

Design Guidelines
for the
Great Falls National Historic Landmark District
Paterson, New Jersey



submitted to the
National Park Service
Philadelphia Support Office
Philadelphia, Pennsylvania

and the
City of Paterson
Historic Preservation Commission
Paterson, New Jersey

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Table of Contents

Acknowledgments

Introduction

- Chapter 1 The Great Falls Historic District: Background
- Chapter 2 Preservation Approach

DESIGN GUIDELINES

- Chapter 3 Maintenance, Repair, Preservation, and Restoration of Existing Historic Buildings
- Chapter 4 Signs, Awnings, and Lighting
- Chapter 5 Landscape, Site Amenities, Public Improvements, and Open Space
- Chapter 6 New Construction and Additions to Existing Buildings
- Chapter 7 Demolition, Demolition by Neglect, and Relocation
- Appendices
 - A. What is beyond Repair?
 - B. Glossary
 - C. Resources for Owners of Property within the Great Falls Historic District
 - D. Bibliography

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The Design Guidelines was prepared by members of the staff of John Milner Associates. Philip Scott wrote the text and Gillian Goodwin prepared the illustrations. Kathryn Bowers edited the document and Jeannette DiStefano & Oriel Francis executed the graphic layout. Peter Benton provided oversight.

Introduction

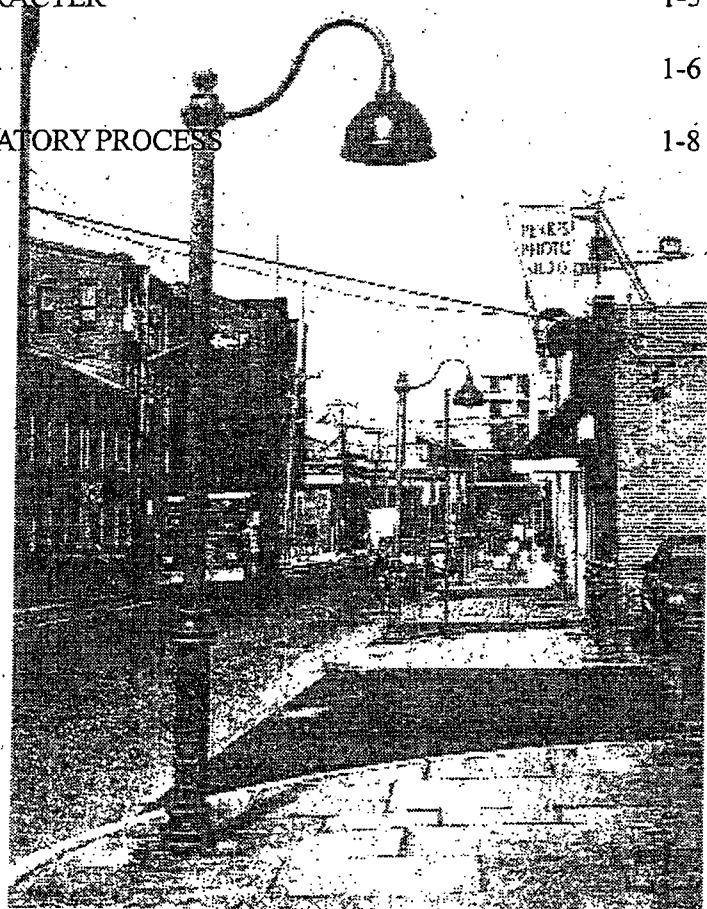
The Design Guidelines for the Great Falls Historic District are a part of the New Jersey Urban History Initiative, a National Park Service project intended to provide planning and development assistance related to historic preservation in several of New Jersey's historic urban areas, including Paterson. The project is being administered by the Philadelphia Support Office of the National Park Service on behalf of the City of Paterson. The city's Department of Community Development, Office of Redevelopment, and the Paterson Historic Preservation Commission ("the Commission") are overseeing the project for the city. John Milner Associates, Inc. has been engaged as primary preservation planning consultant to prepare the zoning analysis and the design guidelines, and has been assisted in its work on the zoning analysis by planning consultants Norman Day Associates.

The purpose of this project is to provide a working design guidelines document that will present detailed design criteria, specific to the local Great Falls Historic District ("GFH District"), that will assist the Commission in the review of projects within the district. This working document is intended for several audiences: the Commission itself, and the property owners, other residents, and developers within the district. The design guidelines are intended as well to raise the general level of awareness, understanding, and discourse regarding preservation and design issues within the district.

Chapter 1

Great Falls Historic District: Background

HISTORY OF DEVELOPMENT/HISTORIC SIGNIFICANCE	1-2
DESCRIPTION OF PHYSICAL CHARACTER	1-5
DEVELOPMENT PRESSURES	1-6
DESIGN REVIEW AND THE REGULATORY PROCESS	1-8



Chapter 1

Great Falls Historic District: Background

History of Development/Historic Significance

The city of Paterson has its origins in the founding in 1791 of The Society for Establishing Useful Manufactures (S.U.M.). Led by Alexander Hamilton, the nation's first Secretary of the Treasury, the S.U.M. was dedicated to the idea that a strong industrial base would be the best means to guarantee the stability, strength, and independence of the young Republic. Identifying New Jersey as the likely location, several sites were scouted along the Passaic, Delaware, and Raritan Rivers, with the Passaic proving to be the most feasible. Ambitious schemes were put forth for a "national manufactory," one involving the purchase of over eighty square miles of territory and another the construction of a seven-mile transportation and hydraulic canal/raceway from above the Great Falls to tidewater at the present location of the city of Passaic. Having failed to convince the US Congress to establish and subsidize a national manufacturing center, Hamilton and the S.U.M. prevailed upon the New Jersey legislature to incorporate the S.U.M. as a private concern, and to grant it broad powers to determine development along the Passaic, including tax incentives.¹

Financial concerns, as well as the implication of the S.U.M.'s governor in a scheme that induced the country's first stock panic and resulted in the first economic depression, led to the S.U.M.'s decision to downscale the project. In 1792, the S.U.M. authorized the purchase of 700 acres for the nation's first planned industrial city, located directly adjacent to the Great Falls in order to take advantage of the vast water power generated by the 65-foot hydraulic head of the Passaic River where it breaks through the Watchung Mountains. Later that year, Pierre L'Enfant, who had recently completed the design for the nation's new capital city, Washington, DC, was engaged to design and oversee construction of both the hydraulic system and the city of Paterson itself. His scheme was also somewhat grandiose, involving a huge Roman-style arched aqueduct that would divert the entire flow of the Passaic and include a tow path and cartway. Ten houses were constructed by the end of 1792, with fifty more foundations dug.

¹ Hamilton's proposal that the mayor of Paterson be appointed "for life" by the Board of the S.U.M. was rejected by the legislature, and Paterson was unincorporated and unchartered until forty years later in 1831. Indeed, the first strike in Paterson was in 1794, and had to do with the absence of adequate schools for workers' children. Later, under Roswell Colt, the S.U.M. would not pay for street improvements. In today's terms, Paterson's origins are essentially as a speculative industrial park, though a supremely visionary and significant one.

As work on the hydraulic system proceeded, it became clear that a professional manager would be required for the operation of the entire industrial complex. In 1793, Peter Colt was hired as the superintendent of the entire operation. L'Enfant, difficult in person and then absent during the winter of 92-93, was relieved of his responsibility for everything except the construction of the hydraulic system. When it became clear that the aqueduct would not be complete in time to operate during that manufacturing season, L'Enfant was dismissed and left Paterson, never to return, taking with him the drawings for the hydraulics system as well as his plan for the city of Paterson. The drawings are said to have been lost in a fire.

It was left to Colt to complete construction of the hydraulic system by modifying L'Enfant's design, eliminating the costly aqueduct and substituting a reservoir contained by an earthen embankment. The S.U.M.'s first cotton mill began spinning operations in July of 1794. When Colt left to work on the project that would become the Erie Canal, his management acumen was missed. Production problems due to a fundamental lack of understanding of the manufacturing process led the S.U.M. to cease operations in 1796. By 1801, the site had been virtually abandoned; Paterson's population of 500 had fallen to 43.

From that point forward, the S.U.M. became essentially a real estate development and power utility, providing the essential water power to its industrial tenants and customers. In 1804, the Old Yellow Mill was constructed, the first manufacturing concern that was not controlled by the S.U.M. A paper mill, its brownstone foundations are still visible where they were incorporated into the rear portion of the Essex Mill. When Roswell Colt took over in 1809, he encouraged the further development of cotton mills. Peter Colt returned to Paterson in 1811, and when the war of 1812 erupted and the United States was cut off from trading partners, the need for domestic goods increased and Paterson was poised to expand and diversify its production capacity.

The need to provide and repair the machinery for Paterson's textile mills gave rise to a machinery industry as early as 1812 when Thomas Rogers founded the first of his several concerns. In 1832, the Colt Gun Mill began to produce revolvers. In 1836, Rogers won a contract to reassemble a steam locomotive that had been manufactured in England and disassembled for shipping to the United States. In the absence of international patent law, he studied the locomotive, made patterns from each of the parts, and produced Paterson's first locomotive in 1837. Three locomotive companies in Paterson were responsible for 80% of all locomotives produced in the United States during the 19th century. By 1873, the Rogers Company alone employed 1,650 workers and produced a locomotive every two days. The silk industry would supplant the machinery industry in Paterson, increasing 370% to become a \$14 million per year industry during the 1870s, and employing one-third of the nation's silk workers. The silk boom continued until 1919.

In order to accommodate the burst of industrial activity, the S.U.M. had to alter and expand the raceway system several times during the course of the early 19th-century. When in 1838 Colt's earthen embankment failed and the reservoir had to be abandoned and infilled, the ultimate layout of the raceway system most resembled L'Enfant's original plan. Interestingly, the earliest mills were at approximately the

level of the middle raceway. Expansion moved both down and up, making the original tailrace into the lower raceway and raising the head with a new dam and turning the water south to make the upper raceway. In its final form, the raceway system was capable of delivering water sufficient to develop 2000 horsepower. When the S.U.M. switched to hydroelectricity in the early 20th-century, its four modern turbines were able to generate 6500 horsepower.

As Paterson's industries grew and diversified, so did the population who provided the labor. Between 1850 and the turn of the century, the population increased from 11,000 to 105,000, growing by an average of 50% per decade. Residential development, some of which is still in place, occurred immediately surrounding the industrial area and expanded south and east. The S.U.M. had stipulated in 1792 that houses be 18 feet wide, 24 feet deep, and 12 feet high to the plate, with cellar and garret. The stipulation that houses be of brick or stone may have resulted from L'Enfant's grand vision, for it appears that many of the houses within the Great Falls Historic District were of wood frame construction. The absence of skilled labor and the explosive need for unskilled labor offered opportunity to the immigrants who are a critical part of Paterson's history. The Irish and English certainly dominated during the 19th century, giving way to the Italians, but several other ethnic groups were in Paterson as well. The 20th century finds Paterson continuing to accommodate diverse immigrant groups, with a substantial Spanish-speaking population.

The key determinant of the urban design of the area comprised by the Great Falls Historic District was the layout of the hydraulic system. Essentially, buildings were situated to take best advantage of the hydraulic power that was delivered by way of the raceway system. Although the upper raceway included locks to allow barges to be floated right up to the mills, most mills were dependent upon the system of surface streets for receiving raw materials and shipping finished goods.

Although L'Enfant left with the plans, it appears that the layout of the district was quite ordered throughout its development. An 1836 view of the Rogers, Ketchum and Grosvenor works shows a relatively small-scale orderly operation in a rather bucolic setting with farm fields, split-rail fencing, and haystacks in the background between the factories and the embankment of the Morris Canal. A photograph from 1860 looking south down Spruce Street shows the same buildings in place but with several more lining what is now a discernible street. In the early 1870s the Rogers Works mounted a substantial rebuilding campaign, transforming itself into a large-scale operation with separate large buildings to house the different industrial processes including pattern making, foundry, blacksmithing, turning, planing, and erecting. An 1897 view shows the Rogers Works completely built out on its site with substantially built large and small buildings occupying virtually all the available space. Indeed, insurance maps from this period show a very densely developed industrial precinct, clustered around the power supply and hemmed in by the residential districts directly adjacent. The dense industrial character of the district, almost campus-like in its singularity of purpose and earnest intent, must have been unparalleled anywhere in the country.

As an important industrial center and the home of European immigrants already educated in organizing workers, Paterson was the site of historic labor unrest that focused on anti-child labor legislation, safety in the workplace, a minimum wage, and reasonable working hours. The drama that played out in Paterson in the great silk strike of 1913 included some of the most important early figures in early 20th century American labor history. From the balcony of the Botto House, the leaders of the Industrial Workers of the World (the IWW or “Wobblies”) rallied workers during the Paterson silk strike of 1913, a critical juncture in the history of the American labor movement. The strike also signaled the beginning of the decline of Paterson’s industrial base and the end of its powerful contribution to the nation’s economy.

The significance of the Great Falls Historic District cannot be overstated. The first planned industrial city in the country, Paterson represents one of the founding father’s attempts to put into practice the central political idea of independence. Paterson’s physical form and engineering accomplishments are the products of some of the best minds of the late 18th century, including Alexander Hamilton, Pierre L’Enfant, and Peter Colt. The existing buildings include one of the best and most concentrated collections of early industrial buildings in the country.

The significance of the district was formally recognized in 1970 with the listing in the National Register of the Great Falls of Paterson and the S.U.M. National Historic Landmark District, the boundaries of which were extended in 1975 and again in 1986. The locally-zoned Great Falls Historic District was created in 1978.

Description of Physical Character

Given the importance of the topography to the history and interpretation of the Great Falls Historic District—the dramatic waterfall, rock outcroppings, and riverside park land, the engineering of the raceway system, and the substantial and dignified mill buildings set among open spaces and interspersed with ruins and abandoned buildings—it is perhaps most appropriate to think of the character of the district in terms of a diverse and evocative landscape. With the loss of many of the historic mill buildings that once clustered around the Great Falls, the landscape as it is has taken on a significance of its own. America’s industrial revolution has been likened to a machine in the garden; in Paterson, the machine is rusting as the garden reasserts itself. The portrait is both tragic and poetic.

One of the distinctions of the Great Falls Historic District is that cause and effect are so clearly evident; the power source at the falls is linked by the raceways to the industrial buildings. The raceways are the linear argument that explains the transparent logic behind the design of the place, connecting the mill buildings that support the argument. The central engine of the place, the Great Falls has determined everything. An element of mystery comes from its being rather hard to find, tucked away within its basalt chasm.

The Great Falls Historic District is fundamentally about work, *industry* in its truest sense. It is not merely an industrial landscape, but a landscape of industry. The district bears eloquent testimony to astounding feats of engineering and construction, to ingenious manufacturers, and to the courage, creativity, and drudgery of untold lives spent within the mills. It is also about the human propensity to harness the forces of nature, to put water and gravity and stone to work. The district retains the sense of having been one large factory driven by one powerful engine, an image completely consistent with Hamilton's vision of a centralized national manufactory.

The physical character of the district is quite varied. The district includes almost 3/4 of a mile of the Passaic River, with significant portions of open space both on the north side of the river and above the upper raceway surrounding the reservoir. At its southwestern extent, the district includes a rather nondescript commercial strip along McBride Avenue; along its eastern flank it borders the primary central business district of the city. The district includes intense industrial activity in historic mill buildings along Spruce Street and Van Houten Street, commercial and residential uses in the renovated Franklin, Essex, and Phoenix Mills, large open spaces where mill buildings have been lost along Market Street, the large Allied Textile Printing complex severely damaged by fire and left in a state of ruin that gives a strong hint of just how densely built out the district once was, and the serene walkway along the upper and middle raceways. The district also includes a very large trolley/bus barn in use by New Jersey Transit, small-scale residential houses along Mill Street, and neighborhood commercial buildings at Van Houten Street.

Development Pressures

With several large building sites available, excellent access to major transportation routes, good public transportation service, a location directly adjacent to the central business district, and the appeal of being a National Historic Landmark District, the Great Falls Historic District is under a great deal of development pressure. Change and growth are the necessary dynamics of a healthy economy and vital community. While the Great Falls Historic District represents a significant potential contributor to the economic development of Paterson, both as a development site and as a tourist attraction, development must be directed and channeled in a manner that complements and is consistent with the historic character of the district. To damage the historic character of the district will be akin to killing the goose that lays the golden eggs. It should be noted that development pressure refers not only to the changes that result from growth and new construction, but includes the loss of existing resources.

There are several large construction projects that have been proposed for sites within the district including retail and income-based housing at the Hamilton Mill site, the rehabilitation and addition to the New Jersey Transit Bus Garage, a parking garage on the site of the Grant Locomotive Company erecting shop site on Market Street (currently a large parking lot between the Cooke Locomotive Administration Building and the Union Works Building) and medium-density residential development at the Allied Textile Printing site. The rehabilitation and restoration of the severely damaged Public School #2 is completed. This severely deteriorated building will be adapted for reuse as a child development

center, with a newly constructed link to the present adjacent school, and the open part of the site being used as outdoor play space. Handled properly, each of these projects represents an opportunity to contribute to the retention of the overall character of the district.

The district also is threatened by further loss of industrial use and by incompatible use. The city has had increasing difficulty in attracting industrial enterprise to the Great Falls Historic District. Access to the district is excellent from a number of major highways, and there is a large labor source in Paterson, but the buildings themselves do not lend themselves easily to modern industrial processes. The buildings along Spruce Street and along Van Houten Street, the areas of most dense industrial use, are on very tight sites and have little parking. The loss of industrial activity is a critical threat to the unique character of the Great Falls Historic District; it is also detrimental to efforts to interpret Paterson's industrial past.

Probably the most devastating development pressure within the Great Falls Historic District has been "demolition by neglect." Vandalism, fires, and deterioration due to the elements have resulted from neglect and have, in a relatively short period of time, severely eroded the integrity of the district. It is sobering to look at a late 19th-century insurance map, a 1974 plan of the district, and a 1996 map, and to realize how much has been lost in the last quarter of a century. As of this writing, there are at least two significant buildings within the Great Falls Historic District that are open to the elements and seriously endangered—the Cooke Locomotive Administration Building and the Addy Textile Mill. With these two exceptions, standing buildings within the Great Falls Historic District are either highly desirable for rehabilitation or in good condition, or both.

The issue of density within the Great Falls Historic District is a critical one. At its peak, the area now comprising the district was densely built up with industrial buildings, as can be seen along part of Spruce Street. That density has now eroded due to the loss of many of the historic industrial buildings. The medium- and large-scale development projects presently proposed will have enormous impact on the density of the Great Falls Historic District. The design of these projects will be essential in preserving and even strengthening the historic character of the district. While most zoning is created to prevent over-development, in the Great Falls Historic District under-development could be just as damaging, and may be more likely to occur.

The complement of appropriate density is the importance of open space to the district. Several areas of the district are designated as park land and will most likely remain open. Development should proceed in a manner that links the open spaces and allows views into and out of these open spaces so that the topography which is so important to understanding the history of the district is not obscured.

Finally, the city of Paterson, more than many northeastern cities, continues to suffer from the withdrawal of industries. The resultant lack of resources plays itself out in myriad ways. The city administrators have taken on enormous and complex burdens. The danger exists that decisions may be made expediently,

without proper planning, and with only short-term goals in mind. This could be particularly damaging to the Great Falls Historic District where decisions must be made in the context of long-term goals. What may appear to be the safest development proposal might not be the best, in the long run, for the district or the city.

Design Review and the Regulatory Process

The Zoning and Land Development Ordinance (1978) of the city of Paterson establishes design review within the Great Falls Historic District as follows:

No new construction, reconstruction, demolition, restoration, exterior or interior replacement, alteration or other work which would change the exterior appearance of any structure, or site including the erection or removal of signs, shall be undertaken on any historic site or landmark or within any historic district without first obtaining from the Construction Official a permit to perform such work. (Section 1211.2)

The Paterson Ordinance also establishes the Historic Preservation Commission and empowers it to review all plans for improvements within the district that are referred to it by the Construction Official, the Planning Board, and the Zoning Board of Adjustment. The design guidelines that appear in Chapters 3 through 7 of this document are a result of the Commission's charge to

Develop and, from time to time, amend specific regulations and standards for reviewing and approving any changes to structures in the District. Such regulations and standards shall be approved by resolution of the Paterson City Council, prior to taking effect. (Section 1211.1.7)

Stated most simply, the purpose of design review is to assure that alterations to existing buildings preserve their historic fabric and character, and that new construction will be compatible with the historic character of the district. The guidelines that follow are an attempt to provide a clear means by which to discuss and evaluate the preservation of historic fabric and compatibility with historic character.

The design review process begins when a property owner files a permit application with the Construction Official for a project within the Great Falls Historic District. If the Construction Official determines that all other terms of the zoning code are met, within five days the official will forward the application material to the Commission for a preliminary sub-committee review. (If all terms of the zoning code are *not* met, the Construction Official will refer the applicant to the Division of Planning and Zoning for instruction on how to proceed with an application for review by the Planning Board or the Zoning Board of Adjustment. In the course of such review the Division of Planning and Zoning will forward the application to the Commission.)

Within seven days of the receipt of materials from the Construction Official or the Division of Planning and Zoning, the sub-committee will make a determination approving the permit if 1) the proposed work is

maintenance or repair exclusive of changes in design, material, color and/or outward appearance; or 2) the Construction Official has certified that the proposed work is necessary to remove or rectify a dangerous condition; or 3) the proposed work would not materially impair the historic social, cultural, architectural, or aesthetic significance of the district and refusal of the permit would impose substantial hardship on the applicant. If none of the above three conditions are met, the application will be forwarded for review by the full Commission.

Within 45 days, the Commission will evaluate the application and write a letter to the Construction Official recommending either approval, or conditional approval based upon changes in the plans that are acceptable to the applicant, or denial. If the Commission recommends denial and the application is one that requires the review of the Planning Board or the Zoning Board of Adjustment, "the Board shall give great weight and deliberation to the recommendation made by the Commission." (Section 1211.5.2)