

Request for proposals:

# COASTAL FACILITIES FEASIBILITY STUDY

Technical (Non-Price Proposal)

Town of Wareham, MA

August 31, 2023



ATTN: Mr. Derek Sullivan  
Town Administrator  
Memorial Town Hall  
54 Marion Road  
Wareham, MA 02571







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Town Administrator  
Memorial Town Hall  
54 Marion Road  
Wareham, MA 02571

Re: Request for Proposals (RFP) - Part A  
Technical (Non-Price) Proposal - Coastal Feasibility Study  
Merchant's Way

Dear Mr. Sullivan:

The Horsley Witten Group, Inc (HW) is pleased to provide the following proposal to the Town of Wareham to complete a Feasibility Study for coastal recreation facilities along the Merchant's Way waterfront in downtown Wareham. HW is a mission driven, engineering, design, and environmental consulting firm based in Sandwich, Mass., with offices in Boston, MA, Providence, RI, Exeter, NH, and St. Croix, U.S. Virgin Islands. This project will be led out of our Sandwich, MA office located at 90 Route 6A.

HW is a recognized leader in environmental protection, restoration and conservation, public space design, green stormwater infrastructure, community planning, and meaningful community engagement. Each of these disciplines is represented at the highest professional level in the team assigned to this project and our skills will be applied in an integrated and collaborative fashion. HW is teaming with Geosyntec Consultants, Inc. (Geosyntec) and Innes Associates, Inc. (Innes). HW will serve as the lead consultant, responsible for all aspects of the project, with Geosyntec providing additional support for the conceptual coastal and waterfront design, feasibility assessment and expertise on design options for the fishing pier. Innes will provide design suggestions and community engagement support to ensure Urban Renewal is part of the design decision making process. HW's mission driven approach to creating environmentally sensitive, vibrant public spaces and our success in consensus building, coupled with Geosyntec's experience with marina and waterfront design, and coastal engineering, and Innes' experience with the Town's on-going urban renewal plan will result in site specific, customized approach to the project..

As a team, we have an excellent collaborative working relationship and have found that our experience, perspective, and skillsets complement each other well. HW and Geosyntec are currently partnered on the Miacomet Pond Dredging Project in Nantucket, Massachusetts. This is a major project for the Town of Nantucket that begins with feasibility assessment and conceptual design, moves through permitting, and will culminate with final design and construction bid package. When



implemented, this project will be, to the best of our knowledge, the first large-scale dredging project undertaken for the express purpose of water quality improvement for a Great Pond in Massachusetts.

Our team of professionals understands that the design of public amenities takes place in the context of neighborhoods that often reach back across generations and should serve many generations to come. We are committed to designing waterfront public spaces that protect our most valuable cultural and natural resources while addressing the needs of residents through quality community engagement. Together, we can provide a suite of expertise encompassing all potential disciplines involved with this project.

Thank you for the opportunity to submit a proposal for this exciting project and please do not hesitate to reach out with any questions about our proposal at [\(508\) 833-6600](tel:5088336600) or [bkuchar@horsleywitten.com](mailto:bkuchar@horsleywitten.com). We look forward to hearing from you.

Sincerely,

HORSLEY WITTEN GROUP, INC.

A handwritten signature in black ink, reading "B. Kuchar". The signature is fluid and cursive, with a large, stylized initial "B" followed by the name "Kuchar".

Brian Kuchar, RLA, P.E.  
Associate Principal



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## ATTACHMENTS

A	Insurance
B	Forms
C	Project Descriptions
D	Resumes
E	Service Sheets



# FIRM PROFILES

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## Horsley Witten Group Inc.

**(HW)** will serve as the prime consultant for this project. HW is a mission driven, engineering, design, and environmental consulting firm based in Sandwich, Massachusetts, with offices in Boston, MA, Providence,

RI, Exeter, NH, and St. Croix, U.S. Virgin Islands. Incorporated in 1988, our clients benefit from our 35+ years of successful projects and strong partnerships. Our mission is to address environmental and social challenges with sustainable solutions.

With 70+ experienced staff, we manage complex projects in New England and across the globe. Our successes and project accolades are attributed to innovation, responsiveness, and client satisfaction. While our projects have received many awards, we are most proud of our over 80% client return rate. We attribute our continued success to our team of skilled creative professionals who are dedicated to protecting and restoring our natural resources. As a growing firm, we maintain a commitment to our values which include giving back to our communities, volunteerism, and support for nonprofit organizations. We are dedicated to working on critical societal issues by supporting diversity, equity, and inclusion in our work and with our partners.

HW design professionals believe in a nature-based solutions approach in solving environmental and climate-related challenges. Our projects frequently combine civil engineering, urban planning and design, climate resiliency, and landscape architecture. We develop solutions that result in functional and vibrant places in balance with nature.

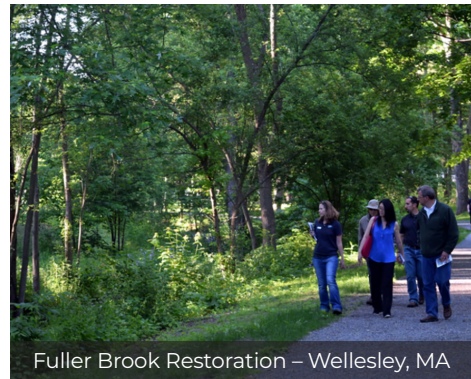
We aim to build trust with our clients, partners, and community through our passion, determination, and high-quality standards. We envision a world where people and nature thrive together.



Ten Mile River Riverwalk – Attleboro, MA



Veterans Memorial Park – Peabody, MA



Fuller Brook Restoration – Wellesley, MA



Mill River Park & Riverwalk – Taunton, MA



HW is partnering with Geosyntec Consultants, Inc. (Geosyntec) to provide support for the coastal and waterfront design and assessment, in particular as it relates to the fishing pier. Geosyntec will also provide valuable experience and insight based on their past experience related to the development of a Coastal Facilities Feasibility studies.

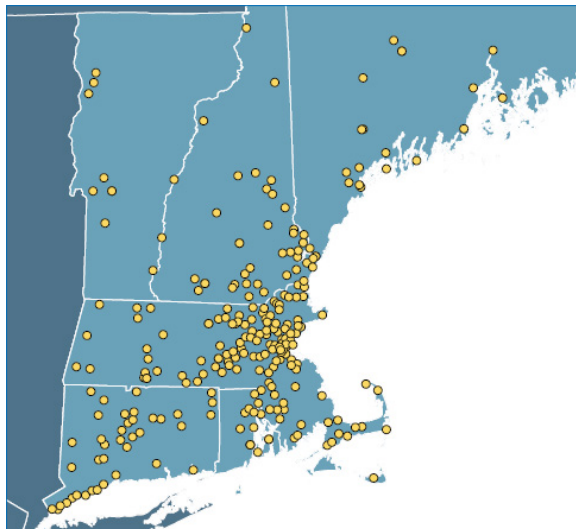


**Geosyntec Consultants, Inc. (Geosyntec)** is a consulting and engineering firm that works with private and public sector clients to address complex problems involving the environment, natural resources, and civil infrastructure. Geosyntec has a staff of more than 2,000 engineers, scientists, and related technical and project support staff located in more than 100 offices throughout the U.S. and internationally. In New England, we have over 70 employees working in three office locations, as well as another 20 practitioners working from home offices.

### Geosyntec at a Glance



### Geosyntec NE Project Experience



Geosyntec is an internationally recognized industry leader in the fields of waterfront consulting and marine and coastal engineering. We have provided services on more than 1,900 waterfront projects (more than 200 for municipal clients) throughout the U.S. and internationally, involving a spectrum of planning, feasibility, engineering, design, permitting, and environmental investigations. Our team's 38 years of working in and around the marine environment provides our team with valuable insight and experience throughout project planning, design, and construction.

Geosyntec also has significant experience working for public and private entities in Massachusetts and New England, including hundreds of contracts to provide services including permitting, regulatory support, risk assessments, coastal engineering, remediation and design, water resources and stormwater management, construction administration, litigation support, compliance, and Geographic Information Systems (GIS) database development.



Innes Associates, Inc. (Innes) will work with HW and Geosyntec to provide design support as it relates to urban renewal and connectivity to downtown. Innes is currently working with the Town on the Downtown Urban Renewal Plan.



## Assisting communities throughout New England.

Emily Keys Innes, AICP, LEED AP ND, founded Innes Associates in 2020 to continue her urban planning and design practices. Less than three years after opening, Innes Associates is entering our next phase with a new office and expanded staff to address our clients' needs.

Our office is in Newburyport, Massachusetts, a city of just over 18,000 people. We have easy access to the wide range of towns and cities we work with: our smallest client has a population around 1,500; our largest clients have populations of over 100,000. Our goal is to provide excellent service to **all** our clients by helping them address community-specific needs.

Municipalities have many challenges, using limited resources and capacity to address community needs, concerns and desires.

We work with communities of all sizes, assisting with planning at all scales: from lots to neighborhoods to entire towns or cities. Our goal is to **help people communicate** about meaningful change in their communities.

We develop our own tools and methodologies and, as needed, work with colleagues at other firms with complementary expertise to provide a complete skill set to address our clients' needs.

We define project success by how well we assist our clients and their communities.

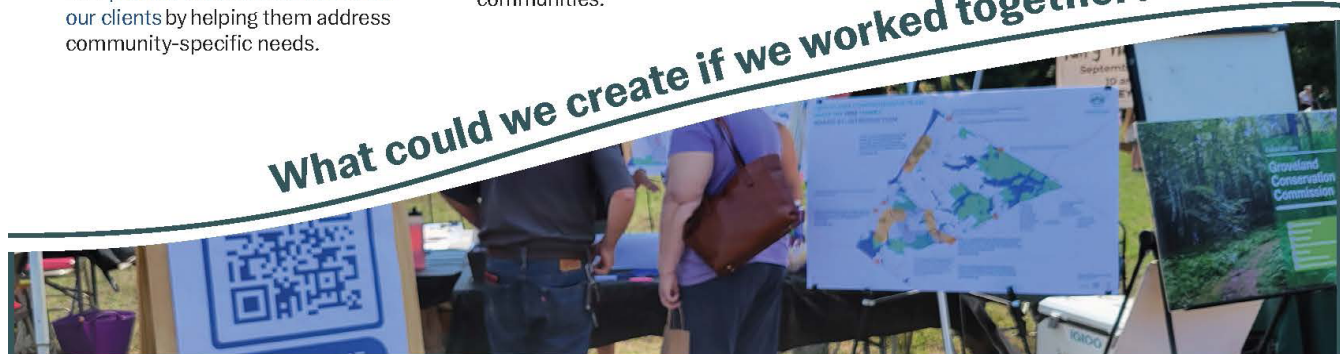
### Areas of Practice

- ▶ Zoning and Design Guidelines MBTA Communities Act
- ▶ Strategic Plans
- ▶ Comprehensive Plans
- ▶ Public/Private Partnerships
- ▶ Special Municipal Services

### For more information, please contact:

Emily Keys Innes, AICP, LEED AP ND  
 President  
 Innes Associates Ltd.  
 emily@innesassocltd.com  
 (857) 226-3815

## What could we create if we worked together?



Innes Associates is certified as a Woman-Owned Business Enterprise (WBE) with the Massachusetts Supplier Diversity Office.

# EVALUATION CRITERIA STATEMENTS

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## MINIMUM EVALUATION CRITERIA

1. *The prospective Consultant (or team) shall have demonstrated experience in completing prior “coastal facility feasibility studies.” In lieu of such direct experience, the proposer may present completed experience of comparable types of work; e.g., urban renewal plans in coastal communities, detailed coastal facility studies. If the proposer does not have direct experience, it must demonstrate that it has related design experience and a thorough knowledge of the requirements needed for environmental approvals.*

Our dedicated staff of highly skilled professionals manages complex projects in New England and beyond. HW has successfully completed numerous coastal/waterfront projects along the east coast from feasibility to conceptual design through permitting and construction. In particular, we have a strong track record of building consensus with project stakeholders, the community and permitting agencies through an interactive public outreach process and good communication. We excel as a liaison between decision makers and the public, translating technical subjects into understandable concepts.

Geosyntec has provided services on more than 1,900 waterfront projects (more than 200 for municipal clients) throughout the U.S. and internationally, involving a spectrum of planning, feasibility, engineering, design, permitting, and environmental investigations. We have been involved in the construction phases of waterfront projects valued at more than \$400 million.

Relevant projects work and a summary of our collective experience is provided in **Section 4** and **Attachment D** of the proposal to demonstrate our coastal facility design experience in both Massachusetts and beyond.

2. *Proposals must be complete, accurate and responsive to the RFPQ’s requirements.*

We have read, understand and will comply with the requirements and conditions contained in the RFP. Our submitted proposal satisfies all of the requirements and addresses the Town’s response to questions issued via email on 8/17/23.

3. *Evidence of insurance coverage must be satisfactory, including general and professional liability and worker’s compensation insurance.*

Evidence of insurance including general and professional liability and workers compensation is provided in **Attachment A**.



## COMPARATIVE EVALUATIVE CRITERIA

1. *The prospective Consultant (or team) shall have demonstrated experience in completing prior “coastal facility feasibility studies” that have resulted in installation of these facilities. In lieu of such direct experience, the proposer may present completed experience of comparable types of work (e.g., detailed design studies). If the proposer does not have direct design experience, it must demonstrate that it has a thorough knowledge of the requirements needed for approval of coastal facilities.*

We have included relevant projects examples in **Section 4** and **Attachment D** of the proposal to demonstrate our coastal facility design experience in both Massachusetts and beyond.

2. *The proposal for services and proposed scope of work establishes the professional qualifications, experience, and capacity to successfully complete the project in a timely manner.*

We have provided a detailed project understanding, approach and scope of work along with our team’s professional experience, high qualified staff, and schedule in **Sections 3, 4, 5 and 6** of the proposal to demonstrate our understanding of the demands and requirements of the project.

An organizational chart (**Section 5**) resumes (**Attachment C**) and a detailed project budget and staff hourly breakdown (**Price Proposal**) have also been provided to clearly identify team roles and demonstrate our team’s capacity to undertake the project.

3. *Quality of Work Products*

Relevant project experience and samples of comparable project work are provided in **Section 3** of the proposal to demonstrate content, presentation capabilities, and effectiveness in communicating the content for which they were developed.

4. *References*

Three references for relevant projects have been provided for both HW and Geosyntec in **Section 7**.



# SCOPE OF WORK

## UNDERSTANDING

Based on our site visit, review of the previous plans and studies for the downtown area (Wareham Economic Development Strategy Plan March 2019, Resilient Main Street Study February 2023) and the current Wareham Village Urban Renewal Plan which has been in the works since November 2021, our team recognizes the unique, yet challenging, opportunity this project provides for the Wareham community. It is our understanding the project encompasses the Merchant's Way corridor, train tracks and adjacent shoreline. The area is bounded by the public parking lot located next to the fire station forming the eastern boundary and the connection to Sandwich Road (route 6) forming the western bound and the corridor in between (Figure 1).

In 2019 the WRA completed an Economic Development Strategy, using the work of FXM Associates. In that Strategy the WRA set goals for four areas of town. Restoration of the Downtown was one of those areas. An Urban Renewal Plan is being drafted to act on this element of the Strategy.

The objective of this project is to assess and develop conceptual designs for proposed allowable coastal attractions that will encourage visitors to explore the waterfront and attract private capital for reinvestment along the Merchant Way corridor as part of the overall revitalization of the downtown. To that end, the Massachusetts Department of Transportation (MassDOT) has also approached the Town and offered to install a grade-level pedestrian crossing at the existing RR tracks along the corridor. The Town also desires to incorporate the future grade-level pedestrian crossing of the state owned (MassDOT) RR tracks to provide safe access the waterfront. The current coastal attractions to be considered include a public access fishing pier, kayak launch and coastal pathway. The long-term vision for the pathway is to eventually extend it from the Tremont Nail Factory property to Besse Park. However, the scope of this project will include only a portion of the walkway along the Merchant Way corridor.



Figure 1 - Project Area (Merchant Way Corridor)



The Merchant Way corridor and shoreline is located along the Wareham River and any proposed work along the shoreline or within the waterway will be subject to local, state and federal permitting jurisdiction and review. Both the MassDOT Railroad Division and the Division of Fisheries and Wildlife (MassWildlife) are partners in this study. Both entities could supply funds to assist in access and development of facilities. Therefore, we believe coordination and consensus building, between the permitting agencies, partners, town staff and the public will ultimately determine the successful permitting, community acceptance and implementation of any proposed designs for the waterfront area.

The area provides local residents a unique opportunity to experience and interact with the tidal waterfront within the larger surrounding urban environment. The proximity to the downtown and available parking also provides visitors with easy access into the downtown area. Upon arrival, we noticed the area lacks a sense of "place." We observed several issues including large expanse of pavement along Merchant's Way and excessive speeds for vehicle cutting through. The roadway also has limited stormwater treatment prior to discharging into the river. Numerous opportunities for small stormwater treatment interventions were observed along the road corridor. We also noticed some underutilized "alley way" connections to Main Street that could be redesigned and highlighted to improve connectivity. Although not explicitly mentioned in the RFP, we believe re-imagining the Merchant Way corridor will be a key element of the design process and a "road diet" with stormwater improvements may be an option to consider.

Walking along the shoreline we were struck by the number of people fishing and boating. We observed numerous worn paths through the existing vegetation leading to the shoreline. People are obviously already using the site, but accessing the water in an un-organized and potentially dangerous and detrimental manner. We also noticed some shoreline and upland erosion, worn footpaths, degraded shoreline access, compacted soil, debris, and invasive species. Reorganizing the site circulation and access to the shoreline will significantly improve the visitors' experience, provide safe access across the tracks and to the shoreline and improve the overall ecological health of the shore line.

Additionally, the Town has been planning for potential future flood risks through an EPA Building Blocks Technical Assistance Grant in 2017 to identify next steps for coastal flooding resilience. According to this study, there are estimated 3,700

A regional solution for this area of Town could consist of an expanded waterfront park on the riverside of the businesses along Main Street. With the incorporation of higher elevation land and flood protection features (e.g., earthen berms), the expanded waterfront would not only provide important recreational and aesthetic value to the area with a Riverwalk feature, but would also help to protect the adjacent roads and businesses. This expanded waterfront park may require the expansion of the current landform (i.e., filling portions of the river) and/or eliminating some of the parking along the back side of the buildings. Any filling of the river could incorporate salt marsh restoration and the installation of living shoreline designs to help improve the habitat value of the project.

**Wareham Climate Change Flood  
Vulnerability Assessment and  
Adaptation Planning**

properties in town with the primary structure located in coastal flood hazard areas. Town staff and residents also participated in a Municipal Vulnerability Preparedness (MVP) Community Resilience Building (CRB) Workshop in June of 2018, which raised community awareness. The CRB report also further raised concerns about the effects coastal flooding will have on roads and coastal neighborhoods, and the ability of residents to evacuate or receive emergency services. In 2020, the Town completed Wareham's Climate Change Flood Vulnerability Assessment and Adaptation Planning Study which focused on identifying areas that are vulnerable to anticipated sea level rise conditions in coming decades. As part of that study, the Main Street Business District was identified as a priority area. In particular, an expanded waterfront park was identified as a possible strategy to protect the adjacent roads and businesses.

Lastly, as previously mentioned, the Town is currently in the process of finalizing an Urban Redevelopment Plan, which included an extensive community engagement process to determine the community's vision for Merchant's Way and Main Street.

## APPROACH

The Town has clear momentum for the downtown revitalization as evidenced by recent planning work as well as municipal partnership commitments. Therefore, our first responsibility will be to build upon that momentum – synthesizing the data generated and progress to date into our assessment and developing a clear Conceptual Plan that meets the Town's recreational needs, downtown revitalization goals and adaptation strategies. Our approach will be an iterative process with the understanding that we must first review the prior work; listen to the community, project partners and permitting agencies; and test any proposed alternatives before moving into detailed conceptual design. Our approach highlights our



*Expanse of Pavement along Merchant's Way*



*Untreated Stormwater Runoff*



*Worn shoreline paths and informal water access*



*Invasives Species - Knotweed*



understanding of the five key elements of this project:

- Community
- Collaboration
- Connectivity
- Nature-based solutions
- Resiliency

### Community

A commitment to listening to public input and building strong relationships with local, stakeholders, permitting agencies, and municipal staff allows HW to effectively communicate directly to the community and engage the public, ensuring that all voices can be heard. These partnerships are particularly important when working within more densely developed neighborhoods, with limited access to the natural environment and resource areas, due to the past development patterns and the historical industrial use of our waterways.

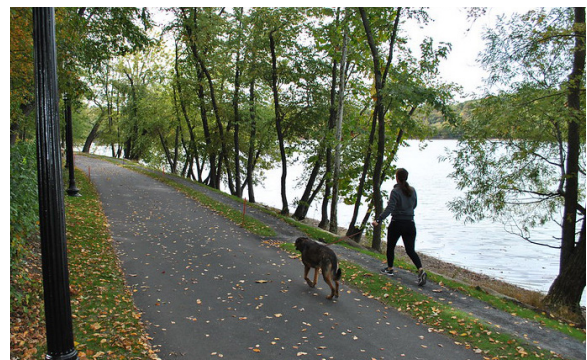


*Community Bioretention Planting*

HW understands this project will offer residents and downtown visitor's a unique open space that will provide greater access to water, improve connections to the downtown, create a special space for the surrounding community, and help to reduce the flood vulnerability to the adjacent roads and businesses. These connections are important to provide meaningful interactions between the community and nature and promote diverse spaces for relaxation, recreation and awareness.

### Connectivity

Our team will apply our design experience to create a multi-functional space with co-benefits that create both natural and human connections. For a project like this, the visitor's experience will be determined by the quality, character, and design intent of the pedestrian connections and interaction with nature. We will also explore opportunities to improve connectivity with the immediate surrounding downtown area.



*Waterfront Path*

HW will work with the Town to develop a circulation plan that takes into consideration the site's natural features and viewsheds, water access (fishing and kayaks) protection of the environment, ADA accessibility and resiliency. We will also explore the connections beyond the project area and take into consideration the Town's long-term vision of connecting the Tremont Nail Factory property to Besse Park.



*Community Input Meeting*

## Collaboration

We are partnering with Geosyntec to collaboratively develop the waterfront access and resiliency strategies for the project. Our combined team of experienced landscape architects, engineers, ecologists, water resources, waterfront, and coastal professionals will listen to understand your project's unique needs and concerns. Collectively, we believe listening, learning, and assessing before beginning any design are important steps to consensus building. We

will meet with Town staff, project partners, permitting agencies and the community throughout the design development process to gather information on current uses, circulation patterns, maintenance expectations, permitting requirements, community needs, and commercial and retail desires. Based on the information gathered and the site assessment, we will work with the Town and its partners to develop a design that is tailored to meet both the project specific goals and permitting requirements. Ultimately, striking the right balance between the stated program and design goals, project objectives, passive recreational needs of park users, and the restoration and preservation of the natural resources on-site will be critical to the successful design, permitting and eventual implementation of any proposed improvements.

## Nature-based Design Solutions

"Nature-based" design refers to a variety of tools that rely on natural systems to achieve positive environmental outcomes. While they may be associated with a single outcome, such as using a bioswale for stormwater treatment, they can also offer numerous co-benefits, including restored or improved habitat, carbon sequestration, aesthetics, natural play spaces, and improved opportunities for people to connect with nature in urban areas. Our approach to low-impact Design includes 3 areas of focus: Restoration, Green Stormwater Infrastructure, and Sustainability.



*Bioretention GSI alongside path by Fuller Brook in Wellesley, MA*

## Restoration

A respect for healthy ecosystems is at the foundation of everything our company tries to achieve. We seek out work that protects and/or restores natural systems. Restoring and improving open spaces along riverways is vital for healthy riverine and coastal ecosystems, as well as larger migratory flyways. The design should balance passive



uses, natural resource protection, and invasive species management to ensure long-term sustainability and ecosystem health. Ecological restoration enhances wildlife habitat, thermal buffering, aesthetics, and air quality. Moreover, a restorative design promotes social well-being by providing recreational spaces and connecting people to water and nature in urban areas.

### **Green Stormwater Infrastructure (GSI)**

Good GSI design emphasizes simple nature-based solutions, restoring the natural water cycle while benefiting the community through preserved landscapes, urban wildlife habitats, beautified open spaces, and educational opportunities. HW will collaborate with the project team to review previous recommendations and explore the most appropriate GSI solutions for reducing, capturing and treating stormwater runoff from proposed pathways, existing roadway and parking, and landscaped surfaces. Our GSI approach is based on four fundamental principles:



*Restored shoreline buffer and pocket wetland at Polo Lake in Roger Williams Park, Providence, RI*

1. Reduce or minimize the use of impervious cover (paved surfaces).
2. Embrace stormwater as a valuable resource rather than a nuisance byproduct.
3. Identify multi-functional, nature-based, cost-effective opportunities to mimic and restore natural processes.
4. Provide educational opportunities to learn about nature in the urban environment.

By following these basic principles, GSI practices can provide multiple benefits and become significant design elements within the landscape. The most recent performance data indicate that GSI practices have a better chance for long-term success if they are visible, simple, easily understood, and most importantly, thoughtfully integrated into our designed landscapes.

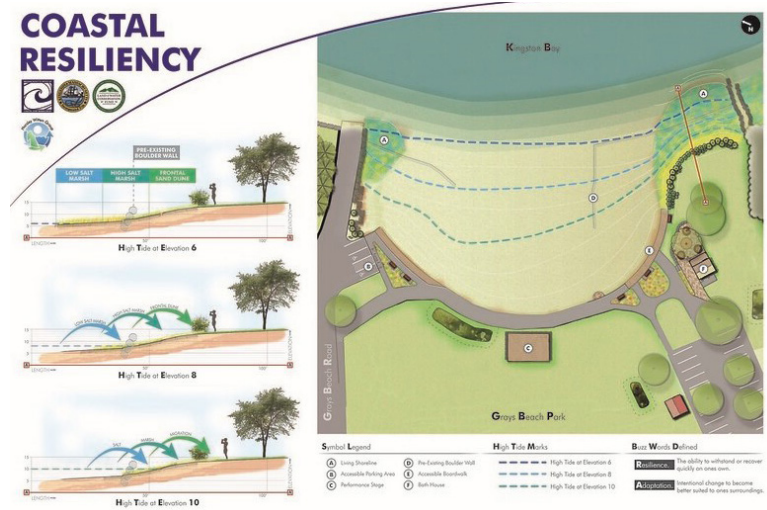
### **Sustainability**

As part of the conceptual design process, we will prioritize sustainable material selection and materials re-use, including pervious or porous surfaces to minimize runoff and encourage on-site infiltration. Collaborating with the Town, we will also discuss maintenance responsibilities and involve the identified department(s) responsible for proposed park maintenance in Design Review Meetings to ensure realistic goals are set and the the design is truly sustainable.

## Resiliency

Sea level rise and increasing storm frequency and intensity have the potential to impact stormwater infrastructure as coastal areas become increasingly vulnerable to flooding, along with higher energy currents and waves. We approach all our work with an eye toward the future and our changing climate. Considering climate change and increasing storm impacts, new park designs should embrace

nature-based systems to better manage stormwater runoff and, when possible, provide buffers and protection to both the site and the surrounding communities. We will review the past studies and incorporate the available data into our design process. We will work with the Town staff, permitting agencies and the community to vet the previous design alternatives as described in the “Climate Change Flood Vulnerability Assessment” and the Resilient Main Street videos and memos.



Greys Beach Ocean Front Concept

## SCOPE OF WORK

In response to the RFP’s proposed scope of work, HW has identified the following five main tasks, each with subtasks:

- Task 1: Analysis of Existing Conditions
- Task 2: Public Outreach
- Task 3: Draft Conceptual Plan of Coastal Access Facilities
- Task 4: Analysis of Feasibility
- Task 4: Final Conceptual Plan

During each task, HW will work closely with Town staff, identified project partners, related committees, permitting agencies and the public to develop up to three preliminary design options to be reviewed by the project partners, reviewing agencies and community. Based upon the feedback and input received, HW will develop a final recommended conceptual design plan.

## Community Meetings

We believe that community outreach and consensus building is critical to a successful design and should occur throughout the process. We agree with the Town’s request for four town/project partners meetings and three public participation community meetings. Our team assumes that the public meetings will include participation from

both the public and municipal staff, committees, boards, and commissions members. We assume the meetings will be a combination of on-line and hybrid meetings to reach the largest audience and bolster community participation. HW will prepare and present an overview of the design process as well as findings and recommendations at the following key design benchmarks as described in the scope of work.



Community Input Meeting

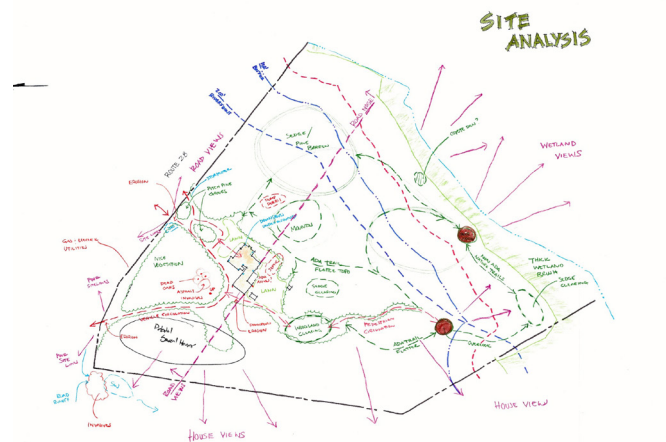
We estimate each meeting will last up to three hours and HW will provide summaries of the community feedback for all meetings conducted. We assume the Town will be responsible for notifying all stakeholders, business owners, the general public and other identified attendees as well as all meeting logistics, which may include invitations, email communication, facilities, and possible virtual meeting platforms.

### **Town and Project Partner Meetings**

As identified in the response to questions we have also budgeted for up to four Town/project partner review meetings with Town, MassDOT Railroad Division and Division of Fisheries and Wildlife, staff. Based upon our experience, we assume that individual meetings may be required for each of the three project partner (Town, MassDOT and MassWildlife) meetings. We assume the meetings with the Town will be a combination of virtual and in-person. All MassDOT and MassWildlife meetings are assumed to be virtual, with one onsite meeting as noted in the scope. We also assume one round of minor revisions will be required for the draft and final plans to address comments from the Town and project partners.

### **Task 1: Analysis of Existing Conditions**

Our team will work with the Town to collect and review all available project data needed for completion of the tasks, including GIS data, historical plans and/or reports, and other anecdotal information that may be relevant for subsequent design tasks.



Initial Site Analysis

#### **1.1 Kickoff Meeting and Project Coordination**

Staff from all three firms will attend an in-person kickoff meeting upon issuance of Notice to Proceed and prior to commencement of work. This meeting will provide an opportunity to discuss goals, expectations, opportunities and constraints, design charrettes, public meeting formats, schedule, maintenance, and budget. We assume all available information and data



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pertaining to the project area will be provided by the town prior to the kickoff meeting. Immediately following the meeting our team and Town staff will visit the site visit to review the existing conditions and the items discussed.

This task also includes bi-weekly progress check in meetings with the Town's designated project manager, coordination and communication (emails, phone calls) with the Town, and brief meeting summaries.

## **1.2 Information Gathering and Site Analysis**

Following the project kickoff, our team will start with a review of the previous planning, design survey plans and existing conditions documents provided by the Town. Early in the design process we will also perform a GIS based desktop analysis to identify site constraints and review past plans, reports studies or historic documents available.

Upon completion of the documentation review and desktop analysis, we will visit the site to perform a site analysis of the existing conditions to confirm path/desire line locations, viewsheds, site features, drainage, plant communities, access points, neighborhood connection corridors, circulation routes, shoreline condition, native and invasive plant species of concern, and design opportunities. We will also review past design alternatives and recommendations from previous studies. HW will use tablets and GIS-based applications, Survey 123 and ArcGIS Collector, which will allow HW to capture data, photos, and sketches taken at the site. This analysis will be used to guide the planning process to ensure that site amenities, uses, and constraints are identified and addressed from the beginning, and that the planning process is as streamlined as possible.

HW will provide a Site Analysis Plan and memo summarizing our review findings, on site observations, associated opportunities and site constraints.

## **1.3 Site Analysis Review/Partner Meetings (#1)**

Upon completion of the site analysis and prior to the first community meeting, our team will prepare for and attend an on site meeting to review the site analysis finding and discuss project goals, expectations, issues or concerns and opportunities prior. We assume that coordinating a large group meeting and have budget for up to three separate meetings with following project partners:

- Town Staff and Identified stakeholders
- MassDOT
- MassWildlife

### ***Task 1 Deliverables:***

- *Meeting Summaries*
- *Site Analysis Plan and memo*
- *Attendance of two HW and one Geosyntec staff at the Site Analysis Review Meeting(s) #1*



### Task 2 Deliverables:

- Presentation materials and visual ( See Tasks 1, 3 and 5 deliverables)
- PowerPoint presentations for all 3 meetings (PDF and electronic)
- Meeting Flyers (PDF)
- Attendance of HW staff and Geosyntec staff at all three Community Meetings
- Meeting Summaries

### Task 3: Draft Conceptual Design of Coastal Access Facilities

Based upon the findings of Task 1, Town and project partner input and comments from the first community meeting, draft concept plans will be created for public review and comment.

#### 3.1 Design Alternatives

HW, Geosyntec, and Innes staff will conduct an internal full-day team design charrette to develop two possible design options. Each design will be based upon a different concept related to a theme based on the site's identity, context, desired coastal facilities and resiliency. Our team will collaborate with the Town and project partners to explore different approaches to address the following elements:

- Parking
- Gateways
- Coastal pathways and connectivity
- Accessible waterfront trails
- Siting areas
- Interpretative Signage
- Wayfinding
- Streetscape (Merchant's Way)
- Water Access (kayak and fishing pier)
- Shoreline Restoration
- Habitat creation
- Flood protection and resiliency

The plans will be provided to the Town staff for review and comment prior to the public meeting. As part of the conceptual design process our team will also re-visit the site to vet the design options with Town staff prior to Community Meeting #2. We will develop two color rendered concept plans and associated cross sections.

Please note: We have had success on other similar projects with conducting full day on-site design charrettes with our design team to encourage both Town staff and community participation

#### 3.2 Draft Conceptual Design Review/Partner Meetings (#2)

Following the development of the draft concepts, we will prepare for and attend



Ironhill Park Concept Plan



individual meetings to review the designs prior to the second public meeting with the following project partners:

- Town Staff and Identified stakeholders (in-person)
- MassDOT (virtual)
- MassWildlife (virtual)

### Task 3 Deliverables:

- Two color rendered concept plans, design narrative and OPCC
- Up to four cross section graphics
- Attendance of HW staff and Geosyntec staff at Draft Conceptual Design Review/Partner Meetings (#3)
- Meeting Summaries

## Task 4: Analysis of Feasibility

Following the review of the draft concept by the Town and project partners, HW, Geosyntec, and Innes staff will complete an initial feasibility analysis for up to two concepts if necessary. This will include internal review by our team of professionals and local permit review boards and state and federal agencies, with recommendations for alterations or modifications, and needs for additional information for the final concept plan.



### 4.1 Alternative Design Analysis

In conjunction with the development of the conceptual designs, our team will collaborate to develop a Basis of Design (BDR) Summary outlining the design criteria (design intent, specific site conditions, extent of the design, programmatic requirements, description of amenities, codes and standards for the design, permitting requirements) and a planning level OPCC for up to two concepts. The BDR will also incorporate the permitting requirements and outcomes of the review meetings as identified under Task 2.2.

### 2.2 Community Meeting #2 – Draft Concept Design

HW's Senior Ecologist/Permitting Coordinator will conduct a thorough permit review to identify the relative permitting requirements and challenges to ensure general compliance. HW will review applicable regulations and, as necessary, provide support for pre-permitting coordination and meetings with the following Town staff and agencies as required:

- Conservation Agent and Commission
- MassDEP
- U.S. Army Corps of Engineers

For budgeting purposes, HW assumes the meetings with the Conservation Agent will be held on site and will last up to four hours (including travel time). One hour virtual meetings are anticipated with the other agencies. Following the meetings, HW will develop a memorandum summarizing future permitting requirements, procedures and timelines, including estimated permitting durations.



*Public Meeting*

If it is determined that HW representation is needed for any additional permitting/and or coordination meetings, attendance by HW personnel will be billed at HW standard hourly rates with prior written client approval.

#### **4.3 Analysis of Feasibility Review/Partner Meetings (#3)**

Upon completion of the analysis and permitting review and prior to the second public meeting, we will prepare for and attend individual meetings to review the analysis and any required changes to the conceptual plans prior to the with the following project partners:

- Town Staff and Identified stakeholders (in-person)
- MassDOT (virtual)
- MassWildlife (virtual)

#### **Task 4 Deliverables:**

- *Permitting Review Memo*
- *Basis of Design Summary (PDF) including the Design Narrative, Permitting Review, and OPCC*
- *Attendance of two HW staff at Community Meeting #3 (written meeting summary not required)*

### **Task 5: Final Recommended Conceptual Design**

Based upon the public meeting comments and input from the Town, we will develop a Final Recommended Conceptual Plan. It is our understanding that the final recommended Concept Plan is not intended to be permit ready but will be advanced as far as possible and will be prepared to start the next phase of design and permitting.

#### **5.1 Final Concept Plan**

HW will work with Geosyntec and Innes to refine the concept plan to create a final preferred design and colored illustrative design plan that identifies the proposed design elements. We assume the final design will incorporate the design elements identified during the draft concept development and may be a combination of the two concepts. improved access, allow visitors to better experience the river, provide shoreline ecological restoration, safety, and improved vistas. The design will strive



to improve overall pedestrian circulation and access, improve accessibility to the water, and celebrate the river. We will make recommendations for clear wayfinding signage and connections to strengthen pedestrian connectivity to the surrounding neighborhoods. It is our understanding that the plan will be developed to a concept level and will include a rendering, cross sections, and general layout and grading plans (25% CAD).

## 5.2 Final Basis of Design Report

We will update the Basis of Design Summary and develop a final opinion of construction costs (OPCC) based upon the preferred plan. We will also provide recommendations and a proposed schedule for the next steps to guide the project through further design development, permitting and construction.

## 5.3 Analysis of Feasibility Review/Partner Meetings (#3)

Upon completion of the final plan and report and prior to the third public meeting, we will prepare for and attend individual meetings to review the analysis and any required changes to the conceptual plan prior to the with the following project partners:

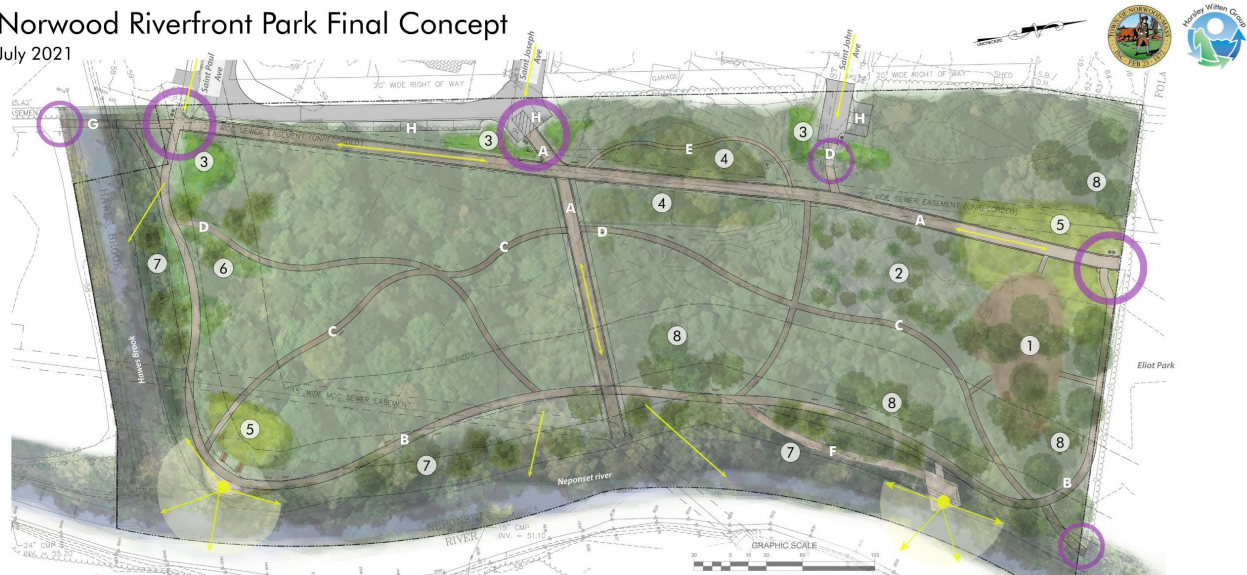
- Town Staff and Identified stakeholders (in-person)
- MassDOT (virtual)
- MassWildlife (virtual)

### Task 5 Deliverables:

- Final Illustrative Concept Design Plan and cross sections
- Final Basis of Design Report including the Design Narrative, Permitting Review, Recommended Next Steps and OPCC
- Attendance of two HW staff at Community Meeting #3 (written meeting summary not required)
- Attendance Final Edits and attendance of one HW staff at Community Meeting #4

## Norwood Riverfront Park Final Concept

July 2021



Final Concept Plan - Cooper Park, Norwood, MA

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## Elements and Assumptions

The above scope of work and budget were developed using the following series of assumptions:

### Exclusions

1. This proposal does not include the following:
  - a. Site Survey
  - b. Wetland Delineation
  - c. Permitting
  - d. Fees for any of the required permits, unless noted otherwise
  - e. Site soil evaluations
  - f. Structural design
  - g. Geotechnical studies and/or reports
  - h. Traffic studies and/or reports

### Assumptions

2. The site is free from prior contamination and no historical and/or archaeological elements are present.
3. The plans will be produced on 24x36 size sheets or less.
4. Reimbursable expenses as noted (copies, printing, travel mileage, survey staking materials, etc.) are included in our fee estimate. Additional copies or other reimbursable can be provided at our standard rates.
5. Any meetings, additional work items, extension of the duration of work items, or additional materials not specifically outlined in this proposal will be billed at HW standard rates, with prior client approval
6. If any of the above assumptions prove to be false, or if work is required beyond the scope as proposed, HW will discuss those needs with you and develop any necessary contract amendments



# RELEVANT PROJECT EXPERIENCE

## RELEVANT EXPERIENCE

Below is a project matrix highlighting both of our firms' most relevant projects. We are also providing sample work products (graphics and presentation materials). Project descriptions are provided in Attachment C.

Horsley Witten Group

Geosyntec Consultants

PROJECT NAME	Relevant Services								
	Waterfront / Coastal Feasibility Study	Waterfront Pathways	Fishing Pier / Dock	Kayak / Canoe / Boat Launch	Shoreline Restoration	Public Outreach	Connectivity	Environmental Permitting	Climate Resiliency
Taunton River Trail Department of Conservation and Recreation Taunton, MA Status: 25% Design		•	•	•	•	•	•	•	
Ten Mile River Riverfront Park Riverwalk and Restoration Project City of Attleboro - Attleboro, <A Status: Completed 2018		•	•	•	•	•	•	•	
Blessing of the Bay Park (Subconsultant) City of Somerville Sommerville, A Status: Completed Master Plan	•	•		•	•	•	•	•	
Malden River Works (Subconsultant) City of Malden Malden, MA Status: 90% Design	•	•	•	•	•	•	•	•	•
Norwood Riverfront Park Town of Norweed Norwood, MA Status: Going Out to Bid		•	•		•	•	•	•	•
Cocheco Waterfront Design Town of Dover Dover, NH Status: On-going	•	•	•	•	•	•	•	•	•
Woonasquatucket River Greenway City of Providence Providence, RI Statue: Out to Bid & Awarded		•		•	•	•	•	•	•

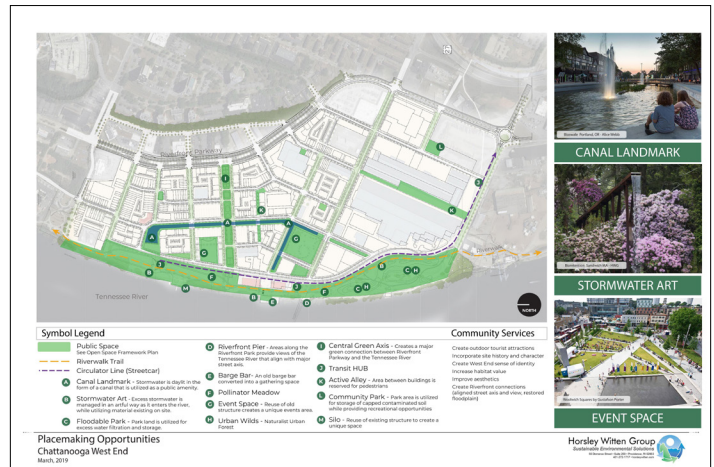
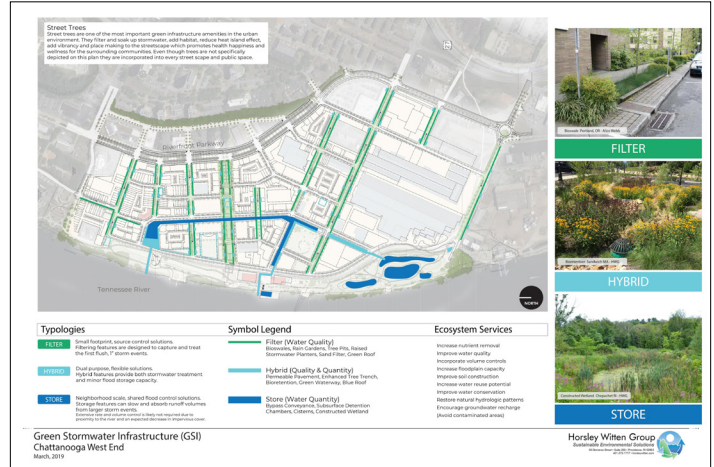
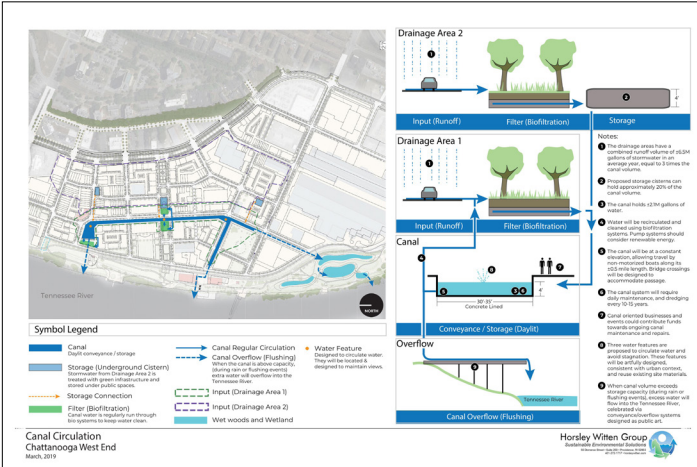
Horsley Witten Group

Geosyntec Consultants

**PROJECT NAME**

	Relevant Services								
	Waterfront / Coastal Feasibility Study	Waterfront Pathways	Fishing Pier / Dock	Kayak / Canoe / Boat Launch	Shoreline Restoration	Public Outreach	Connectivity	Environmental Permitting	Climate Resiliency
Downtown & Neighborhoods Vision Plan (Subconsultant) City of Panama City Panama City, FL Status: Complete 2021	•	•	•	•	•	•	•	•	•
Seekon River Initiative City of Providence Providence, RI Status: On-going	•	•		•	•	•	•	•	•
Oak Bluffs Downtown Streetscape Plan Town of Oak Bluffs Oak Bluffs, MA Status: Complete 2015	•	•	•			•	•		•
Charleston Plan Wet Ashley City of Charleston, SC Sharleston, SC Status: Complete and adopted 2019	•					•	•		•
Cape Cod Marina New England Development, LLC Cape Cod, MA Status: Completed 2008	•		•				•		
Parker's River Marina Feasibility Study Town of Yarmouth Yarmouth, MA Status: Completed 2013	•		•			•			
Municipal Marina Redevelopment City of Isle of Palms Isle of Palms, SC Staus: On-going	•		•	•		•	•	•	
Green Pond Landing Event Center Anderson County Anderson, SC Status: Completed 2022	•		•	•			•	•	•
Sprint Point arina Port Harbor Marine South Portland, MA Status: Completed 2021	•		•					•	•
Master Planning of the Cooper River Marina Charleston County Park and Recreation Commission North Charleston, SC Status: On-going	•	•	•		•	•	•	•	•
Continuing Engineering Services for Municipal Parks and WAtErfront Structures City of Jacksonville - Jacksonville, FL Status: On-going	•	•	•		•	•	•	•	•

# CHATTANOOGA WEST END





# CROOK POINT BRIDGE



**the bridge** **Crook Point Bascule Bridge Reuse**  
 Page 1 of 7  
 March 22, 2011

**Connectivity**  
 The bridge connects people to destinations within the city and to the waterfront. It provides a link between the city and the waterfront, and a connection to the waterfront.

**Art**  
 The bridge is a canvas for art, with opportunities for public art, murals, and sculptures. The bridge is a place where art can be displayed and enjoyed by the community.

**Environment**  
 The bridge is designed to be a green bridge, with opportunities for green roofs, rain gardens, and other green infrastructure. The bridge is a place where nature can be enjoyed and protected.

**Legend**

- Waterfront
- Public Art
- Green Infrastructure
- Public Space
- Community
- Waterfront
- Public Art
- Green Infrastructure
- Public Space
- Community

**the bridge** **Crook Point Bascule Bridge Reuse**  
 Page 1 of 7  
 March 22, 2011

**Team:**  
 Horley Witten Group  
 Lighting Consultants with  
 Horley Witten Group



**Icon**  
 The bridge is an icon for the city, a reminder of the strength and beauty of the waterfront. It is a place where people can enjoy the view and the water, and a place where they can connect with the community.

**Interaction**  
 A light display allows for the movement of people walking to the end of the pier and enjoying engagement and play. When not ready for movement of people, the light display indicates the bridge is closed to traffic such as swimming, events, bikes, horses, or others, as determined by the community.

**Community**  
 The bridge is a place where the community can gather and enjoy the waterfront. It is a place where people can connect with each other and with the waterfront.

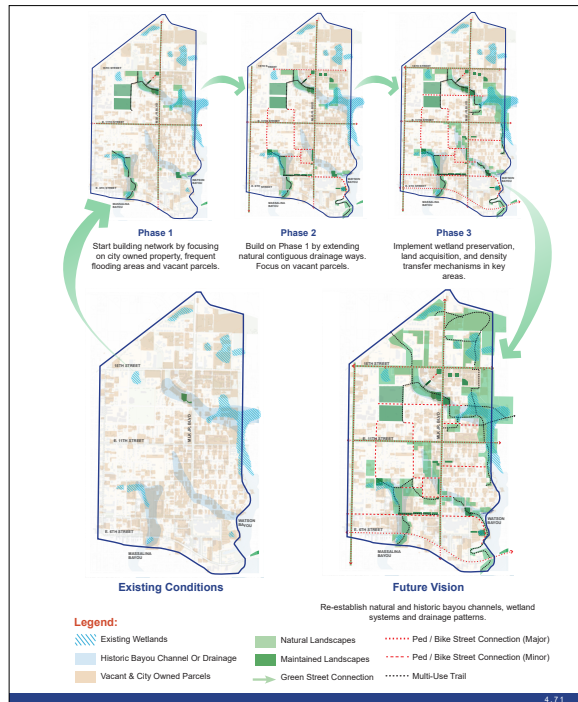
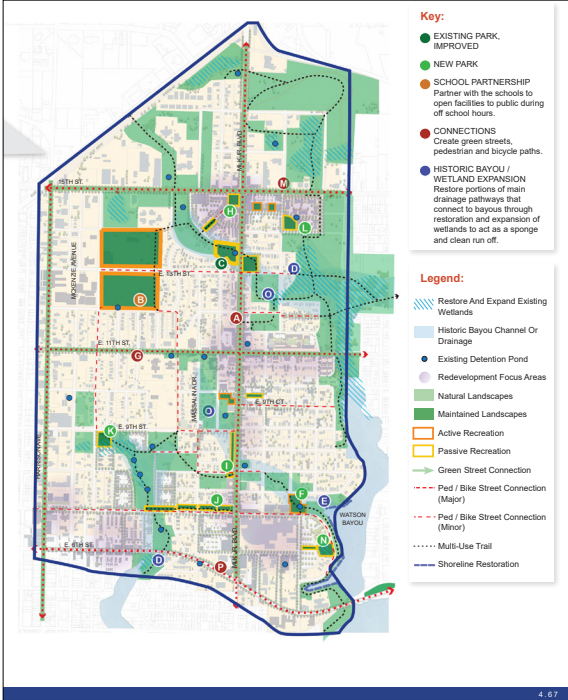
**the bridge** **Crook Point Bascule Bridge Reuse**  
 Page 1 of 7  
 March 22, 2011

**Team:**  
 Horley Witten Group  
 Lighting Consultants with  
 Horley Witten Group





# PANAMA CITY



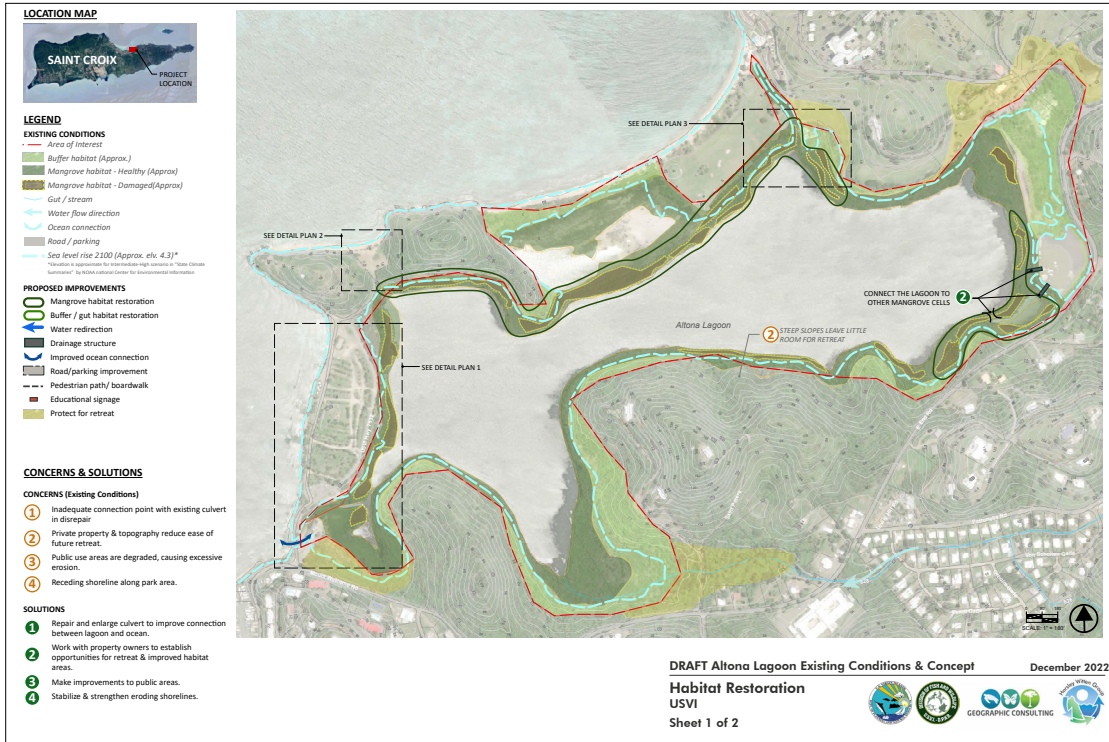
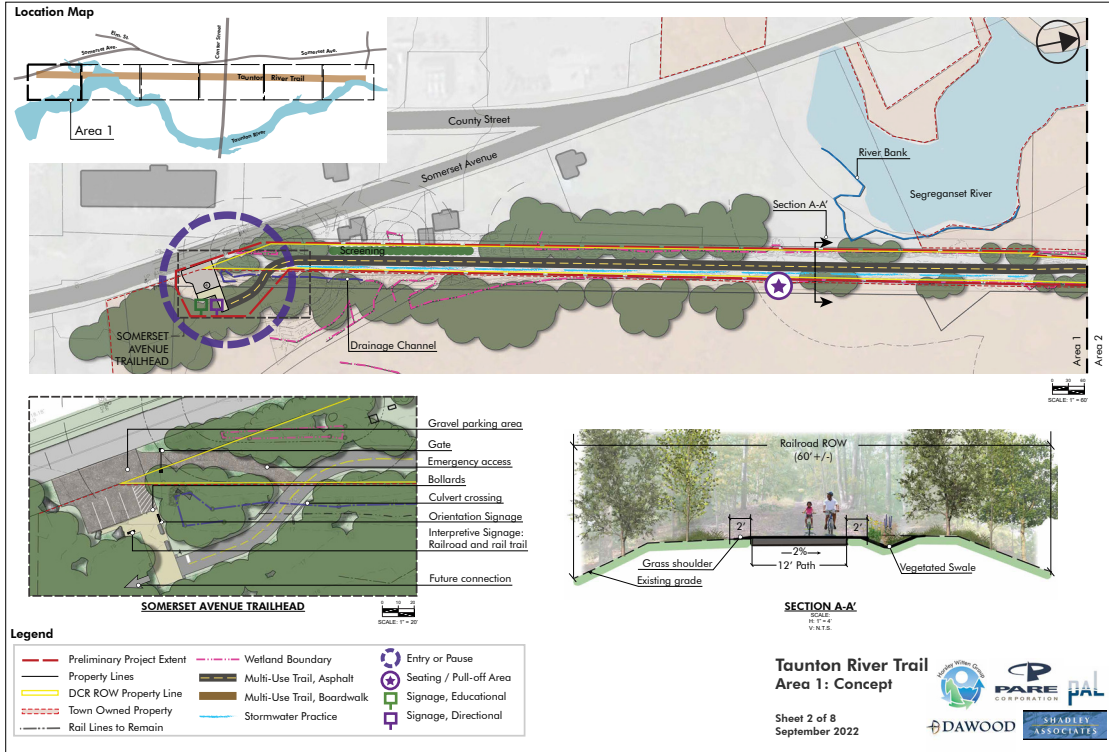


# WOONASQUATUCKET RIVER GREENWAY





# OTHER PROJECTS



# PROJECT TEAM AND STAFF EXPERIENCE

Our team includes the following HW, Geosyntec, and Innes landscape architects, engineers, ecologists, and planners all experienced with consensus building between the town, community and permitting agencies. We are committed to including these key professionals and the necessary design/production support staff for the duration of the project. The selected team members all bring years of experience and passion to the design process, including experience with coastal and waterfront assessment and design, connectivity, permitting, and construction. Brief descriptions of their experience and relevant projects are provided below.

Complete resumes for HW and Geosyntec staff are also provided in **Attachment C**.

## HORSLEY WITTEN GROUP



**BRIAN KUCHAR, P.E. RLA LEED AP**

**ROLE: PRINCIPAL-IN-CHARGE – DESIGN OVERSIGHT**

Experience: 29 years

Area of Expertise: Landscape Architecture, Waterfront Design, Ecology, Resiliency, Stormwater, GSI, Community Engagement, Construction

Relevant Projects: Taunton River Trail, Ten Mile River Riverfront Park, Riverwalk and Restoration, Blessings of the Bay, Norwood Riverfront Park, Malden River Works, Woonasquatucket Greenway, Cocheco Waterfront



**RICHARD A. CLAYTOR, JR. P.E.**

**ROLE: PRINCIPAL ENGINEER - DESIGN REVIEW/QUALITY CONTROL**

Experience: 35 years

Area of Expertise: Civil Engineering, Ecology, Riverfront Restoration, Resiliency, Stormwater Analysis, GSI

Relevant Projects: Ten Mile River Riverfront Park, Riverwalk and Restoration, Blessings of the Bay, Norwood Riverfront Park, Malden River Works, Woonasquatucket Greenway, Cocheco Waterfront



**JEN RELSTAB, P.E.**  
**ROLE: PROJECT MANAGER**

Experience: 18 years  
Area of Expertise: Civil Engineering, Waterfront Design, Accessibility, Stormwater Analysis, GSI, Hydrologic/Hydraulic Modeling, Community Engagement, Construction  
Relevant Projects: Taunton River Trail, Malden Riverworks, Cheesecake Brook Restoration, Milford Town Park Stormwater Improvements, City of Watertown Stormwater Retrofit Improvements



**ELLEN BIEGERT, RLA**  
**ROLE: PROJECT LANDSCAPE ARCHITECT – LEAD DESIGNER**

Experience: 10 years  
Area of Expertise: Landscape Architecture, Waterfront Design, Ecology, Urban Planning, GIS, Shoreline Restoration, Resiliency, Graphics, AutoCAD, Community Engagement  
Relevant Projects: Taunton River Trail, Woonasquatucket Greenway, Downtown Vision Plan Improvements



**AMY BALL, PWS, CWS**  
**ROLE: SR. ECOLOGIST - PERMITTING COORDINATOR**

Experience: 29 years  
Area of Expertise: Wetlands, Ecology, Environmental Science, Site Analysis, Federal, State and Local Permitting, Community Engagement and presentation  
Relevant Projects: Taunton River Trail, Ten Mile River Riverfront Park, Riverwalk and Restoration, Blessings of the Bay, Norwood Riverfront Park, Malden River Works



**GEOFF GLOVER, P.E.**  
**ROLE: PROJECT ENGINEER**

Experience: 8 years  
Area of Expertise: Civil Engineering, Accessibility, Stormwater Analysis, GSI, Hydrologic/Hydraulic Modeling, Construction  
Relevant Projects: Taunton River Trail, Ten Mile River Riverfront Park, Riverwalk and Restoration, Norwood Riverfront Park, Malden River Works, Cocheco Waterfront



## GEOSYNTEC



### **KIRBY MARSHALL**

**ROLE: WATERFRONT SPECIALIST**

Experience: 26 years

Area of Expertise: Site Assessment, Due Diligence Studies, Marina/waterfront Planning Development, Megayacht Facility Planning, Market Study Development, Financial Analysis/Forecasting, Regulatory Permitting, Construction Management, Owner's Representative Services, Grant Funding

Relevant Projects: Parker's River Marina Feasibility Study, Marina Market, Assessment and Environmental Site Exposure Assessment, Isle of Palms Marina Redevelopment



### **MAURA BOSWELL, Ph.D., P.E.**

**ROLE: SENIOR COASTAL ENGINEER**

Experience: 19 years

Area of Expertise: Coastal Engineering & Processes, Sediment Transport, Living Shorelines, Nature-Based Solutions Coastal Flooding and Sea Level Rise, Coastal Resilience, Marinas

Relevant Projects: Rockland Marina Expansion, Rudee Loop, Walkway, West Bay Boat Ramp



### **JUSTIN DAVIS, P.E.**

**ROLE: SENIOR WATERFRONT STRUCTURES ENGINEER**

Experience: 20 years

Area of Expertise: Project Management, Engineering Feasibility Analysis, Marina/Drystack Due Diligence, Market Analysis, Financial Analysis, Marina Planning, Drystack Planning, Insurance Claim Resolution, Grant Funding, Structural Design

Relevant Projects: Isle of Palms Marina Redevelopment, Gratwick Park Marina Redevelopment Program, Ashley River Walk Feasibility Study

## INNES



### **EMILY KEYS INNES, AICP, LEED AP ND**

**ROLE: URBAN DESIGNER**

Experience: 13 years

Area of Expertise: Urban planning and design; community engagement, land use and zoning

Relevant Projects: Wareham Village Urban Renewal Plan  
Jackson Square Land Use Plan (Weymouth, MA)  
Cohasset Harbor Municipal Harbor Plan

# ORGANIZATIONAL CHART



**MASS DOT**  
Rail & Transit Division



Town of  
Wareham, MA



MA Division of  
Fisheries & Wildlife



**RICH CLAYTOR, P.E.**  
DESIGN REVIEW, QA/QC



**JEN RELSTAB, P.E.**  
PM, PROJECT ENGINEER



**BRIAN KUCHAR, RLA, P.E.**  
PRINCIPAL-IN-CHARGE

**GEOSYNTEC**



**KIRBY MARSHALL**  
WATERFRONT  
SPECIALIST

**INNES**



**EMILY INNES,**  
AICP, LEED AP ND  
URBAN PLANNER

**COASTAL ENGINEERING**



**MAURA BOSWELL,**  
Ph.D., P.E.  
SR. COASTAL ENG.



**JUSTIN DAVIS,**  
P.E.  
SR. WATERFRONT  
STRUCTURES ENG.

**LANDSCAPE  
DESIGN**



**ELLEN BIEGERT,**  
RLA  
LEAD DESIGNER

**CIVIL**



**GEOFF GLOVER,**  
P.E.  
PROJECT ENG.

**PERMITTING**



**AMY BALL,**  
PWS, CWS  
SR. ECOLOGIST

**SUPPORT STAFF**

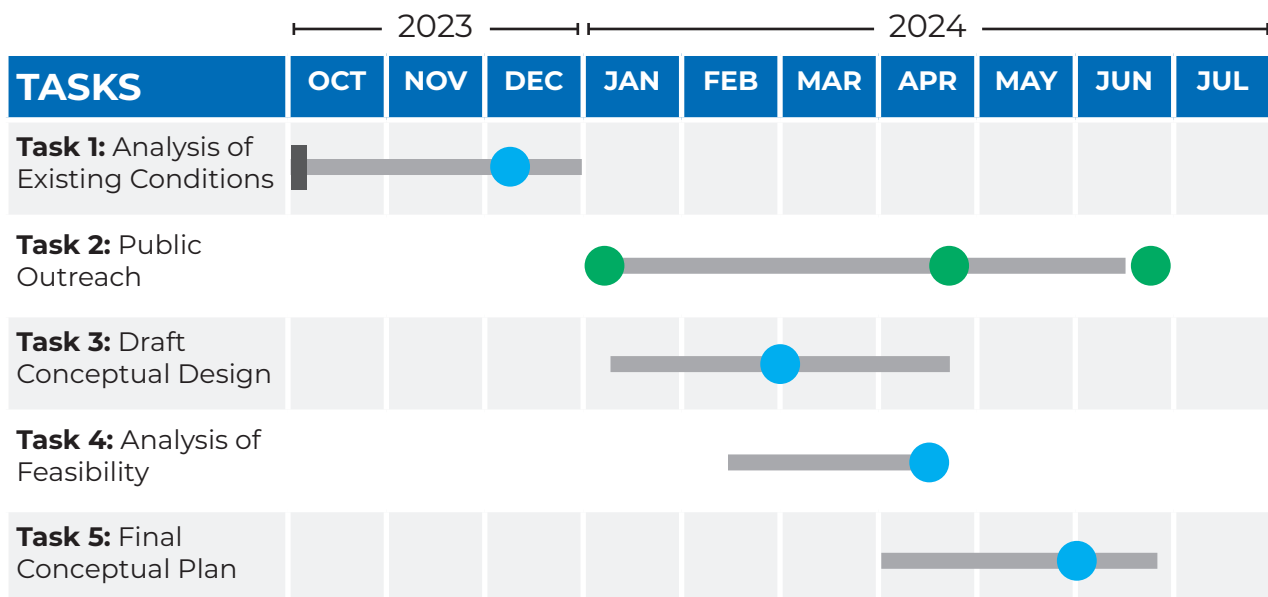
# PROJECT SCHEDULE

6

## SCHEDULE

HW proposes the following schedule assuming a Notice to Proceed (NTP) would occur by the end of September. Upon NTP issuance, a kickoff meeting with the Town and its project partners will be coordinated. During the kickoff meeting the proposed project schedule will be discussed and if necessary, can be revised accordingly. Our timeline allows for town, project partners, permitting agencies and community input, as well as response to comments and revisions. Although the t the proposed work for this RFP needs to be completed by June 30, 2025, and our anticipated scope of work and budget assumes a much earlier completion date and we anticipate work to be completed by June 30, 2024, which assumes timely Town and project partner reviews and response (2-week turnaround) for all milestone submissions and review meetings.

MONTHS FROM NOTICE TO PROCEED (ESTIMATED 39 WEEKS)



**Kickoff Meeting:** █

**Review Meetings:** ●

- Meeting #1 - Mid December 2023
- Meeting #2 - Mid August 2024
- Meeting #3 - Mid April 2024
- Meeting #4 - Early June 2024

**Community Meetings:** ●

- Meeting #1 - Early January 2024<sup>1</sup>
- Meeting #2 - Mid April 2024
- Meeting #3 - End of June 2024

**Final Plan Deliverables:** June 30, 2024 (our schedule can be revised accordingly if an earlier submission is desired)

<sup>1</sup> We recommend the first community meeting be scheduled after the holiday season to maximize attendance.



## HORSLEY WITTEN GROUP, INC. REFERENCES

### Taunton River Trail - Taunton, MA

**Amber Christoffersen**, Trails and Greenways Planner  
Massachusetts Department of Conservation and Recreation  
[amber.christoffersen@state.ma.us](mailto:amber.christoffersen@state.ma.us)  
703-472-4403

### Riverfront Park, Riverwalk Connector and River Restoration Project

**Gary G. Ayrassian**, Director of Planning and Development  
City of Attleboro  
[cityplanner@cityofattleboro.us](mailto:cityplanner@cityofattleboro.us)  
508-223-2222

### Woonasquatucket River Greenway

**Jess Lance**, Director of Special Projects  
City of Providence  
[jlance@providenceri.gov](mailto:jlance@providenceri.gov)  
401-680-8519

### Norwood Riverfront Park

**Holly Jones**, Environmental Planner  
Town of Norwood  
[hjones@norwoodma.gov](mailto:hjones@norwoodma.gov)  
781-762-1240

## GEOSYNTEC REFERENCES

### Municipal Marina Redevelopment

**Desiree Frago**, Interim City Administrator  
City of Isle of Palms  
[desireef@iop.net](mailto:desireef@iop.net)  
843-489-7327

### Green Pond Landing Event Center

**Matthew Schell**, Parks Department Manager  
101 South Main Street  
Anderson, SC 29622  
[mschell@andersoncountysc.org](mailto:mschell@andersoncountysc.org)  
864-231-7275

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**Spring Point Marina**

**Mike Soucy**, Director of Operations

1 Spring Point Dr

South Portland, Maine 04106

[mikesoucy@portharbormarine.com](mailto:mikesoucy@portharbormarine.com)

207-400-3925

**Continuing Engineering Services for Municipal Parks and Waterfront Structures**

**Robert W. Scott**, P.E., Public Works

City of Jacksonville

214 N. Hogan Street, 10th Floor

Jacksonville, Florida 32202

[scott@coj.net](mailto:scott@coj.net)

(904) 255-8786

# **ATTACHMENT C: PROJECT DESCRIPTIONS**

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Project Profile  
Dighton, MA

Client  
Department of Conservation  
and Recreation (DCR)

Client Contact  
Amber Christoffersen  
Trails and Greenways Planner  
DCR  
703-472-4403

HW Contact  
Jennifer Relstab, PE.

22005



Horsley Witten Group

## Taunton River Trail at Sweets Knoll State Park

HW is leading a team of designers including Pare Corporation, Shadley Associates, PC., Public Archaeology Laboratory, Inc., and Dawood Engineering to design a 2-mile shared-use path, featuring trailheads and pedestrian connections within a historical railroad right-of-way owned by the Department of Conservation and Recreation. The path will be a key segment of the larger 22-mile Taunton River Trail and will highlight the Taunton and Segreganset Rivers and Sweets Knoll State Park, as well as connect Town Hall and the Bristol County Agricultural High School.

The team has completed alternative analyses and concept designs for the path and is currently conducting supplemental geotechnical and archaeological field work to finalize schematic design. Ultimately the design will feature paved, permeable and boardwalk path connections; green stormwater infrastructure; a restored bridge crossing; two trailheads; wayside seating and gathering areas; overlooks and an accessible fishing pier. Additional services provided to date include public engagement support, permitting and evaluation of a potential boat ramp at Sweets Knoll State Park.

*HW focuses on providing sustainable environmental solutions. Learn more at [horsleywitten.com](http://horsleywitten.com)*





Project Profile  
City of Attleboro, MA

Client Contact:  
Gary G. Ayassian  
Director of Planning and  
Development  
City of Attleboro  
508-223-2222

HW Contact:  
Michelle West, PE.

10041

Total HW Design Fee = \$139,875  
Connector Fee = \$186,990



Horsley Witten Group

## Riverfront Park, Riverwalk Connector, and River Restoration Project

HW worked with the Attleboro Redevelopment Authority and the Attleboro Planning and Development Department to re-envision a formerly industrial stretch of the Ten Mile River. HW designed Riverfront Park, a passive recreational area with a multi-use path, canoe access, native landscaping, and park amenities such as benches and picnic tables. Our design also incorporated riverbank and buffer restoration components, and invasive species management. HW took this project from concept stage through design, permitting, and construction, with completion in summer 2017. More recently, we also designed a Riverwalk Connector that provides a vital linkage between Riverfront Park and a park further upstream. The Connector project combined two pedestrian bridges, porous asphalt pathway, and boardwalk, with green infrastructure and buffer restoration. Project construction is complete. These projects are important elements of the City's downtown urban renewal plan and greenbelt vision.

*HW focuses on providing sustainable environmental solutions. Learn more at [horsleywitten.com](http://horsleywitten.com)*





Graphic by Offshoots, Inc.

**Project Profile**  
Somerville, MA

**Client Contact:**  
Amber Christoffersen  
Greenways Director  
Mystic River Watershed  
Association  
781-316-3438  
amber.christoffersen@mysticriver.org

**HW Contact:**  
Brian Kuchar, RLA, PE.

Date completed: December 2018

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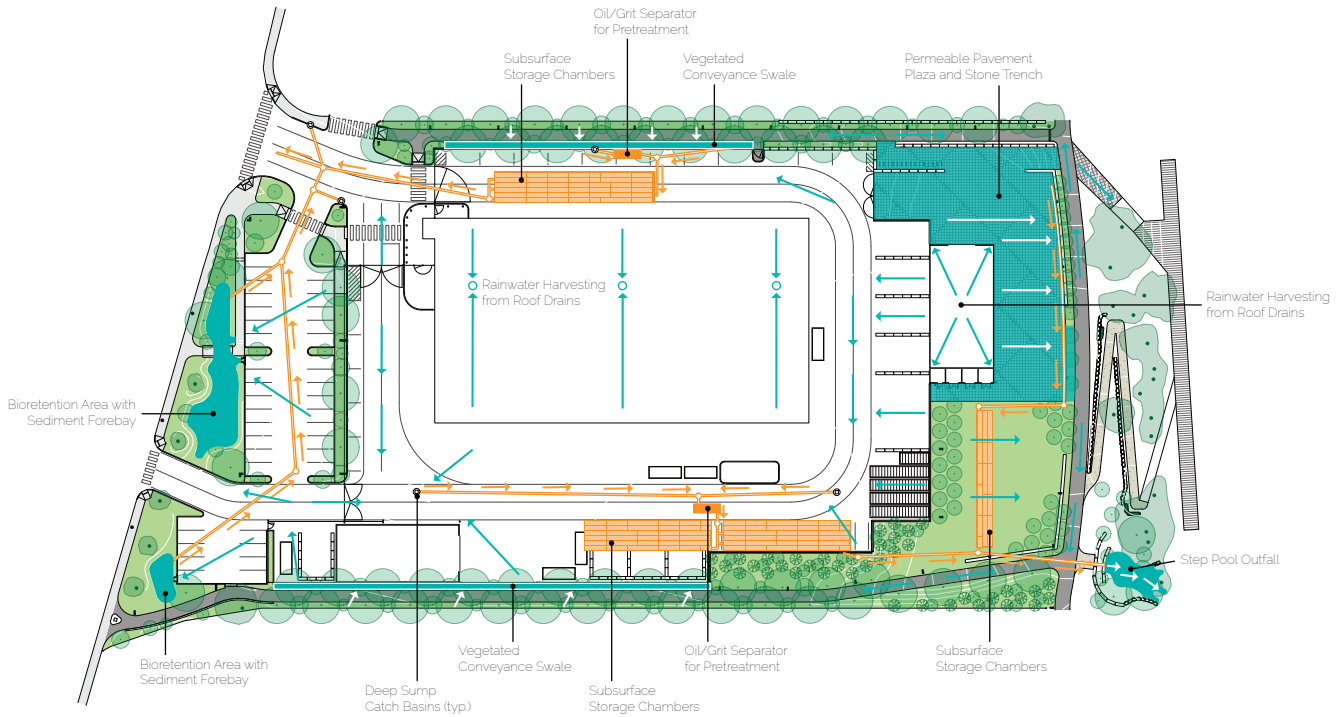
Horsley Witten Group

## Blessing of the Bay Park Schematic Design

HW is teaming with Offshoots, Inc. to transform the Blessing of the Bay Park, located at the mouth of the Mystic River in Somerville. The design team is working with the City, Mystic River Watershed Association (MyRWA) and neighborhood organizations to develop a conceptual design plan for the Park that meets the community needs, and provides environmental improvements. The goal of the plan is to enhance the quality and ecological value, while connecting green space along the river as part of a larger vision of the MyRWA, Department of Conservation and Recreation, and the City. We are providing ecosystem inventory, ecological restoration recommendations, preliminary engineering support, and wetland and permitting assessment. We are collaborating with Offshoots on the development of a creative community engagement process.

*HW focuses on providing sustainable environmental solutions. Learn more at [horsleywitten.com](http://horsleywitten.com)*





**Project Profile**  
**Malden, MA**

HW Contact  
 Jennifer Relstab, PE.

Client Contact  
 Evan Spetrini  
 Senior Planner & Policy Manager  
 Office of Strategic Planning &  
 Community Development  
 (formerly Malden Redevelopment  
 Authority)  
 Malden City Hall  
 781-324-5720 x 5736

20138



Horsley Witten Group

## Malden River Works

Malden and the Malden River were historic anchors for mills and factories like the Converse Rubber Company long ago. Now a Gateway City, Malden is home to a racially and ethnically diverse population, with central access to surrounding communities in the Mystic River Watershed. However, the banks of the Malden River remain encroached upon by businesses, which contribute to water quality impacts and river flooding. For years community members and advocacy groups like the Friends of the Malden River and the Mystic River Watershed Association have joined city staff to develop a vision for the Malden River that increases access and awareness of this hidden gem. Malden River Works envisions the riverfront with a 5-acre Department of Public Works (DPW) yard as a climate resilient park with safe and equitable access to public amenities and recreation. We partnered with Offshoots, Inc. alongside Landing Studio, a local architecture firm, to evaluate and design nature-based solutions. This plan features green stormwater infrastructure, a living shoreline and landscaping to help restore and enhance native species while supporting wildlife and habitat. Park features include a plaza, boathouse, open lawn, shared use paths, and pedestrian access to a dock for widespread use by the public and local crew teams. The reconfiguration of the DPW yard and the elevated park design will mitigate future climate-related hazards and allow all uses to thrive together as one community resource. Currently, this project is in the design development phase.

*HW focuses on providing sustainable environmental solutions. Learn more at [horsleywitten.com](http://horsleywitten.com)*



Project Profile  
Norwood, MA

Client Contact  
Holly Jones  
Environmental Planner  
781-762-1240

HW Contact  
Brian Kuchar, RLA, PE.

21021

## Design Plan for a New Riverfront Park

At a special Town Meeting, voters in Norwood, MA approved the purchase of a 6.8-acre property known as the "Saint Street Lot" with the intent of creating a riverfront park. The location of this property makes it a critical nodal point in Norwood's overall open space and recreation system. Located at the confluence of Hawes Brook and the Neponset River, the property is ideal for a river-walk trail. The property abuts an important recreational resource, Eliot Field, and is located within one of the three block groups in Norwood which qualifies as an environmental justice population based on its racial and ethnic composition. The property is also a short walk from Endean Park, a large conservation and recreation property.

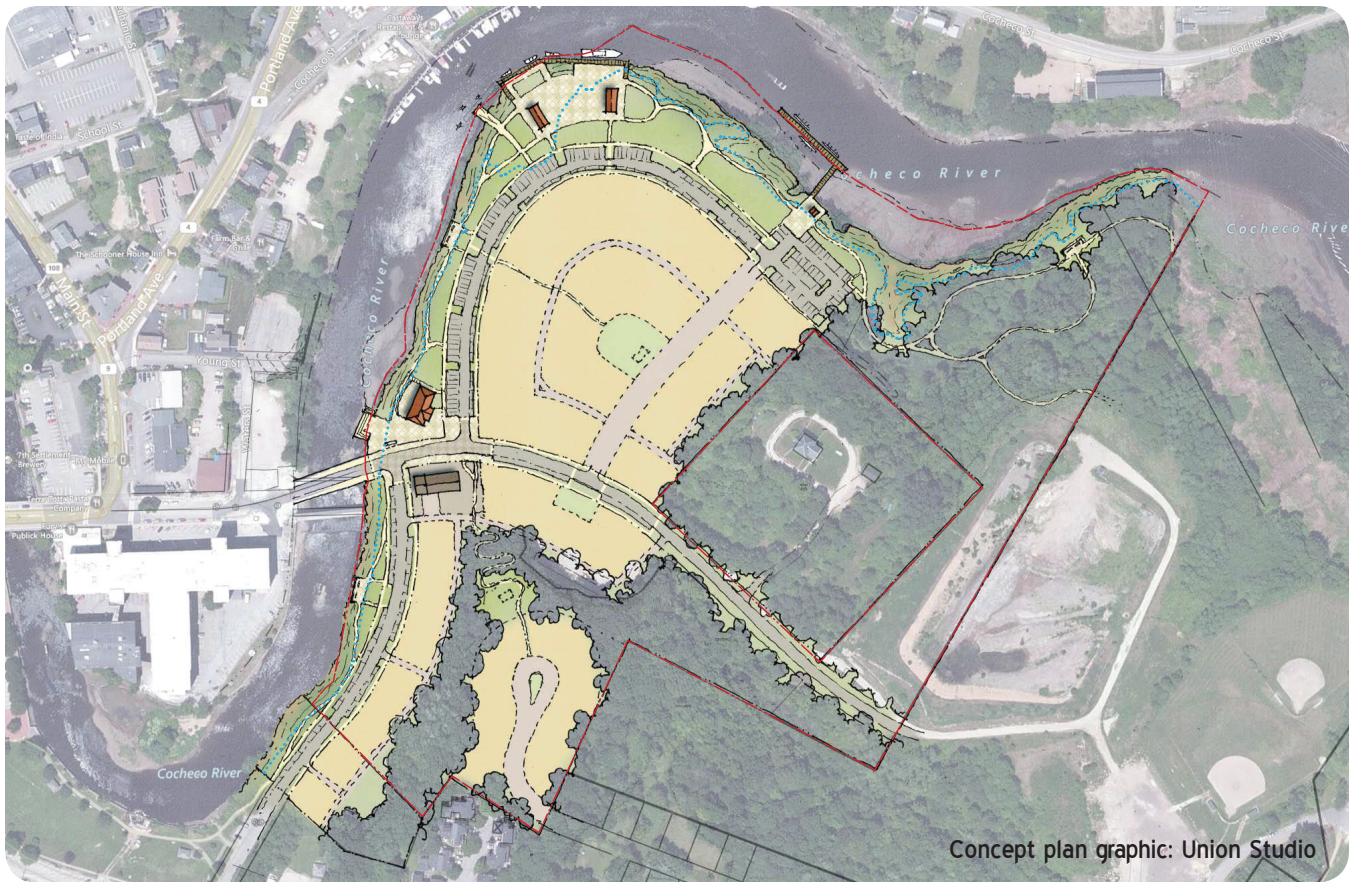
HW hosted virtual and in-person public meetings to hear what the neighborhood wants and to gather feedback on the draft concepts. The final conceptual plan incorporates what was heard at the meetings and works within existing site constraints. The design enhances access and connections with the neighborhood and abutting resources, incorporates invasive species management and native plant installation, creates habitat, utilizes low-impact site drainage, and protects environmental resource areas.



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**Project Profile**  
Dover, NH

Client contact  
Steve Bird  
City of Dover  
603-516-6008

HW Contact  
Jon Ford, PE

15157

## Cochecho Waterfront Design

HW is part of an interdisciplinary team producing a community vision and development plan for the Cochecho Waterfront Site, a 21-acre City owned brownfield property located across the river from downtown Dover. The plan includes a waterfront park, dock, mixed-use development, and new street connections to downtown and adjacent parks. We are currently leading the production of construction documents for the riverfront park, shoreline restoration, new pedestrian-oriented streets, and mass grading for the site, with special focus on earthwork analysis and shoreline design to plan for climate change and sea level rise.



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**WOONASQUACKETT RIVER GREENWAY**



WOONASQUACKETT RIVER WATERSHED COUNCIL

**McMAHON**  
ASSOCIATES



Woonasquackett River Greenway Illustrative Rendering

Eagle Street and Kinsley Avenue Intersection

January 27, 2020

Not To Scale

Project Profile  
City of Providence, RI

Client Contact  
Woonasquackett River Greenway  
Jess Lance  
Director of Special Projects  
Dept. of Planning & Development  
401-680-8519

HW Contact  
Jonathan Ford, PE.

19039

## Woonasquackett River Greenway

The City of Providence's Woonasquackett River Greenway project is transforming a one mile stretch of the Greenway by providing a separated urban trail to connect Providence Place Mall to Eagle Square. The project will enhance access to the Woonasquackett River, improve connectivity between neighborhoods, and mitigate the impacts of stormwater runoff. HW is collaborating with McMahon Associates, Cogent Services, and DiChiera Consulting on the design of this \$10M project. Our services include placemaking, green infrastructure, sustainability, and landscape architecture elements including the design of multiple new pocket parks and a kayak launch.



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Concept Design Credit: Dover Kohl & Partners

Project Profile  
Panama City, FL

Client Contact  
Eric Pate  
City of Panama City  
850-872-7289

HW Contact  
Jon Ford

19071



Horsley Witten Group

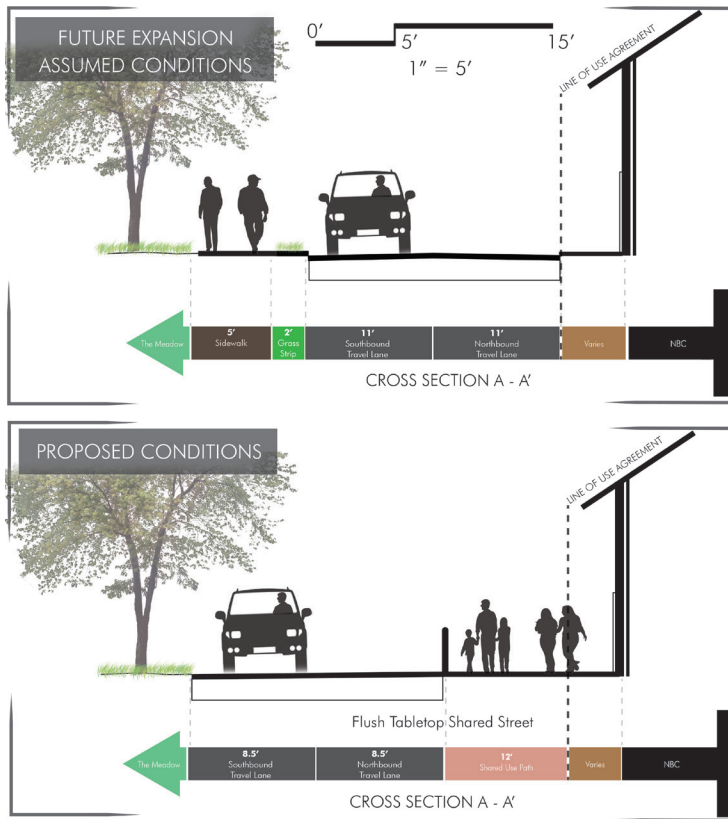
## Florida Planning Projects: Downtown Vision Plan, Neighborhood Plans, Harrison Avenue Retrofit

HW collaborated with Dover, Kohl and Partners on the Panama City Strategic Vision for Downtown and its Waterfront; Neighborhoods Plan for Glenwood, Millville, and St. Andrews; and Retrofit of Harrison Avenue - all as part of the City's Hurricane Michael Recovery Plan. The Downtown Vision and Neighborhoods Plans direct future growth while also preserving the city's history, connection to the waterfront, and strong sense of community. Our staff led the plans' sustainability and resilient infrastructure elements, including watershed analysis, coastal adaptation design, urban green infrastructure design, and design of public open spaces.

Implementation of the Downtown Vision Plan is underway, including a retrofit of Harrison Avenue, the City's main downtown commercial street. A shared plaza is proposed at the downtown center, to give a signature look to the city's heart. The retrofit construction will commence in 2021, featuring a flush pedestrian street experience with extensive tree planting including systems to provide runoff filtering and root zone structural support. The Downtown Vision Plan received a 2020 CNU Charter Award.

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**Project Profile**  
Providence, RI

Client Contact:  
Rick Richards  
Seekonk River  
Revitalization Initiative  
401-374-0838

HW Contact:  
Jon Ford, PE

15077

## Seekonk River Revitalization Initiative

HW has been working with a neighborhood-led coalition in partnership with the City of Providence on public outreach, visioning, and design for transformation of a one-mile stretch of the Seekonk Riverbank. The community supported design provides for a separated riverfront multi-use path, green infrastructure, community parks, complete street design, and improved public connection to the water. Stakeholders and collaborators include state and local legislators, the City of Providence, City of East Providence, RI DEM, CRMC, RI DOT, Save the Bay, the National Park Service, the East Coast Greenway, and the Rhode Island Foundation.



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Project Profile  
 Oak Bluffs,  
 Martha's Vineyard

Client Contact:  
 Robert Whritenour  
 Town Administrator  
 508-693-3554

HW Contact:  
 Jon Ford, PE  
 14088

## Downtown Streetscape Master Plan

The Oak Bluffs Downtown Streetscape Master Plan is a comprehensive plan for improvements to the Oak Bluffs downtown streets including sidewalks, lighting, parking, vehicle/bicycle/pedestrian mobility, open space, landscaping, and wayfinding. The Master Plan is a framework of future planning, development, and design, which works with the distinctive, funky character of the downtown. Horsley Witten led the yearlong effort, building innovative design solutions based on a foundation of community engagement. Examples of this include extensive public visioning, surveys, social media, door-to-door campaigns, and more. Several unique design challenges existed including, extremely narrow rights-of-way, creative parking solutions, integration of pedestrian/bicycle/vehicle/bus/ferry transportation, seasonal population changes and local economic impact, accessibility, wayfinding, tactical urbanism, and waterfront development.



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Graphic Credit: Dover Kohl and Partners

Project Profile

Mandi Herring, AICP  
Operations Manager  
City of Charleston  
Department of Planning,  
Preservation & Sustainability  
843-973-7249

HW Contact:  
Jonathan Ford, PE.  
401-272-1717

17023

## West Ashley Master Plan

Horsley Witten Group collaborated with nationally renowned Dover Kohl and Partners to develop Plan West Ashley, a community vision and plan for the West Ashley area of Charleston, South Carolina - home to over half of Charleston's population. The Plan will play a pivotal role in shaping the future of the area's streets, transportation systems, neighborhoods, and public spaces. Plan West Ashley sets broad policies and identifies specific actions to enhance quality of life and protect the area's historic, cultural, and natural environment. HW led the infrastructure, sustainability, climate resiliency, and open space elements of the plan. An important part of HW's role was to analyze future investment, both public and private, through the lens of climate change, sea level rise, and resiliency.

Following up on Plan West Ashley, the Dover Kohl/Alta/HW team is currently working with the City and the Charleston Parks Conservancy on a master plan for the West Ashley Greenway and Bikeway, totaling over 10 miles of trails connecting neighborhoods and traversing natural ecosystems.



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Project Profile  
Brewster, MA

Client Contact:  
Chris Miller  
Natural Resources Director  
Town of Brewster  
508-896-8089

HW Contact:  
Geraldine Camilli, PE.

15153



Horsley Witten Group

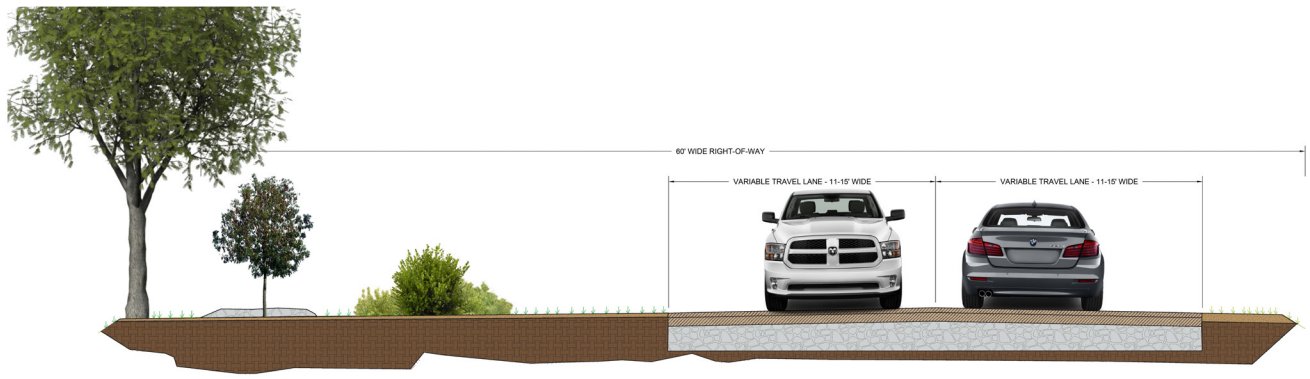
## Brewster Coastal Adaptation Strategy

HW is managing the development of a Coastal Adaptation Strategy for Brewster, MA, with funding from the Massachusetts Office of Coastal Zone Management and the Town. Brewster continues to be pro-active about managing its coastal resources. This Strategy, which has a significant public engagement component, will help the Town further these efforts.

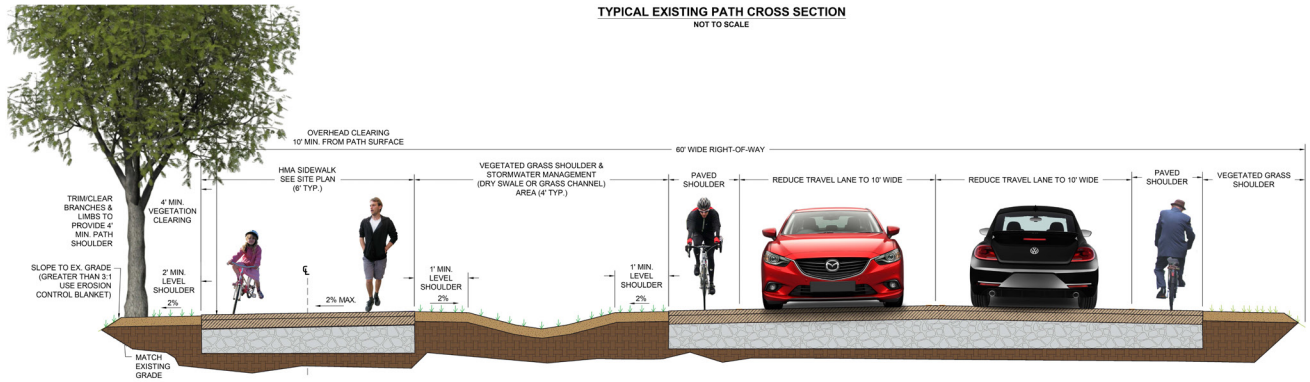
HW reviewed national and international literature on sea level rise (SLR) to select appropriate time frames and scenarios for evaluating coastal change. HW also ran NOAA's Sea, Lake and Overland Surges from Hurricanes (SLOSH) model to estimate storm surge elevations from hurricanes, and reviewed historical storm surge data at nearby tide gauges to identify representative storm surges for hurricanes and nor'easters that could affect Brewster's coastline. HW has been developing the strategy with significant assistance through Brewster's Coastal Advisory Group (BCAG), a group of residents representing key stakeholder groups in Town (e.g., businesses, coastal and non-coastal neighborhoods). A key focus of the adaptation strategy for the Town is on its public properties that provide coastal access to residents and visitors. The Strategy is intended to lay the groundwork for future discussions and the development of an implementation plan.

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TYPICAL EXISTING PATH CROSS SECTION  
NOT TO SCALE



TYPICAL PROPOSED PATH CROSS SECTION  
NOT TO SCALE

**Sandy Neck Road Pathway**

Sandwich, MA  
September 2017



**Project Profile**  
Sandwich, MA

Client Contact  
Samuel Jensen, PE.  
Assistant Town Engineer  
Town of Sandwich, MA  
508-833-8000

HW Contact  
Ashley Pasakarnis  
15146

# Sandy Neck Pedestrian Pathway

The Sandy Neck Pedestrian Pathway is a 3,500 foot long multi-use, off-road trail and roadway improvement project which connects Route 6A to the existing sidewalk near the entrance to Sandy Neck Beach. HW worked with the Town of Sandwich to provide survey and resource delineation, to develop the trail and roadway improvements, permit the project, achieve MassDOT Complete Streets funding, and finalize construction plans and specifications. Permitting services included a Scenic Roads Application with the Planning Board, Massachusetts Endangered Species Act (MESA), and environmental mitigation with the Conservation Commission. Once completed, the path will provide an important connection between the houses, hotels, and business on scenic Route 6A and beautiful Sandy Neck Beach.



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Project Profile  
Town of Kingston, MA

Client Contact:  
Susan Woodworth  
Director of Recreation  
Town of Kingston  
781-585-0533

HW Contact:  
Brian Kuchar, PE., RLA

16076



Horsley Witten Group

## Gray's Beach Living Shoreline

Gray's Beach is the only public beach in the Town of Kingston, MA. It is a popular destination for residents and visitors alike. The beach had a failing retaining stone seawall that was becoming a significant public safety concern and was causing beach erosion. The Town hired HW to explore conceptual design measures to improve park resiliency. The Town selected a living shoreline option of marsh and sand dunes to protect the recreational area from sea level rise and storm surge while also providing habitat and safe recreation for all. Living shoreline projects apply dynamic and inherent ecological values in design and construction to enhance habitat, restore natural shoreline processes and healthy ecosystems along the shoreline. The idea is to mimic biological and physical conditions that naturally exist along the coast to provide better ecosystem services such as wave energy dissipation, pollution and nutrient filtering, and soil stabilization through rhizome root colonies. The removal and relocation of a bathhouse to outside of the floodplain will create space for re-establishing the coastline and expanding beach access.

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**Client:** New England Development, LLC

**Services Provided:**

- ✓ Marina Market Assessment
- ✓ Marina Reconfiguration Preliminary Design and Layout
- ✓ Site Exposure Evaluation and Wave Modeling
- ✓ Topside and Underwater Structural Condition Assessment and Repair Cost Estimate

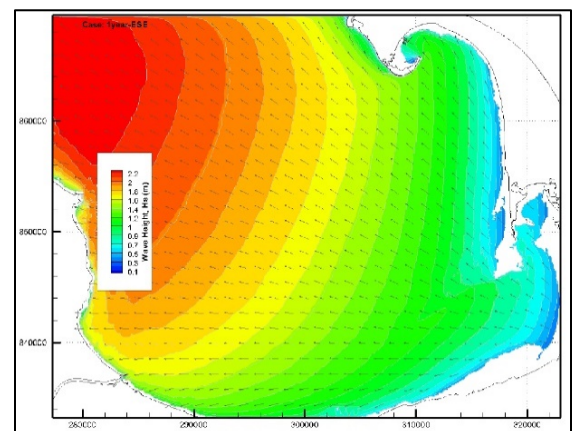
### Project Objective

Prior to purchase, Geosyntec was asked to investigate a specific location out on The Cape to determine if the property would adequately support the client's future vision. This vision included a significant marina expansion, waterfront restaurant, shops, and public harborwalk. Geosyntec first conducted a targeted market assessment to ensure the scale and nature of the expanded marina facility appropriately matched the demand quantified by Geosyntec research. The resulting market assessment report evaluated user profiles and needs, forecasted boating demand by market segment, established recommended slip rates, and proposed a rate of absorption for the client's consideration as inputs to a future economic analysis. Following the market effort, Geosyntec developed a corresponding series of marina layout alternatives.

### Geosyntec's Scope of Services

From an engineering perspective, site exposure to wind and waves was identified as a primary concern. Due to the complex bathymetry and presence of an existing rubble mound breakwater adjacent to the site, Geosyntec implemented a series of numerical wave models to forecast wave conditions associated with specific storm recurrence intervals and to quantify the wave climate within the proposed marina basin. The wave modeling confirmed engineering feasibility of the site for marina expansion and identified the wave parameters needed for the future detailed design of the perimeter floating wave attenuator and interior basin floating docks.

Geosyntec performed a detailed structural condition assessment of the existing 80 feet by 1,000 feet timber pile-supported pier so the client could determine the project's economic feasibility. The assessment involved the inspection of approximately 20% of the overall pier structure including topside and underwater structural elements. The underwater inspection was performed by an ADCI/OSHA compliant surface-supplied shallow water air dive team that included a team leader, dive inspector, tender and life-support technician. The hard-hat diver was fitted with communication equipment that had visual monitoring capability with real-time video and voice communication from diver to the dive support station. The resulting inspection report documented current structural conditions and included estimates of repair costs, associated with both deferred maintenance and life-safety issues.





**Client: Town of Yarmouth**

**Services Provided:**

- ✓ Preliminary Site Assessment
- ✓ Marina Market Assessment
- ✓ Marina Engineering Overview
- ✓ Economic Pro Forma Analysis
- ✓ Public Presentation of Findings

**Project Objective**

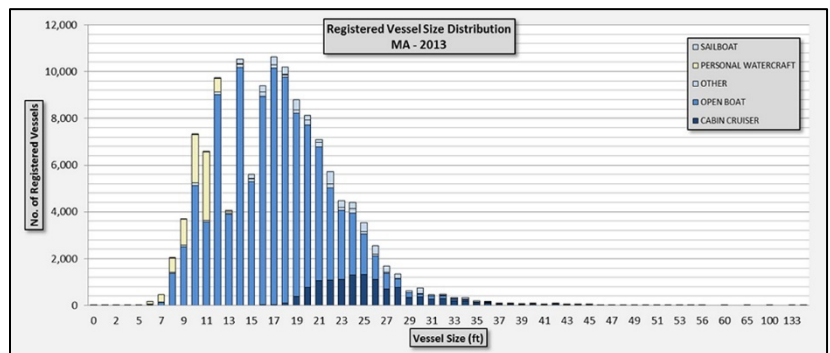
Geosyntec won a competitive public bid to assist the Town of Yarmouth to evaluate a marina development opportunity on town-owned land. Key Geosyntec staff traveled to Cape Cod, Massachusetts to meet with Town officials regarding project history and development goals for a tract of land that the Town had owned for well over 20 years. Development goals were reviewed and an initial site assessment was conducted to visualize potential development opportunities.

**Geosyntec Scope of Services**

Geosyntec then set out to define potential demand for slips at the subject site. This included site reconnaissance of over 20 marina facilities from Plymouth (on the mainland) to Provincetown (at the end of Cape Cod) and conducting interviews with marina operators, boat dealers and regional boaters. This offered key insight into regional boating trends and boater characteristics.

In addition to the Marina Market Analysis, Geosyntec also conducted a basic overview of engineering considerations for the proposed marina development. Utilizing a preliminary plan that was developed by the Town engineer and feedback from key Town staff, Geosyntec revised the plan to properly accommodate identified demand characteristics as well as local zoning requirements and Town preferences.

A cost estimate for the proposed project was then developed through close coordination with the Town engineer. This estimate, the revised marina plan and the results of the Marina Market Assessment also provided input for a detailed economic analysis of the proposed project. Lastly, Geosyntec presented and defended the results of our study to the Board of Selectmen in a public meeting.







**Client:** City of Isle of Palms

**Services Provided:**

- ✓ Permitting
- ✓ Engineering
- ✓ Consulting

**Project Objective**

Since 2011, Geosyntec has provided a variety of project planning, permitting, engineering, and consulting services to the City of Isle of Palms for redevelopment plans for the Isle of Palms Marina. Purchased by the City two decades prior, infrastructure at the Isle of Palms Marina was aging while the popularity of the site had increased to the point where parking and traffic in and around the area had become extremely problematic.

**Geosyntec’s Scope of Services**

Geosyntec worked with City staff, council members, key stakeholders, and residents to assess the existing conditions at the site to create redevelopment scenarios to capitalize on the popularity of the site, improve traffic flow and parking, and provide enhanced public park and water access components at the site. This effort required close coordination with several tenants at the marina. Each stakeholder had specific requirements for water access, parking, utilities, and general site utilization. Geosyntec’s team was able to successfully navigate many complex issues and priorities at this site to create an effective redevelopment master plan that maximized public access, greatly improved traffic flow and parking, promoted pedestrian visitation to the site, provided ample recreational opportunities, and maintained all current uses at the site.

Geosyntec’s services included planning, design, permitting, bidding, grant funding assistance, and construction administration. The first phase of redevelopment was completed in 2022. This included new marina floating docks, marine utilities, shoreline stabilization improvements, and new/expanded boat ramp staging docks. Geosyntec is currently working with the City to develop a new ADA-compliant kayak launch. Specifically, Geosyntec is finalizing the structural design and specifications for the fixed public pier, an 80’ long ADA-compliant gangway, floating docks, and ADA-compliant kayak launches. These works are anticipated to go out to bid in September of 2023.

# **ATTACHMENT D: RESUMES**

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## **Brian Kuchar, RLA, P.E., LEED AP**

Associate Principal/Landscape  
Architect/Civil Engineer  
bkuchar@horsleywitten.com

### **Areas of Expertise**

Landscape Architecture  
Civil Engineering  
Sustainable Site Design  
Smart Growth/Low Impact Development  
Stormwater & Wastewater Management  
Green Infrastructure  
Ecological Restoration  
Meeting Facilitation  
Training  
Construction Administration  
Surveying

### **Professional Registrations**

Professional Engineer: RI #8776 (2006)  
Registered Landscape Architect:  
MA #1592 (2006)  
RI #372 (2003)  
LEED AP

### **Academic Background**

Bachelor of Landscape Architecture,  
University of Rhode Island  
Bachelor of Science, Civil/Environmental  
Engineering Worcester Polytechnic  
Institute

### **Professional Experience**

Horsley Witten Group, Inc., Associate  
Principal & Senior Landscape Architect/  
Civil Engineer, 2007-Present  
Northeast Engineers and Consultants,  
Inc., Project Manager/Senior Landscape  
Architect, 2006-2007  
University of Rhode Island, Adjunct  
Professor, 2002-2007  
Frisella Engineering, Inc., Project  
Manager, 2003-2006  
William Warner Architects and Planners  
LTD, Landscape Architect, 2001-2003  
City of Newport, Rhode Island, Planning  
Department Intern, 2000-2001  
NES, Inc., Site Engineer, 1993-1998

Brian has 30 years of experience in the combined fields of landscape architecture and civil engineering. Brian's passion for the preservation of the natural environment provides the foundation for all his design work. Brian has presented at numerous training workshops and conferences and served as an adjunct professor in the Landscape Architecture Department at the University of Rhode Island.

### **KEY PROJECTS**

#### ***Victory Park - Pathway Improvements and Landscape Restoration Dorchester, MA***

Principal-in-Charge for the restoration of a waterfront acre park managed by the Massachusetts Department of Conservation and Recreation. Improvements included gateway, pathways, fenced in dog area, limited boardwalks, green stormwater infrastructure and shoreline restoration.

#### ***Stodder's Neck- Pathway Improvements and Landscape Restoration Hingham, MA***

Principal-in-Charge for the restoration of a waterfront park managed by the Massachusetts Department of Conservation and Recreation. Improvements included gateway, pathways, fenced in dog area, limited boardwalks, green stormwater infrastructure and shoreline restoration.

#### ***Doyle Park- Riverfront Park and Landscape Restoration Hyde Park, MA***

Principal-in-Charge for the site/civil design for the restoration of a riverfront park managed by the Massachusetts Department of Conservation and Recreation along the Neponset River. HW is a subconsultant on this project and responsible for site civil and green stormwater infrastructure.

#### ***Iron Hill Park - Conceptual Design and Master Plan Weymouth, MA***

Principal-in-Charge for the restoration of a degraded park and herring run fish ladder. Improvements included gateway to the Back River Trail, pathways, boardwalk and overlook, green stormwater infrastructure, parking and landscape restoration.

#### ***Sunset Lake and Lakeside Park- Pathways and Landscape Restoration Oak Bluffs, MA***

Project Manager and lead designer for the restoration of an X acre park and shoreline. Improvements included gateway, pathways, limited boardwalks, green stormwater infrastructure, plaza and shoreline restoration.

#### ***Prospect Hill Park - Playground and Landscape Restoration Waltham, MA***

Principal-in-Charge for the redevelopment of a recreational park and stormwater improvement to reduce impacts from flooding. Improvements included pathways, playground, spray park, green stormwater infrastructure, plaza parking and and shoreline restoration. HW was a subconsultant to and responsible for site civil, restoration and green stormwater infrastructure.



***Route 6 Stormwater and Vegetation Plan***

***Cape Cod Commission***

Lead designer for the development of a Stormwater and Vegetation Plan for the Cape Cod Route 6 Corridor to improve the ecological functioning of stormwater phytoremediation concepts, and vegetation management approaches within the road corridor.

***Norman Bird Sanctuary***

***Middletown, RI***

Project Manager for the development of a Facilities Master Plan that includes trail, plant community and drainage assessments, to identify future investments and management opportunities for the property's campus facilities, trail network, grounds and environmental resources.

***Ten Mile River Restoration***

***Attleboro, MA***

Senior Landscape Architect for an urban river restoration, bank stabilization and urban river walk redevelopment project. The design includes a tree-lined corridor created along the edge of a proposed paved multi-use path, which will provide areas for both active and passive recreation.

***East End Veterans Memorial Park Design***

***Peabody, MA***

Managed design and project coordination for a brownfield redevelopment project including site remediation of contaminated soil, wetland mitigation, and site and landscape design. Developed the park design to provide flood storage during large rain events



## Richard Claytor, Jr.

Principal/  
Sr. Water Resources Engineer  
rclaytor@horsleywitten.com

### Areas of Expertise

Stormwater Management  
Green Infrastructure  
Wetland & Natural Resource Area  
Assessments  
Environmental Permitting & Compliance  
Watershed Planning & Assessment Civil  
Engineering  
Environmental Engineering  
Surveying  
Site Design  
Training

### Professional Registrations & Affiliations

Professional Engineer: MA & NH  
LEED Accredited Professional  
Town of Sandwich,  
Historical Commission  
American Society of Civil Engineers

### Academic Background

Bachelor of Science, Union College, Civil  
Engineering, Concentration in Hydrology,  
Hydraulics, Water Resources, and  
Geotechnical Engineering

### Professional Experience

Horsley Witten Group, Inc.,  
President, 2013- Present;  
Principal Engineer, 2001 to 2013  
Center for Watershed Protection, Principal  
Engineer, 1994 to 2001  
Loiederman Associates, Inc. (now Soltesz,  
Inc.), Vice President and General  
Manager, 1985 to 1994  
Greenhome and O'Mara, Inc. (Now  
Stantec, Inc.), Design Engineer, 1983  
to 1985

## Horsley Witten Group

Sustainable Environmental Solutions



Rich has nearly 40 years of practical experience in civil and environmental engineering specializing in water resources planning, design, implementation, research, education, and training. Rich is recognized for his expertise in stormwater management design, implementation, program assessment, policy reform, and stormwater control evaluation. Rich's experience includes watershed planning, site assessment, research, and permitting; water supply and wastewater design; land use planning, site design and research; storm drainage, erosion/sediment control, roadway design; and construction administration.

### KEY PROJECTS

#### ***Narragansett Bay Commission (NBC) Green Stormwater Infrastructure***

Principal-in-Charge for this major multi-year initiative to reduce NBC's combined sewer overflows using Green Stormwater Infrastructure in the City of Central Falls, Rhode Island. Project included design, permitting and implementation of over 50 sites since 2018.

#### ***Assessment, Prioritization, Design, and Installation of Stormwater Retrofits in Three Bays Watershed, APCC, Barnstable, MA***

Principal-In-Charge for a multi-year, multi project program to implement nitrogen and bacteria reducing stormwater control measures (SCMs) in the Three Bays Watershed on Cape Cod. SCMs include a range of green stormwater infrastructure practices, including terraced bio swales, a gravel wetland, bioretention, impervious cover reduction, and rain gardens. Many practices were designed to feature educational components and opportunities for outdoor classroom learning.

#### ***EPA, Region 1 – Clean Water Act and Safe Drinking Water Act Basic Purchasing Agreement (2018-2023)***

Program Manager for HW and Principal-in-Charge for specific work assignments, including Palmer River Watershed Plan, Long Island Sound Study GAO Response, Connecticut Statewide Lake Nutrient TMDL, Lake Winnisquam, NH Watershed Based Plan development, and Southeast New England Program (SNEP) Pilot Watershed Initiative monitoring plan technical assistance.

#### ***Integrated Water Quality Plan, Burlington, VT***

Principal-in-Charge for HW's role in Burlington's integrated water quality plan. Specifically, HW assisted in the development of stormwater runoff opportunities to identify projects that reduce phosphorus loading to Lake Champlain and meet multiple permit requirements.

#### ***Green Stormwater Infrastructure Solutions for Boston Public Schools and the Boston Water and Sewer Commission (BWSC), Boston, MA***

Principal-in Charge for the implementation of green stormwater infrastructure (GSI) solutions to manage stormwater runoff and engage students at five Boston Public Schools.

#### ***Fuller Brook Restoration, Wellesley, MA***

Principal-in-Charge for the stream restoration of a 2.2-mile reach of an impaired suburban stream/wetland system using natural channel-based geomorphologic principles.

#### ***Massachusetts Department of Ecological Restoration***

Principal-in-Charge for master services contracts for the assessment, design, and implementation of ecological restoration for nearly three dozen projects in the Commonwealth of Massachusetts, beginning in 2005.



## Richard Claytor, Jr.

Principal/Sr. Water Resources Engineer  
rclaytor@horsleywitten.com

Horsley Witten Group  
Sustainable Environmental Solutions



### ***Willard Street, Cambridge MA Sewer Separation***

Principal-in Charge for the assessment and design of GSI measures to manage stormwater runoff prior and reduce phosphorus loading for a new discharge pipe to the Charles River in compliance with the Lower Charles TMDL.

### ***Assessment of Climate Change Impacts on Stormwater BMPs in Coastal Massachusetts***

Principal-in-charge for this assessment of likely impacts to stormwater management practice performance as a consequence of climate change and resulting sea level rise and changes in precipitation characteristics. Project was funded by the Massachusetts Office of Coastal Zone Management.

### ***Engineering Design and Assessment of Stormwater Management for MassDOT's Impaired Waters Program***

Principal-in-charge for several project assignments to evaluate existing drainage/stormwater characteristics and design stormwater retrofit improvements to address runoff from MassDOT rights-of-way that drain to impaired waters.

### ***Maine Mall Retrofit Design and Construction, South Portland, ME***

Principal-in-Charge for the identification, design, permitting, and construction administration for the "Greening of the Maine Mall," a key component of the Long Creek Watershed Management District's charge to restore Long Creek to meet water quality standards.

### ***Roger Williams Park Water Quality Improvement Plan and Implementation, Providence, RI***

Principal Engineer for planning and design of implementation projects to improve the water quality and biodiversity conditions of the Park's urban ponds.

### ***Comprehensive Evaluation of Alternative Strategies for Combined Sewer Overflow Reduction, New York City***

Principal Engineer and part of a team under contract with the New York City Department of Environmental Protection to evaluate and implement a series of pilot green infrastructure stormwater retrofit projects to reduce the contribution of stormwater to combined sewer systems.

### ***Barnstable Municipal Airport Terminal Improvement Project, Hyannis, MA***

Principal Engineer for the permitting and design of civil site improvements for a \$20 million passenger terminal construction.

### ***2010 Rhode Island Stormwater Design and Installations Manual Update***

Principal-in-Charge and co-author for the update to the statewide Rhode Island Stormwater Manual to incorporate low impact development practices for all new and redevelopment projects.

### ***Centennial Brook Flow Restoration Plan, Burlington, VT***

Principal-in-Charge for a watershed assessment and plan to develop a flow restoration approach to meet the flow-based TMDL for the 1.4 square mile Centennial Brook watershed.

### ***Salmon River Watershed Evaluation of Municipal Policies and Regulations, Eastern Connecticut***

Principal-in-Charge of a two-phase project for the Salmon River watershed to evaluate municipal codes and management practices contributing to water resource impacts. Completed technical training, and support for policy revisions to Conservation Subdivision Design, parking regulations, roadway standards, and LID design standards for two Connecticut municipalities.

### ***Upper Charles River Sustainable Stormwater Funding Assessment, Bellingham, Franklin, & Milford, MA***

Project Director for the assessment and dissemination of a technical report documenting the feasibility of widespread implementation of stormwater control measures to meet TMDL requirements and the requirements for a sustainable funding source through a Stormwater Utility structure.

### ***Phase II Stormwater Permit and LID Training Clinics for Municipal Officials in New England, EPA Region I***

Conducted a series of training clinics and hands-on assistance to New England municipal staff on the requirements of the new Phase II permits, as well as helping municipal officials and decision-makers encourage the use of low impact development/green infrastructure practices.



## Jennifer Relstab, PE

Sr. Water Resources Engineer  
jrelstab@horsleywitten.com

### Areas of Expertise

Civil Engineering  
Hydrologic and Hydraulic Modeling  
Geographic Information Systems  
Stormwater Management  
Watershed Planning & Assessment  
Low Impact Design  
Peer Review Services

### Professional Registrations & Affiliations

Professional Engineer, IL #062.061733  
WEF member, 2012 to Present

### Academic Background

Master of Science, Civil Engineering,  
Civil and Environmental Engineering,  
University of Washington

Bachelor of Science, Engineering,  
Civil and Environmental Engineering,  
University of Michigan

### Professional Experience

Horsley Witten Group, Inc.,  
Project Engineer, January 2013-Present

CH2M HILL, Project Engineer,  
August 2008-January 2013

University of Washington, Research  
Assistant, September 2006-June 2008

Greeley and Hansen LLC,  
Project Engineer, September 2005-2006

Stantec (Formerly Ayres, Lewis, Norris &  
May, Inc.), Project Engineer,  
June 2003-September 2005

# Horsley Witten Group

Sustainable Environmental Solutions



Jennifer Relstab has over 20 years of professional experience in civil and environmental engineering. Her expertise is in stormwater management, watershed planning, and low impact development (LID) planning, assessment, design, and implementation. She also has experience with hydraulic/hydrologic modeling and geographic information system (GIS) mapping, analysis, and modeling.

## KEY PROJECTS

### *Watershed Planning and Assessment*

***Nancy Creek Watershed Improvement Plan and Murphey Candler Lake Management Plan, Brookhaven, GA:*** Performed desktop GIS and water quality analyses of a 19.3 square mile watershed. Developed and calibrated existing and future conditions pollutant load models using the Center for Watershed Protection's Watershed Treatment Model (WTM). Summarized results and recommendations for water quality improvement in the Nancy Creek Watershed Improvement Plan based on modeling results.

***Mystic River Watershed Alternative TMDL Development, MA:*** Reviewed existing water quality monitoring data and existing land use data to develop watershed phosphorus loading estimates. Assisted in the development and calibration of a Bathtub model for critical segments of the Mystic River system and evaluated annual phosphorus reductions required to attain MA water quality standards. Summarized results in a final report completed in January 2020. Managed the review of existing codes for six communities to support the 2018 Municipal Separate Storm Sewer System (MS4) Permit requirements. Developed checklists, presentations and memorandums for the communities summarizing gap analyses and recommendations to encourage stormwater practices to address phosphorus loads.

***Palmer River Water Quality Trends and Watershed Plan, MA and RI:*** Project manager for a project with EPA Region 1 that evaluated water quality trends in the Palmer River watershed using existing water quality data and land use data. Performed an evaluation of existing regulations for five communities including the Towns of Rehoboth, Seekonk and Swansea in Massachusetts and the Towns of Warren and Barrington in Rhode Island. Provided recommendations to address gaps in regulations potentially contributing to poor water quality and opportunities to enhance installation of green infrastructure and low impact development techniques.

***Stormwater BMP Assessment for Improvement of River Herring Habitat, City of Medford, MA:*** Project engineer on this MA Office of CZM funded project involving a stormwater assessment of two subbasins within the City using a desktop GIS analysis and field investigations. Prioritized 10 sites based on site suitability, preliminary construction costs and water quality benefits. Developed construction documents for two priority stormwater practices. HW and the City's Department of Public Works staff completed construction of one site, a rain garden at Wrights Pond, in 2019.

***MassDOT I-95/295 Stormwater Improvement Evaluations and Design, Attleboro, MA:*** Project manager for a stormwater improvement project evaluating potential stormwater retrofits opportunities for three miles of I-95/295 between to improve water quality to receiving waterways and resource areas.



Performed desktop analyses and field assessments of existing conditions within the rights-of-way. Prioritized stormwater retrofit opportunities for 100+ sites and developed BMP concepts for the top 25 sites. Currently working on the design of 17 of the priority sites, which is expected to be completed in the Spring of 2021.

**MassDOT Route 6 Stormwater Improvement Evaluations and Design, Cape Cod, MA:** Project manager for a stormwater improvement project evaluating potential stormwater retrofits along 13 miles of Route 6 between the Town of Dennis and the Town of Orleans to improve water quality to receiving waterways. Performed desktop analyses and field assessments of existing conditions within the Route 6 rights-of-way. Prioritized stormwater retrofit opportunities for 60+ sites and developed BMP concepts for 10 sites. Designed stormwater retrofits for five sites as well as 17 outfall stabilization practices. Construction was completed in 2019.

### Hydrologic and Hydraulic Modeling

**Hydrologic and Hydraulic Modeling of Moonlight Brook, Newmarket, NH:** Evaluated survey data, GIS, mapping, existing models (HEC-HMS, HEC-RAS, and HydroCAD) and historical reports to develop an existing conditions PCSWMM model of Moonlight Brook. The model was used to evaluate build out analyses of the watershed and various green infrastructure strategies to address flooding and climate change scenarios.

**Limited Detail Mapping Study Floodplain Modeling, Forsyth County, GA:** Developed a HEC-RAS model for Etowah River in Forsyth County from existing GIS data using Geo-RAS for a limited detail mapping study. Assisted in the preparation of a HEC-RAS model for Setting Down River. Performed GIS and model QA/QC.

**Army Corps of Engineers Stream Restoration Modeling, Cobb County, GA:** Modeled restoration alternatives in HEC-RAS by updating the existing conditions model with proposed channel geometries and restoration measures for Allatoona and Proctor Creeks. Performed analyses of sediment supply using the bank-stability and toe-erosion (BSTEM) model.

### Stormwater Management

**Stormwater Code Review, Mystic River Watershed Association, MA:** Reviewed stormwater and sediment/erosion control ordinances and related code provisions related to stormwater management based on the 2014 Draft MS4 General Permit. Drafted a stormwater code checklist and memorandum for each of the three towns identifying potential conflicts with the 2014 Draft MS4 General Permit as well as potential impediments to implementation of environmentally sensitive site design and green infrastructure practices.

**Stormwater Code Review, Neponset Valley Regional Stormwater Collaborative, MA:** Reviewed technical documents related to stormwater ordinances based on the 2014 Draft MS4 General Permit.

**Stormwater Concept Design, Site Evaluation and Concept Planning, City of Philadelphia, PA:** Performed site evaluations and concept plans for green infrastructure to manage stormwater in and adjacent to Disston and American Legion Parks in northeastern Philadelphia. Developed recommendations and costs for implementation of green infrastructure alternatives, including green streets and regional facilities.

**Green Infrastructure Implementation Strategy, Town of Franklin, MA:** Assisted in developing a strategy for the Town for implementing green infrastructure into their existing and future projects, programs and policies, which involved reviewing previously conducted code reviews and past green infrastructure practices.





## Ellen Biegert, RLA

Landscape Architect  
ebiegert@horsleywitten.com

### Areas of Expertise

Landscape Architecture  
Site Planning and Design  
Master Planning  
Graphic Services  
Green Infrastructure Design  
Stormwater Management  
Botanical Knowledge

### Professional Registrations & Affiliations

Registered Landscape Architect, PA

Member, American Society of Landscape Architects (ASLA), Rhode Island Chapter

Member, Congress for New Urbanism (CNU), Rhode Island Chapter

### Academic Background

Bachelor of Science in Landscape Architecture, Temple University

### Professional Experience

Horsley Witten Group, Inc., Project Manager, November 2018 to Present

Terra Design Studios LLC, Project Manager and Designer, November 2014 to 2018

Thomas J. McLane and Associates, Project Designer, 2013 to 2014

Ellen Biegert has ten years of professional experience in Landscape Architecture and is driven to strengthen the connection between the natural and built environment. Ellen works on projects that integrate open space and green infrastructure into neighborhood and urban context to create green networks for surrounding communities and natural systems. She provides landscape design services to a variety of private and public entities including master planning, planting and botanical design, graphics, permitting, construction documentation and administration. Her past work includes public recreation areas such as parks and trails, botanical gardens, family gardens, university campuses, stormwater planning, and streetscape design.

### KEY PROJECTS

#### ***Woonasquatucket River Greenway Bike Path, Providence, RI (ongoing):***

Served as a primary designer for an urban street bike path that connects users to the tidally influenced Woonasquatucket River and links EJ communities to downtown Providence while incorporating green infrastructure, kayak launches, and small gathering spaces. Contributed to all phases of the project including site analysis, public engagement, conceptual design, permitting and construction documents.

#### ***Panama City Downtown and Neighborhoods Master Plan, Panama City, FL:***

Provided creative and technical support for the re-visioning of Downtown Panama City and surrounding neighborhoods as they were recovering from the damage of Hurricane Michael, which hit the area in 2018. Focused on weaving green space planning, coastal resilience and water management practices with the built environment while balancing community needs to create sustainable and vibrant neighborhoods. Contributed to the open space network design, stormwater analysis, streetscape design, conceptual green infrastructure approach, and graphics.

#### ***Lily Pond Park Master Plan, Nantucket, MA:***

Provided creative and technical support for the master plan and schematic design of Lily Pond Park including designs to integrate stormwater and invasive management into the visitor experience and park improvements. Aided in site and stormwater analysis, green infrastructure concepts, and graphic plans and sections to communicate with the client and stake holders.

#### ***Brooklawn Park Constructed Wetland, New Bedford, MA:***

Served as primary designer for the stormwater and pedestrian improvements to Duck Pond in Brooklawn Park. Designs integrated stormwater management into the visitor experience with walkway improvements and educational opportunities. Aided in site and stormwater analysis, graphic concepts, and construction documents.

#### ***Greenbush Station Development, Scituate, MA:***

Contributed to the site and landscape design for redeveloping an old train station parking into a mixed-use development that includes a village scale pedestrian-oriented public realm and green infrastructure applications. Provided site analysis and design, landscape design, construction documentation, and construction administration.

#### ***Iron Hill Park, Weymouth, MA:***

Provided design services for an environmentally sensitive park that balances human and environmental interaction by creating spaces for people, preserving the park's herring run, and expanding native vegetation communities to improve habitat. Developed and revised concepts to support public meetings and outreach.

## Ellen Biegert, RLA

Landscape Architect

ebiegert@horsleywitten.com

# Horsley Witten Group

Sustainable Environmental Solutions



**Easton Street Pocket Park, Nantucket, MA:** Served as primary designer for a pocket park in downtown Nantucket that provides greenspace for residents. Designs integrated stormwater management into the visitor experience with walkway improvements and educational signage. Aided in site and stormwater analysis, conceptual designs, and construction documents.

**Mangrove Restoration, Saint Croix & Saint Thomas, USVI:** Provided site analysis, graphical and technical support for the assessment and conceptual design of degraded Mangrove Habitats in the USVI with the goal of improving bird habitat. Developed and revised concepts to support public engagement and community outreach.

**Chattanooga West End, Chattanooga, TN:** Provided creative and technical support for the re-visioning of an approximately 95-acre industrial site along the Tennessee River. Aided in site and stormwater analysis, streetscape design, and graphic plans and sections to communicate with the client and stakeholders.

**Middlebury Master Plan, VT:** Provided creative and technical support for the planning of the historic downtown, integrating green stormwater practices, open space, and trails into the downtown network. Supported site and stormwater analysis, green infrastructure concepts, and graphic plans and sections to communicate with the client and stakeholders.

**John Glass Square, Middleborough, MA:** Provided design, construction documentation, and construction administration services for a pocket park and landscape along a central collector street within, providing better pedestrian connectivity and public gathering space.

**Educational Signs:** Developed and coordinated printing of educational signage for several sites throughout the cape to identify green infrastructure practices, the importance of them and other environmental information. Printed signage locations include Sandwich Boardwalk, in Sandwich MA, and Ropes Beach in Cotuit, MA.



## Amy Ball, PWS, CWS

Project Manager/Senior Ecologist  
aball@horsleywitten.com

### Areas of Expertise

Wetland & Natural Resource Area Assessments  
Environmental Permitting & Compliance  
Rare Species  
Coastal Resources  
Training  
Meeting Facilitation

### Professional Registrations & Affiliations

Professional Wetland Scientist, 2542  
Certified Wetland Scientist, 230  
Certified Invasive Species Manager  
V.P. for Education, Board of Directors, MACC  
Member, AMWS, SWS

### Academic Background

Master of Science, Plant Biology, University of MA  
Bachelor of Science, Biology, Muhlenberg College  
Wetlands Wildlife of Southeastern MA Field Course, University of MA Cooperative Extension  
Marine Phycology Summer Field Course, University of Washington  
Barrier Island Ecology Summer Field Course, Duke University

### Professional Experience

Horsley Witten Group, Inc., Project Manager/Senior Ecologist and Wetland Scientist, 2001 - Present  
LEC Environmental Consultants, Inc., Project Manager, Ecologist, 1995-2001  
Harvard Forest, Petersham, MA, Research Assistant, Summer 1994  
UMASS, Amherst, Research Assistant, Spring/Summer 1993, Teaching Assistant, 1991-1994  
SMC Environmental Services Group, Inc., Intern/Assistant, Summers 1989-1991

## Horsley Witten Group

Sustainable Environmental Solutions



Amy Ball has more than 28 years of professional experience as a wetland scientist and ecologist. Her specific expertise is in wetland botany and ecology, wetland restoration and mitigation, rare species and wildlife habitat assessments, wetland assessment and monitoring, invasive species management, environmental policy evaluation, and environmental permitting. Ms. Ball frequently appears before local conservation commissions and state and federal regulatory authorities as project representative or as a peer review consultant and has provided expert testimony before the Massachusetts Division of Administrative Law Appeals and in Massachusetts Land Court.

### KEY PROJECTS

**Summary and Analysis of Public Comments Relating to the Federal Clean Water Act, EPA Office of Wetlands, Oceans and Watersheds:** Assisted the U.S. Environmental Protection Agency on several projects relating to the definition of “waters of the United States,” including proposed rule-making and draft guidance documents, and implementation of wetland mitigation regulations. Efforts included compiling, categorizing, and summarizing public comment letters, and preparing topic compendiums.

**Compensatory Mitigation Rule Trainings, EPA Office of Wetlands, Oceans and Watersheds:** Provided logistics and lead technical support for regional training workshops relating to wetland mitigation under the Federal Clean Water Act. Assisted with course book and training curricula development for multi-agency training workshops in conjunction with EPA and U.S. Army Corps of Engineers, as well as preparation of meeting summaries and final summary reports of the training efforts.

**MassDOT Stormwater Improvements along Interstate 95, Attleboro, MA:** Permitting manager for implementation of stormwater BMPs along a 4-mile stretch of interstate highway in support of MassDOT’s Impaired Waters Program addressing water quality within the watersheds of Ten Mile River and Fourmile Brook. Performed resource area delineations, prepared permit applications and invasive species management plans, and served as project representative before the local Conservation Commission.

**Sunset Lake and Lakeside Park, Oak Bluffs, MA (current):** Led efforts for proposed park improvements involving stormwater retrofit and habitat restoration around a gateway public park in downtown Oak Bluffs. Project was initiated by a local grassroots non-profit group, Friends and Neighbors of Sunset Lake (FANS), and funded through grants from the Community Preservation Committee. Construction slated for spring 2021.

**Fuller Brook Park Preservation Project, Wellesley, MA:** Permitting manager for the restoration of a 2.2-mile reach of a suburban impaired stream and wetland system within a major recreation and transportation corridor for the community. Project designed to restore habitat and hydrologic function to the riparian system including stream bank restoration, improved wetland connectivity, invasive species management, and construction of bioretention facilities to manage stormwater runoff.

**Conservation Commission Peer Review Services (on-going):** Performed third-party independent project reviews for projects involving wetlands and wildlife habitat impacts, including for the municipalities of Attleboro, Bedford, Duxbury, Newburyport, North Attleborough, Oak Bluffs, Provincetown, Scituate, and Taunton, MA. Responsibilities vary by project, and include review of resource area boundaries, wildlife habitat assessments, wetland mitigation, and compliance with state and local regulations.





***Provincetown Municipal Airport, Capital Improvement Program, Provincetown, MA (current):***

Managed project for wetlands and wildlife-related studies and project permitting. Project included freshwater and coastal resource area delineation, wildlife habitat assessments, and rare species habitat surveys, preparation of various reports and public presentations. Coordinated permitting with Federal, State, regional, and local regulatory agencies. Provided environmental oversight during construction.

***Integrated Solid Waste Management Facility, Bourne, MA (current):*** Project manager responsible for providing natural resources assessments and coordination and permitting under the Massachusetts Endangered Species Act to mitigate project-related impacts to rare species habitat associated with a master-planned expansion of the Bourne Landfill. The project will ultimately result in expanded solid waste handling facilities and office space, as well as the permanent protection of rare species habitat.

***Coastal Bank Restoration and Resiliency Project, Ipswich, MA (current):*** Permitting manager for restoration project involving a green infrastructure shoreline stabilization design along the Ipswich River to improve coastal resilience and protect critical infrastructure. The project, still underway, will result in the construction of living shorelines as well as upgradient stormwater improvements to two existing outfalls.

***Province Lands Road and Province Lands Bicycle Trail Bridge Improvements, Provincetown, MA:***

Managed project and led field investigations for wetland delineations, vegetation community assessments, hydrogeomorphic assessments, and wetland functions and values with a 2.39-mile roadway corridor in the Cape Cod National Seashore on behalf of the National Park Service and the Federal Highway Administration.

***Norman Bird Sanctuary, Middletown, RI:*** Performed field identification of plant communities and invasive species to support the development of a Facilities Master Plan for a private wildlife sanctuary. Master Plan includes an invasive species management plan, identification of site amenities, and recommended improvements to shape future investments and management opportunities for the property's campus facilities, trail network, grounds, and environmental resources.

***Rhode Island Airport Commission, T.F. Green Airport Airspace Obstruction Removal Project, Warwick, RI:*** Managed permitting of the removal, topping, and/or lighting of identified on- and off-airport obstructions surrounding the four runway ends through the Rhode Island Department of Environmental Management. Project is part of the larger Airspace Obstruction Removal Project associated with the runway extension at the Airport.

**Coastal Restoration Projects, Cape Cod and Nantucket, MA:** Managed permitting for restoration of salt marsh hydrology and ecology for several coastal restoration projects in southeastern Massachusetts. Varied responsibilities included resource area delineation, survey oversight, and project coordination with federal, state, regional, and local permitting agencies.

***Sachem's Path Affordable Housing Development, Nantucket, MA:*** Conducted rare plant surveys and vegetation community assessments and managed permitting for a housing development on a site mapped for rare species habitat. Massachusetts Endangered Species Act permitting included mitigation design and preparation of land management plans for on-site and off-site habitat preservation and Conservation Restrictions. Oversaw propagation and transplantation of state-listed plant species and long-term monitoring required by the Conservation and Management Permit.

***Rare Plant Survey, Cochecho Waterfront Development Project, Dover, NH:*** Performed a rare plant survey for state-listed threatened and endangered plant species and habitats as part of the permitting support for a City-sponsored waterfront park and development that includes site remediation, living shoreline restoration, and bank stabilization in downtown Dover.

***Goose Point Lane, Mashpee, MA:*** Served as wetlands expert on behalf of the Mashpee Wampanoag Tribe opposing a project with potential adverse impacts to the Tribe's long-standing shellfish grant. Provided expert at a Division of Administrative Law Appeals (DALA) hearing. Decision was rendered in favor of the Town of Mashpee and the Tribe.



## Geoffrey Glover, PE

Civil Engineer

gglover@horsleywitten.com

### Areas of Expertise

Civil Engineering

Site Design

Surveying

Stormwater Management & Green Infrastructure

Erosion and Sediment Control

Bank Stabilization and Restoration

Auto-CAD Civil 3D

HydroCAD Stormwater Modeling

HEC-RAS Hydraulic Modeling

### Professional Registrations & Affiliations

Professional Engineer: Massachusetts (PE)

# 57491 July 2022

### Academic Background

Bachelor of Civil

Engineering, University of New

Hampshire

Minor in Architectural Studies.

### Professional Experience

Horsley Witten Group, Inc., Civil

Engineer, June 2015 to Present

NH Department of Transportation,

Bureau of Construction Summer 2014

# Horsley Witten Group

Sustainable Environmental Solutions



Geoffrey Glover has more than eight years of professional experience as a civil/environmental engineer specializing in site design, grading and drainage systems, geomorphology, and hydrologic/hydraulic modeling. As a project engineer at HW, he works on a variety of projects with a focus in stormwater management, water resources, and civil/site design. Projects include stormwater retrofits in the Boston and greater Boston area, site design for paths, roadways, and parking areas in varying locations in Massachusetts, and stormwater management and restoration efforts throughout New England and the US Virgin Islands.

### KEY PROJECTS

#### ***Crosby Lane Culvert Replacement – Brewster, Massachusetts***

Assisted with design of an improved and raised roadway atop an improved culvert and stormwater management to mitigate unwanted sediment deposits from the landing area into the adjacent marsh. Completed construction ready plans and specifications for the replacement of an existing 12" RCP culvert that was obstructing tidal waters and ecological continuity to an upgradient marsh community. Performed hydraulic modeling and developed design specifications to ensure that the proposed box culvert would allow for the correct flow to ensure ecological success after the replacement, as well as longevity of system.

#### ***Prospect Hill Park – Waltham, Massachusetts***

Designed grading and drainage of the redevelopment project for Prospect Hill Park. Worked closely with Hedlund Design Group to ensure compliance with environmental regulations while meeting the needs of the City for the public use of the park. Provide grading for the transportation corridor to help re-route the existing circulation of vehicles while maintaining safe access for pedestrians. Developed drainage design to manage the water quality volume being produced from the improved paved surface and the improvement of the drainage channel.

#### ***Trout Pond Emergency Repair – Mashpee, Massachusetts***

Assisted Mashpee Commons with the design and implementation of an embankment that controls the outflow from Trout Pond, a man-made pond. Performed problem-solving assessment for this emergency repair of previously failed design, identifying design flaws that may have caused the most recent failure of the embankment. Added several design elements to improve ease of maintenance and safety.

#### ***Narragansett Bay Commission – Phase IIIA-GSI, Central Falls, Rhode Island***

Supported technical and design team for green stormwater infrastructure (GSI) implementation at several locations throughout Central Falls, RI. Transformed an abandoned grass athletic field into a new synthetic turf field that allowed for approximately 1.3 million gallons of storage below grade. Included underground infiltration chambers, gravel storage, and an underground sand filter in the overall design.

## Geoffrey Glover, PE

Civil Engineer

gglover@horsleywitten.com

Horsley Witten Group

Sustainable Environmental Solutions



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### ***Malden River Works – Malden, Massachusetts (current)***

Working as the lead design engineer with Landing Studio Design in the City of Malden to improve the current use of the Department of Public Works building. Working on options to incorporate the public pathway adjacent to the Malden River that is part of a city-wide system. Providing grading and drainage design of the improved DPW yard, streambank restoration, and stabilization.

### ***Engineering Services for Upper Mystic River Watershed – Reading, Massachusetts (current)***

Designing a constructed wetland for the one of three sites in the upper Mystic River that was deemed viable for implementation. Using an integrated approach to include multiple benefits such as an improved walking trail, limited tree removal, and invasive species management.

### ***Protecting Coastal Infrastructure – Kaopala, HI (current)***

Assisting in the development of the 60% engineering design plans that will reduce flooding while providing other co-benefits such as water quality improvement, community open space, and nearshore marine and floodplain habitat improvement.

### ***Virgin Island Trail Alliance, St. Croix, USVI (current)***

Working in one of the highly protected watersheds in Saint Croix, Gallows Bay. Teaming with the International Mountain Biking Association to develop a multi-use trail that will surround Spring Gut & provide a much-needed addition to the islands recreational trail system. Preparing a hydraulic and hydrologic study of the watershed to understand the pre- & post- stormwater flows and the possible effects of the future path. Leading design of stormwater management practices to be included in the layout and design of the path to help improve water quality in the bay and restore Spring Gut



## Kirby G. Marshall



### Career Summary

Mr. Marshall has an exceptional range of experience in waterfront feasibility, planning and development projects. His duties include business development and project procurement, feasibility analyses, site assessment, planning, market studies, financial modeling, cost estimating, scheduling, regulatory permitting, design, bidding, construction management, owner's representative services, and overall project management.

He provides services on marina and waterfront development projects throughout North America, the Caribbean and the Middle East including several facility redevelopment projects. His expertise includes marina market and economic analyses and has led ATM's efforts in these areas for the past several years. This resulted in the creation of new, proprietary economic models that examine project feasibility and potential profitability for both public and private clients.

Prior to working in marina consulting and design, Mr. Marshall was employed in the construction products industry with general contracting firms in Florida and South Carolina.

### Project Experience

**Carson Park Waterfront Planning and Permitting, Orangeburg County, SC.** Provided planning and regulatory permitting support for boardwalk and kayak launch on the Edisto River. Work also included limited construction administration services.

**Buck Hall Recreation Area Renovation, McClellanville, SC.** Led waterside planning efforts for the redevelopment of this federal recreation area in coastal South Carolina. Work included marine infrastructure assessment, wind/wave analysis, resiliency analysis, project planning, and regulatory permitting.

**Cooper River County Park and Marina, North Charleston, SC.** Led conditions assessment for aged marina facility. Work included detailed site investigation, repair analysis, cost estimating, and presentation of findings. Subsequent work included site redevelopment master planning, including stakeholder consultation, marina integration, and public meetings.

**Isle of Palms Marina Redevelopment Master Planning, Isle of Palms, SC.** Led comprehensive redevelopment master planning effort for proposed renovation of a municipal marina. Tasks included stakeholder meetings; project website; facility condition assessment, marina market analysis, parking and traffic assessment, and regulatory and engineering assessment; redevelopment master planning efforts; and developing economic projections for proposed improvements. Included multiple public presentations and detailed coordination with site tenants and city officials.

**Mount Pleasant Memorial Waterfront Park Phase II, Mount Pleasant, SC.** Led water-side planning efforts for the Phase II development. Coordinated with local land planning firm to integrate water-side and upland elements. Tasks included. kickoff meetings with Town and stakeholders, wind/wave analysis, bathymetric surveying, conceptual marina planning, cost estimating, grant funding opportunity analysis, dive inspection of existing pier and surrounds, and development/submittal of a Tier 2 Boating Infrastructure Grant.

### Specialties:

- Site Assessment
- Due Diligence Studies
- Marina/Waterfront Planning
- Megayacht Facility Planning
- Market Study Development
- Financial Analysis/Forecasting
- Regulatory Permitting
- Construction Management
- Owner's Representative Services
- Grant Funding

### Education:

- MBA, The Citadel, 2002
- BS, Industrial Technology, Construction Management, University of North Florida, 1997

### Professional Registration:

- South Carolina Marine Association/NMMA
- State Organizations for Boating Access
- Citadel MBA Association
- Citadel Business Network Editorial Board, Founding Member
- Citadel Alumni Association
- Beta Gamma Sigma Honor Society

## Kirby G. Marshall

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**Green Pond Landing and Event Center, Anderson County, SC.** Provided critical support to land planner and Anderson County regarding the planning, design, regulatory permitting, and construction administration services of proposed six-lane tournament boat ramp facility on Lake Hartwell.

**McFall's Landing Redevelopment Planning, Anderson County, SC.** Led lake access feasibility study for the redevelopment of municipal boat ramp site on Broadway Lake. Effort included site assessment, conceptual site planning, cost estimating, and coordination with County.

**Ashley River Walk Feasibility Study and Application, Charleston, SC.** Conducted technical review of proposed river walk routing. Coordinated review of previous work efforts on and adjacent to Bristol Marina, Ashley Marina, and the Charleston City Marina.

**Burlington Harbor Marina Feasibility, Burlington, VT.** Led marina feasibility effort for proposed private marina on Lake Champlain. Work included stakeholder meetings, site analysis, marina market analysis, wind/wave analysis peer review, marina planning, and the development of three Boating Infrastructure Grant applications. ATM also conducted federal and state permitting for the proposed marina and developed performance specifications for the floating dock systems.

**Okee-Tantie Campground and Marina Redevelopment Planning, Okeechobee County, FL.** Led a facility redevelopment planning effort for Okeechobee County. Work included detailed market analysis, facility redevelopment master planning, financial analysis, planning charrettes, and public presentations.

**Old Town Creek Dock, Charleston, SC.** Project manager responsible for planning, permitting, design, bidding, and construction administration for replacement of fixed timber fishing dock in Charleston, SC.

**Rowing and Sailing Center Planning and Design, Hilton Head Island, SC.** Led planning, design, permitting, and bidding effort for this municipal rowing and sailing facility for the Town of Hilton Head Island, SC. Also performed construction administration services on behalf of the Town.

**Parkers River Marina Feasibility Study, Cape Cod, MA.** Led detailed feasibility study for proposed municipal marina on Cape Cod. Effort included comprehensive marina market assessment, marina planning, cost estimating, and economic pro forma development. Work included close coordination with Town Administrator, Director of Natural Resources, town finance personnel, the Town Engineer, and a public presentation of findings.

**Brown Road Fishing Pier, Anderson County, SC.** Led planning, permitting and design effort for proposed municipal fishing pier on Lake Hartwell.

# Maura K. Boswell, PhD, PE



## Career Summary

Dr. Boswell has 19 years of experience providing expertise in coastal engineering, marinas, and urban waterfronts. Her coastal engineering experience includes natural and nature-based features, coastal structure design, beach nourishment, numerical modeling, post-storm condition field assessment, shoreline change assessment, permit acquisition, preparation of final design documents, and wave prediction and wave force studies for fixed and floating structures. Her urban waterfront and marina experience includes marina market studies, marina layout designs, and analysis of boating and cruising trends. Dr. Boswell has managed a variety of coastal and waterfront projects along the East Coast and has focused her interests the last decade on resilient coastal shorelines and projects concerned with managing coastal flooding and sea level rise.

### Project Experience

**Town of Chatham Coastal Conditions Assessment**, *Chatham, Massachusetts*. Project manager for a study of available data to determine if existing available data are sufficient to assess the effectiveness of the town's flood gate and determine under what conditions the flood gate should be deployed.

**City of Burlington Harbor Dredging**, *Burlington, Vermont*. Project manager for a harbor dredging design, engineering, and construction administration services project for two basins in the City of Burlington to increase depth in two areas causing navigational issues while staying within the available budget.

**Rudee Loop Walkway**, *Virginia Beach, Virginia*. Project manager for the design, permitting, and construction oversight of an aesthetically pleasing and safe walkway along the waterfront to connect an existing roadway to the boardwalk. The design incorporates concrete and timber walkways and has a floating taxi pier. Coordinated public outreach meetings to ensure the community input was received and incorporated into the final design.

**SH Rockland Marina Expansion**, *Rockland, Maine*. Assistant project manager for expansion of an existing marina. The expansion includes configuring new dock connections with existing docks and accommodating removal of some docks during the off season.

**Annual Services Contract for General Coastal Engineering Services**, *Virginia Beach, VA*. Project Manager for the City of Virginia Beach on-call contract focused on coastal engineering services. Responsibilities included site assessments, numerical modeling analysis, permitting, design and bid services, public outreach, construction administration, and subcontractor engagement and oversight. Projects included boat access facilities, post-storm assessments, waterfront access development, dune walkovers and numerous other tasks as conditions along the shoreline changed.

### Specialties:

- Coastal Engineering & Processes
- Sediment Transport
- Living Shorelines
- Nature-Based Solutions
- Coastal Flooding and Sea Level Rise
- Coastal Resilience
- Marinas

### Education:

- PhD, Civil and Environmental Engineering, Old Dominion University, 2022
- MS, Coastal and Oceanographic Engineering, University of Florida, 2004
- BS, Ocean Engineering, Florida Institute of Technology, 2002

### Professional Registration:

- Professional Engineer, VA #0402048080, 2010
- Professional Engineer, FL #67550, 2008
- Professional Engineer, ME #PE17807, 2022
- Professional Engineer, MD #30654, 2022
- Professional Engineer, DE #28090, 2022
- Professional Engineer, MA #57922, 2023
- PADI Rescue Diver



## Maura K. Boswell, PhD, PE

**Knitting Mill Creek Shoreline Protection, Norfolk, Virginia.** Project manager who conducted a site assessment of the existing shoreline conditions and provided multiple protection alternatives with associated opinions of probable cost. Provided design and permitting support and prepared bid documents for improvements that incorporated a combination of bulkheads, revetments and living shorelines. The project shoreline is located in a cove across from a marina and adjacent to a recently constructed bulkhead; improvements to the surrounding areas had highlighted the erosion and failed armoring structures along the project shoreline. Coordinated and facilitated public outreach meetings to incorporate community feedback into the selected shoreline erosion protection design.

**City of Hopewell Marina Design, Hopewell, Virginia.** Project manager and coastal engineer for the waterfront development part of the project team to create concept marina layouts incorporating site-specific conditions and stakeholder input. The existing marina is in need of renovation and the site plans include replacing the bulkhead, reconfiguring the marina, and renovating the boat ramp.

**Frink Waterside Development, Clayton, New York.** Coastal engineer who collected and analyzed data concerning boat registration, population, and demographics to determine the expected future boating market in the south St. Lawrence River region. Conducted assessments of the existing marinas in the market and their associated amenities to determine areas of demand and regional trends in order to advise the client on potential for marina development.

**Oswego Marina Market Study, Oswego, New York.** Coastal engineer who collected and analyzed data concerning boat registration, population, and demographics to determine the expected future boating market in the south Lake Ontario region. Conducted assessments of the existing marinas in the market and their associated amenities to determine areas of demand and regional trends in order to advise the client on potential for marina development.

**Narte Marinas and Resort, Narte, Albania.** Coastal engineer who collected and analyzed data concerning boat registration, population and demographics to determine the expected future boating market in the Adriatic region in support of the development of a marina and resort along the coastline of Albania. Conducted assessments of the existing marinas in the market, and associated amenities, to determine areas of demand and regional trends in order to advise the client on potential for marina development. Designed the basin entrance structures and marina layout alternatives based on the results of analysis of local meteorological and oceanographic data. Designed interior channels for potential boat usage and associated shoreline treatments.

**Ritz-Carlton Waterfront Development, Grand Cayman, Cayman Islands.** Coastal engineer who analyzed existing site conditions and meteorological and oceanographic data to assist in redeveloping and expanding an existing upland resort on the west bay shoreline of Grand Cayman. Designed pocket beaches and assessed the existing marina market with associated layout development.

**Amalago Resort and Casino, St. Croix, U.S. Virgin Islands.** Coastal engineer who assisted in analysis of site conditions for development of the waterfront portion of the resort. Services included wind and wave climate analyses, modeling water movement to determine optimal marina basin design for proper flushing and shoreline change analyses.

**West Bay Boat Ramp, West Bay, Florida.** Coastal engineer who provided the design services for the boat launch facility to provide water access for boaters at a proposed development in the Florida panhandle, and an upland containment dike for dredge spoil disposal.

## Justin Davis, PE



### Career Summary

Mr. Davis specializes in domestic and international marina and waterfront development and redevelopment projects. His project experience ranges from small private docks on the rivers of South Carolina to multi-million-dollar mixed-use luxury marinas in the Caribbean and Middle East. He has comprehensive knowledge of all phases of waterfront development and redevelopment projects from inception through feasibility, planning, permitting, design, construction, and project close-out.

Throughout his career, Justin has developed several areas of expertise related to marina and waterfront project development. He is exceptionally well-versed in the assessment of waterfront development/redevelopment and public water access and understands the significant revitalization that properly planned and designed waterfront redevelopment can have on the surrounding community and region. Justin regularly conducts detailed feasibility assessments for waterfront redevelopment and public access projects including engineering and regulatory feasibility, public outreach, market analysis, financial modeling and forecasting, and myriad other factors critical to successful waterfront development/redevelopment. Mr. Davis is also regarded as an industry expert in grant funding procurement and administration, helping his clients procure funding that can often make projects financially feasible.

In addition to pre-development and feasibility assessments, Mr. Davis has extensive experience with regulatory permitting and design of waterfront projects and structures. He works closely with his clients and applicable local, state, and federal agencies to navigate the regulatory approvals process for his projects. He serves as lead engineer on a wide variety of projects developing detailed, cost-effective design solutions. Specifically, Mr. Davis specializes in structural design of fixed piers, bulkheads, and similar waterfront structures ensuring adherence to applicable codes and Americans with Disabilities Act (ADA) requirements.

Mr. Davis also administers construction contracts on behalf of his clients to ensure that the construction works are progressing in accordance with the construction contract and design intent. He acts as the primary point of contact and mediator between the contractor and client to identify solutions to challenges that may arise during construction. To date, he has personally managed over \$40M in waterfront construction contracts. He has also provided construction administration in a support role on additional construction contracts worth more than \$54M. He has developed a dedicated approach to construction management through a focus on facilitating proper and efficient communication between the owner, contractor, and other project stakeholders.

**Gratwick Park Marina Redevelopment Program, North Tonawanda, NY.** Created a detailed redevelopment program for the formerly dilapidated park and marina. Key efforts included assessment of existing conditions and meetings with the Mayor and other City officials to identify key goals and drivers for the project, market assessment, redevelopment master planning, public presentation of findings, and procurement of ~\$689,000 in federal grant funding for the project.

### Specialties:

- Project Management
- Engineering Feasibility Analysis
- Marina/Drystack Due Diligence
- Market Analysis
- Financial Analysis
- Marina Planning
- Drystack Planning
- Insurance Claim Resolution
- Grant Funding
- Structural Design

### Education:

- Graduate Certificate, Structural Engineering, The Citadel, 2022
- MBA, The Citadel, 2009
- BS, Civil Engineering, Cum Laude, Clemson University, 2002

### Professional Registration:

- Prof. Engineer, SC, No. 28181, 2010
- Prof. Engineer, GA, No. PE040200, 2015
- Prof. Engineer, NC, No. 042879, 2015

## Justin Davis, PE

**Dixie Plantation Waterfront Access Feasibility**, *Charleston County, SC*. Project manager on an assessment to determine the feasibility of providing multiple forms of water access to a ~900-acre tract of land controlled by the College of Charleston Foundation. Conducted field investigations by land and water to identify potential water access points along the property's shoreline. Provided recommendations for type/size public water access for both motorized and non-motorized (e.g., kayaks, stand-up-paddleboards, etc.) uses. This effort included special consideration regarding integration of proposed upland elements such as a museum, media center and interpretive alongshore nature trail. This effort also included careful review of applicable regulatory constraints, identification of water quality classification, aquaculture permits/resources, etc.

**Black Rock Park**, *Buffalo, NY*. Supported coastal team with preliminary coastal conditions analysis and developed schematic level concepts for boat ramp repair/replacement and floating dock installation, including floating kayak launches. Special consideration was given to maintaining ADA-compliant access to the docks and kayak launches.

**Ashley River Walk Feasibility Study**, *Charleston, SC*. Performed studies for the feasibility of a proposed riverwalk along the length of the western shoreline of the Charleston peninsula. Efforts included both field and desktop investigations, participation in numerous meetings with internal and external project stakeholders (City of Charleston, USACE, SCDHEC, USCG, SCDOT, property owners, etc.) to determine the opportunities and constraints associated with potential development of alongshore, fixed, and floating walkways to connect an existing pathway from Brittlebank Park on the northern side of the peninsula to an existing pathway on the southern portion of the peninsula and the famed Charleston Battery, Rainbow Row, and historic downtown district.

**Cooper River County Park and Marina**, *North Charleston, SC*. Has led master planning efforts by a multi-disciplinary team for the rebranding of the site from the "Cooper River Marina" to the "Cooper River County Park." Key efforts to date have included planning charrettes with project stakeholders and other consultants, conceptual planning, integration of water access facilities into park master plan including ADA-access throughout the site to multiple water access points including piers, floating docks, alongshore trails, and a recreational crabbing dock. The project has included detailed cost estimating, project phasing analyses, extensive public outreach and "town hall" presentations within local communities, many of which are disadvantage, numerous council/stakeholder meetings and presentations, regulatory approvals, and preliminary design. Final design of the first phase of the master plan is currently in process which includes ~700 linear feet of shoreline stabilization, site grading, stormwater retention via a shallow water wetland system, lawn areas, meadows, landscaping, lighting, irrigation, site furnishings, paths, boardwalks, and a fixed public access pier.

**Municipal Marina and Park Redevelopment**, *Isle of Palms, SC*. Assisted with master planning efforts for the redevelopment and revitalization of the site as part of a multi-disciplinary team to provide additional recreational and water access opportunities and improved pedestrian and vehicular traffic flow and parking. Key efforts included assessment of site parking and traffic flow requirements, coordinating conflicting uses within the redevelopment plan, integration of upland and water access components of the project, and presentations to public stakeholders and City Council.

**Joseph P. Riley Waterfront Park Expansion**, *Charleston, SC*. Conducted planning, permitting and funding procurement efforts for water access facilities at the proposed expansion of the extremely popular waterfront park in downtown Charleston, SC. Key efforts included conceptual planning and water access feasibility, integration of water access components with upland master plan, regulatory permitting, pro forma analysis for the proposed dockage facility, and procurement of ~\$586,000 in federal grant funding through the Boating Infrastructure Grant (BIG) program for the transient docks at the expanded park.

**O'Heare Pointe**, *SC*. Performed initial site analysis and feasibility analysis to assist the owner with understanding the potential for water access to a property along the Wando River. This effort included coordination with appropriate regulatory officials to discuss the regulatory conditions affecting the property. Efforts included preliminary water access planning and conceptual design of water access facilities.





## Education

MIT Professional Certificate  
in Real Estate Finance and  
Development

University of North Carolina at  
Chapel Hill: Bachelor of Arts,  
Linguistics

## Professional Affiliations

American Planning Association  
Urban Land Institute

## ACADEMIC POSITIONS

CPUA, Metropolitan College,  
Boston University: Adjunct Faculty

## Certifications

American Planning Association:  
Certified Planner (AICP)

USGBC:  
LEED AP Neighborhood  
Development

Commonwealth of  
Massachusetts:  
MVP-Technical Services Provider

Emily Innes, AICP, LEED AP ND is an award-winning planner with over twelve years of experience in planning and urban design. In 2020, she founded Innes Associates to work with communities throughout New England. Her clients are communities of all sizes, state agencies, and private developers, and her primary focus is understanding and guiding the physical use of land, including helping communities use zoning and other land use regulations to achieve their goals. Emily was the former Director of Planning for Harriman and began her planning career at The Cecil Group, which merged with Harriman in 2015.

A former member of the Milton Planning Board and the town's finance committee, Emily also served as the chair of Milton's Master Plan Committee. She co-teaches the capstone course for Boston University's City Planning and Urban Affairs Program, and has partnered with Marshfield, Lowell, and Malden as part of the course. She holds a Professional Certificate in Real Estate Finance and Development from MIT's Center for Real Estate.

## Selected Waterfront Projects

Town of Wareham, Wareham Redevelopment Authority  
Wareham Village Urban Renewal Plan

City of Beverly, Massachusetts\*  
Municipal Harbor Plan

City of Chelsea, Massachusetts\*  
Waterfront Planning Study

Town of Cohasset, Massachusetts \*  
Harbor Zoning & Design Guidelines

Town of Cohasset, Massachusetts\*  
Municipal Harbor Plan

Fall River Redevelopment Authority - Fall River, Massachusetts\*  
Waterfront Urban Renewal Plan

Town of Marblehead, Massachusetts  
Harbor Plan

New Bedford HDC - New Bedford, Massachusetts\*\*  
New Bedford Waterfront Redevelopment Plans

Sasaki/New Bedford EDC - New Bedford, Massachusetts\*  
Waterfront Redevelopment Strategy

## Selected Awards

APA-MA Comprehensive Plan:  
2021

*Scituate2040 Master Plan  
Update*

APA-MA Planning Project:  
2020

*Easthampton Downtown  
Strategic Plan.*

APA-MA Neighborhood Plan:  
2019

*CSX Area Master Plan*

APA-MA President's Award:  
2017

*LawrenceTBD Urban Renewal  
Plan*

Salem Historic Inc: 2011

*Salem Downtown Renewal Plan*

## Selected Projects (continued)

City of New Bedford , Massachusetts\*\*

Waterfront Mixed-Use District Zoning Regulations

Town of Weymouth, Massachusetts\*\*

Jackson Square Land Use Plan

Town of Weymouth, Massachusetts\*

Weymouth Landing Revitalization Plan

## OTHER STRATEGIC PLANS

Town of Arlington, Massachusetts\*

Residential Design Guidelines

City of Brockton, Massachusetts

Downtown/Trout Brook Form-Based Code

MassDevelopment/NBEDC/City of New Bedford, Massachusetts\*\*

Zoning for Advanced Manufacturing Campus

MassDevelopment/Malden RA/City of Malden, Massachusetts\*

Strategic Development Plan for Commercial Street Corridor

MassDevelopment /Nitsch Engineering/Town of North Andover,  
Massachusetts

Route 125 Corridor Study

Town of North Andover, Massachusetts

Downtown Zoning Study

Town of Norwood, Massachusetts\*

Vanderbilt Area Commercial District Strategic Plan

City of Pittsfield, Massachusetts

Zoning Evaluation and Arts District Design Guidelines

City of Pittsfield, Massachusetts\*

Downtown Hybrid Form-based Code

\*Experience with The Cecil Group/Harriman Associates.

\*\* As Harriman Associates and Innes Associates.

# **ATTACHMENT E: SERVICE SHEETS**

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# CLIMATE RESILIENCE

ANALYZE | PLAN | IMPLEMENT | RESPOND | EVALUATE



Living Shoreline, Beach Restoration

Meet the challenges of a [changing climate](#) by collaborating with HW's [engineers](#), [scientists](#), and [planners](#).

[Horsley Witten Group](#) works with municipal, state, and federal agencies to provide all aspects of climate resilience and adaptation services. Changing conditions require a fresh look at policies, investments, and infrastructure. We help public and private entities understand the implications of climate change and how to plan accordingly. Then, we help our clients implement those plans.

Projects may include Municipal Vulnerability Preparedness and resilience planning, emergency preparedness, coastal resilience and living shorelines design, dam management and analysis, tidal culvert replacements, comprehensive plans, and stormwater management.



Infrastructure Planning

Our Climate Resilience services include:

- Emergency Preparedness
- Hazard Mitigation Planning
- Green Infrastructure Planning & Design
- Floodplain Management
- Site Design for Resilience
- Ecosystem Restoration
- Vulnerability Assessment & Preparedness Planning
- Zoning Code Audits & Revisions
- GIS Analysis & Modelling
- Training
- Assistance with Grant Funding Process
- Public Outreach





## Hazard Mitigation Plan Update

*Multiple Clients from MA to FL*

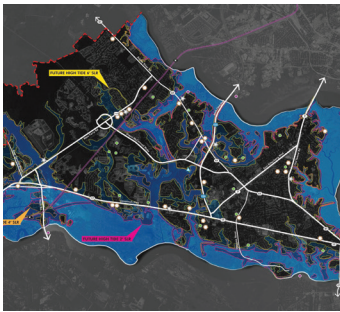
A current hazard mitigation plan can be a powerful tool, helping communities plan for, and remediate impacts of natural hazards. Working with FEMA and municipalities, we developed an approach that featured four primary methods; a planning process, risk assessment, mitigation strategy, and plan maintenance. HW has assisted communities in MA and RI, including Marblehead, Sudbury, Brewster, Scituate, Rockport, Plymouth, Taunton, Natick, Bristol, Cumberland, and Providence. We also have worked with the Mashpee Wampanoag Tribe and the Chickahominy Indian Tribe.



## Morro Bay Estuary & Albemarle-Pamlico Sound

*US EPA Climate Ready Water Utilities*

Water and wastewater utilities face real climate change challenges including sea level rise, changes in precipitation patterns leading to drought and flood conditions, and severe storm events that can cause power outages. We worked with the US EPA to conduct an analysis of climate impacts in Morro Bay, CA and Albemarle-Pamlico Sound, NC. With the help of other experts, we assessed potential changes in ground-water quantity and quality because of climate change. This analysis will help both areas to effectively identify climate threats and potential adaptation measures.



## Plan West Ashley

*Urban District Revitalization Plan, Charleston, SC*

Plan West Ashley will play a pivotal role in shaping the future of the area's streets, transportation system, neighborhoods, and public spaces. We collaborated with Dover Kohl and Partners to develop a community vision and to view the future investment through the lens of climate change, sea level rise, and resiliency. Building placement, transportation hubs, and roadway design accounted for long-term impacts related to a changing climate.



## The Massachusetts MVP Program

*MA towns and cities*

The MA MVP program provides municipalities with support to plan and implement climate change resiliency projects. HW clients include Newburyport, Newbury, Peabody, Brewster, Tisbury, Kingston, and Shrewsbury. Our certified staff provide presentations, facilitate active discussion, and offer expertise in natural hazard mitigation planning, emergency preparedness/response, floodplain management, ecosystem and water resources management, and municipal and environmental planning. Municipalities that complete the process become MA MVP certified and are eligible to apply for project funding.



## Coastal Resilience through Green Infrastructure

*Brewster, Kingston, Chatham, MA*

HW provides engineering, permitting, and construction administration services to communities that are taking action to protect these shorelines and adapt to changing conditions. Our work at Breakwater Landing (Brewster), Gray's Beach (Kingston), and Little Beach (Chatham), for example, includes nature-based designs intended to restore ecosystem functions, protect infrastructure, and build community resilience to flooding and storm surge. These projects feature dune and marsh restoration, managed retreat, living shorelines, and innovative stormwater management.



# COMMUNITY ENGAGEMENT

ORGANIZE | LISTEN | PLAN | ENGAGE | RECOMMEND



At [Horsley Witten Group](#), we enjoy community engagement and are well known for our ability to communicate with the public about technical topics related to planning, science, and engineering. Our success is illustrated by the number of challenging community-based projects we complete on a regular basis. HW uses a wide array of high-tech, low-tech, in-person and virtual techniques to reach large number of diverse constituents. Our staff provides training at regional and national planning conferences, local meetings for community groups and boards, and regularly serves as advisors various state-level groups like the Massachusetts Executive Office of Energy and Environmental Affairs (EEA), Massachusetts Housing Institute, and Grow Smart RI. Most of our training over the past 15 years has been focused on emergency response, advanced zoning techniques, planning for village development, Green Infrastructure/Nature Based Solutions (NBS), and climate change preparation. We have decades of experience with designing successful public engagement processes for local and regional planning projects.

We recognize that local and regional planning efforts must take special care to engage vulnerable populations to ensure that policies and actions emerging from the process do not ignore or do further harm to these communities. We work to elevate these perspectives to ensure that policy, design, and resource allocation benefit those most in need.



Community Engagement services include:

- One-on-One Interviews
- Project Website
- Focus Groups
- Working Groups
- Public Participation Plans
- Survey 123/Story Maps
- Pop-Up Installations
- Listening Posts
- Interpretive Support Services
- Conceptual Designs
- Public Meetings
- Press Releases
- Web Surveys
- E-mail Campaigns
- Social Media Strategy

**“Our experiences with the HW team have been superb... they are first rate collaborators.”**

*Victor Brandon Dover,  
Dover, Kohl & Partners*





## Weaving Social Equity into Local and Regional Planning - Workshop

Working with the Interaction Institute for Social Change (IISC), HW developed a multimedia training module. This workshop included traditional slideshow presentation, film testimony from community activists and professional planners, and interactive exercises. HW and IISC delivered these training at the Growing Sustainable Communities conference in Dubuque, IA and at the Southern New England APA Conference in Providence, RI.



## Community Master Plan *Sudbury, MA*

HW led the development of the Town's Community Master Plan. The public process for this project included a heavy emphasis on Sudbury's elderly and disabled community. Our staff performed targeted outreach over the course of the project, and special presentations were made available that educated the Steering Committee and municipal staff regarding best practices and legal requirements around accommodations for people with disabilities.



## KeepSpace Rhode Island Housing *Rhode Island*

The ground-breaking Rhode Island KeepSpace program engaged communities to create conversations and measurable actions for future community building. Bringing state level agencies, regional organizations, business owners and grass roots organizations to the table allows KeepSpace communities to share ideas and identify resources. HW led a team that provided planning, facilitation, and outreach support to four communities.



## Middletown On the Move *Middletown, CT*

HW worked the City of Middletown's Department of Planning, Conservation and Development to match local recreation needs with potential brownfield redevelopment opportunities. HW and the City engaged residents and businesses to identify sites, listen to their personal experiences living and working in these neighborhoods, and solicit ideas for making these neighborhoods healthier, friendlier, and safer places for various recreation.



## Healthy Equity Zone (HEZ) *Bristol, RI*

HW supported the Rhode Island Department of Health by assisting with the "Bristol Health Equity Zone" (HEZ) project for five years. The HEZ continues to implement initiatives around personal health and wellness, food and nutrition, substance abuse awareness and prevention, and physical activity based on the needs of its residents. Since 2015, the HEZ has successfully leveraged over \$1.3 million in federal, state, and local funding.



# ECOLOGICAL RESTORATION

SURVEY | MAP | ANALYZE | RESTORE | PROTECT



Ecological restoration services aid in the recovery of ecosystems that have become impacted or degraded by past human activities.

[Horsley Witten Group](#) works with state and federal agencies, towns, and cities to provide all aspects of ecological restoration work. Whether we are assisting the US EPA in a Wetland's Protection Act Enforcement case under the Clean Water Act or assisting a town with a park preservation or coastal restoration project, we have the qualified experts and years of experience to manage your project.

Coastal projects may include environmental mitigation, restoration of tidal flow to restricted salt marshes and salt ponds, culvert replacement, invasive species management, habitat assessment, coastal processes, and coastal restoration.



## SALT WATER

Our consulting services include:

- Restoration Planning
- Feasibility Analysis
- Hydrological Analyses
- Biological Surveys
- Technical Studies
- Expert witness services
- Coastal Change Assessment
- Alternatives Analysis
- Engineering design
- Permitting
- Construction Administration & Monitoring
- Assistance with grant funding process
- Public outreach assistance





## Salt Marsh Restoration, Scorton Creek

*Town of Sandwich, MA, and MA Coastal Zone Management*

Years ago, a dam was constructed on the property that created a tidal restriction and blocked tidal flushing. As a Corporate Wetlands Restoration Partner, we assessed options for opening the tidal restriction and designed, permitted, and managed construction of a pedestrian bridge. We also specified wetland plantings for the disturbed area.



## Salt Marsh Restoration at Medouie Creek

*Town of Nantucket, MA, MA Coastal Zone Management*

Old dike roads that were constructed to shortcut access between upland areas, resulted in decreased tidal connection between the harbor and marsh. We evaluated the tidal restriction and provided recommendations for increasing flow to the salt marsh and designed a low cost, new opening that featured a small box culvert at a low elevation with an overlying swale to convey higher tidal flows. We also obtained permits and managed the construction.



## Evaluation of Potential Salt Marsh Restoration Sites

*Towns of Barnstable & Yarmouth, MA, Division of Ecological Restoration*

We assisted the Cape Cod Conservation District and MA DER with an evaluation for potential tidal restoration at three salt marsh systems. Improving the tidal connection would improve water quality and help to decrease Phragmites as well as improve salt marsh ecology. We provided data collection, field survey, and evaluation of tidal data to make a thorough assessment.



## Crosby Landing Culvert Replacement and Stormwater Services

*Town of Brewster, MA*

The access road to Crosby Landing, a popular town beach negatively affects a sensitive salt marsh due to unmanaged stormwater runoff and restricted tidal flow caused by an undersized culvert. We helped the town address these issues by evaluating and designing green infrastructure stormwater management and a replacement culvert to optimize tidal flushing and wildlife passage. We provided services including wetlands resource delineation, field survey, hydraulic assessments, cost benefit analyses, engineering design, and environmental permitting.



## Coastal Salt Pond Assessment, Mink Meadows Golf Club

*Tisbury, MA*

The golf club and associated development include a series of interconnected salt ponds and salt marshes connected to Vineyard Sound via a maintained cut through at the barrier beach. The ecology, water quality, and boating access to the yacht basin are all dependent on the maintenance of the salt water exchange through the cut. We are assisting the Homeowner's Association with a hydrologic and bathymetric study to evaluate the hydrologic and sediment dynamics of the system over the long term. The goal is to help the association best manage the system considering both ecological and human interests.



# LANDSCAPE ARCHITECTURE

UNDERSTAND | PLAN | DESIGN | CONSTRUCT | BUILD



Woonasquatucket Greenway Concept, Providence, RI

Horsley Witten Group provides comprehensive environmental design and innovative solutions for both public and private sector clients. HW excels in the integration of sustainable design principles with built and natural environments, through a holistic design process. Our commitment to this approach allows us to create functional and vibrant places in balance with nature. Our clients benefit from our 30+ years of industry experience combined with a passionate interdisciplinary staff of highly skilled professionals who manage projects of various sizes and complexity.

Our team is skilled in providing nature-based solutions that integrate ecologically sensitive design techniques. HW's landscape architects are dedicated to the restoration, creation, and maintenance of spaces that function, thrive and sustain healthy ecosystems, generating connectivity between people and nature.



New Pathway at Heritage Museum and Gardens

Landscape Architecture services include:

- Ecological Planning and Design
- Site Analysis and Plant Inventories
- Master Planning (Connectivity and Conservation)
- Landscape and Shoreline Restoration
- Invasive Species and Land Management Planning
- Trails, Multi-use Pathway and Boardwalk Design
- Green Streets/ Streetscapes
- Sustainable Park Design
- Outdoor Classrooms
- Design Guides and Manuals
- Public Outreach, Training and Educational Signage





## Ecological Design

*West Brittonia, Taunton, MA*

At the West Brittonia dam removal project site, we teamed with Sumco, Inc. to implement design/build services for riverfront restoration and plantings along the Mill River for the Nature Conservancy. We coordinated with the Conservation Commission, designed the restoration area, and provided construction coordination and oversight.



## Outdoor Classrooms

*Boston Public Schools, Boston, MA*

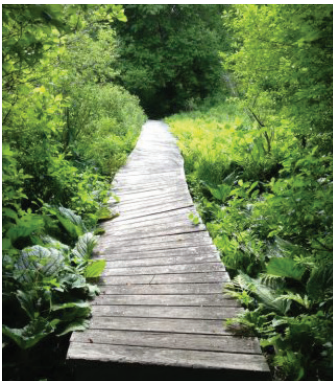
In a truly rewarding project, we designed outdoor spaces with green stormwater infrastructure (GSI) to manage stormwater runoff and engage students at five Boston Public Schools. The GSI design incorporated various practices to help showcase methods for capturing, transporting, and cleaning stormwater. One component of this project was the integration of stormwater into the science curriculum. We created details in the outdoor classrooms to help students interact with the nature-based systems and monitor and test differences between practices. This project received an award in 2019 at the 25th Annual Secretary's Awards for Excellence in Energy and Environmental Education.



## Pathways

*Audubon Society of Rhode Island Nature Center, Bristol, RI*

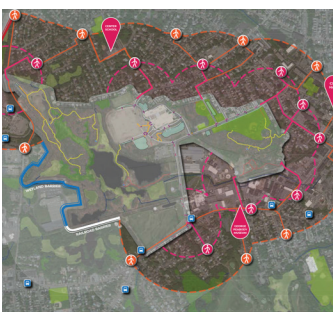
At the Audubon Society of Rhode Island, we designed a meandering, accessible path through an open meadow between the Visitor's Center and the wetland boardwalk trail. To blend into the natural surroundings, we used a stabilized soil path that integrates stormwater and erosion control techniques to ensure the longevity of the path and the comfort of the users.



## Management Plans

*Norman Bird Sanctuary, Middletown, RI*

HW created a comprehensive management plan for the Norman Bird Sanctuary (NBS) that identifies future investments and management opportunities for the property's buildings, grounds, and environmental resources. We conducted field data collection on plant communities, trail conditions, drainage areas and cultural resources. We teamed with McLaughlin & Buie Housewrights, LLC to inventory building conditions. Working with NBS, we identified restoration opportunities and created an invasives species management plan within the historical and cultural context of the Sanctuary's long-term vision. The project received an Honor Award for Planning and Analysis in 2019 from the RIASLA.



## Connectivity Master Plans

*Perkins Street Eco-Campus, Peabody, MA*

Working with the City of Peabody and community stakeholders, we developed a comprehensive connectivity plan between Emerson Park and Scouting Woods to make the area a regional destination. This area includes various outdoor and indoor recreation areas, playgrounds, a middle school, a dog park and many acres of wetlands and woodlands. The plan gives priority to natural systems and pedestrians by restoring and conserving existing environments while developing safe and effective infrastructure,



# TRAILS & PATHS

RESEARCH

PLAN

ENGAGE

DESIGN



Horsley Witten Group provides comprehensive, sustainable, and cost effective trail design and construction services for both public and private sector clients. Our staff excels in the integration of sustainable design principles with built and natural environments, through a holistic design process. Our services include trails, multi-use pathways and boardwalk design, site analysis, master planning, landscape restoration, invasive species and land management planning, permitting construction administration services, outreach and educational signage.



## Sample Projects - MA:

- Riverfront Park, Attleboro
- Bonfanti Sydney Pond Conservation and Lower Spring Pond Trail, Peabody
- Peabody Connectivity Plan
- Fuller Brook Park, Wellesley
- Blessing of the Bay Park, Somerville
- Rocky Hill Greenway Trail, Northhampton
- Gannett Rd. Bike Trail, Scituate
- Tilden Trail, Scituate
- Sunset Lake Park, Oak Bluffs
- Little Pond Plan, Falmouth
- Sandy Neck Pathway, Barnstable
- Arboretum Path, Roslindale

## Sample Projects - RI:

- Rails to Trails, Burrillville
- Norman Bird Sanctuary, Middletown
- City Walk, Providence
- Woonasquatucket Greenway, Providence
- Audubon RI, Path, Bristol





## Multi-Modal Pathway

*Norwell, MA*

HW collaborated with the Town of Norwell to complete the design, permitting, and construction administration of a multi-modal pathway. The goal of the project was to provide a connection between several Norwell schools and neighborhoods via roadside and wooded areas. The design features low impact design and includes an eight foot wide elevated boardwalk with helical piles, and stormwater best management practices.



## Boardwalk-Trail with Wildlife Viewing Deck

*Sydney Pond Conservation Area, Peabody, MA*

HW worked with the City of Peabody to provide a recreational destination at a city owned 300-acre conservation property. Trails feature rolling walking paths, a 320-foot long cedar boardwalk, an elevated wildlife viewing deck, and ADA accessibility improvements at the trail heads. Later porous pavement path, benches and signage were added to the site.



## Peabody Connectivity Plan

*Peabody, MA*

HW developed a comprehensive connectivity plan between Emerson Park and Scouting Woods to make the area a regional destination. The plan focused on giving priority to both natural systems and pedestrians by restoring and conserving existing environments while developing safe and effective infrastructure. Overall recommendations included: improving access to the campus by nearby neighborhoods, creating a uniform primary network of formal and informal pathways, developing accessible sidewalks and crosswalks, and using consistent branding with wayfinding.



## Comprehensive Master Plan with Trails

*Norman Bird Sanctuary, Middletown, RI*

HW assisted the Norman Bird Sanctuary with developing a comprehensive management plan. Our staff conducted fieldwork for the assessment of the Sanctuary's trails and natural systems, as well as the development of an invasive species management plan. Working with the cultural landscape architect, we identified restoration opportunities within the historical and cultural context of the Sanctuary's long-term vision. This plan helped to influence future capital plans at the site.



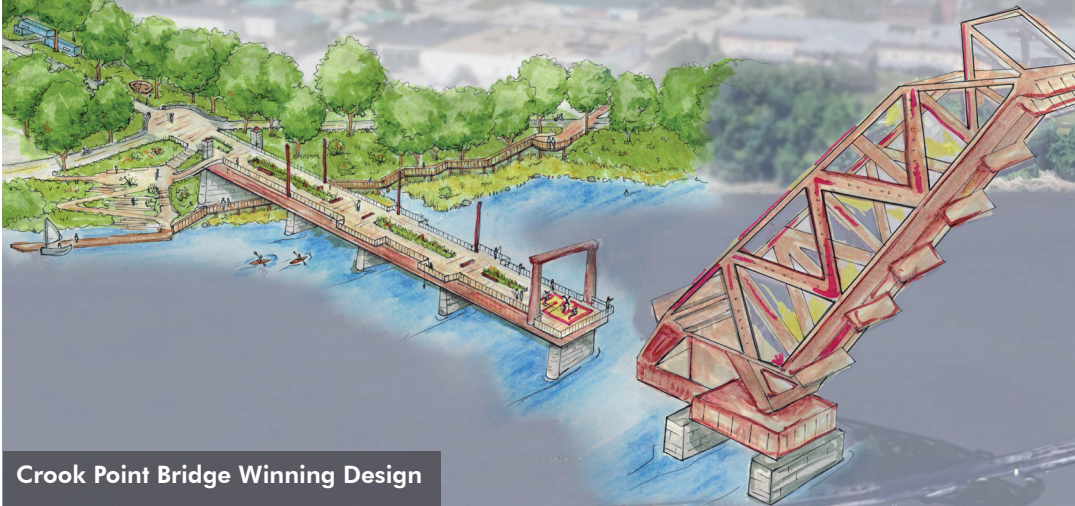
## Riverfront Park and Restoration

*Ten Mile River, Attleboro, MA*

HW worked with the Attleboro Redevelopment Authority and the Attleboro Planning and Development Department to re-envision a formerly industrial stretch of the Ten Mile River. HW designed Riverfront Park, a passive recreational area with a multi-use path, kayak/canoe access, native landscaping, and park amenities such as benches and picnic tables. This project is an important element of the City's downtown urban renewal plan and green-belt vision.

# URBAN DESIGN

LISTEN | COLLABORATE | PLAN | DESIGN | BUILD



Crook Point Bridge Winning Design

Horsley Witten Group provides innovative and implementable urban design concepts that support healthy, happy, and inviting places that are in balance with nature. Our urban designers, landscape architects, and engineers specialize in sustainable neighborhood design and resilient infrastructure. We apply a “boots-on-the-ground” interdisciplinary approach that draws on our experience implementing sustainable design at various scales, from the watershed to the block, street, and site, generating realistic solutions that people love!

We strive to build momentum through a collaborative and participatory design process. Much of our experience involves translation of community values and objectives to consensus designs and implementation plans. We understand visioning builds momentum for long-term change, and realize that decision-makers often need a clear and manageable series of steps to get started. Our design solutions clearly express long-term community vision, and align immediate and short-term actions and investments towards common objectives.



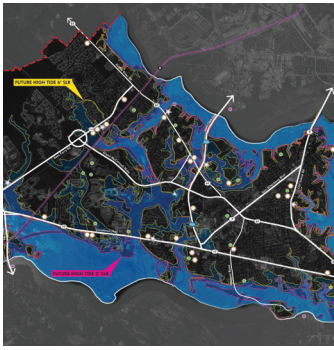
Urban Design services include:

- Vision & Master Plans
- Neighborhood Design
- Conceptual Site Planning & Yield Analysis
- Waterfront Planning
- Green Streets & Streetscapes
- Greenways & Urban Trails
- Community Outreach
- Public Engagement
- Design Charrettes
- Design Guides & Manuals
- Graphic Design & Project Websites
- Educational Signage

**“The best foundation for design is authentic listening.”**

*HW Designer*





## West Ashley Vision & Master Plan

*Charleston, SC*

HW collaborated with Dover, Kohl & Partners to develop a Plan West Ashley, a community vision and master plan for the West Ashley area of Charleston, South Carolina. The City Council adopted the plan and it now plays a pivotal role in shaping the area's future. Our experts led climate resiliency, infrastructure, sustainability, and open space elements of the plan – balancing economic development and growth pressures with environmental impacts and climate change. The plan featured a tool kit for GI and resiliency strategies for various urban conditions found in West Ashley.



## Sewanee Village Stormwater Master Plan

*The University of the South, Sewanee, TN*

A diverse group of stakeholders convened to create an updated plan for approximately 12 acres of the Village, balancing economic development, placemaking, and environmental stewardship. The university wanted to be a model of environmental sustainability. The HW team applied an enhanced existing conditions assessment, creative neighborhood design, innovative block, street, and building landscape architecture, and engineering modeling to help review alternatives and select an ambitious consensus plan. Phased construction is underway.



## Seekonk Riverbank Revitalization

*Providence, RI*

HW has worked with a neighborhood-led coalition with the City of Providence on public outreach, visioning, and design for transformation of a one mile stretch of the Seekonk Riverbank. The community supported design provides a separated riverfront multi-use path, green infrastructure, community parks, complete street design, and improved public connection to the water. We recently won the high-profile Crook Point Bridge design competition, where our vision to revitalize the iconic bridge was selected from 80 proposals received from around the world.



## Panama City Neighborhood Recovery Plans

*Panama City, FL*

We led the sustainability and resilient infrastructure elements of four neighborhood plans. Each plan includes implementable solutions for watershed restoration, coastal adaptation, green infrastructure at neighborhood/block/street/site scales, and design of new public open spaces. Our staff produced a green-blue framework plan for each community as the roadmap for bayou restoration, floodplain/wetland expansion, and connected open spaces integrated with urban design, cultural, and economic objectives.



## Dover Cochecho Waterfront Development

*Dover, NH*

HW is leading a design team to create a plan for the Cochecho Waterfront Site, a 21-acre brownfield property. The plan features a waterfront park, dock, mixed-use development, and new street connections to downtown and adjacent parks. We are producing construction documents for the riverfront park, shoreline restoration, new pedestrian-oriented streets, and mass grading for the site, with a focus on earthwork analysis and shoreline design to plan for climate change and sea level rise.



*"I know the joy of fishes in the river through my own joy, as I go walking along the same river."*

- Zhuangzi