

EXISTING CONDITIONS



Introduction

The Stillwater Mill Complex consists of several historic buildings on 12 acres in the Village of Harrisville. Built between 1895 and 1926 this mill is only one of the three remaining in Burrillville. While some commercial and industrial activities continue to take place in a few of the buildings, the majority of the structures are underutilized. Many of the buildings and much of the surrounding land has fallen into disrepair. However, it appears that the buildings have retained their structural integrity, and the location, age, and appearance of the site make this complex one of Burrillville's primary cultural and historic resources.

TABLE II
DETAILED PROJECT AREA LOT DATA

MAP	LOT	OWNER	LOT SIZE (SF)	LAND ASSESSED VALUE	BUILDING ASSESSED VALUE	TOTAL ASSESSED VALUE
160	077	Town of Burrillville	14,614.38	25,100	0	25,100
160	078	G A K Holding Group Inc.	6,098.40	42,500	82,300	124,800
160	079	Monfils Bruce	24,633.18	40,000	168,200	208,200
160	080	Fontaine Raymond P & Ohara Timothy	108,900.00	77,500	25,000	102,500
160	076	Burnside, Mary R	38,332.80	34,000	205,300	239,300
160	075	Roderick Stephen J & Marie TE	32,974.92	34,000	113,400	160,700
160	074	Burrillville Associates LLC	32,887.80	52,900	321,000	385,800
160	073	Chartier, Francis & Diane	8,712.00	34,000	81,900	116,200
160	072	Leighton Grover C III	6,098.40	34,000	56,300	90,300
160	071	Barna John	8,712.00	34,000	62,800	96,800
160	070	Serafin Edward V & Joyce TE	9,583.20	19,200	60,700	82,700
160	069	Town of Burrillville	108,900.00	90,400	0	90,400
160	068	Weidele Dexter F & Cheryl A TE	12,196.80	34,000	59,100	93,100
160	067	Schenck Allen E. DDS	11,325.60	37,300	91,800	129,100
160	066	Stillwater Realty Inc.	31,363.20	30,200	148,700	178,900
160	065	Champion Realty Corp.	141,134.40	66,500	177,700	244,200
160	064	UFO Distribution Corp.	16,988.40	30,000	61,400	92,500
160	063	UFO Distribution Corp.	48,155.58	39,200	300,200	339,400
160	062	Town of Burrillville	189,307.40	7,800	0	6,300
160	204	Mulligan Edward & Jean	94,329.18	14,000	0	14,000
		Totals	945,247.64	776,600	2,015,800	2,820,300

What remains of the original Stillwater Mill serves as an historical snapshot of New England's progressive 19th and 20th century manufacturing industry (see Figure 1: Existing Conditions). Steeped in the culture of Harrisville, the complex still elicits a favorable response to even the casual observer. In particular, the proximity of some structures to the Clear River and the powerful imagery of the Mill Clock Tower (Mill #4) are striking, and reveal a high degree of craftsmanship and a sense of Yankee ingenuity.

Architectural

The initial view from the north is of the Mill Office (now a restaurant) and the intriguing remains of the waterways that served the mill in its earlier days. Fronting onto East Avenue and its handsome arch bridge, the space appears as a forecourt to the larger complex located beyond. Low one- and two-story buildings partially obscure the views further into the grounds, but nothing can diminish the Mill Clock Tower (Mill #4) that stands over the complex.

Mill #1 is a set of two two-story buildings forming an L. The northern leg is masonry and has a very low floor-to-floor height. The south leg is a combination of masonry base (stone and concrete) supporting a wood frame top floor. This entire leg is in poor condition, having suffered from neglect, arson, and weather.

The Dye House is an irregularly shaped, one-story building whose principal attribute is its proximity to the river. It is in reasonably good condition and serves an important role in establishing the apparent northern limits of the mill complex.

The Mill #4 has evolved into a collection of buildings, many of which bear the dates of completion. The dominant element is, of course, the original reinforced concrete three-story mill. Reputed to be the first of its type (at least in the industrial Northeast), this imposing building has certainly suffered over time. Its once expansive window walls have been replaced by small, inappropriate units and in some places have been infilled altogether with impenetrable concrete block. Lack of maintenance has caused much of the exterior concrete to spall with damage at the tower itself. Additions include brick faced extensions to the north and south, both of which are appropriate in scale if not in detail or material. A series of additions, shed roofed and generally one-story, occur at the east façade overlooking the Clear River. These have suffered severely, and are partially collapsed in places. To the west occurs a rambling, low series of interconnected structures that start to ascend towards the upper reaches of the site. Originally used for wool scouring, these undistinguished structures conceal much of Mill #4 and effectively end circulation from the north to the south of the site.

The Tank Building occurs behind this series of low structures. Its volume, appearing almost cubic from some angles, is interesting, but more important is its location. Barring the low structures that conceal it from the greater mill complex, this building occupies what would be a very prominent and pivotal site. It is also one of only a few freestanding buildings on the property.

At the top of the site, to the west, is a series of irregular one- and two-story buildings formerly associated with wool sorting and storage. Now occupied by light industry, the location allows for relatively good access to Main and Central Streets. Truck circulation is eased somewhat by the nature of the site, which at this location is effectively bisected by the wool scouring buildings. This creates a loading area that is isolated from the main circulation routes within the mill complex. The buildings themselves are in useable condition, and some have been subject to recent additions and renovations.

A final element in the complex is a modest, wood frame garage building at the west edge of the mill property, and backing up to the residential properties fronting on Main Street.

Structural

Overall, the exterior of the structures would lead one to assume that the properties are in extremely bad repair to the point of requiring demolition. However, in general, the main load carrying structural elements appeared to be in better condition than the exterior conditions of the buildings would suggest. On the downside, almost all roofs showed signs of disrepair and leaks in the recent past. This may be caused by the fact that most of the roofs are flat and, therefore were not properly designed for drainage and the loads imposed by the fundamental nature of flat roofs (ponding, drifting, etc.). The following summary describes the structural aspects as of the inspection to date.

The Mill Offices structure is a wood framed building, originally used for offices for the mill complex, which currently houses the Inn at the Falls, a video rental business and several meeting rooms and small offices. The basement is mostly crawl space and the foundation is predominantly mortared fieldstone. Overall the structure is in reasonably good repair and fully occupied and heated.

Mill #1 – North Building is a two-level building. The lower level on which the upper level is supported has exterior walls of massive fieldstone under brick masonry. The lower level shows few affects from the fire, which damaged the upper level, although there is a new concrete block wall along the northeast end of the building at this level. The foundation appears to be in excellent condition with no evidence of settlement. The second level is of wood frame construction showing evidence of fire, which has severely damaged portions of the building at the Northeast end.

Mill #1 – South Building is a two-level building. The lower level is predominantly of reinforced concrete construction in reasonably good condition, although the large amount of miscellaneous goods warehoused there precluded total access. The second floor and the roof appear to be in bad condition due to fire, water damage and general lack of maintenance.

Mill #4 is made up of 6 structures which are all attached (or at least touching each other) and have been broken down in this report for ease of reference as buildings A thru F from north to south.

Building A (Dye house) - This building is a single level structure. The main structural members appear to be fairly massive brick masonry walls supporting wooden beams, which support the roof.

Building B – This building is a single level building. The main structural members appear to be fairly massive brick masonry walls supporting wooden beams, which support the roof. The owner has restored this area and uses it as a woodshop and for the warehousing of miscellaneous goods.

Building C - This three-level structure has a brick masonry exterior front, which makes it stand out from the surrounding structures. Structural steel columns and beams, in apparently good condition, provide the main load carrying capability of the building. As with many of the other buildings, the roof shows signs of having leaked in the past and some deterioration of the wooden roof members is still evident.

Building D - This structure is a multilevel reinforced concrete structure which currently houses a rather extensive clutch rebuilding operation. The main structural components appeared to be in reasonably good condition.

Building E - This structure is a small single story building on a concrete foundation. Access to this structure could not be provided at the time of the site inspection. The owner indicated that he had replaced the roof recently.

Building F (Wool Sorting / Store House) - This structure is a masonry structure currently subdivided into a number of areas for various commercial operations. On the whole, the structural components appeared to be in reasonably good condition. The owner indicated that the sloped roof on the eastern most corner of the building had been replaced twice because it had collapsed under ice load. The framing members of this roof section were not visible but should be checked for structural adequacy.

The Tank Building is a multilevel reinforced concrete and masonry building with wooden beams supporting floors and the roof. The masonry walls contained a large number of vertical cracks. The columns that originally supported the roof

beams in the northwest bay of the building have been removed. The wooden beams, on the other hand, have not. These beams currently have no positive means of support. The roof is currently supported by steel trusses.

The Garage structure is a single level wood frame building set apart from the other buildings of the complex. It was reportedly used for office space when the mill was in operation. The visible portions of the structure appear to be in good condition (much of the interior is finished with suspended ceilings). It was observed that the sprinkler system was hidden above and obstructed by the suspended ceilings.

In general, the roofs of most of the buildings show evidence of disrepair at the least. In some cases, as mentioned above, there may be some serious structural problems.

The foundations of the structures were not inspected. However, there were no obvious indications of settlement or other foundation failure. Underground streams and piping should be investigated to determine if there is any reason for concern. One owner indicated that in 1938, the water level was above the floor level in Building B. This indicates that the Clear River was probably covering a substantial portion of the site. The FEMA flood plain maps and the Flood Insurance Study for the town of Burrillville have been reviewed. The 100-year flood in the area of the site is between Elevation 322 feet and 323 feet. For design purposes Elevation 323 feet should be used. The elevation of the 500-year flood is about 2 feet higher than the 100-year flood in this area. The map and the study indicate that flooding may be a problem for the lower elevations of Mill #4 and for the lower elevations of the site. Detailed elevations of the site and building elevations should be obtained to determine the precise problem that flooding may have on the proposed project.

As mentioned above, a more detailed and thorough structural investigation is required before a definitive evaluation can be made. However, the majority of the structures is salvageable and can be used (with repairs and modifications) for future purposes.

Site Conditions

The site conditions of the project area can be divided into two distinct characteristics. Relatively open areas that surround the mill buildings and the wooded parcels of land to the south of the mill complex.

The grounds directly around the mill buildings are comprised of a mix of gravel or broken asphalt parking lots and roadways, and unmaintained meadow vegetation. The land slopes to the east towards the Clear River with an approximate change in grade of twelve feet. Piles of debris, junk cars and other

car parts can be found in the areas between Mill #1 and Mill #4. The general characteristic of this area matches the structures.

The wooded parcel to the south is approximately ten to fifteen feet higher in elevation than the mill complex. Its character, though different than the mill, is complementary to the overall project area and together with the Mill Pond reinforces the rural characteristics of Burrillville and provides a positive context for the project area.

Current Zoning

The Stillwater Mill Complex is currently zoned for Limited Industrial purposes. Included within the project area, the vacant parcel to the south is zoned for high-density residential purposes, specifically R-12 (12,000 sf minimum lot size and 100' of frontage). Adjacent property to the north and east are zoned R-12. To the west, along Harrisville Main Street, the properties are zoned for General Commercial purposes. The project area is also located over the Town's A-120 and A-100 Aquifer Overlay District. The more stringent requirements (wastewater generation, lot dimensions, use limitations) associated with the Aquifer Zones are to protect the Town's groundwater from contamination.

The Limited Industrial Zone allows by right uses including Municipal and private offices, and light industrial activities. Congregate Housing and Assisted Living are allowed by right in the R-12 Zone and allowed by Special Use Permit in the Limited Industrial Zone. A health clinic and services such as a copy center or dry cleaner are not currently allowed in the Limited Industrial Zone.

Current zoning for parking requirements is as follows.

- Office uses require 1 space per 250 sf of floor area.
- Retail/service require 1 space for every 90 sf of sales floor space and 1 space for every 2 employees.
- Industrial and "other" uses (municipal, for example) requires 2 spaces for every 3 employees.
- Housing requires 2 spaces per dwelling unit.

Utilities

The major roadways in the study area include East Avenue (Route 107), Harrisville Main Street (Route 98) and Central Avenue. Public utilities within these roadways include Town sanitary sewer and water. It should be pointed out that not all buildings within the complex are connected to these facilities. The size of both the sanitary sewer and waterlines are as follows.

	Water	Sanitary Sewer
--	-------	-------------------

East Avenue	10"	8"
Central Avenue	6"	8"
Harrisville Main Street	8"	
• East Ave. to Mowry St.		8"
• Mowry St. to Central Ave.		12"
• Central Ave. across Stillwater Complex		24"
• Stillwater Mill Complex to Wastewater Treatment Plant		36"

Neither the Burrillville Sewer Commission nor the Water Department have any plans to upgrade the above referenced facilities in the near future.

The project area also has overhead phone and electric service. No gas service exists in the area.

Traffic

The study impact area has focused on the main roadways leading to the site. They include Central Street and Harrisville Main Street and the intersection of Harrisville Main Street with East Avenue. The intersection of Central Street and Steere Farm Road was not analyzed as part of this study due to the low volumes associated with Steere Farm Road. The intersection of Harrisville Main Street and East Avenue is a four-way intersection. There are no separate turning lanes associated with this intersection. The eastbound approach is the entrance to Levy Elementary School and has minimal use during the summer months.

Existing traffic flow characteristics were developed from a manual turning count program conducted by BETA Engineering. The manual turning movement count was completed on April 24, 2001 at the intersection of Harrisville Main Street and East Avenue. The AM and PM peaks were found to occur from 7:00 to 8:00 and 5:00 to 6:00 respectively.

The key to any traffic impact analysis is the evaluation of the peak hour operations. Therefore, a capacity analysis was performed for the weekday morning and evening peak hours, which represent the highest volumes of traffic, serviced on Harrisville Main Street and East Avenue within the project limits. Analysis was conducted at the intersection of Harrisville Main Street and East Avenue for both the morning and evening peak hours.

The most accurate means of evaluating traffic capacity is through utilization of the methodology presented in the 1997 Highway Capacity Manual. The results of this technique are expressed in Level of Service (LOS). Level of Service is a qualitative measure of traffic flow efficiency based on anticipated vehicle delays. For example, LOS "A" represents the best conditions with little or no delay, while

LOS “F” indicates that the roadway/intersection is at full capacity resulting in extensive vehicle delays and queuing.

Listed below is LOS delay criteria for unsignalized intersections presented in the Highway Capacity Manual.

<u>Level of Service</u>	<u>Unsignalized Delay Per Vehicle (sec)</u>
A	<10
B	>10 and ≤15
C	>15 and ≤25
D	>25 and ≤35
E	>35 and ≤50
F	>50

The capacity analysis worksheet for the existing morning and evening peak hour volumes at the intersection of East Avenue and Harrisville Main Street are included in Appendix Number 1 of the original master plan report as prepared by Gates Leighton & Associates. These values are reflected on the turning movement diagram provided with the analysis. The following is a summary of the existing capacity results.

<u>Level of Service</u> <u>Intersection Approach</u>	<u>AM</u>	<u>PM</u>
East Avenue		
Westbound	C	C
Harrisville Main Street		
Northbound	A	A
Southbound	A	A
Levy School		
Eastbound	E	E

These results indicate the intersection currently operates effectively for the major movements, Harrisville Main Street and East Avenue. A warrant analysis was conducted for the existing traffic volumes at the intersection of Harrisville Main Street and East Avenue. The results indicated that a signal is not currently warranted for this intersection.

Environmental

A site walk was conducted on December 15, 2000 and again on January 12, 2001. The objective was to obtain preliminary information pertaining to environmental conditions at the site and to identify potentially significant environmental concerns. The inspection included a visual observation of applicable site

characteristics, such as vent pipes, evidence of leaking above ground storage tanks (AST), soil staining, odors, unidentified drums, stressed vegetation, and indications of solid waste disposal. This site reconnaissance included a visual inspection only. No testing of the air, soil or groundwater was performed.

Wetlands - The Clear River represents a major fresh water wetland resource adjacent to the mill complex. As part of the watershed that eventually flows into the Blackstone River, its influence on the site includes a two hundred-foot riverbank and associated flood plain.

Soils - Existing soil classification maps for Burrillville, RI, which have been developed by the U.S. Department of Agriculture Soil Conservation Service, were reviewed. Soil data indicates that the site is predominately underlain with a Merrimac Urban Complex defined as a well-drained soil commonly found on terraces and outwash plains in densely populated areas of the State (see Appendix Number 2 for additional information). Hydric soil conditions were not noted within the property from this data.

Resource Areas - Water resources in the vicinity of the site include the Clear River located along the eastern side of the property. The Clear River is greater than 10' wide and therefore, will have a 200-foot Riverbank wetland (set back) as defined by the Rhode Island Department of Environmental Management Division of Freshwater Wetlands. The attached plan (see Figure Number 3) illustrates the approximate location of this boundary. In order to locate the exact limits of this jurisdictional boundary, wetland delineation will be required. During this inspection any other water resources related to the Freshwater Wetland Act would be identified.

Flood Plain - As previously discussed in the Structural section, the FEMA flood plain maps have been reviewed. The 100-year flood in the area of the site is between Elevation 322 feet and 323 feet. Based on this information, portions of the eastern edge of the property lie within the flood plain and therefore, excavation or filling within these areas would be regulated under the Freshwater Wetlands Act.

Hazardous Materials - Based on the industrial nature of the property and observed existing conditions, investigation efforts related to environmental conditions need to be conducted to assess and document existing conditions. The Rhode Island Department of Environmental Management conducted a Brownfields Baseline Survey as documented in a letter issued to the Town of Burrillville Planning Department. This letter indicated that further investigative activities are needed to address conditions noted during the survey. This conclusion is supported by the observations made during the two site visits in December 2000 and January 2001 by Beta Group, Inc. In this regard, the following observations are made:

1 - All existing information should be assembled into one report as a Phase I environmental. This should include discussions with people knowledgeable about the site. A Phase II study will need to be completed for the site or for individual properties. This study should be scoped while assembling the Phase I report and should include input from RIDEM and the Town.

2 - An initial subsurface investigation should be conducted. This will include at least 40 samples, including 10 groundwater-monitoring wells. Historic information assembled in Phase I should be used to locate these samples. Samples should be taken near the former location of the 75,000-gallon oil storage tanks, near the former dye tanks, near the existing solid waste piles, near automotive repair facilities, etc.

3 - It is very likely that some issues will be identified as a result of the subsurface investigation that will require further definition prior to RIDEM entering into a Brownfields agreement on the property. This would include defining the extent of any contamination identified and possible determination of whether the Clear River has been affected.

4 - This site will then require a Brownfields Settlement Agreement and Environmental Land Use Restriction. This is a combination of legal and technical work, including meetings with RIDEM, discussions, estimation of costs, etc. This agreement will outline the required remediation action

5 - The actual clean-up or response necessary to satisfy RIDEM could range from spot removals to a major clean-up depending on what the actual risks are for potential impact on the environment or the potential of direct human exposure.

6 - Redevelopment may need to deal with oil soaked boards and flaking paint which may be lead paint.

7 - Piles of soil, junk cars, old tires, etc are located between the buildings. These conditions will require clean-up prior to implementation of the Master Plan.

8 - There are many pipes which previously discharged liquids directly to the river. These pipes should be investigated further and at least capped to avoid future discharge problems.

9 - The former dye tanks are now covered in concrete; they could still contain old chromium, cobalt, etc.

10 - There was a fire at the former electrical generation plant. This could have generated dioxin contamination.

11 - There are existing aboveground storage tanks in various locations, some of which do not currently have secondary containment. These will need to comply with current spill prevention regulations or be removed.

A Groundwater Overlay Map created from RIGIS data indicates that the property lies within a GAA area indicating groundwater sources that may be suitable for public or private drinking water without treatment. These conditions should be considered during any subsurface investigative activities.