Texas Historical Commission staff (AD), 12/29/2009, rev. 1/14/2010
27" x 42" Official Texas Historical Marker with post
El Paso County (Job #09EP02) *Subject WA, CY (Atlas) UTM: 13 364850 E 3522071N*
Location: El Paso, 5001 Fred Wilson

MESA WATER BOOSTING STATION

IN 1903, CHARLES R. MOREHEAD WON THE EL PASO MAYORAL RACE ON A PLATFORM THAT PROMISED AN ACCEPTABLE WATER SYSTEM FOR THE CITY. LATER THAT YEAR, THE INTERNATIONAL WATER COMPANY (IWC) BEGAN CONSTRUCTION OF A WATER WORKS ON THE MESA NORTH OF FORT BLISS TO TAP INTO THE HUECO BOLSON AQUIFER. AROUND 1904, IWC REPLACED THE COMPRESSOR WITH A NEW PUMP PLANT. THIS NEW MESA PUMP PLANT DREW WATER FROM THE MESA WELLS THAT WAS THEN STORED IN A ONE-MILLION-GALLON, IN-GROUND TANK. HOWEVER, IN ORDER TO MEET DEMAND, IWC PUMPED WATER AT A RATE THAT EXCEEDED REPLENISHMENT. THE CITY OF EL PASO PURCHASED THE IWC IN 1909 FOR $927,000, BUT EVEN UNDER MUNICIPAL OWNERSHIP, THE PUMP PLANT COULD NOT MEET THE DEMAND FOR WATER.

BY THE LATE 1930s, THE CITY HAD BOTH EXPANDED THE MUNICIPAL WATER SYSTEM AND REVAMPED EXISTING FACILITIES IN ORDER TO MEET CONSTANTLY INCREASING DEMAND. BY 1937, THE CITY HAD BOTH A LOW-SERVICE DISTRICT SYSTEM FOR ELEVATIONS BELOW 3,850 FEET AND A HIGH-SERVICE DISTRICT SYSTEM FOR ELEVATIONS ABOVE 3,850 FEET; THE MESA PUMP PLANT WAS INCLUDED IN THE HIGH-SERVICE SYSTEM. THE CITY OF EL PASO DEPARTMENT OF WATER AND SEWAGE BUILT THE MESA WATER BOOSTING STATION IN 1938 TO REPLACE THE AGING MESA PUMP PLANT. CITY WATER DEPARTMENT SUPERINTENDENT ASHLEY GREEN CLASSEN DREW THE PLANS FOR THE FACILITY, WHICH INCLUDED SEVERAL TANKS, RESERVOIRS, SETTLING BASINS AND OTHER BUILDINGS AND STRUCTURES. THE BOOSTING STATION REMAINS THE ONLY HISTORIC MUNICIPAL STRUCTURE IN EL PASO BUILT IN THE PUEBLO DECO STYLE. THE REINFORCED CONCRETE, ONE-STORY, RECTANGULAR-PLAN FACILITY FEATURES PROMINENT BUTTRESSES, STYLIZED TILE DESIGNS, LARGE CASEMENT WINDOWS AND STUCCO FINISHES.

RECORDED TEXAS HISTORIC LANDMARK – 2009

TEXAS HISTORICAL COMMISSION

RECORDED TEXAS HISTORIC LANDMARK MARKERS:
2009 Official Texas Historical Marker
Sponsorship Application Form

Valid October 15, 2008 to January 15, 2009 only

This form constitutes a public request for the Texas Historical Commission (THC) to consider approval of an Official Texas Historical Marker for the topic noted in this application. The THC will review the request and make its determination based on rules and procedures of the program. Filing of the application for sponsorship is for the purpose of providing basic information to be used in the evaluation process. The final determination of eligibility and therefore approval for a state marker will be made by the THC. This form is to be used for Recorded Texas Historic Landmark (building marker) requests only. Please see separate forms for either Historic Texas Cemeteries or subject markers.

Proposed marker topic (official title will be determined by the THC): Mesa Water Boosting Station

County: El Paso

Town (nearest county town on current state highway map): **El Paso, TX**

Street address of marker site or directions from town noted above: 5001 Fred Wilson, El Paso, TX

Marker Coordinates:
If you know the location coordinates of the proposed marker site, enter them in one of the formats below:
UTM Zone Easting Northing
Lat: 31° 49' 34.69" N Long: 106° 25' 41.08" W (deg, min, sec or decimal degrees)

Otherwise, give a precise verbal description here (e.g. northwest corner of 3rd and Elm, or FM 1411, 2.6 miles east of McWhorter Creek):

NOTE: Recorded Texas Historic Landmark markers must be placed at the structure being marked.

Recorded Texas Historic Landmark markers definition: Recorded Texas Historic Landmark (RTHL) markers are awarded to structures deemed worthy of preservation for their historical associations and architectural significance. RTHL is a legal designation and comes with a measure of protection; it is the highest honor the state can bestow on a historic structure, and the designation is required for this type of marker. The RTHL designation becomes effective upon approval by the THC. Official Texas Historical Markers signify the RTHL designation, which comes only through application to and approval by the THC and must include public display of an Official Texas Historical Marker. Owners of RTHL-designated structures must give the THC 60 days written notice before any alterations are made to the exterior of the structure. RTHL status is a permanent designation and is not to be removed from the property in the event of a transfer of ownership. Only the THC can remove the designation or recall the marker. The marker must remain with the structure and may not be removed or displayed elsewhere until or unless the THC gives express approval in writing for such action. Once designated as RTHL, properties are subject to provisions of Texas Government Code, Section 442.006(f).

Criteria:
1. **Age:** Structures eligible for the RTHL designation and marker must be at least 50 years old.

2. **Historical significance:** Architectural significance alone is not enough to qualify a structure for the RTHL designation. It must have an equally significant historical association, and that association can come from an event that occurred at the site; through individuals who owned or lived on the property; or, in the case of bridges, industrial plants, schoolhouses and other non-residential properties, through documented significance to the larger community.
3. **Architectural significance:** Structures deemed architecturally significant are outstanding examples of architectural history through design, materials, structural type or construction methods. In all cases, eligible architectural properties must display integrity; that is, the structure should be in a good state of repair, maintain its appearance from its period of significance and be considered an exemplary model of preservation. Architectural significance is often best determined by the relevance of the property to broader contexts, including geography. Any changes over the years should be compatible with original design and reflect compliance with accepted preservation practices, e.g., the *Secretary of the Interior's Standards for Rehabilitation*.
4. **Good state of repair:** Structures not considered by the THC to be in a good state of repair are ineligible for RTHL designation. The THC reserves the sole right to make that determination relative to eligibility for RTHL markers.

Special National Register considerations for RTHL marker applications: If a structure has been individually listed in the National Register of Historic Places (NRHP) under either Criterion A or B **and** Criterion C (Architecture), the historical text compiled as part of the National Register nomination process may be submitted as part of the marker process, provided it includes the required reference notes and other documentation. Acceptance of the National Register information for the purposes of the marker process will be up to the sole determination of the THC. Listing in the NRHP does not guarantee approval for an RTHL marker. See the THC web site at http://www.thc.state.tx.us/markerdesigs/madnrcrit.html for National Register criteria.

☒ Check this box if the property is individually listed in the NRHP.

APPLICATION REQUIREMENTS

Any individual, group or county historical commission (CHC) may apply to the THC to request an Official Texas Historical Marker for what it deems a worthy topic. Only complete marker applications that contain all the required elements and are submitted online as required can be accepted or processed by the THC (for RTHL markers, the required elements are: sponsorship application form; narrative history; documentation; legal description of the property; site plan; floorplan; historic photograph; and current photographs clearly showing each side of the structure).

- Completed applications must be duly reviewed, verified and approved by the county historical commission (CHC) in the county in which the marker will be placed.
- The sponsorship application form, narrative history and documentation must be submitted as Microsoft Word or Word-compatible documents and sent via email attachments to the THC by no later than January 15, 2008.
- Required font style and type size are a Times variant and 12-point.
- Narrative histories must be typed in a double-spaced (or 1.5-spaced) format and include separate sections on context, overview, significance and documentation.
- The narrative history must include documentation in the form of reference notes, which can be either footnotes or endnotes. Documentation associated with applications should be broad-based and demonstrate a survey of all available resources, both primary and secondary.
- Upon notification of the successful preliminary review of required elements by the THC, a non-refundable application fee of $100 is required. The fee shall be submitted to the THC within ten working days of application receipt notification.

APPROVAL BY COUNTY HISTORICAL COMMISSION

The duly appointed marker representative (chair or marker chair) noted below for the county historical commission will be the sole contact with the THC for this marker application. To ensure accuracy, consistency and efficiency, all information from and to the THC relative to the application—and throughout the review and production processes—will be via direct communication with the CHC representative. All other inquiries (calls, emails, letters) to the THC will be referred to the CHC representative for response. By filling out the information below and filing the application with the THC, the CHC representative is providing the THC with notice that the application and documentation have been reviewed and verified by the CHC and that the material meets all current requirements of the Official Texas Historical Marker program.

As chair or duly appointed marker chair, I certify the following:

☒ Representatives of the CHC have met or talked with the potential marker sponsor and discussed the marker program policies as outlined on the THC web site. CHC members have reviewed the history and documentation for accuracy and made corrections or notes as necessary. It is the determination of the CHC that the topic, history and documentation meet criteria for eligibility.

CHC comments or concerns about this application, if any: None

Name of CHC contact (chair or marker chair)**:** Will E. DeBusk (Marker Chair)

Mailing address: 3301 Gabel Ave. **City, Zip:** El Paso, TX 79904

Daytime phone (with area code)**: (915) 755-5052** **Email address** (required) willdebusk@gmail.com

PERMISSION OF PROPERTY OWNER FOR MARKER PLACEMENT

Property owner: Edmund G. Archuleta, President/CEO

Address: 1154 Hawkins **City, state, zip:** El Paso, TX 79925

Phone: (915) 594-5501 **Email address:** earchuleta@epwu.org

Legal Description of the property (metes and bounds, lot and block, etc.): Beginning at Point 1 (Zone 13 364742.802630 Easting, 3522062.868760 Northing), the southwest corner of the Mesa Water Booster Station tract (hereinafter referred to as the tract); thence northerly approximately 641.9 feet to Point 2 (364738.915816 Easting, 3522257.209460 Northing), the northwest corner of the tract; thence easterly approximately 22.8 feet to Point 3 (364745.578925 Easting, 3522256.098940 Northing); thence southeasterly approximately 60.06 feet to Point 4 (364760.015663 Easting, 3522244.993760 Northing); thence easterly approximately 394.4 feet to Point 5 (364879.951639 Easting, 3522244.438500 Northing), the northeast corner of the tract; thence southerly approximately 590.26 feet to Point 6 (364880.506899 Easting, 3522064.534540 Northing), the southeast corner of the tract; thence westerly, parallel with Fred Wilson Avenue, approximately 226.68 feet to Point 7 (364811.813000 Easting, 3522065.000000 Northing), a gate post; thence continuing westerly, parallel with Fred Wilson Avenue, approximately 130.9 feet to Point 8 (364759.625000 Easting, 3522062.750000 Northing), a gate post; thence westerly, parallel with Fred Wilson Avenue, approximately 57.4 feet to Point 1, the place of beginning.

Upon receipt of the application, the THC will provide the owner with a letter that outlines the legal responsibility of ownership under the Recorded Texas Historic Landmark statute. The letter must be signed by the owner and returned to the THC before the evaluation can be completed.

NOTE: The property owner will not receive any additional copies of correspondence from the THC. All other correspondence—notice of receipt, request for additional information, payment notice, inscription, shipping notice, etc.—will be sent via email to the CHC representative, who is encouraged to share the information with all interested parties as necessary. Given the large volume of applications processed annually and the need for centralized communication, all inquiries about applications in process will be referred to the CHC for response. The CHC is the sole liaison to the THC on all marker application matters.

SPONSORSHIP PAYMENT INFORMATION
Prospective sponsors please note the following:

- Payment must be received in full within 45 days of the official approval notice and must be accompanied by the THC payment form. The THC is unable to process partial payments or to delay payment due to processing procedures of the sponsor. Applications not paid in the time frame required may, at the sole discretion of the THC, be cancelled or postponed.
- Payment does not constitute ownership of a marker; Recorded Texas Historic Landmark markers and other Official Texas Historical Markers are the property of the State of Texas.
- If, at any time during the marker process, sponsorship is withdrawn, a refund can be processed, but the THC will retain the application fee of $100.
- The Official Texas Historical Marker Program provides no means of recognizing sponsors or property owners through marker text, incising or supplemental plaques.

Marker sponsor (may be individual or organization): El Paso County Historical Commission

Contact person (if applicable): Will DeBusk

Mailing address: 3301 Gabel Ave. **City, zip:** El Paso, TX 79904

Email address (required): willdebusk@gmail.com **Phone: (915) 755-5052**

SHIPPING INSTRUCTIONS
In order to facilitate delivery of the marker, neither post office box numbers nor rural route numbers can be accepted. To avoid additional shipping charges or delays, use a business street address (open 8 a.m.—5 p.m., Monday through Friday).

Name: Will DeBusk

Street address: 3301 Gabel Ave. **City, zip:** El Paso, TX 79904

Daytime phone (required)**:** (915) 755-5052 **Email** (required)**:** willdebusk@gmail.com

TYPE AND SIZE OF RECORDED TEXAS HISTORIC LANDMARK MARKERS
As part of its review process, the THC will determine the appropriate size marker and provide options, if any, for the approved topic based on its own review criteria, including, but not exclusive of, historical significance, replication of information in other THC markers, relevance to the Statewide Preservation Plan and the amount of available documented information provided in the application narrative. In making its determination, however, the THC will also take into account the preference of the CHC, as noted below.

The sponsor/CHC prefers the following size marker:
☒ 27” x 42” RTHL marker with post ($1500)

☐ 27” X 42” RTHL marker without post* ($1500)
☐ 18” x 28” RTHL marker with post ($1000)
☐ 18” x 28” RTHL marker without post* ($1000)
☐ RTHL medallion and 16” x 12” plaque with post ($750)
☐ RTHL medallion and 16” x 12” plaque without post* ($750)

*For an RTHL marker without post, indicate to what surface material it will be mounted:
☐ wood
☐ masonry
☐ metal
☐ other (specify)

SUBMITTING THE APPLICATION (via email required)
When the CHC has determined the application is complete, the history has been verified and the topic meets the requirements of the Official Texas Historical Marker Program, the materials should be forwarded to the THC via email at the following address: markerapplication@thc.state.tx.us.

- The CHC or marker chair should send an email containing the following attachments (see attachment function under file menu or toolbox on your computer):
  - This application form
  - The narrative history (including documentation)
  - Legal description of the property
  - Detailed floor plan for each floor of the structure
  - Detailed site plan of the property
  - At least one historic photograph
  - Current photographs clearly showing each side of the structure

RECORDS RETENTION BY CHC: The CHC must retain hard copies of the application as well as an online version, at least for the duration of the marker process. The THC is not responsible for lost applications, for incomplete applications or for applications not properly filed according to the program requirements. For additional information about any aspect of the Official Texas Historical Marker Program, see the Markers page on the THC web site (http://www.thc.state.tx.us/markerdesigs/madmark.html).

MESA WATER BOOSTER STATION
EL PASO, EL PASO COUNTY, TEXAS1

CONTEXT

People living in the El Paso area have always been concerned with water or, more precisely, the scarcity and complexity of distributing it in such an arid environment. Water and its availability but, even more so, lack thereof, has governed much of how this community developed. Steady settlement had about 5,000 people living on both sides of the Rio Grande in the El Paso area by the mid-eighteenth century, making it the largest population concentration on the northern Spanish frontier.2 In these early years, surface water drawn from the Rio Grande was the only known source of this vital resource. Native Americans baled water directly from the river's banks. They also dug pools or dammed the river, diverting it to their patches of corn and beans, creating an early irrigation system. Spaniards and Mexicans who came to the area later followed the native tradition.3 For agricultural purposes, these early settlers also redirected water from the river into *acequias*, or canals, to sustain their crops.4

Water from the Rio Grande was acceptable for agricultural practices, but not readily potable, so many attempted to collect both well and rain water for personal consumption. Referred to as the "Sandy Grandy," the river was very silty at the El Paso bend.5 Drinking water was sometimes filtered and settled with mustard or mashed prickly pear leaves, both of which caused suspended particles to coagulate and offered limited filtration.6 Others filtered water through a triangular volcanic stone, sometimes called a Mexican filter.7 An 1873 city ordinance banned dumping and bathing in canals to prevent infectious bacteria from infesting the water and to inhibit obstructions from clogging the system.8 The completion of Elephant Butte Dam in 1916 finally controlled the Rio Grande's erratic behavior and ensured El Paso area farmers

irrigation water, but did not satisfy local water needs for homes or businesses.9 Like surface water, well water proved unsatisfactory; it was hard and curdled soap.10 Many residents tried to catch water from gutters along the eaves of their homes to store in wood or metal cisterns.11 However, with an annual average rainfall of only 8 inches, reliable rainwater retrieval was dubious.12

Local population growth with attendant commercial and industrial expansion necessitated a more efficient water system in the late nineteenth century. In 1881, the city granted Charles R. Morehead, A. Tays, Edwin G. Manning, Benjamin Dejitan, and Ynocente Ochoa, a charter to organize the El Paso Water Company and build a water works.13 The company forfeited its franchise to Sylvester Watts, an investor and water engineer from St. Louis, in April 1882.14 The Watts Company completed the city's first water works by 1883.15 Low water pressure, leaky main lines, and dirty water plagued the company's efforts.16 Finding the water unacceptable, many El Pasoans purchased water from wagons that circulated through the city. This water was either imported from places like Deming, New Mexico, more than 100 miles away, or distilled at one of several local ice plants.17

Although they considered the water quality terrible, local voters rejected a municipal bond to buy the water works in 1889 and the system remained in private control.18 By 1893, the Watts Company had two pump stations for a population of about 12,000.19 Its first well, known as the Watts well, was a few hundred feet from the river, near Third Street.20 With the exception of two additional miles of pipe to serve about 18,000 people, municipal water infrastructure remained unchanged by 1898.21 By 1900, the city had about 24,000 residents and improvements to the water system included 32 wells.22 Two years later, more wells had been driven and the second pump station had been upgraded.23

Morehead won the 1903 El Paso mayoral race on a platform that promised constituents an acceptable water system.24 With his election, the city awarded a franchise to J. W. Davis, who transferred it to the International Water Company (IWC) on April 30, 1903. The IWC purchased the Watts Company's equipment and began construction of a water works on the mesa north of Fort Bliss to tap into Hueco Bolson, an unevenly shaped underground lake, or aquifer.25

Headed by Harwood J. Simmons, an engineer and general manager of the El Paso and Southwestern Railroad, the IWC maintained existing water facilities and reserved the downtown facility for emergencies until it would gradually be dismantled.26 The IWC successfully sunk several new wells on the mesa. Spaced one mile apart, the wells' precise arrangement was intended to prevent the nearby central airlift compressor from over-pumping the newly tapped source.27 In about 1904, the IWC replaced the compressor with a new pump plant to disperse water to the city's 33,000 occupants.28 The new Mesa Pump Plant drew water from the mesa wells that was stored in a 1-million-gallon, in-ground, earthen reservoir of the same vintage.29 The plant could now pump 2 million gallons a day from the reservoir through a cast-iron main line to the 25 miles of water pipes served as the distribution system. The new system reduced the amount of solids per gallon from 135 to 30 grains.30 To meet demand, however, the IWC pumped water at a rate that exceeded replenishment.31

Still, the IWC failed to meet user demands as the local population grew. The city council threatened to cancel the IWC's contract.32 *El Paso Times* proprietor Juan Hart formed the Municipal Water Works League in 1905 and pressed city leaders to either force the IWC to meet contractual obligations and supply El Paso with drinkable water or to create a municipal water system. The league supported a mayoral candidate who would advocate municipal purchase of the water company. He lost to the local Democratic party's well-organized machine, which

temporarily averted the struggle for municipal ownership of the water system.33

The City of El Paso, under fire from a series of unflattering articles published in the *El Paso Times*, finally purchased the IWC for $927,000 in 1909.34 By this time, the downtown pump plant was used only for reserves, and was finally being dismantled. Fifteen wells were on the mesa to serve a population of approximately 45,000. The Mesa Pump Plant had four small buildings and the in-ground reservoir. Two new pump stations were also online elsewhere in the city.35

Municipal management, however, did not improve the situation. Under the direction of city council, the El Paso Department of Water and Sewage had limited powers and could neither set policy nor water rates through bond issues without the council's approval. Money collected from water rates went to other municipal projects instead of water supply and distribution improvements.36 Chief engineer at the Mesa Pump Plant, Ennis M. Nevins stated, "We drilled a well at a time, whenever we got enough money."37 Nevins came to El Paso sometime before 1930 as an electrical engineer for both the downtown City Water Works and the Mesa Pump Plant. He eventually became chief plant engineer at the downtown facility.38 As Nevins was fully aware, despite 44 wells in the Mesa field by 1917, 17 had been abandoned and the Watts well remained an important water source for maximum use days in the heat of summer (Figure 1). The remaining wells on the mesa and the plant itself were an expensive and inefficient system.39 To compensate, many industries bored private wells that abated their reliance on municipal water.40

In 1921, city council decided to overhaul the municipal water system. They appointed a three-member water board on January 26, composed of C. N. Bassett, L. M. Lawson, and Joseph B. Lippincott, to devise a plan for the next 30 years of the city's water needs.41 Lippincott had

been a water works engineer with the U.S. Reclamation Service until 1906 and later became assistant chief engineer of the Los Angeles Aqueduct. He developed an exhaustive study of El Paso's water system and, not surprisingly, determined that anticipated population growth necessitated more water infrastructure.42 With a population of 80,000, and that number projected to climb precipitously, upgrading the system became imperative.

After considerable study, Lippincott renounced the Mesa wells field. "The origin, volume and the annual contribution to this source is indefinite, unmeasurable and speculative."43 Only 25 to 50 percent of the annual average rainfall reached these underground water-bearing formations. The wells were burdened with contaminated water from the Rio Grande.44 Water was pumped from these wells at four times the amount of recharge.45 The Mesa wells field was the most expensive source of water in El Paso.46 He recommended retaining the Mesa Pump Plant only as a standby unit—valued particularly because the water quality was reasonably good—but otherwise discontinuing its use and concentrating on water retrieval from the Rio Grande.47 Lippincott's advice regarding the Mesa Pump Plant was ignored for years.

By the late 1930s, the City of El Paso had both expanded the municipal water system and revamped existing facilities to meet constantly increasing demand. Water was needed for home, business, and industrial uses, as well as for municipal landscaping and city beautification projects.48 By 1937, the city had both a low-service, or downtown, district system for elevations below 3,850 feet and a high-service district system for elevations above 3,850 feet. Eleven wells supplied water for the low-service district. These wells were scattered throughout the city at Montana Field, East Second Street and South Cotton Avenue, Pera Street, South Campbell Street, North Lee Street and Magoffin Avenue, San Antonio and South Walnut Streets, and the Mesa Pump Plant. The surplus from each of these wells went to one of three concrete reservoirs.

Two of these reservoirs were at the North El Paso and West Cliff Streets location, formerly known as pump station number one, and later known as the Sunset Heights Booster Station. The third reservoir was at the Davis Water Booster Station at Indiana and San Diego Streets. A new reservoir was opening at the end of North Brown Street that would be incorporated into the low-service district.49

The high-service district system included the four booster stations, the Mesa Pump Plant, Sunset Heights Water Booster Station, and Davis Water Booster Station, and the Memphis Street Water Booster Station at Memphis and Nashville Streets. The stations at Mesa, Memphis Street, and Davis each boosted water to the Summit Place Reservoir and the Thomason Reservoir. The high-service district also included Woods Reservoir, the West High Line Reservoir, also known as Crazy Cat Tank, and the East High Line, also known as Jackson Reservoir. The Mesa Pump Plant was intended for emergencies, as Lippincott had recommended years earlier, and had two concrete reservoirs with a combined capacity of 1.4 million gallons. The municipal water system had about 138 miles of main lines and 685 triple hydrants. Average daily consumption, by 1937, had swelled to 8.5 million gallons and average water pressure was 90 pounds per square inch in the city's business district.50 The following year, construction of the Mesa Water Booster Station further expanded local municipal water infrastructure in an effort to meet increased demand.

Although the City of El Paso had improved water infrastructure, it still struggled with its administration by mid-century. Under the control of municipal management, the city reorganized the water department in 1952. The City of El Paso, Water Utilities, Public Service Board was created to establish water and sewer operations policy and to direct the related finances. Its stated purpose, to "operate and manage the system with the same freedom and in the same manner as

are ordinances enjoyed by the board of directors of a private corporation," intimates that the Public Service Board can vigorously pursue policies much as a corporate entrepreneur would.51 Today, the Public Service Board administers the city's water and wastewater system for a population of about 610,000.

OVERVIEW

To improve the overtaxed municipal water system, local officials continued to pursue Hueco Bolson as a source despite Lippincott's recommendations years earlier. The City of El Paso Department of Water and Sewage built the Mesa Water Booster Station in 1938 to replace the aging Mesa Pump Plant. City water department superintendent Ashley Green Classen (1903–1979), a registered civil engineer, designed and prepared drawings for the facility.52 Classen's tenure in the superintendent's position was brief, yet essential to improving El Paso's municipal water system. Using then-modern technology, his design drew water from the Mesa wells field more effectively than Lippincott could have anticipated years earlier.53

In 1930, Classen he was 26 years old, living in Austin, Texas, and a civil engineer for a manufacturing firm.54 Classen likely moved to El Paso in 1936 or 1937.55 He formed a private consulting firm in about 1943, and later returned to public service, completing two terms as an alderman-at-large for the City of El Paso from 1963 to 1967. He was mayor for just less than a month, during March 1969, when elected to fill the unexpired term of Judson Williams.56

By including colorful, stylized tiles on Mesa Water Booster Station, Classen catapulted what would otherwise have been a plain, if modernistic, design to the more-refined Pueblo Deco style. It was and remains the only El Paso municipal facility known to have been of Pueblo Deco design. Classen's plans for the facility were very particular (Figure 2). He detailed stylized

motifs and chamfered edges for the buttresses, specified the size and Nile-green and black colors of the glazed ceramic tiles, and designed simulated *canales*—a cast-iron-pipe weep in each bay on the rear façade—to drain water from the roof. He specified steel-grill doors for the front and rear entrances. Classen wanted a "California" texture for the white stucco exterior and a plain sand finish for the interior walls, painted with two coats of a color chosen at the city's discretion. The contractor laid most of the water lines using sizes and materials Classen specified; the City of El Paso would install the remaining lines.57 Despite their very utilitarian function, Classen designed the settling basins to modestly echo Pueblo Deco design. Their rectilinear shape, horizontal massing, concrete construction, and stucco finish mimic that of the main building, as do their beveled-top perimeters and chamfered edges.

Exclusive to the American Southwest, Pueblo Deco was a fusion of Art Deco and Pueblo Revival architectural styles. Abstracted elements of familiar classical columns, pediments, and friezes were the foundation for distinctively modern Art Deco ornaments—triangles, zigzags, chevrons, ziggurats, rounded shapes, animals, or plants.58 Strict geometric forms were emblematic of spare economic conditions in the 1930s and abstract ornamentation replaced extravagant designs common to the previous decade.59 This economy of design emphasized practicality and many Art Deco buildings had decorative embellishment on their front façades, but remaining sides were often bare of ornament to save money and conserve materials.60

In the two-decade pause between world wars, architects and builders revived regional architectural traditions.61 The use of indigenous forms and manipulated cultural symbols resonated with different native and ethnic groups.62 Native American images, especially in the American Southwest, symbolized a purely American identity and became an aesthetic antidote to the hurried pace of industrialization and standardization in the region.63 Architects had

experimented with Peruvian, pre-Columbian, Central American, Mexican, Mayan, and Aztec detailing as early as 1900.64 Pueblo Revival design, indigenous to the American Southwest, drew from Native American influences to pair regional, exotic cultures with modern residential, commercial, and institutional building forms.65 Coined as Pueblo Revival or Spanish Colonial Revival, these designs combined facets of adobe or stucco-clad Native American pueblos with flat-roofed Spanish colonial buildings.66 Early examples were in California, but Pueblo and Spanish Colonial Revival became most popular in Arizona, New Mexico, and West Texas.67

Fusing these regional traditions with Art Deco design produced an idiosyncratic architectural style.68 Although Art Deco often utilized color, Pueblo Deco did so with greater enthusiasm. Patterns, shapes, and textures of Native American jewelry, textiles, pottery or baskets often inspired Pueblo Deco design.69 Despite the devotion of its advocates, Pueblo Deco architecture remained relatively uncommon and few examples survive.70

Although the smallest of the resources at the Mesa Water Booster Station, the one-story main building best represents Pueblo Deco design at the facility (Figure 3). The building is set back from and facing Fred Wilson Avenue with massive reinforced concrete walls forming its rectangular plan. The building is clad with painted “California” texture stucco. Six, large stylized buttresses, each with inlaid glazed ceramic tiles, define the primary (south) façade. Flush with the stucco exterior of each buttress are square green tiles in a long, vertical column. Smaller, square, black and green tiles alternate like a checkerboard and line each side of these columns; atop and below the main column are more tiles in a stepped pattern. A shallow-sloped shed roof of reinforced concrete slants slightly toward the building’s rear (north) façade behind a generous parapet. Three equidistant galvanized metal ventilators are on the roof.71

The slightly projecting central bay has a paired-door entrance with a transom above. The

modern metal doors hide original steel-grill doors hinged inside the frame-less doorway. The grills have large horizontal bars that brace pickets. Design drawings indicate the original exterior doors were to have two panels, with glazing in the larger top panel; however, now all are of solid construction. Centered above the doorway is a light fixture that does not function and, above it, a no-trespassing sign stating the Mesa Plant is the property of the City of El Paso, Texas, but otherwise illegible. Flanking the central bay are two, symmetrically placed identical bays, each with a central, metal-sash window.72

The side (east and west) façades of the main building each have two bays that repeat the primary façade's alternating opening-and-buttress pattern. Like the primary façade, the side façades each have three stylized buttresses bearing the same pattern of decorative ceramic tiles. The west façade's two windows are identical to those on the primary façade and remain functional, but were painted (Figure 4). The east façade has a window, also identical to those on the primary façade, on its southern side and a single metal door with a metal light fixture above on its northern side (Figure 5).

The more-modest five-bay rear (north) façade echoes the primary façade's fenestration pattern, but does not have buttresses (Figure 6). The central bay has a centered, single, metal door with no transom. Like the primary entrance, this door is of solid construction and hides the original steel-grill door hinged inside the frame-less doorway. The grills have large horizontal bars that brace pickets. A metal light fixture is above the doorway. Windows identical to those on the primary façade are similarly placed and also functional. Although the rear façade lacks decoration the other three sides bear, it is the only one with simulated *canales* of cast-iron-pipe weeps to drain water from the roof.

The two-room main building houses contemporaneous pump equipment. On either side

of the primary entrance are two very small broom closets, each with a single, skinny, milled wood door. A thick concrete floor supports the equipment inside. An 8-foot-deep pipe gallery is beneath the floor. Metal panels built into the floor provide access to equipment for maintenance. Low- and high-pressure lines run inside the building connect to the settling basins.73

Classen had Allis-Chalmers and Worthington pump equipment installed to boost water pressure into the distribution system (Figure 7). The equipment included an electric centrifugal pump with a capacity of 800 gallons per minute, a Hamilton-Corliss compound, duplex, steam pump with a capacity of 4,000 gallons per minute, and a Prescott duplex, steam pump with a capacity of 2,250 gallons per minute. Three Aldrich triplex pumps, each with a capacity of 1,400 gallons per minute, also pumped water into the system.74

Cast-iron pipes connect the main building with two settling basins, which subtly replicate the Pueblo Deco design elements of the main building (Figures 8 and 9). The basins filter very fine particles of sediment from water by means of gravity.75 The east-most settling basin is aligned with and about 20 feet north of the main building; immediately parallel, and to the west, is its twin. Classen's design documents show only the easterly settling basin; the other is identical in construction and probably built at the same time, but was certainly constructed before 1942.76 Their rectilinear shape, horizontal massing, concrete construction, and stucco finish emulate that of the main building. With great restraint their beveled-top perimeters and chamfered edges reference Pueblo Deco detailing.

The settling basins are very large, concrete structures about six feet above grade level and each holds up to 250,000 gallons of water. Their nearly flat covers are slightly pitched with a central ridge along their longer dimension that splits to reach each corner in a gentle slope. Six covered hatches of galvanized metal, regularly spaced, protrude slightly along each cover. An

under-drain tile system beneath the settling basins is of salt-glazed, vitrified clay tile laid with open joints. Under the tile network is backfill of crushed limestone or other gravel. The drain lines connect with one of two under-drain sumps placed at one corner of each basin.77

The ca. 1904 receiving reservoir was initially associated with the contemporaneous Mesa Pump Plant (Figure 10). This large, round, in-ground, earthen reservoir may have originally been open, but by mid-century, it had a concrete cover with several protruding, round, vents. It stores up to 1.3 million gallons of water. A metal chain-link fence surrounds the structure.78

Historically, the facility had several resources that are no longer extant. A 1936 aerial photograph shows the earlier-constructed Mesa Pump Plant site and locations of several resources (Figure 11).79 A 1935 drawing attributed to the City of El Paso's Engineering Department is likely of the ca. 1904 pump plant, which was demolished sometime between 1938 and 1952, and probably earlier than later as, by 1942, Classen's plans had largely been carried out (Figures 12 and 13).80 The majority of wells in the Mesa field have been destroyed; as late as 1980, only nine wells remained.81 A few of these are nearby, but not inside the perimeter of the subject property. A metal-clad warehouse and machine shop that Classen designed had been added to the station in 1941, but was demolished recently.82 An El Paso and Southwestern Railroad spur swung southeasterly from the main line and then traversed, from east to west, just north of the settling basins, just south of the warehouse and machine shop, and wedged between and past two buildings at the far west edge of the facility.83 The tracks were removed, probably in the 1990s, and only a faint outline of the route remains.84 A superintendent's house was on the property by 1921.85 It is unclear if the superintendent's house and a caretaker's house, east of the main building by mid-century, were one and the same; their depiction as building footprints on various site plans do not appear to have been in the same location.86 A caretaker's

house, first noted in 1952, was extant until at least 1995, but had been demolished by 2005; only a concrete slab remains to mark its location.87 That this house's foundation was concrete slab suggests a mid-century or even a post–World War II construction date. A second concrete reservoir with a capacity of 400,000 gallons was no longer in use by 1952, and has since been filled (Figure 14). Also by that time, two in-ground, round concrete tanks and one buried, square concrete tank were no longer in use (see Figure 14). A concrete warehouse for well rig, truck, and other equipment and a transfer yard still remained in use at that time, although there are no other additional descriptors of their appearances (see Figure 14).88 The City of El Paso introduced a row of mulberry trees along the west and south perimeters of the Mesa Water Booster Station property, likely in the 1950s or 1960s when they had become popular shade trees and the fruitless variety was relatively resistant to drought or, at the latest, sometime before 1974.89 This foliage provided a protective barrier separating the main building, settling basins, and caretaker's house from pedestrian and vehicular traffic along Fred Wilson Avenue. Some of the west-perimeter trees remain extant, but the trees along the south perimeter were removed sometime after 1988.90

Today, the Mesa Water Booster Station encompasses approximately 6.25 acres that is within a larger land parcel the City of El Paso, Water Utilities, Public Service Board, owns. The original parcel was substantially larger and appears to have included much of Block 81, Section 17, Township 2, Texas and Pacific Railroad Survey. By the mid-twentieth century, portions of the original parcel had been subdivided, but the city water works still owned at least two land parcels out of Section 17, one that was 55.1 acres and one that was 29.4 acres (see Figure 13). Classen depicted these land parcels and further partitioned the 29.4-acre tract into a 20.13-acre tract and a 9.27-acre tract. He noted the 9.27-acre tract to be the site of the Mesa Pump Plant,

which he measured as approximately 575 feet by 700 feet (see Figure 13). The 6.25-acre tract has the same south, north, and west boundaries as the 9.27-acre tract Classen considered part of the facility.91 The east boundary, however, is more westerly than that Classen defined to accommodate those portions of the tract that retain the majority of extant historic resources that have historically been associated with local water collection and distribution.

SIGNIFICANCE

The Mesa Water Booster Station retains its architectural and historical integrity. The resources remain in their original locations and are tangible evidence of activities that shaped the facility's very specific use for the period of significance, ca. 1904–1959 (Figure 15). The 50-year guideline establishes the cut-off year of 1959 since the facility still functions, though only in an emergency capacity. The main building and settling basins, constructed contemporaneously, incorporated the ca. 1904 reservoir, thereby linking the older system with its newer counterpart, an innovative use of previously developed infrastructure on the property. The resources articulate integrity of architectural design evidenced by both the physical plant's intact layout and the presence of Pueblo Deco architectural influences. The facility is representative of municipal water systems technology built during this period. Its construction addressed substantial population growth in El Paso with engineering and technological improvements for local water collection and distribution, indicating its associative significance.

Although no historic photographs specific to the property were discovered, historic drawings, aerial photographs and maps, compared with modern materials, provide a reasonable basis for describing the property's evolution and integrity.92 These reveal that the parcel on which the booster station is situated has been slowly sliced into a smaller tract. More noticeable is that numerous historic components are no longer extant and nonhistoric components have been

introduced. A modern chain-link fence surrounds the main building and settling basins and another surrounds the reservoir. Two modern metal structures protect equipment. Although neither structure is part of the historic configuration of the property, each is so unobtrusive that they do not detract from the historical and architectural integrity of either the complex or its constituent parts. The booster station is visually and physically separated from most of the wells that once supplied it with water. In most instances they are capped or severely altered, negating their integrity. Still, much of the landscape remains intact, which is evident in the topography, vegetation, and views to and from the facility.

In conclusion, the 1938 Mesa Water Booster Station was constructed to address municipal water needs in El Paso. It utilized engineering and technological requirements to distribute water to people for domestic, commercial, industrial, and institutional needs. The main building is an excellent and rare example of Pueblo Deco architecture applied to a municipal facility and the settling basins modestly echo this design. The ca. 1904 reservoir links these resources to El Paso's earlier tumultuous municipal water history.

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[1] This application is the result of research accumulated for a proposed roadway project that the Texas Department of Transportation, El Paso District, initiated, and numerous people deserve credit for participation, research, authorship, and review of several historic resources studies reports that generated information about the Mesa Water Booster Station. The most important of these was a National Register of Historic Places nomination that the Texas Department of Transportation, Environmental Affairs Divisions, Cultural Resources Management Section, Historical Studies Branch funded, which included substantial additional research at the Border Heritage Center of the El Paso Public Library, El Paso County Historical Society, C. L. Sonnichsen Special Collections Department at the University of Texas El Paso, City of El Paso Archives and Records Center, and El Paso County Records Management, and City of El Paso, Water Utilities, Public Service Board. Important contributions came from these studies: Stephanie Katauskas and Laura Caffrey, with Amy E. Dase, Ralph Newlan, and H. Gregory Quinn, Mesa Water Boosting Station National Register of Historic Places Nomination (Austin, Texas Historical Commission, [2009]); Lannie Ethridge Kittrell, Summer Chandler, Celine Finney, Stephanie Katauskas, and Amy E. Dase, *Historic Resources Studies for Inner Loop Corridor from U.S. Highway 54 at Fred Wilson Avenue to State Highway Loop 375, El Paso, El Paso County, Texas*, Letter Report 731 (Austin: Prewitt and Associates, Inc., 2006); Sue

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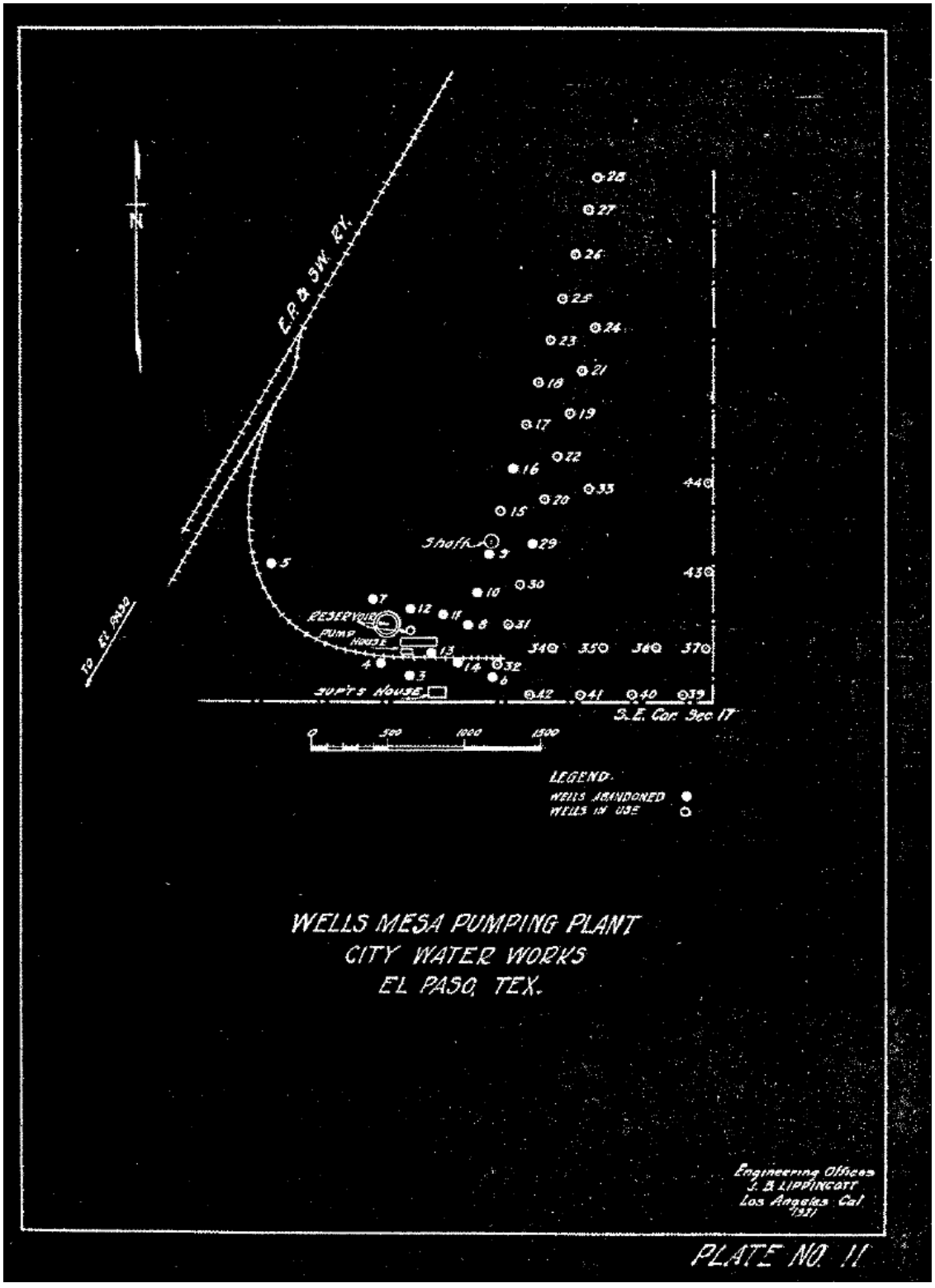

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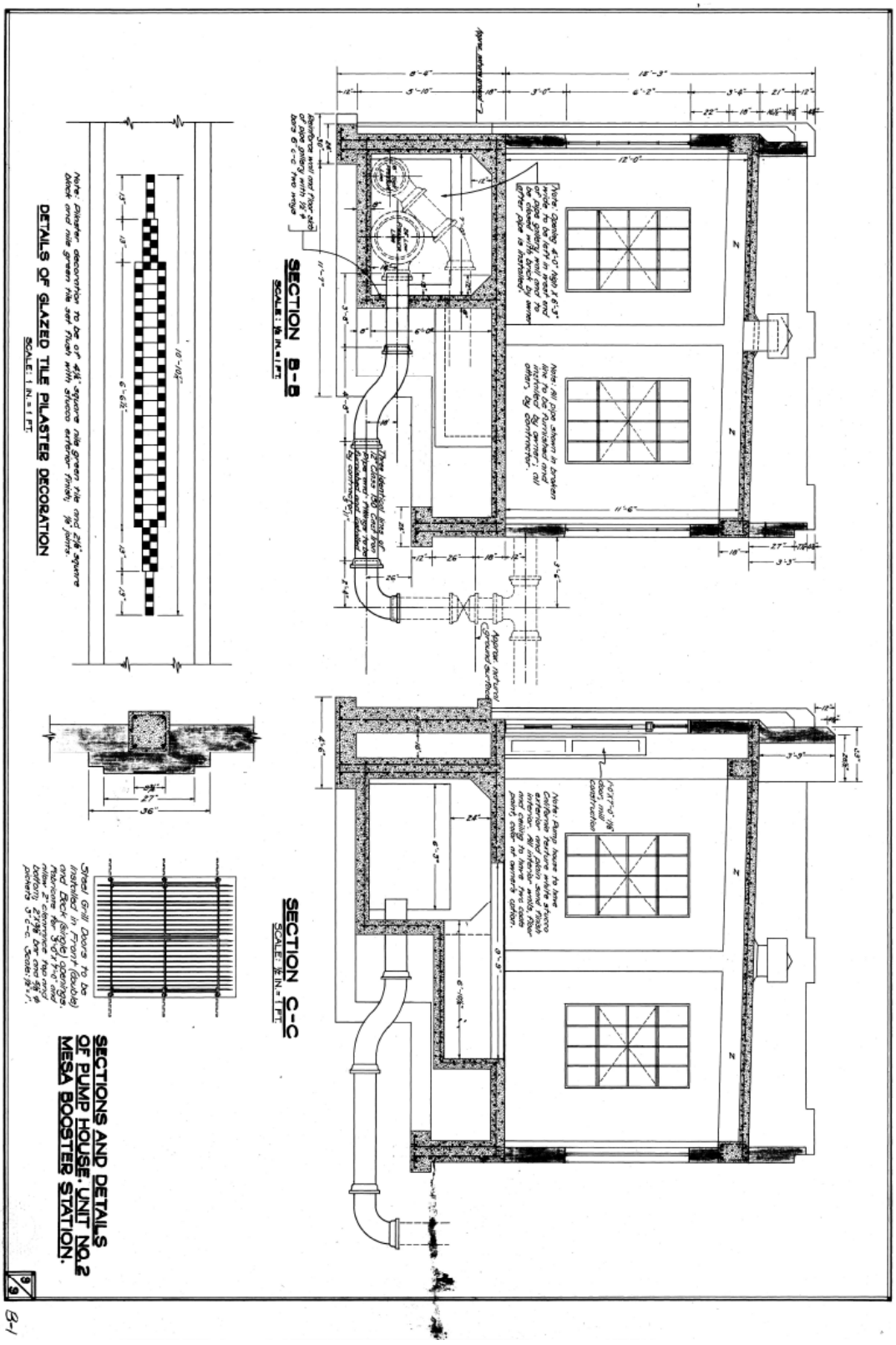

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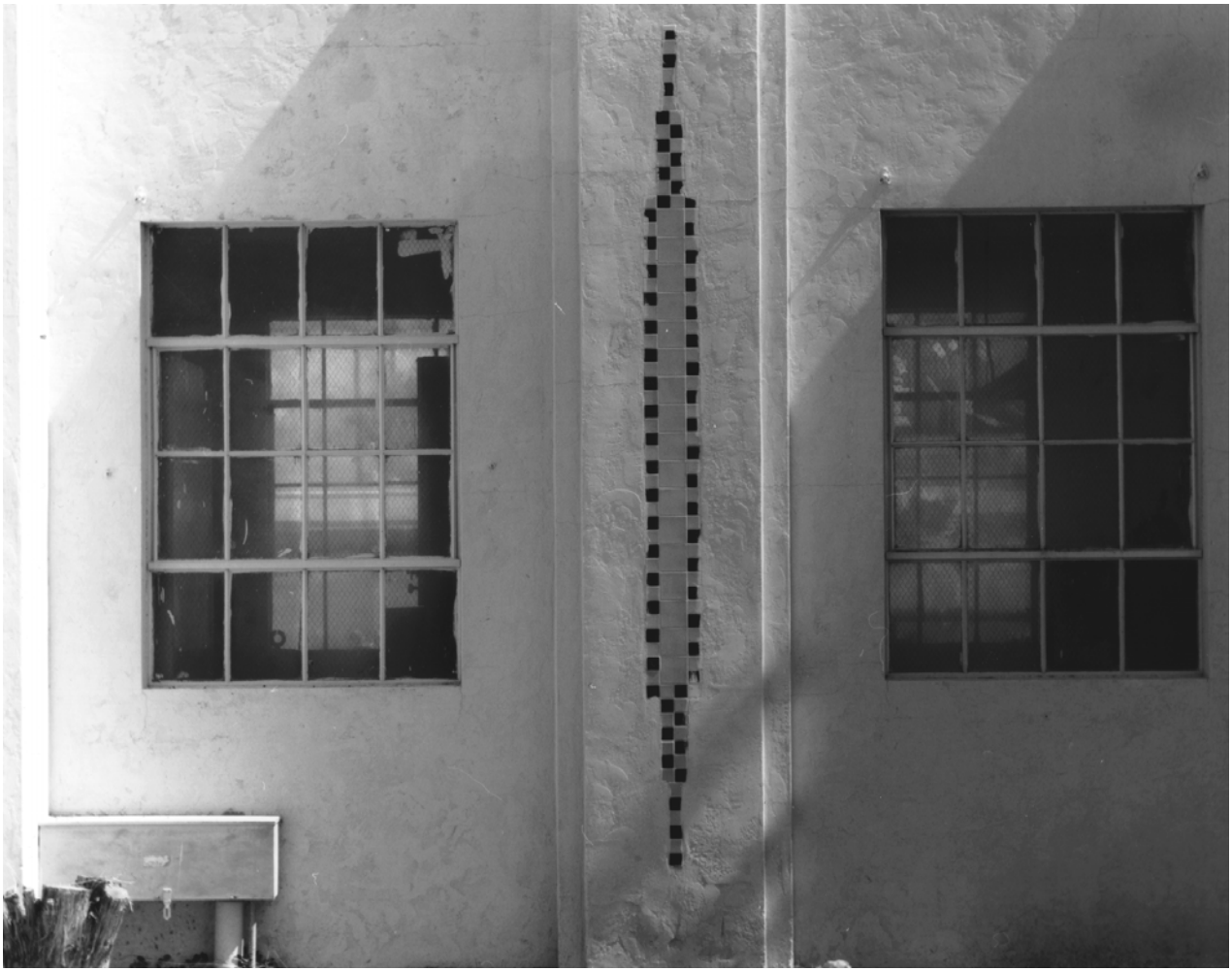

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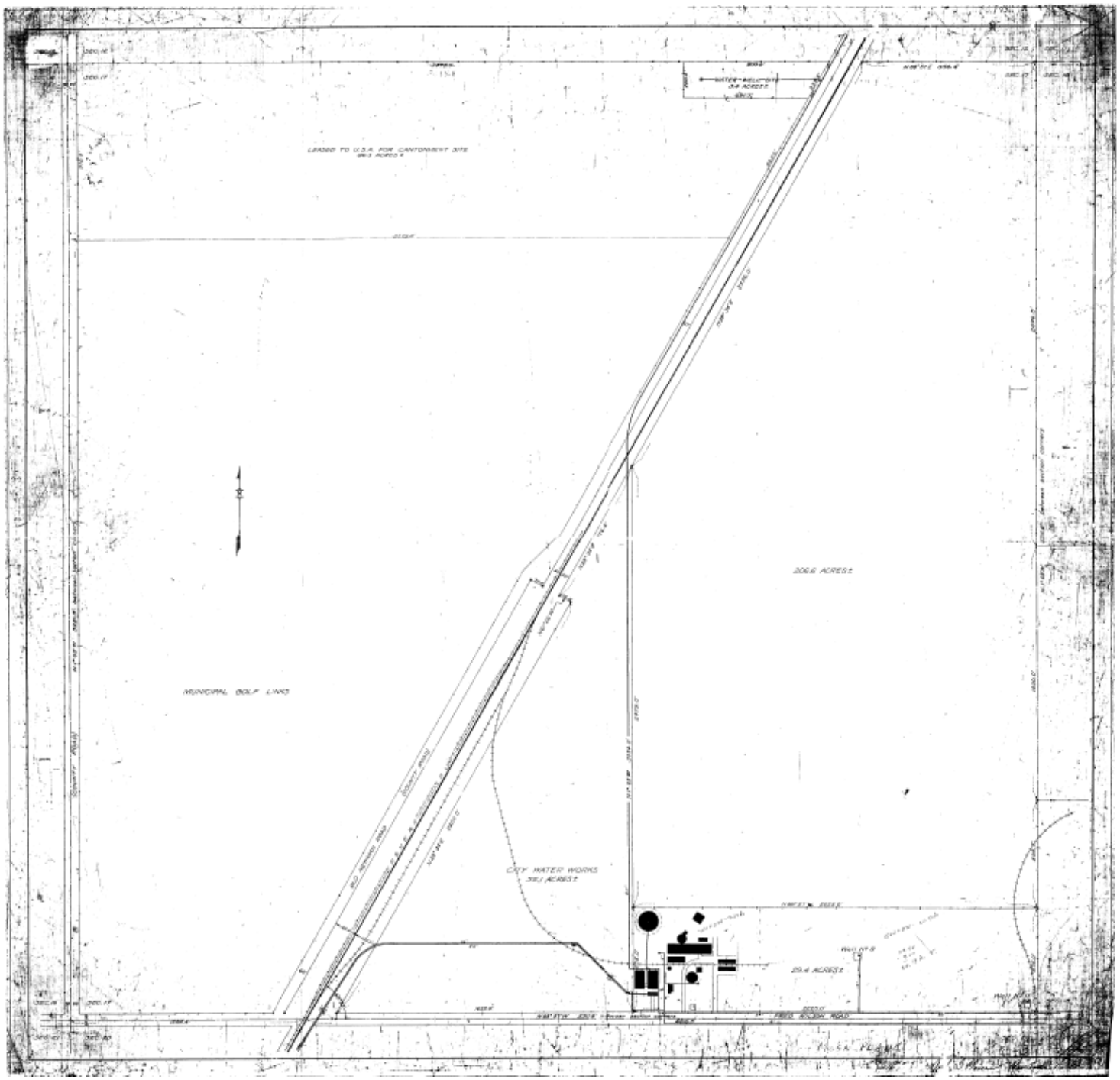

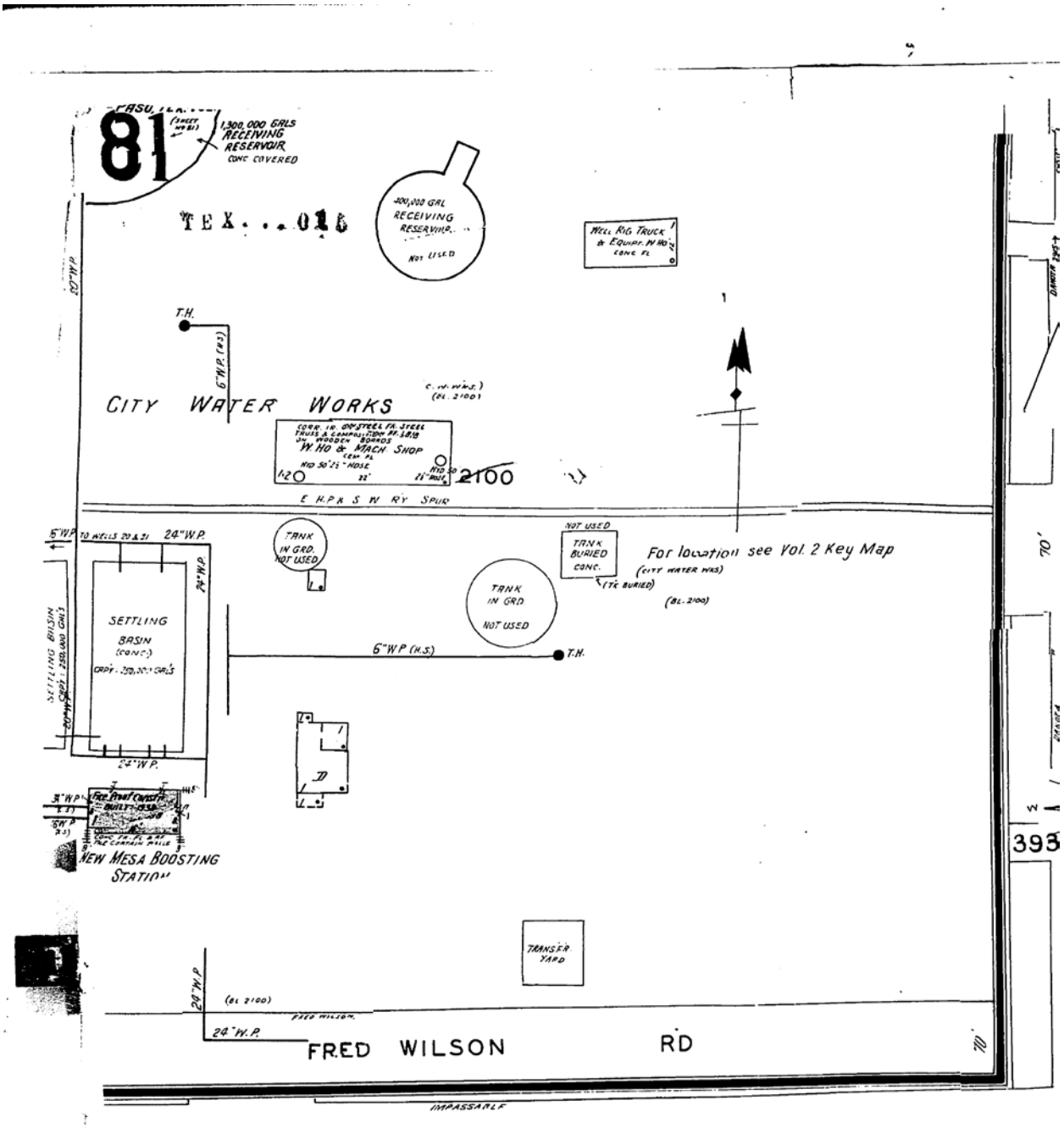

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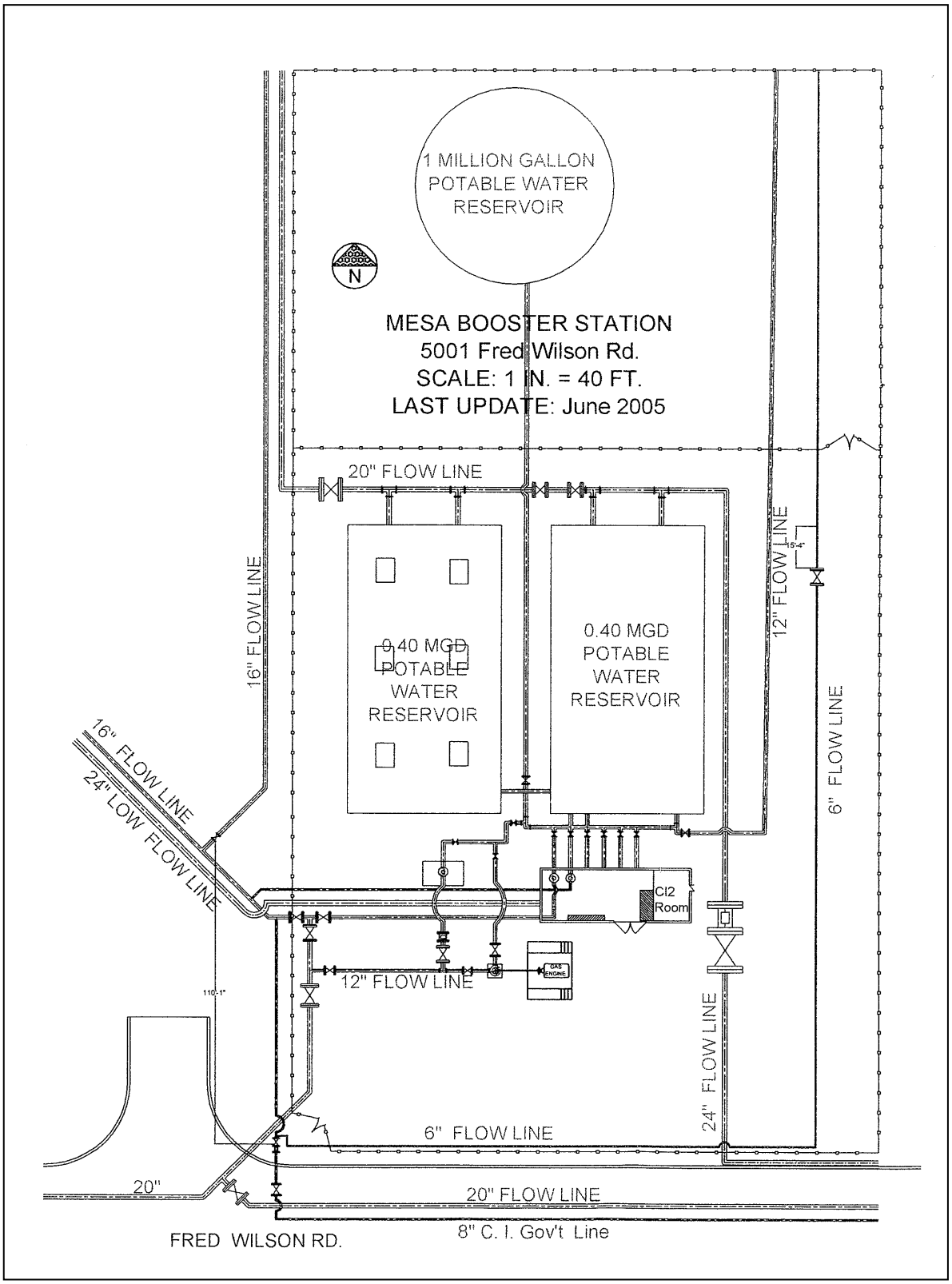

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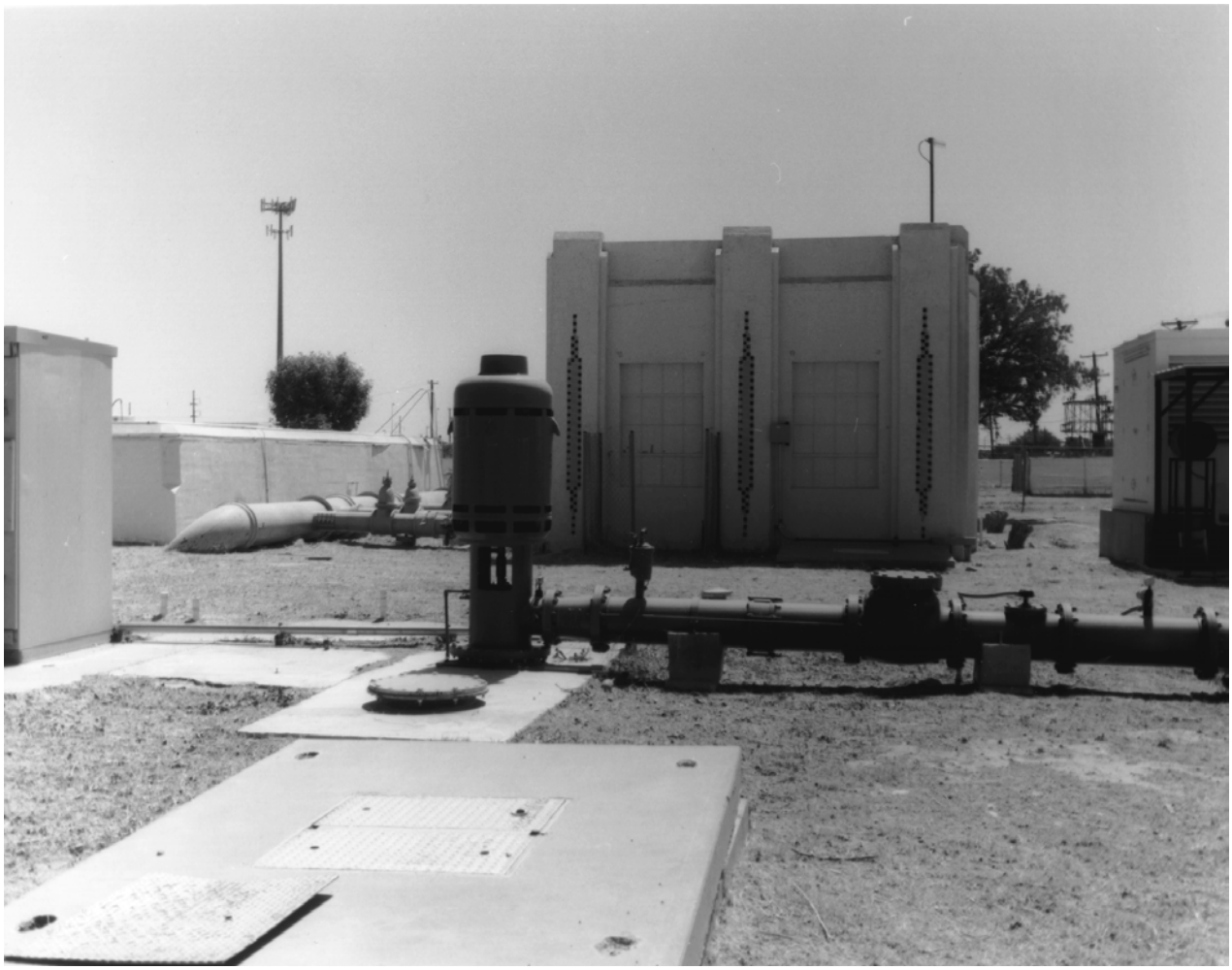

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