



Archaeological Monitoring of Drainage Pipe Trenching in the Vicinity of the San Pedro Playhouse, San Pedro Springs Park, San Antonio, Bexar County, Texas

by

Alexandria N. Wadley and Steve A. Tomka

Texas Antiquities Committee Permit No. 6359

Principal Investigator
Steve A. Tomka

Prepared for:
Parks and Recreation Department
City of San Antonio
114 West Commerce Street
San Antonio, Texas 78205



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Prepared by:
Center for Archaeological Research
The University of Texas at San Antonio
One UTSA Circle
San Antonio, Texas 78249
Technical Report, No. 52

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Management Summary:

Over the course of seven days in January 2013, the Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) conducted archaeological monitoring of mechanical excavations along the north facing wall of the San Pedro Park Playhouse. The excavations were conducted to install a moisture barrier adjacent to the base of a portion of the north wall of the Playhouse and to install a new drainage system to direct rainwater away from the vicinity of the wall.

San Pedro Park (41BX19) is listed on the National Register of Historic Places (NRHP) and contains significant prehistoric and historic archaeological deposits. The project was conducted under the Texas Antiquities Committee Permit No. 6359 issued to Dr. Steve A. Tomka, who served as Principal Investigator and co-Project Archaeologist, and Alexandria Wadley, who served as the co-Project Archaeologist.

Three trenches were excavated by TCL Construction for the San Antonio Parks and Recreation Department to allow the waterproofing of the base of the wall and installation of the drainage pipes. The monitoring of these excavations showed that the majority of the Area of Potential Effect (APE) has been impacted and disturbed by previous renovations. Cultural materials were encountered in two of the three trenches, but they derived from mixed depositional contexts. It is recommended that archaeological investigations associated with any future impacts within the boundaries of the park be conducted in accordance with existing plans for managing the cultural resource of the property (Meissner 2000).

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The authors appreciate the help of several people involved in this project. The crew from TCL Construction excavated the trenches. A special thank you goes to Kay Hinder with the City of San Antonio's Office of Historic Preservation. Thanks also to Mr. Mark Denton of the Texas Historical Commission and also the Sponsor representative, Bill Pennell with the City of San Antonio Parks and Recreation Department, for assisting with the initial contracting process. Carlos Banda, Assistant Manager of the Parks and Maintenance Division, helped to coordinate project scheduling between CAR and TCL Construction, and we greatly appreciate his assistance.

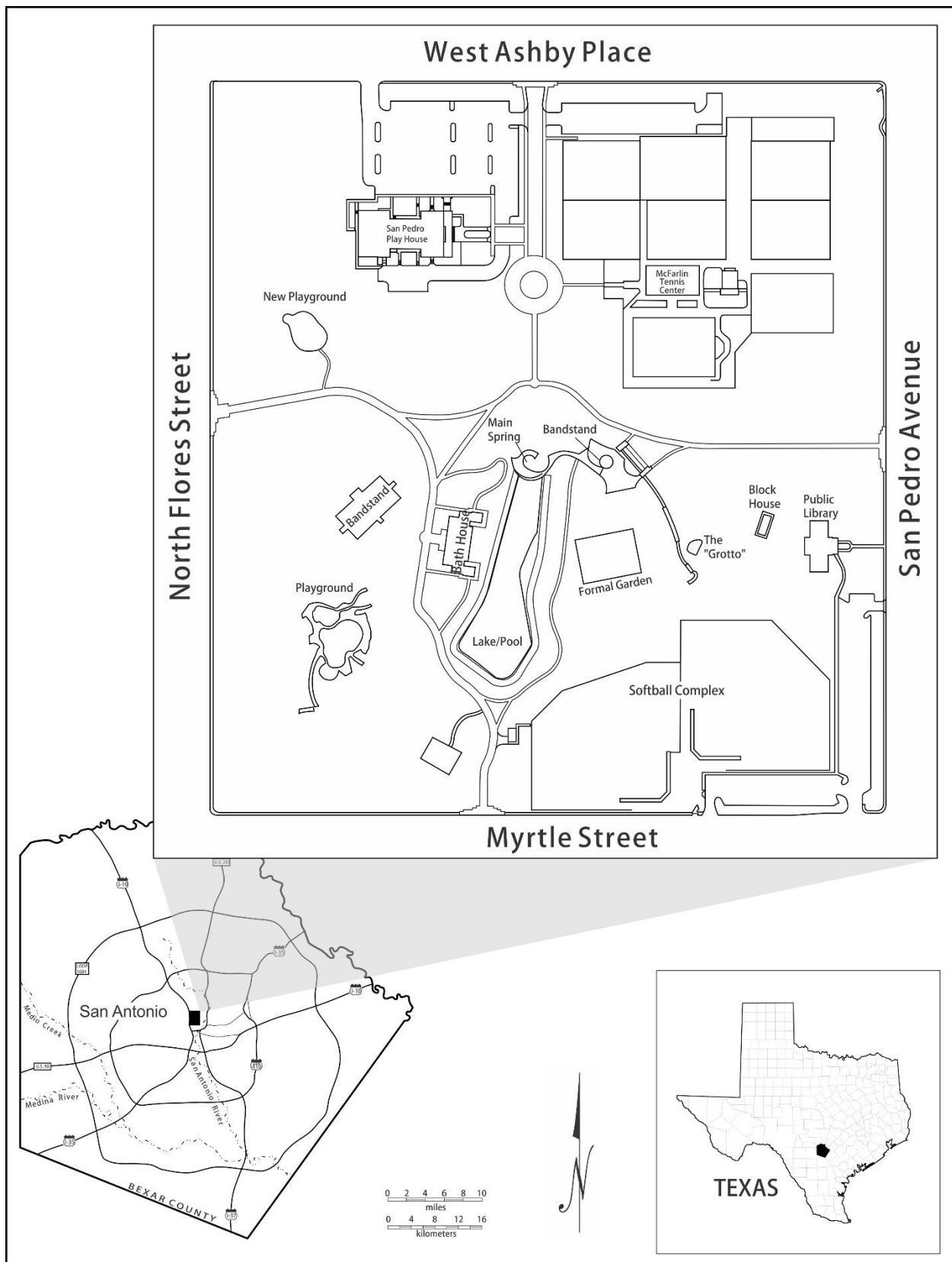
During the course of the project, Mark Luzmoor assisted in monitoring the initial excavations. Rick Young produced the figures for the report, and Kelly Harris served as the editor. Marybeth S. Tomka prepared the project-related documentation for curation.

Chapter 1: Introduction and Area of Potential Effect

The Center for Archaeological Research (CAR) of The University of Texas at San Antonio (UTSA) was contracted by the City of San Antonio's Parks and Recreation Department to provide archaeological services associated with planned improvements at the San Pedro Springs Park Playhouse. The project was conducted under Texas Antiquities Committee Permit No. 6359, issued to Dr. Steve A. Tomka, Director of the Center for Archaeological Research.

San Pedro Springs Park (41BX19) is a significant historic and prehistoric site. The 46-acre park is listed on the Nation Register of Historic Places (NRHP) and is a State Archaeological Landmark (SAL). The park is bound by San Pedro Avenue, West Ashby Place, North Flores Street, and Myrtle Street. The San Pedro Park Playhouse is located in the northwestern portion of the park bordered by West Ashby Place and North Flores Street (Figure 1-1). Built in 1929, the park is the second oldest municipal park in the United States, and, the Playhouse is the oldest municipally built performance "Little Theatre" in the United States (Grimm 2001). The park features at least eleven major springs and numerous minor springs, and the largest of the springs is considered the head of San Pedro Creek.

The park houses several recreational facilities including the San Pedro Playhouse, the McFarlin Tennis Center, two baseball fields, a pool, and bathhouse. Various parking lots, sidewalks, and other support facilities connect different parts of the park.



Planned Improvements

The Area of Potential Effect (APE) consists of planned drainage improvements along the parameters of the San Pedro Playhouse (Figure 1-2). The original gutter downspouts ran underground to the north, emptying in the parking lot of the San Pedro Playhouse. Because the subsurface downspouts frequently clogged with sediment, they were abandoned in favor of downspouts that simply ended at ground level and emptied onto the existing concrete sidewalk along the exterior walls (Figures 1-3 and 1-4). These existing downspouts were installed within the last 20 years (Bill Pennell, San Antonio Parks and Recreation, personal communication 2013).



Figure 1-2. Overview of the San Pedro Playhouse with proposed drainage line installation (white line).



Figure 1-3. The northwest portion of the Playhouse showing the three downspouts to be redirected.



Figure 1-4. *Close-up of two downspouts at the base of the stairs.*

As a result of the reconfiguration, during severe weather rainwater typically drained directly against the base of the Playhouse building. The rainwater led to soil erosion below the sidewalks that endangered the foundation of the structure and also led to the flooding of the ground floor of the Playhouse.

To prevent further damage to the Playhouse, the San Antonio Parks and Recreation Department planned to improve drainage associated with three downspouts located on the northern face of the Playhouse building. Specifically, the entire existing concrete walkway extending along the northern wall between the downspouts would be demolished (Figure 1-5). Adhesive tar paper was to be placed along the 12-m wall to a depth of 1.5 m below the ground surface. Also, a 1.2-m tall concrete barrier would be constructed to further prevent water seepage. Two of the downspouts were to be connected to underground drainage pipes, which in turn would channel water to the north-northwest field and into an

existing grated drainage culvert (Figure 1-2). The underground drainage pipes were to be installed at a depth of approximately 35-41 cm below the surface (cmbs) and covered with at least 30 cm of topsoil. The total length of the underground drainage lines was estimated to be 37 m. Trenches were to be excavated by hand to ensure no damage to other utilities in the vicinity. Once the installation was completed, a new 3-m wide sidewalk would be built against the northern wall to replace the existing walkway.



Figure 1-5. *Demolition associated with the planned drainage improvements.*

As a result of previous work within the project area (see below), the CAR developed a management plan related to future impacts within the park. In Zone 3 (Figure 1-6), the management plan called for testing prior to future subsurface impacts that were to exceed 50 cm below the current grade (Meissner 2000:Figure 45). The area immediately next to the north wall of the Playhouse consists of fill and matrix disturbed by the construction of the theater; therefore, no testing was recommend in this project's Scope of Work. Furthermore, because the trenches that were to house the drainage conduits were to be excavated only to a depth of 35-41 cmbs, the CAR recommended only construction monitoring for this

project. The small portion of the project APE that falls within Zone 2 is near the terminus of the project where the drainage conduits empty into an existing culvert. This area has been heavily disturbed during the installation of the culvert some years past. The management plan recommended that testing occur prior to any subsurface impacts within Zone 2 (Meissner 2000:Figure 45).

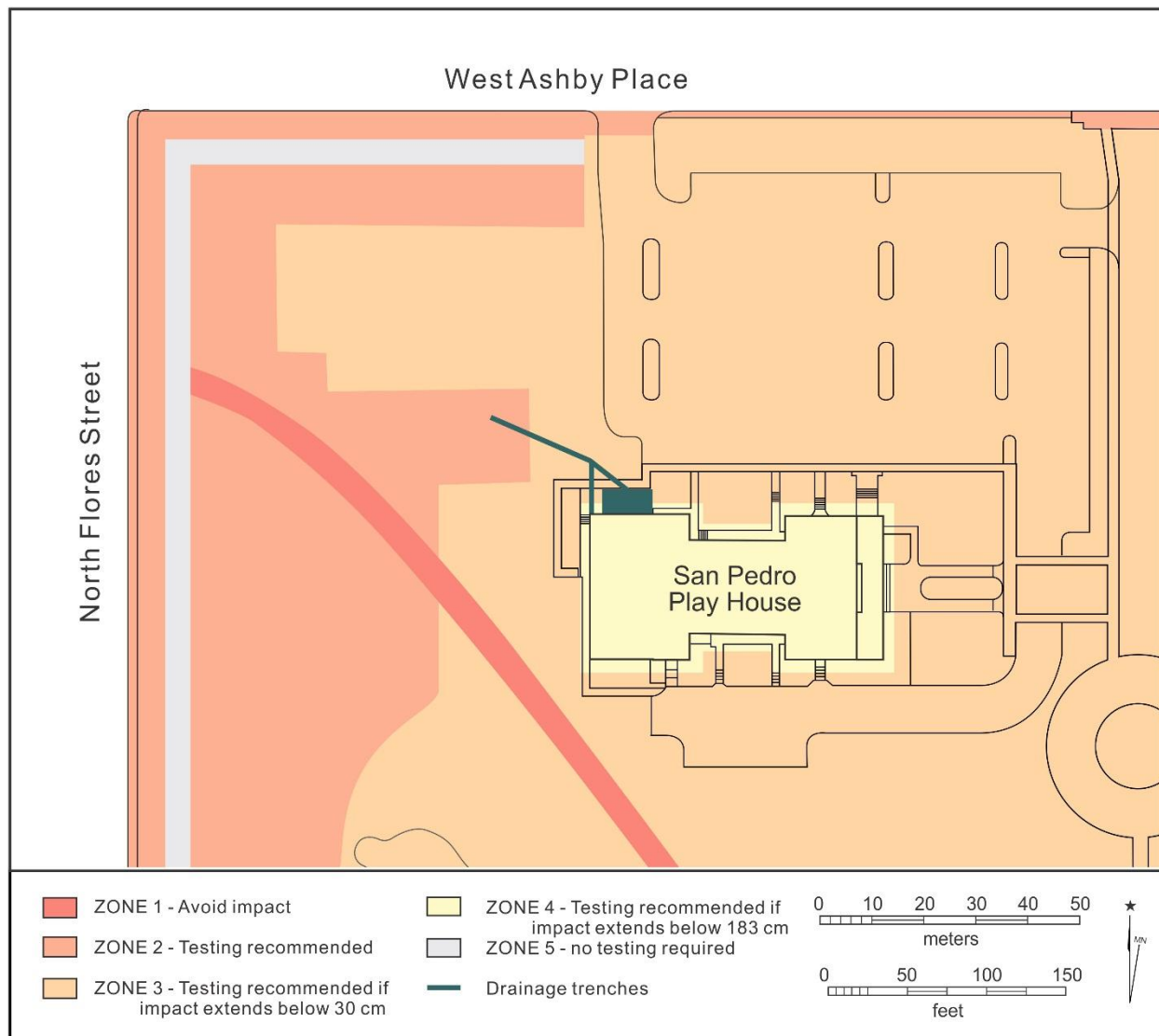


Figure 1-6. Map of the APE showing archaeologically sensitive areas.

As part of this construction monitoring project, several specific tasks were to be conducted by CAR staff. These tasks began with the preparation of the Texas Antiquities Permit application to conduct up to seven days of the archaeological monitoring. Following the monitoring, laboratory processing and the analysis of the temporally diagnostic artifacts was to take place. Once the analysis has been completed, the project related materials were to be prepared for curation while the technical report was being produced. The final steps involved the completion of revisions to the technical report and the publication of the final

report and its distribution as per permit requirements. Throughout these tasks, the Principal Investigator was to ensure proper coordination with the project Sponsor and appropriate oversight agencies (City of San Antonio's Office of Historic Preservation and City of San Antonio's Parks and Recreation Department) to seek cultural resources clearance of the proposed project.

Chapter 2: Previous Archaeology and Historical Background

Previous Archaeology

Even before the first professional archaeological investigations occurred, local avocational archaeologists were well aware of the archaeological significance of the park (Orchard and Campbell 1954). A number of individuals have surface collected artifacts within the park, and some of those collections have been donated to the CAR's curation facility. For instance, a portion of the artifacts found within the Orchard Collection, which was donated to the CAR, consists of artifacts collected from within San Pedro Springs Park. The materials consist primarily of unmodified lithic debitage (i.e., flaking debris), but four mano and metate fragments are also present as are eleven projectile points consisting of a variety of dart points and a smaller number of arrow points. The review of the temporally diagnostic lithic artifacts recovered from within the park indicate that the area has been occupied since Late Pleistocene times (see also Fox 1975). The temporally diagnostic artifacts include Gower, Bulverde, Pedernales dart points and a Scallorn arrow point apparently made of a piece of quartz crystal.

The first archaeological investigations occurred in 1977 when CAR excavated a portion of the Alazán *Acequia* northeast of the springs (Fox 1978). Fox's excavation revealed a two-phase construction sequence. In 1985 archival and archaeological investigations were conducted on nearby portions of the San Pedro and Arocha *acequias* (Cox 1986). A section of the Alazán *Acequia* was exposed and documented in the area of South Frio Street (Labadie 1987). In 1989, the San Antonio River Authority contracted with CAR to identify cultural resources associated with the anticipated channel improvement for San Pedro Creek just south of the park, the Five Points intersection, and southward to Interstate Highway 10. The resulting report identified potentially sensitive areas within the project area (Uecker 1991). During a channel improvement project in 1996, an underground section of the Alazán *Acequia* was encountered below the intersection of Cornell Street and Fredericksburg Road. This section was documented by Nickels and Cox (1996). Also in 1996, backhoe trenching and shovel testing were carried out by CAR staff to locate the Alazán *Acequia* in the vicinity of North Flores Street (Meissner 2000). It was found that archaeological deposits could extend to a depth of 70 cmbs and potentially even below this depth (Meissner 2000:41). In 1998, CAR assessed the damage that may have been done to shallowly buried materials resulting from the temporary storage of heavy equipment within a portion of the park adjacent to Myrtle Street (Meissner 2000). The investigations found severe compaction of the matrix within the storage area, grading that removed some of the natural soil that covered the uppermost cultural deposits, and extensive mixing of shallowly buried deposits (Meissner 2000:78).

The CAR conducted shovel testing along the western edge of the park, adjacent to North Flores Street (Meissner et al. 1998). These investigations documented high prehistoric artifact densities in the southwest corner of the park. In one shovel test, 234 flakes were encountered between 20 and 40 cmbs. Other units yielded burned rock and faunal material. A backhoe trench excavated during that project located a section of the *Alazán Acequia* in the northwest corner of the park (Meissner et al. 1998).

In 1999, Houk (1999) conducted a pedestrian survey, shovel testing, and backhoe trenching within the park. The results of these investigations indicate that large sections of park are disturbed, especially the portion of the park surrounding the modern pool and bath house. The review of historic maps of the park and its vicinity indicate that this area used to be a marsh full of small ponds and lakes in the late nineteenth century. The results of the 44 shovel tests confirm the high degree of subsurface disturbance within the park. Most shovel tests encountered construction fill or modern materials. Prehistoric remains were recovered but were generally found in mixed context with modern materials.

Numerous prehistoric, Spanish Colonial, and more recent historic artifacts have been recovered in the park (Houk 1999; Meissner 2000). A reconstructed section of a nineteenth-century *acequia* channel (Fox 1978) and a mid-nineteenth-century structure, known as the Block House or the “Old Fort,” are the only two historic features that remain. Additional archaeological investigations, in the form of monitoring and testing, were conducted around the Block House in 2002 in advance of renovations to the structure (Zapata and Meissner 2003). These investigations focused on the area in the vicinity of the Block House and one new and one existing playground. The materials derived from the vicinity of the Block House confirm its construction date of circa 1850s. The area of the new playground north of the North Flores Street entrance to the park contained undisturbed deposits between 30-40 cmbs except where an old roadbed had cut through the area. Finally, in the vicinity of the old playground in the southwest corner of the park, the investigations revealed fill that was at least 70-75 cm thick.

As a result of the various archaeological investigations of the park, the CAR has been able to develop a management plan that defines the archaeologically sensitive areas within the park and the investigative strategies that are recommended prior to developments in these areas (Zapata and Meissner 2003:32-34). The current project that takes place adjacent to the northwest face of the Playhouse occurs in an area that was identified as Zone 3, and testing was recommended for any projects with impacts extending below 50 cm (Meissner 2000:Figure 45). However, because the area immediately next to the north wall of the Playhouse consists of fill and matrix disturbed by the construction of the theater, no testing was

recommend in the project Scope of Work. Instead, it was suggested that construction monitoring would be the appropriate investigative strategy.

Historic Background

Prehistoric

Hunters and gatherers have lived in small bands throughout the San Antonio region for thousands of years. Evidence shows that the area may have been inhabited since at least 12,000-11,000 years ago (Houk 1999). Previous archaeological work shows that this area has been continuously occupied until the present time. Efficient hunting and gathering technologies prevailed, and the plant and animal resources were both rich and diverse. In addition to bearing plentiful water and food supply for the hunter and gatherer groups, large quantities of high quality chert was also available.

Historic

As early as 1692 Spanish expedition accounts reported that a native group, the Payaya, reigned over a large territory that extended from the San Antonio Valley to the southwest for about 25 km (Campbell and Campbell 1985:37). Evidence suggests that the Payaya were speakers of a Coahuiltecan language (Goddard 1979:366-367). This tribe took up residence along the springs and called their home “Yanaguana,” meaning “this place where we are now” (Grimm 2001:1).

The first descriptions of San Pedro Creek and its vicinity come from the diaries of the late seventeenth and early eighteenth century Spanish expeditions that crossed the area on their way to east Texas. In 1709 an expedition led by Espinoza-Olivares-Aguirre came upon a set of springs, just north of downtown San Antonio. Olivares describes the springs as limestone steps with water issuing from several springs (Tous 1930). The Alarcón expedition was the second to visit the springs which they reached on April 25, 1718. The expedition’s diarist, Fr. Francisco Céliz, describes the area surrounding the springs as thickly wooded with several different kinds of trees, including elms, poplars, hackberries, oaks, many mulberries, brambleberries, and large grapevines (Tous 1930). The expedition members also visited the confluence of San Pedro Creek and the San Antonio River and found it unsuitable for the construction of irrigation canals because the “river flows in a very deep channel” (Hoffman 1957:48-49 [1935]). Villa de Béxar and Presidio de Béxar were established nearby, and Mission San Antonio de Valero was founded a few days later downstream of the springs. Villa de Béxar had been settled by 30 presidial soldiers. Although not absolutely clear from the expeditionary diaries, it appears that sometime in 1719, Mission Valero was moved to a new site located on the east bank of the San Antonio River. The mission was relocated at

least once, and perhaps twice, before moving to its current spot in the heart of what today is downtown San Antonio.

The first map showing the San Pedro Creek (Figure 2-1) was drawn in 1730 by Marqués de San Miguel de Aguayo who was the Governor of the province at the time. The map shows the San Antonio River and San Pedro Creek, the Presidio and the Mission of San Antonio, as well as the Villa de Béxar as they were in 1720. It also contains annotations related to the potential uses of the lands in the vicinity of the two streams. The land that falls south of the presidio is identified as land suitable for irrigated agriculture. The land immediately north of the presidio was to be set aside for the soldiers. An irrigation canal is shown to connect San Pedro Creek with the San Antonio River, and the lands on both sides of this ditch are identified as suitable for irrigated agriculture of maize and wheat. The area west of San Pedro Creek is shown as a savannah with oak and cypress trees and shorter woody vegetation.

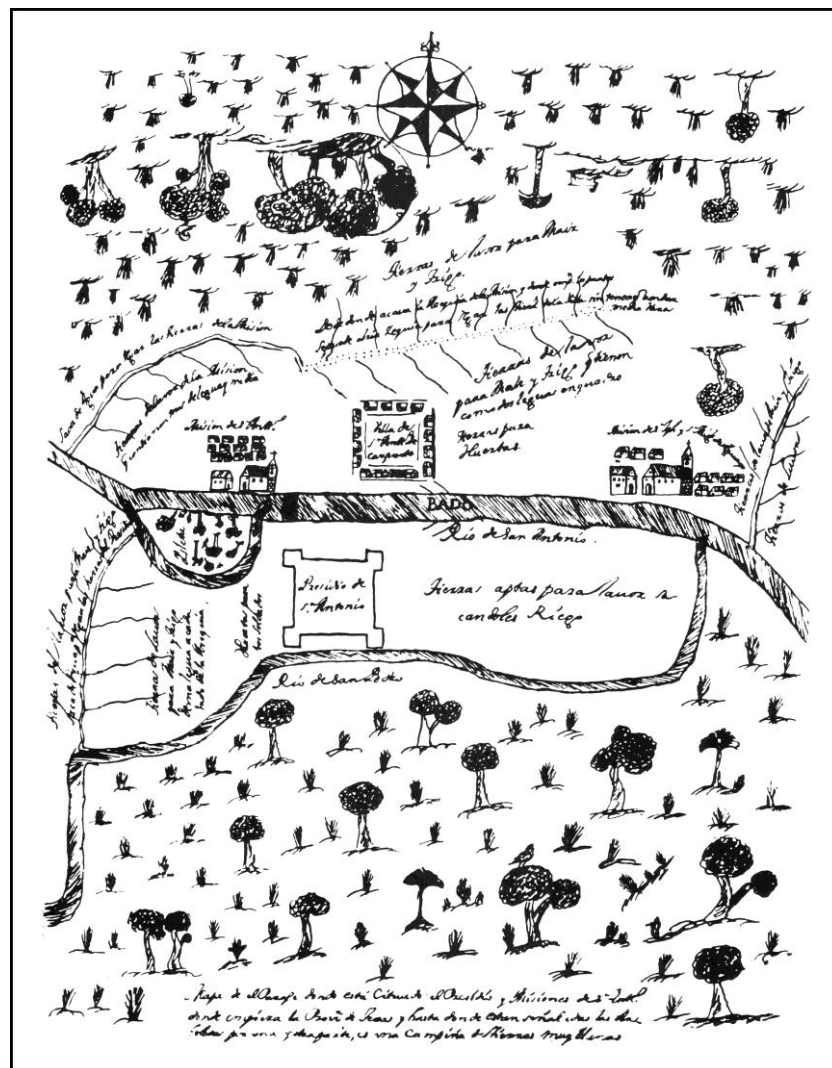


Figure 2-1. A 1730 map drawn by Aguayo illustrating San Pedro Creek.

By 1731 San Pedro Springs Park was established as public land for purposes of channeling water from San Pedro Springs and creating irrigable *ejidos* (parcels) for all of the town's people to use (Meissner 2000). Also during this time the structure known as the Block House was constructed. The *acequia* system spans most of San Antonio utilizing the San Pedro Springs, San Pedro Creek, and the San Antonio River. As the population of the area grew, so did the demand for public land that could be irrigated. The *acequia* was not fully complete until 1778. Throughout this time period the property of the San Pedro Springs had changed ownership several times until 1846.

Nineteenth Century

The park continued to play a vital role in the development and growth of the community during the nineteenth century; however, its role during the Mexican War (1846-1848) is less well-known (Cox 1999; Neu 2013). Following Texas's annexation in 1845, the relationship with the United States and Mexico quickly deteriorated, and as the tension between the two countries mounted, Texas found itself to be the primary staging ground for American troops as they readied for war with Mexico (Bauer 2013; Neu 2013). San Pedro Park became one of these staging areas with the establishment of "Camp Crockett" near the springs (Bauer 1974:144-146).

It was during the Mexican War that the City decided to have official documentation of the park's boundaries, and Francois Giraud, the City Surveyor, was assigned the task (Cox 1999). Giraud recorded the boundary lines in 1847, and although there were repeated challenges to the legality and legitimacy of the survey throughout the mid-to-late nineteenth century, the boundary lines recorded by Giraud are still in place today (Cox 1999).

John Jacob Duerler, a Swiss landscape designer, had purchased land next to the park and had built a house in a location that was included within the park boundaries, as surveyed by Giraud (Kendall 2013). Duerler had been renting the area around the springs from the City, so rather than challenge the City over boundary lines or purchase the land where his home was located, Duerler petitioned the City and offered to help with landscape and recreational improvements to the park in exchange for permission to remain in his home (Cox 1999; Kendall 2013). The agreement between the City and Duerler would, ultimately, be beneficial to the City, Duerler, and the citizens of San Antonio. The City benefited because money that would have been spent on improvements to San Pedro Park could be shifted to other projects, while Duerler and his family were able to remain in the house he had built on park property (Cox 1999; Kendall 2013). Over the years, the number and variety of improvements increased as Duerler reshaped the landscape by creating gardens, picnic areas, and ponds (Cox 1999; Kendall). Visitors to the park could

also watch birds at the aviary or animals at the zoo, spend time at the racetrack, or attend a concert at the pavilion that Duerler had built (Kendall 2013). After Duerler's death, the lease on the park was taken over by Frederick Kerble; however, in 1891, the City did not renew the lease in order to regain custodial responsibility of the park (Kendall 2013).

Twentieth Century

The City continued to make changes and improvements to ensure that San Pedro Park remained a popular gathering place for people living in or visiting San Antonio. The alterations to the landscape and recreational amenities were fewer and further between, but it is possible that the City saw little or no reason for significant changes to be made to a park that the public already enjoyed visiting. Some of the changes that the City did make during the first half of the twentieth century included moving the zoo to Brackenridge Park (1915) and installing a swimming pool (1922), library (1929), a playhouse that later became the San Pedro Playhouse (1929), tennis courts (1954), and softball fields (1966; Kendall 2013). While the City has maintained the park, minimal changes or improvements have been made since the construction of the softball fields.

Chapter 3: Field and Laboratory Methods

Field Methods

A staff archaeologist from the CAR was present during the excavation of three trenches associated with the installation of underground drainage pipes. The excavation of the trenches was carried out by TCL Construction. The impacted area was located within the northwest quadrant of San Pedro Springs Park and connected with the San Pedro Playhouse.

Because of the deeper impact of the pipe installation, it was recommended that monitoring of the trenches take place. Prior to the initiation of the project, it was decided that if any features, such as hearths, were encountered the excavations were to be halted to determine the integrity and age of the feature. If the feature dated to 1850 or later, the trenching would be allowed to continue after proper documentation. Documentation would consist of the Global Positioning System mapping of the location of the feature, its photo documentation, and sampling (if appropriate). Features that date prior to 1850 would be documented as described above. Subsequently, the trench would be realigned to ensure that no additional disturbances impact the feature. If realignment is not feasible, the proper course of action would be determined in consultation with the Office of Historic Preservation and the Texas Historical Commission (THC).

During excavations, a member of the CAR staff was present to observe the trenching. The matrix removed from the trenches was placed on the sides of the trenches for inspection by CAR staff. Any temporally diagnostic artifacts (i.e., Goliad and Spanish majolica ceramics, Euro-American decorated ceramics, bottle glass with maker's marks, prehistoric projectile points) were collected and returned to the CAR laboratory for processing, analysis, and curation.

Laboratory Methods

The few diagnostic cultural materials and records obtained during the project were prepared for permanent curation in accordance with federal regulation 36 CFR part 79 and THC requirements for State Held-in-Trust collections. Additionally, the material was curated in accordance to the current guidelines of the CAR. The diagnostic materials collected and processed in the CAR laboratory were washed, air-dried, and stored in 4-mil, zip-locking, archival-quality bags. Acid-free labels were placed in all artifact bags. The labels were generated by a laser printer, and each contains provenience information and a corresponding lot number. Artifacts were separated by class and stored in acid-free boxes identified with standard tags.

Field notes, forms, photographs, and drawings were placed in labeled, archival folders. Digital photographs were printed on acid-free paper, labeled with archive-appropriate materials, and placed in archival-quality sleeves. All field forms were completed with pencil. Any soiled forms were placed in archival-quality page protectors. Ink-jet-produced maps and illustrations were also placed in archival-quality page protectors to prevent against accidental smearing due to moisture. All collected materials and project-related documentation are permanently housed at the CAR facility.

Chapter 4: Results of Monitoring

Over the course of seven days in January of 2013, CAR archaeologists monitored the excavation of three trenches associated with the installation of underground drainage pipes (Figure 4-1). The drainage pipes were to extend from the Playhouse building to a drainage culvert 37 m northwest of the structure (Figure 4-2). The excavations were conducted by employees from TCL Construction using a backhoe with a 61-cm wide bucket, a backhoe-mounted jackhammer to remove the existing sidewalk, and a Bobcat® skid steer loader. Shovels and a pickaxe also were employed to clear portions of the trenches. During the soil removal, the archaeologist inspected the trenches and soil for evidence of diagnostic materials and any cultural remains. After inspection, the soil was moved to a predetermined dumping location on site. The trenches were numbered in order of excavation.

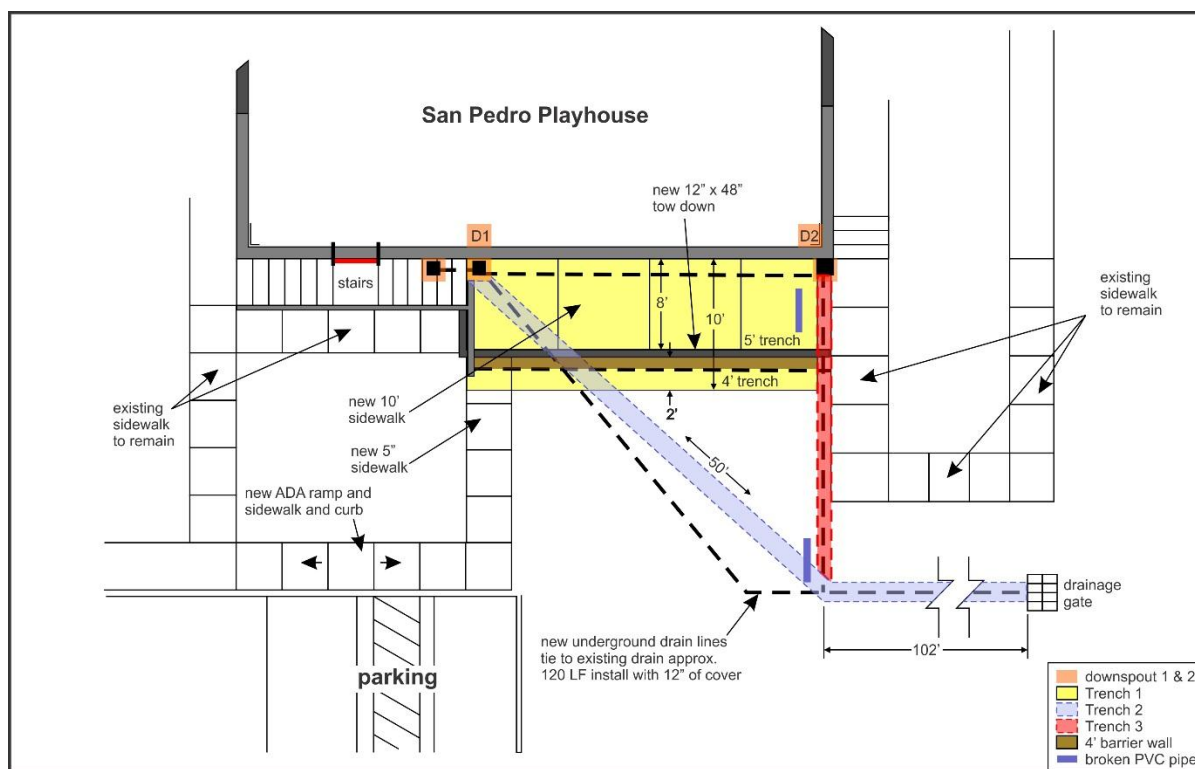


Figure 4-1. Schematic plan of the planned drainage improvements adjacent to the San Pedro Playhouse.



Figure 4-2. *Overview of the project area from drainage culvert to the Playhouse.*

Trench 1

Trench 1 was excavated to allow access to the north wall of the Playhouse for water proofing (Figure 4-1). Prior to any excavations, the existing concrete sidewalk was removed (Figure 1-5). The sidewalk along the north wall measured approximately 12 m in length and 2.4 m in width. It was demolished with a backhoe-mounted jackhammer. Trench 1 was parallel to the north wall of the Playhouse.

The original project schematics called for two trenches. One trench would allow access to the north wall of the Playhouse to install the moisture barrier on the face of the wall, and second would be for the installation of a moisture barrier wall in front of the Playhouse wall. Once the excavations began, the construction contractor revised the plans and excavated a single 3-m wide trench along the wall. The trench was 1.5-m deep over the first 2.4 m from the base of the wall. Over the next 0.6 m, the trench was only 1.2-m deep (Figure 4-3). A backhoe and shovels were used in the excavation process.

The soils in Trench 1 were disturbed as a result of previous construction activities adjacent to the base of the foundation. The stratigraphy consisted of a 13-cm thick caliche and gravel layer beneath the sidewalk and a light tan soil below the gravel layer averaging 15 cm in depth. Directly below the light tan soil was a dark brown, silty clay fill that continued to the base of the excavations.



Figure 4-3. *Trench 1 being excavated by backhoe and shovels.*

Occasional fragments of glass, aluminum cans, and various unidentified metal fragments were noted throughout Trench 1. Also noted were fragments of PVC and cast iron water and drainage pipes. A fragment of a cement pipe was excavated 0.6 m below the surface near the eastern end of the trench. The pipe measured 90 cm in length and 20 cm in diameter. It is likely a fragment of the original drainage pipe installed in 1929 during the construction of the Playhouse.

During the excavation of Trench 1, a PVC main waterline that connected to the Playhouse was damaged, flooding a portion of Trench 1 (Figure 4-4). The repair of the pipe necessitated additional excavations that were monitored by CAR staff. No artifacts were noted during the excavations around the broken PVC pipe.



Figure 4-4. Trench 1 flooded along the 1.2-m deep side.

Following the repairs, the north wall was covered with adhesive tar paper, and a row of sand bags was stacked against the northern portion of the trench. Reinforced rebar was placed along the trench, while the spaces between the stacked sandbags and the base of the wall was filled with matrix originally removed from the trench. The fill extended to approximately 41 cm from the eventual height of the sidewalk. At this point, the PVC drainage pipes connecting to the downspouts were positioned on top of the fill and secured in place with additional sandbags near the edge of the trench. Next, a layer of crushed limestone gravel was placed on top of the pipes (Figure 4-5). The two drainage lines were to intersect some 11 m from the base of the wall and to continue as a single line toward the culvert west of the building.



Figure 4-5. Stacked sand bags against the north wall of the Playhouse.

Next, concrete was poured on top of the bags and fill, and the concrete was held in place by a temporary form placed along the north edge of the trench. The top of the concrete layer was to serve as the new sidewalk along the north wall of the Playhouse. The layer of concrete was approximately 46-cm thick and reached to the top of the moisture barrier installed on the north wall of the structure (Figure 4-6).



Figure 4-6. New sidewalk against north wall of Playhouse. Note drainage pipes extending from sidewalk.

Trenches 2 and 3

Trench 2 was intended to house the extension of the PVC pipe emanating from the concrete sidewalk adjacent to the stairs near the eastern edge of the project area (Figure 4-1). Trench 3 was to house the extension of the PVC pipe connecting from the sidewalk at the northwest corner of the structure (Figure 4-1). Both trenches were approximately 61 cm in width and 46-66 cm in depth. Trench 2 extended northwest at a 45 degree angle for a distance of 12 m from the concrete sidewalk. Trench 3 extended 6 m north, beyond the edge of the new sidewalk away from the Playhouse. Eleven meters away from the building, Trench 2 and Trench 3 intersected (Figure 4-7). The drainage line in Trench 2 continued for another 31 m past this intersection to the culvert northwest of the Playhouse.



Figure 4-7. *Intersection of Trench 2 (on the left) and Trench 3 (on the right).*

The excavations of the two trenches that started at the edge of the newly laid sidewalk and continued to the pipe intersections were not monitored since these areas had been previously disturbed. Beginning at the intersection of the two trenches to the culvert, the excavation of the trench was monitored by CAR staff. The stratigraphy revealed in the trench wall consisted of a 6-cm thick layer of dark brown, silty clay top soil (Figure 4-8). Below this layer was a 30-cm thick zone of mixed orange sand, crushed limestone gravels, and light tan, silty soil. At 40 cmbs was a homogeneous, 8-cm thick caliche layer throughout the trench. Beneath the caliche layer at 43 cmbs a brown, silty soil continued to the base of the trench (70 cmbs).



Figure 4-8. Trench 2 complete (facing east). View from grated drainage gutter towards the Playhouse.

The only artifacts noted during the monitoring came from a 1.2-m section of Trench 2 stretching from 4 to 5 m west of the intersection of the two drainage pipes. No artifacts were observed in the remaining 26 m of the trench. The artifacts noted in the aforementioned concentration included glass, ceramics, animal bone, and various metal objects. All of the temporally diagnostic artifacts were collected and brought back to the CAR laboratory for further analysis. The artifacts collected from this concentration are discussed in greater detail in the following chapter.

Chapter 5: Artifact Descriptions

The artifacts noted and collected from the two trenches during the monitoring project are listed in Tables 5-1 and 5-2. Here we limit our descriptions primarily to the temporally diagnostic specimens since they were the ones collected and analyzed in greater detail.

Trench 1

Occasional fragments of flat and container glass and various unidentified metal objects were noted during the monitoring of Trench 1 (see Table 5-1). However, none of these were historic or prehistoric, and therefore, they were not collected but were noted on the monitoring field forms. The modern materials included a *Dr. Pepper* can, and one piece of bottle glass with letters “Pe” on the label. There were also two fragments of aqua colored bottle lips that matched the color of the bottle fragment observed. Two glass fragments from Trench 1 were green colored, and one displayed white lettering from the label that read “...NATEL...ACID...DERI...AND....”

Table 5-1. Artifacts Recovered from Trench 1

Color	Count	Artifact Category/Type	Description
		Glass	
clear	2*	flat glass	window glass
green	2*	container	one fragment contains writing "...NATEL...ACID...DERI...AND..."
aqua	2*	bottle fragments	two bottle lips, fragment with letters "Pe"
clear	3*	container	unknown fragments
		Metal	
	1*	metal fastener	ferrous, 11.4 cm
	4*	nails	ferrous, 1 round nail, 2 wire nails, 1 unknown
	1*	can	<i>Dr. Pepper</i> can
	1*	identification strip	"Alamo Iron Works 15-#3 5# B4" embossed

*These artifacts were noted during monitoring but not collected

Trench 2

Trench 2 produced ceramic fragments as well as container and flat glass. Also observed were various construction materials and two animal bone fragments (Table 5-2).

A clear bottle base, 5.6 cm in diameter, was recovered. Circling the base is embossed writing, “San Antonio, Texas” (Figure 5-1a) indicating that it was locally produced. A small portion of the body of the bottle that is still intact shows a mold seam. Machine-made bottles frequently have embossing on the base. The base was molded onto the body of the bottle. The clear color and the narrow diameter indicate that it was most likely a soda bottle. Improved chemical and glass making techniques in the late nineteenth century and early twentieth century made it possible to make clear glass without imperfections, resulting in a completely clear bottle (Munsey 1970).

One piece of undecorated white ironstone ceramic also was recovered. The fragment displays a partial maker’s mark with letters “CLEM...” and a left-facing lion (Figure 5-1b). To date, research by the CAR staff has not been able to identify this specific maker’s mark.

A complete, amber colored bottle was found in Trench 2 (Figure 5-1c). The bottle has embossed lettering on the base that reads “BiXby 12”. Further research shows that this bottle originated circa 1890 and was a shoe polish ink container. The bottle was manufactured in New York State. The bottle shows a molded line along the side of the body. The mold seam ends at the shoulder portion of the bottle. The bottle neck and lip are uniform, but no mold seam is present. This may be due to the use of a lipping tool. These characteristics suggest the use of a three-piece mold. The three-piece mold was used before machine manufacturing in the nineteenth century (Kendrick 1966).

Glassware was by far the largest category noted within Trench 2. Most were unidentifiable glass fragments that ranged in color from clear to milk (white) to amber and were not collected since they were not diagnostic.

Metal construction materials also were noted but not collected. They included cut nails that indicate historical manufacturing. These are listed in Table 5-2.

Table 5-2. Artifacts Recovered from Trench 2

Color	Count	Artifact Category/Type	Description
		Glass	
amber	1	complete bottle	'BiXby 12' maker's mark on base
amber	1*	container (unknown)	4.6 cm
clear	1	bottle base	"San Antonio, Texas" embossed, 5.6 cm, 5.95 mm
clear	1*	flat	window glass
clear	1*	container (unknown)	4.1 cm
clear	1*	bottle lip	thick, possible milk jug lip, 4.2 cm, 6.19 mm
milk	1*	container (unknown)	flat, 3.6 cm, 4.6 mm
milk	1*	container (unknown)	shoulder, 7 cm, 8.6 mm
		Ceramic	
	1*	Undecorated Earthenware	white fragment unknown
	1*	Decorated Earthenware	white with floral decal, teacup fragment
	1*	semi-porcelain	white undecorated
	1	Ironstone (maker's mark)	plate fragment, maker's mark with a lion facing left and the letters ...CLEM...
	1*	Ironstone	white fragment unknown
		Metal	
	1*	washer	ferrous, 6.5 cm
	1*	nail	cut, 8.7 cm
	1*	screw	ferrous, 4.3 cm
	1*	carbon rod	ferrous, 9.1 cm

*These artifacts were noted during monitoring but not collected



Figure 5-1. *Selected diagnostic artifacts. a.) "San Antonio, Texas" clear bottle base; b.) Ironstone ceramic with makers mark, "CLEM" with left-facing lion; c.) "Bixby" amber colored bottle circa 1890.*

Chapter 6: Summary and Recommendations

Archaeological monitoring of the trenching associated with the installation of drainage pipes in the vicinity of the San Pedro Park Playhouse was conducted over a seven day period in January of 2013. Based on the stratigraphy of the three trenches and the mixed nature of the sparse cultural materials, it is apparent that the area monitored was heavily disturbed. Trench 1 contained a few modern artifacts (post-1960) that were noted but not collected. Trench 2 produced the highest amount of artifacts found within a small concentration (1.3 m long) of historic materials 40-70 cmbs. The majority of the artifacts noted in this concentration were not temporally diagnostic. Those that could be dated fell within the late nineteenth century and early twentieth century. The cultural materials that were encountered in two of the three trenches were in mixed depositional contexts. The CAR suggests that no significant cultural deposits and/or features were impacted by the construction activities.

The area surrounding the San Pedro Park Playhouse has been the site of several improvements projects within the last 100 years. Based on the CAR's past investigations, the park has been divided into five archaeological sensitive zones. Pending future disturbances, the CAR recommended distinct investigative strategies and techniques within each zone. The current project area, adjacent to the north wall of the Playhouse, falls within Zones 2 and 3. In Zone 2, testing was recommended if impacts extended below 10 cm, while in Zone 3 testing was recommended if impacts reached below 30 cm (Zapata and Meissner 2003:34). In the case of the present improvements project, most of the deep impacts occurred immediately adjacent to the north wall of the structure. It was clear that this area had been disturbed by construction activities, and no testing or systematic subsurface investigations were recommended. In the portions of the project area located further from the base of the wall, impacts extended from 46-66 cmbs. However, the area was the site of the previous drainage system that had become non-functional, and it was anticipated that the project easement was disturbed. The monitoring showed that some of the area was indeed disturbed, though the encounter of the pocket of historic materials in Trench 2 indicated that some intact deposits were present within the project easement. More importantly, the monitoring did not reveal Colonial period deposits present within the easement, suggesting that if they are present they are found below the depth of the current impacts, therefore, we conclude that the original assessments made by CAR staff regarding the nature of the archaeological potential of the park remain appropriate. Future construction or improvement activities planned for the park should take into consideration the recommendations for archeological investigations suggested by previous management plans.

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