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 any 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: Ascutney Mill Dam Historic District

other names/site number:

2. Location

street & number _ 55 & 57 Ascutney Street not for publication _ N/A _
city or town _ Windsor _
state _ Vermont code _VT_
county _ Windsor code _027_
zip code _05089_

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, 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 ________________________________ Date ______________

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 or other official __________________________ Date ______________

State or Federal agency and bureau ________________________________

4. National Park Service Certification

I, hereby certify that this 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): ________________________________

5. Classification
Ownership of Property  
(Check as many boxes as apply)  

- X private  
- __ public-local  
- __ public-State  
- __ public-Federal  

Category of Property  
(Check only one box)  

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

Number of Resources within Property  

<table>
<thead>
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<th>Noncontributing</th>
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<td>0 sites</td>
</tr>
<tr>
<td>1 structures</td>
<td>0 objects</td>
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</table>

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

6. Function or Use

Historic Functions (Enter categories from instructions)  
Cat: Industry/Processing/Extraction  
Sub: Manufacturing facility  

- __ Industrial storage  
- __ Waterworks  
- __ Energy facility  
- __ Communications facility  
- Domestic  
- Agriculture/Subsistence  

Current Functions (Enter categories from instructions)  
Cat: Industry/Processing/Extraction  
Sub: Waterworks  

- Industrial storage  
- Museum  
- Single dwelling  
- Agricultural outbuilding  

7. Description

Architectural Classification (Enter categories from instructions)  

Federal  
Greek Revival  
No style  
Other: Gravity Stone Arch Dam  
Other: Drop Forge  
Other: Power house  

Materials (Enter categories from instructions)  

<table>
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<td>walls</td>
<td>Granite</td>
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<tr>
<td>other</td>
<td>Metal gate</td>
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</table>

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)  
See continuation sheets (7-1 through 7-4)

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.)

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

___ B removed from its original location.

___ C a birthplace or a 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

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)
See continuation sheets (8-1 through 8-9)

9. Major Bibliographical References
(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

___

Primary Location of Additional Data

State Historic Preservation Office

Other State agency

Federal agency

Local government

University

Other: Name of repository: Windsor Historical Society

American Association of Civil Engineers: National Civil Engineering Landmark program

10. Geographical Data

Acreage of Property: About 4.8 acres

UTM References (Place additional UTM references on a continuation sheet)
Zone Easting Northing Zone Easting Northing
1 18 710428 4816992 3 18 710666 4816753
2 18 710722 4816946 4 18 710549 4816778
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 Lyssa Papazian, Historic Preservation Consultant

organization ___________________________ date ____________

street & number 13 Dusty Ridge Road telephone (802) 387-2878

city or town Putney state VT zip code 05346

Additional Documentation

Submit the following items with the completed form:

X Continuation Sheets

X 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.

X Photographs
Representative black and white photographs of the property.

___Additional items (Check with the SHPO or FPO for any additional items) –Copies of historic photographs, maps, and documents

Property Owner

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

name __ See continuation sheet ____________________________

street & number __ telephone ________________

city or town __ state __ zip code __________

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 the 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 Project (1024-0018), Washington, DC 20503.
The Ascutney Mill Dam Historic District is a complex of five contributing buildings and one contributing structure located on the Mill Brook and south of Ascutney Street. Access is through a driveway next to 55 Ascutney Street and also through a driveway that leads off of Union Street. The historic district is centered at the 40’ picturesque falls of the 1834 dam, along the Mill Brook, and adjacent to the impounded Mill Pond. The district is a 4.8 acre site that includes a c. 1864 residence and barn fronting on Ascutney Road, two major 19th century industrial buildings in proximity to the water power of the dam, and the Spooner Print shop, an earlier building important in Windsor and state history that was recently moved to the site to ensure its preservation. With the exception of the Spooner Shop, the buildings and structures range in condition from poor to good but all retain a high degree of integrity of location, design, setting, materials, workmanship, feeling, and association. The Spooner Shop, though moved, is contributing because of its importance in local and state history and retains integrity of materials, workmanship, feeling and association despite a number of changes through its long use as a dwelling.

The buildings and structures have been in the care of historian and curator Edwin Battison for many years and have been preserved through his efforts. The five buildings are now all part of the Franklin Museum of Nature and The Human Spirit and are currently being preserved and stabilized by the Museum’s board with the hope that the buildings can eventually open to the public. The structure, the Ascutney Mill Dam itself, is owned by the Town of Windsor. Historically the buildings, with the exception of the Spooner Print Shop, were related to the use of the dam particularly in the mid-19th century when the Jones and Lamson Co. developed an industrial complex here. The mill-related buildings were either built in or re-arranged in 1864 to serve the needs of the Lamson Company’s industrial development there. Some of them were moved historically on the site to accommodate changing industrial uses.

1. Ascutney Mill Dam, 1834, Contributing.

The 1834 Ascutney Mill Dam is a 360’ long gravity-arch stone dam, 40’ high, 36’ wide at the base and 12’ wide at the crest. The shape of the dam in plan is a shallow arc opening to the downstream side and fitted in a cleft of natural rock that works along with the water pressure on the arc to secure the dam against failure. It is constructed of cut granite and probably has a rubble-filled core. The dam was built with a stone and cement arched culvert/floodgate and a spillway that was originally 100’ wide. It had several stone and cement power culverts at different levels to serve the various mills and also some wooden flumes near the top. Also, immediately after construction stepped granite buttressing (about 20’ wide at the base) was added just under the top coping to break up the flow of water over the 40’ face of the dam and thus to quell troublesome vibration that was caused by the long fall of water.
Around 1900, when it was being used for generation of electricity, the waterface of the dam was re-surfaced with concrete and the spillway was built up with concrete into a reverse curved coping. Between 1900 and 1952, other repairs were done including, more stone laid up on the downstream side, closing several of the culverts in the face of the dam closing several of the culverts in the face of the dam except for one c. 1864 penstock on the west that was retained (it enters the power house in a concrete sleeve), and installation of a new, modern steel and concrete floodgate. After a flood in 1927, the dam and western walls of the pond were reinforced. During the 1960’s, when the power was no longer needed and the pond was serving as a recreation area for the Town, the spillway was extended to the west about another 150’ to maintain a lower pond level and less pressure on the dam. Today there are also chain link fences protecting the flat top from trespassers. At the top of the dam are two manual steel wheels that are geared and presumably operate the floodgate and concrete penstock currently leading into the power house (# 2).

2. **Power House, 1848/1864, Contributing.**

The Power House was built as a sawmill originally in 1848 by Kendall & Lawrence on the site of an earlier gristmill (built c.1835 to replace an even earlier gristmill that was torn down when the dam builders had to add the stepped buttressing). In 1864, E.G Lamson Co. rebuilt and expanded the building as their powerhouse. It is a 2 ½-story timber frame structure built into the hillside right at the dam on stone foundations and is entered on the top or third level through the west gable end. The exterior has unpainted flush board siding, the windows are mostly boarded although a few six-pane single sash can be found still in place, the roof is patched slate tiles. On the west façade is a wide sliding door made of vertical boards and next to that a 3’ wide metal-clad entry door. Above these doors is a central barn door and above it to the left a small, narrow wooden slit opening. There are nine windows openings on the upper floor of the north façade and a few irregular window openings at the lower level. (The lowest or wheel house level has no windows). On the south façade, facing the dam, there are ten window openings (some with half sash, most boarded or open) and a few below this all boarded or infilled at irregular intervals. The east gable façade facing the Mill Brook has four levels starting with the rough stone foundation and arched discharge opening in the brook. There are two window openings in the stone foundation above the arch in the wheelhouse level. The two frame levels above this each has three shuttered windows and there are two small square windows in the gable peak. The siding of the lower stories was missing and has been stabilized with plywood. There is still horizontal flush board siding above this. The brook level is where the wheel house was. The power equipment was a turbine in 1864 and is likely now buried. Presently, there is a 1900 Rodney Hunt Turbine in place. There is a pulley system for running machinery still in place on the second floor and an 1864 power penstock running from the dam in an early 20th century concrete casing.
3. **Drop Forge/Sawmill, 1864/1870, Contributing**

The Drop Forge/Sawmill was originally built in 1864 as a one-story drop forge for the E.G. Lamson Co. armory and was located on the west bank of the Mill Brook, just downstream of the power house (# 2) and the dam (# 1). The drop forge was moved west up the bank in 1870 onto a new slate foundation creating a lower story. It became a sawmill. The Drop Forge/Sawmill is approximately 100’ long and has a heavy timber frame. Recent renovation work has included the selective in-kind replacement of exterior materials, the replacement of the slate foundation with a new, higher concrete foundation, the resetting of the building and its existing frame onto new metal girders to allow a greater bay span at the ground level. The exterior is clad in wood shingles, some of which have been replaced in kind recently. The roof is modern ribbed metal roofing and has three large shingle-sided gabled monitors that are each glazed with two 20-pane windows on each side. On the interior there is still plastering on the old drop forge section including the walls and ceiling – for fire retardancy. The large space is one open shop room with exposed roof rafters and cathedral ceiling.

4. **55 Ascutney Street, House, 1864, contributing.**

This simple Greek Revival style 1½-story, three by three bay, frame house was built in 1864 by Mrs. Russell, a daughter of original Ascutney Mill Dam Association proprietor Jeremiah Hubbard and was built the same year that a great deal of construction occurred at the dam site. The house is gable front with a side hall plan. The front door, in a paneled recess, is flanked by simple ¾ length sidelights within a Greek Revival stylized fluted surround with projecting flat corner blocks. The windows have plain surrounds and six-over-one light replacement sash. The roof is sheathed in asphalt shingles with a simple eave overhang slightly molded. There is a small shed dormer on the south side towards the rear with a double window and another on the north side. The house has two brick chimneys, a wide flat frieze under the eave and plain corner boards with no cornice return. There is a 2-story rear gabled wing that is about two-thirds the size of the main house and has a shallower pitched roof to accommodate a two-story covered side porch that brings the roof out to the width of the main house. The house sits on a rough granite foundation and has a walk-out basement on the east façade fronted by a concrete wall.

5. **55 Ascutney Street, blacksmith shop/shed, c. 1870-1880, contributing**

The small frame building now used as a garage and shed is a simple unpainted barn-like structure entered on the gable end. It does not appear on the 1869 Beers Atlas. According to Mr. Battison,
it was originally a blacksmith shop and later is shown on maps as an Ice Cream Factory with an addition (no longer extant) to the south which was the ice house. The roughly 15’ by 25’ building is clad with clapboards and has a metal roof on the west side and a tar paper roof on the east. There are two windows (now boarded) on the east façade, a window (partially missing) over the garage opening on the north façade, and a single extant six-over-six window on the west façade. Also on the west façade is siding evidence that there were large door openings on this side.

6. **Alden Spooner Print Shop, c. 1783/1860/1995, contributing**

This simple frame and clapboarded two story gable roofed duplex started out in c. 1783 as Alden Spooner’s print shop and was in the village. It was re-located to this site from 5-7 Ascutney Street in 1995 for its preservation when it was threatened with demolition. It had been moved to Ascutney Street at some unknown point in the past. The house with some Federal style details is in poor condition but is being stabilized by the Franklin Museum of Nature and the Human Spirit. It has regular symmetrical fenestration on the five bay eave front (east) façade and two early 20th century five-panel doors in the center. This arrangement appears to have been a later renovation as the surrounds of the windows and doors of the front façade are quite simple with flat trim, a flat lintel that projects very slightly past the jambs, and a narrow flat cap. However, the surrounds on most of the windows on the side facades and the eaves and cornice all have simple Federal Style trim with ovolo moldings above a recessed cavetto molding. The rear (west) façade has the open scar of a removed centered rear 1 ½ story wing. The roof is sheathed in asphalt shingles. The brick foundation was built when the structure was moved. The interior shows the two-over-two light window sash which are boarded on the exterior and generally 19th century finishes. The exterior walls have accordion and riven lath which supports the early original date. The exterior clapboards are fairly narrow and thin.
The Ascutney Mill Dam Historic District, including a National Civil Engineering Landmark (the 1834 stone arch gravity dam) and a group of industrial, residential, and commercial buildings, represents a very important part of Windsor’s heritage. The Mill Brook and the water power that so many drew from it was harnessed and utilized through human ingenuity and enterprise embodied in the design and construction of the dam, and the examples of early industrial and commercial architecture. This district is significant in the areas of engineering, architecture, industry, commerce, and community development.

The district is a 4.8 acre complex that includes a c. 1864 residence (#4) and blacksmith shop/shed (#5) fronting on Ascutney Road, the 1834 Ascutney Mill Dam (#1), an adjacent 1848 sawmill that was re-built and expanded in 1864 as a powerhouse (#2), a nearby 1864 drop forge that was re-positioned on the site and refitted as a sawmill in 1870 (#3), and the Spooner Print shop (#6), an earlier building important in Windsor and state history that was recently moved to the site to ensure its preservation. Historically the buildings, with the exception of the Spooner Print Shop, were related to the use of the dam particularly in the mid-19th century when the Jones and Lamson Co. developed an industrial complex here. The mill-related buildings were either built or re-arranged to serve the needs of the Lamson Company’s industrial development. Some of them were moved historically on the site to accommodate changing industrial uses. They represent the utilitarian architecture designed to serve the industrial processes they housed. The manufacturing buildings of the 19th century were commonly called “The Works,” according to a 1999 book of the same title by Betsy Hunter Bradley, underscoring the subservient nature the architecture played to the industrial process.

The two main industrial buildings of the district - the Sawmill/Powerhouse (#2) and the Drop Forge/Sawmill (#3) - exemplify both the type of mid-19th century manufacturing buildings that were common as well as the malleable nature of those buildings to adapt to what was often a parade of different corporate owners and products to be produced within the structure. The Sawmill/Powerhouse (#2) is a long, relatively narrow building built into the steep rocky hillside just downstream of the Ascutney Mill Dam. Typical of 19th century industrial buildings, it is frame and gable roofed with many windows on the upper two work floors for natural light. Early factory buildings were narrow – usually no more than 35 – 40 feet wide so that natural light could reach the entire working floor. Basic heavy timber frame construction was also typical of early factories and this sawmill was no exception with a well braced frame and regular bays. The banked nature of the building allows entry on two levels – from the gable end to the top floor and from the side elevation to the middle floor. Above and below these are additional spaces for attic storage and access to the power equipment in the brook. Versatility was possible through this arrangement. This building was rebuilt and re-fitted in 1864 as a powerhouse and a flume was connected directly from the dam to the lower level and turbines. The length of a factory largely
depended on the manufacturing process as well as the limits of the power train. The power train through the building provided vertical transmission to all floors from turbines that were more efficient than the earlier water wheels and were also centered under the building. It would have transmitted power to the 1864 Drop Forge (#3) built adjacent. As a forge, this building has plastering on the interior for fire retardancy as well as a roof monitor allowing for steam and smoke escape, another typical feature of these mid-century factories. In 1870 this Drop Forge (#3) was moved up the bank and raised onto a new slate foundation to give it vertical opportunities for power transmission to its new use as a sawmill serving a new cotton manufacturing facility. The expanded sections have no plastering and are unfinished on the interior. Again the power would have come from the Powerhouse (#2) and transmitted to the sawmill. The 1870 refit of the building as sawmill includes the large open shop room made possible through the use of trusses instead of multiple posts with a cathedral ceiling and represents a more common trend in the development of factories where the work floor needed to be as free of obstacles as possible in large scale operations such as a sawmill. The contrast between the Sawmill/Powerhouse (#2) representing a smaller scale sawmill of 1848 and the Drop Forge/Sawmill (#3) representing a more efficient sawmill design of 1870 is significant.

The other buildings on the site are part of residential and commercial traditions in Vermont including the vernacular, very simple architectural style of the complex’s house at 55 Ascutney Street (#4) nevertheless touched by the prevalent Greek Revival architecture so emblematic of Vermont’s early 19th century growth. The two commercial properties include the very early c. 1783 Spooner Print Shop (#6) which although altered in the 19th and 20th centuries for residential use nevertheless retains the sense of the simplicity of the very early commercial buildings that were often indistinguishable from homes. Its original site on Main Street next door to some of the most architecturally sophisticated homes of Windsor including the Abner Forbes House, the Zebina Curtis House, the John Skinner House and the demolished Asher Benjamin-Hubbard House, is characteristic of the early 19th century village development patterns that freely intermixed commercial, institutional, and even light industrial properties with even the wealthiest homes. Strict divisions between these uses as is seen in later development of industrial and worker neighborhoods, was not a concern for early residents for whom working and living in the same place was as natural as it had been on the many surrounding farms. The other commercial building, the Blacksmith Shop/Shed (#5), now appears very like any accessory barn or shed to a residence but was also part of the above mentioned trend of blending commercial, even light industrial uses with residences. As a small neighborhood blacksmith shop, the building likely had a chimney no longer extant, but as an available accessory shed it was typical of many very modest commercial ventures found next to homes when it briefly became an ice cream shop and
ice house in the early 20th century. It’s exterior simplicity belies the interior accommodations that were likely made for these uses.

In all, the buildings of the historic district are a collection of resources that architecturally tell a story about how Windsor developed and operated during different times in its past. They are also specially associated with the significant history of the industrial companies and associations that used and developed the dam and its related resources from the beginnings of Windsor’s founding to the 20th century.

The significance of the Ascutney Mill Dam and its associated industrial resources relates to the history and significance of the Mill Brook and its early industrial uses. To fully understand the importance of the dam and its industrial complex, it is essential to tell the story of three different sites: the upper falls where the Ascutney Mill Dam Historic District is located, the middle falls, where the National Historic Landmark Robbins & Lawrence Armory is located, and the lower falls where the ruins of a gristmill is located just below Windsor’s Main Street.

The Mill Brook in Windsor with its three natural falls creating a 60’ drop in 1/3 of a mile, was the reason for the location of the settlement of Windsor in 1764. Although the first settler was apparently Captain Steel Smith, the first industrial development was Israel Curtis’ sawmill and log dam at the upper falls (at the present location of the Ascutney Mill Dam) and his gristmill and log dam at the lower falls both constructed by 1769. Soon afterward, another sawmill was built by Thomas Cooper above the gristmill at the “middle falls.” For many years, the grist mill and lower sawmill were the most important in town. Town records of 1770 record a vote to raise a bridge over the Mill Brook between the gristmill and Cooper’s sawmill (i.e. where Main Street is now). By 1772, Elisha Hawley owned the gristmill. According to historian Edwin Battison, the 1764 gristmill was rebuilt in 1791 and was soon owned by Jonathan Hubbard. The 1791 mill foundations and stone walls are extant below the Main Street Bridge and were the subject of archaeological investigations and some restoration work in 1991. The stone grist mill was surveyed by Sanborn in 1884 along with an adjacent frame structure at the dam although both were listed as “vacant.” The site of the sawmill (west of Main Street at the middle falls and dam) became part of the machine shop operations later in the 19th century and is now occupied by the NAMCO Block apartment house. According to Arthur Stone in Vermont of Today, a small carding mill on the brook was expanded into a woolen factory by the Essex Merino Association around 1811 but this business failed by 1818. He does not note where the buildings were located but he further reports that they were taken over in 1827 by John M. Cooper to build his “Rotative Piston Pump.” This design failed shortly thereafter along with the business. However, it is likely
that the buildings were at the north bank of the middle falls where the “American Hydraulic Co.” is listed around 1835 in the records of the Dam Association proprietors.

The 1820 Census of Manufactures for Windsor County reports a major cotton mill employing 100 men (S. Cutting) and a smaller cotton & woolen mill that listed only one woman employee and was running only one of its six looms with a note “very unprofitable.” In addition there were three tanneries (running two bark mills), an oil mill, a hatter, a potash works, brick manufacturer, and shoe maker. (Henry Steele Wardner writes in Birthplace of Vermont. that Elisha Hawley who owned the gristmill was also a shoemaker.) Several of these were likely utilizing the Mill Brook. The upper falls was a single forty foot drop and probably supported the large cotton mill at an early wooden dam that was removed when the present dam was constructed in 1835. The journal of the toll taker at the Cornish-Windsor bridge yields an insight into the Mill Brook industries. In 1825, he wrote that the year was so dry that the mills had to shut down for three months. The earlier dams may not have been sufficient to sustain the mills year round and by 1834, the Ascutney Mill Dam Association was formed and sought to build a major new masonry dam at the upper falls to more fully develop the water power available on the Mill Brook.

Ascutney Mill Dam was built in 1834 at the site of the earlier log dam, in a narrow cleft of rock on the upper falls of the Mill Brook. It is a 360’ long gravity-arch stone dam, 40’ high, 36’ wide at the base and 12’ wide at the crest. According to historian Edwin Battison, it is one of the first two major arch stone dams in North America. The other was the 1832 Jones Falls Dam on the Rideau Canal in Ontario. The Windsor dam was commissioned by the Ascutney Mill Dam Association and was built by Simeon (General) Cobb, 2nd of Westmoreland, NH, who had helped build several early railroads and a canal. From the record book of the Association (in the collection of Edwin Battison) it appears that the dam’s design evolved during construction. Ithamar A. Beard, an engineer of some prominence in New England, had surveyed the mill brook and selected the best site for a storage dam. The advertisement for bids indicates that the dam was not originally conceived as a gravity arch dam. Contractor Simeon Cobb, knowledgeable of contemporary civil engineering practices, made major changes to the dam's original design, converting the linear dam into a gentle arch. Joseph Mason of Lebanon, NH, was eventually appointed superintendent. The records of the Dam Association indicate that the proprietors probably worked closely with Cobb and Mason on the construction and design, especially on the power culverts and flumes. The Ascutney Mill Dam is significant as one of the earliest large stone arch dams in North America and was recognized in 1970 as a National Civil Engineering Landmark.
Ascutney Mill Dam Historic District
name of property
Windsor, Windsor County, Vermont
Town, County and State

The Ascutney Mill Dam is constructed of cut granite and probably has a rubble-filled core. The dam was built with a stone and cement arched culvert/floodgate and a 100’ spillway. It had several stone and cement power culverts at different levels to serve the various mills and also some wooden flumes near the top. The dam continued to evolve after it was opened. When the 40’ straight fall of water over the dam caused troublesome vibration in the village, stepped granite buttressing (about 20’ wide at the base) was added just under the top coping to break up the flow of water over the face of the dam. The dam proved to have a very sound ratio of height to base that is still well within safety standards and so has lasted largely intact.

As with many Vermont dams that formerly powered industrial uses, in 1898 the underused facility made its next major transition to the generation of electricity. At that time, the waterface of the dam was re-surfaced with concrete and the spillway was built up with concrete into a reverse curved coping. Between 1900 and 1952, other repairs were done including, more stone laid up on the downstream side, closing several of the culverts in the face of the dam except for one c. 1864 penstock on the west that was retained (it enters the power house in a concrete sleeve), and installation of a new, modern steel and concrete floodgate. After a flood in 1927, the western walls of the pond were reinforced. During the 1960’s, when the power was no longer needed and the pond was serving as a recreation area for the Town, the spillway was extended to the west about another 150’ to maintain a lower pond level and less pressure on the dam.

The records of the Ascutney Mill Dam Association of 1835 list other assets including two timber dams at the middle and lower falls along with associated buildings. According to Guy Hubbard in his *Windsor Industrial History*, the Association rebuilt and improved these dams. The lower dam supported the stone gristmill and a small group of frame buildings at the middle falls were occupied briefly by the American Hydraulic Co, manufacturers of pumps and fire engines, as noted before. The construction of the upper dam necessitated the closing of Union Street until new bridges could be built and houses had to be relocated or removed. By 1836, the Association was financially troubled, unsuccessfully trying to sell sites with water rights at the middle dam and on the east side of the upper dam. Eventually, by 1845 the middle falls property was developed on a large scale by the Robbins, Kendall, and Lawrence Co., manufacturing army rifles. According to Mr. Battison, sometime in the 1850s a foundry was built at the lower dam. But the upper dam site was not fully developed until 1864 when large scale mill buildings were constructed there by the Lamson Co., a successor of Robbins, Kendall, and Lawrence. In the 1860s – 1880s machine tools, cutlery, firearms, and cotton were produced at the upper and middle dams. At the lower dam, the 1869 Beers Atlas shows that the gristmill and foundry (a large building labeled “furnace”) were joined by a blacksmith just below the gristmill on the
north bank. The foundry is still there on the 1889 Sanborn Map and photographs dated to 1898 and c. 1910-17 show both the 3-story stone gristmill and a 3-story frame building opposite across the brook. An 1886 birds eye view of Windsor shows a large gable-roofed building and attached wheelhouse at this location.

In 1884, the Sanborn Survey shows the water-powered Lacey and Weld Coffin manufacturers located just north of Union Street on the Mill Brook but not at a particular dam site and possibly served by the upper dam if at all. (By 1906, the buildings are occupied by H.E. Morrill Wood Working and are both water and steam powered. The site is occupied by dwelling houses today.) From 1898 until approximately 1952, the Ascutney Mill Dam was used primarily for generating electricity, although the 1906 Sanborn map indicates the Kennedy sawmill operating in the former drop forge/sawmill (#3) building at the upper dam were still partly water powered. The rest of the buildings were vacant, except for the small former blacksmith shop (#5) near the Russell dwelling (#4) which has an addition and is labeled “Ice cream factory and ice house.” The sawmill was still operating with water power in 1917 as the “Buena Vista Sawmill” but the ice cream factory was simply labeled “shed.”

Perhaps the most notable industry on the Mill Brook was Robbins, Kendall, and Lawrence (later simply Robbins and Lawrence). Their quick success with a U.S. army contract for rifles in 1845 led to considerable development at the middle dam site. The machine shops and mills on the north bank were expanded and a new large armory and machine shop was constructed on the south bank, now the American Precision Museum and listed as a National Historic Landmark.

Nicanor Kendall had started making guns at the Windsor Prison (a site soon to be listed in Windsor Village Historic District – 2006 Boundary Increase) in the National Hydraulic Company shop of his father-in-law, Asahel Hubbard who was also the warden. (After the failure of the Cooper pump of the American Hydraulic Co., Hubbard secured a patent on a successful design for the Revolving Hydraulic Engine, which he manufactured with prison labor using an early version of the Interchangeable System in Windsor.) In 1838, the firm was taken over by Kendall as “N. Kendall & Co.” and switched to gun manufacturing. At about the same time, a young mechanic and designer named Richard S. Lawrence joined the Kendall firm and in 1843 he and Kendall opened a gun shop in an existing building on the Mill Brook. By 1844, businessman S.E. Robbins had joined the firm and urged them to bid on a very large U.S. Army rifle contract. When this bid was successful, the firm had to immediately gear up to fulfill the contract by constructing adequate facilities and tooling the factory for production with limited man-power. They developed the sites along the Mill Brook with many new buildings including the 1848...
sawmill (#2) they constructed on the site of a c. 1835 gristmill next to the Ascutney Mill Dam at the upper falls.

This enormous challenge led Richard Lawrence and later, his mechanical colleagues Frederick Webster Howe and Henry D. Stone, to not only manufacture rifles but to develop new and innovative machine tools to improve the process. They were instrumental in furthering the development of the Interchangeable Process or what eventually became known as the American System of manufacture based on the use of interchangeable machine parts. In addition, to accomplish this, they developed many basic machine tools that remain largely unchanged in the designs used today. The success of Robbins and Lawrence was capped by an international medal for their rifles at the 1851 Crystal Palace Exposition in London. However, this recognition also led to British orders for both the machine tools and thousands of rifles that eventually were the firm’s undoing. Having overextended themselves to complete these orders, they failed in 1853 when most of the rifle orders did not materialize.

In 1859, a company called Lamson, Goodnow, and Yale were using the facilities for a variety of products including sewing machines. In 1864, E.G. Lamson & Co., the successor to Lamson, Goodnow, & Yale, constructed a manufacturing facility for firearms and machine tools at the upper, main dam and built most of the structures there. The Kendall & Lawrence sawmill (#2) was rebuilt into a power house and a long frame drop forge (#3) was built just south of it on the bank of the brook. An early c.1864 photograph in the collection of Edwin Battison shows the buildings just after construction, including another mill building not extant. The drop forge was used by Lamson to manufacture the Springfield Rifle as well as the Ball and Palmer breech-loading and repeating rifles.

A bad flood in 1869 led to a reorganization of the company and rebuilding of the facility. The firm became Jones, Lamson, and Co., although on the 1869 Beers Atlas it was shown as the Windsor Manufacturing Co. and owned and operated the buildings at both the upper (“cutlery”) and middle (“armory, machine tools, and sewing machines”) dam sites. In 1870, they started a woolen mill at this and the middle falls locations. The drop forge (#3) was moved at this time west up the bank onto a new slate foundation creating a lower story. It became the sawmill for the woolen mill. The company built a very large brick finishing (fulling) mill building in the former location of the drop forge along the brook and adjacent to the power house (#2). Although much of the woolen operation took place at the old Robbins and Lawrence armory on the middle dam, the fulling process would have caused too much vibration for the 1846 timber frame structure and so a location at the upper dam was created to accommodate a brick building.
In 1906, the Sanborn map shows Site #3 as a sawmill with an “underground shaft” connecting it to the powerhouse (#2). At that time the whole property is labeled “Vacant Factory, F.A. Kennedy, owner.” The large brick woolen finishing house was still there but shown as “lumber storage.” Kennedy was the developer in 1898 of the dam’s hydro-electric capability with a facility at the middle falls. He also owned and for a short time developed a water and electrically powered sawmill here. Sometime after 1941, the brick building was demolished.

While the stone dam itself, the mill pond, and the industrial buildings remaining at the upper falls are key resources within the Ascutney Mill Dam Historic District, the residential property (#4 & #5) was also associated with the proprietors and companies that ran mills along the brook and further contributes to its significance. 55 Ascutney Street (#4) was built in 1864 by Mrs. Russell, a daughter of Jeremiah Hubbard who was one of the original Ascutney Mill Dam Association proprietors as well as a prior mill owner. The house was built the same year that a great deal of construction occurred at the dam site. The structure that now serves as the barn was a blacksmith shop and then an ice cream factory and furthers the theme of industry and commerce as does the latest addition to the collection of Museum buildings - the Alden Spooner Printing Shop (#6).

The Spooner building (#6) was re-located to the site from 5-7 Ascutney Street in 1995. It had originally stood in another location and was moved to Ascutney Street some time in the past. According to historian and curator Edwin Battison who most recently re-located it, the building served as the Alden Spooner print shop, where state documents and the Vermont Journal were printed, from 1783 to about 1819. The Spooner shop used the famous “Dresden Press” which was named for the original location of the shop in Dresden (later Hanover) New Hampshire on the campus of Dartmouth College. This was the press on which the first Vermont State documents including the first set of statutes were printed and also very likely the first press used in Vermont. Spooner in sometime partnership with his brother Judah Paddock Spooner and also with George Hough, were the first official state printers for the new entity of Vermont. In 1778, the Spooner brothers along with Timothy Green, had moved their old press up to Dartmouth from Connecticut to serve the needs of the emerging state of Vermont. At the time, the western towns of New Hampshire along the Connecticut River valley were included in the first boundaries of Vermont. Later, when the New Hampshire towns were no longer included, the legislature urged and assisted Alden Spooner to move his press and shop to Westminster to be within the new boundary. Spooner did move his shop and press to Westminster in 1779 but it failed there under the management of his brother Judah Paddock and Timothy Green in 1783. At that time Alden Spooner and George Hough, who purchased the press and type, moved the press and shop to Windsor. There, in the Federal style building (#6) Spooner and Hough started Vermont’s third newspaper called The Vermont Journal and Universal Advertiser on August 7th,
1783. Spooner operated from Windsor for at least the next 35 years and shared much of the state’s official printing work with the Bennington printer, Anthony Haswell. The Vermont Journal continued to be published in Windsor for many decades but was moved to the Constitution House and then in 1829 to the Pette-Journal Block at 60 Main Street by subsequent editor/printers. It is likely the building shown on the 1853 Bloten and 1869 Beers maps as “P. Merrifield.” Some of the documents collected on the history of the “Dresden Press” trace it and the print shop as passing to Preston Merrifield of Windsor some time after Spooner’s death. It s

The “Dresden Press” itself has been in the collection of the Vermont Historical Society since about 1895. Documents related to the press in the collection of the Vermont Historical Society include the 1827 probate inventory of Alden Spooner’s estate. The inventory lists his real estate and his effects which include the Dresden Press as well as “The homestead or mansion house of the deceased situated in Windsor with about one three fourths of an acre of land with the printing office and house occupied by Preston Merrifield on the same land.” By the 1855 Bloten map of Windsor, “P. Merrifield” is shown on the west side of Main Street near the Evarts houses and again in this location on the 1869 Beers Atlas. The Beers also lists “P. Merrifield” as a merchant of books and stationery on Main Street and shows the business in the Merrifield Block (built in 1849) at 86 Main Street. According to Edwin Battison, who researched the shop, the building was originally located on Main Street north of the Stoughton House which correlates to the “P. Merrifield” property on the two maps. This location is presently occupied by the Trinity Free Evangelist Church (44 Main Street) built in 1943. It seems likely that the Spooner Print Shop/Merrifield building was moved to 5-7 Ascutney Street at that time. The 1941 Sanborn Fire Insurance map shows a building of similar footprint still in the 44 Main Street location. It was moved again, to the present location, in 1995 when the several buildings on the 5-7 Ascutney Street site were slated for demolition to make way for a large addition to the State Street School. While a re-located building does not ordinarily meet the National Register criteria, the importance to Windsor and the state of the Spooner Shop appears to meet the Criteria Exception #B and is a contributing part of the district celebrating Windsor’s industrial and commercial past.

The Ascutney Mill Dam Historic District, is a complex of industrial, residential, and commercial resources that tell an important story of Windsor’s rich history from its early founding to its important role in the establishment of the fledgling government of the state of Vermont to its industrial prowess throughout the 19th century to the 20th century adaptations made for an obsolete water powered economy. Its protection is a significant collaboration between the town of Windsor and the Franklin Museum of Nature and the Human Spirit and also represents the unique vision and commitment to Windsor’s significant history of curator and founder of the Franklin Museum, Edwin Battison.
Bibliography


*American Machinist*. Vol. 61, No. 7.


Central Vermont Public Service Company. Site Plan Map of Windsor, 1941.


Manning’s Windsor Directory, 1931

Manning’s Windsor Directory, 1918-19

National Register Nomination for The Robbins & Lawrence Armory, and 1974 survey form for “Ascutney Mill Dam Historic District,” both at VT Division for Historic Preservation.


Ascutney Mill Dam Historic District: name of property
Windsor, Windsor County, Vermont
Town, County and State


Unpublished documents related to the Dresden Press in the collection of the Vermont Historical Society
Verbal Boundary Description:

The boundary follows the tax parcel lines for 55 & 57 Ascutney Street which are tax parcels #020055.000 & #020057.000) and the Ascutney Mill Dam.

Boundary Justification:

The Ascutney Mill Dam Historic District is narrowly drawn to include the significant Ascutney Mill Dam and the small cluster of related industrial and residential buildings that are immediately adjacent and are also all part of what was until recently a single tax parcel. This reflects the group of resources collected and protected by historian and curator Edwin Battison, some of which are now owned and protected by the Franklin Museum of Nature and the Human Spirit. In the future, this small core district could contribute to and be part of a Multiple Property Documentation Form for all Mill Brook and Ascutney Mill Dam related resources in Windsor.

The adjacent 73-acre Mill Pond, also called “Crystal Lake,” now serves as the town’s recreational swimming beach and also fronts extensively on private lands. Though a part of the historic setting for the district, it has been excluded from the boundaries.
Ascutney Mill Dam Historic District
Windsor, Windsor County, Vermont

Sketch Map (Not to scale)
September 13, 2006
By L. Papazian

Map Key
- District Boundary

- Contributing Property
(Note: No non-contributing properties)
Photograph Labels

The following information is the same for all photographs: Ascutney Mill Dam Historic District, Windsor, Windsor County, Vermont. Digital images on CD-R are filed at Vermont Division for Historic Preservation.

Credit: L. Papazian, April, 2006

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