nyp, Chandler. 2016. Google Earth Aerial View Looking West From the Eastern Site Boundary. Source Data: Google Earth.

Figure 3:
Nyp, Chandler. 2016. Site Context Topography View Looking North from the Southern Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 4:
Nyp, Chandler. 2016. Google Earth Aerial View Looking North From the Southern Site Boundary. Source Data: Google Earth.

Map 3.4c

“Bird’s Eye Aerials Looking North East and East”
Chandler Nyp: W3_CN05_Perspective_ContextTopo.PDF

Figure 1:
Nyp, Chandler. 2016. Site Context Topography View Looking North East From the South Western Corner of the Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 2:
Nyp, Chandler. 2016. Google Earth Aerial View Looking North East From the South Western Corner of the Site Boundary. Source Data: Google Earth.

Figure 3:
Nyp, Chandler. 2016. Site Context Topography View Looking East From the Western Site Boundary. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Figure 4:
Nyp, Chandler. 2016. Google Earth Aerial View Looking East From the Western Site Boundary. Source Data: Google Earth.

Map 3.5

“Steep Slopes and Consequent Drainage Patterns Impact Expansion Potential”
Chandler Nyp: W3_CN06_Perspective_3DTopoDrain.PDF

Figure 1:
Nyp, Chandler. 2016. Site Context Topography Map. Source Data: Douglas County GIS “Building Footprints” “Contours 2010” “Site Boundary” “Hill Shade.”

Map 3.6

“Steep Slopes Present Challenges For Property Expansion”
Chandler Nyp: W3_CN07_3600_ExZoneViability.PDF

Figure 1:
Nyp, Chandler. 2016. Site and Proposed Site Zone Delineation Map. Source Data: Douglas County GIS "Building Footprints" "Contours 2010" "Site Boundary" "Hill Shade."

Figure 2:
Nyp, Chandler. 2016. Zone Suitability Map. Source Data: Douglas County GIS "Slope Suitability" "Contours 2010" "Site Boundary" "Hill Shade."

Map 3.7a

"Grading Strategies For Current Southside Terrace Boundaries"
Chandler Nyp: W3_CN08_3600_TopoStrat.PDF

Figure 1:
Nyp, Chandler. 2016. Strategy Map for the Existing Site Emphasizing Terraces That Wrap Around the Lower Section. Source Data: Douglas County GIS.

Figure 2:
Nyp, Chandler. 2016. Strategy Map for the Existing Site Emphasizing Terraces That Run East to West. Source Data: Douglas County GIS.

Map 3.7b

"Grading Strategies Including Adjacent Parcels"
Chandler Nyp: W3_CN09_3600_TopoStrat.PDF

Figure 1:
Nyp, Chandler. 2016. Strategy Map for Expansion Including Sites to the North and South of the Existing Site. Source Data: Douglas County GIS.

Figure 2:
Nyp, Chandler. 2016. Strategy Map for Expansion Including Sites to the South and East of the Existing Site. Source Data: Douglas County GIS.

4.Spatial Organization and Programming

Map 4.1

"Intended Exterior Spaces Are Not Supporting Observed Residents' Needs"
Astrid Wong: W2_AW01_0.24K_Program-VS-Usage.PDF

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Astrid Wong: W2_AW02_0.3K_FutureProgram.PDF

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Wong, Astrid. 2016. "Previous locations of removed recreational facilities."Source Data: Google Earth.

Figure 02:
Wong, Astrid. 2016. "Location of existing trees and appropriated seating areas."Source Data: Google Earth.

Figure 03:
Wong, Astrid. 2016. "Location of existing play area and appropriated activity area."Source Data: Google Earth.

Figure 04:
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Map 4.3

"CPTED Guidelines Minimize Chances Of Crime"
Skylar Brown: W3_SB03_3.6K_Strategy_CPTED.PDF

Figure 1:
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Figure 4:
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Map 4.4

"Southside Terrace Design Achieves Some (CPTED) Guidelines"
Skylar Brown: W2_SB01_7.2K_Classification_CPTED.PDF

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Map 4.5

"Southside Terrace Design Increases Chance For Crime"
Skylar Brown: W3_SB02_3.6K_Dilemma_CPTED.PDF

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"Gathering Spaces Lack Lighting"
Brian Corrie: W2_BC01_150_ExistingLighting.pdf

Figure 01:
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Brian Corrie: W2_BC02_300_LightingSafety.pdf

Figure 01:
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Figure 05:
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Map 4.8

“Aspirations of Southside Terrace Partners Show Balance Between Social & Physical Improvements”
Andrea Lemken: W2_AL01_SynthesisOfPartnerEngagement.pdf

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Andrea Lemken: W2_AL02_4K_DilemmaSynethisOfPartnerAspirations.PDF

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Figure 03:
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Map 4.10

“Southside Terrace’s Density Differs From Modern Social Housing Precedents”
Brian Corrie: W3_BC03_800_GlobalComparison.PDF

Figure 01:
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Brian Corrie: W3_BC04_500_ContextualIntegration.PDF

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Map 4.12

"Increasing Density Can Create New Opportunities For Southside Terrace"
Brian Corrie: W3_BC05_200_DensityandFunction.PDF

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Corrie, Brian. 2016. "Figure ground diagram of Southside Terrace: Omaha, NE." Source Data: Google Earth. Omaha, NE: 41°12'0.739" N / 95°57'23.98 W / Eye Elevation: 7701ft.

Map 4.13

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Evan Lanning: W2_EL01_S2016_SuburbanMorphology.pdf

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Map 4.14

"Southside Terrace Lacks Adequate Usable Central Common Space"
Evan Lanning: W2_EL02_S2016_SST-Greenspace.pdf

Figure 01:
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Map 4.15 a, b & c

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Anthony DePriest: W2_100_ComparisontoOtherCities.PDF

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Figure 2:
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Figure 3:
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Figure 4:
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Figure 5:
DePriest, Anthony. 2016. Conditions of Parkview Terrace. Source data: Maps.google.com

Figure 6:
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Figure 8:
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Figure 9:
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Figure 10:
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Figure 11:
DePriest, Anthony. 2016. Sheppard Square. Source data: Maps.google.com

Figure 12:
DePriest, Anthony. 2016. Mixed Residential Structures. Source data: Maps.google.com

Figure 13:
DePriest, Anthony. 2016. Key Concepts Drawn Through the Theron B Watkins Homes. Source data: Maps.google.com

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Figure 15:
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Map 4.16

“Lessons from Public Housing in Other Cities”
Anthony DePriest: W2_AD02_500_LessonsLearned.PDF

Figure 1:
DePriest, Anthony. 2016. The Creation of Crossroads. Source data: ArcGIS “SouthsidePL.”

Figure 2:
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Figure 3:
DePriest, Anthony. 2016. Outward Facing and Mix of Incomes. Source data: ArcGIS “SouthsidePL”.

Figure 4:
DePriest, Anthony. 2016. Privatizing Some Public Space. Source data: ArcGIS “SouthsidePL.”

Map 4.17

“Successful Public Housing Communities Have Enclosed & Centralized Outdoor Parks”
Andrea Lemken: W3_AL01_400_SuccessfulPublicHousingBuildings.PDF

Figure 1.0.
Lemken, Andrea. 2016. “Paisano Green Community.” Source Image: Google Earth. El Paso, Texas: 31□45’58.36” N / 106□26’40.22” W / Elevation: 3735 feet / Eye Altitude: 6306 feet.

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Figure 2.0:
Lemken, Andrea. 2016. “Capitol Park.” Source Image: Raleigh, North Carolina: 35□47’31.68” N / 78□38’09.68 W / Elevation: 376 feet / Eye Altitude: 3613 feet.

Figure 2.1:
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Figure 3.0:
Lemken, Andrea. 2016. “Hilliard Towers.” Source Image: Chicago, Illinois: 41□51’10.73” N / 87□37’38.36” W / Elevation: 592 feet / Eye Altitude: 3873 feet.

Figure 3.1. Google Earth. 2016. “Tower locations at Hilliard Homes.” Source Image: Chicago, Illinois: 41□51’13.52” N / 87□37’42.21” W / Elevation: 635 feet / Eye Altitude: 1217 feet.

Map 4.18

“Centrally Focused Outdoor Parks are Disconnected from Context”
Andrea Lemken: W3_AL02_DilemmaMap.PDF

Figure 1.0:
Lemken, Andrea. 2016. “A comparison between the amount of parking lots, vacant lots, and building space around the Paisano Green Community.” Source Image: Google Earth. El Paso, Texas: 31□45’58.36” N / 106□26’40.22” W / Elevation: 3735 feet / Eye Altitude: 6306 feet.

Figure 1.1:
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feet / Eye Altitude: 6306 feet.

Figure 2.0:
Lemken, Andrea. 2016. “Building layouts of Capitol Park showing different building uses, and the location of outdoor community and semi-private spaces.” Source Image: Raleigh, North Carolina: 35□47’31.68” N / 78□38’09.68 W / Elevation: 376 feet / Eye Altitude: 3613 feet.

Figure 3.0:
Lemken, Andrea. 2016. “Building layouts of Hilliard Homes showing different building uses and outdoor greenspace locations.” Source Image: Chicago, Illinois: 41□51’13.52” N / 87□37’42.21” W / Elevation: 635 feet / Eye Altitude: 1217 feet.

Map 4.19

“Mixed-Use & High-Density Housing Creates Connections to Surrounding Neighborhood”
Andrea Lemken: W3_AL02_OpportunityMap.PDF

Map 4.20

“Integration of Mixed-Incomes Can Increase Options for Affordable Housing”
Andrea Lemken: W3_AL03_StrategyMap.PDF

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Map 4.21a

“Southside Terrace Has Little Internal Street Frontage Consistency”
Josh Sundine: W3_JS01_300_SSTInternalEdges.PDF

Figure 01:
Sundine, Josh. 2016 “Southside Terrace Street Edges.” Source Data: ArcGIS, Howard Hahn. “Building_Footprints_2010, Street Centerlines.”

Figure 02:
Google Earth Street View. 2016. Omaha, NE: 41°12’07.2”N / 95°57’27.8”W. Accessed June 2016.

Figure 03:
Google Earth Street View. 2016. Omaha, NE: 41°12’10.0”N / 95°57’16.6”W. Accessed June 2016.

Figure 04:
Google Earth Street View. 2016. Omaha, NE: 41°12’12.4”N / 95°57’22.4”W. Accessed June 2016.

Figure 05:
Google Earth Street View. 2016. Omaha, NE: 41°11’59.3”N / 95°57’16.4”W. Accessed June 2016.

Map 4.21b

“Southside Terrace Has Diverse Adjacent Land Uses and Edge Conditions”
Josh Sundine: W3_JS02_SSTExternalEdges.PDF

Figure 01:
Sundine, Josh. 2016 “Southside Terrace External Edges.” Source Data: ArcGIS, Howard Hahn. “Building_Footprints_2010, Street Centerlines, Future_Land_Use_Omaha.”

Figure 02:
Google Earth Street View. 2016. Omaha, NE: 41°12’16.2”N / 95°57’21.2”W. Accessed June 2016.

Figure 03:
Google Earth Street View. 2016. Omaha, NE: 41°12’14.4”N / 95°57’16.5”W. Accessed June 2016.

Figure 04:
Google Earth Street View. 2016. Omaha, NE: 41°12’00.7”N / 95°57’16.4”W. Accessed June 2016.

Figure 05:
Google Earth Street View. 2016. Omaha, NE: 41°11’59.1”N / 95°57’25.1”W. Accessed June 2016.

Figure 06:

Google Earth Street View. 2016. Omaha, NE: 41°12’02.7”N / 95°57’27.8”W. Accessed June 2016.

Figure 07:
Google Earth Street View. 2016. Omaha, NE: 41°12’11.9”N / 95°57’27.8”W. Accessed June 2016.

Map 4.22

“Strong Edge Priority to Enhance Street Quality”
Josh Sundine: W3_JS03_300_SSTStreetPriority.PDF

Figure 01:
Sundine, Josh. 2016 “Southside Terrace Edge Opportunities.” Source Data: ArcGIS, Howard Hahn, “Building_Footprints_2010, Street Centerlines, 2ft_ Contours.” Accessed June 2016.

Figure 02:
Sundine, Josh. 2016 Source Data: Google Earth Street View. 2016. Omaha, NE: 41°12’16.1”N / 95°57’27.7”W. Accessed June 2016.

Figure 03:
Sundine, Josh. 2016 Source Data: Google Earth Street View. 2016. Omaha, NE: 41°12’02.7”N / 95°57’27.8”W. Accessed June 2016.

Figure 04:
Sundine, Josh. 2016 Source Data: Google Earth Street View. 2016. Omaha, NE: 41°12’15.9”N / 95°57’21.8”W. Accessed June 2016.

Figure 05:
Sundine, Josh. 2016 Source Data: Google Earth Street View. 2016. Omaha, NE: 41°12’07.1”N / 95°57’16.5”W. Accessed June 2016.

Map 4.23

“Introducing Multiple Street Types Can Improve Southside Terrace”
Josh Sundine: W3_JS04_300_SSTStreetSafety.PDF

Figure 01:
Sundine, Josh. 2016 “New Street and Building Layout with Minimal Grading Change.” Source Data: ArcGIS, Howard Hahn, “Building_Footprints_2010, Street Centerlines,” Accessed June 2016.

Figure 02:
Sundine, Josh. 2016 “Yield Street.” Source Data: NACTO. “Urban Street Design Guide.” 2013. Island Press. Pg. 17

Figure 03:
Sundine, Josh. 2016 “Neighborhood Street.” Source Data: NACTO. “Urban Street Design Guide.” 2013. Island Press. Pg. 16

Figure 04:
Sundine, Josh. 2016 “Green Alley.” Source Data: NACTO. “Urban Street Design Guide.” 2013. Island Press. Pg. 24

Map 4.24

“Building Orientation is highly variable at South-Side Terrace”
Wei Sun: W2_WS01_300_ClassificationMap.PDF

Figure1:
Sun, Wei. 2016. Building Orientation and Space using Map. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap” Accessed June 10, 2016.

Figure2:
Sun, Wei. 2016. “South-Side Terrace housing front side building photo view.”

Figure3:
Sun, Wei. 2016. “South-Side Terrace housing back side building photo view.”

Figure4:
Corrie, Brain. 2016. “South-Side Terrace Road.”

Figure5:
Sun, Wei. South-Side Terrace Dumpster. Source Data: Google Earth. 2016. Omaha, NE. 41°12’05.34”N 95°57’21.78”W.

Map 4.25

“Inconsistent Building Configurations Create Poorly Designed Public Space”
Wei Sun: W2_WS02_70_DilemmaMap.PDF

Figure1: Sun, Wei. 2016. Building Facing Front to Front. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”. Accessed June 10, 2016.

Figure2:
Sun, Wei. 2016. Building Facing Back to Back. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”. Accessed June 10, 2016.

Figure3:
Sun, Wei. 2016. Building Facing Front to Back. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”. Accessed June 10, 2016.

Figure4:
Sun, Wei. 2016. 3 Types of Building Configuration On the Site. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”, “Arconline_WorldStreetMap”. Accessed June 10, 2016.

Figure5:
Sun, Wei. 2016. Building Porch Facing Street and Parking. Source Data: ArcGIS “Building_Footprints_2010”, “SouthsidePL”. Accessed June 10, 2016.

Figure6:
Sun, Wei. 2016. Building Porch Facing Green Space. Source Data: ArcGIS “Building_Footprints_2010”. Accessed June 10, 2016.

Map 4.26

“Different Land Uses on all sides of Southside Terrace”
Bre Nelson: W3_BN01_24K_AdjacentNeighborhoods.PDF

Figure 01:
Bre Nelson. 2016. Adjacent Neighborhood Context. Source Data: City of Omaha GIS. “Future_Land_Use_Omaha” “SouthsidePL” “Building_Footprints_2010” Accessed June 2016.

Figure 02:
Bre Nelson. 2016. Adjacent Neighborhood Immediate Context. Source Data: City of Omaha GIS. “Future_Land_Use_Omaha” “SouthsidePL” “Building_Footprints_2010” Accessed June 2016.

Figure 04:
Google Earth. 2014. Omaha, Nebraska. 41d12’05.47”N 95d57’39.97”W. Accessed June 2016.

Figure 05:
Google Earth. 2014. Omaha, Nebraska. 41d12’09.89”N 95d57’47.84”W. Accessed June 2016.

Figure 06:
Google Earth. 2014. Omaha, Nebraska. 41d12’19.44”N 95d57’35.80”W. Accessed June 2016.

Figure 07:
Google Earth. 2014. Omaha, Nebraska. 41d12’19.57”N 95d57’42.23”W. Accessed June 2016.

Figure 08:
Google Earth. 2014. Omaha, Nebraska. 41d12’06.87”N 95d57’01.07”W. Accessed June 2016.

Figure 09:
Google Earth. 2014. Omaha, Nebraska. 41d12’00.43”N 95d57’10.13”W. Accessed June 2016.

Figure 10:
Google Earth. 2014. Omaha, Nebraska. 41d12’08.88”N 95d57’38.94”W. Accessed June 2016.

Figure 11:
Google Earth. 2014. Omaha, Nebraska. 41d11’58.82”N 95d57’39.92”W. Accessed June 2016.

Map 4.27

“Q Street Becomes Important Factor for Southside Terrace”
Bre Nelson: W3_BN01_6K_QConnection

Figure 1:
Bre Nelson. 2016. Q Street Opportunites. Source Data: City of Omaha GIS. “Street_Centerlines” “SouthsidePL” “Building_Footprints_2010” Accessed June 2016.

Figure 2:
Bre Nelson. 2016. Q Street Current Condition. Source Data: City of Omaha GIS. “Street_Centerlines” “SouthsidePL” “Building_Footprints_2010” “Parcels” Accessed June 2016.

Figure 3:
Google Earth. 2014. Omaha, Nebraska. 41d12’19.78”N 95d57’22.45”W. Accessed June 2016.

Figure 4:
Google Earth. 2014. Omaha, Nebraska. 41d12’19.77”N 95d57’22.45”W. Accessed June 2016.

Map 4.28

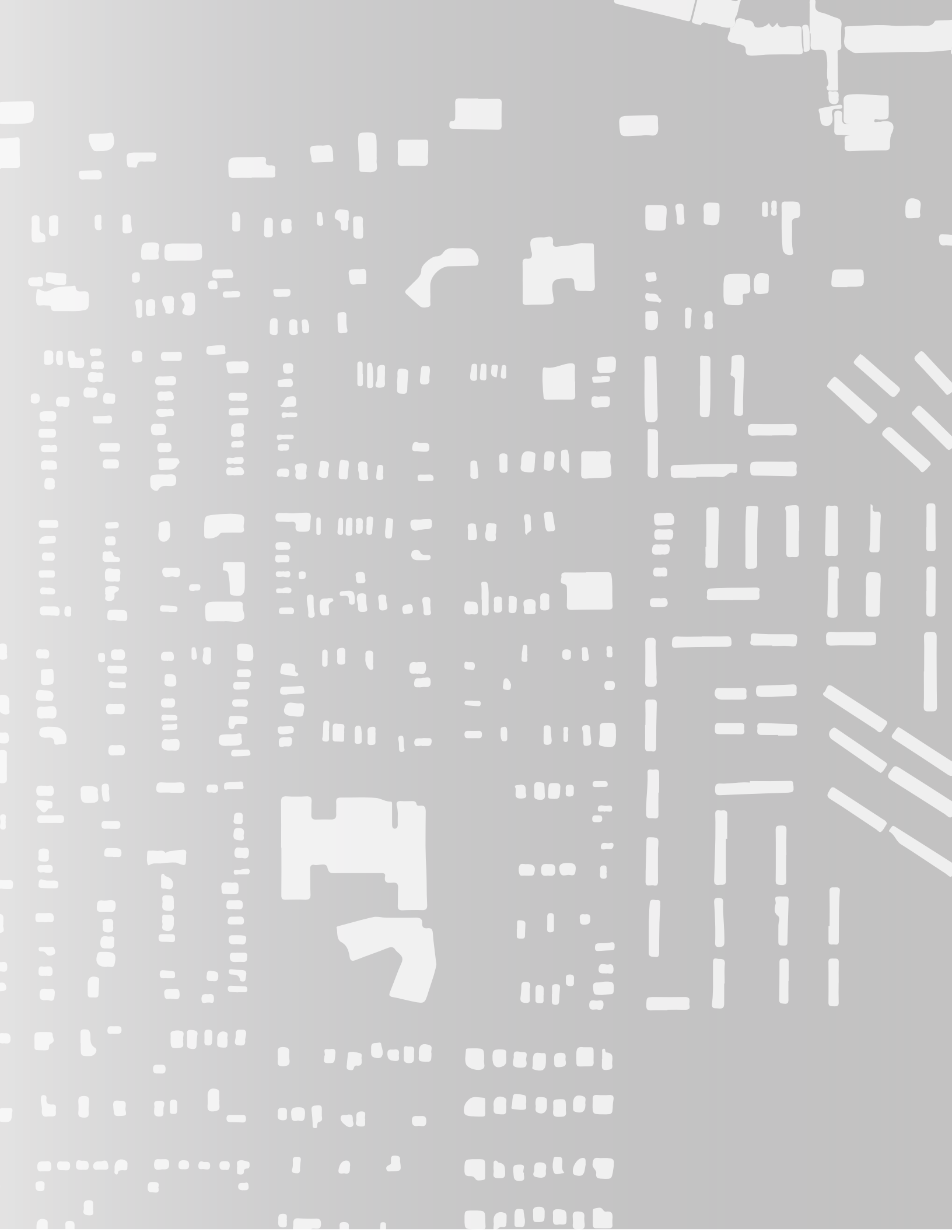
“Southside Terrace’s ‘Main Street’”

Bre Nelson: W3_BN01_6k_MainStreetStrategy

Figure 1:
La Citta Vita. 2011. “Streetscape, streetcar + pedestrians” https://flic.kr/p/9VbBEq

Figure 2:
La Citta Vita. 2011. “Streetscape, Friedrichshain Kiez” https://flic.kr/p/9VaSdH

Figure 3:
Bre Nelson. 2016. Main Street Strategy. Source Data: City of Omaha GIS. “Street_Centerlines” “SouthsidePL” “Building_Footprints_2010” “Parcels” Accessed June 2016.



B

Resident Workshop, Survey Tabulations, and IRB

Omaha Housing Authority – Southside Terrace

Information about the Housing Experience Questionnaire

The housing experience questionnaire is part of a research project being conducted by a landscape architecture studio class led by Prof. Blake Belanger and Prof. Howard Hahn at Kansas State University. The Omaha Housing Authority partnered with Kansas State University to allow research in collaboration with Technical Assistance to Brownfields, an EPA program to help communities plan for redevelopment of potential brownfield sites in communities. Kansas State University will use the responses to provide information to OHA on potential improvements to the site. The responses will also be used by the students to help them create redevelopment ideas for the site that will be available in a booklet.

We expect the questionnaire to take 10 to 20 minutes to complete by yourself, and about 40 minutes to complete as a group. Only people 18 years old or older may complete a questionnaire on behalf of their household. We do not anticipate any risks or direct benefits to participants. We assume that by filling out and returning this questionnaire you are consenting to participate in this research. All respondents will be anonymous to the researchers. Participation in the questionnaire is voluntary and respondents may withdraw from the questionnaire at any time without penalty or loss of benefits. Your name and home address will not be provided on the questionnaire or in another way that would link your answers on the questionnaire to you and your household.

If you have any questions about the questionnaire or the research overall, you can contact Prof. Blake Belanger (785-323-7917; belanger@k-state.edu; 302 Seaton Hall, Manhattan KS 66506) or Prof. Howard Hahn (785-532-2431; hhahn@k-state.edu; 302 Seaton Hall, Manhattan KS 66506). If you have questions about your rights as a research participants or want to discuss any aspect of the research with an official of the university or the institutional review board, you can contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects (785-532-3224; 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506) or Cheryl Doerr, Associate Vice President for Research Compliance (785-532-3224; 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506).

This research was approved by the institutional review board at Kansas State University Proposal Number 8321, 2016. Prof. Blake Belanger is the principal investigator. Prof. Howard Hahn, Dr. Katherine Nesse, and Blase Leven are co-investigators along with 12 students registered for the landscape architecture studio at Kansas State University. Omaha Housing Authority will have access to a summary of the responses but not individual responses.

You may keep this page for your records.

Rev. June 16, 2016

Omaha Housing Authority Office, 5529 S. 30th Street

Omaha Housing Authority – Southside Terrace

Housing Experience Questionnaire

The Omaha Housing Authority would like to know more about how you and your family like your housing at Southside Terrace and what you would like to see improved. We are asking one person in each household respond to these questions. The identities of all respondents and their households will be kept confidential. We will use the responses to inform future improvements we make to the site. The responses will also be used by a class of students at Kansas State University to help them create redevelopment ideas for the site. There is a **Public Input Meeting, Thursday, June 16, 5:30 to 7:30 pm at South YMCA 3010 R Street**, so you can let OHA know more about how Southside Terrace serves your family, community, and skill development.

Questions 1 to 6 are about the community and open space at Southside Terrace.

1. Would people in your household use any of these type of facilities?
   - ☐ group meeting rooms
   - ☐ a party room
   - ☐ an indoor community kitchen
   - ☐ an outdoor cooking area (like a barbeque)
   - ☐ a picnic area
   - ☐ a small theater or stage

2. Would you like indoor space for hobbies, recreation or group activities?
   - ☐ Yes ☐ No

If yes, what type of activities?
   - ☐ Classes (like job training, English, computer, art, music)
   - ☐ Child care
   - ☐ Music
   - ☐ Painting, sculpture & visual arts
   - ☐ Crafts (like jewelry-making, sewing)
   - ☐ Cooking or baking

3. If you have kids, what types of activities do they like to play?
   - ☐ play on a playground
   - ☐ play sports on a field (like soccer)
   - ☐ run or exercise
   - ☐ play pretend, make up stories
   - ☐ play computer games
   - ☐ play board games
   - ☐ talk to other kids, hang out
   - ☐ read books

4. What types of activities do you do with your neighbors sometimes?
   - ☐ Share childcare
   - ☐ Share a ride somewhere
   - ☐ Eat together
   - ☐ Kids play together
   - ☐ Talk
   - ☐ Housework
   - ☐ Continue cultural traditions
   - ☐ Celebrate religious & cultural holidays
   - ☐ Celebrate birthdays or other events
   - ☐ Exercise

5. What types of activities do adults in your household enjoy doing outdoors?
   - ☐ spending time with neighbors
   - ☐ cooking or eating
   - ☐ caring for children
   - ☐ exercising pets
   - ☐ playing sports (like soccer)
   - ☐ walking
   - ☐ running or exercising
   - ☐ celebrating events or holidays

6. Are there types of outdoor spaces you would use if they were available?
   - ☐ soccer field
   - ☐ basketball court
   - ☐ baseball field
   - ☐ kids' playground
   - ☐ horseshoes, bocce, croquet, and other lawn games
   - ☐ shaded seating
   - ☐ gardens
   - ☐ picnic tables

Please return this form at the June 16 Workshop or to the Omaha Housing Authority Office, 5529 S. 30th St

Omaha Housing Authority – Southside Terrace

Question 7 to 12 are about the amount of space available for your household.

7. How many bedrooms are in your home?_____
   Is that enough?
   ☐ Yes ☐ No

8. How many bathrooms are in your home?_____
   Is that enough?
   ☐ Yes ☐ No

9. Is your kitchen large enough?
   ☐ Yes ☐ No

10. Is the living area large enough?
    ☐ Yes ☐ No

11. Is the dining area large enough?
    ☐ Yes ☐ No

12. Is the outdoor space large enough?
    ☐ Yes ☐ No

Questions 13 to 15 are about access to jobs, services, and food or other needs.

13. How do people in your household get to their jobs usually?
    ☐ walk
    ☐ take a bus
    ☐ drive a car
    ☐ share a car
    ☐ bicycle
    ☐ other / not applicable

14. How do people in your household get to the grocery store?
    ☐ walk
    ☐ take a bus
    ☐ drive a car
    ☐ share a car
    ☐ bicycle
    ☐ groceries are delivered to my house

15. How do people in your household get to the doctor?
    ☐ walk
    ☐ take a bus
    ☐ drive a car
    ☐ share a car
    ☐ bicycle
    ☐ other / not applicable

Tell us about your household.

16. How many people live in your house?
    _____

17. In your house are grandparents living with their grandchildren?
    ☐ Yes ☐ No

18. In your house are parents living with their adult children?
    ☐ Yes ☐ No

19. How many people are
    under 5 years old?_____
    between 5 and 17?_____
    between 18 and 64?_____
    65 years or older?_____

20. What street do you live on?
    ☐ R Street
    ☐ R Avenue
    ☐ S Street
    ☐ T Street
    ☐ T Avenue
    ☐ U Street
    ☐ U Avenue
    ☐ W Street
    ☐ S 28th Avenue
    ☐ S 29th Street
    ☐ S 29th Avenue
    ☐ S 30th Street

Please return this form at the June 16 Workshop or to the Omaha Housing Authority Office, 5529 S. 30th St

Southside Terrace Resident Survey

Date: June 16, 2016
Survey Location: YMCA, 3010 R St, Omaha, NE 68107
Survey Prepared and Conducted by: Kansas State University

Housing Experience Questionnaire	Dinka	English	Somalian Somalian	Spanish	Composite
n =	3	~ 40	32	6	~81
Question 1 Would people in your household use any of these type of facilities?					
a picnic area	2	12		3	**17**
an outdoor cooking area (like a barbeque)		11	1	3	**15**
group meeting rooms		6		6	**12**
party room		5	2	0	**7**
an indoor community kitchen	1	3		1	**5**
a small theater or stage		3		1	**4**
Question 2 Would you like indoor space for hobbies, recreation or group activities?					
Yes	3	13	1	5	**22**
No			20	0	**20**
If yes, what type of activities?					
Classes (like job training, English, computer, art, music)	2	10		4	**16**
Painting, sculpture & visual arts?		11		0	**11**
Child care	1	7		2	**10**
Cooking or Baking		8	1	1	**10**
Crafts (like jewelry-making, sewing)		9		0	**9**
Music		4		3	**7**
Question 3 If you have kids, what types of activities do they like to play?					
play on a playground	1	13	28	5	**47**
play computer games	1	9	33	2	**45**
play sports on a field (like soccer)	2	9	28	4	**43**
read books	1	9	31	2	**43**
talk to other kids, hang out		9	31	2	**42**
run or exercise		8	28	3	**39**
play pretend, make up stories		7	29	0	**36**
play board games		6	27	0	**33**
Question 4 What types of activities do you do with your neighbors sometimes?					
Kids play together	3	11	5	5	**24**
Celebrate birthdays or other events		12	3	4	**19**
Talk		11	4	1	**16**
Exercise		5	2	4	**11**
Share childcare	1	6	2	1	**10**

KSU Southside Terrace Resident Survey. June 16, 2016 *Page 1*

Housing Experience Questionnaire	Dinka	English	Somalian Somalian	Spanish	Composite
Share a ride somewhere		5	2	2	9
Eat together		5	2	1	8
Celebrate religious & cultural holidays		5	3	0	8
Continue cultural traditions		3	2	1	6
Housework		1	2	2	5
Question 5 What types of activities do adults in your household enjoy doing outdoors?					
spending time with neighbors	1	12	3	1	17
cooking or eating		10	2	3	15
caring for children		9	3	2	14
walking		9	1	3	13
celebrating events or holidays	1	7	3	2	13
exercise	2	2	1	2	7
playing sports (like soccer)		2	1	2	5
running	2		1	2	5
exercising pets		2	2	0	4
Question 6 Are there types of outdoor spaces you would use if they were available?					
kids' playground		12	4	5	21
picnic tables	3	13	2	3	21
shaded seating		10	3	0	13
gardens		8	3	2	13
basketball court	1	7	2	2	12
soccer field		3	3	4	10
baseball field		6	2	1	9
horseshoes, bocce, croquet, and other lawn games		2	2	1	5
Question 7 How many bedrooms are in your home?					
1 bedroom		2	1	1	4
2 bedrooms		3	3	0	6
3 bedrooms		4	4	5	13
4 bedrooms	2	2	9	0	13
5 bedrooms		2	15	0	17
6 bedrooms	1	1	1	0	3
7 bedrooms			4		4
Is that enough?					
Yes	2	9	2	3	16
No	1	5	25	2	33
Question 8 How many bathrooms are in your home?					
1 bathroom		8	1	6	15
2 bathrooms	2	5	4	0	11
3 bathrooms		1		0	1

Housing Experience Questionnaire		Dinka	English	Somalian Somalian	Spanish	Composite
Is that enough?						
	Yes		6	1	3	**10**
	No	3	8	4	2	**17**
Question 9	Is your kitchen large enough?					
	Yes		3	1	3	**7**
	No	3	10	36	3	**52**
Question 10	Is your living area large enough?					
	Yes		6		3	**9**
	No	3	7	5	3	**18**
Question 11	Is your dining area large enough?					
	Yes		4	1	3	**8**
	No	3		31	3	**37**
Question 12	Is your outdoor space large enough?					
	Yes	2	9	1	4	**16**
	No	1	4	2	1	**8**
Question 13	How do people in your household get to their jobs usually?					
	drive a car		6	16	3	**25**
	take a bus	2	6	2	2	**12**
	walk	1	2	3	3	**9**
	other / not applicable		4	2	1	**7**
	share a car		1	1	1	**3**
	bicycle		0	0	0	**0**
Question 14	How do people in your household get to the grocery store?					
	drive a car		7	14	4	**25**
	walk	2	4	5	4	**15**
	take a bus	1	6	0	2	**9**
	share a car		4	3	1	**8**
	groceries are delivered to my house		0	5	0	**5**
	bicycle		0	0	0	**0**
Question 15	How do people in your household get to the doctor?					
	drive a car		8	4	4	**16**
	take a bus	3	5		2	**10**
	walk		1		2	**3**

Housing Experience Questionnaire	Dinka	English	Somalian Somalian	Spanish	Composite
other / not applicable		2	1	0	**3**
share a car		2		0	**2**
bicycle		0		0	**0**

Question 16 How many people live in your house?

1		3		1	**4**
2		3		0	**3**
3		1		1	**2**
4		2	1	2	**5**
5		1		2	**3**
6		0	1	0	**1**
7	2	4	1	0	**7**
8					**0**
9					**0**
10			1		**1**
11	1				**1**
12					**0**
13			1		**1**

Question 17 In your house are grandparents living with their grandchildren?

Yes		0	1	0	**1**
No	3	14	3	6	**26**

Question 18 In your house are parents living with their adult children?

Yes	2	4	2	1	**9**
No	1		3		**4**

Question 19 How many people are:

Under 5 years old?

0		7		3	**10**
1	3	5	2	0	**10**
2		1	1	1	**3**
3		0	1	2	**3**
4		0		0	**0**
5		0		0	**0**

between 5-17 years old?

0		5		1	**6**
1		2	1	1	**4**
2	1	3	1	2	**7**
3	2	2		1	**5**
4		1		0	**1**
5		0		0	**0**
6		1	1		**2**

Housing Experience Questionnaire	Dinka	English	Somalian Somalian	Spanish	Composite
between 18-64 years old?					
0		0		1	**1**
1		9	3	5	**17**
2		2		0	**2**
3	3	1		0	**4**
4		0		0	**0**
5		1		0	**1**
65 years or older?					
0	3	14		1	**18**
1		0			**0**
2		0			**0**
3		0			**0**
4		0			**0**

Question 20 What street do you live on?

R Street		1			**1**
R Avenue		1			**1**
S Street		3	1	2	**6**
T Street		1		1	**2**
T Avenue		3	1	1	**5**
U Street		0			**0**
U Avenue		0			**0**
W Street		0			**0**
S 28th Avenue	2	0			**2**
S 29th Street	1	0	2	1	**4**
S 29th Avenue		3			**3**
S 30th Street		3		2	**5**

Notes

1. "Zero" responses reflect a vote of "no" or the choice not to respond
2. Most of the Somalian Somalian respondents preferred to respond via hand votes because of translation difficulties, and four chose to respond via written surveys

Appendix

B

Resident Workshop

IRB Documentation

KANSAS STATE UNIVERSITY | University Research Compliance Office

TO: Blake Belanger
LARCP
302 Seaton

Proposal Number: 8321

FROM: Rick Scheidt, Chair
Committee on Research Involving Human Subjects

DATE: 06/14/2016

RE: Proposal Entitled, "Southside Terrace Redevelopment"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2, subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

203 Fairchild Hall, Lower Mezzanine, 1601 Vattier St., Manhattan, KS 66506-1103 | 785-532-3224 | fax: 785-532-3278 | k-state.edu/research/comply | comply@ksu.edu

FOR OFFICE USE ONLY: IRB Protocol # Application Received: Routed: Training Complete:

KANSAS STATE UNIVERSITY
University Research Compliance Office

Committee for Research Involving Human Subjects (IRB)
Application for Approval Form

Please send your completed application to comply@k-state.edu

Last Revised: 02/17/2016

ADMINISTRATIVE INFORMATION:

Title of Project/Course: Southside Terrace Redevelopment

Type of Application: (check one box)
☑ New / Renewal ☐ Revision (to a pending new application)
☐ Modification to an existing approved application #:

Principal Investigator Details: (must be a KSU faculty member):

Name: Blake Belanger Degree/Title: MLA / Associate Professor

Department: Landscape Architecture and Regional & Community Planning Campus Phone: 785-323-7917

Campus Address: 302 Seaton Hall

E-mail: belanger@k-state.edu Fax #: 785-532-6722

Responsible Graduate Student: (Person to contact for questions/problems with the form):

Name: Howard Hahn (faculty) Campus Phone: cel 949 293-8900

E-mail: hhahn@ksu.edu

Does this project involve any collaborators not part of the faculty/staff at KSU? (projects with non-KSU collaborators may require additional coordination and approvals):

☑ No ☐ Yes

Project Classification (Is this project part of one of the following?):

☐ Thesis ☐ Dissertation ☑ Faculty Research

☑ Other: engaged research

Note: Class Projects should use the short form application for class projects.

Copy of the Consent Form: ☐ Copy will be submitted to comply@ksu.edu with this application ☑ Consent form not used

Funding Source: ☐ Internal ☑ External (Identify source. You will also need to provide a copy of the sponsor's grant application or contract as submitted to the funding agency. This should be submitted to comply@ksu.edu with your application.)

Technical Assistance to Brownfields, Center for Hazardous Substance Rese

Based upon criteria found in 45 CFR 46 – and the overview of projects that may qualify for exemption explained at http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html, I believe that my project using human subjects should be determined by the IRB to be exempt from IRB review:

☐ No ☑ Yes (If yes, please provide the category of "Exemption" in the space below)

Exempt Projects: 45 CFR 46 identifies six categories of research involving human subjects that may be exempt from IRB review. The categories for exemption are listed here: **http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html#c2** If you believe that your project qualifies for exemption, please indicate which exemption category applies (1-6). Please remember that only the IRB can make the final determination whether a project is exempt from IRB review, or not.

Exemption Category: 45 CFR 46.101(b)(2)

MODIFICATION:

Is this a modification of an approved protocol? ☑ No ☐ Yes **If yes, please comply with the following:**

If you are requesting a modification or a change to an IRB approved protocol, please provide a concise description of all of the changes that you are proposing in the following block. Additionally, please highlight or bold the proposed changes in the body of the protocol where appropriate, so that it is clearly discernible to the IRB reviewers what and where the proposed changes are. This will greatly help the committee and facilitate the review.

I. **NON-TECHNICAL SYNOPSIS** (Please provide a brief narrative description of proposal. This should typically be less than 75 words and be easily understood by nonscientists):

This research aims to understand the preferences of people living in the Southside Terrace public housing complex have about their living environment -- the apartments, the grounds, amenities, and links to community opportunities and resources. The purpose is to inform design for the redevelopment of the complex by a K-State studio class and to understand the demographics of this unique public housing complex.

II. **BACKGROUND** (concise narrative review of the literature and basis for the study):

This survey informs the design work and will also be used to launch the class into a review of some background literature in the areas of urban design/social interaction, environmental design of public housing, and refugee settlement in the United States.

III. **PROJECT/STUDY DESCRIPTION**

(Please provide a concise narrative description of the proposed activity in terms that will allow the IRB or other interested parties to clearly understand what it is that you propose to do that involves human subjects. This description must be in enough detail so that IRB members can make an informed decision about the proposal).

This research involves administering a questionnaire to the residents of Southside Terrace, a public housing site in Omaha, Nebraska. The survey will be administered by K-State collaborators at a resident workshop organized by the Omaha Housing Authority (OHA). The questionnaires will be coded and recorded in a database by students that are a part of the studio class this summer.

IV. **OBJECTIVE**

(Briefly state the objective of the research – what you hope to learn from the study).

The purpose is to inform design for the redevelopment of the public housing complex by a K-State landscape architecture studio class and to understand demographic characteristics of this unique public housing complex.

V. **DESIGN AND PROCEDURES** (succinctly outline formal plan for study)

A. List all sites where this research will be conducted:

Southside Terrace, Omaha Nebraska

B. Variables to be studied: Demographics (household size, age of household members, general location in the complex, but not address), Activities (outdoor recreation, social activities, indoor recreation), and Preferences (size of apartment, size of common space, available common facilities)

C. Data collection methods: (surveys, instruments, etc - **copies must submitted to comply@k-state.edu**).

Responses to a paper questionnaire (attached) will be collected at a resident workshop. Some of the residents do not speak English and some are illiterate so collaborators will be assisted in completing the questionnaire by translators appointed by the OHA with skills in the languages of people living at Southside Terrace. Residents will be provided with a summary stating the purpose of the questionnaire (attached).

D. List any factors that might lead to a subject dropping out or withdrawing from a study. These might include, but are not limited to emotional or physical stress, pain, inconvenience, etc.

Subjects may drop out if they are uncomfortable with the questions or confused by them.

E. List all biological samples taken: (if any)

none.

F. Debriefing procedures for participants:

Participants will be informed verbally and in writing about the purpose and process of the questionnaire. A written summary will be provided to respondents in English, and OHA-provided translators will verbally translate the survey and summary for non-English speakers. The questionnaire and explanation will be provided on OHA letterhead. The outcomes of the studio will be provided in a studio book summary to the OHA, which will make the information available to participants.

VI. RESEARCH SUBJECTS:

A. Source:

Residents will be invited to the workshop by the Omaha Housing Authority

B. Number: (provide a brief rationale for your sample size)

There are 359 housing units in the complex in 51 buildings. We aim for 100 respondents

C. Inclusion criteria: (List any unique qualifiers desirable for research subject participation)

Resident of Southside Terrace 18 years and older

D. Exclusion criteria: (list any unique disqualifiers for research subject participation)

Only one respondent per household

E. Recruitment procedures:
How will subjects be identified?

The population is the Southside Terrace housing units. All residents 18 and older are potential subjects. Respondents will not be identified on the survey.

How will subjects be recruited (advertisement, associates, etc.) ?

Workshop invitations were provided to Southside Terrace residents by the OHA.

How will subjects be enrolled?

Subjects will be enrolled by answering the questionnaire. Their enrollment lasts only as long as the time it takes to complete the questionnaire.

Describe any follow-up recruitment procedures: (reminder emails, mailings, etc.)

Aggregated results of the survey will be reported in a book summary of the class project, available to residents of the complex and will be presented, along with design concepts in July, 2016 to residents, OHA staff and other stakeholders.

VII. RISK - PROTECTION - BENEFITS: The answers for the three questions below are central to human subjects research. You must demonstrate a reasonable balance between anticipated risks to research participants, protection strategies, and anticipated benefits to participants or others.

A. Risk for Subjects: (check all that apply)

- ☐ Exposure to infectious diseases
- ☐ Use of confidential records
- ☐ Exposure to radiation
- ☐ Manipulation of psychological or social variables such as sensory deprivation, social isolation, psychological stressors
- ☐ Examining for personal or sensitive information in surveys or interviews
- ☐ Presentation of materials which subjects might consider sensitive, offensive, threatening, or degrading
- ☐ Invasion of privacy of subject or family
- ☐ Social or economic risk
- ☐ Risk associated with exercise or physical exertion
- ☐ Legal risk
- ☐ Review of medical records
- ☐ Review of criminal records
- ☐ HIV/AIDS or other STD's
- ☐ Employment/occupational risk
- ☐ Others – Please explain below (Indirect risks, risk to individuals who are not the primary subjects):

B. Minimizing Risk: (Describe specific measures used to minimize or protect subjects from anticipated risks.)

There is no more than minimal risks to subjects however, to increase the comfort of participants, their identities, and the identity of their household will remain confidential.

C. Benefits: (Describe any reasonably expected benefits for research participants, a class of participants, or to society as a whole.)

There are minimal benefits to participants. The resulting design may help inform future design of the site when it is redeveloped.

D. More than Minimal Risk? In your opinion, does the research involve more than minimal risk to subjects? ("Minimal risk" means that "the risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.")

☐ Yes ☑ No

VIII. CONFIDENTIALITY: Confidentiality is the formal treatment of information that an individual has disclosed to you in a relationship of trust and with the expectation that it will not be divulged to others without permission in ways that are inconsistent with the understanding of the original disclosure. Consequently, it is your responsibility to protect information that you gather from human research subjects in a way that is consistent with your agreement with the volunteer and with their expectations.

Explain how you are going to protect confidentiality of research subjects and/or data or records. Include plans for maintaining records after completion.

Names of respondents and the people in their household will not be recorded on the questionnaire. Respondents will be asked which street they live on but as there are several buildings on each street, it will be difficult to identify a survey respondent. Those

assisting with the survey will be aware of the respondents' responses but the people who code the survey and enter the responses into the database (students in the studio class) will not be aware of the respondents' identities. The completed questionnaires will be anonymous.

IX. INFORMED CONSENT: Informed consent is a critical component of human subjects research - it is your responsibility to make sure that any potential subject knows exactly what the project that you are planning is about, and what his/her potential role is. (There may be projects where some forms of "deception" of the subject is necessary for the execution of the study, but it must be carefully justified to and approved by the IRB). A schematic for determining when a waiver or alteration of informed consent may be considered by the IRB is found at **http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html#c10**

Even if your proposed activity does qualify for a waiver of informed consent, you must still provide potential participants with basic information that informs them of their rights as subjects, i.e. explanation that the project is research and the purpose of the research, length of study, study procedures, debriefing issues to include anticipated benefits, study and administrative contact information, confidentiality strategy, and the fact that participation is entirely voluntary and can be terminated at any time without penalty, etc. Even if your potential subjects are completely anonymous, you are obliged to provide them (and the IRB) with basic information about your project. See informed consent example on the URCO website. It is a federal requirement to maintain informed consent forms for 3 years after the study completion.

Answer the following questions about the informed consent procedures.

☐ Yes ☑ No **A.** Are you using a written informed consent form? If "yes," include a copy with this application. If "no" see B.

☑ Yes ☐ No **B.** In accordance with guidance in 45 CFR 46, I am requesting a waiver or alteration of informed consent elements (see section VIII above). If "yes," provide a basis and/or justification for your request.

We assume that participants consent to participate in the survey by filling out the questionnaire. We provide both verbal and written information about the purpose and process of the survey.

☐ Yes ☑ No **C.** Are you using the online Consent Form Template provided by the URCO? If "no," does your Informed Consent document have all the minimum required elements of informed consent found in the Consent Form Template? (Please explain)

☐ Yes ☑ No **D.** Are your research subjects anonymous? If they are anonymous, you will not have access to any information that will allow you to determine the identity of the research subjects in your study, or to link research data to a specific individual in any way. Anonymity is a powerful protection for potential research subjects. (An anonymous subject is one whose identity is unknown even to the researcher, or the data or information collected cannot be linked in any way to a specific person).

They are not anonymous at the time of filling out the questionnaire as many need assistance with the forms because they are not native English speakers or are illiterate. However, there is no identifying information on the questionnaire so once the questionnaire has been turned in, the respondent is anonymous. Respondents who fill in the questionnaire without assistance are completely anonymous.

☑ Yes ☐ No **E.** Are subjects debriefed about the purposes, consequences, and benefits of the research? Debriefing refers to a mechanism for informing the research subjects of the results or conclusions, after the data is collected and analyzed, and the study is over. (If "no" explain why.) **Copy of debriefing statement to be utilized should be submitted to comply@k-state.edu with your application.**

Aggregated results of the survey will be reported in a book summary of the class project, available to residents of the complex and will be presented, along with design concepts in July, 2016 to residents, OHA staff and other stakeholders.

F. **Describe the Informed Consent Process:**

Who is obtaining the consent? (i.e. Principle Investigator, Graduate Student, etc.)

Consent is assumed by returning the survey

When and where will consent be obtained?

Surveys will primarily be taken in the home.

If assent (for minors) is required, please describe who will obtain the assent? (Assent means a child's affirmative agreement to participate in research)

If assent (for minors) is required, when and where will assent be obtained?

How will consent be obtained from non-English speaking participants? (a translated written form, orally, identify the name and qualifications of the individual providing the translation)

Non-English speaking residents will be assisted in filling out the survey by a resident leader or staff who speaks their language.

Informed Consent Checklist

Items	YES	NO	N/A
Does the title appear at the top of the consent/assent form?	☑	☐	☐
Is the consent/assent form written toward the subject?	☑	☐	☐
Is there a statement that explains that the study is *research*?	☑	☐	☐
Is there a statement that explains the *purpose* of the research?	☑	☐	☐
Are the procedures to be followed explained clearly and adequately?	☑	☐	☐
Does the consent document describe *risks or discomforts* to subjects as a result of participating in the research?	☐	☐	☑
Is the consent/assent form written in the *native language* of the potential subject?	☐	☑	☐
Are participants compensated?	☐	☑	☐
If the subjects' identity is known to the PI, does the form detail how confidentiality of records will be maintained?	☐	☐	☑
Is contact information for both the PI and the URCO/IRB office included?	☑	☐	☐
Does the consent document indicate to the participant that he/she can withdraw at any time from the project without penalty or loss of benefit?	☑	☐	☐
Are there probable circumstances which would require the PI to terminate a subject's participation regardless of his or her consent?	☐	☑	☐
Is the consent document written in lay language (Recommended 8th grade level)?	☑	☐	☐

X. **PROJECT INFORMATION:** (If you answer Yes to any of the questions below, you should explain them in one of the paragraphs above)

☐ Yes ☑ No A. Deception of subjects? If "YES" explain why this is necessary.

☐ Yes ☑ No B. Shock or other forms of punishment

☐ Yes ☑ No C. Sexually explicit materials or questions about sexual orientation, sexual experience or sexual abuse

☐ Yes	☑ No	D.	Handling of money or other valuable commodities
☐ Yes	☑ No	E.	Extraction or use of blood, other bodily fluids, or tissues (if "yes', you must comply with facility and handling protections detailed in the 5th Edition of the Biosafety in Biomedical Laboratories (BMBL))
☐ Yes	☑ No	F.	Questions about any kind of illegal or illicit activity
☐ Yes	☑ No	G.	Questions about protected health information as defined by HIPAA
☐ Yes	☑ No	H.	Purposeful creation of anxiety
☐ Yes	☑ No	I.	Any procedure that might be viewed as invasion of privacy
☐ Yes	☑ No	J.	Physical exercise or stress
☐ Yes	☑ No	K.	Administration of substances (food, drugs, etc.) to subjects
☐ Yes	☑ No	L.	Any procedure that might place subjects at risk
☐ Yes	☑ No	M.	Will there be any use of Radioactive materials and/or use of Radioactive producing machines
☐ Yes	☑ No	N.	Any form of potential abuse; i.e., psychological, physical, sexual
☑ Yes	☐ No	O.	Is there potential for the data from this project to be published in a journal, presented at a conference, etc?
☑ Yes	☐ No	P.	Use of surveys or questionnaires for data collection. **Copies should be submitted to comply@k-state.edu with your application.**

XI. SUBJECT INFORMATION: (If you answer yes to any of the questions below, you should explain them in one of the paragraphs above)

☐ Yes	☑ No	a.	Under 18 years of age (these subjects require parental or guardian consent)
☑ Yes	☐ No	b.	Over 65 years of age
☐ Yes	☑ No	c.	Minorities as target population
☐ Yes	☑ No	d.	Physically or mentally disabled
☑ Yes	☐ No	e.	Economically or educationally disadvantaged
☐ Yes	☑ No	f.	Unable to provide their own legal informed consent
☐ Yes	☑ No	g.	Pregnant females as target population
☐ Yes	☑ No	h.	Victims
☐ Yes	☑ No	i.	Subjects in institutions (e.g., prisons, nursing homes, halfway houses)
☐ Yes	☑ No	j.	Are subjects likely to be vulnerable to coercion or undue influence
☐ Yes	☑ No	k.	Is this international research? If yes, provide details as to if OHRP regulations apply in or near the area you intend to conduct research or if you have contacted individuals for applicable regulations to human subject research.
☐ Yes	☑ No	l.	Are research subjects in this activity students recruited from university classes or volunteer pools? If so, do you have a reasonable alternative(s) to participation as a research subject in your project, i.e., another activity such as writing or reading that would serve to protect students from unfair pressure or coercion to participate in this project? If you answered this question "Yes," explain any alternatives options for class credit for potential human subject volunteers in your study. (It is also important to remember that: Students must be free to choose not to participate in research that they have signed up for at any time without penalty. Communication of their decision can be conveyed in any manner, to include simply not showing up for the research.)
☐ Yes	☑ No	m.	Is audio from the subjects recorded? If yes, how do you plan to protect the recorded information and mitigate any additional risks?
☐ Yes	☑ No	n.	Are research subjects' images being recorded (video taped, digitally recorded, photographed)? If yes, how do you plan to protect the recorded information and mitigate any additional risks?

XII. FDA ACTIVITIES: Answer the following questions about potential FDA regulated activities:

☐ Yes	☑ No	a.	Is this a Clinical Trial?
☐ Yes	☑ No	b.	Are you using an FDA approved drug/device/diagnostic test?
☐ Yes	☑ No	c.	Does this activity involve the use of FDA-Regulated products? (biological products, color additives, food additives, human drugs, etc.)
☐ Yes	☑ No	d.	Has the protocol been submitted to the FDA, or are there plans to submit it to the FDA?
☐ Yes	☑ No	e.	Have you submitted an FDA form 3454 or 3455 (conflict of interest)?

XIII. CONFLICT OF INTEREST: Concerns have been growing that financial interests in research may threaten the safety and rights of human research subjects. Financial interests are not in them selves prohibited and may well be appropriate and legitimate. Not all financial interests cause Conflict of Interest (COI) or harm to human subjects. However, to the extent that financial interests may affect the welfare of human subjects in research, IRB's, institutions, and investigators must consider what actions regarding financial interests may be necessary to protect human subjects. Please answer the following questions:

☐ Yes	☑ No	a.	Do you or the institution have any proprietary interest in a potential product of this research, including patents, trademarks, copyrights, or licensing agreements?
☐ Yes	☑ No	b.	Do you have an equity interest in the research sponsor (publicly held or a non-publicly held company)?
☐ Yes	☑ No	c.	Do you receive significant payments of other sorts, eg., grants, equipment, retainers for consultation and/or honoraria from the sponsor of this research?
☐ Yes	☑ No	d.	Do you receive payment per participant or incentive payments?
		e.	If you answered **yes** to any of the above questions, please provide adequate explanatory information so the IRB can assess any potential COI indicated above.

XIV. PROJECT COLLABORATORS:

A. **KSU Collaborators**: List anyone affiliated with KSU who is collecting or analyzing data: (list all collaborators on the project, including co-principal investigators, undergraduate and graduate students).

Name:	Department:	Campus Phone:	Campus E-mail:
Howard Hahn	Landscape Architecture and Regional & Community Planning	532-2431	hhahn@k-state.edu
Katherine Nesse	Landscape Architecture and Regional & Community Planning	532-2439	knesse@k-state.edu
Brown, Skylar Ray	Landscape Architecture and Regional & Community Planning		skylarbrown@k-state.edu
Corrie, Brian	Landscape Architecture and Regional & Community Planning		bpcorrie@k-state.edu
Depriest, Anthony John	Landscape Architecture and Regional & Community Planning		adepriest13@k-state.edu
Finck, Caroline Leona	Landscape Architecture and Regional & Community Planning		cfinck@k-state.edu
Lanning, Evan	Landscape Architecture and Regional & Community Planning		elanning@k-state.edu
Lemken, Andrea	Landscape Architecture and Regional & Community Planning		lem95and@k-state.edu
Nelson, Breanna	Landscape Architecture and Regional & Community Planning		nels9279@k-state.edu

Nyp, Chandler	Landscape Architecture and Regional & Community Planning		cjnyp@k-state.edu
Rankin, Rachel	Landscape Architecture and Regional & Community Planning		rerankin@k-state.edu
Sun, Wei	Landscape Architecture and Regional & Community Planning		weisun0104@k-state.edu
Sundine, Josh	Landscape Architecture and Regional & Community Planning		jsundine12@k-state.edu
Wong, Tsz Wai	Landscape Architecture and Regional & Community Planning		astridtw@k-state.edu

Add Row | Delete Row

B. **Non-KSU Collaborators**: List all collaborators on your human subjects research project not affiliated with KSU in the spaces below. KSU has negotiated an Assurance with the Office for Human Research Protections (OHRP), the federal office responsible for oversight of research involving human subjects.

Name:	Organization:	Phone:	Institutional E-mail:

Add Row | Delete Row

C. **Does your non-KSU collaborator's organization have an Assurance with OHRP?** (for Federalwide Assurance listings of other institutions, please reference the OHRP website under Assurance Information at: **http://ohrp.cit.nih.gov/search**).

☐ Yes ☑ No If yes, Collaborator's FWA #

Is your non-KSU collaborator's IRB reviewing this proposal?

☐ Yes ☑ No If yes, IRB approval #

XV. IRB Training:

A. **The URCO must have a copy of the Unaffiliated Investigator Agreement on file for each non-KSU collaborator who is not covered by their own IRB and assurance with OHRP.** When research involving human subjects includes collaborators who are not employees or agents of KSU the activities of those unaffiliated individuals may be covered under the KSU Assurance only in accordance with a formal, written agreement of commitment to relevant human subject protection policies and IRB oversight. The Unaffiliated Investigators Agreement can be found and downloaded at **http://www.k-state.edu/research/comply/irb/forms**

Online Training

TRAINING REQUIREMENTS HAVE RECENTLY CHANGED

The IRB has mandatory training requirements prior to protocol approval. Training is now offered through the Collaborative Institutional Training Initiative (CITI) Program. Instructions for registration and access to training are on the URCO website http://www.k-state.edu/research/comply/.

Use the check boxes below to select the training courses that apply to this application. If you have any questions about training, contact URCO at comply@ksu.edu, or (785) 532-3224.

Mandatory Training

Required for all Principal Investigators, research staff and students

☒ Responsible Conduct of Research

☒ IRB core modules

Required (Provost-mandated) for all full-time K-State employees

☑ Export Compliance

Required procedure-specific training (check all that apply to this protocol):

☐ Students in Research (check if students are listed as personnel on this protocol) ☐ International Research

☐ Research in Public Elementary and Secondary Schools ☐ Research with Children ☐ Research with Prisoners

☐ Internet Research ☐ Vulnerable Subjects - Research Involving Workers/Employees

☐ Research with Subjects with Physical Disabilities and Impairments ☐ Illegal Activities or Undocument Status in Human Research

☐ Gender and Sexuality Diversity in Human Research ☐ Research with human blood, body fluids, or tissues

☐ Research with Older Adults

All new personnel or personnel with expired training are required to register for CITI and take the new training requirements. If you previously completed online IRB modules, your training status will remain current until it expires. URCO will verify training from the previous system as well as the new system prior to approval of any protocol.

INVESTIGATOR ASSURANCE FOR RESEARCH INVOLVING HUMAN SUBJECTS

(Print this page separately because it requires a signature by the PI.)

P.I. Name: Blake Belanger

Title of Project: Southside Terrace Redevelopment

XVI. ASSURANCES: As the Principal Investigator on this protocol, I provide assurances for the following:

A. Research Involving Human Subjects: This project will be performed in the manner described in this proposal, and in accordance with the Federalwide Assurance FWA00000865 approved for Kansas State University available at http://www.hhs.gov/ohrp/assurances/forms/filasurt.html, applicable laws, regulations, and guidelines. Any proposed deviation or modification from the procedures detailed herein must be submitted to the IRB, and be approved by the Committee for Research Involving Human Subjects (IRB) prior to implementation.

B. Training: I assure that all personnel working with human subjects described in this protocol are technically competent for the role described for them, and have completed the required IRB training accessed via the URCO website at: http://www.k-state.edu/research/comply/irb/training. I understand that no proposals will receive final IRB approval until the URCO has documentation of completion of training by all appropriate personnel.

C. Extramural Funding: If funded by an extramural source, I assure that this application accurately reflects all procedures involving human subjects as described in the grant/contract proposal to the funding agency. I also assure that I will notify the IRB/URCO, the KSU PreAward Services, and the funding/contract entity if there are modifications or changes made to the protocol after the initial submission to the funding agency.

D. Study Duration: I understand that it is the responsibility of the Committee for Research Involving Human Subjects (IRB) to perform continuing reviews of human subjects research as necessary. I also understand that as continuing reviews are conducted, it is my responsibility to provide timely and accurate review or update information when requested, to include notification of the IRB/URCO when my study is changed or completed.

E. Conflict of Interest: I assure that I have accurately described (in this application) any potential Conflict of Interest that my collaborators, the University, or I may have in association with this proposed research activity.

F. Adverse Event Reporting: I assure that I will promptly report to the IRB / URCO any unanticipated problems involving risks to subjects or others that involve the protocol as approved. Unanticipated or Adverse Event Form is located on the URCO website at: http://www.k-state.edu/research/comply/irb/forms. In the case of a serious event, the Unanticipated or Adverse Events Form may follow a phone call or email contact with the URCO.

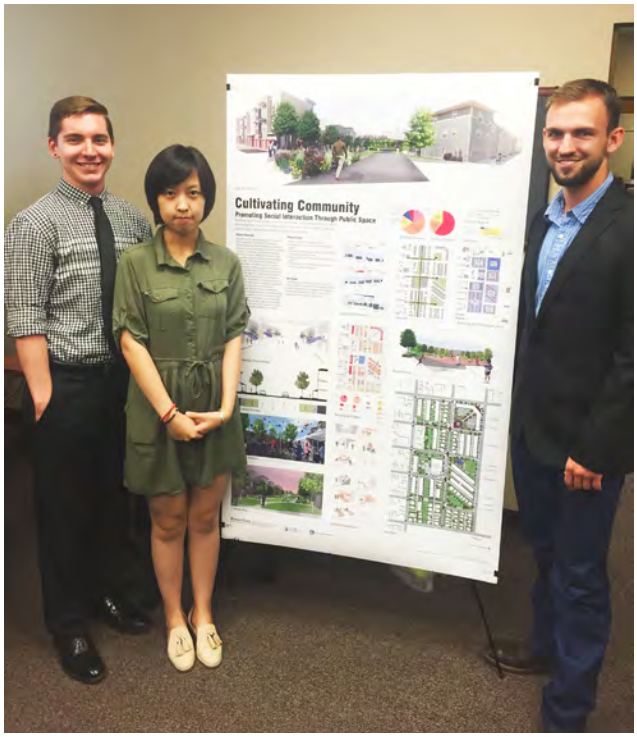
G. Accuracy: I assure that the information herein provided to the Committee for Human Subjects Research is to the best of my knowledge complete and accurate.

P.I. Signature:  Date: 2 June 2016

THE TEAMS

Scenario 1 | Cultivating Community

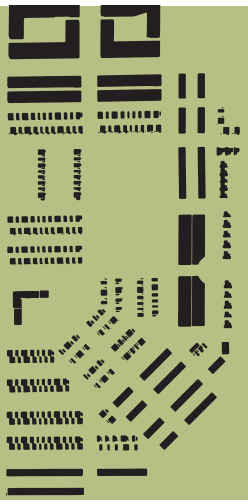
Brian Corrie
Wei Sun
Josh Sundine



Scenario 2 | Convergence

Anthony Depriest
Bre Nelson
Skylar Brown





Scenario 3 | Sustaining Southside

Rachel Rankin
Andrea Lemken
Chandler Nyp





Scenario 4 | Southside Catalyst

Caroline Finck
Evan Lanning
Astrid Wong



R E T

R E D E

R E C O N

A I N

F I N E

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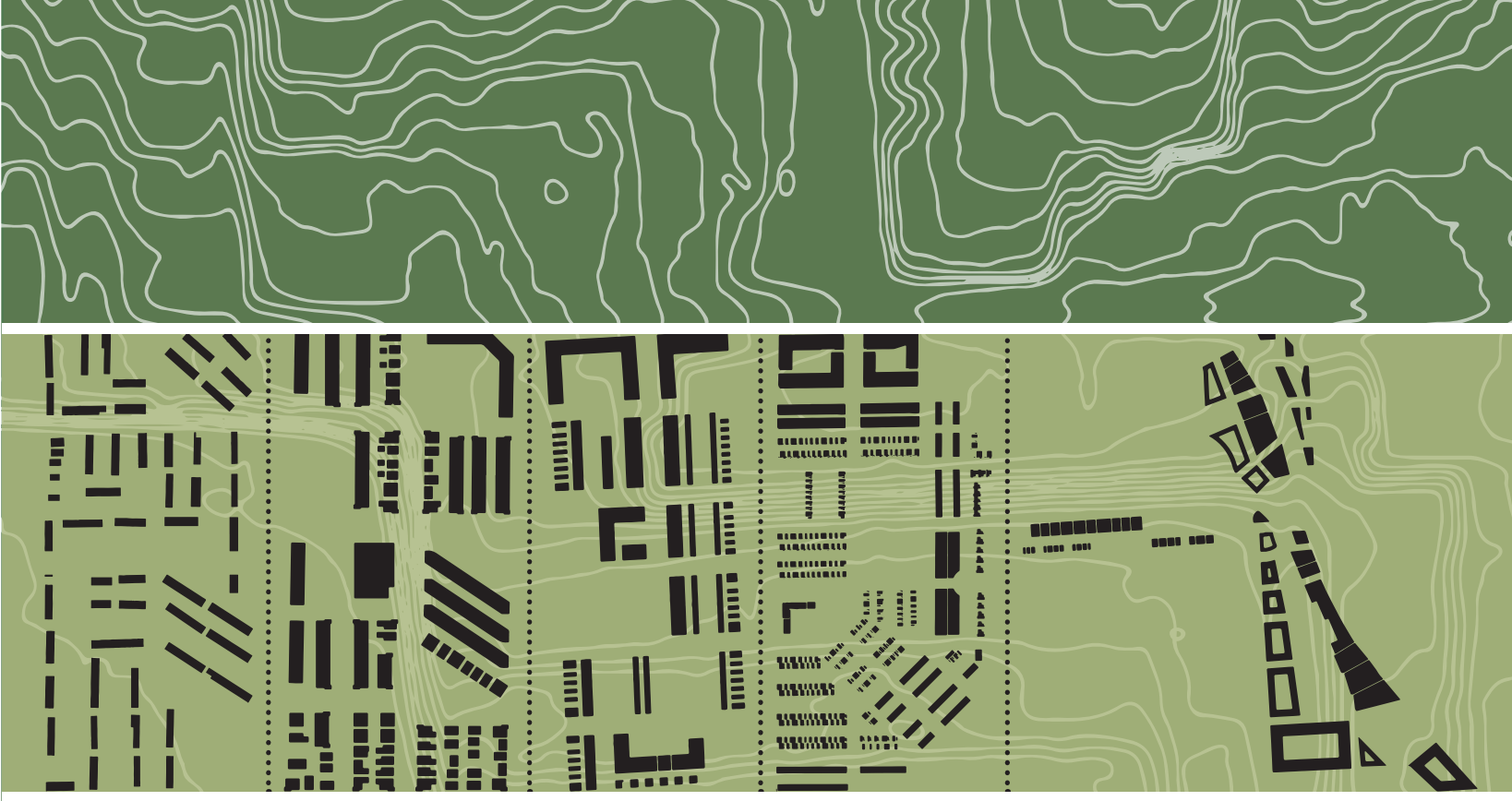
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R A C E

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R A C E



TAB

TECHNICAL ASSISTANCE TO BROWNFIELDS

KANSAS STATE UNIVERSITY

College of Architecture, Planning and Design

Department of Landscape Architecture and
Regional & Community Planning