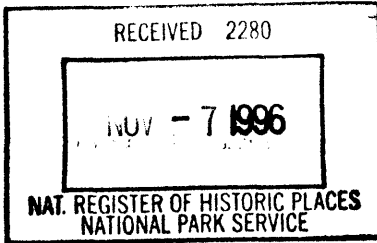


United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form



This form is for use in nominating or requesting determinations 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 OCCUM HYDROELECTRIC PLANT AND DAM

other names/site number FERC NO. UL-93-6-000 CT

2. Location

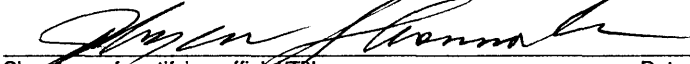
street & number Bridge Street not for publication N/A

city or town Norwich vicinity N/A

state Connecticut code CT county New London code 011 zip code 06360

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this 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 meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)


Signature of certifying official/Title _____ Date 11/5/96
John W. Shannahan, Director, Connecticut Historical Commission
State of Federal agency and bureau _____

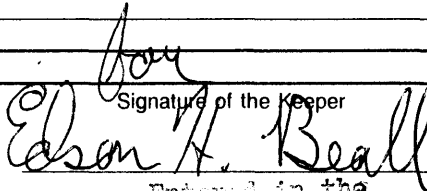
In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title _____ Date _____
State or Federal agency and bureau _____

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.
- removed from the National Register.
- other, (explain): _____


Signature of the Keeper _____ Date of Action _____
Edson H. Beall
Entered in the National Register

12-6-96

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property
(Check only one box)

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

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

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
_____	_____	structures
_____	_____	objects
_____	_____	Total

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

N/A

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions)

INDUSTRY: energy facility

Current Functions
(Enter categories from instructions)

INDUSTRY: energy facility

7. Description

Architectural Classification
(Enter categories from instructions)

No style

Materials
(Enter categories from instructions)

foundation Concrete

walls Brick

roof Concrete

other Stone

Narrative Description

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

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 2 Page 1

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

2. Location:

city/town: The power plant, forebay, intake gates, and western part of the dam are all located within the Town of Norwich. Since the Shetucket River forms the boundary between Norwich and the neighboring town of Sprague, the eastern part of the dam lies within Sprague (also New London County).

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 7 Page 1

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

Description:

The Occum plant of the Norwich Public Utilities Department is located on the west bank of the Shetucket River just north of Bridge Street in the Occum section of Norwich. The plant includes a small brick powerhouse (Photograph 1), a set of intake gates leading to a forebay (Photographs 2 and 3), and a stone and concrete dam across the river (Photograph 5). The dam, headgate, and forebay components are enumerated as a single contributing structure, with the powerhouse counted as a second contributing structure. The surrounding neighborhood is fairly densely built and includes numerous residences and a few commercial buildings. Occum was formerly associated with a textile mill that burned several years ago, and most of the houses in the area at one time were company-owned millworker dwellings.

The dam and headgates were originally part of a 19th-century development intended to provide waterpower for sale to mill sites downstream. One of the two textile mills that were built on the west side of the river operated in Occum until about 1980. In 1932 the dam and waterpower rights were purchased by the city and the site was reconfigured for electrical power generation.

The part of the dam dating from 1865 is built of large irregular blocks of granite; it is trapezoidal in section, measuring 14 feet high, 12 feet wide at the base, and 6 feet wide at the crest (Photograph 6). The dam originally was protected with flat stone slabs placed on its upstream face and in the bed of the river immediately downstream; it is not known whether any of this material survives. Currently, the front of the masonry part of the dam has sheet piling at its base, while the back is filled with gravel. Today 280 feet of the stone dam survives, of an original 300 feet.

The dam was heavily damaged in the Hurricane of 1938, especially the eastern portion, where there had been a headgate structure similar to that on the west side. As a result of the damage, the eastern portion was rebuilt in reinforced concrete and extended 170 feet, for a total spillway length of 450 feet.

At the western end of the spillway, beyond a masonry stepped end wall, there is a short earthen embankment and then a series of headgates or intakes. Five of the gates are original and are contained within a stone structure similar to the older portion of the dam, while the sixth easternmost intake is of concrete construction and dates from 1938. The

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 7 Page 2

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

intakes have wooden gates with double-stem rack-gear lifters (Photograph 4); the reduction gears are currently driven by small electric motors, and there is a small vinyl-sided shed on the earthen embankment sheltering the controls.

The intakes lead to a small forebay, on the east side of which are an overflow spillway, a narrow sluice for removal of material that accumulates on the trash racks, and the intake for the turbine. The turbine's intake, scroll case, and draft tube are constructed as integral parts of the powerhouse's reinforced-concrete substructure. The system can be de-watered by stop-gates that slip in along the west wall of the powerhouse, just inside of the trash racks.

The vertical-shaft turbine is a 1,260-hp unit manufactured by S. Morgan Smith. According to the nameplate, it operates at a head of 13 feet and turns at 112.5 rpm. Company records describe it as a Kaplan-type turbine, indicating that it has a movable-vane runner.

The brick powerhouse measures 40 by 32 feet in plan and is 28 feet in height. Wide pilasters mark the corners of the building and divide the longer elevations into two bays. Although the interior is open to the roof, the exterior appears as two stories, with taller windows on the first level. The lower part of the west bay on the south elevation, facing Bridge Street, is filled in with glass, sheet metal, and a doorway for personnel, all of which is removable to accommodate large pieces of machinery; there are two windows above. The other bay has two windows on each level, and the side elevations have three sets of windows. Window openings have concrete sills and soldier-course brick heads and are fitted with small-pane steel industrial sash, parts of which pivot open to provide ventilation.

The powerhouse reflects no particular architectural style. However, there are a few decorative effects drawn from the then-current revival styles of architecture: brick corbelling above the top tier of windows and along the simple concrete cornice, a plain parapet concealing the powerhouse's flat roof, and concrete blocks in the upper corners of the window openings in imitation of stone imposts. The pilasters have similar blocks and a simple pendant decoration, and there is a brick soldier course encircling the building below the main cornice's corbelling.

A small frame storage building has been appended to the rear of the powerhouse. Mounted high on the powerhouse's west wall is an I-beam that serves as part of a hoist for the stop-gates.

**United States Department of the Interior
National Park Service****National Register of Historic Places
Continuation Sheet**Section number 7 Page 3

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

The powerhouse's undivided interior features exposed-brick walls painted above the three-foot level, a quarry-tile floor, and a ceiling that is simply the unfinished underside of the prefabricated concrete roof slabs. Most of the interior is taken up by the plant's single vertical-shaft three-phase 4,800-volt, 800kw alternator, a product of the Electric Machinery Manufacturing Company (Photograph 7). Atop the alternator sits a 125-volt DC generator that provides exciter current. An oil-hydraulic-action Woodward governor, model number 6844, is located off to one side, in the northeast corner (Photograph 8). Against the north wall are a small black-slate switchboard with a mixture of original and modern gauges, other control equipment, and the power cables (Photograph 9). Large I-beams set into the north and south walls provide rails for a six-ton hand-operated bridge crane (Photograph 10).

Name of Property

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for 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.
- 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.

Narrative Statement of Significance

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

9. Major Bibliographical References

Bibilography

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

Previous documentation on file (NPS):

- 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 # _____

Areas of Significance

(Enter categories from instructions)

ENGINEERING

INDUSTRY

Period of Significance

1865 - c.1940

Significant Dates

1865

1934

1938

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Henry T. Potter, engineer, 1865 dam
Chandler & Palmer, engineers, power plant

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

Connecticut Historical Commission
59 South Prospect Street
hartford CT 06106

Occum Hydroelectric Plant and Dam
Name of Property

Norwich, New London Co., CT
County and State

10. Geographical Data

Acreage of Property approx. 5 acres

UTM References

(Place additional UTM references on a continuation sheet.)

1

1	8	7	4	5	8	5	0	4	6	0	9	0	4	0
Zone		Easting					Northing							

3

Zone		Easting					Northing							

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

see continuation sheet

Boundary Justification

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

11. Form Prepared By

name/title Bruce Clouette and Hoang Tinh

organization Historic Resource Consultants, Inc. date February 7, 1996

street & number 55 Van Dyke Avenue telephone 860-547-0268

city or town Hartford state CT zip code 06106

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 City of Norwich, Connecticut

street & number City Hall telephone 860-823-3700

city or town Norwich state CT zip code 06360

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.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 1

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

Statement of Significance:

Summary

The Occum Hydroelectric Plant and Dam is significant because of its association with the textile industry, the major engine of economic growth in eastern Connecticut throughout the 19th century (Criterion A); as an example of the period's dam engineering (Criterion C); and as a late but well-preserved example of early 20th-century hydroelectric technology (Criterion C). Although there are other large stone dams in the state, they represent only a portion of those that existed during the height of waterpowered industry. Some of the old dams have been rebuilt in concrete and many others were altogether destroyed during the high water of 1938 and 1955. While the Occum Dam has been altered from its original appearance by construction of the power plant in 1934 and by rebuilding of the eastern portion following the Hurricane of 1938, it nevertheless continues to typify the engineering skills that harnessed the waterpower of eastern Connecticut and allowed the textile industry to prosper. The dam was built by the Occum Company, a group of Norwich businessmen with close ties to other commercial and manufacturing enterprises in the region. This model of waterpower development, in which a company built a dam and sold the power to manufacturers who located their factories along the company's canal, was not common, but it had some notable successes in Connecticut, such as the Greeneville Dam farther downstream on the Shetucket River, the Windsor Locks Canal along the Connecticut River, and the Shelton Dam on the Housatonic River.

While the Occum Dam was in the forefront of large-scale water power development in Connecticut, the 1934 electric power plant is a late example of standardized hydroelectric engineering. In the early years of the 20th century, there was great variety in hydroelectric power plants, which differed in type and placement of turbines, type of generators, and how various components were interconnected. By about 1915, however, technological advances in turbines, thrust bearings, and electrical equipment had reduced the diversity to a single configuration that was used for all but the most unusual settings. Also, an electric power industry had emerged, as well as an engineering profession with depth of experience in plant design, leading to further convergence around a single type. With a few exceptions, virtually everything in the Occum plant could have been built 20 years earlier. As a relatively unchanged example of the type, however, the Occum plant has an importance that belies its small size and ordinariness, especially in the context of Connecticut, which has only nine operating hydroelectric power plants built before 1940.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 2

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

Historical Development

The vicinity of Occum had been eyed as a possible waterpower site as early as 1845, but nothing came of those plans because of the opposition of abutting landowners. In 1864, however, the Connecticut General Assembly enacted a law that gave dam owners an absolute right to flood farmland upstream (with suitable compensation), and the Occum Company immediately took advantage of the new balance of power, buying the rights to the entire Shetucket River between Sprague and Greeneville.

The principals in the Occum Company were men with broad experience in waterpower and manufacturing. Lucius W. Carroll (1815-1900) was a Norwich merchant specializing in wholesale dyestuffs and other mill supplies, a position that would have brought him into contact with every major textile manufacturer in eastern Connecticut. Moses Pierce (1808-1900) was the founder and superintendent of the city's largest textile-related firm, the Norwich Bleaching and Calendaring Company, which had built a large factory in Greeneville in 1840 on the Norwich Water Company's power canal. Leonard Ballou (1794-1880), the company's long-time president, was a manufacturer who retired to Norwich after selling his cotton mill. Ballou and Carroll had worked together to organize Norwich's First National Bank that same year, with Carroll serving as president. With participants such as these, the Occum Company had the technical and financial resources needed to undertake a large-scale water-power development.

The company's goal was to dam the Shetucket and construct canals along both sides of the river to carry water to downstream mill sites. Completion of the project was delayed by a sudden freshet that carried away the partly completed dam and by legal disputes with A. and W. Sprague, owners of the next mill privilege upstream. The total cost was about \$50,000. The first of the mill sites was purchased by Joseph H. Converse, who erected a four-story granite woolen mill; another woolen mill was built by R. G. Hooper just downstream. The better part of the company's power potential was sold outright to Cyrus Taft and other investors, who then constructed their own dam at Taftville, along with what became the largest cotton factory of its day, the Ponemah Mills. (The principals of the Occum Company were also investors in the Ponemah Mills, so they stood to gain no matter how the power was developed.) As it turned out, the east side of the river at Occum was never developed beyond the construction of headgates, and the west side served only one company after 1870, the year that the woolen mills were converted to the production of cotton textiles under the name of the Totoket Mills. The Totoket Mills were a project of Lorenzo Blackstone (1819-1888), an

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 8 Page 3

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

entrepreneur who developed a series of cotton mills extending from Killingly to Montville, including the Ballouville mill he purchased from Leonard Ballou in 1865.

Although the Occum Company continued as a nominally independent corporation, for most of its history it was closely allied with the interests that controlled its only customer, the Totoket Mills. The office of secretary-treasurer, for example, was filled at various times by J. DeTrafford Blackstone, John T. Almy, and C. H. Frisbie, all of whom managed the Totoket Mills and the other Blackstone holdings. In the 1930s, mills throughout the area experienced the effects of the Great Depression and began selling off non-manufacturing assets such as commercial property and company housing. In 1932 Occum Company sold its dam and waterpower privileges to Joseph C. Work, who then immediately re-sold them to the City of Norwich.

The City of Norwich, at that time an incorporated area within the larger Town of Norwich, had espoused a public power policy since 1904, when the city took over privately owned gas and electric utilities in a forced sale. A Board of Gas and Electric Commissioners was formed and a Gas and Electric Department (later renamed the Public Utilities Department) was established within the city administration. In 1927 the city supplemented its steam-powered generating facility by building a hydroelectric plant at the Greenville dam. Construction began on the Occum plant in 1934, with the first power coming on line in 1937. The plant was forced to shut down the following year when high waters accompanying a hurricane washed away a portion of the dam. Although the damage was considerable, the eastern end of the dam was replaced, and the forebay and powerhouse were repaired. The plant has been operating steadily ever since.

Technological Significance: Dam

Occum's stone dam and headgates represent a turning point in the development of dam technology, a transition between the traditional millwright approach and scientific engineering. In terms of design and materials, the Occum Dam is little different from the hundreds of smaller dams that provided power for the region's 18th-century and early 19th-century gristmills, sawmills, and early textile factories. The use of massive masonry structures to impound water was one of two vernacular techniques (the other being gravel-filled wooden cribwork) that were simply scaled up to meet a growing need for industrial power. It was the sheer size of undertakings such as Occum that was notable.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 4

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

American dam building practice evolved largely through experience, as textile mills and other large-scale enterprises made evermore ambitious plans to harness the region's major rivers. DeSazilly's analysis of the cross-sections of gravity dams, published in the 1850s in Europe, was probably not widely known at the time of the Occum Dam. Instead, engineers relied on their own experience and widely publicized examples, such as the 1849 Holyoke Dam across the Connecticut River in Massachusetts. Progress also came about as a result of some spectacular disasters, as well as numerous smaller failures. Protection of the work during construction, erosion control on the downstream side, and anchoring the dam into the river bed were some of the key concerns wrestled with at Occum and other early large-scale dams.

The engineer of the Occum Dam was Henry T. Potter (1821-1887). Potter received a common-school education in Smithfield, Rhode Island, and went to work for a series of local textile manufacturers. His talents enabled him to rise to the point where, in 1852, he was given chief responsibility for laying out a mill village in Warwick, Rhode Island, and building the Artic Mills there. Five years later he built a dam and mill for A. and W. Sprague at Baltic, just upstream from Occum on the Shetucket River; it was the largest textile mill in Connecticut at the time. Potter was brought to Norwich in 1863 and shortly thereafter began work on both the Occum project and the Ponemah Mills. After completing those two dams, he undertook the massive Shelton Dam spanning the Housatonic River between Shelton and Derby, Connecticut. Except for its size (860 feet long, with canals that run for more than a mile), the Shelton Dam was prefigured in almost every detail by the Occum project: a stone dam with headgates and canals leading to manufacturing sites on both sides of the river.

Later engineers faulted Potter's designs, particularly their insufficient foundations. Losses during construction occurred not only at Occum, but also during the building of the Shelton Dam and other Potter projects, a problem the engineer acknowledged when he commented, "the patter of rain upon my roof at night is to me what a battery pouring forth grape shot is to the soldier." Because of excessive scour, the Baltic Dam failed in the flood of March 26, 1876, an event that also caused \$27,000 of damage to the dam at Occum. Such events were far from uncommon, however, and rather than indicating any deficiencies peculiar to Potter, they reflect the traditional origins of the technology and its development through experience. In his day Potter was regarded as an eminent engineer. Although he retired from active practice following the Shelton project, he continued to exert an influence on the profession as one of the state's official supervisors of dams, a position in which he reviewed and approved all major dam projects in eastern Connecticut.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Section number 8 Page 5

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

Technological Significance: Power Plant

The Occum power plant represents early 20th-century American hydroelectric engineering in its fully developed state. The plant was designed by Chandler & Palmer, a local engineering firm, with what were essentially off-the-shelf components. In the first years of this century, there had been a great variety of design in turbines, generators, regulators, and powerhouses. Many early turbines and generators, for example, had been horizontally mounted, with some generators even connected to the turbine by belts and pulleys; there often were separately driven sources of exciter current. The first governors were flyball-regulated units like those on steam engines.

By about 1915, the pioneering phase was over. The perfection of the Kingsbury thrust bearing allowed vertical-shaft turbines to eclipse the horizontal-shaft units that had been adapted from mechanical waterpower usage. The vertical turbine arrangement also allowed the generator and exciter unit to be mounted on the same axis above the turbine, which was usually set in a reinforced-concrete substructure that had been built with integral turbine supports and passageways for the intake and tailrace. In place of the flyball and mechanical linkage of the early governors, the Woodward Company and its competitors perfected magnetic-induction hydraulic governors like the one at Occum, patented in 1914. Finally, the development of interconnected electric-power utilities had defined a nationwide standard of 60-cycle alternating current, thereby presenting equipment manufacturers with a growing market for components designed to a common set of specifications.

Powerhouse architecture also reached a peak. The powerhouse served two main functions: shelter for the controls and generators and support for the bridge crane that lifted the units out for service. Consequently, it was always a single story in height, though sometimes it had a mezzanine for offices or transformers. Brick and concrete construction was used for strength and fire-resistance, and tall windows provided light for the interior and, equally important, ventilation of the waste heat produced by the generators. Prior to about 1920, powerhouses often served as architectural statements of the prosperity and good taste of the utilities that built them. But by the 1930s, they were so commonplace that architectural embellishment seemed pointless. Most of the powerhouses of the 1920s and 1930s are like Occum's: simple, highly functional brick buildings with only a minimum of decoration to relieve the overall plainness.

**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number 8 Page 6

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

Subsequent developments in hydropower engineering represented relatively minor improvements. The generator at Occum, for example, incorporates a support frame patented in 1928 by its manufacturer, the Electric Machinery Manufacturing Company of Minneapolis. The Kaplan turbine's variable-pitch runner was introduced in America in 1929; although it provided slightly less efficiency at optimum conditions, its power output was far less affected by changes in head and flow, and it was selected for a number of installations built in the 1930s. By and large, however, Occum's significance is not as an illustration of pioneering ideas but as an example of standard practice, one that is relatively unchanged since its original construction.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section number 9 Page 1

Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut

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**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Continuation Sheet**

Section number Photos Page 1

**Occum Hydroelectric Plant and Dam
Norwich, New London County, Connecticut**

All photographs:

1. Occum Hydroelectric Plant and Dam
2. Norwich, New London County, CT
3. Photo Credit: HRC, Hartford, CT
4. Negative filed with Connecticut Historical Commission
Hartford, CT

Photographs 1-3, 5, 6: October 1995
Photographs 4, 7-10: February 1996

Captions:

Powerhouse, south elevation, camera facing northeast
Photograph 1 of 10

Intake gates, forebay side, camera facing north
Photograph 2 of 10

Trash sluice and forebay spillway, camera facing west
Photograph 3 of 10

Detail of gate lifter, camera facing northwest
Photograph 4 of 10

Dam, camera facing northeast
Photograph 5 of 10

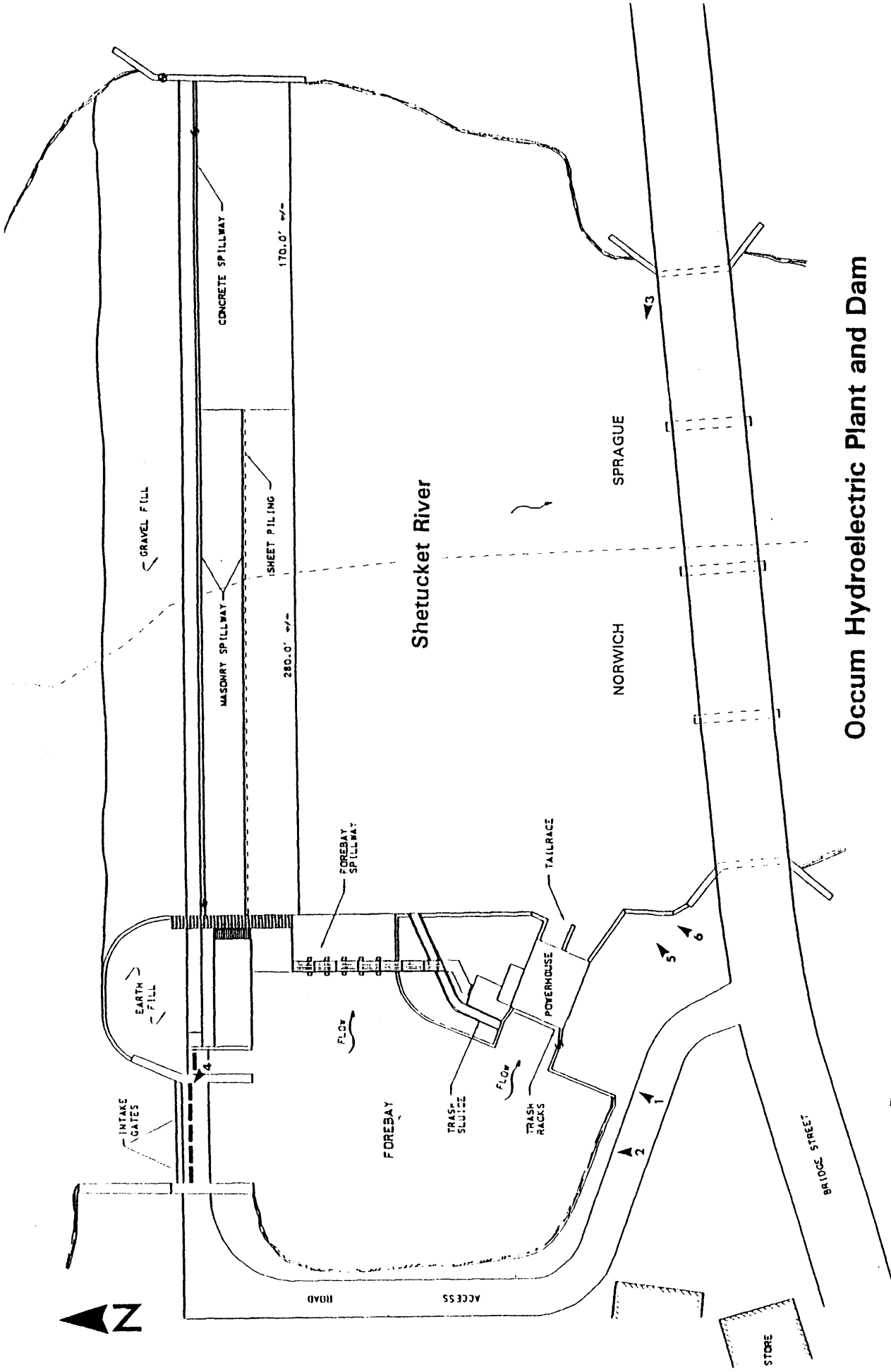
Detail of original stone part of dam, camera facing northeast
Photograph 6 of 10

Generator, interior of powerhouse, camera facing northeast
Photograph 7 of 10

Woodward governor, camera facing northwest
Photograph 8 of 10

Switchboard, north wall of powerhouse, camera facing north
Photograph 9 of 10

Bridge crane, east end of powerhouse, camera facing south
Photograph 10 of 10



Occum Hydroelectric Plant and Dam

Norwich, New London County, Connecticut

Site Plan

Exterior Photo Positions

