IDENTIFICATION OF HISTORIC STREETSCAPE FEATURES IN THREE OF TUCSON’S NATIONAL REGISTER OF HISTORIC PLACES DISTRICTS: BARRIO ANITA, WINTERHAVEN, AND COLONIA SOLANA

By

WYATT JOHN BERGER

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M A Y 2 0 1 9

Approved by:

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Joseph Iuliano

College of Architecture, Planning, and Landscape Architecture
Abstract

Historic preservation is often at odds with new development in the United States because of individuals’ and developers’ belief that “newer is better.” Part of the historic built environment includes historic streetscapes features such as sidewalks, utilities, heritage trees, fences and walls, driveways, and views and vistas. While Tucson, Arizona does have support for preservation via Certified Local Governments, zoning ordinances, and community involvement, there is no programming for historic streetscape preservation. With the destruction of historic buildings and other features to make way for wider streets and large-scale housing and office spaces, cultural resources are threatened. Though new development may be good in creating a stronger infrastructure, historic preservation supports the idea of a “sense of place” as well as sustainable benefits most individuals fail to see. This study aims to analyze the importance of historic streetscapes in three of Tucson’s National Register of Historic Places districts by using personal observations, community participation, and digital mapping techniques.
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Introduction

Historic preservation saves historic buildings, structures, and sites to promote cultures, histories, and sustainable practices (Getty Conservation Institute, 2011). Preservation requires planners and local governments who are knowledgeable of mitigation techniques to prevent the destruction of sites. These techniques include adaptive use, heritage tourism, and energy-efficient technologies to educate the general public about the benefit of historic resources (Andrews et al., 2016). In many American cities, the most significant threat toward historic preservation is public and private stakeholders who devise new development plans without prior knowledge of cultural, social, and historical resources (Bernstein & Hansen, 2016). While historic resources often fall short in terms of energy use, building codes, and relationships to the community, the benefits of preserving these historic resources exceed these shortcomings. Since much of preservation relies on volunteer hours and nonprofit organizations, new development is often perceived as a higher priority in community and downtown revitalization rather than preservation via adaptive use methods (Minner, 2016, p. 73).

According to Yung and Chan (2012), one of the greatest arguments for historic preservation is its inherent sustainability. Within a construction perspective, material conservation from preservation implies that fewer materials will go into landfills from a building’s demolition and reconstruction. Donovan Rypkema (2007), an economist working in conjunction with preservation, reveals that one-third of all national waste is building materials, and predicts that 27% of existing buildings will be torn down between 2000 and 2030. Rypkema also claims that older housing is most affordable for low-income families, where the destruction of these resources negatively impacts social and economic structures of families with few housing options (Rypkema, 2007).
In the context of the research area of Tucson, Arizona, community revitalization of the downtown area has raised controversy for decades. In 1966, an urban renewal plan in downtown’s Barrio Viejo neighborhood was adopted during a time when a majority of the nation’s Central Business Districts were in decay. Tucson’s urban renewal efforts specifically targeted low-income Hispanic families in the barrio by demolishing architectural, historical, and cultural resources that were nearly one hundred years old (Otero, 2010). With this event still engrained in the minds of the descendants of the original barrio, Tucson’s community revitalization should be paired with preservation in a process that aims to produce better social, environmental, and economic sustainability.

Many of Tucson’s larger roads and boulevards have been in place since the early twentieth century and have witnessed many residential and commercial development patterns. In recent decades, Tucson has made plans to widen these roads for anticipated traffic increases by removing the historic streetscape elements that once defined thoroughfares such as Broadway Boulevard and Grant Road. These historic streetscapes consist of visual elements such as street lighting, setbacks, historic signage, property boundaries such as fencing, as well as views, vistas, and vegetation patterns (Texas Historical Commission, 2011). Within the National Historic Preservation Act of 1966, streetscape features are often ignored in listings in the National Register of Historic Places. Since these features are not protected under this law from demolition, they are at risk of being removed and replaced by newer features that do not carry the same aesthetic qualities for the district.

Streetscape features contribute to an area’s genius locus, or “sense of place.” This concept, originally applied to Romantic landscapes, has now shifted into the paradigm of urbanism (Jivén & Larkham, 2003). The “sense of place” may be a block, district, or region that conveys
authenticity, history, or cultural value to residents and tourists. These placemaking settings bring people to their spaces due to their “attraction which gives us a certain indefinable sense of well-being and which we want to return to, time and again” (Jivén & Larkham; Jackson, 1994, p. 158). With this term common between contemporary urban planners and architects, their attempts for *genius locus* can be destructive due to the removal of historic features. The lack of these historic elements will change people’s perceptions of the spaces and not bring people to them anymore.

In efforts to avoid these destructive effects, streetscape projects have been, or are in the process of, being developed in Tucson’s historic core. These include a residential streetscape project using mapping application software in Armory Park, as well as project plans being proposed for Historic Fourth Avenue. As many parts of Tucson are a composite of both residential and commercial activities, these projects create a mutual understanding of the two urban identities. When such neighborhoods are represented as historically significant under the local, state, and Federal levels, these smaller features give the areas *genius locus* and an enhanced historic fabric. If environmental problems and social attitudes toward demolition are mitigated, city governments and citizens will have the potential to save building materials, small historic features, and act as a leading contributor to revitalization.

Parts of the introduction and literature review were pulled from prior research with instructor and department guidance and consent. This thesis aims to start a streetscape inventory for three of Tucson’s many architecturally, economically, and socially diverse neighborhoods. Social sustainability is one of the more essential parts of a preservation plan because of the drastic effects that occur when historic features lose their integrity. The historic neighborhoods chosen include Barrio Anita (historically Hispanic and lower-income), Winterhaven (a middle-class suburban development), and Colonia Solana (an upper-class subdivision). The ultimate hypothesis
for this thesis is that it is possible to develop streetscape inventories that unite multiple areas of town in the context of preservation and sustainability. This plan must incorporate the individuals who inhabit and use the space as well as how residents interact with the historic built environment. As much of the historic barrio in Tucson was destroyed in the mid-1960s, it should this thesis’ motive to make sure that such a destructive action does not occur again via streetscape inventories.

**Literature Review**

**Nationwide Beginnings**

The historic preservation movement in the United States began in 1853 when Ann Pamela Cunningham started an association to save George Washington’s home, Mount Vernon (Johnson 1953). Saving historic structures and sites was originally intended for prestigious architecture such as Mount Vernon, but historic preservation now incorporates every day “vernacular” architecture. Nationwide historic preservation efforts began in 1916 when the National Park Service under the Department of the Interior was created to protect natural and cultural resources (King, 2013). Protection of cultural resources expanded to architecture and engineering when the National Historic Landmarks program started in 1935. This program recognizes the value of the nation’s most important buildings, sites, and structures. Additionally, NPS also administered two Federal programs for preservation: the Historic American Buildings Survey (HABS) for documenting historic buildings, and the Historic American Engineering Record (HAER), for important engineering structures (171). NPS also added the Historic American Landscape Survey (HALS) in 2000, which promotes and recognizes key landscapes where historic events occurred (172).

The most influential historic preservation program is the National Historic Preservation Act of 1966. The NHPA expanded the practice of preservation by creating the National Register of Historic Places. This list of resources honors properties that are at least fifty years old and are
important on the local, state, or federal level. Places listed on or eligible for the NRHP include buildings, sites, structures, objects, and districts (National Historic Preservation Act of 1966, 1992). The NHPA also decentralized the historic preservation movement with State Historic Preservation Offices that assess nominations and assist with the Section 106 process. This process considers the effects of a Federal undertaking when a Federal agency might affect a historic property during construction of a public works project, a road, or a Federal facility. To encourage preservation specifically linked to residential areas, each state’s SHPO works in conjunction with the NPS by enacting the Federal Historic Preservation Tax Incentives program. This community revitalization program encourages homeowners to rehabilitate their property through tax incentives for repair (National Park Service, 2012). Funds may also be allocated for private developers and investors to increase property values, generate jobs for repairmen, keep labor local, and enhance the historic built environment.

Despite the intended use of preservation as a planning tool, critics often mention that historic preservation (specifically in historic districts) is anathema to new development and is a cause for gentrification in cities. According to Elizabeth Tisher (2017), historic districts work in conjunction with local governments to ensure that new development is complementary with the historic built environment and not alter historic integrity. With preservation seen by critics as exclusionary toward low-income social groups, around 60% of all buildings eligible under the NRHP are located in census tracts with more than 20% of the population below the poverty line (Tisher, 2017; Rypkema, 2002). Evidence of the false relationship between gentrification and preservation comes from the Historic Districts Council, which reported the effects of historic district status on affordable housing in New York City’s boroughs. The study noted that while
rents increased in historic districts between 1970 and 2010, the rise in rents was slower in areas of the city recognized as NRHP districts (Historic District Council, 2016).

**Social Sustainability**

Social sustainability regarding historic preservation is generally emphasized with high importance, although little research has been conducted. According to previous research, preservation fosters community cohesion and pluralism of diversity, inclusivity, and citizen participation (Avrami, 2016). People intermingling with historic preservation often bring a site or district a “sense of place” that is geographically or architecturally distinct. This “sense of place” can be developed through a building or streetscape’s workmanship, conveyance of information, or association. When new development affects historic, low-income neighborhoods, it is up to preservationists to advocate for social causes and help underserved groups within the neighborhood (Lee 2000). Preservation may be associated with traditional and prestigious glamor, but it is necessary to change the stigma and have it inclusive of multiple social groups.

**Environmental Sustainability**

When older buildings are preserved or kept, they often require some change in their energy efficiency as well as maintenance and repair work for building safety (Franzoni, Volpi, Bonoli, Spinell & Gabrielli, 2018). Although historic buildings may be less energy-efficient than new development, this cost pales in comparison to the more than one billion square feet that have been demolished and rebuilt in the United States (Hu, 2016). Regarding the repair and renovation for historic buildings, there is some, but not much, environmental impact involved due to materials extracted and put in place for retrofitting. One well-known example of historic rehabilitation in the Tucson area is the renovation of Old Main, a turn-of-the-century building on the University of Arizona campus. As the building was left to deteriorate due to a lack of upkeep, a large grant was provided for rehabilitation and restoration of outdated mechanical, electrical, and carpentry
systems. This replacement of older materials and systems helped to create a more energy-efficient building while preserving its historic integrity and façade (Arizona Board of Regents, 2016). While the renovation of Old Main was expensive and extensive, this building is now LEED certified and operates at an efficiency similar to new construction. With more a billion square feet of building space that is destroyed and redeveloped, the need for historic preservation to work in conjunction with environmentalism and energy-efficiency is stronger than ever (Hu, 2016).

**Economic Sustainability**

Research has shown that historic preservation goes far beyond the environmental and social pillars of sustainability. Many studies have been done to express that preservation does not hinder economic development and is a powerful tool for urban areas (Laurie, 2008). Despite this evidence, some urban development advocates and planners are convinced that historic preservation does not coincide with the nation’s growing economy. However, according to Powe, Mabry, Talen & Mahmoudi (2016), the presence of *older and smaller buildings* mixed with *newer development* correlates with greater population density, lower median age of residents, greater age diversity, and higher numbers of jobs within small businesses. These findings present the notion that preservation is associated with the successes and diversity of the younger generations. Historic preservation can also act in conjunction with heritage tourism, which involves “traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present” (National Trust for Historic Preservation, n.d.). Many communities and places around the world aim to communicate their past cultural values to visitors and market these resources for economic benefit. In essence, historic preservation often acts as a conduit to add economic diversity to struggling areas (Ramos, Stoddart & Chafe, 2016).
Historic Preservation in Tucson, Arizona

In the context area of Tucson, Arizona, historic districts under the NRHP began with five district nominations during the 1970s: Armory Park, El Presidio, West University, Fort Lowell, and Barrio Libre (City of Tucson, n.d.). These original districts now have the distinction under local zoning ordinances as Historic Preservation Zones (HPZs). This zoning ordinance enables the city’s planning department to have homeowners comply with specific standards for alterations, demolition, and new construction (City of Tucson, n.d.). In addition to these five HPZs, 39 districts have been nominated for the NRHP, with two districts listings in progress as well as 95 individually listed properties. Many of the city’s historic districts range in ages and periods of significance. Tucson’s earliest neighborhoods date back to the 1880s when the arrival of the railroad brought new goods, services, materials, and an increased standard of living. This introduction of materials and sanitation changed the entire urban fabric of Tucson. New architectural styles were imported from the East, and the Sonoran rowhouse style was not the primary dwelling style (Parkhurst et al., 2002). Many of Tucson’s other historic districts are linked to post-war development patterns, where new technology was a factor for increased development of the suburbs (Evans & Jeffery, 2005). These new technologies at the forefront of American suburban growth included steel and reinforced concrete, which allow homes to be built efficiently and quicker. By 1950, the primary force for new developments in Tucson was the automobile, which allowed a living space outside of downtown, new street networks, and housing separated from work.

Barrio Anita

The first National Register of Historic Places district analyzed is Barrio Anita. Located approximately one mile northwest of downtown Tucson, the majority of the population is Hispanic with generational roots in Tucson. By 1920, most of Barrio Anita’s historic buildings were
constructed; however, by the end of the Second World War, many of the older residences were derelict and eventually demolished (Reider, 2011). Despite this destruction, the majority of the neighborhood still retains its historic integrity. Dwellings built before 1920 are one-story Sonoran rowhouses with simple adobe massing and flat roofs. Other building styles incorporated into the community include some Queen Anne style as well as other Anglo-American designs imported from the East Coast.

Regarding Barrio Anita’s streetscape composition, the placement of dwellings on their lots is fluid. Older Sonoran rowhouses typical of the traditional Hispanic styles are often built flush to the lot, meaning there is none or very little divide between the action in the street and the household. Other Anglo-American setbacks are deeper and give a greater sense of privacy for the homeowner. The typical Hispanic-influenced chain link fence divides public from private and are often low in height to semi-enclose small front yards. In contrast, parcels with traditional Anglo-American styles do not include a fence at the front of the property; instead they incorporate a tall stuccoed masonry wall. Barrio Anita still portrays a scenic semi-rural feeling throughout the neighborhood because of the variability in lot size as well as vacant parcels that open up views and vistas.

Regarding the neighborhood’s period of significance concerning streetscape composition, much of the historic integrity of the streetscapes has been retained, particularly along Anita Avenue. Some sidewalks exist in the neighborhood, but their condition is variable as older sidewalks are either in fair or good condition. There is a semi-rural atmosphere of the space outside Anita Avenue, which includes minor avenues such as Van Alstine that have the railroad tracks adjacent to the street. Changes to the neighborhood’s character have mostly been due to the demolition of derelict properties as well as the construction of the Interstate 10 freeway. This
highway system completely alters the integrity of the neighborhood with a large wall to separate the freeway from the residences.

**Winterhaven**

The Winterhaven historic district is located around four miles northeast of downtown Tucson and bound by major streets such as Fort Lowell Road and Tucson Boulevard. Composed of hundreds of modern style homes, the design mirror the Midwestern mid-century suburbs with extensive green vegetation and lawns (Fox et al., 2003). Winterhaven was first conceptualized as early as 1947 by C.B. Richards who wanted to design a neighborhood similar to Shaker Heights, Ohio and acquired land from a fertilizer company to accommodate Tucson’s high-paced growth (Richards, 1989; Rutherford, 2002). The neighborhood was first platted in 1949 when the automobile emerged as a symbol of wealth. With this trend, the majority of homes have a carport in the driveway visible from the street (Fox et al., 2003). Winterhaven is significant because it is part of a nationwide trend of post-war suburbanism.

Additionally, Winterhaven was first in creating a subdivision in Tucson with Midwestern planning and aesthetic values. The neighborhood’s architecture is composed of numerous ranch-style houses that define the neighborhood and create a cohesive unit. Winterhaven was designed with a curvilinear street network as well as lush non-native landscaping with green lawns. For the continuation of green lawns in a desert environment, Winterhaven incorporated its own water company to take care of sewage, trash, and upkeep of the Winterhaven Well. Culturally, Winterhaven is significant in the local area because of its Christmas themed lights show put on by each homeowner of the subdivision. The inspiration for the Festival of Lights stems from the developer’s visit to a light display show in Beverly Hills, California. Even today, Winterhaven embodies the traditional post-war attitudes toward living in a community with events and other ways to get outsiders into Winterhaven.
Winterhaven’s streetscapes have the same historic integrity as they did during the 1950s and their period of significance. The same Aleppo pines planted in the neighborhood during the 1950s remain in the neighborhood (Fox et al., 2003). When the streets were first paved, Christmas Avenue (one of the main streets of the subdivision) would act as an arroyo and channel the water to other natural drainages outside of Winterhaven’s boundaries (Fraesdorf, 1949). Other features listed in Fraesdorf’s pamphlet for Canyon State Land Company include “13 strategically placed [fire hydrants] to protect every lot,” two-inch thick paving, six-inch rolled curbs, 22 street lights, street landscaping, and security. Additionally, the neighborhood was also advertised as “private residence only” with no trailers or temporary houses allowed on the premises. Figure 1 in the appendix shows the original document and master plan detailing Winterhaven’s amenities.

One change to the neighborhood’s streets since its creation is the storms drains added to Christmas Avenue during the late 1950s. The addition of storm drains did not give Christmas Avenue the ability to channel water like it originally did. Despite Winterhaven being designed during post-war development that caused an increasing dependency on the automobile, the streets are fairly walkable due to the Aleppo pine shade, vistas and views, and wide streets that accommodate both the automobile and pedestrian. An interesting traffic concept seen in Winterhaven and not in Colonia Solana nor Barrio Anita is the use of T-intersections rather than four-point intersections. These T-intersections have the capability of slowing down vehicles and create extra leisure for those who might be walking in the neighborhood. The isolated and large lot sizes of the neighborhood provide a low-density space that ultimately privileges modernism and the desire for more space, while also allowing for comfort, modernity, and lush landscaping.

**Colonia Solana**

Colonia Solana, the last historic district for this research, began its development in 1928 as Tucson’s first suburb. Being on the outskirts of town during the 1920s, the neighborhood’s
circulation networks are unique through a curvilinear street design that employs an *arroyo* running diagonally through it (Comey, 1988). Referred to as “The Sunny Colony,” the neighborhood bears its name from Stephen Child, the landscape architect who studied under Frederick Law Olmsted and ultimately designed Colonia Solana (Barrow, 1986; Comey, 1988). Developed at the same time as the nearby El Encanto Estates (another historic district), El Encanto had its grounds-keeping team to take care of the landscaping; Colonia Solana, on the contrary, required all homeowners to landscape their yards. Deviating from typical suburban planning designs, Stephen Child explained that his concept of Colonia Solana was to include a “rather typical desert country with a gentle slope and containing one important *arroyo* and two minor ones.” Unlike other parts of historic Tucson, Childs chose not to fill in the *arroyos* and decided to emphasize their prominence in the landscape, describing how “[t]here will therefore be no uncomfortable jounce, but rather the very agreeable sensation one has when riding that surf at Waikiki” when driving into the *arroyo* (Barrow, 1986, p. 12; Childs, 1928, p. 6). Additionally, Childs discussed the importance of the “Arroyo Chico Parque,” a half-mile long pathway along the major *arroyo* with native plantings and access to open space for the residents. In total, 5.8% of the historic district’s acreage is devoted to open spaces, with nearby Reid Park acting as another close-by open space.

During the time of Colonia Solana’s inception, Country Club Realty Company created a pamphlet detailing the “points of pre-eminence” of the neighborhood. Figure 2 in the appendix provides Child’s image of what Colonia Solana would appear as in 1928. Relevant points about the historic streetscapes and form of the neighborhood include the following:

1. “Colonia Solana’s stringent and far-sighted restrictions safeguard present purchasers from any blunders of taste or delicacy on the part of future owners, and assure the maintenance
of the suburb as a residential center of culture and exclusiveness. These restrictions are to be enforced by an Art Jury, composed of architectural experts.

2. “The ample dimensions of the acres lots afford a proper setting for the gems of architecture that are to be built upon them. There are only 122 building sites in the entire 160 acres.

3. “The irregular outlines of the lots and streets preserve the rugged beauty of the desert and avoid the rectilinear monotony of other urban tracts. Nature, and not the draughtsman’s T-square, has determined the shape of Colonia’s lots and avenues.

4. “In its parks, too, Colonia Solana preserves the splendor of the desert as it was designed and executed by the Great Gardener.

5. “Uniform tree-planting along the streets, carried on under the supervision of the Art Jury, protects abutting property owners from having their grounds and their view marred by haphazard and ragged arboriculture.

6. “Because there are no through streets cutting across the tract, it is safeguarded from heavy-truck and other undesirable commercial activity.

7. “On the other hand, the hard-surfaced streets and boulevards, laid out in graceful curves, are an inducement to pleasure automobile travel” (Country Club Realty Company 1930, pp. 3-4).

Concerning Colonia Solana’s streetscapes, much of the desert elements embodied in Child’s original work remain the same, although changes in ecological patterns near the arroyo have caused a greater density of plantings and vegetation. The streets still contain the same street pattern, with sixteen-foot-wide asphalt streets that are complementary to the desert flora. Additionally, the volcanic rock extracted from Sentinel Peak acting as a curb still dot the majority of streets and parcels. The importance of these streets in flood control is that they guide storm
water to the *arroyos* with their adjacent four-foot-wide gutters. With homeowners having the option to vegetate their property with whichever plants they desire, not all of Colonia Solana is tied together in terms of vegetation, but the neighborhood still encompasses a sense of natural landscaping and privacy in an urban area. As Child was influenced by Olmsted’s work in the City Beautiful movement during the early twentieth century, this neighborhood still contains elements representative of City Beautiful. Attributes to this residential planning concept include rural locations, large lot sizes, and restrictions that ultimately maintained architectural, social, and cultural rigidity and homogeneity. Essentially, Colonia Solana is idyllic in demonstrating the “attractive, cohesive quality, a planned system of circulation, a system of parks, and attractive placement of buildings” under the City Beautiful movement (Comey, 1988, p. 29). These design motifs are still embellished in the contemporary feelings and integrity of Colonia Solana, and contrast the rural, modest streetscapes of Barrio Anita.

**Methodology**

This thesis will be based on the constructivist methodology and ultimately call for personal observations, interviews via walking tours, as well as digital mapping of features. Parts of the introduction and literature review were pulled from prior research with instructor and department guidance and consent. The National Register of Historic Places districts that have been chosen for this study includes Barrio Anita, Colonia Solana, and Winterhaven. These districts differ from each other in ways including architectural styles, periods of significance, street circulation, vegetation patterns, and their socioeconomic statuses. With other historic districts across Tucson being damaged by large-scale development projects, a holistic plan for streetscape preservation must be devised to save overlooked historic attributes. Regarding other streetscape projects in
Tucson, Steve Grede’s documentation of streetscape features in Armory Park (one of five Historic Preservation Zones in Tucson) is the inspiration for this research. Through looking at multiple neighborhoods with different histories, the research may garner more support for the idea of streetscape preservation.

Understanding the physicality of streetscapes in any of these historic districts will be done through Fulcrum. This mobile or tablet application allows the user to create a list of criteria for parcels and add data for each criterion. Some examples of features documented through this program include views and vistas, sidewalks, curbs, street trees, utilities, and street circulation. By using Microsoft Excel to inventory all of the data, the user can extract from Excel any data that might be relevant for determining vegetation patterns, sidewalk conditions, or how views change throughout the neighborhood. Additionally, observations through walking tours of the neighborhoods will also be done to support the features documented through Fulcrum. One of the most important groups in this constructivist approach are older residents that have seen the changes in their neighborhood over the decades. Since long-time residents have a deep understanding of the area, they can recognize any changes to historic streetscapes. It is pragmatic to ask for residents’ opinions on future changes to their neighborhood’s characteristics because they are the people who should decide how their space is portrayed aesthetically, economically, and socially. While Barrio Anita, Winterhaven, and Colonia Solana differ in many ways, their contributions to Tucson’s cultural and architectural traditions will ultimately give the public a greater comprehension of their city’s history as well as an appreciation for the historic built environment.
Data/Results

Personal Observations

Personal observations for this project may were used as a preliminary method for determining which historic features exist. This data acts as a precursor to the data found through Fulcrum, where features and potential patterns are identified here without the use of a tool to log each neighborhood’s contents.

Barrio Anita

After walking around Barrio Anita’s typical blocks highlighted in Figure 3, many patterns of character-defining features mark the neighborhood’s sense of place. Along Anita Avenue, the street width appears as a black topped paved street with a width of thirty-six feet. With a wide width, this accommodates the ability to have cars parked along the street a promotes activity in the neighborhood. Sidewalks in the neighborhood appear variably; there can be clear demarcations where there is no presence of sidewalks. This demarcation can be seen along a wide path that passes through the neighborhood between Oury and Shibell streets. The sidewalks are often in fair condition, where slight deterioration is present. This deterioration is most notable in the southern stretches of Anita Avenue where there are greater instances of vacant parcels Additionally, utility lines such as street lighting and power lines have been added along the paths of sidewalks, where the original sidewalks have been replaced and altered in a different direction to accommodate these utilities. Power lines and street lighting do not appear as historic utility sources and have delineated a clear path along the east side of Anita Avenue and other smaller streets.

Breaking down individual parcels, there is extensive diversity between housing styles. In the southern portions of the neighborhood, the homes are more likely to represent traditional one-storied Sonoran rowhouse with the façades flush to the street. Other housing styles elsewhere on Anita Avenue include traditional Anglo-American architecture with private fencing for the front
yards. These fences often include chain-link or corrugated metal, which prevalently define the neighborhood’s historical character. Some of these fences are also mantled onto a short retaining wall that elevates the fence and secures more privacy for the homeowner. Stuccoed walls with artistic elements of the neighborhood as well as ocotillo fencing added onto chain-link are also common within the neighborhood. Driveways are included with most parcels, but this feature is more common with more modern parcels.

The vegetation along Anita Avenue seems somewhat variable with native trees and plants. The most prevalent tree species is the mesquite, which can be seen in the “parkways” between the curb and sidewalk as well as front yards of individual parcels. The age of these trees varies, although most of the time these mesquites appear as mature and healthy. Other tree species seen during the walk include assorted varieties of Palo Verdes as well as palms. Many parcels do have weeds, but the majority of parcels with overgrown vegetation are those that are vacant or abandoned. Buffelgrass is most prevalent in areas with abandoned or derelict homes and unused areas like the large pathway the divides part of Anita Avenue. Cacti are also a common theme to the neighborhood: aloes, yucca, and multiple species of prickly pears are planted along the chain-link fences and creates a sense of the natural environment within an urban area.

The ability to see the landscape beyond the neighborhood’s boundaries is one of the most impactful character-defining features of Barrio Anita. Despite being near downtown Tucson, this quasi-pastoral neighborhood is open up to views and vistas that accentuate the mountains and skyscrapers of downtown. Views are also seen of the railroad tracks to the east and the Interstate highway to the west. The creation of a large wall that acts as a buffer between Barrio Anita and the surrounding traffic is an unfortunate blow to the neighborhood’s historic integrity as a whole.
With the demolition of large tracts of houses in the past as well as lack of vegetation, these views and vistas are most expressive and reminiscent of a hamlet.

**Winterhaven**

The midcentury neighborhood Winterhaven evokes traditional Midwestern landscaping and housing traditions. During the personal observations that took place in the study area in Figure 4, no front fences or built-in privacy features were seen on any parcel. This front-yard typology is representative of the original streetscape as no front fences existed during the subdivision’s early years. The streets are wide and black-topped with room for cars to park along the street. The majority of houses along the streets have a carport, although many of the carports have been converted into enclosed garages. Few homes have a space where the parcel has a semi-circular driveway that the car can park at in front of the home. This emphasis on the importance of automobile culture during the evolution of the neighborhood is very expressive with the driveways as well as lack of sidewalks. The lack of sidewalks allows pedestrians to be engaged with the community by walking in the middle of the street and see a different perspective of the neighborhood’s charm. Street lighting is prevalent in the neighborhood, where the lighting features appear original to the neighborhood. Additionally, power lines are not visible from the street; instead, they have been hidden behind the homes to give a clearer view of the sky and surrounding vistas.

Housing styles in Winterhaven are very formal and uniform. The majority of homes include freshly-cut grass lawns that create a sense of place atypical of the Sonoran Desert. These homes also include Aleppo pine trees and densely growing vines along the trellises of the façades. The houses are in the typical Ranch style and might include a narrow overhang porch over the front door, accented chimneys, and low angled roofs. The uniformity of the built environment ties each parcel together into one cohesive unit, which is done effectively by promoting the neighborhood’s
vitality. With no fencing in front of the homes, the expansive front yards ultimately act as a barrier to demonstrate property lines and privacy.

As the majority of open space in Winterhaven being clear lawns, the diversity of the vegetation is low. Very few houses do not incorporate lawns; instead, some aloes or barrel cacti are seen in front of the windows and along the driveway. For a pedestrian in the neighborhood, the grandiose trees that pattern the roads creates a wide allée that shades the pedestrian at any hour of the day. With the lack of sidewalks, however, the emphasis on walkability is limited and the neighborhood is mostly concerned with how people can be transported via the automobile.

Concerning the views and vistas of the street, the matures allées block any space outside of the neighborhood. The views within the neighborhood are expansive and well-representative through the wide streets that allow there to be less vegetation. The Catalina Mountains can be seen in certain portions along Kleindale Road, but Aleppo pines block the access to these vistas. Having the original views of the mountains blocked takes away historic integrity but the height of the Aleppo pines ultimately characterizes the neighborhood. The expression of both of these character-defining features can be seen in Figure 6. With these views of the street in mind, this expresses how Winterhaven is both typical and atypical of any Midwestern tract housing subdivision.

Colonia Solana

In comparison to the other two neighborhoods, Colonia Solana is the only one that follows the natural elevation and landscape features rather than a traditional block grid. The study area along Avenida de Palmas is expressed in Figure 5. As said in the original National Register of Historic Places nomination form, the neighborhood’s streetscapes still embody an attractive and cohesive quality that ties the neighborhood’s landscaping and architecture together. The 14-foot-wide street networks are still extant in the district and have recently been repaved with fresh black-topped asphalt. A gutter system along the pavement exists; however, this system is hard to find
but can ultimately be seen through a dense assortment of rocks that guide the runoff water to the nearby arroyos. With these narrower streets, Colonia Solana seems to be taking advantage of the natural landscaping and using as little space as possible that negatively affects the character of the desert. Like Winterhaven, sidewalks are non-existent, contributing to the lack of walkability in the area. During the personal observations residents were still seen walking in the street regardless of the lack of sidewalks. The streets connecting to Avenida de Palmas have corners or intersections that used small parks to mitigate fast-paced traffic. It is necessary for automobiles to be cautious because it is always uncertain if there is another automobile or a pedestrian hidden by the trees and brush of the intersections. No public utilities are present except for some sewage openings that are sporadically located along Avenida de Palmas. Some historic signage is present such as an original street sign for the intersection of Via Golondrina and Avenida de Palmas. This protection of historic characteristics of the neighborhood give the space a sense of pride and individuality.

The housing styles within Colonia Solana seem variable, although their color schemes and landscapes anchor the neighborhood into one collective image. Very few of the homes use stucco walls as barriers between privacy and the public realm; the accented vegetation is usually used as the alternative to traditional walls and fences. Additionally, some parcels may have accented walls in the front of their driveways that demarcate the entrances to the homes, but do not separate the home from the streetscape. On the outskirts of the neighborhood, houses are more likely to have walls than use natural vegetation as a protective measure against people who frequent busy roads such as Broadway Boulevard and Country Club Road. Many of the houses appear to reflect the Spanish Colonial Revival style with subtle color schemes, smooth plaster finishes, and balconies or terraces. With similar housing styles, their appearance gives a sense of place as well as puts perspective on how and when the neighborhood was platted and developed.
The sense of place and feelings evoked through Colonia Solana are heavily represented by the dense vegetation of the yards and open spaces. These rich plantings of aloe, prickly pear, Tuna cactus, and various mesquites and low-lying palo verde trees give a pastoral feeling to the neighborhood. The heavy representation of vegetation and the Sonoran Desert harken back to the original landscape architect’s emphasis on the City Beautiful movement. Some aspects of the vegetation include patterns in nature, which can be seen in the equally spaced palm trees that dot part of Avenida de Palmas. A few yards and driveway are barren and show the house from the street, but this is rarely the case.

The views and vistas of Colonia Solana are similar to Winterhaven, but the views and vistas are blocked by dense shrubs rather than large trees. One of the most prominent views from Colonia Solana is the Catalina Mountains to the north. This mountain range gives the pedestrian or viewer a sense of direction and placement within the neighborhood and the city. Near the arroyo, views are heavily altered by the extremely dense trees and vegetation. In a way, this density gives a spectacular setting of vegetation that goes over the road in an atypical form. On the street, the views may be expansive of the surrounding environment when viewed on the part of the road that is not curvilinear. Other views within Colonia Solana might include the busy streets of Country Club Road and Broadway Boulevard, as well as the historic water tower in the northeast portion of the neighborhood.

**Walking Tour**

For documentation and understanding how historic streetscapes matter, informal walking tours were conducted. Preservation planning must include multiple stakeholders, of which the most important are the ones who live and conduct business in areas affected. The walking tours aimed
to gain an understanding of why these residents might live in these historic districts and which historic features are most compelling to the neighborhood’s sense of place.

**Barrio Anita**

Programming a walking tour in Barrio Anita was a challenging task, which ultimately had the researcher ask residents to participate in a survey rather than a tour of the neighborhood. At two neighborhood meetings, many of the topics brought up in the presence of the researcher concerned the effects of gentrification and their implications in Barrio Anita as well as a renaming of the historic Oury Center. For concerned residents, gentrification was a topic that was more demanding than a walking tour, and it was suggested that a simple survey might garner more results and understanding of residents’ opinions. Unfortunately, no responses were garnered from the survey. While there was interest in this project, residents had larger frameworks within Barrio Anita that were more important.

**Winterhaven**

The residents who participated in the informal walking tour reinforced Winterhaven as similar to a typical Midwestern neighborhood. Many were knowledgeable of the neighborhood’s design taking inspiration from the appearance of Shaker Heights, Ohio. The participating residents have lived in the neighborhood for decades; one resident who participated has lived here since 1954 and has lived on-and-off in the same house his parents owned. Some of the main points characterizing neighborhood life are the Winterhaven Festival Lights, Fourth of July party, block parties, and a Cinco de Mayo celebration. These events, as well as the congenial *genius locus* the neighborhood, exude created a sense of community that allows residents to know each other and keep the neighborhood safe.

One of the most prominent aspects of the built environment brought up was the lack of sidewalks present. One resident’s reasoning for this missing feature is the emotional and physical
safety already incorporated into the streetscapes. Since few strangers enter the neighborhood (except for the Festival of Lights), safety is almost always guaranteed. Additionally, the privacy stemming from the vegetation and built environment enhances a sense of privacy from other neighborhoods. During the early days of the neighborhood children played in their backyards where there were no fences separating property lines; with these expansive spaces to play, there was no need for sidewalks. While one of the participating residents said they would like to have sidewalks, they are not necessary since safety has always been prioritized through other methods. For today, sidewalks would be difficult to have along the streets as large “community trees” dating back to the late 1940s would need to be removed to have this feature. Without the large Aleppo pines dotting the streets, one of the most recognizable features would be lost, and severe alteration of the neighborhood’s sense of place would occur.

In terms of open spaces, the most recognizable public area is “the Island,” an elevated grass platform with a large Aleppo pine marking the space. Christmas Avenue, which includes “the Island,” often floods and acts as a wash during the monsoon season. Open spaces could also include front yards with Christmas lights displays during the winter months when the Festival of Lights occurs. While most of the front yards still retain Bermuda grass lawns due to National Register status requirements, the yards do not have to be entirely composed of grass lawns. The participating residents discussed how lush lawns are more prevalent during the summer months because the lawns cool the entire neighborhood. With the mandate asking homeowners to preserve the original look of grass yards, there is a community effort with the neighborhood’s building committee to reduce water consumption while keeping a manicured look for Winterhaven.

The only elements to the streetscape that appear to be changing are the increasing height of the Aleppo pines and golden arborvitae trees as well as minor alterations to the façades of
houses. Some residents discussed how they were attracted to the neighborhood for its views of the Catalina Mountains to the north. Nowadays, the trees block these views but have created a different effect on the neighborhood’s character. Street parking is now more common for residents because of garages being used as storage facilities rather than as their original purpose. As carports were the main parking feature during the subdivision’s early days, garages have replaced the open entrances but have been added on appropriately. Additionally, the participating residents discussed how driveways were originally gravel, but almost all of them have been converted to concrete due to increased mobility and attractiveness that complements the lawns.

Since there are only four entrances into the boundaries of Winterhaven, its design is atypical to midcentury street circulations seen throughout Tucson. As one enters the neighborhood, it is evident that Winterhaven is unlike any of Tucson’s neighborhoods with its large pine trees and expansive lawns. Residents expressed that those who live on the outskirts of Winterhaven do not feel like they are part of the neighborhood. Because these homes on the edges mostly have views and vistas toward the outside world, their place within the neighborhood’s image is fragmented. Nevertheless, there is a sense of place that builds community collaboration through various events in the neighborhood. Younger generations are still moving to Winterhaven due to its atypical look and sense of community that is attractive for raising families. Older residents even expressed how they came to the neighborhood because of its proximity to grocery stores, services, and the University of Arizona. While these services might not be near Winterhaven anymore, its appeal toward families and retirees is still visible.

Colonia Solana

The residents participating in the Colonia Solana walking tour emphasized the importance of the natural landscape as an important feature. The president and vice president of the neighborhood association discussed how new residents of Colonia Solana know about the natural
features and understand the importance of keeping them intact. While the neighborhood appears as natural, frequent maintenance is required to keep away pack rats and other invasive species. The abundance of plants has created an oasis for bird species and other wildlife. The president of the neighborhood discussed the area as the “Jewel of Arizona” because of the rejuvenation of new species of birds and talked about how members of the Audubon Society have an interest in preserving the area. Additionally, javelinas and other large mammals are prevalent, with a coyote seen during the walking tour. The rarity of so many species of wildlife in the neighborhood due to the presence of the arroyo kept by Childs has made Colonia Solana somewhat of a nature preserve within the center of Tucson. Contrasting back to the literature review, the increased density in vegetation may be supplying more species of wildlife to the area.

Another topic of discussion concerning the layout of Colonia Solana is the small width of the streets. As very little outside traffic is seen within the neighborhood, there is no need to reduce the natural landscaping to have wider roads. The streets within are also narrow in a way to protect bicyclists and pedestrians from high-speed traffic by reducing visibility and road width. Concerning safety, the president and vice president were worried about high volumes of traffic on Broadway Boulevard (to the north) and Country Club Road (to the west), as well as from the nearby El Con Mall. With the addition of a WalMart and closing of local department stores, those on the walking tour felt that these chain stores and increased traffic were bringing bad behavior into the neighborhood. After fighting the liquor license contract with WalMart, the residents felt that crime such as burglary and trespassing were reduced significantly. Similar to Winterhaven, the residents enjoy the privacy of the neighborhood and find it rare to see people they do not recognize on the streets. Additionally, one of the main issues concerning the maintenance of a “sense of place” is the constant sound of aircrafts coming from Davis-Monthan Air Force Base.
The sounds overhead remind individuals that they are in an urban area despite the rural setting of Colonia Solana.

Another common element held between each parcel in Colonia is the volcanic rock excavated from nearby Sentinel Peak that lines the streets. Extracted during the 1930s, these rocks line the streets and act to delineate the space between public and private. The president and vice president also noted how most homeowners have kept natural vegetation in the front of their homes to shield their properties from the street. As privacy is a very crucial characteristic in defining the sense of place of the neighborhood, these barriers make the area seem even more rural and seemingly natural. Many of the residents are inclined to preserve the historic elements of the neighborhoods, including some of the street signage at intersections. Some signage, such as the one on the corner of Via Golondrina and Avenida de Palmas, is contrasted by a contemporary stop sign and green street signs. The reason for a contemporary one is for public services such as firetrucks and police cars to have an easier time finding an address. Historic signage is nonetheless still preserved as it is a part of the image of Colonia Solana in its early days.

One of the more noticeable aspects of Colonia Solana’s streetscapes is the public parks that create atypical roundabouts throughout the neighborhood. Managed by the City of Tucson, these spaces are similar in vegetation to what is seen on private property. Although residents on the walking tour indicated that these are areas that are not necessarily accessible, they are something rarely seen throughout Tucson. These open spaces appear more or less similar to the “Island” seen in Winterhaven as a gathering point or node within the street circulation. Additionally, stormwater mitigation techniques slope rainwater toward the arroyo, but these channels do not necessarily work. The vice president of the neighborhood association stated that he needed to make a
channeling network on his property to reduce flooding around his home and the street. Even when historic features are not operable, their presence in the neighborhood is still welcomed by residents.

**Fulcrum Data**

The advantage of Fulcrum is to upload data from publicly-available sources that give base data layers for parcels and historic buildings. While this program might not have originally been intended for streetscape documentation, it has been adapted for this research to document characteristics of streetscapes. The inspiration of using Fulcrum as a way to spatially visualize data comes from landscape architect’s Steve Grede’s streetscape sabbatical done throughout the Armory Park historic district in downtown Tucson. By using this application on a tablet or mobile phone, all data that is logged can be saved in one space that makes it functional and easy to use. Additionally, the parcel data added into Fulcrum eliminates the margin of error seen in many mapping programs as the input is linked to parcels and not just a singular point on a map.

**Barrio Anita**

Barrio Anita has the smallest setbacks in comparison to Winterhaven and Colonia. Setbacks range between 6’ 9” seen near the southern portion of the neighborhood and 65’. Over half of the parcels were not measured for setbacks due to the high number of vacant lots. Ten homes were identified as corner lots for the study area. Most side setbacks for these corner lots are under ten feet from the curb. Of those corners, only three of them had curb cuts that allowed wheelchairs to move from the sidewalk to the street. Curbs are present at nearly all of the properties studied, but only four parcels had a curb stamp that could be dated. These stamps were identified as being part of efforts done by the Works Progress Administration during the 1930s because of their “WPA” stamp. An example of this stamp can be seen in Figure 7 in the Appendix section. More than half of the parcels along Anita Avenue have driveways, but some older homes do not
necessarily have one. Additionally, there are some vacant lots in the neighborhood that do have driveways, signaling that there was a residence there at some point. Most sidewalk sections and joint sections in the neighborhood are also in good condition with a few exceptions of severe cracking and upheaval by tree roots.

Fifteen parcels along Anita Avenue have single-source street lights, where all streetlighting is located along the east side of the street. Fifteen parcels have street trees in front of the property line and all street trees are native to the Sonoran Desert. Additionally, most of these trees are in good condition. Only three of the parcels along Anita Avenue had retaining walls that supported a front fence. Ten properties had front walls in front of the houses ranging from three to six feet. Many more properties had front fences that were mostly composed of short chain link. A few other parcels had corrugated metal as a front fence material, but chain link is most predominant as it is a character-defining feature of the neighborhood. While three parcels had side walls with street frontage, side fences were much more common with twenty-five parcels having a side fence. Mailboxes are sparse along Anita Avenue, and collections are much more common as they tend to serve a whole block’s population. A fire hydrant was counted for each block measured, and nearly thirty power poles were counted for a street less than a half-mile long. Almost all of the power poles are on the east side of the street in conjunction with all of the existing street lights. No heritage trees exist along Anita Avenue.

Concerning the physical street, almost all of Anita Avenue serves two-way parallel parking. However, there are some “no parking” zones toward Davis Elementary between Oury and Davis streets. The lack of parking accounts for nearby Davis Elementary School (not measured for this project) and to keep traffic moving in and out of the neighborhood. Through the use of a laser pointer, Anita Avenue seems to have decreased in width on the north side of the neighborhood.
While the neighborhood’s National Register of Historic Places nomination form claims that the street is 36’ feet, the laser pointer accounted for a width of 33’ 3”. Anita Avenue has a fair street paving rating with some cracking or loss of material. Speed humps are present near street intersections on Anita Avenue to slow drivers down as they approach an intersection. Some “caution” signage is present near Davis Elementary School for potential children and parents crossing the streets, and a few vacant lots have signage indicating that materials dumping is illegal. Corner street name signage is the contemporary green and white color scheme; there is no available data on what the current signage might have replaced. Lastly, the major views and vistas include Tumamoc Hill to the west, western sections of downtown Tucson, Davis Elementary, Interstate 10, and the railroad tracks to the east. Some intersections do not have access to all of these vistas, with many of the predominant features consisting of solely the asphalt and other homes. Additionally, some of these views that include the street and surrounding architecture capture the essence of a Barrio Anita that once was with traditional Sonoran rowhouse architecture and rural features.

**Winterhaven**

Along Christmas Avenue and Kleindale Road, front setbacks range from thirty to sixty feet from the curb to the house. The majority of lots have a setback fewer than 40 feet. For the seventeen corner lots studied, their side setbacks had a greater variation with distances between 17 to 50 feet. All of the parcels studied had the original curbs still intact, reflecting Winterhaven’s period of significance as a mid-century and automobile-oriented neighborhood. Only one property near the entrance of Winterhaven on Fort Lowell Road had a curb contractor stamp of an unknown era. Curb cuts for Americans with Disabilities Act compliance were only seen along Christmas Avenue at the front of the neighborhood at Fort Lowell Road. No sidewalks are present along the streets studied. In contrast, every parcel studied had a driveway at the front of the house, with the majority
at a width between 10 and 20 feet. Those beyond 20 feet widths (the largest being 55 feet) do not tend to have contributing status to the rest of the streetscape.

Fourteen parcels had single source street lighting that appear as historic to the neighborhood. They appear in patterns for both Kleindale Road and Christmas Avenue with street lighting utilities every few parcels. These patterned utilities provide safety for the neighborhood at all times of the year and lead to a comfortable monotony of the street. Street trees are evident at nearly all of the parcels along Christmas Avenue and Kleindale Road. Because there are no sidewalks in the neighborhood, “street trees” denote those that are growing in front of the home. The majority of properties have either *Pinus halepensis* (Aleppo pine) or *Thuja standishii* (arborvitae) trees visible from the street. Many of the properties only have these trees, and some only have Aleppo pines that tower over the neighborhood. Other trees that are present include some olive trees, evergreens, and eucalyptus. Most trees are in good condition; this is expected due to their use with the Winterhaven Christmas displays done every December. The majority of parcels have heritage trees that include the original Aleppo pine plantings and other olive or arborvitae varieties. Other vegetation in the front yards usually include green, manicured lawns with denser vegetation seen along the front façades of the homes. The grouping of vegetation along the home tends to give a formal feeling of association for the majority of the neighborhood. Very few native vegetations such as cacti or agave are seen, although some homes attempt to mix natural desert features as well as manicured lawns in the front.

Two “retaining walls” are seen in the neighborhood, but they do not support or retain any features and act as a public-private barrier. Seven brick front walls are present within the study area and have an average height of around six feet. These walls appear more toward major roads such as Fort Lowell Road and Tucson Boulevard for additional privacy. Seven other parcels had
front fences consisting of mostly wood picket fences and some metallic materials. More parcels had back or side walls with street frontage that typically are made of brick and are taller than most individuals. While their conditions are good, these walls do not have contributing status due to the original neighborhood not having walls to separate properties. Additionally, wood picket or solid fences are common in the neighborhood and are also relatively tall. Some of these fences do appear as original to the home, but many more look to be of new materials. Each parcel identified during this study has an individual mailbox at the property line near the street’s curb. Properties also have underground utilities such as street lighting voltage and water meters for sewage and street light operation. Four fire hydrants were identified, with at least two of them appearing as original.

Both streets studied for this research have two-way parallel parking with wide streets. Kleindale Road was measured as being 43’ 3” wide and Christmas Avenue was measured as 47’ 7” wide. For areas where the two streets converge and near the “island,” the street width gets to be more than 90 feet wide. Both streets have fair conditions with some cracking of asphalt, but the condition is still better than Barrio Anita’s. Most of the signage seen in Winterhaven is for stop signs at various intersections with other signage for neighborhood watches and yield signs. Additionally, signage indicating historic status for the neighborhood is seen at the entrance of Winterhaven at Fort Lowell Road and Tucson Boulevard. All street name signage is the green and white signage seen in Barrio Anita. Many of the views and vistas seen at these intersections can still see the Catalina Mountains to the north as advertised in the original pamphlet for Winterhaven, but these vistas are altered by the historic Aleppo pines that obstruct the mountains. All of the views have heritage trees such as Aleppo pines or arborvitae as well as green lawns that typify Midwestern ideals. Along the perimeter of the neighborhood, the views are extremely impacted
by development outside of Winterhaven, ultimately diminishing the sense of place at these intersections.

**Colonia Solana**

Because of the large lot sizes in the study area, only 21 parcels were measured. The laser pointer, which only measures distances up to 65 feet, could not measure most of the front or side setbacks because they extended further than what could be measured. Through the use of Google Earth’s measuring tool, the front setbacks range from 22 to 175 feet, with the average setback being around 100’. The side setbacks tend to be around the same distances, although not as extreme as the front ones. Many of the parcels analyzed are corner lots, so both front and side setbacks had to be measured. There are no curbs built into Colonia Solana’s streetscapes; however, the volcanic rocks that line the edges of the streets could technically be considered curbs in their own regard. Two parcels had sidewalks at the front entrance, but these sidewalks serve private property rather than other residents. Driveways tended to be between 12 and 40 feet in width, with some being impossible to measure due to irregular widening. Many of the driveways do have contributing status to the neighborhood because of their gravel paving, but others used asphalt or cement that ultimately take away historic status. In the study area, two of the lots were vacant and did not have a driveway attached, signaling that they have never been developed.

Street lights are only present in Colonia Solana along Broadway Boulevard where the neighborhood opens up at Avenida de Palmas. Nearly all parcels within the study area have street trees. Similar to Winterhaven, the lack of sidewalks has altered the definition of a street tree, where trees whose bases could be seen were measured. The number of trees ranged from four to 35 trees per parcel. Many of these trees were not mature but they were still able to survive on their own within the desert landscaping. The species of trees were mostly mesquites, African sumac, Palo Verde, and sweet acacia.
Additionally, some palm trees were seen alongside Avenida de Palmas as well as some eucalyptus near the front façades of the homes. As each parcel in this subdivision is well over an acre, the number of trees seen from the street correlates with the large lot size. Most trees are in fair condition due to their small size coupled with overcrowding, but the time of year (March) that these trees were recorded might not have accounted for seasonal changes that make the trees look worse. Additional vegetation in the front yards varied greatly, with some yards having tidy desert vegetation, and others having dense vegetation that developed through the natural ecosystem patterns.

Two of the properties had retaining walls, but these acted more as delineations between public and private property. Five properties had front walls that faced the street, and these consisted of stuccoed masonry walls between two and eight feet. Only one of these walls appeared to be historic, with the rest being recent construction. Three properties had front fences, ranging from 2’ 6” to 6’ 6” tall. The wrought iron fence in front of one parcel looked to be the only contributing front fence on the street. Side walls on corner properties tended to be made of stuccoed masonry or brick, measuring between 5’ 6” to around eight feet tall. All of the walls appeared to be in good condition, but none of them are likely to be contributing historic features. In addition to the side walls, none of the four front fences seen along Avenida de Palmas appeared to be contributing to the historic integrity of Colonia Solana. Six properties had mailboxes with street frontage, where the rest of the properties had their mailboxes near the front door and deep within the driveway. A fire hydrant and a water backflow preventer were seen on Avenida de Palmas, but no patterns were found as to predicting where the next ones might be located. Power poles are present in Colonia Solana, but their presence is minimal and confined to the backs of properties. The neighborhood
also has eucalyptus heritage trees on a handful of properties, but their location is closer to the homes than the street.

Avenida de Palmas consists of two-way street circulation with no street parking. Its existence as a 16-foot-wide street paired with its volcanic rock “curb” makes it difficult to park in the neighborhood unless the driver of the automobile is a resident. All of the street measured as 16 feet wide with very good asphalt paving. Most of the parcels studied had some sort of signage adjacent to them due to nearly every parcel existing on a street corner. This signage includes stop signs, yield signs, and neighborhood watch signs. Both historic black and white street name signage, as well as contemporary green and white street signage, exist along Avenida de Palmas. When black and white street signs are present, a supplemental green and white one stands next to it to give continuity to the rest of the green and white signs. This historic street signage can be seen in Figure 8 in the Appendix. It is unknown why only two of the numerous corners studied have black and white street signage. Lastly, views and vistas from the street tend to show the Catalina Mountains, small parks in the middle of intersections, desert scenery, and the historic water tower to the east of Avenida de Palmas. Some yards were so densely vegetated that the vistas were obstructed by the desert views.

**Conclusion**

New development increases in historic areas means that non-architectural elements should also be preserved. As interest in historic streetscape research has increased, especially in Tucson, awareness of these historic resources can be greater appreciated. After using personal observations and knowledge from longtime residents—paired with mapping these features—it is evident that these features contribute to a sense of place for community members. Modernization is occurring
in adjacent areas to the neighborhoods studied, and historic districts will be negatively impacted. Relating these neighborhoods back to the three pillars of sustainability, the neighborhoods studied contribute to economic, social, and environmental sustainability. By measuring streetscape features in three historic districts with different ethnic and social backgrounds, this research conveys that historic preservation—and ultimately streetscape preservation—is emphasized by different groups. The demonstration of multiple social and cultural groups who care about their histories also expresses how historic preservation is not an “elitist” field as is commonly assumed. The awareness of these features should be useful with community planning processes as well as for demonstrating how these resources contribute to genius loci and are valued by those who inhabit these spaces.

**Limitations**

There were many limitations that may have impacted the research. As historic preservation is a field associated with planners, architects, and developers, their input in this research about the field might have showcased what these leaders value. Interviewing professionals would have had the potential to be most relevant to Barrio Anita due to its proximity to downtown and the changes occurring there. Since Barrio Anita is most concerned about gentrification, input from planners or developers to increase dialogue would help garner an understanding of the importance of history.

Another limitation of this thesis is the number of residents participating in the walking tours. For Colonia Solana, the president and vice president of their neighborhood association were the only individuals present for the walking tour. While they carry a broad knowledge of the neighborhood’s history, their opinions might be better validated if more residents were involved. The community participation of Winterhaven with numerous long-term residents was most
effective in determining what was most important to residents. In Barrio Anita, basic interviews of residents were the best practice to gain an understanding of the neighborhood’s opinions. For future streetscape research, it would be most effective to have multiple walking tours for historic neighborhoods as more participation could occur.

The most important limitation of this research was the timeframe. Since there was only enough time to study the most character-defining in each historic district, not enough research was done for all other streets. By logging data for all streetscape features in each neighborhood, a clearer picture concerning the patterns and characteristics of an entire neighborhood could better validate this research. The research, done with the best resources and practices and available, can be improved with the following points:

**Recommendations**
- Increase collaboration with professionals in historic preservation, planning, architecture, and real estate development.
- Find ways to increase dialogue with residents and professionals in the field to increase the importance of streetscapes and ways to preserve them without negative impacts on future development.
- Better communication with neighborhood associations to get residents to participate and voice their opinions on the importance of streetscape preservation.
- Make more time to map and analyze the streetscape features of an entire neighborhood.

These recommendations can be synthesized together to create accurate and informative work for the future. The recommendations would facilitate public participation and increased
dialogue between entities that may help further discussion about what is holistically important. Tucson’s history of demolition and urban renewal has made it crucial for this thesis to start an inventory of historic streetscape features. Preserving these features means highlighting the history, building traditions, and “sense of place” for each historic district. Keeping historic streetscapes ultimately means preserving an era of Tucson’s past generations—all of which may not be remembered if these features are removed for the sake of modernity.
Figure 1. Master plan with amenities of Winterhaven. Source: Canyon State Land Company/Arizona Historical Society.
Figure 2. 1928 "Aeroplane View" of master plan for Colonia Solana. Source: Country Club Realty Company/University of Arizona Special Collection.
Figure 3. Scope of research (white lines) along Anita Avenue in Barrio Anita (bounded in yellow).
Figure 4. Scope of research (white lines) along Christmas Avenue and Kleindale Road in Winterhaven (yellow line).
Figure 5. Scope of research (white lines) along Avenida de Palmas in Colonia Solana (yellow line).
Figure 6. Streetscape views on Kleindale Road in Winterhaven with views of the Aleppo pines and vistas of the Catalina Mountains.

Figure 7. 1930s era "Works Progress Administration" curb stamp in Barrio Anita.
Figure 8. Original street signage in Colonia Solana.
References


