

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials and areas of significance, enter only categories and subcategories listed in the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Straight Street Bridge over the Passaic River
other names/site number Straight Street Bridge; Passaic County Bridge No. 14 / SI&A #1600014

2. Location

street & number Straight Street spanning the Passaic River not for publication
city or town Paterson City vicinity
state New Jersey code NJ county Passaic code 031 zip code 07505

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. See continuation sheet for additional comments.

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

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

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

4. National Park Service Certification

I hereby certify that this property is:	Signature of the Keeper	Date of Action
<input type="checkbox"/> entered in the National Register. <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined eligible for the National Register. <input type="checkbox"/> See continuation sheet.	_____	_____
<input type="checkbox"/> determined not eligible for the National Register.	_____	_____
<input type="checkbox"/> removed from the National Register.	_____	_____
<input type="checkbox"/> other, (explain:) _____ _____ _____	_____	_____

5. Classification

Ownership of Property (Check as many boxes as apply)	Category of Property (Check only one box)	Number of Resources within Property (Do not include previously listed resources in the count.)	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	Contributing	Noncontributing
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	0	0
<input type="checkbox"/> public-State	<input type="checkbox"/> site	0	0
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	1	0
	<input type="checkbox"/> object	0	0
		1	
			Total

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

Number of contributing resources previously listed in the National Register
0

6. Function or Use

Historic Functions (Enter categories from instructions)	Current Functions (Enter categories from instructions)
TRANSPORTATION: Road-related (vehicular)	TRANSPORTATION: Road-related (vehicular)
TRANSPORTATION: Pedestrian-related	TRANSPORTATION: Pedestrian-related

7. Description

Architectural Classification (Enter categories from instructions)	Materials (Enter categories from instructions)
OTHER: Pennsylvania thru truss	foundation <u>STONE: Brownstone (abutments and wing walls)</u>
	walls
	roof
	other <u>METAL: Steel (superstructure); METAL: Iron (pedestrian railings)</u>

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

See Continuation Sheets, Section 7.

8 Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria considerations

(mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

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

Areas of Significance

(Enter categories from instructions)

ENGINEERING

TRANSPORTATION

Period of Significance

1907 - 1908

Significant Dates

1908

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

Colin R. Wise (Engineer)

Albert Lucius (Consulting Engineer)

F.R. Long & Co. (Builder)

9. Major Bibliographical References

Bibliography

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

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data

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

Name of repository:

Office of the County Engineer, County of Passaic; Paterson Museum; Paterson Free Public Library

Straight Street Bridge
Name of Property

Passaic County, New Jersey
County and State

10. Geographical Data

Acreage of property Less than one acre

UTM References

(Place additional UTM references on a continuation sheet.)

1 18T 570215 E 4530906 N
Zone Easting Northing
2

3
Zone Easting Northing
4

See continuation sheet

Verbal Boundary Description

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

Boundary Justification

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

11. Form Prepared By

name/title Emily Paulus Everett, AICP / Senior Architectural Historian emily.everett@aecom.com

organization AECOM Technical Services, Inc. date August 2017

street & number 437 High Street telephone 609-386-5444

city or town Burlington state NJ zip code 08016

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

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

name _____

street & number _____ telephone _____

city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.470 *et seq.*)

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Section number 7 Page 1

Description Narrative

Summary Paragraph

The Straight Street Bridge over the Passaic River (hereafter “Straight Street Bridge”; SI&A# 1600014) is a single-span, two-lane, riveted Pennsylvania-type thru truss bridge constructed between 1907 and 1908 (Photographs 2 and 4). It was designed by Passaic County Engineer Colin R. Wise and built by F.R. Long & Co. with steel from the nearby Passaic Rolling Mill Company. All of the main truss components are original and the superstructure retains a high degree of integrity (Photograph 11). The Straight Street Bridge is one of few identified Pennsylvania-type thru trusses in New Jersey. It is a highly significant example of the transfer of railroad technology to a highway span for intentional application in one of the state’s most prominent industrial hubs.

Narrative Description

The Straight Street Bridge (SI&A# 1600014) consists of a single-span riveted Pennsylvania thru truss completed in 1908 as part of a massive rebuilding effort following the devastating flood of October 1903. The bridge carries Straight Street (County Route 650) over the Upper Passaic River on the northwest side of the City of Paterson in Passaic County, NJ (see USGS Map) (Photograph 3). It is 255 feet in length with a 30.7-foot cartway width and is supported by a combination of reinforced concrete and the ca.1888 brownstone abutments from the second Straight Street Bridge. The superstructure is composed of traditionally built-up box members for the top and bottom chords and inclined end posts, while the diagonals, verticals, sub-ties, and sub-struts of the six panels are composed of either laced channels or angles (Photographs 10 and 12). Numerous beams bear the founders mark, “PASSAIC,” of the Passaic Rolling Mill Company (Photograph 8). The bridge deck, supported by a floor beam and stringer system, is covered in concrete and bordered by a tubular steel guardrail (Photographs 15 and 7). The bridge includes 7-foot wide cantilevered concrete sidewalks bordered by the original wrought iron railings (Photograph 6). The decorative upper portions of the railings are composed of a riveted “x” pattern flanked by vertical ribbon-like strips of wrought iron at regular intervals (Photographs 5 and 9).¹ The railings at each side of the bridge terminate in fluted cast iron newel posts (Photograph 13).

All of the main truss components are original and the superstructure retains a high degree of integrity. Significant repairs were undertaken in 1989 and, most recently, a major rehabilitation effort was completed in 2003 – neither of which resulted in significant changes to the superstructure. In 1989, the original brownstone abutments were repaired and capped with reinforced concrete and the deck slab was replaced with reinforced concrete (Photograph 14). In 2003, components below the bridge deck were replaced, including the cantilevered sidewalks, floor beams, and stringers. Round-headed bolts replaced some of the original deteriorated rivets, a hollow steel rail barrier was added to protect the trusses, and new period-appropriate light fixtures were added. In addition, the pedestrian railings were removed, repaired, and reinstalled and a new rail cap installed.

¹ Twisted iron was a simple and economical way to ornament utilitarian structures, like bridges, window grilles, and fire escapes. See Susan and Michael Southworth, *Ornamental Ironwork: An Illustrated Guide to Its Design, History, and Use in American Architecture*. (Boston: David R. Godine, 1978), 148.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Section number 7 Page 2

Setting

The Passaic River is an approximately 80-mile mature surface river that meanders through northern New Jersey, terminating into Newark Bay. It flows northeast into the City of Paterson, where it drops over the Great Falls of the Passaic.² Just north of Straight Street, the river turns abruptly south and forms the boundary between the City of Paterson in Passaic County to the west and the Boroughs of Fair Lawn and Elmwood Park in Bergen County to the east. The crossing at Straight Street is one of 110 crossings along the river, which includes both vehicular and rail bridges, but holds distinction as the only Pennsylvania type truss. The Straight Street Bridge is situated between the Arch Street Bridge (1907; Passaic County Bridge No. 1600015) to the southwest (downstream) and the Sixth Avenue Bridge (1987; Passaic County Bridge No. 1600012) to the north (upstream) (Photograph 1).

DRAFT

² Part of the Great Falls/S.U.M. Historic District (NRHP Reference #86001507; NJRHP #2364).

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property
 Passaic County, New Jersey
 County and State

Name of multiple listing (if applicable)

Section number 8 Page 1

Statement of Significance

Summary Paragraph

The Straight Street Bridge meets National Register Criterion C for its role as an important early transportation resource of Paterson, New Jersey and its engineering significance as an important example of a Pennsylvania truss highway bridge – an uncommon long-span steel truss type. The Straight Street Bridge is representative of the extraordinary post-1903 flood reconstruction effort led by then-County Engineers William Whitmore and Colin R. Wise, whose confidence in long-span steel trusses to replace the longer spans lost over the Passaic River led to the use of the Parker truss at Arch Street (Passaic County Bridge No. 1600015) and the Pennsylvania truss at Straight Street. The Period of Significance begins in 1907, when the county-led reconstruction of the Straight Street Bridge began, and ends in 1908 when construction of the new bridge was fully completed.

Criterion C: Engineering and Transportation

Under Criterion C, the Straight Street Bridge is a highly significant and rare example of an early 20th century Pennsylvania truss built for vehicular use, and with an exceptional live load capacity. While the Pennsylvania truss was the standard type for railroads, its use as a highway bridge was uncommon. In fact, the Straight Street Bridge is one of few known or identified Pennsylvania truss highway bridges in the state and, according to the 1991-1994 New Jersey Historic Bridge Survey, the only known example in Passaic County.³ The bridge design itself is emblematic of Colin Wise's confidence in long-span steel trusses to replace the longer spans lost after multiple flooding events from the Passaic River, as well as the application of a stronger bridge type within a planned industrial city. Its character-defining features and significant design elements are prominent and intact.

HISTORIC CONTEXT

The historic growth of the City of Paterson is inextricably tied to the Passaic River, which bends above the northern boundary of the city forming a hydrological boundary. The presence of this water source gave Paterson life by providing the resources necessary for an industrial hub. Paterson's accelerated growth at the end of the 18th century is largely credited to Alexander Hamilton, then the Secretary of the Treasury. In 1791, Hamilton presented the *Report on Manufactures* to the House of Representatives, in which he promoted the formation of "a society...on behalf of which measures are already in train for prosecuting on large scale the making and printing of cotton goods"⁴. This report proved the genesis for Paterson as one of the county's early industrial towns. The Society for Establishing Useful Manufactures (S.U.M), a company created to spearhead the experiment, launched a bold city planning effort engendered by the federal government to stimulate the economy of the still nascent nation by developing a cluster economy predicated on the cotton industry. By 1796, the early manufacturing experiment had failed and S.U.M. was relegated to management of the town which it created.⁵ However, the industrial city model remained, and Paterson continued to develop as a manufacturing hub of the northeast.

³ The Easton-Phillipsburg Toll Bridge (1938; NBI #48730299920010) over the Delaware River is one of the only other known Pennsylvania truss highway bridges in the state. It was once considered the longest steel truss bridge in the country.

⁴ Alexander Hamilton, *Report on Manufactures, Communication to the House of Representatives, December 5, 1791* (Washington, DC: United States Treasury Department, 1913), 55.

⁵ Walter Licht *Industrializing America: The Nineteenth Century* (Baltimore, MD: The Johns Hopkins University Press, 1995), 17; "S.U.M. Society for Establishing Useful Manufactures," Paterson Friends of the Great Falls, accessed January 30, 2017.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 8 Page 2

In the early years of Paterson's development, fords were established at approximately six shallow points in the Passaic River to convey pedestrians into the city's core.⁶ Access into the city, which amounted to access across the river, would become a predominant thread in Paterson's history extending from residential access to the industrial and commercial core to the need for railroads to move products in and out of the city. Thus Paterson developed into a city of bridges beginning in the 18th century. The first recorded bridge in Paterson was built prior to 1737 at present day Bank Street and predated the first formal pedestrian footbridge across the Passaic by at least five years. In 1704 bridge construction and maintenance became a responsibility of the county government.

Straight Street

Prior to the mid-19th century, development was centered on the Great Falls and its nearby industrial buildings and workers housing.⁷ By the 1850s, roads were laid out beyond the immediate area of the falls and mills and development of the area around the Straight Street Bridge began in earnest. The 1854 Gordon map of New Jersey shows the Paterson Railroad -- the first of three rail lines that would eventually pass through Paterson -- paralleling Straight Street. Historic mapping and trends suggests the railroad likely spurred the development of the northern section of the city. By 1861, larger structures are visible on the Hopkins map of Paterson and several are located east of the intersection of Lafayette and Straight Streets. The growth of the textile industry accelerated Paterson's development through the 1860s and Paterson's modern street pattern was nearly complete by 1872.

A bridge at Straight Street is not depicted on the 1872 Beers atlas but the road on the west side of its location is shown as "North Straight Street." The first crossing at Straight Street may have been under construction at this time or plans for it may have been made public. The bridge's first depiction on historic maps occurs in 1875, when shown on a water pipe and hydrant map produced for the Paterson Board of Trade.⁸ Thus, the first known structural crossing of the Passaic River at Straight Street can be placed sometime between the years 1872 to 1875. In 1887, an "iron bridge" is shown on Sanborn Fire Insurance Maps (Figure 1). By 1888, the replacement of this first Straight Street Bridge had begun, and a local newspaper article proclaimed "the erection of the new Straight street bridge will begin to-morrow, when the old structure will be closed."⁹ This second Straight Street Bridge is shown in a historic photo from the 1902 flood, which portrays a partially submerged three-span Pony truss (Figure 2). It was destroyed less than two years later in the flood of 1903.

By the early 20th century, the vicinity around Straight Street included a fully-developed street grid characterized by a mixture of commercial and industrial operations, including the Jacob Levi silk factory

⁶ William Nelson, *History of the City of Paterson and the County of Passaic New Jersey*, (Paterson, NJ: The Press Printing and Publishing Co., 1901), 403.

⁷ Charles Pennington et al. "Architectural Evaluation of the Straight Street Streetscape and Archaeological Sensitivity Assessment of the Straight Street Bridge Over the Passaic River Project, City of Paterson, Passaic County, New Jersey." Prepared for Raytheon Infrastructure Services, Incorporated. (Cranbury, NJ: Richard Grubb & Associates, Inc., June 1995), 24.

⁸ Pennington et al., 25.

⁹ "Local Gleanings," *Paterson Morning Call*, May-Oct 1888. Accessed February 18, 2017, <http://fultonhistory.com/>

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property
 Passaic County, New Jersey
 County and State

Name of multiple listing (if applicable)

Section number 8 Page 3

and the Empire Mill. It was the necessary transport of heavy trucks and freight to and from these mills that necessitated the use of a truss bridge with a heavy live load capacity and the ultimate choice of the Pennsylvania truss to do so. In his report on “The Thoroughfares and Traffic of Paterson” in 1922, consultant Herbert Swan characterized Straight Street as having a unique and underappreciated position in the city’s street system. He states that Straight Street is “one of the most important links in the city’s major street system. Being the only continuous street running north and south through the city between Madison Avenue and Main Street and located immediately to one side of the business district, it will, in time, serve not only as a cut-off between Main and River Streets and, therefore, as a relief to the downtown streets, but as a main highway between such communities as Montclair and Clifton on the south and Ridgewood, Prospect Park and Hawthorne on the north”¹⁰ (Figure 3). Development in the area had stabilized and slowed down by 1939, as the 1939 and 1949 Sanborn Maps appear virtually the same.

The 1902 and 1903 Floods

“The Straight street bridge, the largest and most substantial in the city, collapsed early. It had withstood the storms of twenty-five years, and was thought to be as strong, if not stronger, than the more recently built structures.”¹¹ Due to its location on the Passaic River and relatively low elevation compared to the surrounding land, Paterson has been repeatedly inundated by floodwaters over the course of its history. While major flooding events in 1810 and 2011 bookend two centuries of an increasing number of major flooding events, the floods of 1902 and 1903 may loom largest in the city’s history.¹² Each coming on the coattails of other disasters that befell Paterson, both caused disruption and later damage to the city’s numerous bridges across the river.

Paterson had been devastated by a fire in early February 1902 that had destroyed 456 buildings in the city, largely in the commercial center of the city and more affluent residential neighborhoods. Just less than a month later the city experienced a disastrous flood when heavy rains and snowmelt upriver flowed into the Passaic River and downstream to Paterson. By March 3, the river had risen to 15 feet above normal, surpassing by about seven feet the height of the flood of 1882, which was the highest in living memory at that point. The silk mills of the city—largely spared by the previous month’s fire—were greatly damaged, as were the streets and sidewalks. Though several of the bridges in the city were submerged, including the Straight Street Bridge, it appears that only the Arch Street Bridge was reported washed out. Further downstream in the city of Passaic, the Outwater Bridge collapsed, claiming the lives of six men who were on it at the time. Though a majority of Paterson’s bridges survived the flood, many lost their railings and were damaged by debris that was swept against them by the raging waters. The floodwaters had receded significantly by March 4, allowing an initial assessment of the damage. Though there was some relief that the rumors of more bridge collapses had turned out to be false, property damage from the flood was estimated to exceed \$1,000,000.¹³ At the time, the flooding that took place between February 25 and March

¹⁰ Herbert Swan, “The Thoroughfares And Traffic of Paterson.” (Paterson, New Jersey: City Plan Commission, 1922), 54.

¹¹ “Havoc Wrought by Floods.” *The Anglo Saxon*, October 15, 1903.

¹² Northern New Jersey Flood Commission [NNJFC], Report of the Northern New Jersey Flood Commission (Somerville, New Jersey: Unionist-Gazette Association, 1904), 6; Sam Dolnick, “River, at 100-Year High, Ravages a City That Once Thrived on It,” *New York Times*, August 31, 2011, accessed February 14, 2017, <http://www.nytimes.com/2011/09/01/nyregion/paterson-nj-is-devastated-by-floods-after-hurricane-irene.html>.

¹³ John T. Cunningham, “Three Weeks of Terror,” *Royle Forum*, March 15, 1970, 8-9; “Rushing Waters Engulf Our City,” *Paterson Evening News*, March 3, 1902, 1; “Worst of the Flood is Over,” *Paterson Evening News*, March 4, 1902, 1; “Six Dead

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property
 Passaic County, New Jersey
 County and State

Name of multiple listing (if applicable)

Section number 8 Page 4

9, 1902 would constitute the region's greatest flood since 1882.¹⁴

Paterson was once again hit by two disasters in 1903, though the first, a tornado in July, caused no damage to the city's bridges.¹⁵ Starting October 10, however, the city was inundated by a flood surpassing that of the previous year in height and damage. Caused by what *Engineering News* called a "very heavy and unusually concentrated rainfall," the high-water mark was approximately three to four feet higher than the flood of 1902.¹⁶ Five individuals were killed, and damage for the Passaic River Valley was conservatively estimated at around \$7,000,000. The waters swept away nine bridges in Paterson, including the Straight Street Bridge, and more outside the city limits. In fact, all structures crossing the Passaic south of the Arch Street Bridge were of iron and carried away, with the exception of the Sixth Avenue and Wesel bridges.¹⁷ These structures were built too low and thus inundated during the early stages of the flood. Even those bridges that technically survived – such as Arch Street, Main Street, Wesel (Market) Street, West Street, and Broadway – endured significant damage such as destroyed roadways and collapsed spans. Though newspapers announced that the Arch and West Street Bridges were soon open to pedestrian traffic, photographs and testimony reveal that they were largely washed out. One individual testifying to the county freeholders on October 20 reported that the Arch Street Bridge "was at the present time but a dam in the middle of the river and should be pulled down."¹⁸

In the aftermath of the Flood of 1903 contracts for some temporary pedestrian footpaths, such as those installed at Arch Street and Straight Street, were quickly awarded to help reconnect the different parts of the city, while other spans waited years to be built. County Engineer William Whitmore, who had been appointed earlier in the year, led an assessment of damage to county bridges and created a list of priority projects for the county. He recommended that short and medium-length spans be replaced with steel stringer and girder bridges, while he chose to promote the use of long-span steel trusses for lengthier spans crossing the Passaic River. Within five years, the destroyed bridges had been replaced and county bridge construction sank back to its normal levels.¹⁹

The back-to-back floods also spurred efforts at flood prevention and mitigation along the Passaic River, and to that end the Northern New Jersey Flood Commission of 1903 and the Passaic River Flood District Commission of 1906 were established. Problems such as encroachment on the river channel,

in the Flood," and "Paterson Flood is Falling," *New York Times*, March 4, 1902, 2.

14 George Buell Hollister and Marshall Ora Leighton, *The Passaic Flood of 1902*, prepared for the Department of the Interior, United States Geological Survey, (Washington, DC: Government Printing Office, 1903), 51.

15 "Tornado Sweeps Over Paterson," *New York Times*, July 23, 1903, 1-2.

16 "Flood Damage to Bridges at Paterson, N.J.," *Engineering News* 50 (1903): 377; NNJFC, Report, 6.

17 Those destroyed were designated as follows: Straight Street, Hillman Street, Moffat, Wagaraw, Fifth Avenue, East Thirty-Third Street, and Broadway Bridges.

18 "Flood Damage," *Engineering News*, 377-79; NNJFC, Report, 6-7; "Paterson Faces a Greater Flood," *New York Times*, October 11, 1903, 1; "Receding Waters Lay Bare Ruin," *Paterson Daily Press*, October 13, 1903, 1; "Everybody Cleaning Up," *Paterson Daily Press*, October 14, 1903, 1; "Bridge Building Coterie Got Solar Plexus Blow," *Paterson Morning Call*, October 21, 1903, 1.

19 "Bridge Building Coterie," *Paterson Morning Call*, 1; Abba Lichtenstein, et al., *The New Jersey Historic Bridge Survey: Passaic County*, prepared by A. G. Lichtenstein & Associates, Inc. for the New Jersey Department of Transportation and the Federal Highway Administration, September 1994. On file at the New Jersey State Historic Preservation Office, MULT GB 199 v6., 7-8, 10.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property
 Passaic County, New Jersey
 County and State

Name of multiple listing (if applicable)

Section number 8 Page 5

overdevelopment, and the draining of wetlands were identified, and a number of solutions were proposed, but nothing was implemented. After a flood in 1936, the Army Corps of Engineers was tasked with developing flood control measures for the river, but plans were rejected in the following years.²⁰

Constructing the Bridge

County Engineer Colin R. Wise has been engaged for some time preparing the specifications and blue print drawings of the structure...he has been assisted by Albert Lucius, the consulting engineer from New York, and together they have completed a set of plans which it is predicted will meet with the freeholders' heartiest approval. The Straight street bridge will be a steel lattice truss structure, with riveted connections—one very similar in construction to the bridge which spans the river just above the falls. It will be about the same size as the bridge above the falls, measuring 247 feet in the clear and 253 feet from abutment to abutment. It will cost \$37,000, and will be the only bridge making a clear span of the river between the falls and Belleville. It will be the largest truss bridge in Passaic County.

- "Bridge to Be Begun," *The Paterson Morning Call*, February 25, 1907.

Plans to replace the temporary three-span wooden span at Straight Street began in earnest in 1906. Newspapers from the period indicate several meetings of the "Straight Street Bridge Committee" and document needed repairs to the temporary wooden span. In February 1906, an article on the front page of the *Paterson Morning Call* stated that both the Straight and Wagaraw Street temporary structures "have nearly outlived usefulness" and that the Board of Freeholders is "likely to instruct the county engineer to prepare plans."²¹ Indeed, by November 1906, then-County Engineer Colin R. Wise completed the first set of plans for the new Straight Street Bridge and the Straight Street Bridge Committee announced plans to review them.²² Well-known bridge companies such as Dean & Westbrook, Berlin Construction Co., Cyclopean Iron Works, F.R. Long Co., and the Canton Bridge Co., presented plans and bids for many of the post-flood bridge reconstructions. Minutes of the Board of Freeholders indicate that, in most cases, the contract was awarded to the lowest bidder.²³ Ultimately, the Straight Street Bridge was designed by Wise himself -- likely driven by the need for expediency in addition to capitalizing on Wise's experience with long-span steel trusses (Figure 4). In addition to acting as County Engineer, Wise was a partner at Wise & Watson, Engineers, experienced local bridge builders in the 19th century based in the City of Passaic. Other Passaic County bridges attributed to Wise & Watson include the Passaic River Bridge (1898; Bergen County Bridge No. 0200015). Wise was assisted by Albert Lucius, a consulting engineer from New York. On February 25, 1907, the Board of Freeholders met to review the preliminary plans for the bridge.²⁴ The contract for building the structure was awarded to F.R. Long & Co. of New York, New York, who also

20 Charles H. Capen Jr., "History of the Development of the Use of Water in Northeastern New Jersey," *Journal of the American Water Works Association* 28 (1936): 977; NNJFC, Report, 8-9, 12-13; J. Sanderson Stevens, Phase 1A Archaeological Investigations for the Proposed Bridge Replacement or Rehabilitation of Bridge No. 1600009 (Fair Lawn Avenue Over Passaic River), prepared by Parsons Engineering Science, Inc. for the North Jersey Transportation Planning Authority and the Passaic County Engineer, February 2000. On file at the New Jersey State Historic Preservation Office, MULT F 536a, 4-20.

21 "May Build Two Bridges," *Paterson Morning Call*, February 17, 1906, 1.

22 "The New Straight Street Bridge," *Paterson Morning Call*, November 14, 1906, 1.

23 Board of Freeholders of Passaic County. Minutes. Nov. 1903, 171.

24 "Bridge to be Begun," *Paterson Morning Call*, February 25, 1907, 1.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 8 Page 6

built the nearby Eighth Street Bridge (1915; Passaic County Bridge No. 1600004) and Main Street Bridge (1900; Passaic County Bridge No. 1600016).²⁵

The new bridge utilized the remaining masonry abutments of the second Straight Street Bridge, as illustrated on a February 1907 sketch on file at the Passaic County Engineer's Office (Figure 5). The piers that supported the earlier span remained but were removed to make way for the new single span bridge. To accommodate the approach to the new and presumably wider bridge, the southwest corner of Straight Street and River Road was widened and angled – a configuration still evident today in the way the pedestrian sidewalk cants along River Road. In contrast with the other long-span thru trusses built under Whitmore's leadership, Straight Street's truss pattern employed sub-ties and sub-diagonals for greater load capacity – presumably intended to handle the freight wagons from nearby factories. The original deck surface was four-inch wood block paving with a one-inch sand cushion.

The front page of the March 19, 1908 *Paterson Morning Call* announced the bridge's completion with the headline "Straight Street Bridge Completed," and stated a final inspection had been completed by Wise, who reported to the Board of Freeholders that it is in "first-class condition and that the Board would do well to formally accept it from the contractor."²⁶

Passaic Rolling Mill Company

[The Passaic Rolling Mill] is the most important as well as the most extensive establishment of its class East of the Alleghany and among the largest in the country. It is the only concern of its kind in Paterson and has for many years been regarded, and justly, as one of the chief among the grand industries that have contributed to the growth and importance of the city.

- "A History of Industrial Paterson," L.R. Trumbull, 1882.²⁷

Steel for the bridge was provided by the Passaic Rolling Mill Company, as evidenced by the "PASSAIC" founders mark seen on steel beams throughout the superstructure.²⁸ The Passaic Rolling Mill Company was founded by brothers John, Watts, James, and William Cooke in 1868, on the former site of the Idaho Iron Company.²⁹ The mill was one of the largest of its kind in the Northeast. The company produced iron and steel structural products for buildings, bridges, rail roads, and other architectural and engineering purposes. Among their most prominent projects is the production of the steel for the New York City elevated street railways and the George Washington Bridge in New York City. As L.R. Trumbull elaborates in 1882 in his *History of Industrial Paterson*,

There are but five other concerns in the country making a similar line of products, and through the enterprise and marked ability of the management the trademark "Passaic" can be seen branded on iron in almost every portion of the land from Maine to California. In 1876 was added a new department, that of bridge-building. This feature was introduced at a time of extreme depression in

²⁵ "Straight Street Bridge Progressing," *Paterson Morning Call*, July 11, 1907, 1.

²⁶ "Straight Street Bridge Completed," *Paterson Morning Call*, March 19, 1908, 1.

²⁷ L.R. Trumbull, *History of Industrial Paterson*, (Paterson, N.J.: C.M. Herrick, 1882), 104.

²⁸ See <http://historicbridges.org/info/brands/> for more examples of "Passaic" founders marks.

²⁹ *Municipal Engineering*. Vol. 23. New York: Municipal Engineering Company, 1902, 18.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 8 Page 7

all industries, the object being to enable the company to enter into contracts for the construction of the contemplated elevated railroads in New York city. They were successful in their endeavors, and from 1876 to 1880 they furnished thousands of tons of the material and thus aided in affording the people of New York city their much-needed and long-coveted rapid transit. This work gave full employment to over 600 men all through the hard times, the fortnightly disbursement for wages averaging \$10,000. In addition to the elevated work many bridges have been built for common highways and railways in the United States, South America and the West Indies.³⁰

By 1890 the company employed about 1,000 persons, and in 1903 its output was 60,000 long tons. Steel became a more significant product, and by 1903, the company changed its name to the Passaic Steel Company. Later in the 1910s it was changed again to the Passaic Structural Steel Company. The mill complex was located at the corner of Straight Street and Getty Avenue along the New York & Lake Erie Railroad (Figures 6, 7). The 1991-1994 New Jersey Historic Bridge Survey states that, “despite the size and longevity of the mill, few bridges have been identified as their work. Some of their iron and steel sections and beams have been identified in other fabricator's bridges.”³¹ Thus, the Straight Street Bridge's historic significance is indeed strengthened by its association with this local manufacturer of national importance.

History of the Pennsylvania (Pettit) Truss Type

The Pennsylvania truss, a Parker variation on the Pratt truss, was developed by engineers of the Pennsylvania Railroad in 1875. It is sometimes referred to as a Pettit truss after Henry Pettit, a Pennsylvania Railroad engineer employed at the time of its conception.³² Along with the Baltimore truss it was the product of two of the early eastern trunkline railroads developed during the 1870s for heavy locomotives. The Pennsylvania truss features subdivided panels but, unlike the Baltimore truss, has a polygonal or inclined top chord. It was originally developed for use in relatively long span railroad bridges, but became a common type for shorter span lengths. The truss was adapted for highway use, as exemplified in the Straight Street Bridge, as early as the 1880s. When steel replaced wrought iron and rigid riveted connections replaced pins in the early decades of the 20th century, the Pennsylvania truss was used for longer span highway bridges until the 1920s. Though considered a successful configuration, it was never patented.³³

A Historic Context for Common Historic Bridge Types states that:

The Pennsylvania truss is significant for its association with the railroad. Nineteenth century examples of such bridges are considered significant within the context of this study, and the earliest railroad-built examples are highly significant. Highway bridges built using the Pennsylvania truss are not amongst the more common bridge types in this study and are considered significant if they retain their character-defining features.³⁴

³⁰ Trumbull, 105.

³¹ Abba Lichtenstein, *The New Jersey Historic Bridge Survey*, 1994, Structure # 1600022.

³² David Guise, “Abstracts & Chronology of American Truss Bridge Patents, 1817-1900.” *Society for Industrial Archeology Occasional Electronic Publication No. 1* (2009), 49.

³³ Guise, v.

³⁴ Parsons Brinckerhoff and Engineering and Industrial Heritage. “A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15.” Prepared for the National Cooperative Highway Research Program, the Transportation Research Council, and the National Research Council. (New York, NY: Parsons Brinckerhoff and Engineering and Industrial Heritage, October 2005), 3-37.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 8 Page 8

The Straight Street Bridge is a significant example of its type because of its sub-typology as a highway bridge and because it retains the original top and bottom chords, vertical and diagonal members, struts, and portal features.

Late 20th Century Repairs and Rehabilitation

For decades following its construction, the bridge remained in use. Representation in subsequent plans and documentation includes a 1935 riparian and stream survey of the Passaic River by the Emergency Relief Administration, the precursor to the Works Progress Administration (Figure 8). By the last quarter of the 20th century, its condition had declined to the point that a 1979 inspection report characterized the condition of the superstructure as fair and the condition of the substructure as poor, largely due to the collapse of the southeast wing wall. Numerous recommendations were made to increase the bridge's longevity.³⁵ By 1989, plans for repairs to the south abutment were made by A.G. Lichtenstein & Assoc. from Fair Lawn, New Jersey. Specifically, the plans call for the partial removal of the stone masonry at the south abutment and its replacement with reinforced concrete. At that time, a new concrete deck was replaced, and the stringers were cleaned, painted, and reset to new bearings at the south abutment.³⁶

A major rehabilitation of the bridge occurred between 2002 and 2003. According to the 2001 plans, work included reconstruction of the sidewalks (the original steel sidewalk brackets were retained) and reconstruction of the bridge deck with new stringers, floor beams, and an asphalt overlay. No changes were made to the truss aside from the replacement of deteriorated rivets with compatible high strength bolts. The original decorative pedestrian railings were removed, repaired, and reinstalled. Replaced elements at the railing were limited to new round-headed bolts to replace the original rivets and a new rail cap. Finally, new period lighting, including pendant fixtures, was installed.³⁷ The work took more than 20 months to complete and cost approximately \$3.2 million. In 2003, the New Jersey Department of Transportation (NJDOT) was recognized for its historically sensitive approach to the bridge rehabilitation through a Historic Preservation Award.³⁸

³⁵ Goodkind & O'Dea, Inc. "Bridge Inspection and Rating, First Cycle Report, 1979, Bridge No. 14, Straight Street Over Passaic River, City of Paterson." (Prepared for the Office of the Director of Public Works and County Engineer, Passaic County, New Jersey. Clifton, New Jersey: Goodkind & O'Dea, December 1979), 1-6.

³⁶ Gaetano Farina, P.E. "Repairs to the Straight Street Bridge Over The Passaic River." (Fair Lawn, NJ: A.G. Lichtenstein & Assoc., Consulting Engineers, 1989).

³⁷ Myron J. Timinsky, "General Plan and Elevation, Straight Street Bridge Over The Passaic River." (New Jersey: Parsons Transportation Group, Inc., 2001).

³⁸ "Preservation Awards Presented in State House Ceremony," New Jersey Department of Environmental Protection, accessed February 17, 2017, <http://www.nj.gov/dep/hpo/4sustain/awds2004.htm#1>.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 8 Page 9**Straight Street Bridge Chronology**

<u>Month</u>	<u>Year</u>	<u>Event</u>
	1875	The first Straight Street Bridge is depicted on a water pipe and hydrant map produced for the Paterson Board of Trade.
	1888	Construction of the second Straight Street Bridge begins, replacing the first.
February- March	1902	The twelve-day Flood of 1902 hits Paterson, damaging many bridges in the city. The second Straight Street bridge survives.
October	1903	The second Straight Street Bridge collapses during the destructive flood of October 10, 1903, along with eight other bridges in Paterson.
	1904	A temporary, three-span wooden bridge is built at Straight Street at a cost of \$4,200.
February	1906	County Engineer Colin R. Wise states that the temporary bridge must be replaced within a year. The Board of Freeholders concurs, stating it is becoming too costly to repair. In an article about both the Straight Street and Wagaraw Bridge, the <i>Paterson Morning Call</i> speculates that "it is probable that the Board will instruct the county engineer to prepare plans for these structures and that the bids will be sought within a short time."
November	1906	County Engineer Colin R. Wise completes a "Proposed Plan of Straight Street Bridge Over the Passaic River At Paterson, N.J." The Straight Street Bridge committee reviews the plans.
February	1907	Wise completes plan revisions. That same month, the Board of Freeholders meets to review the plans. An article in the <i>Paterson Morning Call</i> states the bridge is to cost \$37,000 and will be "the largest truss bridge in Passaic County."
March	1907	Committee on Straight Street Bridge accepts bids for the building of the new Straight Street Bridge.
July	1907	Construction of the bridge is underway. An article in the <i>Paterson Morning Call</i> notes F.R. Long as the builder.
March	1908	Bridge construction is complete.
July	1979	Goodkind & O'Dea conduct the first inspection and rating for the Straight Street Bridge and find the condition of the superstructure to be fair and the condition of the substructure to be poor, largely due to the collapse of the end of the southeast wing wall. Numerous repair recommendations are made.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State
Name of multiple listing (if applicable)

Section number 8 Page 10

<u>Month</u>	<u>Year</u>	<u>Event</u>
April	1989	A.G. Lichtenstein & Assoc. completes plans for NJDOT for repairs to the bridge, including repair of the south abutment and replacement of the deck with reinforced concrete.
	1994-1995	NJDOT contracts with Raytheon Infrastructure Services to determine whether the Straight Street Bridge should be rehabilitated or replaced. Richard Grubb & Associates, Inc. completes an architectural evaluation of the surrounding streetscape and an archaeological sensitivity assessment.
March	1997	The New Jersey State Historic Preservation Office determines the Straight Street Bridge eligible for the National Register of Historic Places.
	2001	NJDOT contracts with the Parsons Transportation Group, Inc. for the rehabilitation of the bridge. Work includes replacement of deteriorated rivets with high strength bolts, repair and reinstallation of the pedestrian railing, replacement of floor beams and stringers, and replacement of the sidewalk. Plans are completed in July.
	2003	Straight Street Bridge rehabilitation completed. The project took 20 months and cost \$3.2 million.
May	2004	The New Jersey Department of Environmental Protection, Historic Preservation Office and NJ Historic Sites Council recognize NJDOT and the project team with a Historic Preservation Award for the Straight Street Bridge Rehabilitation.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
----- Name of Property
Passaic County, New Jersey
----- County and State
----- Name of multiple listing (if applicable)

Section number 9 Page 1

Bibliography

- American Geographical Society. "Geographical Record." In *Bulletin of the American Geographical Society*, v36 n6, pp. 352-368. Available online via JSTOR, <http://www.jstor.org/stable/198888>, accessed December 21, 2016.
- Board of Freeholders of Passaic County. Minutes. October and November 1903.
- Capen, Charles H., Jr. "History of the Development of the Use of Water in Northeastern New Jersey." *Journal of the American Water Works Association* 28 (1936): 973-982.
- Cunningham, John T. "Three Weeks of Terror." *Royle Forum*, March 15, 1970.
- Dolnick, Sam. "River, at 100-Year High, Ravages a City That Once Thrived on It." *New York Times*, August 31, 2011. Accessed February 14, 2017. <http://www.nytimes.com/2011/09/01/nyregion/paterson-nj-is-devastated-by-floods-after-hurricane-irene.html>.
- Engineering News*. "Flood Damage to Bridges at Paterson, N.J." *Engineering News* 50 (1903): 377-380.
- "Flood Damage to Bridges at Paterson, N.J. (Illustrated)." *Engineering News*, v.L n.18. New York, NY: October 29, 1903.
- Goodkind & O'Dea, Inc. "Bridge Inspection and Rating, First Cycle Report, 1979, Bridge No. 14, Straight Street Over Passaic River, City of Paterson." Prepared for the Office of the Director of Public Works and County Engineer, Passaic County, New Jersey. Clifton, New Jersey: Goodkind & O'Dea, December 1979. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- Guise, David. "Abstracts & Chronology of American Truss Bridge Patents, 1817-1900." *Society for Industrial Archeology Occasional Electronic Publication No. 1* (2009).
- Hamilton, Alexander. *Report on Manufactures, Communication to the House of Representatives, December 5, 1791*. Washington, DC: United States Treasury Department, 1913. Available online via Hathi Trust Digital Library, <https://hdl.handle.net/2027/mdp.39015014667409>, accessed January 30, 2017.
- Hollister, George Buell and Marshall Ora Leighton. *The Passaic Flood of 1902*. Prepared for the Department of the Interior, United States Geological Survey. Washington, DC: Government Printing Office, 1903. Digitized by the Sloan Foundation, <https://archive.org/details/passaicfloodof1901holl>, accessed January 30, 2017.
- Leighton, Marshall Ora. *The Passaic Flood of 1903*. Prepared for the Department of the Interior, United States Geological Survey. Washington, DC: Government Printing Office. Digitized for online access by Project Gutenberg November 20, 2006, <http://www.gutenberg.org/files/19878/19878-h/19878-h.htm>, accessed December 7, 2016.
- Licht, Walter. *Industrializing America: The Nineteenth Century*. Baltimore, MD: The Johns Hopkins University Press, 1995.

United States Department of the Interior

National Park Service

National Register of Historic Places Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 9 Page 2

- Lichtenstein, Abba et al. *The New Jersey Historic Bridge Survey: Passaic County*. Prepared for the New Jersey Department of Transportation and the Federal Highway Administration, September 1994. On file at the New Jersey State Historic Preservation Office, MULT GB 199 v6.
- McCabe, James C. "Architectural Survey: Arch Street and Straight Street Bridges Area, Paterson, N.J." 1982. On file at the New Jersey State Historic Preservation Office, PAS F 227B.
- Murphy, Kevin. "Raritan River Fink Through-Truss Bridge (Hamden Bridge)." Written Historical and Descriptive Data, Historic American Engineering Record. Washington, DC: National Park Service, U.S. Department of the Interior, June 1984. On file with the Library of Congress, Prints & Photographs Division, HAER NJ-18, <http://cdn.loc.gov/master/npn/habshaer/nj/nj0100/nj0143/data/nj0143data.pdf>, accessed February 10, 2017.
- Nelson, William. *History of the City of Paterson and the County of Passaic New Jersey*. Paterson, NJ: The Press Printing and Publishing Co., 1901.
- Northern New Jersey Flood Commission, *Report of the Northern New Jersey Flood Commission*. Somerville, New Jersey: Unionist-Gazette Association, 1904.
- Parsons Brinckerhoff and Engineering and Industrial Heritage. "A Context for Common Historic Bridge Types, NCHRP Project 25-25, Task 15." Prepared for the National Cooperative Highway Research Program, the Transportation Research Council, and the National Research Council. New York, NY: Parsons Brinckerhoff and Engineering and Industrial Heritage, October 2005.
- Paterson Friends of the Great Falls. "S.U.M. Society for Establishing Useful Manufactures." Webpage, <http://patersongreatfalls.org/sum.html>, accessed January 30, 2017.
- Pennington, Charles et al. "Architectural Evaluation of the Straight Street Streetscape and Archaeological Sensitivity Assessment of the Straight Street Bridge Over the Passaic River Project, City of Paterson, Passaic County, New Jersey." Prepared for Raytheon Infrastructure Services, Incorporated. Cranbury, NJ: Richard Grubb & Associates, Inc., June 1995.
- PKB Engineering. "Bridge Re-Evaluation Survey Report, Structure No. 1600-015, Arch Street over Passaic River, City of Paterson, Passaic County." Prepared for the County of Passaic, July 17, 2015.
- "Report of the Northern New Jersey Flood Commission, March 4th 1904." Somerville, NJ: The Unionist-Gazette Association, State Printers, 1904.
- Southworth, Susan and Michael. *Ornamental Ironwork: An Illustrated Guide to Its Design, History, and Use in American Architecture*. Boston: David R. Godine, 1978.
- "Structure No. 1600014, Straight Street Bridge over Passaic River." In *New Jersey Historic Bridge Survey: Passaic County*. Prepared by A.G. Lichtenstein & Associates, Inc., updated by the New Jersey Department of Transportation, 2002. Held by the New Jersey Historic Preservation Office, Trenton, NJ.
- Stevens, J. Sanderson. Phase 1A Archaeological Investigations for the Proposed Bridge. Replacement or Rehabilitation of Bridge No. 1600009 (Fair Lawn Avenue Over Passaic River)." Prepared by Parsons Engineering Science, Inc. for the North Jersey Transportation Planning Authority and the

United States Department of the Interior

National Park Service

**National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 9 Page 3

Passaic County Engineer, February 2000. On file at the New Jersey State Historic Preservation Office, MULT F 536a.

Swan, Herbert S. "The Thoroughfares And Traffic of Paterson." Paterson, New Jersey: City Plan Commission, 1922.

Trumbull, L. R. *A history of industrial Paterson ... together with outlines of state, county and local history.* Paterson, N.J.: C.M. Herrick, printer, 1882.

"Trusses: A Study by the Historic American Engineering Record." Bordentown, NJ: The Roebling Chapter of the Society for Industrial Archeology and the National Park Service, 1976.

Historic Newspapers

New York Times (New York, New York)

"Six Dead in the Flood." March 4, 1902.

"Paterson Flood is Falling." March 4, 1902.

"Tornado Sweeps Over Paterson." July 23, 1903.

"Paterson Faces a Greater Flood." October 11, 1903.

Paterson Daily Press (Paterson, New Jersey)

"Receding Waters Lay Bare Ruin." October 13, 1903.

"Everybody Cleaning Up." October 14, 1903.

Paterson Evening News (Paterson, New Jersey)

"Rushing Waters Engulf Our City." March 3, 1902.

"Worst of the Flood is Over." March 4, 1902.

Paterson Morning Call (Paterson, New Jersey)

"Bridge Building Coterie Got Solar Plexus Blow." October 21, 1903.

"Rehashing that Old Grievance." July 15, 1904.

"May Build Two Bridges." February 17, 1906.

"The New Straight Street Bridge." November 14, 1906.

"Bridge to be Begun." February 25, 1907.

"Straight Street Bridge Progressing." July 11, 1907.

"Straight Street Bridge Completed." March 19, 1908.

Historic Maps

Beers, F.W. *State Atlas of New Jersey.* New York: Beers, Comstock & Cline, 1872.

Gordon, Thomas & Robert E. Hornor. *Map of New Jersey.* Philadelphia: Edw. Yeager, Engraver, 1854.

Hopkins, G. M. *Map of the Counties of Bergen and Passaic.* Philadelphia: G.H. Corey Publishers, 1861.

Paterson, N.J. / Packard & Butler Lith. Philadelphia. Philadelphia: Packard & Butler Lith, 1880. Image.

Retrieved from the Library of Congress, <https://www.loc.gov/item/98508577/>. (Accessed February 17, 2017.)

Sanborn-Perris Map Co.

1887 Paterson, Passaic County, NJ. New York: Sanborn-Perris Map Co.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Name of multiple listing (if applicable)

Section number 9 Page 4

- 1899 Paterson, Passaic County, NJ. New York: Sanborn-Perris Map Co.
1915 Paterson, Passaic County, NJ. New York: Sanborn-Perris Map Co.
1939 Paterson, Passaic County, NJ. New York: Sanborn-Perris Map Co.
1949 Paterson, Passaic County, NJ. New York: Sanborn-Perris Map Co.

Plans and Drawings

- Farina, Gaetano, P.E. (A.G. Lichtenstein & Assoc., Consulting Engineers, Fair Lawn, N.J.). (1989). *Repairs to the Straight Street Bridge Over The Passaic River*. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- Passaic River Stream No. 3 field book 76-77-78-79-84-86 (sheet 78). Retrieved from <http://dx.doi.org/doi:10.7282/T37081B6>. (Accessed February 9, 2017.)
- Timinsky, Myron J. (Parsons Transportation Group, Inc.). (2001). *General Plan and Elevation, Straight Street Bridge Over The Passaic River*. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- _____. (2001). *Truss Repair Details, Straight Street Bridge Over The Passaic River*. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- _____. (2001). *Bridge Railings III, Straight Street Bridge Over The Passaic River*. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- Wise, Colin R. (County Engineer). (1906, Revised 1907). *Proposed Plan of Straight Street Bridge Over the Passaic River at Paterson, NJ*. Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.
- Unknown. (1907). *Sketch Showing position of old abutments of Straight St. Bridge Paterson N.J.* Original on file at the Office of the County Engineer, County of Passaic, Paterson, NJ.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number 10 Page 1

Verbal Boundary

The nominated boundary encompasses the footprint of the bridge as shown as a dashed line on the accompanying site boundary map, and includes the abutments and wing walls, pedestrian railings, the approach roadway railings, and the superstructure.

Boundary Justification

The boundary includes the historic bridge and road easement historically associated with the bridge. The bridge is within the boundaries of the previously identified Riverview South Historic District, which was determined to be ineligible by the NJ State Historic Preservation Office in 2015.

DRAFT

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 1

Photo Log

Name of Property: Straight Street Bridge

City or Vicinity: Paterson City

County: Passaic State: New Jersey

Photographer: Emily Paulus Everett, Samantha Kuntz, and Benjamin Buckley

Date Photographed: January 25 and February 15, 2017

Description of Photograph(s)

- 1 of 15. View looking northeast along the Passaic River toward the Straight Street Bridge, from the Arch Street Bridge.
- 2 of 15. View north from River Street, looking toward the southwest elevation of the bridge.
- 3 of 15. View from the south side of the intersection of Straight Street and River Street, looking north.
- 4 of 15. View of the bridge deck from the River Street and Straight Street approach, looking northwest.
- 5 of 15. View of original newel post and pedestrian railing, looking west across the Passaic River.
- 6 of 15. View of the southeast pedestrian sidewalk, looking northwest.
- 7 of 15. View of truss work and deck, looking northwest toward North Straight Street.
- 8 of 15. View of Passaic Rolling Mill Company founder's mark on steel beam.
- 9 of 15. View of the bridge and pedestrian railing from the North Straight Street approach, looking southeast.
- 10 of 15. View of bridge and deck from North Straight Street, looking southeast.
- 11 of 15. View of bridge and northeast sidewalk from North Bridge Street, looking southeast.
- 12 of 15. View of original newel post and pedestrian railing at entry to North Bridge Street, looking south.
- 13 of 15. Detail of newel post at the Straight Street approach, looking east.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River

Name of Property

Passaic County, New Jersey

County and State

Section number Accompanying Doc. Page 2

14 of 15. View of south abutment with masonry of earlier span below and reinforced concrete above, looking northeast.

15 of 15. View of bridge substructure from east bank of Passaic River, looking north.

Index of Figures

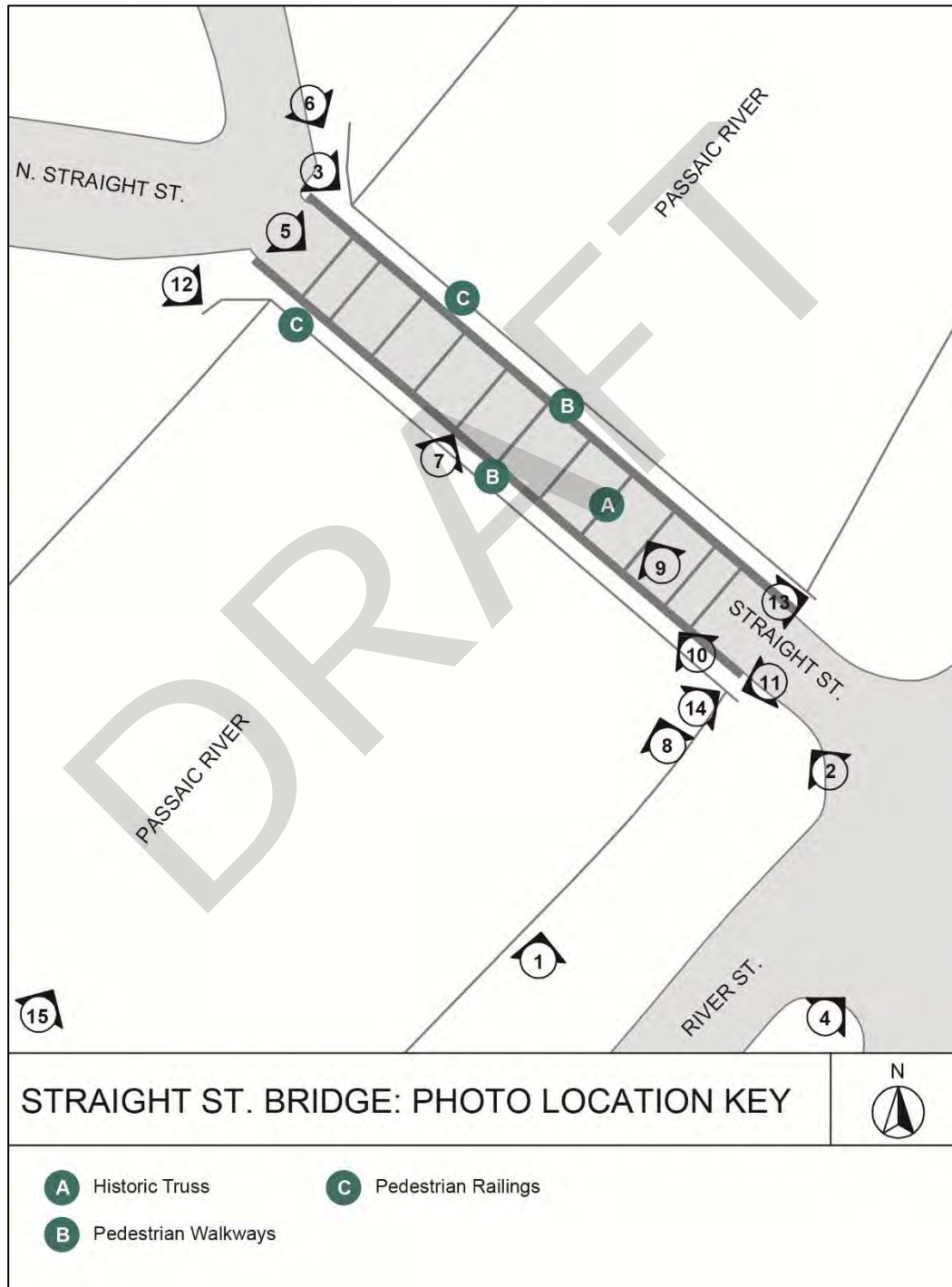
- Figure 1. 1887 Sanborn Fire Insurance Map of Straight Street at the east side of the Passaic River, depicting the first Straight Street Bridge
- Figure 2. A 1902 view of the second Straight Street Bridge from Views of the Paterson Fire, February 9th, 1902 and Flood, March 2d, 1902.
- Figure 3. 1908 Map of the City of Paterson, New Jersey.
- Figure 4. Original 1906-1907 plans for the third Straight Street Bridge, showing an elevation and section (top) and railing detail (bottom).
- Figure 5. A 1979 photo showing the stone south abutment remaining from the second Straight Street Bridge.
- Figure 6. 1880 Bird's-Eye View of Paterson, New Jersey showing the railroad in the foreground; vignettes of prominent buildings and natural landmarks form the top and bottom borders – including the Passaic Rolling Mills (bottom-center).
- Figure 7. 1899 Sanborn Fire Insurance map of Paterson, New Jersey, showing the Passaic Rolling Mill Co. (note the “bridge shop” and proximity to the New York & Lake Erie Railroad freight yard).
- Figure 8. 1935 Map from the Riparian and Stream Survey of the Passaic River by the Emergency Relief Administration.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 3

Photograph Location Map

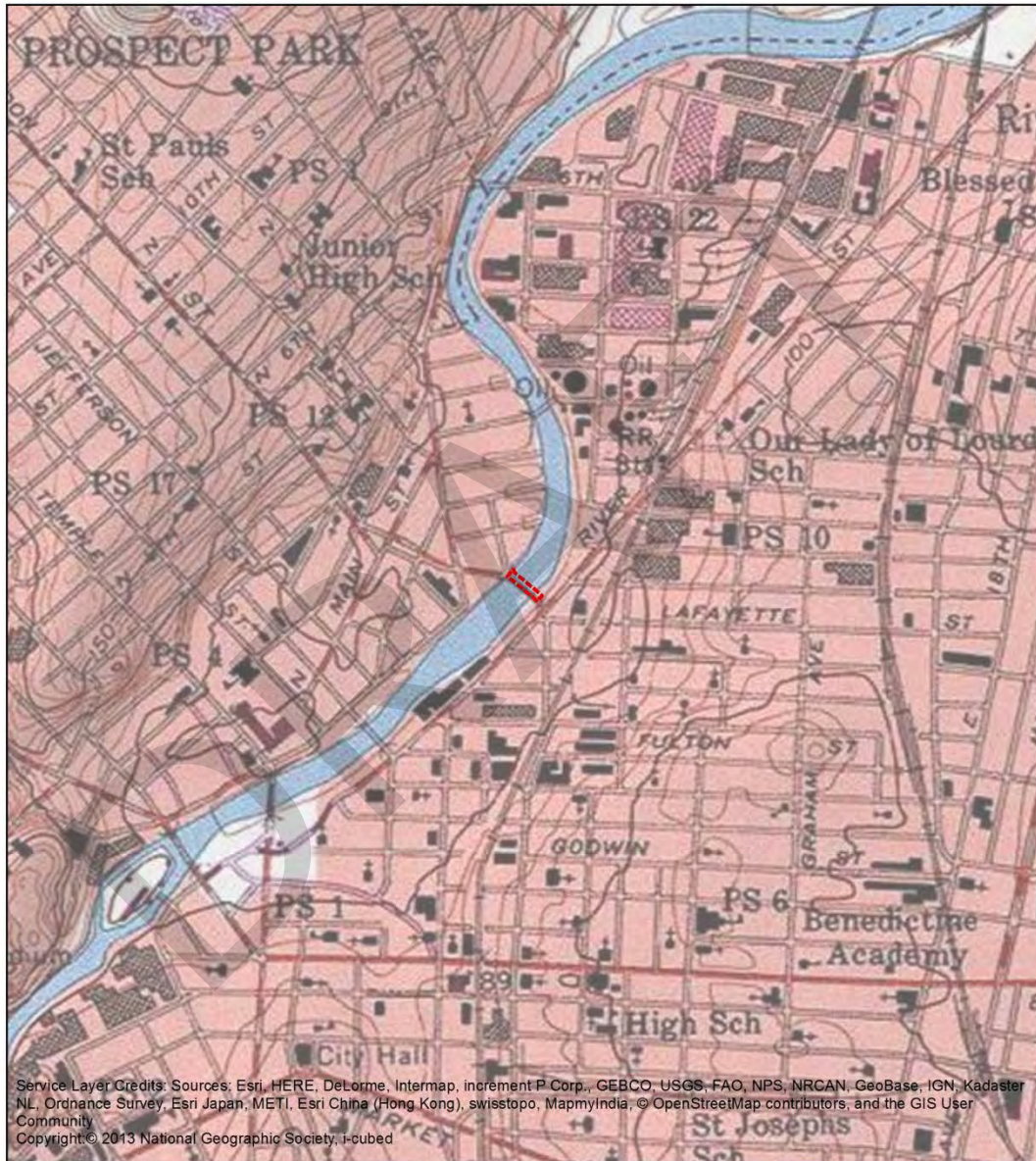


United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet


Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

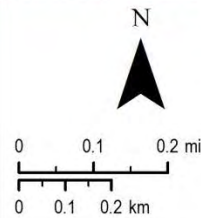
Section number Accompanying Doc. Page 4

USGS Location Map



AECOM
Project Location Map
Straight Street Bridge
Paterson City, Passaic County, NJ

 National Register Boundary



**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River
Name of Property

Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 5

Site Boundary Map

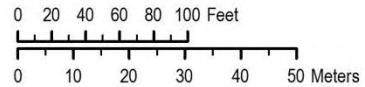


Service Layer Credits: Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Straight Street Bridge
Paterson City, Passaic County, New Jersey
UTM coordinates: 18T 570215 E 4530906 N

 National Register Boundary



**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 6

Historic Maps and Figures

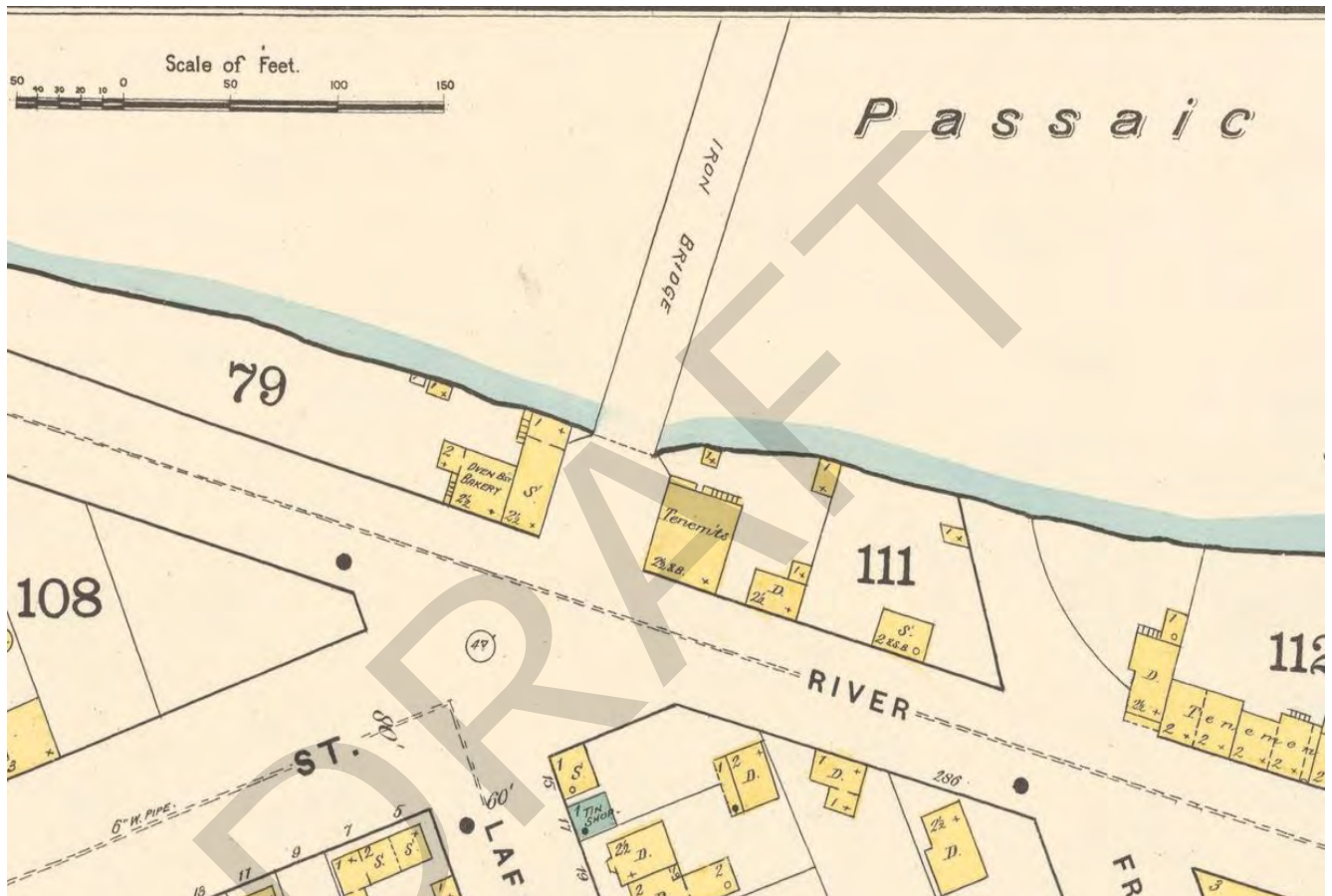


Figure 1. 1887 Sanborn Fire Insurance Map of Straight Street at the east side of the Passaic River, depicting the first Straight Street Bridge.

Source: Paterson Free Public Library.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 7



Figure 2. A 1902 view of the second Straight Street Bridge from *Views of the Paterson Fire, February 9th, 1902 and Flood, March 2d, 1902.*

Source: Paterson Free Public Library.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 8

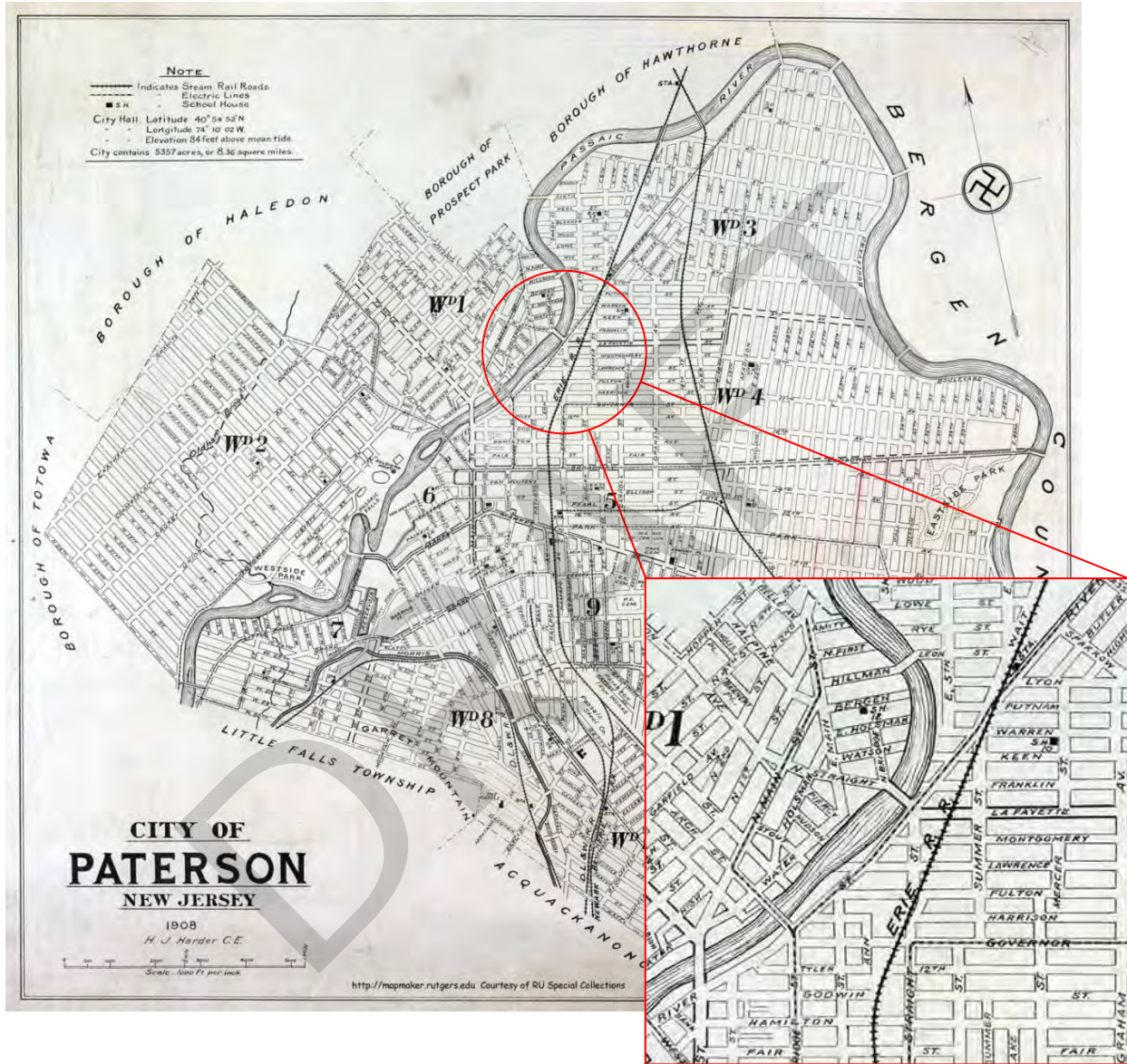


Figure 3. 1908 Map of the City of Paterson, New Jersey. The zoomed in section of the map shows the vicinity around Straight Street and development of the surrounding street grid near the time of the bridge’s construction.

Source: Rutgers Cartography Lab.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 9

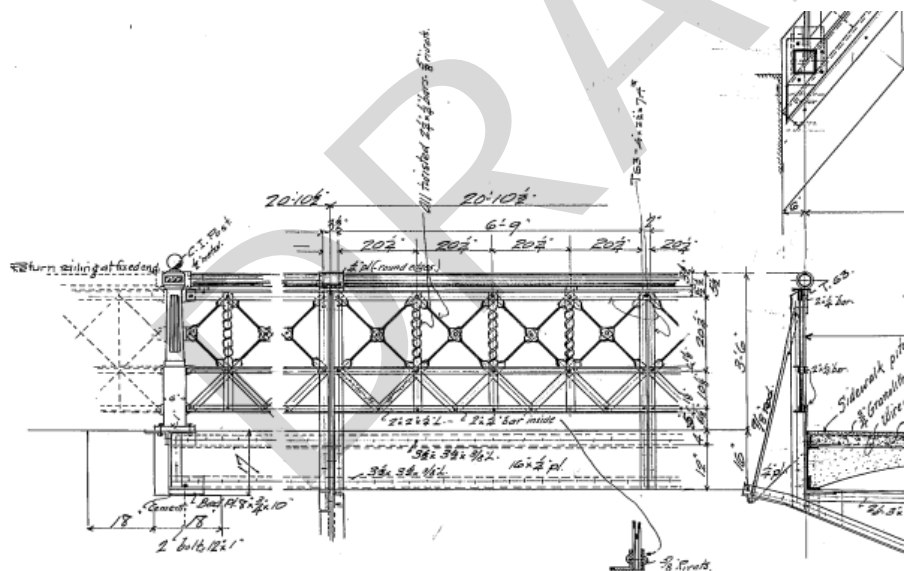
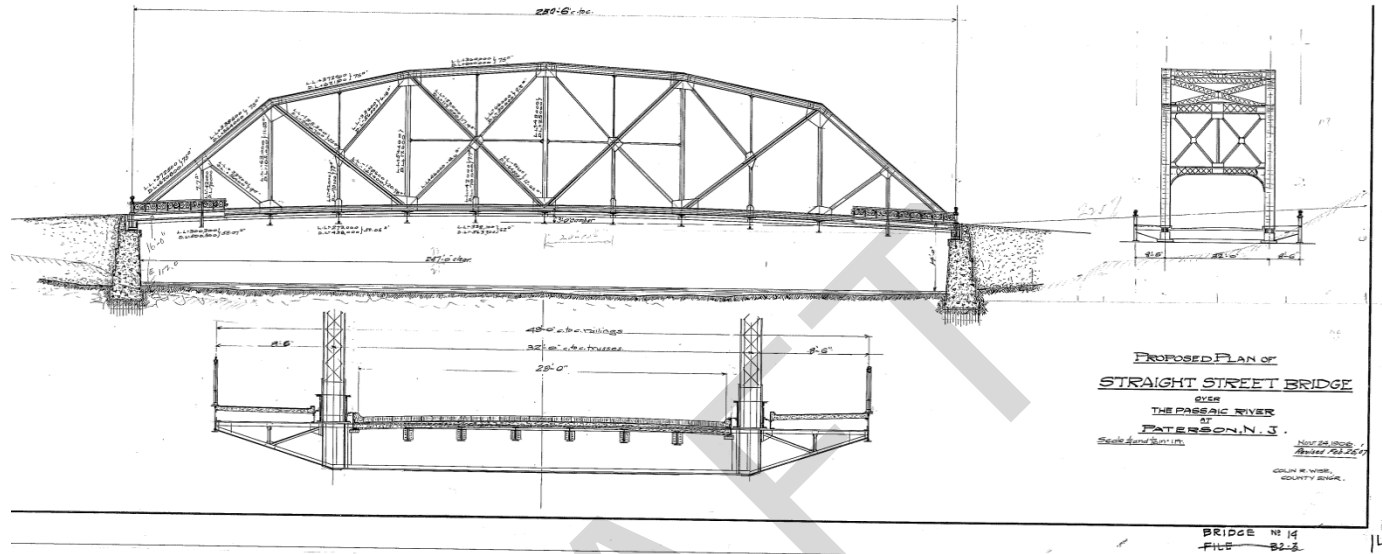


Figure 4. Original 1906-1907 plans for the third Straight Street Bridge, showing an elevation and section (top) and railing detail (bottom).

Courtesy of the Office of the County Engineer, County of Passaic.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 10



Figure 5. A 1979 photo showing the stone south abutment remaining from the second Straight Street Bridge, before repairs were made.

Courtesy of the Office of the County Engineer, County of Passaic.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property

Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 11

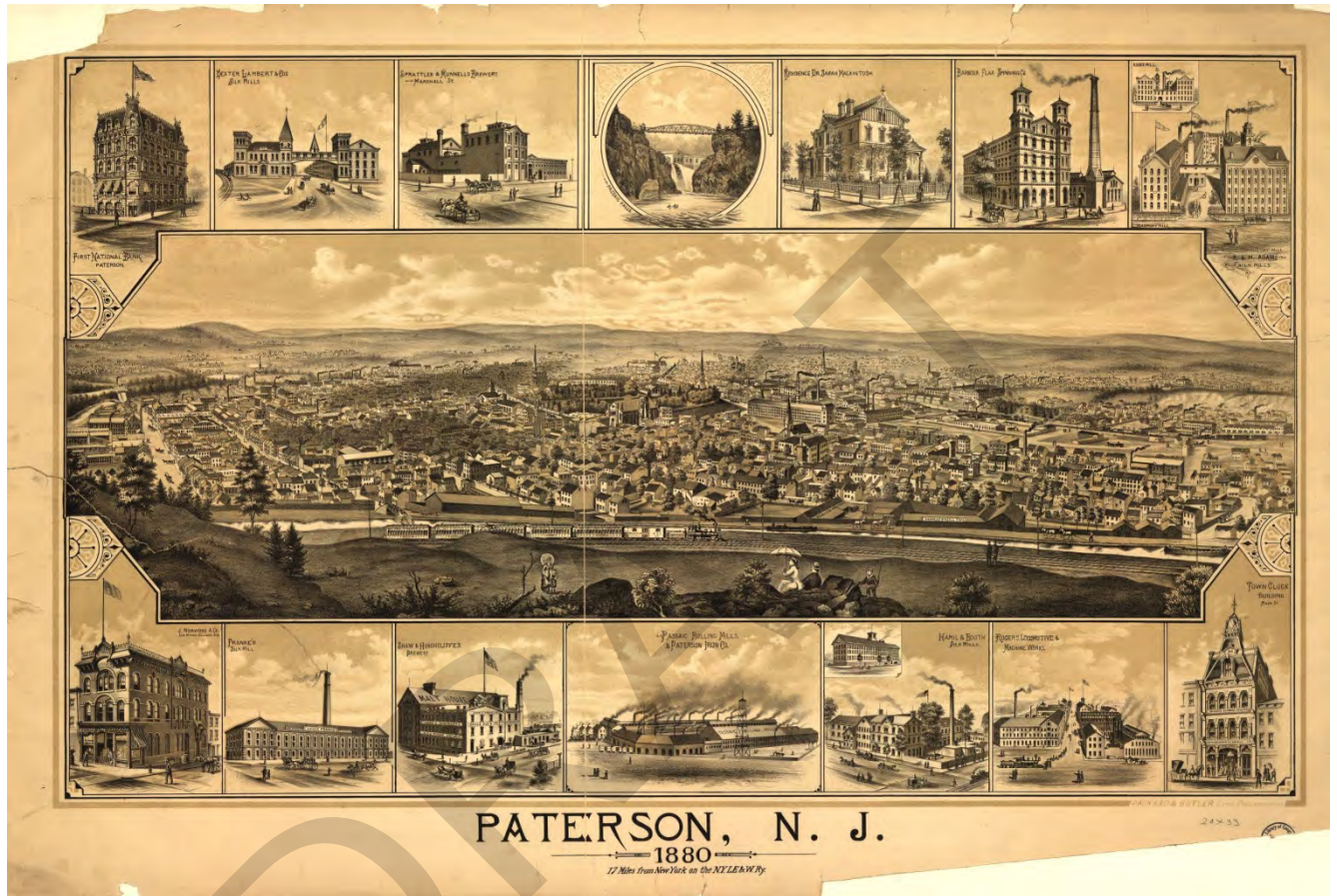


Figure 6. 1880 Bird's-Eye View of Paterson, New Jersey showing the railroad in the foreground; vignettes of prominent buildings and natural landmarks form the top and bottom borders – including the Passaic Rolling Mills (bottom-center).

Source: Library of Congress.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River
Name of Property

Passaic County, New Jersey
County and State

Section number Accompanying Doc. Page 12

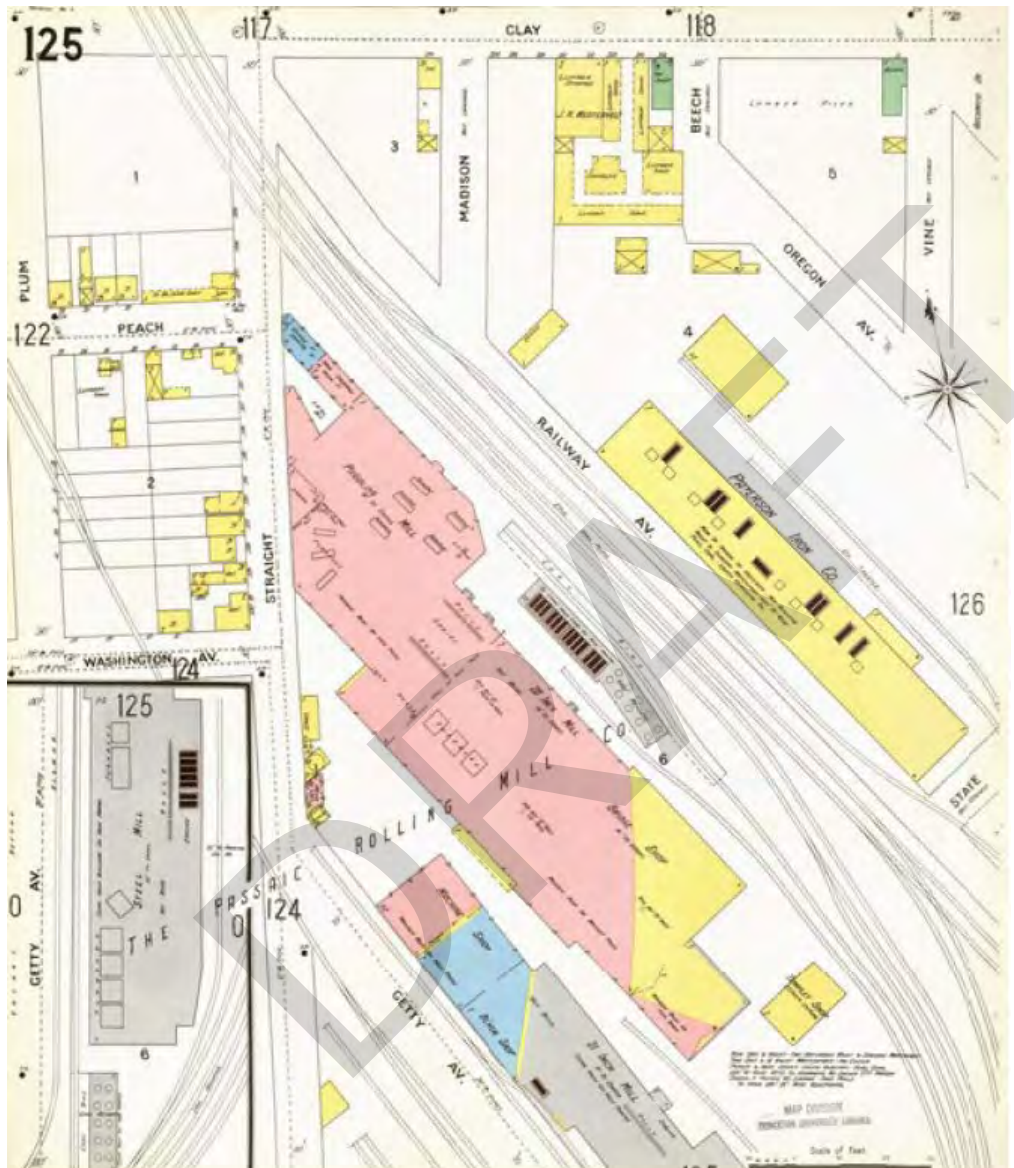


Figure 7. 1899 Sanborn Fire Insurance map of Paterson, New Jersey, showing the Passaic Rolling Mill Co. (note the “bridge shop” and proximity to the New York & Lake Erie Railroad freight yard).

Source: Retrieved from <http://library.princeton.edu/libraries/firestone/rbsc/aids/sanborn/passaic/paterson.html>.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Straight Street Bridge over Passaic River
Name of Property
Passaic County, New Jersey
County and State

Section number _____ Accompanying Doc. _____ Page 13

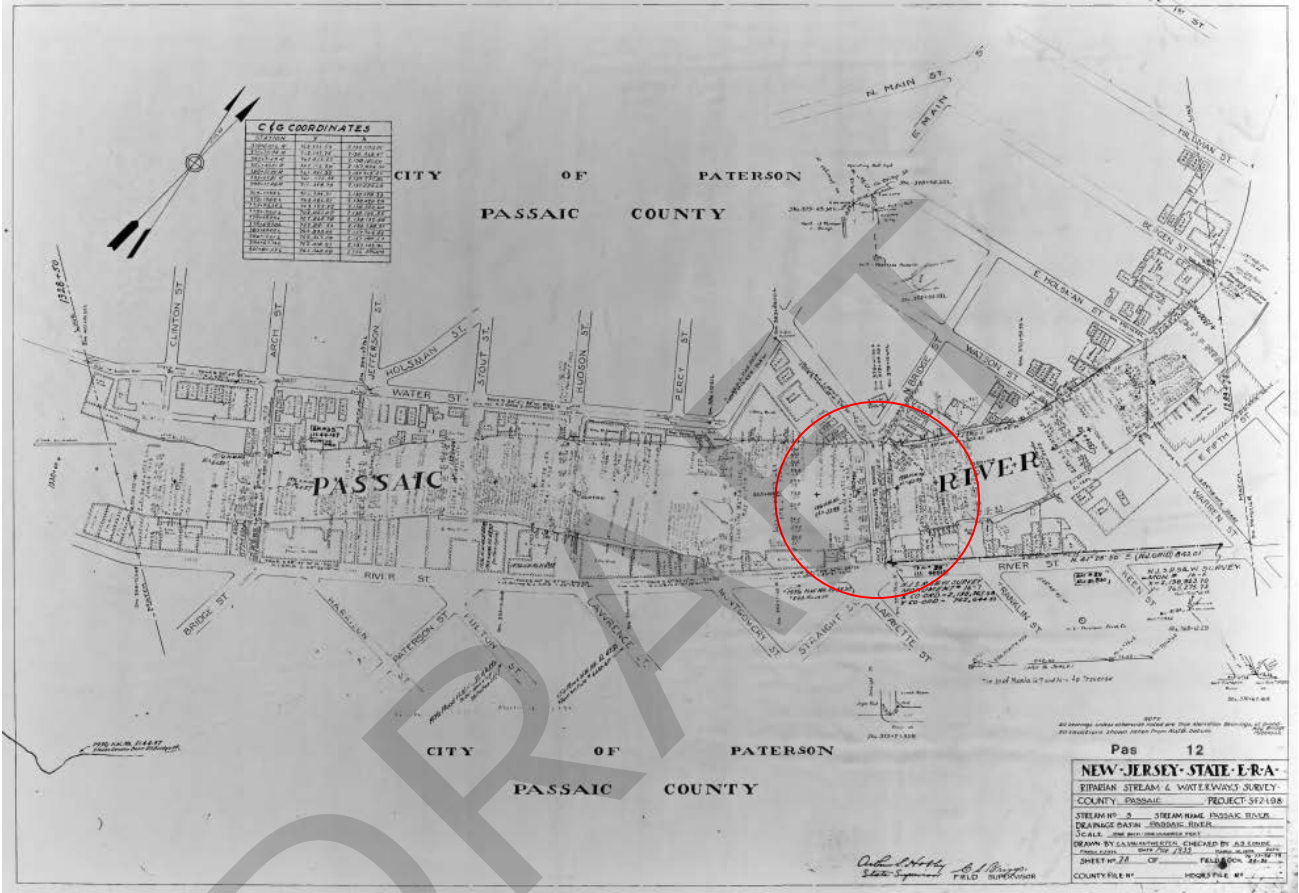


Figure 8. Passaic River Stream No. 3 field book 75-81-82-83-91 (sheet 78), March 1935.

Source: New Jersey Environmental Digital Library.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 14

Current Photographs



Photograph 1. View north from the river banks at River Street, looking toward the southwest elevation of the bridge.

Source: S. Kuntz, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

<u>Straight Street Bridge over Passaic River</u> Name of Property
<u>Passaic County, New Jersey</u> County and State

Section number Accompanying Doc. Page 15



Photograph 2. View of the bridge deck from the River Street and Straight Street approach, looking northwest.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 16



Photograph 3. View of bridge and northeast sidewalk from North Bridge Street, looking southeast.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 17



Photograph 4. View from the south side of the intersection of Straight Street and River Street, looking north.

Source: S. Kuntz, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 18



Photograph 5. View of bridge and deck from North Straight Street, looking southeast.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 19



Photograph 6. View of original newel post and pedestrian railing at entry to North Bridge Street, looking south.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 20



Photograph 7. View of Passaic Rolling Mill Company founder's mark on steel beam.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 21



Photograph 8. View of bridge substructure from east bank of the Passaic River, looking north.

Source: B. Buckley, AECOM, January 25, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 22



Photograph 9. View of truss work and deck, looking northwest toward North Straight Street.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 23



Photograph 10. View of the southeast pedestrian sidewalk, looking northwest.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 24



Photograph 11. View of original newel post and pedestrian railing, looking west across the Passaic River.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 25



Photograph 12. View of the bridge and pedestrian railing from the North Straight Street approach, looking southeast.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 26



Photograph 13. Detail of newel post at the Straight Street approach, looking east.

Source: E. Everett, AECOM, February 15, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 27



Photograph 14. View of south abutment with masonry of earlier span below and reinforced concrete above, looking northeast.

Source: B. Buckley, AECOM, January 25, 2017.

**United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet**

Straight Street Bridge over Passaic River Name of Property
Passaic County, New Jersey County and State

Section number Accompanying Doc. Page 28



Photograph 15. View looking northeast along the Passaic River toward the Straight Street Bridge, from the Arch Street Bridge.

Source: E. Everett, AECOM, February 15, 2017.



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #1



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #2



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #3



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #4



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #5



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #6



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #7



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #8



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #9



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #10



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #11



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #12



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #13



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #14



Straight Street Bridge over the Passaic River, City of Paterson, Passaic County
Photo #15