



SENSE YOUR NEIGHBOR

DESIGN FOR BRIDGING SOCIAL CAPITAL IN DIVERSE SPACES

AMANDA PEDERSEN CORTEZ



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

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ABSTRACT

This thesis is concerned with the social impacts of urban design. It responds to the extensive history of race-based and class-based exclusion in American cities and offers a critique of postmodern planning strategies that seek to encourage social diversity but often undermine it.

The Braddock Metro Neighborhood in Alexandria, Virginia, encompasses the historic community of Uptown, at one time the largest African-American community in Alexandria. Uptown, like most African-American urban neighborhoods in the United States, has been shaped by the forces of racism, segregation, displacement, public housing, white flight, economic disinvestment, crime, historic districting, and - recently - redevelopment and gentrification.

The Braddock Metro Neighborhood Plan, a small-area master plan for accommodating transit-oriented redevelopment while affirming neighborhood character and connecting diverse residents, serves as the foundational document for neighborhood redevelopment. Central to the Neighborhood Plan is the replacement of public housing projects with mixed-income communities. These communities, which accommodate an influx of middle-income residents while retaining a percentage of low-income residents, are expressing a new type of residential diversity in the neighborhood, particularly in terms of the spatial proximity of different social groups.

Proponents of mixed-income communities cite the potential for the formation of Bridging Social Capital (i.e., benefits, such as improved educational or employment opportunities, shared via casual ties among residents of different social groups). However, researchers have observed self-segregation occurring among residents of mixed-income communities, suggesting that spatial proximity alone does not guarantee the mixture of different social groups.

This thesis posits that social mixing in diverse neighborhoods depends upon the presence of carefully designed social spaces, and it offers a set of streetscape interventions intended to support the formation of Bridging Social Capital in the Braddock Metro Neighborhood. The selected site consists of two historic street segments that are not yet fully redeveloped or gentrified. Design decisions are grounded in a careful assessment of site conditions, including existing social conditions, and supported by academic research in history, sociology, urban planning, and social-space design theory.

Precise, small-scale interventions engage edges, affirm site character, and encourage residents to linger, sense one another, and tolerate challenging conditions of diversity. Design elements also accommodate the City of Alexandria's guidelines for street safety, mobility, accessibility, stormwater management, and historic preservation.



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GENERAL AUDIENCE ABSTRACT

This thesis is concerned with the social impacts of urban design. It responds to the extensive history of discrimination based on race and class in American cities and questions the effectiveness of popular planning strategies in supporting social diversity.

The Braddock Metro Neighborhood in Alexandria, Virginia, includes the historic community of Uptown, once the largest African-American community in Alexandria. Uptown, like most African-American urban neighborhoods in the United States, has been shaped by racism, segregation, public housing, and - recently - redevelopment and gentrification.

The City of Alexandria's *Braddock Metro Neighborhood Plan* guides ongoing redevelopment. A key component of the plan is the replacement of public housing projects with mixed-income communities, which provide homes for both middle-income and low-income residents, often in the same building.

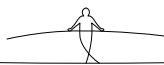
Supporters of mixed-income communities assert that residents of different social groups will casually interact, sharing benefits such as improved educational or employment opportunities. These benefits are often described as Bridging Social Capital. However, researchers have observed that residents of different social groups in mixed-income communities often choose not to interact: although their homes are mixed, residents remain segregated.

This thesis claims that carefully designed social spaces are needed to support social mixing in diverse neighborhoods, and it offers a set of designs to support the formation of Bridging Social Capital in the Braddock Metro Neighborhood.

The selected site consists of two historic street segments in Uptown that have not yet been redeveloped. Site conditions, including existing social conditions, are carefully assessed, and a proposed design strategy is supported by research in history, sociology, urban planning, and social-space design theory. Precise, small-scale interventions offer spaces for residents to linger, sense one another, and tolerate the challenges of living in a diverse neighborhood.



ACKNOWLEDGMENTS



At the age of 40, I decided to string a high wire between one career and the next. Fortunately, my wire hung above a strong safety net. I fell several times before emerging - dizzy and utterly changed - with this thesis. After every fall, my dearest friends and family pulled me from the net and healed me with love, laughter, and empathy before gently setting me back on the wire. Again and again, until I made it across.

My beautiful son, Andy, this thesis will live on the Internet, and the Internet is forever, so I will take this opportunity to post for eternity my love for you. Our days together have passed so quickly. In an instant, you've grown from a fun-loving and hilarious little boy into a thoughtful, creative, and compassionate young man. I am so very proud of you. Thank you for staying up late to help build architectural models and for triple-hatting as IT support, weeknight chef, and standup comedian in this house.

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INTRODUCTION AND ORIENTATION

This thesis is concerned with the social impacts of urban design. It responds to the extensive history of race-based and class-based exclusion in American cities (Figure 1) (Armborst, et al, 2017) and offers a critique of postmodern planning strategies that seek to encourage social diversity but are insufficient and sometimes detrimental to that goal. This thesis posits that social mixing in diverse neighborhoods depends upon the presence of carefully designed social spaces and offers a set of streetscape interventions intended to support the formation of casual ties among residents of different social groups. Such ties can lead to an exchange of benefits, including improved educational or employment opportunities, termed collectively as Bridging Social Capital.

Book sections are organized as follows.

“Introduction and Orientation” introduces the thesis, describes its organization, and orients the reader to the Braddock Metro Neighborhood.

“Neighborhood Redevelopment Planning” explores three recommendations made by the City of Alexandria’s *Braddock Metro Neighborhood Plan* to affirm neighborhood character and connect diverse residents. Summaries of these recommendations are supplemented with observations and research-backed design considerations.

“Design Intent and Site Selection” declares the overall intent of the thesis design and describes the process of selecting a site within the Braddock Metro Neighborhood to best articulate the design intent.

“Site and Redevelopment Analysis” offers a careful assessment of site conditions, including existing social conditions, and contemplates the form, function, and anticipated social effects of a redevelopment scenario representing a straight application of the design guidelines set forth in the Neighborhood Plan.

“Design Proposal” describes a series of interventions intended to support the formation of Bridging Social Capital within the selected site while accommodating city requirements for street safety, mobility, accessibility, stormwater management, and historic preservation.

“Conclusions” summarizes this thesis, proposes additional research, and presents images from the thesis design defense.

“Postscript” reflects on the exchange of hope as an expression of Bridging Social Capital in the Braddock Metro Neighborhood.



Figure 1. No Trespassing or Loitering. Replicate of the sign posted in public housing projects throughout the Braddock Metro Neighborhood.

BRADDOCK METRO NEIGHBORHOOD

The Braddock Metro Neighborhood is located in eastern Alexandria, Virginia (Figure 2). Although it is named for its transit hub (Braddock Road Metro Station, which opened in 1983), the neighborhood is characterized by its industrial roots and African-American heritage. Spanning approximately 200 acres, the neighborhood is bordered by the Metrorail Blue and Yellow lines to the west, Cameron Street to the south, Columbus Street to the east, and Fayette Street/Route 1 to the north (Figure 3).

Because the Braddock Metro Neighborhood is almost entirely represented by U.S. Census Bureau Tract 2016, census data can be used to contemplate neighborhood demographic trends. Between 1980 and the most recent decennial census in 2010, the concentration of African-American residents living

in Census Tract 2016 fell from 90 percent to just over 30 percent, while the total population increased by 40 percent (U.S. Census Bureau, 2010a). These data suggest that redevelopment and gentrification have produced striking demographic changes in the neighborhood over the past few decades.

Since 2008, redevelopment in the Braddock Metro Neighborhood has been guided by a suite of plans and studies. The City of Alexandria's *Braddock Metro Neighborhood Plan* (2008) is a small-area master plan for transit-oriented redevelopment. An addendum to the Neighborhood Plan, the *Braddock East Master Plan* (2008), explores redevelopment of the neighborhood's remaining public housing projects. Finally, the *Braddock Road Metrorail Station - Joint Development Analysis* (2016) evaluates redevelopment opportunities on neighborhood property owned by the Washington Metropolitan Area Transit Authority (WMATA).



Figure 2. Braddock Metro Neighborhood in Alexandria, Virginia. The Braddock Metro Neighborhood, located in eastern Alexandria, Virginia, is almost entirely represented by U.S. Census Bureau Tract 2016.

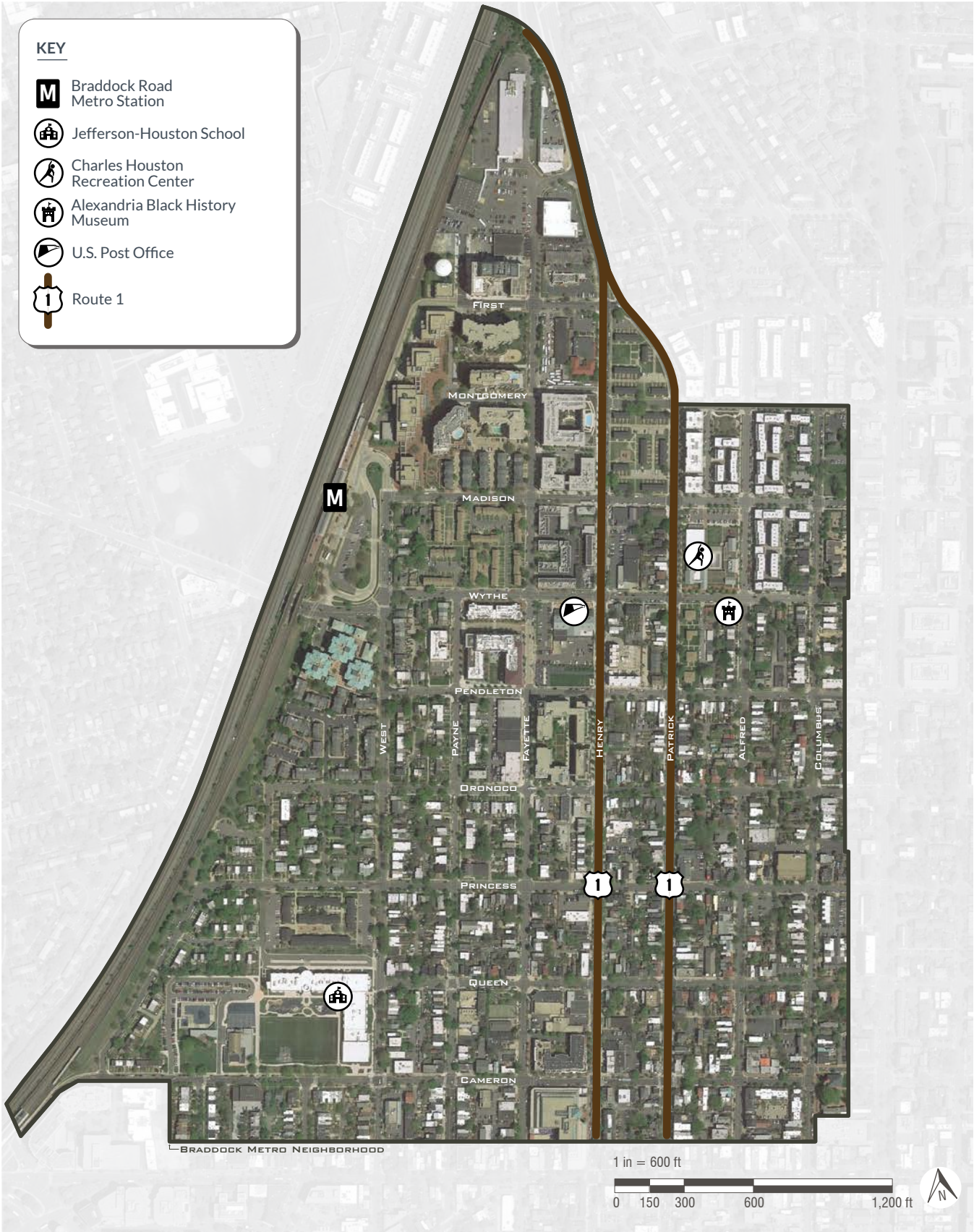


Figure 3. Border, Braddock Metro Neighborhood. Spanning approximately 200 acres, the Braddock Metro Neighborhood is bordered by the Metro Blue and Yellow lines to the west, Cameron Street to the south, Columbus Street to the east, and the intersection of Fayette Street and Route 1 to the north.



NEIGHBORHOOD REDEVELOPMENT PLANNING

The City of Alexandria's *Braddock Metro Neighborhood Plan*, formed through partnership with residents and neighborhood representatives, offers guiding principles for balancing preservation and change as the City implements transit-oriented redevelopment over a 20-year build-out period (Figure 4). Topping the list is the guiding principle for fostering neighborhood identity, vitality, and diversity:

There is a sense that this vital neighborhood, with its rich history and charming residential streets will become just another anonymous part of Alexandria's urban expanse and an afterthought to Old Town unless steps are taken to affirm its individual character and bring its diverse residents together.

(City of Alexandria, 2008a)

Toward the goal of affirming neighborhood character and connecting diverse residents, the Neighborhood Plan makes three recommendations, each of which is explored in the pages that follow:

- Replace the neighborhood's public housing projects with mixed-income communities.
- Develop an historic preservation program.
- Create public gathering places to bring diverse residents together.

MIXED-INCOME COMMUNITIES

Central to the City's redevelopment strategy is the replacement of public housing projects with mixed-income communities. The City's *Braddock East Master Plan*, an addendum to the Neighborhood Plan, focuses exclusively on the redevelopment of four public housing projects in the neighborhood (Figure 4). The City created the Master Plan through partnership with residents, neighborhood representatives, and the Alexandria Redevelopment and Housing Authority (ARHA), the City's independent public housing owner and administrator. (City of Alexandria, 2008b)

Mixed-Income Communities

Mixed-income communities offer a range of spatially proximate housing types and tenures to residents of low, moderate, and middle incomes. They are "explicitly integrationist" with regard to income and race, deviating from most urban communities in the United States, which remain persistently segregated (Thurber, et al, 2017).

Between 1993 and 2010, the U.S. Department of Housing and Urban Development (HUD) released \$6.7 billion in HOPE VI competitive grants to support the demolition of "severely distressed" public housing projects and the construction of mixed-income communities (HUD, 2018a). The successor to HOPE VI, Choice Neighborhoods, has granted more than \$640 million between 2010 and 2018 (HUD, 2018b).

As federal funding for the provision, maintenance, and renovation of public housing projects wanes, cities are seeking new financial models for housing the poor. Mixed-income communities facilitate sophisticated financial partnerships among cities, housing authorities, and private developers. (City of Alexandria, 2008b)

Mixed-income communities do not conform to a single definition, nor do they exhibit consistency in income mix, racial diversity, or the spatial proximity of housing types. Consequently, such communities prove difficult to study as a group, and their socioeconomic implications are not fully understood (Levy, et al, 2013). Nevertheless, mixed-income communities are prevalent in cities seeking to accommodate redevelopment and gentrification while maintaining some percentage of housing for the poor.

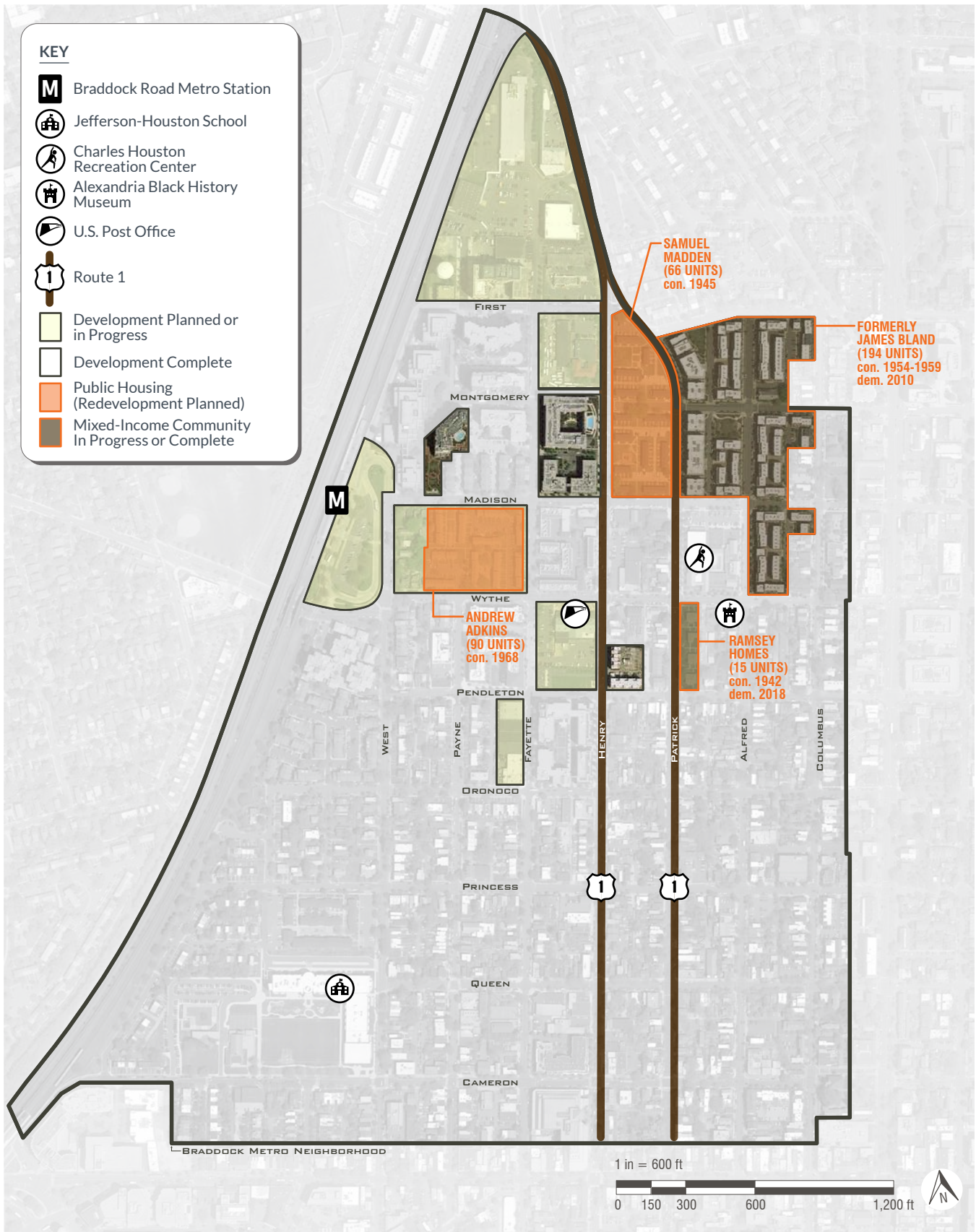


Figure 4. Redevelopment, Braddock Metro Neighborhood. The Braddock Metro Neighborhood Plan proposes 17 individual redevelopment sites within the neighborhood. As of late 2018, two public housing projects (209 units) have been demolished for the construction of mixed-income communities, with another two projects (156 units) slated for future replacement. (Note: All borders are approximate.)

As of late 2018, two of four public housing projects (209 units) in the Braddock Metro Neighborhood have been demolished. The James Bland project (c. 1954-1959) was demolished in 2010, and the replacement mixed-income community, Old Town Commons, was completed in 2015 (Figure 5). The Ramsey Homes (c. 1942) were demolished in June 2018, and a replacement mixed-income community is under construction (Figure 6).

Both the Samuel Madden (1945) and Andrew Adkins (1968) projects (156 units) remain in operation (Figure 7). The Master Plan proposes a combined mixed-income/mixed-use scenario for both sites. In 2016, ARHA selected a redevelopment partner and initiated the planning process for Andrew Adkins (ARHA, 2016). Those plans were tabled in October 2018. In its announcement, ARHA cited financial obstacles, including rising construction costs, as the reason for its decision, calling the move a temporary setback. Moving forward, the Authority announced it would reevaluate its real estate portfolio to determine the most feasible sequencing of its public housing projects for redevelopment (ARHA, 2018).

It is reasonable for the City and ARHA to contemplate the demolition and replacement of public housing projects in the Braddock Metro Neighborhood because the value of these ARHA-owned properties has increased substantially as the transit-ori-

ented neighborhood has gentrified, thus attracting private development partners (City of Alexandria, 2008b). Even so, the process of identifying and securing myriad sources of public and private funding for the construction and operation of mixed-income communities is complex, particularly in light of variable market conditions and evolving public policy. The recent tabling of plans to redevelop Andrew Adkins - one of the most profitable in ARHA's real estate portfolio - reflects this complexity.



Figure 6. Ramsey Homes. The 15-unit Ramsey Homes were demolished in 2018. The replacement mixed-income community is expected to provide 15 very-low-income and 37 moderate-to-low-income units of multi-family housing (Sullivan, 2016c).



Figure 5. James Bland/Old Town Commons. The 194-unit James Bland public housing project (top) was replaced with Old Town Commons (bottom), a HOPE VI mixed-income community comprising 134 affordable and 245 market-rate units in triplex, multi-family, condominium, and town home residences (ULI, 2014).



Figure 7. Samuel Madden and Andrew Adkins. The 66-unit Samuel Madden and 90-unit Andrew Adkins projects remain in operation but are slated for redevelopment (City of Alexandria, 2008b).

Observations

In addition to providing a more viable model for public housing administration, mixed-income communities are said to offer a number of socio-economic benefits to low-income residents, including better-quality housing, enhanced neighborhood services, and improved safety. The Master Plan describes an optimal scenario for resident interaction:

When families of different income brackets live in the same development together, their children gain opportunities to meet each other and play together without regard to income level. Adults in a mixed-income community are drawn into a shared sense of community as they work together to manage their housing and address issues of shared concern to residents.
(City of Alexandria, 2008b)

Through anecdotes of public housing residents living in the City’s new mixed-income communities, the Master Plan seeks to demonstrate “how being a part of a social network with residents of higher education and/or incomes” is linked to expanded opportunities for education, employment, and homeownership (City of Alexandria, 2008b). Benefits derived from casual ties between individuals of different social groups are known collectively as “Bridging Social Capital” (Claridge, 2018b).

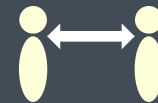
The socioeconomic benefits anticipated by the City of Alexandria reflect HUD’s theoretical assertions for the HOPE VI program (Chaskin & Joseph, 2011; Fraser, et al, 2013; HUD, 1999; Lees, 2008; Thurber, et al, 2017). However, studies of mixed-income communities throughout the United States suggest that spatial integration does not beget social integration (Chaskin & Joseph, 2011 & 2015; Fraser, et al, 2013; Lees, 2008; Levy, et al, 2013; Thurber, et al, 2017). Furthermore, scholars have uncovered limitations in the breadth and comparability of research on the effects of mixed-income communities on the general wellbeing of low-income residents (Fraser, et al, 2013; Levy, et al, 2013; Thurber, et al, 2017).

A number of case studies raise concerns that race and class biases persist in mixed-income communities, prompting residents of different social groups to self-segregate, a troubling phenomenon given the spatial proximity of residences (Chaskin & Joseph,

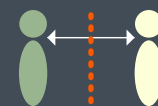
2011 & 2015; Fraser, et al, 2013; Lees, 2008; Levy, et al, 2013). A possible reason for the persistence of bias is that residents of different social groups, regardless of their residential proximity, often rely on different (and, in some cases, exclusionary) neighborhood services, limiting the frequency of casual encounters in the course of daily activities (Lees, 2008; Thurber, et al, 2017).

Social Capital

Social Capital is the potential for an individual to secure benefits and solve problems through his or her membership in a social network. In communities, Social Capital is linked to a number of societal benefits, including higher employment rates, lower crime rates, improved academic performance, better health, and economic growth. (Poteyeva, 2018)



“**Bonding**” Social Capital describes strong connections between individuals within the same social group. Because these connections are based on shared norms and customs, they offer solidarity, but they can have negative effects, including pressure to conform and exclusion of other social groups. (Claridge, 2018a)



“**Bridging**” Social Capital describes weak connections that bridge individuals across a societal divide (e.g., race, class, religion). These connections are based on reciprocity and “thin trust” rather than shared norms and customs. Thus, Bridging Social Capital can give an individual or a social group access to new resources. (Claridge, 2018b)

Some research has found that the strong social connections formed among residents of public housing projects are damaged when projects are demolished and replaced with mixed-income communities. Notably, the Master Plan commits to constructing communities “large enough to sustain a critical mass of public housing residents... to maintain the strong social and support networks that are essential in low-income communities” (City of Alexandria, 2008b). The benefits exchanged through strong social connections, which manifest in commodities such as childcare, informal financial support, transportation sharing, and close friendships (benefits known collectively as “Bonding Social Capital”), can be critical to the everyday lives of low-income residents. While case studies show that some public housing residents in mixed-income communities report benefits such as an increased sense of safety, satisfaction with housing quality, and improved health, others report conditions of increased isolation, stress, and trauma. (Chaskin & Joseph, 2011 & 2015; Fraser, et al, 2013; Lees, 2008; Levy, et al, 2013; Thurber, et al, 2017)

The Master Plan declines to establish any targets for mixing public, affordable, workforce, and market rate units in proposed mixed-income communities, explaining that such decisions must reflect market conditions at the time of redevelopment. The plan does, however, estimate that the most economically feasible ratio of market rate units to public housing units is roughly 2:1, assuming costs are evenly shared between the developer and public/private funding sources. This ratio, in combination with building height restrictions and density constraints established by the Neighborhood Plan to maintain residential character, will generate a net decrease in the number of public housing units available to Braddock Metro Neighborhood residents. (City of Alexandria, 2008b)

Critics argue that federal programs like Hope VI and Choice Neighborhoods do little more than sponsor the displacement of low-income residents from properties on former urban fringes that have since become lucrative with urban expansion, conflating gentrification and recolonization efforts with more socially acceptable notions of social mixing and poverty deconcentration (Fraser, et al, 2013; Lees, 2008). Thus, mixed-income communities, though prevalent in urban redevelopment schemes, are neither well studied nor universally championed.

Design Considerations: Edges

To ensure “high quality housing for everyone,” the Master Plan requires exterior facades of public and affordable housing units to be indistinguishable from market rate units and dispersed throughout mixed-income communities (City of Alexandria, 2008b). This technique is not unique to the City of Alexandria. Rather, it is characteristic of HUD’s HOPE VI and Choice Neighborhoods programs, which are grounded in the tenets of New Urbanism, a theory that attributes beneficial social outcomes, such as resident interaction and a sense of community, to certain urban design elements (Chaskin & Joseph, 2011 & 2015; CNU, 2019; Lucka, 2018; Talen, 1999). Formed in 1993, the Congress for New Urbanism has heavily influenced pedestrian-scale, transit-oriented, mixed-income, mixed-use urban redevelopment schemes worldwide (CNU, 2019). The design guidelines set forth in the *Braddock Metro Neighborhood Plan* and its addenda reflect a New Urbanist ideal.

Also influential to the design and orientation of mixed-income communities is Oscar Newman’s Defensible Space theory, which posits that community safety and stability derive from design that fosters control. The Defensible Space theory asserts that residents will surveil and control patterns of acceptable use in spaces they consider private or semi-private, facilitating social benefits such as lower crime rates and reduced reliance on government assistance to “mutually beneficial” unions among residents of different income levels (referred to in this thesis as Bridging Social Capital). Newman published his theory in 1972 and worked for decades to structure the physical layout of low- and mixed-income communities throughout the United States to bring open spaces under resident control. (Newman, 1996)

Critics of New Urbanism and Defensible Space cite an absence of data to substantiate the social benefits attributed to these theories. Though popular and broadly influential, both theories claim benefits that are difficult to describe precisely and therefore difficult to measure empirically. (Lucka, 2018; Talen, 1999; Reynald & Effers, 2009)

Common to both theories is the designer’s attention to edges. Edges that demarcate private, semi-private, and public spaces are emphasized, often in the pursuit of surveillance and control, while edges indicative of socioeconomic difference are erased.

What is an Edge?

In *The Image of the City*, first published in 1960, Kevin Lynch establishes a framework for orienting the moving body in the city through a series of external environmental images. Lynch's images are intended to form a complete sensory urban experience.

Lynch observed **paths** (channels through which residents move and from which other images are organized) to be the most important organizational feature in a city. He found **edges**, the linear elements that are not paths, to be almost as important. Edges range from seams that join two regions together to barriers that are more or less penetrable. (Lynch, 1960)

Edge treatments in the *Braddock Metro Neighborhood Plan* and its addenda reflect the influences of New Urbanism and Defensible Space. Public open spaces, such as streets and parks, are edged with redeveloped buildings that have an abundance of doors and windows, not only to “activate” these public spaces with pedestrian traffic but also to recast them as semi-private spaces, bringing them under the informal surveillance and control of adjacent residents. Public entrances to commercial buildings are located at ground level, while private entrances to residences are raised one or two steps above the street and further defined by semi-private landscaped setbacks. Inactive edges, such as blank walls, are prohibited. Social edges, such as those differentiating income levels, are erased from redeveloped mixed-income communities by hiding public and affordable housing units within the facades of market rate condominiums and town homes. (City of Alexandria, 2008a,b)

Bridging Social Capital forms when a connection is made across a gradient of social difference (Claridge, 2018b). Thus, it stands to reason that the process of establishing bridging connections is made more difficult when the visual cues for social difference are obscured. The removal of social edges in

New Urbanist and Defensible Space redevelopment schemes produces spaces that are decidedly homogeneous in their middle-income aesthetic, suggesting that the true motivation behind these design decisions is to encourage conformity rather than tolerate diversity. This apparent emphasis on conformity is further substantiated by Newman's assertion that Defensible Spaces offer low-income residents an “introduction to the benefits of mainstream life” as a mechanism for upward mobility (Newman, 1996). Inherent in this claim is Newman's alarming suggestion that a low-income lifestyle is a deviant social condition (Chaskin & Joseph, 2015; Lees, 2008).

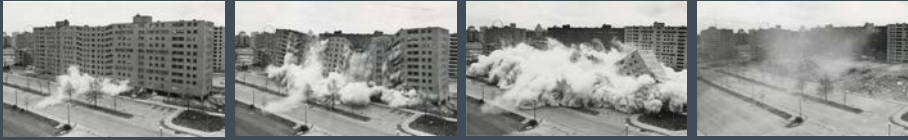
In *Building and Dwelling: Ethics for the City*, Richard Sennett emphasizes the importance of edges in urban design. Citing an ecological basis for his theory, he differentiates between boundaries and borders. Boundaries are impermeable edges, marking a limit beyond which certain groups must not move. Borders, on the other hand, are permeable edges where different groups interact, such as a shoreline. While boundaries are inactive, dead spaces, borders are lively and - depending on the nature of the groups interacting - sometimes risky. (Sennett, 2018)

Expanding the ecological analogy, Sennett advises planners and designers to engage with porosity and resistance in urban edges. Such an engagement, he argues, draws attention away from city centers and reveals the potential for transforming both boundaries and borders into active urban spaces. Membranous edges, such as those marking social difference, are places where residents of different social groups can interact frequently and casually. (Sennett, 2018)

Both Sennett and Jan Gehl, in *Life Between Buildings*, also draw attention to beneficial sonic edges, where social noises of certain decibel levels permeating a porous membrane can make people aware of one another and even draw them into shared spaces. Conversely, urban noises sustained above a certain level - such as the drone of highway traffic - can hinder casual social connections by masking beneficial social noises and requiring residents to either raise their voices or make the effort to draw closer when communicating verbally. (Gehl, 2011; Sennett, 2018)

In light of the research, this thesis argues for a pattern of engagement with a variety of neighborhood edges - physical *and* social edges, permeable borders *and* impermeable boundaries - rather than a selective obliteration of edges deemed undesirable.

Pruitt-Igoe and the Defensible Space Theory A Design Legacy



Partial Demolition, Pruitt-Igoe. The implodings of condemned buildings at Pruitt-Igoe were broadcast on national television in March and April of 1972.

Oscar Newman credited his inspiration for the Defensible Space theory to the deterioration and destruction of Pruitt-Igoe, a high-density multifamily public housing project in St. Louis. Newman asserted that Pruitt-Igoe's modernist high-rise design produced common areas (such as shared corridors and elevators) so disassociated from individual dwelling units that residents could neither claim nor protect those areas. Visiting the project "in its heyday of pervasive crime and vandalism" Newman discovered "clean, safe, and well-tended" spaces inside individual apartments or on landings shared by only a few families, drawing the conclusion that residents identify with and control spaces they consider private or semi-private. (Newman, 1996)

Drawing the attention and support of HUD, Newman applied his theory to the design and redesign of low- and mixed-income communities throughout the United States, carving common spaces into identifiable and manageable tracts to be claimed and protected by residents (Newman, 1996). The influence of the Defensible Space theory is seen throughout the Braddock Metro Neighborhood, from the mazes of black, powder-coated aluminum fencing carving "semi-private" spaces into the common green areas of the neighborhood's remaining public housing projects to the "seamless integration" of public housing units within market rate facades in the mixed-income community of Old Town Commons.

Theories that blame the demise of Pruitt-Igoe on faulty modernist design principles - or on public housing residents themselves - have a number of critics, who term these theories collectively as the "Pruitt-Igoe Myth." These critics argue that the deteriorated and dangerous conditions observed at Pruitt-Igoe were less a product of faulty design or resident dysfunction and more a product of failed housing policy, urban redevelopment programs, and social initiatives that concentrated the most impoverished residents at Pruitt-Igoe and discriminated against those residents based on race (Bristol, 1991). Indeed, some critics argue that design-based crime-prevention theories like Defensible Space are popular simply because it is far easier to manipulate physical design elements than it is to correct the underlying policy and program failures responsible for perilous social conditions (Reynald & Effers, 2009).



Newman contrasted the "well-tended" private space of a Pruitt-Igoe apartment (top) with the indefensible public space of a glazed gallery (bottom).

HISTORIC PRESERVATION

A second recommendation made by the *Braddock Metro Neighborhood Plan* to affirm neighborhood character and connect diverse residents is the development of a program to preserve and publicize the neighborhood's architectural and cultural history (City of Alexandria, 2008a).

The Braddock Metro Neighborhood is characterized by its industrial roots and African-American heritage. In the 19th century, industrial activity centered around two major railroad lines, which ran at grade along Fayette and Henry Streets. During the Civil War, the Union Army's occupation of Alexandria spawned military-oriented enterprises, including the Government Bakehouse on Fayette, possibly the largest industrial bakery in the world at the time. Other 19th-century enterprises included a rope walk, sugar refinery, wood yard, bottle factory, and glass company, along with numerous ice houses and feed stores. (City of Alexandria, 2008a; NPS, 2011)

Into the 20th century, neighborhood industry evolved to include meat packing and dairy processing as well as electrical contracting and metalworking. The relocation and elevation of the railroad line to the neighborhood's western border during the mid-20th century prompted a transition toward automobile-oriented businesses. Warehouse and storage companies filled vacating industrial sites. (City of Alexandria, 2008a; NPS, 2011)

As industrial activity expanded and evolved through the mid-19th and 20th centuries, residences and businesses emerged and were shaped by the forces of racial segregation. The area bordered by West, Cameron, Columbus, and Montgomery Streets, known as Uptown (Figure 9), was the largest African-American community in Alexandria, a self-sufficient, working-class neighborhood. Churches and fraternal institutions were prominent, as were African-American-owned and oriented businesses. Between Fayette and Patrick Streets, Queen Street emerged as a thriving commercial corridor, with restaurants, barber shops, beauty salons, grocers, a drug store, lawyers' and doctors' offices, and two movie theaters. (City of Alexandria, 2008a; NPS, 2011)

Uptown was known for its efforts to educate its residents at a time when African-American education was segregated or even outlawed. The Parker-Gray



Figure 8. Parker-Gray School. The Parker-Gray School was named for Sarah Gray and John Parker, beloved principals of the former Hallowell and Snowden Schools, which were constructed in 1867 with support from the Freedmen's Bureau (NPS, 2011).

School was constructed in 1920 on Wythe Street to consolidate and replace two schools originally built with support from the Freedmen's Bureau in 1867 (Figure 8). Intended to serve grades 1 through 8, the Parker-Gray School adapted to include high school courses in 1932. Conditions were crowded, and funding was scarce. Residents contributed furniture and books to keep the school in operation.

In 1950, the Parker-Gray High School - the only high school for African-American students in Alexandria - was constructed on Madison Street. The Parker-Gray schools helped to unite Uptown with two nearby African-American communities: The Hump (constructed in the mid-19th century near the Alexandria Canal) and Colored Rosemont (located across the railroad tracks from the whites-only Rosemont community) (Figure 9). Following integration, both schools were closed. Neither building remains: the Charles Houston Recreation Center occupies the elementary school site, while the Braddock Place town homes occupy the high school site. Wythe Street carries the commemorative name, *Parker-Gray School Way*. (City of Alexandria, 2008a; NPS, 2011)

The Alexandria Black History Museum, also located on Wythe Street, occupies the site of the Robinson Library, a small, segregated one-room library constructed by the City in 1940 following an organized and well-publicized sit-in by five African-American men (one of the first sit-ins of its kind in the United States) in the whites-only Alexandria Free Library. (City of Alexandria, 2008a; NPS, 2011)

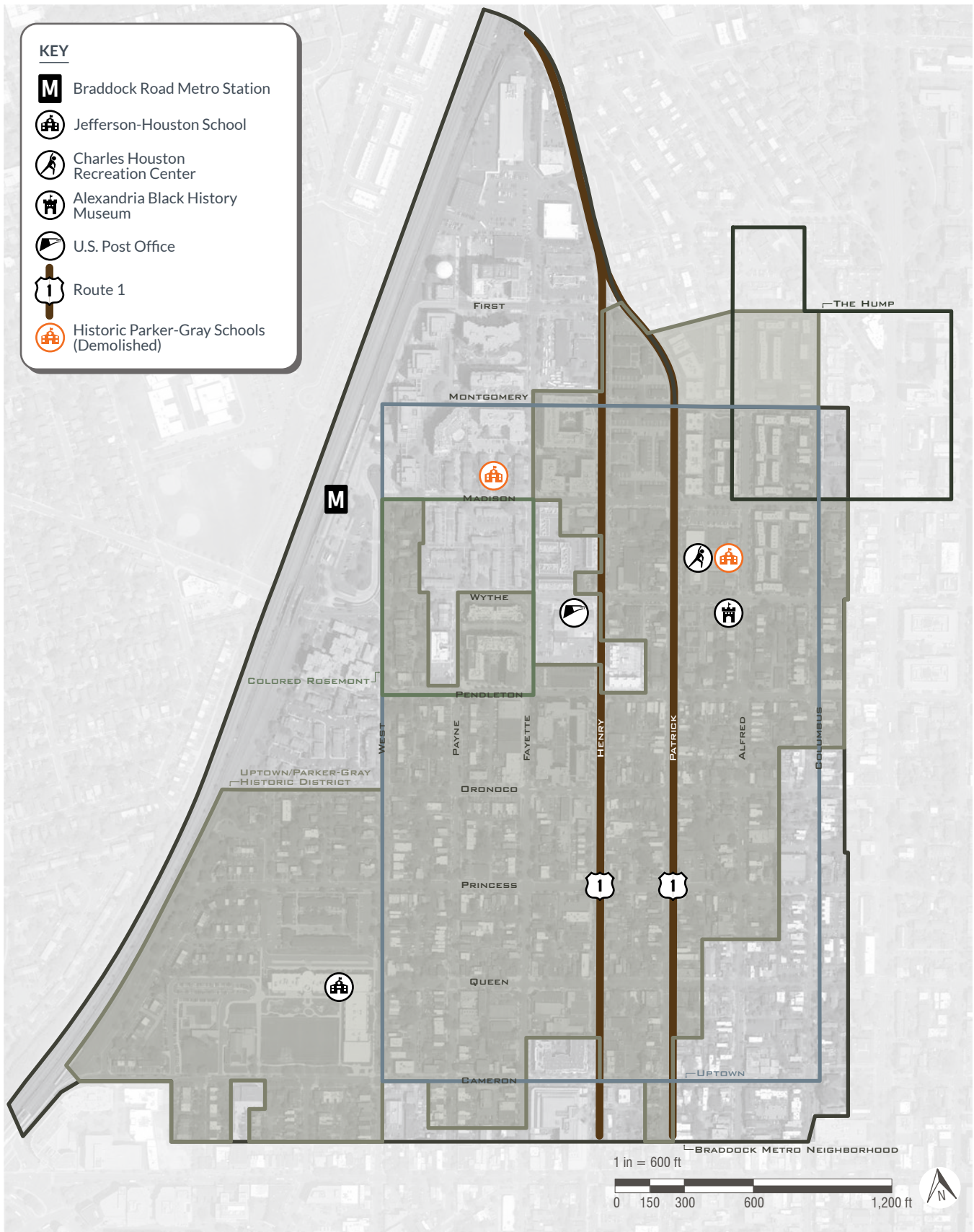


Figure 9. Historic Borders, Braddock Metro Neighborhood. The Braddock Metro Neighborhood encompasses the historic African-American neighborhood of Uptown, which grew to include Colored Rosemont and a portion of The Hump. The Uptown/Parker-Gray Historic District was established to protect resources that are historically and culturally significant to Uptown. (Note: All borders are approximate.)

In 1984, the City of Alexandria passed a local ordinance establishing the Parker-Gray Historic District, a move that set architectural review requirements for structural renovation and redevelopment. Officials hoped the historic designation would help the City control growth near the recently constructed Braddock Road Metro Station, allowing the neighborhood to retain its residential scale, historic resources, and affordable housing stock. In 2010, an expanded Uptown/Parker-Gray Historic District (Figure 9) was formally listed on the National Register of Historic Places, establishing certain federal protections and tax incentives. Because the Historic District is concerned with incorporating extant, contributing resources, its border is not coterminous with the borders of Uptown, The Hump, or Colored Rosemont, areas that saw some redevelopment (and the loss of culturally significant resources) prior to the historic designation. (City of Alexandria, 2008a; NPS, 2011; Miliaras, 2015)

The *Braddock Metro Neighborhood Plan* recommends a series of historic preservation techniques to complement the continued maintenance and protection of the Uptown/Parker-Gray Historic District. Techniques seek to “document, memorialize, and celebrate” neighborhood history through accessible, visual means, with a goal toward strengthening neighborhood diversity. (City of Alexandria, 2008a)

The Neighborhood Plan documents a number of historic preservation techniques recommended by participating community members, including written and oral history projects, walking tours accompanied by booklets and podcasts, neighborhood heritage trails, retail revitalization along Queen Street (along with plans to establish a heritage trail to capture customers and tourists from King Street), and the renaming of the Braddock Road Metro Station to Parker-Gray. Recommendations cover a variety of streetscaping and wayfinding strategies, including public art, pavers, markers, and interpretive signage (Figure 10). (City of Alexandria, 2008a).

The Neighborhood Plan also contemplates techniques for contextualizing the Braddock Metro Neighborhood’s history within a range of broader historical topics, such as industrial and railroad growth in America’s urban fringes, the Civil War, racial segregation, and the Civil Rights era (City of Alexandria, 2008a).

Uptown/Parker-Gray Historic District

The Uptown/Parker-Gray Historic District is mostly residential in character and includes a number of contributing African-American institutions and commercial buildings. Architectural resources reflect the neighborhood’s segregated, working-class origins via simplified and scaled-down representations of popular styles, often constructed with less expensive materials. The period of significance spans roughly 150 years, beginning with the construction of the earliest residences and concluding with the completion of the James Bland public housing project in 1959. Because neighborhood development spanned the entire 150-year period, structures evoke a great variety of architectural styles, orientations, and setbacks.

While most neighborhood parcels were subdivided to face structures toward north-south streets, a few blocks contain structures facing east-west streets. Building orientations follow no particular pattern and appear to have been set by individual owners at the time of development. At a neighborhood scale, such directional variety suggests that urbanization spread evenly from block to block. At the street scale, however, differing structural orientations can create a sense of discontinuity, especially in areas where a diversity of front, side, and rear elevations are oriented toward the same street.

Structural setbacks also vary widely based on the type of structure, the date of construction, and the influencing architectural style, with some structures located on sidewalks and others incorporating setbacks large enough to accommodate semi-private gardens and porches. (City of Alexandria, 2008a; NPS, 2011)



Figure 10. Historic Preservation through Interpretive Signage. The City has installed interpretive signs throughout the Braddock Metro Neighborhood to memorialize historic or culturally significant structures, including the former James Bland Homes, now Old Town Commons (left), and the former Parker-Gray High School, now the Braddock Place town homes (right).

Observations

The *Braddock Metro Neighborhood Plan* strikes a celebratory, consensus-seeking tone in its overview of the neighborhood’s distinctive architectural resources and resilient residents. However, also influential to the identity of the Braddock Metro Neighborhood are the troubling elements of its history, those characterized by racism, segregation, displacement, public housing, white flight, economic disinvestment, crime, historic districting, and - more recently - redevelopment and gentrification.

At the turn of the 20th century, urban working-class neighborhoods like Uptown often housed communities of African-American and recent immigrant residents in modest dwellings on the industrial fringes of major city centers. During the Great Depression, as American cities flooded with new inhabitants seeking work and shelter, affordable dwellings in neighborhoods like Uptown filled, and then rapidly overfilled, creating slum conditions and prompting concerns over public health, safety, and property values. (Moon, 2016; WSSI, 2015)

Recognizing that America’s housing needs were not being fulfilled by private enterprise, the federal government entered the social housing sector in the 1930s through a series of New Deal policies. The National Housing Act of 1937 gave cities access to federal funding for slum clearance and the construction of public housing projects (Figure 11). City officials were granted the autonomy to administer this funding with little oversight, although they did face

federal requirements to eliminate slums in numbers roughly equivalent to replacement public housing units, segregate projects by race, and match segregated projects to the racial character of existing neighborhoods. City officials throughout the United States began to redraw neighborhood boundaries - through targeted slum clearance and public housing construction - along strict, hyper-segregated racial lines. At the same time, the Housing Act sanctioned a series of discriminatory housing practices, making it perilous or impossible for prospective African-American homeowners to secure mortgages and permitting developers and landlords to reject African-American applicants based solely on race. (Moon, 2016; WSSI, 2015; Rothstein, 2017; Coates, 2014)

Following the passage of the 1937 Housing Act, the City of Alexandria commissioned the Works Projects Administration to produce a housing study, which found that 23 percent of the City’s dwellings were either substandard or structurally unsound (Figure 12). Of those dwellings, 67 percent housed African-American residents. (Moon, 2016)

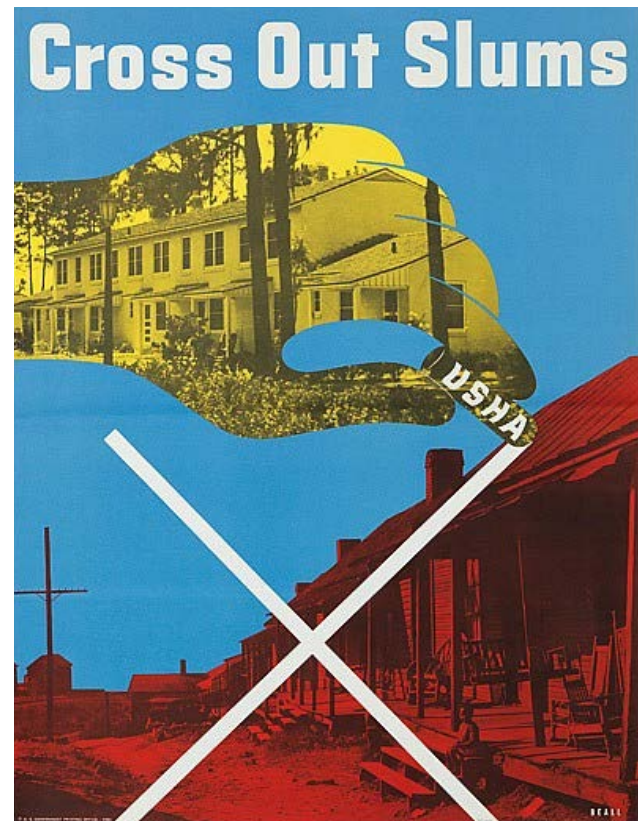


Figure 11. Social Housing. The United States Housing Authority (USHA), created through the National Housing Act of 1937, administered federal funding for slum clearance and public housing.

In 1939, the City established the Alexandria Housing Authority (later renamed the ARHA) to administer federal funding for slum clearance and public housing construction and operation. In the decades that followed, African-American residents were displaced at disproportionately higher rates than white Alexandria residents through the condemnation and clearance of buildings deemed structurally unsound or substandard (a classification broad enough to include virtually any working-class home considered undesirable) and the taking of property through eminent domain for the construction of segregated public housing projects. (Moon, 2016; NPS, 2011)

Because Uptown contained communities of African-American residents along with a large percentage of working-class homes deemed substandard, it was repeatedly targeted for the receipt of segregated African-American public housing projects (Moon, 2016; NPS, 2011). Moreover, as segregation intensified, Uptown became the only neighborhood in Alexandria where prospective African-American homeowners were allowed to purchase property (Miliaras, 2015).

As the United States entered World War II, Alexandria's housing crisis was exacerbated by the influx of defense industry workers, prompting the United States Housing Authority (USHA) to intervene. In Uptown, the USHA constructed the Ramsey Homes (1942) and installed 50 trailers in The Hump (1943) for African-American defense workers of all income levels. Following the war, both the Ramsey Homes and the trailers were converted to segregated public housing. In 1945, the Samuel Madden project was opened, and in 1954, the James Bland Homes were constructed on the site of the former trailer park. A second phase was added in 1959. (NPS, 2011)

As the City repeatedly sited African-American public housing projects in Uptown and the Hump, an increasing number of African-American homeowners and tenants were displaced through slum clearance and eminent domain (Moon, 2016 and NPS, 2011). By 1959, segregated public housing projects covered 20 percent of the land area in what is now known as the Uptown/Parker-Gray Historic District (NPS, 2011).

In the postwar era, federal programs turned toward large-scale urban renewal. As the City of Alexandria developed a Master Plan and established revised codes for structural integrity and public



Figure 12. Substandard Housing. Uptown contained a variety of modest homes deemed structurally unsound or substandard. These homes lined the 800 block of Madison Street in the 1940s.

health - both requirements set forth in the National Housing Act of 1954 - Uptown emerged as a target for urban renewal, with 51 percent of its dwellings deemed substandard under the revised codes. Despite this assessment, city leaders instead located large-scale urban renewal projects elsewhere in Alexandria. In Uptown and Colored Rosemont, the City constructed the Andrew Adkins public housing project (1968) for African-American residents displaced by code enforcement and urban renewal programs in other parts of the City. Although public housing segregation had been outlawed in the Civil Rights Act of 1964, Andrew Adkins, along with most public housing projects in Alexandria, remained persistently segregated. (Moon, 2016)

By the late 1960s, as a concession to private real estate lobbyists who had long objected to public housing, the federal government established strict upper-income limits for public housing recipients, forcing out any remaining middle-income tenants and further concentrating the density of impoverished residents with heavy rent subsidies. With the loss of rent from middle-income tenants and the absence of supplementary federal funding, the quality of life in many projects rapidly deteriorated as local housing authorities struggled to afford required maintenance and upkeep. Sustained economic disinvestment around such communities limited jobs and attracted drugs and violent crime, and the perception of public housing projects turned intensely negative. (Rothstein, 2017)

Integration came to Alexandria’s schools in 1965, and African-American residents were permitted to rent and purchase property throughout the City by 1967. While integration did little to remedy segregation in the City’s public housing projects, it vastly expanded housing opportunities for middle- and upper-income African-American residents, many of whom left Uptown. The neighborhood’s shops and businesses, which had successfully adapted to segregation, began to fail as customers were no longer compelled to shop there. Many of the neighborhood’s remaining white residents also left, whether prompted by fears of school integration or attracted to the area’s rapidly expanding suburbs. Uptown fell into severe economic decline. (NPS, 2011; Miliaras, 2015)

Between 1960 and 1980, the concentration of African-American residents in Census Tract 2016 (an area roughly equivalent to the Braddock Metro Neighborhood (Figure 2)) climbed from 80 percent to more than 90 percent, while the total population decreased a remarkable 37 percent. In 1980, Census Tract 2016 had one of the highest poverty rates (32 percent compared to the City’s 9 percent) and one of the lowest median family income levels (\$10,000 compared to the City’s \$25,500) in Alexandria. (Miliaras, 2015; U.S. Census Bureau, 2010a)

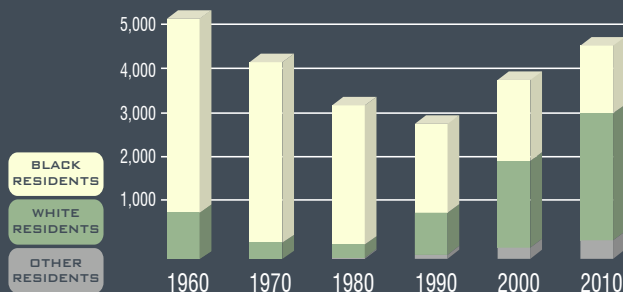
Even in the face of severe economic decline, Uptown residents began to feel a new type of displacement pressure: transit-oriented redevelopment and gentrification. The construction of the Braddock Road Metro Station in 1983 coincided with a steady increase in surrounding property values, along with

associated costs and taxes, making continued homeownership difficult for working-class and fixed-income residents. The neighborhood’s distinctive housing stock, which had escaped the City’s large-scale urban renewal efforts and remained largely intact through the neighborhood’s economic decline, began to attract mostly white, college-educated urbanites. (NPS, 2011; Miliaras, 2015)

The City’s decision to establish the local Parker-Gray Historic District was vigorously opposed by many longtime neighborhood residents, who feared the designation would further escalate the gentrification process and make home maintenance and repair economically unattainable. (NPS, 2011; Miliaras, 2015)

In 1985, a citizens group known as the 16th Census Tract Crisis Committee filed an administrative complaint with HUD alleging the City had violated the Civil Rights Act of 1968 and the constitutional rights of African-American residents in Census Tract 2016 through a broad range of discriminatory planning, zoning, and redevelopment initiatives, including demolishing homes owned or occupied by African-American residents without providing affordable alternatives, rejecting urban renewal projects that would have benefited working-class and low-income residents, selling the culturally significant Parker-Gray High School property for commercial and upper-income residential development, and passing the 1984 Historic District ordinance. (WSSI, 2015; Jordan, 1985; Miliaras, 2015)

Neighborhood Racial Demographic Trends 1960 to 2010



The total population in Census Tract 2016 decreased between 1960 and 1990 and then climbed, almost recovering by 2010. The African-American population has decreased steadily since 1960. The white population also decreased between 1960 and 1980 but then rapidly increased to become the majority population by 2000.

In 1986, HUD determined that the City had not deliberately restricted housing opportunities for African-Americans in Census Tract 2016. Following a challenge by the citizens group and the receipt of undisclosed “additional information,” HUD reversed its determination, concluding that the City’s passing of the local Historic District ordinance indeed reflected a deliberate attempt to displace African-American residents. In its reversal, HUD found that the City possessed data suggesting the historic designation would have a detrimental effect on African-American residents, including census data, a written opinion by city planners, and evidence of the displacement caused by the City’s previous Historic District ordinance in Old Town. Alexandria officials appealed the reversal, arguing that HUD had violated the City’s rights to due process and neglected to consider the full effect of market forces. HUD encouraged the City to work with the 16th Census Tract Crisis Committee but closed its investigation in 1988 without resolution. (WSSI, 2015; Jordan, 1986a,b; Murphy, 1988)

Between 1980 and the most recent decennial census in 2010, the concentration of African-American residents living in Census Tract 2016 fell from 90 percent to just over 30 percent, while the total population increased by 40 percent (U.S. Census Bureau, 2010a). Also in 2010, the estimated median income for African-American residents in Census Tract 2016 (\$31,972) was less than a third of the income estimated for white residents (\$112,628) (U.S. Census Bureau, 2010b). These data indicate that displacement - driven by a combination of market forces, transit-oriented redevelopment, and federal and city policies - has produced striking demographic changes in Uptown and the greater Braddock Metro Neighborhood in the past few decades.

As the City of Alexandria and ARHA move forward with redevelopment projects in the Braddock Metro Neighborhood, the troubling elements of Uptown’s history are periodically exposed, as was the case when a 2016 hearing on rezoning for the redevelopment of the Ramsey Homes turned into a bitter argument between members of the City Council and ARHA over whether to preserve one or more of the historic structures constructed by the USHA in 1942. Preservation proponents cited the architectural and cultural significance of the structures, while opponents questioned the appropriateness of preserving structures that facilitated segregation - structures

compromised by years of deferred maintenance - while at the same time reducing the allowance of much-needed affordable housing and open space on the parcel. As the hearing devolved, proponents were accused of endorsing racial segregation and substandard public housing as a means to minimize the density of low-income residences on the redeveloped parcel, while opponents were accused of using deceptive techniques, such as deferred maintenance and last-minute motions, to maximize density. Ultimately, the rezoning was approved pending formal documentation of the historic structures, but the hearings exposed the controversy and distrust lurking just beneath the surface of neighborhood redevelopment efforts. (Sullivan, 2016a,b,c)

Likely due to its consensus-seeking nature, the *Braddock Metro Neighborhood Plan* does not delve deeply into the troubling elements of the neighborhood’s history. Still, the plan exposes certain residual effects, such as the “social divide” observed between public housing residents and “much of the larger community” and the revelation of safety concerns expressed by some residents around areas like Queen Street, vacant warehouses, and the neighborhood’s public housing projects, particularly at night. Most importantly, even as the Neighborhood Plan champions the neighborhood’s identity as economically and racially diverse, it acknowledges that many working-class and African-American residents have already left the neighborhood as a result of gentrification and redevelopment. (City of Alexandria, 2008a)

Although three public housing projects (James Bland, the Ramsey Homes, and Samuel Madden) are (or were, prior to demolition) considered contributing resources within the Uptown/Parker-Gray Historic District, the Neighborhood Plan does not commit to preserving any portion of these projects, even as the City acknowledges that redevelopment will decrease the quantity of public housing units available to residents, some of whom rely on public housing as their only viable mechanism for remaining in the neighborhood. (City of Alexandria, 2008a,b)

The history of the Braddock Metro Neighborhood, like many gentrifying neighborhoods in the United States, is deeply complex. It evokes both reverence and regret, both pride and fear, both joy and anger. Thus, the act of preserving this history - particularly as it is meant to support neighborhood diversity - should be attuned to these complexities.

Design Considerations: Diversity

The Neighborhood Plan offers an organizational framework for redevelopment in the Braddock Metro Neighborhood: a large-scale planning approach to balance the City's desire for historic preservation with its goals for expansion. Thus, in addition to maintaining resources in the Uptown/Parker-Gray Historic District, the Neighborhood Plan proposes a program to document and memorialize history through the installation of new design features, such as pavers, markers, and interpretive signage, arranged in a clear visual hierarchy in accordance with the design guidelines. (City of Alexandria, 2008a)

Collectively, these design features read more like branding than historic preservation. A strategy that condenses the complex history of the Braddock Metro Neighborhood into a series of interpretive signs does so at the expense of diversity, a consequence seemingly acknowledged by the Neighborhood Plan:

Because of the significant amount of social and physical change that has occurred and will occur in the Braddock Metro area, public historical information is especially needed to teach current and future generations about what isn't apparent to the eye.
(City of Alexandria, 2008a)

Diverse or Gentrified?

Talen and Lee differentiate "diverse" neighborhoods from "gentrified" neighborhoods: while diverse neighborhoods often face strong gentrification pressure, they have not yet fully gentrified (Talen & Lee, 2018). The Braddock Metro Neighborhood, having already lost much of its working-class and African-American population, no longer conforms to this particular definition of diversity. Nevertheless, along individual streets and in individual blocks there remain pockets of diversity, even as the neighborhood rapidly redevelops.

Diversity is a major component of the *Braddock Metro Neighborhood Plan*, and the term is used to describe a range of goals, characteristics, and conditions. Primarily, the term is used to describe the neighborhood's identity, particularly in terms of its residents and history. Sometimes it is used to describe ideal or anticipated conditions in proposed mixed-income communities. Occasionally, the term is used to imply a negative condition, such as a social divide or a conflict between residents of different social groups in community planning sessions. Notably, the Neighborhood Plan recognizes that the notion of diversity in the neighborhood is changing:

The Plan supports diversity through the explicit recognition and celebration of the neighborhood's history as well as the development of a range of housing types at differing levels of affordability... While the mix of housing types, unit sizes, and affordability levels is no guarantee that the Braddock Metro Neighborhood will retain its current racial diversity, it can at least ensure a mix of people with different lifestyles, family sizes, and other characteristics that will promote the neighborhood's livability.
(City of Alexandria, 2008a)

New Urbanism, the theory upon which the Neighborhood Plan and its historic preservation program are based, has been criticized for embracing the postmodernist virtues of a diverse community while instead applying a broad regulatory framework that seeks to achieve an idealistic "small town" aesthetic. One possible reason for this dichotomy is that the small-town condition does not naturally occur in urban areas; rather, it must be manufactured through an application of strictly controlled design guidelines and architectural details that favor an idealized pattern over actual historical elements, which are far more heterogeneous and complex. (Lucka, 2018)

In *Design for Social Diversity*, Emily Talen and Sungduck Lee describe socially diverse neighborhoods as "places where residents are working out the day to day complexities that arise when different kinds of people occupy the same geographic space." Their concept of social diversity represents a mixture of racial and ethnic identities, income levels, family sizes, and housing types. (Talen & Lee, 2018)

The Braddock Metro Neighborhood can be seen to share certain characteristics with the socially diverse neighborhoods studied by Talen and Lee: they are historically working-class communities clustered around former railroad and industrial sites, they have experienced a period of economic decline, they contain a variety of residential, municipal/institutional, commercial, and industrial parcels, they offer older, affordable housing stock mixed with newer, luxury residences, and they frequently are targets of urban policy to either increase investment or decrease displacement. Such neighborhoods also are characterized by their juxtaposed differences, which sometimes produce conflict. (Talen & Lee, 2018)

Asserting that “the notion of a diverse and tolerant America has been confounded by a physical context that fails to accommodate it,” Talen and Lee advocate for strategic, incremental development that is more protective of heterogeneity than a broad organizational framework. Such strategic development, they argue, might preserve existing neighborhood elements that support diversity, correct situations detracting from diversity, or intervene with new design elements in places where diversity is needed. Talen and Lee caution that social diversity is a fragile condition, highly dependent on quality spaces and easily undermined by poor design. (Talen & Lee, 2018)

Although the *Braddock Metro Neighborhood Plan* commits to “acknowledging and celebrating... diversity and multiple individual histories” (City of Alexandria, 2008a), it appears to favor a New Urbanist application of uniform, identity-creating (rather than identity-affirming) documentation and memorialization strategies that look past the deeply complex history of the Braddock Metro Neighborhood in pursuit of an idealized small-town aesthetic. Such a frameworked approach to historic preservation, combined with the erasure of social edges discussed previously, is likely to produce redeveloped spaces that are conspicuously homogeneous in their purported heterogeneity, ultimately undermining neighborhood diversity rather than affirming it.

In light of the research, this thesis argues for a series of incremental, strategic interventions that acknowledge and seek to preserve elements evoking the deeply complex history of the Braddock Metro Neighborhood while also protecting fragile conditions of diversity at the pedestrian scale.

PUBLIC GATHERING PLACES

A third recommendation made by the *Braddock Metro Neighborhood Plan* to affirm character and connect residents is the creation of public gathering places. The plan identifies a “serious need to create places where people of diverse backgrounds and lifestyles can come together” and proposes to fulfill that need with “Walking Streets,” neighborhood parks, and retail areas. (City of Alexandria, 2008a)

Walking Streets

The Neighborhood Plan emphasizes the importance of streets to draw people into the public realm, enhance personal safety, and build community. Noting that existing neighborhood streets lack a hierarchy of distinct rights-of-way for pedestrian, bicycle, and automobile traffic, the plan proposes four “Walking Streets” to provide the best and safest routes for pedestrians: West and Fayette in the north-south direction and Madison and Wythe in the east-west direction (Figure 13). (City of Alexandria, 2008a)

The plan offers a number of design guidelines to enhance the effectiveness of Walking Streets, including wide sidewalks separated from the street with regularly-spaced trees of a consistent species planted in strips or wells, pedestrian-scale lighting, improved crosswalks, realigned intersections, and buried utilities. The plan also specifies bicycle enhancements and brick paving for Fayette and Wythe Streets, in coordination with planning initiatives elsewhere in the City. (City of Alexandria, 2008a)

For all new buildings adjacent to Walking Streets, the Neighborhood Plan requires building shoulders that are no taller than half the total width of the street corridor to provide pedestrians with a comfortable sense of enclosure at an appropriate scale. New mixed-use buildings are required to provide retail spaces at the street level, while residential buildings are required to establish slightly elevated private entrances and semi-private landscaped setbacks. Finally, the Plan prohibits “quality-compromising” parking lots, garages, and blank walls along Walking Streets. (City of Alexandria, 2008a)

As of late 2018, the City has redeveloped portions of Walking Streets in the Braddock Metro Neighborhood, including segments of Madison and Wythe in the Old Town Commons mixed-income community.

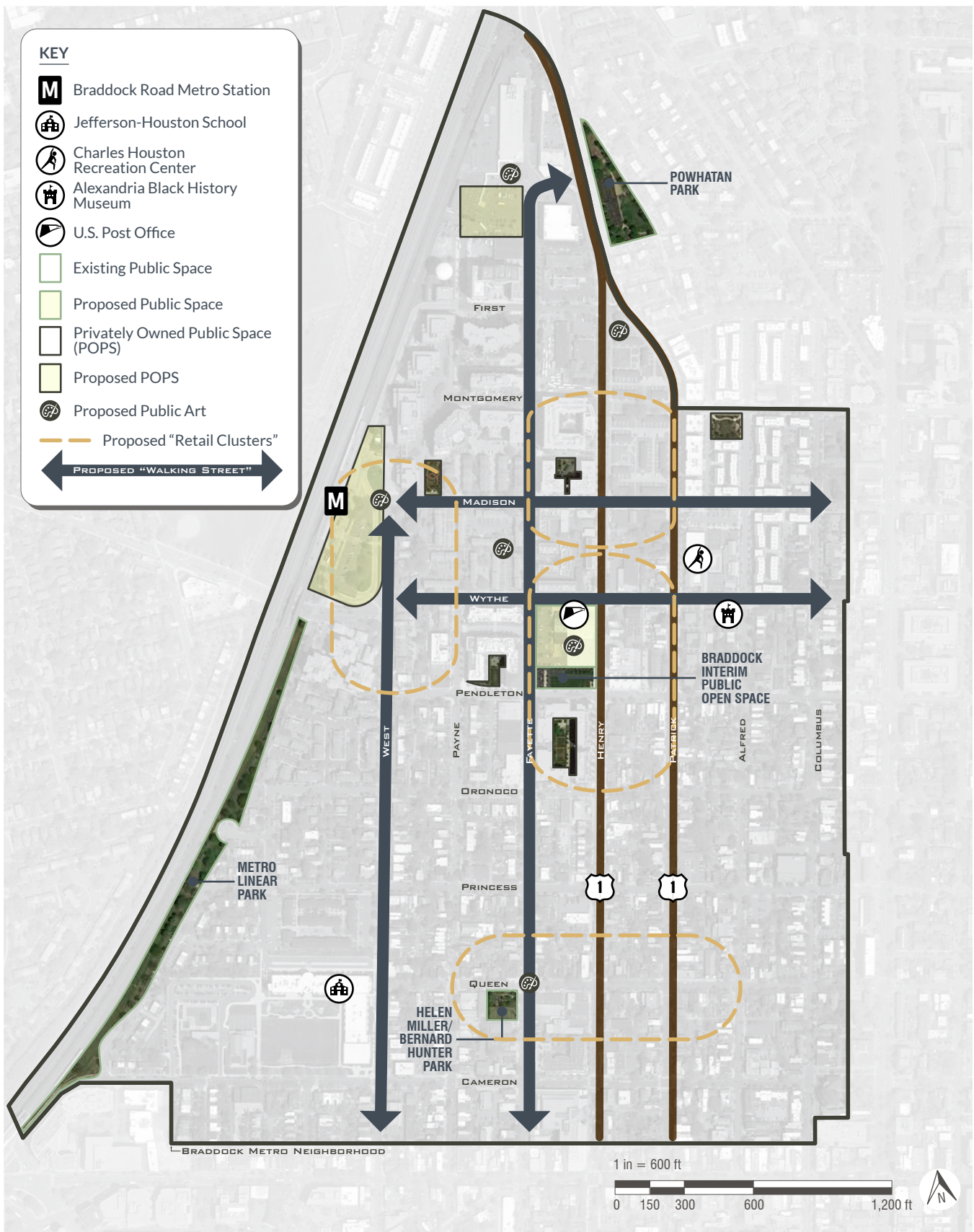


Figure 13. Public Gathering Places, Braddock Metro Neighborhood. The Braddock Metro Neighborhood contains a variety of public gathering places. The Braddock Metro Neighborhood Plan establishes a need for pedestrian-oriented "Walking Streets," neighborhood parks (both public and privately owned), and clusters of retail establishments.

Neighborhood Parks

The Neighborhood Plan also proposes a redeveloped park system comprising a variety of open spaces linked by the designated Walking Streets (City of Alexandria, 2008a).

First, the Neighborhood Plan recommends a new one-acre central park at the intersection of two Walking Streets. Although the City has not acquired a site for this park, preference has been given to the block at the intersection of Wythe and Fayette Streets, where the U.S. Post Office is located (Figure 13). In 2010, the City acquired a half-acre parcel on the southern end of this block and, in 2015, established the Braddock Interim Public Open Space, which offers a modest plaza illuminated with festival lights and equipped with tables, chairs, benches, small recreational equipment, and lawn games (Figure 14). The City is monitoring the popularity and usage of this space to inform the design of the future central park. In 2016, the City's Parks and Recreation Commission approved a concept for the one-acre central park, which was developed with substantial community input. (City of Alexandria, 2018)

Second, the Neighborhood Plan recommends a new plaza for the Braddock Road Metro Station and the new retail spaces that would be constructed as part of this site's redevelopment (Figure 13) (City of Alexandria, 2008a; WMATA, 2016).

Third, the Neighborhood Plan anticipates a gradual expansion of the park system with a variety of pocket parks and plazas created by developers in fulfillment of the City's open-space provisions. As of late 2018, several of these privately-owned public spaces (POPS) have been constructed (Figures 13 and 15), although the Neighborhood Plan acknowledges that POPS with visual barriers or restricted access do not conform to the City's open space requirements.

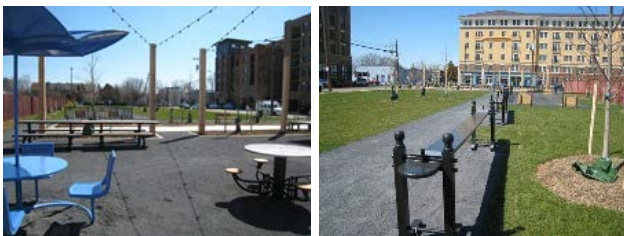


Figure 14. Braddock Interim Public Open Space. The City is monitoring the popularity and usage of a furnished plaza illuminated with festival lights and stocked with small recreational equipment to inform the design of a future central park on the site.

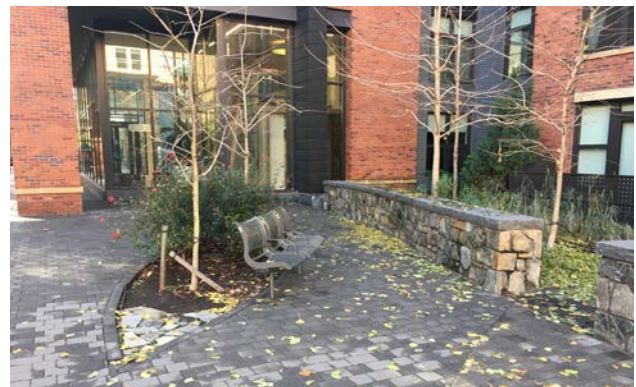


Figure 15. Privately Owned Public Spaces. Pocket parks and plazas created by developers in fulfillment of the City's open-space provisions are expected to gradually expand the neighborhood park system. POPS exist at a variety of locations, including the Asher (top), the Belle Pre (middle), and Braddock Place (bottom).

Retail Areas

In addition to Walking Streets and neighborhood parks, the Plan seeks to create Third Places: retail establishments such as book stores and cafes, where residents can gather between home and work. According to the Neighborhood Plan, Third Places benefit social life, and - when they offer evening hours - also contribute to a perception of neighborhood vitality and nighttime safety. (City of Alexandria, 2008a)

Citing not only a general deficiency in the quantity of retail space but also a lack of retail focus in any particular area, the Plan proposes four clusters of neighborhood retail establishments (Figure 13). One cluster encompasses the Queen Street commercial corridor, in keeping with the Plan's historic preservation goals. Another covers the planned redevelopment of the area adjacent to the Braddock Road Metro Station. The remaining two areas are oriented toward Patrick and Henry Streets and contain a mixture of existing and proposed businesses. Combined, the areas accommodate the retail demand anticipated over a 20-year redevelopment period.

Observations

The Neighborhood Plan describes pedestrian-oriented open spaces as “places that draw people together, helping to create a stronger sense of community” (City of Alexandria, 2008a). However, observations of Walking Street enhancements and redeveloped neighborhood parks cast doubt on the success of these places at affirming neighborhood character or connecting diverse residents. Observations were conducted between September 2018 and April 2019 at different times of the day, on different days of the week, and in a variety of weather conditions. Findings were documented in notes, drawings, and photographs.

The Neighborhood Plan proposes Walking Streets that not only connect open spaces but also *are* open spaces, given the extent to which they offer plantings and recreational opportunities similar to neighborhood parks (City of Alexandria, 2008a). No detectable increase in pedestrian activity was observed along Fayette and West Streets compared to other north-south streets in the Braddock Metro Neighborhood. However, Madison and Wythe Streets were consistently populated with pedestrians at rates higher than other east-west neighborhood streets. Most pedestrians traveled alone or in pairs. Where existing sidewalks were narrow, damaged, or obstructed, pedestrians often made eye contact and acknowledged the author in passing. Conversely, in redeveloped areas, where sidewalks were smooth, wide, and unobstructed, passing pedestrians acknowledged the author far less frequently.

Most developer-constructed POPS were observed to accommodate quiet activities for solitary or paired residents. Seating is provided in the form of fixed benches that typically orient residents away from one another (Figure 15). Most POPS contain some form of public art. Some include central lawns or plazas that could be transformed into event space but typically are too restricted to accommodate casual recreational activities. Only one redeveloped public gathering place - the centrally located Braddock Interim Public Open Space - offers seating for large groups of residents. This space contains evening hours, likely intended to offer a perception of neighborhood vitality and nighttime safety, and is heavily programmed with festival lights and recreational activities, lawn games, and events (Figure 14).

Although pedestrians were observed passing through or adjacent to neighborhood parks, most parks remained empty throughout the observation period. When residents were observed lingering in neighborhood parks, they tended to be alone or paired and typically engaged in a brief activity involving the care of small children, dog walking, or cellular phone use.

Most redeveloped apartments, condominiums, and town homes in the Braddock Metro Neighborhood are equipped with private or semi-private amenity spaces, most of which are difficult or impossible to observe from the street. While some amenity spaces are bounded by walls or fences at ground level, most are elevated onto decks, balconies, or roof terraces. Even in the mixed-income community of Old Town Commons, where public and affordable housing units are “seamlessly integrated” within the facades of market rate units, the highest-priced town homes are differentiated with private roof terraces.

As prescribed by the theories of New Urbanism and Defensible Space, an abundance of windows and doors in redeveloped buildings face the street and other public spaces to “activate” these spaces with pedestrians and provide for informal surveillance and control (City of Alexandria, 2008a; Lucka, 2018; Newman, 1996). However, certain artifacts call into question the level of pedestrian activity present in these spaces. A variety of homemade signs taped to the street-facing doors of recently constructed town homes (Figure 16) advise delivery personnel to drop packages at rear entrances, which typically are located in semi-private alleys, parking lots, or garages.



Figure 16. Delivery Diversion Signs. Homemade signs are taped to the street-facing doors of many recently constructed town homes. These signs, which request deliveries at rear entrances, question conditions of activity and security at street-facing doors.

These signs are frequently accompanied by placards announcing the use of home security systems or door cameras. Combined, these artifacts suggest three things: 1.) theft is a concern on neighborhood streets, 2.) rear doors, where private cars are parked, are the preferred entrances for residents, and 3.) street-facing doors are not as active as they were designed to be.

Although indoor retail Third Places were excluded from observation, outdoor restaurant and cafe spaces were observed. A few restaurants, like the Mason Social on Madison Street, offer outdoor seating adjacent to an active sidewalk. However, other restaurants in redeveloped mixed-use buildings like the Asher, Belle Pre, and Braddock Place orient restaurant and cafe outdoor seating toward pocket parks and plazas, which - as mentioned previously - tend to remain empty most of the time.

The Neighborhood Plan commits to creating a variety of open spaces for Braddock Metro Neighborhood residents; however, redeveloped public gathering places were observed to accommodate only three patterns of activity:

1. Residents engaged in unobstructed movement on Walking Streets.
2. Residents engaged in a quiet, solitary activity in a pocket park or small plaza.
3. Residents engaged in a regulated group activity in a centrally located public park.

Outside of these redeveloped spaces, other patterns of group activity were observed. For example, loitering was observed within and adjacent to common spaces in the Samuel Madden and Andrew Adkins public housing projects. Also, customer queuing was observed at a popular and historic take-out restaurant, the Blue & White Carryout, at the corner of Wythe and Henry Streets.

Design Considerations: Staying

While pedestrian-oriented open spaces tend to be universally regarded as significant to establishing a sense of community and general wellbeing in a neighborhood, particularly one that is socially diverse, theorists, scholars, and practitioners disagree on the ideal design and orientation of such spaces. At the core of this disagreement is the notion of regulation: because different social groups are likely to establish different patterns of acceptable use within the same space, informal surveillance and control can prove challenging.

Some researchers of mixed-income communities have blamed conditions of resident self-segregation on faulty design techniques, arguing that mixed-income communities are not designed with social mixing in mind. For example, they argue that replacing common areas such as shared corridors and elevators (deemed uncontrollable by New Urbanists and Defensible Space theorists) with private entrances and semi-private spaces significantly reduces opportunities for casual social contact among residents. (Levy, et al, 2013; Thurber, et al, 2017)

Other researchers argue that open space designs in and around mixed-income communities contribute to new forms of marginalization and exclusion of low-income residents. For example, in case studies of mixed-income communities in Chicago, Robert Chaskin and Mark Joseph observed that public areas were clearly demarcated as semi-private spaces to allow for informal surveillance and control - not by lower-income tenants but by middle-income owners - a social group most concerned with establishing "market norms" for acceptable use of open spaces and preventing conduct perceived as disorderly (such as loitering) through exclusionary devices like signage, gates, and furniture placement. (Chaskin & Joseph, 2011 & 2015)

Conflict among different social groups, according to Talen and Lee, actually is an essential characteristic of diverse communities. Thus, they charge urban designers with not only fostering connections among diverse social groups but also resolving the negative impacts of those connections, which manifest in fear, seclusion, or separation. Designers, they argue, must help residents "feel secure about the mixing and connecting required of them in a diverse place." (Talen & Lee, 2018)

The *Braddock Metro Neighborhood Plan*, rather than embracing conflict inherent to diversity, appears to promote a series of conflict-avoidance strategies that clearly establish patterns of acceptable use in open spaces and exclude activities the City deems disorderly.

Walking Streets, which are intended to both connect and serve as open spaces, represent the first of these conflict-avoidance strategies. The Neighborhood Plan requires redeveloped sidewalks to have at least a six-foot-wide pedestrian zone, which is accessible to residents with wheelchairs and double-wide strollers (City of Alexandria, 2008a). In addition to enhancing accessibility, these widened sidewalks allow for minimally restricted pedestrian movement throughout the neighborhood (Figure 17).

In *Flesh and Stone: The Body and the City in Western Civilization*, Richard Sennett argues that cities throughout history have purposefully placed residents into patterns of uninterrupted, conflict-free movement, manufacturing conditions of individualized freedom and comfort in an attempt to discourage residents from gathering and organizing toward nefarious, possibly revolutionary, purposes. “The more comfortable the moving body became,” he writes, “the more also it withdrew socially, traveling alone and silent.” Such passive movement has a price: “Today, as the desire to move freely has triumphed over the sensory claims of the space through which the body moves, the modern mobile individual has suffered a kind of tactile crisis: motion has helped desensitize the body.” (Sennett, 1994)

Sennett argues for open spaces that acknowledge and accommodate some measure of conflict: “...resistance is a fundamental and necessary experience for the human body: through feeling resistance, the body is roused to take note of the world in which it lives...” (Sennett, 1994). Gehl also advocates for productive resistance to movement, seeking “spaces [that] are sufficiently narrow and rich in experience yet still wide enough to allow room to maneuver” (Gehl, 2011). In the Braddock Metro Neighborhood, widened sidewalks are intended to draw residents, including those who are physically disabled, into the public realm. However, such spaces are likely to deaden the sensory experiences of residents, making them less aware of one another. This effect could explain why passing residents on redeveloped, widened sidewalks acknowledged the author less frequently than residents on narrow sidewalks.

Another of the City’s conflict-avoidance strategies is seen in the developer-constructed pocket parks and plazas that favor quiet, solitary activity. The Neighborhood Plan documents resident requests for “places for walking a dog or sitting on a park bench to read” (City of Alexandria, 2008a). Indeed, these activities are accommodated in most neighborhood POPS. However, these POPS also contain design features that exclude casual group activity, with benches arranged to make seated group conversation awkward at best (Figure 15). Although certain POPS offer small lawns or plazas, these spaces are conducive to group activity only when that activity is overtly organized - and controlled - as a community event.



Figure 17. Sidewalk Widening. The Braddock Metro Neighborhood Plan specifies the widening of sidewalk pedestrian zones from typically four feet (left) to a minimum of six feet (right), enhancing accessibility and allowing for minimally restricted pedestrian movement.

Even when developer-constructed POPS fulfill the City's open space requirements, they are not social spaces. As a result, they are mostly empty spaces. In *The Social Life of Small Urban Spaces*, William Whyte describes conditions and design features most conducive to social gathering in New York City's parks and plazas. Both Whyte and Gehl assert that people are attracted to other people in open spaces, meaning that empty spaces quickly become repellent (Gehl, 2011; Whyte, 1980).

A third strategy used by the City to avoid conflict in open spaces is the regulation of social mixing through programming. The centrally located Braddock Interim Public Open Space - the only redeveloped open space in which group seated activity is accommodated - is also heavily programmed with recreational activities, lawn games, and events. The Neighborhood Plan and its addenda emphasize the need for recreational activities in the Braddock Metro Neighborhood: "The ultimate goal should be to create a range of activities that complement those offered at the Charles Houston Recreation Center and that draw people of all ages, races, and economic backgrounds to share the public space together and build a stronger sense of community" (City of Alexandria, 2008b).

Such programming might be expected to avoid conflict for a variety of reasons. First, organized games and recreational activities put bodies into regulated motion, rendering them more passive than bodies at rest (Sennett, 1994). Second, recreational activities are distracting, meaning that residents are less likely to organize in any deviant way (Sennett, 1994). Third, games like ping pong are instantly recognizable, allowing residents to easily understand, surveil, and control them (Newman, 1996). It should be noted that the Braddock Interim Public Open Space - as with the neighborhood POPS - was observed to remain empty, even on warm, sunny weekends, suggesting that the success of this park as a social space might depend on even more programming than is physically apparent in the design, such as movie nights, food trucks, or group fitness classes.

None of the three conflict-avoiding patterns of acceptable use observed in redeveloped neighborhood spaces is oriented toward connecting diverse residents. To accomplish this goal, Talen and Lee emphasize the importance of creating open spaces that encourage casual and spontaneous interactions

among residents of different social groups because it is these "weak" social ties that lead to the formation of Bridging Social Capital (Talen & Lee, 2018).

Although proponents of mixed-income communities tend to define Bridging Social Capital using status-based commodities of income or class (e.g., expanded opportunities for education, employment, and homeownership), Gehl interprets the list of commodities to include a source of information about the social world outside of one's group, a source of inspiration, an offer of stimulating experience, or a possible starting point for networking (Gehl, 2011). Sennett's expectations for interaction among different social groups are equally as modest: a simple ritual, such as holding the door for an approaching neighbor, or an exchange of pleasantries (Sennett, 2018). In this way, the notion of Bridging Social Capital becomes less about status-based commodity exchange and more about community building and resident wellbeing.

Collectively, Talen, Lee, Sennett, and Gehl assert that the most effective method for producing casual social mixing is to intercept residents on a frequently-traveled pedestrian path, bring those residents to a stop in an open space, and encourage them to stay (Gehl, 2011; Sennett, 2018; Talen & Lee, 2018; Whyte, 1980). Toward this goal, they advocate for precise, small-scale interventions. Gehl writes, "everyday life, ordinary situations, and spaces in which daily life is lived must form the center of attention and effort" (Gehl, 2011). Sennett writes, "the planner is not forcing explicit articulation of differences on people, but engaging them in a common everyday task" (Sennett, 2018). And Talen and Lee ask: "Where can a relatively small amount of attention go a long way in promoting and sustaining the social diversity that exists?" (Talen & Lee, 2018). Indeed, the *Braddock Metro Neighborhood Plan* appears to omit the very type of public gathering place needed to affirm neighborhood character and connect diverse residents: a space - or series of spaces - designed to encourage frequent, spontaneous, and casual mixing of neighbors already engaged in everyday activities.

In light of the research, this thesis argues for design interventions that encourage stopping and staying using minimal regulation, helping residents tolerate challenging conditions of diversity through frequent exposure to different patterns of acceptable use in social spaces.

DESIGN INTENT AND SITE SELECTION

Informed by the observations and research discussed in the previous section, the thesis design intends to affirm character and connect diverse residents in the Braddock Metro Neighborhood by creating spaces that support the formation of Bridging Social Capital. To fulfill this intent, the design seeks to accomplish three main goals:

1. Engage with a variety of edges.
2. Preserve both history and diversity.
3. Encourage stopping and staying.

Most importantly, the design seeks to respect and respond to the ways in which the site is already accomplishing these goals. Interventions are to be small in scale and made with great care.

To best articulate the design intent, a certain type of site is favorable:

1. A site through which pedestrians of diverse social groups move on a daily basis.
2. A site with edges.
3. A site that exhibits transition (thus, diversity) but is not yet fully redeveloped or gentrified.
4. A site in which some form of staying is already accommodated.

To identify a site through which pedestrians move on a daily basis, site selection focused on the Walking Streets: Fayette, West, Madison, and Wythe (Figure 13). Between September 2018 and February 2019, all four Walking Streets were observed at different times of the day, on different days of the week, and in a variety of weather conditions. These observations revealed the two east-west streets, Madison and Wythe, to be most consistently populated with pedestrians, perhaps because these two paths, unlike Fayette and West, offer compelling destinations. Both streets lead to the Braddock Road Metro Station to the west and terminate at the Old Town waterfront (Potomac River) to the east, passing two popular chain grocery stores: Trader Joe's and Harris Teeter. Given the level of pedestrian activity observed, Madison and Wythe Streets were chosen for further exploration.

Between February and April, 2019, site inventories were performed along Madison and Wythe Streets. Photographic site sections were collaged along the lengths of both streets within the boundary of the Braddock Metro Neighborhood and arranged with corresponding figure-ground forms to represent the built environment (Figures 19 and 20). Both streets were inventoried for edges and transitions, architectural history, expressions of diversity, stopping and staying, and a range of sensory experience.

EDGES

As residents move along Madison and Wythe Streets, they encounter a variety of edges and transitions. Perhaps the most assertive edge is Route 1, which crosses the Walking Streets northbound along Patrick Street and southbound along Henry Street. Route 1, which carries three lanes of vehicular traffic (including buses and large trucks) in each direction, is seen, heard, and felt by residents (Figure 18). Thus, a gradient of activity and sensory experience is observed along Madison and Wythe Streets between the busy Route 1 and the less populated, more residential edges of the neighborhood.



Figure 18. Heavy Traffic, Route 1. Perhaps the most assertive edge crossing Madison and Wythe Streets is Route 1, which moves north along Patrick Street (top, at Madison) and south along Henry Street (bottom, at Wythe). Route 1 carries three lanes of vehicular traffic, including buses and large trucks, in each direction.



KEY

- | | | | | | | | |
|--|-------------------------|--|--|--|-------------------------------|--|---|
| | Residential | | Public Housing | | Parker-Gray Historic District | | Intersection, Four-Way Stop |
| | Offices | | Mixed-Income Housing | | Braddock Metro Neighborhood | | Intersection, Four-Way Stoplight |
| | Municipal/Institutional | | Light Industrial Adapted to Commercial | | Fence | | Staying indicative of Bonding Social Capital |
| | Commercial | | Light Industrial | | BMNP "WALKING STREET" | | Staying indicative of Bridging Social Capital |
| | | | | | THRU STREET | | |

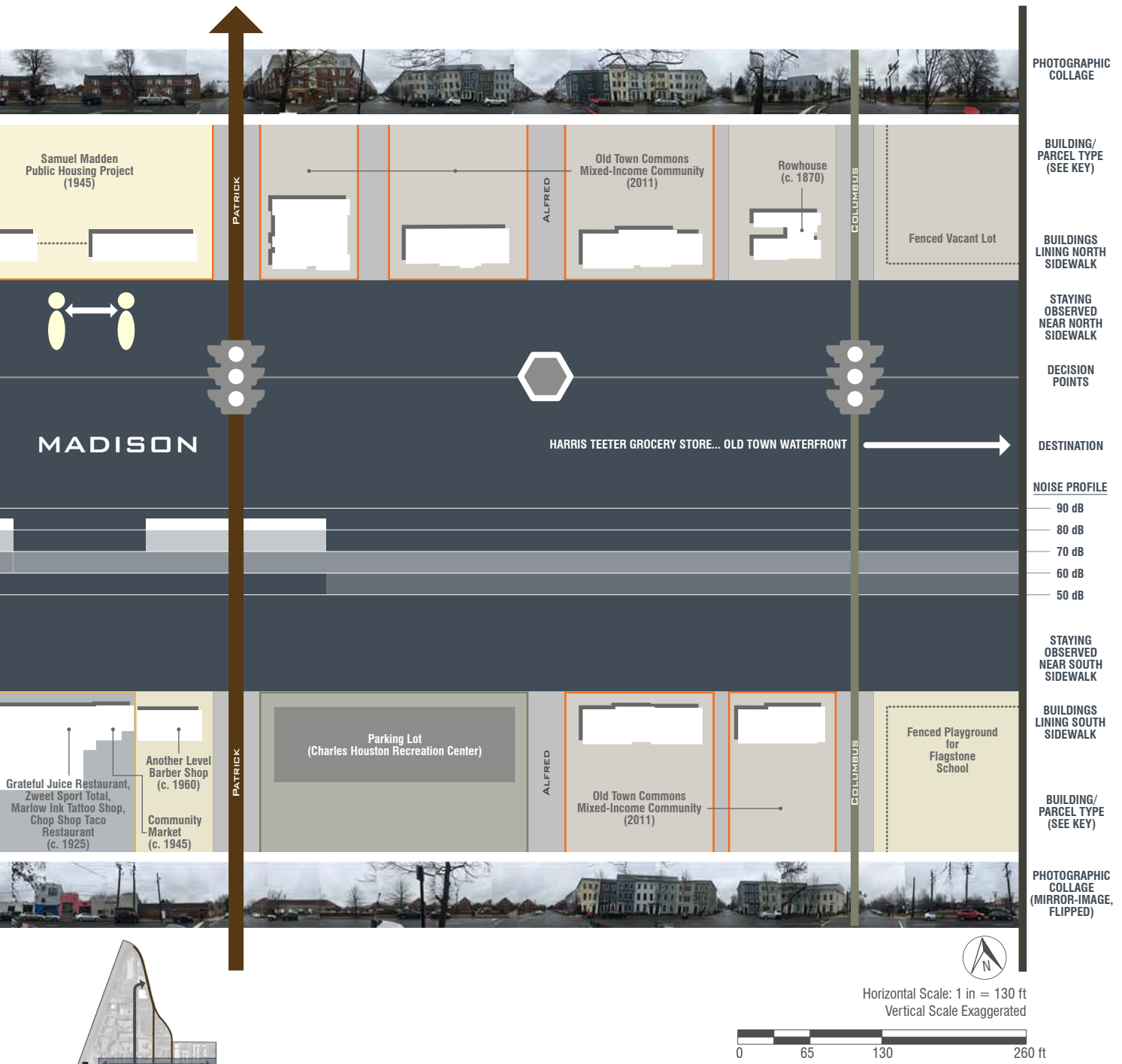
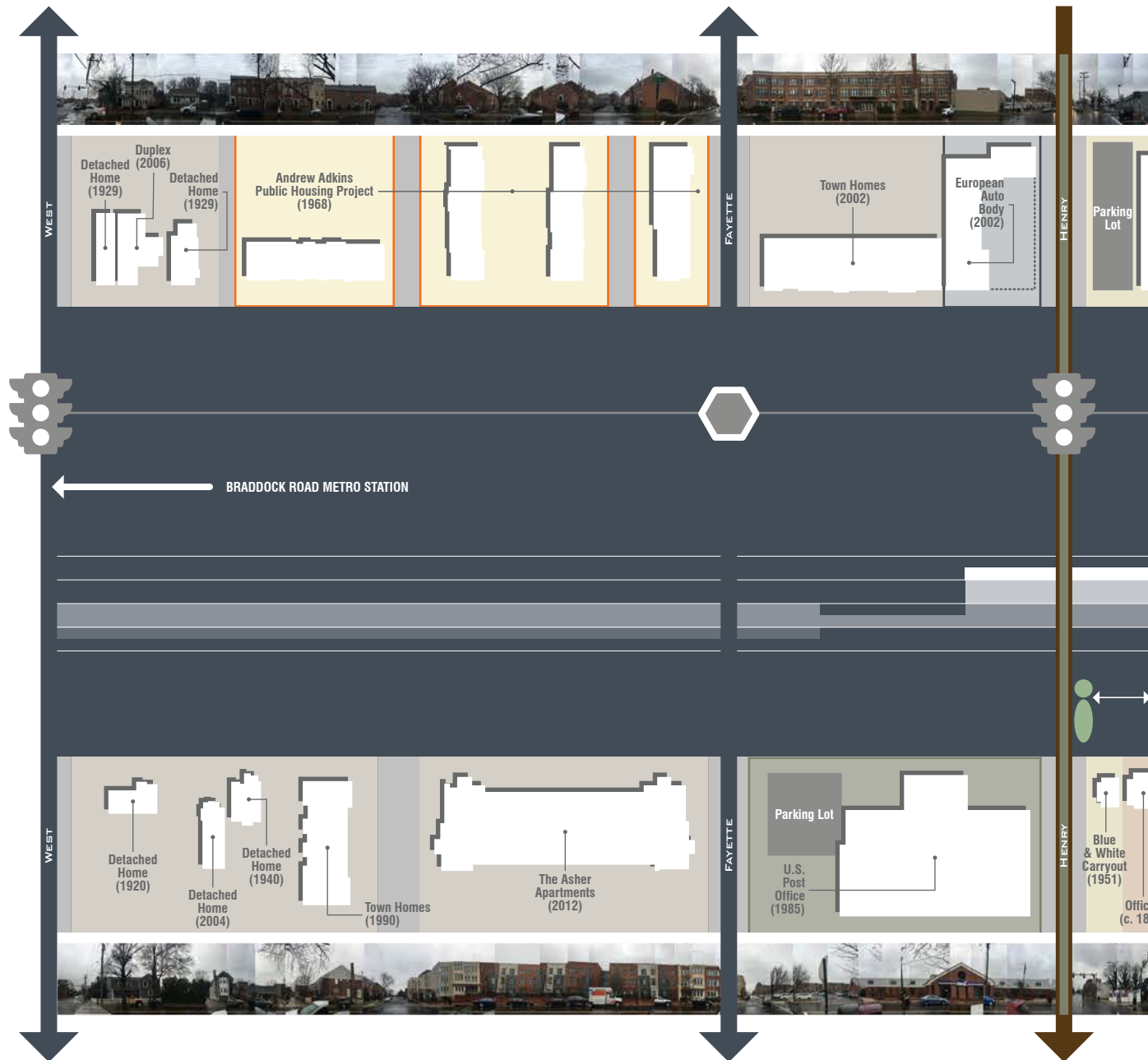


Figure 19. Inventory, Madison Street. Madison Street, one of four Walking Streets in the Braddock Metro Neighborhood Plan, is characterized by a diverse collection of buildings and parcel types. The street passes three public housing projects in varying stages of redevelopment and one mixed-income community, Old Town Commons. Transportation noise was measured between 50 and 85 decibels. Staying indicative of Bonding Social Capital was observed in two locations.



KEY

- Residential
- Offices
- Municipal/Institutional
- Commercial

- Public Housing
- Mixed-Income Housing
- Light Industrial Adapted to Commercial
- Light Industrial

- Parker-Gray Historic District
- Braddock Metro Neighborhood
- Fence



- Intersection, Four-Way Stop
- Intersection, Four-Way Stoplight
- Staying indicative of Bonding Social Capital
- Staying indicative of Bridging Social Capital

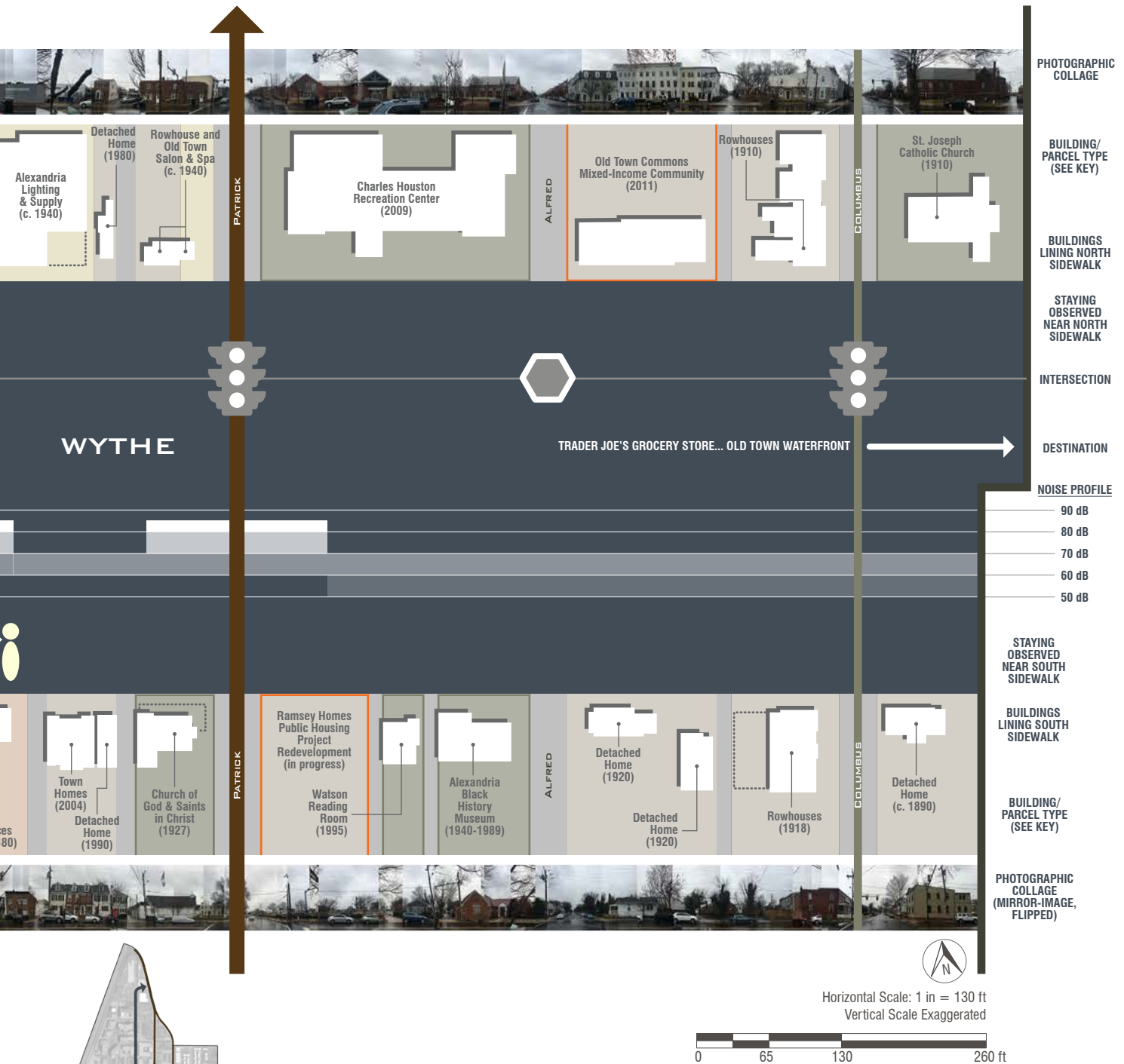


Figure 20. Inventory, Wythe Street. Wythe Street, one of four Walking Streets in the Braddock Metro Neighborhood Plan, is located one block south of Madison Street. Like Madison Street, Wythe Street is characterized by a diverse collection of buildings and parcel types. The street passes the Andrew Adkins public housing project, the mixed-income community of Old Town Commons, and the mixed-income community under construction at the site of the former Ramsey Homes. Transportation noise was measured at the same range as Madison Street: between 50 and 85 decibels. Staying indicative of Bridging Social Capital was observed in one location: the Blue & White Carryout.

Including Route 1, six north-south streets intersect Madison and Wythe Streets, some with stop signs and others with traffic lights and crosswalks, which require residents (pedestrians and drivers alike) to engage with their surroundings to navigate safely. Both streets are further interrupted by alleys, driveways, parking lots, garage entrances, and loading docks.

Measurements of traffic noise along Madison and Wythe Streets were recorded using the National Institute for Occupational Safety and Health (NIOSH) Sound Level Meter, a publicly available cell phone application (CDC, 2019). Along both streets, noise levels peak at a disruptive 85 decibels (dB) at intersections with Patrick and Henry Streets. Route 1 traffic noise reaches beyond these intersections (Figures 19 and 20), such that the block located between Patrick and Henry Streets is impacted by more traffic noise than any other block observed.

In addition to the borders formed by intersecting streets, alleys, and driveways, other borders are encountered along Madison and Wythe Streets, including low fences, architectonic grade changes, doorways, and windows. Impermeable boundaries, such as privacy fences and blank walls, are encountered as well. Buildings oriented to face Madison and



Figure 22. Welcome Sign, Belle Pre Plaza. The “All are Welcome” sign for the Belle Pre Plaza seeks to increase the porosity of a border by inviting pedestrians into the interior plaza, a POPS which is not easily seen from the sidewalk.

Wythe Streets present as permeable borders, while buildings in diagonal or perpendicular orientations present more like impermeable boundaries.

Some physical edges represent social conditions. For example, black, powder-coated aluminum fencing, possibly indicative of past retrofits influenced by the Defensible Space theory to recast common areas into semi-private units for informal surveillance and control, is observed in public housing projects on both streets. Permeable borders are seen in intermittent, 3-foot segments at Andrew Adkins, while a 6-foot gateless segment at Samuel Madden is intended to form an impermeable boundary (Figure 21).

Still more edges are articulated through signage, such as exclusionary “No Loitering” signs (Figure 1) posted in public housing projects and placards advertising the use of security systems and cameras observed at residences and businesses along both streets. Some newly constructed town homes also display signs advising delivery personnel to drop packages at rear entrances (Figure 16). Notably, one sign on Madison Street - an “All are Welcome” sign for the Belle Pre Plaza - seeks to overcome a resistant edge (Figure 22). Given that the interior plaza of the redeveloped Belle Pre building cannot be seen from the street, it is possible this sign is required for the POPS to meet the City’s open space requirements.

Finally, edges are observed in transitions between different types of buildings and parcels lining both streets: residential, municipal/institutional, commercial, and light industrial. Transitions also are made into and out of the Uptown/Parker-Gray Historic District and through areas of redevelopment and gentrification. Such transitions are discussed as elements of diversity.



Figure 21. Public Housing Fencing. Black, powder-coated aluminum fencing is observed as a permeable border in three-foot, intermittent segments at Andrew Adkins (left) and as an impermeable boundary in a 6-foot gateless segment at Samuel Madden (top).

DIVERSITY

Although patches of redevelopment and gentrification have occurred along Madison and Wythe Streets, both continue to exhibit character indicative of diversity (Talen & Lee, 2018). For example, both streets are historically diverse, with structures under construction coexisting with structures that are nearly 150 years old. The portions of both streets encompassing the Uptown/Parker-Gray Historic District also are significant, with numerous buildings identified as contributing resources.

Diversity is further expressed by the array of building and parcel types encountered along Madison and Wythe Streets. Residences range from public housing units, apartments, and condominiums to town homes, rowhouses, and multi-million-dollar detached homes. Both streets pass through the mixed-income community of Old Town Commons. Wythe Street also passes the mixed-income community under construction at the site of the former Ramsey Homes.

Offices and businesses occupy not only dedicated commercial buildings but also converted residences, live/work buildings, and redeveloped light-industrial complexes. Both streets pass municipal/institutional buildings, including the Lincoln Masonic Lodge on Madison Street and the Alexandria Black History Museum, Watson Reading Room, Charles Houston Recreation Center, and two historic churches on Wythe Street.

Madison and Wythe Streets also pass the sites of historically significant buildings that are now demolished: the Parker-Gray Elementary School (now the site of the Charles Houston Recreation Center), the Parker-Gray High School (now the site of the Braddock Place town homes), the James Bland public housing project (now the site of Old Town Commons), and the Ramsey Homes (soon to be the site of a new mixed-income community). Some demolished buildings are documented and memorialized through signage and other interpretive means consistent with the design guidelines set forth in the *Braddock Metro Neighborhood Plan* (Figure 10).

Street trees are planted intermittently along both streets and vary in age, size, and species. Newer trees are found in redeveloped areas; most often, these trees are of the same species and are evenly spaced, in keeping with the design guidelines set forth in the



Figure 23. Street Trees, Madison and Wythe Streets. Newer trees within the mixed-income community of Old Town Commons on Madison Street are of the same species and evenly spaced (top). In areas that have not yet been redeveloped, such as the Andrew Adkins public housing project on Wythe Street, mature shade trees exist as specimens (bottom).

Neighborhood Plan. In areas that have not yet been redeveloped, mature shade trees exist as specimens (Figure 23). Some commercial or formerly industrial parcels contain no street trees.

Both Madison and Wythe Streets are further characterized by the sights and sounds of motor vehicle transportation, which are expected given the transit-oriented nature of the neighborhood yet still surprising given the diversity observed. Street traffic ranges from intermittent residential automobile traffic along the edges of the neighborhood to the

heavy, multi-lane vehicular traffic passing through the center of the neighborhood along Route 1. Rail traffic is audible: loudspeaker announcements from the outdoor platform of the Braddock Road Metro Station are discernible on both streets as far east as Fayette, while passing freight trains can be heard along the entire length of both streets. A “Driving Alexandria Safely Home” (DASH) regional bus route runs east along Madison Street: bus noise is especially loud as buses climb the grade between West and Fayette Streets. Finally, commercial airplanes approaching and departing Reagan National airport are audible throughout all of Alexandria. The prevalence of transportation noise along Madison and Wythe Streets is remarkable: residents are surrounded by the nearly continuous sounds of people moving all around them.

Sensory experiences are not limited to the visual and auditory. Along Madison Street, in Old Town Commons, scents of fabric softener and cooking are prevalent on the weekends. The Sugar Shack in the mixed-use Belle Pre building emits strong scents of coffee and pastry. On Wythe Street, the mouth-watering scent of fried chicken surrounds the Blue & White Carryout, often wafting midway down the block.

Sensory experiences also include the tactile: the grades of both streets climb perceptibly from West Street to Fayette Street. East of Fayette, both streets slope gradually (often imperceptibly) toward the Potomac River. Vibrations are felt from DASH buses traveling east along Madison Street and heavy commercial vehicles crossing both streets along Route 1.

Most sidewalks are concrete-paved, with widths ranging from less than two feet (in areas of the neighborhood that have not yet been redeveloped) to upwards of 15 feet in commercial or formerly industrial areas. Intermittent segments of sidewalk on both streets are brick-paved in a running-bond pattern. Regardless of paving material, in areas that have not yet been redeveloped, sidewalks typically are uneven, particularly when located near mature street trees, and require pedestrians to engage with their surroundings to avoid tripping hazards.

STAYING

Staying was observed along both Madison and Wythe Streets. On Madison Street, staying indicative of Bonding Social Capital was observed near the Andrew Adkins and Samuel Madden public housing projects. Wythe Street offered the only instance of staying indicative of Bridging Social Capital in the entire Braddock Metro Neighborhood: patrons queuing for lunch at the Blue & White Carryout (Figure 24).

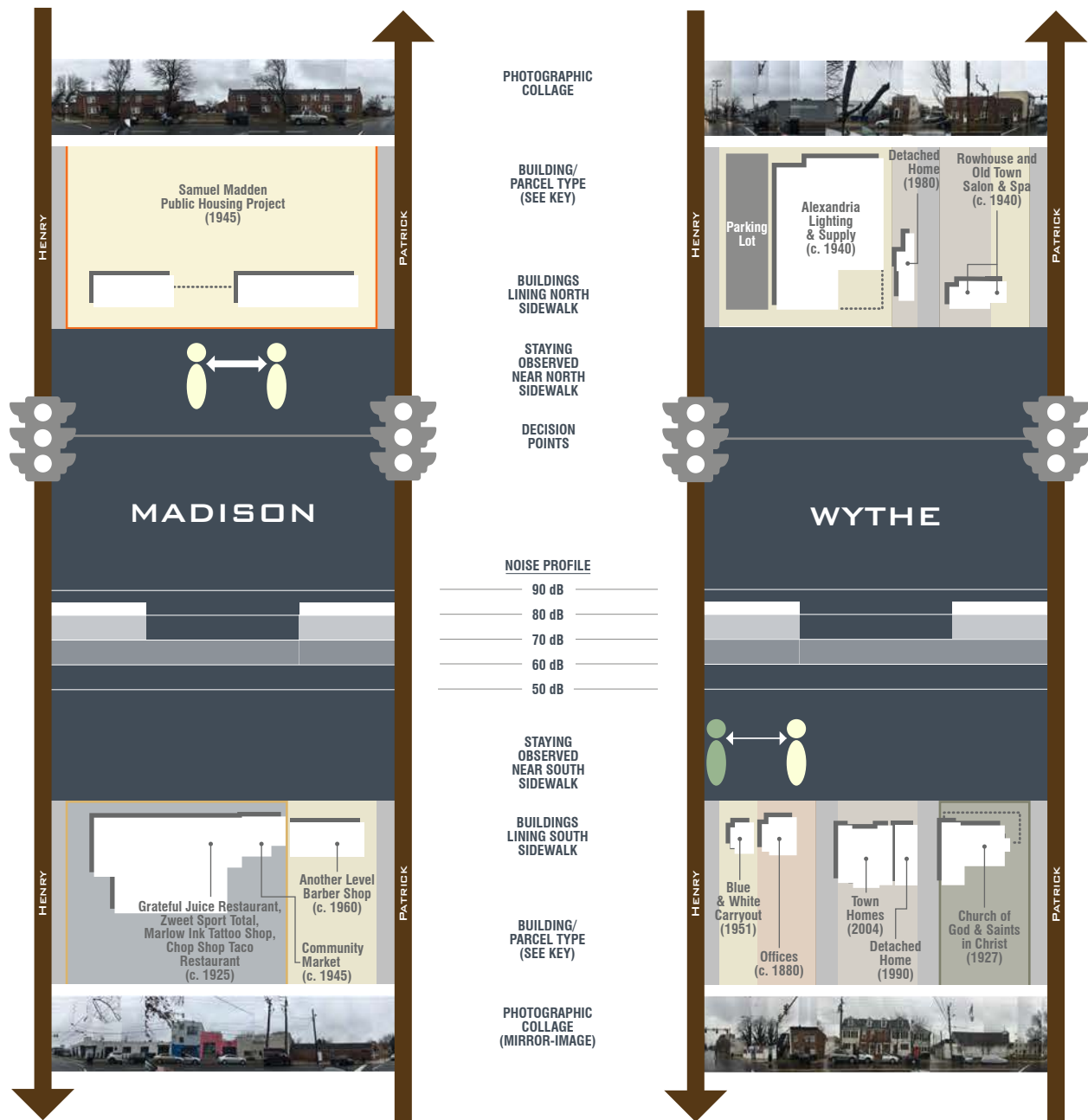
SELECTED SITE

Following the street-scale inventory, two segments of Madison and Wythe Streets were selected for further analysis: the blocks bordered by the northbound and southbound lanes of Route 1 (Figure 25). These sites are favorable for articulating the intent of the thesis design because they are relatively small spaces offering a variety of edges, historic artifacts, conditions of diversity, and examples of staying.

Two sites (rather than one) were selected because they offer an opportunity for comparison between existing conditions and proposed design interventions. Although both sites are favorable for articulating the intent of the thesis design, each is entirely unique. Therefore, each site offers unique opportunities for engaging with edges, preserving site-specific history and diversity, and encouraging stopping and staying.



Figure 24. Staying, Blue & White Carryout. Customers queue for lunch at the corner of Wythe Street and Henry Street.



KEY

	Residential		Public Housing		Staying indicative of Bonding Social Capital
	Offices		Light Industrial Adapted to Commercial		Staying indicative of Bridging Social Capital
	Municipal/Institutional		Fence		BMNP "WALKING STREET"
	Commercial		Intersection, Four-Way Stoplight		THRU STREET

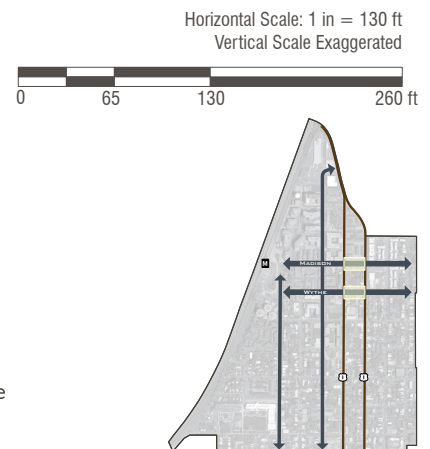


Figure 25. Site Selection. Two segments of Madison and Wythe Streets were selected for further analysis: the blocks bordered by the northbound (Patrick Street) and southbound (Henry Street) segments of Route 1. These sites are favorable for articulating the intent of the thesis design because they offer a variety of edges, historic artifacts, conditions of diversity, and examples of staying. They also offer opportunities for comparing existing conditions and proposed design interventions.



SITE AND REDEVELOPMENT ANALYSIS

Two block-long segments of Madison and Wythe Streets, both considered favorable for articulating the thesis design intent, were selected for further analysis. The Madison and Wythe Blocks, located only one block apart, are similar in that they are segments of east-west Walking Streets located within the Uptown/Parker-Gray Historic District and bordered by the northbound and southbound lanes of Route 1. However, an analysis of physical features and social conditions reveals how each block is unique. Such an analysis is critical in the face of redevelopment, particularly when seeking to affirm neighborhood character and connect diverse residents.

Following the careful analysis of both blocks, a redevelopment scenario was created to demonstrate a straight application of the New Urbanist design guidelines set forth in the *Braddock Metro Neighborhood Plan*. The form, function, and anticipated social effects of this scenario were then contemplated.

EXISTING CONDITIONS

Analysis results for the Madison and Wythe Blocks are described in the pages that follow in terms of existing buildings, parcels, plantings, streets, sidewalks, infrastructure, lighting, edges, social conditions, special features, and character.

NOTE: To facilitate comparison, all plan views from this section forward re-orient the north arrow to point toward the left (rather than the top) of the page. In all subsequent two-page spreads, Madison (the northernmost block) is pictured to the left of Wythe.

Buildings, Parcels, and Plantings

Notwithstanding the limited size of the selected site, both the Madison and Wythe Blocks contain a diverse set of building and parcel types in varying stages of redevelopment and gentrification (Figures 26 and 27). On the north side of the Madison Block is the Samuel Madden public housing project, originally constructed as 66 units of garden-style segregated public housing for African-American tenants in 1945 and considered a contributing historic resource within the Uptown/Parker-Gray Historic District.

As discussed previously, the project is slated for demolition, to be replaced with a mixed-income/mixed use development, at some future date. The south side of the Madison Block is commercial/industrial. Toward Henry Street is an industrial complex constructed in 1925 that has housed a variety of businesses, including a milk distribution warehouse, an ironworks facility, and an automobile chop shop. The complex is a contributing historic resource recently redeveloped into a cluster of gentrifying businesses: a taco shop, a tattoo shop, a gym, and a juice bar. Adjacent to the industrial complex are two detached buildings fused together with a facade of vinyl siding: the Community Market. At the intersection with Patrick Street, in a one-story commercial building, is a barber shop. The barber shop fronts Patrick Street but maintains a secondary, accessible entrance (marked with a placard) on Madison Street.

Street trees are found only on the north side of the Madison Block, at the Samuel Madden public housing project: two mature elms in good condition and one mature oak in fair condition. These trees are planted in a continuous tree strip that is severely compacted. No trees or tree wells exist near the industrial complex on the south side. In front of the Community Market are two landscaped setbacks, suggesting that at least one of the buildings obscured by vinyl siding was originally residential. The business owner has planted these setbacks with a variety of vegetation. Along the side wall of the barber shop building are strips of mowed grass and a large stump indicating that a mature tree once shaded this part of the block.

Compared to the Madison Block, where residential and commercial/industrial parcels exist on opposite sides of the street, the Wythe Block is characterized by immediately adjacent residential, commercial, and municipal/institutional parcels. On the north side is the Alexandria Lighting & Supply building, which was constructed in 1940 and fronts Henry Street. The parking lot, blank wall, loading dock, and fenced storage area for this business occupy more than half of the Wythe Block. Next to the loading dock/fenced storage area is a two-story detached home constructed in 1980. Across an alley to the east is a rowhouse with a ground-floor commercial space containing a beauty salon.

KEY

- Grass/Groundcover
- Garden/Landscape
- Sidewalk
- Brick
- Structure or Street
- Manhole - Other
- Utility Pole
- + Trash Can

(Contributing) Contributing Historic Resource

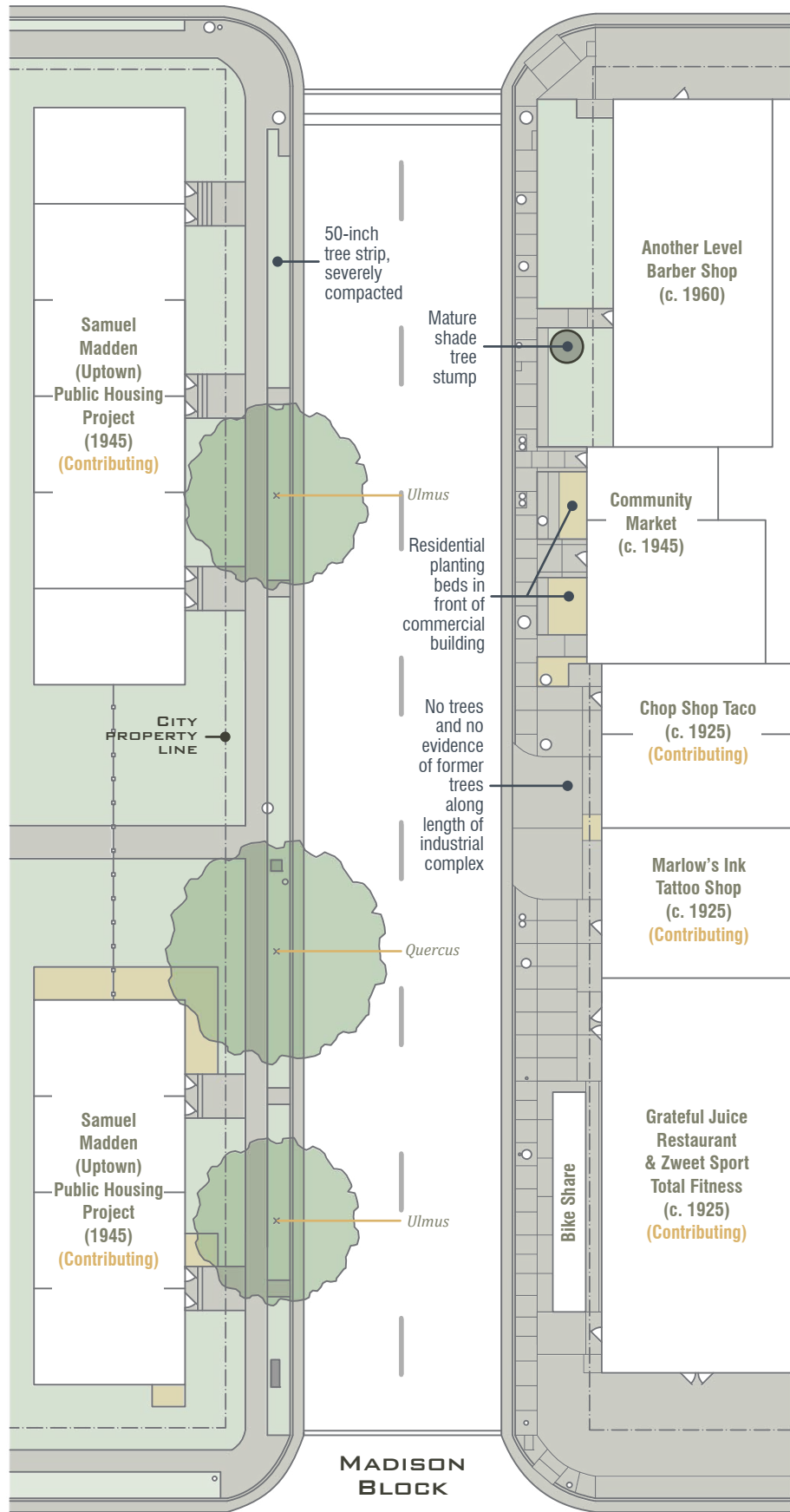
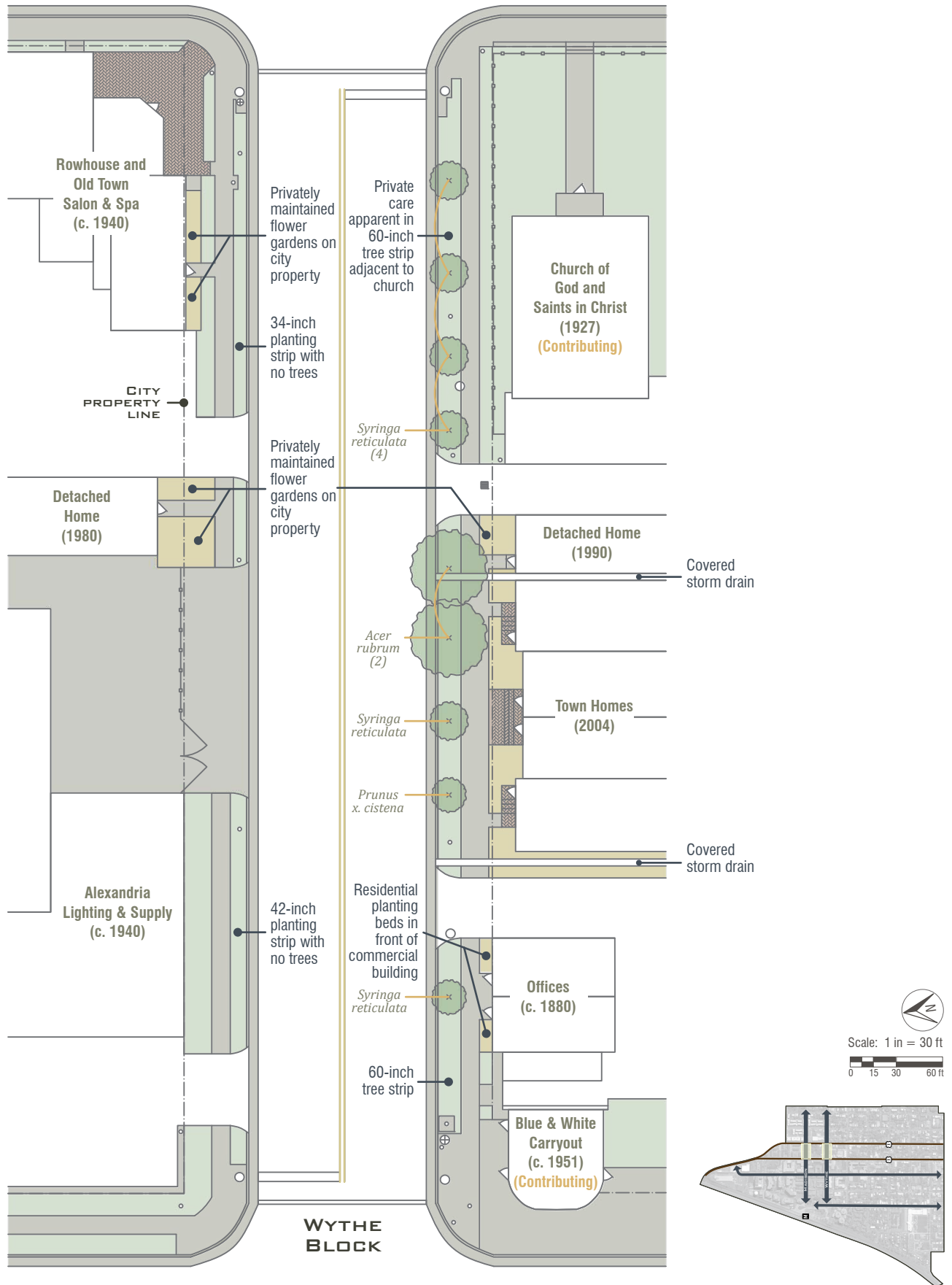


Figure 26. Buildings, Parcels, and Plantings, Selected Site. Both the Madison and Wythe Blocks contain a diverse set of buildings and parcel types. The Madison Block is characterized by residential parcels to the north and commercial/industrial parcels to the south. In contrast, the Wythe Block is characterized by a range of parcel types (residential, commercial, and municipal/industrial) in proximity. Street trees on the Madison Block consist of mature shade trees, while plantings on the Wythe Block are more recent and mostly ornamental.



66-Unit
Garden-Style
Public Housing
Project
(1945)
Samuel Madden
(Uptown)
(Contributing)



No Scale

NORTH SIDE

MADISON
BLOCK



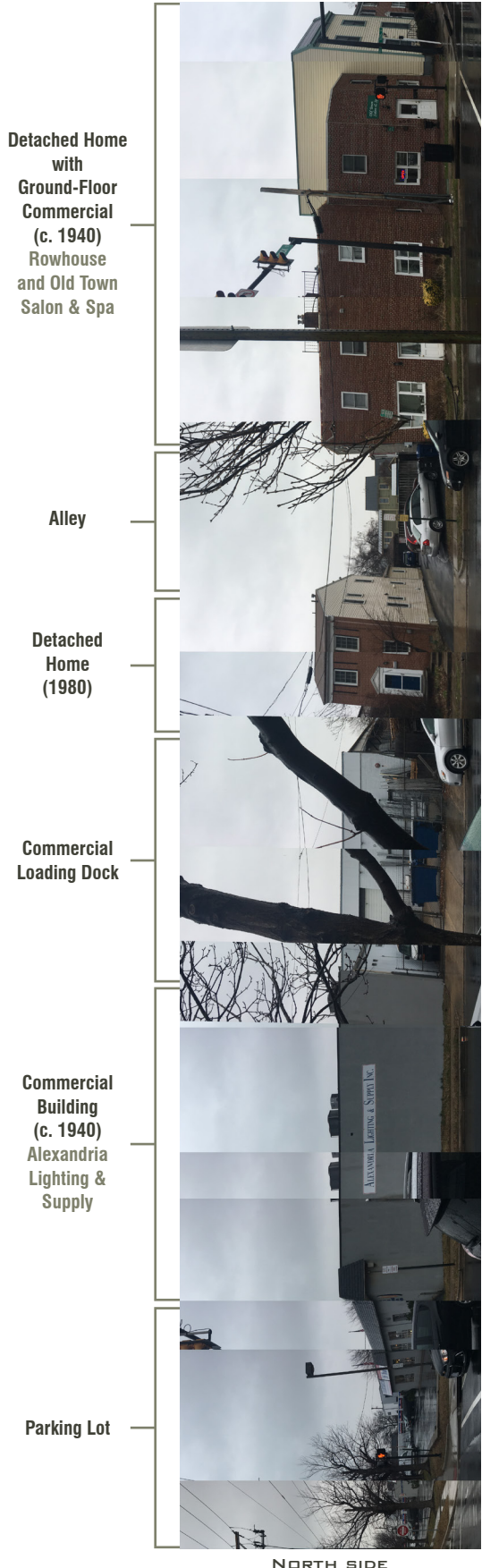
SOUTH SIDE

Commercial
Building
(c. 1960)
Another Level
Barber Shop

Two Detached
Buildings
(c. 1945)
behind
Aluminum
Siding
Community
Market

Industrial
Complex
(c. 1925)
Chop Shop Taco,
Marlow's Ink
Tattoo Shop,
Zweet Sport
Total Fitness,
and
Grateful Juice
Restaurant
(Recently
Redeveloped)
(Contributing)

Figure 27. Building and Parcel Diversity, Selected Site.
Notwithstanding the limited size of the selected site, both the Madison and Wythe Blocks contain a diverse set of building and parcel types in varying stages of redevelopment and gentrification.



Detached Home with Ground-Floor Commercial (c. 1940) Rowhouse and Old Town Salon & Spa

Alley

Detached Home (1980)

Commercial Loading Dock

Commercial Building (c. 1940) Alexandria Lighting & Supply

Parking Lot

NORTH SIDE

WYTHE BLOCK



African-American Church (1927) Church of God & Saints in Christ (Contributing)

Alley

Detached Home (1990)

4-Unit Town Home Complex (2004)

Alley

Duplex (c. 1880) Offices

Prefabricated Take-Out Restaurant Building (1951) Blue & White Carryout (Contributing)

SOUTH SIDE

The only two contributing historic resources on the Wythe Block are located on its south side. The first is an historic African-American church built in 1927. The church, which fronts Patrick Street, has a long blank wall and chain-link fence facing Wythe Street. Across an alley from the church and toward the middle of the block is a detached home built in 1990 and a four-unit town home complex built in 2004. Across another alley toward Henry Street is the oldest building on the Wythe Block: a two-story residential duplex constructed in 1880. The building, which contains offices, has lost its historic integrity due to significant alteration. The second contributing historic resource on the Wythe Block is located on the corner of Henry Street: the Blue & White Carryout, a prefabricated take-out restaurant building that was shipped to this location from the Silver Coach Company in Orlando in 1951 (NPS, 2011).

Street trees are planted only on the south side of the Wythe Block, in a wide grass strip. Nearly all trees are ornamental and appear to have been recently planted, although they deviate from the Neighborhood Plan design guidelines in that they are unevenly spaced and of different species: six Japanese Tree Lilacs (four of which line the sidewalk adjacent to the church), one Sand Cherry, and two Red Maple (in fair-to-poor condition). Landscaped setbacks in front of the offices contain a low-maintenance hedge and reveal the residential origin of the building. No street trees are located near the Blue & White Carryout. A narrow strip on the north side of the Wythe Block is planted only with grass. Both sides of the block contain privately tended flower gardens, all of which are located either partially or entirely on city property.

Streets, Sidewalks, and Infrastructure

Within the selected blocks, both Madison and Wythe Streets are 40 feet wide, with two 10-foot travel lanes and two 10-foot parking lanes (Figure 29). Both travel lanes on Madison move toward the east, whereas the lanes on Wythe are opposing. Sidewalk conditions reflect adjacent buildings, parcels, plantings, and infrastructure and - to a certain extent - the Neighborhood Plan and other city initiatives.

On the north side of the Madison Block, a four-foot concrete sidewalk runs adjacent to the Samuel Madden public housing project. The sidewalk is heaved near the roots of the mature street trees. Although a

few 3-foot segments of sidewalk span the tree strip to provide access to parked cars, much of the soil within the tree strip is severely compacted, suggesting these access spans are rarely used. A single utility pole, installed in the tree strip toward the middle of the block, routes overhead lines from the south side of the block to the project. Utility poles dominate the south side of the block, creating sidewalk accessibility issues in front of the Community Market and the barber shop. Poles narrow the four-foot sidewalk to less than two feet in two locations, prompting what appear to be a series of makeshift sidewalk patches to recover the necessary width. A wide loading dock toward the center of the block evokes the historic industrial complex. Moving toward Henry Street, the sidewalk is freshly paved to the edge of the recently redeveloped buildings.

Consistent with the siting of buildings and parcels on the Madison Block, sidewalks on the north side are characteristically residential (relatively narrow and bordered by a continuous tree strip and landscaped residential setbacks), and sidewalks on the south side are characteristically commercial/industrial (wider and paved to the building edge with no street trees). However, the length of sidewalk in front of the Community Market and barber shop (with its numerous patches) reflects a transition from residential to commercial character.

In contrast, both sides of the Wythe Block contain sidewalks that are residential in character: most are four feet wide, bordered by tree strips and residential setbacks. A length of sidewalk in front of the town homes (constructed in 2004) is six feet wide. Pre-cut slate pavers are laid across the tree strip, likely by residents, to provide access to parked cars. Only two lengths of sidewalk are characteristically commercial: a 15-foot segment adjacent to the Blue & White Carryout and the 48-foot loading dock and fenced storage area of the Alexandria Lighting & Supply. All sidewalks on the Wythe Block are paved with concrete; however, the stairs and landings of the beauty salon and recently constructed town homes are brick-paved, perhaps in anticipation of the future brick-paving of Wythe Street, a design guideline set forth in the Neighborhood Plan and other city initiatives. As with the Madison Block, the Wythe Block contains overhead utility poles. However, poles on the Wythe Block are installed in tree strips, avoiding the sidewalk accessibility issues seen on Madison.

Both the Madison and Wythe Blocks are relatively flat, sloping at a one-percent grade for most of the length of both blocks. On the Madison Block, the slope is noticeable along the row of public housing units closest to Patrick Street. On the Wythe Block, the slope is noticeable along the length of the historic church, culminating in a one-foot retaining wall and stairs fronting Patrick Street.

Lighting

Both blocks are illuminated by overhead street lights mounted to selected utility poles (Figure 30). Street lights are clustered generally toward the center of each block, perhaps because infiltrating light from Patrick and Henry Streets illuminates the edges. Neither block contains pedestrian-scale lighting; however, both blocks display a variety of residential and commercial wall lights.

Edges and Staying

Both the Madison and Wythe Blocks contain an abundance of edges: permeable borders that attract activity and impermeable boundaries that repel it (Figure 31). Both blocks also accommodate some forms of staying.

The Madison and Wythe Blocks are bordered by heavy vehicular traffic along Patrick and Henry Streets, differentiating these blocks experientially from any other segment observed along the lengths of Madison and Wythe Streets. On the Madison Block, additional permeable borders include the transition between residences on the north side and commercial/industrial buildings on the south side as well as the transition between existing businesses and the recently gentrified industrial complex on the south side. The secondary, accessible entrance to the barber shop is so rarely used that the brick wall of the building effectively functions as an impermeable boundary.

Certain physical edges on the Madison Block articulate social conditions. For example, a six-foot gateless section of black, powder-coated aluminum fencing severs the central sidewalk of the Samuel Madden public housing project and prevents residents from easily accessing the Madison Block without walking around or through the public housing units facing the street (Figure 28).

The fence is accompanied by a faded “No Loitering” sign, identical to other signs posted in public housing projects throughout the neighborhood. Despite these signs, staying indicative of Bonding Social Capital has been observed along the north side of the Madison Block, particularly on the weekends. A DASH bus stop is located on the south corner of Madison and Patrick. A sign marks the stop, but the ridership likely is too small to warrant a shelter. Social gathering has not been observed at this stop.

Edges and transitions on the Wythe Block reflect the proximity of different building and parcel types. An abrupt transition exists between the loading dock/fenced storage area of Alexandria Lighting & Supply and the adjacent detached residence on the north side of the block. On the south side of the Wythe Block, transitions are encountered between the municipal/institutional church parcel and the residential parcels, and again between the residential parcels and the commercial parcels. The sidewalks along both sides of the block are interrupted by alleys. On the north side, the sidewalk also is interrupted by the parking lot of Alexandria Lighting & Supply.

The Wythe Block contains two impermeable boundaries: the blank walls of Alexandria Lighting & Supply and the historic church.

Finally, as mentioned in the previous section, the Blue & White Carryout accommodates the only example of staying indicative of Bridging Social Capital observed in the Braddock Metro Neighborhood during the course of this study.

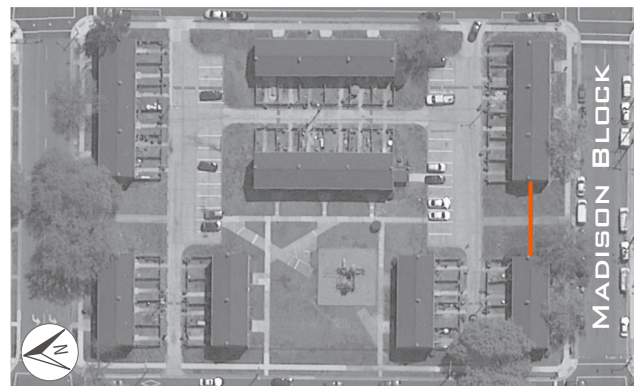


Figure 28. Impermeable Boundary on the Madison Block, Samuel Madden. A six-foot gateless section of black, powder-coated aluminum fencing severs the central sidewalk of the Samuel Madden public housing project and prevents residents from easily accessing the Madison Block.

KEY

- Sidewalk
- Brick
- Structure or Street
- Storm Sewer Manhole
- Manhole - Other
- Utility Pole
- ⊕ Trash Can

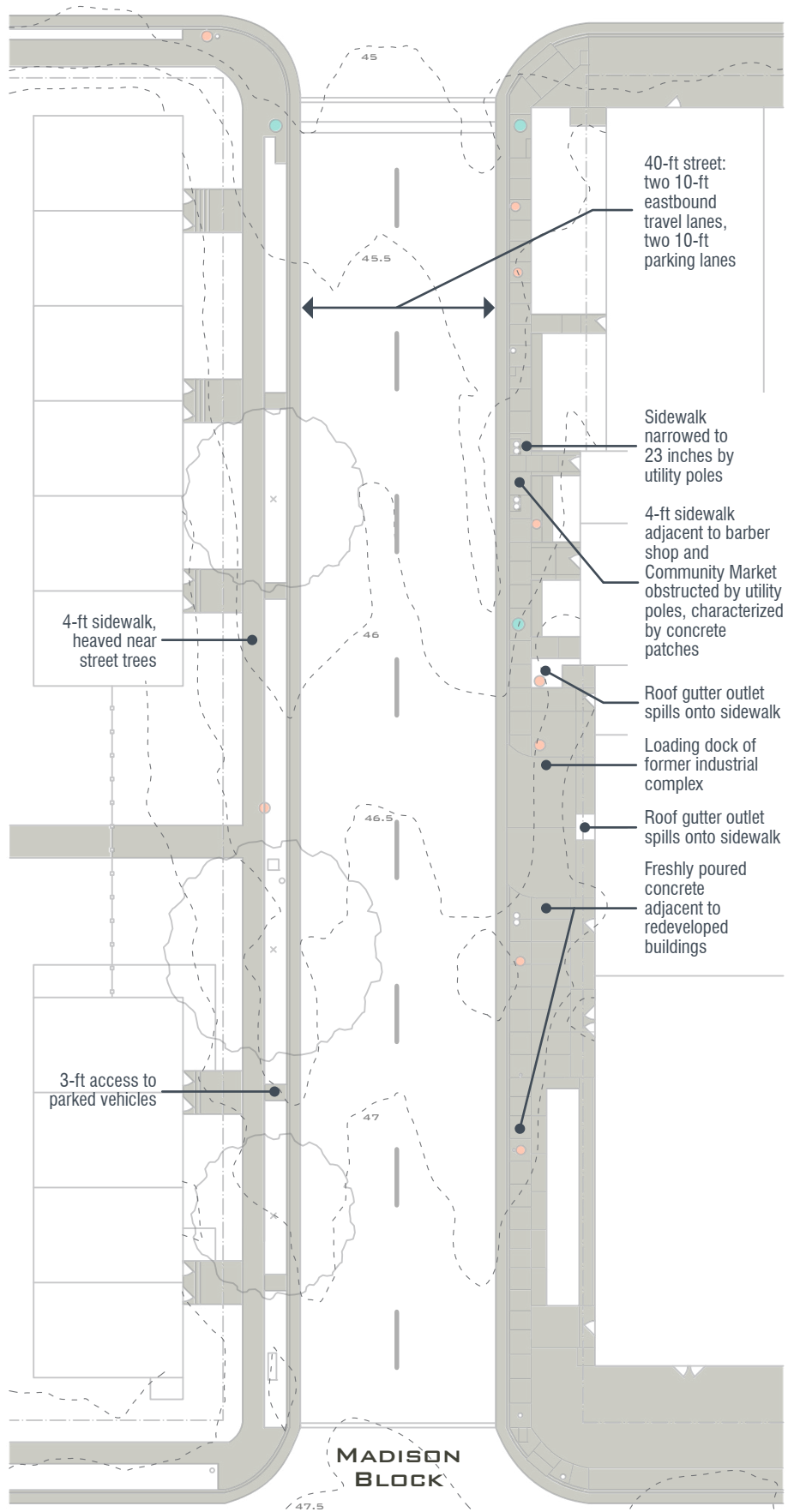


Figure 29. Streets, Sidewalks, and Infrastructure, Selected Site. Within the selected blocks, both Madison and Wythe Streets are 40 feet wide, with two 10-foot travel lanes and two 10-foot parking lanes. On the Madison Block, sidewalks are characteristically residential on the north side and commercial/industrial on the south side, with a segment adjacent to the Community Market and barber shop reflecting a transition. On the Wythe Block, both sides contain sidewalks that are mostly residential in character, with the exception of a 15-foot segment at the Blue & White Carryout and the loading dock at Alexandria Lighting & Supply. The Wythe Block also contains brick-paved stairs and landings. Overhead utilities are present on both blocks, with poles on the south side of the Madison Block causing sidewalk accessibility issues.

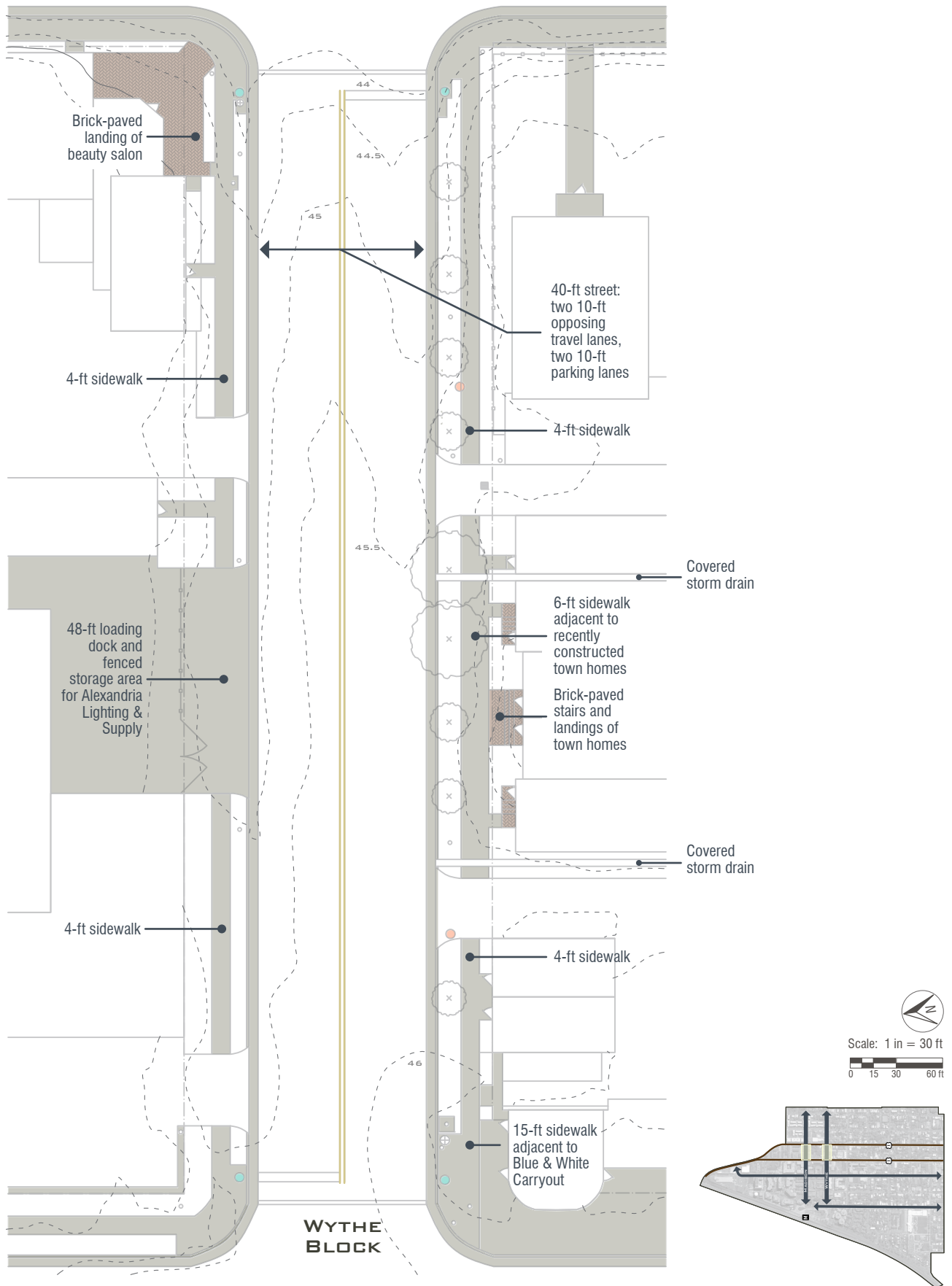
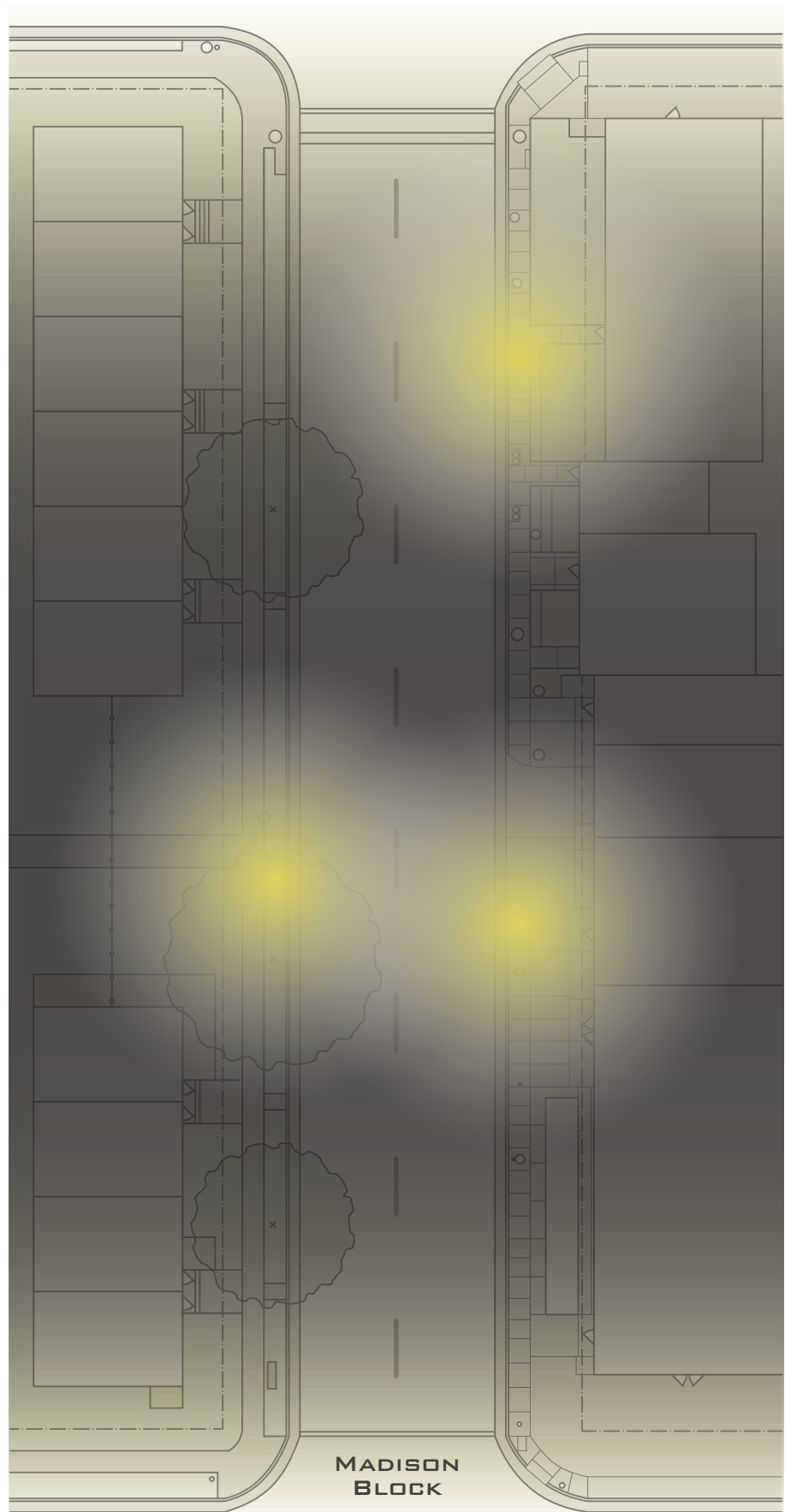
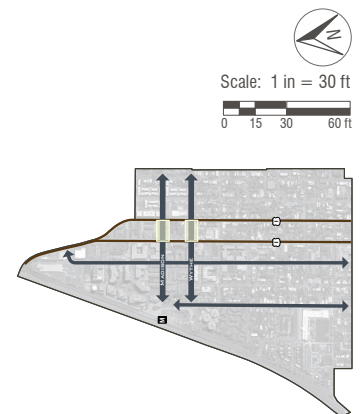
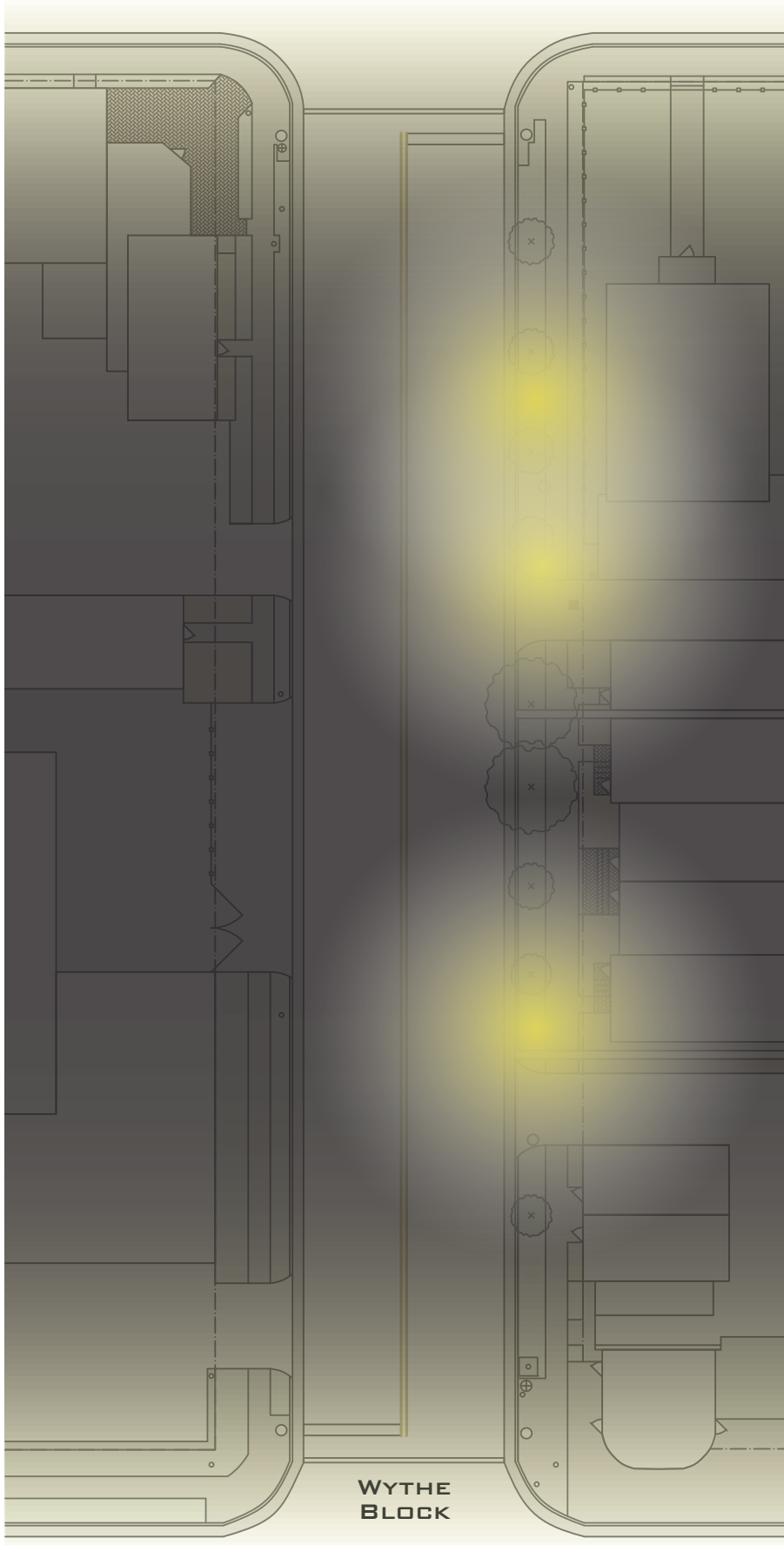


Figure 30. Lighting, Selected Site. Both the Madison Block and the Wythe Block are illuminated by overhead street lights mounted to selected utility poles clustered toward the middle of each block. Neither block contains pedestrian-scale lighting.





KEY

- Grass/Groundcover
- Garden/Landscape
- Sidewalk
- Brick
- Structure or Street
- Manhole
- Utility Pole
- ⊕ Trash Can
- Edge: Permeable Border
- Edge: Impermeable Boundary
- ✕ "No Loitering" Sign

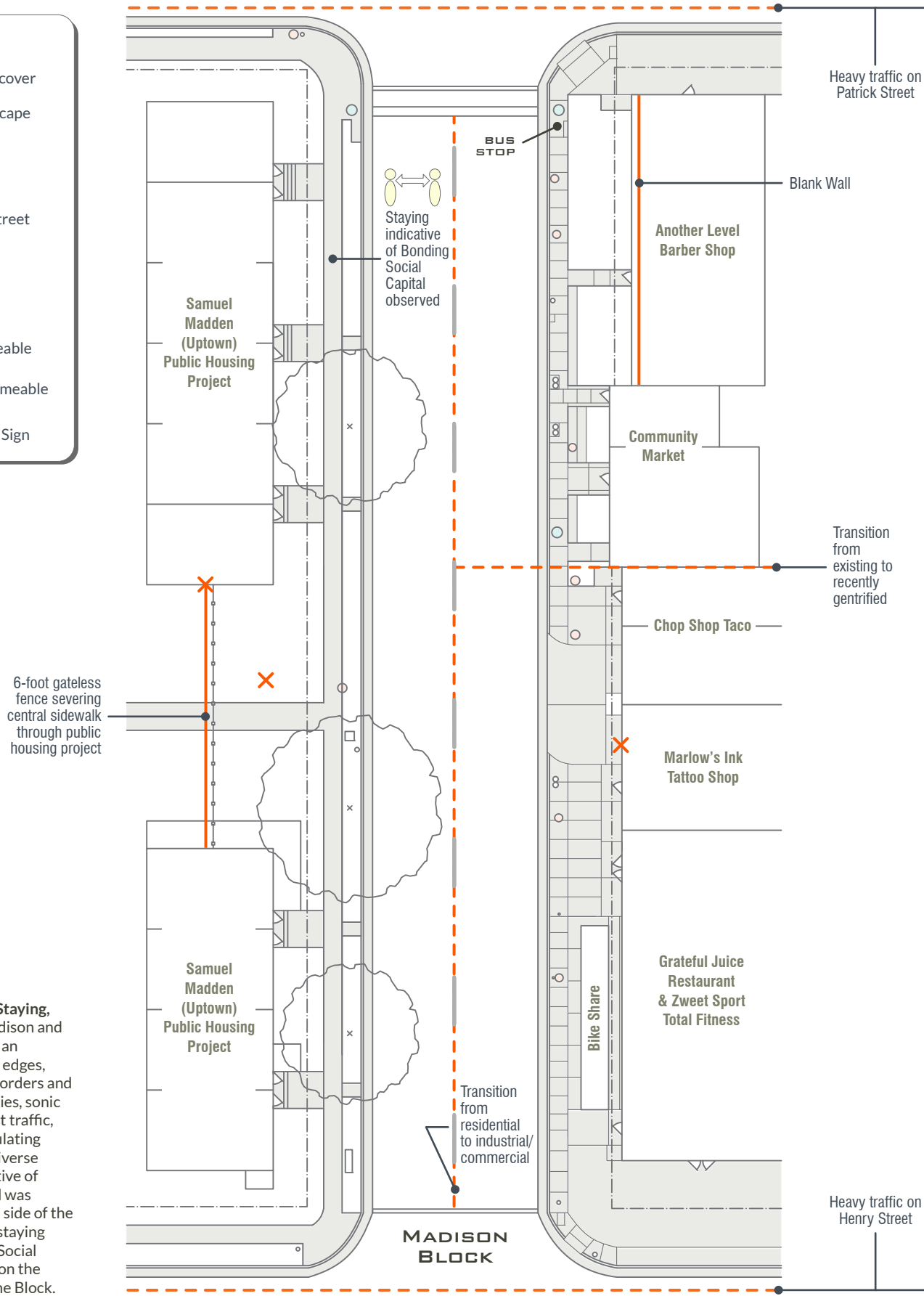
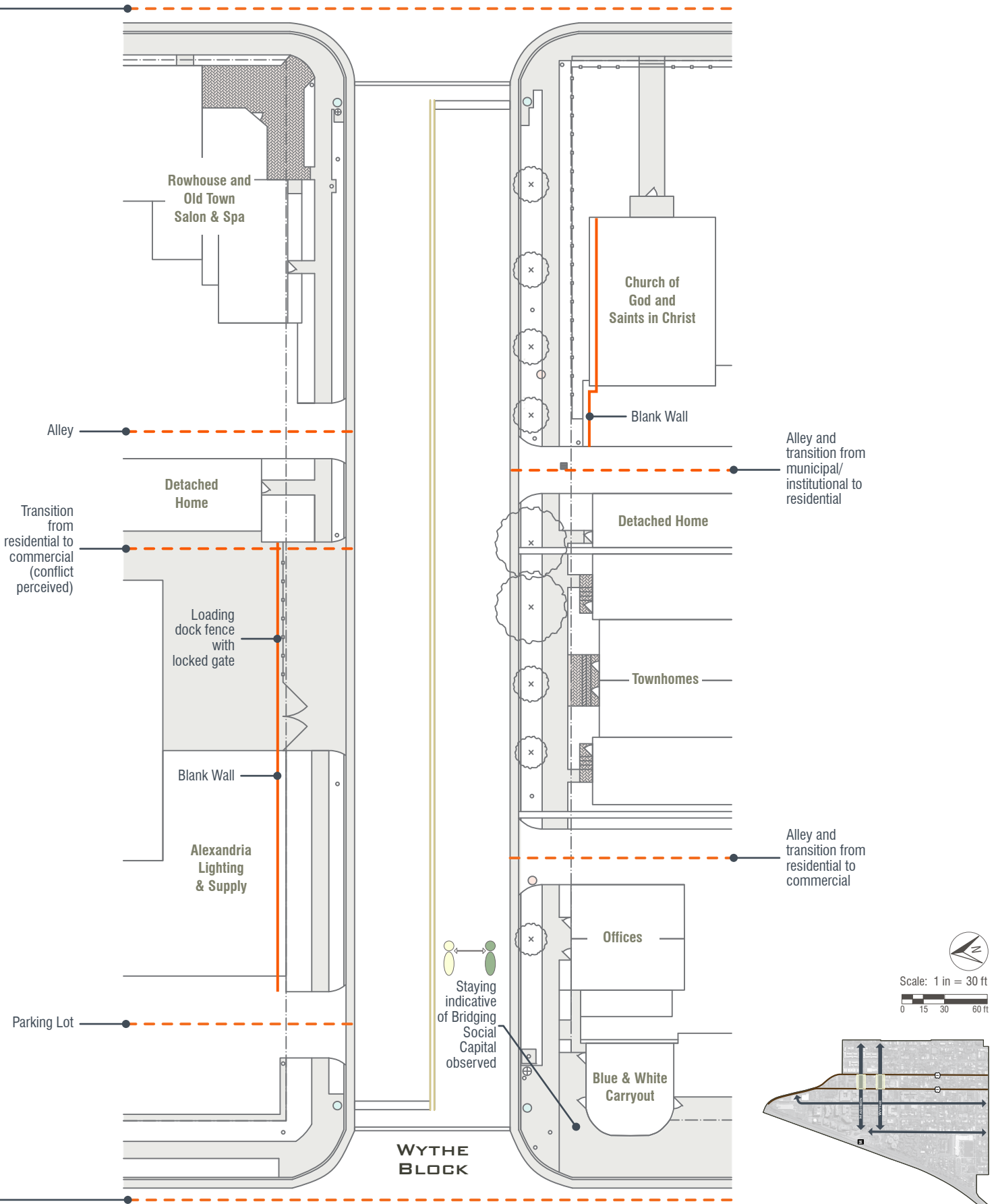


Figure 31. Edges and Staying, Selected Site. The Madison and Wythe Blocks contain an abundance of physical edges, including permeable borders and impermeable boundaries, sonic edges formed by street traffic, and social edges articulating transitions between diverse spaces. Staying indicative of Bonding Social Capital was observed on the north side of the Madison Block, while staying indicative of Bridging Social Capital was observed on the south side of the Wythe Block.



Special Features and Character

A careful analysis of physical features and social conditions on the Madison and Wythe Blocks reveals the special character of each block and demonstrates the extent to which existing design elements are already engaging with edges, preserving history and diversity, and encouraging staying.

The Madison Block is unique in part because its edges reflect social as much as physical conditions. The Neighborhood Plan reveals a “social divide between the public housing community and much of the larger community” and alludes to safety concerns expressed by some residents in areas near the neighborhood’s public housing projects (City of Alexandria, 2008a). Thus, two transitional edges on the Madison Block - the border between the Samuel Madden public housing project on the north side and the commercial/industrial parcels on the south side and the border between existing and newly gentrified businesses on the south side - are, in fact, social edges. These edges are accompanied by several exclusionary devices, including the six-foot fence and “No Loitering” signs at Samuel Madden (Figures 1, 28, and 32) and a security camera recently installed outside of the new tattoo shop. Such devices - which carry an extensive history of exclusion along racial and class lines (Ambrose, et al, 2017; Talen & Lee, 2018) - can be assumed to reinforce the very social divide the Neighborhood Plan seeks to overcome.

In the absence of these exclusionary devices, the otherwise attractive permeable borders in the Madison Block might articulate the social edges necessary to support the formation of Bridging Social Capital. Only one piece of infrastructure bridges these edges: overhead utility lines from the cluster of poles on the south side to the single pole on the north side.

The six-foot fence at Samuel Madden is intended to serve as a repellent impermeable boundary. However, the very presence of a gateless fence severing an otherwise functional sidewalk is so conspicuous it actually attracts attention, perhaps explaining why the maximizing “No Loitering” sign is posted directly in front of the fence (Figure 32). Indeed, on a warm spring day during site analysis, the author observed a young boy hanging from the fence as if it were a piece of play equipment, one that appears to have been modified at some point after installation to remove the spiked fence tops (Figure 33).



Figure 32. Impermeable Boundary Fence, Samuel Madden. The presence of a tall fence severing a functional sidewalk is so conspicuous, it tends to attract rather than repel attention. Note the faded “No Loitering” sign posted directly in front of the fence.

On the south side of the Madison Block, the transition between the existing and newly gentrified businesses is revealed as a social edge in the character and condition of the building facades and adjacent sidewalk. The newly gentrified buildings in the industrial complex have new fixtures and signage, are painted with bright colors, and front a freshly paved and scored sidewalk. By contrast, the existing buildings housing the Community Market and barber shop have not been recently remodeled, and the adjacent sidewalk contains a collection of makeshift concrete patches signifying a pursuit of accessibility around the City’s utility poles (Figure 34).

Another defining characteristic of the Madison Block is that its newest building (the commercial building housing the barber shop) was constructed in 1960, meaning that this block has existed in its built form for nearly 60 years. Furthermore, all buildings on the Madison Block - with the exception of the barber shop and Community Market - are historically significant and contribute to the integrity of the Uptown/Parker-Gray Historic District.



Figure 33. Spiked Fence Tops Removed, Samuel Madden. At some point after installation, the spiked fence tops appear to have been pried off of the six-foot fence at Samuel Madden.

These historic buildings also happen to memorialize the City’s decision to construct a then-segregated public housing project (c. 1945) adjacent to an active industrial complex (c. 1925), recalling the troubling era when public housing recipients were separated by race and cast to the urban fringes.

Despite its divisive origins, the Samuel Madden project has housed families in the Braddock Metro Neighborhood for nearly 75 years (NPS, 2011). Back-lit house numbers serve as porch lights on the two-story, garden-style units, evoking sensibility in their postwar design. Some porch lights have been repaired over time, adding even more vernacular character to these artifacts (Figure 35).

The industrial complex, like many industrial buildings in Uptown’s history, is a cluster of small buildings adapted at different times for different purposes. Soon after its construction in 1925, the original one-story commercial building facing Henry Street was modified to expand two of its rear bays to three stories using a metal frame structure clad in corrugated siding and equipped with a hoist and a third-story door. Additional bays were added in the 1940s. The recent redevelopment of the industrial complex can be seen as yet another adaptation in its long life, given the extent to which its defining physical features have been preserved (Figure 36).

Historic artifacts on the Madison Block offer a number of design possibilities for preserving history and protecting conditions of diversity, particularly in combination with the compelling social edges observed.

The Madison Block is made even more unique by its ability to accommodate one activity that is strictly prohibited: loitering. Despite the presence of exclusionary devices such as fencing, signage, and video monitoring, staying indicative of Bonding Social Capital has been observed on the Madison Block.



Figure 35. Porch Lights, Samuel Madden. Back-lit house numbers function as porch lights on the garden-style units at Samuel Madden. Some lights (bottom) have been repaired in ways that add even more vernacular character.



Figure 34. Social Edge Revealed through Infrastructure. The social edge marking the transition between existing and gentrified businesses on the south side of the Madison Block is revealed in the character of the adjacent sidewalk. A freshly paved and scored sidewalk (top) serves the newly redeveloped buildings, while the sidewalk adjacent to the existing Community Market and barber shop (bottom) is a collection of makeshift concrete patches signifying a pursuit of accessibility around the City’s utility poles.

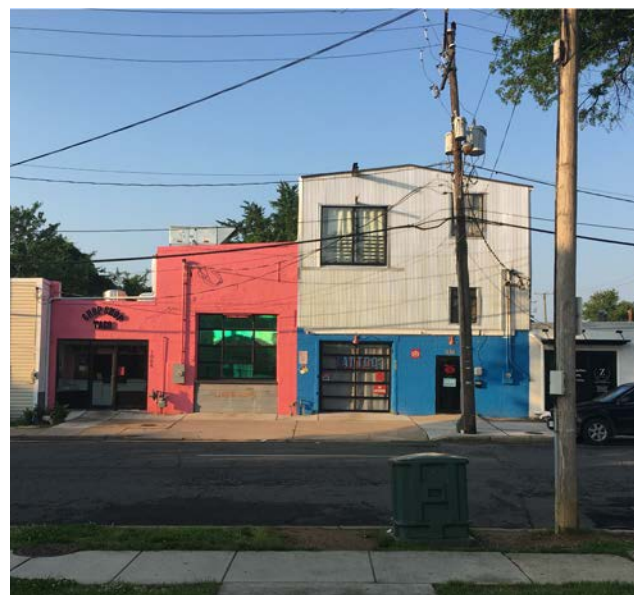


Figure 36. Adapted Industrial Complex. The industrial complex on the south side of the Madison Block is architecturally compelling, revealing decades of structural evolution and adaptation to accommodate the range of businesses that have occupied the complex since 1925.

A number of physical features make the Madison Block ideal for staying. On the north side, mature street trees tower over the two-story brick apartments of Samuel Madden and cast dappled shade along the sidewalk and adjacent residential setbacks (Figure 37). Both Gehl and Whyte observe that people carefully select places to inhabit within a social space, often choosing to stand near columnar supports such as signs, lamps, or street trees (Gehl, 2011; Whyte, 1980). Notably, most of the soil within the continuous tree strip on the north side of the Madison Block has been severely compacted, possibly by residents accessing parked cars or by residents engaged in standing patterns of staying near the mature street trees (Figure 38).

Staying on the Madison Block is further encouraged by the nearly constant presence of resident activity (both pedestrian and vehicular), a condition enhanced by the recently opened businesses in the industrial complex. As mentioned previously, both Gehl and Whyte emphasize the importance of activity in social spaces, asserting that people attract people (Gehl, 2011; Whyte, 1980).



Figure 37. Mature Elm. Mature street trees, such as this healthy elm, make conditions on the Madison Block amenable to staying.



Figure 38. Compacted Soil in Continuous Tree Strip. Much of the soil within the continuous tree strip on the north side of the Madison Block is severely compacted, possibly by residents accessing parked cars or by residents engaged in staying.

In addition to broadcasting a nearly constant stream of resident activity, the sonic edges formed by the northbound and southbound lanes of Route 1 might further enhance opportunities for social interaction on the Madison Block. Although the noise profile measured by the author during site analysis exceeds the levels recommended by both Sennett and Gehl for effective social spaces (Gehl, 2011; Sennett, 2018), some social benefits might be observed. For example, the noise along Patrick and Henry Streets is indicative of fast-moving traffic, which requires residents to more fully engage with their surroundings to remain safe. If that awareness persists down the length of the Madison Block, it could help residents more fully sense one another. Also, because the sonic edges align with the outer edges of the Madison Block, it is possible that residents are encouraged to linger within the enclosed space.

Moving on from the Madison Block, the Wythe Block exudes its own character and accomplishes different elements of the thesis design intent related to edges, historic artifacts, diversity, and conditions of staying.

Edges on the Wythe Block reflect the juxtaposition of different building and parcel types, which - along with alleys and a commercial parking lot - frequently interrupt pedestrians on both the north and south sidewalks. Whereas the Madison Block is characterized by a series of identical parcel types on each side of the street, the Wythe Block appears to comprise a variety of rooms separated by edges.

One edge on the Wythe Block shows evidence of conflict: the transition between the loading dock/fenced storage area of the Alexandria Lighting & Supply building and an adjacent detached residence on the north side of the block. Residents have allowed plant material on the west edge of the landscaped setback to grow into such a mass that it effectively isolates the house from the loading dock/fenced storage area (Figure 39). A vigorous vine growing from this garden has reached across the sidewalk to the nearby utility pole, creating a makeshift arbor.

Buildings on the Wythe Block span a 120-year history, but the oldest building on the block is not a contributing historic resource. Rather, the most remarkable historic artifact on the Wythe Block is the Blue & White Carryout. A succession of take-out restaurants has occupied this prefabricated building for nearly 70 years, spanning the periods of segregation, integration, economic disinvestment, and - now - redevelopment and gentrification. The historic building remains largely intact within a shell of aluminum siding (Figures 24 and 40)(NPS, 2011). The enclosure - which is far wider than it is tall - creates a curious optical illusion that suggests the building is shorter than one story. When contemplating this conspicuous building, passing pedestrians and motorists might also observe patrons queuing on the adjacent sidewalk for fried chicken and other forms of comfort food.



Figure 39. Conflict in Transitional Edge. The edge between this detached residence on the Wythe Block and the adjacent loading dock/fenced storage area of Alexandria Lighting & Supply (pictured to the left) shows evidence of conflict. Note the abundance of residential plant material used to obscure the edge.



Figure 40. Blue & White Carryout. A remarkable historic artifact on the Wythe Block, the Blue & White Carryout is the most recent in a succession of take-out restaurants that have occupied this prefabricated building for nearly 70 years. This image shows the historic building before it was enclosed in aluminum siding.

As mentioned previously, the Blue & White Carryout is the only location in the Braddock Metro Neighborhood where staying indicative of Bridging Social Capital has been observed. Patrons of different ages, races, and professions queue along the sidewalk during the weekday lunch hour and occasionally chat with one another, despite the traffic noise emanating from Henry Street. Although highly successful as a social space, the sidewalk in front of the Blue & White Carryout supports staying only when the restaurant is open for business.

Compared to the Madison Block, the Wythe Block is far less socially active, and - despite the juxtaposition of different building and parcel types - the block feels generally residential in character. Contributing to this character is the extent to which residents are engaged in beautifying the block. Including the gardened setback described earlier, there are three privately tended flower gardens on the block, all of which occupy at least some portion of City property. Similar care is observed in the tree strip adjacent to the historic African-American church near Patrick Street. Given the quality of grass observed, it appears that church personnel are caring for the City's tree strip as an extension of church property (Figure 41).



Figure 41. Beautification. A defining characteristic of the Wythe Block is the extent to which residents are beautifying both private and city property with lawn maintenance and flower gardens.

REDEVELOPMENT SCENARIO: DESIGN GUIDELINES

To illustrate the form and function of a straight application of Neighborhood Plan design guidelines, an example redevelopment scenario was created for the Madison and Wythe Blocks (Figures 45 and 46). The example scenario is not intended to represent a complete design by the City, nor does it consider special circumstances, such as complications arising from utility relocation or an attempt to preserve mature street trees. The scenario also does not consider the redevelopment of adjacent properties, such as the Samuel Madden public housing project, as a precondition for Walking Street redevelopment. It should be noted that the Madison and Wythe Blocks fall within the “Retail Clusters” established in the Braddock Metro Neighborhood Plan (Figure 13), suggesting that extensive redevelopment is planned for the properties on both of these blocks.

Although the example scenario is purely illustrative, previously redeveloped areas of the Braddock Metro Neighborhood set a precedent for the straight application of Neighborhood Plan design guidelines and reflect a New Urbanist ideal (Figure 42).



Figure 42. Redevelopment Precedent, Braddock Metro Neighborhood. Previous redevelopment projects, such as this residential application in Old Town Commons, establish precedent for the straight application of Neighborhood Plan design guidelines.

On the Madison Block, redevelopment is characterized by rhythm and consistency. Overhead utilities have been relocated underground. Street trees are evenly spaced and of the same species on each side of the block. Sidewalks are six feet wide (minimum), and street lights are pedestrian-scale Virginia Dominion Power colonial fixtures, as specified in the design guidelines (Figure 43). Continuous tree strips are favored on the residential north side of the block, while tree wells are installed on the busier commercial/industrial south side. (City of Alexandria, 2008a)

Similar features are found on the Wythe Block, with continuous tree strips responding to the primarily residential character of both sides of the block, with the exception of a small length of sidewalk adjacent to the offices and the Blue & White Carryout on the south side of the block, where tree wells are envisioned. In addition to these features, the Wythe Block scenario incorporates the bicycle sharrows and brick-paved sidewalks called for in the Neighborhood Plan. (City of Alexandria, 2008a)

Observations

The example redevelopment scenario poses certain practical and social limitations. For example, continuous tree strips, which have precedent in residential applications throughout the neighborhood (Figure 42), discount the existing conditions of tree strips on both the Madison and Wythe blocks. On the Madison Block, the tree strip adjacent to Samuel Madden has been compacted by foot traffic into hard-packed dirt (Figure 38), and on the Wythe Block, residents have installed slate pavers to reach their parked cars. A more practical design would consider tree wells for all redeveloped areas with street parking. Although tree wells offer less pervious area for stormwater infiltration compared to tree strips, stormwater best management practices (BMPs) could be installed to increase infiltration capacity.

The Neighborhood Plan design guidelines specify wide (six-foot minimum) sidewalks to meet accessibility requirements and suggest that pedestrian-oriented streets contain score lines as “visual accents” (City of Alexandria, 2008a). In areas that have not yet been redeveloped, most sidewalks are four feet wide, scored at four-foot intervals perpendicular to the pedestrian travel lane (Figure 44). By contrast, redeveloped six-foot sidewalks in previously rede-

veloped portions of the Braddock Metro Neighborhood are scored down the middle, essentially creating two separate pedestrian travel lanes (Figure 44). This condition is detrimental to the goal of connecting diverse residents because it encourages moving bodies to remain isolated from one another in passing. Whereas the sidewalk accessibility requirement is not questioned, the scoring pattern could be improved.

The bicycle enhancements and brick-paved sidewalks on the Wythe Block are included in the design guidelines to maintain consistency with street redevelopment initiatives elsewhere in the City (City of Alexandria, 2008a). While the bicycle sharrows are a relatively minor enhancement to the existing street, the brick paving is major intervention. A review of historical documentation uncovers no precedent for brick paving in this part of Uptown, so the selection of brick pavers as a differentiator to concrete is unresponsive to the historical context of the Wythe Block. In its large-scale approach to redevelopment, the Neighborhood Plan has prioritized coordination with other master plans over the site-specific context of the Braddock Metro Neighborhood. The brick path is an imposed organizational framework that invents rather than affirms character on the Wythe Block.

The example redevelopment scenario and the design guidelines upon which it is based create a rhythmic, predictable, and unobstructed path through the Madison and Wythe Blocks that favors solitary pedestrian movement over conditions of diverse

resident engagement. Through techniques such as branding and repetition, the design makes the Madison and Wythe Blocks more visually similar, drawing them into the organizational framework established in the Neighborhood Plan. Thus, the design overlooks - or in some cases destroys - the physical features and social conditions that make these blocks authentic and special, instead producing spaces that evoke a disassociated urban ideal. Ultimately, the example scenario suggests that a redevelopment project representing a straight application of the New Urbanist-influenced Neighborhood Plan design guidelines is unlikely to affirm neighborhood character or connect diverse residents in the Braddock Metro Neighborhood.

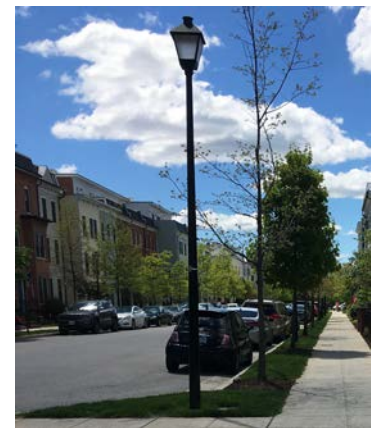


Figure 43. Pedestrian-Scale Lighting. The Neighborhood Plan design guidelines specify Virginia Dominion Power colonial fixtures for redeveloped streets and sidewalks.

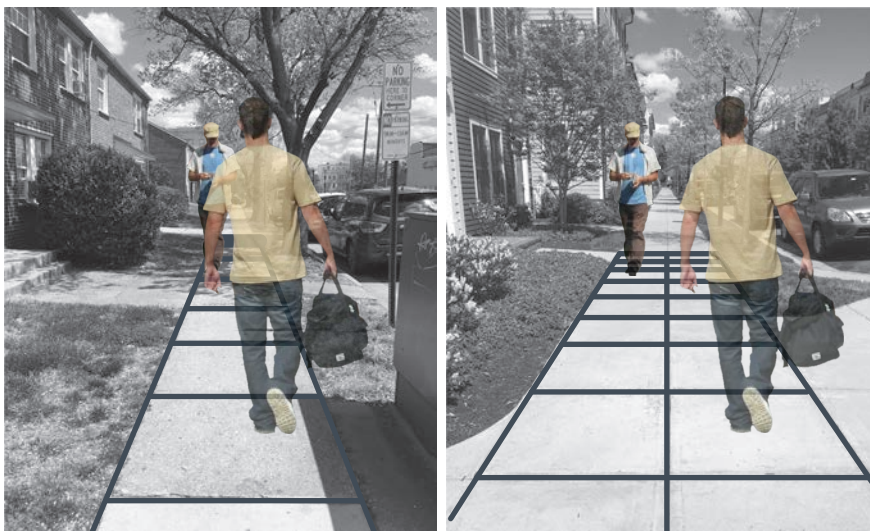








Figure 44. Sidewalk Scoring Precedent. On an existing four-foot sidewalk (left), it is possible to pass a neighbor, but the space is intimate enough that an acknowledgement is appropriate. On a redeveloped six-foot sidewalk, it is possible to pass a neighbor without any acknowledgement. Previously redeveloped portions of the Braddock Metro Neighborhood reinforce this anti-social condition by scoring down the middle of the six-foot sidewalk (right), separating it into two pedestrian lanes, which favor unobstructed, solitary movement over social exchange.

KEY

-  Grass/Groundcover
-  Garden/Landscape
-  Sidewalk
-  Brick
-  Structure or Street
-  Street Light

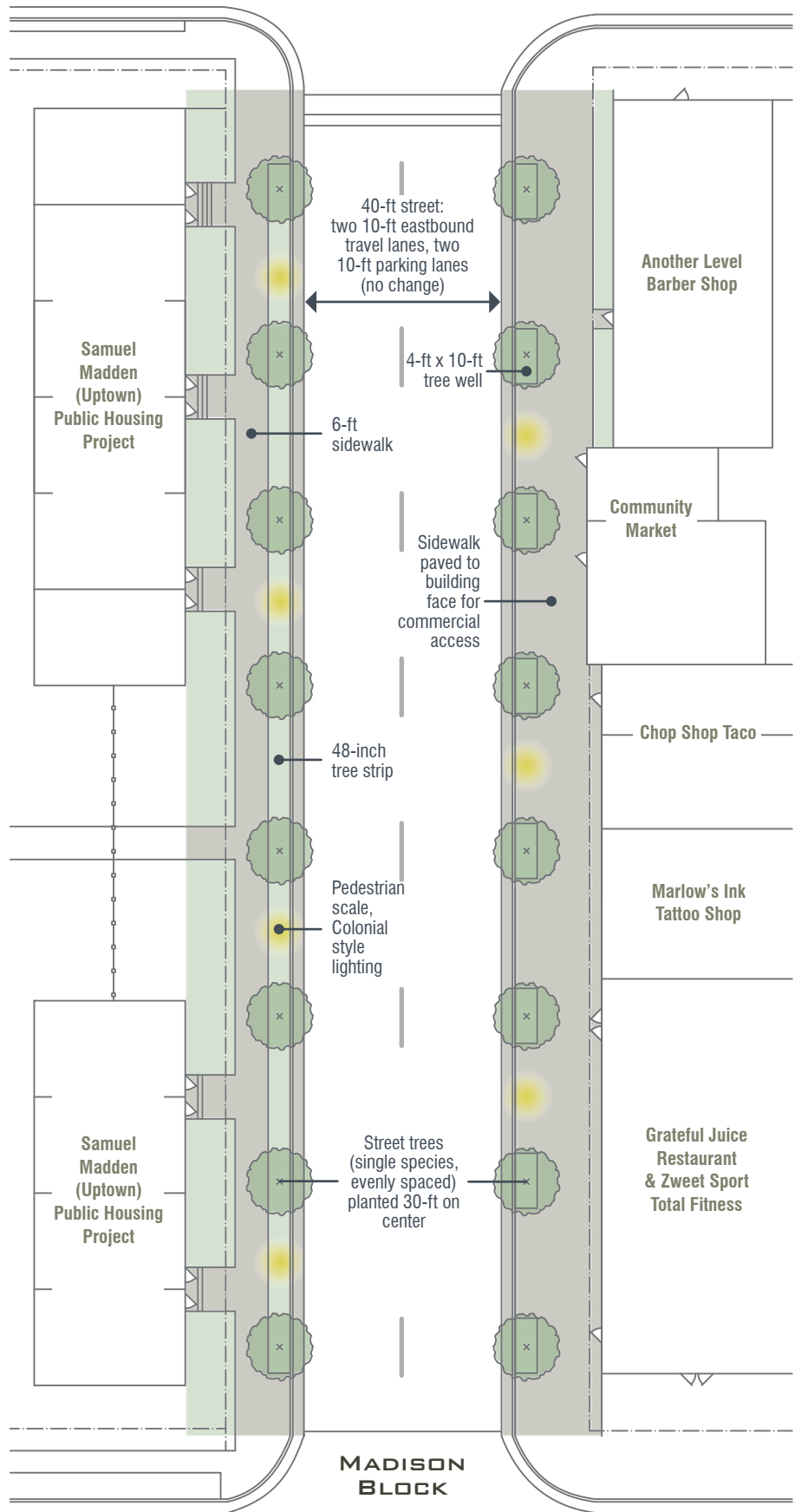
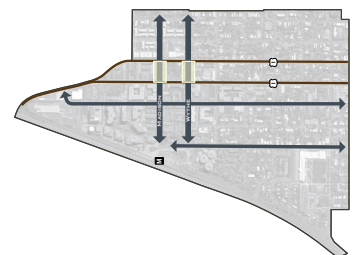
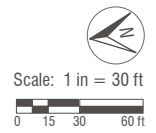
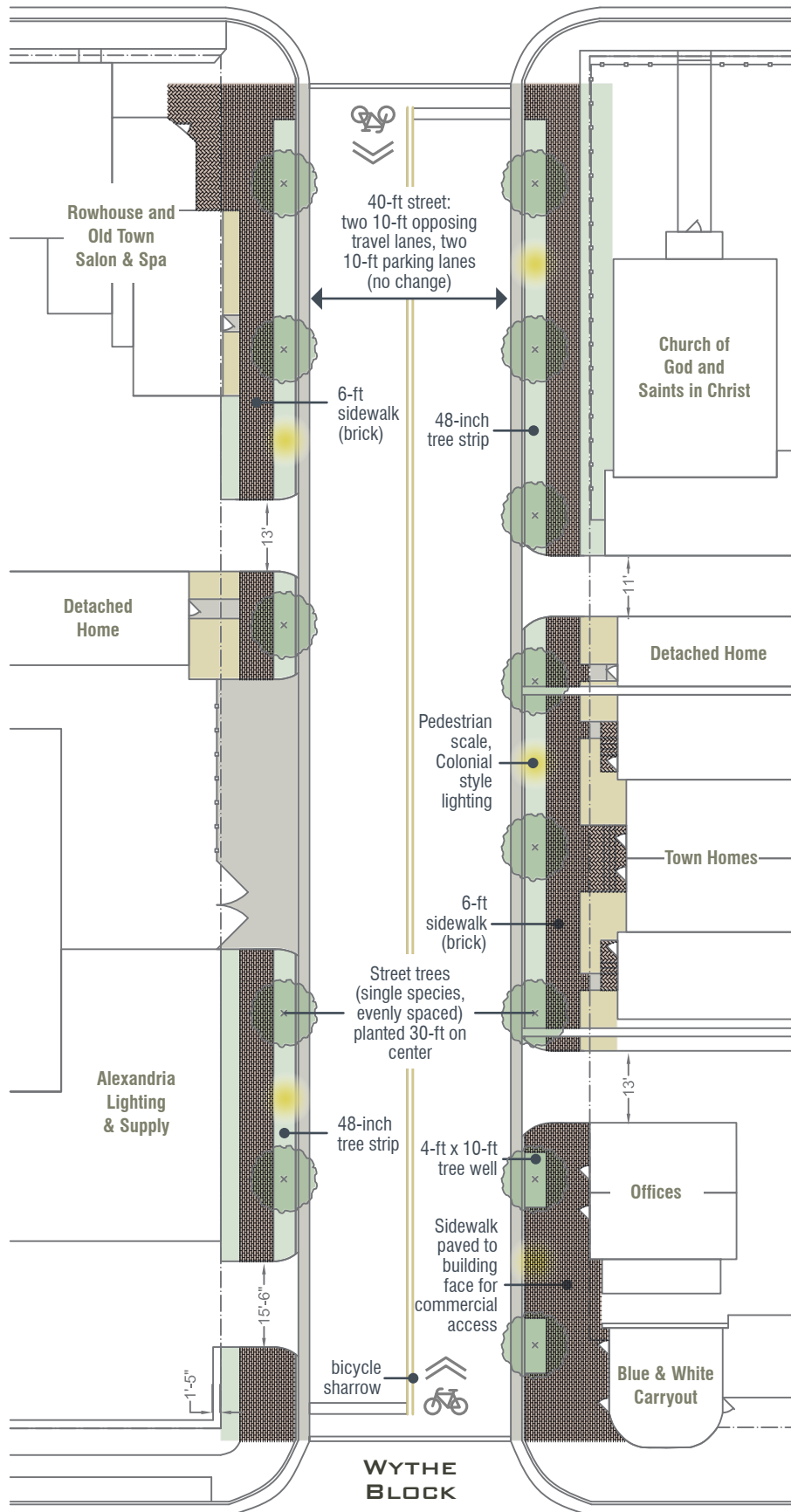


Figure 45. Example Scenario: Neighborhood Plan Design Guidelines. In an example scenario representing a straight application of the Braddock Metro Neighborhood Plan design guidelines, redevelopment is characterized by rhythm and consistency. Overhead utilities have been relocated underground. Street trees are evenly spaced and of the same species on each side of the block. Sidewalks are wide, and street lights are pedestrian-scale. The Wythe Block scenario also contains bicycle sharrows and brick-paved sidewalks, in accordance with the guidelines.



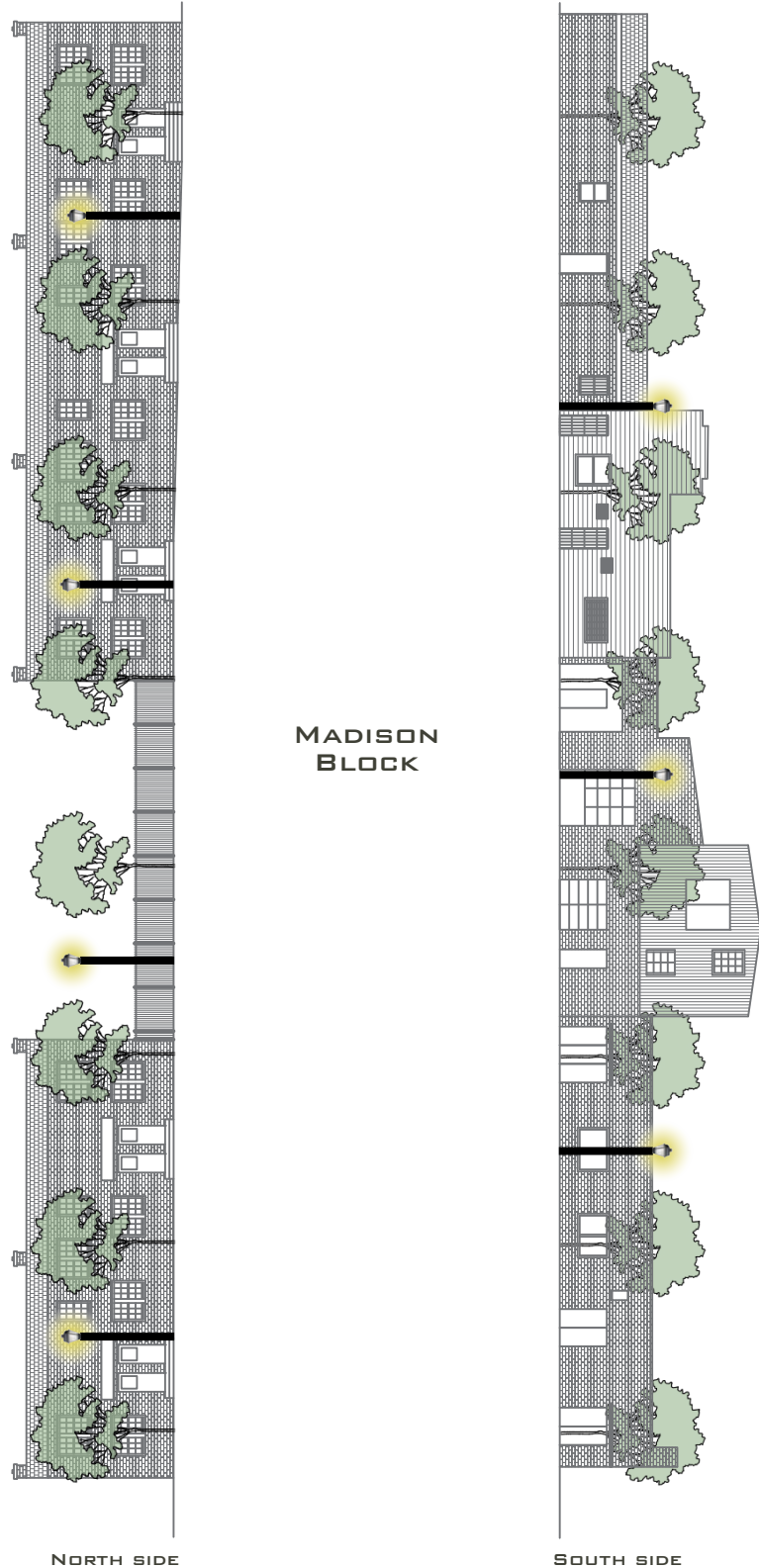
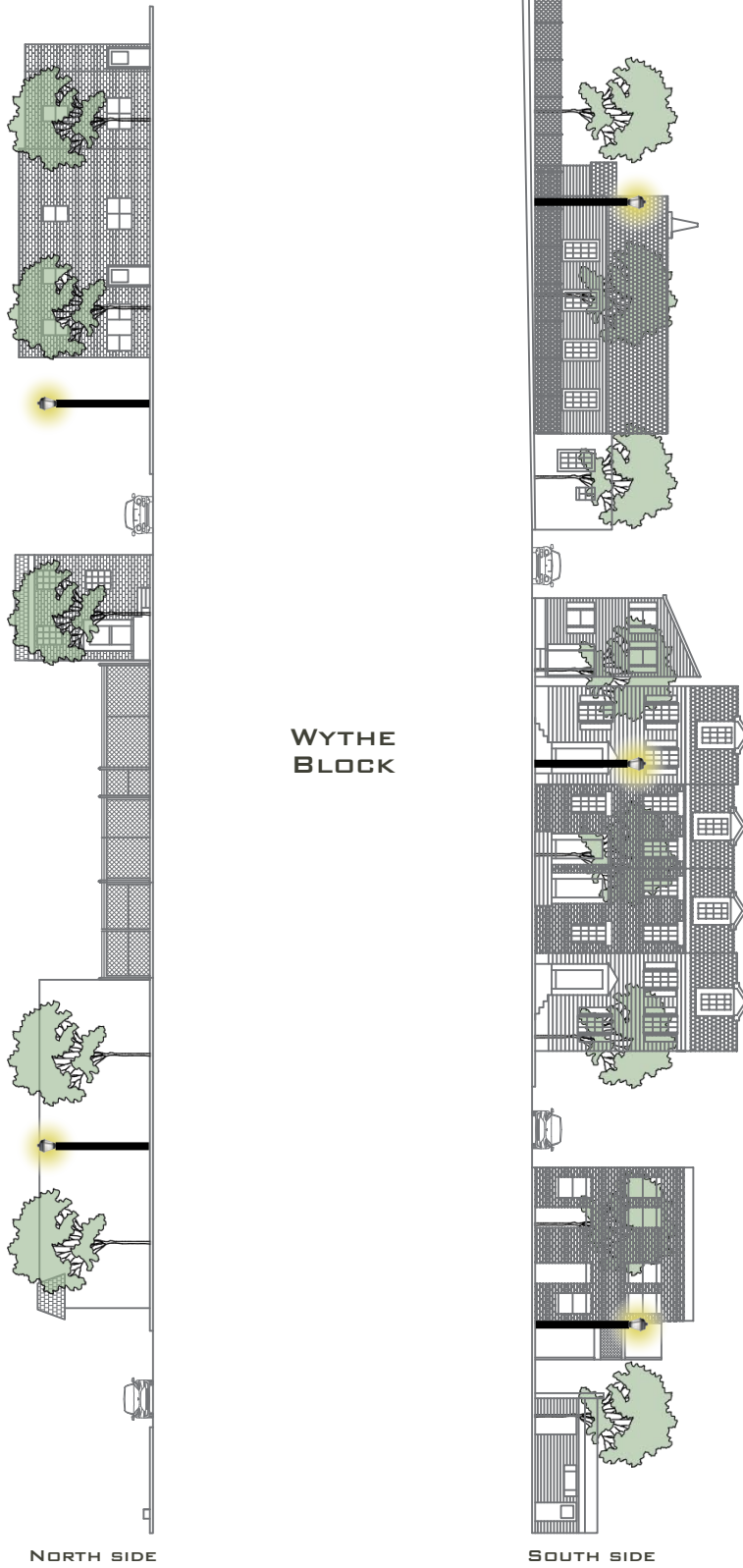


Figure 46. Example Scenario: Neighborhood Plan Design Guidelines, Concept Elevation. In an example scenario representing a straight application of the Braddock Metro Neighborhood Plan design guidelines, overhead utilities have been relocated underground. Street trees are evenly spaced and of the same species on each side of the block, and street lights are specified as pedestrian-scale Old Dominion Colonial fixtures.





DESIGN PROPOSAL

Responding to the practical and social limitations of applying the large-scale, New Urbanist redevelopment framework set forth in the *Braddock Metro Neighborhood Plan* to the Madison and Wythe Blocks, this thesis offers an alternate design intended to support the formation of Bridging Social Capital while protecting the physical features and social conditions that make the Madison and Wythe Blocks unique. Through a series of precise, small-scale interventions, the proposed design seeks to engage with the edges that characterize these blocks, preserve history while supporting conditions of diversity, and encourage pedestrians to stop, stay, and sense one another. Furthermore, the design seeks to respect and respond to the ways in which the site is already accomplishing these goals. Interventions include block-scale streetscape elements as well as individual social spaces.

It is important to recognize that the proposed design is made in the absence of critical site data. For example, underground utilities have not been located, the infiltration characteristics of underlying soils are not known, a detailed topographic survey has not been conducted, the public has not been engaged, and no insight is available into the City's budget or development priorities beyond the cited plans. In the absence of such constraints, every design element might seem feasible. In reality, site conditions are likely to restrict or preclude certain interventions. However, the implementation of even a fraction of the proposed design elements could be thought to offer social benefits because the thesis design is incremental, with every strategic, site-specific intervention working toward a set of common goals.

The design is intended to accommodate city requirements for urban street safety, mobility, accessibility, stormwater management, and historic preservation. Occasionally, however, a proposed intervention rejects a Neighborhood Plan design guideline, particularly when that guideline undermines a thesis design goal. The decision to reject a design guideline is made whenever a reasonable justification for exception could be made to the City, but never in a way that would compromise safety or environmental integrity. All exceptions are identified and explained in the design proposal.

STREETSCAPE







The thesis design transforms the Madison and Wythe Blocks into "Complete Streets," which are inclusive to people with physical disabilities and safe for a range of concurrent activities, including driving, biking, and walking. Thus, in this design, the Neighborhood Plan design guidelines are exceeded by the City's guidelines for Complete Streets, which are further exceeded by the City's guidelines for stormwater best management practices (BMPs) (City of Alexandria, 2008a, 2016, and 2014).

Infrastructure

Proposed infrastructure includes narrowed streets, widened sidewalks, and stormwater BMPs (Figures 47 and 48). The design assumes that both Madison and Wythe Streets are narrowed from 40 feet to 34 feet, in accordance with the Complete Streets Design Guidelines (City of Alexandria, 2016), calming vehicular traffic and adding six feet (split evenly between the north and south sides) for pedestrian-oriented amenities. On-street parking is retained for residences and businesses, although a few spaces are removed from the Madison Block to accommodate a new mid-block crosswalk spanning the social edge between the Samuel Madden public housing project and the newly gentrified industrial complex. On the Wythe Block, bicycle sharrows are provided in accordance with the Neighborhood Plan. Brick pavers, however, are rejected because they lack site-specific historic context and are therefore detrimental to the character of the Wythe Block.

In accordance with the Neighborhood Plan design guidelines, overhead utilities are buried and utility poles are removed, with one exception: four new utility poles are installed midway through the Madison Block to suspend an overhead street light (proposed later in this section) above the new crosswalk. Minimum six-foot-wide sidewalks are provided, with one exception: a social space on the north side of the Wythe Block ("Loading Dock Arbor"), proposed later in this section. Sidewalks are widened toward the street or the property line depending on the site-specific design goals articulated in each intervention.

KEY

-  Sidewalk
-  Stormwater BMP
-  Building or Structure
-  Street
-  Storm Sewer Manhole
-  Stormwater Flow

NOTE: Stormwater BMP feasibility is dependent on a thorough analysis of site conditions

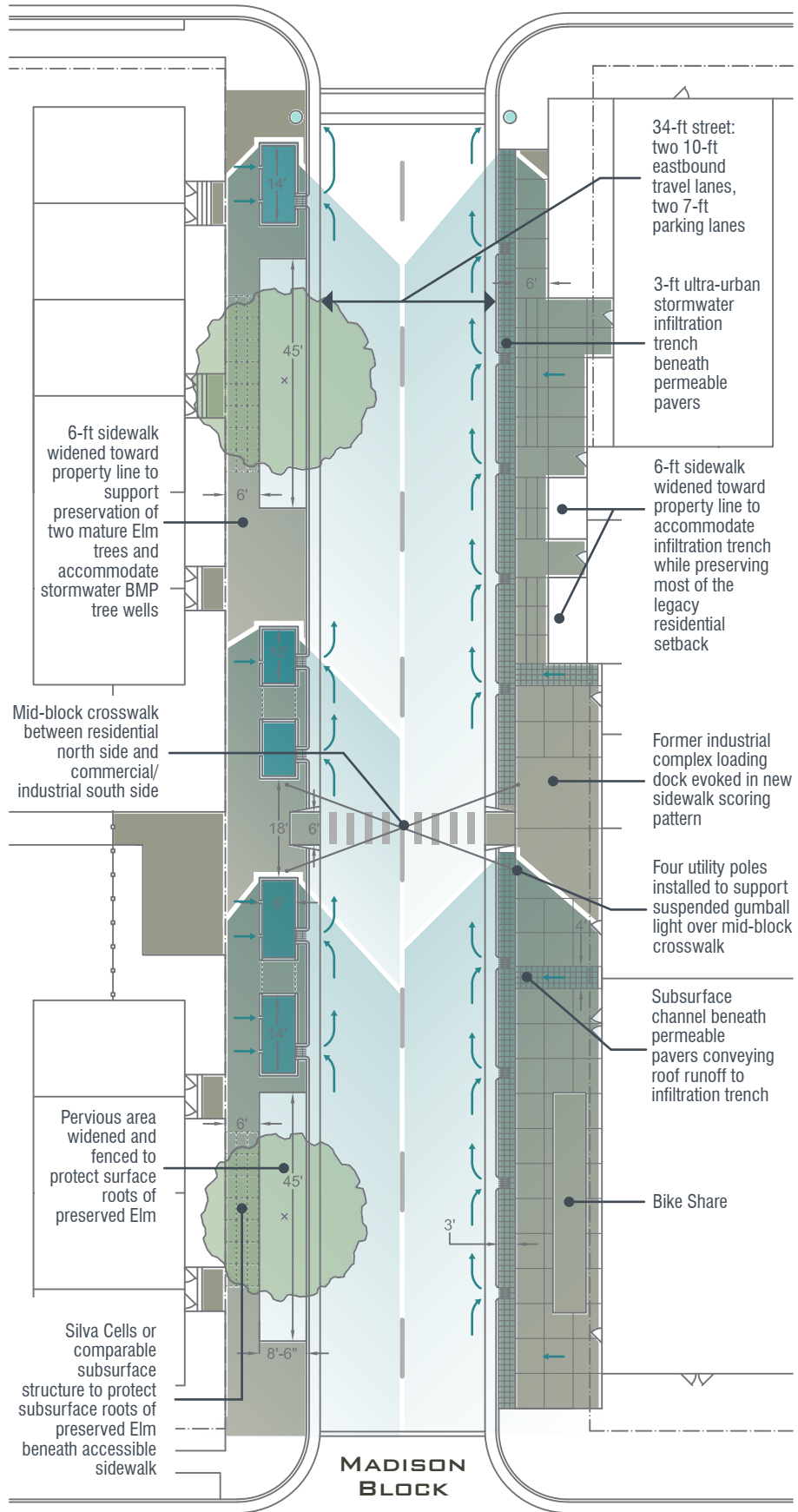
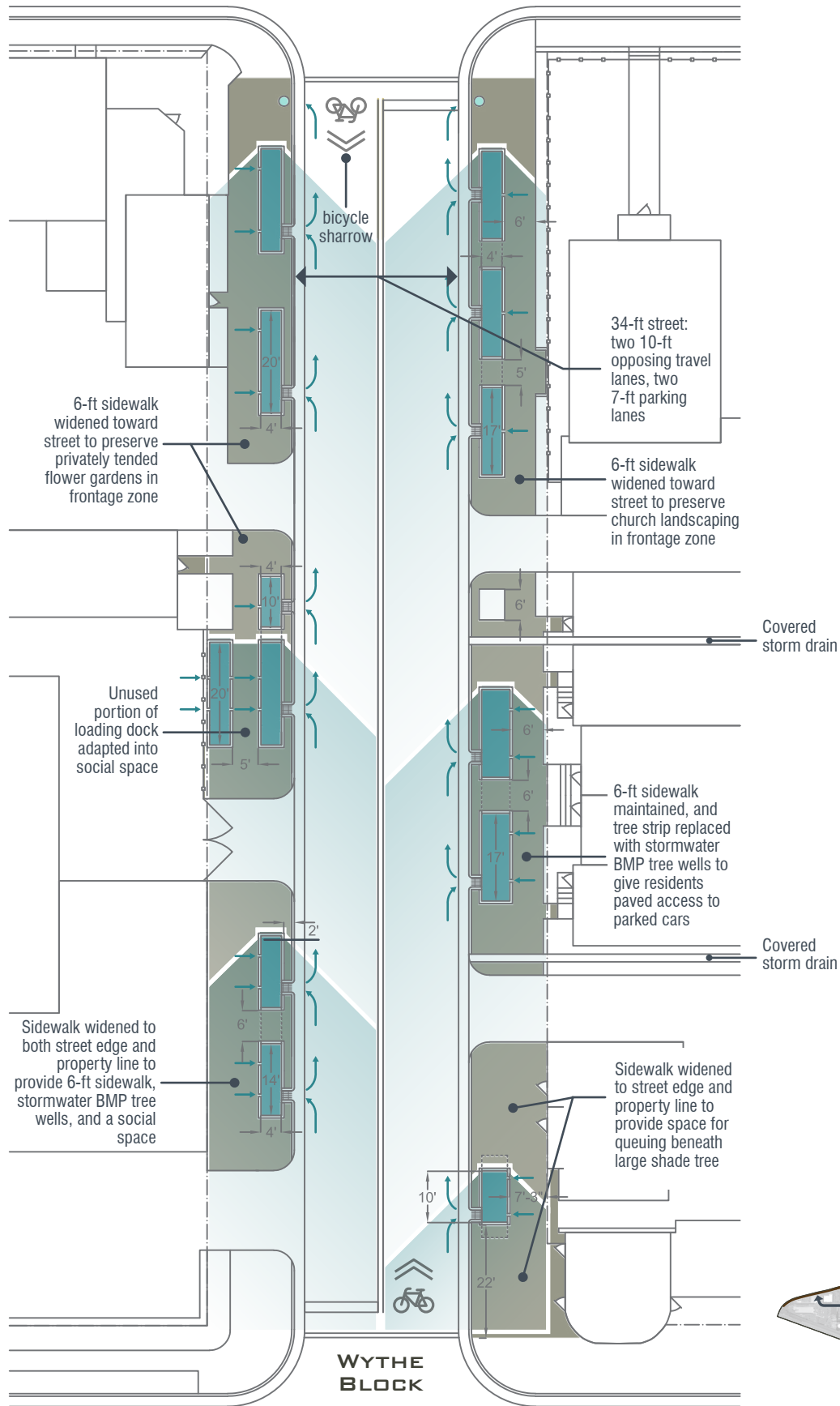
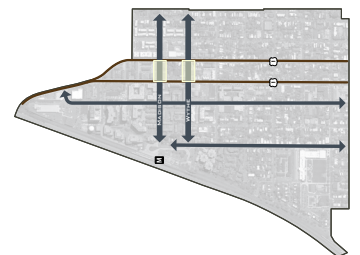
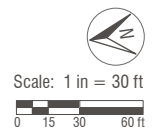


Figure 47. Infrastructure, Proposed Design. Proposed infrastructure includes narrowed streets, widened sidewalks, buried utilities, and stormwater BMPs. Both streets are narrowed from 40 feet to 34 feet. Sidewalks are widened to a minimum of six feet. On the Madison Block, a new mid-block crosswalk is installed, along with four new utility poles for a suspended light fixture. On the Wythe Block, bicycle sharrows are provided in accordance with the Neighborhood Plan. Stormwater BMP tree wells are installed on both blocks, except for the south side of the Madison Block, where an ultra-urban stormwater infiltration trench is concealed beneath permeable pavers.



**WYTHE
BLOCK**



NOTE: Stormwater BMP feasibility is dependent on a thorough analysis of site conditions

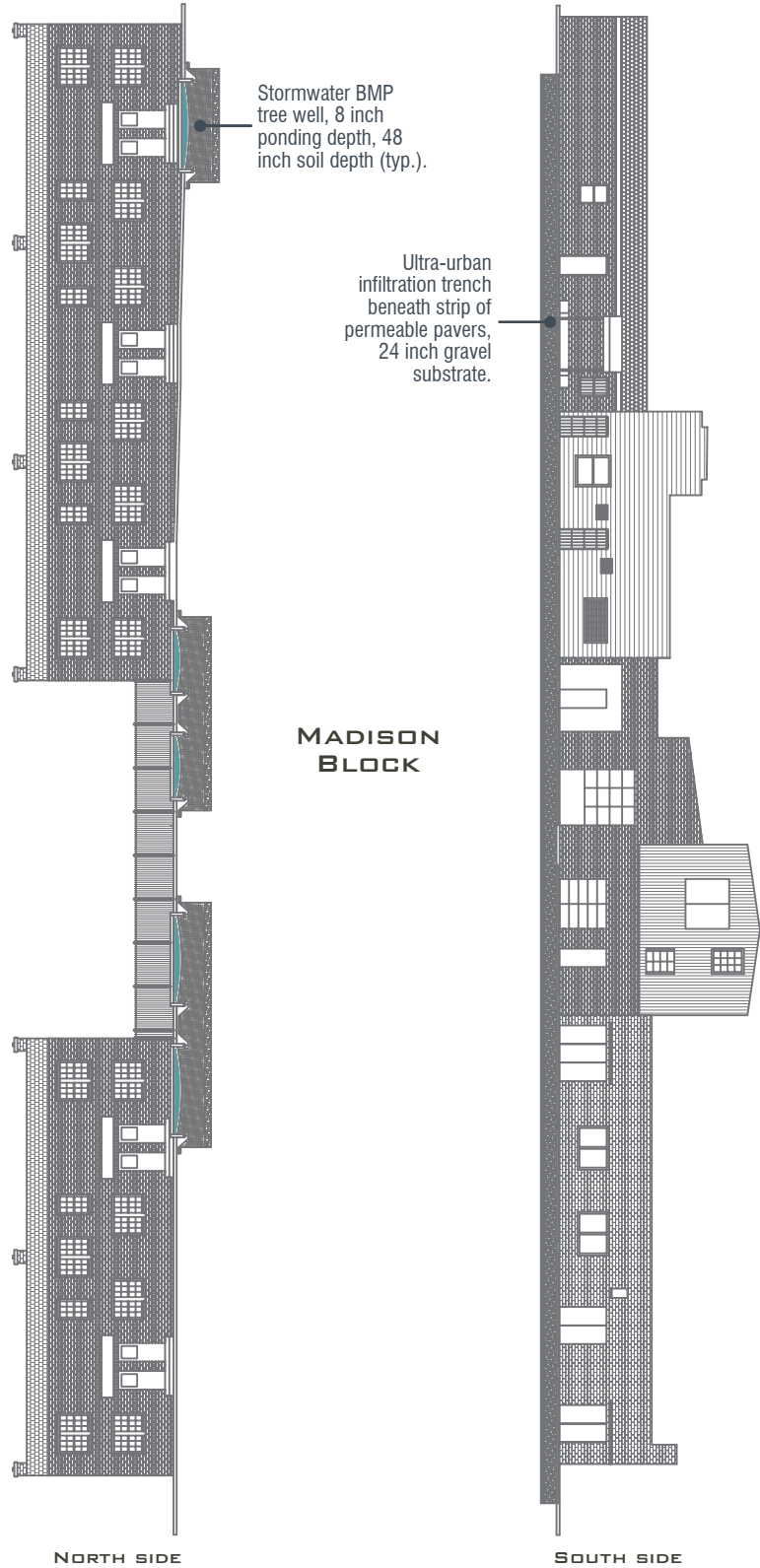
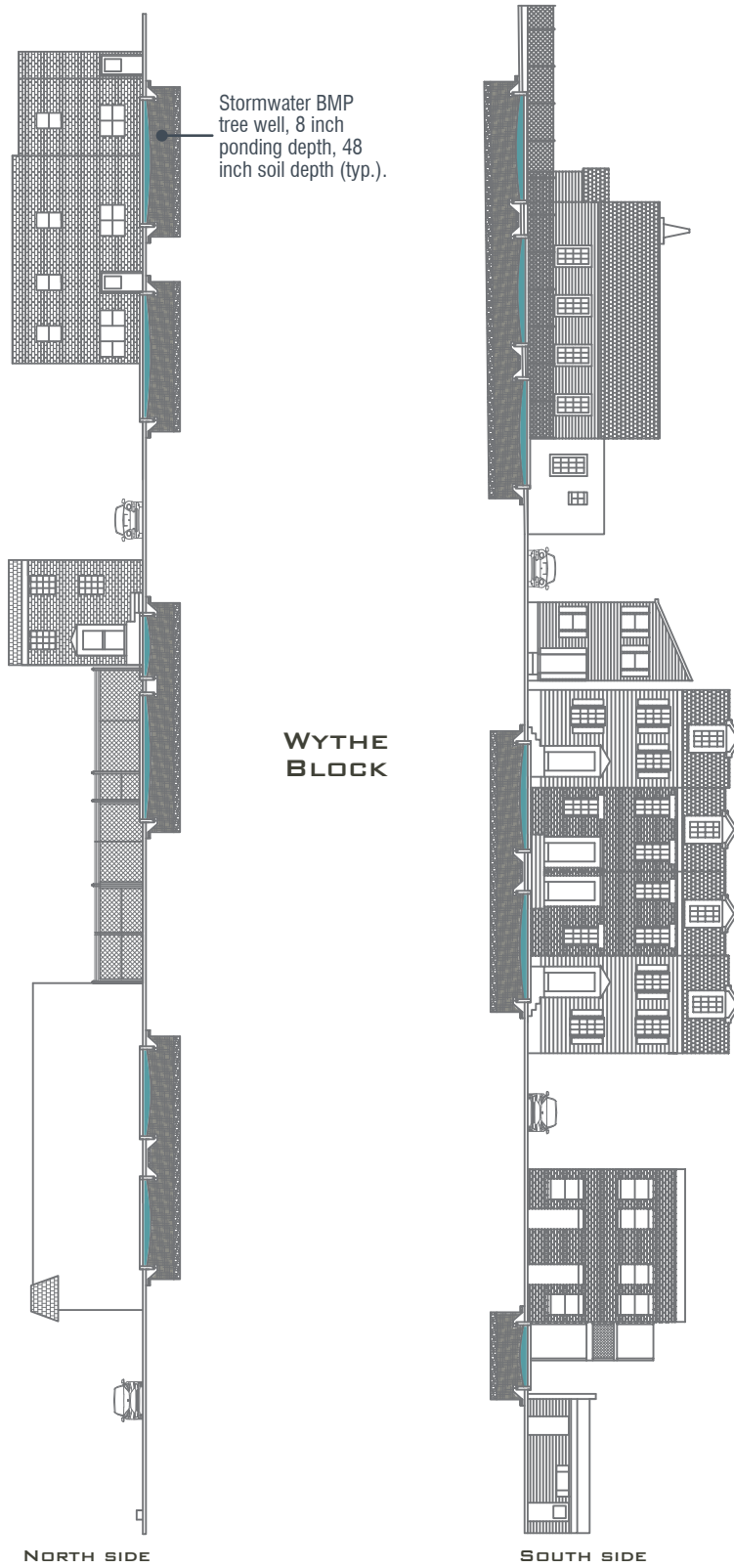


Figure 48. Infrastructure, Proposed Design, Elevation. Both the Madison and Wythe Blocks are equipped with stormwater BMPs to enhance environmental protection along neighborhood Walking Streets. Design retention volumes are maximized in recognition of unidentified site conditions that are likely to restrict BMP installation opportunities. In the absence of such restrictions, adequate retention volumes exist for capturing and retaining runoff from parking lots and roof structures in addition to the stormwater generated on the public right of way.



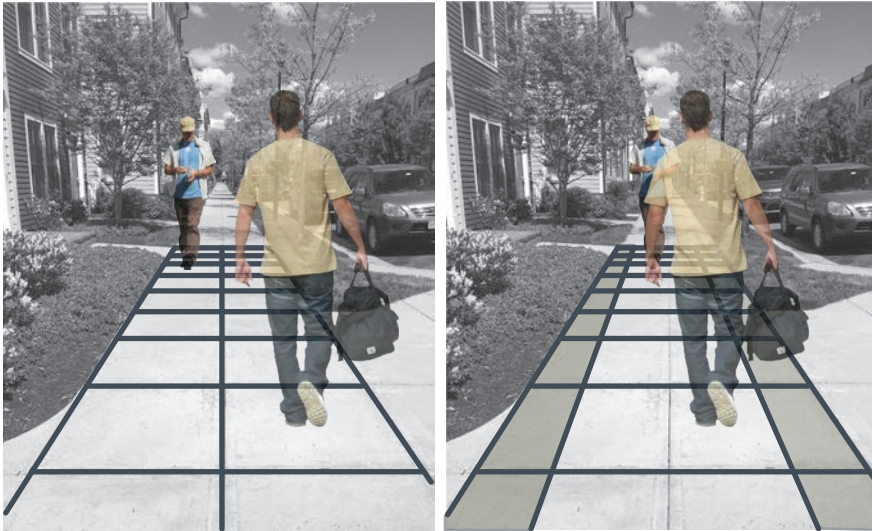


Figure 49. Sidewalk Scoring, Proposed Design. Previously redeveloped six-foot sidewalks in the Braddock Metro Neighborhood contain score lines that delineate two separate pedestrian lanes (left). The proposed design (right) would set score lines that create the effect of an existing four-foot sidewalk, reinforced with a colored edge, to meet accessibility requirements but subtly encourage residents to drift toward the middle of the sidewalk, requiring them to engage and move aside when encountering a passing neighbor.

For example, sidewalks on the north side of the Madison Block are widened toward the ARHA property line to help preserve two healthy, mature Elm trees and provide more accessible space for the staying observed. Conversely, sidewalks on the north side of the Wythe Block are widened toward the street to preserve two privately tended flower gardens that help define the residential character of this block.

As mentioned previously, the precedent to score six-foot sidewalks into opposing three-foot lanes is detrimental to the goal of connecting diverse residents because it encourages moving bodies to remain isolated from one another in passing. Whereas the sidewalk accessibility requirement is not questioned, the scoring pattern could be improved. The thesis design sets score lines that create the effect of a four-foot sidewalk, reinforced with a colored edge, to subtly encourage residents to drift toward the middle of the sidewalk, requiring them to engage and move aside when encountering a passing neighbor (Figure 49).

Both blocks are equipped with stormwater BMPs, although such infrastructure is not explicitly required in either the Neighborhood Plan or the Complete Streets Design Guidelines. Figures 47 and 48 show conceptual locations, sizes, and drainage areas for a series of stormwater bioretention tree wells installed on the north side of the Madison Block and both sides of the Wythe Block. Bioretention tree wells exemplify the type of green stormwater infrastructure preferred in the City's Green Sidewalks

BMP Design Guidelines (City of Alexandria, 2014). In response to the compaction and accessibility issues observed in the existing continuous tree strips on the Madison and Wythe Blocks, tree wells (connected via subsurface drains) were chosen to provide sidewalk access to parked cars and accommodate standing forms of staying.

One exception is made to the preferred green stormwater infrastructure: an ultra-urban stormwater infiltration trench - concealed beneath permeable concrete pavers - is proposed for the south side of the Madison Block. The infiltration trench allows for stormwater management while retaining the historic, non-vegetated character of the industrial complex and allowing for an unobstructed view of its unique, adapted facade.

Although it is not required, stormwater management infrastructure is incorporated into the thesis design to enhance environmental protection along neighborhood Walking Streets. Design retention volumes are maximized in recognition of unidentified site conditions, such as immovable underground utilities or poor infiltration rates, which are expected to restrict BMP installation opportunities on both blocks. In the absence of such restrictions, adequate retention volumes exist for capturing and retaining runoff from private and semi-private sources in addition to the public right of way. Indeed, stormwater from rooftops, parking lots, and other private and semi-private sources appears to be flowing into storm sewers on both blocks (Figures 29 and 47).

Lighting

In accordance with the Neighborhood Plan, pedestrian-scale lighting is installed along the Madison and Wythe Blocks (Figures 51 and 52). On the Madison Block, the Virginia Old Dominion Colonial light fixture specified in the design guidelines is rejected in favor of a style that better reflects the period of historic significance on this block: 1925 to 1960. Evoking the sensibility of the postwar-era porch lights mounted to the Samuel Madden public housing units (Figure 35), the thesis design installs pedestrian-scale gumball lights, a popular style of street light found throughout American cities in the early to mid 20th century (Figure 50). In addition to the pole-mounted pedestrian lights, one gumball light is suspended on crossed wires (as it would have been at street intersections in the 1940s) above the new mid-block crosswalk. This suspended light, which requires the installation of four new utility poles framing the crosswalk, recalls the single existing utility line reaching across the social edge between the Samuel Madden public housing project and the newly gentrified industrial complex.

On the Wythe Block, the specified Virginia Old Dominion Colonial light fixtures (Figure 43) are installed because site conditions do not appear to favor any particular fixture or style for pedestrian lighting. With this example, it is important to note that the expression of architectural diversity in the thesis design is not arbitrary; rather, it is intended to acknowledge and respond to the special features and character of each block. Thus, the Neighborhood Plan design guidelines are accommodated in the absence of any site-specific justification for exception. Later in this section, a social space (“Lighting Supply Lunch”) is proposed on the Wythe Block, where a diversity of fixtures is considered appropriate.

Planting

The thesis design rejects the Neighborhood Plan’s organizational framework for evenly spaced street trees of the same species along the length of a city block (City of Alexandria, 2008a). Instead, street trees and understory plantings are seen as yet another design element that can help to affirm character and connect diverse neighborhood residents on the Madison and Wythe Blocks (Figures 53 and 54).

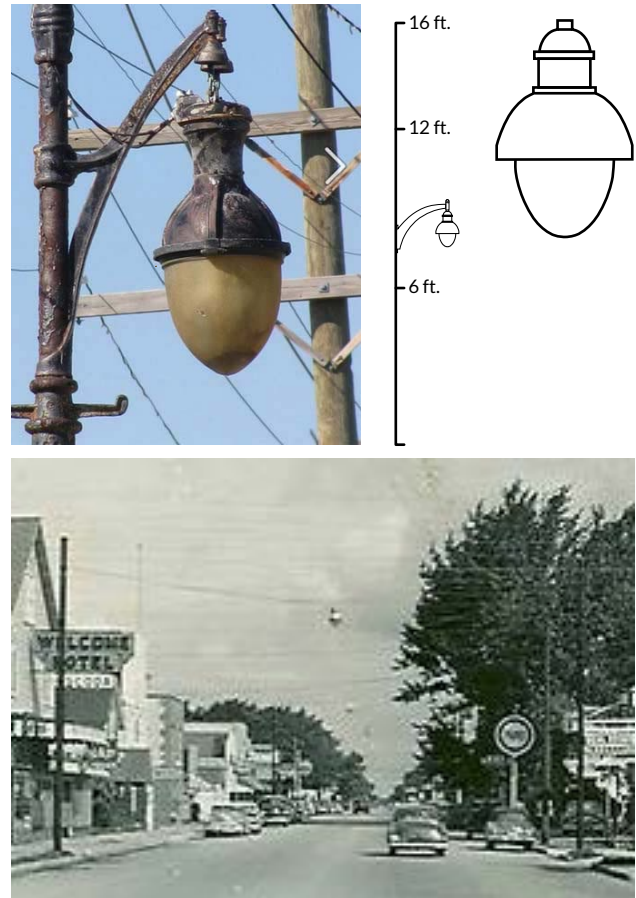


Figure 50. Gumball Light. On the Madison Block, the design proposes a gumball light fixture, a popular style in American cities during the period of significance (1925 to 1960). Pole-mounted pedestrian lights will be installed along the sidewalks, while a single fixture will be suspended above the new crosswalk.

On the Madison Block, street trees are planted to complement the transitional and social edge between the residential north side and commercial/industrial south side. Special effort is made to preserve the two mature Elm trees near the Samuel Madden public housing project. Sidewalks are widened toward the ARHA property line to provide space for existing roots, which are guided through new Silva Cells (or comparable subsurface structures) beneath the sidewalk to accommodate future root growth while providing more accessible space for the staying observed. A fenced enclosure, which protects surface roots and prevents further compaction, is carefully seeded with low-maintenance, shade-tolerant, drought-tolerant Wavy Hairgrass. (The existing Oak tree, which shows evidence of dieback, is removed.)



The thesis design installs gum ball lights, a popular style of street light found in American cities in the early-to-mid 20th century, on the Madison Block. Compared to the Virginia Old Dominion Colonial fixture specified in the Neighborhood Plan, the gum ball fixture better reflects the period of historic significance on the Madison Block: 1925 to 1960.

Pedestrian Light (type.):
Gum ball fixture

Gum ball fixture
suspended over
mid-block crosswalk

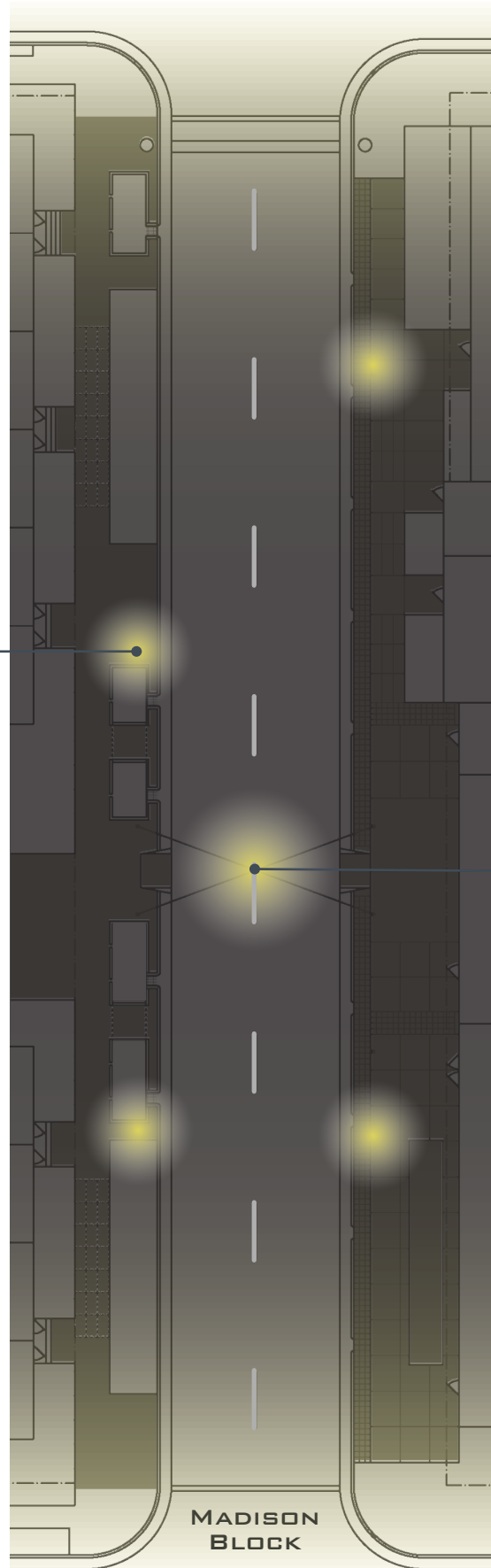


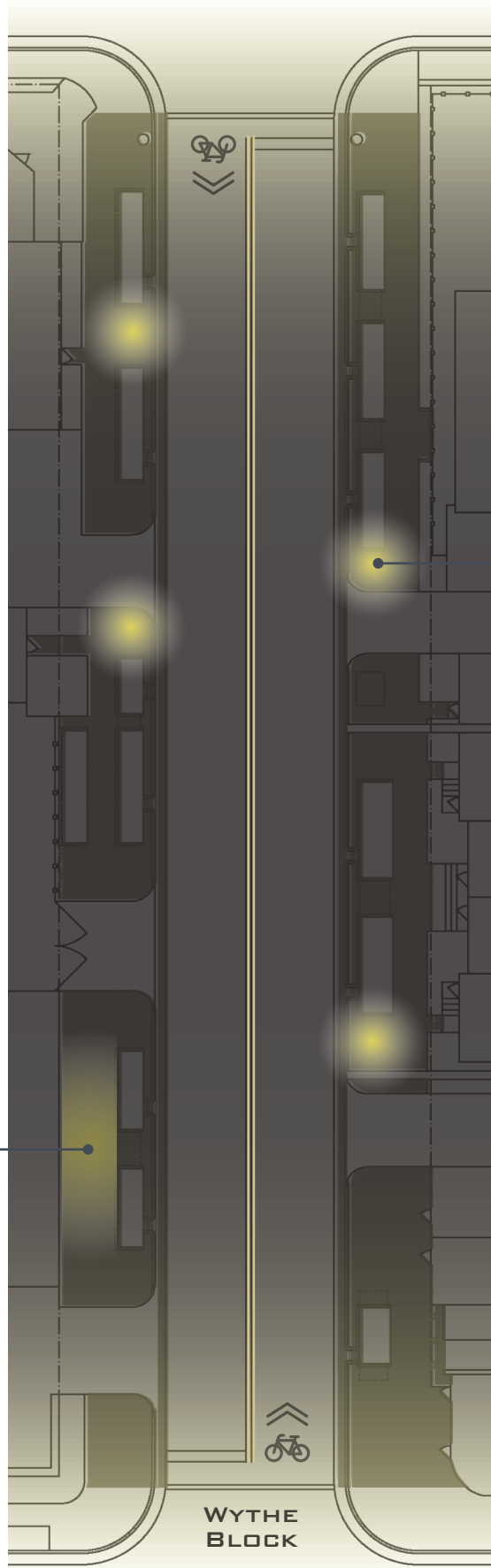
Figure 51. Lighting, Proposed Design. On the Madison Block, lighting consists of pedestrian-scale, pole-mounted gum ball fixtures. One gum ball fixture is suspended over the new mid-block crosswalk. On the Wythe Block, lighting consists of pedestrian-scale pole-mounted Virginia Old Dominion Colonial fixtures in addition to the illuminated social space at Alexandria Lighting & Supply.



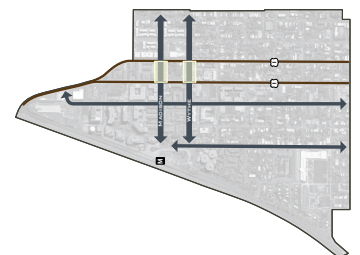
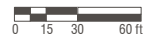
The thesis design installs the Virginia Old Dominion Colonial light fixture specified in the Neighborhood Plan on the Wythe Block because site conditions do not appear to favor any particular fixture or style for pedestrian lighting.

Pedestrian Light (type.):
Dominion Virginia
Power Colonial fixture

Wall lights mounted to
Alexandria Lighting &
Supply Building
(proposed social space)



Scale: 1 in = 30 ft



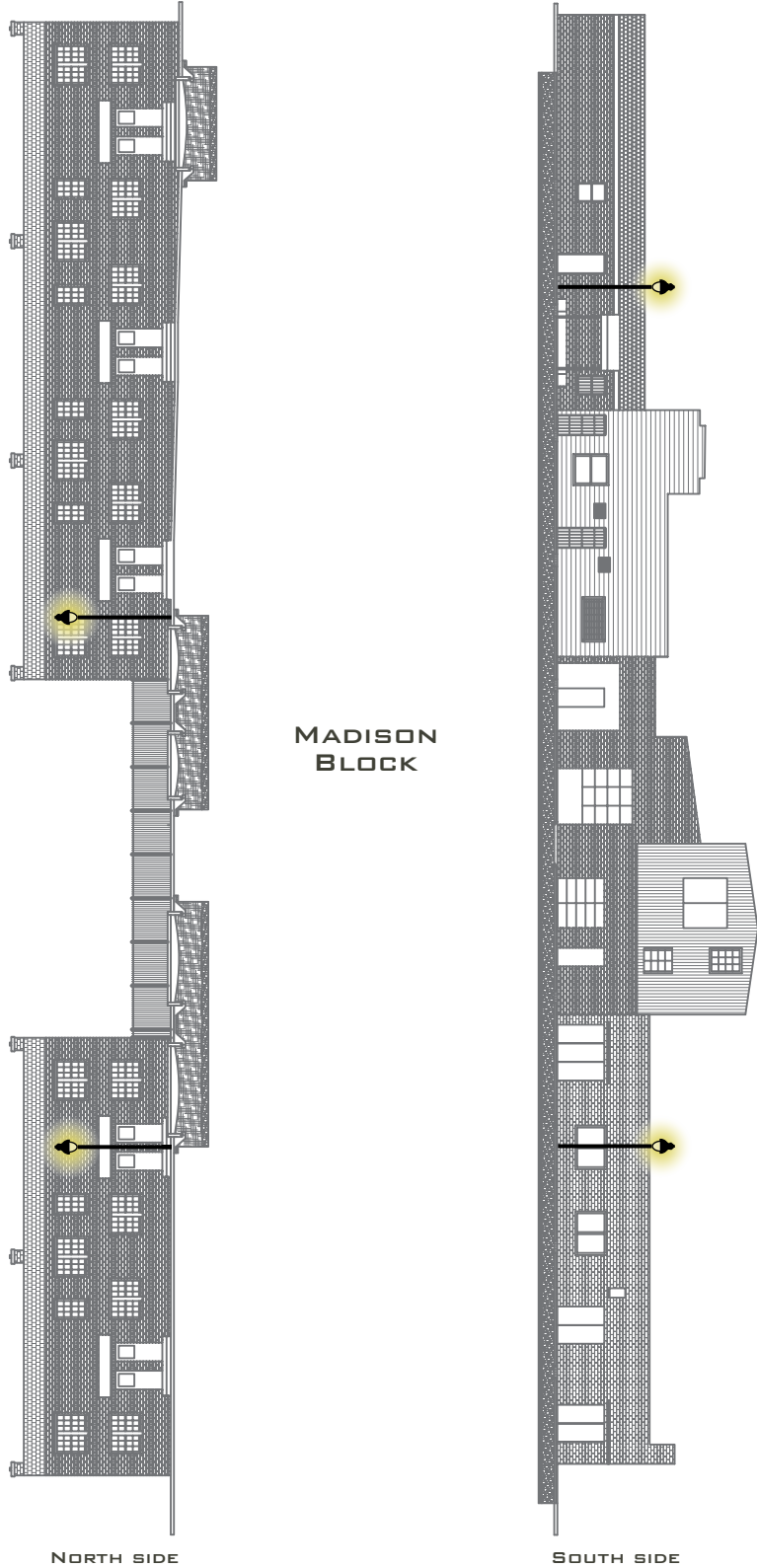
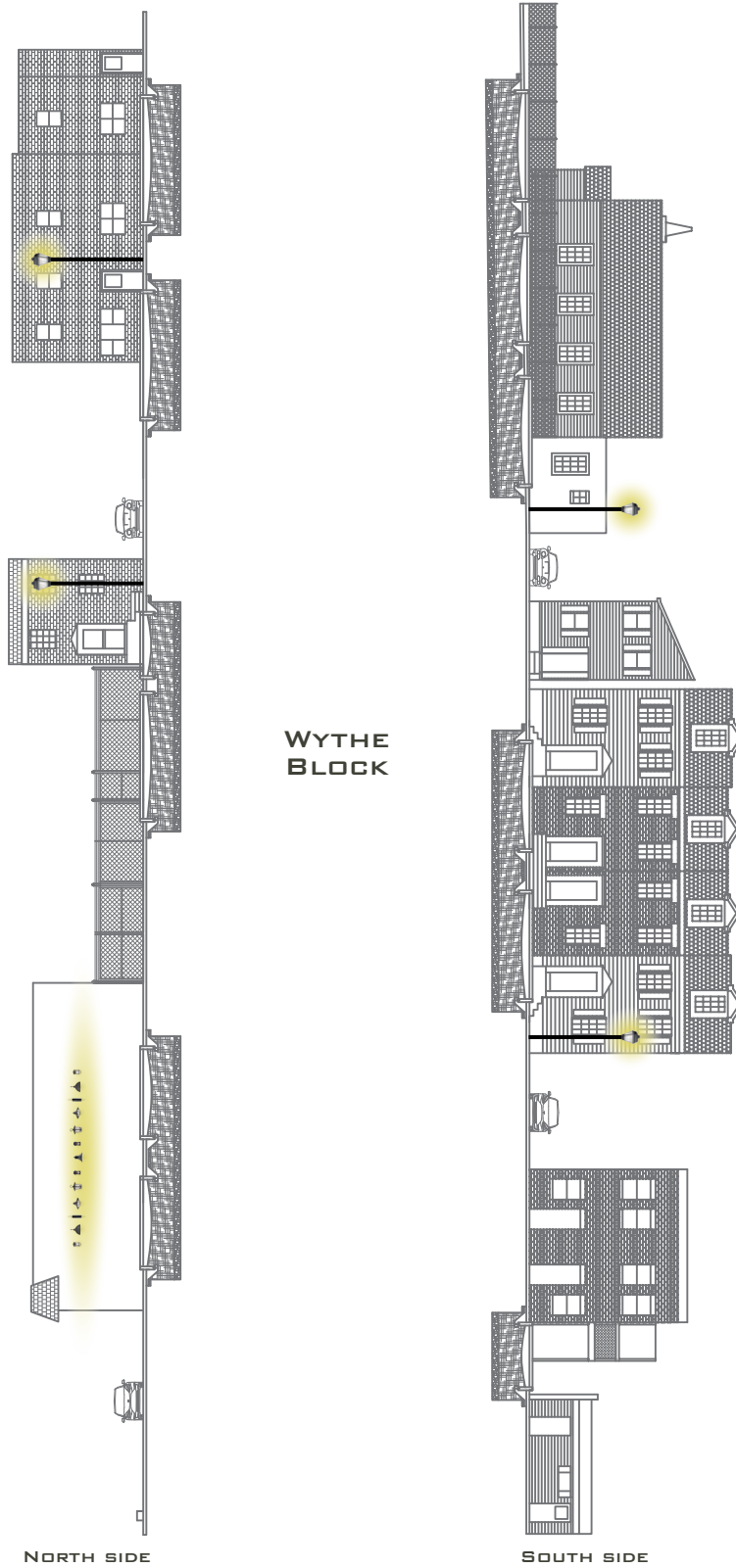


Figure 52. Lighting, Proposed Design, Elevation. Gumball lights are installed on the Madison Block to reflect the period of historic significance: 1925 to 1960. Virginia Old Dominion Colonial light fixtures (specified in the Neighborhood Plan) are installed on the Wythe Block because site conditions do not appear to favor any particular fixture or style.



KEY

- Grass (Existing)
- Landscape (Existing)
- Flower Garden (Existing)
- Sidewalk

UNDERSTORY GRASSES



Carex morrowii
Variegated Japanese Sedge

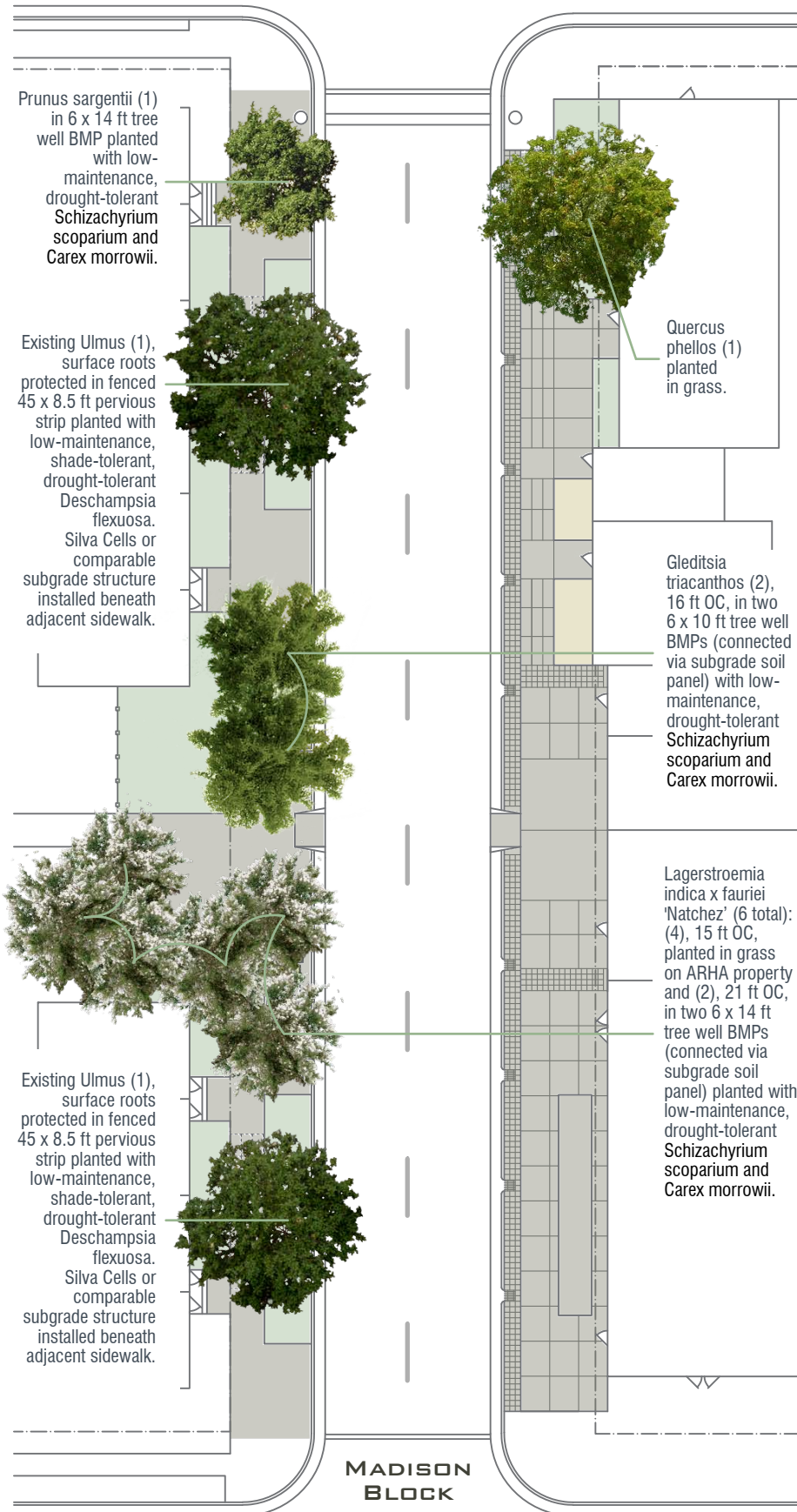


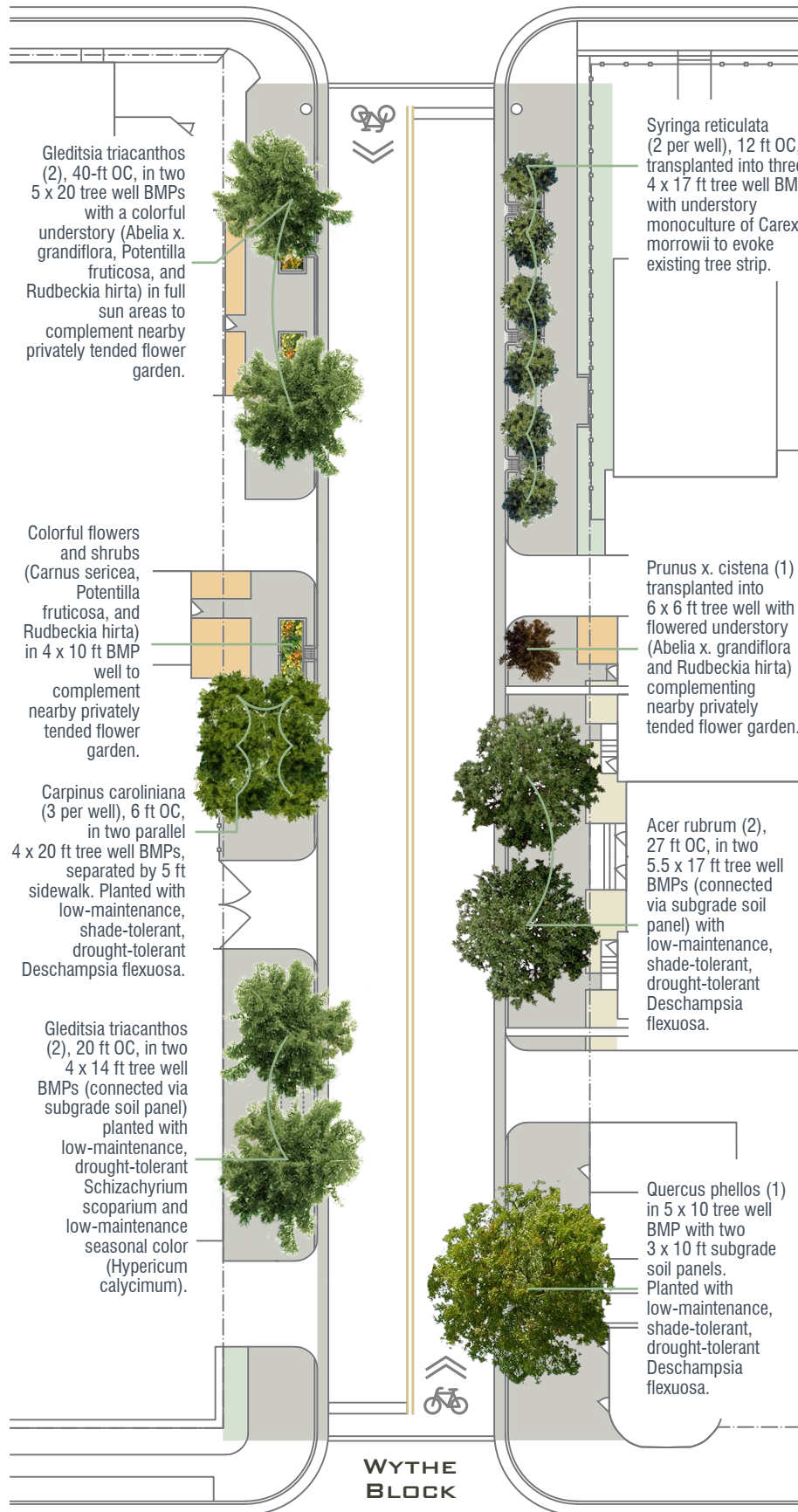
Deschampsia flexuosa
Wavy hairgrass



Schizachyrium scoparium
Little Bluestem

Figure 53. Planting, Proposed Design. On the north side of the Madison Block, special effort is made to preserve the two healthy, mature Elm trees. Trees planted toward the middle of the block complement the newly installed crosswalk and social space. Plantings on the commercial/ industrial south side are limited to restoring the street tree to the area adjacent to the barber shop. On the Wythe Block, street trees are planted to complement the diversity of “rooms” found within this block. The complete planting design - from the locations and sizes of tree wells to the selection of understory plantings - also seeks to preserve opportunities for resident involvement in block beautification.





**UNDERSTORY
FLOWERS AND SHRUBS**



Abelia x. grandiflora
Glossy Abelia



Cornus sericea
Red Twig Dogwood



Hypericum calycimum
St. Johns Wort



Potentilla fruticosa
Cinquefoil



Rudbeckia hirta
Black-Eyed Susan



Scale: 1 in = 30 ft
0 15 30 60 ft

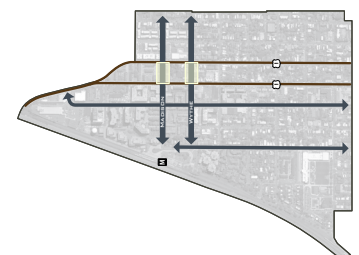
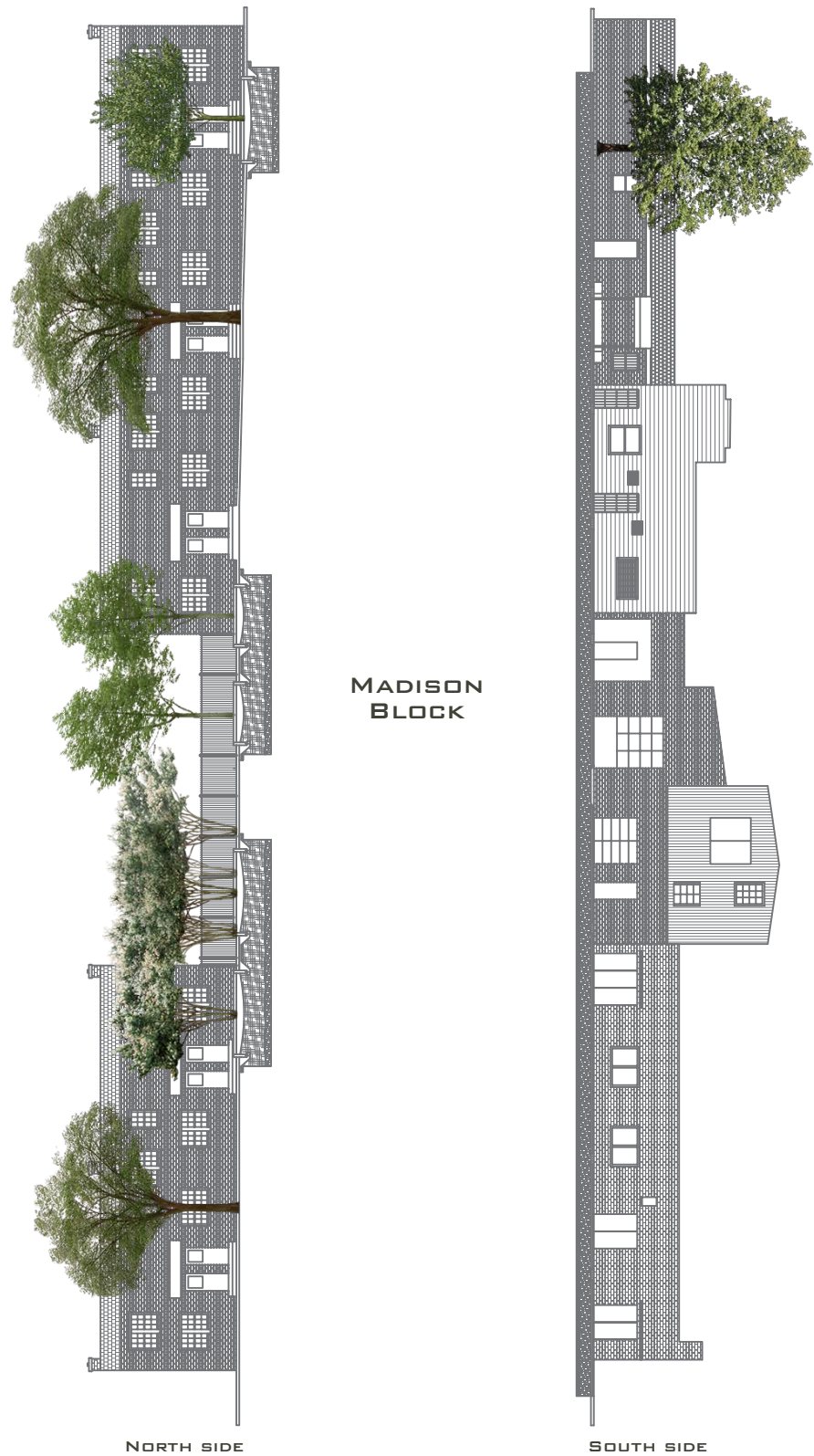
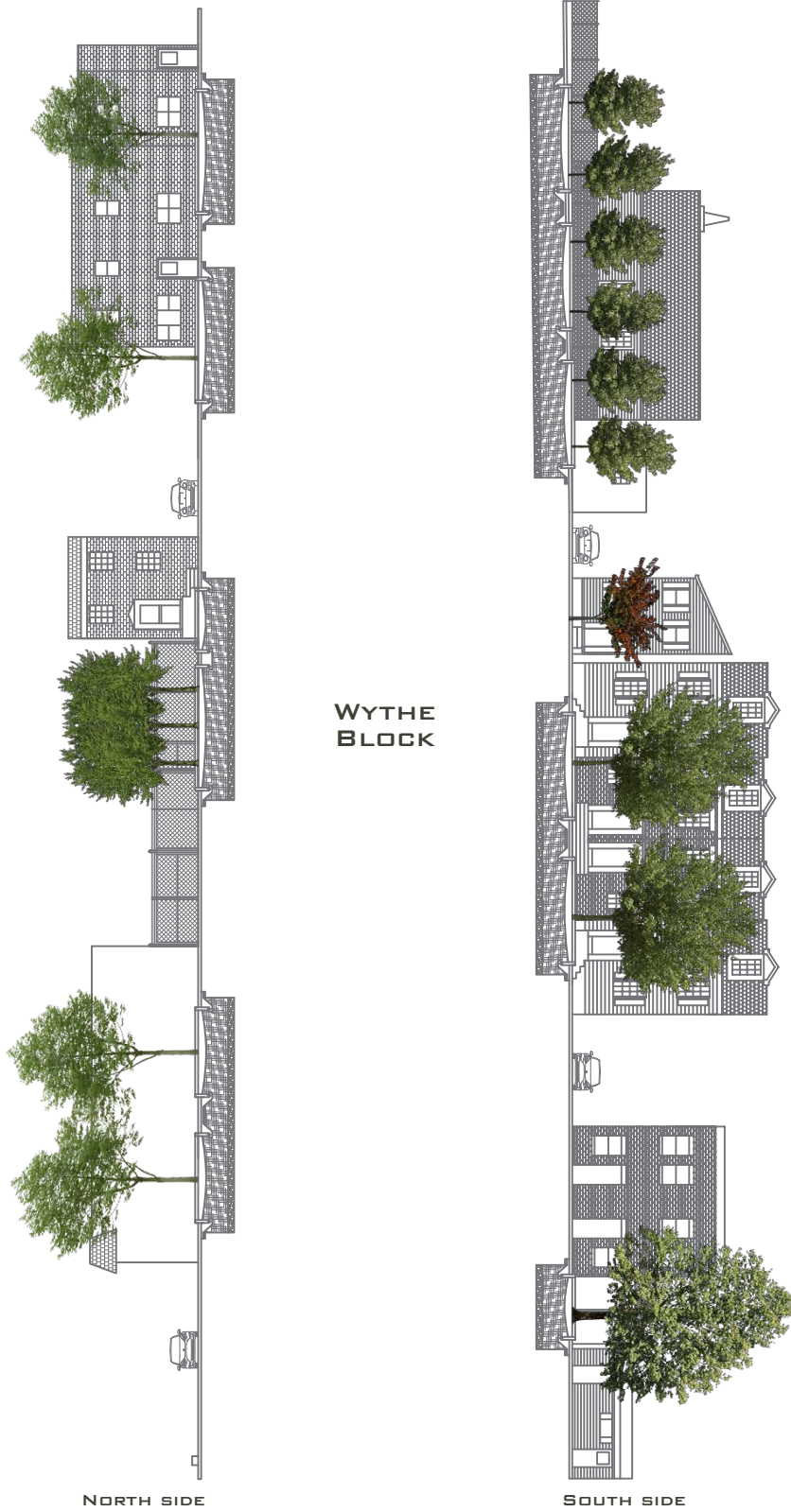


Figure 54. Planting, Proposed Design, Elevation. The planting design rejects the Neighborhood Plan's organizational framework for evenly spaced street trees of the same species along the Madison and Wythe Blocks. Instead, the selection and location of street trees responds to the character and diversity expressed on these blocks.





New stormwater BMP tree wells on the north side of the Madison Block are sited away from the existing Elm root systems. Trees planted toward the middle of the block complement the newly installed crosswalk and social space (“Neighborhood Patio”) proposed later in this section. A cluster of Crape Myrtle evokes the domestic nature of the social space and extends into two stormwater BMP tree wells adjacent to the mid-block crossing. In the BMP tree wells just east of the crosswalk are two Honey Locust, which cast dappled shade onto the sidewalk without blocking sight lines across the transitional edge. In the easternmost BMP tree well, a Cherry Tree offers a show of spring-time color at a modest scale between the mature Elm and the busy intersection. All BMP tree wells are planted with low-maintenance, drought-tolerant grasses to evoke the former tree strip.

On the south side of the Madison Block, toward Henry Street, the historic non-vegetated urban character of the industrial complex is preserved, and no trees are planted. However, toward Patrick Street, a large Willow Oak is planted near the stump of the former shade tree adjacent to the barber shop. The Willow Oak becomes part of a social space (“Barber Shop Bus Stop”) proposed later in this section. The planting beds in front of the Community Market, possibly legacy residential setbacks, are retained because they appear to be tended (and, thus, valued) by the owner. Both the Willow Oak and the landscaped setbacks reinforce the transitional and social edge between the existing businesses and the redeveloped industrial complex. Another social space design (“Sidewalk Story”), proposed later in this section, further reinforces this social edge.

On the Wythe Block, street trees are planted to complement the diversity of “rooms” expressed through physical and transitional edges and different building ages, types, and uses. The design also considers the extent to which residents are involved in block beautification efforts, seeking to preserve - and in some cases expand - opportunities for resident involvement. Colorful flowers and shrubs, which benefit from dead-heading and other forms of periodic maintenance, are planted in the BMP tree wells near existing flower gardens, with the assumption that residents will help tend these understory plants. Low-maintenance plants are specified elsewhere. Existing ornamental trees are preserved and transplanted, while the failing Red Maple are replaced.

The Wythe Block design makes two exceptions to the City’s Green Sidewalks BMP Design Guidelines. In some cases, the spatial character of buildings and entrances on the Wythe Block is prioritized over the location of individual BMP tree wells, meaning that each street tree is not always planted in the center of each tree well. Also, BMP wells intended to complement nearby flower gardens exceed the City’s maximum of two understory plant species per well.

On the north side of the block, toward Henry Street, two Honey Locust are planted in BMP tree wells to complement the social space (“Lighting Supply Lunch”) proposed later in this section. Toward the middle of the block, six pruned American Hornbeam are planted in parallel stormwater BMP tree wells to create another social space (“Loading Dock Arbor”) proposed later in this section. One BMP well near the detached home is planted with colorful flowers and shrubs (no tree) to mark the transition into this social space and allow sunlight to reach the existing flower garden. Near the rowhouse with the ground-floor beauty salon, Honey Locust are planted in two widely-spaced BMP tree wells to frame the building, cast intermittent, dappled shade, and allow sunlight to reach the existing flower garden.

On the south side, toward Patrick Street, six preserved Japanese Tree Lilac are transplanted into three stormwater BMP tree wells with an understory of grasslike Variegated Japanese Sedge to evoke the existing tree strip. Toward the middle of the block, the preserved Purple-Leaf Sand Cherry is transplanted into a standard well near the detached home, complementing and allowing sunlight into the existing flower garden while marking the transition between the church and the four-unit town home complex. Two replacement Red Maple are planted in stormwater BMP tree wells that are widely spaced to not only provide adequate room for growth but also frame the central stairs and symmetrical facade of the town home complex. Legacy residential setbacks in front of the offices, which do not appear to be valued by the owner, are removed, and a Willow Oak is planted in a single stormwater BMP tree well expanded with subgrade soil panels. The Willow Oak, which is sited away from the Henry Street intersection to avoid obstruction hazards, evokes site conditions seen in historic photographs (Figure 40), returning shade and shelter to residents queuing at the Blue & White Carryout.

SOCIAL SPACES

Complementing the proposed streetscape designs are six social spaces intended to support the formation of Bridging Social Capital among residents of different social groups (Figure 55). These social spaces are intended to intercept residents walking through the Madison and Wythe Blocks, invite those residents to stop, and encourage them to stay. Designs are modest in scale and respond to the many ways in which existing physical features and social conditions already affirm neighborhood character and connect diverse residents.

All social spaces engage with edges, including permeable borders and impermeable boundaries. Although certain designs seek to adapt or transform exclusionary edges into inclusionary features, no design removes an edge. Special attention is paid to social edges, which are seen to offer the type of gradient necessary to the formation of Bridging Social Capital.

All social spaces seek to acknowledge and preserve artifacts that evoke the deeply complex history of the Braddock Metro Neighborhood. Combined with efforts to engage with both physical and social edges, these interventions seek to convey a variety of experiences reflecting a more complete history of Uptown.

Finally, all social spaces are sited and designed to encourage frequent, spontaneous, and casual mixing among residents already engaged in everyday activities. While each space is designed to support a particular type of social gathering, no space is so regulated that it establishes a single pattern of acceptable use. Rather, social spaces are designed to accommodate a range of activities conducive to the formation of both Bonding and Bridging Social Capital. Thus, a unifying goal among all social-space designs is to help residents build tolerance to challenging conditions of diversity through frequent exposure not only to different social groups but also to different patterns of acceptable use in social spaces.

Although the proposed social-space designs accommodate the broader streetscape interventions discussed previously, they are not wholly dependent on redevelopment. Rather, these social spaces are intended to protect fragile conditions of diversity while the Madison and Wythe Blocks are transitioning.

Two social-space designs, the “Sidewalk Story” on the Madison Block and the “Loading Dock Arbor” on the Wythe Block, are intended to slow the pace of pedestrians, encouraging them to more fully sense their surroundings.

The remaining four designs offer spaces for staying. Both standing and sitting patterns of staying are accommodated; however, special emphasis is placed on the form and function of seats, given Gehl’s assertion that “only when opportunities for sitting exist can there be stays of any duration.” (Gehl, 2011).

Applying the research and observations of both Gehl and Whyte, a number of design principles for seating were considered. In addition to engaging with edges and transitions, seating is designed to provide social comfort, meaning that residents are offered a number of options for how and where they wish to sit in a space (Gehl, 2011; Whyte, 1980).

One social-space design, the “Church,” is intended to offer residents an opportunity to engage in a sound-based connection with the visually impermeable boundary of the historic African-American church on the Wythe Block. Seating in this space is fixed and focused away from the edge to enhance the anticipated auditory connection.

The remaining three social spaces offer seating to encourage resident interaction. Because each space accommodates a different function, each offers a different form. For example, both the “Barber Shop Bus Stop” on the Madison Block and the “Lighting Supply Lunch” space on the Wythe Block provide seating that is fixed but arranged in patterns of right angles to accommodate a range of social connections. The “Neighborhood Patio” on the Madison Block provides the greatest range of flexibility and control, with movable tables and chairs that allow residents to configure the space as they choose (Gehl, 2011; Whyte, 1980). All social spaces with seating are designed to avoid the repellent effects of emptiness.

The six proposed social spaces - three on the Madison Block and three on the Wythe Block - are discussed in the pages that follow.

NOTE: To best articulate social-space design elements, plans from this point forward are oriented in a variety of directions. Please note the north arrow on each plan for proper orientation.

KEY

- Sidewalk
- Building or Structure
- Street
- Social Space Design
- Light

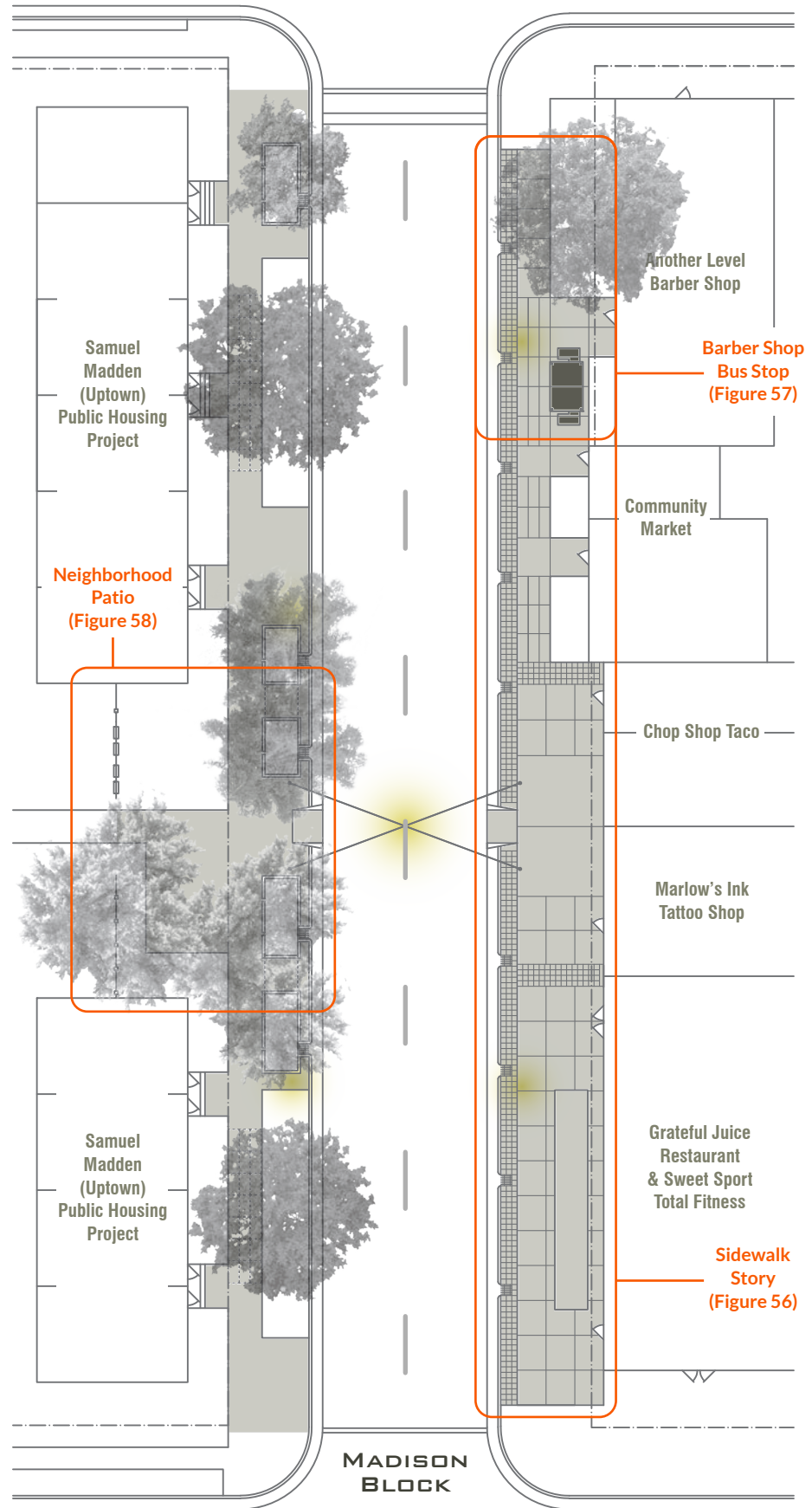
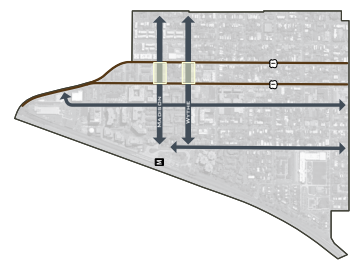
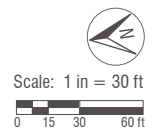
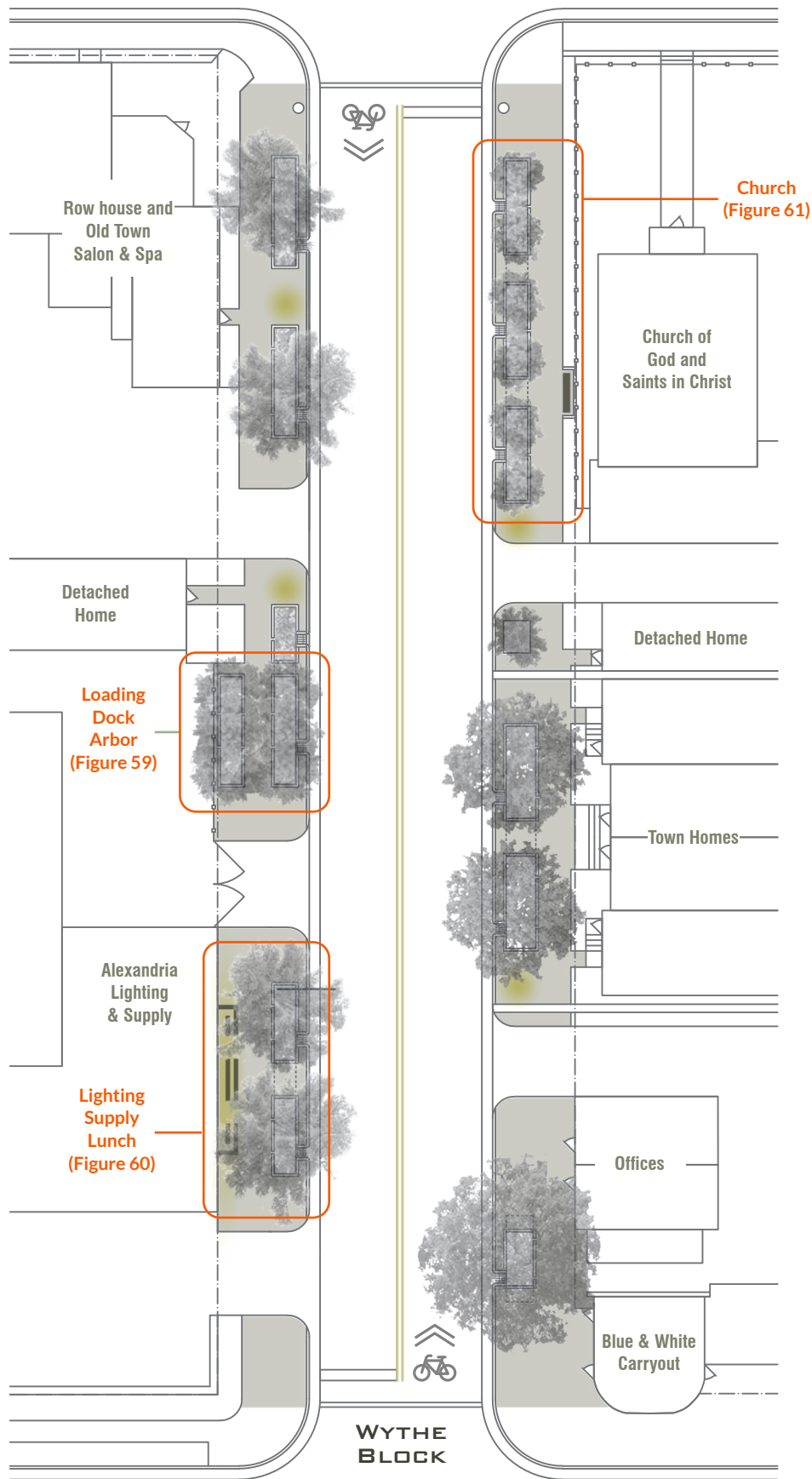


Figure 55. Social Spaces, Proposed Design. Six proposed social spaces - three on the Madison Block and three on the Wythe Block - complement the proposed streetscape designs. These social spaces are intended to support the formation of Bridging Social Capital by intercepting pedestrians, inviting them to stop, and encouraging them to stay.



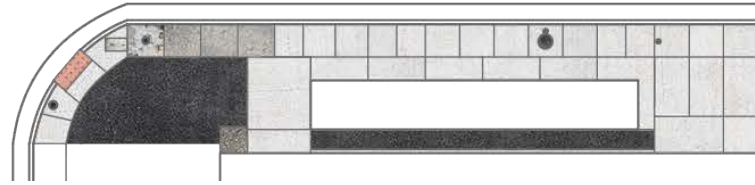
Sidewalk Story

The sidewalk on the commercial/industrial south side of the Madison Block is an artifact that not only articulates the social edge between the existing and recently gentrified businesses but also recalls the complex history of Uptown and the Braddock Metro Neighborhood. Utility poles dominate this side of the block, creating sidewalk accessibility issues in front of the Community Market and the barber shop, two buildings that have not yet seen the effects of redevelopment.

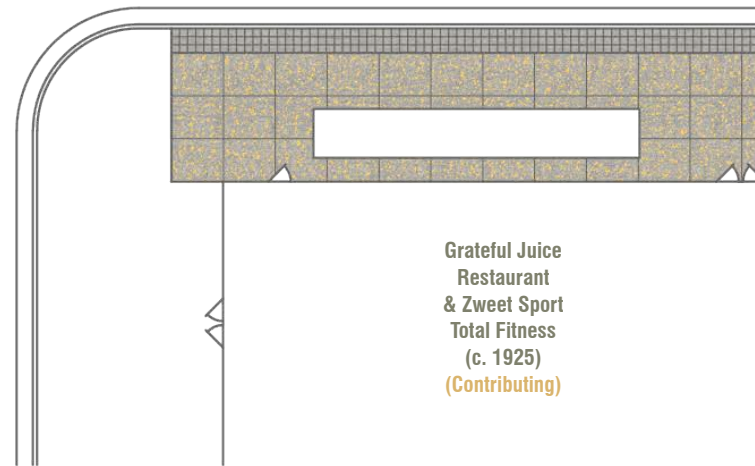
Poles have narrowed the four-foot sidewalk to less than two feet in two locations, prompting a series of makeshift sidewalk patches to provide adequate width for pedestrians and patrons. Although it is unclear if these patches were placed by residents, business owners, or City maintenance crews, it is clear that sidewalks were not uniformly widened when the utility poles were installed, even though adjacent city property appears to have been available (Figure 26). Thus, the patchwork can be seen to reflect a story of adaptation and perseverance in the face of apparent infrastructural inequity.

The design represents the sidewalk story through creative jointing and colored glass aggregate placed by hand during concrete installation (Figure 56). Areas of sidewalk that appear to have received limited maintenance are more patchy than areas that appear to have been replaced when the industrial complex was redeveloped. The colorful, sparkling palette is designed to capture the attention of passing residents, encouraging them to slow down and more fully sense their surroundings. Historically under-maintained areas, which front long-time rather than gentrifying businesses, have more intricate patterns.

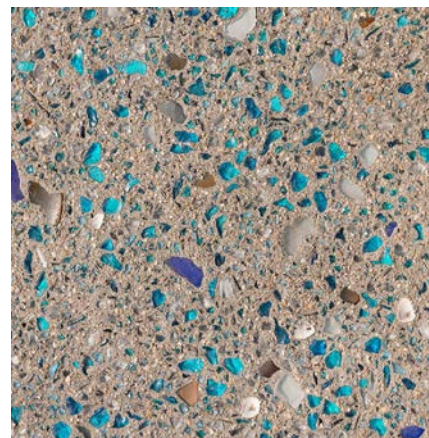
The use of glass aggregate in this social space has broader historical significance: the industrial complex once housed a milk distribution warehouse, one that likely purchased glass bottles from the nearby Belle Pre Bottle Factory (NPS, 2011).



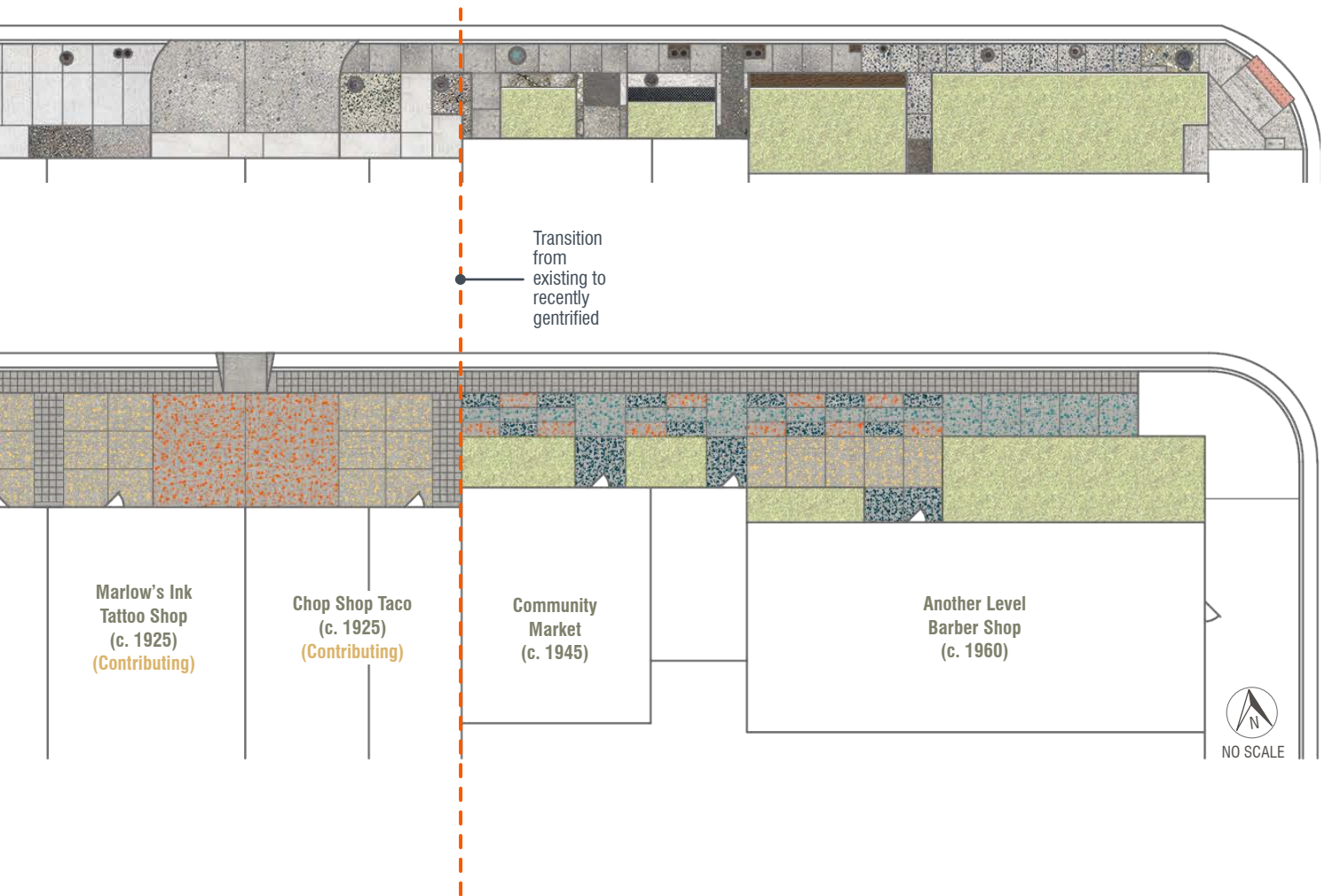
Existing Conditions, Photographic Collage of Actual Materials. The existing sidewalk is composed of a range of materials, colors, and conditions.



Proposed Design. The design accommodates the removal of overhead utilities and widens the sidewalk for accessibility while conveying the sidewalk story via creative jointing and colored glass aggregate.



The use of recycled glass aggregate has precedent in urban streetscape applications.



Accessibility and maintenance issues are observed adjacent to the Community Market and barber shop (background). Note the utility poles and signage blocking the pedestrian zone and the makeshift concrete patches that have been installed to maintain adequate width. The photograph on the left looks east, while the photograph to the right looks west.

Figure 56. Sidewalk Story, Social Space Design. The Sidewalk Story is intended to delineate a social edge, evoke the complex history of the Braddock Metro Neighborhood, and encourage pedestrians to slow their pace and more fully sense their surroundings.

Barber Shop Bus Stop

The long, brick wall of the barber shop on the south side of the Madison Block is an impermeable boundary requiring treatment. A DASH bus stop is located nearby, on the corner of Madison and Patrick Streets. It is assumed that the level of ridership does not warrant a dedicated bus shelter at this location, meaning that riders are left unprotected when waiting for a bus in inclement weather. Staying indicative of Bonding Social Capital has been observed across the street, on the north side of the Madison Block.

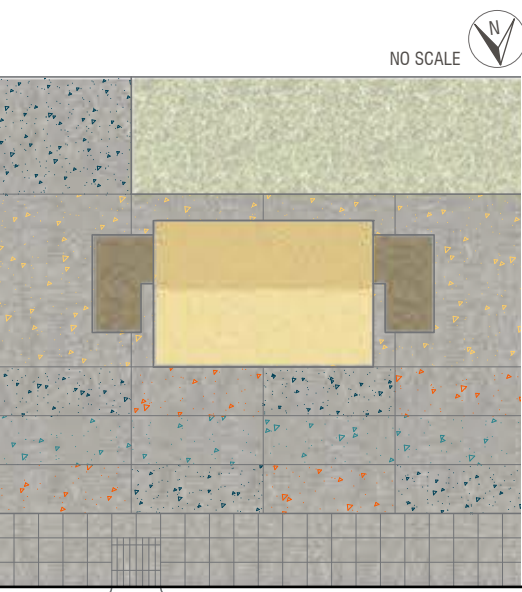
The design creates a concrete patio adjacent to the secondary, accessible barber shop entrance and provides integrated ledge seating for a variety of potential users: patrons of the barber shop, customers of the adjacent Community Market, riders awaiting the DASH bus, and residents engaged in more familiar forms of staying (Figure 57).

Seating is provided in an improvisational U-shaped design to support a range of users, from solitary bus riders seeking shelter from the rain to groups of acquaintances engaged in extended conversation. Sufficient patio space is provided to accommodate residents in wheelchairs. A commercial-style freestanding fabric awning covers a portion of the ledge, complementing the commercial character of the building and offering year-round shelter.

The patio is a modest intervention made out of respect for the existing site. Grass is retained in areas surrounding the patio. A Willow Oak is planted to replace the stump of a former tree, thus restoring shade and enclosure to the site and further enhancing conditions favorable for staying.

The patio is sited immediately adjacent to the widened six-foot sidewalk, which - via the "Sidewalk Story" design - is paved in an intricate pattern to encourage passing pedestrians to slow down and more fully sense their surroundings. The proximity of these social spaces further increases opportunities for social mixing and exposure to different forms of acceptable use.





The proposed canopy is a commercial-style freestanding fabric awning.



Although the Barber Shop has a secondary accessible entrance oriented toward the Madison Block, it is rarely used, and the long brick wall creates an impermeable boundary. Note the stump of a former shade tree.

Figure 57. Barber Shop Bus Stop, Social Space Design. The Barber Shop Bus Stop engages with the impermeable boundary of the barber shop building and preserves existing and historic landscape conditions while offering sheltered seating for patrons of the barber shop, customers of the Community Market, DASH bus riders, and other neighborhood residents in an open space adjacent to an active sidewalk.

Neighborhood Patio

The Neighborhood Patio on the Madison Block is the most political of the six social spaces and is expected to produce the most challenging social conditions for neighborhood residents because it engages with charged social edges: the transition between the Samuel Madden public housing project and the recently gentrified industrial complex and the six-foot impermeable boundary fence (Figure 58).

Regardless of its origin, the six-foot fence severing the sidewalk between Samuel Madden and the Madison Block is outrageous, and the proposed design treats it as such. Therefore, rather than demolishing this fence and ignoring its complex history, the design channels the adaptability found throughout the Madison Block and severs the fence in two strategic places: one to restore pedestrian access and another to provide a small playset. The remaining sections of fence provide a useful vertical element for residents who wish to stand rather than sit.

To be clear, the purpose of the social space is to restore conditions of loitering. Therefore, the “No Loitering” sign posted in front of the fence is adapted as well. Historic artifacts evoking the residential and commercial/industrial character of the Madison Block are used to transform this exclusionary device into a boldly inclusionary design feature.

People have made homes in the Samuel Madden public housing project for nearly 75 years, and the social-space design is intended to evoke the domestic nature of this place. A small patio is located to the west of the sidewalk, surrounded by Crape Myrtle trees. Nearby, a playset with swings is built into the severed fence, mocking this ruined exclusionary device and providing more play options for the young boy observed hanging on the fence during the author’s site analysis.

Given its overt engagement with charged social edges, the Neighborhood Patio is considered to be the most socially challenging space; therefore, seating is provided via movable domestic patio furniture. On movable furniture, Whyte writes, “If you know you can move when you want to, you feel more comfortable staying put” (Whyte 1980). Finally the space is connected to the broader design of the Madison Block via the mid-block crosswalk and overhead gumball light, two design features that formally bridge the north and south sides.



NO SCALE





Existing conditions in panorama.



Patio furniture is selected to reflect the domestic nature of the space and evoke the period of historic significance of the Madison Block: 1925 to 1960.

The Neighborhood Patio is connected to the broader design of the Madison Block via the mid-block crosswalk and overhead gumball light, two design features that formally bridge the transition between the Samuel Madden public housing project and the recently gentrified industrial complex.



The exclusionary “No Loitering” sign is transformed into an inclusionary device using historic residential and commercial/industrial artifacts.

Figure 58. Neighborhood Patio, Social Space Design. The most political of the social space designs, the Neighborhood Patio is intended to restore conditions of loitering to the area adjacent to the six-foot impermeable boundary fence at the Samuel Madden public housing project, engaging with socially charged edges and affirming the adaptable character of the Madison Block by transforming exclusionary devices into boldly inclusionary design features.

Loading Dock Arbor

Conflict is observed along the edge marking the abrupt transition between the loading dock/fenced storage area of Alexandria Lighting & Supply and the adjacent detached home on the north side of the Wythe Block. A vine planted in the flower garden of the detached home has reached over the four-foot sidewalk to a nearby utility pole, creating - in a move that might not have been intentional but certainly is successful - a cozy arbor over the sidewalk. When the Wythe Block is redeveloped and utilities are re-located underground, the arbor will be lost. This social-space design seeks to replace it.

The purpose of the social space is to treat two edges on the Wythe Block. First, the design intends to ease the conflict inherent in the edge between the loading dock/fenced storage area and the detached home (Figure 59). Second, the design treats the impermeable boundary of the fenced storage area. Only 16 feet of the 48-foot loading dock are used for loading. The arbor will occupy a portion of the unused space.

The *Braddock Metro Neighborhood Plan* allows for sidewalks to narrow to five feet in special circumstances. The pathway through the arbor takes advantage of this exception, using the narrowed path to create a funneling effect across the transitional edge and produce unobstructed intimacy in the space.

Two four-foot-wide stormwater management BMP tree wells - one in the frontage zone and one in the amenity zone - flank the 5-foot-wide pedestrian zone for a length of 20 feet (Figure 53). American Hornbeam are planted in both wells, six feet on center, and are limbed to create a comfortable arbor for pedestrians. While most of the design elements in this thesis are selected for low maintenance, the proposed arbor will require frequent pruning to provide a space that is cozy and delightful rather than dark and creepy.



A vine from the flower garden in front of the detached home has reached over the existing four-foot sidewalk to a nearby utility pole, creating a cozy arbor that effectively separates the house from the immediately adjacent loading dock/fenced storage area. This image looks west through the arbor toward the loading dock.



Only 16 feet of the 48-foot loading dock are used for loading; the balance is defined by an inactive impermeable boundary fence. This image looks east past the loading dock and fenced storage area toward the arbor.

Figure 59. Loading Dock Arbor, Social Space Design. The Loading Dock Arbor is intended to treat two different types of edges, acknowledge and preserve one resident's character-defining design expression, and bring passing pedestrians together in an intimate, yet unobstructed, moment.

NO SCALE





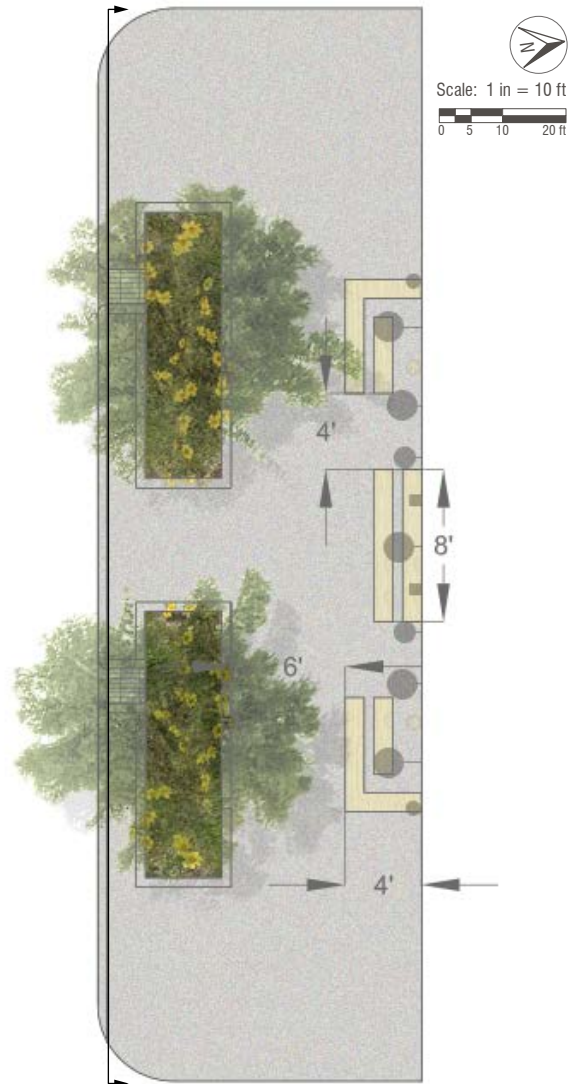
Lighting Supply Lunch

The long, blank wall of the Alexandria Lighting & Supply building is an impermeable boundary requiring treatment. At this edge, the design creates an intimate, lightly shaded picnic area for customers of the Blue & White Carryout, the only location where staying indicative of Bridging Social Capital has been observed in the Braddock Metro Neighborhood (Figure 60). The purpose of this social space is to prolong the staying already occurring at the Blue & White Carryout.

The design is complicated by two factors. First, given the space requirements for sidewalk accessibility and stormwater BMPs, space for seating is quite limited. Therefore, seating must be functional enough to attract patrons while maintaining a very narrow profile. Second, because the Blue & White Carryout has limited hours, this social space is likely to remain empty most of the time, potentially creating socially repellent conditions. Although these restrictions are challenging, the site is ideal because it establishes a clear visual link with the major source of pedestrian activity on the Wythe Block, the Blue & White Carryout, and is immediately adjacent to passing pedestrians on the north-side sidewalk, further expanding opportunities for social mixing.

An installation of simple, prefabricated, neutral-colored bench-table sets is provided for outdoor dining. Each set approximates the depth of one-half of a standard picnic table. The narrow-profile sets are arranged in a variety of configurations to accommodate patrons of all body types. At each end of the installation, table space is wheelchair-accessible. Although the installation provides the function of a set of picnic tables, it does so with an alternate form intended to remain inconspicuous when empty.

Honey Locust planted in two adjacent stormwater BMP tree wells cast intermittent, dappled shade in this intimate, airy plaza. Low-maintenance, drought-tolerant groundcover provides seasonal color. On the blank wall of the Alexandria Lighting & Supply building, a variety of wall lights illuminates the space, acknowledges the adjacent business, and evokes the diversity of architectural styles found on the Wythe Block and throughout Uptown.

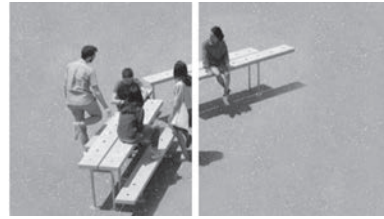


Although the site is ideal for attracting and accommodating patrons of the Blue & White Carryout, space for seating is limited once requirements for sidewalk accessibility and stormwater management BMPs have been satisfied.





The long, blank wall facing the Wythe Block is an impermeable boundary requiring treatment.



Simple, neutral-colored bench-table sets are provided for patrons of the Blue & White Carryout. The furniture offers the function of a picnic table in an alternate, narrow-profile form intended to remain inconspicuous when empty.



Pedestrian-scale wall lights of a variety of styles would be procured from Alexandria Lighting & Supply.

Figure 60. Lighting Supply Lunch, Social Space Design. The Lighting Supply Lunch space is intended to treat an impermeable boundary, evoke the diverse architectural history of the Wythe Block and the Braddock Metro Neighborhood, and prolong staying indicative of Bridging Social Capital.

Church

The impermeable boundary of the historic African-American church on the Wythe Block requires special treatment. The church building, with its chain-link fence and blocked-out windows, appears to make little effort to engage with Wythe Street. However, upon closer observation, engagement is sensed in two ways: 1.) the choir music that seeps through the church walls to the sidewalk on the south side of the Wythe Block during services, and 2.) the apparent maintenance of the City's tree strip as part of the private landscape of the church. Although it is tempting to seek a treatment that masks the impermeable boundary, such a treatment would obliterate the subtle, yet meaningful, forms of engagement that characterize this edge.

The choir music seeping through the church walls is both surprising and special, and it has the potential to capture the attention of passing residents - not with sight but with sound. Listening to the choir from the sidewalk takes work. When traffic is at its peak on Patrick Street, the choir is impossible to hear. However, when traffic on Patrick Street is momentarily detained by the traffic light, the choir becomes fully audible. If the music happens to swell when the traffic is stopped, the experience is breathtaking.

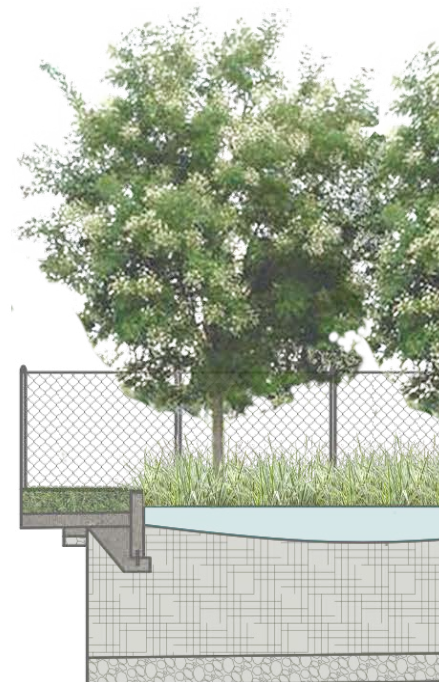
Although the design installs a series of storm-water management BMP tree wells alongside the church, it transplants six existing Japanese Tree Lillacs into these wells, which use variegated Japanese sedge to evoke the existing grass strip. Nestled between two of these trees, just off the six-foot-wide sidewalk, is an oak pew, tucked into the grass with a standard curb to adjust for the eastward sidewalk slope (Figure 61). Rather than face the church, the pew backs to it, allowing for an intimate sound-based exchange. Although the pew is conspicuous, it is not expected to have the same repellent effect as an empty bench because it derives both its form and function from the adjacent church.



An oak pew, rather than a standard bench, is offered to pedestrians who wish to rest and experience the space. The pew derives both its form and function from the adjacent church.



Figure 61. Church, Social Space Design. The Church space is intended to treat an impermeable physical boundary, engage with sonic edges, respect the value of the existing tree strip by emulating its form, and invite passing pedestrians to rest and engage more intimately with their surroundings.





Nestled between two Japanese Tree Lilacs, just off the six-foot pedestrian zone, is an oak pew, tucked into the grass with a standard curb to adjust for the eastward slope.

The historic African-American church, with its chain-link fence and blocked-out windows, does not engage visually with the Wythe Block.



NO SCALE



CONCLUSIONS

This thesis has attempted to articulate a methodology for enhancing spaces in a diverse but gentrifying neighborhood to encourage the formation of Bridging Social Capital among residents of different social groups. At the heart of this methodology is an emphasis on curiosity, empathy, and respect in site selection, analysis, and design.

The Braddock Metro Neighborhood has a long and complicated history, with stories of citizenry and achievement tempered by stories of structural racism and displacement. The few pockets of diversity that remain in this redeveloping neighborhood are exceptionally fragile; in response, the proposed design offers a collection of careful, small-scale design interventions. This thesis argues that the New Urbanist redevelopment framework set forth in the *Braddock Metro Neighborhood Plan* is detrimental to the diversity it seeks to foster because it is far too broad to recognize - and therefore cannot protect - the treasure of special features and social conditions that form neighborhood character.

Diversity, in addition to being a fragile condition, is a difficult one. To achieve Bridging Social Capital, residents must acknowledge and transcend social divides. Therefore, designed spaces must not only invite residents to build bridges but also support those residents as they work to reach across.

MORE RESEARCH NEEDED

The thesis design has been developed without the benefit of participatory planning. The author chose not to solicit input from neighborhood residents given the evidence of study fatigue, especially among residents of public housing projects, gleaned from the City's numerous plans for the Braddock Metro Neighborhood. A participatory planning process - particularly one that gives agency to previously underrepresented social groups - would be expected to enhance the proposed methodology. However, it is unclear how a participatory planning process might fit within a design methodology that, admittedly, seeks to produce spaces that evoke a certain amount of discomfort among residents as they undertake the difficult process of connecting with one another.

More research is needed on the role of participatory planning in social design. In his studies of social spaces in New York City, Whyte found a discrepancy between the types of spaces residents said they preferred and those they actually inhabited: while those interviewed by Whyte and his team frequently asked for quiet spaces offering an escape from city life, they persistently abandoned those spaces in favor of vibrant, socially lively ones (Whyte, 1980). Whyte's findings, which question the reliability of participant input, are further complicated by the observations of Talen and Lee, which suggest that participatory planning efforts in diverse neighborhoods have a tendency to reinforce rather than transcend social divides:

Planning for places currently composed of a complex mix of people requires something beyond inclusive exchange, or a focus only on empowering the under-represented. Because engagement in the planning process always runs the risk of being motivated by a desire for group self-preservation - protecting one group from another in ways that are not mutually reinforcing - something more strategic is required. Those advocating various consensus-building approaches have recognized that dealing with diversity is likely to require something beyond merely democratizing and opening-up public engagement, or simply having a more broad-minded view about the legitimacy of alternative cultural expressions. What needs to be worked out is an approach that enlists ideas about consensus-building and collaborative planning in ways that support socially diverse neighborhoods specifically. (Talen & Lee, 2018)

It stands to reason that if a design methodology seeks to encourage residents to undertake the difficult process of connecting, then any associated participatory planning effort must do the same. Otherwise, it can be assumed that participants in isola-

tion from one another will seek comfort in designed spaces, favoring frameworked conditions of predictability and movement over the more demanding conditions of diversity and loitering.

Further complicating this dilemma is the possibility that participants might tolerate a challenging and uncomfortable planning process only to see the resultant design intervention fail. Social design embodies risk. As this thesis has attempted to demonstrate, urban spaces are rarely comparable: physical features and social conditions vary dramatically, even within the same city block. A careful design intervention backed by a breadth of research, even one with precedent, still might fail to meet the designer's goals for social mixing. If the space becomes empty - or repellent - it could create social conditions worse than those it sought to remedy. Therefore, this thesis advocates for a methodology inclusive of practice-based research and experimentation with built forms in social spaces. Whyte writes:

Rarely will you ever see a plan for a public space that even countenances the possibility that parts of it might not work very well: that calls for experiment and testing, and for post-construction evaluation to see what does work very well and what doesn't. (Whyte, 1980)

Several of the social spaces proposed in the thesis design are low-cost, pocket-park endeavors appropriate for construction using City funds or community benefit dollars collected from developers and generated through tax-revenue increases in the Braddock Metro Neighborhood. These designs are not dependent on large-scale redevelopment; rather, they are designed to nestle into existing spaces, offering immediate opportunities for protecting fragile conditions of diversity while the Madison and Wythe Blocks are transitioning. Certain designs are modular - and therefore easily modifiable or removable - should they be observed to fall short of achieving their social goals.

More research is needed on the extent to which private and semi-private amenity spaces might impact the success of neighborhood open spaces. The *Braddock Metro Neighborhood Plan* does not appear to regulate amenity spaces in redeveloped town homes, condominiums, or apartments. However,

such spaces - particularly when they are hidden from public view on rooftops or placed behind impermeable boundaries - might have a detrimental effect on the use and vitality of neighborhood open spaces. First, given that people are attracted to other people in open spaces (Gehl, 2011; Whyte, 1980), the decision to hide any form of outdoor social gathering - even when it is private or semi-private - is a missed opportunity to attract residents into the public realm. Second, the provision of shared amenity spaces within individual residential areas (i.e., within patterns of everyday activity) discourages residents from venturing into the public realm for similar amenities (Gehl, 2011). Third, when amenity spaces are provided in communities that are not overtly mixed-income, such spaces encourage gathering among largely homogeneous, typically middle-income, groups, further discouraging these residents from venturing into the public realm to engage in more challenging forms of heterogeneous social mixing. As a result, public open spaces might also begin to attract relatively homogeneous groups of residents; specifically, those who lack access to private or semi-private amenity spaces.

In general, there appears to be a lack of sociological data available on the social effects of designed spaces. There is precedent for observing open spaces in the Braddock Metro Neighborhood: the City is monitoring the use and popularity of the Braddock Interim Public Open Space to inform the design of the future central park. Tools like the Gehl Institute's Social Space Survey (Gehl Institute, 2019) could help guide observations by city staff or volunteers. Indeed, by recruiting residents from diverse social groups to observe open spaces, the City might see a number of benefits, not only generating more comprehensive data but also encouraging participating citizens to more fully sense the spaces - and neighbors - around them.

It is important to recognize, however, that social-space performance data cannot be isolated to design. Rather, these data reflect the complexities of human relationships in the urban environment. Design alone cannot eliminate exclusion in American cities, but with every exchange of Bridging Social Capital fostered in a special urban space, perhaps residents can become neighbors, working together to sense one another and build a more inclusionary future.

THESIS DESIGN DEFENSE

The thesis design was presented and defended at Virginia Tech’s Washington-Alexandria Architecture Center (WAAC), in Alexandria, Virginia, on 16 August 2019 (Figures 62 through 65). Drawings, models, and other materials were scaled to achieve an immersive, experiential effect that would best articulate the special features and character of the Braddock Metro Neighborhood and the selected site to committee members and attendees.



Figure 62. Research and Orientation, Thesis Defense. The author introduces the Braddock Metro Neighborhood and describes the three strategies proposed by the City of Alexandria’s Braddock Metro Neighborhood Plan to affirm neighborhood character and connect diverse residents.



Figure 63. Site Assessment Results shared as an Immersive Experience, Thesis Defense. Site Assessment results were shared in a way that allowed thesis committee members and defense attendees to experience the special features and character of the Madison and Wythe Blocks prior to contemplating the author’s proposed design interventions. Participants were able to stand in each plan and contemplate each annotated section at eye level.



Figure 64. “Loitering” Sign, Full-Scale Model, Thesis Defense. The author created a full-scale model of the “Loitering” sign proposed for the Neighborhood Patio on the Madison Block.



Figure 65. Streetscape Interventions in Iteration, Thesis Defense. The author reviews a series of roll charts, which illustrate each iteration of streetscape design and compare design decisions made at the Madison Block with those made at the Wythe Block.



Figure 66. Bridging Social Capital, Braddock Metro Neighborhood. Hope is conveyed through design in this spectacular neighborhood garden.

POSTSCRIPT

For the past 18 months, I have been researching race-based and class-based exclusion in urban design. This research not only revealed gaping holes in my understanding of America's racialized history but also produced a profound shift in my belief system.

When I began pursuing a Master's degree in Landscape Architecture, I viewed my future profession through rose-colored lenses. As a designer, I thought, I would focus my talent and energy on good deeds: making beautiful, healing spaces for people. My research has darkened those lenses considerably. While designers certainly are capable of good deeds, they also have been complicit in destroying people's lives, for generations, through displacement, manipulative planning, and exclusionary design. People of color have lost homes, property, and generational wealth at an astounding scale and continue to be devastated by low- and middle-income housing crises in American cities. Such losses have been attended by lawmakers, planners, and designers.

Thus, as my research progressed, I began to see design as legitimately risky. Worse, I sensed that design practiced in ignorance is particularly dangerous - reckless, even. As I came to understand the extent of my own ignorance, I lost hope.

I have since discovered there are plenty of jobs you can do when you are hopeless, but design is not one of them. I stalled, for more than a year. Although I was still studying, observing my thesis site, and drawing, I was entirely unable to design. I could no longer create. My drawings became overwhelmingly responsible and wholly dedicated to reproduction and documentation: no beauty, no healing, no risk.

In the Braddock Metro Neighborhood, there is one unit in one public housing project with the most spectacular side-yard garden I have ever seen. Vines, shrubs, and vibrant silk flowers share space with hundreds of artifacts: pottery, toys, statuary, tables, chairs, benches, exercise equipment, plastic bins, and amorphous, tarp-covered mounds. The garden bursts forth in every way possible, yet it also exhibits careful curation, with its decorative artifacts grouped, stacked, and oriented toward the street. Through every season, it captivates.

I visited this garden every time I visited the neighborhood, and it stayed in my thoughts long after I returned home. Early in my site analysis, I hoped this garden would be one of many: bright, shiny clues studded along neighborhood streets. Quickly I understood the garden to be a singular phenomenon, a great body of individual expression unlikely to convey information at a neighborhood scale. Yet, it stayed in my thoughts. After several months, I dedicated a few evenings to representing the garden so I could sense it more fully (Figure 66). As with most of my work at that time, it is a faithful reproduction of the original design, largely free from my creative input. When the work was finished, I put it away. I couldn't explain how it pertained to my thesis. I couldn't explain why it mattered.

I know now why it matters: this is the work that allowed me to move from research into design. Kevin Lynch asserts that no two people experience the same urban space in the same way. We project ourselves onto everything and everyone we encounter. And - to be clear - I am projecting here.

I have not met the woman who designed and created this garden, and - frankly - I'm merely assuming the designer is female. I know nothing about her, but I do know something of her circumstance. I know she is a public housing recipient. I know this house and this land are not hers; they belong to the Alexandria Redevelopment and Housing Authority. At any given moment, then, the Authority could choose to remove this garden from its property.

The woman who designed this garden stands to lose the entirety of her creation, but this is not the garden of a woman managing risk. This is the garden of a woman persisting. When I sense this garden, I feel hope.

This exchange is an expression of Bridging Social Capital conveyed through design. At the edge of this garden, I stopped, I stayed, I sensed, I felt the hope that was shared with me, and I was moved to design other hopeful spaces in this neighborhood. As I continue to confront my ignorance and reject race- and class-based exclusion as an emerging designer, I now do so with hope.



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FIGURES AND SOURCES

Cover Image. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018.

Figure 1. No Trespassing or Loitering. Created by author. Replicate of the sign mounted to the brick facade of a Samuel Madden Public Housing building, observed from Madison Street, Alexandria, VA.

Figure 2. Braddock Metro Neighborhood in Alexandria, Virginia. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018. Map information retrieved from City of Alexandria, 2008a and “*2010 Census Tracts, City of Alexandria, VA*” (alexandriava.gov/uploadedFiles/gis/Tracts2010_DSize.pdf).

Figure 3. Border, Braddock Metro Neighborhood. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018. Map information retrieved from City of Alexandria, 2008a.

Call-Out, Page 5: Mixed-Income Communities. Created by author. References cited in graphic.

Figure 4. Redevelopment, Braddock Metro Neighborhood. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018. Map information obtained from City of Alexandria, 2008a,b and site observations made by the author in late 2018.

Figure 5. James Bland/Old Town Commons. Photographs retrieved from ULI, 2014.

Figure 6. Ramsey Homes. Photograph by Vernon Miles, Alexandria Gazette. Retrieved from alexandriagazette.com/news/2016/mar/10/alexandria-ramsey-reconsidered.

Figure 7. Samuel Madden and Andrew Adkins. Samuel Madden photograph taken by author. Andrew Adkins photograph retrieved from vhdlc.us/andrewadkins.

Call-Out, Page 8: Social Capital. Created by author. References cited in graphic.

Call-Out, Page 10: What is an Edge? Created by author. Reference cited in graphic.

Call-Out, Page 11: Pruitt-Igoe and the Defensible Space Theory, A Design Legacy. Created by author. Text references cited in graphic. Images of building implosions retrieved from Public Domain, HUD, April 1972, wikipedia.org/wiki/Pruitt%E2%80%93Igoe#/media/File:Pruitt-igoe_collapse-series.jpg. Image of Etta McCowan in her apartment photographed by Floyd Bowser for the St. Louis Post-Dispatch, April 1967, retrieved from stltoday.com/news/archives/the-day-they-blew-up-pruitt-igoe/collection_290fedcd-0458-5b59-9017-23e81e4911e5.html#9. Image titled “Actual 3rd floor communal corridor of Pruitt-Igoe” photographed by Oscar Newman, retrieved from defensiblespace.com/book/illustrations.htm.

Figure 8. Parker-Gray School. Photograph retrieved from theotheralexandria.com/2018/08/02/remembering-parker-gray-school-from-1920-1965.

Figure 9. Historic Borders, Braddock Metro Neighborhood. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018. Braddock Metro Neighborhood border drawn from City of Alexandria, 2008a. Uptown/Parker-Gray Historic District border drawn from City of Alexandria, 2012. Colored Rosemont and The Hump borders derived from Moon, 2016 and NPS, 2015.

Call-Out, Page 14. Uptown/Parker-Gray Historic District. Created by author. References cited in graphic.

Figure 10. Historic Preservation through Interpretive Signage. Photographs taken by author.

Figure 11. Social Housing. Poster created by Beall, L., 1941. U.S. Government Printing Office. Image retrieved from invaluable.com/auction-lot/lester-beall-1903-1969-cross-out-slums-1941-117-c-365c75c012.

Figure 12. Substandard Housing. Photograph retrieved from ARHA, 2012.

Call-Out, Page 17: Neighborhood Racial Demographic Trends, 1960-2010. Created by author. Data for bar chart obtained from Social Explorer, 2019.

Call-Out, Page 19: Diverse or Gentrified? Created by author. Reference cited in graphic.

Figure 13. Public Gathering Places, Braddock Metro Neighborhood. Created by author. Base Image: Google Earth, Imagery Date: 30 April 2018. Map information obtained from City of Alexandria, 2008a and site observations made by the author in late 2018.

Figure 14. Braddock Interim Public Open Space. Images retrieved from City of Alexandria, 2018.

Figure 15. Privately Owned Public Spaces. Photographs taken by author.

Figure 16. Delivery Diversion Signs. Photographs taken by author.

Figure 17. Sidewalk Widening. Images created by author. Base photographs (existing and redeveloped sidewalks) taken by author.

Figure 18. Heavy Traffic, Route 1. Photographs taken by author.

Figure 19. Inventory, Madison Street. Created by author. Photographic collages taken and assembled by author. Traffic noise monitored using the NIOSH Sound Level Meter (CDC, 2019). Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Map information obtained from google.com/maps, zillow.com, trulia.com, NPS, 2011, and site observations made by the author in early 2019. Key map base imagery: Google Earth, Imagery Date: 30 April 2018.

Figure 20. Inventory, Wythe Street. Created by author. Photographic collages taken and assembled by author. Traffic noise monitored using the NIOSH Sound Level Meter (CDC, 2019). Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Map information obtained from google.com/maps, zillow.com, trulia.com, NPS, 2011, and site observations made by the author in early 2019. Key map base imagery: Google Earth, Imagery Date: 30 April 2018.

Figure 21. Public Housing Fencing. Photographs taken by author.

Figure 22. Welcome Sign, Belle Pre Plaza. Photograph taken by author.

Figure 23. Street Trees, Madison and Wythe Streets. Photographs taken by author.

Figure 24. Staying, Blue & White Carryout. Photograph taken by author.

Figure 25. Site Selection. Cropped segments of Figures 19 and 20.

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- Figure 30. Lighting, Selected Site.** Created by author. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Information obtained from site observations made by the author in early 2019. Key map base imagery: Google Earth, 30 April 2018.
- Figure 31. Edges and Staying, Selected Site.** Created by author. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Information obtained from site observations made by the author in early 2019. Key map base imagery: Google Earth, 30 April 2018.
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- Figure 33. Spiked Fence Tops Removed, Samuel Madden.** Photograph taken by author.
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- Figure 39. Conflict in Transitional Edge.** Photograph taken by author.
- Figure 40. Blue & White Carryout.** Retrieved from City of Alexandria, 2008a.
- Figure 41. Beautification.** Photographs taken by author.
- Figure 42. Redevelopment Precedent, Braddock Metro Neighborhood.** Photograph taken by author.
- Figure 43. Pedestrian-Scale Lighting.** Photograph by author. Image of colonial fixture obtained from Virginia Dominion Power, dominionenergy.com/large-business/outdoor-lighting/led.
- Figure 44. Sidewalk Scoring Precedent.** Images created by author. Base photographs (existing and redeveloped sidewalks) taken by author.
- Figure 45. Example Scenario: Neighborhood Plan Design Guidelines.** Created by author. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Map information obtained from City of Alexandria, 2008a. Key map base imagery: Google Earth, 30 April 2018.
- Figure 46. Example Scenario: Neighborhood Plan Design Guidelines, Concept Elevation.** Created by author. Structural linework traced over photographic collages created by author. Information obtained from City of Alexandria, 2008a.
- Figure 47. Infrastructure, Proposed Design.** Created by author. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Information obtained from City of Alexandria 2008a, 2014, and 2016. Key map base imagery: Google Earth, 30 April 2018.
- Figure 48. Infrastructure, Proposed Design Elevation.** Structural linework traced over photographic collages created by author. Information obtained from City of Alexandria 2008a, 2014, and 2016.
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- Figure 51. Lighting, Proposed Design.** Created by author. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Key map base imagery: Google Earth, 30 April 2018. Light fixtures referenced in Figures 43 and 50.
- Figure 52. Lighting, Proposed Design Elevation.** Structural linework traced over photographic collages created by author.
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- Figure 55. Social Spaces, Proposed Design.** Created by author. Portions of Figures 47, 51, and 53 displayed. Base imagery traced over City of Alexandria GIS Dataset, 24 January 2019, from alexandriava.gov/data/GIS. Key map base imagery: Google Earth, 30 April 2018.
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- Figure 60. Lighting Supply Lunch, Social Space Design.** Top left design image created by author using Figure 55 as a base image. Middle design image created by author using Figure 47 as a base image. Site photograph taken by author. Example site furniture (RAI) images by Landscape Forms. Retrieved from landscapeforms.com/en-US/product/Pages/rai-bench.aspx. Wall light imagery retrieved from alexandrialighting.com.
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