JUN. 19 1989

NPS Form 10-900
(Rev. 8-86)

OMB No. 1024-0018

United States Department of the Interior
National Park Service

AUG 01 1989

NATIONAL REGISTER

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name	Sawyer Woolen Mills
other names/site number	Sawyer Mills

2. Location

street & number	One Mill Street	N/A	☐ not for publication
city, town	Dover	N/A	☐ vicinity

state New Hampshire code NH county Strafford code NH017 zip code 03820

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
		Contributing	Noncontributing
☒ private	☐ building(s)	15	____ buildings
☒ public-local	☒ district	____	____ sites
☐ public-State	☐ site	7	1 structures
☐ public-Federal	☐ structure	____	____ objects
	☐ object	22	1 Total

Name of related multiple property listing: N/A

See Continuation Sheet

Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ■ 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. ☐ See continuation sheet.

R. Stuart Wallace — July 27, 1989

Signature of certifying official — Date

NEW HAMPSHIRE

State or Federal agency and bureau

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

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

☒ entered in the National Register.
☐ See continuation sheet.
☐ determined eligible for the National Register. ☐ See continuation sheet.
☐ determined not eligible for the National Register.

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

Beth L. Savage — 9-13-89

for Signature of the Keeper — Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)

INDUSTRY/manufacturing facility

Current Functions (enter categories from instructions)

DOMESTIC/multiple dwelling

7. Description

Architectural Classification (enter categories from instructions)

LATE VICTORIAN
Other: Lombard Romanesque
Second Empire

Materials (enter categories from instructions)

foundation granite
walls brick
roof slate
other wood

Describe present and historic physical appearance.

SUMMARY DESCRIPTION

Sawyer Woolen Mills is a multi-building brick textile mill complex situated astride the Bellamy River in Dover, New Hampshire. The sprawling 8.5 acre± complex, in excellent condition, remains almost entirely intact, conveying strong imagery from the peak period of its operation during the closing decades of the nineteenth century. (See Property Map) Bounded by the Boston & Maine Railroad (abandoned) to the east and by Central Avenue and Back River Road on the west, the irregular polygonal site is bisected by Mill Street, which runs roughly northwest - southeast. A narrow paved service lane provides access from Back River Road to the portion of the site south of the river. The site is approximately one mile south of the urban core of Dover, and nine miles from Portsmouth and the Atlantic Ocean. The Sawyer Mills complex, composed of connected building groups, is organized around the principal mill structures (Mills No. 1 - 4), which lie on opposite banks of the Bellamy River. (Mills No. 1, 2, and 4 are on the north bank; Mill No. 3 is on the south bank.) The Bellamy River, the original power source for driving the mills' looms, carding machines, and other equipment, is a significant natural site determinant which meanders picturesquely through the site on its way to the sea. The irregularity of the site is further expressed by the steep bluff on the east, forested ledge outcrops on the undeveloped southwest portion, and the terraces to the north and northwest. Elevation above sea level ranges from 40 to 80 feet, creating uneven multiple levels among the buildings. These site characteristics are reflected architecturally by a network of dams, bridges, ramps and stairs which provide inter-communication between mills, storehouses, and utility buildings as they follow the contour of the valley walls. A tall, tapered brick smokestack with decorative cap rises amidst the center of the complex, adding a strong vertical element and sense of scale to the buildings spread out along the valley floor below. All of the manufacturing buildings and storehouses, and the office, are of common red brick; the timber-and steel-framed bridges are open or sheathed with painted vertical boarding. Three stairtowers, one supporting a belfry capped with the original weathervane, contribute further punctuation to the interconnected character of the riverine/industrial environment. The integrity of original location, setting, plan, building design, materials and workmanship is well preserved at Sawyer Mills; and these elements combine to convey the feeling and association of significance in nineteenth-century mill architecture and textile manufacturing.

[X] See continuation sheet

8. Statement of Significance

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

☐ nationally ☒ statewide ☐ locally

Applicable National Register Criteria ☒ A ☐ B ☒ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)
Architecture
Industry

Period of Significance
1873 - 1939
1873 - 1939

Significant Dates

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Unknown

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

Sawyer Mills is a well-preserved industrial complex which is significant in the history of nineteenth- and early twentieth-century New England textile manufacturing (Criterion A) and in the design of nineteenth-century textile mill architecture (Criterion C). The qualities of significance in history and architecture are expressed in the riverine mill site and the buildings and structures, which retain integrity of original location, design, setting, materials, and workmanship; and which convey feeling and association of the period of significance for architecture (1873 - 1939) and the period for industry (1873 - 1939). Sawyer Mills represents a significant theme and period in local, state, and regional historical development (growth and decline of the New England textile industry, c. 1800 - 1955), and is an example of a significant property type (textile mill architecture). Sawyer Mills is an industrial complex of statewide importance, in two principal areas of significance: Architecture and Industry. The period of significance commences with the construction of the initial elements of the complex in 1873, and terminates by 1939 when the physical grouping reached its full extent. The plan and architecture of the brick masonry complex remain essentially intact from the period of construction (1873 - 1939). The buildings span the continuum of mid-nineteenth century mill design, expressed in three architectural styles: Greek Revival, French Second Empire, and the utilitarian Lombard Romanesque. The succession of these designs is preserved because expansion was accommodated by the addition of new buildings, rather than alteration of the original structures; this is boldly illustrated in the varied roof treatments observable in No. 4 and No. 2 Mills. As the best-preserved woolen textile mill in New Hampshire, the broad interpretive value of the complex relies not only on the largely unaltered state and differentiated designs of the manufacturing buildings, but also on the preservation of its related utility structures (including connecting bridges, granite powerdams, railway siding, boiler house and chimney). Complementing the building exteriors are the original Sawyer corporate offices, a rare, possibly unique, surviving entity of richly adorned spaces, which possess high artistic value and represent the work of master craftsmen of the High Victorian period. In the area of industry, Sawyer Mills achieved significance during the Reconstruction period, when the earlier, obsolete buildings were razed and the present (then modern) unified plant was built, becoming a major employer in Dover and the largest woolen mill in New Hampshire. Atypical of textile mills of the period, Sawyer Mills was founded and managed solely by family interests from 1824 until 1899. Additionally, the firm

☒ See continuation sheet

9. Major Bibliographical References

[X] See continuation sheet

Previous documentation on file (NPS):

[X] 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
[X] University
[X] Other

Specify repository:

Closs Planners Inc., Concord, NH
Baker Library, Harvard U., Cambridge, MA
Frost-Sawyer Papers, NH Historical Society, Concord, NH

10. Geographical Data

Acreage of property 8.5 acres ±

UTM References

	Zone	Easting	Northing
A	19	347500	4782175
B			
C			
D			

[X] See continuation sheet 10.2 USGS Map

Verbal Boundary Description

Description of the boundary of Sawyer Mills is shown on the accompanying Property Map as the heavy, unbroken black line circumscribing the entire 8.5 acre ± parcel.

[ ] See continuation sheet

Boundary Justification

The boundary of Sawyer Mills is delineated by the legally recorded lot lines, which encompass the historic manufacturing buildings, office, utility bridges and chimney, storehouses, and upper and lower mill dams, thus excluding all unrelated property, save a Pumping Station (c. 1964).

[ ] See continuation sheet

11. Form Prepared By

name/title Christopher W. Closs, consultant, with Valery Mitchell and Woodard D. Openo
organization Closs Planners Inc. date June 14, 1989
street & number 8-1/2 North State Street telephone 603-224-6714
city or town Concord state New Hampshire zip code 03301

Resource Count

The rationale used for determining the Resource Count for the complex is as follows:

1. No. 2 Mill and Annex - the No. 2 Mill and Annex were constructed together in the same year and thus constitute one building.

2. No. 4 Mill and Washroom - No. 4 Mill was originally the Office and Counting Room built with an employee lavoratory appended to it. In 1882 it was superseded by the new Office (Site #9) and became manufacturing space; at that time a second level was added to the Washroom. It is, therefore, counted as one building.

3. Dry Room / Carpenter Shop - a single free-standing building built in one campaign.

4. Boiler House - Originally built for the explicit purpose of housing the boilers.

5. No. 3 Storehouse - built as a free-standing building (although later No. 4 Storehouse was built between No. 3 Storehouse and No. 5 Storehouse).

6. Machine Shop - Built as a machine shop and located next to No. 3 Storehouse.

7. No. 5 Storehouse - built as a free-standing building (although later No. 4 Storehouse was built between No. 5 Storehouse and No. 3 Storehouse).

8. No. 1 Mill and Addition - built as the Dye House; construction for both took place in the same year, and are thus considered to be a single building.

9. Office - designed to replace the original Office and Counting Room (Site #2) when those facilities became obsolete; this structure abuts Site #2 but is clearly a unique and separate element.

10. No. 4 Storehouse - built after No. 3 Storehouse and No. 5 Storehouse, it spans the two; because the others were built as separate buildings and are counted as such, No. 4 Storehouse is regarded as one building rather than grouping all the buildings as a single unit (as a result of the introduction of No. 4 Storehouse).

11. No. 2 Ell and No. 2 Ell Addition - No. 2 Ell Addition was appended to No. 2 Ell, apparently as infill after the construction of No. 3 Mill (Site #12).

12. No. 3 Mill - built to house the worsted machinery when this was introduced in 1891, for furnishing worsted yarn for the emerging specialty business, worsted fabrics

13. No. 6 Storehouse - built specifically as a storehouse to serve the adjacent worsted yarn production, it was not manufacturing space and thus represents a separate building.

14. Electric Shop - this building was introduced in the early 1890s with the use of electric power at the complex and is, therefore, a discrete entity.

15. Turbine Room - this building was constructed to house new steam turbines when the complex was converted from coal to fuel oil.

16. through 23. Each dam and bridge, as well as the Main Chimney and Pumping Station, clearly read as separate structures and are counted as such.

PLAN

In plan, Sawyer Mills is oriented on a east-west axis, with mill buildings and storehouses occupying both banks of the river in parallel fashion. The complex begins upstream, at the Upper Dam, a stone crescent of coursed granite ashlar which impounds the Bellamy River, which once diverted water for power through the granite headgate at the west end of No. 4 Mill. The Office is situated immediately adjacent, northwest of No. 4 Mill.

Approximately 250' downstream, No. 2 Ell spans the river on a series of granite piers and brick arches, connecting No. 2 Mill (north bank) with No. 3 Mill (south bank). Two pedestrian bridges connect various mill elements on both sides of the river within this distance.

Below No. 2 Ell lies the Lower Dam, a straight, rock-faced ashlar wall of granite, 75' in length. Both dams have approximately 12' of head. These dams were used to impound and divert feedwater into No. 4, No. 2 and No. 1 Mills for power, washing and dyeing of wool, and fire protection.

Below the Lower Dam, the Bellamy River courses abruptly to the south-southeast, creating a dog-leg in the plan. No. 1 Mill and Addition (former Dye House) parallel this channel, having been erected on the north bank at a 45-degree angle to the main axis of the complex. No buildings were constructed on the south bank below the Lower Dam. The proeprty line bisects the river approximately 80' below No. 1 Mill.

All other buildings in the complex are oriented toward Mill Street, a public way which parallels the river and which is located between 50' to 100' north of the water's edge. The northern boundary of the property follows this right-of-way for a short distance and includes a parking area in the northeast corner.

The Machine Shop and No. 3, 4 and 5 Storehouses are built into a 40' embankment, which forms the eastern perimeter of the property. The Portsmouth and Dover Branch of the Boston & Maine Railroad traverses the parapet at the top of the bank, where abandoned loading platforms bear testament to the means by which finished goods were exchanged for incoming raw materials.

The most prominent vertical element of the complex is the Main Chimney, a brick smoke-stack rising more than 100' above the Boiler House and Turbine Room. These components of the complex are located at the extreme east end of No. 2 Mill.

Buildings and Structures

The present complex of buildings and structures comprising Sawyer Mills was essentially

completed by 1892; the Turbine Room and Fuel Oil Tank House were added by 1939. (1) With the exception of the Fuel Oil Tank House, all of these structures remain extant in 1989. The Coal Shed and Stable buildings, the only wood frame structures erected in the complex, were removed before 1939 in order to provide space for the Fuel Oil Tank House. The latter, a corrugated steel clad structure, was removed in 1984.

By 1892, the majority of the buildings had been connected during a sequence of nearly twenty years of continuous construction. Unless noted otherwise, all buildings share a common vocabulary of construction materials. Typically, the mill buildings are constructed with walls of common red pallet brick upon split granite foundations. Common bond is employed with headers occurring every eighth course in the bond pattern. Untinted lime mortar is used throughout, except in part of No. 3 Mill where a red-tinted mix is employed. Brick entablatures consist, typically, of two corbelled bands surmounted by a denticulated frieze with an additional band above. Windows and doorway details are also typically expressed, with either granite rock-faced sills and lintels, or brick segmental arches, providing the only details. Wooden trim and sash are painted white uniformly. The sparse, utilitarian Neo-classical architectural treatment adapted for industrial use is expressed in scale and proportion, regualr fenestration, consistent use of materials, and the repetition of simple details.*

*Note: In "Textile Mill Architecture in East Central New England: An Analysis of Pre-Civil War Design," (Essex Institute, 1971), Bryant F. Tolles, Jr., describes the predominant architectural style for mill architecture in the second-half of the nineteenth century as Lombard Romanesque. Sawyer Mills' architecture, however, encompasses several stylistic eras, including the Greek Revival, French Second Empire, and Romanesque Revival, and may therefore be more aptly termed "utilitarian eclectic."

Each of the individual buildings, in the order in which they were built, is described below. Site numbers for all buildings and structures are keyed to the Property Map.

1. No. 2 Mill and Annex (1873; 1873/1889) Contributing Building Photos 1, 3

No. 2 Mill and Annex, which are contiguous, are the principal buildings of the complex on the north bank of the Bellamy River. These buildings are also referred to as the Main Mill.

No. 2 Mill is a long, rectangular, three-story building (270' by 40') distinguished by a mansard roof. The roof is covered with black slate and has a pronounced curb, made of wood. There is a typical, three-part corbelled brick cornice. The roof is stopped at the east and west ends with brick walls, which rise above abutting building

elements (No. 2 Annex to the south; No. 4 Mill to the north). The lower roof slopes (north and south) bear fourteen dormers with pedimented heads and twelve-light-over-twelve sash. A external stair tower rises from the center of the north elevation. This element has a single window in the north elevation at every story, except for the first story where there are doors. Its low gable roof corresponds in height and detailing with the wooden curb of the main mansard roof. The tower supports a smaller square wooden belltower of vertical matched boarding. This is set on a two-part wooden base, the upper part having a cornice consisting of a flared board above a cavetto. The belfry itself has paired, louvered openings on each side with staged flat arches above, the latter linked by continuous moldings. The cornice mirrors the form of its base, while the slate mansard roof supports a wooden spire with wrought iron weather vane. The original mill bell, once set to ring every quarter-hour by the Office clock, remains extant and functional.

Fenestration on the north side consists for the most part of rectangular, rock-faced granite lintels above twelve-light-over-twelve sash with wooden sills. Some windows have been altered, notable the second to fifth bays from the west corner which were enlarged to become paired double windows with arcuated heads and multi-light sash; and the seventh to ninth bays from the east corner on the third story, which have become single large arcuated windows and are filled with oversize sash. Also, the eighth window from the northwest corner is shorter, having eight-light-over-twelve sash, although it shows no sign of alteration. In general, the first story follows the rhythm of the fenestration above, The first six bays at the west end of the building are progressively shortened to accommodate the rising grade to the west; the seventh bay has a lower, wide bay, now containing a mullioned window. During rehabilitation, this window replaced modern aluminum and glass doors and a portico. The eleventh through fourteenth bays, once blocked windows, are restored. Diamond-shaped caps mark the ends of iron tie rods above and below the second story, at every bay.

Fenestration of the south elevation is even and unaltered, except where the Lower Bridge extends across the Bellamy River from an opening on the first story, to connect with No. 3 Mill.

The exposed portions of the east and west elevations consist of the brick gable walls of the mansard roof; the east elevation has four window bays, while the west has none. A simple, low, rectangular elevator penthouse, clad with asbestos siding, is positioned on the ridge in the interior position, near the east end of the building.

No. 2 Annex is a rectangular building (40' by 72') of three stories attached to the east end of No. 2 Mill, and originally constructed with the latter, as a two story building, in 1873. This building served as the Picker House; the third story was added in 1889. No. 2 Annex is abutted by the Boiler House on the east, therefore

only the north and south elevations are exposed. The building has a low-pitched gable roof and its cornice is continuous with that of No. 2 Mill. There are four bays on the north and south elevations, containing typical twelve-light-over-twelve sash. Three third-story bays on the north elevation have double, or mullioned windows. The building projects slightly into the river below the Lower Dam.

2. No. 4 Mill and Washroom (1873; 1882) Contributing Building Photo 1

No. 4 Mill is a two and one-half story, gable-roofed, rectangular building (72' by 30') built in the Greek Revival style and located west of, and attached to, No. 2 Mill. Built in 1873 as the original Office and Counting Room (first floor), the building contained a water turbine and fire pump in the basement, and warehouse storage on the second floor. Openings in the brick party wall allowed communication with No. 2 Mill manufacturing operations. (2) The original one-story attached Washroom was also built in 1873; a second story was added to the building in 1882, when the new Office was erected and the obsolete Office and Counting Room began to be used for manufacturing. The Washroom is 67' by 20' in dimension and is attached to the south elevation of the parent building. It has a low-pitched shed roof.

No. 4 Mill has a steeply-pitched slate roof whose peak abuts the west wall of No. 2 Mill just below the entablature. The entablature matches that of the No. 2 Mill, but is not continuous, since No. 4 Mill is more narrow and the walls are not co-planar. The building has granite window trim and twelve-light-over-twelve sash. The north side originally had eight bays, but now has five, three having been covered by the addition of the present Office building. Other alterations on this side include the third bay from the east, which was enlarged as an entry door, and the fifth bay, which was converted very early to a typical, large double-window. The wooden entrance portico and steps were installed in 1986, replacing a c. 1960 covered entrance structure.

Of architectural significance is the west elevation of the building, which has a typical cornice, and includes cornice returns; and an exterior, centrally-placed stove chimney with corbelled cap, in the end position. There are four bays, and two attic windows (which flank the chimney). Sash in the latter is eight-light-over-eight, with typical twelve-light-over-twelve below. The view of this structure from Central Avenue, with the river in the foreground and Upper Dam adjacent, is a powerful image which strongly evokes the New England industrial landscape of the nineteenth century. Whether conscious or unintended by the unknown architect, the picturesque quality of this setting remains an important visual link to the past.

3. Dry Room / Carpenter Shop (1873) Contributing Building Photo 3

The Dry Room/Carpenter Shop is built into the rising grade between the Main Mill and Mill Street, giving the south elevation an additional (second) story. A narrow, rectangular brick building oriented east-west, with asphalt-shingled gabled roofs, the east half has two stories while the west half has one. Dimensions are 110' by 20'. The east half has seven bays on the south elevation in two stories. On the first story, the fourth bay from the west is a wide doorway; there is no opening in the sixth bay, which is blank. Sash are twelve-light-over-twelve. There are two windows in the second story of the east elevation. The east half is identified as the Carpenter Shop. The upper level is entered via a door on Mill Street, at the northwest corner. The west half, the Dry Room, has only one story. The south side contains, from west to east, two doors of varying heights, and three tall windows with sixteen-light-over-sixteen sash. In the west wall is a single window, located high and toward the front, with twelve-light-over-eight sash. As with the other buildings, the foundation is cut granite; lintels are rectangular granite blocks. The structure was last used as a sheet-metal shop, before residential conversion.

4. Boiler House (c. 1874 - 1879) Contributing Building Photo 4

The Boiler House is a rectangular, three-story brick building, six bays in length and three bays wide, attached to the extreme east end of the Main Mill building. Dimensions are 40' by 52'. The building abuts No. 2 Annex to the west and is connected via a second story bridge over Mill Street, to No. 3 Storehouse. The third story was a later addition (date unknown). The building has a low-pitched gabled roof oriented east-west. In 1875, the structure housed three boilers; the original main chimney was located south of the Boiler House and is no longer extant. The basement and first and second floors contained the coal-fired steam power plant, which gradually supplanted water power, as the plant grew in size. The third floor was used for warehouse storage.

5. No. 3 Storehouse (1874) Contributing Building Photos 4, 7

East of Mill Street and the Boiler House is a series of connected warehouse buildings; from north to south, these are the Machine Shop, and No. 3, 4 and 5 Storehouses.

No. 3 Storehouse, built in 1874, is a four-story, rectangular brick warehouse, 125' by 40' in dimension, and having a low-pitched gabled roof, oriented east-west. The building is adorned with typical exterior details previously described. No. 3 Storehouse is built against rock ledge which rises steeply to the east to the level of the railroad behind the building. The north and south walls are articulated with

windows containing twelve-light-over-twelve sash, while the west wall is blank except for a wooden bridge extending from the center of the second story level and connecting with the Boiler House. There is a large loading door below the bridge. The east wall is also blank except for a large rectangular freight bay which provided access to the wooden railway platform.

6. Machine Shop (1878) Contributing Building Photo 4

The Machine Shop, built in 1878 to service the looms and power plant, is a two-story, rectangular building (55' by 40') with a low gable roof, which is attached to the north elevation of No. 3 Storehouse. A square brick forge chimney rises from the ridge in the interior position, at the north end of the roof. Set into the steep rock slope, the building has seven bays along its west elevation; two of these bays are combined on the first story to form a tri-partite opening, the principal entrance. The panelled doors each have twelve-light transoms above. The north elevation has five bays and contains a broad double-door entry in the center of the second story. A massive wooden hoist beam, about 10' in length, is cantilevered above this opening. Window sash are original twelve-light-over-twelve in configuration. The north access stair, to the second story, is mad of wood and was constructed in 1986, replacing a badly deteriorated but somewhat larger, earlier platform. No machinery or forging tools were left inside of this building prior to rehabilitation.

7. No. 5 Storehouse (1879) Contributing Building Photos 4, 6, and 7

No. 5 Storehouse measures 130' by 40' in dimension and duplicates No. 3 Storehouse in plan, number of stories, roof type, cornice treatment, trim and fenestration; its situation is also similar with respect to railroad access, the rising grade, and the monumental appearance of its facade (west elevation). Both buildings appear to radiate from No. 4 Storehouse, which links the two, No. 5 being perpendicular in plan to the diagonally-placed No. 1 Mill, and No. 3 aligned with the Main Mill's axis. No. 5 Storehouse differs in that it contains windows in the upper three stories. Like No. 3, it has a bridge extending from the second story to another building (No. 1 Mill) but this is an open, metal structure, without a deck, which extends from a broad, arched doorway. Below on the first story, is a wide loading bay, with granite lintel and sill, which opens onto Mill Street. On the south elevation, the "ghost" of a tall, rectangular waste bin (previously removed) remains evident.

8. No. 1 Mill and Addition (1879) Contributing Building Photos 5, 6, and 7

No. 1 Mill (formerly the Dye House) is a three-story building of irregular rectangular shape, whose dimensions are approximately 140' by 70'. The building is four bays wide by twenty-one in length and has a low-pitched gabled roof; the east elevation

is canted and follows the curve of Mill Street. On the south end, in the west bay, there is an unusual, polygonally-sided, one-story clapboarded oriel projecting from the opening. This was part of the office of the Dye House foreman and served to admit light and warmth to the cold, dark basement level. Window sash throughout the building are typical twelve-light-over-twelve configuration. In the basement, a tail-race opening in the foundation, which drained wastes from the dyeing process, is seen at the southwest corner of the building.

Along the entire west side is a two-story shed-roofed element built as No. 1 Mill Addition. Built in 1879 also, the building is integral with No. 1 Mill but is one story lower than the latter. Sixteen bays face the Bellamy River and the windows are unique within the complex: each segmentally arched bay contains a central wooden mullion dividing paired twelve-light-over-twelve sash. The interiors of the two structures, where they join, communicate through a series of tall, narrow arches piercing the brick wall. These have been altered, at intervals, by the insertion of large rectangular openings carried on steel I-beams.

9. Office (1882) Contributing Building Photos 1, 2, 8

The Office was added in 1882, replacing the original Office and Counting Room formerly located in what has become designated No. 4 Mill. Situated northwest of the afore-mentioned building, the brick Office has a deck-type roof and is a rectangular, two-story mass, 58' by 40' in dimension. The block has seven bays on the east and west elevations, and three on the facade (north elevation), and is attached to No. 4 Mill at the rear. Its roof is concealed by a panelled brick parapet on the front which returns to the first bay on either side to meet two small chimneys with corbelled tops. Below the entablature, which matches that of the Main Mill, plain pilasters continue the delineation of the parapet panels. On the second story, within the bays thus formed, are three double windows with granite lintels. The first-story openings are arcuated double windows on either side, and in the middle, paired doors surmounted with stained-glass lunettes which read "Office" over the door. The doorway is further distinguished by small, stepped pilasters on either side which extend to the second-story sill level, enclosing a panel between the stories. The facade sashes are all one-light-over-one configuration.

On the west side, the seven window openings reflect those of the Main Mill, except for the northerly pair on the first story, which are extended to create transom windows, and contain leaded stained glass in the upper portion. All of the first story windows on this side have two-light-over-two sash, instead of the twelve-over-twelve found on the second story. The two-bay rear (south elevation) of the building is treated similarly.

The seven bays on the east elevation of the building display a similar dichotomy, except that the middle opening contains a large bay window with oversize windows (containing two-light-over-two sash) in each side, while the fourth bay is a loading dock and rear hall exit, closed with double doors. Above this is a entry hood supported on chamfered wooden truss brackets. The bay window adjacent, has extended eaves and a two-part wooden entablature. The Office has a cut granite foundation, and, on the east side, basement window bays (now filled) capped with granite lintels.

The interior of the Office consists primarily of a vestibule, two flanking executive offices, a central hall with cashier's office (on the west side, open to the hall via an L-shaped counter), and, on the east side, a superintendent's room and rear hall communicating with the No. 4 Mill. The superintendent's room is extended by the bay window previously described, which captures a broad view of the millyard. The rear hall leads from the southeast corner of the central hall eastward to the exterior double doors, then south into the old office block, at which point a stairway ascends to the second story of the Office, which was composed of a single large room and appears to have been used for manufacturing or warehouse purposes.

The Office is distinguished by the richness of its finishes and original, unaltered plan, which remain virtually intact. Entering from the front, the vestibule displays the profusion of quartered, golden oak trim which is found throughout the building. Here it is seen in the exterior door surround and the boxed-beam ceiling with matched board surface, as well as in the high wainscoting. The interior double doors have central glass panels etched with the Sawyer family monogram. Door casings throughout consist of classical architraves with bossed corner blocks. The vestibule has a colorful tile floor, while the main hall is paved with large black and white tiles, arranged diagonally. The original brass door and window hardware remains almost totally intact throughout the building, as do the wooden window blinds.

On either side of the vestibule is an executive office, distinguished on the exterior by the differentiation of the windows, and on the interior by enriched, cherry-panelled finishes. These offices have elaborate raised-panel wainscoting, as well as panelled overdoors and window aprons. Above the doors and decorating the wall tops are heavy cornices, breaking forward over the window sidecasings. Diagonal fireplaces, set in the northeast and northwest corners of the building, are of pressed brick with tile decoration of the same dark red tone and colorful tile hearths. Eastlake-style oak overmantels support horizontal cut glass mirrors, while above, on the chimney fronts, are colored-tile Elizabethan faces in profile. The office in the northwest corner is further distinguished by a cherry rolltop desk built into its east wall; and above it a coffered and panelled arch, with floral decoration in the spandrels. Both offices have central ceiling rosettes for gas chandeliers and patterned plaster ceilings. The northwest office looks into the cashier's office through two plate glass windows and a door, while the northeast office has access to the superintendent's

office through a small washroom, where an original marble basin on a circular, matched board stand remains.

The superintendent's office retains its ceiling rosette, cherry wainscoting and door trim. All doors are of solid cherry or oak and are deeply panelled, and in some instances, carved with the sunburst ornament. Office floors are, typically, polished birch or maple in the private rooms.

The cashier's office, along the west side and rear of the building, is open to the central hall, from which it is separated by coffered elliptical arches set on impost blocks above colonettes. The colonettes, in turn, are set on the counter fronts with projecting plinths resting on the hall floor. This arcade extends along the west side and returns at the rear. The hallway, cashier's office, and back hall feature beamed oak ceilings, while the office has wainscoting of patterned vertical matched boarding and inset windows with panelled reveals. In addition, the office retains an early electric ceiling fan, with large paddles. Office floors in this area are of oak and maple; the back hall has a much-worn surface of oak.

The upper story of the Office is unornamented but exposes its roof, covered with matched boarding, above massive transverse beams. An interesting interior feature is the presence of arched brick window heads, which are concealed by the exterior granite lintels. This area has now been partitioned for apartment units.

The Office is a key building, not only because it may be New England's best-preserved example of a mill office of the 1880s, but also because it represents, in contrast to the old Office and Counting Room (whose interior arrangements have not survived), an uneasy compromise with the style set by the Main Mill. It expresses a rather bold individuality in the exterior revelation of the functions within, while, at the same time, seeking to be tied into the rest of the complex by the use of the standard cornice and window treatment.

10. No. 4 Storehouse (1884) Contributing Building Photo 7

No. 4 Storehouse is a two-story building which sits atop the 40' high embankment and provides a link between No. 3 and No. 5 Storehouses. An irregular rectangle in plan, the building measures 52' across the facade and 46' in depth. It has the standard cornice and window trim treatment, with windows in two stories on the west elevation; the east elevation is blank except for a doorway lending access to the railroad platform. Structurally it is identical to the buildings to either side - massive joists supported by tall, turned oak columns with cast shear caps, standard construction throughout the complex.

11. No. 2 Ell and No. 2 Ell Addition (1887; c. 1891) Contributing Building

Photos 6, 7 (largely out of view)

No. 2 Ell is a three-story, rectangular building with clerestory roof, extending south from the center of the Main Mill. This building spans the Bellamy River, where it is supported by brick arches on granite piers. The west wall is intersected by a later three-story building on the south side of the river, No. 2 Ell Addition, which was built as infill following construction of No. 3 Mill in 1891.

As on the west side, the east side has arcuated windows, which extend eighteen bays. A five-story, square stair tower rises from the northeast corner of the building at its intersection with No. 2 Mill. Pilasters enframe the fifth story, which is capped with a low-pitched hip roof. There is one bay in each story filled with a segmental arched, mullioned window. The south elevation has seven arched bays with a loading bay in the center of the second story; the first-story windows are smaller than the others and have flat, splayed brick lintels. These first-story windows are adjusted in size to the ground level, which rises to the west. The main roof of No. 2 Ell has extended eaves supported by long wood consoles with flat scrolls.

The clerestory is two bays by fifteen, and extends the length of the building, terminating above the second bay from the south. This element has a low-pitched gabled roof and twelve-light-over-eight, segmental arched windows.

The upper story and clerestory of No. 2 Ell together created a very unusual interior, structurally and spatially. A double row of wooden columns support I-beams which run the length of the building; the latter support, in turn, massive transverse wooden beams articulated over the center and side aisles. The clerestory walls and roof are braced from the centers of the transverse beams, the wood braces meeting chamfered wind-braced posts which carry the clerestory rafters. Between the rafters, the ceiling is sheathed with matched boarding. There are fifteen windows on either side of the clerestory, which runs into the lower slope of the Main Mill roof; at this point inside the clerestory, is preserved (without sash) one of the dormer windows of that building.

No. 2 Ell Addition is an attached building, rectangular in plan, with a low-pitched gable roof oriented east-west and surrounded on the south and west by No. 3 Mill. The exposed portion of the building, the north elevation, is expressed with three stories, each with three bays containing twelve-light-over-twelve window sash. The typical cornice continues the line established by No. 3 Mill along the Bellamy River facade.

No. 2 Ell is 177' by 66' in dimension; No. 2 Ell Addition is 27' by 67'.

12. No. 3 Mill (1891) Contributing Building Photo 1

Built in 1891, apparently coincident with No. 2 Ell Addition and No. 6 Storehouse, No. 3 Mill extends west from No. 2 Ell along the south side of the Bellamy River. L-shaped in plan, No. 3 Mill was built to house five sets of carding machines for the introduction of worsteds manufacture. Because of the steeply sloping riverbank, No. 3 Mill has three stories on the north elevation and only one and one-half stories exposed on the south side. The low-pitched gable-roofed structure abuts No. 2 Ell on the east and No. 6 Storehouse on the west. There are thirty-two bays on the north and thirty-five on the south elevation. Windows consist, predominantly, of twelve-light-over-twelve and nine-light-over-nine sash. Windows on the south elevation are half-size at grade level (actually the second floor) and have fixed, fifteen-light sash. The ell projects southward from the east end of the building and has three bays on the west where the center bay is a former loading dock, now glazed with multi-light sash; and seven bays on the south.

In the middle of the north elevation, projecting north, is a square, three and one-half story tower (originally capped with a high pyramidal roof and lost sometime after 1892). This has pilasters on the corners, forming panels on each side which contain four windows (four-light-over-four sash; square heads) on each side of the third story. The first story connects via a two-story bridge to No. 4 Mill. Twelve-light-over-twelve sash fill the two bays on each side of the second story, Inside, the original spiral mill stairs remain intact (as they do in the other two towers previously described).

13. No. 6 Storehouse (1891) Contributing Building (No Photo/out of view)

No. 6 Storehouse is attached to the west end of No. 3 Mill and was built in 1891 to store worsted cloth, manufacture of which commenced in the adjacent space in the same year. The building is rectangular in plan and projects south with cornice and trim identical to No. 3 Mill. The low-pitched roof is co-planar with No. 3 Mill also. There are two bays on the east side, six on the south side, and seven on the west. The north side is continuous in plane with the north elevation of No. 3 Mill. This side of the building has two full stories set on a high granite foundation above the river. Windows have arched openings and are narrow in configuration on the second story; oversize widths below. These openings are filled with nine-light-over-nine and twelve-light-over-twelve sash, respectively. The central entry on the west elevation has been converted to a window; the loading bay on the east side has been converted to a fire exit door with sidelights.

14. Electric Shop (c. 1880 - 1892) Contributing Building Photo 3

The Electric Shop was added to the north side of the No. 2 Mill between 1880 and 1892. Extending out two bays from the east end of the Main Mill facade, it covers bays one through three and is one story high, with a low-pitched gable roof. The two-part entablature resembles that of the main cornice. Facing the structure, there are two windows on the east side, three on the north, and a pair on the west side under one lintel - all with twelve-light-over-twelve sash, the standard window configuration throughout the complex. This building how serves as the management office for the complex. Dimensions are 27' by 19'.

15. Turbine Room (by 1939) Contributing Building Photo 4

The Turbine Room was erected adjacent (north) to the Boiler House in the late 1930s when the power plant was converted from coal to fuel oil. Constructed of brick, the structure is three bays wide by two deep and has two-story window openings. Bays are corbelled at the head, creating recessed panels in which are set steel industrial sash. There are doorways on both the east and west elevations. The structure has been painted red at an unknown date in the past. The building contained two Westinghouse steam boilers (1977), removed in 1984; it is now used as a maintenance room for the residential complex. Dimensions are 34' by 42'.

Each of the individual structures within the Sawyer Mills complex is described below.

16. Upper Dam (c. 1873) Contributing Structure Photo 1

The Upper Dam impounds the Bellamy River at the western end of the complex and spans the river channel between No. 4 and No. 3 Mills. The crescent-shaped dam is constructed with rock-faced granite ashlar and is approximately 80' in length and 12' in height. At the south end there is a spillway diversion wingwall which is constructed at approximately a forty-five degree angle to the dam face. The purpose of this component is to divert water from the spillway from undermining the foundation of No. 3 Mill and its stairtower. At the north end there is a granite abutment with wooden platform and penstock intake below, complete with trash rack, which formerly diverted water into the turbine once located in the southwest corner of the basement of No. 4 Mill. (Turbine was removed at an unknown date.)

17. Lower Dam (c. 1873) Contributing Structure Photo 7

The Lower Dam spans the Bellamy River just downstream from No. 2 Ell and once furnished feedwater to the Boiler House and Dye Houses (No. 1 Mill and Addition). The dam is a straight wall of uncoursed granite ashlar, approximately 75' in length and 12' in height. The dam extends from the southwest corner of No. 2 Annex and terminates at the ledges on the south riverbank, where there is a granite spillway wingwall.

18. Upper Bridge - Bellamy River (c. 1891) Contributing Structure Photo 1

This covered, two-story wooden bridge is constructed with an arched truss, and connects No. 4 Mill with the stairtower of No. 3 Mill. The structure spans the Bellamy River just below the Upper Dam and is approximately 35' in length by 14' wide. The structure has a low-pitched sheet metal roof with a denticulated wooden cornice similar to the adjoining mill buildings. Fenestration of the east and west elevations consists of five bays (three bays only on the east) of paired windows on the second story, each containing eight-light-over-eight sash. On the same story and vertically aligned with each window above, are five bays of smaller, paired, fixed eight-light sash, located at knee level. The latter were introduced during rehabilitation in 1986. On the lower level there are three bays of twelve-light-over-twelve windows set within the brick abutment at the north end (actually the basement story of the Washroom, a part of No. 4 Mill). The arched truss itself is sheathed with a skirt of vertical matched boarding on both elevations. Above the arch skirt, the sidewalls of the superstructure are clad in original sheet metal siding (painted red).

19. Lower Bridge - Bellamry River (c. 1891) Contributing Structure (No Photo)

The Lower Bridge is situated virtually in the middle of the complex and is surrounded by No. 2 and No. 3 Mills (which it connects), and No. 2 Ell and the Upper Bridge - Bellamy River, thus obscured from public view. This one-story, flat-roofed structure is approximately 50' in length and 16' wide, and is composed of a timber queenpost truss with a flat roof. This structure formerly carried an addition of two stories, which was removed during rehabilitation in 1986 because of deterioration. Fenestration consists of a single, tripartite window in the center of both east and west elevations, which contain eight-light-over-eight sash. Some of the vertical matched board siding flanking the center opening has been removed and the openings glazed, to admit more light to the interior.

20. Upper Bridge - Mill Street (c. 1879) Contributing Structure Photo 4

The Upper Bridge - Mill Street spans the public way and connects No. 3 Storehouse with the Boiler House, at the second story levels. This covered structure is composed of a wrought iron, low Warren truss, sheathed with vertical board siding and having a low-pitched gable roof. Approximate dimensions are 40' in length and 7' in width. This structure appears to have replaced an earlier, wooden, kingpost truss bridge, c. 1875.

21. Lower Bridge - Mill Street (c. 1879) Contributing Structure Photos 5, 6

The Lower Bridge - Mill Street also spans the public way and connects No. 5 Storehouse with No. 1 Mill, at the second story levels. This structure is uncovered and consists of a wrought iron, low Warren pony truss, approximately 46' long and 7' wide.

22. Main Chimney (c. 1879) Contributing Structure Photos 4, 6, 7

The Main Chimney, located in the corner between the north side of No. 2 Annex and the west elevation of the Turbine Room, is a tall (over 100 feet), tapering, square brick stack, approximately 12' square at the base. The structure is unadorned except at the top, where the cap is ornamented with twin arches in relief, on each face, and surmounted by massive corbeling with a horizontal cornice boand. A cast iron cleanout door remains at the base of the north elevation.

23. Pumping Station (c. 1964) Noncontributing Structure (No Photo)

There is one non-contributing resource present, which is surrounded by the Sawyer Mills property. The "Pumping Station," so-called in the recorded legal description, is a one-story, concrete block and brick masonry utility structure, situated on a small parcel of land approximately 20' by 75' in dimension, which is owned by the City of Dover and used as a sewage pumping facility. The land on which this structure is situated is a landlocked parcel, acquired by the City of Dover in 1964.

The "Pumping Station" is a non-contributing structure because it does not possess or add to the historic architectural qualities or historic associations for which the Sawyer Mills property is significant, nor was the structure in existence during the periods of significance. Additionally, the property is independently owned, albeit landlocked, and is no longer, technically speaking, a part of the Sawyer Mills property.

BUILDINGS AND STRUCTURES NO LONGER EXTANT

Coal Shed (c. 1879) [Demolished c. 1939]

Wood frame structure located on slope adjacent to railroad, just north of Machine Shop. Demolished as part of conversion from coal to fuel oil, prior to World War II.

Stable (1889) [Demolished c. 1939]

Wood frame building, located just northwest of Machine Shop. Demolished as part of site redevelopment for construction of Fuel Oil Tank House.

Fuel Oil Tank House (c. 1939) [Demolished 1984]

Erected when fuel oil was substituted for coal to heat and drive the complex, the Fuel Oil Tank House was built on the site of the former Stable and Coal Shed. The rectangular one-story building had a steel frame and scissor truss gabled roof, and was clad with corrugated sheet iron, all resting on a raised concrete foundation. The structure, which was four bays by three, contained four large fuel oil tanks. It was removed in 1984 as part of the Certified Rehabilitation of the complex.

INTERIORS Photo 9 (typical)

Certified rehabilitation of Sawyer Mills was undertaken between 1984 - 1986 and involved adapting interior spaces for 221 market-rate apartments. Final certification was conferred on the project by the National Park Service in August, 1987.

Used for warehousing and light industrial purposes since 1954, building interiors either remained vacant or were used for storage. Open interior space was typically characterized by painted brick walls and exposed beamed ceilings, and single or double rows of turned wooden columns. Floors, of hard pine, were oil-soaked and generally uneven from paths of wear. Eight hundred of the 1,100 original windows survived and have been repaired. The three original tower stairways, including the Main Mill belltower, have been retained and integrated within duplex apartment units. Structural elements, including arched masonry openings, beams, columns, ceiling planking, and brick and stone foundation walls have been repainted or cleaned and typically retained as finishes in apartments. The open space of the interiors has been necessarily subdivided by gypsum wallboard partitions and central and/or outside corridors; but mechanical systems have been left exposed and painted, preserving not only ceiling details but the monumental scale. Original panelled doors have been repaired and reused extensively. All floors are now covered with carpeting.

The Office, the sole commercially leased space in the property, has been carefully restored and is leased as a real estate office. The Electric Shop has been fitted out for use as the complex's management and rental office.

The four bridges have all been retained and repaired; the Upper and Lower Bridges are used by tenants and visitors and are integrated within the interior circulation plan of the complex. Interiors retain all structural truss members exposed.

In the Boiler House, two massive Babcock & Wilcox coal-fired steam boilers remain, located in space which was unsuitable for residential adaptive use.

The only surviving element of steam-driven machinery which remains extant is a Worthington-Underwood 500 gpm water pump located near the Electric Shop on the first floor of the Main Mill. This fire pump has been cleaned and repainted and is on display as an industrial artifact in the entrance lobby.

Sawyer Mills is a visually impressive and historically important manifestation of the nation's industrial past. Its continuing integrity is confirmed by the high level of maintenance of the buildings and the large number of structures which have survived economic as well as technological change over a century.

FOOTNOTES

1. "American Woolen Company et al "Sawyer Mills' Dover, N.H." Index Number 6319. Boston: Associated Factory Mutal Fire Insurance Cos., 1939.
2. "Sawyer Woolen Mills, Dover, New Hampshire." No. 3904. New York: Barlows Insurance Surveys, 1875.

was an innovator, pioneering sales direct to the market, and developing a patented process for revivifying spent indigo dye - both improvements which helped to revolutionize the industry. Sawyer Mills exerted considerable influence on the physical and economic development of Dover in the latter half of the nineteenth century and until after World War I. The firm typified the declining fortunes of the New England woolen industry. Bankrupt under family ownership in 1898, Sawyer Mills was absorbed as one of the 26 original mills which formed the nucleus of the emerging textile giant, American Woolen Company. The new conglomerate, which dwarfed the independent mills in the industry, produced one-sixth of the region's staple woolens. After a period of record profits, shifting market conditions produced severe and continuing financial reverses beginning in 1924. The less efficient mills were gradually sold off, and in 1954 the remaining mills were purchased by Textron, Inc.; these holdings were liquidated within the following year. Sawyer Mills, one of the last of the remaining American Woolen Company mills in operation, was closed and sold in 1955.

- - -

In the three decades following the American Revolution, the young American republic, still an agrarian society, gradually recognized that true national autonomy could not be realized without asserting independence from the economic system of Great Britain and western Europe. This would require, literally, importing the Industrial Revolution to America. Self-sufficiency in manufacturing, once established, would ensure economic independence.

The American textile industry was dominated by cotton manufacture from its inception, principally because of the availability of raw material from the South. Prior to the War of 1812, textile manufacturing was stimulated by two developments: trade restrictions were imposed on imported British cloth, which, coupled with the Embargo and Nonintercourse Acts, gave American mills a competition-free market; and closely-guarded British spinning technology, utilizing designs of the Arkwright and Crompton patents, was surreptitiously imported to New England in 1789. The latter revolutionized construction of reliable American-built textile machinery. Sites for water-powered mills were abundant throughout New England, and by 1810, 238 textile manufactories were recorded in the first census of American manufacturing (1).

The American woolen industry was given its initial impetus in 1802, when Colonel David Humphreys, the United States minister to the Court of Spain, imported the first flock of Iberian merino sheep to this country. Unlike coarse domestic long-staple wool, merino wool was characterized by short, fine fibers; this enabled the first machine manufacture of domestic woolen cloth, using spinning machinery developed for the cotton industry. By 1806 Humphreys had established a woolen mill on the Naugatuck River near Derby, Connecticut, and is credited with building the first mill village in American (named, appropriately, Humphreysville).

The first woolen mill in New Hampshire in which all the functions of production were housed under one roof, was established in New Ipswich in 1801 by James Sanderson. While cotton textile manufacturing developed on a muchlarger scale than its counterpart industry in woolens, Sawyer Mills grew to become a surprisingly large plant, by comparison, and appears to have been the third woolen mill established in New Hampshire (1824).

The architecture of Sawyer Mills is significant within the regional, state, and local context of mill complexes of the New England textile industry during the nineteenth and early twentieth centuries. The present complex, built between 1873 and 1939, possesses distinctive architectural qualities as a well-preserved New Hampshire example of textile mill design. (2) Constructed of brick, with a heavy timber internal frame, the exterior of Sawyer Mills is expressed in three distinct architectural vocabularies. No. 4 Mill (1873), built with a gable roof in the Greek Revival style, is an unusual if not retarditaire example of typical pre-Civil War mill design, and, as such, is an important reference in the evolution of industrial architectural design, since most of the buildings of this form in the region have been altered or lost.

No. 2 Mill (1873), adjacent, is an important and, in New Hampshire, rare example of the popular French Second Empire style adapted for industrial usage. Distinguished by a mansard roof capping both the mill building and the external bell tower, the French Second Empire idiom was intended as both a utilitarian solution to maximizing space needs, as well as a statement of social ascension. (Jonathan Sawyer's palatial home, erected nearby and no longer extant, was executed in the same fashion.) The use of the mansard roof in industry followed domestic, commercial and institutional applications of the style, which was well-established in the United States by 1870, but which proved uneconomical, approximating the expense of continuing brick walls up another story without the additional fire protection afforded by masonry. According to The Factory Mutuals (1935, p. 224), "These 'Mansard roofs quickly went out of fashion, particularly after the great fire of Boston in October, 1872." No. 2 Mill also retains the original external stairtower, an advancement typical of mills built after c. 1840. This building is important both as a transitional element in the Sawyer Mills complex and as an example of a short-lived industrial architectural expression within the continuum of New England textile mill design.

The remaining buildings, principally No. 1 Mill, No. 2 Ell, and No. 3 Mill, as well as Storehouses 3, 4, and 5, were built during a sustained campaign of expansion which lasted until 1892, and were designed in the spare, utilitarian Lombard Romanesque style. Characterized by low-pitched or flat roofs, segmental-arched windows, and recessed brick panels with limited ornamentation, these later buildings typified the final expression - in both design and form - of New England textile mill architecture prior to the introduction of reinforced concrete structures in the early

twentieth century. Driven by insurers' demands to reduce liabilities and losses by fire, the last generation of nineteenth-century mills maximized efficiency of space, and fire protection, while economizing on construction costs and architectural embellishment.

The Sawyer Mills plant, built over a period of two decades, is architecturally unique in New Hampshire because of the degree of preservation of the original buildings. Uniquely situated on the fringe of the urban core, where room for growth remained available, Sawyer Mills expanded through the addition of new buildings, rather than modification of existing structures or infilling of interstices. In comparison, plants (like the Cocheco Mills, located in the center of Dover) which were surrounded by commercial blocks by the 1830s and '40s had only two choices: add additional stories and infill; or demolish and construct larger, taller buildings. The experience of Cocheco Mills in successively rebuilding, or adding stories, was common in New England's developed urban centers. Other examples of this phenomenon may be found in dense mill complexes in Lowell, Mass., and Manchester, N. H.

Sawyer Mills became the largest woolen textile manufacturer in New Hampshire by 1883, a position held by the company until c. 1900 when it was eclipsed by the worsted division of the Amoskeag Manufacturing Company (Manchester Mills). (3) Comparison with other New Hampshire woolen mills listed in the National Register of Historic Places was undertaken to evaluate the physical integrity of Sawyer Mills. There are five woolen mills listed in the National Register, four as individual properties and one within a historic district. Harrisville Historic District is "the only industrial community of the early 19th century in America that still survives in its original form," according to the National Register nomination prepared in 1971. While the mills of Harrisville are of an earlier period of development and of smaller, more rural scale, the level of physical integrity of this resource is unusually intact; sufficient to earn National Historic Landmark status for the district in 1977. Other comparative examples in this group include two mills in Laconia, the Belknap-Sulloway and Busiel-Seilbing Mills. In both cases, while each of the principal, nineteenth-century buildings survive, both have suffered extensive loss of context as a result of serving as the focal point of urban renewal projects, where virtually all of the secondary support buildings were removed and the surrounding historic environment irrevocably altered with late twentieth-century roadway construction, streambank channelization and parking lot development. In Franklin Falls, N. H., the Franklin Mill (J. P. Stevens Mill) remains intact but has been extensively altered through adaptive reuse for commercial purposes. (Ironically, the Sawyer interests acquired control of this property along with a mill in Massachusetts, managing both until bankruptcy in 1898.) The fourth individual mill property reviewed is located in Rochester, the Norway Plains Woolen Company (also called the Wyandotte Mill). Once controlled by Francis Cabot of Boston, this property, a close competitor of Sawyer Mills, has also undergone extensive alteration which has radically compromised its original design integrity. In 1979 - 1890, the City of Rochester, in an attempt at

rehabilitation using an Economic Development Administration grant, removed the gable roof and upper stories of two-thirds of the complex, irreparably changing the architectural configuration of the mill's historic design.

Manchester Mills (later part of Amoskeag Manufacturing Company), Sawyer's closest competitor and the mill which superseded it as New Hampshire's leader in the worsteds business, was also evaluated. Never listed in the National Register, virtually the entire plant was demolished as part of Manchester's urban renewal program in the 1960s and early 1970s.

The application of the French Second Empire idiom in the industrial workplace, and the use of the mansard roof in particular, never gained widespread popularity in New England or New Hampshire. In researching the frequency of occurrence of this design in textile mill complexes in the state, only two other examples were found extant: Jaffrey Mills in Jaffrey, and the L. W. Packard Mill in Ashland. The former, however, manufactured cotton textiles. The Packard plant is one of only three woolen mills still operating in the state. The total number of mills built with the mansard roof type remains unknown, but the writer estimates that this form of construction never exceeded twenty percent of the mills built in New England between 1860 - 1875.

The Sawyer Mills office building and interior contribute significantly to the architectural importance of the complex. The Office, constructed in 1882, served as management headquarters and also as an impressive portal through which visitors entered. No other examples of a nineteenth-century textile mill office so entirely intact and originally appointed, are known to exist in New Hampshire or the New England region. As a unique physical artifact, complete with superintendent's bay, counting room, safe, cashier's cage, and plush, panelled executive offices with fireplaces and private washroom, the office documents corporate attitudes, tastes and behavior of late nineteenth-century industry, and possesses additional research potential for social, industrial and interior design scholars.

Of equal importance from an interpretive viewpoint, but on a larger scale, is the continued presence of the secondary utility buildings at Sawyer Mills. The Dry Room/Carpenter Shop, Machine Shop, Boiler House and main chimney, and Electric Shop, as well as the Upper and Lower Dams, all contribute to a greater understanding of the self-sufficient nature of the manufacturing operation and the evolution of on-site waterpower, coal-fired steam, and hydroelectric power generation. Only two buildings have been lost from the original group of nineteenth-century utility structures, the coal shed and the stable - both wood frame buildings (sites are shown on the Property Map). The overhead connecting bridges, also rare surviving structures, provide insight into the integrated functions of the woolen manufacturing process, from raw material to finished products. The original fire pump, a Worthington-Underwood model, remains in place in the main entry foyer, as an

example of state-of-the-art textile mill fire suppression equipment. All of these buildings and features have been carefully preserved, and their integrity for interpretive purposes respected, in rehabilitation of the complex for residential use.

In the area of significance in industry, Sawyer Mills (1824) developed during the American Industrial Revolution and reached its zenith at the close of the nineteenth century, closely paralleling the fortunes of the New England textile industry on the whole.

The period of significance for Sawyer Mills in the area of industry (1873 - 1939) is derived from the two distinct periods of operation of the existing buildings. The primary period, 1873 - 1899, was an era of expansion and modernization under the ownership and management of the Sawyer family, through a succession of heirs of the founder, Alfred I. Sawyer. It is significant that the family interests continued to hold and manage the property for 75 years, at a time when similar enterprises were dominated by Boston capitalists. During this period, Sawyer Mills' outstanding performance in management, product quality, innovation, and business foresight earned a national reputation for the company and a permanent niche in the history of the New Hampshire woolen industry. A patented process for revivifying spent indigo dye - an innovation of great importance to Sawyer Mills and the woolen industry - was developed at the mill by company president Francis A. Sawyer. In 1876, the company gained national recognition at the Centennial Exhibition in Philadelphia, earning a Medal and Diploma of Merit for its fancy cassimeres and suitings. In the economic sphere, Sawyer Mills contributed significantly to the physical and economic development of Dover between 1873 and 1898 and remained a major employer until the Great Depression. The secondary period of significance, 1899 - 1939, occurred following Sawyer Mills' bankruptcy and absorption by the American Woolen Company. During this period (which actually extended until 1955, when all of the American Woolen Company holdings were closed and sold off), Sawyer Mills, reflecting the industry trend, lost its independent identity, was assigned to produce coarse woolen goods rather than finer cloths and worsteds, and operated only sporadically after the financial setbacks which began in 1924.

Following the close of the War of 1812, domestic textile manufacture was severely curtailed due to the release of a pent-up flood of European goods on the American market. This situation stabilized in the early 1820s, and domestic production, particularly in cotton cloth, flourished until 1848, when overproduction drove prices to record low levels, establishing a detrimental cyclical pattern. With the advent of the Civil War, and the loss of raw cotton supplies for northern mills, a sudden and enormous increase in demand for certain styles and qualities of woolen fabrics occurred. (This expansion was sustained in the New England woolen industry through 1870, when weakening protectionism resulted in a shrinkage of the number

of mills which could remain competitive, in the face of both foreign and growing domestic competition from the American South.)

Sawyer Mills began as a small cloth dressing business established by Alfred I. Sawyer in 1824. Wool flannel manufacture began there in 1832 and continued as its staple product until 1862, when looms to produce cassimeres, a fine cloth, were installed. The shift from production of flannels to cassimeres, wool suitings, and fine fancy goods was completed by 1866, positioning the company to compete favorably in the post-Civil War market. (4)

The Sawyers' mill, now controlled by Francis A. and Jonathan Sawyer, produced uniform cloth for the Union forces during the Civil War. The war ushered in a period of great expansion and economic turmoil in the textile industry; woolen companies which were well-managed, as was Sawyers', were able to lay the groundwork for future expansion. By contrast, many cotton mills, cut off from their source of supply, cut back or attempted to switch to woolen manufacture; many failed. Established mills, however, made enormous profits which were unmatched until World War I.

In the post-Civil War era, the woolen industry became segmented, with two principal branches of manufacturing: woolen goods and worsteds (the latter, the result of technological improvements in the 1850s which facilitated manufacture of combed, high-quality, fine-textured cloth). By 1876, most cloth purchased by Americans was factory-made. Because of the diversity of woolen styles, woolen mills tended to be small and increasingly specialized operations requiring more highly-skilled labor, when compared to the huge plants and labor forces of the cotton industry, which produced primarily coarse goods. Although few woolen mills of this period employed more than 200 operatives, Sawyer Mills routinely employed 450 - 600 workers.

Taking advantage of its improved economic condition after the Civil War, Sawyer Mills introduced a revolutionary innovation in its selling practices beginning in 1866. The company decided to sell directly to its customers (retail stores and consumers) through its own travelling agents, and later through company-owned stores in Boston and New York, rather than through commission houses as was the practice. The company gained two advantages in pioneering this change: increased economic independence (commission houses charged a commission for cash sales and an additional percentage to guarantee credit sales - a guarantee which, in times of financial crisis, existed in name only); and a greatly enhanced national reputation with increased visibility among business customers, who began dealing directly with Sawyer agents. (5)

An invention of great importance to Saywer Mills and the woolen industry was patented by company president Francis A. Sawyer 2d in 1871 - a process for revivifying spent indigo dye. Indigo was the most costly dye used in cloth manufacture and was critical to the manufacture of naval uniform material. A viable synthetic

indigo dye was not invented until 1890 and was put into use shortly thereafter; efforts toward its creation were multitudinous in the preceding decades. (6)

The period after 1870 is considered distinct in the history of American wool manufacturing. A. H. Cole, in The American Wool Manufacture (1926), describes the trends of this period in depth. The movement toward large-scale enterprise was solidified; a legacy, in part, of the over-capacity brought about by the Civil War. The factory, based upon the American system of manufacturing, had reached maturity, and the system for marketing finished goods was well-organized. Improvements in machine technology between 1830 - 1870 permitted diversification in production and quality of products, which gave rise to shifts in market preference for worsteds, light dress goods, men's wear, coating and soft dress goods for women; while demand for broadcloths declined. Expansion of the domestic market created by rapid urbanization, and the rise of the wholesale garment industry, further fueled this trend. Tariffs passed in the 1850s afforded protection to the industry from foreign competition, allowing newer, western mills to become established in producing coarse fabrics (jeans, kersey, blankets, linseys, satinets, flannels). The climate for textile manufacture worsened again, however, with the enactment of unfavorable legislation in 1867; additional factors were shifting markets and increasingly higher unit costs.

Despite these hindrances, and in contrast to the prevailing downturn, Sawyer Mills continued to prosper during the unsettled 'seventies in the production of cassimeres and other fancy goods, due to its innovations and astute management. In 1873 the company incorporated as Sawyer Woolen Mills, with a capital of $600,000, and embarked on complete reconstruction of its physical plant, replacing the earlier frame buildings with larger, more permanent brick masonry structures. By that year the original mill buildings acquired and improved by Alfred I. Sawyer were razed to make way for the present buildings, which included No. 2 and No. 4 Mills, the Engine Room, and the Dry Room/Carpenter Shop. The following year, No. 3 Storehouse was built.

The new mills were powered by two water turbines, one a 43-inch Risdon and the second a 42-inch Houston, both from falls of twelve feet; supplemental power was provided by a Harris-Corliss steam engine of ninety horsepower, according to D. H. Hurd in his 1882 account. (7)

By 1874, the Portsmouth and Dover branch of the Eastern Railroad (later the Boston & Maine Railroad), influenced by the needs of Sawyer Mills, was extended to Dover, and a station and freight house erected just north of the mill complex. Here, and later at platforms serving Storehouses No. 3, 4, and 5, passengers, freight, coal for steam power, raw wool and finished goods were handled, affording direct access to eastern markets. This station, the woolen mill, and the mill housing which developed in this area served as the focal point of the southwestern portion of

Dover, and became known as "Sawyers" or "Sawyers Village." (The station, owner's mansion, and much of the mill housing have not survived; this part of Dover is now bisected by the Spaulding Turnpike [1952] and is no longer a discrete village entity.)

In 1881 Charles H. Sawyer, a prominent Republican who served as governor of New Hampshire from 1886 to 1888, succeeded Francis A. Sawyer 2d as president; he directed the company through its bankruptcy in 1898.

By 1882 the Machine Shop, No. 5 Storehouse, Boiler House and main chimney, No. 1 Mill and Addition, Office, and Washroom were added. The physical plant contained thirty sets of cards, 115 Crompton fancy broadlooms, and 9280 spindles, consuming 2,400,000 pounds of raw wool annually, creating a value of $1.2 million. Two thousand tons of coal were consumed in operating the plant. Modern in their appointments and safety features, the mills were illuminated by gas and protected by automatic sprinkler systems. (8) During the 1880s, the company employed approximately 450 hands.

The cyclical contraction of the textile industry in New England had become an established pattern by c. 1880, with acquisition and consolidation of smaller, less efficient mills by larger, better-positioned producers commonplace. This was a period which foreshadowed the era of industrial monopolies, formation of the "trusts," so-called. Participating indirectly in this trend, members of the Sawyer family, drawing on their accounts at the still-prosperous Dover mill, invested in two other mills in Franklin, N. H., and Plymouth, Mass., in the late 1880s. (9)

By 1883 Sawyer Mills had become New Hampshire's largest woolen mill, based on the number of carding machines in use. In 1880 there were 58 woolen manufacturers in the state, six of these in Strafford County, and two worsted mills, within a nationwide total of 2,689 wool manufacturers (of all types of products). In the closing two decades of the nineteenth century, seventy percent of the nation's wool output was produced by nine northeastern states, and Tennessee. In 1890, New Hampshire was sixth in this ranking, and by 1900, eighth. In New England, the number of wool manufacturers (all classes) fell from a peak of 675 in 1870, to 488 by 1900; and in New Hampshire, from 82 to 45 firms. (10)

Sawyer Mills continued to expand. In 1891 equipment for the manufacture of worsted yarn was added. By 1894-1895 the mills included 136 looms, a dye house, seven boilers, and three waterwheels. By 1898 the plant had grown to immense proportions and was classified as a 39-set mill (referring to the number of cards). Six hundred operatives were employed at this time, making Sawyer Mills one of the largest employers in Dover. Later, after the turn of the cnetury, Sawyer Mills was superseded by the worsted division of the Amoskeag Manufacturing Company in Manchester, which grew to be the largest woolen manufacturer in the state (based on machinery, output, and employees). (11)

The New England woolen industry, caught up in the Depression of 1893 - 1897 and having lost protection from foreign competition under the Wilson-Gorman Act, again plunged into crisis in the late 1890s. Loss of protective tariffs was aggravated by a gradual shift in consumer preferences away from heavy woolen fabrics to worsted and other lighter, finer fabrics. During tariff hearings in 1896, the mid-1890s were referred to as "...without any reservation or qualification whatsoever... the most disastrous period in the history of the American wool manufacture." (12)

Sawyer Mills was not immune from these economic influences despite its modern plant and operations. Rapid expansion of the Dover plant and family ownership of other mills made the company more vulnerable to market volatility. The sudden bankruptcy of Sawyer Woolen Mills in 1898 was triggered by several factors: the impending liquidation of several Boston banks which had loaned money to the company; and the failure of Plymouth (Puritan) Woolen Mills in Massachusetts, which was owned by members of the Sawyer family. Intrinsic to the untenable financial position of Sawyer Mills was the longtime family practice of using the prosperous business as a bank for individual needs and investments in other business; family and business finances had become inextricably linked and Byzantine in their complications. (13) The demise of Sawyer Woolen Mills as an independent manufacturer is typical of the industry-wide trend of the period, as was its acquisition in 1899 by an emerging conglomerate.

Following the Depression of 1893 - 1897 and passage of the Dingley Tariff, the movement toward consolidation gained widespread momentum in American industry. The formation of partial monopolies, or "trusts," occurred where business weakness permitted an opportunity; and in New England, the center of the troubled woolen industry, the largest wool manufacturing conglomerate ever assembled was born.

Incorporated in March, 1899, the American Woolen Company was conceived by William M. Wood, treasurer of the failing Washington Mills of Lawrence, Mass. Wood was joined by Frederick Ayer, James Phillips, Jr., and Charles Fletcher, each the owner of a small group of woolen and worsted mills. Founded upon the principle of strict cost accounting for every phase of the manufacturing process, the American Woolen Company initially assembled eight mills, ultimately controlling 60 mills by 1923, all but three in New England. Sawyer Mills was acquired by American Woolen in the second wave of acquisitions (26 properties), in May of 1899. (14)

American Woolen Company became "by far the largest manufacturer of woolen and worsted fabrics in the world" (15) under the direction of William M. Wood, who managed the company until his retirement in 1924. Concentrating on producing the lowest-priced woolens and worsteds, including its specialty, blue serge, American Woolen dominated the staples market and reaped enormous profits in the uniform business during World War I. The firm's 60 mills competed against 799 mills nationwide, over 500 of these in New England, and accounted for one-sixth of the industry's gross product. (16)

Under the parent company, Sawyer Mills stabilized in size; the mill was listed in 1921 as having 32 cards and employing 550 workers. During the transition, worsted machinery was initially removed from Sawyer Mills, but apparently replaced later, as company literature reports that the mill was producing fancy woolens and worsteds in 1921. (17)

Wood's efforts also stabilized the New England woolen industry. American Woolen built up enormous cash reserves following World War I, the last great boom period for the woolen industry in the northeast. (As late as 1919, fifty percent of the woolen goods manufactured in the United States were produced in New England, with the Port of Boston handling 63 percent of the raw material, according to A. H. Cole.) Surplus investment capital enabled American Woolen to survive many lean years after 1924 and a succession of economic reverses, until its demise in 1955.

American Woolen Compnay continually sought to expand its holdings, which included purchase of four other New Hampshire mills: Baltic Mill in Enfield; the Lebanon and Mascoma Mills in Lebanon; and, in 1923, Tilton Mills in Tilton. Sawyer Mills was twice the size of these mills in plant and output, and remains the least altered of the entire group, the others having been modified for new uses or demolished.

American Woolen Company closed Sawyer Mills in May, 1954, as part of a belated effort to reorganize operations after the Korean conflict and prune uneconomic plants. The following year, the parent company was forcibly taken over by Textron, forming Textron American. Textron, a conglomerate, sought to fund further diversification by using the still-considerable assets of American Woolen to finance acquisitions. This it did, liquidating all of its New England mills within two years of the 1955 merger. As Steven Dunwell suggests in The Run of the Mill (p. 164), Royal Little, the founder of Textron and architect of the merger, simply delivered the coup de grace to the New England woolen textile industry.

The significance of Sawyer Woolen Mills rests upon its history of growth, expansion, absorption, and final decline, reflecting the general pattern of prosperity and decline of the New England wool industry during the nineteenth and twentieth centures. Acquired in 1899 as one of the original American Woolen Company mills, Sawyer Mills ceased to grow after that point, and the late nineteenth-century plant remained virtually unchanged during its final half-century of operation. Sawyer Mills' final closing, at a time when the merger battle with Textron was already underway, was the result of economic realities which overtook the entire New England textile industry. Consumer preferences for the new synthetics, poor management, outdated equipment, high labor costs, and apathetic city governments combined to push the industry - and capital - elsewhere. Ironically, the declining industrial fortune of Sawyer Mills and lack of re-investment under American Woolen Company's

control resulted in preservation of the mills as they had evolved by 1892 under the leadership of the Sawyers. The outstanding physical integrity of this property, unlike most other examples in this group, provides an important and enduring landmark of nineteenth-century New Hampshire industrial history.

FOOTNOTES

1. Cited in Steve Dunwell, The Run of the Mill (1978), p. 21.

2. Although the specifics of the new complex's design are unknown, it is likely that it was designed in-house, rather than by outside architects and engineers, according to Charles H. Sawyer, grandson of the last family president of the Mills (interview, June 12, 1984). F. A. Sawyer, before joining the family woolen firm in 1852, had been "in business [in Boston] as a contractor for buildings" for a number of years, according to William R. Bagnall, "Sketches of Manufacturing Establishments in New York City, and of Textile Establishments in United States" (c. 1890), p. 1209.

3. City of Manchester, N. H., and the Amoskeag Manufacturing Company (1912, unpaged).

4. Bagnall, pp. 1195-1211.

   D. Hamilton Hurd, in History of Rockingham and Strafford Counties (1882), p. 820, outlines early changes in ownership, as does Bagnall. The 1852 partnership of Alfred I. Sawyer's younger brothers, Francis A. and Jonathan, was named F. A. and J. Sawyer. Adding Jonathan's son Charles H. Sawyer, the company incorporated as Sawyer Woolen Mills in 1873. The firm of F. A. and J. Sawyer continued as selling agents. The plant was referred to as Sawyer Mills after it was acquired by American Woolen Company in 1899. Sawyer's Mill or Mills was an informal variant of the mid-nineteenth century. Sawyer Woolen Co. appears to be a later twentieth-century variant.

5. Bagnall, p. 1212.

   Hurd, p. 862.

6. U. S. Patent No. 120,215, October 24, 1871, granted to Francis A. Sawyer, 2d.

   Encyclopaedia Britannica, 11th ed., "Indigo."

FOOTNOTES, continued

7. Hurd, p. 819.

8. Hurd, p. 820.

9. American Woolen Co., A Sketch of the Mills of the American Woolen Company (1921), p. 77-79.
Charles H. Sawyer, letter, "To the Creditors and Others...," (October 17, 1898).

10. (United States) Textile Manufacturers' Directory for 1874 and 1883.
U. S. census reports for 1880, 1890, and 1900 (see bibliography).

11. Blue Book (1895), p. 171.
A. E. G. Nye, Dover, New Hampshire: Its History and Industries (1898), p. 56.
City of Manchester, N. H., and the Amoskeag... (unpaged).

12. S. D. North, as quoted by Arthur H. Cole, The American Wool Manufacture (1926), vol. 1, p. 229 f. and 230n2.

13. Charles H. Sawyer letter.
R. G. Dun & Co. Collection, N.H., Vol. 17, at Baker Library Archives.

14. Orra L. Stone, History of Massachusetts Industries (1930), vol. 2., p. 1510, 1512.
Edward G. Roddy, Mills, Mansions, and Mergers (1982), p. 133.
American Woolen Co., A Sketch of the Mills..., p. 56.

15. American Woolen Co., American Woolen Company Mills (1901), Preface (by William M. Wood).

16. Statistics compiled from the following sources:
Stone, History of Massachusetts Industries
Cole, The American Wool Manufacture
Roddy, Mills, Mansions, and Mergers
Newton Fuessle, The House that Wool Built (1923)

17. American Woolen Co., A Sketch of the Mills..., p. 94.

MAJOR BIBLIOGRAPHICAL REFERENCES

(American Woolen Co.) American Woolen Company Mills. Boston: American Woolen Co., 1921.

(_____) A Sketch of the Mills of the American Woolen Company. Boston: American Woolen Co., 1901.

Bagnall, William R. "Sketches of Manufacturing Establishments in New York City, and of Textile Establishments in the United States." Unpublished manuscript, c. 1890 completion, intended to form vols. 2 - 4 of Bagnall's Textile Industries of the United States, 1893. Manuscript edited by Victor S. Clark, 1908, Carnegie Institution, Washington. Microfiche edition of typescript by Merrimack Valley Textile Museum, North Andover, Mass., 1977. Also in collection of Baker Library, Harvard University, Cambridge, Mass., as vol. 2 of "Contributions to American Economic History."

The Blue Book; editions for 1894-1895, 1897-1898, 1954. New York: Davison Publishing Co. [Textile industry directory]

Chase, Geo. S. (accounting firm). Letter report to "Committee of Creditors of the Sawyer Woolen Mills." Boston, December 7, 1898. R. G. Dun & Co. Collection, N. H., Vol. 17; Baker Library Archives, Harvard University.

City of Manchester, N. H., and the Amoskeag Manufacturing Company. Manchester Chamber of Commerce, 1912. Pamphlet, collection of Manchester Historic Association, Manchester, N. H.

Cole, Arthur H. The American Wool Manufacture. 2 vols. Cambridge: Harvard University Press, 1926.

Dunwell, Steve. The Run of the Mill. Boston: David R. Godine, 1978.

The Factory Mutuals, 1835-1935. Providence: Manufacturers Mutual Fire Insurance Co. 1935. Pages 224 ff.

Federal Writers Project (W.P.A.). New Hampshire: A Guide to the Granite State. Boston: Riverside Press (Houghton Mifflin Co.), 1938.

Foster's Daily Democrat (Dover, N.H.). Industrial edition, August 10, 1916; "The Sawyer Mills of the American Woolen Company..."

_____ June 18, 1973, p. 109; "The Sawyer Mansion."

Fuessle, Newton. The House that Wool Built: The Story of the American Woolen Company. 1923? Reprinted from The Outlook; collection of Merrimack Valley Textile Museum.

Harrisville Historic District National Register nomination, 1971. On file at N. H. Division of Historical Resources, Concord, N.H.

Hurd, D. Hamilton. History of Rockingham and Strafford Counties, New Hampshire. Philadelphia: J. W. Lewis & Co., 1882.

"Indigo." The Encyclopaedia Brittanica. 11th edition, 1910; vol. 14.

The Leading Business Men of Dover, Rochester, Farmington, Great Falls and Berwick. Boston: Mercantile Publishing Co., 1890.

Leading Manufacturers and Merchants of New Hampshire. Chicago and Philadelphia: International Publishing Co., 1887.

(National Association of Wool Manufacturers.) The Awards and Claims of Exhibitors at the International Exhibition, 1876. Boston: National Association of Wool Manufacturers, 1876.

Nye, A. E. G. Dover, New Hampshire: Its History and Industries (Issued for the 15th Anniversary of Foster's Daily Democrat). Dover, N.H.: George J. Foster & Co., 1898.

Roddy, Edward G. Mills, Mansions, and Mergers: The Life of William W. Wood. North Andover, Mass.: Merrimack Valley Textile Museum, 1982.

Saunders, Dero A. "Twilight of American Woolen." Fortune 49 (March 1954). Pp. 93 ff.

_____ "The Stormiest Merger yet." Fortune 50 (April 1955). Pp. 136 ff.

Sawyer, Charles H. Letter, "To the Creditors and Others..." October 17, 1898. Collections of the Merrimack Valley Textile Museum and the Frost-Sawyer Papers of the N. H. Historical Society, Concord, N. H.

Sawyer, Charles H., II. Interview by Woodard D. Openo, June 12, 1984.

Stone, Orra L. History of Massachusetts Industries, Vol. II. Boston-Chicago: S. J. Clarke Publishing Co., 1930.

Thompson, Mary P. Landmarks in Ancient Dover, New Hampshire. Durham, N.H.: Durham Historical Association, 1965. Reprint of 1892 edition.

Textile Manufacturers' Directory of the United States. New York: Spelman & Babcock, 1883.

Tolles, Bryant F., Jr. "Textile Mill Architecture in East Central New England: An Analysis of Pre-Civil War Design." Essex (Mass.) Institute, Vol. CVII, Number 3 (July 1971).

United States. Census Office. 1880 Census: Report on the Manufacturers of the United States at the Tenth Census (June 1, 1880).

_____. 1890 and 1900 Census. Twelfth Census of the United States Taken in the Year 1900. Manufactures, Part III. Special Reports on Selected Industries. Includes summaries of 1890 census.

_____. Patent Office. Annual Report of the Commissioners of Patents for the Year 1871. Contains U. S. Patent No. 120,215, October 24, 1871, granted to Francis A. Sawyer, 2d., for "Improvement in Processes of Restoring Waste Indigo."

United States Textile Manufacturers' Directory. Boston: National Association of Wool Manufacturers, 1874.

MAPS AND VIEWS

"American Woolen Company et al 'Sawyer Mills' Dover, N.H." Index Number 6319. Boston: Associated Factory Mutual Fire Insurance Cos., 1939. Insurance survey.

Atlas of Strafford County, New Hampshire. Philadelphia: Sanford & Everts, 1871. Detail of map of Dover showing Sawyer Mills before major rebuilding.

"Bird's Eye View of Sawyer Woolen Mills," in A. E. G. Nye, Dover, New Hampshire: Its History and Industries (Issued for the 15th Anniversary of Foster's Daily Democrat). Dover: George J. Foster & Co., 1898.

"Sawyer Woolen Mills, Dover, N. H." Lithograph by R. Caughey. Cincinnati and New York: Strobridge Lithograph Co., 1880. Collection of Merrimack Valley Textile Museum.

"Sawyer Woolen Mills, Dover, N. H." Lithograph by Bert Poole; later version of previous listing, c. 1892-1898. Collection of Merrimack Valley Textile Museum (#P102).

"Sawyer Woolen Mills, Dover, New Hampshire." No. 3904. New York: Barlows Insurance Surveys, 1875. Fire insurance map and description of buildings and features. Collection of Merrimack Valley Textile Museum.

MAPS AND VIEWS, continued

Town and City Atlas of the State of New Hampshire. Boston: D. H. Hurd & Co., 1892.
Detail of map of Dover, and view of Sawyer Mills.

COLLECTIONS

Sawyer Woolen Mills Collection, 1858 - 1902. (42 vols.) Baker Library, Harvard University, Cambridge, Mass.

R. G. Dun & Co. Collection, N. H., Vol. 17. Includes letter report to Committee of Creditors from Geo. S. Chase, accounting firm. Baker Library, Harvard University.

Frost-Sawyer Papers. Box 7, File 26, contains Charles H. Sawyer's letter to the creditors. Box 7, File 15, contains a manuscript history of Sawyer Mills, probably written by Charles H. Sawyer. New Hampshire Historical Society, Concord, N. H.

Sawyer Mills research file. Closs Planners Inc., Concord, N. H.

OTHER SOURCES CONSULTED

Alderfer, E. B., and H. E. Michael. Economics of American Industry, 2nd ed. New York: McGraw-Hill, 1950.

Bell, Charles H. "Col. Charles H. Sawyer." Granite Monthly, Vol. IX, No. IX (Sept. 1886).

Dover, New Hampshire 350th Anniversary Commemorative Book 1623 - 1973.

Grimes, Gordon F., "A History of Dover, New Hampshire." 2 vols. Department of History, Bowdoin College, Brunswick, Me., May 14, 1971.

Molloy, Peter M. Homespun to Factory Made: Woolen Textiles in America. North Andover, Mass.: Merrimack Valley Textile Museum, 1977.

Smith, Daniel J. Rambles About the Dover Area, 1623 - 1973. Lexington, Mass.: Hancock Press, 1973.

Stearns, Ezra S. Genealogical and Family History of the State of New Hampshire. 4 vols. New York: Lewis Publishing Co., 1908. Vol. I, p. 104 ff.

OTHER SOURCES CONSULTED, continued

Wadleigh, George. Notable Events in the History of Dover, New Hampshire. Dover, N. H., 1913. Printed by Tufts College Press.

"Wool, Worsted and Woollen Manufactures." The Encyclopaedia Brittanica. 11th edition, 1911.

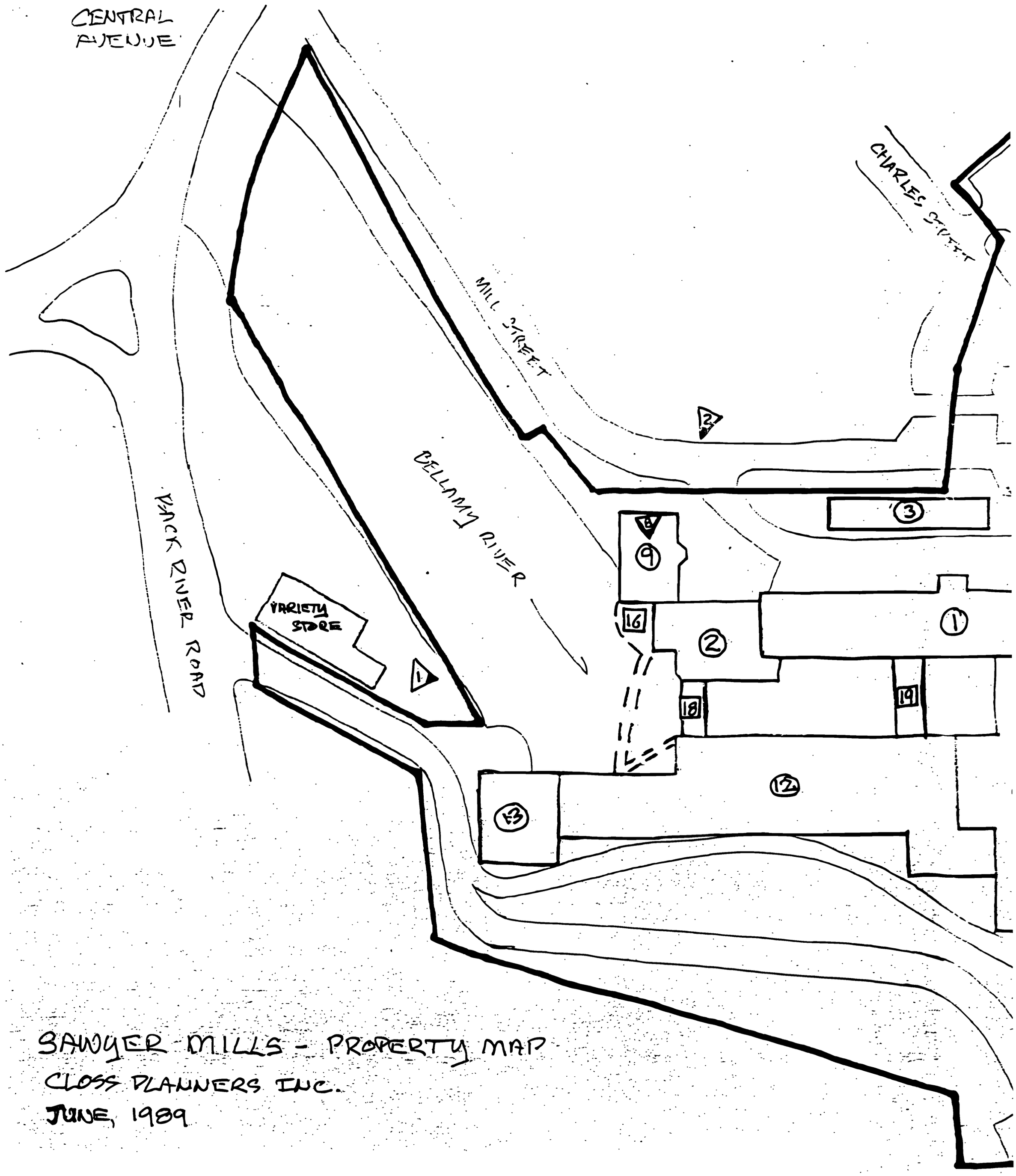
PHOTOGRAPHS

The preparer of this nomination certifies that the appearance of the nominated property has not changed since the photographs were taken in 1986.

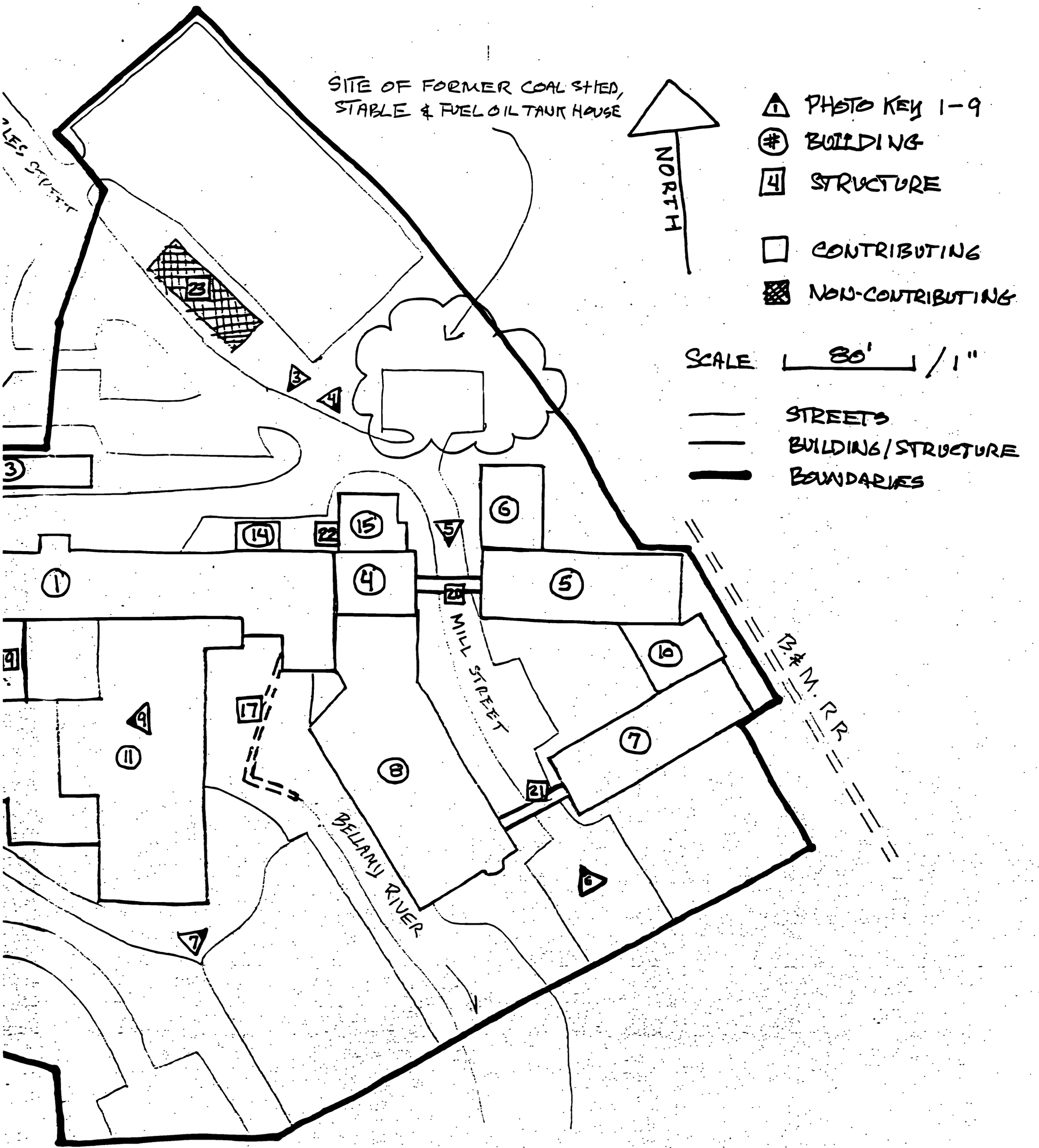
OWNERSHIP INFORMATION

Sawyer-Bellamy Mill Associates (Owner of the historic mill complex) (Site #1 - 22)
One Mill Street
Dover, N.H. 03820

City of Dover
Board of Mayor and Alderman (Owner of the noncontributing pumping station)
288 Central Avenue (Site #23)
Dover, N.H. 03820



SAWYER MILLS - PROPERTY MAP
CLOSS PLANNERS INC.
JUNE, 1989


SITE OF FORMER COAL SHED, STABLE & FUEL OIL TANK HOUSE
NORTH
PHOTO KEY 1-9
BUILDING
STRUCTURE
CONTRIBUTING
NON-CONTRIBUTING
SCALE 80' / 1"
STREETS
BUILDING/STRUCTURE
BOUNDARIES
MILL STREET
B.&M. RR
BELLAMY RIVER