

# Historic Resources of Memorial Park

CITY OF EL PASO

Memorial Park Historic Resource  
Evaluation and Condition Assessment

13 MAY 2022



**SUBMITTED BY:**

Post Oak Preservation Solutions  
PO Box 1247  
San Antonio, TX 78212  
512.766.3199  
[izabella@postoakpreservation.com](mailto:izabella@postoakpreservation.com)



Memorial Park, south of the historic Manhattan Heights neighborhood in El Paso, Texas, is a neighborhood park with features dating from the 1920s to present. Remnants of park development campaigns are visible in a 1920s bridge, masonry walls constructed by the Works Progress Administration during the 1930s and 1940s, and mid-century features like the rose garden and garden center building. A rolling, hilly topography characterizes the site and is a relic of a historic industrial operation that took place at the site during the early twentieth century.

In Spring 2022, Post Oak Preservation Solutions LLC (Post Oak) was contracted by Asakura Robinson on behalf of the City of El Paso to survey, assess, and evaluate the integrity of historic resources within Memorial Park in El Paso as part of a master planning effort for the park. Post Oak was tasked with surveying the structures and buildings on the park site that were at least 50 years old, developing a historic context, evaluating the integrity of the structures, conducting condition assessments, providing recommending for appropriate treatment, and providing guidance to appropriately approach the preservation and rehabilitation of historic resources.

For this study, Post Oak utilized guidance provided by the National Park Service for identifying, evaluating, and providing treatment recommendations for historic resources within the park. National Park Service [National Register Bulletins 15 and 16A](#) were referenced for the identification and evaluation of historic resources. The [National Park Service Preservation Briefs](#) and Technical Guidance were referenced for identifying and providing recommendations for stabilizing and preserving historic materials within the site.

This report includes three chapters. In Chapter 1, a historic context for the park has been developed and character-defining features have been identified. Historic resources at the site are evaluated for their historic integrity using the seven aspects of integrity defined by the National Park Service for evaluating National Register eligibility. Chapter 2 documents the historic materials and features in the park. Condition assessments for 20 features are detailed with treatment recommended based on best practices set by the National Park Service for the preservation of cultural heritage. Chapter 3 interprets the regulations pertinent to the park and provides recommendations for the proposed master plan based on the existing condition and historic integrity of the park; state, local, and federal regulations relating to historic resources; and preservation best practices for the continued use of historic sites and their associated resources.



Masonry Walls at the Estrella Street Bridge



**CHAPTER 1: HISTORIC CONTEXT AND INTEGRITY ..... 7**

- Memorial Park History and Development
- Memorial Park Timeline
- Historic Evaluation Methodology
- Recommendations for Areas and Periods of Significance
- Character-Defining Features
- Historic Integrity
- Conclusion
- End Notes
- References

**CHAPTER 2: CONDITION ASSESSMENT ..... 24**

- Methodology
- Resources Surveyed
- Survey Map
- Historic Materials at Memorial Park
- Deterioration and Conditions
- Condition Assessments (HR1-HR20)
- Illustrated Glossary

**CHAPTER 3: MASTER PLAN RECOMMENDATIONS ..... TBC**



## HISTORIC CONTEXT AND INTEGRITY

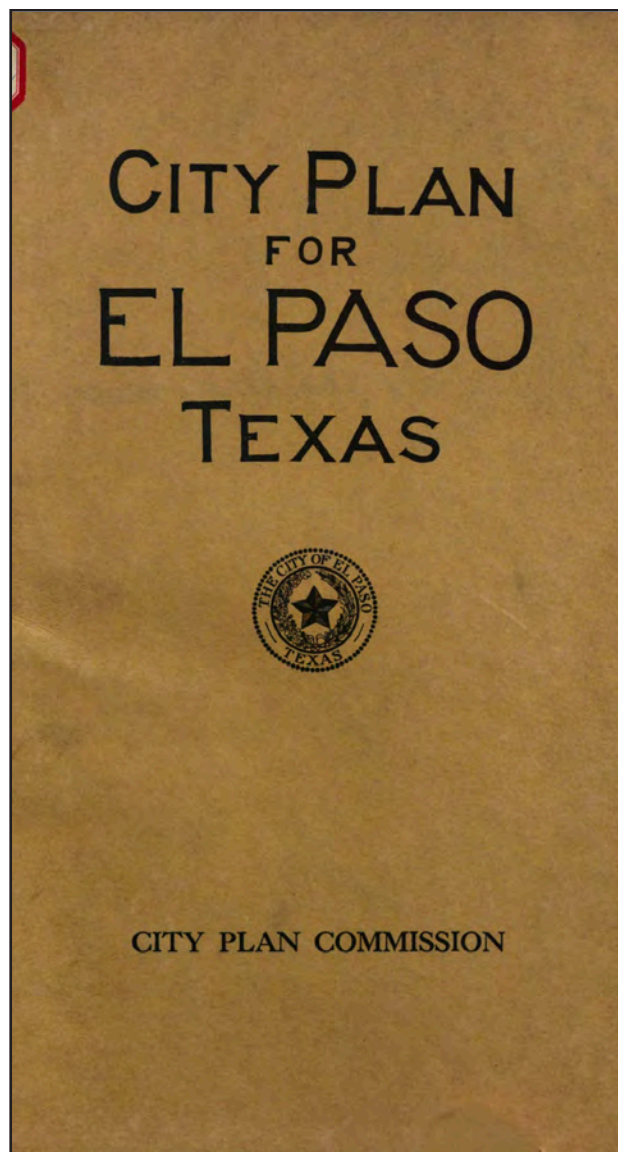
Memorial Park is located in northeast El Paso at the southern edge of the Manhattan Heights neighborhood. The park is bounded by the former El Paso and Southwestern Railroad tracks (later Southern Pacific Railroad) to the south, N. Raynor Street to the east, and Byron Street to the west. The northern boundary varies, consisting of Copper Street, Wheeling Avenue, and Aurora Avenue. Originally called Castle Heights Park, Memorial Park's history and use extends from the early twentieth century to present day.

Chapter 1: Historic Context and Integrity provides a history of Memorial Park within the context of El Paso, a timeline of major events relating to the park's development, an explanation of historic evaluation methodology, recommended areas and periods of significance, character-defining features of the park, and a discussion of historic integrity. Integrity for this chapter was assessed based on seven criteria defined by the National Park Service for evaluating historic resources.



Caption

MEMORIAL PARK HISTORY AND DEVELOPMENT



The area home to the present-day city of El Paso has been inhabited for centuries by Native American/Indian tribes, Spanish conquistadors, Mexicans, and Anglo-Americans. In 1848 the Treaty of Guadalupe Hidalgo officially determined the boundary between the U.S. and Mexico as the Rio Grande River. The city remained a remote, frontier town until the arrival of the railroads in the 1880s, which had a significant impact on the city's development in the late nineteenth and early twentieth centuries.<sup>1</sup>

In 1900, expansion of industrial and commercial development associated with the railroad, the establishment of numerous mining and smelter companies in the area, and the mass exodus of people fleeing Mexico during the Mexican Revolution, led to a period of rapid growth in El Paso in the first decades of the twentieth century.<sup>2</sup>

In 1912 the Manhattan Heights neighborhood was laid out in an area in northeastern El Paso that was formerly home to Federal Copper Company's metal smelting plant, which operated from 1901 to ca. 1905.<sup>3</sup> The neighborhood consisted of 40 entire blocks, several partial blocks, and the area set aside for a 25-acre city park.<sup>4</sup> The hilly terrain, which afforded scenic views of the city and mountains, drew in middle class El Paso residents who could afford to hire architects to design their homes. The neighborhood consisted of buildings in various styles, including bungalows and revival styles, many with Spanish influences.<sup>5</sup> In 1922 the late Gothic Revival Crockett Elementary School (formerly Manhattan School) was completed, designed by El Paso architecture firm H.M. Beutell & Bradford Hardie, located south of Aurora Avenue between Luna Street and Copia Street.<sup>6</sup>

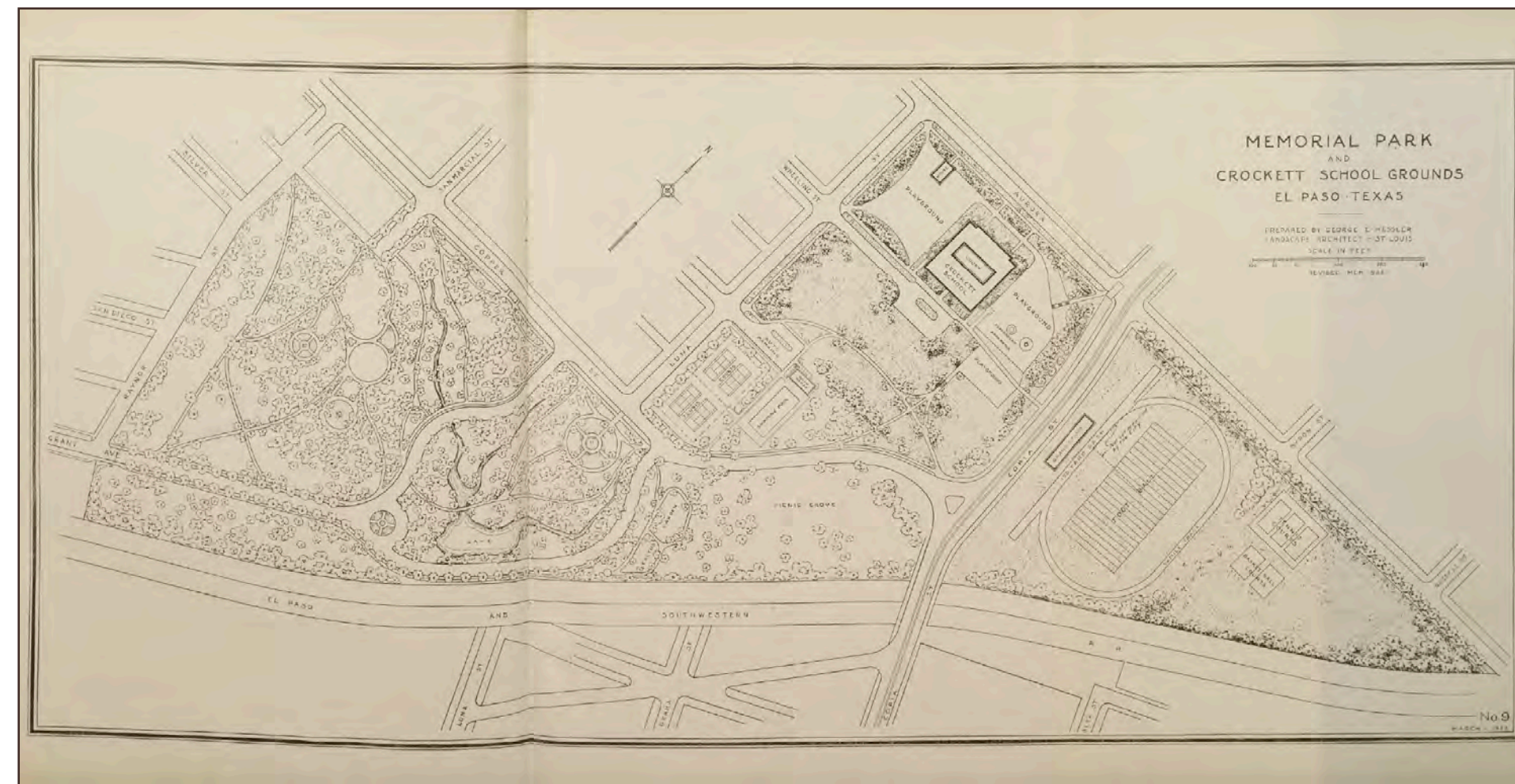
As Manhattan Heights was being constructed in the mid-1910s, the approximately 25-acre plot at the southeast corner of the neighborhood set aside for Memorial Park remained largely undeveloped. Poor soil quality, which remained from the remnants of the smelting plant, made it a difficult project and it wasn't until the early 1920s that the City started implementing changes in the park. In 1919 the City Planning Commission of El Paso was established under the Chamber of Commerce. As Chairman and Director of the new Commission, James L. Marr allocated \$10,000 for improvements in Memorial Park in 1920, with an additional \$15,000 allocated in 1921.<sup>7</sup> In 1920 and 1921 improvements were made or begun in Memorial Park, including grading and plantings, tennis courts, a swimming pool, and a stone arch bridge. These early park improvements were designed by Howard & Smith, Los Angeles based landscape architects.<sup>8</sup> California-based Scottish landscape gardener David Goodfellow was hired to oversee the early improvements in the park.<sup>9</sup> Additional recommendations for future park improvements included the creation of an artificial lake, construction of a memorial fountain at the center of the park, athletic fields, and driveway pavement.<sup>10</sup>

In 1922 the City of El Paso commissioned George E. Kessler, a well-known landscape architect and consultant on city planning projects throughout the United States, to submit recommendations for city

1925 City Plan for El Paso Texas

MEMORIAL PARK HISTORY AND DEVELOPMENT

planning in El Paso. Kessler passed away during the process of completing his work for El Paso, however in 1925 the city published a Master Plan based on his recommendations and conclusions.<sup>11</sup>



Memorial Park Map from the 1925 City Plan for El Paso Texas. It is likely that some of the features on this plan were realized prior to 1925. For example, the south bridge (HR1) has the date "1922" engraved in the stone, suggesting that it pre-dates City Plan publication.

MEMORIAL PARK HISTORY AND DEVELOPMENT



In El Paso, Kessler’s plans for city improvements included broad, tree-lined streets and boulevards, roundabouts, and monumental bridges surrounded by grassy areas. The 1925 Master Plan advocated for increased recreational facilities, including pools and community parks. Kessler argued that due to the arid nature of El Paso, devoid largely of grass and trees, the city needed urban green areas. This would attract tourists, improve the health and happiness of residents, and allow people to take advantage of the year-round temperate climate. When the Master Plan was published in 1925, Memorial Park had expanded to 43 acres, with about two thirds improved. It was the largest developed park in El Paso at the time. New trees had recently been planted, the swimming pool and tennis courts were completed, and an athletic field east of Copia Street was underway. Suggestions for further improvement of the park included additional tree planting, grading, a lighting system, and a drive connecting Copper Street to Copia Street with well rounded corners.<sup>12</sup>

Kessler’s plan incorporated many of the earlier recommendations for Memorial Park, including the idea that the park be a memorial to El Pasoans who fought in WWI, with names of those who lost their lives given to pathways, roads, hills, bridges, fountains, pavilions, and special interest areas in the park. His plan for the park, as shown on his 1925 Master Plan drawing, included a lake northeast of the roundabout on Grant Avenue, a cactus garden and picnic grove, abundant tree plantings, tree-lined boulevards along Grant Avenue, four tennis courts, a swimming pool and bath house, and several circular pathways for memorials. However, in 1928 a large part of the park was still undeveloped.<sup>14</sup>

The economic crisis the Great Depression hit El Paso like elsewhere in Texas and the nation. Federally-funded civic improvement initiatives provided area residents with employment opportunities, as well as boosted citizen morale through the expansion of recreational facilities. In the early 1930s, with Works Progress Administration (WPA) funding, a crew of 80 men completed numerous improvements in Memorial Park, including construction of retaining walls for extensive planting, rock bridges, brick and gravel walks and pathways, electric lighting, and development of a lookout point.<sup>15</sup> The park became a popular destination for community events, hosting annual Fourth of July celebrations with a bathing beauty contest. In 1934 it was anticipated that 5,000 people would attend the event. Church choir watermelon feasts, track and field events, and diving contests were also hosted at Memorial Park.<sup>16</sup>

In 1935, El Paso City Parks Superintendent Hugo Meyer, along with the City’s Chief Horticulturist Theodore Harris, designed and implemented a formal garden within Memorial Park. Creation of the garden required flattening a hilltop, and rich valley soil was brought in for plantings. Various garden clubs were assigned areas in the garden, and in 1937 the Hilltop Garden in Memorial Park won a national prize in a Better Homes and Gardens ‘More Beautiful America’ competition. The park had become an urban oasis of green amid the dry, desert landscape surrounding it.<sup>17</sup>

MEMORIAL PARK HISTORY AND DEVELOPMENT

However, during the post-World War II era, the park experienced a significant decline. Lack of funding saw that guards were removed, many areas of the park were vandalized, and it was reported that the gardens were destroyed. Nonetheless, the park continued to be used by the community for church and school picnics, bird walks, softball, and baseball games.<sup>18</sup> Additionally, the park did experience some improvements during the 1950s. In 1950 a new library was built southeast of the Grant Avenue and Copper Avenue intersection at the location of the former cactus garden and in 1953 a Garden Center was constructed northeast of the North Raynor Street and Grant Avenue intersection.<sup>19</sup>

In the 1960s and 1970s numerous federal grant programs provided funding for the improvement of the nation’s parks and public spaces.<sup>20</sup> In 1976 local residents founded the Memorial Park Improvement Association to improve conditions of Memorial Park and other city parks, and they successfully obtained a grant from the city’s Urban Development Fund to complete renovations.<sup>21</sup> The Association took it one step further and promoted preservation of the surrounding Manhattan Heights neighborhood, succeeding in getting it designated as the first historic district in El Paso in 1980. Additionally, in an effort to limit late night parties in the park, the Association successfully campaigned to ban alcohol use in Memorial Park.

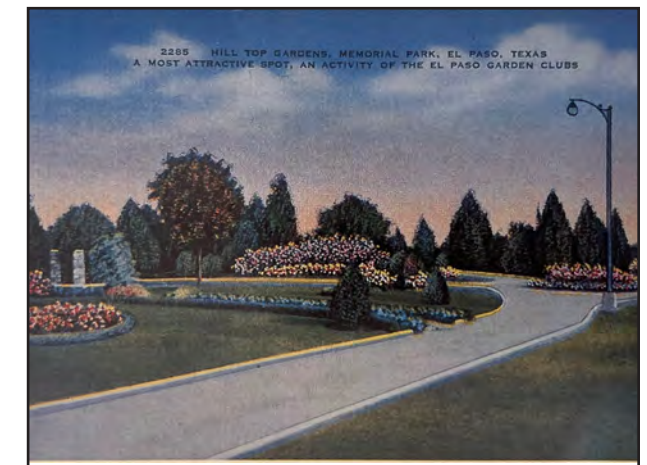
The economic recession of the 1980s temporarily halted future building programs and improvements in the park slowed.<sup>22</sup> However, by the 1990s efforts to improve the park resumed, and in 1995 the Memorial Park Improvement Association sought funding to replace trees that had been cut down due to age or disease. That year, the 1950 library building was demolished and replaced with a new, larger library building.<sup>23</sup> In 1996 the Association established a neighborhood watch to keep an eye on the park and prevent vandalism, which had resulted in the destruction of trees and playground equipment.<sup>24</sup>

In 2000 City of El Paso passed the Quality of Life Bond program and allocated \$75 million for park improvements with an additional bond package in 2004.<sup>25</sup> In 2005 the city began construction on a \$3 million-dollar indoor swimming pool to accommodate swimmers year-round.<sup>26</sup> That same year, the Rose Garden was expanded to the east. In 2006 it was reported that Memorial Park had re-paved the sidewalks, and the Association advocated for funding from the Neighborhood Improvement Program for installation of new lighting in the park. <sup>27</sup> In 2007 the City of El Paso installed nine large overhead park lights in Memorial Park at the cost of \$45,400.<sup>28</sup>

In the 2010s and 2020s Memorial Park continues to be a significant site for community events and gatherings. Memorial Park hosted annual Art in the Park events with vendor and craft booths. It also hosted free Father’s and Mother’s Day concerts and celebrations, Día de Los Niños/Día de Los Libros book fair at the Memorial Park Library, Yoga in the Park, and Memorial Day celebrations. Although the park has experienced periods of decline and neglect, it has continuously served the surrounding community as a place for events, gatherings, recreational activities, celebrations, and respite from city life.



1976 Aerial Map of Memorial Park



Undated Postcard of Memorial Park

NINETEENTH CENTURY EL PASO AND MEMORIAL PARK

TWENTIETH CENTURY EL PASO AND MEMORIAL PARK

**19XX**

*Od que plam aditat. Eperemqui  
nobit offici quis alit pratatur  
molupta volor susant everfer  
ionsequibus voluptatquam  
ipsantiassed ut quaesti aut  
audistiaspe cupti inullo eribus.  
lque pliquos dolut aut et, cus  
accabo. Nem nihil ium iliquisquide*



HISTORIC EVALUATION METHODOLOGY

The National Preservation Act (NHPA) of 1966 authorized the Secretary of the Interior to identify and recognize properties of national, state, or local historical significance. Historic properties may include sites, buildings, structures, objects, and districts that have significance to history or prehistory and that are typically at least 50 years old or older.

NATIONAL REGISTER OF HISTORIC PLACES

The NHPA established the National Register of Historic Places (NRHP), a federally maintained list of historic resources that have been determined worthy of preservation for their representation of a shared local, state, or national experience. The list is administered by the National Park Service (NPS) on behalf of the Secretary of the Interior.

In their guidance document, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, the NPS established standards for evaluating potential historic resources for their inclusion on the NRHP. Per NPS *National Register Bulletin 15*, historic resources should be evaluated to determine the:

- Area of Significance
- Period of Significance
- Historic Integrity

The areas and periods of significance were identified within the historic context of Memorial Park. The NPS seven aspects of integrity were then used to evaluate the historic integrity of each resource within the park.

NATIONAL REGISTER OF HISTORIC PLACES RESOURCES

Additional information about the National Register of Historic Places can be found through the National Park Service:

- [National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation](#)
- [National Register Bulletin #16A: How to Complete the National Register Registration Form](#)
- [National Register Bulletin #18: How to Evaluate and Nominate Designed Historic Landscapes](#)



HISTORIC EVALUATION METHODOLOGY

AREA OF SIGNIFICANCE

The National Park Service has four established criteria under which a resource may be eligible for listing in the NRHP. One or more criteria must be satisfied for eligibility. The resource must be a district, site, building, structure, or object that retains a high degree of integrity and meets one or more of the following criteria:

- **Criterion A:** Resources associated with events that have made a significant contribution to broad patterns of our history
- **Criterion B:** Resources associated with the lives of persons significant in our past
- **Criterion C:** Resources that embody the distinctive period of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significance and distinguishable entity whose components may lack individual distinction
- **Criterion D:** Resources that have yielded, or may be likely to yield, information important to prehistory or history

PERIOD OF SIGNIFICANCE

The period of significance is the time period in which a historic resource gained architectural, historical, or geographical importance. Often, a resource is significant beginning at its date of construction through its early use. The historic context helps to identify areas of significance that the resource may be associated with and specific time periods that coincide with those areas of significance. Features of the resource and historic materials that date from the period of significance generally contribute to the character of the resource.

A historic district will also have a period of significance, related to its specific area of significance. Resources constructed outside of that period of significance (either before or after) are considered non-contributing.

INTEGRITY

In addition to having an area and period of significance, a historic property eligible for designation in the National Register of Historic Places must also retain integrity. Integrity is the retention of a substantial amount of historic features and materials from the period of significance that give a resource “the ability [to] convey its significance.” Key character-defining features and the majority of the resource’s structural, material, and contextual history should remain intact. NPS identifies seven aspects of integrity to evaluate for NRHP eligibility:

- Location
- Design
- Setting
- Materials
- Workmanship
- Feeling
- Association

Historic resources must retain high degrees of integrity in all or most of the seven aspects in order to be eligible for listing on the NRHP. Specific aspects of integrity may be more important depending on the area of significance. For example, if a building is significant for its architecture, then a high level of integrity of design, materials, and workmanship is important.



RECOMMENDATIONS FOR AREAS AND PERIODS OF SIGNIFICANCE



El Paso Historical Commission Marker for the Hard Rock Drilling Contest

In order to be eligible for listing in the National Register of Historic Places (NRHP), a property may be considered historically significant for its association with historic events or activities (**Criterion A**), for its association with important persons (**Criterion B**), its distinct design or physical characteristics (**Criterion C**), or its potential to provide information about prehistory or history (**Criterion D**). The Period of Significance is the time period during which an historic property is associated with historic events, activities, or persons or attained the characteristics that qualify it for NRHP listing.

Memorial Park (originally called Castle Heights Park) was established during the early twentieth century Progressive-Era City Beautiful Movement, which sought to imbue rapidly industrialized and urbanized American cities with spaces of intentional beauty. This manifested in the construction of architect-designed, monumental civic buildings, public art projects, and the establishment of vast landscaped parks to provide respite from the polluted air and noise of bustling metropolitan life. Memorial Park is significant under **Criterion A** for its role as an early twentieth century city park which has continued to serve the community for over 100 years.

Since its establishment as a park in 1914, Memorial Park has continued serving the community as a place of celebration, respite, and recreation. Thus, the park's period of significance under **Criterion A** begins in 1914 and ends in 1972, in accordance with the fifty-year NRHP cutoff for buildings that continued serving their historic purpose into the last fifty years.

Under **Criterion B**, although Memorial Park is associated with well-known city planner George E. Kessler, many of the park's features were either built or conceived of prior to the City of El Paso hiring George E. Kessler. Furthermore, Kessler died before completing his plan for the City of El Paso, and did not oversee improvements in Memorial Park. Thus, Memorial Park is not the best representative property associated with Kessler's productive life and is not recommended eligible under **Criterion B**.

Under **Criterion C**, Memorial Park is significant as a designed landscape incorporating elements designed by Los Angeles based landscape architects Howard & Smith, landscape gardener David Goodfellow, and city planner George E. Kessler. Additionally, Memorial Park is significant under **Criterion C** for the WPA-era masonry features found throughout the park which lend it its unique character. Under **Criterion C**, the period of significance begins in 1920, when the city first allocated significant funds for improvements in Memorial Park and construction began on many of the extant features within the park. Under **Criterion C**, the period of significance ends in 1943 when the WPA ceased funding public works projects.

This survey of Memorial Park evaluated above-ground historic resources only. However, due to the site's known association with an early twentieth century copper smelter plant, and the potential for pre-industrial history at the property, an archaeological evaluation of the property's potential significance under **Criterion D** may need to be conducted at a later date.

RECOMMENDED PERIODS AND AREAS OF SIGNIFICANCE

Two areas and associated periods of significance were identified for El Paso's Memorial Park.

- Criterion A: Recreation/Park (1914-1972)
- Criterion C: Landscape Architecture/WPA (1920-1943)

CHARACTER-DEFINING FEATURES

Character-defining features are those tangible elements of a historic property that define the distinct visual and physical character that give a historic resource its historical significance. Character-defining features may include a historic structure's form, materials, features, craftsmanship, decorative details, as well as its site environment. At Memorial Park, character-defining features include both broad, overarching elements of the park that embody its unique qualities, as well as individual features within the park that convey its history.

CHARACTER-DEFINING FEATURES (OVERALL)

Memorial Park is uniquely sited at the location of a former copper smelter, which gives the park its hilly topography. The hilly terrain affords unique, sweeping views of the surrounding city and the Franklin mountains. The topography of the park and the views it affords visitors are a character-defining feature of the park and should be maintained.

A circular motif can be found throughout the park, evident in the roundabout on Grant Avenue, the circular memorial with flagpole off Copper Avenue, and the small cactus garden and the semi-circular benches inset into the masonry walls in the former Hilltop Garden. These circular, semi-circular, and elliptical details can also be found in masonry features, such as the masonry drainage feature on the east side of Copia Street and the elliptical arches on the masonry bridges. Historic aerial photographs also indicate that additional circular features were historically present in the park, including a masonry overlook shade structure, inset circular details on lover's benches, and additional small memorial areas found throughout the park. Although some of these features have been demolished, the circular theme of the park is still legible through the extant resources and configuration.

Many of the extant features within the park are masonry features constructed by the WPA. WPA-era masonry features include walls, inset benches, stairs and entrance gates, bridges, drainage features, and a concession stand. The masonry work was continued as the park developed in the mid-twentieth century, through construction of the Rose Garden and additional masonry walls. Where possible, the masonry elements found throughout the park should be maintained, as they lend the park its distinctive character.



Memorial Park's hilly topography is one of its character-defining features.

OVERALL PARK CHARACTER-DEFINING FEATURES

- Unique hilly topography
- Sweeping views of the city and adjacent mountains
- Circular/semi-circular/elliptical motif
- Masonry ornamentation including benches, bridges, retaining walls, and drainage features
- Landscaping, use of native trees with a mix of informal and formal planting

CHARACTER-DEFINING FEATURES

CHARACTER-DEFINING FEATURES (INDIVIDUAL)

Within Memorial Park there are several individual features that distinguish the site as a unique early twentieth century municipal park. These features set Memorial Park apart from other city parks and provide a distinct sense of place.

The 1922 masonry arch bridge at the southeast side of the park is one of the earliest masonry features that remains in Memorial Park. This arched masonry bridge historically carried pedestrian traffic over a pond, and at one point a masonry dam was located under the bridge. The bridge consists of varied stone with elliptical arch detailing and is a distinctive feature in the park. The bridge, which is the site of prom wedding, and family photos, is significant to the local community.

The 1930s, WPA-era masonry walls that surround the former Hilltop Garden are also a distinct character-defining feature within the park. The walls enclose a flattened hillside, and inset benches under shade trees provide an area of respite to relax and enjoy the surrounding views of the park, city, and mountains. Additional WPA-era masonry walls line the edges of the park, concrete capped staircases and entrance gates, and drainage features throughout the park. The masonry concession stand on the south side of Copper Street across from the pool and the Estrella Street vehicular bridge are also character-defining features of the park. These features all lend a unique sense of place to Memorial Park and should be maintained. There are also several concrete picnic tables and benches within Memorial Park. Although an exact date of construction is unknown, their form and method of construction is consistent with WPA-era construction. The benches and tables are set upon a concrete pad, and consist of a simple waterfall designed table and angled benches.

Several mid-century features within the park also contribute to its overall character, including the 1953 Mid-century Modern Garden Center, a fixture of local garden clubs that have been visiting the park for over a half century, and the 1959 terraced Rose Garden, with masonry walls and decorative iron fence and gates.

CHARACTER-DEFINING FEATURES RECOMMENDATIONS

Character-defining features are the tangible visual and physical features that express Memorial Park's historical significance as an early twentieth century municipal park and a designed landscape with early twentieth century, WPA-era, and mid-century features. Demolition, relocation, or extensive alteration of these features would impact the property's ability to convey its historical significance and should be avoided.

PARK FEATURES THAT LACK HISTORIC INTEGRITY OR ARE OUTSIDE OF THE PERIOD OF SIGNIFICANCE

- Swimming Pool
- Senior Center and adjacent masonry walls
- Library
- Masonry walls adjacent to Library
- Parking Lots
- Tennis Courts
- Playground and turtle sculptures
- Non historic Benches and Picnic Covers
- Baseball Field and Associated Buildings
- Metal Fencing
- Signage (other than historic markers)
- Lamp Posts
- Estrella Street Bridge landscaping
- Hilltop garden cactus garden/landscaping
- Trash cans

CHARACTER-DEFINING FEATURES

PRE-WPA FEATURES



Accessory Building (HR18)

*(The small, utilitarian outbuilding located south of Grant Avenue may be associated with the early industrial history of the property and appears to pre-date the establishment of Memorial Park. Therefore, it may not be considered historic within the historic context of Memorial Park. Additional research would be necessary to determine if the building has historic significance as a pre-industrial or smelter-related building.)*



1922: Masonry Arch Footbridge (HR1)

WPA FEATURES



Ca. 1935: Estrella Street Masonry vehicular bridge (HR2)



Ca. 1935: Masonry walls, staircases, entrance gates, and benches (HR4-14)



Ca. 1935: Concession Building (HR17)



Ca. 1935: Hilltop Garden masonry walls (HR3)



Ca. 1935: Masonry drainage feature and culverts (HR12-14)



Ca. 1935: Concrete picnic tables/benches (HR21)

MID-CENTURY FEATURES



1953: Garden Center (HR15)



1959: Rose Garden (HR19)

HISTORIC INTEGRITY



Memorial Park was first established over 100 years ago, and since then has undergone periods of development, deterioration, alteration, expansion, upgrade, and neglect. Some alterations to the park are minimal, and do not impact the overall historic integrity of the park to such a degree that they interfere with the park’s ability to convey its historical significance. These include cracked or missing stones in the masonry, cracked mortar, and the use of incompatible Portland cement mortar. Some alterations, including demolition of the Hilltop Garden and lover’s benches, were done during the park’s period of significance, and thus are part of the park’s history. Later, mid-century additions to the park, including the 1950s Garden Center and Rose Garden, have achieved historical significance in their own right, and contribute to the park’s overall historic significance.

Some alterations, such as the removal of the interior drive through the park, demolition of WPA-era masonry features, and construction of new, modern facilities within the park, have impacted its historic integrity of design, materials, workmanship, and feeling. Nonetheless, the park maintains its integrity of location, setting, and association. Furthermore, evolution of the park to meet the changing needs of the community is consistent with its continued use as a municipal park for over a century.

HISTORIC INTEGRITY SUMMARY

National Register Historic integrity of Memorial Park has been diminished by:

- Demolition of the Kessler-plan Cactus Garden (ca. 1940s/1950s)
- Removal of some lover’s benches, Hilltop Garden (ca. 1950s)
- Removal of Estrella Street interior drive (ca. 1985)
- Construction of Senior Center (between 1974 and 1984)
- Removal of masonry overlook (ca. 1970s/1980s)
- Replacement tennis courts and swimming pool (2005)
- Rose Garden addition (2005)
- New library (2005)
- Northern ball field totally leveled and re-built (2020)
- Concession area now blocked off by fencing, bifurcating that area of the park
- Incompatible Portland cement mortar used on masonry features throughout
- Some graffiti throughout the park, or painted masonry to conceal graffiti
- Cracked or missing stones in masonry, cracked mortar, cracked concrete caps on staircases and entrance gates
- Original light fixtures removed, replaced, or altered

Hilltop Masonry Walls (HR3)

HISTORIC CONTEXT AND INTEGRITY CONCLUSION

Memorial Park is a historically significant municipal park that dates back over a century to the early twentieth century development period of the City of El Paso. The park has been the location for celebrations, sporting events, and recreational activities throughout the entirety of its existence. Although changes and upgrades to park facilities, including new swimming pool, tennis courts, baseball field, and library have impacted the historic integrity of the park, these changes are consistent with the need to continue to provide the community with facilities that serve their needs. Furthermore, many of the 1920s and 1930s features in the park remain, and lend the park its unique feeling. Mid-century additions to the park show the evolution of the park as a continued fixture in the surrounding community, and they were constructed with masonry elements that are compatible with the earlier park features.



## END NOTES

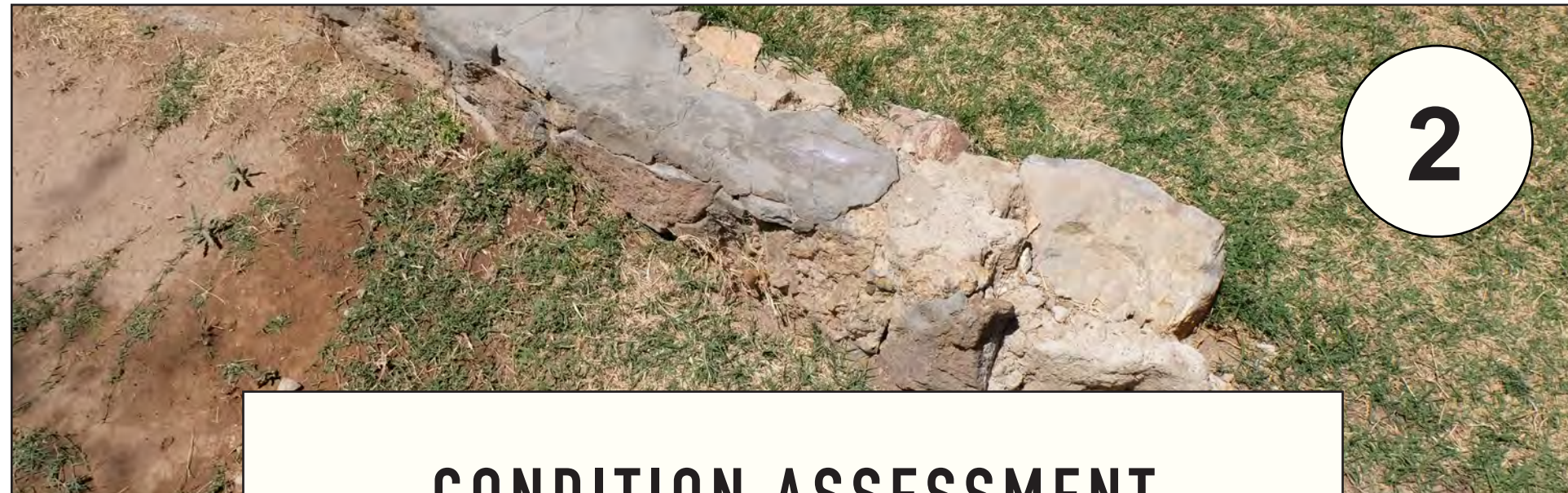


Hilltop Masonry Walls (HR3)

- W. H. Timmons, "El Paso, TX." Handbook of Texas Online, <https://www.tshaonline.org/handbook/entries/el-paso-tx>, accessed May 03, 2022.
- Timmons, "El Paso, TX."
- Danny Hardy and Linda C. Flory, National Register of Historic Places Nomination for Manhattan Heights Historic District (Reference #80004107), (National Park Service, 1980), 8-0.
- Different sources state different acreages of the initial park site. Newspapers from 1920 say the park was originally roughly 25 acres until the city purchased an additional eight acres east of Copia Street and several acres south of Manhattan Heights School; Hardy and Flory, Manhattan Heights Historic District, 8-17.
- Hardy and Flory, Manhattan Heights Historic District, 7-0.
- Hardy and Flory, Manhattan Heights Historic District, 7-3; The El Paso Sketch Club, "Manhattan School – Crockett Elementary," <https://www.sketchclub.net/p/manhattan-school-crockett-elementary.html>, accessed May 10, 2022.
- Craig M. Peters, El Paso's Manhattan Heights (Charleston: Arcadia, 2011), 43; John Gotshall, "Memorial Park's Beauty Blooms to Charm Lovers of Nature's Wilderness," El Paso Times, January 30, 1921, 8.
- Gotshall, "Memorial Park's Beauty Blooms to Charm Lovers of Nature's Wilderness," 8.
- "Memorial Park Is in Shape for Spring Planting," El Paso Herald, January 17, 1922, 4.
- Gotshall, "Memorial Park's Beauty Blooms to Charm Lovers of Nature's Wilderness," 8.
- City Plan Commission, City Plan for El Paso, Texas 1925, <https://scholarworks.utep.edu/ep-books/6/>, accessed April 11, 2022, 6.
- City Plan Commission, City Plan for El Paso, Texas 1925, 37.
- City Plan Commission, City Plan for El Paso, Texas 1925, 35.
- "Memorial Park." El Paso Times, November 10, 1928, 9.
- Hardy and Flory, Manhattan Heights Historic District, 8-18; Bill Wade, "General Foreman Has Tended City Parks Since Grass Mower Was Pulled by Maggie the Mule," El Paso Herald-Post, October 19, 1955, 17.
- "5000 may attend July 4 Celebration," El Paso Herald-Post, June 27, 1934, 2.
- Hardy and Flory, Manhattan Heights Historic District, 8-18 and 7-3.
- "Proud Peacocks Plat Two EP Softball Tilts Tonight," El Paso Herald-Post, July 26, 1947, 5.
- "Eyes of Texas' Garden Club Flower Show Opens in Coliseum," El Paso Times, April 10, 1954, 1; Texas Master Gardener. "El Paso Municipal Rose Garden," <https://txmg.org/el-paso/projects/rose-garden/>, accessed May 4, 2022 "El Paso Public Library Branch Features Spacious, Well-Lighted Reading Rooms," El Paso Times, November 22, 1950, 13.
- Halff, Towards A Brighter Future, Parks and Recreation Master Plan for El Paso, September 2014, [https://www.elpasotexas.gov/assets/Documents/CoEP/Parks/Park-Planning/master\\_plan\\_complete.pdf](https://www.elpasotexas.gov/assets/Documents/CoEP/Parks/Park-Planning/master_plan_complete.pdf). Prepared for the City of El Paso, accessed March 11, 2022, 4-5.
- Hardy and Flory, Manhattan Heights Historic District, 8-19.
- Halff, Towards A Brighter Future, 4-5.
- Archie Waters, "Library brick is building block to knowledge," El Paso Times, September 21, 1995, 10.
- "Memorial Park," El Paso Times, May 10, 1996, 3B.
- Halff, Towards A Brighter Future, 5.
- Darren Meritz, "Memorial Park one of centers to get face lift," El Paso Times, May 2, 2005, 13.
- Adriana M. Chavez, "Neighborhood group seeks Memorial Park improvements," El Paso Times, December 4, 2006, 15.
- City of El Paso, Neighborhood Improvement Program Awarded Projects 2007-2015, <https://www.elpasotexas.gov/assets/Documents/CoEP/Community-Development/Neighborhood-Improvement-Program/NIPAwardedProjects20072015.pdf>, accessed April 11, 2022.

## REFERENCES

- El Paso Times
- Baca, Kim. "Shady trees expected to help rejuvenate park." El Paso Times, May 25, 1995, 13.
- Dils, Lenore. "Miners Drilled Holes in Granite." El Paso Times, October 13, 1963.
- "Eyes of Texas' Garden Club Flower Show Opens in Coliseum." El Paso Times, April 10, 1954, 1.
- "Girl Scouts' Building." El Paso Times, July 20, 1936, 4.
- Gotshall, John. "Memorial Park's Beauty Blooms to Charm Lovers of Nature's Wilderness," El Paso Times, January 30, 1921, 8.
- Chavez, Adriana M., "Neighborhood group seeks Memorial Park improvements." El Paso Times, December 4, 2006, 15.
- "El Paso Public Library Branch Features Spacious, Well-Lighted Reading Rooms." El Paso Times, November 22, 1950, 13.
- "Memorial Park." El Paso Times, November 10, 1928, 9.
- "Memorial Park." El Paso Times, May 10, 1996, 3B.
- Meritz, Darren. "Memorial Park one of centers to get face lift." El Paso Times, May 2, 2005, 13.
- Stoner, Tim. "Park Area Residents Claim Holiday Congestion Typical." The El Paso Times, May 30, 1978, 3B.
- Waters, Archie. "Library brick is building block to knowledge." El Paso Times, September 21, 1995, 10.
- El Paso Herald-Post
- "5000 may attend July 4 Celebration." El Paso Herald-Post, June 27, 1934, 2.
- "Flower Show Worker." El Paso Herald-Post, March 10, 1954, 11.
- "Games Interesting." El Paso Herald-Post, May 7, 1943, 22.
- "Memorial Park Is in Shape for Spring Planting," El Paso Herald, January 17, 1922, 4.
- "Proud Peacocks Plat Two EP Softball Tilts Tonight." El Paso Herald-Post, July 26, 1947, 5
- Wade, Bill. "General Foreman Has Tended City Parks Since Grass Mower Was Pulled by Maggie the Mule." El Paso Herald-Post, October 19, 1955, 17.
- City of El Paso. Neighborhood Improvement Program Awarded Projects 2007-2015. Accessed April 11, 2022. <https://www.elpasotexas.gov/assets/Documents/CoEP/Community-Development/Neighborhood-Associations/Neighborhood-Improvement-Program/NIPAwardedProjects20072015.pdf>.
- City Plan Commission. City Plan for El Paso, Texas 1925. Accessed April 11, 2022. <https://scholarworks.utep.edu/ep-books/6/>.
- Hardy, Danny and Linda C. Flory. National Register of Historic Places Nomination for Manhattan Heights Historic District (Reference #80004107). National Park Service, 1980.
- Halff. Towards A Brighter Future, Parks and Recreation Master Plan for El Paso, September 2014. Accessed March 11, 2022. [https://www.elpasotexas.gov/assets/Documents/CoEP/Parks/Park-Planning/master\\_plan\\_complete.pdf](https://www.elpasotexas.gov/assets/Documents/CoEP/Parks/Park-Planning/master_plan_complete.pdf). Prepared for the City of El Paso.
- Maxwell, Lisa C. "Kessler, George E." Handbook of Texas Online. Accessed April 12, 2022. <https://www.tshaonline.org/handbook/entries/kessler-george-e>.
- Murphy, James R. El Paso 1850-1950. Charleston: Arcadia Publishing, 2009.
- National Park Service. National Register Bulletin: How to Apply the National Register Criteria for Evaluation. 1990 (revised 1997). Accessed May 10, 2022. [https://www.nps.gov/subjects/nationalregister/upload/NRB-15\\_web508.pdf](https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf).
- Peters, Craig M. El Paso's Manhattan Heights. Charleston: Arcadia, 2011.
- Texas Master Gardener. "El Paso Municipal Rose Garden." Accessed May 4, 2022. <https://txmg.org/el-paso/projects/rose-garden/>.
- The El Paso Sketch Club. "Manhattan School – Crockett Elementary," Accessed May 10, 2022. <https://www.sketchclub.net/p/manhattan-school-crockett-elementary.html>.
- Timmons, W. H. "El Paso, TX." Handbook of Texas Online. Accessed May 03, 2022, <https://www.tshaonline.org/handbook/entries/el-paso-tx>.
- "Urban Park and Recreation Recovery Act of 1978, Title X, P.L. 95-625," Accessed April 11, 2022. <http://npshistory.com/publications/recreation/urban-park-rec-recovery-act.pdf>.
- United States Geological Survey. "1947 Aerial El Paso, Texas - 1CU000020056." Accessed May 4, 2022. <https://earthexplorer.usgs.gov/>.
- . "1957 Aerial, El Paso, Texas - A016400900878." Accessed May 4, 2022. <https://earthexplorer.usgs.gov/>.
- . "1967 Aerial, El Paso, Texas - 1VBTB00010110." Accessed May 4, 2022. <https://earthexplorer.usgs.gov/>.
- . "1974 Aerial, El Paso, Texas - H217800010140." Accessed May 4, 2022. <https://earthexplorer.usgs.gov/>.



## CONDITION ASSESSMENT

Historic resources require maintenance and repairs to ensure their long-term preservation. Condition assessments are the first step in identifying the scope of future work and best practices for maintaining cultural heritage. Post Oak Preservation Solutions conducted a survey and visual inspection of historic features in Memorial Park during a site visit in April 2022. Archival research, historic aerial maps, WPA records, and inspection of mortars were used to identify historic resources at the site (see Chapter 1). In all, 21 features (including a set of five picnic tables) were documented and conditions were noted.

This chapter includes an overview of the methodology used for condition assessments, the materials and typical conditions found at the site, detailed condition assessments for 20 features, and an illustrated glossary. Treatment recommendations based on best practices for historic materials as advised by the National Park Service have been included on the assessment pages.



*Incompatible repair patch, corrosion, and staining at the Rose Garden.*

SURVEY METHODOLOGY

SURVEY MAP

METHODOLOGY

Post Oak conducted a visual condition assessment of resources identified as historic-age (over 50 years old) in Memorial Park in April 2022. Resources were keyed to a map and select dimensions were taken for reference. Conditions of historic resources were based on the methodology in David Watt’s Building Pathology: Introduction and Practice (1999). Treatment recommendations are based on professional best practices and guidance in the National Park Service’s Preservation Briefs. An illustrated glossary has been included to define typical conditions observed during this project.

The scope of this project was limited to visual inspection of the exterior envelope of historic buildings. To fully understand the effort required to put historic buildings into active use, an assessment of the interior, roof, and MEP systems will be required. Structural assessments are recommended for buildings and the bridges, as well. If any ground is to be disturbed by future park improvements, an archaeological investigation may be appropriate. As conditions may change over time, condition assessments should be verified and updated in the field prior to beginning any work.

For this study, conditions were assessed as excellent, good, fair, or poor based on the following criteria:

ASSESSMENT CRITERIA

For this study, conditions were assessed as excellent, good, fair, or poor based on the following criteria:

- **Excellent:** Resource retains over 90% material integrity. No repairs or interventions are needed. Historic fabric is largely intact.
- **Good:** Resource retains over 75% material integrity. Regular maintenance using appropriate methods and materials is recommended. Continue to monitor the resource. Repairs or interventions may be required in the next five years.
- **Fair:** Resource retains over 50% material integrity. Repairs or interventions may be required within the next two to five years to ensure long-term preservation. Adverse conditions may continue to accelerate if issues are not addressed.
- **Poor:** Resource retains less than 50% material integrity. Stabilization and/or repair is needed immediately. The integrity of the historic material may be compromised. Resource should be evaluated for safety if in use by the public.

HISTORIC RESOURCES ASSESSED

Twenty-one features historic features were identified and assessed as part of this report. All of the features are masonry structures, most of which date from the WPA-era, ca. 1935.

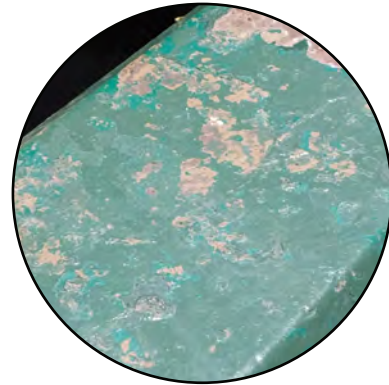
- HR1: 1920s Bridge
- HR2: Estrella Street Bridge
- HR3: Hilltop Masonry Walls
- HR4: Hilltop Masonry Bench South
- HR5: Hilltop Masonry Bench North
- HR6: Hilltop Circular Garden
- HR7: Hilltop Circular Walk with Flagpole
- HR8: Northwest Masonry Walls
- HR9: South Masonry Walls
- HR10: North Copia Street Walls
- HR11: Masonry Walls West of Baseball Field
- HR12: Culvert
- HR13: Culvert Bridge
- HR14: Copia Street Drainage
- HR15: Hilltop Entrance
- HR16: North Copia Street Stairs
- HR17: Concession Building
- HR18: Accessory Building
- HR19: Rose Garden
- HR20: Garden Center
- HR21: Picnic Tables

HISTORIC MATERIALS AT MEMORIAL PARK



Stone

Native stone, limestone, and granite were used through the masonry structures in the park. The masonry structures appear to date from the early 1920s, the WPA-era, midcentury, and more recent times. The masonry materials are irregularly shaped and vary in color, texture, and size.



Finishes

Exterior paint finishes are applied to most buildings throughout the park. It is both an aesthetic and protective layer over the substrate. In general, it is not recommended to apply paint to masonry walls that were historically unpainted. Non-historic paint coatings were noted on the brick exterior walls of the garden center (HR15), the 1920s bridge (HR1), on various elements of the hilltop masonry walls (HR3), and the masonry accessory building (HR18). Paint was likely historically used on the picnic tables (HR20) and exterior elements of the concession building (HR17) and garden center (HR15).



Concrete

Paved concrete vehicular roads and parking lots are located adjacent to buildings in the park. Two circular concrete walking paths are remnant of historic hilltop gardens in the park (see HR6 and HR7).



Brick

The garden center (HR15) has brick exterior walls..



Mortar

Mortar is the sacrificial "glue" that holds together masonry wall systems. The main components of historic mortar are a binder (typically lime or cement), an aggregate (sand or gravel), and water. The 1920s and WPA mortars appear to have a light brown color with large, varied, and irregular aggregate. Non-historic mortars with large concentrations of Portland cement have been used for patching, repairs, and repointing. In general, these non-historic mortars are grey in color, lack visible aggregate, and may be too hard for the surface which can result in accelerated deterioration to the masonry.

DETERIORATION AND CONDITIONS

GENERAL CONDITIONS

The historic structures in the park are generally in fair condition. Adverse conditions and deterioration are largely due to differential settlement, deferred maintenance, and incompatible or inappropriate repairs.

STONE

The historic stone is exhibiting various conditions throughout the park due to inherent properties, inappropriate repairs, and modifications.

SITE

The hilly topography of Memorial Park is one of its character-defining features; however, this topography as well as ground movement due to rain, vermin tunnels, and tree roots has caused many of the historic features, especially the hilltop masonry walls, to shift. This has resulted in shifting and structural instability of walls, mortar loss, masonry cracks, and exposed foundations.

BIOLOGICAL GROWTH

Macro- and micro-biological growth is visible on structures throughout the park. For the most part, the bio growth does not appear to be having an adverse effect on the masonry.

GRAFFITI

Applied and incised graffiti, as well as graffiti removal efforts, are visible throughout the park. Graffiti removal products and methods that are not appropriate for historic materials can cause permanent damage. The bottom section of the garden center exterior walls (HR15) has been painted, possibly to mitigate graffiti. Marker and spray paint graffiti is visible on the 1920s bridge (HR1) and instances of painted graffiti are visible in small quantities throughout the park.

1920S BRIDGE (HR1)

RESOURCE DETAILS

Name of Resource: 1920s Bridge

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Smooth concrete coping scored every 10 feet
- Date engraved on north side of arch
- Archway
- Historic mortar

Date Constructed: 1922 (pre-WPA)

Assessment Date: April 2022

Overall Condition: Fair



Keystone with "1922" inscription.



Scoring on concrete at top of walls



Typical mortar and masonry

DESCRIPTION

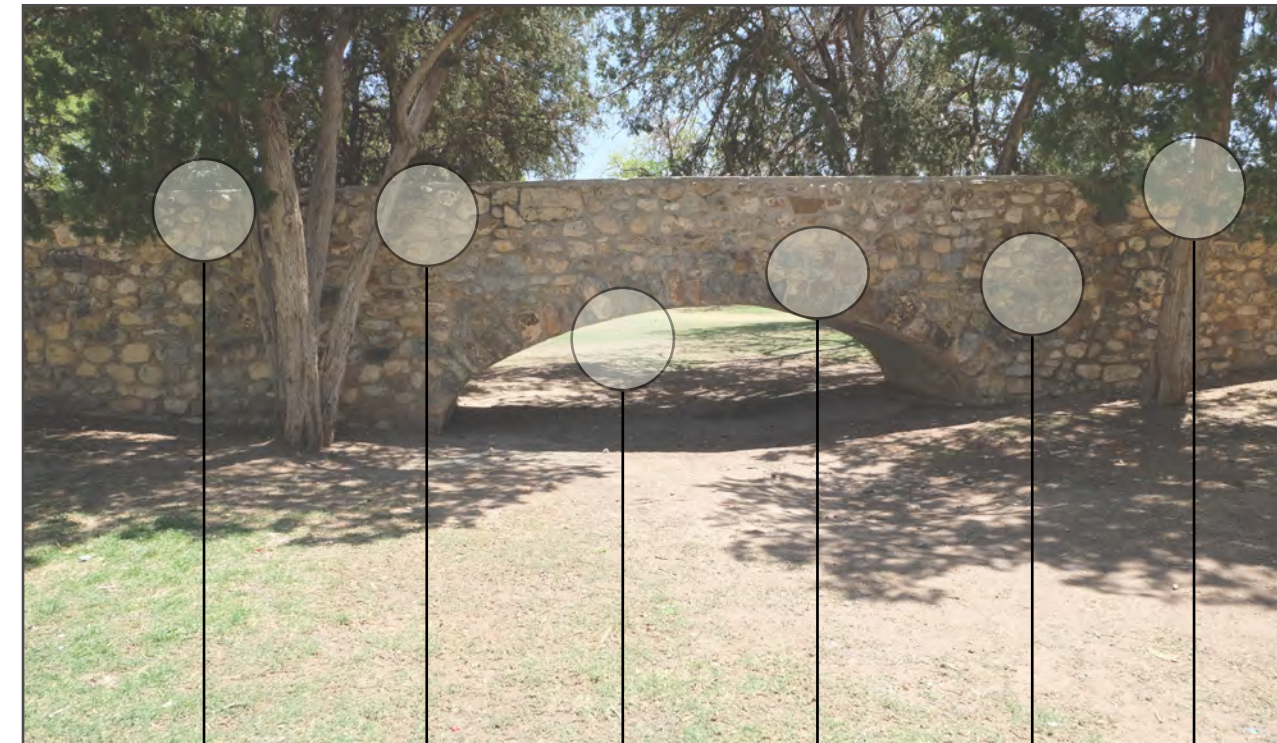
Built in 1922, this stone bridge arched opening is a significant feature of the park. It was historically built over an artificial lake and retains an inscription with the date "1922" at the north keystone. The bridge has stone walls topped with concrete that has been scored every ten feet as a subtle, decorative element.

CONDITIONS

The 1920s bridge is in fair condition. Issues have generally resulted from typical deterioration and incompatible repairs. Conditions include:

- Corrosion of arch structure (visible under bridge)
- Remnants of applied graffiti to north masonry walls and top of concrete
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Non-historic paint on east end of walls
- Cracked, missing, and loose concrete coping
- Cracked, missing, and loose mortar
- Biological growth

TYPICAL CONDITIONS: 1920S BRIDGE (HR1)



paint (concrete)



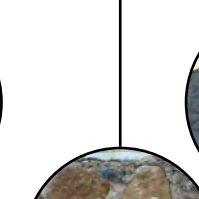
missing material (mortar)



corrosion (structural metal)



applied graffiti (paint)



incompatible repair (mortar)



incised graffiti (concrete)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint (Graffiti and Maintenance)

- To avoid damaging the masonry, it is recommended to leave the existing paint and allow it to weather over time.
- No new paint should be applied to the bridge.
- As this is a significant feature to the park, a sacrificial graffiti coating appropriate for historic masonry may be beneficial

Structural Metal

- A structural engineer should assess the damage to the metal structure visible on the arch interior

Cleaning

- Biogrowth may remain or be cleaned using a biocide appropriate for historic materials. Growth will likely return after cleaning due to tree coverage.



ESTRELLA STREET BRIDGE (HR2)

RESOURCE DETAILS

Name of Resource: Estrella Street Bridge

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel and PVC pipes

Features:

- Tiered entrance posts
- Visible drainage pipes
- Arched form
- Non-historic landscaping on top surface
- Cast concrete coping

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Good



Tiered posts at Estrella Street Bridge



Top of Estrella Street Bridge

DESCRIPTION

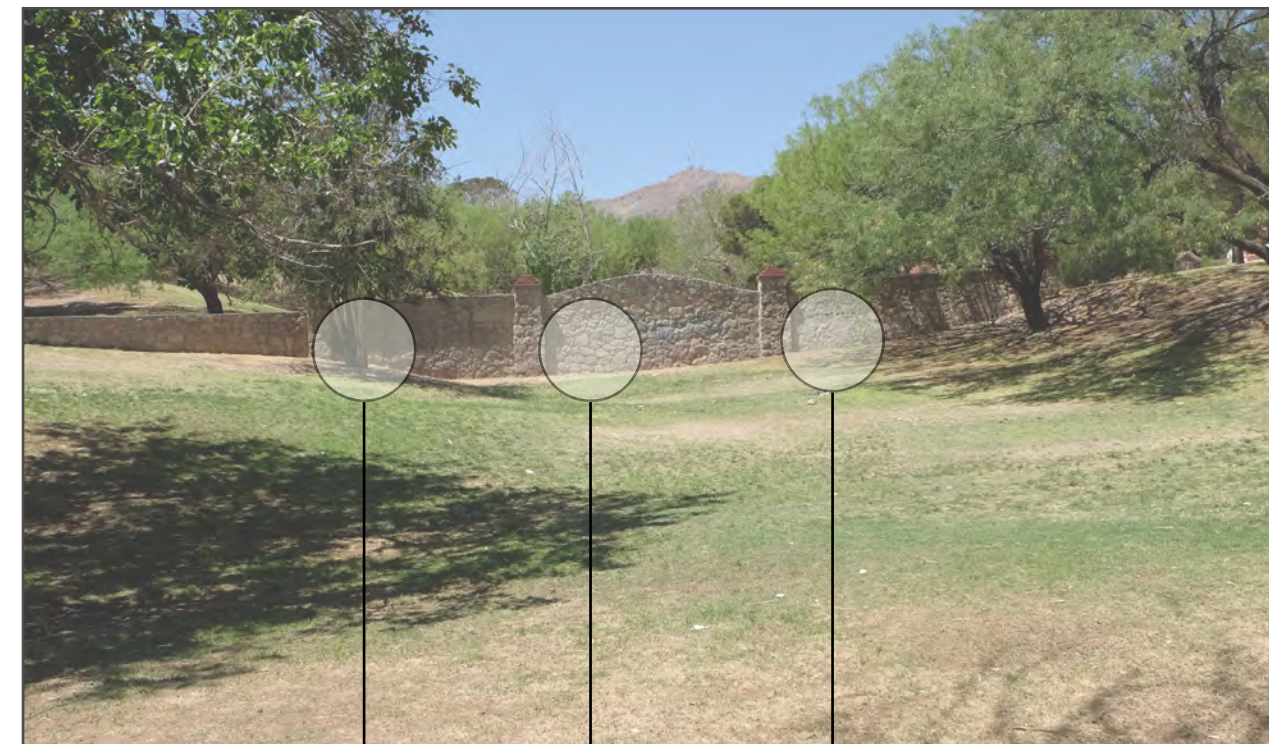
Built ca. 1935 as part of the WPA effort in Memorial Park, the Estrella Street bridge was historically part of a vehicular road that cut through the park. The Bridge carried cars and foot traffic over an artificial lake. The road was removed from the park and the lake has been infilled. The top of the bridge contains non-historic landscaping.

CONDITIONS

The Estrella Street Bridge is in overall good condition. Ground movement appears to be causing some issues to mortar. Typical issues with incompatible repairs were noted. Conditions include:

- Appearance of a step crack at the south side of brick
- Drips of non-historic paint
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Cracked concrete coping
- Applied paint on walls
- Failing paint coating on posts

ESTRELLA STREET BRIDGE (HR2)



incompatible mortar



step crack (stone)



missing and cracked mortar

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As non-historic mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.

Paint

- Existing paint coatings should be maintained to avoid moisture intrusion into the substrate.
- No paint should be applied to historically unpainted masonry.
- As this is a significant feature to the park, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

Settlement

- The ground adjacent to the bridge should be monitored for settlement, movement, and erosion to prevent any structural instability in the bridge.
- A structural engineer should assess the potential step crack on the south elevation to determine if any future issues for structural instability can be prevented.

HILLTOP MASONRY WALLS (HR3)

RESOURCE DETAILS

Name of Resource: Hilltop Masonry Walls

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Smooth concrete coping
- Follows the topography of the site
- Steps, staircases, benches, and levels throughout

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Dimensions: approx. 18”deep x .3 miles long (height varies)

Overall Condition: Fair to Poor

[This assessment represents typical conditions for the masonry walls throughout the park.]



Masonry walls follow the topography of the landscape.



Step cracks from differential settlement



Varying features in the hilltop walls

DESCRIPTION

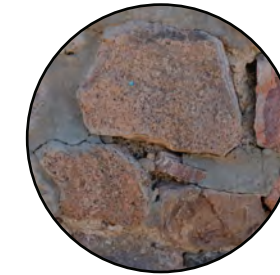
The WPA constructed over 1/3rd miles of hilltop masonry walls at the south end of Memorial Park. These walls follow the topography of the site and historically surrounded circular gardens. Benches, staircases, steps, and other features are extant throughout the walls. The walls have thin, flat concrete coping.

CONDITIONS

The WPA hilltop masonry walls have a variety of adverse conditions due to settlement, adjacent vegetation, incompatible or inappropriate repairs, and general deterioration. Conditions include:

- Applied graffiti (paint) and non-historic paint
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Non-historic paint on east end of walls
- Cracked, missing, and loose concrete on top of walls
- Cracked, missing, and loose mortar
- Vegetation adjacent to walls
- Vegetation growing into and moving walls
- Vermin infestation (holes and nests)
- Mechanical damage/missing wall sections from human interaction
- Step cracks from ground movement

HILLTOP MASONRY WALLS (HR3)



incompatible patches and failing mortar



biological growth - plants (stone)



non-historic paint coatings



vermin infestation (holes under masonry)



settlement from erosion



cracked, broken, missing sections of masonry



missing and cracked concrete



mechanical damage from human interaction



step cracks from settlement

TREATMENT RECOMMENDATIONS

More than 75% of the hilltop masonry walls require repair to some extent.

Stone

- Missing stone should be replaced in-kind to match existing.

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As non-historic mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.

Paint (Graffiti and Maintenance)

- To avoid damaging the masonry, it is recommended to leave the existing paint and allow it to weather over time.
- No new paint should be applied to the walls.
- As this is a significant feature to the park, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

Settlement

- A structural engineer should assess the movement of walls due to adjacent erosion and vegetation.

HILLTOP MASONRY BENCH - SOUTH (HR4)

RESOURCE DETAILS

Name of Resource: Hilltop Masonry Bench

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Arched back
- Smooth concrete coping

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair



Missing mortar on rear of bench



The bench follows the contour of the hilltop walls



Back of bench; the adjacent ground should be monitored for erosion

DESCRIPTION

This WPA-era bench is one of two extant historic masonry benches built into the hilltop walls (HR3). It follows the contours of the landscape and features an arched back and irregularly shaped stones.

CONDITIONS

The WPA bench is in overall fair condition with applied graffiti, incompatible repairs using Portland cement, cracked concrete, and missing mortar. Conditions include:

- Cracked and missing concrete
- Missing and loose mortar (especially on back)
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Drips of non-historic black paint
- Significant patches using Portland cement-based material

HILLTOP MASONRY BENCH - SOUTH (HR4)



incompatible repair (concrete patch on stone)



applied graffiti (paint on concrete)



missing and loose material (mortar)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint (Graffiti and Maintenance)

- The applied paint drips may be removed using graffiti removal product appropriate for historic masonry. See "Graffiti Best Practices" for additional information.
- No new paint should be applied to the historic masonry.
- As this feature appears to be vulnerable to vandalism, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

Settlement

- A structural engineer should assess the movement of walls due to adjacent erosion and vegetation.

HILLTOP MASONRY BENCH - NORTH (HR5)

RESOURCE DETAILS

Name of Resource: Hilltop Masonry Bench

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Curved shape
- Smooth concrete coping

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair



Erosion at rear of bench structure



The bench follows the contour of the hilltop walls



Back of bench; the adjacent ground should be monitored for erosion

DESCRIPTION

This WPA-era bench is one of two extant historic masonry benches built into the hilltop walls (HR3). It follows the contours of the landscape and features a curved plan and irregularly shaped stones.

CONDITIONS

The WPA bench is in overall fair condition with applied graffiti, incompatible repairs using Portland cement, cracked concrete, and missing mortar. Conditions include:

- Cracked and missing concrete
- Missing and loose mortar (especially on back)
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Drips of non-historic black paint
- Cracks seat due to erosion in rear of bench

HILLTOP MASONRY BENCH - NORTH (HR5)



incompatible repair (concrete patch on stone)



missing and loose material (mortar)



settlement (structure)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint (Graffiti and Maintenance)

- The applied paint trips may be removed using graffiti removal product appropriate for historic masonry. See "Graffiti Best Practices" for additional information.
- No new paint should be applied to the historic masonry.
- As this feature appears to be vulnerable to vandalism, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

Settlement

- A structural engineer should assess the movement of walls due to adjacent erosion and vegetation.

HILLTOP CIRCULAR GARDEN (HR6)

RESOURCE DETAILS

Name of Resource: Hilltop Circular Garden

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Masonry wall
- Concrete pad
- Concrete-curbed garden

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Good



Concrete curbed-garden



Concrete curbed-garden



Masonry wall

DESCRIPTION

This hilltop circular garden was first developed during the ca. 1935 WPA era; however, some elements may be non-historic. It includes a concrete paving, a masonry wall, and concrete curbed garden area.

CONDITIONS

The hilltop garden is in good condition. Conditions include:

- Incompatible mortar and patches
- Cracked, missing, and loose mortar

HILLTOP CIRCULAR GARDEN (HR6)



incompatible repair (mortar)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonh-historic mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

HILLTOP CIRCULAR GARDEN WITH FLAGPOLE (HR7)

RESOURCE DETAILS

Name of Resource: Hilltop Circular Garden with Flagpole

Type of Resource: Structure

Materials:

- Concrete

Features:

- Circular concrete walkway
- Flagpole
- Commemorative marker
- Historic marker

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Good



Flagpole with commemorative plaque



Memorial Park Official Texas Historical Marker

DESCRIPTION

Built in the 1930s as part of the WPA, this hilltop garden is anchored by a flagpole. It features a circular concrete walk and two markers.

CONDITIONS

The hilltop circular garden with flagpole is in good condition. Minimal wear to the concrete was noted.

HILLTOP CIRCULAR GARDEN WITH FLAGPOLE (HR7)

TREATMENT RECOMMENDATIONS

No treatment is recommended.



NORTH COPIA STREET WALLS (HR10)



Loose masonry



Efflorescence



Masonry walls at North Copia Street

RESOURCE DETAILS

Name of Resource: 1920s Bridge

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- No coping
- Varies in height

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair

DESCRIPTION

Built ca. 1935 as part of the WPA effort, the masonry walls along North Copia Street have no coping and vary in height.

CONDITIONS

The masonry walls are in overall fair condition with missing mortar, incompatible repairs, and some differential settlement. Conditions include:

- Step cracks due to differential settlement
- Loose or missing stones
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Cracked, missing, and loose mortar
- Efflorescence

NORTH COPIA STREET WALLS (HR10)



TREATMENT RECOMMENDATIONS

Stone

- Missing stone should be replaced in-kind to match existing.

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint

- No new paint should be applied to the walls.

Settlement

- A structural engineer should assess the movement of walls due to adjacent erosion and vegetation.

MASONRY WALLS WEST OF BASEBALL FIELD (HR11)

RESOURCE DETAILS

Name of Resource: Masonry Walls

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Cast concrete coping

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair



Keystone with "1922" inscription.



Scoring on concrete at top of walls



Typical mortar and masonry

DESCRIPTION

Constructed as part of the WPA effort, this masonry wall has cast concrete coping and a non-historic fence installed on top.

CONDITIONS

The 1920s bridge is in fair condition. Issues have generally resulted from typical deterioration and incompatible repairs. Conditions include:

- Cracks in coping, especially near fence posts
- Loose or missing stones
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Cracked, missing, and loose mortar

MASONRY WALLS WEST OF BASEBALL FIELD (HR11)



cracks in coping, especially where fence is attached (concrete)



broken coping (concrete)



incompatible patching materials (mortar)

TREATMENT RECOMMENDATIONS

In general, it is not recommended to install non-historic features, like fences, on top of historic structures.

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.



MASONRY CULVERT (HR12)

RESOURCE DETAILS

Name of Resource: Culvert

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Arched top on masonry walls
- Metal grate
- Angled walls

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair



Masonry and gates



Curved top at the masonry walls

DESCRIPTION

This WPA culvert has a metal gate and angled masonry wide walls. The masonry wall at the street level has a rounded top. This culvert connects to a WPA masonry bridge to the south (HR11). Rocks line the culvert runoff channel.

CONDITIONS

This WPA culvert is in fair condition. Debris from the street and nearby activity, as well as deferred maintenance on the mortar joints were noted. Conditions include:

- Adjacent vegetation
- Debris
- Applied graffiti to gate
- Cracked, missing, and loose concrete on top of walls
- Cracked, missing, and loose mortar

MASONRY CULVERT (HR12)



applied graffiti (metal)



adjacent vegetation

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Vegetation

- Vegetation adjacent to historic masonry should be maintained. It can cause conditions of excess moisture, attract insects or vermin, and grow into the masonry walls causing destabilization and damage.

Graffiti

- The applied paint and marker may be removed using graffiti removal product appropriate for historic metals. See “Graffiti Best Practices” for additional information.

MASONRY CULVERT BRIDGE (HR13)

RESOURCE DETAILS

Name of Resource: Masonry Culvert Bridge

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Scored concrete at top of bridge (every 10 feet)
- Date engraved on north side of arch
- Historic mortar

Date Constructed:

Assessment Date: April 2022

Overall Condition: Fair



Culvert bridge



Top of culvert bridge



Debris and pipe in culvert bridge

DESCRIPTION

The simple WPA bridge is part of a culvert system to the north of the library building. It appears that a road or path once carried over the structure.

CONDITIONS

The culvert bridge is in fair condition. Conditions include:

- Cracked concrete
- Deteriorated mortar
- Adjacent debris
- Adjacent vegetation

MASONRY CULVERT BRIDGE (HR13)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Vegetation

- Vegetation adjacent to historic masonry should be maintained. It can cause conditions of excess moisture, attract insects or vermin, and grow into the masonry walls causing destabilization and damage.



adjacent debris



deteriorating mortar

NORTH COPIA STREET DRAINAGE FEATURE (HR14)

RESOURCE DETAILS

Name of Resource: North Copia Street Drainage Feature

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Overall design
- Masonry
- WPA plaque

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair to Good

DESCRIPTION

Built along North Copia Street as part of the WPA effort, this stylized drainage feature is constructed of historic masonry and features a drainage canal that leads into an arched drain towards the street.

CONDITIONS

The drainage feature is in good condition. The adjacent stone-lined waterway is in fair condition. Conditions include:

- Drips of applied graffiti
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Dislodged stones in canal



Drainage feature at North Copia Street and the railroad tracks



Canal above the drainage feature



Stone-lined canal

NORTH COPIA STREET DRAINAGE FEATURE (HR14)



applied paint (masonry)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint (Graffiti and Maintenance)

- The applied paint trips may be removed using graffiti removal product appropriate for historic masonry. See “Graffiti Best Practices” for additional information.
- No new paint should be applied to the historic masonry.
- As this feature appears to be vulnerable to vandalism, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

Settlement

- A structural engineer should assess the movement of walls due to adjacent erosion and vegetation.

HILLTOP ENTRANCE (HR15)

RESOURCE DETAILS

Name of Resource: Hilltop Entrance

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete

Features:

- Half domed caps

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair



Half dome caps



Typical mortar and masonry

DESCRIPTION

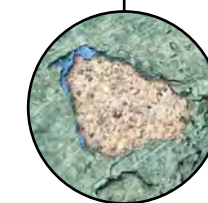
Located at the south end of Memorial Park, an entrance with two half-dome capped posts leads into the park from a partial residential block adjacent to the site.

CONDITIONS

The hilltop entrance is in fair condition due to incompatible repairs and deferred maintenance. Conditions include:

- Failing paint coating
- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Non-historic paint on east end of walls
- Cracked, missing, and loose concrete coping on adjacent walls
- Cracked, missing, and loose mortar

HILLTOP ENTRANCE (HR15)



failing paint coating (concrete)



incompatible repairs



cracking and missing material (concrete)

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint

- The paint coating should be maintained.

NORTH COPIA STREET STAIRS (HR16)

RESOURCE DETAILS

Name of Resource: North Copia Street Stairs

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Half dome caps

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Poor



Half dome caps



Typical interior structural failure

DESCRIPTION

This staircase was constructed during the 1930s WPA effort and leads visitors from North Copia Street towards the baseball field.

CONDITIONS

The North Copia Street stairs are in poor condition and exhibit signs that the interior metal components are actively corroding. Structural cracks and step cracks in the adjacent masonry walls indicate differential settlement. Conditions include:

- Corrosion of internal structure Remnants of applied graffiti to north masonry walls and top of concrete
- Spalling
- Failing paint coating
- Vegetation
- Chipping, cracking, and loss
- Structural cracks due to differential settlement

NORTH COPIA STREET STAIRS (HR16)



spalling due to corroded rebar



structural crack



corrosion

TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As non-historic mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint (Graffiti and Maintenance)

- To avoid damaging the masonry, it is recommended to leave the existing paint and allow it to weather over time.
- No new paint should be applied to the bridge.
- As this is a significant feature to the park, a sacrificial graffiti coating appropriate for historic masonry may be beneficial

Structural Metal

- A structural engineer should assess the damage to the metal structural elements and the significant cracks.

CONCESSION BUILDING (HR17)



Concession building



Concession building

RESOURCE DETAILS

Name of Resource: Concession Building

Type of Resource: Building

Materials:

- Stone
- Mortar
- Concrete
- Wood
- Metal

Features:

- Masonry exterior
- Hipped roof

Date Constructed: ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Good

DESCRIPTION

Completed in the 1930s as part of the WPA effort, the rectangular concession building is clad in stone and features a two-level hipped roof. The simple building is stylized with symmetrical openings and a deep eaves. It is not surrounded by fencing.

CONDITIONS

The concession building is in good condition. Conditions include:

- Incompatible mortar
- Minimal peeling paint
- Cracked, missing, and loose mortar

CONCESSION BUILDING (HR17)



peeling paint

TREATMENT RECOMMENDATIONS

An interior assessment of this building is recommended. Surveyors had limited access to the exterior, but from the public right-of-way, the building appears to be in good visual condition. No significant treatment to the exterior is recommended.

ACCESSORY BUILDING (HR18)

RESOURCE DETAILS

Name of Resource: Accessory Building

Type of Resource: Building

Materials:

- Stone
- Mortar
- Concrete
- Steel Structure

Features:

- Cast concrete shed roof

Date Constructed: pre-1920

Assessment Date: April 2022

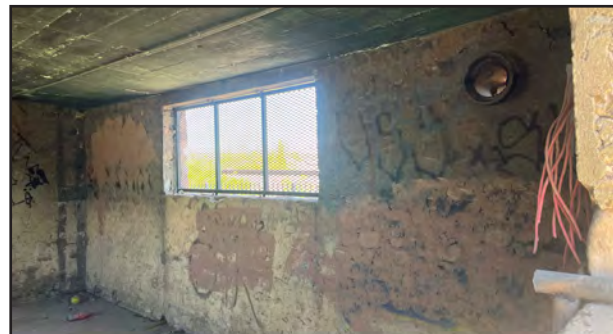
Overall Condition: Fair



Accessory building exterior with enclosed window



Accessory building interior with applied graffiti and deterioration



Accessory building interior with applied graffiti and deterioration

DESCRIPTION

This accessory building likely predates the park and has masonry walls and a cast-concrete, shed roof. The window and door openings have bars and the interior is exposed to environmental conditions. Remnants of slabs are located in the front of the structure. It is adjacent to the railroad with the entrance facing north.

CONDITIONS

This accessory building is in poor condition. The exterior has been painted, which is likely accelerating deterioration of the mortar and masonry. Conditions include:

- Corrosion of roof slab
- Non-historic paint
- Applied graffiti and paint on the interior
- General deterioration of the doors and window opening features
- Soiling at the foundation

ACCESSORY BUILDING (HR18)



corrosion (structural metal)



soiling and missing mortar near foundation



peeling paint

TREATMENT RECOMMENDATIONS

An interior assessment of the building is recommended. If the building is not activated in the near future, a preservation plan or mothballing effort may be appropriate to ensure its preservation until a use is determined.

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Paint (Graffiti and Maintenance)

- The building appears to be stable from visual inspection; however, a preservation architect or architectural conservation should further inspect if the nonhistoric paint coating is accelerating deterioration of the historic materials.
- If the paint is removed, it should be accomplished by the gentlest means possible and using only products appropriate for historic masonry.
- No new paint should be applied to the building.

Structural Metal

- A structural engineer should assess the damage to the metal structure visible at the roof.

ROSE GARDEN (HR19)



Keystone with "1922" inscription.



The interior rose garden walls are in good condition with some cracks in the concrete coping.



Typical mortar and masonry

RESOURCE DETAILS

Name of Resource: Rose Garden

Type of Resource: Structure

Materials:

- Stone
- Mortar
- Concrete
- Metal fencing

Features:

- Masonry walls
- Stepped garden beds

Date Constructed: 1959

Assessment Date: April 2022

Overall Condition: Fair

Exterior Perimeter Walls: Poor

Interior Walls: Good

DESCRIPTION

The Rose Garden was first developed in 1959 and has expanded to the north since then. It features historic masonry walls and meandering gardens. The interior walls are in good condition and are continuously maintained. The historic exterior walls have a fence installed on top.

CONDITIONS

The 1950s exterior perimeter walls are in poor condition, and exhibit a number of adverse conditions related to the fence, inherent properties of the stone, and incompatible mortars. Conditions include:

- Mortar that is incompatible in composition
- Mortar that is visually incompatible
- Non-historic paint on east end of walls
- Cracked, missing, and loose concrete coping
- Cracked, missing, and loose mortar
- Efflorescence
- Fence corroding; iron staining on masonry

ROSE GARDEN (HR19)



TREATMENT RECOMMENDATIONS

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As nonhistoric mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See "Historic Masonry Treatment Recommendations" for additional information.

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.



cracks (concrete)



efflorescence



incompatible repair (mortar)



corrosion in exposed rebar



GARDEN CENTER (HR20)

RESOURCE DETAILS

Name of Resource: Garden Center

Type of Resource: Building

Materials:

- Stone
- Mortar
- Concrete
- Brick
- Steel
- Wood

Features:

- Mid-century design

Date Constructed: 1953

Assessment Date: April 2022

Overall Exterior Condition: Good



Garden Center entrance



Masonry wall at Garden Center entrance



Rear of Garden Center

DESCRIPTION

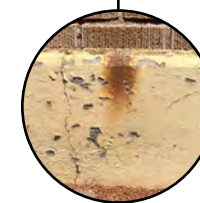
The exterior of the 1953 mid-century modern Garden Center was assessed. This stylized building features brick and stone exterior cladding and a prominent off-center entrance. The building is not currently in active use.

CONDITIONS

The exterior of the building appears to be in good condition. Paint has been applied to the first several feet of brick. Conditions include:

- Non-historic paint on brick
- Soiling around foundation due to adjacent garden beds and vegetation
- Peeling paint
- Ferrous staining near pipes and metal elements
- Minimal cracked, missing, and loose mortar

GARDEN CENTER (HR20)



corrosion staining and peeling paint (concrete)



non-historic paint (brick)



soiling (foundation)

TREATMENT RECOMMENDATIONS

An interior assessment of the building is recommended. If the building is not activated in the near future, a preservation plan or mothballing effort may be appropriate to ensure its preservation until a use is determined.

Mortar

- Selectively repair mortar by spot repointing with a compatible mortar that matches historic in composition, texture, color, and profile.
- Inappropriate mortars may remain as removal could cause significant damage to the masonry. As non-historic mortars fail, they should be removed by hand and replaced with a compatible mortar.
- See “Historic Masonry Treatment Recommendations” for additional information.

Paint

- To avoid damaging the masonry, it is recommended to leave the existing paint and allow it to weather over time.
- No new paint should be applied to the building.
- If this building is prone to vandalism, a sacrificial graffiti coating appropriate for historic masonry may be beneficial.

PICNIC TABLES (HR21)



Picnic Table



Picnic Table



Picnic Table

RESOURCE DETAILS

Name of Resource: Picnic Tables

Type of Resource: Structure

Materials:

- Cast concrete
- Steel structure
- Paint

Features:

- Three-piece set
- Set on concrete slabs
- U-shape form with beveled edge
- 

Date Constructed: likely ca. 1935 (WPA-era)

Assessment Date: April 2022

Overall Condition: Fair to Good

DESCRIPTION

Five green-painted cast concrete picnic tables with accompanying benches are located throughout memorial park. Each table has a double bench and single bench. The tables and benches are stylized with angled legs and beveled edges. They are all set on concrete pads. Based on the design, the tables are likely from the WPA era.

CONDITIONS

The tables are in fair to good condition and exhibit typical conditions relating to the aging of concrete and continued use. Maintaining paint coatings can help to preserve the material integrity of the concrete. Conditions include:

- Missing pieces
- Cracking and chipping
- Peeling paint and failing paint coatings

PICNIC TABLES (HR21)



peeling paint (concrete)



loss (concrete)



debris on bottom of tables



dislodged fragments (concrete)



paint loss, cracks, and chipping (concrete)

TREATMENT RECOMMENDATIONS

Concrete

- Cracked or broken concrete should be repaired in-kind, as needed.
- If large section of concrete are repaired, consider restoring the scoring on the top of the walls.

Paint

- The paint coating on all picnic tables should be reapplied. The new paint should be compatible with existing coatings. Retaining a coating on concrete is essential to protecting the internal metal elements from moisture intrusion and corrosion.
- Paint analysis may be undertaken to determine the earliest extant paint layer on the tables.

HISTORIC MASONRY TREATMENT RECOMMENDATIONS

HISTORIC MASONRY MAINTENANCE

Existing Masonry

- Existing historic masonry should remain.
- Avoid installing new features, like fencing, on top of historic materials.
- Existing masonry should not be painted or stuccoed.

Damaged Walls

- If any wall sections must be rebuilt, the existing stone should be salvaged for reuse. If stone is damaged beyond repair, new stone must match the historic/existing brick in size, color, and texture.

Mortar Types (Measured by volume)			
Designation	Cement	Hydrated Lime or Lime Putty	Sand
M	1	1/4	3 - 3 3/4
S	1	1/2	4-4 1/2
N	1	1	5-6
O	1	2	8-9
K	1	3	10-12
"L"	0	1	2 1/4-3

Masonry Material	Exposure		
	Sheltered	Moderate	Severe
Very durable: granite, hard-cored brick, etc.	O	N	S
Moderately durable: limestone, durable stone, molded brick	K	O	N
Minimally durable: soft hand-made brick	"L"	K	O

Historic mortar mixtures recommended by the National Park Service from National Park Service Preservation Brief 2.

HISTORIC MORTAR REPAIR

Mortar Repointing

- Masonry rehabilitation should consist of spot repointing and repair/replacement of isolated deterioration. All work should conform to preservation standards outlined in the National Park Service Preservation Briefs 1, 2, and 6. Deteriorated mortar should be removed to sound mortar. Ideally, historic mortar should be analyzed and matched for composition and color. New mortar should match existing in color, texture, composition and joint profile.
- Due to the extent of inappropriate mortar and patching materials in the park, removal and repointing all structures with appropriate mortar may not be feasible and could risk damaging historic masonry. As nonhistoric mortars fail, remove by hand and repoint with an appropriate mixture.
- Once an appropriate mixture is identified, it should be specified as the material for patching and repairs.

Mortar Composition

- Mortars with a high concentration of Portland cement are typically too hard for historic limestone and can cause breaks or spalling because they do not allow for movement caused by building settling, moisture movement, or expansion and contraction. For buildings through the early twentieth century, a lime-based mortar or Type O or N mortar is generally appropriate.

HISTORIC MASONRY CLEANING

Cleaning

- In general, cleaning is unnecessary for historic masonry as most dirt does not cause or accelerate deterioration.
- If it is necessary to remove paint, soiling, or biological growth from limestone, it should be accomplished using the gentlest means possible to avoid the damaging historic masonry. First identify the type of material to be removed and select an appropriate treatment approach, starting with the gentlest method first (low pressure water up to 100 psi and a soft-bristle brush). Proceed with a test patch in an inconspicuous area per the instructions in National Park Service Brief 1. Prolonged soaking of the limestone with water may be necessary to remove some heavy soiling. If a more aggressive treatment is needed, test a non-ionic detergent. Some staining may require a chemical product appropriate for cleaning historic masonry. Never use an acidic cleaner on limestone as it can result in etching or dissolution of the historic material. Cleaning must not damage, stain, or abrade the masonry. High pressure water exceeding 300 psi and/or sandblasting should not be used. Avoid contact between any chemicals and other building materials, such as metals or glass, as they can be damaged or stained.

HISTORIC MASONRY TREATMENT RECOMMENDATIONS

HISTORIC CONCRETE MAINTENANCE

Existing Masonry

- Existing historic masonry should remain.
- Avoid installing new features, like fencing, on top of historic materials.
- Existing concrete should not be painted or stuccoed.

Damaged Concrete

- If any concrete sections must be replaced or repaired, retain as much of the historic material as possible. A mixture compatible in composition a, texture, and color should be used. National Park Service Preservation Brief 15 provides guidance on repairing and mixing concrete to match the existing/historic materials.
- Decorative scoring on the top of concrete walls may be restored if large sections of concrete are replaced.
- Avoid applying concrete to the surface of historic masonry or allowing the material to drop or set outside of working area.

HISTORIC CONCRETE CLEANING

Cleaning

- In general, cleaning is unnecessary for historic masonry as most dirt does not cause or accelerate deterioration.
- If it is necessary to remove paint, soiling, or biological growth from concrete, it should be accomplished using the gentlest means possible to avoid the damaging historic masonry. First identify the type of material to be removed and select an appropriate treatment approach, starting with the gentlest method first (low pressure water up to 200 psi and a soft-bristle brush) per the guidance in National Park Service Preservation Brief 15. Proceed with a test patch in an inconspicuous area per the instructions in National Park Service Brief 1. In general, low pressure water will remove most soiling from concrete. Some staining may require a chemical product appropriate for cleaning historic masonry. Cleaning must not damage, stain, or abrade the surface. High pressure power washing exceeding 600 psi is not recommended. Avoid contact between any chemicals and other building materials, such as metals or glass, as they can be damaged or stained.

HISTORIC BRICK CLEANING AND REPAIR

Existing Masonry

- Existing historic masonry should remain.
- Avoid installing new features, like fencing, on top of historic materials.
- Existing brick should not be painted or stuccoed.

Cleaning

- In general, cleaning is unnecessary for historic masonry as most dirt does not cause or accelerate deterioration.
- If it is necessary to remove paint, soiling, or biological growth from brick, it should be accomplished using the gentlest means possible to avoid the damaging historic masonry. First identify the type of material to be removed and select an appropriate treatment approach, starting with the gentlest method first (low pressure water up to 100 psi and a soft-bristled brush). Proceed with a test patch in an inconspicuous area per the instructions in National Park Service Brief 1. If a more aggressive treatment is needed, test a non-ionic detergent. Some staining may require a chemical product appropriate for cleaning historic brick. The GSA Guidelines for Cleaning Exterior Brick can guide the selection of an appropriate cleaner and the procedure. Cleaning must not damage, stain, or abrade the masonry. High pressure water exceeding 300 psi and/or sandblasting should not be used.

Mortar

- See Historic Mortar Repair for additional information.

HISTORIC MASONRY TREATMENT RECOMMENDATIONS

GRAFFITI BEST PRACTICES

Graffiti Best Practices

- Graffiti is easiest to remove during the first 24 hours. Regular inspection of the site can help to identify and address new instances.
- Not all graffiti removal products are appropriate for historic buildings and some can cause permanent damage to the surface.
- Always start with the gentlest means possible (typically water) when applying treatments.
- Test all treatments in an inconspicuous location for adverse effects before full application.
- Do not pressure wash or sandblast historic masonry as it can cause permanent loss of historic material.
- Do not paint over graffiti unless the substrate was historically painted.
- If graffiti cannot be removed immediately, consider covering it with an unbleached, breathable material until an appropriate removal method can be identified.
- A conservator may be able to assist with graffiti removal.
- See National Park Service Preservation Brief #38 for additional guidance.

GRAFFITI MITIGATION

Graffiti Toolkit

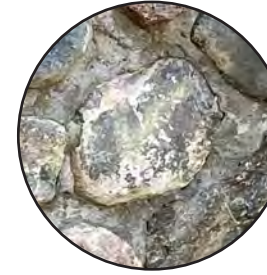
A toolkit of products and tools appropriate for graffiti removal from historic masonry can be assembled in advance to help with quick mitigation.

Sacrificial Coatings

- Sacrificial coatings designed for use on historic masonry may be applied in areas that are vulnerable to graffiti.
- These barrier coatings prevent graffiti from penetrating into the masonry surface and are typically easy to remove.
- While sacrificial coatings are transparent, they should be tested in discreet locations to ensure that no adverse effects, such as color or texture change, occur.
- Coating typically require reapplication after an instance of graffiti and may deteriorate over time, requiring regular maintenance.

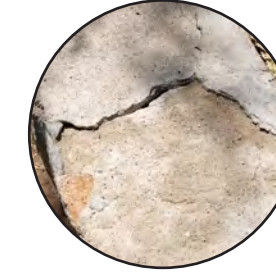


ILLUSTRATED GLOSSARY



**BIOLOGICAL COLONIZATION: ALGAE, FUNGI, LICHEN, ETC**

Colonization of micro-organisms, such as bacteria, fungi, lichen, and algae, or plants on the surface of a substrate. Biological colonization may encourage vermin or biological growth to inhabit the substrate.



**CHIPPING**

Small pieces of substrate or material that have separated from the main unit. Can be a result of inappropriate repair, continued use, or vandalism, among other sources.



**CORROSION, FATIGUE**

Corrosion fatigue is caused by cyclic stress and a corrosive environment. A corrosive environment may result from excessive moisture penetrating the surface.



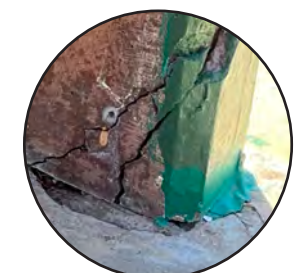
**BIOLOGICAL GROWTH: PLANTS**

Living organism with roots, stems, and sometimes leaves, that grow into, on, or adjacent to the substrate. Plants may contribute to moisture accumulation on the surface, growth into mortar joints or fractures, or leave "ghosting" even after plant dies. Plants can be a source of or contribute to accelerated deterioration



**COATING FAILURE**

Loss of the protective and/or decorative coating on a material.



**CRACK**

Separation of a material that is typically visible by the naked eye. Causes may include incompatible repairs, differential settlement, inherent material flaws, weathering, mechanical damage, or corroding structural elements, among other sources.

ILLUSTRATED GLOSSARY



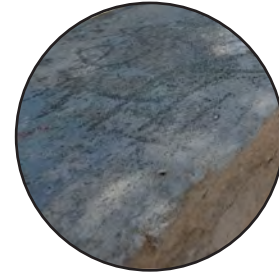
**CRACK, SETTLEMENT**

Separation of a material that is typically visible by the naked eye. Caused by settlement of the adjacent ground.



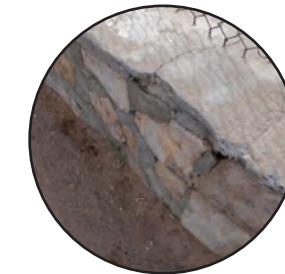
**DETERIORATION**

Physical failure of a material. Causes may be environmental or inherent.



**GRAFFITI, INCISED**

Markings carved into the surface, usually in an act of vandalism but sometimes due to accidentally interaction by visitors or maintenance activities. Typically causes permanent damage.



**DETACHMENT**

Large fragment of material that has entirely detached from the main unit.



**GRAFFITI, APPLIED**

Markings applied to the surface, usually as an act of vandalism, that stains or discolors the substrate, sometimes permanently.



**INCOMPATIBLE REPAIR**

Incompatible materials or patches used to replace a loss in the material. Inappropriate repairs can be aesthetically mismatched or can cause damage to surrounding materials by introducing incompatible components.

ILLUSTRATED GLOSSARY



**INFESTATION, VERMIN**

Visible live or dead creatures such as birds, squirrels, or insects that inhabit a structure with nests and residue.



**MECHANICAL DAMAGE**

Loss of material due to human interaction or material connections.



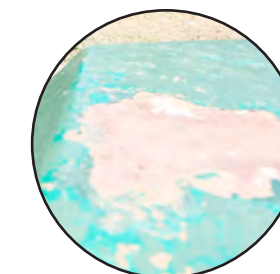
**SETTLEMENT, DIFFERENTIAL**

Condition that occurs when a structure or building is on a ground with varying levels. Can cause an uneven distribution of loads and stresses resulting in cracking or movement.



**LOSS, MORTAR**

Missing material from the mortar joint. Mortar is the sacrificial component of the masonry wall system and loss is expected over time.



**PEELING PAINT**

Loss of finish surface, often due to excessive moisture or general weathering.



**SOILING**

Foreign substance on the substrate. Typically due to environmental conditions.