



LANDMARK NAME: Buffalo Bayou Cistern

OWNERS: City of Houston

APPLICANTS: Parks & Recreation Department

LOCATION: 105-B Sabine Street

AGENDA ITEM: D

HPO FILE No.: HP2026_0223

DATE ACCEPTED: Jul-13-2026

HAHC HEARING: Aug-13-2026

SITE INFORMATION: Lots 1-16 & Tracts 17-21, Block 437, Baker WR NSBB, portions of Blocks 433 and 436.

TYPE OF APPROVAL REQUESTED: Protected Landmark Designation

HISTORY AND SIGNIFICANCE SUMMARY

The Buffalo Bayou Park Cistern is a 15-million-gallon concrete reservoir constructed beginning in 1926 and operating beginning in 1927. Its construction improved Houston's municipal water infrastructure by significantly increasing drinking water storage capacity and ensuring reliable water pressure for fire suppression, and for 80 years it was one of the primary components of Houston's municipal water infrastructure. Since 2016, the Cistern has been open to the public for tours related to Houston's water history as well as rotating art exhibits and special events. The Cistern is significant for its historic role in the development of Houston and for its current role as a treasured cultural space.

"The Cistern" is a contemporary name coined in the 2010s. This name is used for the nomination because it is the commonly recognized name for the structure and because it was originally unnamed. The City of Houston owns the Cistern property, and Buffalo Bayou Partnership has operational, maintenance, and use rights through a Tri-Party Agreement. Buffalo Bayou Partnership is seeking Protected Landmark designation for the Cistern to celebrate its centennial year. The nomination was written by Emily Ardoin with Preservation Houston.

The Buffalo Bayou Park Cistern meets Criteria 1, 3, 4, 5, and 8 for Landmark designation and Criterion 1 for Protected Landmark designation.

HISTORY AND SIGNIFICANCE

With its location at the confluence of Buffalo and White Oak Bayous, Houston's history is inextricably tied to water. Between the city's founding in 1836 and 1878, Houston lacked a centralized system for drinking water and fire suppression. Residents collected water in private cisterns and stored water from Buffalo Bayou or nearby springs in barrels.

The city's first municipal water system was established via contract with a private entity. As the city grew in the 1870s, a few entities attempted to form water works companies and establish city contracts; however, none proceeded beyond city council discussion. In addition to clean drinking water, fire suppression was a major catalyst for a centralized system. In July 1876, a fire destroyed the three-year-old city hall and market house; firefighting efforts were hampered in part by inadequate water pressure. In 1878, the city signed a contract with James M.



Loweree and a group of associates from New York, and in 1879, Loweree and his associates incorporated the Houston Water Works Company. They built a plant with a standpipe system capable of pumping 3 million gallons of water per day from Buffalo Bayou.

In 1886, the Houston Water Works Company drilled its first artesian well and began transitioning the city's water source from the bayou to the much cleaner Gulf Coast Aquifer (Coastal Lowland Aquifer). The aquifer system was abundant enough to become Houston's exclusive municipal water source and remain so for half a century. As the Houston Water Works Company developed infrastructure to access artesian water, the remainder of the 19th century continued to see issues with inadequate water pressure for fire suppression and complaints of the Water Works Company supplementing with bayou water.¹ When the second city hall building burned in 1901, the loss of the building was partially attributed to inadequate water supply.² Legal action associated with these issues ultimately led to the city's purchase of the Water Works company and municipalization of the water system.³

In 1906 under Mayor Horace B. Rice, the City of Houston purchased the Houston Water Works Company and acquired its existing wells and infrastructure. The new municipal water department discontinued the use of supplemental bayou water and implemented improvements to the water system to increase efficiency. As the city continued to grow rapidly, though, so did the need for more capacity, and improvements frequently lagged behind growth.

In the early 1920s, water capacity decreased despite continued population growth as older wells became unusable.⁴ In 1924, concerns about a potential increase in the city's fire insurance key rate led to a city council vote for the construction of five new wells and longer-term plans for improvements.⁵ In April 1925, Houston voters approved a \$750,000 bond issue for waterworks improvements including two new branch pumping plants, auxiliary power units at existing plants, and a new 10-million-gallon reservoir for ground water storage. The vote came too late to avoid an increase in the key rate by the state fire insurance commission later that year.⁶

The bond issue had called for a single 10-million-gallon reservoir at the existing central water plant. William R. Holway, consulting engineer to the city's water department, along with Water Commissioner James H. B. House and City Engineer J. C. McVea, raised concerns that the central plant site lacked an adequate foundation for a reservoir of that size. By the time of the key rate increase, the three had recommended a revised two-reservoir plan: a smaller 4-million-gallon reservoir at the central plant, fed by gravity from a second, larger reservoir at a

¹ ["Houston's Water Supply."](#) *Houston Chronicle*, June 19, 1902, p. 5.

² ["History of Water Plant."](#) *Houston Chronicle*, October 15, 1906, p. 5.

³ ["History of Water Plant."](#) *Houston Chronicle*, October 15, 1906, p. 5.

⁴ ["Houston Has Outgrown Its Water Supply; Two Relief Plans Outlined."](#) *Houston Chronicle*, December 10, 1924, p. 16.

⁵ ["City Council Orders Five Water Wells."](#) *Houston Post*, August 19, 1924, p. 1.

⁶ ["Insurance Rate Boosted 13 Cents."](#) *Houston Post*, July 15, 1925, p. 1. In addition to inadequate water pressure, existing fire infrastructure and hazards in the city also contributed to the rate hike.



higher elevation.⁷ For the larger reservoir, officials chose a site just west of Sabine Street and north of Buffalo Bayou. Holway designed the new 15-million-gallon reservoir structure and three new wells to supply it. Townsend and Walling Contractors completed the excavation and dirt hauling, Standard Construction Company constructed the reservoir, and Layne-Texas Company constructed the wells.⁸

Prior to the reservoir project, the Sabine Street site was occupied by barracks and stables for the Headquarters Troop, 56th Cavalry Brigade of the Texas Army National Guard. After excavation had begun, City Health Officer Dr. A. H. Flickwir alerted officials to state sanitary regulations that prohibited drinking water facilities near stables. Building the new reservoir within 300 feet of the cavalry stables would threaten the Class A rating of Houston's water supply. In response, a portion of the reservoir fund was used to relocate cavalry equipment just north of the construction site while a new permanent location could be planned.⁹ The cavalry troop ultimately leased another city property west of the Sabine Street site, north of Buffalo Drive (now Allen Parkway) near the current location of the Houston Police Officers Memorial, and constructed new facilities there.¹⁰

Construction of the reservoir also prompted one of the first uses of the surrounding area as a public park. The positioning of the reservoir only partially below grade created a large, flat, elevated rectangular space above that seemed ideal for recreational use. While the reservoir was under construction, city officials proposed a new park with tennis courts on top of the structure to be added after its completion.¹¹ Sanitation regulations also did not permit this use, and Sabine Park¹² was instead established north of the reservoir, with playground equipment and eventually a facility of 12 municipal tennis courts and a clubhouse in 1941.¹³ The park amenities remained until Memorial Drive was extended through the area in the 1950s.¹⁴ Memorial Park Tennis Center was built in 1956 to replace the former courts near the reservoir.¹⁵

⁷ ["City Will Build Water Reservoir."](#) *Houston Post*, July 2, 1925, p. 1.

⁸ 15-million-gallon Reservoir Collection (unprocessed), Houston History Research Center, Houston, TX.

⁹ ["Cavalry Stables Must Be Moved."](#) *Houston Post-Dispatch*, December 4, 1925, p. 5.

J. C. McVea to L. D. McKaughan, January 13, 1926, 15-million-gallon Reservoir Collection (unprocessed), Houston History Research Center, Houston, TX.

¹⁰ ["Houston."](#) *Houston Post-Dispatch*, April 7, 1926, p. 1.

¹¹ ["Reservoir Park Planned by City."](#) *Houston Chronicle*, August 7, 1927, p. 57.

¹² While "Sabine Park" appears to be the most commonly used name, "Reservoir Park" and "Sabine Reservoir Park" are used in some primary sources.

¹³ "Water Commissioner 'In Bad' Because He Halts Ball Game on Advice of Health Officer." *The Houston Chronicle*, May 28, 1928, p. 17.

¹⁴ ["Pickett Dedicates Municipal Courts."](#) *Houston Post*, September 27, 1941, sec. 2, p. 4.

¹⁵ Gallagher, Jack. ["Sportalk."](#) *Houston Post*, June 6, 1953, p. 2, sec. 2.

¹⁵ ["Tennis Center Will Be Ready in March."](#) *Houston Post*, January 29, 1956, p. 4 sec. 4.



In April 1927, the reservoir received its final seepage test. By August, it was filled and operational.¹⁶ The new reservoir ensured the city's water system could maintain reliable water pressure at peak times of day, during droughts, and during fire events.¹⁷ It also proved useful during other disasters, at one point providing water for the entire city after a 1929 flood submerged the central waterworks plant and contaminated the smaller 4-million-gallon reservoir.¹⁸ During a later 1935 flood, pumps borrowed from the Houston fire department and Gulf Oil Company were connected to the reservoir to avert an emergency water shortage.¹⁹

The Cistern was the largest groundwater reservoir ever built in Houston, which continued to rely on groundwater exclusively until the mid-20th century, far later than comparable major cities. Through the first half of the century, increasing use of groundwater amid booming population and industrial growth led to significant ground subsidence.²⁰ Houston gradually shifted to surface water beginning with the Sheldon Reservoir, created by the Works Progress Administration in 1943 to provide supplemental water for World-War-II-related industry around the Houston Ship Channel and transferred to the city for municipal use after the war.²¹ In the 1950s, the damming of the San Jacinto River created the much larger Lake Houston reservoir. Lake Livingston and Lake Conroe followed in 1969 and 1973. Today, ground water provides 14 percent of Houston's drinking water supply.²²

The reservoir operated for approximately 50 years until a leak developed and could not be located for repair. It was formally decommissioned in 2007. In 2010, the city solicited bids for its demolition at the same time the Buffalo Bayou Partnership (BBP) was planning improvements for Buffalo Bayou Park. BBP took over management of the property that included the reservoir, and representatives accessed the reservoir to evaluate its potential for use as parking or storage. Struck by the grandeur and beauty of the utilitarian space, BBP began a visioning process for its use as a public attraction. It was coined "the Cistern" during this time.²³ In 2016, the Cistern opened for tours for the first time after a renovation made it accessible to the public. Managed by Buffalo Bayou Partnership, the structure hosts history tours and immersive art installations that make use of its dramatic visual and acoustical qualities, including a 15-to-20-second reverberation time. In its new form, the Cistern continues to contribute to Houston's history, now as a unique cultural venue integral to Buffalo Bayou Park.

¹⁶ ["15,000,000-Gallon Reservoir Ready."](#) *Houston Post-Dispatch*, August 23, 1927, p. 7.

¹⁷ ["City's Water System is Vastly Improved."](#) *Houston Post*, September 4, 1927, p. 4.

¹⁸ ["Test Shows City Water Supply Pure."](#) *Houston Chronicle*, June 3, 1929, p. 1, 6.

¹⁹ ["Fair Skies and Cold Weather End Threat of Further Flood Here."](#) *Houston Chronicle*, December 12, 1935, p. 1, 21.

²⁰ ["Our History."](#) Harris-Galveston Subsidence District

²¹ ["Sheldon Reservoir."](#) Handbook of Texas Online, Texas State Historical Association

²² ["Drinking Water Operations."](#) Houston Public Works

²³ Gray, Lisa. ["Buffalo Bayou's dark secret."](#) *Houston Chronicle*, January 29, 2012, p. G5



ARCHITECTURAL DESCRIPTION AND RESTORATION HISTORY

Architectural Description

The Cistern is a covered poured concrete water reservoir measuring 87,500 square feet and capable of holding 15 million gallons of water. It was constructed by the Standard Construction Company between 1926 and 1927 using 1,200 self-locking shoring posts to support the formwork during pouring. Approximately half of the structure is below ground level, while elevated grade caps the upper half. Due to the elevated grade, the rectangular footprint of the reservoir is clearly visible from above. Inside, a grid of 221 columns 25 feet in height supports the underground structure. The reservoir is lined entirely in concrete with tapered concrete walls ranging in thickness from 8 inches at the top to 18 inches at the bottom. A ground-level interior walkway approximately 6 feet wide encircles the space at the outer edge.

Restoration History

Though various outbuildings and supporting equipment around the reservoir have been removed over the years, the reservoir itself remains essentially intact. In 2012, Page Architects designed a renovation that minimized visual disruption while making the structure safe and accessible for public viewing. A new concrete-lined grade-level entrance was added on the east side featuring poured concrete walls with visible formwork mimicking the original structure's ceiling. The entry hall curves toward the interior space with minimal linear lighting to create a gradual transition from above to below ground. Inside, minimal metal pipe handrails with integrated lighting were added to the existing internal walkway. Life safety equipment and egress signage were also added. The reservoir maintains a water level of approximately ten inches, illustrating its original use and creating a dramatic reflection of the column grid.

BIBLIOGRAPHY

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- . "Reservoir Park Planned by City." August 7, 1927, p. 57.
- . "Test Shows City Water Supply Pure." June 3, 1929, pp. 1, 6.
- . "Water Commissioner 'In Bad' Because He Halts Ball Game on Advice of Health Officer." May 28, 1928, p. 17.

Houston Post. "City Council Orders Five Water Wells." August 19, 1924, p. 1.

- . "City Will Build Water Reservoir." July 2, 1925, p. 1.
- . "City's Water System Is Vastly Improved." September 4, 1927, p. 4.
- . "Insurance Rate Boosted 13 Cents." July 15, 1925, p. 1.
- . "Pickett Dedicates Municipal Courts." September 27, 1941, sec. 2, p. 4.
- . "Tennis Center Will Be Ready in March." January 29, 1956, sec. 4, p. 4.

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- . "15,000,000-Gallon Reservoir Ready." August 23, 1927, p. 7.
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https://www.twdb.texas.gov/publications/reports/historic_groundwater_reports/doc/M132.pdf

The information and sources provided by the applicant for this application have been reviewed, verified, edited and supplemented with additional research and sources by Samantha de Leon, Planning and Development Department, City of Houston.

APPROVAL CRITERIA FOR LANDMARK DESIGNATION

Sec. 33-224. Criteria for designation

(a) The HAHC, in making recommendations with respect to designation, and the city council, in making a designation, shall consider one or more of the following criteria, as appropriate for the type of designation:



S	NA	S - satisfies	D - does not satisfy	NA - not applicable
☒	☐	(1) Whether the building, structure, object, site or area possesses character, interest or value as a visible reminder of the development, heritage, and cultural and ethnic diversity of the city, state, or nation;		
☐	☒	(2) Whether the building, structure, object, site or area is the location of a significant local, state or national event;		
☐	☒	(3) Whether the building, structure, object, site or area is identified with a person who, or group or event that, contributed significantly to the cultural or historical development of the city, state, or nation;		
☒	☐	(4) Whether the building or structure or the buildings or structures within the area exemplify a particular architectural style or building type important to the city;		
☒	☐	(5) Whether the building or structure or the buildings or structures within the area are the best remaining examples of an architectural style or building type in a neighborhood;		
☒	☐	(6) Whether the building, structure, object or site or the buildings, structures, objects or sites within the area are identified as the work of a person or group whose work has influenced the heritage of the city, state, or nation;		
☐	☒	(7) Whether specific evidence exists that unique archaeological resources are present;		
☐	☒	(8) Whether the building, structure, object or site has value as a significant element of community sentiment or public pride.		
AND				
☐	☒	(9) If less than 50 years old, or proposed historic district containing a majority of buildings, structures, or objects that are less than 50 years old, whether the building, structure, object, site, or area is of extraordinary importance to the city, state or nation for reasons not based on age (Sec. 33-224(b)).		

Sec. 33-229. Criteria for protected landmark designation

S	D	NA	S - satisfies	D - does not satisfy	NA - not applicable
☒	☐	(1) Meets at least three of the criteria for designation in section 33-224 of this Code;			
☐	☒	(2) Was constructed more than 100 years before application for designation was received by the director;			
☐	☒	(3) Is listed individually or as a contributing structure in an historic district on the National Register of Historic Places; or			
☐	☒	(4) Is recognized by the State of Texas as a Recorded State Historical Landmark.			



STAFF RECOMMENDATION

Staff recommends that the Houston Archaeological and Historical Commission recommend to City Council the Protected Landmark Designation of the Buffalo Bayou Cistern at 105-B Sabine Street, Houston, TX 77007.



EXHIBIT A

PHOTOS

BUFFALO BAYOU PARK CISTERN
105-B SABINE STREET



Buffalo Bayou Park Cistern entrance, facing northwest



Buffalo Bayou Park Cistern top, facing north



Buffalo Bayou Park Cistern entrance interior



Buffalo Bayou Park Cistern interior



Buffalo Bayou Park Cistern interior



EXHIBIT B

SITE MAP

BUFFALO BAYOU PARK CISTERN

105-B SABINE STREET



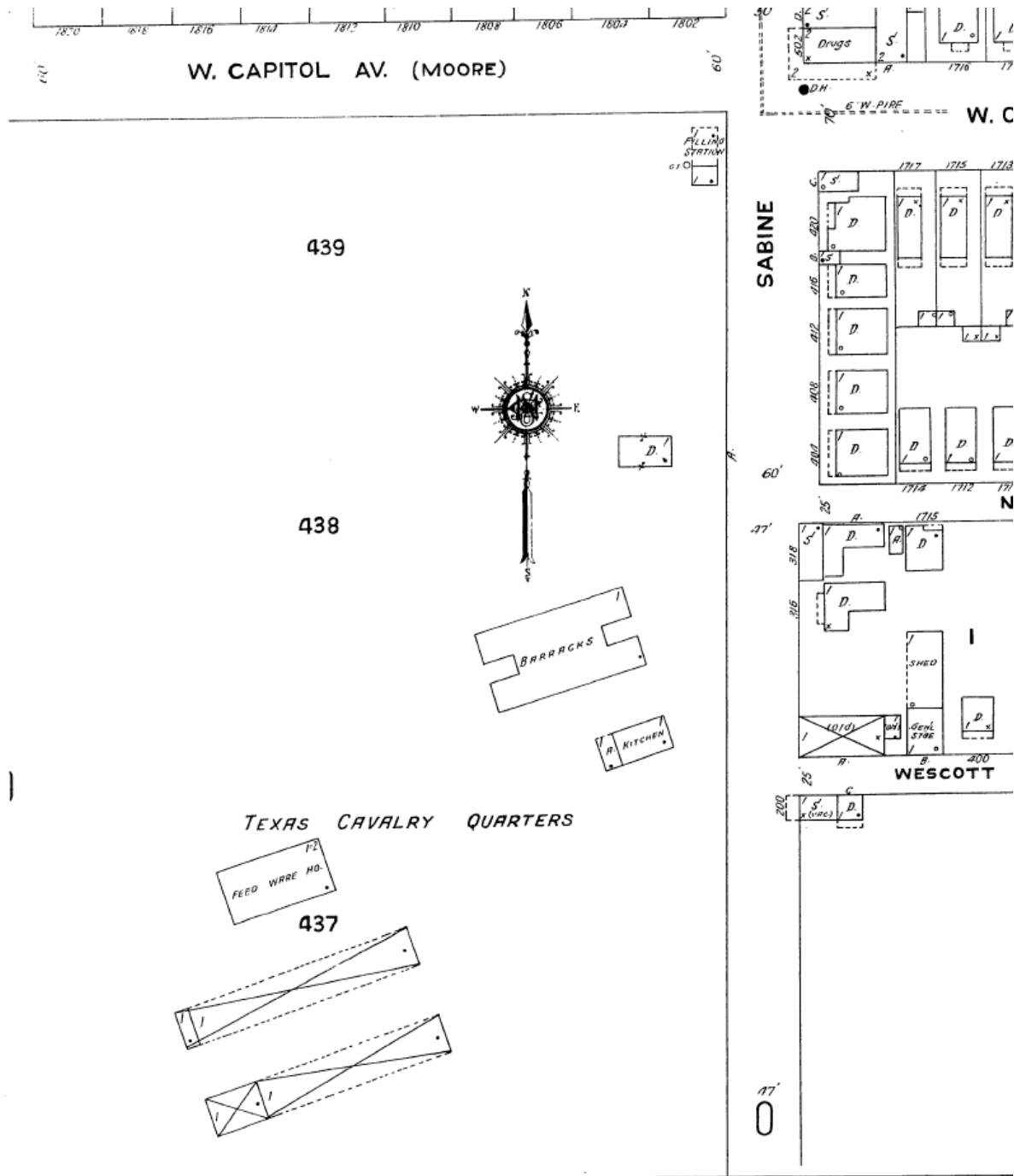


EXHIBIT C

SANBORN FIRE INSURANCE MAPS

BUFFALO BAYOU PARK CISTERN

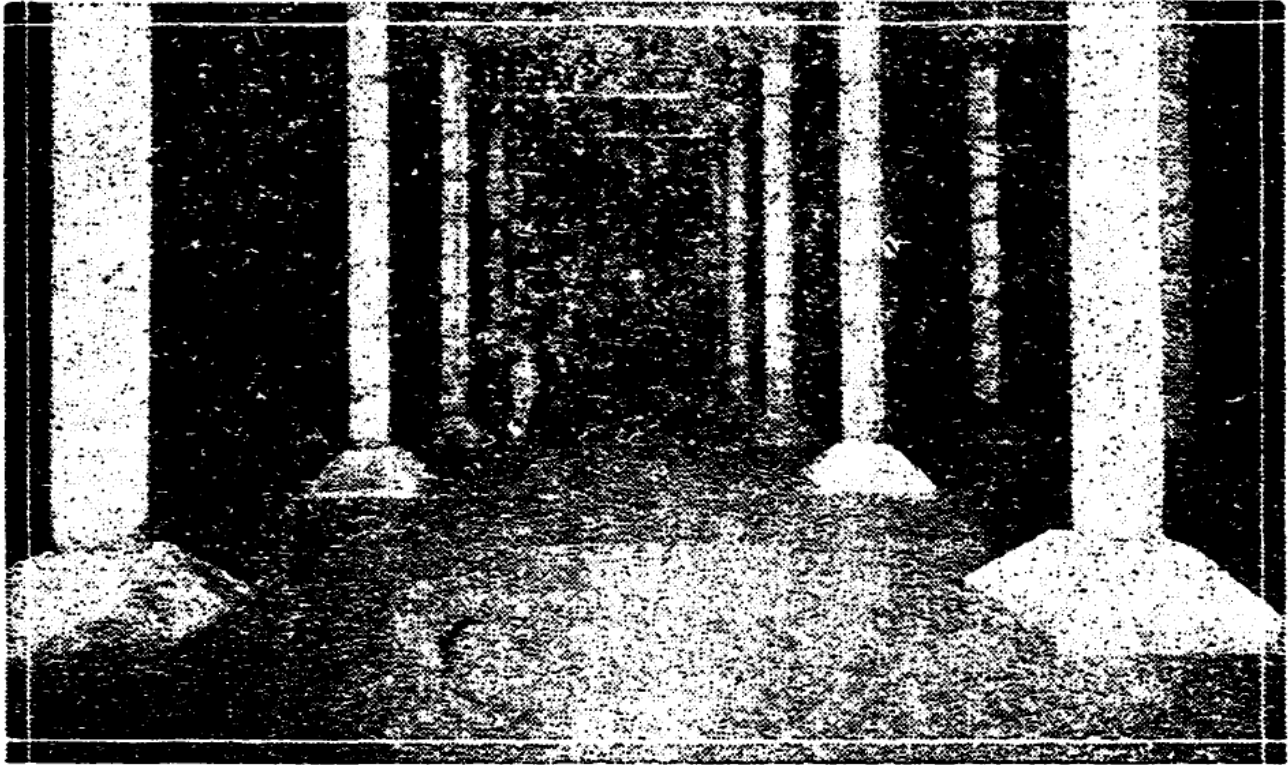
105-B SABINE STREET



1924 Sanborn Fire Insurance Map (excerpt)



CITY'S NEW WATER RESERVOIR



THIS is the first time—and probably the last time—you'll ever see a picture of this big tank. This big reservoir is now filled with 15,000,000 gallons of water. It is the water department's big new reservoir near the Sabine Street bridge. This is a concrete structure with hundreds of reinforcing posts in it. Note the size of the men in comparison with the pillars. This picture was taken by Bob Johnstone with the Cecil Thomson studios. He used two two-ounce bottles of flashlight powder to create enough light for this picture. Being water-tight, it was naturally light-tight also.

Houston Chronicle, April 27, 1927, p. 15. [NewsBank: America's News – Historical and Current](#). Accessed 18 May 2026.