NPS Form 10-900
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Wisconsin Word Processor Format (1331D)
(Approved 3/87)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries. Use letter quality printer in 12 pitch, using an 85 space line and a 10 space left margin. Use only archival paper (20 pound, acid free paper with a 2% alkaline reserve).

1. Name of Property

historic name Moreland Boulevard Pump House and Reservoir

other names/site number Moreland Avenue Pump House and Reservoir

2. Location

street & number 413 Moreland Boulevard N/A not for publication

city, town Waukesha N/A vicinity

state Wisconsin code WI county Waukesha code 133 zip code 53188

3. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
		contributing	noncontributing
___ private	X building(s)	1	___ buildings
X public-local	___ district	___	___ sites
___ public-State	___ site	___	___ structures
___ public-Federal	___ structure	___	___ objects
	___ object	1	0 Total

Name of related multiple property listing:

N/A

No. of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this _X_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _X_ meets ___ does not meet the National Register criteria. ___ See continuation sheet.

Signature of certifying official — Date 6/21/96

State Historic Preservation Officer - WI

State or Federal agency and bureau

In my opinion, the property ___ meets ___ does not meet the National Register criteria. ____ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

✓ entered in the National Register. ___ See continuation sheet — Edson H. Beall 7-5-96

___ determined eligible for the National Register. ___ See continuation sheet

___ determined not eligible for the National Register.

___ removed from the National Register.

___ other, (explain:) _____

Entered in the National Register

Signature of the Keeper — Date

6. Functions or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
GOVERNMENT/public works	VACANT/NOT IN USE

7. Description

Architectural Classification (enter categories from instructions)	Materials (enter categories from instructions)	
Art Deco	foundation	Concrete
	walls	Concrete
		Stucco
	roof	Asphalt
	other	Wood

Describe present and historic physical appearance.

The Moreland Boulevard Pumping Station and Reservoir is a small but well-designed one-story reinforced concrete water pumping and storage facility that was the first of a series of four Art Deco style-influenced resources constructed by the City of Waukesha Water Department beginning in 1931 and ending in 1948. All four resources, including the Moreland Avenue Station, were part of a major city-wide plan of water supply improvement whose purpose was to modernize and upgrade Waukesha's existing water utility system. Each of these four resources was designed by Martin F. White, an architect employed by the Wilbur Lumber Co., a large regional lumber company headquartered in Waukesha, but they were built by different contractors, the Moreland Boulevard Station being built by Waukesha contractor Charles S. Reid in 1931 for $6956.00. The north end of the L-plan Moreland Boulevard Station consists of a 32.3'x 42.3' 147,126 gallon reservoir room to whose south side is attached a 15' x 15' well room and a 15' x 15' pump room. All the floors, the foundation, and the walls of the Station are constructed of reinforced concrete, and the exterior portions of the latter are finished with a coating of stucco. The station has been continuously owned by the Water Utility ever since it was built and it is in very good, largely original condition today. The well, however, has recently been taken out of service and the reservoir emptied and the building is now unused.

By 1931, Waukesha had successfully transformed itself from one of the Midwest's best known resort communities into a modern industrial center. One result of this transformation was the rapid growth of the city's population, which also resulted in a sharply increased demand for new housing throughout the city.[1] This demand was at least partially met by the development in the 1920s of a number of new residential plats on the edges of the city's existing boundaries, but the simultaneous expansion of the city's industrial base and the rapid growth of its residential housing stock soon put a severe strain on Waukesha's existing municipal water supply. As a consequence, Waukesha's water utility undertook a long-range program designed to service the city's immediate and future water supply needs, the principal goal of which was the expansion of its pumping and storage capacity. The completion of the Moreland Boulevard Station in 1931 marked the construction of the first major component of this program.

The Moreland Boulevard Station straddles two deep, flat, carefully landscaped lots situated at the base of the western slope of a large hill that rises immediately to the west of the historic center of the city of Waukesha. These lots are located on the east side of Moreland Boulevard, a major north-south running thoroughfare in what is now the near west side of the city. When the station was constructed in 1931, these lots were located on the western outskirts of the city and on the west edge of the Perkins Park Addition No. 2, a residential neighborhood whose west boundary is also formed by Moreland Avenue (since renamed Moreland Boulevard). The

X See continuation sheet

[1] The population of Waukesha increased from less than 10,000 in 1900 to 17,000 in 1930. In 1990, the population of Waukesha was 56,958.

lots in this plat had only recently been developed when the station was built, so the buildings that surround it to the north, east, and south, consist largely of small Early 20th Century Revival and Early 20th Century American Movements single family houses. Most of these houses predate the station by several years, but the west side of Moreland Boulevard was developed after World War II, so the single family residences on that side of the street and beyond it were all built after the war and are examples of Modern Movement designs.

The station is sited well to the rear (the east end) of its 90-foot-wide by 161-foot-deep irregular-shaped double lot. This flat lot consists mostly of a well-tended expanse of lawn that is landscaped with mature trees and clipped evergreen shrubs, all of which help the station blend into its residential setting. Like its neighbors, the station has a concrete sidewalk that parallels Moreland Boulevard and it also has an asphalt driveway that runs along the south edge of the lot from Moreland Boulevard to the rear of the station.

As noted previously, the station is one-story in height and consists of three rooms, each of which has a distinct and separate function and each of which is clearly expressed in the exterior design of the station. The largest room houses the reservoir and consists of a tall gable-roofed rectilinear plan ell whose gable ends face west and east. Centered on the south-facing side elevation of the reservoir room ell is a much smaller but almost equally tall flat-roofed well room ell, which is nearly square in plan. The placement of these two ells at right angles to each other creates a T-plan design, but the corner space created by the intersection of the ells that faces Moreland Boulevard is filled by the notably less tall flat-roofed, one-story, nearly square plan pump room ell, the footprint of which is almost exactly the same size as that of the well room ell next to it.

The final result is a free-standing L-plan building whose exterior and interior walls are constructed entirely of monolithic reinforced concrete. These walls are 20-inches-thick at the footings and 12-inches-thick at the waterline, which in the Moreland Boulevard Station occurs 17-feet above the floor of the reservoir room. The reinforced concrete floors of the reservoir room and the pump room are both depressed a number of feet below grade while that of the well room is placed at grade. The portion of the exterior walls that is visible above grade is covered in a coating of portland cement stucco that contains white cement and these walls rise to shallow 10" parapet walls that rim each of the roofs. The gable roof of the reservoir room is constructed of wood boards that are supported by steel purlins and trusses and it is sheathed in asphalt shingles. The roof of the pump room is also of wood supported by 2x10" Douglas fir joists while the roof of the well room is flat and is constructed of a 6-inch-thick reinforced concrete slab. Both are covered in poured asphalt.[2]

[2] Information regarding specifics of the construction of the station came from the original specifications in the possession of the Waukesha Water Utility and dated October 17, 1931.

Main Facade

The 47.3-foot-long principal facade of the station faces west onto Moreland Boulevard and consists of two major elements: the 32.3-foot-wide west end elevation of the reservoir room ell to the left (north) and the 15-foot-wide west end elevation of the pump room ell to the right (south). Both elements are placed in the same plane and the resulting facade, with its taller gable-roofed north element and its less tall flat-roofed south element, resembles nothing so much as a small suburban Art Deco church; the design intentionally gives no clue as to the building's real function. The west end elevation of the reservoir room is the dominant feature of this facade and it is symmetrical in design, three-bays-wide, and is terminated by a shallow-pitched gable end that hides the gable roof of the reservoir room ell. This elevation is framed by corner pilaster groups at each end that accentuate the verticality of the design; an Art Deco hallmark. Similar pilaster groups decorate every corner of the building and they are all identical in design though not in height. Each group consists of a massive slightly projecting pier that actually forms the corner and which extends a few inches above the roof parapet. A slightly taller pilaster strip is then centered on each of the two faces of the pier. The visually complex result has a massiveness that lends gravity to the building and it has a hard-edged machined quality that is distinctly Art Deco in design.

The center of the three bays of this elevation projects slightly from the main wall surface and its triangular peak is slightly taller than the angled parapet walls that surmount the other two bays. The only opening in the center bay is a very tall, narrow, semi-circular-arched window opening that is (and has always been) filled with louvered ventilator slats. Each of the two flanking bays contains a single less tall window opening of similar design. These were originally filled with 20-light steel sash, part of which consisted of an openable eight-light casement window, and the upper semi-circular portion of which was a six-light fanlight. Recently, however, these (and all of the other original windows in the building) were removed because of their badly deteriorated condition and the openings are now filled with painted vertical boards and battens. All three of these openings (and all of the station's other window openings) also have stucco-covered concrete sills and they are positioned high within their respective bays; a placement that reflects the water level of the reservoir inside.

The west elevation of the less tall pump room ell is also flanked on the right by one of the pilaster groups described above and it is terminated by a shallow flat parapet. This elevation is two-bays-wide and each bay contains a single semi-circular-arched window opening that is less tall than those in the reservoir room bays. Each of these openings was originally filled with a pair of eight-light steel sash Crittall casement windows that were surmounted with a semi-circular upper portion that consisted of a six-light fanlight. These windows have also been recently removed and replaced with painted vertical boards and battens.

South-facing Side Elevation

The 42.3-foot-long south-facing side elevation of the station consists of three major elements: the 15-foot-wide south elevation of the pump room ell to the left (west); the 15-foot-wide south elevation of the well room ell in the center; and an 11-foot-wide portion of the south elevation of the reservoir room ell to the right (east). The elevations of the well room and pump room are in the same plane while the elevation of the reservoir room is set back 11-feet from the other two. The west end of the pump room's south elevation is ornamented with a pilaster group. This elevation is one-bay-wide and contains a single semi-circular-arched window opening placed to the left or center that is less tall than the openings on the main facade. Originally, this opening was also filled with a pair of four-light casement windows surmounted by a six-light fanlight, but these have also now been removed.

Both ends of the taller well room's south elevation are ornamented with a pilaster group. This elevation is two-bays-wide and the the right-hand bay contains a single semi-circular-arched window opening while the right-hand bay contains a semi-circular-arched door opening. The window opening was originally filled with a pair of eight-light steel sash casement windows that were surmounted with a semi-circular upper portion that consisted of a six-light fanlight while the door opening contained an eighteen-light wood sash semi-circular-arched entrance door. Both the original door and window have recently been removed. The window has been replaced with painted wood board and batten and the door opening now contains a modern semi-circular-arched metal door.

The visible portion of the south-facing side elevation of the reservoir room contains no openings and its ends are ornamented with pilaster groups.

East-Facing Rear Elevation

The 47.3-foot-long east-facing rear elevation of the station consists of two major elements: the 15-foot-wide side elevation of the well room ell to the left (south) and the 32.3-foot-wide east end elevation of the reservoir room ell to the right (north). These elements are not placed in the same plane. The side elevation of the well room ell is flanked on the left by a pilaster group and it is terminated by a shallow flat parapet. This elevation is one-bay-wide and contains a single large flat-arched double door opening. This opening was originally filled with two pair of vertically hinged four-light over four-panel wood doors which could be folded open so as to provide access to the interior of the station. These doors have since been removed and replaced with painted vertical board and batten.

The east end elevation of the reservoir room is the dominant feature of the rear elevation and it is symmetrical in design, three-bays-wide, and is identical to the west end elevation described earlier. It too is framed by corner pilaster groups at each end and its center opening still contains its louvered ventilator slats, but the two flanking window openings have now been filled with board and batten.

North-facing Side Elevation

The 42.3-foot-long north-facing side elevation of the station consists of the side elevation of the reservoir room. This elevation is symmetrical in design, is flanked at either end by pilaster groups, and it is three-bays-wide. Each of these bays originally contained a single semi-circular-arched window opening that was originally filled with louvered ventilator slats. These have since been removed and the openings are now filled with painted vertical board and batten.

Interior

The interior of the station is still largely intact and it is totally functional in design and is unornamented in any way. Access to the interior was originally gained through the pair of service doors in the east-facing side elevation of the well room ell (now closed) and through the entrance door on the south elevation of the well room ell. The concrete floor of the 15-foot-square well room is at grade, the walls of the room are raw concrete, and the ceiling is plaster over wood lath. Centered in the room is the piping associated with the vertical turbine pump that once pumped water from the 1650-foot-deep well into the reservoir. A steeply inclined metal ladder that is placed towards the west end of the well room ascends to an opening in its north wall that provides access to the reservoir room beyond.

The well room opens directly into the 15-foot-square pump room that is located immediately to the west; there is no wall between them. The purpose of the pump room is to house a large horizontal booster pump that pumps water from the reservoir tank directly into the water mains that deliver the water to users in the surrounding community. Ideally, such a pump should be located at the same level as the underground mains, which are placed several feet below grade, so the greater part of the space in the pump room is located below grade as well in order to place the pump in an optimum position. The pump room thus consists mainly of an open pit that has a concrete floor and raw concrete walls. The pump itself sits on the floor of the room and one reaches it from the well room by first crossing a concrete balcony that spans the north end of the room at grade level. One then descends a flight of steel stairs to the floor of the room.

The reservoir room occupies the whole of the north part of the station and it is essentially a large 42.3' x 32.3' gable-roofed rectilinear plan tank that is designed to store water. The walls of this room are raw concrete and they rise to the wooden roof that shelters the room. This roof is supported by steel trusses. Access to the reservoir room is gained from the well room via an opening in the south wall that opens onto a steel balcony that overhangs the water, which once filled the reservoir to a level that was seventeen feet above the reservoir floor. Water was pumped into the reservoir from the well room and it originally first passed through a large metal aerator that resembled an inverted fountain, but this was later removed. Water was then pumped out of the reservoir and into the water mains by the booster pump located in the pump room.

The general integrity level of the Moreland Boulevard Pumping Station and Reservoir is high and the building is in very good condition. The principal changes to the exterior have been the removal of the badly corroded metal windows and the closing of the service door opening. The principal change to the interior has been the replacement of the original pumping machinery. Such machinery has a relatively short life due to its almost continuous usage. The well pump was first replaced in 1939 and has since been replaced at least twice and the booster pump has also been replaced at least once.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: _____nationally _____statewide __X__locally

Applicable National Register Criteria __X__A _____B __X__C _____D

Criteria Considerations (Exceptions) _____A _____B _____C _____D _____E _____F _____G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Architecture	1931[3]	
Community Planning and Development	1931-1945[4]	

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
White, Martin F./Architect[5]
Reid, Charles S./Builder[6]

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Moreland Boulevard Pumping Station and Reservoir is being nominated to the National Register of Historic Places (NRHP) for its local significance under National Register (NR) criteria A and C. More specifically, the station is being nominated because of its associations with the NR significance area of Community Planning and Development and for Architecture, a theme that is also identified in the State of Wisconsin's Cultural Resource Management Plan (CRMP). Research designed to evaluate this significance potential centered on the Industry and Commerce section of the final report of the Waukesha Intensive Survey and the Art Deco subsection of the Architectural Styles study unit of the CRMP and the Architecture section of the final report of the Waukesha Intensive Survey.[7] The results of this research is detailed below and confirms that the Moreland Boulevard Station is locally significant under criterion A as a fine, largely intact, and unusual example of Art Deco-influenced design as applied to a small scale public works project that was the first step in a master plan that was initiated in 1930 in order to bring Waukesha's public water supply up to modern standards of capacity and efficiency. The resources that were built by the Waukesha Water Utility in the next decade enabled it to serve its rapidly growing population and they helped make the future growth of the city possible. The station is also locally significant under criterion C as the first of four Art Deco-influenced resources built in Waukesha by the Waukesha Water Utility between 1931 and 1948.

[3] Waukesha Daily Freeman. "New City Well Opens Thursday." January 13, 1932, pg. 1 (with photo).

[4] The period of significance for Community Planning and Development spans the years from the date of construction through the NPS 50-year cut-off date.

[5] Specifications for the Moreland Avenue Well. City of Waukesha Water Utility files. Dated October 7, 1931.

[6] Ibid.

[7] Wyatt, Barbara (Ed.). Cultural Resource Management in Wisconsin. Madison: State Historical Society of Wisconsin, Historic Preservation Division, 1986. Vol. 2, 2-34 (Architecture).

__X__ See continuation sheet

The Moreland Boulevard Station was built for the Waukesha Water Utility in 1931 to a design supplied by Martin F. White, an architect employed by the Wilbur Lumber Co., which was headquartered in Waukesha. The contractor for the station was a local man, Charles S. Reid, who began construction in October of 1931 and completed the work in late December at a cost of $6956.00. The station combines a surface reservoir holding 147,126 gallons of water, a well room, and a pump room and has walls that are constructed entirely of reinforced concrete coated in stucco. The choice of an architecturally distinct design for a building that serves such a utilitarian purpose was a conscious one since the Waukesha Water Utility wanted the station to be a good neighbor in what is otherwise a residential neighborhood. The station continued to fulfill its original function until just recently, but it is now inactive.

Historical Context

A general history of the city of Waukesha and its architecture is contained in both the final report of the Waukesha Intensive Survey[8] and in the text of the Historic Resources of Waukesha Multiple Resources Nomination form.[9] Consequently, the following deals primarily with the important role that water has played in the history of this community and with the development of the Waukesha Water Utility.

Few cities in Wisconsin have had a history that has been as publicly associated with water as Waukesha. Indeed, water has played a role in the city's history from the very beginning because it was proximity to water that largely determined the location of the first settlement in the Waukesha area. Like so many other early Wisconsin cities, Waukesha owes its existence to a river, in this case, the Fox. The historic core of the city of Waukesha is located on a floodplain in the valley of the Fox River at a point where the channel of the river is confined to the west and northwest by tall bluffs. Before Waukesha was settled this floodplain consisted of a prairie that was watered by numerous springs and that rose gradually east and southeast of the river. The earliest development and the first plats in Waukesha were concentrated on this flat and readily accessible land and the new community, which was founded in 1836 by Alonzo and Morris Cutler, was originally and appropriately named Prairie Village as a result.

Waukesha area pioneers immediately set to work developing industries that could make use of the waterpower potential of the river as an energy source. The first to do so was William A. Barstow, the local agent for Lord, Gale, and Barber; three

[8] Howard, Needles, Tammen, and Bergendoff (HNTB). Spring City's Past: A Thematic History of Waukesha and the Final Report of Waukesha's Intensive Resources Survey. Milwaukee: Howard, Needles, Tammen, and Bergendoff, 1982.

[9] Howard, Needles, Tammen, and Bergendoff. Historic Resources of Waukesha Multiple Resource Nomination form. September, 1982. On file with the State Historical Society of Wisconsin's Historic Preservation Division in Madison, WI.

partners who purchased Alonzo Cutler's original 160 acre claim and its associated water rights in 1837 and then set about building Waukesha's first dam and sawmill (non-extant) in the following year. The site of these resources is reputed to have been close to the present 390 W. Main Street and is just south of and immediately adjacent to the Madison Street bridge over which the new United States Road that was also being built in 1837 crossed the Fox River. The first flouring mill in the new community was also begun in 1838 "On the present [1982] site of the Bus Depot on Madison Street next to the bridge over the Fox River".[10] This mill was also built by Barstow on behalf of Lord, Gale, and Barber and it was known as the Forest City Mill (non-extant) and was built at a cost of $30,000, making it the largest and best mill in the county at that time.

Both of these mills were located on the west side of Madison Street just south of the Fox River and used the river as a source of power. Waukesha's first manufacturing plant was then erected in 1845 on the other side of Madison Street just to the east of these mills by Winchel D. Bacon (1816-?) who built a three-story-tall stone building (non-extant) to house his blacksmith shop and agricultural implement manufacturing business. Thus, by the time that the first train belonging to Wisconsin's first railroad, the Milwaukee and Mississippi Railroad Co., arrived at its new depot on the north bank of the river in 1851, the area immediately surrounding the Madison Street-Fox River junction had become the center of industry in the village and in the surrounding region.

By choosing to locate their new community in a place where waterpower could be harnessed to serve commercial purposes the founders of Waukesha were following an age-old tradition, one that influenced the founders of many other Wisconsin communities of that day as well. The event that was to make the name of Waukesha synonymous with water did not occur until the late 1860s. In 1868, Col. Richard Dunbar, a railroad promoter then seriously ill with diabetes, made his celebrated discovery of what he believed to be the medicinal properties possessed by the waters of Waukesha's springs. Dunbar's assiduous advertising of the medicinal qualities of the local spring water led to the building of several large hotels in the village. Soon, other area residents "discovered" similar properties in many other springs which dotted the Waukesha area and the village was soon transformed into a thriving nationally known summer resort. A more detailed history of this phase of Waukesha's history, now known as the "Spring Era," can be found in the Waukesha Intensive Survey Report and it will not be repeated here except to note that the areas of Waukesha in which springs were located were soon developed by various local and outside entrepreneurs. The resulting tourist trade and the sale of bottled water from local springs such as the internationally known "White Rock" brand became the

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[10] Howard, Needles, Tammen, and Bergendoff (HNTB). Spring City's Past: A Thematic History of Waukesha and the Final Report of Waukesha's Intensive Resources Survey. Op. Cit., pg. 13.

dominant force in the local economy and remained so until the end of the century.[11]

Having an economy that was based on water taken from its springs did not absolve Waukesha from normal civic concerns, however, and as the village grew into a city the need for a reliable source of water for the ordinary purposes of life and for fire control increased as well.

> Since Waukesha was chiefly a residential and summer resort, industries were few and small. In fact, no effort was made to industrialize the city. Some even discouraged industries coming here because of the prestige held as a summer resort. However, industries did spring up and of course the matter of water for industries and fire protection became an important problem.
>
> Like all villages and towns, the development of a water works [in Waukesha] did not come about in one year. In fact, history shows that it was discussed for several years, but nothing definite was done until November 30, 1886, when an ordinance was passed by the village council authorizing the New England Construction Company of Boston, Massachusetts, to proceed with the building of a water works adequate for the city. The ordinance provided a franchise for a period of twenty years to furnish clear, wholesome water for human consumption and sufficient water of adequate pressure for fire protection purposes.
>
> The ordinance included among other things the laying of 8 miles of water mains ranging in size from 4" to 14" and to be made of the best quality cast iron pipe. Eighty hydrants were also to be installed. Necessary valves and other appurtenances were to be placed by the New England Construction company. Little is known of the business end of the water works except that occasional mention is made as to the number of customers, and we find that in 1897 there were 557 and in 1906 there were 981. There seemed to be a great deal of difficulty experienced with the village officials and the company during this period. One of the stipulations of the franchise was that after a period of twenty years the city could either renew the franchise or consider the purchase of it, so the matter of purchase was much discussed and even voted upon.[12]

Finally, in 1906, the city began negotiating for the purchase of the plant.

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[11] Howard, Needles, Tammen, and Bergendorff (HNTB). Spring City's Past: A Thematic History of Waukesha and the Final Report of Waukesha's Intensive Resources Survey. Op. Cit., pgs. 20-26.

[12] Waukesha Freeman. "Water Department History Revealed at Convention." October 1, 1936. One of the legacies of the franchise period was the construction of the city's first water works at the intersection of North and Delafield streets. A portion of this plant still survives in the now greatly modified building on the same site (115 Delafield St.) that currently serves as the headquarters of the Waukesha Water Utility.

Appraisers placed a value on it of $98,202.86 and the proposal to have the city purchase it was placed before the voters on April 1, 1907, in a special referendum. It carried every ward, the vote being 1131 for and 248 against. Following its purchase, the plant was put under the control of a water utility commission that consisted of three citizen members, the mayor, and a city council representative.

> From the time that the plant was municipally-owned, the policy of drilling many shallow wells was adopted. As industries grew larger, and others came into the city, the need for water increased considerably and of course, the matter of source of supply was always a vexing one. From past experience it seemed that more abundant supplies of water would be found deeper in the ground and consequently deeper wells were drilled. The decision to drill deeper wells took a firmer hold upon the municipality, and every new well was drilled deeper than the previous one. This policy remained in force until the boom period after the war [World War I]; and at that time, it was decided that about 1300 ft. would be the maximum depth necessary.[13]

The limitations of this policy became evident, however, as the city increased in size and as it continued to transform itself from a resort community to an industrial center.

> Wells were not of sufficient size and depth to produce adequate quantities and with the rapid growth in population after the war period, it put a very severe strain on the [water] department. No sprinkling orders were very common and it was necessary to request some of the large industrial users to curtail their demand so that human consumption could first be satisfied. Due to the fact that much of the equipment used by the private concern had been very much neglected, the department had to spend considerable money to repair the plant. During the period from 1925 to 1929, the greatest expansion was undertaken by the water department. Mains and services were being laid in many streets of the city. Additional wells were being drilled, but water flows did not increase sufficiently to take care of the demand.
>
> About 1928, it was decided to drill deeper wells and after careful analysis by the state geologists, it was decided to drill such a well at Moreland Avenue. This well was finished in 1929 and was made to pump directly into the mains without the intervention of a surface reservoir. While indications quite clearly demonstrated that in order to increase the water supply, it was necessary to go into deeper rocks; it was also necessary to make some vital changes from an engineering standpoint so that all available water could be obtained from the existing wells.[14]

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[13] Waukesha Freeman. "Water Department History Revealed at Convention." October 1, 1936.

[14] Waukesha Freeman. "Waukesha and Good Water Synonymous." Waukesha County Centennial & Seventy-Fifth Anniversary Edition of the Waukesha Daily Freeman, May, 1934, pgs. 72-73.

To bring the water utility into a new era the board of water commissioners hired civil engineer Arthur P. Kuranz as its new superintendent in July of 1931. Kuranz believed that the answer to the city's supply problems lay in drilling deeper wells and in better regulating the flow of water thus obtained. Kuranz's appointment coincided with what all parties agreed was the need for a comprehensive plan to upgrade and increase the city's overall water supply and it was within this framework that Kuranz laid his plans. Kuranz first focused his attention on the newly drilled Moreland Avenue well.

> Since the well at Moreland Avenue was drilled to a depth of 1630 feet, making it the deepest well in the city, the board felt that with a surface reservoir located on the premises the well could be made to produce into it; and thereby, much more water was available than by pumping directly into the mains. The contract for the construction of this reservoir was awarded in October, 1931, and was put into operation in January, 1932. The project consisted of constructing the building; and by allowing the well pump to pump directly into the surface reservoir it was found that the well capacity was more than doubled. A booster pump and control equipment were purchased and installed, which took the water from the reservoir and pumped it into the mains.[15]

The success of this project resulted in the decision to do the same thing to the existing Baxter Street well, so a similar building was designed by the same architect and was finished and in operation by October, 1932 (1032 Baxter St. - extant, but substantially altered). With two new deep wells in operation Waukesha was finally in the position of having an adequate pumping capacity. This made it possible to eliminate many of the older wells in the system along with their by now obsolete equipment, which resulted in power savings alone or from $1000 to $1100 per month, enough to fund furtner system expansion. Kuranz's next step was to identify and eliminate water losses in the system that were due to leakage from old and obsolete pipes. This step also produced immediate and favorable results, paying for itself in 16 months.

"Having then arrived at the point where the supply was quite well in hand and the matter of unaccounted for water considerably reduced, the question of additional storage was important."[16] To augment the existing storage capacity provided by an 1887 vintage wrought iron storage tank (non-extant) a new reinforced concrete Art Deco style tank was constructed next to it in 1934 (157 Caldwell Street - extant). The last major resource to be constructed as part of this revitalized system was a new pumping station and office building for the Water Utility located at the same North Street site where the system originated in 1887. This building and its adjoining surface reservoir was constructed in 1937 (115 Delafield Street - extant)

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[15] Kuranz, A. P. "A Small City Improves Its Plant." Water Works Engineering, June 12, 1935, Vol. 88, Number 12, pg. 674.

[16] Ibid, pg. 675.

and with its completion Waukesha acquired the last component in what had by then become a modern, up-to-date water supply and storage system and one that had also given the city a national reputation for innovative and cost-effective water utility management. Much of the credit for this belongs to A. P. Kuranz, who took the position of superintendent on the condition that he could operate the water utility free from political interference and on a business basis. That his subsequent success was appreciated by the citizens of Waukesha is evident in an editorial that appeared in the Waukesha Freeman in 1938.

> It is interesting to note in connection with finances of the water department that for the period of 1914 to 1930 Waukesha contributed an average of $19,865 annually to maintain the department. Between 1931 and 1937, however, (and this is startling in view of economic conditions) we find the water department contributing to the city annually in the form of taxes, dividends and equity payments, $25,994. The total difference yearly is the sum of those two amounts, or $45,859.80. Based on the assessed valuation of the city, the water department has made it possible to reduce taxes $2.35 per $1000 of assessed valuation for a period of seven years, for a savings to the taxpayer of $16.45 for each $1000 assessed. This is a remarkable record of accomplishment on the part of the water department board of trustees and the superintendent which should not be allowed to pass unnoticed.[17]

The Moreland Boulevard Pumping Station and Reservoir continued to function as an integral part of this system (since greatly expanded to meet the needs of a city that is almost three times larger than the Waukesha of 1931) until 1993, when the well was shut down and the reservoir emptied. Even in its currently inactive state, however, the Station is still excellently maintained by the Water Utility and it continues to be a visual asset to the residential district surrounding it.[18]

The Moreland Boulevard Pumping Station and Reservoir is thus considered to be eligible for listing in the NRHP on the basis of its local significance to the later history of Community Planning and Development in Waukesha. The construction of the station marked the first step in the implementation of a master plan for the city that was designed to modernize and expand the existing city water supply system, which was an essential step in providing for the city's long-range growth. The significance of the station is further enhanced by its generally high degree of integrity.

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[17] Waukesha Daily Freeman. August 22, 1938.

[18] The other resources associated with this period of the Waukesha Water Utility's history are also all extant, but all but the Newhall Avenue Station are now inactive.

Architecture

The architectural significance of the Moreland Boulevard Pumping Station and Reservoir lies in its being a fine and quite unusual example of the Art Deco style as applied to a small public works building. The station was built in 1931 to a design furnished by architect Martin F. White of Waukesha, as the first step in a city-wide plan designed to upgrade the city's water supply. This plan ultimately resulted in the construction of four Art Deco buildings and structures in Waukesha that were all designed by White. Of these, the Moreland Boulevard Station is the earliest and one of the most intact.

The Art Deco subsection of the Architectural styles study unit of the CRMP notes that "Art Deco designs, whether expressed architecturally or in the decorative arts, are characterized by an angular hard edge suggesting machine precision. The style is a celebration of the possibilities of advancing technology and industrialization: it also bears some relationship to the cubism art movement of the early twentieth century. Low-relief geometrical ornamentation is characteristic, using details such as shallow fluted columns, chevrons, stylized sunbursts, and muted polychromy. Verticality is stressed, enhanced in large buildings by the stepped setbacks that were required under zoning regulation in most cities by the 1920s."[19] Buildings designed in the Art Deco style in Waukesha are very rare, the only example noted in the Waukesha Intensive Survey Report being the very fine remodeled facade of the First State Bank located at 744 N. Grand Avenue (Downtown Historic District - NRHP, 10-28-83).[20]

Given the emphasis that the Waukesha Intensive Survey placed on identifying Waukesha's architecturally significant older buildings and styles it is perhaps not surprising that fine out-of-the-way examples of later styles were missed. Still, it is hard to understand how buildings such as the Moreland Boulevard Station and the other Art Deco buildings and structures associated with the Water Utility could have gone unnoticed since they are both individually distinctive and collectively important. It is not known why the Waukesha Water Utility chose Martin F. White to design the Moreland Boulevard Station, but in doing so they were hardly taking a chance on an unknown. In 1931, White (1888-1975) was a staff architect for the Wilbur Lumber Company of Waukesha, a position he filled for fifty years. The Wilbur Lumber Co. had been founded in Burlington, Wisconsin, in 1875, by George H. Wilbur (1839-1922), a native of Unadilla Forks, New York. Wilbur subsequently moved to Waukesha in 1890 and opened a retail yard in that city. In 1906, Wilbur established

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[19] Wyatt, Barbara (Ed.). Op. Cit., Vol. 2, 2-34 (Architecture).

[20] Howard, Needles, Tammen, and Bergendoff (HNTB). Spring City's Past: A Thematic History of Waukesha and the Final Report of Waukesha's Intensive Resources Survey. Op. Cit., pg. 112. The only other example cited, the Clarke Commercial Block and Carney Opera House at 314 W. Main St., is actually a remodeled example of the Art Moderne style that succeeded the Art Deco.

a millwork factory in Waukesha and by the time of his death in 1922, the Wilbur Lumber Company had become one of Waukesha's largest industries, selling its millwork through its own yards, thirteen of which were located in Wisconsin, Illinois, and Indiana, and through yards owned by other that were located throughout the region.[21]

Large scale lumber firms such as the Wilbur Lumber Company often employed staff architects who provided designs and design guidance for potential clients and it was this type of work that probably comprised most of M. F. White's design output. Work of this type could often be of high quality, however, and in 1925 White was chosen to design the very fine red brick Georgian Revival house in Waukesha (115 S. East Street - The College Avenue Historic District, NRHP, 10-28-83) belonging to the George Wilbur's son, Hawley W. Wilbur, who was afterwards president of the firm. This house is located next door to the Queen Anne style home of George H. Wilbur (105 S. East Avenue - 1893) and is now used as the home of the president of Carroll College. White is also known to have designed another fine house in the neighborhood for the Juneman Family (219 W. Laflin Avenue - Laflin Avenue Historic District, NRHP, 10-23-83) and it is highly likely that houses of his design are dotted throughout Waukesha County and beyond. White spent his entire working career with the Wilbur Lumber Company, eventually becoming its assistant corporate secretary. During his career he moved his home to Wauwatosa, Wisconsin, and it was here that he died at the age of 87 in 1975.[22]

Given the prominence of the Wilbur Lumber Company and its owners in Waukesha affairs it is not too surprising that White was chosen as the water utility's architect. What is surprising, though, is White's ability to work so well with reinforced concrete, a material that would not normally seem to have been a specialty of a man employed by a lumber company. Never-the-less, the design White produced for the Moreland Boulevard Station and the subsequent ones he produced for the Baxter Street Station (1932) and the Caldwell Street Water Tank (1934) were a distinct critical success in Waukesha, both for reasons of appearance and function. In an article written for Concrete magazine, the national publication of the concrete industry, shortly after the Caldwell Street Tank was completed, A. P. Kuranz gave some insight into the water utility's quite pragmatic reasons for building works that had such a distinct architectural character.

> Three new structures--the last and largest [the Caldwell Street Water Tank] just completed--built in recent years by the water department of the City of Waukesha, Wis., demonstrate the striking architectural possibilities of monolithic concrete even when applied to structures that are strictly utilitarian in character. All the structures, though located in residential

[21] Waukesha Freeman. "Wilbur Lumber Celebrates 75th Anniversary." August 1, 1950.

[22] Waukesha Freeman. March 31, 1975, pg. 16. Obituary of Martin F. White.

> areas of the city and at first violently opposed by the residents, are now regarded as definite neighborhood assets. In the matter of economy the results obtained at Waukesha are equally gratifying.[23]

Kuranz thus makes it clear that the design of the Moreland Boulevard Station and the subsequent projects was the result of a conscious plan on the part of the water utility to create structures that would blend in with their surroundings. The importance of this was underscored in an editorial comment regarding Kuranz' article offered by the publishers of Concrete magazine.

> Since most public structures are intended to be permanent, it is imperative that they add rather than detract from the beauty of the districts in which they are located. The illustrations show both utility and beauty of architectural concrete in structures which are frequently unsightly. There are scores of other public projects in which concrete offers similar advantages.[24]

White's design for the Moreland Boulevard Reservoir and Pumping Station features several of the hallmark characteristics of the Art Deco style as outlined in the CRMP. The choice of an Art Deco-inspired design was also a timely one since this style, with its functional, machine age associations, was by 1931 beginning to be equated with both modernity and precision. Such an imagery was particularly appropriate for a public works project such as this one, where a public image that conveyed both efficiency and cleanliness was desired. The use of compound hard-edged pilaster groups at all the corners of the building give the overall design a vertical emphasis that it would otherwise lack. They also provide a massiveness that underscores the solidity and permanence of the building. In addition, the use of the original multi-sash windows gave the station something of a residential feel that has now, unfortunately, been lost. Never-the-less, these are features that could easily be restored at a later date.[25]

The Moreland Boulevard Station exhibits the salient characteristics of the Art Deco style and its significance is enhanced by its high degree of overall integrity and by the high quality of the maintenance it has always received. Consequently, it is believed that the station is eligible for inclusion in the NRHP as a fine example of this style as applied to a small early 1930s public works project.

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[23] Kuranz, A. P. "Public Utilities Dress Up with Architectural Concrete." Concrete, Chicago: Portland Concrete Association, Vol. XLIII, No. 4, April, 1935, pg. 3.

[24] Ibid.

[25] Original windows of identical design are still in place at the North Street Station and could be used as models for future restoration.

Owner

Waukesha Water Utility
115 Delafield Street
Waukesha, WI 53188

9. Major Bibliographical References

Howard, Needles, Tammen, and Bergendoff (HNTB). Historic Resources of Waukesha Multiple Resource Nomination form. September, 1982. On file with the State Historical Society of Wisconsin's Historic Preservation Division in Madison, WI.

----. Spring City's Past: A Thematic History of Waukesha and the Final Report of Waukesha's Intensive Resources Survey. Milwaukee: Howard, Needles, Tammen, and Bergendoff, 1982.

Previous documentation on file (NPS): X See continuation sheet

___ preliminary determination of individual listing (36 CFR 67) has been requested
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey # _____
___ recorded by Historic American Engineering Record # _____

Primary location of additional data:
___ State Historic preservation office
___ Other State agency
___ Federal agency
___ Local government
___ University
X Other
Specify repository:
City of Waukesha Water Utility

10. Geographical Data

Acreage of property Less than 1.00 acre

UTM References

	Zone	Easting	Northing		Zone	Easting	Northing
A	16	388740	4763240	B	/	/ / / / /	/ / / / / /
C	/	/ / / / /	/ / / / / /	D	/	/ / / / /	/ / / / / /

___ See continuation sheet

Verbal Boundary Description

The Moreland Boulevard Pumping Station and Reservoir is located in Section 4 of T6N, R19E, Perkins Park Addition No. 2 to the City of Waukesha. Block 1, Lot 16, less a triangle 80' on S & 15' on E from the SE corner, and all Lot 17.

___ See continuation sheet

Boundary Justification

The boundaries encompass all the land historically associated with the Moreland Boulevard Pumping Station and Reservoir.

___ See continuation sheet

11. Form Prepared By

name/title Timothy F. Heggland/Consultant for:
City Landmarks Commission, City of Waukesha
organization 201 Delafield St., Waukesha, WI date July 14, 1994

street & number 1311 Morrison Street telephone (608) 251-9450

city or town Madison state Wisconsin zip code 53703

Major Bibliographic References, Continued

Kuranz, A. P. "A Small City Improves Its Plant." Water Works Engineering, June 12, 1935.

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Waukesha Daily Freeman. "New City Well Opens Thursday." January 13, 1932.

----. "Waukesha and Good Water Synonymous." Waukesha County Centennial & Seventy-Fifth Anniversary Edition of the Waukesha Daily Freeman, May, 1934.

----. "Water Department History Revealed at Convention." October 1, 1936.

----. "Wilbur Lumber Celebrates 75th Anniversary." August 1, 1950.

Waukesha Daily Freeman. August 22, 1938; March 31, 1975.

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Items a-d are the same for each photo

Photo 1
a) Moreland Boulevard Reservoir and Pumping Station
b) Waukesha, Waukesha County, Wisconsin
c) Timothy F. Heggland, July 9, 1994
d) State Historical Society of Wisconsin
e) General view, facing E
f) Photo 1 of 8

Photo 2
e) Main facade, facing E
f) Photo 2 of 8

Photo 3
e) Main facade, facing NNE
f) Photo 3 of 8

Photo 4
e) Three-quarter view of main facade, facing NE
f) Photo 4 of 8

Photo 5
e) South elevation, facing N
f) Photo 5 of 8

Photo 6
e) South elevation, facing N
f) Photo 6 of 8

Photo 7
e) West elevation, facing WNW
f) Photo 7 of 8

Photo 8
e) Detail of West elevation, facing W
f) Photo 8 of 8