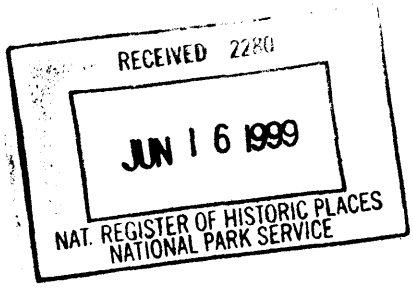
NPS Form 10-900
(January 1992)
Wisconsin Word Processing Format (Approved 1/92)

OMB No. 10024-0018

United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

849



This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Newhall Avenue Pump House and Reservoir
other names/site number N/A

2. Location

street & number	445 West Newhall Avenue						N/A	**not for publication**	
city or town	Waukesha						N/A	**vicinity**	
state	Wisconsin	**code**	WI	**county**	Waukesha	**code**	133	**zip code**	53188

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, 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. I recommend that this property be considered significant _ nationally statewide X locally. (_ See continuation sheet for additional comments.)

Julia L. Cook — 6/4/99

Signature of certifying official/Title — Date

Deputy 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 for additional comments.)

Signature of commenting official/Title — Date

State or Federal agency and bureau

Newhall Avenue Pump House and Reservoir | Waukesha | Wisconsin

Name of Property | County and State

4. National Park Service Certification

I hereby certify that the property is:

- ✓ entered in the National Register.
  - ___ See continuation sheet.
- __ determined eligible for the National Register.
  - ___ See continuation sheet.
- __ determined not eligible for the National Register.
  - ___ See continuation sheet.
- __ removed from the National Register.
- __ other, (explain:)

Edson H. Beall — 7-15-99

Signature of the Keeper — Date of Action

5. Classification

Ownership of Property (check as many boxes as as apply)

- ___ private
- X public-local
- ___ public-State
- ___ public-Federal

Category of Property (Check only one box)

- X building(s)
- ___ district
- ___ structure
- ___ site
- ___ object

Number of Resources within Property (Do not include previously listed resources in the count)

contributing	noncontributing	
2		buildings
		sites
		structures
		objects
2	0	total

Name of related multiple property listing:
(Enter "N/A" if property not part of a multiple property listing.

N/A

Number of contributing resources is previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)
GOVERNMENT/public works

Current Functions
(Enter categories from instructions)
VACANT/NOT IN USE

7. Description

Architectural Classification
(Enter categories from instructions)
Art Deco

Materials
(Enter categories from instructions)

Foundation	Concrete
walls	Concrete
	Stucco
roof	Fiberglass
other	Wood

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

__ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

__ B Property is associated with the lives of persons significant in our past.

X C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

__ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

__ A owned by a religious institution or used for religious purposes.

__ B removed from its original location.

__ C a birthplace or grave.

__ D a cemetery.

__ E a reconstructed building, object, or structure.

__ F a commemorative property.

__ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Architecture

Period of Significance

1948-1949

Significant Dates

1949

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

White, Martin F. (Architect)
Klug & Smith (Builders)

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):
- _ 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
- _ Other

Name of repository:
City of Waukesha Water Utility

10. Geographical Data

Acreage of Property Less Than One Acre

UTM References (Place additional UTM references on a continuation sheet.)

		Zone	Easting	Northing
1		16	399265	4761280
2				
3				
4				

☐ See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Timothy F. Heggland/Consultant for:				
organization	City Landmarks Commission, Cityof Waukesha			**date**	November 17, 1998
street & number	1311 Morrison St.			**telephone**	(608) 251-9450
city or town	Madison	**state**	Wisconsin	**zip code**	53703

Newhall Avenue Pump House and Reservoir	Waukesha	Wisconsin
Name of Property	County and State	

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Waukesha Water Utility				
organization				**date**	
street & number	115 Delafield Street			**telephone**	
city or town	Waukesha	**state**	Wisconsin	**zip code**	53188

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

The Newhall Avenue Pumping Station and Reservoir is a small but well-designed one-story reinforced concrete water pumping and storage facility that was the last of a series of four Art Deco style resources constructed by the City of Waukesha Water Department beginning in 1931 and ending in 1949. All four resources, including the Newhall 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 Newhall Avenue Station being built by Milwaukee contractors Klug & Smith in 1948, for $32,225.00. The east end of the L-plan Newhall Avenue Station consists of a 32.0'x 62.0' 218,000 gallon reservoir room to whose west side is attached a 20' x 20' pump room. A separate 14' x 11.5' well house building is located just to the south of the main building. 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 separate well house, however, is constructed out of concrete block. 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 Newhall Avenue Station in 1948 marked the construction of the last major component of this program.

The Newhall Avenue Station has a very gently sloping, carefully landscaped double lot that is situated on the southeast corner formed by the intersections of W. Newhall Avenue and S. West Street on the west edge of an historic residential neighborhood that is located just to the south of the historic center of the city of Waukesha. This lot is located on the south side of Newhall Avenue and the west side of the lot is

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.

bounded by the raised track of the Soo Line Railroad. When the Station was constructed in 1948, this lot was located on the western outskirts of the city and the land to the west of West Street was still largely open (this land is still largely open and is used by the Wisconsin National Guard Armory and several State agencies). Residential development bordered the well site to the east and south, while the land across Newhall Avenue to the north was open (this land is now used as the Maertel Athletic Field). Since the Newhall Avenue Station was built, astylistic one-story light industrial buildings have been constructed immediately to the east of it at 437 W. Newhall Avenue and on the land immediately behind the Station. Otherwise, the Station's setting is still largely intact.

The Station is centered on its 88-foot-wide x 132.5-foot deep lot, which consists mostly of a flat, well-tended expanse of lawn that is landscaped with a few mature trees, all of which help the Station blend into its residential setting. Like its neighbors, the Station has a concrete sidewalk that parallels Newhall Avenue and it also has an asphalt driveway that runs along the west edge of the lot from Newhall Avenue to the rear of the Station.

As noted previously, the Station is one-story in height and consists of two 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 north and south. Placed to the rear of the west-facing side elevation of the reservoir room ell is a much smaller flat-roofed pump room ell, which is square in plan. The placement of these two ells at right angles to each other creates a building having an L-plan design. Located just south of and to rear of the Station building is a much smaller concrete block building that houses the well and its machinery. This building is also one-story in height and it is flat-roofed and nearly square in plan.

The free-standing L-plan Newhall Avenue Station building has exterior and interior walls that are constructed entirely of monolithic reinforced concrete. These walls are 20-inches-thick at the footings and 12-inches-thick at the waterline, which occurs 17-feet above the floor of the reservoir room. The reinforced concrete floors of both the reservoir room ell and the well house are both depressed a number of feet below grade while that of the pump room ell is placed at grade. The portion of the exterior walls of the Station building 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 decorate the gable ends of the reservoir room ell and rim the roof of the pump room ell. The unstuccoed concrete block walls of the well house also rise up to a similar shallow parapet wall that rims its roof. 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

corrugated asbestos sheets. The flat roof of the pump room ell is constructed of a 6-inch-thick reinforced concrete slab while the flat roof of the well house is of wood. Both are covered in poured asphalt.(2)

PUMP HOUSE and RESERVOIR

Main Facade

The 56.0-foot-long principal facade of the Station faces north onto Newhall Avenue and consists of two major elements: the 35.0-foot-wide north end elevation of the reservoir room ell to the left (east) and the 21-foot-wide north end elevation of the pump room ell to the right (west). These elements are not placed in the same plane, the pump ell elevation being set back 40.0 feet from the reservoir elevation. The resulting facade, with its taller gable-roofed east element and its shorter flat-roofed west element gives no clue as to the building's real function. The north 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 masses at each end that accentuate the verticality of the design, an Art Deco hallmark. Similar pilaster masses decorate every corner of the building and they are all identical in design, though not in height. Each mass consists of a massive, slightly projecting pier that actually forms the corner and which extends a few inches above the roof parapet. Each pier is treated as a corner pilaster having a base but no capital. The two three-foot-wide faces of the pier are each scored with five vertical concave flutes. The resulting elements have a massiveness that lends gravity to the building while the use of simplified, highly stylized historical details, such as the fluting on the faces of the piers, gives the design an almost abstract classical appearance that is distinctly Art Deco in design.

The only opening in the center bay of this elevation is a very tall, narrow, semi-circular-arched window opening that was originally 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

2 Information regarding specifics of the construction of the Pump House came from the original specifications in the possession of the Waukesha Water Utility and dated March, 1948.

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 north elevation of the shorter 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 one bay wide and it contains a single flat-arched window opening that was originally filled with an eight-light steel sash window. This window has also been recently removed and replaced with painted vertical boards and battens.

West-facing Side Elevation

The 62.0-foot-long west-facing side elevation of the Station consists of two major elements; the 40-foot-long west side elevation of the reservoir room ell to the left (north) and the 22-foot-wide elevation of the pump room ell to the right (south). The north end of the reservoir room elevation is ornamented with a pilaster group, but this elevation is otherwise unornamented and has no openings. Both ends of the pump room's west-facing elevation are ornamented with corner pilaster groups. This elevation is one-bay-wide and contains a single large flat-arched service door opening that was originally filled with a pair of six-light over two-panel wood side-hinged doors that gave access to the machinery inside, but these have also now been removed and the opening has since been filled with a pair of large solid three-panel side-hinged doors, the right one of which has a smaller entrance door inset into it for use by service personnel.

South-Facing Rear Elevation

The 56.0-foot-long south-facing rear elevation of the Station consists of two major elements: the 21-foot-wide side elevation of the pump room ell to the left (west) and the 35.0-foot-wide south end elevation of the reservoir room ell to the right (east). These elevations are placed in the same plane. The elevation of the pump room ell is flanked on the left by a pilaster group and it is terminated by a shallow flat parapet. This elevation has no openings. The south 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 nearly identical to the west end elevation described earlier. It too is framed by corner pilaster groups at each end and its two flanking window openings have now been filled with board and batten, but the center opening on this elevation has always contained a door opening that is reached by an exterior metal stair.

East-facing Side Elevation

The 62.0-foot-long east-facing side elevation of the Station consists of the side elevation of the reservoir room. This elevation is flanked at either end by pilaster groups, but it is otherwise unornamented and contains no openings.

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 is gained through the pair of service doors in the west-facing side elevation of the pump room ell. The concrete floor of the 20-foot-square pump room is at grade, the walls of the room are painted concrete, and the ceiling is plastered. Centered in the room is the machinery and piping associated with pumping water from the reservoir into the water mains.

The reservoir room occupies the whole of the east part of the Station and it is essentially a large 62.0' x 32.0' 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, which is supported by steel trusses. Access to the reservoir room is gained from the outside via a door opening in the south wall. A steel balcony outside this door is then reached by means of a steel ladder. Inside, a steel balcony 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 house and from the reservoir directly into the mains.

The general integrity level of the Newhall Avenue 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 and the booster pump has been replaced at least once.

WELL HOUSE

Exterior

The free-standing, one-story well house has a concrete slab floor and walls constructed out of painted concrete block. The design of the building is strictly utilitarian and has none of the Art Deco elements

found on the Station building; the only ornamentation is a slightly projecting concrete cornice that encircles the top of the building.

The south-facing elevation of the well house is one-bay-wide, this bay being comprised of a large flat-arched door opening. Originally, this opening was filled with a pair of two-light over one-panel side-hinged wood doors, but these have now been replaced with modern metal doors that have no lights. The east-facing side elevation is also one-bay-wide, the bay having originally contained a very large flat-arched window opening that is now filled with panels covered in angled wood boards into which two louvered ventilators have been placed. The north-facing rear elevation of the well house has no openings and the west-facing side elevation has a single flat-arched window opening that still contains its original four-light metal sash window.

Interior

The purpose of the well house is to house the upper portion of the machinery that is associated with the vertical turbine pump that is suspended deep within the well itself. This pump draws water from the well and pumps it into the reservoir tank. The floor of the well house is painted poured reinforced concrete and the interior walls are painted concrete block.

The general integrity level of the Newhall Avenue Well House is also high and this building too is in very good condition. The principal changes to the exterior have been the replacement of the original service doors and the removal of the windows originally located in the opening in the east-facing side elevation. 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 and the well pump has been replaced at least once since it was first installed.

The Newhall Avenue Pumping Station and Reservoir is being nominated to the National Register of Historic Places (NRHP) for its local significance under National Register (NR) criterion C. More specifically, the Station is being nominated because of its associations with the NR significance area of 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 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.(3) The results of this research is detailed below and confirms that the Newhall Avenue Station, built between 1948 and 1949, is a fine, largely intact, and unusual example of Art Deco design as applied to a small scale public works project.(4) The Station is also locally significant under criterion C as the last of four Art Deco resources built in Waukesha by the Waukesha Water Utility between 1931 and 1948.

The Newhall Avenue Station was built for the Waukesha Water Utility in 1948 to a design supplied by Martin F. White, an architect employed by the Wilbur Lumber Co., which was headquartered in Waukesha.(5) The contractor for the Station was a Milwaukee firm, Klug & Smith, who began construction in June of 1948 and completed the work in January of 1949, at a cost of $32,225.00.(6) The Station combines a surface reservoir holding 218,000 gallons of water, a pump room, and has walls that are constructed entirely of reinforced concrete coated in stucco. There is also a detached concrete block well house building as well. 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 late in 1994, but it is now inactive.

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3 Wyatt, Barbara (Ed.). *Cultural Resource Management in Wisconsin.* Madison: State Historical Society of Wisconsin, Historic Preservation Division, 1986. Vol. 2, 2-34 (Architecture).
4 *Waukesha Daily Freeman.* "New Pumphouse Near Completion." October 2, 1948, (with photo).
5 Specifications for the Newhall Avenue Well, dated March, 1948. City of Waukesha Water Utility files.
6 Ibid.

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 (7) and in the text of the Historic Resources of Waukesha Multiple Resources Nomination form.(8) 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 flood plain 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 flood plain 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 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

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7 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.

8 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.

Madison Street next to the bridge over the Fox River".(**9**) 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 dominant force in the local economy and remained so until the end of the century.(**10**)

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9 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.
10 Ibid., pp. 20-26.

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.(**11**)

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

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11 *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.

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.**12**

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

12 *Waukesha Freeman.* "Water Department History Revealed at Convention." October 1, 1936.

> 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.(**13**)

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 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.(**14**)

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 of from $1000 to $1100 per month, enough to fund further 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.

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13 *Waukesha Freeman.* "Waukesha and Good Water Synonymous." Waukesha County Centennial & Seventy-Fifth Anniversary Edition of the *Waukesha Daily Freeman*, May, 1934, pp. 72-73.
14. Kuranz, A. P. "A Small City Improves Its Plant." Water Works Engineering, June 12, 1935, Vol. 88, Number 12, pg. 674.

"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."(**15**) 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) 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.(**16**)

The resources that were created as a result of this expansion plan provided the city of Waukesha with a plentiful, trouble-free, and economical supply of water until the end of World War II. At that time, however, concern over the Water Utility's ability to meet post-war demands for water resulted in a

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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. 675.
16 *Waukesha Daily Freeman.* August 22, 1938.

decision to rehabilitate the city's existing well facility on Newhall Avenue. The three shallow wells at this site had first been drilled in 1918, but had been taken out of service in 1932 following the construction of the new deep wells at Moreland Boulevard and Baxter Street. Consequently, in 1945, it was decided to drill a new deep well at the Newhall Avenue site and to furnish the site with a surface reservoir and pumping station. This well was drilled in 1946, and the machinery was then placed under a temporary shelter pending the construction of permanent facilities. Since the previous resources constructed by the Utility had proven to be so successful it was decided to turn once again to Martin F. White for the design of the new facility. The resulting plan was put out for bids in March of 1948 and the new Newhall Avenue facility was completed and ready for use by January of 1949.

The Newhall Avenue Pump House 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 late in 1994, when the well was shut down and the reservoir emptied. Despite its currently inactive state, though, the Station is still excellently maintained by the Water Utility and it continues to be a visual asset to the residential district surrounding it.(**17**)

ARCHITECTURE

The architectural significance of the Newhall Avenue Pump House 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 1948 to a design furnished by architect Martin F. White of Waukesha, as the last 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 Newhall Avenue Station was the last and it is now among 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."(**18**)

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17 The other resources associated with this period of the Waukesha Water Utility's history are also all extant, but they are all now inactive.
18 Wyatt, Barbara (Ed.). Op. Cit., Vol. 2, 2-34 (Architecture).

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).(**19**)

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 Newhall Avenue 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 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 others that were located throughout the region.(**20**)

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 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

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19 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.
20 *Waukesha Freeman.* "Wilbur Lumber Celebrates 75th Anniversary." August 1, 1950.

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.(**21**)

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. Nevertheless, the design White produced for the Moreland Avenue 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 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.(**22**)

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 [in Kuranz'

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21 *Waukesha Freeman.* March 31, 1975, pg. 16. Obituary of Martin F. White.
22 Kuranz, A. P. "Public Utilities Dress Up with Architectural Concrete." *Concrete.* Chicago: Portland Concrete Association, Vol. XLIII, No. 4, April, 1935, pg. 3.

article] show both utility and beauty of architectural concrete in structures which are frequently unsightly.(**23**)

That Martin F. White was subsequently chosen to design the Newhall Avenue Station in 1945, eleven years after his Caldwell Street Tank design, can be seen as a testament to the esteem in which his earlier designs were held by the Water Utility. White's new design was essentially a reworking of his earlier design for the Baxter Street Station, the two being almost identical in size and very similar in plan and exterior appearance. Unfortunately, the original gabled roof above the reservoir room of the Baxter Street Station has since been replaced with a flat roof so the relationship between the two is not as apparent as it was when the Newhall Avenue Station was new.

CONCLUSION

White's design for the Newhall Avenue Pump House and Reservoir features several of the hallmark characteristics of the Art Deco style as outlined in the CRMP. The use of stylized classically inspired 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. Thus, the Newhall Avenue Station exhibits the salient characteristics of the Art Deco style, and this significance is enhanced by the building's 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. It is also believed that the small well house building is a contributing element as well since it was a part of the original construction project and exhibits a similar degree of integrity.

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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.

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United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section Photos Page 1 Newhall Avenue Pump House and Reservoir
Waukesha, Waukesha County, Wisconsin

Items a-d are the same for each photo

Photo 1
a) Newhall Avenue Pump House and Reservoir
b) Waukesha, Waukesha County, Wisconsin
c) Timothy F. Heggland, July 9, 1994*
d) State Historical Society of Wisconsin
e) General view, facing SW
f) Photo 1 of 5

Photo 2
e) Main facade, facing S
f) Photo 2 of 5

Photo 3
e) Three-quarter view of main facade, facing SE
f) Photo 3 of 5

Photo 4
e) Three-quarter view, facing NE
f) Photo 4 of 5

Photo 5
e) South elevation, facing NW
f) Photo 5 of 5

***Note**: The appearance of the resources (in 1999) has not changed since the 1994 photos were taken.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

VERBAL BOUNDARY DESCRIPTION

The Newhall Avenue Pump House and Reservoir is located in Section 10 of T6N, R19E, Lots 437 and 438, Ridgewood Addition to the City of Waukesha.

BOUNDARY JUSTIFICATION

The boundaries encompass all the land historically associated with the Newhall Avenue Pump House and Reservoir.