



CITY OF  
**PATERSON**  
NEW JERSEY

## **ALLIED TEXTILE PRINTERS SITE REMEDIATION STRATEGY PLAN**



Prepared by BRS, Inc.



for the

The City of Paterson  
155 Market Street  
Paterson, New Jersey

on behalf of

New Jersey Economic Development Authority  
36 West State Street  
Trenton, New Jersey

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## INTRODUCTION

This Remediation Strategy Plan (the Plan) serves as a blueprint for the site remediation process for the Allied Textile Printers Site (ATP Site, ATP, the Site) in Paterson, NJ (the City). The ATP Site is located within the Paterson Great Falls National Historical Park (PAGR) and is known for its national, state and local historic significance related to a variety of Paterson’s earliest industrial operations, including cotton and silk textile manufacturing, heavy industries and arms manufacturing, and textile dyeing and printing facilities which operated from the early part of the nineteenth century and intensified particularly during the decades between 1910 and 1980. Due to ATP’s extraordinary cultural significance to the City, State and the Nation, and its long history of strictly industrial operations, the property has environmental contamination which has stalled redevelopment and reuse since the Site was left vacant in the 1990’s. The focus of this Plan is the 4.5 acres of the ATP property that are still in need of remediation.

This Plan only considers approaches to reuse that must preserve the historic character and certain features of the property, and identifies potential grant opportunities to enable the work to move forward. Accordingly, the Plan:

1. Addresses steps needed to preserve archaeologically and culturally significant features;
2. Describes existing environmental conditions based on preexisting reporting and areas in need of further investigation;
3. Articulates goals, strategies, and actions to achieve the City’s vision for redevelopment of the property;
4. Describes each phase of work at a level of detail that:
  - Defines the major tasks with which it may be associated;
  - Includes a cost estimate for implementation;
  - Identifies anticipated stakeholders;
  - Identifies potential or actual funding sources; and
  - Provides a timeframe for phased implementation.

In the course of preparing this Plan, prior reports and plans were reviewed, interviews were conducted with City officials, and subject matter experts were consulted. Through this process, the Project Team was able to identify specific actions that will chart the course for remediation and reuse scenarios.

This project has been funded in part by the United States Environmental Protection Agency under assistance agreement BF-96242421 to the New Jersey Economic Development Authority. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency.

## CHAPTER 1 BACKGROUND/EXISTING CONDITIONS

The ATP site property is located on the south bank of the Passaic River in Paterson, Passaic County, New Jersey. The historic use and operations of the site are a vital part of the history of Paterson and the nation. The property has been unoccupied since 1983 and the City of Paterson acquired the site through foreclosure in 1994. The property is within the boundaries of the Paterson Great Falls National Historical Park. The site is a known contaminated site listed with the New Jersey Department of Environmental Protection (NJDEP), Program Interest Number (PI #) G000024509, and is under the oversight of Frances Schultz, the Licensed Site Remediation Professional (LSRP) for the site (License #574048).

The ATP Site is approximately a 7-acre property located at the intersection of Van Houten Street and Mill Street. The Passaic River borders the property along the north and west. Residential apartments in the former Congdon Mill and the Essex Mill border the north and east sides of the property. To the south is Overlook Park, a federally-owned property managed by the National Park Service (NPS). Figure 1 shows the location of the property within the City.

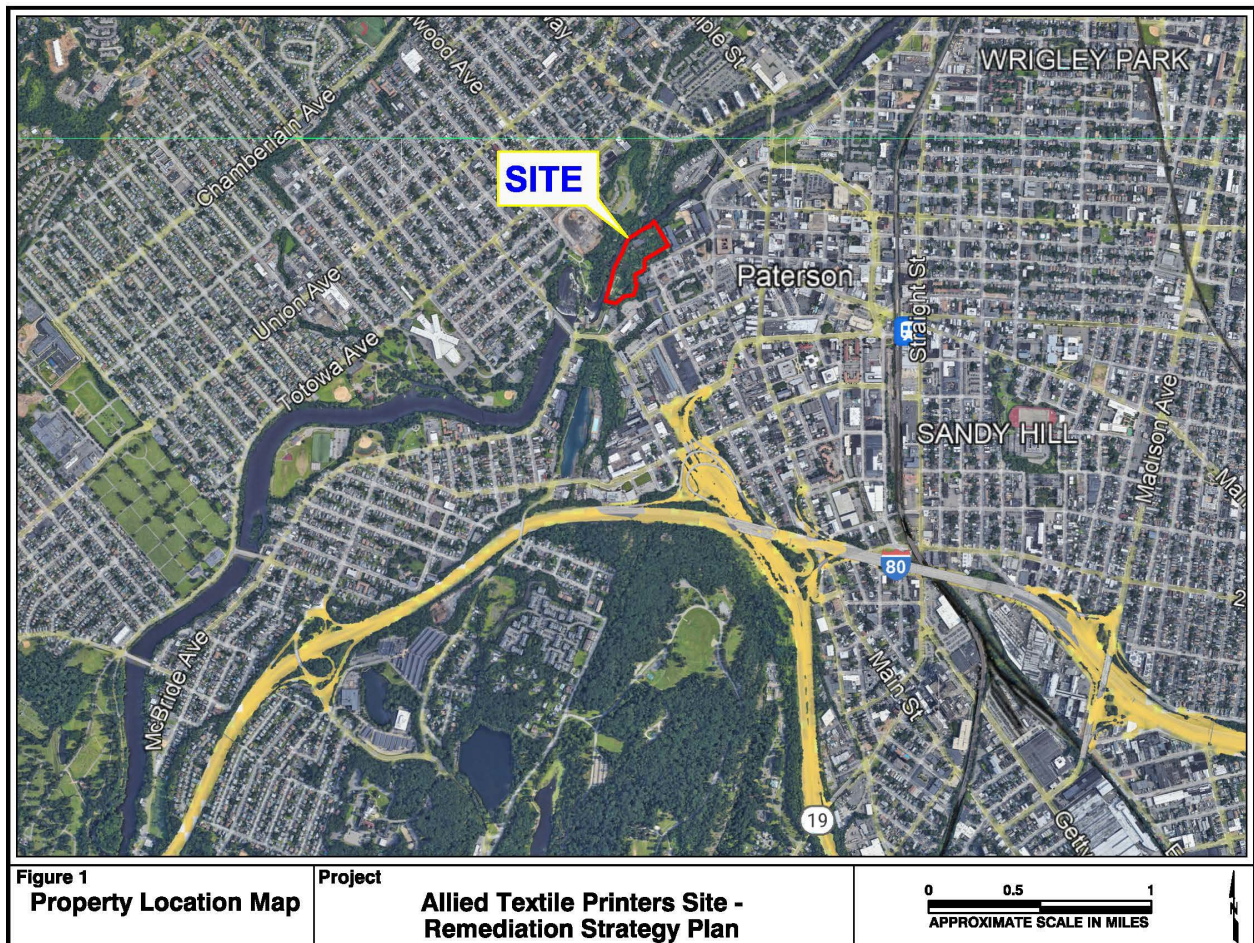
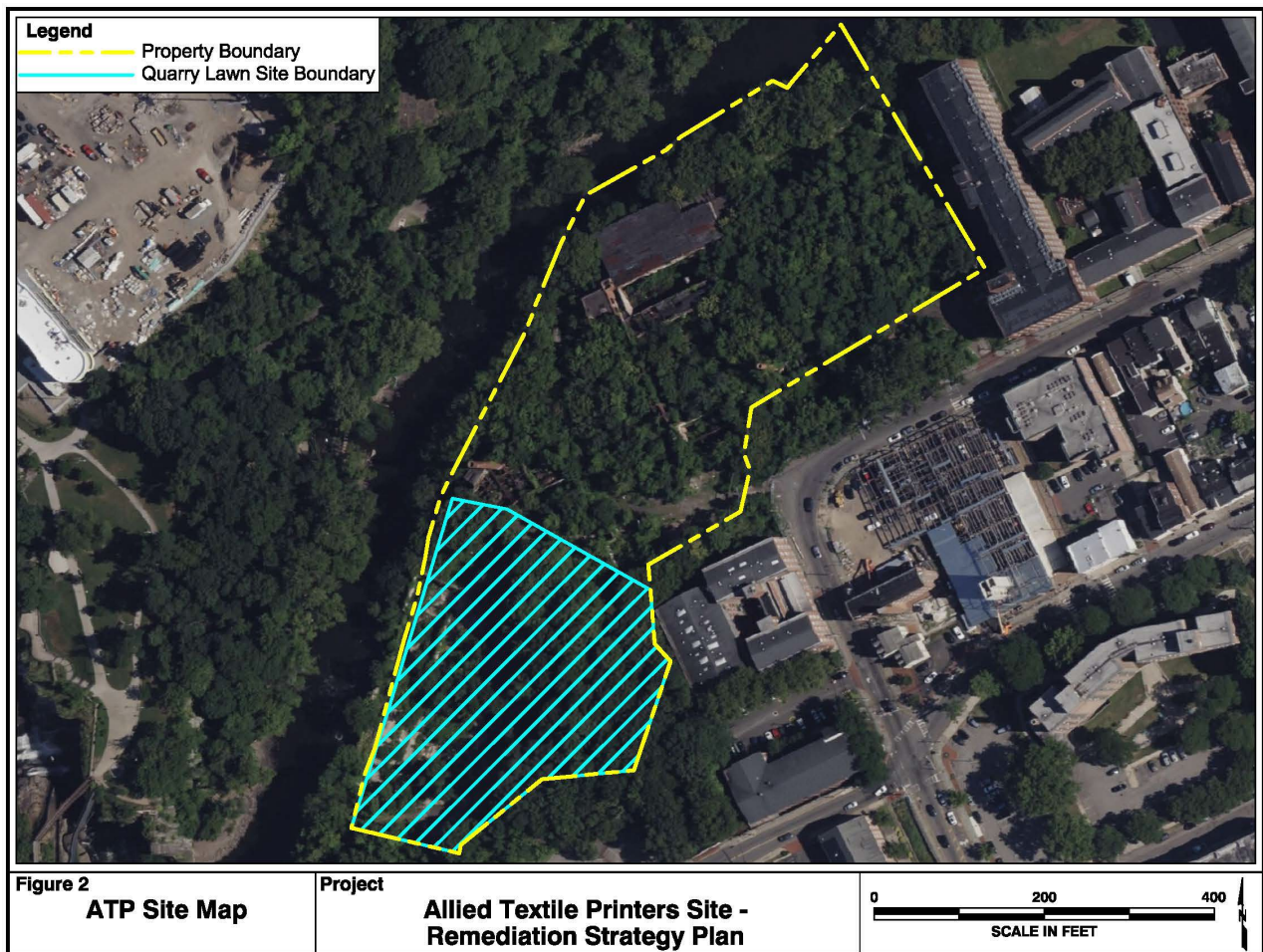


Figure 1: Property Location Map

**PURPOSE**

The City of Paterson has focused on the remediation and reuse of the ATP Site since 1994, with the goal to have the Site showcase the rich and complex history of Paterson for public engagement, including recreational and educational uses.

A 2.5-acre portion along the ATP site’s western boundary is known as the “Quarry Lawn”. Remedial investigation of Quarry Lawn was completed in 2021. The remediation and redevelopment of this area as a public park is currently underway and anticipated to be completed in 2024. The \$7.6 million construction project is being funded through various sources including a NJDEP Green Acres Grant, a National Park Service Centennial Challenge Grant, and remediation costs are supported by a Hazardous Discharge Site Remediation Fund (HDSRF) grant, jointly administered by the NJDEP and the NJ Economic Development Authority (NJEDA).



**Figure 2: ATP Site Map**

The focus of this Plan is the 4.5 acres of the property that are still in need of remediation and are without a clear path forward for reuse, which for the purpose of this Plan will be known as the “Site”. This Plan will review the prior remediation, planning, and preservation efforts for the Site and outline a strategy to move forward. This strategy will build on the momentum of the current property improvements taking place at Quarry Lawn and provide direction for the City to ultimately meet their redevelopment goals for the ATP Site.

## SITE DESCRIPTION AND LOCATION

The Site, which is identified as Block 4601, Lots 9 through 11, 5, and a portion of Lot 4 on the City Tax Map, is located in Ward 5 in the Great Falls Neighborhood and adjacent to Downtown. The property is generally flat and is currently heavily overgrown with vegetation. The Site is bordered from the north to the southwest by the Passaic River. To the northeast of the Site is the former Congdon Mill, which is now affordable housing apartments. To the east of the Site is Van Houten Street and Mill Street, as well as the Essex-Phoenix Mills. Finally, to the south of the Site is Quarry Lawn which begins at the Knipscher-Maas Dye House ruins, and as noted above, is currently being redeveloped.

Once nearly entirely covered in bustling 18th and 19th century brownstone and brick industrial buildings, the remaining structures on the Site are now heavily damaged, structurally unsound, and many have been reduced to rubble. A series of fires have taken place at the Site since 1983 and despite the perimeter being secured with chain link fencing in 2020, the Site has suffered extensive vandalism. Soils are characterized predominantly as fill, glacial drift and weathered rock. Bedrock ranges from a depth of 8 feet to 18 feet below grade. Based on prior reports groundwater was encountered at 14 feet below surface grade (bsg). Based on Federal Emergency Management Agency (FEMA) floodplain data, the site is within a regulatory floodway and portions of the Site fall within the 100-year flood plain. It is noted, however, that no previous flooding events – including the 100-year events of 1903 and 2010 successfully overtook the Site, as it is protected by a 20-foot high “river wall” which is consistent with approximate overall site elevation from the riverbed.

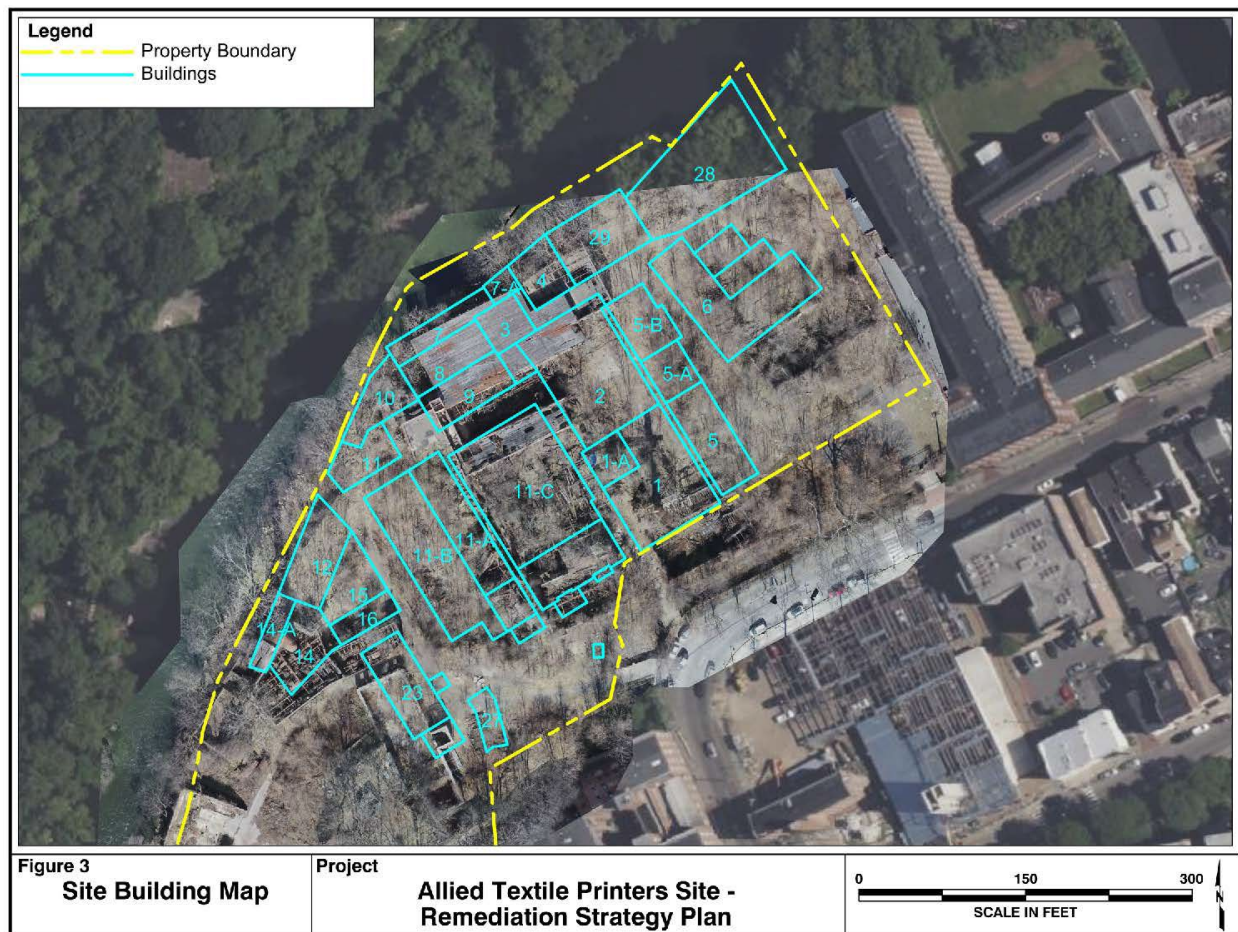


Figure 3: Site Building Map

**Table 1: List of Buildings**

<b>Building Number</b>	<b>Building Description/Use</b>
1	Passaic Mill No. 1 - Front (Dyeing)
1-A	Regal Boiler House (Boiler House)
2	Passaic Mill No. 1 - Rear (Dye House)
3	Dry Box House (Folding)
4	Washing/Bleaching/Printing (Washing/Bleaching 1st Floor, Printing 2nd Floor)
5	Copper Storage (Copper Storage)
5-A	Office/Lab (Office/Lab)
5-B	Cloth Washing (Washing)
6	Todd Mill (Storage)
7	Drying/Makeup Building (Rear Section)
7-A	Drying/Makeup Building (Hyphen to Bldg #4/Sump House)
8	Drying/Makeup Building (Front Section)
9	Waverly Mill Rear (Storage)
10	Storage Building (Storage)
11	Building No. 11 (Use Not Listed)
11-A	Mallory Mill East (Color Room/Dying/Finishing)
11-B	Mallory Mill West (Printing, Drying, Finishing)
11-C	Waverly Mill Rear (Storage)
12	John Ryle Dye House East (Drying and Finishing)
14	Standard Silk Dyeing Co Boiler House (Boiler House)
14-A	John Ryle Dye House West (Drying and Finishing)
15	W.C. (W.C.)
16	Filter Room (Blg 16)
23	Cold Gun Mill (Colt Gun Mill)
27	Machine Shop (Machine Shop)
28	Storage Building (Make Up)
29	N/A (Bleaching Washing)

## **HISTORIC AND CULTURAL SIGNIFICANCE**

Paterson’s civic and industrial history is closely entwined with the Great Falls of the Passaic River because the 77-foot high falls provided tremendous power for manufacturing during the eighteenth and nineteenth centuries when water-powered mills were the technological state of the art.

Founded in 1792, Paterson was the nation’s first planned industrial city. It was a manifestation of Alexander Hamilton’s fervent belief that America’s future laid in the manufacturing of its own goods. The Society for Establishing Useful Manufactures (S.U.M.) incorporated in 1791, set a standard for cooperative public/private investment to create the infrastructure of waterways. These waterways would then offer private mill owners a chance to build on lots that had access to power. Although waterpower was



rendered obsolete only a generation or so later, when the steam engine came into use, the mill owners adapted to new technologies and stayed within the City because it had already acquired important transportation connections to the coal fields of Pennsylvania and the markets of New York, via the Morris Canal, and a strong workforce, which was largely drawn from immigrants to the United States. Its many factories turned out firearms, locomotives, heavy machinery, bridges, countless technological innovations, and all sorts of textiles, especially silk, giving the City its late nineteenth-century nickname, “The Silk City”.

Paterson boomed with the Industrial Revolution but by the early twentieth-century, wealth disparity and labor unrest led to a period of economic decline. After a brief boom during WWII, this trend accelerated, with the permanent closure of factories, the loss of direct and indirect jobs and a population exodus to the suburbs beginning in the 1960s.

### **Preservation Efforts**

In the 1960s, threats of radical urban renewal and highway construction to provide more car-friendly access to downtown, namely the construction of I-80 gave rise to the historic preservation movement in Paterson. A newly formed citizens group, the Great Falls Committee, pressured decision makers for a more sensitive approach to preserve the City’s history and the extraordinary natural asset located at its core, the Great Falls. As a result of this local movement, on April 17, 1970, the Great Falls of Paterson/Society for Useful Manufactures Historic District was entered into the National Register of Historic Places.

Excerpt from Hunter Research, *Factories Below the Falls: Paterson’s Allied Textile Printing Site in Historic Context*. Sept 2010, (Chapter 1, Page 5):

Along the way, other important historic designations were garnered. On June 6, 1976, while standing upon a dais with the Great Falls as his backdrop and with 60,000 residents in attendance, President Gerald R. Ford looked downstream over the roof tops of the mill buildings that crammed the ATP site and designated the Great Falls/Society of Useful Manufacturers National Historic Landmark District as “a monument to the genius and to the efforts of the workers, the engineers, the businessmen who turned [Alexander] Hamilton’s vision of an industrial, powerful nation into a reality” (Ford 1976). Less than a year later, on May 20, 1977, the Great Falls Raceway and Power System, substantial portions of which traverse the ATP site, were designated a National Civil and Mechanical Engineering Landmark. The date of the dedication ceremony coincided with the 50th anniversary of Charles Lindbergh’s crossing of the Atlantic Ocean in an airplane powered by a Wright Aeronautics engine made in Paterson (Blesso 1993:6-7). In the mid-1970s, at the time of these two important designations, the ATP site contained a large swath of the new landmark district’s most significant urban historic fabric. Its factories were the stages upon which Paterson’s history was woven and cast, and the looming brick edifices that stood between Van Houten Street and the Passaic River were among the City’s most venerable. These mills bore witness both to moments of great achievement and to lives of daily struggle.

### **Paterson Great Falls National Historical Park**

The Paterson Great Falls National Historical Park, was established in November 2011 and included 9 acres of property to be acquired by the NPS, while the remainder of the 33 acres, including the ATP site within the park boundary remain in the ownership of the City, or the Passaic Valley Water Commission.

The mixed ownership calls for tremendous partnership and trust between the entities in order for the overall Great Falls Historic District to be rehabilitated and to serve as the best setting for the jewel that is the Paterson Great Falls. Parameters of the cooperative relationship between the City and the NPS were

set down in an agreement that was formative to the legal establishment of the Park in 2011 by the Secretary of the Interior.

A significant majority of the area in and around the Great Falls National Historic Landmark District will remain outside the National Park boundaries. Thus, the City has strengthened the capacity of the Paterson Historic Preservation Commission and its land use planning to work closely with the NPS, and branches of the City government, to protect and enhance the buildings and the setting of the Great Falls Historic District, both inside and outside of the national park boundaries.

## **OVERVIEW OF CONTAMINATION AND FRAMEWORK FOR ADDRESSING**

While extensive industrial operations have made Paterson’s mark on history, it has also left environmental scars as well. There have been multiple environmental investigations conducted across the entire ATP property since 1994. Some of the identified Areas of Concern (AOCs) span the whole property while others are entirely located within the 4.5-acre portion of the property that is the subject of this Plan. Prior investigations conducted at the Site identified the following AOCs.

**Table 2: Areas of Concern**

<b>AOC ID</b>	<b>Description</b>
AOC-A	Dye House and Dye-Related Impacts (including AOC-Sump)
AOC-B	Chrome Plating Areas
AOC-C	Underground Storage Tanks (USTs)
AOC-D	Asbestos-Containing Boiler Piping Insulation (including other ACM)
AOC-E	Gums and Resin Storage Areas
AOC-F (Partial)	Finishing Agents Application Area
AOC-G	Transformer, Lubricating, and Hydraulic Oil Use Areas
AOC-H	Laboratory Facilities
AOC-I	Tail Race Tunnels (including Head Races)
AOC-J	Metal Working Areas
AOC-K (Partial)	Coal Burning Areas/Historic Fill
AOC-L	Material Storage Area
AOC-M	Rear of Todd Mill (Building 6)
AOC-N	Lead Based Paint
AOC-O	Wastewater Treatment Sump within Building 4 (see AOC-A)
AOC-P	37 Drums Between Waverly Mill and River
AOC-Q (Partial)	Groundwater
AOC-R (Partial)	Passaic River Sediment and Surface Water
AOC-S (Partial)	Site Wide Drainage System

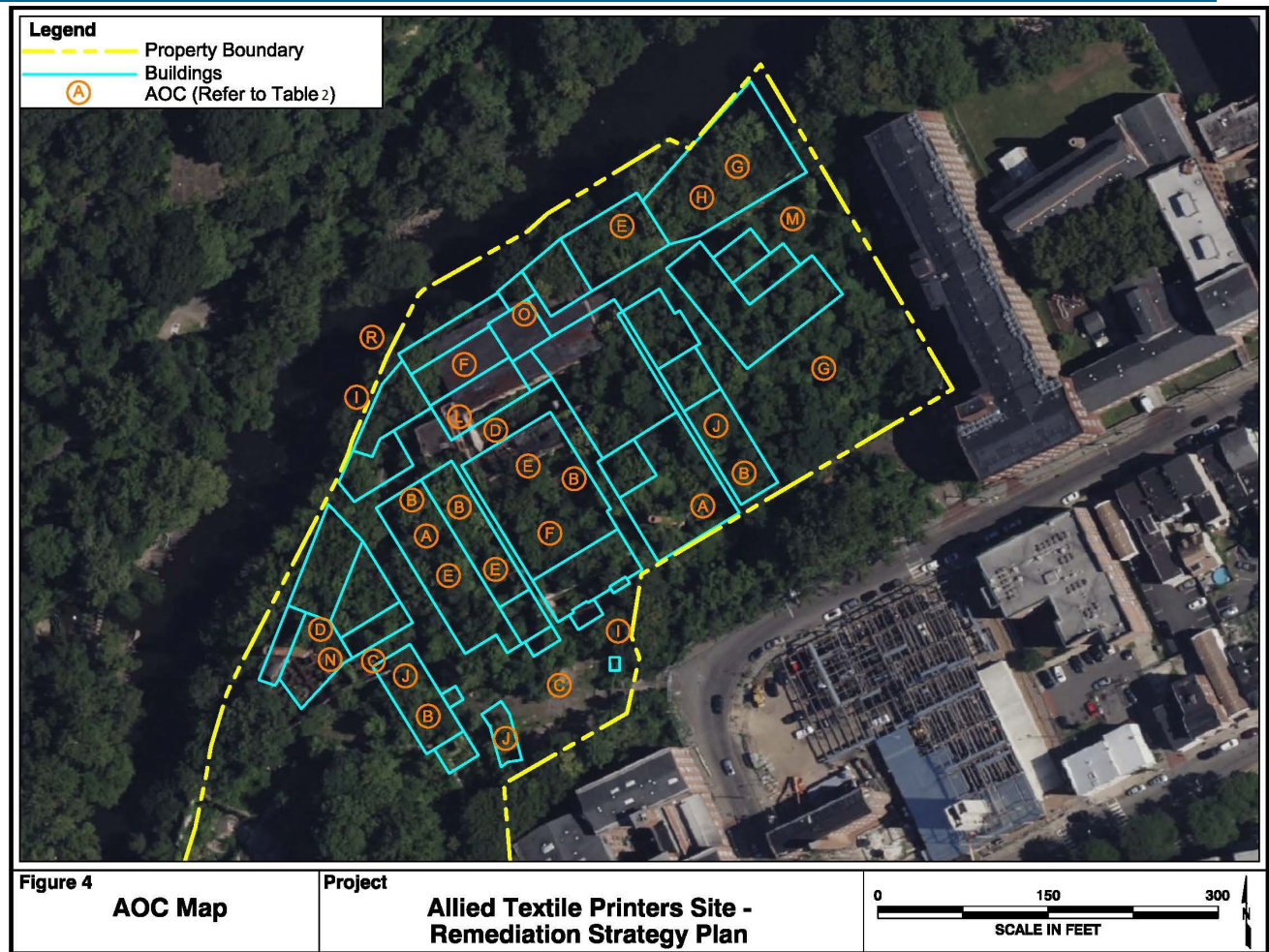


Figure 4: AOC Map

Since the completion of a Revised Site Investigation Report in 2011 by Whitman, the NJDEP has updated Standards for many compounds and have established Standards for several compounds that have been identified as emerging contaminants. Emerging contaminants are discussed further in **Chapter 3**. All site remediation to be performed shall be conducted in accordance with the New Jersey Site Remediation Reform Act, N.J.S.A. 58:10C-1 et seq.; the Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-12 and implementing regulations in the Administrative Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26C; and the Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

The reference remediation standards for soil will be NJDEP’s published numeric values for NJDEP’s Residential Ingestion/Dermal Soil Remedial Standard (RIDSRS), Non-Residential Ingestion/Dermal Soil Remedial Standard (NRIDSRS), Residential Inhalation Soil Remediation Standards (RISRS), Non-Residential Inhalation Soil Remediation Standards (NRISRS), and Migration to Groundwater Soil Remediation Standard (MGWSRS). The reference remediation standards for groundwater will be the current version of Class II-A Groundwater Quality Criteria (GWQC) published in Groundwater Quality Standards (N.J.A.C. 7:9C). The effective implementation of the applicable laws and guidance will be managed and overseen by the LSRP of Record for the Site, Frances Shultz (License #574048) of GEI Consultants, Inc. (GEI). Project reports and site closure documentation will be submitted to the NJDEP by the LSRP on behalf of the City.

## RESOURCES USED IN DEVELOPMENT OF THIS PLAN

In preparation of this Plan, BRS reviewed reports, plans, studies and finding documents made available through the City and other stakeholders. **Table 3** provides a list of the documents reviewed.

**Table 3: Prior Documents Examined**

Name	Author	Date
Preliminary Assessment	SEA Consultants, Inc.	1994
Asbestos Inspection	Accurate Environmental Inspections, Inc.	1996
Lead Based Paint Survey	Accurate Environmental Inspections, Inc.	1996
Remedial Investigation Report	SEA Consultants, Inc.	1997
Great Falls State Park Master Plan	Field Operations	2006
Geophysical Investigation Report, UST Search	Geo-Graf, Inc.	2008
Cultural Resource Investigation – Vol 1 Factories Below the Falls: Paterson’s Allied Textile Printing Site in Historic Context	Farewell Mills Gatsch Architects, LLC (Hunter Research)	2010
Cultural Resource Investigation – Vol 2 ATP Site Existing Conditions	Farewell Mills Gatsch Architects, LLC	2010
Cultural Resource Investigation – Vol 3 Archaeological Field Investigation	Farewell Mills Gatsch Architects, LLC (URS Corporation)	2010
Cultural Resource Investigation – Vol 4 ATP Site Preservation Treatment Approach	Farewell Mills Gatsch Architects, LLC	2010
General Agreement to Establish and Preserve the Paterson Great Falls National Historic Park	City of Paterson / National Park Service	2011
Revised Site Investigation Report / Remedial Investigation Workplan for Open Areas	Whitman	2011
City of Paterson New Jersey Master Plan (adopted in 2016)	Heyer, Gruel & Associates	2014
Removal Site Evaluation for the Allied Textile Printing Site	USEPA	2015
POL REP #2 – Final POLREP RV-1	USEPA	2015
POL REP #1 – Initial POL REP for RV2	USEPA	2016
POL REP #3 – ATP RV2	USEPA	2016
Paterson Great Falls National Historic Park: Draft General Management Plan and Environmental Assessment & FONSI	National Park Service	2016
Allied Textile Printing Site, letter dated June 17, 2016 (visual inspection and evaluation of structures)	LMW Engineering Group, LLC	2016
Remedial Activities for the Quarry Lawn and Colt Gun Mill/ Waverly Mill Areas of the Former Allied Textile and Printing, Ltd Property	GEI Consultants, Inc.	2020
Remedial Action HDSRF Application	City of Paterson / GEI Consultants, Inc.	2020
Urban Parks Grant – Colt Gun Mill Stabilization Project	City of Paterson	2021
Asbestos Sampling Memorandum – Quarry Lawn and River Walk Improvements	Matrix New World	2022
GEI’s Responses to BRS, Inc.’s September 23, 2022 Questions for LSRP	GEI Consultants, Inc.	2022

## CHAPTER 2 PROPOSED REUSE

Having a clear understanding of the development goals and constraints for reuse of the Site is important to devise a remedial approach that is best suited for its intended reuse. There is a considerable record spanning several decades of formal planning documents created and adopted by the City and its partners related specifically to the redevelopment vision for the Site as a public park – one that weaves the unique industrial history of Paterson and its iconic Great Falls with elements of outdoor passive recreation, historic preservation, archaeological features and education to benefit the residents and serve as a cultural destination for visitors.

These plans were vetted in public input meetings and board hearings prior to adoption by responsible entities such as the Paterson Planning Board, Municipal Council, and Historic Preservation Commission. Other partner agencies such as the National Park Service likewise have adopted publicly-vetted planning documents in support of the City’s vision for the future reuse of the Site. The most recent document being the Master Plan adopted in 2016 by the City and Planning Board, including an historic preservation element presented by the Historic Preservation Commission.

In many ways, the Master Plan was the culmination of Great Falls State Park planning and National Park planning efforts that began in 2004 and gained much momentum between 2007 and 2015. Prior to this, the germane commitment to set aside the ATP Site from redevelopment for any purpose other than for preserving its heritage and historic significance was made by the City decades ago in 1996. The master redeveloper contract for the Site appointed by the City was revoked, with agreement to reimburse the redeveloper \$500,000 for expended planning costs associated with its approved redevelopment for affordable housing.

### FUTURE VISION

In support of the City’s vision for the Site’s reuse, the *Existing Conditions Assessment*, prepared by Farewell Mills Gatsch Architects, LLC in 2010 as part of the *Cultural Resource Investigation* identified eight principal historical themes of the Site to be interpreted:

- Late 18th-Century S.U.M. Improvement of the ATP Site
- Development of the S.U.M. Waterpower System and Later Power Sources
- Management of Water Resources and the Commoditization of Water
- Colt Family Entrepreneurialism
- The ATP Site Manufacturers as Custom and Batch Production Specialists
- Cotton and Wool Manufacture
- Silk Manufacture
- Textile Dyeing and Finishing

Options presented within the General Management Plan prepared by the National Park Service in 2016 for the Paterson Great Falls National Historical Park include the following:

- Outdoor recreation as a significant component of the park
- Viewing platforms for the Falls
- Preservation of the industrial history of the area
- Interpretive art within the Park and its surroundings
- Work with the National Park Service to develop special promotional events to attract visitors (street festivals, art exhibitions, City pride days, etc.)
- Address limited water access

In fact, the vision demands multiple facilities for a diversity of users, and given the wealth of historic significance, its implementation is only limited by its physical limitations and funding.

**Table 4: Site Use Facilities**

<b>User Activity</b>	<b>Preference/Need</b>	<b>Site Impact</b>
Historic and archaeological study	Information, access to artifacts	low
Passive enjoyment	Benches, walking paths, view sheds	Med-low
Active recreation	Playground, ball fields, exercise equipment	high
Environmental conservation	Undisturbed green spaces, native species	low
Tourism and economic development	Restaurant, gift shop, interpretive signage	high
Museum education	Exhibition and classroom facilities	high
Historic preservation	Restoration of structures, authenticity	med
A neighborhood park	Easy everyday access, place for kids/dogs	Med-high
Cultural events – concerts, festivals	Parking, night lighting, stage	high

The City has received a grant from the New Jersey Historic Trust to produce an ATP site Reuse Master Plan and will be launching the effort in summer/fall 2023. It will include stakeholder engagement and public vetting as part of the overall process. This plan will inform the ultimate direction and investments required for implementation of a final reuse in such a way that site remediation and reuse improvements can be implemented simultaneously to the greatest extent possible.

### **SUSTAINABILITY EDUCATION**

Montclair University is in preliminary discussions with the City in order to develop a Green Innovation Center at the Site. Montclair University, in partnership with The Nature Conservancy (TNC), aims to develop a center expanding existing plans for part of the site to be remediated into a public green space called Quarry Lawn and Riverwalk, the Center would provide an example of redevelopment with green and sustainable innovation in action. The Center will be an information resource for emerging energy and sustainability resources and foster tech-based regional knowledge ecosystems to guide the New Jersey Green Workforce of the future.

As this plan is explored it must also remain compliant with the Agreement between the City and the NPS regarding uses compatible with the purposes of the national park, archaeological sensitivity and the legal historic preservation mandates of the Site. A feasibility study to determine the ability to construct and sustain a program and facility of this type in this location should be conducted.

### **HISTORIC PRESERVATION**

An industrial archaeology consultant will be vital in working with the City and other stakeholders to ensure the most appropriate plan is established and executed for compliance with cultural resources mandates, which will go hand in hand with the environmental investigation and remediation of the Site.

According to the report prepared by Hunter Research in 2010, “Factories Below the Falls: Paterson’s Allied Textile Printing Site in Historic Context”, the historic significance of the district ranges from 1792 to 1924. The Site played a critical role in that history as a leader in the dye and textile industry and beyond into

1945, as result several elements of primary significance to the Site are highlighted for preservation and include, but are not limited to:

**Colt Gun Mill:**

As outlined in the 2014 Master Plan, the City wishes to adaptively reuse the Colt Gun Mill. The intent is to restore or stabilize ruins for reuse as an interpretive sculpture grounds and a museum for industrial heritage. The ruins were structurally stabilized in 2002, and the *Existing Conditions Assessment*, prepared by Farewell Mills Gatsch Architects, LLC in 2010 as part of the *Cultural Resource Investigation* reported that the Colt Gun Mill (Building 23) was in “Fair” condition. However, with time has come further deterioration, weather has taken its toll and vegetation growth has undermined stability.

**Boiler House Chimney:**

There are two historic chimneys (also called smokestacks), one is located at Building 14 and the other at Building 1-A. Structural evaluation of the 120-foot-high Building 14 stack was completed by LMV Engineering, LLC in 2016 and recommendations were made for partial removal and preservation of the remaining section. The *Existing Conditions Assessment*, prepared by Farewell Mills Gatsch Architects, LLC in 2010 as part of the *Cultural Resource Investigation* reported that the Boiler House (Building 14) was in “Fair” condition.

Structural evaluation of the Building 1-A stack has not been conducted, however, the Farewell Mills Gatsch Architects, LLC 2010 report noted the Regal Boiler House (Building 1-A) was in “Poor” condition, having suffered collapse, and the stack has lost its upper course. Further investigations of both chimneys are needed as a priority given the questionable integrity of them, and their significance as site-defining features.

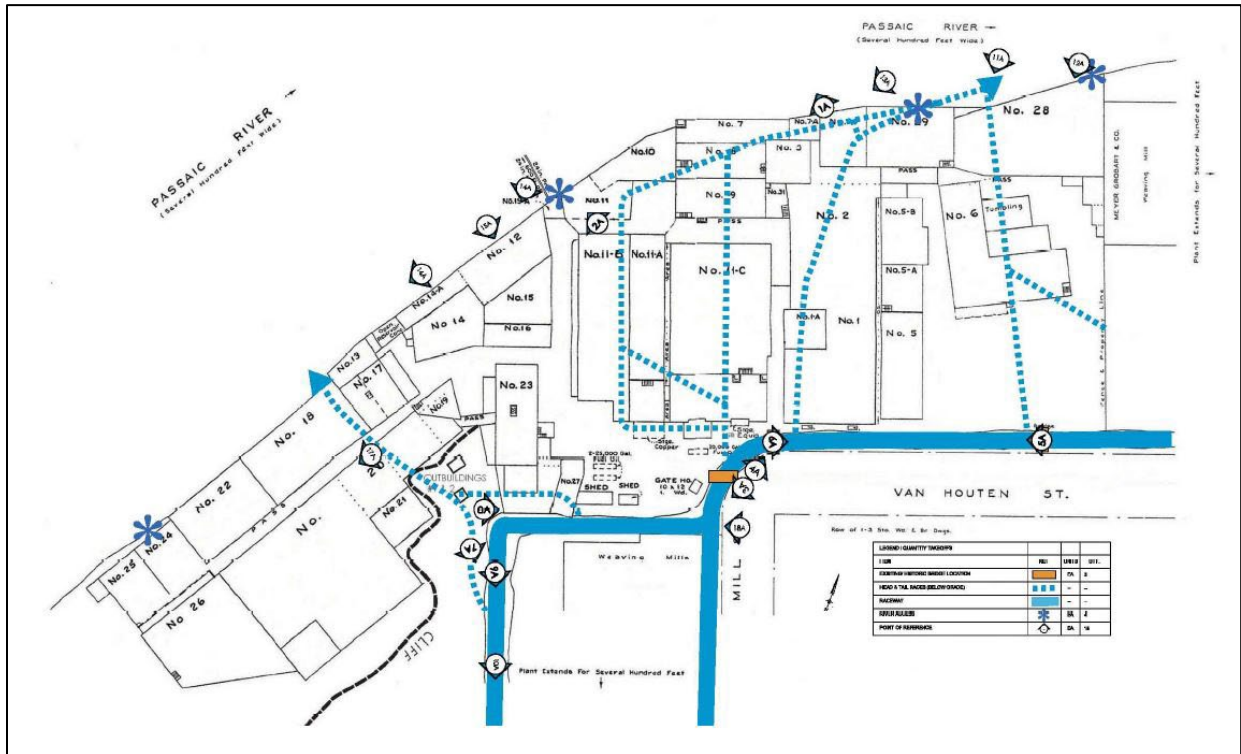
**Filtration Tanks:**

There are five 10,000-gallon above ground horizontal steel storage tanks that served as sand filters to treat intake water from the river for the boilers and the process operations. These tanks are on the southwestern end of the Site, just south of the Boiler House (Building 14). The City hopes to stabilize these tanks in situ on the Site to illustrate prior industrial use.

**Waterpower System:**

The remaining features of the Society for Establishing Useful Manufactures (S.U.M.) waterpower system among the most significant of the Site. Construction of the raceway took place over an approximately 50-year period, beginning in the late eighteenth century and into the mid nineteenth century, as the industry in the area developed and expanded with water being the primary power source at that time. The web of the raceway laterals throughout the site were examined by URS Corp. in 2011 as part of the *Cultural Resource Investigation – Vol 3 Archaeological Field Investigation* and identified areas for future subsurface archaeological investigations.

The 2016 Master Plan calls for the restoration and maintenance of the historic raceways to a functional condition to illustrate how the power from the Great Falls was originally used to power the industrialization of the City. These can also become part of the scenic trails of the Park, adding to the historic and scenic recreational experience. The deterioration of the raceways coupled with past filling activities makes a unique environmental challenge for preservation and reuse of the raceway system across the Site.



(Cultural Resource Investigation – Vol 2, ATP Site Existing Conditions. Farewell Mills Gatsch Architects, LLC. 2010)

**Figure 5: Map of Raceways**

**Various Ruins and Foundations:**

There are several areas throughout the Site that have collapsed buildings, basements filled with upper-story debris from fire losses, some of which have historical significance. Other such buildings, however, are reported to not be historically significant. In addition to being unstable and suffering various degrees of deterioration, several are also overgrown, making them difficult to identify. Furthermore, some buildings have substructures which creates complex and potentially dangerous working conditions not only for general clearing, but also for cultural and environmental investigations that must occur. It is critical that an archaeologist is engaged in order to direct the removal, or possible preservation, of these ruins and the artifacts contained within. The archaeologist will need to work closely with the LSRP in order to develop the approach for the Remedial Investigation, and a Structural Engineer in order to ensure safe working conditions.



## CHAPTER 3 ENVIRONMENTAL AREAS OF CONCERN (AOCs)

### INTRODUCTION

A Remedial Investigation (RI) Report conducted by SEA Consultants (1997) identified fifteen AOCs throughout the property. Following the completion of the SEA RI, Whitman Co. (2011) determined that six of the AOCs (AOC-A, AOC-B, AOC-E, AOC-F, AOC-H and AOC-L) did not warrant further investigation as the contamination detected in these areas was associated with the historic fill/coal ash detected throughout the site, and consolidated these into AOC-K. As outlined in the SEA RI, AOC-O (Wastewater Treatment Sump within Building 4) has been incorporated into AOC-A (Dye House and Dye-Related Impacts). Finally, per the most recent environmental investigation, the Whitman report identified an additional four AOCs requiring further investigation. See **Table 5** for summary of AOCs requiring further investigation.

**Table 5: Areas of Concern Requiring Further Investigation**

AOC ID	Description
AOC-C	USTs
AOC-D	Asbestos-Containing Boiler Piping Insulation (including other ACM)
AOC-G	Transformer, Lubricating, and Hydraulic Oil Use Areas
AOC-I	Tail Race Tunnels (including Head Races)
AOC-J	Metal Working Areas
AOC-K (Partial)	Coal Burning Areas/Historic Fill
AOC-M	Rear of Todd Mill (Building 6)
AOC-N	Lead Based Paint
AOC-P*	37 Drums Between Waverly Mill and River
AOC-Q (Partial)*	Groundwater
AOC-R (Partial) *	Passaic River Sediment and Surface Water
AOC-S (Partial)*	Site Wide Drainage System

\*Added by Whitman

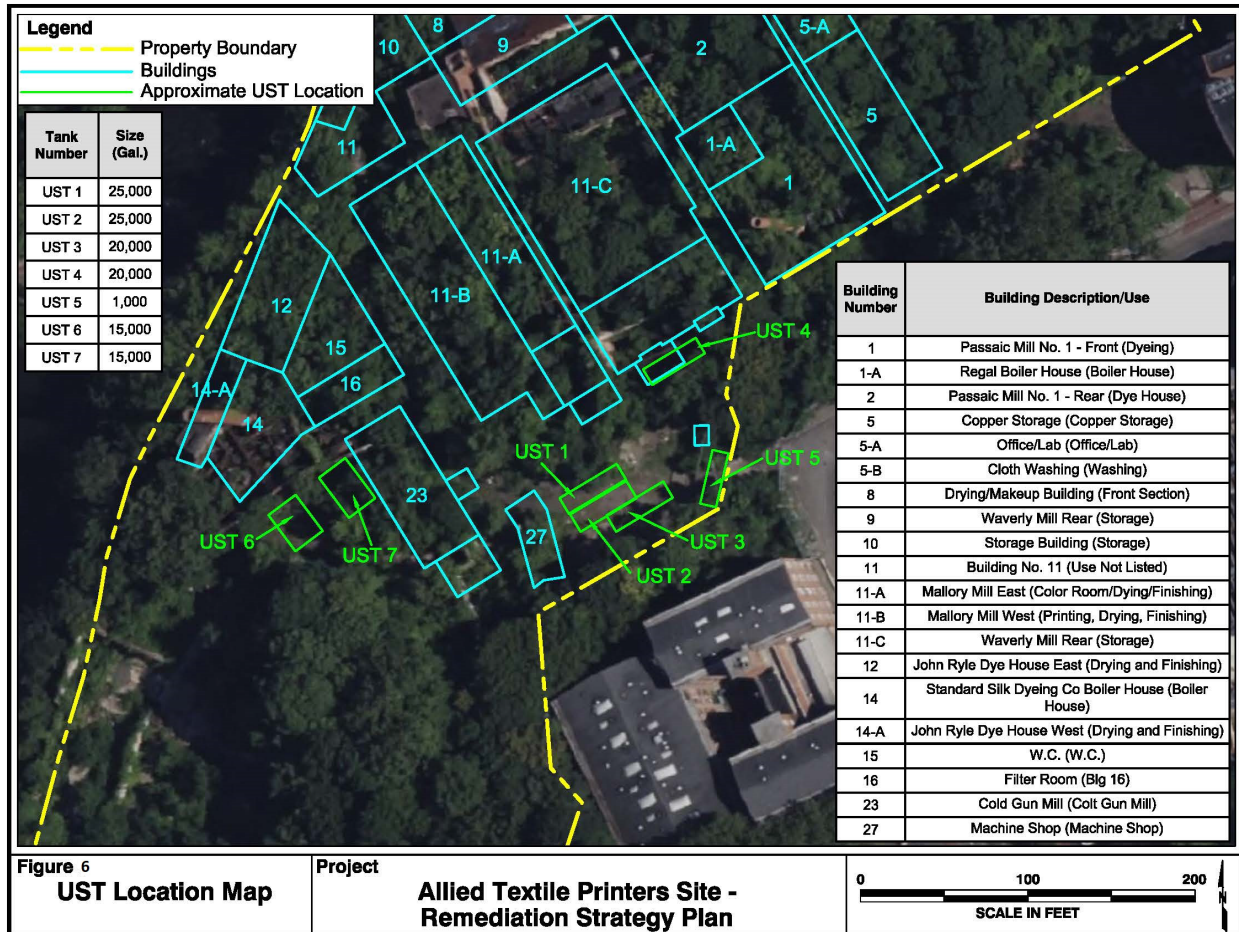
It is important to note that only limited sampling has been conducted within the buildings due to the instability of the structures. Following building demolition, soil testing will be required, and additional AOCs may be identified. In addition, NJDEP Standards for soil and groundwater have changed since the prior investigation work was conducted. An evaluation of prior sampling against the current standards is required and may result in additional AOCs. Furthermore, NJDEP has established Standards for several compounds that have been identified as contaminants of emerging concern. For example, chemicals associated with chrome plating activities (AOC-B), which may warrant further investigation.

### FURTHER INVESTIGATION

The majority of the information available regarding outstanding investigation was obtained from the Whitman Revised Site Investigation Report (SIR) / Remedial Investigation Workplan for Open Areas, March 2011. These efforts have been supplemented by limited, yet more recent, investigation by GEI. A detailed description of the AOCs requiring further investigation is as follows:

**AOC-C USTs:** The Whitman SIR determined the Site contained seven suspected USTs. GEI conducted additional investigation in 2021 including Ground Penetrating Radar (GPR), test pitting and sampling. GEI was able to confirm the presence of seven USTs in the Colt Gun Mill and Waverly Mill Area. Per the findings

from GEI, two of the tanks (Tank 6 & 7) will be abandoned in place in accordance with standard industry practices, three of the tanks will be removed (Tanks 3, 4 & 5), and two of the tanks require further assessment to determine if they will be removed or abandoned in place (Tanks 1 & 2). Following removal of USTs further delineation of petroleum impacts to soil and groundwater will be required.



**Figure 6: Underground Storage Tank Location Map**

AOC-D Asbestos-Containing Boiler Piping Insulation (including other ACM): Asbestos containing materials (ACM) have been identified in several buildings including the Regal Boiler House (Building 1-A), the Todd Mill (Building 6), Drying/Makeup Building (Building 8), Waverly Mill (Building 9) and the Boiler House (Building 14). ACM identified included spray on insulation, pipe insulation, duct wrap, caulk, oakum and transite. All of these buildings are in various states of deterioration and have suffered vandalism which would have potentially released friable ACM from pipes or equipment that were damaged in the process. Furthermore, it is expected that ACM could be on the building floors and/or under debris.

A detailed review of asbestos impacted buildings was prepared by AEI, Inc. in 1996. For most buildings they recommended a wetting and separation method for the ACM removal, with the exception of the Boiler House (Building 14) where abatement could be conducted. In 2016 the United States Environmental Protection Agency (USEPA) conducted additional sampling at Buildings 14, 14A and 16, which confirmed friable ACM is present. Although removal of ACM and boiler ash was deemed eligible for USEPA removal action, a Memorandum of Agreement (MOA) is required for work to progress, and cultural resources protections must be established in compliance with the National Historic Preservation Act (Section 106).

Because only limited ACM survey was conducted due to the instability of buildings and structures the actual site-wide presence and quantity of ACM is currently suspected, but unknown.

AOC-G Transformer, Lubricating, and Hydraulic Oil Use Areas: Sampling conducted by Whitman identified several contaminants above NJDEP standards at the time, including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), Benzene, metals, Antimony, and Dioxins. Additional sampling is required to complete the investigation, following demolition and/or stabilization of existing structures. Sampling may be required to meet both NJDEP Standards and USEPA Toxic Substances Control Act (TSCA) Standards.

AOC-I Tail Race Tunnels (including Head Races): Sediment in the raceway may have been impacted by past operations. As part of the 2011 Revised Site Investigation, Whitman conducted sediment and surface water sampling next to buildings 12, 7/7A (Sump House #19 on Whitman Figure #7) and 28. Both surface water and sediment samples were analyzed for PP+40 compounds. Contaminants were not detected in the surface water samples at concentrations exceeding applicable standards in effect at the time. However, several metals including copper, lead, nickel and zinc were detected at concentrations exceeding Freshwater Sediment Screening Guidelines LEL (FSSG) in sediment samples collected along the Site and downstream. PAHs including pyrene and chrysene were also detected at concentrations exceeding FSSG in the sediment sample collected downstream. Additional sediment and surface water may be required along the raceways.

AOC-J Metal Working: Whitman's investigation found metals and PAHs above standards not only in the metal working area of concern but also site-wide. Per Whitman's response to comments from the NJDEP February 2011, sampling should be conducted to determine if Hexavalent chromium is present in the soils. Following demolition and structure stabilization further delineation is required.

AOC-K Coal Burning Areas: This AOC was designated by SEA to include the site-wide contamination resulting from historic coal burning. SEA also determined that boiler residue was used as fill throughout the Site. Whitman further determined that AOC-A, AOC-B, AOC-E, AOC-F, AOC-H, AOC-L and AOC-O did not warrant further investigation as the contamination detected in these areas was associated with the historic fill/coal ash detected throughout the site, and consolidated these into AOC-K. Following demolition and structure stabilization further delineation is required.

AOC-M Rear of Todd Building: At the time of investigation by SEA it was indicated that the Todd Mill was not connected to the public sewer, and it is unknown where the floor drains and sanitary piping discharged. Wherever they discharged, buried discharge piping may exist in this area. Whitman conducted sampling in open areas and confirmed exceedances of VOCs, PAHs, metals, PCBs, and Dioxins. Building demolition and/or stabilization of existing structures is required prior to further investigation of this area. Once the structures are addressed it would be beneficial to perform a GPR survey coupled with field confirmation with test pits of this area to locate buried piping. This will help to direct further sampling to complete the investigation.

AOC-N Lead Based Paint: In 1996 Accurate Environmental Inspections (AEI), Inc. conducted a Lead Based Paint (LBP) inspection for SEA Consultants, Inc. within accessible buildings. The report prepared by AEI concluded that there was very little LBP within the buildings and prior LBP had likely been removed by weather or fire. AEI did note that waste and demolition materials should be characterized for lead and disposed of accordingly. In the 2011 SIR/RIWP Whitman stated that additional LBP survey should be

conducted after buildings were made safe. Additional surveys would determine how to handle and dispose of LBP impacted materials.

AOC-P Drums: Thirty-seven drums were identified by SEA between the Waverly Mill and the Sump House. Reportedly, twelve of the drums contained fluid and were found to contain hazardous and non-hazardous materials. The balance of the drums were noted to be empty. Due to the concern of release of CERCLA hazardous substances, on December 16, 2014, the USEPA sampled nine of the drums. Testing results indicated several drums were RCRA hazardous for corrosivity (potentially sodium hydroxide) and one drum tested positive as an oxidizer and peroxide. As a result, an emergency removal action was initiated and on January 23, 2015, the RCRA hazardous drums were shipped to an USEPA approved treatment/storage/disposal facility.

Following stabilization of Site buildings and/or during demolition, the buildings should be thoroughly inspected for drums. If there are drums remaining on Site they should be sampled, properly characterized, and appropriately disposed of. Additionally, should staining be observed in any of the areas of former drum storage, further investigation will be required.

AOC-Q Groundwater: Whitman installed ten temporary wells points during their investigation. Sample results identified concentrations above standards for VOCs, PAHs, and metals. Following demolition and/or structural stabilization the installation of permanent wells will be required to further the groundwater investigation.

AOC-R Passaic River Sediment and Surface Water: Whitman collected samples of sediment and surface water from along the riverbank. Results indicate concentrations of metals above standards at the time of the Whitman report. Refer to AOC-I for additional details. The investigation of this AOC is not complete per the Whitman RIWP. Furthermore, the data will need to be compared to current standards to evaluate the need for additional sampling. Sampling, if required, will need to be conducted following stabilization and/or demolition of the buildings along the bank.

AOC-S Site Wide Drainage System: A number of drainage grates were identified throughout the property by Whitman. In October 2008 they performed a video inspection of a portion of the system in the southern part of the Site. Video footage identified brick and clay piping in poor condition with discharge points along the bank of the River. Sampling was conducted for River surface water and sediment, and results were included by Whitman with AOC-R and AOC-I. Further investigation will need to be conducted following building stabilization and/or demolition.

## EMERGING CONTAMINANTS

NJDEP Technical Requirements for Site Remediation (N.J.A.C. 7:26E) stipulates, contaminants of emerging concern, if discharged to the waters or onto the lands of the State, are pollutants that must be remediated. When a site was formerly occupied by facilities that manufactured, stored, handled, or used contaminants of emerging concern, per the NJDEP, LSRPs must consider these contaminants during the investigation and remedial action, and evaluate the site for potential spills and releases through air, water, and waste discharges.

Based on the historic site usages and events including multiple fires, an evaluation of emerging contaminants at the Site is needed. Current emerging contaminants for consideration include the following:

### **1,4-Dioxane**

The main use of 1,4-dioxane has been as a stabilizer of chlorinated solvents such as TCA. 1,4-dioxane is also used in the manufacture of pharmaceuticals, certain plastics and rubber, and other products. It is not typically associated with textile production.

### **Per- and polyfluorinated alkyl substances (PFAS) and GenX Chemicals**

PFAS cover a wide range of several thousand chemicals that were used in a variety of consumer and industrial products, including stain repellants, water proofing and firefighting foams. NJDEP has established GWQS and interim Soil Remediation Standards (SRSs) for three PFAS: perfluorononanoic acid (PFNA), perfluorooctanoic acid (PFOA), and perfluorooctanoic sulfonate (PFOS). PFOS was used in commercial stain and water-resistant products beginning in the early 1950s and as firefighting foam starting the early 1960s. PFOA came into commercial use for protective coatings in the mid-1950s. Based on the prior site operations additional investigation may be warranted.

The NJDEP has also established an interim GWQS and interim SRSs for hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt, which are known as “GenX chemicals”. These constituents, which are part of the PFAS class, are known as “GenX chemicals” because they are the two major chemicals associated with the GenX processing aid technology. GenX is a trade name for a processing aid technology used to make high-performance fluoropolymers without the use of PFOA.

A letter dated July 9, 2020 from Mr. Brian J. McDermott, Chief of Paterson Fire Department, attests that no firefighting foam was utilized to extinguish fires at the ATP property. The letter is included in **Appendix 4**. As a result, the LSRP determined that the Quarry Lawn Site did not warrant investigation for PFOA, PFOS, PFNA or any other PFAs compounds, and that there was no basis for investigation of 1,4-Dioxane. A site-specific evaluation for PFAS and GenX Chemicals will be required for the balance of the Site during the remedial investigation.

### **1,2,3-Trichloropropane (1,2,3-TCP)**

1,2,3-TCP is a man-made chemical commonly used as an industrial solvent (for oil, fats, waxes and resins), a degreasing agent, and a paint and varnish remover. 1,2,3-TCP was also an impurity in soil fumigants containing dichloropropane and dichloropropene, which were used as pesticides and nematicides until the late 1980. A site-specific evaluation for 1,2,3-Trichloropropane will be required for the balance of the Site during the remedial investigation.

### **Perchlorate**

Perchlorate is a man-made and naturally occurring chemical. Perchlorate is naturally occurring particularly in arid regions such as the southwestern United States. Perchlorate is found as a natural impurity in nitrate salts from Chile, which are imported and used to produce nitrate fertilizers and explosives. It is commonly used in solid rocket propellants, munitions, fireworks, airbag initiators for vehicles, matches, signal flares and some electroplating operations. The majority (i.e. 90 percent) of perchlorate produced domestically is used in the defense and aerospace industries in the form of ammonium perchlorate. A site-specific evaluation for perchlorate will be required for the balance of the Site during the remedial investigation.

## CHAPTER 4 STAKEHOLDERS AND PARTNERS

The list of stakeholders and partners provided below will be integral in achieving the actions outlined in **Chapter 6**.

The City of Paterson is the primary stakeholder for each area of work, therefore, the City has not been included as a stakeholder for each element in Chapter 6. However, certain elements of work may involve specific Departments within the City, other agencies, or groups which are specifically identified.

**Table 6: Stakeholders and Partners**

Entity	Relationship to Project
City of Paterson	Property Owner
National Park Service (NPS)	Party jointly responsible for park management
Paterson Municipal Utilities Authority	Party jointly responsible for park management
Passaic Valley Water Commission	Utilities
GEI Consultants – Frances Schultz	LSRP of Record
New Jersey Economic Development Authority (NJEDA)	Funding Agent
New Jersey Department of Environmental Protection (NJDEP)	Regulatory Agency and Funding Agent
Montclair University	Partner for Educational Facility Uses
Hamilton Partnership	Community Outreach
Friends of the Great Falls	Advocacy and Community Outreach
Passaic River Flood Fighters/Paterson Smart	Advocacy and Community Outreach
New Jersey Community Development Corporation (NJCDC)	Partner for Educational Facility Uses
Residence Groups (Congdon Mill Association and Essex Mill Association)	Community Outreach

## CHAPTER 5 PERMITS

The listed permits are anticipated to be required to perform the actions outlined in **Chapter 6**. Given the longevity and complexity of this work it is highly recommended that pre-application consultations be held with permitting agencies to streamline the review process.

**Table 7: Anticipated Permits**

Permit	Agency	Notes
Flood Hazard Area (FHA)	NJDEP	Consider requirements for fill placement.
NJ Historic Sites Act	NJDEP – Historic Preservation Office	Project Authorization Application
National Historic Preservation Act	NJDEP – Historic Preservation Office	Section 106
Stormwater Management	NJDEP	Explore credit for buildings being removed/demolished and impervious area for future stormwater design.
Soil Erosion and Sediment Control (SESC)	Hudson Essex Passaic Soil Conservation District	Permit required for soil disturbance in excess of 5,000 square feet (SF).
National Park Service - Access	National Park Service	
Asbestos	State Health Department	Notification for asbestos containing materials removal.
Demolition / Building Permits	City of Paterson	
Road Closure Permit	City of Paterson	
UST Removal	NJDEP City of Paterson	NJDEP - UST Registration and delisting NJDEP/LSRP – Notice of Intent to close UST City of Paterson – Construction Permit
Remedial Action Permit	NJDEP	Soil and Groundwater

## CHAPTER 6 RECOMMENDATIONS FOR ACTION

The prior Chapters discuss the Site goals for reuse and the obstacles to achieving them. **Chapter 6** outlines the elements of work required to achieve these goals. Each element of work in the following sections provides a brief description and discussion on implementation, estimates cost and timeframe, lists funding opportunities and required permits, and identifies stakeholders who may be critical for coordination or require specific outreach. It should be noted that the scope of work and associated costs presented herein are recommendations for the sole purpose of assessing funding needs and are subject to change. A detailed outline of funding opportunities which align with the needs of the ATP Site is included in **Appendix 5**.

Each element of work was categorized into one of three phases: (Phase A) Pre-Remediation Activities, (Phase B) Remedial Investigation Activities and Assessment, and (Phase C) Remedial Action. Some of the work to be completed is linear in nature. For example, vegetation clearing must take place before a ground penetrating radar study can be effectively conducted. However, other tasks are less straight forward and may fall into more than one Phase. Furthermore, availability of funding may make an area of work feasible at a time when it would otherwise not have been considered. Therefore, as the remediation and redevelopment of the Site moves forward the sequence of work as prescribed in this report may evolve. The work outlined herein is illustrated in the "Sequence of Work Flow Chart", presented in **Appendix 3**.

### Phases of Work:

#### Phase A – Pre-Remediation Activities

- I. Establish Site Access
- II. Vegetation Clearing
- III. Surface Debris Disposal
- IV. Site-Specific Master Plan

#### Phase B – Remedial Investigation

- V. Preliminary Assessment**
- VI. Ground Penetrating Radar**
- VII. Site/Remedial Investigation Workplan**
- VIII. Structural Assessments
- IX. Temporary Stabilization and Targeted Demolition to Facilitate Investigation
- X. Asbestos and Hazardous Material Survey
- XI. UST Removal and Closure**
- XII. Site Investigation and Reporting**
- XIII. Remedial Investigation and Reporting**

#### Phase C – Remedial Action

- XIV. Remedial Action Workplan**
- XV. Asbestos and Hazardous Material Removal
- XVI. Demolition
- XVII. Structural Stabilization and Historic Building Preservation
- XVIII. Soil and Groundwater Remediation**
- XIX. Remediation - Engineering / Institutional Controls**
- XX. Remedial Action Report and RAOs**
- XXI. Operations and Maintenance Plan

Activities in **bold** are to be undertaken or overseen by the LSRP of Record and are the responsibility of the person responsible for conducting remediation, The City of Paterson, to complete.



## PHASE A – PRE-REMEDATION ACTIVITIES

### ESTABLISH SITE ACCESS

#### Description

Site access is extremely limited. Currently the site can be accessed from the south on foot through Quarry Lawn. Once Quarry Lawn construction is complete limited vehicle access will be an option from the south. However, the pinch point between the Colt Gun Mill and the Boiler House will continue to restrict construction equipment access from the south until those buildings are demolished or stabilized. Therefore, access to the Site is predominantly from the east. Running the length of the east side of the Site is the historic raceway. Due to the location of raceway, the only points of vehicle access north of the Colt Gun Mill are by crossing one of the three existing bridges on the east side of the Site from Van Houten Street. The bridges are identified by their location in proximity to the mills. Starting from north to south the bridges are the Todd Mill Bridge, the Waverly Mill Bridge and the Colt Gun Mill Bridge. The three bridges are in a state of disrepair, which limits the size and weight of vehicles and equipment that can access the Site.

The limited load capacities of the bridges impact all of the major sitework that needs to take place. Even down to the vegetation clearing, one of the first elements of work required to establish side-wide access, would be significantly more expensive if large equipment cannot reach the work area.

<b>Estimated Cost:</b>	Develop Structural Reinforcement Plan - \$100,000 Bridge Repair (per crossing) - \$42,160 – \$51,808 Bridge Rebuild (per crossing) – \$168,400 – \$215,920
<b>Additional Stakeholders:</b>	City of Paterson Transportation National Park Service Community Groups
<b>Permits Needed:</b>	Road Closure Permit – City of Paterson Construction Permit – City of Paterson NJDEP – Section 106
<b>Funding Opportunity:</b>	National Parks Service Grant – Save America’s Treasures NJHT Historic Site Management Grant
<b>Duration:</b>	6 months (Temporary Structure) 12-24 Months (Permanent Structure)

#### Implementation

A report by LMW Engineering Group LLC prepared June 2016 determined that the Colt Gun Mill Bridge. (a.k.a. the Western Bridge), could support trucks with an axial span over 30 feet, with a gross weight of 40 tons. However, some of the beams are encased in concrete and were unable to be inspected. Therefore, it may only be able to support a gross weight of 20 tons. Structural assessment of the other two bridges has not been conducted.

The City is planning to hire for Engineering Services to develop a structural reinforcement plan for the bridges. Following that plan the City will initiate a procurement process to establish a construction contract to undertake bridge repairs. Bridge repairs would include historic preservation efforts.

As an alternative to reinforcement of the existing bridges, the City may consider installation of a temporary prefabricated bridge. The typical span of a panel bridge is up to 30’. For spans longer than 30’ hinged or hybrid bridges may be more appropriate. The Colt Gun Mill Bridge span varies from 31’ to 39’. There may be a section of the Lower Raceway between the Todd Mill Bridge and the Waverly Mill Bridge that is suitable for prefabricated bridge installation.

Regardless of the approach, any work to re-establish bridge access to the Site will likely require City permits and include road closures and traffic control measures. Community outreach is highly recommended in advance of the work due to potential impacts to vehicle and pedestrian routes. In addition, if the proposed work may impact the historic nature of the Site, NJDEP Section 106 approval would be required. Once the approach to re-establishing bridge access is known, it is recommended that a consultation with NJDEP be held.

**Timeframe**

The City intends to advertise a Request for Quotations (RFQ) for Engineering Services to conduct a study and develop a structural reinforcement plan. The timeline for plan completion and implementation is unknown. Should the City decide to install a temporary prefabricated bridge the lead time for fabrication can be up to 6 weeks. The engineering design, associated permitting, plan approval and site preparation required for installation could take several months.

The ability to access the Site with heavy equipment directly impacts the approach to all other investigation and remediation activities. Therefore, it is critical that this is addressed as soon as possible.

**VEGETATION CLEARING**

**Description**

The majority of the Site is heavily overgrown with established trees and ground vegetation. At present it is impossible to circulate the Site with vehicles or equipment and even access by foot is extremely limited. The densest areas of vegetation are between the Mallory Mill (Buildings 11A and 11B) and the Passaic Mill (Buildings 1 and 2). The structures throughout the Site are inundated with vegetation and the Areas of Concern are inaccessible by the equipment required to conduct soil and groundwater investigation. In addition to disrupting access and impeding the ability to conduct remedial investigation, the overgrowth is impacting the stability of existing buildings and exacerbating the deterioration of historic structures.

<b>Estimated Cost:</b>	\$355,100 - \$440,950
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP – Section 106 SESC
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	15-20 Days (target fall/winter for sitework)

**Implementation**

Removal of vegetation to existing grade and stump grinding shall be performed to allow pedestrian, vehicle and equipment access. It is recommended that root removal is not performed so as to avoid disturbance of soil. All cuttings shall be removed from the Site but may be considered for use offsite. Materials that have been in contact with site soil should be characterized and evaluated prior to offsite reuse or disposal.

A Structural Engineer and Archaeologist should be consulted to determine to what extent clearing can be performed without negatively impacting or potentially causing failure of unstable and historic structures. Consideration should also be taken for below grade structures such as raceways and utilities which may have been compromised by the ingress of vegetation. Stabilization of structures may be required prior to conducting portions of vegetation removal. In addition, due to potential impacts to the historic nature of the Site as a result of the extensive vegetation clearing, NJDEP Section 106 approval is required.

Site clearing shall take into account the vegetation considered for preservation, as identified in the *Cultural Landscape Evaluation*, prepared by EMT Associates, LLC in 2010 as part of the *Cultural Resource Investigation*. The evaluation calls for three (3) American Sycamore trees located just southeast of the Todd Mill to be preserved. Each tree measured approximately 30” Diameter at Breast Height (DBH) and was approximately sixty (60) to ninety (90) years old.

Because the overall footprint of the clearing exceeds 5,000 square feet, the project must be submitted to the Soil Conservation District (SCD) for review. For this work it may be possible for SCD to issue a waiver for Determination of Non-applicability.

**Timeframe**

The ability to access the extent of the Site directly impacts the approach to all other investigation and remediation activities. Therefore, it is critical that vegetation is addressed and consistently managed to avoid large scale clearing in the future. Site clearing may be performed in stages to coincide with planned investigation and remediation activities.

**SURFACE DEBRIS DISPOSAL**

**Description**

During the site walk conducted on December 19, 2022 with the City of Paterson, nine (9) debris piles were identified. Pile locations and volumes are identified on the Topographic Survey prepared by DPK, dated April 6, 2023 (**Appendix 1**) and are listed in **Table 8** below. Two of these piles were also identified in the Whitman RIWP, Pile #1 and #2. All of the piles are a combination of soil and debris from the Site. It is critical that these piles are removed in order to perform proper closure of the known USTs and to access portions of the site which require further investigation.

<b>Estimated Cost:</b>	\$281,810 - \$445,580
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP – Section 106 State Health Department - Notification for ACM removal SESC
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	2-3 Days (Characterization Sampling), 1-2 Weeks (T&D)

**Implementation**

Some of the piles are adjacent to or in contact with unstable structures. A Structural Engineer should be consulted to determine what precautions may be required to prevent impacting adjacent structures, particularly near the Colt Gun Mill and the Mallory Mill. It may be beneficial to screen the piles before removal in order to reduce the cost of disposal.

Characterization sampling of the piles is required to be conducted prior to disposal. However, the piles on the ATP site are similar in nature to piles recently sampled at Quarry Lawn. The Quarry Lawn pile sample results indicate that 100% of the piles are considered to be contaminated with both asbestos-containing construction debris and/or residual asbestos fiber contamination in soil. Therefore, for the purposes of cost estimating at this time, 100% of the piles at the ATP site are anticipated to be Asbestos Containing Material (ACM). These piles are also presumed to contain soil with contaminants such as metals and PAHs from historic fill.

**Table 8: Debris Piles**

Pile ID	Area (ft <sup>2</sup> )	Volume (yd <sup>3</sup> )
Stockpile #1	9,372	1,151
Stockpile #2	1,127	40
Stockpile #3	774	38
Stockpile #4	1,326	73
Stockpile #5	5,985	497
Stockpile #6	170	5
Stockpile #7	172	6
Stockpile #8	1,516	54
Stockpile #9	913	64
<b>TOTAL</b>	<b>21,355</b>	<b>1,928</b>

Should it be confirmed through sampling of the material that it is in fact ACM, a contractor licensed to handle the material shall be procured and ensure that it is disposed of at a facility approved to accept material containing both ACM and historic fill, following completion of required State notifications. Because the overall footprint of the piles exceeds 5,000 square feet the project must be submitted to the SCD for review. For this work it may be possible for SCD to issue a wavier for Determination of Non-applicability.

**Timeframe**

Piles #6 - #9 are obstructing the work area for removal of the USTs, and other piles are prohibiting access to Areas of Concern which require sampling of soil and/or groundwater throughout the Site. In order to complete investigation and begin remediation it is necessary for all of the piles to be removed. Before pile removal is planned the load bearing capacity of the bridges should be confirmed through the structural study. If needed, improvements to the bridges should be made, or temporary means of access should be established which can support the trucking loads to efficiently and cost effectively remove the piles.

The characterization sampling is estimated to be completed within three days. The laboratory analytical results for the characterization samples are anticipated to be available approximately two to three weeks following the completion of the sampling activities. The commencement of the surface debris removal will be contingent on the availability of the characterization sampling results, as well as the availability of the subcontractor(s) performing the transportation and disposal (T&D). Once initiated, the T&D of the surface debris is estimated to be completed within one to two weeks.

**SITE-SPECIFIC MASTER PLAN**

**Description**

Although the Site has been included in multiple City Planning documents, a detailed plan for reuse of the Site has not been completed. The development of a Site-Specific Master Plan will specify areas for various park/public space uses, identify which structures are to be preserved or restored, and ultimately direct the future site design. It is valuable to have a clear vision of the end use early on in the process as it will help to better inform the approach for investigation and remediation.

<b>Estimated Cost:</b>	\$150,000 - \$200,000
<b>Additional Stakeholders:</b>	National Park Service Community Groups
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	NJEDA Historic Property Survey Grant Program National Endowment of the Arts – Our Town NJ Historic Trust – Preserve NJ Municipal, County and Regional Planning Grants
<b>Duration:</b>	6 Months

### Implementation

Because of the historic nature of the Site, it is critical that an Archaeologist be an integral member of the team preparing the Master Plan. Across the Site there will be different focuses for preservation and education, highlighting the use of waterpower, the history of the dye industry, and the Colt Gun Mill to name a few. The Site-Specific Master Plan will also help to address aspects such as parking, traffic flow, and connectivity to surrounding parks and the public right-of-way.

The Site-Specific Master Plan should be guided by the Cultural Resources Survey (2010), Great Falls National Historical Park General Management Plan and Environmental Assessment prepared by the National Parks Service (2016), and the City’s various approved planning documents.

The City has received a grant from the New Jersey Historic Trust to produce an ATP site Reuse Master Plan and will be launching the effort in summer/fall 2023. It will include stakeholder engagement and public vetting as part of the overall process. This plan will inform the ultimate direction and investments required for implementation of a final reuse in such a way that site remediation and reuse improvements can be implemented simultaneously to the greatest extent possible.

### Timeframe

Preparing the Site-Specific Master Plan in unison with addressing the environmental concerns on the Site will better equip the City for meeting their goals of reuse and redevelopment. The cost and timeframe to develop the Master Plan will be contingent on the level of public outreach required.

## PHASE B – REMEDIAL INVESTIGATION ACTIVITIES AND ASSESSMENT

### PRELIMINARY ASSESSMENT

#### Description

Although extensive investigation and reporting has been conducted, a NJDEP compliant Preliminary Assessment (PA) has not been completed. In accordance with the New Jersey Technical Requirements for Site Remediation N.J.A.C. 7:26E, a Preliminary Assessment is required to be overseen and certified by a LSRP and submitted to the NJDEP.

<b>Estimated Cost:</b>	\$14,335 - \$23,175
<b>Additional Stakeholders:</b>	None
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant

	HDSRF Assessment Grant
<b>Duration:</b>	8 weeks

**Implementation**

In accordance with N.J.A.C. 7:26E, the LSRP of Record or others under the direction and supervision of the LSRP would conduct a site reconnaissance visit, perform records reviews, and conduct interviews in order to prepare the Preliminary Assessment Report (PAR). While serving as an assessment of former operations and previously identified AOCs, the PAR will also address, as practical and as suitable analytical reports are available, the changes to remediation standards, standards of practice for investigation, and sampling requirements and analysis since the prior work conducted by Whitman in 2011. The PAR will include an evaluation of available historical analytical data collected from the Site relative to current remediation standards. In addition, the PAR will address contaminants of emerging concern and determine if additional investigation is needed. Should additional AOCs be identified they will be included in the report.

**Timeframe**

While the majority of the work required to complete the PAR are desktop activities, a site reconnaissance visit is required. It is recommended to conduct the site visit after the vegetation clearing and removal of the debris piles are complete. The site reconnaissance visit is estimated to be completed within one day. The PAR is estimated to take eight weeks to complete including the site reconnaissance visit and contingent on the availability of the requested files from the state, county and/or local agencies.

**GROUND PENETRATING RADAR**

**Description**

Ground Penetrating Radar (GPR) has been conducted previously in areas of the Site to locate subsurface features. In 2008 Geo-Graf, Inc. (GGI) utilized GPR as well as Electromagnetic (EM), Radio Frequency (RF) and Magnetic (MAG) instrumentation in the area to the west of the Colt Gun Mill to locate underground storage tanks. GEI conducted GPR survey in the same area in 2021 prior to excavating test pits to confirm tank locations. It is likely that other areas of the Site would benefit from similar GPR survey work to locate utilities and other below grade features. Specifically, the rear of the Todd Mill is reported to have potentially buried discharge piping which is yet to be located. It may also be beneficial to perform scoping of underground utility piping, where accessible.

<b>Estimated Cost:</b>	\$5,800 - \$9,450
<b>Additional Stakeholders:</b>	None
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment
<b>Duration:</b>	2-3 Days (Field Work), 2-3 Weeks (Report)

**Implementation**

At the time of investigation by SEA, it was indicated that the Todd Mill was not connected to the public sewer, and it is unknown where the floor drains and sanitary piping discharged. Whitman conducted sampling in open areas and confirmed exceedances of VOCs, PAHs, metals, PCBs, and Dioxins (AOC-M). Therefore, further soil and groundwater investigation is warranted. GPR survey can help to identify underground piping and historic discharge locations, allowing for more directed placement of proposed sampling locations when conducting investigation.

**Timeframe**

For best results, prior to conducting GPR survey the following is recommended:

- Complete the PAR as other areas of the Site may also warrant GPR survey
- Conduct structural evaluation of the bridges and implement a reinforcement plan if required
- Clear vegetation
- Remove debris piles obstructing survey area(s) or access

Consideration should be made for conducting GPR in proximity to unstable structures. In some locations GPR survey may need to be scheduled after building demolition and/or stabilization of existing structures is completed. Assuming structural stabilization and site access have been addressed, it is estimated that the GPR survey will be completed in the field within two to three days. It is also estimated that the GPR survey report will be prepared within two to three weeks following the completion of the field activities.

**SITE/REMEDIAL INVESTIGATION WORKPLAN**

**Description**

Due to the multiple investigations that have been conducted on the Site to date, the AOCs are in various stages of delineation. In addition, an investigation shall be conducted for emerging contaminants and the PA may identify other areas requiring site investigation. As a result, a Site Investigation Workplan (SIWP) and a Remedial Investigation Workplan (RIWP) are required. This can be a combined document and will outline the requirements of the remaining investigation in accordance with current NJDEP Standards.

The SIWP/RIWP shall take into account the prior sampling conducted to date and the changes in remediation standards promulgated since that report was generated and be prepared in accordance with the requirements for Site and Remedial Investigations as provided in N.J.A.C. 7:26E (“Technical Requirements for Site Remediation”). The SIWP/RIWP must be prepared under the direct supervision of a New Jersey LSRP. The purpose of the SIWP/RIWP is to establish a comprehensive sampling program that will complete delineation of contaminants and lead to the preparation of a Remedial Action Workplan. However, RI is an iterative process and workplan(s) should be prepared to reflect that, as a result multiple plans, or plan addendums may be required. The sampling program may include soil, groundwater, sediment, surface waters and soil gas.

<b>Estimated Cost:</b>	\$9,900 - \$14,950
<b>Additional Stakeholders:</b>	None
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	6 – 8 weeks

**Implementation**

The 2011 Whitman RIR/RIWP calls out several areas of investigation that were unable to progress due to instability of onsite structures. Therefore, it is important that the Environmental Consultant preparing the SIWP/RIWP work closely with an Archaeologist and Structural Engineer to develop the approach and sequence of work. Based on the sampling locations required in the SIWP/RIWP, the Structural Engineer will be able to identify which structures require temporary stabilization, or possibly even demolition, in order to facilitate investigation activities.

**Timeframe**

Prior investigation identified 12 AOCs requiring further investigation. However, additional AOCs may be identified in the PAR. Therefore, the PAR shall be completed before the preparation of the SIWP/RIWP. If the PAR identifies new AOCs, or requires additional sampling of prior AOCs based on current standards, the scope for investigation will be addressed in the SIWP/RIWP. Unstable structures and archaeological sensitivity have complicated and limited the investigation work to date, therefore the structural assessment will need to progress hand in hand with the preparation of the SIWP/RIWP.

**STRUCTURAL ASSESSMENT**

**Description**

The completion of the environmental investigation has been delayed for years because of unsafe site conditions related to unstable structures, and complicated by the many areas of archaeological sensitivity. The *Existing Conditions Assessment*, prepared by Farewell Mills Gatsch Architects, LLC in 2010 as part of the *Cultural Resource Investigation* provides an extensive evaluation and states that the “buildings, structures, features and artifacts on the ATP site no longer retain a high degree of material stability”. The majority of structures were either a “Total Loss” or in “Very Poor” condition. The condition has only deteriorated further since that time.

In 2016 a visual inspection and evaluation of the Boiler House (Building 14) and the smokestack, the John Ryle Dye House West (Building 14A), the Filer Room (Building 16), and the Western Bridge (Colt Gun Mill Bridge) was conducted by LMW Engineering, LLC. Findings included recommendation to demolish all of the inspected buildings, partial demolition of the smokestack, and imposed bearing capacity limitations on the bridge until fortification can be conducted.

The purpose of the proposed Structural Assessment is to evaluate the current state of the above grade and below grade structures, since the time of the prior assessments, and make recommendations for stabilization or removal.

<b>Estimated Cost:</b>	\$82,640 - \$99,850
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant NJHT Historic Site Management Grant NJHT Preserve NJ Capital Grant
<b>Duration:</b>	2-5 Days (Field Work), 2-4 Weeks (Report)

**Implementation**

The assessment shall be prepared by a Structural Engineer in accordance with the both the Cultural Resources Survey and the Site-Specific Master Plan in order to preserve the desired historic elements of the Site and align with the goals for redevelopment. Due to the historic nature of the site, input from the Industrial Archaeologist may be required in order to complete the assessment. Particular focus shall be given to areas in need of environmental investigation or in proximity to proposed sampling locations. Specific recommendations shall be made for temporary stabilization and/or targeted demolition needed to facilitate investigation as required by the SIWP/RIWP.

The Structural Assessment should also make recommendations for temporary stabilization as may be required to further asbestos survey and hazardous material surveys, which were limited by the instability



of Site structures in the past. For structures proposed to be demolished the structural assessment report shall identify if asbestos containing material or hazardous materials are present, or are potentially present, and shall provide recommendations on how to proceed.

Based on a review of Farewell Mills Gatsch Architects (FMG) January 2010 report, *Cultural Resource Investigation of the Allied Textile Printing Site, Paterson NJ*, it is assumed that 28 structures and/or building remnants are present at the site that will require structural assessments, including the raceway.

**Timeframe**

It is recommended to conduct the assessment after the vegetation clearing and removal of the debris piles is complete to allow for less obstructed site-wide access. Assuming site accessibility has been addressed, it is estimated that it will take two to five days to complete the structural assessments in the field. It is also estimated that the structural assessment report will be prepared approximately two to four weeks following the completion of the field activities.

**TEMPORARY STABILIZATION AND TARGETED DEMOLITION OF SITE FEATURES TO FACILITATE INVESTIGATION**

**Description**

This element of work is intended to specifically conduct temporary building stabilization and targeted demolition recommended in the Structural Assessment, as outlined above. This work will result in improved safety conditions when accessing the Site and performing investigation.

<b>Estimated Cost:</b>	\$423,150 - \$576,670
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	City Demolition Permit NJDEP Section 106 SESC
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	4-8 Weeks

**Implementation**

When conducting temporary stabilization and targeted demolition it is possible that asbestos-containing materials (ACM) and/or hazardous materials such as lead-based paint may be disturbed. Abatement or encapsulation should be considered where possible. The health and safety plan (HASP) for the planned work shall specially address ACM and hazardous materials, including proper personal protective equipment (PPE). ACM abatement and sampling shall be performed by appropriately certified individuals.

Key areas requiring temporary stabilization include the Colt Gun Mill (Building 23) prior to performing UST removal, and the Boiler House (Building 14) prior to conducting asbestos survey. It is expected the Structural Assessment will identify other structures.

**Timeframe**

Temporary stabilization and targeted demolition shall be conducted based on the findings and recommendations of the Structural Assessment.

## ASBESTOS AND HAZARDOUS MATERIAL SURVEY

### Description

Based on prior investigations, asbestos and lead-based painted surfaces were detected within buildings and within the debris piles. LBP was reportedly very little, however, ACM was widespread throughout the Site. Due to the unsafe conditions abatement of asbestos was considered not practical for the majority of the structures. A detailed review of asbestos impacted buildings was prepared by AEI, Inc. in 1996. For most buildings they recommended wetting and separation method for the ACM, with the exception of the Boiler House (Building 14) where abatement could be conducted. The AEI inspections were very limited and site structures have deteriorated significantly since then. In 2016 the USEPA conducted additional sampling at Buildings 14, 14A and 16, which confirmed ACM were present. Ash samples were also collected from the boiler and confirmed exceedance for lead.

Stabilization of site structures will enable inspection to be conducted in areas previously inaccessible due to unsafe conditions. Asbestos and hazardous material inspections should be conducted to determine the presence and quantity of ACM in the remaining buildings is unknown.

<b>Estimated Cost:</b>	\$102,628 - \$123,760
<b>Additional Stakeholders:</b>	None
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant NJHT Historic Site Management Grant
<b>Duration:</b>	2 Weeks (Field Work), 4-6 Weeks (Report)

### Implementation

The work shall be performed by a licensed and insured asbestos and hazardous materials surveyor. Due to the unstable structures and historic nature of the site, some locations may require oversight by, or input from the Structural Engineer and/or Archaeologist in order to conduct survey work. The report shall provide recommendations for handling and disposal of confirmed ACM at an approved facility. Particular focus shall be given to areas in need of environmental investigation or in proximity to proposed sampling locations. It is recommended that exposure-based sampling be conducted to establish health and safety protocols for workers during remediation activities such as soil relocation, truck traffic, soil sampling, and well installation.

It is assumed that the survey will be conducted for Buildings 1, 3, 4, 7, 7A, 10, 11, 11A, 11B, 11C, 12, 15, and 23. All other structures were either previously surveyed or are no longer present at the site.

### Timeframe

A phased approach may be required due to the extent of ACM comingled with debris and ruins. Temporary stabilization and/or targeted demolition efforts may need to be coordinated with ACM survey to ensure safe working conditions. It is estimated that the survey will be completed in the field within approximately two weeks. It is estimated that the survey report will be prepared four to six weeks following the completion of the field activities.

## UST REMOVAL AND CLOSURE

### Description

The Whitman SIR (2011) determined that seven suspected USTs were located on the southwest of Site, near the Colt Gun Mill. GEI conducted further investigation including GPR, test pit excavation, and sampling, to confirm the presence and contents of the seven USTs in the Colt Gun Mill and Waverly Mill Area. Two of the tanks (Tank 6 & 7) will be abandoned in place in accordance with standard industry practices, three of the tanks will be removed (Tanks 3, 4 & 5), and two of the tanks require further assessment to determine if they can be safely removed or need to be abandoned in place (Tanks 1 & 2). Following removal of USTs further delineation is required.

<b>Estimated Cost:</b>	\$762,670 – \$916,704
<b>Additional Stakeholders:</b>	None
<b>Permits Needed:</b>	NJDEP UST Registration and delisting NJDEP/LSRP – Notice of intent to close USTs City - Construction Permit
<b>Funding Opportunity:</b>	Currently Funded with HDSRF Grant EPA Assessment Grant
<b>Duration:</b>	3 months

### Implementation

HDSRF funds have been awarded for removal and closure of the USTs in the area of the Gun Mill. Therefore, it is likely this work can advance as an Interim Remedial Measure (IRM) even before other areas of site investigation, pending securing bridge access for heavy loads.

Tank closure notification will need to be made to the NJDEP and the City construction permit must be obtained prior to mobilization. HDSRF funding application developed by GEI, includes the removal and disposal of up to 500 tons of impacted soil. Post-excavation sampling shall be performed, and tank closure reporting shall be prepared and submitted to the NJDEP in accordance with NJDEP UST Closure requirements.

The *Cultural Landscape Evaluation*, prepared by EMT Associates, LLC in 2010 as part of the *Cultural Resource Investigation* recommended that testing be conducted to determine the extent of cobblestone paving remaining in the Colt Gun Mill Entry Court to aid in formulating future recommendations for possible restoration and or replacement efforts. There are several USTs located in the Colt Gun Mill Entry Court, therefore if desired for preservation, handling of the cobblestones should be taken into consideration by the City and coordinated with the Structural Engineer, Archaeologist and LSRP or designee when planning the UST removal and closure.

### Timeframe

Vegetation clearing should take place, and debris piles #10 - #13 need to be removed prior to mobilization. Stabilization of Colt Gun Mill (Building 23) is required prior to accessing tanks #6 & #7. Bridge access and load limitations are currently an obstacle in planning the removal of the tanks from the Site. For this action, along with several others, it is critical that site access be addressed. Alternatively, the tanks may be able to be cut on site to facilitate removal in smaller loads, however that would be more costly.

The UST closures/removals and associated soil excavations is estimated to take two to three weeks to complete. It is estimated that the UST closure report will be prepared four to six weeks following the completion of field activities, and receipt of the associated laboratory analytical results.

## SITE INVESTIGATION AND REPORTING

### Description

The Site Investigation (SI) shall be conducted in accordance with the requirements of N.J.A.C. 7:26E. The purpose of a SI is to determine the presence or absence of contamination by conducting sampling of soil, groundwater, sediment, and surface waters, as may be required. It is anticipated the SI will focus on new areas of potential concern identified in the PAR, and sampling of areas that were inaccessible due to unsafe site conditions during prior investigations. SI activities shall be directed by a New Jersey LSRP and shall follow the SIWP.

<b>Estimated Cost:</b>	\$71,850 - \$154,840
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP Section 106
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	1-2 Weeks (Field Work), 4-6 Weeks (Report)*

\*Reporting schedule is dependent on receipt of laboratory final reports and receipt of IDW disposal documentation. SI may be performed in a multi-phased approach with interim reporting.

### Implementation

SI shall be conducted following temporary stabilization of structures and targeted demolition. Prior to conducting sampling, public notification shall be performed in accordance with the notification and outreach requirements of N.J.A.C. 7:26C-1.7, and a Quality Assurance Project Plan (QAPP) shall be prepared. The QAPP will detail the procedures and activities governing sample and data collection. If EPA funds are utilized for sampling the QAPP shall be approved by the EPA prior to mobilization.

For the purpose of preparing a cost estimate in order to evaluate funding needs, it is assumed that the SI will involve the advancement of 20 to 50 soil borings, each to an approximate depth of 15 to 20 feet below ground surface (bgs). Up to five boring locations are presumed to be converted into wells for the collection of groundwater samples. Based on environmental investigations previously performed at the site and Quarry Lawn, the SI may require the installation of a bedrock well(s) in order to obtain a groundwater sample(s). In addition to soil and groundwater samples, it is assumed that the SI will also involve the collection of surface water, sediment and soil gas samples. While the exact analyses for the collected samples will be determined based on the PAR findings, it is assumed that they will include emerging contaminants as discussed in Chapter 3. It is presumed that the SI will generate Investigation Derived Waste (IDW), specifically purged groundwater, that will require temporary on-site storage and off-site disposal as non-hazardous waste.

Investigation data shall be evaluated and compared to the applicable NJDEP standards in order to determine if the SI is complete. Data validation shall be performed to assess data usability, ensuring that the data quality is acceptable.

A comprehensive SI Report shall be prepared that includes the information obtained during the investigation, a technical overview of the site, and the findings and recommendations for the AOCs. The report will also include a Case Inventory Document (CID), a Receptor Evaluation, electronic data deliverables (EDDs), boring logs, figures and tables.

### Timeframe

Following completion of the site investigation, modifications to the Investigation Work Plan may be warranted. To expedite the work and efficiently use project funds, site investigation may be conducted simultaneously with remedial investigation activities. If convenient the SI can be combined and submitted at the same time to NJDEP.

## REMEDIAL INVESTIGATION AND REPORTING

### Description

The Remedial Investigation (RI) shall be conducted in accordance with the requirements of N.J.A.C. 7:26E. RI is an iterative process that delineates the extent, horizontally and vertically, of contamination in all media. The RI allows for the development of a Remedial Action Workplan (RAWP).

<b>Estimated Cost:</b>	\$131,960 - \$218,990
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP Section 106
<b>Funding Opportunity:</b>	EPA Assessment Grant HDSRF Assessment Grant
<b>Duration:</b>	2-3 Weeks (Field Work), 4-6 Weeks (Report)*

\*Schedule depends on receipt of final laboratory reports and disposal documentation for IDW and soil debris piles.

### Implementation

RI activities shall be directed by a New Jersey LSRP and shall follow the Remedial Investigation Workplan to complete delineation for soil, groundwater, sediment, and surface waters. RI shall be conducted following temporary stabilization of structures and targeted demolition. Prior to conducting sampling, public notification shall be performed in accordance with the notification and outreach requirements of N.J.A.C. 7:26C-1.7. A Quality Assurance Project Plan (QAPP) shall be prepared. The QAPP will detail the procedures and activities governing sample and data collection. If EPA funds are utilized for sampling the QAPP shall be approved by the EPA prior to mobilization.

For the purpose of preparing a cost estimate to evaluate funding needs, it is assumed that the RI will involve the advancement of up to 50 soil borings, each to an approximate depth of 15 to 20 feet below ground surface (bgs). It is also assumed that the RI will involve the installation of up to four permitted monitoring wells, which will be surveyed. It is assumed that the RI will involve the collection of soil and groundwater samples only, and the analyses of the samples will be contingent on the results of the SI. It is also assumed that the RI activities will not be required off-site. It is presumed that the RI will generate Investigation Derived Waste (IDW), specifically purged groundwater, that will require temporary on-site storage and off-site disposal as non-hazardous waste.

Investigation data shall be evaluated and compared to the applicable NJDEP standards in order to determine if the RI is complete. Data validation shall be performed to assess data usability, ensuring that the data quality is acceptable.

A comprehensive RI Report shall be prepared that includes the information obtained during the investigation, a technical overview of the site, and the findings and recommendations for the AOCs, along with all supporting documentation including but not limited to, an updated CID, a Receptor Evaluation, EDDS, boring logs, figures and tables.

### Timeframe

The results of the RI will inform the Remedial Action Workplan. The field work associated with the RI is estimated to be completed within two to three weeks. The RI report is estimated to be completed within four to six weeks following the completion of the field activities and receipt of the laboratory analytical results and receipt of disposal documentation for IDW and soil debris piles.

## PHASE C – REMEDIAL ACTION

### REMEDIAL ACTION WORKPLAN

#### Description

Once the Remedial Investigation is complete the LSRP will be able to develop appropriate remediation scenarios to comply with NJDEP requirements. The cleanup methods will be documented in a Remedial Action Workplan (RAWP). It is critical that the cleanup approach is developed with an eye towards the reuse of the Site, in line with the Site-Specific Master Plan. Given the evidence of free oil in the soil and on groundwater near the Colt Gun Mill this will likely be a multi-phased approach.

<b>Estimated Cost:</b>	\$11,925 - \$18,525
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Assessment Grant or Cleanup HDSRF Assessment or Remedial Action
<b>Duration:</b>	3-4 Weeks

#### Implementation

The RAWP will form the basis of the scope for the designers, architects and engineers in preparing detailed redevelopment design plans and specifications, which will form the basis of the scope for procurement of a Remediation Contractor.

The RAWP will prescribe the extent to which materials such as soil or sediment need to be removed and disposed of offsite (hot spot removal), it may involve leaving some contaminated material in place and capping with either a pervious or impervious cap that prevents exposure pathways to contamination. For more extensive remediation of soil or groundwater contamination the plan may include long-term monitoring or treatment. Should sampling be required a QAPP shall be prepared detailing the procedures and activities governing sample and data collection. The RAWP will also include an Air Monitoring Plan for remedial actions that involve the disturbance of contaminated material.

The preparation of the RAWP can typically be considered both an assessment and a cleanup activity, making it eligible to be funded by either assessment or cleanup grants.

#### Timeframe

The development of the RAWP shall take into consideration conceptual or preliminary design layouts for the Site, if available. For example, proposed concrete or asphalt paths, vegetative cover and landscaping, or proposed buildings may serve as capping for impacted material remaining onsite.

## ASBESTOS AND HAZARDOUS MATERIAL REMOVAL

### Description

Asbestos and hazardous material removal shall be performed by a licensed and insured contractor in accordance with the findings of the Asbestos and Hazardous Material Survey.

<b>Estimated Cost:</b>	\$624,750 - \$842,760
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	City Demolition Permit NJDEP Section 106 State Health Department – Notice of Asbestos Removal
<b>Funding Opportunity:</b>	EPA Cleanup Grant
<b>Duration:</b>	2-4 Months

### Implementation

Work shall be coordinated with demolition and structural stabilization efforts to ensure the reuse goals of the Site are being met. Notice shall be made to the State Health Department prior to beginning work.

### Timeframe

A phased approach may be required due to the extent of ACM, and potentially hazardous materials, comingled with debris and ruins.

## DEMOLITION

### Description

The scope of demolition to be completed under this action is to address removal of structures not immediately required to facilitate investigation, but ultimately needed to meet the redevelopment goals of the Site.

<b>Estimated Cost:</b>	\$2,616,858 - \$3,469,520
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	City Demolition Permit NJDEP Section 106 NJDEP Flood Hazard Area Permit SESC
<b>Funding Opportunity:</b>	EPA Assessment or Cleanup Grant HDSRF Assessment or Remedial Action Grant
<b>Duration:</b>	9-12 Months

### Implementation

Work shall be performed in accordance with the recommendations of the Structural Assessment, and in combination with asbestos and hazardous material removal. Removal of equipment interior to some of the structures may be required prior to demolition.

Based on a review of FMG’s January 2010 report, *Cultural Resource Investigation of the Allied Textile Printing Site, Paterson NJ*, it is assumed that the buildings classified as having a historical significance rating of “none”, “low”, or “moderate” are to be completely demolished except for portions of the building foundations located along the river’s edge. Therefore, the demolition is anticipated to include the majority

of the onsite structures with the exception of Buildings 1, 1A, 6, 11C, 12, and 14A for which only selective demolition is anticipated in preparation for historical preservation efforts. The buildings that are anticipated to be demolished with portions of their foundation maintained along the river’s edge include Building 4, 7, 7A, 10, 11, 13, 28 and 29.

It should be noted that some buildings (i.e. Buildings 2, 5, 5A, 5B, and 27) no longer have intact remnants such as foundations and walls. Therefore, the demolition costs for these buildings include debris and vegetation removal only.

This work shall include erosion and sediment control, as well as perimeter air monitoring. Due to the length of time that is anticipated to complete this scope of work, it is presumed that perimeter air monitoring will be accomplished via the temporary installation of up to three air monitoring stations that will be used for the duration of these activities.

**Timeframe**

Work shall be performed after bridges are stabilized for vehicle access, vegetation clearing is complete and removal of debris piles has taken place to allow for less obstructed site-wide access.

**STRUCTURAL STABILIZATION AND HISTORIC BUILDING PRESERVATION**

**Description**

The scope of work to be completed under this action is to perform permanent stabilization where temporary measures may have been put in place to allow for inspection or investigation. This work will also include restoration efforts to preserve the structures and make them accessible to the public as part of the ultimate park design.

<b>Estimated Cost:</b>	\$4,751,150 - \$5,393,000
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	City Building Permit NJDEP – Section 106
<b>Funding Opportunity:</b>	EPA Assessment Grant Historic Preservation – Save America’s Treasures NJDEP Urban Parks Grant NJHT Preserve NJ Capital Grant NJHT Historic Site Management Grant
<b>Duration:</b>	9-12 Months

**Implementation**

Plans and specifications for stabilization and preservation of structures shall be prepared by a team including architectural, structural, and archaeological specialists. The scope shall be in line with the Master Plan, the Structural Assessment, the Remedial Action Workplan and in combination with asbestos and hazardous material removal. Removal of equipment interior to some of the structures may be required prior to performing stabilization and restoration.

Based on a review of FMG’s January 2010 report, *Cultural Resource Investigation of the Allied Textile Printing Site, Paterson NJ*, it is assumed that the buildings classified as having a historical significance rating of “high”, “very high”, or “exceptional” are to be permanently stabilized and preserved. As discussed above, this work is anticipated to be performed for eight onsite buildings (Building 1, 1A, 6, 11C, 12, 14, 14A and 23), as well as the S.U.M. raceway. Stabilization and preservation efforts are also anticipated for



portions of building foundations located along the river’s edge, specifically for Buildings 4, 7, 7A, 10, 11, 28 and 29.

**Timeframe**

Site work shall be performed after vegetation clearing is complete and removal of debris piles has taken place to allow for less obstructed site-wide access. Work made be phased based on coordination with schedules for demolition and remediation.

**REMEDICATION – ENGINEERING / INSTITUTIONAL CONTROLS**

**Description**

Remediation shall be performed in accordance with the Remedial Action Workplan with oversight of the implementation by the LSRP, or their designee. Work may be conducted in whole or in part by a Remediation Contractor, or may be incorporated in redevelopment, such as building foundations for proposed trails serving as the engineering cap. In addition to meeting the NJDEP requirements for Site Remediation, the future development of the Site will need to follow all Federal, State and local regulations including City Planning Board approval and NJ Stormwater Management Regulations.

<b>Estimated Cost:</b>	\$2,052,050 - \$2,538,125
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP Section 106 NJDEP Soil Remedial Action Permit SESC
<b>Funding Opportunity:</b>	EPA Cleanup Grant HDSRF Remedial Action Grant
<b>Duration:</b>	2.5 Years

**Implementation**

Similar to the approach for Quarry Lawn, it is likely that the required soil and groundwater remediation will result in a combination engineering and institutional controls in order to prevent exposure to residual site contaminants including cap placement, a ground water permit, and recording of a deed notice. Cap placement as a type of remedy is a widely used and accepted practice for remediating the remaining impacted contaminated soils. However, based on the level of exceedances, more extensive remediation may be required including but not limited to hot spot removal of impacted soils and long-term monitoring and/or treatment of groundwater. An indefinite duration groundwater Classification Exception Area (CEA) for historic fill type contaminants will be established to prohibit groundwater use on the site. In addition, a limited duration CEA may be required for petroleum impacts to groundwater.

Excavated soils shall be sampled and characterized in accordance with the requirements of the designated disposal facility. All excavations shall be backfilled with certified clean material which shall be reviewed and approved by the LSRP prior to placement on site, in accordance with SRP requirements.

Institutional and Engineering Controls do not physically remove all site soil and groundwater contaminants. These controls will effectively protect human health and the environment. They will effectively achieve project remediation goals by attaining technical and administrative compliance with the NJDEP site remediation regulations, and will provide notice of site environmental conditions to future site developers, occupants, and the general public by means of the Deed Notice.

For the purpose of preparing a cost estimate to evaluate funding needs, it is assumed that the remedial action will consist of hot spot soil excavations, installation of a monitoring well network, installation of engineering controls, establishment of institutional controls and eight quarterly groundwater sampling events. It is also assumed that remedial action activities will not be required offsite.

The hot spot soil excavations include disposal of up to 200 tons of contaminated soils as non-hazardous, non-asbestos containing waste along with post-excavation soil sampling and backfilling with clean fill. It is assumed that dewatering will not be required during hot spot soil excavations.

The engineering controls are presumed to include a fence along the perimeter of the site, as well as a cap across the entire site. The cap is presumed to consist of a two-foot layer of clean soil with a geotextile fabric demarcation layer. Impermeable caps (i.e. sidewalks, building slabs, etc.) may also be installed as part of the redevelopment of the site; however, since the extent of these features are not yet known, they are not included in the estimated costs for the engineering controls. It is assumed that financial assurance will not be required for the engineering controls since the site owner, the City of Paterson, is a government entity which is exempt from this requirement.

The monitoring well network includes up to six permitted and surveyed bedrock monitoring wells, each installed to an approximate depth of 20 feet below ground surface (bgs). Following the installation of the monitoring well network, it is presumed that eight rounds of quarterly groundwater sampling will be required over a two-year period to assess for the occurrence of monitored natural attenuation (MNA) for groundwater contamination.

The institutional controls are presumed to include a deed notice and two CEAs one for historic fill contaminants and one for contaminants associated with former site operations. The deed notice will serve to restrict the site use and establish the engineering controls that address the contaminants remaining in onsite soil at concentrations above applicable standards. The CEAs will serve to restrict groundwater use for contaminants remaining in onsite groundwater at concentrations above applicable standards.

It is presumed that IDW, specifically purged groundwater and soil cuttings, will be generated during the installation of the monitoring well network and the quarterly groundwater sampling. The IDW will require temporary on-site storage and off-site disposal as non-hazardous waste.

Lastly, it is assumed that perimeter air monitoring along with erosion and sediment control will be implemented during the hot spot soil excavations and the installation of the engineering controls. Due to the length of time that is anticipated to complete these scopes of work, it is presumed that perimeter air monitoring will be accomplished via the temporary installation of up to three air monitoring stations that will be used for the duration of these activities.

#### **Timeframe**

Remediation effort may begin following completion of the Remedial Action Workplan. Work made be phased based on coordination with other aspects of site redevelopment.

Interim remedial measures, such as underground tank removal or product recovery, may be executed prior to completion of the RI and RIWP. These activities could begin as soon as site access for heavy loads is secured.

## REMEDIAL ACTION REPORT AND RAOs

### Description

The issuance of the Remedial Action Outcomes (RAO) follows the completion of remedial action site activities, submittal of the complete RAR and permit applications. For the ATP Site the remedial activities may be completed in stages depending on the sequence of remediation and availability of funding. It is likely that some AOCs will be closed or remediated earlier than others. RARs for each stage of work along with RAOs for closed AOCs can be issued, reducing the number of AOCs and therefore reducing associated NJDEP fees.

<b>Estimated Cost:</b>	\$57,130 - \$70,830
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	NJDEP Remedial Action Permit
<b>Funding Opportunity:</b>	EPA Cleanup Grant HDSRF Remedial Action Grant
<b>Duration:</b>	4-6 Weeks (RA Report), 1-2 Weeks (RAO)

### Implementation

RARs shall be prepared by the LSRP in accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:26). In addition, pursuant to N.J.A.C. 7:26C-6.2, the LSRP shall issue a RAO to the person who has conducted the remediation when, in the opinion of the LSRP, the site or AOCs have been remediated pursuant to all applicable statutes, rules, and guidance.

Data collected during RA activities shall be evaluated and compared to the applicable NJDEP standards in order to determine if the RA is complete. Data validation shall be performed to assess data usability, ensuring that the data quality is acceptable.

The RARs will summarize the remediation performed for each contaminated AOC, as well as applicable long-term monitoring and maintenance requirements. Supporting documentation to be prepared and submitted along with each RAR includes, but is not limited to an updated CID, Receptor Evaluation, CEA application, EDDs, tables and figures. It is presumed that applications for a Soil Remedial Action Permit (RAP-Soil) and a Groundwater Remedial Action Permit (RAP-GW), will be prepared and submitted along with the RAR.

Per NJDEP requirements, the City will be required to pay an Annual Remediation fee for the 12-month period during which they perform remediation at the site. For the purpose of preparing a cost estimate, it is presumed that the site will be subject to a NJDEP Category 3 Annual Remediation Fee (for sites with 11-20 AOCs) for a 3-year period. The NJDEP Annual Remediation Fee, along with NJDEP fees for the Initial RAP-GW and RAP-Soil applications are included with this scope of work.

### Timeframe

Work made be phased based on the sequence of conducting remediation in coordination with other aspects of site redevelopment. The RAO(s) will be issued following the submission of the RAR for the associated AOC(s) and the issuance of the Remedial Action Permits, as may be applicable, by the NJDEP, assuming that all NJDEP Annual Remediation Fees and oversight costs have been paid.

## OPERATION AND MAINTENANCE PLAN

### Description

The Operations and Maintenance Plan will organize and present information regarding operation and long-term maintenance requirements of the Park.

<b>Estimated Cost:</b>	\$15,075 - \$20,055
<b>Additional Stakeholders:</b>	National Park Service
<b>Permits Needed:</b>	None
<b>Funding Opportunity:</b>	EPA Cleanup Grant HDSRF Remedial Action Grant NJHT Historic Site Management Grant
<b>Duration:</b>	4-6 Weeks

### Implementation

The types of operations and maintenance activities that will potentially be described in the Plan include:

- General maintenance and housekeeping
- Engineered systems, including the cap engineering control, the network of groundwater monitoring wells, and the stormwater management system, as may be applicable
- Requirements for historic structures
- Installed amenities, including recreational equipment, park benches and picnic tables, security fencing and guardrails, signage, etc.
- Landscaping (e.g., tree, shrubs, turf and ornamentals)
- Structures, including pathways, stairs, overlooks, guard rails, barriers, and bollards, etc.
- Ongoing environmental reporting requirements such as biennial certification for compliance with a Remedial Action Permit for soil remediation

The plan should be developed by the Project Engineer in coordination with the LSRP, the Archaeologist and the Landscape Architect, and shall be reviewed and accepted by the City and the National Park Service.

### Timeframe

The Operations and Maintenance Plan should be developed following the completion of the RAWP and proposed remedial/site redevelopment design, and implemented prior to park opening.

## CHAPTER 7 COST ESTIMATES AND FUNDING OPPORTUNITIES

For each of the elements of work an estimated cost has been prepared and associated funding opportunities have been identified, these are listed in the tables throughout **Chapter 6** for Phases A through C. A detailed breakdown of the estimated cost for each element of work is tabulated in a spreadsheet included in **Appendix 2**. Estimates are based on several different approaches including quotes from vendors, referencing other projects of similar type and scale, referencing prior site-specific cost estimates with adjustment for inflation, and input from City personnel. The spreadsheet includes “Notes/Assumptions” under which the basis for each estimate is defined.

One of the challenges in preparing this cost estimate was that the environmental investigation of the Site has not been completed. As a result, certain assumptions needed to be made in order to define scope and costs. These are included in the spreadsheet and some have been further defined in the respective sections in **Chapter 6**. It is important to note that the scope of work and associated costs presented herein are recommendations for the sole purpose of assessing funding needs. As the assessment work progresses and further input is provided by the LSRP, a structural engineer, an archaeologist, and other professionals, the scope will evolve, and associated costs will need to be refined. Due to the variable nature of the project estimated costs are presented as a range, rather than a fixed price. Based on the information available to date the total for pre-remediation activities through completion of remediation is estimated at a minimum cost of \$12,562,961 and a maximum of \$16,320,494.40.

**Table 9: Summary of Cost Estimates**

<b>Title</b>	<b>Total (Minimum)</b>	<b>Total (Maximum)</b>
Phase A – Pre-Remediation Activities	\$829,070.00	\$1,829,290.00
Phase B – Remedial Investigation	\$1,604,953.00	\$2,138,389.00
Phase C – Remedial Action	\$10,128,938.00	\$12,352,815.40
<b>TOTAL</b>	<b>\$12,562,961.00</b>	<b>\$16,320,494.40</b>

The objective of preparing estimated costs for the project is to identify funding needs and enable the City to plan the execution of the work going forward. To support that effort a review of available funding opportunities was conducted and a detailed outline of funding opportunities which align with the needs of the ATP Site was prepared (**Appendix 5**).

Funding opportunities have been identified in four key categories:

- Historic Preservation
- Remediation
- Park Development
- Heritage Tourism

Applicable opportunities for each category are presented in the table at the start of Appendix 5. Funding opportunities are generally offered on an annual or rolling basis. The ones identified herein are either Federal or State funded. As the project continues to develop it will be valuable to revisit the opportunities identified. Securing these funds may relieve the financial obstacles which can be a significant burden on projects with the scale and complexity of the ATP Site.

## Appendix 1: Boundary and Topographic Survey

SYMBOL LEGEND	
□ CONC. MONUMENT FND	○ MAIL BOX
○ I.P. / I.B. FND	○ CABLE TV BOX
○ TACK / STAKE FND	○ TELEPHONE BOX
○ SPOT ELEVATIONS	○ A/C UNIT
○ TRAFFIC SIGNAL POLE	○ TRANSFORMER
○ UTILITY POLE	○ ELECTRIC METER
○ GUY WIRE	○ GAS METER
○ UTILITY POLE W/LIGHT	○ WATER METER
○ LIGHT POLE	○ WATER VALVE
○ SIGN	○ GAS VALVE
○ FIRE HYDRANT	○ CLEAN OUT
○ D.W.P. DETECTABLE WARNING PAD	○ GAS
○ D.C. DEPRESSED CURB	○ WATER
○ L.S.A. LANDSCAPED AREA	○ ELECTRIC
○ WELL	○ TELEPHONE
○ MANHOLE	○ CABLE TV
○ "A"-INLET	○ TREE
○ "B"-INLET	○ SHRUB
○ "E"-INLET	○ BOLLARD
○ YARD INLET	○ MONITORING WELL
○ FLARED END SECTION	○ WETLAND FLAG

**GENERAL NOTES:**

- THIS SURVEY IS PREPARED IN ACCORDANCE WITH DOCUMENTS SUPPLIED BY THE CLIENT AND THOSE OBTAINED THROUGH SUPPLEMENTAL RESEARCH BY DPK. THE DOCUMENTS UTILIZED MAY OR MAY NOT REPRESENT ALL THE DOCUMENTS RELEVANT TO THE SUBJECT PROPERTY. IT IS STRONGLY SUGGESTED THAT A COMPLETE TITLE SEARCH BE SUPPLIED TO THE SURVEYOR FOR REVIEW PRIOR TO THE PLACEMENT OF OR ALTERATION TO IMPROVEMENTS ON THE PROPERTY.
- THIS SURVEY IS SUBJECT TO ANY EASEMENTS OF RECORD AND ANY OTHER PERTINENT FACTS THAT A COMPLETE TITLE SEARCH MIGHT DISCLOSE.
- THIS SURVEY REPRESENTS FIELD CONDITIONS AS OF FEBRUARY 9, 2023.
- THE UTILITIES SHOWN HAVE BEEN LOCATED FROM EVIDENCE OBSERVED ON THE SURFACE ONLY OR HAVE BEEN SHOWN GRAPHICALLY PER SUPPLIED MATERIALS. DPK CONSULTING MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. DPK CONSULTING FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. DPK CONSULTING HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.
- PREMISES ARE COMMONLY KNOWN AS PATERSON GREAT FALLS NATIONAL HISTORICAL PARK, PATERSON, NEW JERSEY.
- ALSO KNOWN AS A PORTION OF TAX LOTS 4 & 5 AND TAX LOTS 9, 10 & 11 IN BLOCK 4601 AS SHOWN ON THE OFFICIAL TAX MAPS OF THE CITY OF PATERSON, PASSAIC COUNTY, NEW JERSEY.
- CORNER MARKERS HAVE BEEN LOCATED, VERIFIED AND/OR SET.
- THE PROJECT VERTICAL DATUM IS BASED UPON NAVD 88 DERIVED USING RTK RECEIVERS AND KEYNET.
- PLANIMETRIC FEATURES COMPILED BY DPK CONSULTING, LLC UTILIZING PHOTOGRAMMETRIC METHODS FROM UAV PHOTOGRAPHY PERFORMED BY DPK CONSULTING, LLC ON FEBRUARY 9, 2023 WITH A PHOTO SCALE OF 0.029 FT GSD.

**MAP REFERENCES:**

- MAP ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 241 VAN HOUTEN STREET, BLOCK NO. 4601, LOTS NO. 13, 14, 16 & 17, CITY OF PATERSON, PASSAIC COUNTY, NEW JERSEY" PREPARED BY LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES, INC., DATED OCTOBER 18, 2019.
- MAP ENTITLED "PLAN OF SURVEY, LAND OF PATERSON RENAISSANCE PARTNERS, CITY OF PATERSON, PASSAIC COUNTY, NEW JERSEY" PREPARED BY RICHARD A. ALAIMO, ENGINEERING ASSOCIATES, DATED JUNE 1986.
- MAP ENTITLED "BLOCK LINE AND STREET LINE SURVEY PREPARED FOR THE PATERSON HISTORIC DISTRICT, CITY OF PATERSON, PASSAIC COUNTY, NEW JERSEY" PREPARED BY RICHARD E. BROWN ASSOCIATES, DATED AUGUST 30, 1976.
- MAP ENTITLED "PLAN OF SURVEY & MINOR SUBDIVISION, SURVEY OF SELECTED TRACTS OF THE PATERSON GREAT FALLS NATIONAL HISTORICAL PARK, U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE, CITY OF PATERSON, PASSAIC COUNTY NEW JERSEY" PREPARED BY TAYLOR WISEMAN & TAYLOR, DATED JANUARY 30, 2015, LAST REVISED DECEMBER 09, 2020, WHICH MAP HAS BEEN DULY FILED IN THE PASSAIC COUNTY CLERK'S OFFICE ON NOVEMBER 21, 2021 AS 3626.

EASTERLY, DOWNSTREAM ALONG NORTHERLY SIDE OF THE WALLS SITUATE ON THE HEREIN DESCRIBED LAND, AND ALONG THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 415' MORE OR LESS (S)

EASTERLY, DOWNSTREAM ALONG THE NORTHERLY SIDE OF THE FOUNDATION WALLS OF A BUILDING SITUATE ON THE HEREIN DESCRIBED LAND, AND ALONG THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 187' MORE OR LESS (S)

EASTERLY, DOWNSTREAM ALONG THE TOP OF THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 102' MORE OR LESS (S)

EASTERLY, DOWNSTREAM ALONG THE NORTHERLY SIDE OF THE WALLS SITUATE ON THE HEREIN DESCRIBED LAND, AND ALONG THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 35' MORE OR LESS (S)

EASTERLY, DOWNSTREAM ALONG THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 26' MORE OR LESS (S)

EASTERLY, DOWNSTREAM ALONG THE NORTHERLY SIDE OF THE WALLS SITUATE ON THE HEREIN DESCRIBED LAND, AND ALONG THE SOUTHERLY BANK OF THE PASSAIC RIVER VARIOUS COURSES THEREOF, 113' MORE OR LESS (S)



REV	DATE	DESCRIPTION	BY	CHKD

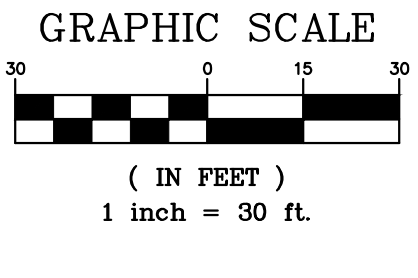
IF THIS DOCUMENT DOES NOT CONTAIN A VALID SEAL OF THE UNDERSIGNED PROFESSIONAL, IT IS NOT AN AUTHORIZED ORIGINAL DOCUMENT.

DATE: 06/26/2023

**James J. Heiser**  
Professional Land Surveyor  
JHEISER@DPKCONSULTING.NET

N.J. Lic: 246504331100  
PA. Lic: SU075616  
N.Y. Lic: 050932-1  
CT. Lic: 70476

**BOUNDARY AND TOPOGRAPHIC SURVEY**  
A PORTION OF TAX LOTS 4 & 5  
TAX LOTS 9, 10 & 11  
BLOCK 4601  
PATERSON GREAT FALLS NATIONAL HISTORICAL PARK  
CITY OF PATERSON  
PASSAIC COUNTY NEW JERSEY



PROJECT NUMBER: 23-9838	DRAWING FILE: 23-9838-TP00	SHEET 1 1
DATE: 06/26/2023	SCALE: 1" = 30'	
	SCALE: 1" = 30'	CHK'D BY: E.S.
		REV. 0

**DPK CONSULTING**  
DPK CONSULTING, LLC  
200 METROPLEX DRIVE, STE 285, EDISON, NJ 08817  
P: 732-764-0100 F: 732-764-0990  
NEW JERSEY CERTIFICATE OF AUTHORIZATION NO. 24G428042200

## Appendix 2: Estimated Costs



ATP Site - Remediation Strategy Plan  
 Cost Estimate

7/19/2023

<b>Phase A - Pre-Remediation Activities</b>	<b>Total (Min)</b>	<b>Total (Max)</b>
<i>Site Access Establishment</i>	<i>\$42,160.00</i>	<i>\$742,760.00</i>
<i>Vegetation Clearing for Site Access</i>	<i>\$355,100.00</i>	<i>\$440,950.00</i>
<i>Surface Debris Disposal</i>	<i>\$281,810.00</i>	<i>\$445,580.00</i>
<i>Site-Specific Master Plan Development</i>	<i>\$150,000.00</i>	<i>\$200,000.00</i>
<b>Phase A Subtotal</b>	<b>\$829,070.00</b>	<b>\$1,829,290.00</b>
<b>Phase B - Remedial Investigation</b>		
<i>Preliminary Assessment</i>	<i>\$14,355.00</i>	<i>\$23,175.00</i>
<i>Ground Penetrating Radar</i>	<i>\$5,800.00</i>	<i>\$9,450.00</i>
<i>Site/Remedial Investigation Work Plan</i>	<i>\$9,900.00</i>	<i>\$14,950.00</i>
<i>Structural Assessments</i>	<i>\$82,640.00</i>	<i>\$99,850.00</i>
<i>Temporary Structure Stabilization &amp; Targeted Demo</i>	<i>\$423,150.00</i>	<i>\$576,670.00</i>
<i>Asbestos &amp; Hazardous Material Survey</i>	<i>\$102,628.00</i>	<i>\$123,760.00</i>
<i>UST Removal &amp; Closure</i>	<i>\$762,670.00</i>	<i>\$916,704.00</i>
<i>Site Investigation &amp; Reporting</i>	<i>\$71,850.00</i>	<i>\$154,840.00</i>
<i>Remedial Investigation &amp; Reporting</i>	<i>\$131,960.00</i>	<i>\$218,990.00</i>
<b>Phase B Subtotal</b>	<b>\$1,604,953.00</b>	<b>\$2,138,389.00</b>
<b>Phase C - Remedial Action</b>		
<i>Remedial Action Workplan</i>	<i>\$11,925.00</i>	<i>\$18,525.00</i>
<i>Asbestos &amp; Hazardous Material Removal</i>	<i>\$624,750.00</i>	<i>\$842,760.00</i>
<i>Demolition</i>	<i>\$2,616,858.00</i>	<i>\$3,469,520.40</i>
<i>Structural Stabilization &amp; Historic Building Preservation</i>	<i>\$4,751,150.00</i>	<i>\$5,393,000.00</i>
<i>Remediation - Engineering/Institutional Controls</i>	<i>\$2,052,050.00</i>	<i>\$2,538,125.00</i>
<i>Remedial Action Report &amp; RAOs</i>	<i>\$57,130.00</i>	<i>\$70,830.00</i>
<i>Operations &amp; Maintenance Plan</i>	<i>\$15,075.00</i>	<i>\$20,055.00</i>
<b>Phase C Subtotal</b>	<b>\$10,128,938.00</b>	<b>\$12,352,815.40</b>
<b>GRAND TOTAL</b>	<b>\$12,562,961.00</b>	<b>\$16,320,494.40</b>

	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions
<b>Phase A - Pre-Remediation Activities</b>							
<b>Site Access Establishment</b>					<b>\$42,160.00</b>	<b>\$742,760.00</b>	
Structural Reinforcement Plan	1	1	\$100,000.00	\$100,000.00	\$0.00	\$100,000.00	Based on discussions with City regarding anticipated costs.
Bridge - Structural Repairs	1	3	\$32,160.00	\$41,808.00	\$32,160.00	\$125,424.00	Cultural Resource Investigation – Vol 4, 2010 (PDF pg. 239) for "Miscellaneous Preservation".
Bridge - Rebuild	1	3	\$158,400.00	\$205,920.00	\$158,400.00	\$617,760.00	Cultural Resource Investigation – Vol 4, 2010 (PDF pg. 239) for "Miscellaneous Preservation".
Traffic Control (day)	10	30	\$500.00	\$500.00	\$5,000.00	\$15,000.00	Estimated from prior project referencing.
Permits (Lump Sum)	1	1	\$5,000.00	\$10,000.00	\$5,000.00	\$10,000.00	Estimated from prior project referencing.
<b>Vegetation Clearing for Site Access</b>					<b>\$355,100.00</b>	<b>\$440,950.00</b>	Not including stump removal.
LSRP (hr)	10	20	\$150.00	\$185.00	\$1,500.00	\$3,700.00	Limited Field Oversight. Estimated from prior project referencing.
Project Manager (hr)			\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	30	50	\$110.00	\$135.00	\$3,300.00	\$6,750.00	
Travel Expenses (day)	3	5	\$100.00	\$100.00	\$300.00	\$500.00	
Tree Felling & Stacking On-Site (day)	15	20	\$7,400.00	\$7,400.00	\$111,000.00	\$148,000.00	Typical daily rate quoted by vendor.
Processing & Chipping (day)	15	20	\$8,600.00	\$8,600.00	\$129,000.00	\$172,000.00	
Hauling	1	1	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	Estimated cost quoted by vendor.
Sampling for Disposal	1	1	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	Estimated from prior project referencing.
<b>Surface Debris Disposal</b>					<b>\$281,810.00</b>	<b>\$445,580.00</b>	Assumes all surface debris is ACM.
<b>Characterization - Sampling</b>							
LSRP (hr)	4	8	\$150.00	\$185.00	\$600.00	\$1,480.00	Field Oversight. Estimated from prior project referencing.
Project Manager (hr)	0	0	\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	10	20	\$110.00	\$135.00	\$1,100.00	\$2,700.00	
Travel Expenses (day)	1	2	\$100.00	\$100.00	\$100.00	\$200.00	
Sample Retrieval (day)	1	2	\$3,000.00	\$5,000.00	\$3,000.00	\$10,000.00	RCRA Characteristics, TPH, PCBs, & asbestos. Assumes some samples will be composited. Estimated from prior project referencing.
Laboratory - Soil/Wipe/Chip (sample)	40	75	\$650.00	\$800.00	\$26,000.00	\$60,000.00	
<b>Removal/Off-Site Disposal</b>							
LSRP (hr)	20	30	\$150.00	\$185.00	\$3,000.00	\$5,550.00	Field Oversight. Estimated from prior project referencing.
Project Manager (hr)			\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	70	100	\$110.00	\$135.00	\$7,700.00	\$13,500.00	
Travel Expenses (day)	7	10	\$100.00	\$100.00	\$700.00	\$1,000.00	
Air Monitoring (day)	10	15	\$825.00	\$910.00	\$8,250.00	\$13,650.00	Based on GEI estimate in HDSRF application
T&D (yd <sup>3</sup> )	1,928	2,500	\$120.00	\$135.00	\$231,360.00	\$337,500.00	Volume based on DPK survey. Pricing based on GEI HDSRF Application.
<b>Site-Specific Master Plan Development</b>					<b>\$150,000.00</b>	<b>\$200,000.00</b>	Based on similar planning efforts funded by EPA. Contingent on level of public outreach.
<b>Phase A Subtotal</b>					<b>\$829,070.00</b>	<b>\$1,829,290.00</b>	
<b>Phase B - Remedial Investigation</b>							
<b>Preliminary Assessment</b>					<b>\$14,355.00</b>	<b>\$23,175.00</b>	Estimated from prior project referencing.
<b>Site Visit</b>							
LSRP (hr)	8	8	\$150.00	\$185.00	\$1,200.00	\$1,480.00	
Project Manager (hr)	0	0	\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	8	8	\$110.00	\$135.00	\$880.00	\$1,080.00	
HASP (Lump Sum)	1	1	\$1,000.00	\$1,500.00	\$1,000.00	\$1,500.00	
Travel Expenses (day)	2	2	\$100.00	\$100.00	\$200.00	\$200.00	
<b>File Review</b>							
LSRP (hr)	2	4	\$150.00	\$185.00	\$300.00	\$740.00	
Project Manager (hr)	0	0	\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	15	30	\$110.00	\$135.00	\$1,650.00	\$4,050.00	
Travel Expenses (day)	1	3	\$100.00	\$100.00	\$100.00	\$300.00	
Copying (lump sum)	1	1	\$100.00	\$300.00	\$100.00	\$300.00	
EDR/ERIS Historical Database Reports (site)	1	1	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	
<b>Report/Figures Preparation</b>							
LSRP (hr)	10	15	\$150.00	\$185.00	\$1,500.00	\$2,775.00	Includes CID
Project Manager (hr)	15	20	\$135.00	\$150.00	\$2,025.00	\$3,000.00	
Environmental Scientist (hr)	40	50	\$110.00	\$135.00	\$4,400.00	\$6,750.00	
<b>Ground Penetrating Radar</b>					<b>\$5,800.00</b>	<b>\$9,450.00</b>	
Subcontractor (day)	2	3	\$1,700.00	\$1,700.00	\$3,400.00	\$5,100.00	Typical daily rate quoted by vendor.
Environmental Scientist (hr)	20	30	\$110.00	\$135.00	\$2,200.00	\$4,050.00	Field Oversight. Estimated from prior project referencing.
Travel Expenses (day)	2	3	\$100.00	\$100.00	\$200.00	\$300.00	
<b>Site/Remedial Investigation Work Plan</b>					<b>\$9,900.00</b>	<b>\$14,950.00</b>	Estimated from prior project referencing.
LSRP (hr)	15	20	\$150.00	\$185.00	\$2,250.00	\$3,700.00	

	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions	
Project Manager (hr)	20	30	\$135.00	\$150.00	\$2,700.00	\$4,500.00		
Environmental Scientist (hr)	45	50	\$110.00	\$135.00	\$4,950.00	\$6,750.00		
<b>Structural Assessments</b>					<b>\$82,640.00</b>	<b>\$99,850.00</b>	Assumes 28 remnants/structures require assessment (including raceway) per FMG 2011 report.	
LSRP (hr)	6	10	\$150.00	\$185.00	\$900.00	\$1,850.00	Field Oversight. Estimated from prior project referencing.	
Project Manager (hr)	4	8	\$135.00	\$150.00	\$540.00	\$1,200.00		
Environmental Scientist (hr)	10	20	\$110.00	\$135.00	\$1,100.00	\$2,700.00		
Travel Expenses (day)	2	5	\$100.00	\$100.00	\$200.00	\$500.00		
Archaeologist	10	20	\$150.00	\$200.00	\$1,500.00	\$4,000.00		
Engineer Inspection & Report (structure)	28	28	\$2,800.00	\$3,200.00	\$78,400.00	\$89,600.00		Based on vendor quote, average cost per structure.
<b>Temporary Structure Stabilization &amp; Targeted Demo</b>					<b>\$423,150.00</b>	<b>\$576,670.00</b>	Assumes efforts to stabilize/demolish Building 14 & 23 to investigate AOCs.	
LSRP (hr)	30	40	\$150.00	\$185.00	\$4,500.00	\$7,400.00	Periodic Field Oversight. Estimated from prior project referencing.	
Project Manager (hr)	30	40	\$135.00	\$150.00	\$4,050.00	\$6,000.00		
Environmental Scientist (hr)	60	80	\$110.00	\$135.00	\$6,600.00	\$10,800.00		
Archaeologist	10	20	\$150.00	\$200.00	\$1,500.00	\$4,000.00		
Travel Expenses (day)	6	8	\$100.00	\$100.00	\$600.00	\$800.00		
Building 14					\$149,900.00	\$194,870.00		Based on FMG Report, Cultural Resource Investigation – Vol 4, 2010 (PDF pg. 221) for "Selective Removals/Demolition Estimate of Cost". Max total includes 30% markup of original estimate.
Building 23					\$156,000.00	\$202,800.00		
Misc. Stabilization at Passaic & Waverly Ruins					\$100,000.00	\$150,000.00		
<b>Asbestos &amp; Hazardous Material Survey</b>					<b>\$102,628.00</b>	<b>\$123,760.00</b>		
LSRP (hr)	8	10	\$150.00	\$185.00	\$1,200.00	\$1,850.00	Periodic Field Oversight. Estimated from prior project referencing.	
Project Manager (hr)	0	0	\$135.00	\$150.00	\$0.00	\$0.00		
Environmental Scientist (hr)	20	30	\$110.00	\$135.00	\$2,200.00	\$4,050.00		
Archaeologist	10	20	\$150.00	\$200.00	\$1,500.00	\$4,000.00		
Travel Expenses (day)	2	3	\$100.00	\$100.00	\$200.00	\$300.00		
Building 1	8,300	8,300	\$1.46	\$1.70	\$12,118.00	\$14,110.00		Historical surveys conducted for Buildings 1A, 5, 5A, 6, 8, 9, 14, 14A, and 16, so they are assumed to not be included in new survey. Pricing based on average rate per square footage, estimated from prior project referencing.
Building 3	1,800	1,800	\$1.46	\$1.70	\$2,628.00	\$3,060.00		
Building 4	2,500	2,500	\$1.46	\$1.70	\$3,650.00	\$4,250.00		
Building 7	2,300	2,300	\$1.46	\$1.70	\$3,358.00	\$3,910.00		
Building 7A	700	700	\$1.46	\$1.70	\$1,022.00	\$1,190.00		
Building 10	3,100	3,100	\$1.46	\$1.70	\$4,526.00	\$5,270.00		
Building 11	3,100	3,100	\$1.46	\$1.70	\$4,526.00	\$5,270.00		
Building 11A	6,400	6,400	\$1.46	\$1.70	\$9,344.00	\$10,880.00		
Building 11B	8,100	8,100	\$1.46	\$1.70	\$11,826.00	\$13,770.00		
Building 11C	16,400	16,400	\$1.46	\$1.70	\$23,944.00	\$27,880.00		
Building 12	4,200	4,200	\$1.46	\$1.70	\$6,132.00	\$7,140.00		
Building 15	2,800	2,800	\$1.46	\$1.70	\$4,088.00	\$4,760.00		
Building 23 - Colt Gun Mill	7,100	7,100	\$1.46	\$1.70	\$10,366.00	\$12,070.00		
<b>UST Removal &amp; Closure</b>					<b>\$762,670.00</b>	<b>\$916,704.00</b>		
UST Removal	1	1.2	\$757,670.00	NA	\$757,670.00	\$909,204.00	Based on GEI HDSRF Application. Max includes 20% cost increase.	
UST Closure Report	1	1	\$5,000.00	\$7,500.00	\$5,000.00	\$7,500.00	Estimated from prior project referencing.	
<b>Site Investigation &amp; Reporting</b>					<b>\$71,850.00</b>	<b>\$154,840.00</b>	Estimated from prior project referencing, unless otherwise stated.	
<b>Field Work</b>								
LSRP (hr)	20	40	\$150.00	\$185.00	\$3,000.00	\$7,400.00		
Environmental Scientist (hr)	80	160	\$110.00	\$135.00	\$8,800.00	\$21,600.00	Assumes (2) ES in the field for 1-2 weeks	
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00		
EPA QAPP (Lump Sum)	1	1	\$7,000.00	\$10,000.00	\$7,000.00	\$10,000.00		
Consumables (day)	5	10	\$100.00	\$100.00	\$500.00	\$1,000.00	i.e. tubing, bailers, gloves, paper towels, decon solution, etc.	
Travel Expenses (day)	5	10	\$100.00	\$100.00	\$500.00	\$1,000.00		
GPS (wk)	1	2	\$980.00	\$980.00	\$980.00	\$1,960.00	Vendor weekly rates.	
PID (wk)	1	2	\$320.00	\$320.00	\$320.00	\$640.00		
GeoPump (day)	1	2	\$125.00	\$125.00	\$125.00	\$250.00		
Geoprobe & Driller (day)	5	10	\$2,500.00	\$3,000.00	\$12,500.00	\$30,000.00	Based on vendor quote.	
Utility Markout (site)	1	1	\$115.00	\$115.00	\$115.00	\$115.00		
Soil liners (liner)	60	150	\$10.00	\$10.00	\$600.00	\$1,500.00	Assumes 20-50 borings total, each to 15' bgs w/ 5' soil liners (3 liners per borehole)	
20' Temporary Wells w/ expendable point (well)	3	5	\$150.00	\$150.00	\$450.00	\$750.00	Quantity based on GEI & Whitman Reports, GW may fluctuate in and out of bedrock.	
20' Bedrock Well	1	3	\$600.00	\$600.00	\$600.00	\$1,800.00	Additional cost for bedrock well (air rotary).	
Laboratory -TCL/TAL+30 Soil (sample)	20	50	\$700.00	\$700.00	\$14,000.00	\$35,000.00	Contingent on PA Findings. Includes sampling for emerging contaminants, surface water, sediment & VI. Based on vendor quoted pricing. Includes fees for terracores/encores.	
Laboratory - TCL/TAL+30 GW (sample)	1	5	\$650.00	\$650.00	\$650.00	\$3,250.00		
Laboratory -TCL/TAL+30 Surface Water (sample)	3	6	\$650.00	\$650.00	\$1,950.00	\$3,900.00		
Laboratory - TCL/TAL+30 Sediment (sample)	3	6	\$700.00	\$700.00	\$2,100.00	\$4,200.00		
Laboratory - TO-15 Soil Gas (sample)	5	10	\$270.00	\$270.00	\$1,350.00	\$2,700.00		

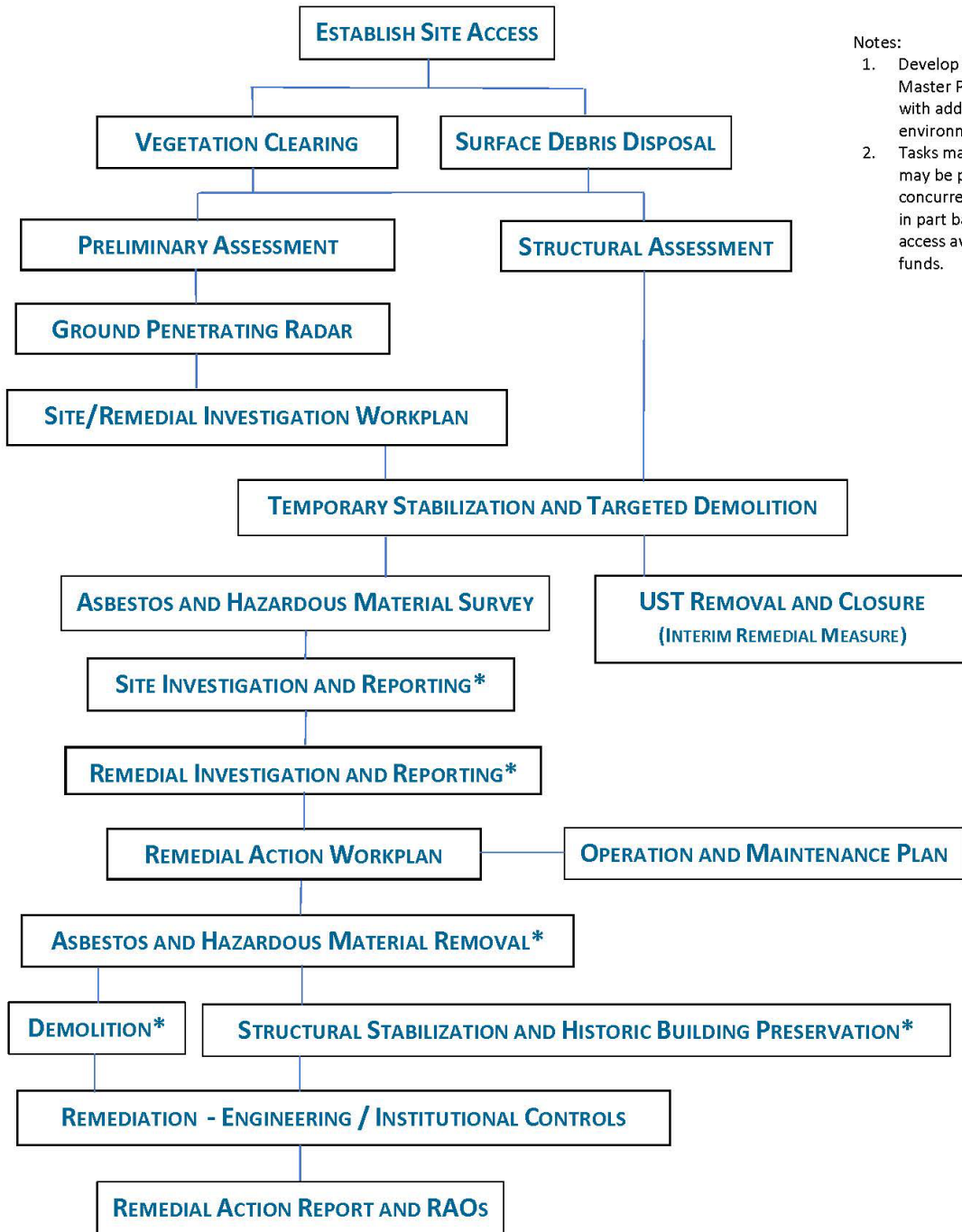
	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions
55-gallon Steel Drums	1	5	\$80.00	\$80.00	\$80.00	\$400.00	For temporary storage of purged gw. Based on vendor quote.
<i>IDW Disposal</i>							
Project Manager (hr)	2	3	\$135.00	\$150.00	\$270.00	\$450.00	
Environmental Scientist (hr)	8	10	\$110.00	\$135.00	\$880.00	\$1,350.00	
Travel Expenses (day)	1	1	\$100.00	\$100.00	\$100.00	\$100.00	
Laboratory - Waste Classification (GW)	1	1	\$650.00	\$650.00	\$650.00	\$650.00	Vendor unit price for TCL/TAL+30 analysis
Transportation (per Load)	1	1	\$520.00	\$550.00	\$520.00	\$550.00	Assumes (1) load for SI drum disposal, based on vendor quote.
55-gal Non-Haz Drum Disposal (ea)	1	5	\$110.00	\$130.00	\$110.00	\$650.00	Based on vendor quote.
Energy & Ins Surcharge (17% of Invoice) (ea)	1	1	\$200.00	\$350.00	\$200.00	\$350.00	
<i>Report/Figures Preparation</i>							
LSRP (hr)	10	15	\$150.00	\$185.00	\$1,500.00	\$2,775.00	
Project Manager (hr)	20	25	\$135.00	\$150.00	\$2,700.00	\$3,750.00	
Environmental Scientist (hr)	30	50	\$110.00	\$135.00	\$3,300.00	\$6,750.00	
Data Validation (lump sum)	1	1	\$5,000.00	\$8,000.00	\$5,000.00	\$8,000.00	
<b>Remedial Investigation &amp; Reporting</b>					<b>\$131,960.00</b>	<b>\$218,990.00</b>	Estimated from prior project referencing, unless otherwise stated.
<i>Field Work</i>							
LSRP (hr)	20	40	\$150.00	\$185.00	\$3,000.00	\$7,400.00	
Environmental Scientist (hr)	80	160	\$110.00	\$135.00	\$8,800.00	\$21,600.00	Contingent on SI findings. Assumes sediment, surface water & VI sampling will not be required (only soil & gw required). Assumes (2) ES in the field for 1 wk
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
EPA QAPP (Lump Sum)	1	1	\$7,000.00	\$10,000.00	\$7,000.00	\$10,000.00	
Consumables (day)	5	10	\$100.00	\$100.00	\$500.00	\$1,000.00	i.e. tubing, bailers, gloves, paper towels, decon solution, etc.
Travel Expenses (day)	5	10	\$100.00	\$100.00	\$500.00	\$1,000.00	
GPS (wk)	1	2	\$980.00	\$980.00	\$980.00	\$1,960.00	Vendor weekly rates.
PID (wk)	1	2	\$320.00	\$320.00	\$320.00	\$640.00	
GeoPump (day)	1	2	\$125.00	\$125.00	\$125.00	\$250.00	
Air Rotary, Driller & 20' Bedrock well (well)	2	4	\$4,400.00	\$4,400.00	\$8,800.00	\$17,600.00	Based on vendor quote.
Geoprobe & Driller (day)	5	5	\$2,500.00	\$3,000.00	\$12,500.00	\$15,000.00	
Utility Markout (site)	1	1	\$115.00	\$115.00	\$115.00	\$115.00	
Soil liners (liner)	60	150	\$10.00	\$10.00	\$600.00	\$1,500.00	Assumes 20-50 borings to 15' bgs w/ 5' soil liners (3 liners per borehole)
Laboratory -TCL/TAL+30 Soil (sample)	50	100	\$700.00	\$700.00	\$35,000.00	\$70,000.00	Includes fees for soil terracores/encores
Laboratory - TCL/TAL+30 GW (sample)	15	20	\$650.00	\$650.00	\$9,750.00	\$13,000.00	
55-gallon Steel Drums (drum)	1	4	\$80.00	\$80.00	\$80.00	\$320.00	For temporary storage of purged gw.
Well Survey (well)	2	4	\$800.00	\$1,000.00	\$1,600.00	\$4,000.00	Based on vendor quote per well.
<i>IDW Disposal</i>							
Project Manager (hr)	2	3	\$135.00	\$150.00	\$270.00	\$450.00	
Environmental Scientist (hr)	8	10	\$110.00	\$135.00	\$880.00	\$1,350.00	
Travel Expenses (day)	1	1	\$100.00	\$100.00	\$100.00	\$100.00	
Laboratory - Waste Classification (GW)	1	1	\$650.00	\$650.00	\$650.00	\$650.00	Vendor unit price for TCL/TAL+30 analysis
Transportation (per Load)	1	1	\$520.00	\$550.00	\$520.00	\$550.00	Assumes (1) load for SI drum disposal, based on vendor quote.
55-gal Non-Haz Drum Disposal (ea)	2	4	\$110.00	\$130.00	\$220.00	\$520.00	Based on vendor quote.
Energy & Ins Surcharge (17% of Invoice) (ea)	1	1	\$200.00	\$350.00	\$200.00	\$350.00	
<i>Public Notification</i>							
LSRP (hr)	1	1	\$150.00	\$185.00	\$150.00	\$185.00	Assumes a posted sign will be used in lieu of letters
Project Manager (hr)	2	2	\$135.00	\$150.00	\$270.00	\$300.00	
Environmental Scientist (hr)	3	5	\$110.00	\$135.00	\$330.00	\$675.00	
Public Notice Sign	2	2	\$100.00	\$100.00	\$200.00	\$200.00	Sign to be produced in English & Spanish. Pricing from vendor quote.
<i>Other City/County/State Permits</i>	1	1	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	Estimate based on projects of similar scale.
<i>Report/Figures Preparation</i>							
LSRP (hr)	10	15	\$150.00	\$185.00	\$1,500.00	\$2,775.00	
Project Manager (hr)	20	25	\$135.00	\$150.00	\$2,700.00	\$3,750.00	
Environmental Scientist (hr)	30	50	\$110.00	\$135.00	\$3,300.00	\$6,750.00	
Data Validation (lump sum)	1	1	\$5,000.00	\$8,000.00	\$5,000.00	\$8,000.00	
<b>Phase B Subtotal</b>					<b>\$1,604,953.00</b>	<b>\$2,138,389.00</b>	
<b>Phase C - Remedial Action</b>							
<i>Remedial Action Workplan</i>					<b>\$11,925.00</b>	<b>\$18,525.00</b>	Estimated from prior project referencing.
LSRP (hr)	10	15	\$150.00	\$185.00	\$1,500.00	\$2,775.00	
Project Manager (hr)	15	20	\$135.00	\$150.00	\$2,025.00	\$3,000.00	
Environmental Scientist (hr)	40	50	\$110.00	\$135.00	\$4,400.00	\$6,750.00	
Air Monitoring Plan (Lump Sum)	1	1	\$4,000.00	\$6,000.00	\$4,000.00	\$6,000.00	Based on GEI estimate in HDSRF application
<b>Asbestos &amp; Hazardous Material Removal</b>					<b>\$624,750.00</b>	<b>\$842,760.00</b>	
T&D (yd <sup>3</sup> )	5,000	6,000	\$120.00	\$135.00	\$600,000.00	\$810,000.00	Contingent on Asbestos & Hazardous Material Survey. Unit cost based on GEI HDSRF application.

	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions
Air Monitoring (day)	30	36	\$825.00	\$910.00	\$24,750.00	\$32,760.00	Based on GEI estimate in HDSRF application
<b>Demolition</b>					<b>\$2,616,858.00</b>	<b>\$3,469,520.40</b>	Estimated from prior project referencing, unless otherwise stated.
LSRP (hr)	90	120	\$150.00	\$185.00	\$13,500.00	\$22,200.00	
Project Manager (hr)	10	20	\$135.00	\$150.00	\$1,350.00	\$3,000.00	
Environmental Scientist (hr)	90	120	\$110.00	\$135.00	\$9,900.00	\$16,200.00	
Archaeologist	10	20	\$150.00	\$200.00	\$1,500.00	\$4,000.00	
Travel Expenses (day)	9	12	\$100.00	\$100.00	\$900.00	\$1,200.00	
Perimeter Air Monitoring (station)	1	3	\$9,000.00	\$11,000.00	\$9,000.00	\$33,000.00	Assumes stations will be used given timeframe to complete work.
Erosion & Sediment Control (lump sum)	1	1	\$50,000.00	\$100,000.00	\$50,000.00	\$100,000.00	
Building 1* - Passaic Mill					\$165,600.00	\$215,280.00	Pricing based on FMG Report, Cultural Resource Investigation – Vol 4, 2010 (PDF pg. 221) for
Building 1A*					\$129,500.00	\$168,350.00	"Selective Removals/Demolition Estimate of Cost" and discussions with City. Excludes Building 14 &
Building 2**					\$24,100.00	\$31,330.00	23 since they are included in Phase B. Max includes 30% markup.
Building 3***					\$60,508.00	\$78,660.40	
Building 4***					\$100,300.00	\$130,390.00	*Building to be preserved. Cost includes partial removal of unstable walls and stabilization of
Building 5**					\$9,900.00	\$12,870.00	salvageable building remnants.
Building 5A**					\$4,500.00	\$5,850.00	
Building 5B**					\$6,100.00	\$7,930.00	**No building remnants to demolish. Price includes debris and vegetation removal. Some include
Building 6* - Todd Mill					\$269,000.00	\$349,700.00	cost to maintain foundation along rivers edge.
Building 7***					\$103,800.00	\$134,940.00	
Building 7A***					\$30,100.00	\$39,130.00	
Building 8***					\$108,800.00	\$141,440.00	***Building to be completely demolished. Subtracted cost of partial wall stabilization & removal from
Building 9***					\$148,000.00	\$192,400.00	"Selective Removals/Demo" cost, added cost to demolish entire building at rate of \$7/ft2. Square
Building 10***					\$80,700.00	\$104,910.00	footage based on dimensions in FMG Vol II Existing Conditions report and updated based on # of
Building 11***					\$104,600.00	\$135,980.00	stories.
Building 11A					\$242,000.00	\$314,600.00	* Costs shifted to demolition based on discussion with City.
Building 11B*.*					\$281,000.00	\$365,300.00	
Building 11C*					\$361,000.00	\$469,300.00	
Building 12*					\$101,500.00	\$131,950.00	
Building 14A*					\$59,800.00	\$77,740.00	
Building 15***					\$22,700.00	\$29,510.00	
Building 16***					\$60,400.00	\$78,520.00	
Building 27*** - Machine Shop					\$2,100.00	\$2,730.00	
Building 28**					\$37,000.00	\$48,100.00	
Building 29**					\$17,700.00	\$23,010.00	
<b>Structural Stabilization &amp; Historic Building Preservation</b>					<b>\$4,751,150.00</b>	<b>\$5,393,000.00</b>	Estimated from prior project referencing, unless otherwise stated.
LSRP (hr)	90	120	\$150.00	\$185.00	\$13,500.00	\$22,200.00	Assumes limited field oversight from env consultant.
Project Manager (hr)	10	20	\$135.00	\$150.00	\$1,350.00	\$3,000.00	
Environmental Scientist (hr)	90	120	\$110.00	\$135.00	\$9,900.00	\$16,200.00	
Archaeologist	10	20	\$150.00	\$200.00	\$1,500.00	\$4,000.00	
Travel Expenses (day)	9	12	\$100.00	\$100.00	\$900.00	\$1,200.00	
Building 1					\$778,000.00	\$855,800.00	Pricing based on FMG Report, Cultural Resource Investigation – Vol 4, 2010 (PDF pg. 221), for
Building 1A					\$376,000.00	\$413,600.00	"Architectural Treatment" and discussions with the City. Max total includes 30% markup of original
Building 1A - Boiler Stack					\$72,000.00	\$79,200.00	estimate.
Building 2					\$0.00	\$0.00	
Building 3					\$0.00	\$0.00	
Building 4*					\$25,000.00	\$27,500.00	*Building to be completely demolished, but includes cost to preserve portion of building foundation
Building 5					\$0.00	\$0.00	along rivers edge only
Building 5A					\$0.00	\$0.00	
Building 5B					\$0.00	\$0.00	
Building 6 - Todd Mill					\$221,000.00	\$243,100.00	
Building 7*					\$60,000.00	\$66,000.00	
Building 7A*					\$15,000.00	\$16,500.00	
Building 8					\$0.00	\$0.00	
Building 9					\$0.00	\$0.00	
Building 10*					\$55,000.00	\$60,500.00	
Building 11*					\$20,000.00	\$22,000.00	
Building 11A					\$0.00	\$0.00	
Building 11C					\$414,000.00	\$455,400.00	
Building 12					\$188,500.00	\$207,350.00	
Building 14					\$227,000.00	\$249,700.00	
Building 14 - Boiler House Stack					\$500,000.00	\$700,000.00	

	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions
Building 14A					\$96,500.00	\$106,150.00	
Building 15					\$0.00	\$0.00	
Building 16					\$0.00	\$0.00	
Building 27 - Machine Shop					\$0.00	\$0.00	
Building 28*					\$75,000.00	\$82,500.00	
Building 29*					\$45,000.00	\$49,500.00	
SUM Raceway Waterpower System					\$331,000.00	\$364,100.00	
Building 11B					\$25,000.00	\$27,500.00	Majority of costs shifted to demolition based on discussion with City.
Building 23 - Colt Gun Mill					\$1,200,000.00	\$1,320,000.00	Colt Gun Mill costs based on discussion with City and costs for walls at Quarry Lawn.
<b>Remediation - Engineering/Institutional Controls</b>					<b>\$2,052,050.00</b>	<b>\$2,538,125.00</b>	Estimated from prior project referencing, unless otherwise stated.
<u>Hot Spot Soil Excavation</u>							Assumes Non-haz soil disposal & no dewatering required.
LSRP (hr)	10	20	\$150.00	\$185.00	\$1,500.00	\$3,700.00	
Project Manager (hr)	20	40	\$135.00	\$150.00	\$2,700.00	\$6,000.00	
Environmental Scientist (hr)	40	60	\$110.00	\$135.00	\$4,400.00	\$8,100.00	
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
EPA QAPP (Lump Sum)	1	1	\$5,000.00	\$7,000.00	\$5,000.00	\$7,000.00	
Consumables (day)	3	5	\$100.00	\$100.00	\$300.00	\$500.00	i.e. tubing, bailers, gloves, paper towels, decon solution, etc.
Travel Expenses (day)	3	5	\$100.00	\$100.00	\$300.00	\$500.00	
Perimeter Air Monitoring (day)	3	5	\$825.00	\$910.00	\$2,475.00	\$4,550.00	Based on GEI estimate in HDSRF application
Erosion & Sediment Control (lump sum)	1	1	\$15,000.00	\$20,000.00	\$15,000.00	\$20,000.00	Based on GEI estimate in HDSRF application
GPS (wk)	1	1	\$980.00	\$980.00	\$980.00	\$980.00	Vendor quote weekly rate.
PID (wk)	1	1	\$320.00	\$320.00	\$320.00	\$320.00	Vendor quote weekly rate.
Excavator & Operator (day)	3	5	\$10,000.00	\$10,000.00	\$30,000.00	\$50,000.00	
Non-haz Soil T&D (ton)	120	200	\$45.00	\$62.00	\$5,400.00	\$12,400.00	Includes waste characterization
Backfill - Clean Fill (ton)	120	200	\$42.00	\$45.00	\$5,040.00	\$9,000.00	
Laboratory - Post-ex (Soil)	8	25	\$500.00	\$800.00	\$4,000.00	\$20,000.00	
<u>Installation of Monitoring Well Network</u>							
LSRP (hr)	5	8	\$150.00	\$185.00	\$750.00	\$1,480.00	
Project Manager (hr)	10	15	\$135.00	\$150.00	\$1,350.00	\$2,250.00	
Environmental Scientist (hr)	20	30	\$110.00	\$135.00	\$2,200.00	\$4,050.00	
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
Perimeter Air Monitoring (day)	2	3	\$825.00	\$910.00	\$1,650.00	\$2,730.00	Based on GEI estimate in HDSRF application
Travel Expenses (day)	2	3	\$100.00	\$100.00	\$200.00	\$300.00	
PID (wk)	1	1	\$320.00	\$320.00	\$320.00	\$320.00	Vendor quote weekly rate.
Utility Markout (site)	1	1	\$115.00	\$115.00	\$115.00	\$115.00	
20' Permitted Bedrock Monitoring Well (well)	4	6	\$3,800.00	\$3,800.00	\$15,200.00	\$22,800.00	Vendor quote, includes air rotary rig w/ driller, well material, flushmount w/ pad & NJDEP permitting.
55-gallon Steel Drums (drum)	4	6	\$80.00	\$80.00	\$320.00	\$480.00	For temporary storage of purged gw
MW Survey (site)	1	1	\$2,500.00	\$3,000.00	\$2,500.00	\$3,000.00	Based on vendor quote.
<u>IDW Disposal</u>							
Project Manager (hr)	2	3	\$135.00	\$150.00	\$270.00	\$450.00	
Environmental Scientist (hr)	8	10	\$110.00	\$135.00	\$880.00	\$1,350.00	
Travel Expenses (day)	1	1	\$100.00	\$100.00	\$100.00	\$100.00	
Laboratory - Waste Classification (GW)	1	1	\$650.00	\$650.00	\$650.00	\$650.00	
Transportation (per Load)	1	1	\$520.00	\$550.00	\$520.00	\$550.00	
55-gal Non-Haz Drum Disposal (ea)	4	6	\$110.00	\$130.00	\$440.00	\$780.00	
Energy & Ins Surcharge (17% of Invoice) (ea)	1	1	\$200.00	\$350.00	\$200.00	\$350.00	
<u>Installation of Engineering Controls (Fence/Cap)</u>							Assumes cap will consist of 2 ft. clean soil w/ demarcation layer across entire ATP site (4.5 acres, or 19
LSRP (hr)	60	80	\$150.00	\$185.00	\$9,000.00	\$14,800.00	
Project Manager (hr)	475	500	\$135.00	\$150.00	\$64,125.00	\$75,000.00	
Environmental Scientist (hr)	2,700	3,000	\$110.00	\$135.00	\$297,000.00	\$405,000.00	
Travel Expenses (day)	30	50	\$100.00	\$100.00	\$3,000.00	\$5,000.00	
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
Perimeter Air Monitoring (station)	1	3	\$9,000.00	\$11,000.00	\$9,000.00	\$33,000.00	Assumes stations will be used given timeframe to complete work.
Erosion & Sediment Control (lump sum)	1	1	\$50,000.00	\$60,000.00	\$50,000.00	\$60,000.00	Based on GEI estimate in HDSRF application
Existing Fence Removal - Labor (Linear ft)	500	800	\$11.00	\$22.00	\$5,500.00	\$17,600.00	
New Fence - 6' Chain Link (Linear ft)	800	900	\$40.00	\$45.00	\$32,000.00	\$40,500.00	
Cap Material - 2 ft. Clean Fill w/ Topsoil and Seed (yd <sup>3</sup> )	14,520	14,520	\$85.00	\$95.00	\$1,234,200.00	\$1,379,400.00	Includes removal and disposal of 2 ft existing material.
Demarcation Layer, Geotextile Fabric (ft <sup>2</sup> )	196,020	196,020	\$0.75	\$1.00	\$147,015.00	\$196,020.00	
<u>Other City/County/State Permits</u>					\$25,000.00	\$25,000.00	
<u>Quarterly GW Sampling</u>							Assumes (8) rounds of quarterly gw sampling over 2 yrs.
LSRP (hr)	15	20	\$150.00	\$185.00	\$2,250.00	\$3,700.00	

	Qty (Min)	Qty (Max)	Unit Price (Min)	Unit Price (Max)	Total (Min)	Total (Max)	Notes/Assumptions
Project Manager (hr)	20	25	\$135.00	\$150.00	\$2,700.00	\$3,750.00	
Environmental Scientist (hr)	30	40	\$110.00	\$135.00	\$3,300.00	\$5,400.00	
HASP (Lump Sum)	1	1	\$1,000.00	\$2,000.00	\$1,000.00	\$2,000.00	
EPA QAPP (Lump Sum)	1	1	\$7,000.00	\$10,000.00	\$7,000.00	\$10,000.00	
Consumables (day)	0	0	\$100.00	\$100.00	\$0.00	\$0.00	
Travel Expenses (day)	8	8	\$100.00	\$100.00	\$800.00	\$800.00	
Laboratory - LFPS Field Sampling Tech (event)	8	8	\$3,000.00	\$3,000.00	\$24,000.00	\$24,000.00	Based on vendor quote.
Laboratory - TCL/TAL+30 GW (sample)	32	48	\$650.00	\$650.00	\$20,800.00	\$31,200.00	
55-gallon Steel Drums (drum)	6	15	\$80.00	\$80.00	\$480.00	\$1,200.00	For temporary storage of purged gw
<b>IDW Disposal</b>							
Project Manager (hr)			\$135.00	\$150.00	\$0.00	\$0.00	
Environmental Scientist (hr)	20	40	\$110.00	\$135.00	\$2,200.00	\$5,400.00	
Travel Expenses (day)	2	4	\$100.00	\$100.00	\$200.00	\$400.00	
Laboratory - Waste Classification (GW)	2	4	\$650.00	\$650.00	\$1,300.00	\$2,600.00	
Transportation (per Load)	2	4	\$520.00	\$550.00	\$1,040.00	\$2,200.00	
55-gal Non-Haz Drum Disposal (ea)	6	15	\$110.00	\$130.00	\$660.00	\$1,950.00	
Energy & Ins Surcharge (17% of Invoice) (ea)	2	4	\$200.00	\$350.00	\$400.00	\$1,400.00	
<b>Remedial Action Report &amp; RAOs</b>					<b>\$57,130.00</b>	<b>\$70,830.00</b>	Includes CID, RE/Well Search, EDDs, CEA, Deed Notice, RAP-Soil & RAP-GW (MNA) Permit Applications
LSRP (hr)	20	30	\$150.00	\$185.00	\$3,000.00	\$5,550.00	
Project Manager (hr)	30	40	\$135.00	\$150.00	\$4,050.00	\$6,000.00	
Environmental Scientist (hr)	60	80	\$110.00	\$135.00	\$6,600.00	\$10,800.00	
Data Validation (lump sum)	1	1	\$10,000.00	\$15,000.00	\$10,000.00	\$15,000.00	
<b>NJDEP Fees</b>							Per NJDEP, City is only required to pay "during 12-month period during which they perform remediation"
Initial RAP-GW Application Fee	1	1	\$1,050.00	\$1,050.00	\$1,050.00	\$1,050.00	
Initial RAP-Soil Application Fee	1	1	\$1,575.00	\$1,575.00	\$1,575.00	\$1,575.00	
Annual Remediation Fee (yr)	3	3	\$10,285.00	\$10,285.00	\$30,855.00	\$30,855.00	Assumes Category 3 Fees (11-20 CAOCs) for 3 years.
<b>Operations &amp; Maintenance Plan</b>					<b>\$15,075.00</b>	<b>\$20,055.00</b>	
LSRP (hr)	25	30	\$150.00	\$185.00	\$3,750.00	\$5,550.00	
Project Manager (hr)	35	40	\$135.00	\$150.00	\$4,725.00	\$6,000.00	
Environmental Scientist (hr)	60	63	\$110.00	\$135.00	\$6,600.00	\$8,505.00	
<b>Phase C Subtotal</b>					<b>\$10,128,938.00</b>	<b>\$12,352,815.40</b>	
<b>GRAND TOTAL</b>					<b>\$12,562,961.00</b>	<b>\$16,320,494.40</b>	

### Appendix 3: Sequence of Work Flow Chart



Notes:

1. Develop Site-Specific Master Plan in unison with addressing the environmental concerns.
2. Tasks marked with "\*" may be performed concurrently, in whole or in part based on site access availability of funds.



## Appendix 4: Letter from Fire Department Chief

CITY OF PATERSON  
DEPARTMENT OF FIRE

DIVISION OF FIRE  
BRIAN J. McDERMOTT  
CHIEF



FIRE HEADQUARTERS  
300 McBRIDE AVE  
PATERSON, NJ 07501  
PHONE: (973) 321-1400  
PFD@patersonnj.gov

*ANDRÉ SAYEGH*  
MAYOR

**To:** To whom it may concern  
**From:** Brian J. McDermott, Chief of Department  
**Date:** Wednesday, July 08, 2020  
**Re:** ATP Site

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I, Chief Brian J. McDermott, can find no incident in recent or distant past, where firefighting foam was used to extinguish a fire at the ATP site in the City of Paterson. I further attest, that I have never witnessed or authorized the use of firefighting foam at the site in my 25 year career. Therefore, as the Fire Chief for the City of Paterson Fire Department, I attest that there was no firefighting foam applied on that site.

Respectfully,

A handwritten signature in blue ink, which appears to read "Brian J. McDermott".

Brian J. McDermott  
Chief of Department

## Appendix 5: Funding Opportunities

Funding Need	Project Name	Category	Possible Funding Sources
Paterson   ATP site Historic Preservation	ATP site Historic Preservation	Historic Preservation	<p>Historic Property Survey Grant Program   NJHC Project Grant</p> <p>Preserve NJ Municipal, County, and Regional Planning Grants   Preserve NJ Historic Site Management Grant</p> <p>Preserve NJ Capital Grant   Save America's Treasures</p>
Paterson   ATP site Remediation	ATP site Remediation	Brownfields	<p>Brownfield Assessment Grant   Brownfields Planning and Assessment Services   Brownfield Cleanup Grant</p> <p>HDSRF Grant</p>
Paterson   ATP site Park Development	ATP site Park Development	<p>Parks &amp; Recreation</p> <p>Open Space/Conservation</p>	<p>Public Works and Economic Adjustment Assistance   Transit Village Program   Regional Trails Program</p> <p>Urban Parks Grant   Green Acres   Local Recreation Improvement Grant</p> <p>LWCF Outdoor Recreation Legacy Partnership</p>
Paterson   ATP site Heritage Tourism	ATP site Heritage Tourism	Tourism	<p>Preserve NJ Municipal, County, and Regional Planning Grants   Preserve NJ Heritage Tourism Grant</p> <p>NJ Tourism Destination Marketing Organization Grant   NJ Tourism Cooperative Marketing Grant   Our Town</p> <p>Challenge America</p>

Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
Funder Types: Federal							
Challenge America	The Challenge America grant offers support primarily to small and mid-sized organizations for projects that extend the reach of the arts to underserved populations -- those whose opportunities to experience the arts are limited by geography, ethnicity, economics, or disability.	National Endowment for the Arts	4/27/2023	Programs/Outreach	Challenge America supports arts projects in all artistic disciplines. Projects must extend the reach of the arts to populations that are underserved. Eligible projects include public art, professionally directed; cultural tourism/collaborative marketing and arts programming, including commissioning or presentation of artists or artwork; marketing and promotional activities; and organizational planning. Projects may consist of one or more specific events or activities, and should not cover an entire season of programming.	Grant / \$10,000 / Cost Share Required: 50%	<a href="https://www.arts.gov/grants-organizations/challenge-america/grant-program-description">https://www.arts.gov/grants-organizations/challenge-america/grant-program-description</a>
Our Town	These grants support projects that integrate arts, culture, and design activities into efforts that strengthen communities by advancing local economic, physical, and/or social outcomes. Successful Our Town projects ultimately lay the groundwork for systemic changes that sustain the integration of arts, culture, and design into local strategies for strengthening communities.	National Endowment for the Arts	8/17/2023	Programs/Outreach Planning Design/engineering	Eligible project categories include arts engagement (public art, festivals, artist residencies), cultural planning, design of creative places and artist/creative industry support. To mark the 10 year anniversary of the Our Town program, projects that reflect a new and catalytic way of working, and demonstrate the potential for sustained support and recognition for arts, design, and cultural strategies as integral to every phase of community development are desired.	Grant / \$25,000 to \$200,000 / Cost Share Required: 1 to 1 non-federal match required (50% of the project).	<a href="https://www.arts.gov/grants-organizations/our-town/grant-program-description">https://www.arts.gov/grants-organizations/our-town/grant-program-description</a>
Save America's Treasures	The Save America's Treasures grant program was established in 1998 to help preserve nationally significant historic properties and collections that convey our nation's rich heritage to future generations.	National Park Service	12/20/2022	Construction	Preservation project (bricks and mortar) applicants may request a minimum of \$125,000 and a maximum of \$750,000. Collections project applicants may request a minimum of \$25,000 and a maximum of \$750,000.	Grant / \$25,000 to \$750,000 / Cost Share Required: 1 to 1 federal match is required.	<a href="https://www.nps.gov/sujects/historicpreservationfund/howtoapply.htm">https://www.nps.gov/sujects/historicpreservationfund/howtoapply.htm</a>

Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
LWCF Outdoor Recreation Legacy Partnership	The LCWF ORLP Program is targeting projects that will create or reinvigorate parks and other outdoor recreation spaces located in underserved communities in terms of parks and other outdoor recreation areas and have significant numbers of individuals who are economically disadvantaged. Preliminary applications for NJ are due October 7, 2022 and January 6, 2023.	National Park Service	10/7/2022	<ul style="list-style-type: none"> <li>Design/engineering</li> <li>Construction</li> <li>Restoration/Rehabili...</li> <li>Planning</li> </ul>	Program priorities include: New recreational opportunities, particularly those that will increase access to nature's benefits, such as green spaces, shady areas (via tree cover), and natural landscapes that help cool the air and reduce urban heat island effects, reduce pollution, and have positive effects on mental and physical health; Empower and engage members of the target community in the project development and design of the plans for the park; Create or expand public-private partnerships that leverage matching share resources (e.g., money or donations of land, supplies, services, etc.); Benefit from a high degree of coordination among the public, multiple levels of government, and the private sector. Section 106 Review and NEPA Environmental Assessments MUST BE COMPLETED prior to application.	Grant / \$300,000 to \$10 million / Cost Share Required: 1:1 ratio with non-federal funds; cash or in-kind contributions	<a href="https://lwcfcoalition.org/orlp">https://lwcfcoalition.org/orlp</a>
Public Works and Economic Adjustment Assistance	This program provides catalytic investments to help distressed communities build, design, or engineer critical infrastructure and facilities that will help implement regional development strategies and advance bottom-up economic development goals to promote regional prosperity.	US EDA	12/31/2023	<ul style="list-style-type: none"> <li>Design/engineering</li> <li>Construction</li> </ul>	Projects that support construction, non-construction, planning, technical assistance, and revolving loan fund projects to enable communities to become more economically competitive.	Grant / \$600,000 to \$3 million; EDA has awarded 80-150 public works projects per year (average award \$1.4mn) / Cost Share Required: EDA award may not exceed 50% of the total project cost unless community meets economic distress criteria.	<a href="https://www.eda.gov/funding/funding-opportunities/category?category=266289">https://www.eda.gov/funding/funding-opportunities/category?category=266289</a>

Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
Brownfield Cleanup Grant	EPA's Brownfields Program has a rich history rooted in environmental justice and is committed through its cleanup grants to helping communities revitalize brownfield properties and thereby mitigate potential health risks, and restore economic vitality. These grants are highly competitive.	US EPA	11/22/2022	<ul style="list-style-type: none"> <li>Construction</li> <li>Environmental</li> <li>Project Oversight</li> <li>Studies/investigations</li> </ul>	Applications will be evaluated based on the extent to which the applicant demonstrates: a vision for the cleanup, reuse and redevelopment of the brownfield site; a strategy for leveraging resources; the environmental, social, health and economic needs and benefits of the target area; strong community engagement; reasonable and eligible tasks and appropriate use of grant funding; the capacity for managing and successfully implementing the cooperative agreement; and other factors. Eligible costs, in addition to direct costs of the cleanup, include oversight, performance reporting, environmental monitoring, health monitoring (up to 10%) and enforcement of institutional control used to prevent human exposure.	Grant / up to \$500,000; \$650,00 with waiver / Cost Share Required: Applicant is responsible for 20% cost share; hardship waiver available	<a href="https://www.epa.gov/brownfields/solicitations-brownfield-grants">https://www.epa.gov/brownfields/solicitations-brownfield-grants</a>
Brownfield Assessment Grant	EPA's Brownfields Program provides funds to prevent, inventory, assess, clean up, and reuse brownfield sites. The program is committed to helping communities revitalize brownfield properties, mitigate potential health risks, and restore economic vitality and to ensure that residents living in communities historically affected by economic disinvestment, health disparities, and environmental contamination have an opportunity to reap the benefits from brownfields redevelopment. Three categories of grants are offered.	US EPA	10/1/2023	<ul style="list-style-type: none"> <li>Programs/Outreach</li> <li>Planning</li> <li>Studies/investigations</li> </ul>	Assessment Grants provide funding for developing inventories of brownfield sites, prioritizing sites, conducting community involvement activities, conducting planning, conducting site assessments, developing site-specific cleanup plans, and developing reuse plans related to brownfield sites. A portion of the Assessment Grant funding must be used to conduct site assessments. Applications will be evaluated based on the extent to which the applicant demonstrates: a vision for the reuse and redevelopment of brownfield sites and a strategy for leveraging resources to help accomplish the vision; the environmental, social, health and economic needs and benefits of the target area and other factors.	Grant / Site-specific up to \$350,000; Community-wide up to \$500,000; Up to \$2 million for States / Cost Share Required: None	<a href="https://www.epa.gov/brownfields/multipurpose-assessment-rif-and-cleanup-marc-grant-application-resources#Open%20Solicitations">https://www.epa.gov/brownfields/multipurpose-assessment-rif-and-cleanup-marc-grant-application-resources#Open%20Solicitations</a>
Funder Types: State							

Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
Local Recreation Improvement Grant	<p>The Local Recreation Improvement Grant is a competitive grant that supports improvement and repair of public recreation facilities including local parks, municipal recreation centers, and local stadiums. Access to outdoor recreation and community resources is critical for mental and physical health, particularly for those residents with limited or no other access to quality outdoor space or private recreational opportunities. Assisting local units in achieving unmet recreational obligations addresses these equity considerations, meeting the needs of communities that have been placed under substantial stress due to the lack of quality recreational facilities and spaces.</p>	NJ DCA	1/20/2023	<ul style="list-style-type: none"> <li>Restoration/Rehabili...</li> <li>Construction</li> <li>Environmental</li> <li>Design/engineering</li> </ul>	<p>Grant funds will be allocated to help cover costs associated with updating community centers, playgrounds, pools, fields, walking or bicycle trails, rail trails, multi-sport courts, and recreational facilities; one-time personnel costs directly related to improvements; project development professional services costs; equipment costs including playground and recreation facilities equipment; and environmental remediation costs required to prepare recreation sites for use.</p>	<p>Grant / Up to \$100,000 / Cost Share Required: Priority will be given to unfunded projects with local match</p>	<p><a href="https://www.nj.gov/dca/dlgs/programs/lrigrant.shtml">https://www.nj.gov/dca/dlgs/programs/lrigrant.shtml</a></p>
Green Acres	<p>Since 1961, the Green Acres Program has funded the acquisition of open space for recreation and conservation purposes, and the development of outdoor recreational facilities. Green Acres remains committed to preserving New Jersey's natural, historic, and recreational resources statewide and is pleased to continue the tradition of partnering with local and county governments and nonprofit organizations to serve residents through low interest loans and grants. Green Acres is accepting applications for the 2023 funding round for land acquisition, park development, stewardship, Jake's Law (Inclusive Playgrounds), and Urban Parks projects.</p>	NJ DEP	2/1/2024	<ul style="list-style-type: none"> <li>Acquisition</li> <li>Construction</li> <li>Equipment/technolo...</li> <li>Design/engineering</li> <li>Environmental</li> </ul>	<p>Eligible park development projects are those that create, restore, or expand outdoor recreation opportunities which include athletic fields and courts and facilities for picnicking, fishing, boating, biking, hiking, swimming, camping, nature and historic interpretation, and similar activities. Facilities that support outdoor recreation are also eligible, such as lighting, parking areas, and structures that provide restrooms, concessions, or storage for park equipment. Support facilities or other ancillary project elements (i.e., parking lots, site preparation costs, etc.) should be commensurate with the recreational component of any given project or phase. Land acquisition for outdoor recreation and/or conservation purposes, include, but not limited to, the purchase of forests, natural areas, historic sites, water bodies, and open space for active or passive recreation.</p>	<p>Grant + Loan / Depending on the applicant and program, up to \$1.8 million / Cost Share Required: 25%-75%, unless 100% grant or loan</p>	<p><a href="https://www.nj.gov/dep/greenacres/local.html">https://www.nj.gov/dep/greenacres/local.html</a></p>

Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
HDSRF Grant	The Hazardous Discharge Site Remediation Fund provides funding to public and qualifying private entities for the remediation of a suspected or known discharge of a hazardous substance or hazardous waste. The NJDEP evaluates an applicant's preliminary eligibility requirements, and the estimated remediation costs. Upon the NJDEP's recommendation for funding, the NJEDA evaluates an applicant's financial status, determines grant and/or loan eligibility and awards funding.	NJ DEP	Rolling	<ul style="list-style-type: none"> <li>Studies/investigations</li> <li>Construction</li> </ul>	Preliminary Assessment (PA), Site Investigation (SI), Remedial Investigation (RI) or Remedial Action (RA)	Grant / / Cost Share Required: 25% for remediation activities	<a href="https://www.nj.gov/dep/srp/finance/hdsrf/">https://www.nj.gov/dep/srp/finance/hdsrf/</a>
Urban Parks Grant	In 2020, Governor Murphy and the New Jersey Legislature dedicated \$2.5 million in the State budget to promote urban parks. The Department of Environmental Protection has established the Urban Parks initiative to support acquisition of land that will be transformed into a park, the development of park facilities, or the rehabilitation of historic properties. Projects should consider environmental justice and climate change in their objectives. Additional funding may become available for these projects under the proposed FY22 budget.	NJ DEP	3/1/2023	<ul style="list-style-type: none"> <li>Acquisition</li> <li>Restoration/Rehabili...</li> <li>Construction</li> <li>Design/engineering</li> </ul>	<p>LAND ACQUISITION: Approved projects may include acquisition of land for active or passive recreation. You may purchase land in fee simple or acquire a perpetual conservation easement or historic preservation easement on the property, as long as meaningful public access is provided. RECREATION DEVELOPMENT: Approved park development projects may include games and sports, picnicking, fishing, biking, swimming, nature and historic interpretation, and similar activities. HISTORIC PRESERVATION: Funding can be used for the rehabilitation or restoration of a historic property that is listed or serves as a contributing resource to a Historic District that is listed on the New Jersey Register of Historic Places.</p>	Grant / Up to \$500,000 / Cost Share Required: None required and may be used as Green Acres grant match.	<a href="https://www.nj.gov/dep/greenacres/#:~:text=Grants%20are%20now%20available%20under%20the%20DEP's%20new%20Urban%20Parks%20initiative.&amp;text=Applicants%20are%20eligible%20for%20grants,additional%20funding%20may%20become%20available.">https://www.nj.gov/dep/greenacres/#:~:text=Grants%20are%20now%20available%20under%20the%20DEP's%20new%20Urban%20Parks%20initiative.&amp;text=Applicants%20are%20eligible%20for%20grants,additional%20funding%20may%20become%20available.</a>



Opportunity Name	BRS Brief Intro	Funder	Latest Deadline	Eligible Uses	Eligible Project Details	Funding Potential	More Info Link
Regional Trails Program	<p>The Federal Highway Administration's Recreational Trails Program (RTP) provides financial assistance to states for developing and maintaining trails and trail facilities. The RTP funds come from the Federal Highway Trust Fund, and represent a portion of the motor fuel excise tax collected from non-highway recreational fuel use. NJDEP's Green Acres Program administers the program in New Jersey. Projects are reviewed and recommended for funding by the New Jersey Trails Council and approved by the Federal Highway Administration. The Trails Council comprises interest groups for hiking, mountain biking, horseback riding, motorized trail use and canoeing/kayaking, as well as several general trail advocates and state government representatives.</p>	NJ DEP	11/13/2022	<p>Construction</p> <p>Restoration/Rehabili...</p>	<p>RTP is appropriate for smaller projects, or portions of projects, that do not require a substantial amount of funding. Permissible uses and projects include: maintenance and restoration of existing trails; development and rehabilitation of trailside and trailhead facilities and trail linkages for trails (e.g., parking, signage, shelters, sanitary facilities); purchase and lease of trail construction and maintenance equipment; construction of new trails in existing parks or in new right of way; for motorized use only, acquisition of easement and fee simple title to property for trails. This program will have new guidelines per federal review and changes in funding rules in 2023.</p>	<p>Grant / up to \$24,000 / Cost Share Required: 20%</p>	<p><a href="https://dep.nj.gov/green-acres/trails-program-grants/">https://dep.nj.gov/green-acres/trails-program-grants/</a></p>
NJ Tourism Cooperative Marketing Grant	<p>One of two grant programs offered by the Division of Travel and Tourism. Applicants must demonstrate the project makes a clear contribution to NJ Tourism and fulfillment of the Division of Travel and Tourism's priorities.</p>	NJ Department of State	6/7/2023	Marketing	<p>Applicants can submit project proposals in the following loosely structured categories:</p> <ul style="list-style-type: none"> <li>• Brochure Creation and Distribution (\$2000-\$5000)</li> <li>• Advertising/Marketing a tourism event (up to \$15,000)</li> <li>• General Marketing Plan developed to attract tourists (up to \$25,000)</li> </ul> <p>CMG funds can be used in the following marketing examples: Advertising and production costs, cost of ads and placement of ads for television, radio, print, billboards and internet; the cost for hiring a marketing or public relations firm; production &amp; distribution of brochures, rack cards or direct mail; New, major marketing initiatives for the creation of a new website or improvement to an existing website.</p>	<p>Grant / Average grant is \$125,000 / Cost Share Required: 25% match from non-state funding sources is required</p>	<p><a href="https://visitnj.org/grant-opportunities">https://visitnj.org/grant-opportunities</a></p>

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NJ Tourism Destination Marketing Organization Grant	One of two grant programs offered by the NJ Division of Travel and Tourism. Applicants must demonstrate the project makes a clear contribution to NJ Tourism and fulfillment of the Division of Travel and Tourism's priorities. A Destination Marketing Organization (DMO) serves to promote and market tourism of a destination in NJ as their primary function.	NJ Department of State	6/7/2023	Marketing	The DMO works with hotels, restaurants, attractions and smaller tourism entities to offer the visitor a place to obtain information when planning a visit for business or pleasure. The DMO must work with area businesses to drive visitation when and where it is most appropriate. It must also be an advocate for the tourism industry.	Grant / Up to \$300,000 / Cost Share Required: 25% match from non-state funding sources is required	<a href="https://visitnj.org/grant-opportunities">https://visitnj.org/grant-opportunities</a>
Transit Village Program	This program awards grants for non-traditional transportation-related projects to New Jersey municipalities designated as Transit Villages. These are municipalities which have made a commitment to grow in the area surrounding a commuter rail, bus, ferry, or light rail transit facility. Growth in areas where infrastructure is already in place and where multi-modal transportation options are readily available helps to advance vital goals of the State of New Jersey such as reduced auto-dependency, cleaner air and water.	NJ DOT	7/1/2023	Construction	Projects must be located at least partially within a half-mile of a transit facility. Examples: bike and pedestrian paths, signage, traffic flow improvement, and traffic-calming measures. The Department is particularly interested in funding unique projects which reflect a fresh approach to promoting alternative modes of transportation.	Grant / \$50,000 - \$350,000 / Cost Share Required: None	<a href="http://www.state.nj.us/transportation/business/localaid/transitvillagef.htm">http://www.state.nj.us/transportation/business/localaid/transitvillagef.htm</a>

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Historic Property Survey Grant Program	The Historic Property Survey Grant Program is a pilot program that will provide grants for the preparation of Historic Property Surveys throughout the state that include within the defined scope, properties located within a Government Restricted Municipality or that would be considered distress asset/s.	NJ EDA	12/31/2023	Pre-development	Scope of work for survey must include the surveying of properties closely associated by a theme such as a historic event/time period, industry, architectural type/style, or group of individuals (race, ethnicity, LGBTQ+, etc.). Geographic boundary for investigation may be regional (municipal or county) or statewide. Unless all properties to be surveyed are located within a GRM, the applicant must demonstrate that at least 10% of properties expected to be surveyed fit the program's definition of distressed asset. Work must be completed by a professional or consultant meeting professional qualifications for either "Historian", or "Architectural Historian" outlined in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.	Grant / Up to \$125,000 / Cost Share Required: none - \$1000 non refundable application fee is required	<a href="https://www.njeda.gov/historic-property-survey-grant-program/#:~:text=The%20Historic%20Property,%20Survey%20Grant,that%20would%20be%20considered%20distress">https://www.njeda.gov/historic-property-survey-grant-program/#:~:text=The%20Historic%20Property,%20Survey%20Grant,that%20would%20be%20considered%20distress</a>
Brownfields Planning and Assessment Services	NJEDA is offering no cost Brownfields Planning and Assessment Services. This program is supported through grant funding provided by United States Environmental Protection Agency (USEPA) to NJEDA.	NJ EDA	12/31/2023	Environmental Planning Studies/investigations	Under the Brownfields Planning and Assessment Service program, NJEDA will make available professional environmental services such as Phase I Environmental Site Assessments, Preliminary Assessments, Site Investigations, Remedial Investigations. To a more limited extent, the professional environmental services may also include the preparation of brownfields inventories, community involvement support, planning and developing site reuse plans.	Technical Assistance / Services provided are Free / Cost Share Required: NA	<a href="https://www.njeda.gov/brownfields-planning-and-assessment-services/">https://www.njeda.gov/brownfields-planning-and-assessment-services/</a>

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Preserve NJ Capital Grant	<p>The Preserve New Jersey Historic Preservation Fund was established by legislation provides an annual source of matching grants from the state's corporate business tax for historic preservation projects. Since 1990, more than \$145 million in matching grants has been awarded to worthy historic preservation construction and planning projects throughout the state.</p>	NJ Historic Trust	4/19/2023	<ul style="list-style-type: none"> <li>Construction</li> <li>Design/engineering</li> <li>Restoration/Rehabili...</li> <li>Studies/investigations</li> </ul>	<p>Preservation, Rehabilitation, Restoration or Reconstruction of historic asset as defined by the Secretary of the Interior's Standards. For construction of a new free-standing or attached building or structure, of a pathway or walkway, or a substantial remodel of a space, applicants must demonstrate that the new construction is necessary and appropriate for the resource and explain how the project will enhance the visitor experience. Certain non-construction activities related directly to the development, implementation, and monitoring of historic preservation projects and post-construction interpretation of a historic resource. Up to 20% of the total amount of the project costs funded by the grant award may be used to fund such activities, which include: Architectural plans, designs, specifications, cost estimates, and other construction administration services, Feasibility studies and Historic structure reports.</p>	<p>Grant / Up to \$750,000 / Cost Share Required: Level 1 grant: 3 to 2 match; Level 2: 1 to 1 match</p>	<p><a href="https://www.nj.gov/dca/njht/programs/preserve-nj/capital/">https://www.nj.gov/dca/njht/programs/preserve-nj/capital/</a></p>
Preserve NJ Historic Site Management Grant	<p>These grants are offered to assist with the professional planning and analysis needed for the preservation and amangement of historic sites, including preservation plans, historic structures reports, engineering and architectural services, municipal planning projects, strategic and fundraising plansetc.</p>	NJ Historic Trust	4/19/2023	<ul style="list-style-type: none"> <li>Consultants</li> <li>Planning</li> <li>Pre-development</li> </ul>	<p>A wide range of projects that include: Historic Structure Report (HSR), Conditions Assessment; Architectural Plans, Designs, Specifications, or other Construction Documents; Cost Estimates; Archaeological Investigation/Report; Engineering Study; Landscape Report; Disaster Management Plan; Maintenance Plan; ADA Accessibility/NJ Barrier Free Subcode Compliance Planning; Fundraising plan for capital campaigns for the preservation, restoration or rehabilitation of a historic property.</p>	<p>Grant / \$5,000 to \$75,000 / Cost Share Required: Applicant must contribute \$1 per \$3 in grant money</p>	<p><a href="https://www.nj.gov/dca/njht/programs/preserve-nj/historic-site-management/">https://www.nj.gov/dca/njht/programs/preserve-nj/historic-site-management/</a></p>

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Preserve NJ Heritage Tourism Grant	New Jersey has a rich history that includes Native American archaeological sites, agricultural and industrial buildings, three centuries of residential buildings, schools and halls, parks and theaters, and much more. Many of these heritage sites are available to the public, including hundreds that are interpreted as historical destinations or contribute to the tourism economy. In 2012 the NJ Historic Trust launched a new endeavor to encourage the development of New Jersey's heritage tourism industry by providing access to tourism resources and funding for technical assistance.	NJ Historic Trust	4/19/2023	<p>Marketing</p> <p>Programs/Outreach</p>	Projects may include: Visitor-readiness assessments, Visitor evaluations and/or development of performance evaluation measures, Interpretive planning for one or multiple sites and/or to develop and enhance linkages between sites, Design and fabrication of interpretive signage or literature, Marketing plans and studies, Design and fabrication of marketing materials	Grant / \$5,000 to \$75,000 / Cost Share Required: 3 to 1 match; applicant must contribute \$1 per \$3 in grnt money	<a href="https://www.nj.gov/dca/njht/programs/preserve-nj/heritage-tourism/">https://www.nj.gov/dca/njht/programs/preserve-nj/heritage-tourism/</a>
Preserve NJ Municipal, County, and Regional Planning Grants	The New Jersey Historic Preservation Trust is a nonprofit historic preservation organization created to preserve and protect New Jersey's historic resources. A 15-member board of trustees governs the Trust. Twelve members are private citizens appointed by the Governor. Three members serve ex-officio, representing the State Treasurer, Department of Environmental Protection /State Historic Preservation Office and the Department of Community Affairs. The New Jersey Legislature gave the Trust broad powers to initiate and promote preservation programs and encourage joint preservation efforts by the public and private sectors. These powers include raising and disbursing funds; acquiring, holding, and disposing of personal property; accepting gifts, legacies, and endowments; and holding real property of historic, aesthetic, or cultural significance.	NJ Historic Trust	4/19/2023	<p>Planning</p>	For the 2023 grant round, the Trust has made the Municipal, County, and Regional Planning projects (MCRP) a separate grant type. Municipal, County, or Regional Planning Projects may include the preparation of design guidelines; the preparation or revision of local preservation ordinances; the preparation of historic preservation components of a municipal or county Master Plan; and the preparation of an architectural survey of historic buildings utilizing the NJ State Historic Preservation Office's approved guidelines and format.	Grant / \$5,000 to \$75,000 / Cost Share Required: 25% of total project cost	<a href="https://www.nj.gov/dca/njht/programs/preserve-nj/regional-planning-grants/index.shtml">https://www.nj.gov/dca/njht/programs/preserve-nj/regional-planning-grants/index.shtml</a>

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NJHC Project Grant	The NJHC offers General Operating Support Grants, Project Grants, and County History Partnership Grants to support a variety of programs and activities related to New Jersey history.	NJ Historical Commission	3/10/2023	Programs/Outreach	Eligible categories include conservation of historical materials (manuscripts, books, costumes, historical visuals); editorial and publication projects; educational initiatives; partnership projects; exhibitions; media (films, radio, videotape, digital media); public programs; capacity building, and research (including archaeological projects, fellowships, oral history, and National and New Jersey registers of historic places nominations).	Grant / up to \$25,000 / Cost Share Required: 50% if applicant has budget over \$500,000	<a href="https://nj.gov/state/historical/his-grants.shtml">https://nj.gov/state/historical/his-grants.shtml</a>