

7. Description

Condition

excellent
 good
 fair

deteriorated
 ruins
 unexposed

Check one

unaltered
 altered

Check one

original site
 moved date _____

Describe the present and original (if known) physical appearance

In the late nineteenth century the city of Nashville saw a need to improve its waterworks system. Starting in 1887-1888 the city instituted a series of three projects to fulfill that need. The structures in this thematic nomination represent that effort. The nomination consists of three distinct parts:

The Omohundro Water Filtration Complex District

This discontinuous district consists primarily of three large industrial buildings and an intake structure located in the Cumberland River. The structures, started in 1888, portray Nashville's evolving waterworks system, a system that is still in full operation today. This segment of the nomination represents the manner in which water has been drawn from the river, processed, and treated.

The Lebanon Road Stone Arch Bridge

Built in 1888, this structure's primary function has been to serve as a means for a 36 inch water main to cross Brown's Creek, thus connecting the Omohundro Water Filtration Complex District with the Eighth Avenue South Reservoir.

The Eighth Avenue South Reservoir (NR 1978)

Completed in 1889 this massive structure represents the segment of Nashville's waterworks system where water has been stored and allowed to settle before distribution to the general public.

The nomination therefore, illustrates a finite group of resources with all extant parts included. Research for this project was conducted by Mark A. Sturtevant of the Metropolitan Historical Commission of Nashville and Davidson County.

The Omohundro Water Filtration Complex District

The Omohundro Water Filtration Complex District, a discontinuous district, consists of eight structures; five contributing and three non-contributing. The complex lies one-half mile up-river from Brown's Creek, directly across the Cumberland River from Shelby Park. The intake structure is located in the river, 1700 feet up-river from the complex, and approximately 50 feet from the south bank. Built at varying times starting in 1888, the buildings are utilitarian structures constructed of red brick with red tile roofs.

The earliest building in the Omohundro Water Filtration Complex District is the George Reyer Pumping Station. Built 1888-89, the structure is three stories tall with a row of clerestory windows running along the ridge of the structure's hip roof. The building contains a single interior space 80' x 120' x 60' in height. The first two stories of the structure feature evenly spaced arched window openings on all four facades. The original 4 over 4 double-hung windows have been replaced by metal framed, hopper-type windows. The window motif is continued in the north and south facades of the third story. The east and west facade of the third story feature lunettes which had been located in the gable ends of the original double-gable roof. In 1952, to facilitate new machinery, it was necessary to add an additional story to the building and a new roof. The building rests on a limestone foundation.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input checked="" type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/ humanitarian
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input type="checkbox"/> transportation
<input checked="" type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

Specific dates	1887-1936	Builder/Architect	C. K. Colley, J.A. Jowett, Chester Engineers, Foster-Creighton Company, and Whitsetts and Adams
Statement of Significance (in one paragraph)			

The Omohundro Waterworks System consists of the Omohundro Water Filtration Complex District, the Lebanon Road Stone Arch Bridge, and the Eighth Avenue South Reservoir (NR 1978). The thematic district is nominated to the National Register under criterion C for its importance in architectural and engineering merit.

The water system, Nashville's third, greatly increased the quality of city services at a time when Nashville was in a stage of rapid growth and expansion. The system began operation in 1889 with the capacity to pump 10 million gallons daily from the pumping plant on the Cumberland River to the reservoir on Kirkpatrick's Hill, and has expanded over the years to its present level of 90 million gallons per day. The buildings and structures of this district exhibit an aesthetic quality not often found in industrial construction. In addition, the structural integrity of the exterior of the buildings and structures, combined with the elaborate details on the interiors, further strengthens the significance of the district.

In 1877 in his annual report to the city, Major W. F. Foster, City Engineer, reported on the condition of the municipal waterworks. In that report Major Foster recommended the need to upgrade city services, and that in the midst of Nashville's rapid growth and expansion that a new pumping station was necessary along with a filtration system, and an elevated more capacious reservoir. Twelve years later the system he recommended was completed and in service.

Nashville's first water system had been built in 1823 at the Samuel Stacker Saw and Grist Mill at the Fort Nashboro Spring. Water was pumped to a reservoir on the north side of Church Street, between Cherry and Summer streets (Fourth and Fifth avenues respectively) with a capacity of 860,000 gallons. A second pumping station, designed and engineered by Albert Stein was completed behind the present day General Hospital in 1833, and an additional 650,000 gallon reservoir was built on that site in 1847. In 1887-88 construction was started on the current system including the Omohundro Water Filtration Complex District, the Eighth Avenue South Reservoir, and the Lebanon Road Stone Arch Bridge over Brown's Creek.

Omohundro Water Filtration Complex District

Construction for the Omohundro Water Filtration Complex District was started at a point on the Cumberland River approximately one-half mile above Brown's Creek directly across from Shelby Park. The new pumping plant and boiler house were designed by C. K. Colley and constructed by the Foster and Creighton Company, both of Nashville. The pumping station was fitted with Holly-Gaskill pumps that could provide 10 million gallons of water per day.

Water was drawn from the river through a filter gallery and then pumped to the City Reservoir on Kirkpatrick's Hill at Eighth Avenue, South. In 1888 there were no plans for a filtration structure, the general feeling being that the filter galleries on

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- 1.) The Omohundro Water Filtration Complex District
Northeast of Omohundro Drive
- 2.) Eighth Avenue South Reservoir (NR 1978)
Eighth Avenue South
- 3.) Lebanon Road Stone Arch Bridge
Over Brown's Creek at Lebanon Road

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Adjacent to the pumping station is the Boiler House, Built in 1926 to house new boilers, this structure replaced the original boiler house that was built in conjunction with the pumping station in 1889. The three story building features a gable front with a full clerestory level, reminiscent of the original roof on the pumping station. The building features decorative brick corbeling in the cornice and large multi-paned, metal-framed windows, arched on the second story. Directly behind the structure is a 200 foot brick smokestack. The interior of the building has been altered to accomodate modern equipment when the complex converted to electric power in 1953. Today the building serves as the control building to monitor the entire waterworks system.

The third major building is the Robert L. Lawrence, Jr., Filtration Plant. Built 1929-30, this building completes the complex. Designed to reflect the pumping station, the building is built in two sections: the front section contains the entrance, lobby, offices, and laboratories, and the rear section, the functional, filtration chambers. The front section of the building is three stories tall with a hip roof that successfully relates to the design of the pumping station. The building's focal point is the large arched transom which reflects the window motif found on the Boiler House. Other elements of the front section include brick corbeling above the windows, and intricate, decorative brick designs above the third floor windows. The functional rear section of the building is a 300 foot long, low, two-story arcade with clerestory level, that runs the length of the structure. Additions to the rear sections in 1932, 1953, and 1963, have been carried out in a manner perfectly in keeping with the character of the building and complex.

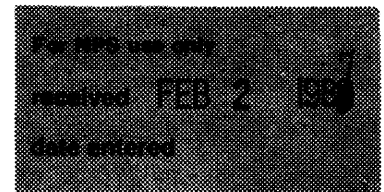
The interior of the filtration building is a unique combination of craftsmanship and design not often found in industrial structures. The interior is highlighted by two brick arcades running the length of the rear central hall, a terrazzo tile floor laid in an alternating diamond pattern, grey marble control stations, and a polished hard wood ceiling. The elaborate interior design, the pristine cleanliness, and the ambience of settling water in the filtration chambers create a truly extraordinary interior space.

Located in the river 1700 feet upstream from the pumping plant and 50 feet from shore is the intake tower which rises approximately 75 feet out of the river. The round structure is composed of a limestone base, or foundation, with a one-story brick compartment, capped by a conical slate roof. The structure contains four symmetrically placed window openings and a simple door facing west, downriver. Access to the structure is gained by climbing a metal ladder from the level of the river to the top compartment door. The structure is no longer in operation having been abandoned for a modern intake in 1986.

This site includes one other contributing structure. Built in 1888 the Storage Building is a one-story, brick, structure with a gable roof. The original arched windows and doors have been filled in but the brick corbeling still remains intact and is similar to that found in other structures in the complex.

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Non-contributing buildings on the Omohundro Water Filtration Complex District site include:

- The Office Building - ca. 1970, modern, rectangular one-story brick building with flat roof.
- The Classroom Building - ca. 1980, modern, metal building used for classes and education purposes.
- The Omohundro Water Filtration Complex District site also contains numerous modern chemical tanks at various locations. In addition, the site includes a Nashville Electric Service substation located 75 feet west of the Pumping Station surrounded by a chain link fence.
- The site also includes two Louisville and Nashville Railroad Company right-of-ways. One bisects the property running east and west. The other track runs above the complex on an elevated bridge running north and south.

Eighth Avenue South Reservoir (NR 1978)

Eighth Avenue South Reservoir (NR 1978) is located on Kirkpatrick's Hill, the former site of Fort Casino, used by Union troops in the Battle of Nashville in 1864. The reservoir, designed by City Engineer, J. A. Jowett, was under construction from August 24, 1887 to August 24, 1889. It cost \$364,500 to build.

The reservoir is elliptical in shape, with a major axis of 603 feet and a minor axis of 463.4 feet. Its walls, constructed of rubble faced with limestone ashlar quarried near the site, are 22.9 feet thick at the bottom, 8 feet thick at the top and 33.75 feet high. A red brick parapet runs around the top of the wall. The reservoir is divided in two by a wall along its minor axis. Originally, Cumberland River water was pumped into one side, where the mud settled out, and then into the other side for distribution.

Sitting atop the wall on the north side is a small brick and stone gatehouse. It is a picturesque building with Romanesque details executed in limestone which contrasts with the red brick. There is a small octagonal tower on the east side and rough faced stone outlines the round arched windows and forms quoins at the corner of the building. The apex of each of the building's six gables is adorned by a stone finial.

Lebanon Road Stone Arch Bridge

Built in 1888 to transport a 36 inch water main across Brown's Creek, as well as Lebanon Road traffic, the Lebanon Road Stone Arch Bridge is a single masonry arch, 40 feet in length, and 25 feet wide. At either end of the bridge are 33' 6" stepped wingwalls. The structure is composed of large rectangular coursed limestone of varying sizes. Smaller stones form a rail at the top of the bridge. The arch is lined with eight courses of common bond red brick. Abandoned by traffic in 1925 the bridge remains unaltered and continues to transport water as it was originally intended.

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the upper island would be sufficient. The filter gallery consisted of a cast iron cage, 152 feet long, 6 feet high, and 10 feet wide, and placed in the natural gravel beds of the upper island. (The upper island was adjacent to the pumping station; the southern channel has since been filled in.) While this system worked fairly well, it still permitted some silt to reach the reservoir. When the river was low, the city took its water essentially "unfiltered." With increases in population and demand, the system increased its capacity to 30 million gallons per day with the installation of two Worthington Pumps, one in 1891 and the second in 1893. Power for the pumps was provided from coalfired boilers and steam turbines. In 1892 an intake structure was completed 1700 feet upriver from the pumping station, thus eliminating the need for the filter gallery. With ever increasing demand the city replaced the boiler house with a larger structure in 1926. Built to house the steam boilers that powered the pumps, this building was converted to the control station in 1953 when the system switched to electric-powered equipment.

In 1929-30, the third building, the filtration plant, was erected with a capacity of 28 million gallons per day. Both the new boiler house and the filtration plant were designed by the Chester Engineers of Pittsburg, Pennsylvania and built by the Foster and Creighton Company of Nashville. Additions to the filtration building in 1932, 1953, and 1963, brought the capacity to its present level of 90 million gallons per day. Floridation of city water began in 1953.

Lebanon Road Stone Arch Bridge

In 1888 the site of the new pumping plant was seen as an important factor in the quality of service it could provide. Prior to 1888 the old pumping plants had at times been hindered by river water with a high degree of muddiness. This was due primarily to water flowing from Brown's Creek into the Cumberland River. Brown's Creek was known to become very muddy after hard rains. The site for the new Pumping Plant therefore, would be above, or up-river from Brown's Creek. By locating at this site however, a new problem was created; how to transport the water across Brown's Creek in order to reach the new reservoir four miles away on Kirkpatrick's Hill. This was accomplished with the erection of a stone arch bridge which carried a 36 inch water main across Brown's Creek. The bridge also carried Lebanon Road traffic. The bridge was designed by J. A. Jowett, City Engineer and erected by the Foster and Creighton Company in 1888, one of the earliest commissions for that firm. The bridge was abandoned by traffic in 1925 when a new structure was completed to handle heavier demand. However, the bridge continues to support the 36 inch water main and still serves as the means for water to cross Brown's Creek to reach the reservoir.

Eighth Avenue South Reservoir (NR 1978)

Construction of a new 50 million gallon reservoir on Kirkpatrick's Hill on Eighth Avenue South, began in 1887 and was completed two years later in 1889. J. A. Jowett, City Engineer, designed the structure and the construction contract was awarded to Whitsett and Adams. The structure was designed with a 463 foot wall dividing the basin

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Verbal boundary description and justification

The Omohundro Water Filtration Complex District

Starting at a point on the Cumberland River and the eastern boundary of parcel 94-7-8, then running south and then southwest along the property line of parcel 94-7-8 to a point where it meets parcel 94-7-23. Then following the property line of parcel 94-7-23, denoted by a chainlink fence, south, then west, then northwest, to a point where it meets the Louisville and Nashville Railroad right-of-way. From that point the boundary runs due north to the bank of the Cumberland River, then along the bank of the river east to the starting point. Approximately 23 acres.

Intake Tower

The intake tower was an integral part of the waterworks system and its inclusion contributes substance to the nomination's theme. Because of its distance from the Omohundro Water Filtration Complex District it was included in a discontinuous manner. The intake tower stands in the Cumberland River 1700 feet east of the Omohundro Water Filtration Complex District. The tower is 50 feet from the river's south bank, adjacent to parcel 94-8-143. Less than 1 acre.

Eighth Avenue South Reservoir (NR 1978)

Eighth Avenue South Reservoir includes all of parcel 105-6-84.*

The Lebanon Road Stone Arch Bridge

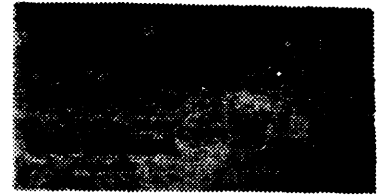
The Lebanon Road Stone Arch Bridge include the bridge and its abutments, located just north of, and partially under the current Lebanon Road Bridge where it crosses Brown's Creek. Less than 1 acre.

The boundaries of this thematic nomination were chosen to include all the structures in the system and to accurately convey the sense of site and setting of the properties.

* This is a clarification of the boundary description of the Eighth Avenue South Reservoir and does not designate a change in the original boundary description of 17 acres.

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Multiple Resource Area
Thematic Group

dnr-11

Name Omohundro Waterworks System TR
State Davidson County, TENNESSEE

Nomination/Type of Review

Substantive Review Cover A Schlager 5/13/87

Date/Signature

1. Lebanon Road Stone Arch
Bridge

~~Substantive Review~~ Keeper

A Schlager 5/13/87

Attest

2. Omohundro Water Filtration
Complex District

~~Substantive Review~~ Keeper

A Schlager 5/13/87

Attest

3. Eighth Avenue South
Reservoir
(already listed 3-30-78)

Keeper

Attest

4.

Keeper

Attest

5.

Keeper

Attest

6.

Keeper

Attest

7.

Keeper

Attest

8.

Keeper

Attest

9.

Keeper

Attest

10.

Keeper

Attest