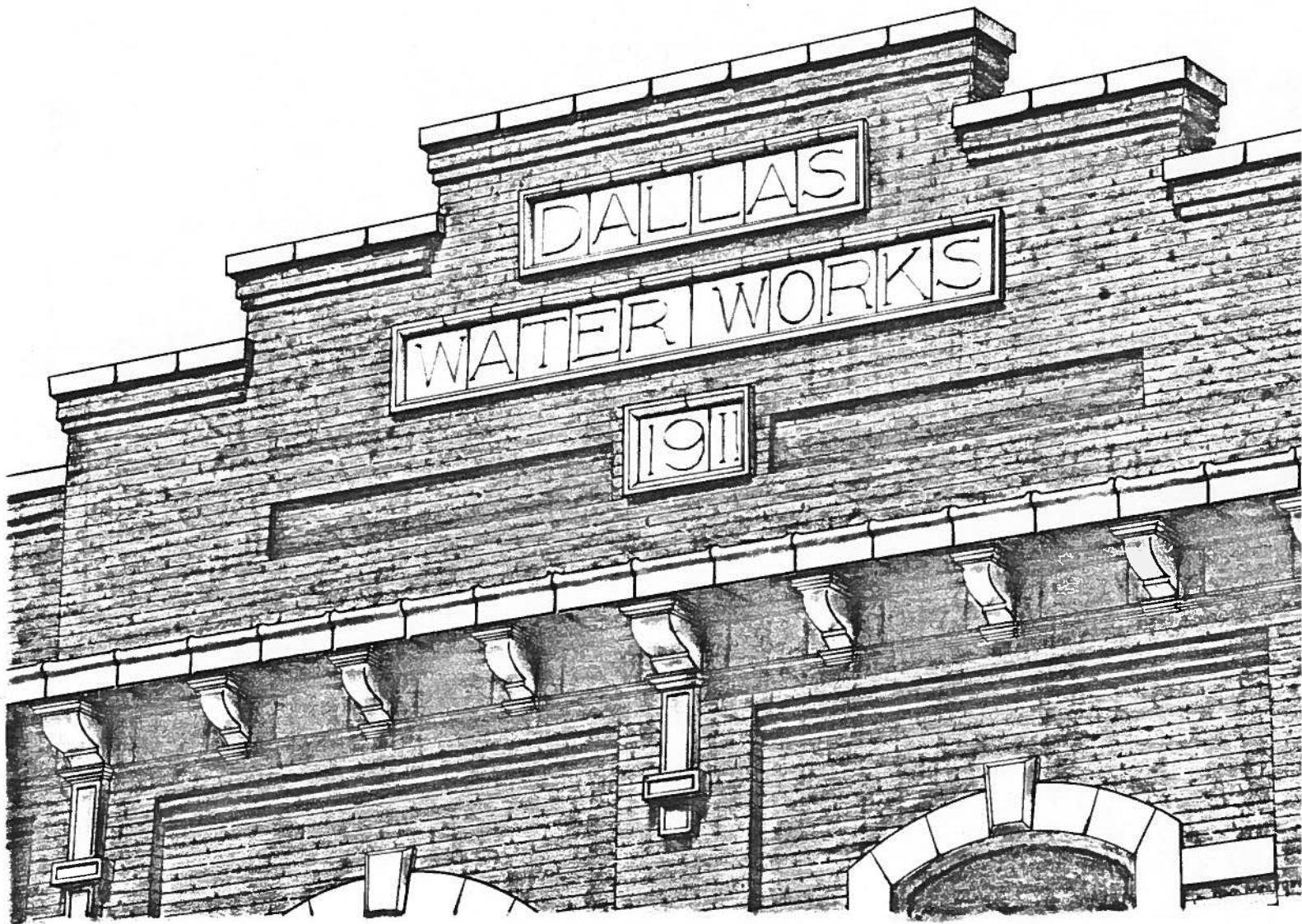


# WHITE ROCK LAKE PUMP STATION

DESIGNATION  
REPORT



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CITY OF DALLAS

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DEPARTMENT OF PLANNING AND DEVELOPMENT

HISTORIC LANDMARK NOMINATION FORM  
CITY OF DALLAS LANDMARK COMMITTEE

1. NAME:

a) Historic name of property White Rock Pump Station  
b) Common name of property (Same)

2. LOCATION:

a) City address: 2900 White Rock Road d) Land survey name: \_\_\_\_\_  
b) Location in city: North East Dallas e) Size of tract: \_\_\_\_\_  
c) Neighborhood name: White Rock Lake Park Block, lot, tract: 2999 (portion)

3. CURRENT ZONING: R-1ac

4. CLASSIFICATION (CHECK ALL APPROPRIATE):

Category	Ownership	Status	Present Use
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> occupied	<input type="checkbox"/> agriculture <input type="checkbox"/> museum
<input checked="" type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial <input type="checkbox"/> park
<input type="checkbox"/> structure	<input type="checkbox"/> both	<input checked="" type="checkbox"/> work in progress	<input type="checkbox"/> educational <input type="checkbox"/> residence
<input type="checkbox"/> site	<input type="checkbox"/> Public Acquisition	<input type="checkbox"/> Accessible	<input type="checkbox"/> entertainment <input type="checkbox"/> religious
<input type="checkbox"/> object	<input type="checkbox"/> N/A in progress	<input checked="" type="checkbox"/> yes: restricted	<input checked="" type="checkbox"/> government <input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial <input type="checkbox"/> transp.
		<input type="checkbox"/> no	<input type="checkbox"/> military <input type="checkbox"/> other

5. CURRENT OWNER: Dallas Water Utilities PHONE: 214/670-3147  
ADDRESS: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

6. FORM PREPARED BY:

a) NAME AND TITLE: Kurt Wibbenmeyer, Intern Architect  
b) ORGANIZATION: Parkey & Partners Architects  
c) CONTACT PERSON: Danny Todd PHONE: 214/522-4321

7. REPRESENTATION ON EXISTING SURVEYS (CHECK ALL APPROPRIATE IF KNOWN):

ALEXANDER SURVEY (CITY WIDE)  LOCAL  STATE  NATIONAL  
 BEASLEY H.P.L. SURVEY (CBD)  A  B  C  D  
 EMRICH SURVEY (CITY WIDE)  STATE MARKER  
 MASON SURVEY (OAK CLIFF)  NATIONAL REGISTER  
 VICTORIAN STRUCTURE SURVEY  
 OTHER: \_\_\_\_\_

FOR OFFICE USE ONLY

8. FORM RECEIVED: DATE: 7/10/86 ; SURVEY VERIFIED: Y ; BY: RE  
9. FORM FIELD CHECKED: DATE: 9/26/86 ; BY: PE, BC

10. TYPE OF NOMINATION:

ARCHEOLOGICAL  STRUCTURE(S)  DISTRICT  
 SITE ONLY  STRUCTURE AND SITE  PETITIONS NEEDED

11. NAME OF ORIGINAL OWNER OF STRUCTURE(\*): Dallas Water Utilities
12. DATE(S) OF ORIGINAL CONSTRUCTION AND MAJOR ALTERATIONS(\*): 1911, Main Building  
1923 Treatment Plant 1953 Retrofit & Restart
13. NAME OF ARCHITECTS/CONTRACTORS/OTHERS INVOLVED IN BUILDING DESIGN AND CONSTRUCTION(\*):  
 a) ORIGINAL: City Engineering Dept./Fred A. Jones Co.  
 b) ALTERATIONS: City Engineering Dept.
- 
14. NATURAL/URBAN DESIGN FEATURES OF SITE: Next to White Rock Lake & Dam, woods to the south

15. PHYSICAL DESCRIPTION

Condition:	Check one:	Check one:
<u>  </u> excellent	<u>X</u> deteriorated	<u>  </u> unaltered
<u>  </u> good	<u>  </u> ruins	<u>X</u> altered
<u>X</u> fair	<u>  </u> unexposed	<u>  </u> moved date _____

DESCRIBE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE; INCLUDE STYLE(S) OF ARCHITECTURE, CURRENT CONDITION, AND RELATIONSHIP TO SURROUNDING FABRIC (STRUCTURES). PLEASE ELABORATE ON PERTINENT MATERIALS USED AND STYLE(S) OF ARCHITECTURAL DETAILING FOR ROOFS, WALLS, WINDOWS, DOORS, AND ANY OTHER BUILDING OR SITE EMBELLISHMENTS OR DECORATIONS.

The architectural style of the White Rock Pump Station is a regionalized variation of the Renaissance Revival. Renaissance Revival was a style prevalent in the U.S. from 1840 - 1890.<sup>1</sup> The White Rock Pump Station dating twenty years past a style period is not unusual for Dallas at that time since it was removed from the trend setting eastern cities. The corniced window head, the belt coursing, the multi-light sashes, the wall cornice and the pilastered framed entry on the elevation are all typical details of Renaissance Revival. The regional variation is expressed in the use of local red brick rather than a more typical smooth ashlar finish.

The Pump Station is rectangular in plan, measuring 50'4" (north & south elevation) x 134'0" (east & west elevation) with an appendage along the north wall. The north half of The Pump Station, a two-story space 33 ft. high, contains the Boiler Room. It was large enough to house four boilers. The south half of The Pump Station, a three-story space with the floor thirteen feet below that of the boiler room, contains the engine room. The floor of the appendage is on level with the Boiler Room and contains the engineers' offices, storage space, a tool room and restrooms. The water intake tunnel is below a portion of this appendage. The main entry to The Pump Station is on the west side accessed by an exterior stair. This entry is on level with the Boiler Room and the engineers' offices, and connected to these spaces by means of an observation gallery. Coal for the boilers was delivered by rail to a delivery area at the northwest end of the building. To the north of the main building a reinforced concrete smoke stack, 12 feet in diameter at the base rises to a height of 140 feet.

The foundation for The Pump Station was built integrally with the dam. It is constructed of reinforced concrete set on bedrock. The roof support structure is a steel truss system spanning 46 feet. The trusses are seven feet deep in the center and taper to six feet at the

supports. The trusses are supported by 18-inch thick brick walls. Pilasters in line with the trusses, constructed of brick and reinforced with a steel "I" member, are used to prevent deflection of the three-story wall in the pump room.

The Pump Station was outfitted with a 15 MGD Todd triple expansion pump and condensers. This pump was converted to low service only when the filter plant was built in 1923, and the two turbine pumps were installed in 1923 to serve as high-service pumps for the new filter plant. On high service these pumps were rated at seven MGD each into the Goliad tank, but in low-service use in the drought of the 50's, pumping only against the head in the filter plant, they could churn out a little over nine MGD each, and both running together put out almost 17 MGD through "a 36-inch cast-iron pipe to a standpipe on high ground on Old Greenville Road.<sup>2</sup> Although at first the water was raw and untreated, it was the first to be chlorinated in Dallas.<sup>3</sup>

#### 16. HISTORICAL SIGNIFICANCE:

STATEMENT OF SIGNIFICANCE, INCLUDE: HISTORY, CULTURAL INFLUENCES, SPECIAL EVENTS AND IMPORTANT PERSONAGES, INFLUENCES ON NEIGHBORHOOD, NEIGHBORHOOD'S INFLUENCE ON THE CITY, ETC.(\*)

The first decade of the twentieth century marked a dramatic increase in the population of Dallas. According to the U.S. census the population of Dallas more than doubled from 42,638 in 1900 to 92,104 in 1910. Needs for utilities increased as the population escalated.

Water for the City of Dallas at that time was pumped from numerous City wells, the Trinity River, Turtle Creek and the new reservoir completed in 1903 on Bachman Creek now known as Bachman Lake. Summer months usually brought surface water movement to a trickle in the area. Additional City water often had to be brought in by wagon from outside the City.<sup>4</sup> A prolonged drought in the area from 1909-1912 made the people of Dallas aware that a dependable water supply was a requisite for continued growth of the City.

In 1909 Chester Davis, a hydraulic engineer, recommended to the City Council the damming of White Rock Creek to the east of the City. His recommendations were based upon the following:

1. A reservoir on White Rock Creek would establish a new water shed separate from the Elm Fork of The Trinity River. (114 square miles)
2. Clarification of the White Rock reservoir water could be achieved simply by allowing the water to settle.
3. The location required only one lift of the water to enter the City's mains.
4. The location provided an excellent base for the dam foundation.
5. The sedimentation rate on White Rock would be much less than any location on the Trinity River.<sup>5</sup>

The land survey by J.D. Carter estimated the reservoir would hold 5.5 - 5.8 billion gallons of water, a quantity of water that would support the city's water needs for two years.<sup>6</sup>

In a bond election held on April 9, 1909, the voters of Dallas appropriated money for the purchase of land along White Rock Creek. Passing of the land issue inspired the City Council to quick action. M.H. Mahana, serving as Purchasing Agent for the City of Dallas, acquired 2,291.9 acres of land along White Rock Creek for a total price of \$176,420.<sup>7</sup>

Plans for the dam and Pump Station were drawn by the City of Dallas Engineering Department with J.M. Bassett serving as Chief Engineer. The drafting for the Pump Station was done by Eugene Couch, although it is uncertain who did the actual architectural design.<sup>8</sup>

A contract in the amount of \$260,000 was awarded to the Fred A. Jones Company for construction of the dam and spillway. A separate contract in the amount of \$30,035.00 was awarded to Hughes O'Rourke for construction of the Pump Station. The dam was completed and closed off on June 24, 1911.<sup>9</sup> Filling of the lake was prolonged by drought; however, on April 27, 1914, a large rainstorm finished filling the reservoir and sent water cascading 42 inches over the spillway for the first time.<sup>10</sup>

The treatment plant for White Rock Reservoir was finished in 1923 at an estimated cost of \$350,000.00 - \$450,000.00 was approved in the bond election of September 1921.<sup>11</sup> The White Rock Treatment Plant was designed by David Morey, Jr. and is located directly northwest of The Pump Station. The building portion of the Treatment Plant is built of red brick, and, while not finished with the same attention to detail as the Pump Station, nonetheless is a contributing element to the complex of structures that for many years served the needs of the City. It is divided into two main sections, the Headhouse and the Filter Gallery. The Utility Building is a two-story wing measuring 26 feet by 46 feet. It contained the administration area with an office, a laboratory, a locker room, chemical storage and chemical feed room. The Operating Room is a one-story wing measuring 34 feet by 118 feet which was the area for monitoring and controlling the filters.

On July 2, 1930, the Treatment Plant at Bachman Lake was put into service for the first time. Four weeks later on July 30, White Rock Pump Station was shut down.<sup>12</sup> The machinery (162 tons) from the White Rock Pump Station, originally purchased for \$76,000.00, was sold as scrap iron during World War II for \$1,562.00.<sup>13</sup> Drought returned to the Dallas area in the late 40's. In 1953 The White Rock Pump Station was restored and activated to provide a critical supply of an additional 7 - 13 MGD to the northeast and eastern parts of the city. After heavy rains in 1956 and 1957, operation of White Rock in winter was stopped, but the plant continued to operate each summer until 1964 to maintain pressure and volume in the eastern part of the city until the new East Side plant assumed that responsibility.<sup>14</sup>

The building and operation of the White Rock Pump Station has been closely tied to times of drought in the City's past. The current renovation/restoration will bring life to the 75-year-old building for the third time. In contrast to the previous time the current rebirth takes place during an abundance of water for the City. The function of the facility also varies from previous use. Dallas Water Utilities will install the latest computer technology to service the Water Operation Control Center for the City in the west half or Boiler Room. The east half or Engine Room will serve as a public assembly hall. The mixed-use capability of The Pump House renovation will add another fine amenity to White Rock Lake Park.

Bibliography - End Notes

1. Blumerson, John J.-G., Identifying American Architecture, (W.W. Norton & Company, Inc., 1983), P. 38
2. Bolding, Bolding, P. 73
3. Ibid
4. Bolding, M.E. and Bolding, Erie H, Origin and Growth of the Dallas Water Utilities, (Gresham's Graphics, Temple, Texas, 1981), P. 65
5. Unpublished Drawings by The City of Dallas Engineering Department, 1909
6. Dallas Morning News, "White Rock Reservoir Full and Running Over", April 27, 1914
7. Bolding, Bolding, P. 67
8. Unpublished Drawings by The City of Dallas Engineering Department, 1910
9. Bolding, Bolding, P. 67
10. Dallas Morning News
11. Ibid, P. 81
12. Ibid, P. 109
13. Ibid. P. 163
14. Times Herald Staff Photo
  
17. ATTACHMENTS (CHECK ALL APPROPRIATE):  

<input type="checkbox"/> DISTRICT OR SITE MAP	<input type="checkbox"/> SLIDES, PHOTOS, ETC. (EACH FACADE)
<input type="checkbox"/> SITE PLAN	<input checked="" type="checkbox"/> ADDITIONAL DESCRIPTIVE MATERIAL
<input type="checkbox"/> ANNOTATIONS(*)	<input checked="" type="checkbox"/> BIBLIOGRAPHY

# PRESERVATION MERIT

- A. Character, interest, or value as part of the development, heritage or cultural characteristics of the City of Dallas, State of Texas, or the United States.
- B. Location as the site of a significant historical event.
- C. Identification with a person or persons who significantly contributed to the culture and development of the city.
- D. Exemplification of the cultural, economic, social, or historical heritage of the city.
- E. Portrayal of the environment of a group of people in an era of history characterized by a distinctive architectural style.
- F. Embodiment of distinguishing characteristics of an architectural type or specimen.
- G. Identification as the work of an architect or master builder whose individual work has influenced the development of the city.
- H. Embodiments of elements of architectural design, detail, materials, or craftsmanship which represent a significant architectural innovation.
- I. Relationship to other distinctive buildings, sites, or areas which are eligible for preservation according to a plan based on historic, cultural, or architectural motif.
- J. Unique location of singular physical characteristics representing an established and familiar visual feature of a neighborhood, community, or the city.
- K. Archeological value in that it has produced or can be expected to produce data affecting theories of historic or prehistoric value.
- L. Value as an aspect of community sentiment or public pride.

## RECOMMENDATION

The Designation Task Force respectfully requests the City of Dallas Landmark Committee to deem this proposed landmark meritorious of historic recognition as outlined in City Ordinance 51-4.501.

Further, this task force endorses the preservation criteria, policy recommendations and landmark boundary as presented by the Department of Planning and Development staff.

Date: October 1, 1986

Ronald F. Emrich  
Ron Emrich  
Senior Planner/Historic Preservation

Robert L. Canavan  
Bob Canavan, Chairman  
Designation Task Force





## APPENDIX

### Preservation Criteria: White Rock Pump Station

The White Rock Pump Station is to be renovated and restored as a facility for operations of Dallas Water Utilities and to provide a public meeting hall. All existing original exterior elements of the building facades will be preserved, with (added) brick currently blocking windows to be removed to return fenestrations to their original configurations. The Filter Building and site of the settling ponds are included in the designation, and will be more fully renovated in the future. Renovations, repairs and maintenance of the buildings shall conform to the following guidelines:

#### 1. Surface Materials

Reconstruction, renovation or repair of the opaque elements of each facade shall employ only brick or concrete of equal texture, grain color and module size of the existing main structure as is feasible. Existing brick and terra cotta surfaces shall not be painted, although a brick stain may be applied in selected locations upon approval of the Landmark Committee.

Reconstruction, renovation or repair of existing terra cotta and cast concrete hooded lintels, banding, signs and other decorative features shall employ only material of equal texture, grain, color and module size as similar to the original elements as is feasible.

#### 2. Fenestrations and Openings

Existing door and window openings in the protected elevations shall remain intact and be preserved. Any alterations to currently blocked windows and doors will require returning them to their original configuration. No new window or door openings shall be allowed unless required by fire or other safety code provisions. All window and door openings shall be renovated to a style and size as similar as practicable to the original design. Windows shall be renovated to express similar mullion and lite configurations to the original, using wood for frames and mullions.

#### 3. Roof

The existing roofs shall be maintained with no new vertical or horizontal extensions or additions allowed, except as may be required for stair access. Mechanical equipment may be placed on the roof of buildings upon review and approval of the Landmark Committee of placement, configuration and color.

#### 4. Color

The coloring of the existing facade materials shall remain as is. The brick and terra cotta material will not be sandblasted or painted; only masonry cleaning methods approved by the National Park Service, Department of the Interior, may be used. All other materials may be painted appropriate colors, following review in the Certificate of Appropriateness process.

5. Smokestack

The existing concrete smokestack shall remain as is and unpainted other than construction of a circular fire stair at its base. Any renovation or repair will utilize approved concrete stabilization techniques as approved by the Landmark Committee.

6. No Build Zones/Protected Elevations

No additions may be constructed on the west (primary), north or south elevations of the Pump House structure or any elevation of the Filter Building. Reconstruction of the one-story wing on the east elevation of the Pump House will utilize brick, concrete and terra cotta of the same texture, grain, color and module size of the existing main structure as is feasible. Brick and terra cotta surfaces shall not be painted.

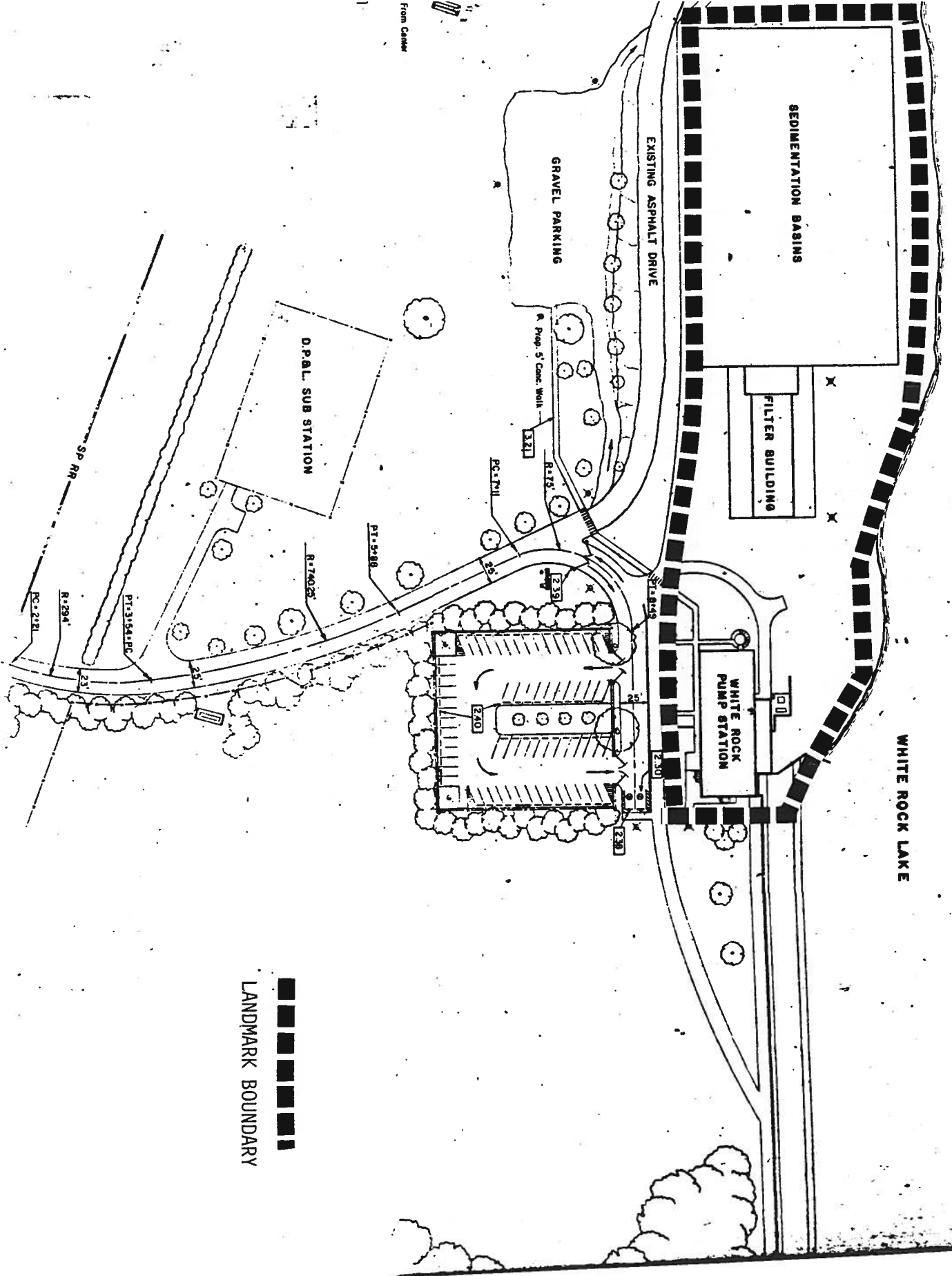
No new construction shall be allowed within the no build zone, that area within the boundary of the existing pedestrian path, the White Rock Dam and lake, and the northern boundary of the settling ponds, as shown.

7. Landscaping, Site Elements and Graphics

Site improvements including hardscaping or installation of ground-level mechanical equipment or other improvements shall be reviewed and approved for compatibility by the Landmark Committee. Signage and graphics will be reviewed for compatibility by the Landmark Committee.

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While outside the boundary of the landmark designation, the White Rock Dam is a significant contributing element to the complex. The Landmark Committee strongly recommends that additional structures that are not directly related to or required for maintenance, safety or the structural integrity of the dam be prohibited on the top or face.



From Center


  
 LANDMARK BOUNDARY