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proposal



Town of
Belmont
MASSACHUSETTS



Belmont Community Path Feasibility Study

April 2016

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April 22, 2016

Jeffrey A. Wheeler, Senior Planner
Office of Community Development
Homer Municipal Building
19 Moore Street
Belmont, MA 02478

Re: **Belmont Community Path Feasibility Study**

Dear Mr. Wheeler:

Weston & Sampson, in association with **Alta Planning + Design**, welcomes this opportunity to collaborate with the Town of Belmont and the Community Path Advisory Committee (CPAC) to provide engineering, planning, and design services for the Belmont Community Path Feasibility Study. Having collectively designed **more than 8,000 miles of multi-use trails** over the past decade, Weston & Sampson and Alta understand the town's impetus to spur greater community investment and to provide the strategic foundation for the connection between the Fitchburg Cutoff Path and Beaver Brook Reservation in Waltham.

The Weston & Sampson team can support the Town of Belmont with every facet of this project, concurrently or in phases, and is available to begin work on the feasibility study immediately upon notification to proceed. Our team is excited about the opportunities presented by this project, and we want to assure you that we are focused on:

- Working in a highly collaborative manner with representatives from the town, CPAC, all project stakeholders, and residents to understand the priorities of the community and draw users to the path
- Crafting pragmatic solutions for public access to the path and cohesive plans that leverage the unique assets of the facilities and cultural, natural, and historical resources coexisting along the pathway and throughout the town
- Providing attractive, accessible, and welcoming gateways to the path in addition to offering users of all ages and mobility levels safe linkages that connect with other resources

We excel in the critical areas that will be essential to project success, as outlined below:

- **For over 20 years, Weston & Sampson's team of landscape architects has assisted clients with planning and design for all types of recreational environments, including paths/trails, open space, and multi-generational parks, and through ecologically significant resource areas.** We understand that thoughtful planning and design of a public path is critical to the implementation and realization of the long-term vision for communities. In every case, our team works collaboratively with local stakeholders to understand and implement the needs of the project.

To further strengthen our ability to support this Community Path project, we have added to our team **bike/pedestrian planning specialists from Alta, North America's leading multi-modal transportation firm** specializing in the planning, design, and implementation of bicycle, pedestrian, greenway, park, and trail corridors and systems. Alta has experience working in communities of all sizes, from a few thousand to millions, and from rural to mountain and desert to suburban and urbanized areas. The firm's recent local experience includes the Charles River Basin Connectivity Study in Boston, Cambridge, Newton and Watertown, and the Brookline Emerald Necklace/Rt. 9 Crossing in Brookline.

Detailed descriptions for a selection of our team's recent, similar projects are provided in Section 5, *Examples*.

- **The operation of an open space/passive recreational system should be a celebration of all that is unique and great about a community.** Our approach to your project will incorporate our understanding of the community's needs, and our team's professional experience on similar projects, to ensure that each component receives the appropriate level of attention and investment.
- **The multi-disciplinary nature of our team allows us to address important project issues efficiently and seamlessly using staff familiar with the unique aspects of pathway, open space, and accessibility requirements.** Our project team of landscape architects, trail/path planners, civil/stormwater/permitting experts, and technical support staff includes environmental/LSPs, construction professionals, and structural/geotechnical/electrical engineers, enabling us to bring expert credentials to every aspect of this project.
- **Weston & Sampson assists clients with their grant and funding application preparation and consistently remains at the forefront of obtaining available financial support from federal, regional, state, and local sources to expand the scope of projects for our municipal clients.** For more than 20 years, Weston & Sampson has also successfully worked within the framework of the Massachusetts Division of Conservation Services PARC and LAND Programs, MassDOT TIP funding, and funding focused on healthy community infrastructure, accessibility, and equitable access to open space.

We are confident that upon the completion of a collaborative, thorough conceptual design process, an excellent plan will have been developed and supported by the community. Then, the Town of Belmont will be well positioned to begin implementing the next phase of this signature Community Path. We would be happy to meet with you to discuss our plans for this exciting project. Please contact us directly at 617-412-4480 or via e-mail at grovesd@wseinc.com and ruanec@wseinc.com if you have any questions regarding our submittal.

Our sincere wishes for a successful project,

WESTON & SAMPSON



Dean Groves, PE
Vice President | Transportation

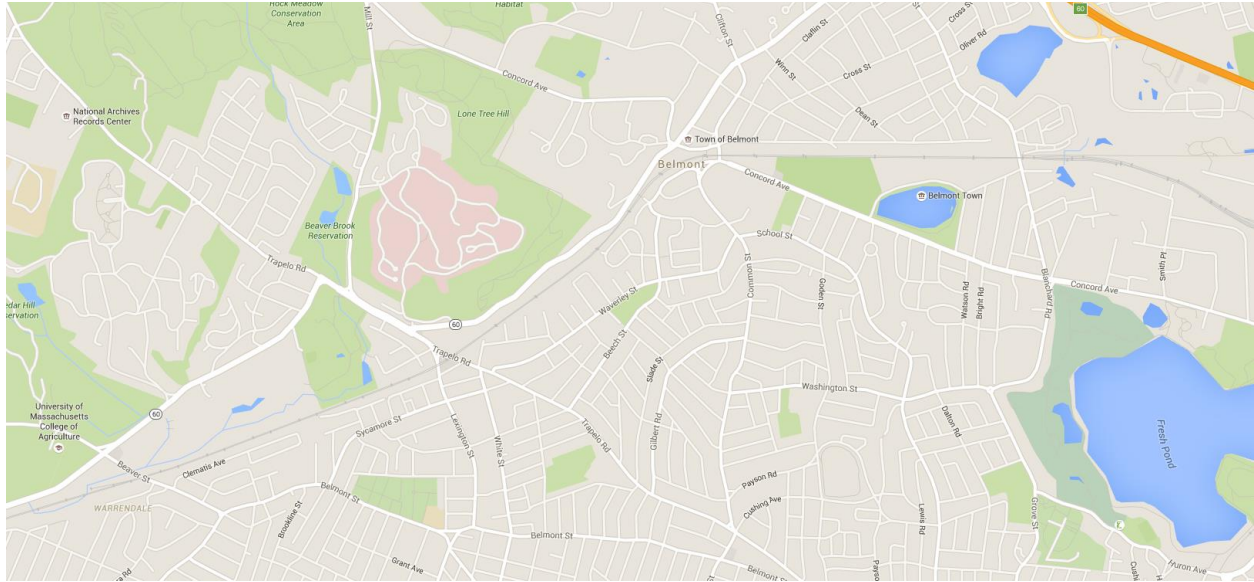


Cheri Ruane, RLA
Vice President | Landscape Architecture

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

GENERAL APPROACH

Belmont's Open Space Assets



The Town of Belmont is passionate about providing high-quality opportunities for its residents to live vibrant, healthy lives. With its consistent recognition for being one of the best towns in Massachusetts in which to live, work, and play, Belmont continues to deliver on its commitment to outstanding quality of life for its residents.

Connecting the Fitchburg Cutoff path with the Waltham path at Beaver Brook Reservation will leverage and enhance the incredible multi-use path lengths that exist in either direction and are a destination for droves of visitors, commuters and residents every year. The positioning of the corridor offers inherent physical protection from congested streets with vehicular traffic. The Belmont Community Path, with future pedestrian circulation system and nodes of connection to the town's schools and other open space resources, promises to serve as a true multi-generational facility.

What is Possible?

Take a moment to imagine what is possible given the untapped potential of the physical space when paired with the current success of the existing lengths of the multi-use path, and the result is impressive. We offer to you that what is possible here is nothing short of a breakthrough result. The increased connectivity and accessibility will allow for a significantly higher level of use that will lead to increased use, safety, and impact on quality of life.

There is so much latent potential embedded in the corridor today. It is a valued open space that provides coveted access through town, off the busy streets in many locations. In order to achieve outstanding results, regardless of the inherent risk, we focus on breakthroughs. A breakthrough is an outcome that is unpredictable; it is discontinuous; it is a leap. It is something desirable that would make a significant change for the good and deliver an outcome so

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

awesome you cannot help but be committed, even before you know how to carry it out. It is an outcome that, once achieved, opens up new possibilities for continued greatness that could not have been imagined previously.

As the development of the Belmont Community Path is considered, there are many clear objectives already in play. However, at the core, is the importance of accessibility. It will be a place of unequalled experience and a destination for those seeking solace and respite. It will become a resource for people looking for active recreation, safe routes to school, parks, and to work and will reduce vehicular use throughout town.

Current streets with bike lanes function at a high level and serve the community, visitors, and institutions that make use of them. However, a fully intact Community Path will function at a higher level in support of the town's larger mission and vision to improve multi-modal transit and in turn quality of life.



*Recumbent cyclists on Boston's Harborwalk
(The Charles River path system provides a great case study for the types of quality spaces trails can bring to communities throughout Greater Boston.)*

Truly Great Open Space

With this project, we are not simply connecting the dots between Waltham and Cambridge, we are making a place. This will be a place of equity and inclusion destined to celebrate the Town of Belmont and all it represents. Weston & Sampson's team of designers and engineers consider the key priorities of this project to be high level service for bicycles and pedestrians, and cohesive placemaking through integrated access. Designers have a great deal of knowledge that is infinitely more resonant when it is used to help everyday citizens articulate their needs and create public spaces that are responsive to the communities they serve. The societal goals of building social capital, increasing civic engagement, and advocating for the **right to our cities and towns** are as central to our design process as is the creation of open spaces that support recreation and non-vehicular travel.

You know that you're in a great place when you're surrounded by all different types of people, but still feel like you belong. When people feel encouraged to participate in shaping the life of a space, it creates the kind of open atmosphere that attracts more and more people. In their inclusiveness, our greatest places mirror the dynamics of a truly democratic society. Since **public spaces can both reflect and shape the communities they serve**, they become incredibly meaningful places for those of us working to create more equitable cities. When neighbors, representing the full cross-section of a community, come together to improve their public spaces, results can be tangible and immediate, and this process itself amplifies the **sense of inclusion that great places can generate**.

Through design, **we strive to encourage residents and park users to make extraordinary improvements, big or small, in their communities. A key tenet of our process is to design great public places while planting the seeds for a robust understanding of how everyday public open spaces foster civic connections and build social capital. As important as design excellence is**, project-led or design-led development risks missing some of the most important and compelling pieces of park and open space design: **human connection, equity, and sense of community**.

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

VARIANCES

The Weston & Sampson/Alta team has reviewed the scope of work and offers the following variances for your consideration:

- Phase 1 - Although the Town excluded any public meetings from the Scope, the Weston & Sampson/Alta team feels that our efforts in Phase I would be informed with a thorough review of public comments and CPAC meeting minutes. The team will summarize the key issues that arose that led to the current set of routing options as described in the RFP, Appendix B. The summary will be used to guide the final development of the project scope in the Phase I Meetings task. Alternatively, our team is highly adept at negotiating the public engagement process. We are available to support the town in leading a select number of community meetings with stakeholders to address concerns and elicit feedback to create a sense of enrollment and ownership over the process. This scope item would be provided as a supplemental service.
- Phase 2 - The Weston & Sampson/Alta team would like to go beyond the "pros and cons" evaluation for each option, and instead develop an evaluation system that can be more-easily quantified. We will work with the Town to finalize a set of criteria that will be used to evaluate all path segment options and other features determined at the end of Phase 1. The criteria may include, but is not limited to:
 - connectivity to existing paths and bike facilities
 - seamless connection to commuter rail stations
 - links to other key destinations
 - topographical constraints
 - environmental constraints
 - engineering/permitting challenges
 - community acceptance
 - impacts to traffic
 - need to modify existing structures
 - order-of-magnitude cost
 - others

After criteria are finalized, the team will score each routing option to objectively understand how each ranks, relative to the others. The options with the two highest scores will be further studied in Phase 3. A more qualitative determination will be used by the team and the Town to determine if the third highest ranking option should be considered in Phase 3 as well.

- Phase 3 - The team believes that an informed decision by the Board of Selectmen on the preferred route may be a difficult one based on the Scope of Services, as written. Without a recommendation from the consultant, it's more likely that the decision will be too-heavily weighted towards cost. As such, we propose to include in the Scope a sub-task that includes a recommendation from our team. The recommendation will be based on all of the criteria developed in Phase 2, and incorporate the additional level of detail derived during Phase 3. While the cost estimate and potential funding sources will play a role, the draft recommendation will also draw from Weston & Sampson and Alta's deep knowledge and experience planning and designing similar facilities.

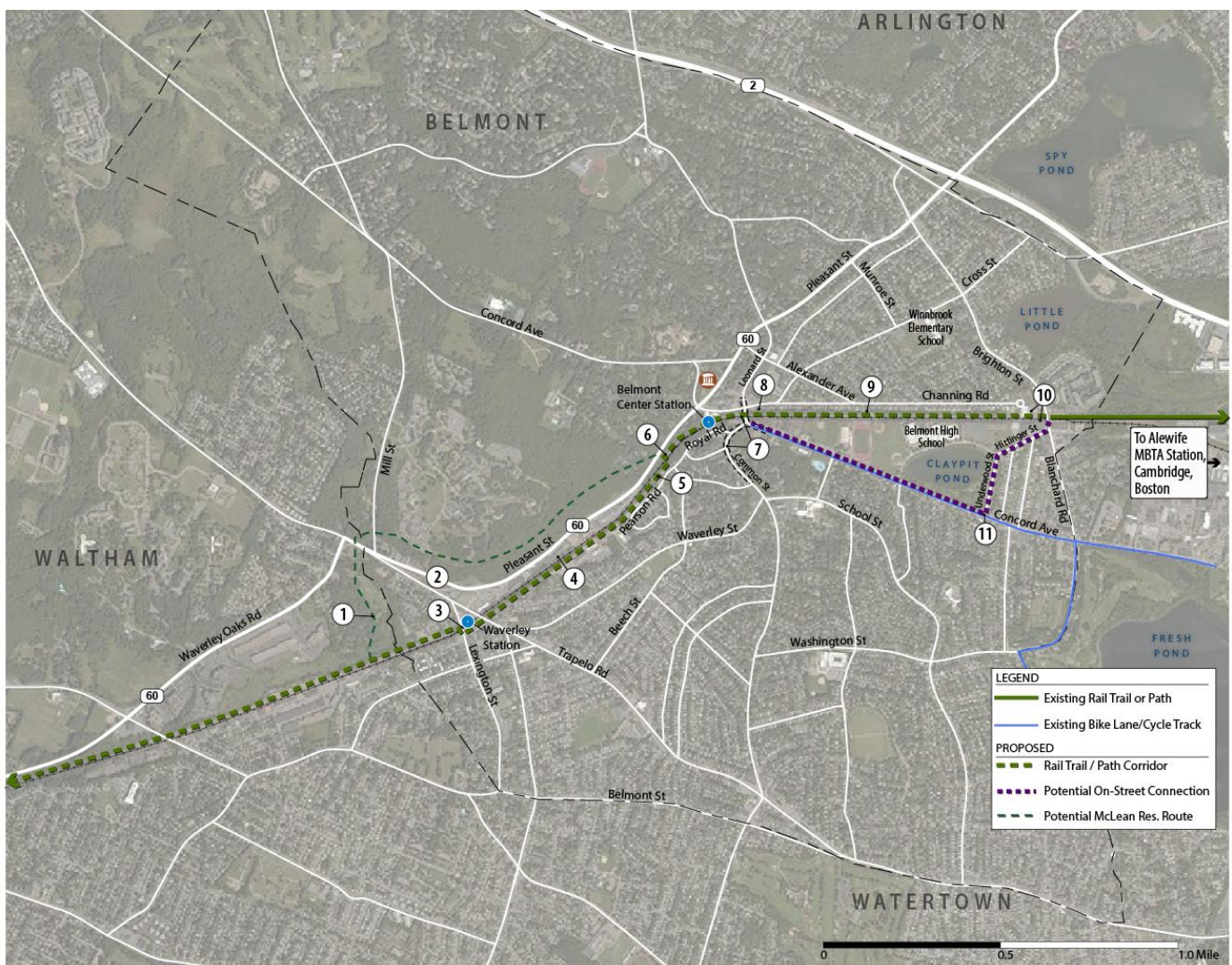
GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

INSIGHTS

Through our time spent in town previously and in preparing these submittals, we have made a few observations about the possible alignment of the path. This connection of the Belmont Community Path has the potential to generate a great deal of momentum and interest in executing what is likely to be a critical link in pedestrian connectivity across town. In order to truly leverage what is amazing about this project, we offer the following considerations:

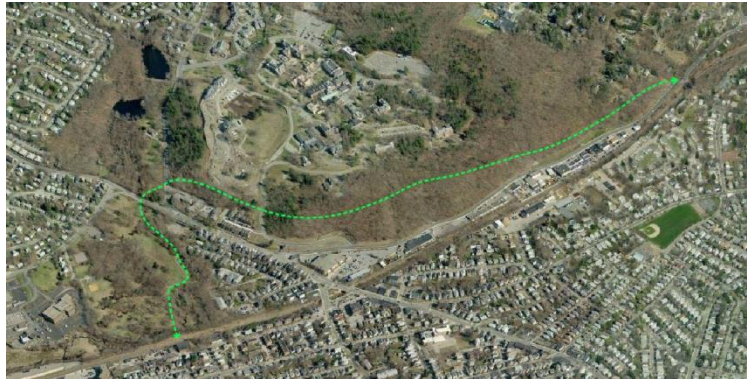
- Address infrastructure needs (i.e., pavement, structural integrity, and storm drainage systems) in a balanced way that continues to inspire public support for annual improvement spending.
- Design a pedestrian circulation hierarchy that makes the best and highest use of specialized paving materials in strategic areas. Focus construction dollars and maintenance efforts on limited zones of interest and allow the rest of the pathway network to function at a high level with a lower investment.

The diagram below highlights more specific observations or insights the team has made not only in preparation of this proposal but over a number of years of continued interest in the project.



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

1. **Potential off-road alignment through McLean Reservation:** Turning north through Beaver Brook Reservation, this alignment would cross Trapelo Road, Mill Street, turn south into McLean Reservation, and end on the north side of Pleasant Street near the Clark Street footbridge. This route has a steep incline, which may not be ADA accessible, involves major road crossings, is inaccessible to many Belmont residents, and does not connect to any business areas.



2. **Route 60:** Due to private developments encroaching the former CMRR right of way, Route 60 will be assessed for the potential development of a multi-use sidepath to allow trail users to bypass narrow portions of the rail trail. (Note: See 4)



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

3. **Lexington Street Crossing:** There is an opportunity to bring the trail up to the street and sidewalk grade by utilizing ramps, or a combination of stairs, stair runnels for bicycles, and elevators. This would add access points for trail users entering or exiting the trail from the adjacent Waverley MBTA station and area businesses. This would also add ADA compliant handicap access to Waverley station.



4. **Cityside Subaru / James W. Flett Construction Encroachment:** These two landowners have encroached on the former CMRR right of way, potentially requiring trail development on the south side of the existing tracks. An alternative on-street location may be deemed suitable following analysis.



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

5. **Department of Public Works / Royal Woods Alignment:** This section represents two alignment alternatives. The first begins at the driveway of 104 Pleasant Street (Belmont Housing Authority-owned) and travels across MBTA land and under the Clark Street footbridge. This alignment would potentially utilize Town of Belmont property (DPW Yard) and a portion of the Royal Woods, paying particular attention to presence of wetlands. The alternative option is to utilize land adjacent to 59 Pearson Road, proceed through Clark Lane to Clark Street, leaving open the option to cross the Clark Street footbridge or enter Royal Woods. These streets see a relatively small number of vehicles per day.



6. **Clark Street Footbridge:** Footbridge provides the opportunity to cross the tracks to make linkages between different segments. If the route runs south of the tracks adjacent to Royal Rd, then this footbridge is a necessary connection (along with a new at-grade crossing of Pleasant Street/Route 60).



7. **Belmont Center Connections:** At this location, the Concord Avenue bike lanes end. The black dashed line displays the area a pedestrian must travel to find a legal crosswalk. To alleviate the need for out-of-direction travel, the trail alignment may need to incorporate the existing underpass at the west side of the station area. The potential need to cross from the south to the north side (and vice versa) presents a challenge to trail connections downtown.



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

8. **Coldwell Banker Chokepoint:** The “L” shaped Coldwell Banker building in Belmont Center at the corner of Channing and Leonard streets encroaches on the former CMRR right of way from the north, creating a chokepoint on CPAC’s preferred trail alignment. Careful consideration will be given to the use of convex mirrors and additional signage to ensure safety as trail users traverse this location. This creates a barrier on the north side of the tracks and through the non-profit owned parcel to the west of F.E. French redevelopment. An alternative on-street location may be deemed suitable following analysis.



9. **Alexander Avenue underpass:** Prior to the MBTA elevated rail bed construction, Alexander Avenue connected to Concord Avenue just west of Claypit Pond. Clear desire lines show that the existing 1-mile distance between the crossings at Leonard St and Brighton St are too far for students who reside in the Winn Brook neighborhood to walk to Belmont High School. Modern construction technologies and the height of the rail embankment allows this underpass to be constructed with minimal disruption to daily commuter MBTA service. In addition to offering a local connection for students, the tunnel could provide a location where the trail alignment switches from the south to the north side of the existing tracks.



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

- 10. Chokepoints at the Brighton St Trailhead:** From the south, the Crate Escape building encroaches on the right of way from the south, creating a narrow space along the building's (approximately) 160 foot northeastern length. From the north, the recently developed F. E. French building and driveways encroach on the right-of-way. Therefore, the Hittinger Street connection to Belmont High School may be a viable route. An alternative on-street location may be deemed suitable following analysis.



- 11. Difficult Left Turn for West-bound Trail Users:** The CPAC study highlights a strip of public land on the north side of Concord Avenue as a potential connection to bypass the Channing Road section of trail. In addition to this potential shared-use path, the Concord Avenue bike lanes are referenced as a potential alternative. This would require a left turn across Concord Avenue onto Underwood Street, causing trail users to cross two directions of motor vehicle traffic. This turn will be difficult for inexperienced trail users to navigate. Therefore, a separate alternative on-street location may be deemed suitable following analysis.



GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

SCOPE OF WORK

We have reviewed the scope of work outlined in your Request for Proposals (RFP). Using that scope of work as a base, we have identified specific tasks that will be important to a successful project completion. We have carried these tasks through the schedule as well.

PHASE 1 – REVIEW & PROPOSAL OF CONCEPTS



- a. **Project Kick-Off** – We believe a successful kick-off meeting will be essential to the project's overall success. Our suggestion is that a half-day be allocated for the kick-off meeting. We propose to moderate the proceedings and to lead discussions in order to identify project needs, goals, intentions, and priorities within the context of a highly interactive session involving our project team, representatives from your planning, DPW, and engineering departments, a representative from MassDOT, and other key town representatives. The old saying "there are no dumb questions" would apply here. By leaving no stone unturned, and no question unasked we will lead a productive dialog about the project goals and expectations to ensure we have alignment among all parties. This meeting also helps to build trust and rapport amongst the team members to facilitate the highest level of collaboration and cooperation.
- b. **Available Material Reconnaissance & Review** – Weston & Sampson proposes to use aerial mapping, city GIS data, and other existing resources to advance the early stages of master planning and conceptual design. We have conducted a cursory review of the number of reports and documents that relate to the Belmont Community Path and the structures in the project area and will perform a thorough analysis and summary of this information as part of this task.
- c. **Project Base Map Development** – Our team will leverage all available mapping information to compile a cohesive, conformed plan that will serve as the base for all construction documentation. We will map and label surface as well as subsurface conditions visible from the corridor. Our team will also open a selection of the accessible sewer and drainage structures within the project limits to determine invert elevations, pipe sizes, and material.
- d. **Existing Site Inventory & Analysis** – Physical conditions throughout the proposed corridor are quite variable. Our multi-disciplinary project team will perform reconnaissance work that chronicles and categorizes conditions throughout the project area. To this end, we will examine pavement surfaces, curb lines, cross street intersections, handicapped ramps, driveway openings, signage, and the surface condition of selected utility features that are accessible within the right of way (e.g., catch basins, manholes, water gates, utility poles, etc.). Our team members represent a variety of professional disciplines and have expertise in architecture, structural/geotechnical engineering, permitting, roadway and transportation engineering, stormwater systems, landscape architecture, and urban design/streetscape.

Our geotechnical engineers will evaluate any available subsurface information and laboratory test results currently available and make recommendations on subgrade preparation, sub-base materials, compaction, and permeability. Our structural engineers will review available information related to structural components of the Path. Depth to utility and other structures will be identified as this information may impact sub-base

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

material installations and performance. Our civil and stormwater engineers will assess existing soil information to determine suitability for on-site stormwater recharge areas.

During this task, we will also conduct interviews with town maintenance staff who are maintaining the Fitchburg Cutoff Path to gain as much institutional knowledge as possible. At this time, we will determine the operational and maintenance capacity. Our team will establish pathway materials, widths, and alignments to ensure that tasks for seasonal upkeep are clear and manageable. We will discuss the construction materials and site furnishings to understand which work best and will support a sustainable future for the Community Path.

- e. **Working Group Key Constraints & Opportunities Presentation** – In collaboration with the project team and CPAC, we will present our findings from the site reconnaissance efforts. Together, we will identify and discuss major opportunities and challenges across the project area. We will collectively agree to route, route designs and level of analysis for Phase 2.
- f. **Meeting Notes & Summary Reports** – We will compile all of the information reviewed and produced during this phase of work and deliver a final report including meeting notes, findings, next steps, and timeline. At this time, we will compare our progress to the goals and objectives identified in the kick-off meeting to ensure the project is progressing as planned.
- g. Please also refer to the Variances information earlier in this section of the proposal. While public engagement has not specifically been required, we believe that at a minimum a summary of the public discourse that led to the various options that were initially developed will be critical to a robust project feasibility study.

PHASE 2 – ENGINEERING EVALUATION

- a. **Engineering Analysis** – Weston & Sampson's in-house team of structural, geotechnical, and infrastructure/utility engineers will complete any necessary structural and/or geotechnical analyses based on current data available to determine feasible options for building required structures to support the Community Path. Our permitting team will be consulted throughout to ensure future success with regulators. Should exploratory testing be required, we will perform this work as an additional, supplemental service.
- b. **Summary Report** – The Weston & Sampson/Alta Team will develop a thorough yet accessible written assessment of the findings for each of the route options. This report will include both text and graphic imagery with diagrams that further support the findings in a clear and concise manner.
- c. **Defining the Project Rubrics** – As noted in the Variance portion of this section of the proposal, our team would like to go above and beyond the pros and cons list and actually develop rubrics that allow for quantifiable evaluation and inform decision making. This project is ambitious, inspiring, and does not yet have a budget. As we facilitate the evolution of design, hard decisions will need to be made. As a project team,

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

we will all be most successful if we establish project expectations and a common language of what is valued most about this project. The routes will then be numerically ranked and will inform an intelligent conversation about which route will truly serve Belmont at the highest level for the dollars required and funding sources that will likely support the effort.

Some of the elements for measurement may include:

- connectivity to existing paths and bike facilities
- seamless connection to commuter rail stations
- links to other key destinations
- topographical constraints
- environmental constraints
- engineering/permitting challenges
- community acceptance
- impacts to traffic
- need to modify existing structures
- order-of-magnitude cost
- others

PHASE 3 – COST ESTIMATES

- a. **Cost Estimating** – We have identified VJ Associates as our cost estimating consultant. They will take recent comparable projects from public bid records and compile a weighted unit price for the various components of each path configuration. Given the early conceptual nature of the plan, they will be providing an option of probable cost that will include escalation factors for the likelihood of future construction.
- b. **Develop Rubrics Analysis** – As noted in the Variances section, the team would like to carry the rubrics analysis into Phase 3 as the cost estimating develops and becomes less speculative. It is this continuation of the established language of expectations and values for the project. In some cases the added value may far outweigh additional costs and the result would be a thoughtful response by the Board of Selectman.
- c. **Recommendation by Consulting Team** - The team believes that an informed decision by the Board of Selectmen on the preferred route may be a difficult one based on the Scope of Services, as written. As such, we propose to include in the Scope a sub-task that includes a recommendation from our team. The recommendation will be based on all of the criteria developed in Phase 2, and incorporate the additional level of detail derived during Phase 3. While the cost estimate and potential funding sources will play a role, the draft recommendation will also draw from Weston & Sampson and Alta's deep knowledge and experience planning and designing similar facilities.

GENERAL APPROACH, VARIANCES, INSIGHTS & SCOPE OF WORK

SUPPLEMENTAL SERVICE – STAKEHOLDER INPUT & PARTICIPATION

While we understand that the RFP does not reference public meetings, we also recognize that this is a project that has been under consideration and a part of the town's civic discourse for decades. Belmont is done talking about this, it's GO TIME. In order to make some real progress on this project, we need the support of the constituents. We're here to support the CPAC and town through our depth of expertise and decades of collective experience and we believe this could be a point in the process that makes a significant difference.

- a. **Working Group Meeting to Identify Stakeholders** – The Working Group (Belmont project team plus consultant) will confirm the list of stakeholders as identified by property owners in the RFP.
- b. **OPTIONAL: Community Information & Listening Session** – This engagement will outline our findings to date and highlight the opportunities and challenges that present themselves along the Community Path corridor. We will then listen and lead a productive discussion about this non-motorized transportation and open space resource to obtain as much information as possible from the community and stakeholders.

SCHEDULE

The Weston & Sampson/Alta Team is focused on delivering a high quality feasibility study within an appropriate timeframe. Too short a window and a thorough investigation will not be possible, too long a period of time and the project will suffer from planning fatigue and potential “analysis paralysis” that reduces productivity and efficiency. Our team has developed an initial schedule that will remain agile as the project proceeds so that changes in project conditions can be accommodated and the final feasibility study will reflect the best possible actionable outcomes.

MILESTONE / TASK	PROPOSED START	PROPOSED COMPLETION	W&S	ALTA	VJA
PHASE 1 – REVIEW & PROPOSAL OF CONCEPTS	5/16/2016	6/20/2016	x	x	
Project Kick-Off	5/16/2016	5/16/2016	x	x	
Available Material Reconnaissance & Review	5/16/2016	6/3/2016	x	x	
Project Base Map Development	5/16/2016	6/3/2016	x		
Existing Site Inventory & Analysis	5/23/2016	6/10/2016	x	x	
Working Group Presentation & Submission*	6/22/2016	6/22/2016	x	x	
Review by Town and CPAC *	6/22/2016	7/1/2016			
Meeting Notes & Summary Reports*	7/6/2016	7/20/2016	x	x	
<i>Alternative Community Engagement *</i>	<i>TBD</i>	<i>TBD</i>	x	x	
PHASE 2 – ENGINEERING EVALUATION	7/20/2016	9/30/2016	x	x	
Engineering Analysis	7/20/2016	8/19/2016	x		
Summary Report	8/22/2016	9/30/2016	x	x	
Defining the Project Rubrics*	8/22/2016	9/2/2016	x	x	
Review by Town and CPAC*	9/7/2016	9/21/2016			
PHASE 3 – COST ESTIMATING	9/21/2016	11/18/2016	x	x	x
Opinion of Probable Costs	9/21/2016	10/19/2016			x
Develop Rubrics Analysis*	10/19/2016	10/26/2016	x	x	x
Recommendation by Consulting Team*	10/28/2016	10/28/2016	x	x	
Review by Town and CPAC*	10/28/2016	11/18/2016			
SUPPLEMENTAL SERVICES*	TBD	TBD	x	x	

* Indicates potential meeting engagement to be determined during project kick-off.

Key:

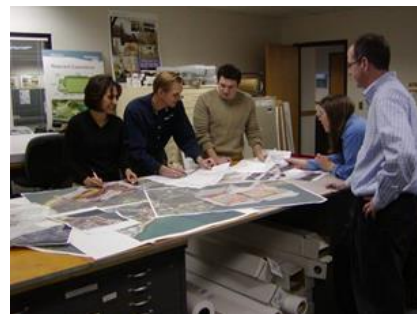
W&S = Weston & Sampson

ALTA = Alta Planning + Design

VJA = VJ Associates of New England (SDO-certified MBE)

ORGANIZATIONAL CHART & RESUMES

Weston & Sampson has assembled a team of highly competent engineering, planning, and design professionals with the qualifications and experience needed to provide expert services for the Town of Belmont's Community Path Feasibility Study. To provide comprehensive services, our team includes qualified landscape architects and engineers licensed in Massachusetts, as well as environmental, technical, and construction specialists who have successfully worked on similar projects in Massachusetts and throughout the Northeast over the past several years.



The multi-disciplinary nature of our team allows us to address important project issues efficiently and seamlessly using staff familiar with the unique aspects of trail/walks, open space, and recreational requirements. Our project team of landscape architects and urban designers, civil/site/permitting experts, and technical support staff allows us to bring expert credentials to every aspect of this project.



We summarize the qualifications and relevant experience of our proposed key personnel in the summary biographies below. For a further description of our team, please refer to the project team organization chart on the following page.

PROJECT MANAGEMENT

Dean Groves, PE, will serve as **principal-in-charge** and will ensure that your project remains a priority of the firm. A **Massachusetts registered Professional Engineer**, Dean recently joined Weston & Sampson as the firm's Transportation Practice Leader. He brings to this assignment over 40 years of experience in project management and planning, impact evaluation, and permitting of diverse projects. Dean's experience includes serving as principal-in-charge for several on-call street overview services contracts for the City of Boston's Public Works Department (BPWD). His work for BPWD included coordinating the designs and bid documents of three consultant teams on four separate design projects comprising the Connect Historic Boston project that commenced construction in 2015. These contracts involved significant coordination with BPWD, Boston Transportation Department, and other city departments. He also served as project manager or principal-in-charge for MassDOT's special on-call statewide environmental services contract for specialized environmental permitting and related assignments; Dean has performed dozens of task orders to advance nearly \$6 billion program of road, sidewalk and bridge improvements.

Laurence Keegan, Jr., PE, as **project manager**, will be responsible for the day-to-day progress of the project. He will monitor the performance of the project team, review budgets, ensure technical quality, and oversee personnel assignments and allocations. A **Massachusetts registered Professional Engineer**, Larry has more than 30 years of experience in civil/site design and traffic engineering, and has managed projects for a number of public transportation agencies as well as for many municipal clients. His experience includes the design of site grading and drainage; hydraulics; roadway layout and geometric design; traffic

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signal study and design; and parking lot design. As part of this work, Larry has become well versed in the design of mitigation measures for site impacts on wetlands and traffic impacts on existing roadways. As the lead civil engineer/project manager for the Minuteman National Historical Park project in Lexington, Larry designed a bicycle/pedestrian underpass to allow pedestrians to travel the bike paths unimpeded from local traffic, evaluated traffic signals, and proposed mitigation designs for multiple intersections. **More recently, Larry served as Project Manager on the Somerville Community Path Project in Somerville, and the Cochituate Rail Trail Project in Framingham.** He has also played key roles in bicycle, multi-use, community paths / trails projects for the Massachusetts communities of Chatham, Scituate, Southwick, and Springfield. **A complete list of these projects, along with client references, is included in Section 12, Response to Minimum & Evaluative Criteria.**

Cheri Ruane, RLA, vice president in charge of Weston & Sampson's Landscape Architecture group, will serve as **team leader**. Cheri is a **Massachusetts Registered Landscape Architect** with 20 years of experience in multi-disciplinary project management, construction administration, site analysis, and public design. Cheri has managed the design and construction of complex public improvement projects including paths/trails, waterfront parks, playgrounds, and other open space system assets throughout New England. In addition to her work on the Somerville Community Path, Sanford Millyard Area-wide planning grant in Maine, Cochituate Trail, and the Boston NSTAR (now Eversource) Harborwalk project, **her project experience specific to this opportunity includes serving as senior landscape architect for an area-wide planning and prioritization project on behalf of the Metropolitan Area Planning Council's (MAPC's) Coalition Grant for Brownfields in Peabody and Salem; this project incorporated the conceptual design of a riverwalk to connect the two communities and rally collective public support and political focus.**

Cheri's recent work also includes projects for the communities of Boston, Somerville, Woburn, and Worcester. Through her experience, Cheri has developed a thorough understanding of and appreciation for the importance of infrastructure to support healthy living, state-of-the-art design technologies, and accessibility and historic guidelines. Her direct experience includes placemaking projects with significant open space, pedestrian access, and park/trail components.



She has managed the design and construction of more than \$40 million in public improvements to urban open spaces, including her work at **Mayor Thomas M. Menino Park** with its stunning harborwalk, accelerated schedule, accessible and inclusive design elements, environmental remediation/compliance issues, and significant public engagement component. Through her vast project management experience, Cheri has also developed valuable working relationships with state and federal regulatory agencies involved in her projects, which have included, to varying degrees, permitting challenges and wide-ranging regulatory requirements.

LANDSCAPE ARCHITECTURE

Daniel Biggs, RLA, has more than 12 years of experience in landscape architecture specializing in the design and planning of bicycle and pedestrian facilities. Prior to joining Weston & Sampson, he led the landscape architecture practice of a specialty bicycle and

PROJECT TEAM

Town of Belmont, MA
Belmont Community Path Feasibility Study



Weston&Sampson

PROJECT MANAGEMENT

Dean Groves, PE
PRINCIPAL-IN-CHARGE

Laurence Keegan, Jr., PE
PROJECT MANAGER

Cheri Ruane, RLA
TEAM LEADER

TECHNICAL REVIEW

John (Jack) Wright, PE, CCM

LANDSCAPE ARCHITECTURE

Daniel Biggs, RLA
Brandon Riley, RLA, LEED
Brandon Kunkel, RLA
Cassidy Chroust

BIKE / PEDESTRIAN PLANNING

Phil Goff, LEED
Thomas Doolittle, ASLA, PLA
Charles Creagh
Alta Planning + Design

SITE / CIVIL / STORMWATER

Mark King, PE
S. Roger Alcott, PE
Alyssa Peck, PE

PUBLIC ENGAGEMENT

Cheri Ruane, RLA
Eugene Bolinger, RLA
Brandon Riley, RLA, LEED

SURVEY & CONSTRUCTION ADMINISTRATION

Gordon Matson, PLS
SURVEY
David Burke
CONSTRUCTION ADMINISTRATION

GEOTECHNICAL / STRUCTURAL / BRIDGE DESIGN

Mark Mitsch, PE
Richard Campbell, PE
Scott Bruso, PE

ELECTRICAL

Robert McAleer, PE

ENVIRONMENTAL / LSP COORDINATION

George Naslas, PG, LSP

PERMITTING REVIEW / COORDINATION

Anthony Zerilli

COST ESTIMATING

Clive Tysoe, MRICS, CCP
*VJ Associates of
New England Inc. (MBE)*

Note: Billing rates for the personnel identified herein are included with our Price Proposal, provided under separate cover.

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pedestrian planning and design firm, focusing on multi-use trail projects throughout the country. Recent projects have included trail assessments and rehabilitations throughout the Northeast and Mid-Atlantic regions, as well as proposed greenways in Albany and Beacon, New York; Rutland, Vermont; Springfield, Massachusetts; Philadelphia, Pennsylvania; Seattle, Washington; Columbia, Maryland; and Washington, DC; among others. Dan is currently working on a segment of the Rutland Creek Path in Rutland, Vermont that includes a 250-linear foot boardwalk over Otter Creek.

Brandon Kunkel, RLA, is a **Massachusetts Registered Landscape Architect** with more than 10 years of experience in innovative design and master planning. His areas of expertise include open space, urban parks, high-density mixed-use urban developments, academic and corporate campuses, and natural resource conservation. His recent experience includes the design of improvements to Lincoln Park in Somerville, the development of a master plan for Merrymount Park in Quincy, and planning/design for the restoration of the Charles River parklands in Boston and Cambridge.

Brandon Riley, RLA, LEED® AP has eight years of project management and landscape design experience. A **Massachusetts Registered Landscape Architect**, Brandon coordinates and manages public sector projects, from conceptual design through construction. His responsibilities include attending meetings/presentations and providing consultant coordination, project design/development, preparation of construction documents/specifications, and construction administration. **His relevant trail and pathway experience includes his work on the Cochituate Trail in Framingham; the Eastman Conservation Area in Needham that includes boardwalks, trails, overlooks, and piers; and Mayor Menino Park with its stunning harborwalk in Charlestown.** Brandon's other recent projects include Barefoot Park at Babson University in Wellesley; Albion Park in Somerville (Received 2010 BSLA Honor Award); Grimmons Park in Somerville (Received 2011 BSLA Merit Award); LoPresti Park in East Boston; Lincoln Park and North Street Playground in Somerville; Ceylon Street Playground in Boston; McCabe Playground in Waltham; John Harvard Mall in Charlestown; Commonwealth Avenue Mall in the Back Bay; pathway improvements at the Boston Common & Public Garden; and various improvement projects in Worcester.

Cassidy Chroust is a landscape architect in our design program. His background includes schematic design, design development, construction documentation, and project management. Cassidy's recent project experience includes serving as landscape architect for multiple projects for Boston Parks and Recreation Department, including our work at the John Harvard Mall and LoPresti Park. His experience also includes his landscape architecture work for the high school athletic facility design project in Danvers, Massachusetts; for the Cushing Memorial Park open space improvement project in Framingham, Massachusetts; and for the improvements to Institute Park in Worcester, Massachusetts.

BIKE / PEDESTRIAN PLANNING

The following key personnel from Alta will be responsible for bike/pedestrian planning efforts:

Phil Goff, LEED® AP, brings 18 years of urban design and pedestrian, trail and bicycle facility planning and design experience to the team. As **manager of Alta's Cambridge office**, he merges his passion for multi-modal streetscape design with his keen ability to effectively

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manage a diverse set of complex projects. Phil uses his architecture and urban design background to design and manage master-planning projects for private-development parcels, transit-oriented development sites, and neighborhoods in cities and towns large and small. His sincere passion for making cities and towns more lively, walkable, bike-friendly, and sustainable places represents a common theme in his work. Phil has recently led efforts for the **Charles River Basin Connectivity Plan** in Boston, Cambridge and Watertown; the **Emerald Necklace Bicycle and Pedestrian Crossing Project** in Brookline; the **Martin's Point Shared Use Path Master Plan** in Portland Maine; and the **Waterbury Naugatuck River Greenway Routing Study** in Connecticut.

Thomas Doolittle, ASLA, PLA, is a senior landscape architect with a background in planning and design for public and institutional clients focused on business development, project management, and team leadership for complex programs and projects. A **Massachusetts Registered Landscape Architect**, Tom has managed projects for the **MIT Grand Junction Community Path Feasibility Study in Cambridge**; the Vassar Streetscape Improvement Project in Cambridge; and Commonwealth Avenue Reconstruction in Newton; among others.

Charles Creagh, senior planner, has experience teaching the principles of sustainability, conservation, and urban-ecological design practices. Charles is an avid bicyclist, and his passion for non-motorized transportation fueled graduate research focused on global climate change, the effects of sea level rise, and how the thoughtful growth of urban regions can be positively impacted by the inclusion of complete streets and trails. His technical competencies include photo rendering, plan view illustration, report writing and research, online survey creation and analysis, and GIS mapping and editing. Charles is passionate about promoting bike share, planning greenway and trails and is committed to creating more walkable, bikeable, and healthy urban spaces. Select projects include the **Walk / Bike Northampton Master Plan in Northampton**; the University of Vermont Active Transportation Plan in Burlington, Vermont; the **Saranac River Trail Greenway Feasibility Study** in Clinton County, New York; and the Martin's Point Area and West Commercial Street Corridor Study in Portland, Maine.

PUBLIC ENGAGEMENT

While we understand there have not been public engagement meetings specified in the scope of work, we believe strongly in the importance of community involvement throughout any project that affects the built environment. We understand that this process can become contentious and we embrace the opportunity to enroll people and develop a wide sense of ownership around a project, no matter what the history.

Cheri Ruane, RLA, whose qualifications are detailed above, has special expertise in facilitating the community engagement/ participation process. The combination of managing the public process from the perspective of the owner, as well as supporting the public sector from the perspective of the consultant, has given Cheri a unique understanding of how best to manage public projects and work in close coordination with municipalities. Cheri is passionate about engaging the full cross-section of the community and understands that public landscapes require a creative and collaborative approach to successful design, from coordinating various stakeholders' goals and concerns for their open space to choosing appropriate construction materials.

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Eugene Bolinger, RLA, vice president at Weston & Sampson and integral member of Weston & Sampson's Design Studio, will maintain close contact with Cheri to ensure a productive public engagement component of the project. **Gene has more than 30 years of experience in the planning, design, and implementation of open space and recreational improvement projects throughout New England.** He has successfully managed a multitude of projects involving successful master planning, final design, and construction administration efforts for the reconstruction or restoration of paths/trails, open space properties, city and town commons, parks, playgrounds, athletic facilities, and urban design/streetscape corridors. Gene is currently leading efforts related to park and open space master planning in nearly a dozen communities.

During his career, Gene has led many of our firm's efforts on programs with significant community input and outreach components, helping multiple stakeholders work together to develop long-term solutions to community planning needs. **His recent project experience includes his work on BRA's highly successful redevelopment of Parcel 5 into the new Mayor Thomas M. Menino Park in Charlestown.** This project required an accelerated schedule and included ADA accessibility/compliance as well as an extensive public engagement component.

Brandon Riley, RLA, LEED®AP, whose qualifications are detailed above, will work collaboratively with both Gene and Cheri to ensure a successful public engagement process. In addition to his public participation and community outreach experience, Brandon has exceptional graphic capabilities and has aided in the development of critical real-life looking presentation materials that help to convey the essence of a project to a lay audience.

Gene, Cheri, and Brandon will lead the public participation and community engagement effort required for the Community Path project. Public participation and engagement is a core component of their expertise and something they take great pride in. Our past design and improvement work for paths/trails, parks, fields, and playgrounds throughout the Commonwealth and New England has included many projects with a range of challenges and varying opinions related to specific aspects of an improvement. In addition, we understand how to address the issues that come with multi-generational/multi-cultural users. Through careful leadership, these people can be heard and enrolled into a successful outcome that provides the greatest benefit to the community, its visitors, and town as a whole.

No project can be successful without a comprehensive and meaningful public outreach process. Our project team seeks to establish and maintain valuable communication and cooperation among all vested project stakeholders. To this end, **we pledge to work closely with the town, the Community Path Advisory Committee (CPAC), and all other project stakeholders in an honest, open, and truly productive dialogue that builds trust.**

To achieve success in Belmont, an effective design for the Community Path must be authentic in its service to its users and the surrounding community specifically responding to the immediate and unique context of this fantastic Community Path.

SITE / CIVIL / STORMWATER

Mark King, PE, brings to this project 20 years of transportation/civil engineering experience, with expertise in the areas of municipal roadway design, highway design, urban systems design,

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traffic management, environmental impact reports, railroad operations, site design, stormwater management and closed drainage system design, design specifications, and cost estimates. A **Massachusetts registered Professional Engineer**, Mark has worked on major urban projects in Massachusetts, including the redesign of the existing urban arterial Route 18 in New Bedford, Blue and Red Line station rehabilitations in Boston, and Union Station redevelopment in Springfield. Mark's experience also includes adding bike accommodations to existing roads in Boston, as well as multiple studies for bike accommodations and trails on various projects. Mark recently worked with Project Manager Larry Keegan on the design and construction phase for the Cochituate Rail Trail in Natick?

S. Roger Alcott, PE, has more than 20 years of experience in the management, design, permitting, and construction of municipal civil engineering projects. A **Massachusetts registered Professional Engineer**, Roger's experience includes municipal infrastructure projects requiring improvements to drainage/stormwater, road design, and underground utilities. He has completed the design of creative stormwater management solutions for a wide range of open space, park, and playground projects throughout New England, including the civil/site design and permitting component of the Rockwood Field reconstruction in Worcester, Massachusetts that involved the complete reconstruction of a multi-field complex, with extensive wetland protections and stormwater management systems. Roger's other similar project experience includes Mayor Menino Park in Charlestown; the Lampson Recreation Complex in Billerica; various park improvements in Waltham, Woburn, and Worcester; and improvements to the Boston Common & Public Garden.

Alyssa Peck, PE, will work collaboratively with Mark and Roger to provide civil/stormwater engineering services for your project. A **Massachusetts registered Professional Engineer and Certified Soil Evaluator**, Alyssa has 10 years of experience working on numerous civil/site/transportation improvement projects for municipal clients. Her responsibilities include roadway/septic/stormwater management design, soil evaluations and percolation tests, development of site plans/building concepts for public facilities, contract document preparation, surveying, and AutoCAD services. She served as engineer for the Mill Road drainage improvements project in Falmouth that included roadway design, as well as the design of a stormwater runoff solution. Alyssa's recent project work also includes providing civil/site engineering services for the **Community Path in Somerville and Cochituate Rail Trail in Framingham**; bidding documents for a recreation complex in Billerica; and constructions plans for the Saugatucket Greenway Improvements in Rhode Island.

GEOTECHNICAL & STRUCTURAL / BRIDGE DESIGN

Mark Mitsch, PE, will provide **geotechnical engineering** support. Mark is a client-focused manager and team-building professional with more than 30 years of geotechnical design and construction experience. A **Massachusetts registered Professional Engineer**, Mark has extensive experience in the areas of tunneling; trenchless technologies; rock blasting; soil and rock anchors; geotechnical instrumentation; dam design, inspection, and rehabilitation; shallow and deep building foundations; landfills; and both structural and environmental slurry walls.

Richard Campbell, PE, will lead the **structural/bridge design engineering** tasks for your project. Rick has more than 30 years of experience in the structural engineering field and is well versed in the State Building Codes for the Commonwealth of Massachusetts and the National

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Building Code. **A Massachusetts registered Professional Engineer**, Rick brings to our team extensive experience in bridge load rating, bridge rehabilitation, and bridge/culvert inspection services, as well as building assessment, design, and renovations. Rick's experience on similar projects includes serving as the **project manager for the Ipswich Historic Riverwalk and Pedestrian Bridge project, which was designed to heighten awareness of the town's natural resources, particularly the river, and to provide a recreational destination for residents and tourists.**

In addition, Rick's experience includes his work for various park improvements in Somerville, infrastructure improvement projects in Worcester, the Franklin Center Revitalization project, Mayor Menino Park, and improvements to the Boston Common and Public Garden.

Scott Bruso, PE, will work with Rick to provide **structural engineering** services. Scott is a **Massachusetts registered Professional Engineer** with more than 10 years of civil/structural engineering experience, including the structural design of new buildings and renovations to existing municipal buildings, designing steel and pre-stressed concrete bridges, performing bridge rating calculations and reports, and conducting bridge/culvert inspections. **Scott's recent project experience includes providing bridge structural evaluations for MassDOT and structural engineering services for a Rail-to-Trail project in Southwick.** In addition, his other recent, relevant project work includes providing structural engineering services for the **Cochituate Aqueduct Trail in Natick/Framingham; Saugatucket Greenway improvements in Rhode Island; and the Cheesecake Brook Greenway in Newton.**

ELECTRICAL

Robert McAleer, PE, will provide **electrical engineering** support for your project. Bob has more than 30 years of professional experience as a **Massachusetts registered electrical engineer** and Mechanical, Electrical, Plumbing / Fire Protection (MEP/FP) project manager. His experience spans the design, management, and marketing of building systems services for both new and retrofit buildings for a variety of facility types, including parks and recreational facilities. His recent experience includes electrical evaluation and/or design for the Mayor Thomas M. Menino Park in Charlestown with its harborwalk, the Broadway streetscape improvement project in Cambridge, various park improvements in Somerville, and for the LoPresti Park and harborwalk project in East Boston.

PERMITTING REVIEW / COORDINATION

Anthony Zerilli serves as firm's Permitting Manager and will provide any necessary permitting review and coordination services related to the project. Tony is an environmental scientist with over 10 years of professional experience in the environmental and natural resource management field. He has provided permitting and wetland delineation services at various locations throughout Massachusetts and monitored wetlands and construction sites for impacts caused during the construction of projects for the communities of Arlington, Cohasset, Holden, N. Andover, Norton, Paxton, Weymouth, and Worcester. Tony's permitting experience includes park/recreation projects for the Cochituate Aqueduct Trail, Mayor Menino Park and harborwalk, various park/recreation improvements in Framingham and Worcester, LoPresti Park and harborwalk in East Boston, and the Whispering Hill Woods project in Woburn. In addition, Tony is **certified in the US Army Corps of Engineers methods of wetlands delineation.**

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SURVEY

Gordon Matson, PLS, manager of Weston & Sampson's survey group, will coordinate and provide survey services for your project. Gordon has nearly 30 years of experience in boundary, geospatial, topographic, and construction surveying.

ENVIRONMENTAL / LICENSED SITE PROFESSIONAL COORDINATION

George Naslas, PG, LSP, is a **Massachusetts registered Licensed Site Professional** with more than 30 years of environmental experience and extensive knowledge of property cleanup for recreational reuse. Having worked on numerous MCP regulated sites and serving as the LSP-of-Record for more than 100 sites, George has completed over 150 Phase I, II, and III assessments throughout New England, including most of our EPA Brownfields Assessment and Cleanup Grant projects. His relevant experience includes providing peer review services of the area cleanup as part of the Lower Millyard Brownfields redevelopment work in Amesbury on behalf of the Merrimack Valley Planning Commission (MVPC) for the portion of the cleanup that they funded through the Revolving Loan Fund. In addition, George served as the team leader for the area-wide planning/prioritization project on behalf of the MAPC's Coalition Grant for Brownfields sites in the cities of Peabody and Salem that incorporated the conceptual design of a riverwalk to connect the two communities.

CONSTRUCTION ADMINISTRATION

David Burke, manager of Weston & Sampson's Construction Services Department, has more than 25 years of experience specializing in the design and construction administration of various engineering projects. Throughout his career, Dave has assisted designers and owners with many vertical construction projects. He conducts quality control, biddability, and constructability reviews of all of our projects to ensure that our design standards have been applied and that the design is practical and cost-efficient. Dave provides effective cost control for all of our projects through his experience reviewing construction documents before bid and negotiating change orders. His recent project work includes management of construction projects in Scituate and Worcester, and facility upgrades in Newburyport and Southbridge, as well as a variety of wastewater and water infrastructure improvement projects throughout the region. **Dave's knowledge of Massachusetts and federal public construction laws, regulations, and procedures ensures that the necessary requirements are considered even before the construction phase of a project begins.**

COST ESTIMATING

Clive Tysoe, MRICS, CCP, of **VJ Associates of New England**, will provide cost estimating services. Clive has 36 years of experience in field inspection, design, construction management, value engineering and general cost estimating in both public and private sectors. Clive relocated to the firm's New England office in 2011 where he continues to excel in his performance as Divisional Director/Project Manager. He regularly attends design meetings, coordinates all changes in scope of work with the client and reviews all estimates prior to submission ensuring the highest standards of quality control. Clive acts as a liaison with architects and engineers to obtain all necessary information to provide accurate cost estimates and obtains current material pricing through constant vendor contact. His projects have included schools, higher education, residential, hospitals and transit.

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TECHNICAL REVIEW

Jack Wright, PE (MA), CCM, manager of Weston & Sampson's Transportation Division, will provide technical review/advisory services. Jack is a seasoned professional with more than 30 years of experience in the **management of large-scale construction projects**. His experience spans diverse projects, including heavy/highway, bridges, tunnels, buildings, power, utilities, and transit/rail systems. Jack is experienced in dealing with public agencies, at all levels, from local/city to the federal government. Jack served as Deputy Director of Construction for the Central Artery/Tunnel project for MassDOT.

Background

2015-Present
Vice President/Transportation
Weston & Sampson

2012-2015
Vice President
Strategic Business Development
URS Corporation

2005-2012
President/Chief Executive Officer
Fay, Spofford & Thorndike, Inc.

2001-2005
Executive Vice President
Fay, Spofford & Thorndike, Inc.

1996-2001
Senior Vice President/
Branch Office Manager
Fay, Spofford & Thorndike, Inc.

1974-1996
Various Positions, Engineer-Associate
Fay, Spofford & Thorndike, Inc.

Education

1986
Master of Science
Civil Engineering, Transportation
Northeastern University

1974
Bachelor of Science
Civil Engineering
Lowell Technological Institute

Professional Registration

Professional Engineer:
Massachusetts No. 33782 (1986)
New Hampshire No. 6796 (1987)
Maine No. 5517 (1986)
Rhode Island No. 5349 (1989)
Florida No. 79664 (2015)

Professional Affiliations

American Society of Civil Engineers
American Public Works Association
American Council of Engineering
Companies
Boston Society of Civil Engineers
Institute of Transportation Engineers
The Engineering Center Education
Trust, Board of Trustees

EXPERIENCE

Mr. Groves' specialties include project management and planning, impact evaluation, and permitting of diverse projects, primarily in the transportation field. In addition, he also manages municipal engineering services for a range of projects typically including roadway, drainage, culverts, complete streets, and other municipal projects. The following is representative experience gained over his nearly 40-year career.

SPECIFIC PROJECT EXPERIENCE

City of Boston Public Works Department (BPWD), On-Call Construction Engineering & Support Services, Boston, MA.

Principal in-Charge for this new three-year term contract to provide various engineering and support services to the City of Boston Public Works, Highway Division. Services to date include review and update of standard construction specifications, development of safety specification to be applied to construction contracts, non-invasive subsurface utility investigations, and ADA pedestrian ramps in historic downtown Boston.

City of Boston Public Works Department (BPWD), On-Call Street Overview Services, Boston, MA. Served as Principal-in-Charge for several consecutive multi-year contracts to function as an extension of BPWD's Engineering Division staff in the performance of Street Overview Services throughout the city. These term contracts entailed providing a range of services from functioning in a peer review role to providing engineering services in conjunction with specific projects, to providing emergency response services. Examples of assignments include civil engineering design of various roadway and sidewalk capital improvement reconstruction projects throughout the city; traffic operational improvements to address pedestrian and vehicular safety; street lighting upgrades; structural/retaining wall evaluations and designs to address integrity; Public Improvement Commission (PIC) filings and presentations; peer review of designs by others; contract administration; coordination with city, state, and federal agencies. Recent experience included functioning as Program Manager to coordinate the designs and bid documents of three consultant teams on four separate design projects comprising the Connect Historic Boston project that commenced under construction in 2015. Involved coordination with BPWD, Boston Transportation Department, and other City departments. Also included extensive right-of-way services for appraisal and acquisition of various portions of private property along the limits of these projects.

Special On-Call Statewide Environmental Services, MassDOT. Served as Project Manager and/or Principal-in-Charge for specialized environmental permitting and related assignments to assist the agency with its annual highway and bridge program. Over the course of the many contracts, performed dozens of task orders to advance the nearly \$6 billion program of improvements. Projects involved permits and variances under the Massachusetts Wetlands Protection Act, US Army Corps of Engineers S.404 permits, S.401 Water Quality Certifications, Chapter 91 licenses, Coast Guard permits, Section 106 (Historic) and Section 4(f)/6(f) (parklands) permits, Environmental Assessments/Environmental Impact Statements (NEPA), Environmental Notification Forms/Environmental Impact Reports (MEPA), etc.



Special On-Call Statewide Asbestos Management Contract, MassDOT. Principal-in-charge for this fast paced three year term contract involving in excess of 60 assignments for pre-demolition characterization of materials, including asbestos, mold, etc. Sites included bridges, toll plazas, acquired private properties, etc.

Pleasant Street, Malden, MA, Malden Redevelopment Authority. As Principal-in-Charge, directed the preparation of final design plans, specifications and cost estimates for a MassDOT administered urban roadway rehabilitation of a once thriving retail and commercial district along Pleasant Street and provision of both sidewalk and lighting enhancements in the downtown Malden area. The work includes improved pedestrian connections and streetscape amenities to help stimulate social/economic benefits in the CBD area.

Malden Redevelopment Authority, On-Call General Engineering Consulting Services. Served as Principal-in-Charge for numerous public infrastructure planning and design services assignments throughout the city of Malden. Assignments include multi-purpose park rehabilitation projects, with synthetic surface to support baseball, soccer, etc. and have included all civil, structural lighting, and landscaping elements of the improvements, in addition to grant administration. Also, parking and traffic operations analysis of proposed improvements.

Kendall Square Redevelopment Area, Cambridge Redevelopment Authority. Served as Principal for services to support the Authority in all respects regarding engineering services for the urban renewal of Kendall Square. For 15+ years, Mr. Groves led a team that reported annually on traffic, parking, and mode share tenant surveys for the Kendall Square Redevelopment Area.

Statewide On-Call Environmental Consultant/Infrastructure Projects, Connecticut Department of Public Works. Principal-in-Charge of on-call services contract. Under this contract, Mr. Groves was responsible for the preparation of specialized wash rack design facilities at the Connecticut National Guard facilities in Hartford and Norwich. Projects included all civil engineering, mechanical, and environmental permitting to comply with CTDEEP requirements. Services also included the design of oil/water separators, shop drawing reviews, and construction inspection/certification of compliance with permit requirements.

Downtown Revitalization Peer Review, Quincy, MA. As Project Manager, led the performance of peer reviews for a \$1 billion redevelopment of downtown Quincy. Directed the team to work with the developer and city to come up with the best solutions to meet design standards, comply with local, state, and federal regulations, and protect the city's interests.

Program Management Services, MBTA. Principal-in-charge on multi-year \$15 million contract to manage the railroad upgrade and expansion projects in Central Massachusetts, including the Knowledge Corridor. Improvements included reconstruction of numerous miles of commuter rail facilities, high level platforms, parking areas, etc. Also included maintenance of overall Program schedule and management of construction. Master Services Agreement – Highways and Bridges, MassDOT. Principal-in-charge for engineering services as needed for MassDOT.

Air Force Road Reconstruction, Everett, MA. Principal-in-Charge for planning, design, and construction services in connection with extension of the roadway to facilitate access to new development in Everett, as part of the River's Edge project.

Background

2003-Present
Project Manager/Team Leader
Weston & Sampson

1997-2003
Civil Section Leader/Project Manager
Sverdrup Civil, Inc./
Jacobs Engineering, Inc.

1988-1997
Principal
Transportation/Civil
Hoyle, Tanner & Associates, Inc.

1981-1988
Civil Project Engineer
Sasaki Associates, Inc

1979-1981
Civil Engineer
City of Waltham

Education

1979
Bachelor of Science
Civil Engineering
Northeastern University

Professional Registration

Professional Engineer:
Massachusetts No. 33708
Connecticut No. 16864
Rhode Island No. 7220
Florida No. 71344

Professional Societies

American Society of Civil Engineers
Boston Society of Civil Engineers
Section
Institute of Transportation Engineers
(ITE Fellow)
Massachusetts Highway Association
Massachusetts Water Works
Association.

EXPERIENCE

Mr. Keegan has over 30 years of experience in the design of civil/site and transportation projects, serving as project manager for many of them. He has managed projects for a number of public agencies, including the National Park Service (NPS), the Massachusetts Department of Transportation (MassDOT), the Massachusetts Division of Capital Asset Management and Maintenance (DCAMM), the Department of Conservation and Recreation (DCR), the Division of Housing and Community Development (DHCD), the Massachusetts Bay Transportation Authority (MBTA), the Lowell Regional Transit Authority (LRTA), and many municipal clients. His work has included creating and managing project budgets and personnel.



Mr. Keegan's experience includes roadway layout and geometric design; traffic signal study and design; traffic management plans; parking lot design; the design of water and sewer systems, including on-site septic disposal systems; site grading and drainage; and hydraulics. These design elements have been used in both roadway and site design scenarios. As part of this work, he has become well-versed in the design of mitigation measures for site impacts on wetlands and traffic impacts on existing highways, and has designed traffic management plans in accordance with MassDOT and MUTCD guidelines.

SPECIFIC PROJECT EXPERIENCE

Served as project manager, team leader, or civil/traffic engineer for the following bicycle, multi-use, or community path/trail projects in Massachusetts:

- Cochituate Rail Trail, Framingham, MA
- Somerville Community Path, Somerville, MA
- McKnight Multi-Use Trail, Springfield, MA
- Driftway Multi-Use Trail, Phase II, Scituate, MA
- Cape Cod Rail Trail, Chatham, MA
- Southwick Rail Trail, Southwick, MA
- North Suburban Regional Bicycle Transportation Plan and Phase I Design

Minuteman National Historical Park (NPS), Lexington, Massachusetts, Lead Civil Engineer- Civil Project Manager for the study of traffic circulation, roadway realignment, and mitigation. Redesigned utilities as required by the proposed layouts. Studied alternative access locations to the park and prepared designs for future use. Designed a bicycle/pedestrian underpass under Hanscom Drive to allow pedestrians to travel the site bike paths unimpeded from local traffic. Evaluated traffic signals and proposed mitigation designs for multiple intersections.

Merrimack Riverfront Park, Lawrence Massachusetts, Project Engineer - The design of the civil engineering features of a park with a two mile roadway and sidewalks connecting to Lawrence's downtown. This planning assignment included traffic mitigation, Army Corps of Engineers permitting, site drainage, and utilities to service this linear recreational facility.

City of Cambridge, Massachusetts – Project Manager for on-call services under a Chapter 90 Survey and Design Services Contract. Provided the City of Cambridge with design

services for sidewalks and ADA/AAB accessibility on Prospect Street, First Street and in numerous other locations. Currently providing survey, civil/traffic and landscape architectural services for the redesign of the roadway and streetscape of Broadway between Ames Street and Third Street (adjacent to the Marriot Hotel).

Canal Street Tow Paths (DEM), Lawrence, Massachusetts, Lead Civil Engineer- Civil Project Manager for all geometric layout and associated utilities. Work encompassed the design of the Canal Street layout and reconstruction as well as the layout of the historic Tow Paths. Also constructed an observation deck near the DEM Visitor Center. Analyzed and updated traffic circulation. Provided site amenities for visitor use.

MassDOT (formerly MassHighway) Statewide Highway Signage Work Order Contract – Project Manager for a work order contract to supply the agency with designs for signage, roadway striping, traffic signal and intersection design, guardrail design, and production of studies to support future construction activities.

MassDOT (formerly MassHighway) Statewide Highway Lighting Work Order Contract – Project Manager for a work order contract to supply the agency with designs for highway lighting, as needed, across the Commonwealth. Also, as seen fit by the agency, several traffic design work orders were also amended to this contract. Over 11 work orders were serviced as part of this contract.

Town of Franklin, Massachusetts - Provided civil, traffic, and transportation planning evaluation and designs for the downtown area. The project includes implementation of a series of infrastructure related improvements (parking, traffic, streetscape, open space expansion) in order to create a more exciting, cohesive, and aesthetically pleasing retail and residential setting.

Town of Millbury, Massachusetts, Project Manager, Canal Street Reconstruction - The scope of work included unclassified excavation, pavement reclamation, full depth bituminous concrete pavement widening and reconstruction, new cement concrete walks, new cement concrete drives, new granite curb, installation of new drainage, grading, and other incidental work. The management of traffic, all back charges by utilities, the protection of the public and ongoing access to all abutting properties was also included.

Town of West Boylston, Massachusetts, Project Manager, Franklin Street Reconstruction - The project consisted of the reconstruction of Franklin Street (a small connector road between West Boylston Street/Route 12 and Prospect Street) from the intersection of Prospect Street to the intersection of West Boylston Street, a distance of approximately 1,600 feet. The work included pavement reclamation, full-depth pavement widening, sidewalks, drainage improvements, pavement overlay, new pavement markings, new signs, permitting and other incidental work.

City of Northampton, Massachusetts, Route 9/Bridge Road/Look Park, Project Manager -Mr. Keegan is currently providing services to the city for the reconstruction of the Route 9/Bridge Road/ Look Park intersection. A scheme for traffic signalization was designed for the intersection and subsequently redesigned as a roundabout.

Main Street Reconstruction, Easton, Massachusetts, Project Manager - This project involved roadway widening, realignment, right-of-way alteration, and drainage improvements for approximately 4,500 linear feet of roadway. This project was funded with federal funds through MassHighway. A traffic advisory committee was formed to evaluate proposed traffic circulation, parking, and inherent social and local issues with designs in the vibrant rural downtown location.

Background

2015-Present
Vice President
Shareholder
Weston & Sampson

2006-2015
Practice Leader | Senior Associate
Shareholder
Weston & Sampson

2001-2006
Senior Landscape Architect
Jacques Whitford Company, Inc.

1999-2001
Summer Intern
Carol R. Johnson Associates

1995-1999
Assistant Project Manager
Boston Parks and Recreation
Department

Education

2001
Master of Landscape Architecture
Harvard University
Graduate School of Design

1995
Bachelor of Science
Landscape Architecture
cum laude
University of Massachusetts

Professional Registration

Registered Landscape Architect:
Massachusetts No. 1220
New Hampshire No. 012
Maine No. 3686
New York No. 002211-1
Florida No. 6667031

Professional Affiliations

American Society of Landscape
Architects
Boston Society of Landscape
Architects, President-Elect

Awards & Honors

MAAB Award for Outstanding
Accessible Design

ASLA Honor Award for Excellence
in Landscape Architecture

Harvard University Penny White
Travel Grant

Eunice B. Konieczky Student
Leadership Award

Rhoades Scholarship

CHERI RUANE, RLA

EXPERIENCE

Ms. Ruane is a registered Landscape Architect with 19 years experience in multi-disciplinary project management, construction administration, site analysis and public design. She was involved with the restoration of Boston's historic park system, the Emerald Necklace, during her tenure at the City of Boston Parks and Recreation Department. She has special expertise with public site design and facilitating the community participation process. The combination of managing the public process from the perspective of the owner, as well as supporting public sector from the perspective of the consultant, has given Ms. Ruane a unique understanding of how best to manage public projects and work in close coordination with municipalities.



Ms. Ruane understands that public landscapes require a creative approach to design. From coordinating various stakeholders goals and concerns for their open space to choosing appropriate construction materials, these places have parameters that need to be carefully addressed in order for the end result to be a success.

Public presentations and the owner-interface design process are integral to all of Ms. Ruane's projects. While at Boston Parks, she involved the residents and neighborhood children in the design of the playground projects she managed. During her graduate studies at Harvard, she continued her participatory design research. There she developed a series of design workshops for school-aged children that involved them in the design of their schoolyards and neighborhoods. As a project manager at Weston & Sampson, Ms. Ruane continues to evolve presentation strategies that engage and inspire stakeholders of all ages.

SPECIFIC PROJECT EXPERIENCE

Team Leader for a community bikepath in Somerville, MA, beginning at the intersection with Cedar Street and connecting to the existing bridge at Lowell Street. All work is being designed and constructed in conformance with the Massachusetts Department of Transportation's (MADOT) Standard Specifications. The project required an extensive community participation program and coordination with key stakeholders including the existing Veteran Nurses Association (VNA) property, a residential community currently under construction (i.e., MaxPak) and the future Massachusetts Bay Transportation Authority (MBTA) Greenline Station currently under design. In addition, the project required permanent and temporary right-of-way acquisitions, utility coordination, and a Phase I soil investigation.

Team Leader for a feasibility study of a multi-use trail through the McKnight neighborhood of Springfield, Massachusetts along the former Highland Division of the New York, New Haven, and Hartford Railroad. The intent of the project was to gather information to analyze the opportunities and constraints that would emerge when proposing a multi-use trail in this location and identify future steps and procedures to establish a successful and well maintained trail. The project included site visits, client interactions, and resource mapping; wetland delineation; community outreach; and a preliminary environmental review was completed in accordance with the National Environmental Policy Act (NEPA) as well as the Massachusetts Environmental Policy Act (MEPA). Weston & Sampson developed a comprehensive base plan with existing site features for use in the analysis and design of the site; a concept Master Plan for the site with suggestions for new trail amenity areas; and a strategy for the implementation of the

Women in Architecture Exhibition,
Two Ton Gallery, Pawtucket, RI,
March, 2005

Boston Common Tree Inventory
and Planting Plan
February, 1998

Emerald Necklace Plant
List Database
March, 1997

Learning Environmental Design:
Kids in the design process of their
schoolyards. Harvard University,
2001, "Breaking the Public Sector,"
University of Massachusetts Alumni
Newsletter, Spring 1999

multi-use trail, which included options for project phasing, funding suggestions, and a preliminary cost estimate.

Team Leader for the development of passive recreation space in the Town of Randolph. The Powers Farm Recreation Area, situated on former working farmland, includes a pavilion, parking facility, play area, and perimeter pathway to allow for universal access and community use through this amazing natural resource in the heart of Randolph. The design included connection of the site's natural amenities -- woodlands and a pond -- directly to downtown Randolph via trails that ramble through the site and a smaller, adjacent parcel of land. The site's planting plan made use of native ground covers to establish a green foreground that requires little maintenance or watering, and frames the longer views to Narrowway Pond and the adjacent conservation areas. Stormwater is creatively managed through integrated infiltration designs. Improvements also included parking, a pavilion, small play area, and interpretive signage.

Team Leader for the Cochituate Rail Trail project in Framingham, Massachusetts. This project includes the construction of a new multi-use trail beginning at the northern terminus located at School Street, continuing along the abandoned railroad corridor before terminating at Cochituate Road (Route 30) in the town, a distance of approximately 1.5 miles.

Team Leader for an area-wide planning and prioritization on behalf of the Metropolitan Area Planning Council (MAPC) Coalition Grant for Brownfields sites in the cities of Peabody and Salem. This project included inventory, site prioritization, acquisition strategies, reuse planning, and visioning along the North River Corridor. This project included a new riverwalk conceptual design which is helping the two cities develop a property acquisition strategy.

Team Leader for the NSTAR Harborwalk project at Reserved Channel in South Boston. Project included the development of the linear waterfront park, as well as permitting assistance, construction oversight, and coordination with the Boston Conservation Commission and Boston Redevelopment Authority for the design of four interpretive signage panels that illustrate the history of the site and the surrounding areas.

Project Manager for the Boston Redevelopment Authority's (BRA's) redevelopment of Parcel 5 into the new Mayor Thomas M. Menino Park in Charlestown, Massachusetts. The highly successful project addressed ADA accessibility/compliance issues, included an extensive public engagement component, and was completed within an accelerated schedule.

Project Manager for the design, permitting, and construction of multiple park and playground sites for the Boston Parks and Recreation Department. Current or recently completed projects include LoPresti Park in East Boston and Ceylon Street Playground in Roxbury.

Project Manager for the Albion and Grimmons Parks Improvement project in Somerville, Massachusetts. Project included the community process, master planning, and full construction document design of the two parks set in very different neighborhoods of the city. The design included multi-use courts, community gardens, splash pad areas, shaded seating plazas, and new play equipment.

Project Manager for the development of a new type of urban open space for the City of Somerville. The small site, once the lot of a private home, was gifted to the city with the intent of establishing a natural, open space for birds. The design incorporates vegetation to provide food and nesting cover for the wide variety of bird species found in Somerville. A wooden boardwalk circulation system will provide an accessible route through the park while allowing stormwater to drain without adding impervious surfacing.

Background

2015-Present
Team Leader
Weston & Sampson
Worcester, Massachusetts

2005-2014
Project Manager
Weston & Sampson
Foxborough, Massachusetts

2004-2008
Part-time Faculty Member
Site Engineering, Technology,
& Materials I
Rhode Island School of Design
Providence, Rhode Island

2001-2005
Senior Landscape Architect
Diversified Technology
Consultants, Inc.
North Haven, Connecticut

1997-2001
Landscape Architect
Gates, Leighton & Associates, Inc.
East Providence, Rhode Island

1996-1997
Teaching Assistant
Rhode Island School of Design

1986-1994
President/Landscape Designer
M.S. Moonan Landscaping, Inc.

Education

1997
Master of Landscape Architecture
Rhode Island School of Design

1989
Bachelor of Science
General Business Administration
University of Rhode Island
Kingston, Rhode Island

Professional Registration

Registered Landscape Architect:
Massachusetts No. 1392
Rhode Island No. 334

LEED® Accredited Professional

LEED® AP Building Design &
Construction

EXPERIENCE

Mr. Moonan is a registered landscape architect with more than 20 years of experience in Landscape Architecture and landscape maintenance industry. His creative approach to landscape design has included projects ranging from Master Planning and designing parks, streetscapes, school facilities and business parks, to site design for international resorts and hotels. He has managed all aspects of projects from Master Planning and conceptual design to construction document preparation, specification preparation, and construction administration through to final completion. Early in his career Mr. Moonan owned and operated a landscape construction and maintenance company. His combination of project design and management skills, along with his hands-on experience, makes Mr. Moonan an asset to any design team.



Mr. Moonan recognizes that garnering opinions and ideas from various stakeholders is integral to a built project's success. He has coordinated efforts and developed project specific presentation strategies that engage and include all concerned parties, helping to support project goals.

Additionally, Mr. Moonan has developed extensive experience with zoning bylaws and subdivision regulations. Having worked on several development projects over the years, he has gained a distinct understanding of successful development standards, including those for conservation developments and Low Impact Development (LID) standards.

SPECIFIC PROJECT EXPERIENCE

Senior Landscape Architect for the Saugatucket River Greenway in South Kingstown, RI. Work included refurbishment of a pedestrian bridge that crosses the river and that provides a key linkage between residential neighborhoods, an elementary school, and the primary retail and commercial area of Wakefield Village Area. Other improvements within the Wakefield Village Area included the refurbishment of a municipal parking area making use of low impact development stormwater management techniques, construction of a children's outdoor classroom that cantilevers out over the banks of the Saugatucket River, and other related enhancements to numerous open space and park properties within the larger Greenway.

Senior Landscape Architect for the Cochituate Rail Trail project in Framingham, Massachusetts. This project includes the construction of a new multi-use trail beginning at the northern terminus located at School Street, continuing along the abandoned railroad corridor before terminating at Cochituate Road (Route 30) in the town, a distance of approximately 1.5 miles.

Senior Landscape Architect for a Master Plan for a section of Cheesecake Brook between Eddy Street and Watertown Street. Garnered many divergent opinions regarding the potential passive recreational use of the site through a series of community meetings. During the course of these meetings, helped flush out an enhancement program that will satisfy all the interested parties. Potential implementation of a series aesthetic improvements to enhance the overall visual qualities of the Cheesecake Brook greenway include: Replacement of an existing chain link fence with a more attractive fence system; management of vegetation along the corridor to include removal of invasive species,

Professional Societies

American Society of Landscape
Architects

National Trust for Historic
Preservation

American Sports Builders
Association

Sports Turf Managers Association

Civic

St. Mary Academy Bay View,
Riverside, Rhode Island - Member,
Building and Grounds Committee

Board of Trustees, William Hall Free
Library, Cranston, Rhode Island
- Co-Chair, Buildings and Groups
Committee

Pawtuxet Village Association

Pawtuxet River Watershed Council

damaged or diseased vegetation, and improved visibility; management of the corridor to include a mix of open lawn, meadow, shrub, ornamental, evergreen and deciduous plantings; and introduction of pedestrian crossings and points of public access and use.

Senior Landscape Architect for a community bikepath in Somerville, MA, beginning at the intersection with Cedar Street and connecting to the existing bridge at Lowell Street. All work is being designed and constructed in conformance with the Massachusetts Department of Transportation's (MADOT) Standard Specifications. The project required an extensive community participation program and coordination with key stakeholders including the existing Veteran Nurses Association (VNA) property, a residential community currently under construction (i.e. MaxPak) and the future Massachusetts Bay Transportation Authority (MBTA) Greenline Station currently under design. In addition, the project required permanent and temporary right-of-way acquisitions, utility coordination, and a Phase I soil investigation.

Senior Landscape Architect for a bikepath feasibility study in Wareham, MA. Investigated and evaluated the feasibility of the various alternatives developed by the Southeastern Regional Planning & Economic Development District (SRPEDD), developed associated construction costs, identified design and construction constraints with respect to right-of-way, access, utilities, environmental resource impacts, and possible funding sources for construction, and assisted the town in developing a plan to administer policy, trail enhancement, fire/rescue procedures and maintenance for the trail, once constructed. The study involved coordination with the Marion Bikepath Committee, Town of Wareham Bikepath Committee, MassDOT and the community. The study recommended a section of abandoned rail bed approximately 2 miles in length to serve as Phase I of the overall project.

Project Manager for the Town of Wilbraham, Massachusetts Recreation & Athletic Facility Master Plan. Project involved evaluating the town's recreational needs, assessing eight recreational sites, and proposing improvement opportunities to the town. Weston & Sampson assisted with funding and implementation of the Phase 1 Spectacle Pond recreational facility using various creative means for funding and construction. Weston & Sampson prepared construction documents to a level necessary for implementation by town forces or separate sub-contractors.

Project Manager for the Master Plan for Newton Upper Falls Playground and Newton Highlands Playground in Massachusetts. The purpose of this master plan was to provide a preferred site improvements plan that reflects the needs of two diverse communities. The plan serves as a guide for all future development of this park, as well as a tool to secure funding from various private, city, state, and federal sources. Weston & Sampson collaborated with the Newton Parks & Recreation Department to develop conceptual and final "Preferred" master plans for both properties. These were generated in response to the needs of the city as expressed by various community representatives at a series of public hearings and through the issuance of a comprehensive Park User Survey.

Project Manager for the Town of Walpole, Massachusetts Athletic Fields Master Plan. Project involves evaluating the town's recreational needs, assessing 12 recreational sites and proposing improvement opportunities to the town. Seeking to implement improvements quickly, the project involved an accelerated timeline. Weston & Sampson assisted the town with implementation strategies for the most urgent improvements.

Background

2014-Present
Team Leader/
Senior Landscape Architect
Weston & Sampson

2009-2014
Senior Landscape Architect/
Practice Leader
Toole Design Group, LLC

2009
Senior Landscape Architect
Wetland Studies and Solutions, Inc.

2004-2008
Landscape Architect/
Environmental Analyst
Kimley-Horn & Associates, Inc.

2004
Assistant Project Manager
The Pike Company

Education

2006
Master of Landscape Architecture
State University of New York:
College of Environmental Science and
Forestry

2003
Bachelor of Science
Construction Management
Roger Williams University

Professional Registration

Registered Landscape Architect:
New York No. 2443
Connecticut No. 1328
Delaware No. 459
Maryland No. 3531
Massachusetts No. 4004
Missouri No. 2014000212
Pennsylvania No. LA002934
South Carolina No. LSA 1215
Vermont No. 0101807
Virginia No. 1368
Washington No. 1337
Wisconsin No. 654-14

Affiliations

American Society of Landscape
Architects

Society of Outdoor Recreation
Professionals

Certifications

Certified Landscape Irrigation
Auditor, Irrigation Association

Certified Irrigation Designer,
Irrigation Association

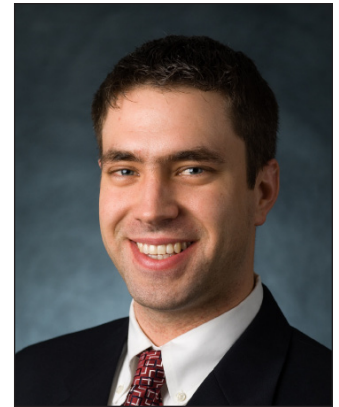
Certified Arborist, International
Society of Arboriculture

DANIEL P. BIGGS, RLA

EXPERIENCE

Mr. Biggs is a Registered Landscape Architect with 10 years of multi-disciplinary experience in all phases of design and environmental planning projects. His background includes leading multi-disciplinary teams on master planning, multi-use trails, parks and recreational facilities, campus improvements, and multi-modal transportation projects. Mr. Biggs is also a certified arborist and irrigation designer.

His technical skills and experience include preparation of planning through construction documents for public and private sector clients using AutoCAD C3D, Adobe InDesign and Photoshop, Sketchup, AG132, and several other design programs.



SPECIFIC PROJECT EXPERIENCE

McKnight Rail Trail, Springfield, MA

Mr. Biggs is leading the planning and design of a two mile segment of the McKnight Rail Trail in the City of Springfield. The trail design will include developing a feasibility plan, existing conditions analysis, conceptual design, and implementation plan for the proposed trail through the McKnight Neighborhood.

Route 17 Park and Athletic Complex, Portland, CT

As landscape architect, Mr. Biggs is providing master planning and site design specialization services for the development of a multi-field athletic complex and park facility for the Town of Portland. As Portland's premier park space, the complex will include a synthetic turf field, a natural soccer field, two baseball fields, an outdoor splash pad, basketball courts, a playground, and over one-half mile multi-use trail network throughout the complex.

Byram Park, Greenwich, CT

Mr. Biggs is leading the landscape architecture and site detailing for the redevelopment of Byram Park on the coastline of the Long Island Sound in the Town of Greenwich. Site improvements include creating a new pool facility above the flood zone enhanced by landscape and hardscape features, a new parking lot area with low impact development stormwater measures, dune reestablishment, and park amenities.

PREVIOUS PROJECT EXPERIENCE

Oxon Run Park Trails, Washington, DC

As Project Manager, Mr. Biggs led the existing conditions analysis of the existing trail network, concept design plan, public involvement, and sub-consultant coordination for the Oxon Run Trail project. The project consisted of analyzing existing and future park uses, opportunities for low impact development, and potential connections to transit and neighborhood amenities.

Montgomery Village Trails Plan, Montgomery Village, MD

As Project Manager, Mr. Biggs led the planning and design of a trails master plan for Montgomery Village. The master plan development consisted of evaluating the existing trail network within the community and determining preferred locations for facility

improvements, identification of recreational walking routes, transportation corridors, and other routes of interest. The final plan recommended areas for improvements and an implementation strategy.

Columbia Active Transportation Agenda, Columbia, MD

As Project Manager, Mr. Biggs led a multi-disciplinary team in the development of an action agenda to improve pathways throughout Columbia. In addition to assessing the pathways, the project included several stakeholder involvement sessions, public open houses, on-line surveys, digital mapping, and stakeholder bike/walking tours. Action agenda items included a wayfinding sign pilot study and feasibility recommendations for new connections, routing options, as well as digital mapping and web applications.

Washington & Old Dominion Trail Various Improvement Projects, Fairfax, VA

Mr. Biggs led the assessment of all 72 intersections of the Washington & Old Dominion Trail extending from Arlington County to the Town of Purcellville, Virginia. Assessments include evaluating each intersection for consistency of pavement markings, geometric alignment, which could impact trail users, luminescence levels, and identification of anomalies or treatments inconsistent with the Park Authority's standards.

Washington Park Arboretum Multi-use Trail, Seattle, WA

Mr. Biggs led the concept design through construction documents of the multi-use trail through Seattle's Arboretum. Preparation of the design plans included analyzing the existing trail network, identifying arboretum collections and natural resources to be protected, and ultimately creating a bicycle and pedestrian trail through the park.

Potomac Heritage National Scenic Trail, Washington, DC/ MD/ VA

Mr. Biggs led the development of several feasibility studies for key connections within the greater Washington, DC metropolitan area for the Potomac Heritage National Scenic Trail. The project included completing a site analysis, meeting with project stakeholders, and providing a feasibility study with a recommended alignment and project considerations.

East Street Rail-with-Trail, Frederick, MD

As the Lead Landscape Architect, Mr. Biggs led the trail amenities and branding design. He assisted with stakeholder involvement and helped with the overall trail design and wayfinding branding design as well as oversaw 3-D graphic design and rendering.

Downtown Columbia Trail, Columbia, MD

As team leader, Mr. Biggs led an initial alternatives analysis and selection of a preferred alignment through to the final design of all aspects of the project. The project details consisted of developing a preliminary design for stakeholder input, concept design, and final construction documents of all aspects of the three mile trail. In addition, the project included developing Trail Design Guidelines and On-Street Bicycle Facility Guidelines.

Frankford Greenway, Philadelphia, PA

As lead landscape architect, Mr. Biggs developed the master plan for the Frankford Creek Greenway, which is one of the last creeks in Philadelphia without a urban park or trail amenities. The project team designed a series of trailhead and waysides with a consistent theme and aesthetic treatment.

58th Street Connector Greenway, Philadelphia, PA

Mr. Biggs led the conceptual design phase including the development and evaluation of final and intermediate improvement recommendations, obtaining community consensus for improvements.

Background

2013-Present
Project Landscape Architect
Weston & Sampson

2010-2013
Project Manager
Warner Larson Landscape Architects

2007-2010
Landscape Architect
Weston & Sampson

2006
Intern, Landscape Architect
Department
Ryan Associates

2005
Office Assistant
Gemini Services Group

Education

2007
Bachelor of
Landscape Architecture
Pennsylvania State University

2006
Study abroad program focused on
urban planning and design
Sede di Roma- Rome, Italy

Professional Registration

Registered Landscape Architect:
Massachusetts No. 4063
Connecticut No. 1246
LEED® Accredited Professional

Professional Societies

Landscape Architecture Student
Society

EXPERIENCE

Mr. Riley, Landscape Architect and LEED® Accredited Professional, has more than six years of landscape design experience. Mr. Riley coordinates and manages public sector projects, from conceptual design through construction. Responsibilities include project budget management, attending meetings and presentations, consultant coordination, project design and development, preparation of construction documents and specifications, and construction administration. Mr. Riley's construction administration experience has provided him with strong technical skills for site layout, grading and stormwater management, and construction detailing.



SPECIFIC PROJECT EXPERIENCE

Primary project experience includes parks and playgrounds, athletic facilities, campus and institutional projects, K-12 schools, splash pads, and accessible trails. Notable projects include:

Completed with Weston & Sampson

- North Street Veterans Playground in Somerville, MA
- Mayor Thomas M. Menino Park in Boston, MA
- LoPresti Park in East Boston, MA – Boston Parks and Recreation Department
- Barefoot Park at Babson University – Wellesley, MA
- Albion Park in Somerville, MA – Received 2010 BSLA Honor Award
- Grimmons Park in Somerville, MA – Received 2011 BSLA Merit Award
- Hodgkins-Curtin Park in Somerville, MA

Completed with Warner Larson Landscape Architects

- Goodale Park Tennis & Basketball Courts in West Boylston, MA – Received 2011 ASBA Award)
- Southbridge High School/Middle School & Sports Fields in Southbridge, MA
- Stoneham Middle School in Stoneham, MA
- Henry Grew Schoolyard in Hyde Park, MA – Boston Schoolyards Initiative Round 11
- Higginson-Lewis Schoolyard in Roxbury, MA – Boston Schoolyards Initiative Round 12

Other relevant work while employed at Weston & Sampson includes:

Improvements to LoPresti Park in East Boston, Massachusetts for the Boston Parks and Recreation Department – Design, permitting, and construction administration work for this project includes realigning pedestrian connections, rotating fields for game play and practice to allow for a more efficient use of the site, and positioning the most-used elements of play for improved park safety and access.

Developed construction documents and specifications for the Children's Grove Playground at Cushing Park in Framingham, MA.

Design, permitting, and construction documents for the mile-long accessible trail design along the former Cochicuate Aqueduct in Natick, MA.

Developed conceptual designs, cost estimates, and construction documents for the proposed accessible trail, boardwalk, and outdoor classroom for the Eastman Conservation Area at Newman Elementary School in Needham, MA.

Developed illustrative plan renderings, concept development, presentation boards, and presentation graphics (photo boards, material boards, etc.) for the Ceres Street Park and the Plains Park and Pine Street Playground renovations in Portsmouth, NH.

Phase 1 and 2 programs for Rockwood Field, a four-acre recreational facility adjacent to Worcester State College in Worcester, Massachusetts that includes a full-size NCAA modern baseball facility and an NCAA softball facility also suitable for Little League play. Mr. Riley developed construction documents for this project.

Developed construction documents, illustrative plans, 3-D renderings, and presentation boards for the Ceylon Street Playground in Boston, Massachusetts.

Developed construction documents, illustrative plan renderings, concept development, presentation boards, presentation graphics (photo boards, material boards, etc.) for the McCabe Playground in Waltham, Massachusetts.

Developed conceptual designs, concept plan renderings, and presentation boards for the Babson College Hills Residences Master Plan at Babson College in Wellesley, Massachusetts.

Developed construction documents, cost estimates, illustrative plans and sections, presentation boards, and graphics (photo boards, material boards, etc.) for the Babson College Upper Quad at Babson College in Wellesley, Massachusetts.

Developed illustrative plans, illustrative sections, photo renderings, presentation graphics, and boards for the Cheesecake Brook Improvements project in Newton, Massachusetts.

Developed illustrative plan renderings, presentation boards, and graphics for the Falmouth Streetscape Improvements in Falmouth, Massachusetts.

Developed construction documents for the Improvements to Boston Common in Boston, Massachusetts.

Background

2014-Present
Landscape Architect
Spurr, Weston & Sampson's
Design Studio

2012-2014
Landscape Architect
Copley-Wolff Design Group

2012
Landscape Architect
The Cecil Group

2011-2012
Landscape Architect
Independent Consulting

2007-2011
Landscape Architect/Associate
DLR Group

2005-2007
Landscape Designer
Geller Devellis Inc.

2003-2005
Assistant Landscape Designer
Mia Lehrer and Associates

2001-2003
Assistant Landscape Designer
Geller Associates

Education

2001
Bachelor of Landscape Architecture
University of Rhode Island

Professional Registration

Registered Landscape Architect:
Massachusetts No. 4040

Professional Societies

American Society of Landscape
Architects (ASLA, BSLA)
Council of Landscape Architecture
Registration Board (CLARB)

EXPERIENCE

Mr. Kunkel is a landscape architect with more than 10 years of experience in innovative design and master planning. His areas of expertise include high density mixed-use urban developments, urban parks, academic and corporate campuses and natural resource conservation and rehabilitation.

SPECIFIC PROJECT EXPERIENCE

South Mill Pond Courts and Leary Field Lighting, Portsmouth, NH

As assistant project manager for this improvement project, Brandon coordinated the preparation of the final design documents. The project involves the complete refurbishment of six tennis courts and two basketball courts including the addition of court lighting. The project also included retro-fitting sports field lighting at Leary Field in the park.



Advancement of the Fields Element of the Comprehensive Recreation Needs Study, Portsmouth, NH

Brandon assisted with evaluating the site for this study where Weston & Sampson evaluated and prepared profile sheets each property to support the city's staff report to the City Council. The advancement of the recreational needs study provided details for opportunities to address the shortages in recreation fields, including specific locations of existing fields for resurfacing with artificial turf or natural turf and/or creating new fields from currently owned or potential land acquisitions. Cost evaluations were also prepared for the proposed improvements at each property.

Merrymount Park Master Plan, Quincy, MA. Developed a master plan to increase utilization of this 80-acre city park located along the coast of Massachusetts. Conducted an analysis and evaluation of the park amenities and resources. Identified key locations for amenities such as boardwalk access to islands in Back's Creek and for view corridors to capitalize on the park's natural beauty. Other elements included refurbishment of walk-in/hiking trails, new playgrounds, athletic fields, and gateways to the park. Phase 1 of the master plan, which includes boardwalks through tidal wetlands, is under design. (2013)

Longfellow Bridge Parkland Restoration, MassDOT, Boston and Cambridge, MA. Provided planning and design services for the restoration to the Charles Riverfront park-lands (including portions of the Esplanade) adjacent to the historic Longfellow Bridge. The design intent was to reflect the original master plan by Charles Elliot while looking to the future of the park. Design features include subsurface gravel wetlands that serve as a pollutant filtration system for stormwater runoff from the bridge surface. Native plant materials provide year-round interest within the park areas, and custom granite benches frame the entrances to the new pedestrian bridge linking Charles Circle to the Esplanade over Storrow Drive. (2013-Present)

Kingman Unified School District, Kingman, AZ. Evaluated the existing and new facilities owned and operated by the school district in an effort to prepare for future student growth. Implemented renovations and new construction of multiple facilities, including a new central receiving warehouse, bus facility, renovations to an existing middle school, a new middle school with community athletic fields, renovations to an existing high school including a new athletic complex and stadium, and a new high school with athletic fields.

Project leader for multiple projects including urban spaces, mixed-use developments, and open space. Developed project design concepts and managed staff for the duration of the project. Worked with clients through permitting and documentation and administration.

Project manager for projects associated with planning land use area development. Worked with sensitive and complex issues related to environmental concerns, sustainability, and historic preservation. Worked with public officials and state agencies, and collaborated with external consultants on multiple projects concurrently.

Provided effective design and planning solutions for various project types within the greater Boston area.

Department head of site planning and land development projects in Arizona, including master planning and design for institutional / academic campuses. Led all site-related phases of projects, including analysis and feasibility, consultant coordination, client presentation, staff scheduling, and assistance with permit acquisition through state, county, and local agencies.

Background

2014-Present
Landscape Architect II
Weston & Sampson

2012-2014
Landscape Designer
Landworks Studio

2012
Landscape Design Intern
Hargreaves Associates

2011-2012
Landscape Design Intern
Boston Parks/Urban Wilds/
Student Conservation Association

2011
Design+Build Intern
Sol LeWitt Summer House

2010
Landscape Design Intern
Weston & Sampson

Education

2012
Master of Landscape Architecture
Rhode Island School of Design

2001
Bachelor of Arts
Economics
Denison University

EXPERIENCE

Mr. Chroust is a Landscape Architect in the firm's design program. His background includes schematic design plans, design development, construction documentation, and project management. He has developed designs through a variety of mediums, including hand sketches, AutoCAD, digital graphics, and model making.

SPECIFIC PROJECT EXPERIENCE

Improvements to Children's Park in Roxbury, Massachusetts for the Boston Parks and Recreation Department – Provided landscape architecture services to renovate and update the current Children's Park. The project involved acquisition of two vacant properties, expansion of the site, inclusion of multi-generational park amenities, and a significant community participation component.



New High School Athletic Complex in Danvers, Massachusetts – Landscape Architect for the comprehensive design, engineering, and construction administration of a new athletic complex at Danvers High School. This project involves the design of new state-of-the-art athletic facilities at the high school property, including the primary synthetic turf field at the stadium, a competition-level track, bleachers for 2,600 spectators, lighting systems, scoreboard, baseball field and multi-purpose field, tennis courts, and other sports and site support facilities/features.

Harambee Park Master Plan in Dorchester, Massachusetts for the Boston Parks and Recreation Department – Landscape Architect for the master planning process of Harambee Park, one of the city's largest open space assets today. The goal of the initiative is to establish a strategic road map for implementing a series of meaningful physical improvements to the park that create opportunities for enhanced use and enjoyment for decades to come. Efforts for the master plan include inventory and analysis of all park features, identification of deficiencies and safety hazards, soil and survey analysis, circulation analysis, athletic facilities assessment and recommendations, vegetation enhancement and management recommendations, and a detailed construction cost estimate for the final recommended improvements.

Boston Common Master Plan in Boston, Massachusetts for the Boston Parks and Recreation Department – Landscape Architect for the master plan addendum to the Boston Common Management Plan completed in June 1996. The focus of this update is the recording of physical conditions related to pathway surfacing and pathway edges including bordering lawns and bench installations. With more investment planned for these high-profile city assets, this update seeks to examine design guidance contained in the original management plan related to pathways and pathway edges. The goal is to achieve consistent, high-quality, cost-effective, and sustainable design protocols to be implemented with each new capital expenditure.

Improvements to Lincoln Park in Somerville, Massachusetts – Landscape Architect for design services and landscape architecture improvements to the existing park. The park design, once complete will include open space improvements, active and passive play recreational features, athletic fields, educational opportunities, and a unique stormwater collection and management system.

Improvements to LoPresti Park in East Boston, Massachusetts for the Boston Parks and Recreation Department – Design, permitting, and construction administration work for this project includes realigning pedestrian connections, rotating fields for game play and practice to allow for a more efficient use of the site, and positioning the most-used elements of play for improved park safety and access. Also worked on the initial conceptual design for a fountain plaza in the park.

Sports Field Upgrades and Improvements in Needham, Massachusetts – Landscape Architect for the proposed accessible trail, boardwalk, and outdoor classroom for the Eastman Conservation Area at Newman Elementary School in Needham.

Accessible Trail Design in Natick, Massachusetts – Provided landscape architecture assistance as part of the design of a mile-long accessible trail along the former Cochituate Aqueduct in Natick.

Comprehensive Master Plan for Crompton Park in Worcester, Massachusetts. – Landscape architect for a comprehensive master plan for a 15-acre property, including significant public participation. The project included improved recreational facilities (courts, fields, playgrounds); improved park aesthetics; active and passive recreation options; a cleaner, safer, and “greener” park; improved access and circulation; and ADA compliance.

Improvements to Byram Park in Greenwich, Connecticut – Provided landscape architecture assistance as part of the design and engineering of a new park and public outdoor pool facility with a large zero entry pool with lap lanes, splash pad, and kiddie pool to replace an outdated facility on the site.

Nipper Maher Playground Improvements in Waltham, Massachusetts – Provided landscape architecture assistance for Phase 6 of a multi-phase improvement project at this important park and open space facility. Site improvements have included concession building renovations, major baseball and Little League field improvements, the installation of bleacher systems with shade shelters, pathway systems, park landscaping, and the placement of a variety of site furnishings and amenities throughout the property.

Streetscape Redevelopment in Franklin, Massachusetts – Prepared master plan renderings for a downtown streetscape redevelopment project in Franklin.

Experience with a Previous Employer

As part of his work for a previous employer, Mr. Chroust provided landscape design/architecture services for several key projects. His experience includes his work on projects for Brandeis University in Waltham, Massachusetts; NorthPoint Gateway in East Cambridge, Massachusetts; 701 2nd Street NE in Washington, DC; Millbrook; and the Solitaire Tower in Taiwan.

As a Landscape and Design+Build Intern:

- Progressed construction documentation for Project Delta in Houston, TX.
- Designed the new entrance to Nira Rock Urban Wild; construction was complete in the summer of 2012.
- Developed the phasing master plan for the Buena Vista Urban Wild; the first phase of restoration planting was complete in November of 2011.
- Designed and built landscape programs to evolve the Sol LeWitt property for both artists- and chefs-in-residence. Implemented terraced gardens that celebrate local farming techniques and planting material native to the Amalfi coastal climate.

Phil Goff, LEED AP

Senior Associate



Phil brings 18 years of urban design and pedestrian, trail and bicycle facility planning and design experience to the team. As manager of Alta's Cambridge office, he merges his passion for multi-modal streetscape design with his keen ability to effectively manage a diverse set of complex projects. Phil uses his architecture and urban design background to design and manage master-planning projects for private-development parcels, transit-oriented development sites, and neighborhoods in cities and towns large and small. His sincere passion for making cities and towns more lively, walkable, bike-friendly, and sustainable places represents a common theme in his work.

Education

- Master of Architecture in Urban Design, University of Oregon, 1998
- Bachelor of Architecture, Syracuse Univ, 1991

Advocacy Leadership

- Founding Board Member, LivableStreets
- Founder and Chair, East Arlington Livable Streets Coalition

Professional Highlights

- Alta Planning + Design, 2009–
- Goody Clancy and Associates, 2005–2009
- City of Portland Bureau of Planning, 2001–2004
- Crandall/Arambula PC, 1998–2001
- Adjunct Faculty – Master of Urban and Regional Planning, Portland State University, 2003–2004

Selected Projects

Charles River Basin Connectivity Plan, MA

Alta worked with the MassDOT and DCR to develop a plan that addresses the needs of pedestrians and cyclists along an eight-mile stretch of the Charles River Basin in Boston, Cambridge and Watertown. Led by Phil, Alta's multi-year effort included recommendations for new paths along the river, in addition to enhanced pedestrian and bike connections to the adjacent neighborhoods and ten bridges across the Charles River. The current Connectivity Study effort is putting specific emphasis on the Charlesgate interface, with the goal of connecting the Charles River Esplanade with the Emerald Necklace.

Emerald Necklace Bicycle and Pedestrian Crossing Project, MA

Working with GPI Inc., Alta helped to develop bicycle and pedestrian improvements at five key intersections along the Emerald Necklace pathway system for the Town of Brookline. The work included final design and contract documents for the reconstruction of the Route 9 crossing, historically, one of the most difficult for cyclists and walkers in the entire park system. Phil led the conceptual design efforts for the team, incorporating innovative design features developed by Alta for the NACTO Urban Bikeway Design Guide.

Martin's Point Shared Use Path Master Plan, Portland ME

Phil worked closely with the City of Portland, PACTS, and community groups to develop a plan for a pedestrian and bicycle connection at Martin's Point in Portland, Maine, between the Tukey's Bridge and the Martin's Point Bridges. Recommendations included on-street bike lanes through the adjacent neighborhood in the short-term and an off-street, shared use path along the I-295 corridor as the long-term improvement. This connection also closes a gap in the East Coast Greenway.

Waterbury Naugatuck River Greenway Routing Study, CT

Phil served as Project Manager and Lead Planner for a 22-mile greenway corridor along the Naugatuck River. The effort involved outreach in four communities for the Council of Governments of the Central Naugatuck Valley. The regional project complements a separate project for the City of Waterbury that recommended a route for the trail along a seven-mile stretch of the Naugatuck River that passes through the City.

Thomas Doolittle, ASLA, PLA

Senior Landscape Architect



Tom is a landscape architect with a background in planning and design for public and institutional clients focused on business development, project management, and team leadership for complex programs and projects.

Education

- BLA, Landscape Architecture, Ball State University, with Honors, Minor in Natural Resources, 1983
- BS, Environmental Design, Ball State University, 1983

Professional Highlights

- Alta Planning + Design, 2016–
- Principal, Kleinfelder, Inc., 2013-2016

- Instructor, Boston Architectural College, 2014–
- Gilbane Building Company, 2007-2013
- Principal, Thomas Doolittle Planning and Design, 2006-2007

Professional Registrations

- Professional Landscape Architect, CT (#511), MA (#835), ME (#LAR4200)
- CLARB Certification (#3392)

Selected Projects

MIT Grand Junction Community Path Feasibility Study, Cambridge

Project manager for a study to evaluate the potential for incorporating a multi-use path along an existing railway corridor that runs through the MIT campus. The study looked closely at the existing needs of MIT along the corridor, as well as the potential for future expansion of its facilities, and developed a recommended alignment and series of cross-sections for a pathway that would provide the desired regional connections with minimal impact to MIT's current and future operations. The development of the feasibility study included working closely with an advisory committee assembled from multiple stakeholder groups along the larger Grand Junction corridor, as well as meetings with City of Cambridge departments and committees, MIT personnel and faculty, and the public at large.

Vassar Streetscape Improvement Project, Cambridge

Principal-in-Charge for the design of the reconstruction of and improvements to this one-mile long urban street in the heart of the MIT campus. The area will become the central spine of the campus and the focus of future development. Among the goals of the project were to develop a design that focused on walking and bicycling as the primary modes of transportation. The project includes the design of significantly widened

sidewalks with new street lighting, street tree plantings, and pavements. The design also includes a one-way cycle track system that removes bicycles from the roadway and places them adjacent to the pedestrian zone, allowing the road to be narrowed to a minimum width. Speed tables and enhanced lighting and paving are incorporated at mid-block pedestrian crossings to emphasize these locations to motorists and to break down the street into smaller-scale sections.

Commonwealth Avenue Reconstruction, Newton

Project Manager and Principal-in-Charge for this restoration of a historic boulevard originally designed by the office of Frederick Law Olmsted. The project sought to re-establish the split of modes on the boulevard – it consists of a broad travelway for regional traffic and a narrower carriageway for access to houses abutting the road and to the surrounding neighborhoods – that had been lost during the evolution of the street and the development of the surrounding area. The project included innovative traffic calming features to control vehicle speeds on the carriageways and discourage their use for through-travelers, and historically appropriate furnishings and lighting to re-establish the character of the boulevard. Extensive measures were taken to protect and extend the life of the major trees of the boulevard.

Charles Creagh

Planner



Charles has experience teaching the principles of sustainability, conservation, and urban-ecological design practices. Charles is an avid bicyclist, and his passion for non-motorized transportation fueled graduate research focused on global climate change, the effects of sea level rise, and how the thoughtful growth of urban regions can be positively impacted by the inclusion of complete streets and trails. His technical competencies include photo rendering, plan view illustration, report writing and research, online survey creation and analysis, and GIS mapping and editing. Charles is passionate about promoting bike share, planning greenway and trails and is committed to creating more walkable, bikeable, and healthy urban spaces.

Education

- Master of Design for Sustainable Urban Environments, Northeastern University, 2015
- BS, Business Administration, University of Maine at Farmington, 2008

Professional Highlights

- Alta Planning + Design, 2015
- Boston Cyclists Union, 2014

Professional Registrations

- Envision Sustainability Professional, ENV SP

Selected Projects

Walk / Bike Northampton Master Plan, MA

Charles is the lead GIS Planner and graphic designer for the pedestrian and bicycle master planning effort for the City of Northampton. He has developed analysis maps, documented pedestrian and bicycle count information and developed plan graphics of Alta's recommendations. He has also assisted with the public engagement effort, facilitating meeting and overseeing the project web site and on-line survey.

University of Vermont Active Transportation Plan, Burlington, VT

Alta was chosen by The University of Vermont to recommend improvements to the campus area to make bicycling, walking, and skateboarding safer. Charles assisted in the development of maps and graphics that were used at public and stakeholder meetings to solicit input about difficult or dangerous places to walk, bike, or skate in and around the campus. The feedback was instrumental to producing detailed maps recommending specific interventions on a variety of paths, sidewalks, and streets that will make UVM even friendlier for active transportation.

Saranac River Trail Greenway (SRTG) Feasibility Study, Clinton County, NY

Alta was selected to develop a vision for a 26-mile connected trail system between Moffitsville and Plattsburgh, NY. Building off of the success of the original 1.5 mile Saranac River Trail, the team routed trail alignment alternatives and suggested a mix of both on and off-road trail typologies for users. Charles developed key materials for public outreach, assisted with research and report writing, and produced detailed maps and graphics that displayed the trail typologies, alignments, and

Martin's Point Area and West Commercial Street Corridor Study, Portland, ME

Alta led a street redesign project that converts West Commercial Street from an industrial thoroughfare into a complete street. Charles assisted in mapping the existing bicycle and pedestrian facilities within the area in addition to producing graphics that highlighted the challenges and opportunities available within the corridor. Charles developed plan-view, perspective-view, and cross-section illustrations that allowed the client to compare and contrast bicycle and pedestrian facility options and make informed decisions that will impact the safety and aesthetic of the streetscape.

Background

2013-Present
Project Manager
Weston & Sampson

1997-2012
Senior Civil Engineer / Project
Manager / Civil Department Manager
AECOM Transportation

1992-1997
Project Engineer
URS Corporation

Education

1989
Bachelor of Science
Civil Engineering
Marquette University

Professional Registration

Professional Engineer:
Massachusetts No. 47815

EXPERIENCE

Mr. King has over 20 years of civil engineering experience, including municipal roadway design, highway design, urban systems design, Traffic Management Plans (TMPs), toll road facilities, traffic management, Environmental Impact Reports (EIRs), railroad operations, site design, stormwater management and closed drainage system design, design specifications, and cost estimates.

Mr. King's project management experience includes managing budgets, project schedules, subconsultants, and client relationships for multi-faceted projects for various public and private clients.



SPECIFIC PROJECT EXPERIENCE

Boston Parks and Recreation Department – Improvements to LoPresti Park in East Boston, Massachusetts. Design, permitting, and construction administration work for this project includes realigning pedestrian connections, rotating fields for game play and practice to allow for a more efficient use of the site, and positioning the most-used elements of play for improved park safety and access. Responsible for drainage design and coordination with the Boston Water and Sewer Commission.

Pioneer Valley Transit Authority – Union Station Redevelopment Project, Springfield, Massachusetts. As lead engineer/deputy project manager, Mr. King was responsible for the rehabilitation of the historic Union Station into an intermodal center, accommodating intercity and local transit buses, access to Amtrak rail service and commercial development.

Rhode Island Department of Transportation (RIDOT) – Rhode Island Freight Rail Improvement Project, Quonset Point/Davisville to Central Falls, RI. As project engineer, Mr. King was responsible for the analysis and design of track drainage, stormwater management design and civil roadway work associated with the modifications to structures along the route.

Bourne, Medford, and Norwood, Massachusetts – Department of Public Works Facilities. This project consists of the development and design of new public works facilities. Site design consists of the layout of access roads and material handling, operations and parking areas, drainage and stormwater management, utilities, and other site appurtenances. Responsible for site design, and coordination with the owner, utility companies, and MassDOT regarding vehicular access and utility relocations/services, including traffic management.

Casella Waste Systems, Inc. – H Foote Road Extension in the Town of Southbridge, Massachusetts. This project consists of the design of a new two-lane roadway to connect the existing H Foote Road with the newly constructed Commercial Road. The design includes roadway horizontal/vertical alignments, grading, drainage and stormwater management system, utilities, pavement markings and signage, and traffic management. Mr. King is responsible for the design development, Notice of Intent, coordination with the owner and the Town of Southbridge, and the overall management of the project.

City of New Bedford, Massachusetts/ MassDOT – Route 18/JFK Highway Access Improvement Project. This project consisted of the redesign of the existing urban arterial

Route 18 in New Bedford, including horizontal/vertical geometry, traffic signals, traffic management, streetscapes, bicycle accommodations, a new bridge, and lighting.

Massachusetts Bay Transportation Authority – Blue Line and Red Line Station Rehabilitation, Boston, Massachusetts. Projects consisted of the rehabilitation of five subway stations. The civil engineering components of the project included the design of busways, utilities, parking lots, local roadways, traffic management, and stormwater management systems. Responsible for all civil components, included design of associated Boston Water and Sewer Commission drainage, water, and sewer systems.

City of Boston Public Works Department – American Legion Highway Reconstruction Project, Boston, Massachusetts. Lead civil engineer/deputy project manager responsible for the overall design of the reconstruction of a 2.8 mile, four-lane, median-divided urban arterial.

Kingston, Massachusetts – Kingston Transfer Station Reconfiguration. This project consisted of the expansion and reconfiguration of the Kingston Transfer Station, including a new access road, operations area and parking, drainage and stormwater management, utilities, lighting, and other site appurtenances. Mr. King was responsible for construction management and supervision, including design revisions, on-site inspection, and overall coordination of daily activities with the contractor and the owner.

Background

2001-Present
Project Manager
Weston & Sampson

1997-2001
Senior Engineer
Weston & Sampson

1994-1996
Associate Project Engineer
Weston & Sampson

1991-1994
Public Health Engineer III
Maryland Department of
the Environment

1990
Laboratory Technician
Malden Mills Industries

1987-1989
Cooperative Student Engineer
Weston & Sampson
Engineers, Inc.

Education

1991
Bachelor of Science
Civil Engineering
Merrimack College

Professional Registration

Massachusetts No. 41254

Professional Certifications

10-Hour OSHA Construction Safety
Training. # 001012507

Professional Societies

American Society of Civil Engineers

S. ROGER ALCOTT, PE

EXPERIENCE

Mr. Alcott is a project manager involved in the construction, permitting, and design of roadway, water, wastewater, and solid waste projects. He has over 22 years of engineering experience in the management, design, and construction of roadways, utilities, and drainage systems for site developments.

SPECIFIC PROJECT EXPERIENCE

Civil engineering and site design for multiple site improvements to open space /public access areas throughout Babson College. Designed improvements for pathway, parking, and stormwater management for the following projects: Barefoot Park | Upper Quad, Putney Hall Courtyard, Nichols Hall Courtyard, Coleman Hall Seating Circle, and Knight Auditorium Stormwater Mitigation.

Project Engineer responsible for the design, support, and construction management of the Blackburn Industrial Park Expansion project in Gloucester, Massachusetts. This project involved 4,900 linear feet of roadway and utility design to access 12 new development lots.

Project Engineer involved in the site design for a 35,000 square foot industrial/office building in Gloucester, Massachusetts. This project included the design of grading, utilities, and stormwater facilities for a fast-track construction project. Mr. Alcott also prepared and acquired permit approvals from the Gloucester Conservation Commission and the Economic Development and Industrial Corporation.

Project Engineer involved in the design and construction management of the Worcester Corporate Center in West Boylston, Massachusetts. This project involves 4,100 linear feet of new roadway and utility design to access 10 new industrial development lots. Mr. Alcott designed and coordinated roadway layout and utility installation, including new electric, cable, and telephone conduit. This work involved coordinating with each utility company and the town to determine the required services. Mr. Alcott also assisted with acquiring the necessary permit approvals from state agencies, the Planning Board, and the Conservation Commission.

Site design for the new Lampson Recreation Complex for the Town of Billerica. This project proposed to implement a series of recreation-related improvements on 19 acres of property in Billerica, Massachusetts. The project involves the construction of 300 parking spaces, eight tennis courts, four basketball courts, a skatepark, play/tot lot areas, and a Recreation Department headquarters/community center building, including restrooms and concessions, with associated stormwater management areas and other utilities. The project also includes replacement of an aging culvert on French Street and associated wetland replication.

Senior Engineer involved in the site design and construction for a senior assisted living development in Holden, Massachusetts. The development includes three buildings ranging in size from 64,000 to 100,000 square feet, with a total of 108 units and a parking lot. Mr. Alcott performed design services for the road layout, and drainage, water, sewer, gas, and electric installation. Mr. Alcott also assisted with permitting from the Conservation Commission, the Metropolitan District Commission (MDC), and Massachusetts Environmental Policy Act (MEPA) unit. The project included design of



stormwater Best Management Practices (BMPs) required to satisfy strict permitting needs since the project is within a drinking water watershed.

Project Manager responsible for the civil site design and permitting of the Leary Field reconstruction in Waltham, Massachusetts. This project involved regrading of a seven-acre site for the construction of a modern recreation complex. Formerly used as a landfill, the site is within a flood plain and required special design considerations and permitting from the Department of Environmental Protection (DEP) and the city. The project included special drainage controls to minimize downstream flooding impacts. Mr. Alcott also assisted with the construction administration.

During the past six years, Mr. Alcott has designed and permitted a wide variety of storm drainage infrastructure improvements at the Franklin Park and George Wright Municipal Golf Courses for the City of Boston. Work has included close coordination with the City of Boston Environment Department and coordination with contractors as improvements were implemented.

Project Manager for various roadway reconstruction projects in Middleborough, Wrentham, Eastham, West Boylston, and Seekonk, Massachusetts. These projects all involved pavement and drainage design, permitting and construction management.

Project Manager for peer review services for the Planning Board in Seekonk, Massachusetts. This project involves design review of subdivision plans and construction inspection services.

Project Manager for peer review services for 40B development applications in Somerset, Salisbury, Grafton, Menden, and Chelsea. These projects involved engineering review of roadway alignments, stormwater management, site design, water system and distribution, fire safety, wastewater collection and disposal, traffic, and landscaping.

Senior Engineer involved in the site design of the Hingham Library and Seekonk Library. These two projects included grading, drainage, water, gas, septic, and electric design.

Senior Engineer involved in roadway design of Doane and Nauset roads for the National Park Service in Eastham, Massachusetts. This project involves the reconstruction of 3.2 kilometers of road accessing Route 6 and Coast Guard Beach. The project included phased submissions to the Federal Highway Administration, which is funding the project.

Project Engineer/Construction Manager for the construction of landfill capping systems in the Massachusetts communities of Mashpee, Milford, Millis, Pepperell, Seekonk, and Sharon. These projects all involved construction bidding assistance, shop drawing review, progress reporting, inspection, change order coordination, design review and modifications, cost estimating, construction scheduling, and installation of flexible membrane liners. Mr. Alcott also worked on the permit approvals for each of these projects.

Engineer involved in the survey data collection and various engineering tasks for the Chelmsford, Massachusetts Phase 2A and 2B Sewer Project. This project involved the recovery of existing conditions, preparation of plan and profile drawings, and construction cost estimates.

Assisted in the preliminary design of the sewer system and small package wastewater treatment facility in the Lake Massapoag area in Sharon, Massachusetts.

Background

2013-Present
Project Engineer
Weston & Sampson

2005-2012
Engineer
Weston & Sampson

2002-2005
Project Assistant
Technology Transfer Center
Durham, New Hampshire

2004
Estimating Assistant
J.H. Lynch & Sons, Inc.

Education

2005
Bachelor of Science
Civil Engineering
University of New Hampshire

Professional Registration

Professional Engineer:
Massachusetts (#49074)

Title 5 Approved Soil Evaluator

Professional Societies

New England Water Environment
Association

Water Environment Federation

Honors

2012 New England Water Environment
Association Young Professional Award

EXPERIENCE

Ms. Peck is a project engineer working for Weston & Sampson's civil site/transportation programs. Her responsibilities include roadway, septic, and stormwater management design, soil evaluations and percolation tests, development of site plans and building concepts for Department of Public Works (DPW) facilities, contract document preparation, surveying, and AutoCAD services.



SPECIFIC PROJECT EXPERIENCE

Project engineer for the MassDOT North River bridge replacement project on Howley Street in Peabody, Massachusetts. Design consisted of revised roadway layout, as well as grading and drainage improvements, and coordination and replacement of several utilities, including water, gas, sewer, and electric. Tasks included designing to both MassDOT and City of Peabody standards, preparation of a 401 Water Quality Certification permit application, calculating the civil-related MassDOT calculation book and cost estimate, and preparation of all civil-related construction plans and bid documents and MassDOT special provisions.

Project engineer for the new water main to the Lynnfield DPW building and future expansion area. Tasks include design of new water and construction administration activities.

Engineer for the downtown improvements project in Franklin, Massachusetts, designed to MassDOT standards and guidelines. Reassigned volumes in the downtown network to convert from a one-way to two-way operation. Design included revised roadway layout, grading and drainage improvements, and coordination and replacement of several utilities. Tasks included preparation of the MassDOT calculation book and cost estimate, construction plans, and bid documents.

Project engineer for Department of Public Works facility projects in Charlton, Lexington, Weston, Wayland, Medford, Bourne, and Norwood, Massachusetts. Responsibilities included soil evaluations and percolation tests for septic systems and stormwater solutions, and design of site layout, grading, drainage, and site utilities. Projects included preparation of permit applications for several authorities, including Planning and Zoning Boards, Boards of Health, and Conservation Commissions; compilation of construction plans and bid documents; and construction administration tasks.

Project engineer for recreational facility projects in Billerica, Hopkinton, Hamilton, Waltham, and Natick, Massachusetts. Provided civil engineering design for athletic fields, parks, and recreational pathways. Designs included parking lot and sidewalk layouts, grading, drainage, and site utilities. Tasks included soil evaluations and percolation tests for stormwater solutions; preparation of permit applications for several authorities, including Planning and Zoning Boards and Conservation Commissions; compilation of construction plans and bid documents; and construction administration.

Engineer for the Mill Road drainage improvements project in Falmouth, Massachusetts. Responsibilities included design of 1,350 linear feet of roadway, as well as design of a stormwater runoff solution in a shallow groundwater condition and close proximity to wetlands.

Prepared construction plans and bid documents for the Lampson Recreation Complex in Billerica, Massachusetts.

Engineer for the Corporation Street and Enterprise Road reconstruction project in Barnstable, Massachusetts. Responsibilities included completion of full design of approximately 2,300 linear feet of roadway and sidewalk design. Plan preparation included construction plans and profile, grading and drainage plans, and construction details.

Engineer for the School Street Roadway reconstruction project in Barnstable, Massachusetts that included the full design of approximately one mile of roadway in conformance with MassDOT specifications and guidelines.

Engineer for the Charlton, Massachusetts, DPW facility. Responsibilities included site design and layout, as well as soil evaluations for the septic system and infiltration basins.

Engineer for the Horseneck Beach stormwater runoff improvements project in Westport, Massachusetts for the Department of Conservation and Recreation. Responsibilities included grading and drainage design for a 25-acre beach parking lot

Engineer for the Herring Brook Road roadway reconstruction in Eastham, Massachusetts. Responsibilities included grading and drainage services and preparation of construction plans and bid documents.

Engineer for a multi-year I/I removal program in Walpole, Massachusetts. Designed sewer pipe and manhole rehabilitations, prepared construction plans and bid documents, and conducted on-site management of rehabilitations.

Engineer for the Plimpton Street emergency culvert repair in Walpole, Massachusetts. Conducted survey of existing conditions after the heavy rains in 2006 ruined the culvert. Also prepared the Notice of Intent.

Engineer for a comprehensive wastewater management plan in East Bridgewater, Massachusetts. Tasks included report preparation, cost estimates, calculation of wastewater flows, and compilation of public comments.

Background

Vice President
Weston & Sampson

Landscape Architect
Weston & Sampson

Landscape Architect
Levy, Eldredge & Wagner Associates,
Inc.

Landscape Architect
Johannes H. Wagner Associates

Landscape Architect
Storch Associates

Education

1983
Master of Landscape Architecture
North Carolina State University

1981
Bachelor of Science
Environmental Design
University of Massachusetts

Professional Registration

Massachusetts
New York
Rhode Island

Professional Societies

American Society of Landscape
Architects
National Trust for Historic
Preservation
Friends of the Boston Public Garden

EXPERIENCE

As a vice president of Weston & Sampson, Mr. Bolinger currently manages more than two dozen municipal projects involving the reconstruction or restoration of city and town commons, parks, playgrounds, athletic facilities, open space properties, and urban design/streetscape corridors. During his more than 20-year career, he has successfully led master planning, final design, and construction administration efforts for multi-disciplinary park, recreation, and open space projects requiring expertise in landscape architecture, civil, structural, geotechnical and electrical engineering, architecture, metals and stone conservation, hazardous waste remediation, and environmental permitting.



For many of his projects, Mr. Bolinger has worked closely with the client to prepare the content for and execute the community outreach/public participation effort. This component of a project can be instrumental in generating constituent goodwill and fostering consensus among the various stakeholders.

SPECIFIC PROJECT EXPERIENCE

Principal-in-Charge for a community bikepath in Somerville, MA, beginning at the intersection with Cedar Street and connecting to the existing bridge at Lowell Street. All work is being designed and constructed in conformance with the Massachusetts Department of Transportation's (MADOT) Standard Specifications. The project required an extensive community participation program and coordination with key stakeholders including the existing Veteran Nurses Association (VNA) property, a residential community currently under construction (i.e. MaxPak) and the future Massachusetts Bay Transportation Authority (MBTA) Greenline Station currently under design. In addition, the project required permanent and temporary right-of-way acquisitions, utility coordination, and a Phase I soil investigation.

Principal-in-Charge for the Cochituate Rail Trail project in Framingham, Massachusetts. This project includes the construction of a new multi-use trail beginning at the northern terminus located at School Street, continuing along the abandoned railroad corridor before terminating at Cochituate Road (Route 30) in the town, a distance of approximately 1.5 miles.

Principal-in-Charge for the Franklin County Bikeway in Deerfield/Montague, Massachusetts. Phase I, included approximately two miles of new multi-use trail from McClelland Farm Road in Deerfield, along abandoned railroad bed, across an existing trestle bridge over the Connecticut River into Montague, adjacent to the existing power canal before terminating at the fish ladder. Phase II extends more than 11 miles through the communities of Montague, Gill, and Northfield. Phase III included the design of approximately 1.5 miles of new multi-use trail from Riverside Drive, along abandoned service road, under Route I-91, over the Green River before connecting to Nash Mill Road.

Principal-in-Charge for the North Suburban Regional Bicycle Transportation Plan (Phase I & II). Developed a regional Master Plan for the communities of Lynnfield, North Reading, Reading, Wakefield, and Wilmington that included both shared-road and off-road transportation segments. Phase II will include preparation and submission of a

preliminary and final application to the Enhancement Steering Committee and design of several segments within the five-town region.

Principal-in-Charge for a Master Plan for a section of Cheesecake Brook between Eddy Street and Watertown Street. Garnered many divergent opinions regarding the potential passive recreational use of the site through a series of community meetings. During the course of these meetings, helped flush out an enhancement program that will satisfy all the interested parties. Potential implementation of a series aesthetic improvements to enhance the overall visual qualities of the Cheesecake Brook greenway include: Replacement of an existing chain link fence with a more attractive fence system; management of vegetation along the corridor to include removal of invasive species, damaged or diseased vegetation, and improved visibility; management of the corridor to include a mix of open lawn, meadow, shrub, ornamental, evergreen and deciduous plantings; and introduction of pedestrian crossings and points of public access and use.

Principal-in-Charge for a feasibility study of a multi-use trail through the McKnight neighborhood of Springfield, Massachusetts along the former Highland Division of the New York, New Haven, and Hartford Railroad. The intent of the project was to gather information to analyze the opportunities and constraints that would emerge when proposing a multi-use trail in this location and identify future steps and procedures to establish a successful and well maintained trail. The project included site visits, client interactions, and resource mapping; wetland delineation; community outreach; and a preliminary environmental review was completed in accordance with the National Environmental Policy Act (NEPA) as well as the Massachusetts Environmental Policy Act (MEPA). Weston & Sampson developed a comprehensive base plan with existing site features for use in the analysis and design of the site; a concept Master Plan for the site with suggestions for new trail amenity areas; and a strategy for the implementation of the multi-use trail, which included options for project phasing, funding suggestions, and a preliminary cost estimate.

Principal-in-Charge for the preliminary design phase of the Chicopee River Canal Path project beginning from the intersection with Chicopee Street to the Uniroyal site. Project included conceptual designs and renderings of pulloff and overlook/vista areas for use during public workshops and meetings with the city and other project stakeholders. Weston & Sampson also developed landscaping details, quantity takeoffs and cost estimating assistance as part of the design submission to the city for review.

Principal-in-Charge for the construction of a three-mile bikeway, which makes use of the former Penn-Central Railroad right-of-way, in Southwick, MA. The bikeway passes through farm, residential, and wetland areas and includes one atgrade roadway crossing, one bridge, and one tunnel. The cross section consists of a ten-foot-wide paved path and two foot shoulders. The bikeway begins at the Connecticut/Massachusetts stateline and extends for three miles north to the intersection of Point Grove Road where it will pass under the road in a tunnel. All work is being designed and constructed in conformance with the Massachusetts Department of Transportation's (MADOT) Standard Specifications.

Background

2015-Present
Survey Manager
Weston & Sampson

2011-2015
Surveyor
Bergmann Associates

2006-2011
Surveyor
Matson Land Surveying

1990-2006
Surveyor
Boswell Engineering

Education

1986
Associates Degree
Forestry/Surveying
Paul Smith's College of Arts and
Science

Professional Registration

Professional Land Surveyor:
New York No. 50570
Connecticut

Professional Certifications

OSHA 10-Hour Occupational Health
and Safety
CSX Rail Safety
Confined Space Entry (29CFR
1910.146)

Professional Affiliations

New York State Association of
Professional Land Surveyors, Eastern
Regional Board Member

EXPERIENCE

Mr. Matson is a land surveyor with more than 29 years of experience in boundary, geospatial, topographic, bathymetric and construction surveying. He is the manager of the survey group and his responsibilities include daily management of projects, field and office staff, business development, preparation of detailed proposals, project financials, review of field calculations, field data, office computations, mapping and quality control of deliverables. He is familiar with all types of electronic and manual-surveying equipment, including GPS, data collectors and robotic total stations.



SPECIFIC PROJECT EXPERIENCE

College of St. Rose, Christian Plummer Sports Complex, City of Albany, NY, Surveyor. Responsible for the computations and field stakeout of the new athletic baseball, softball, lacrosse and practice fields, fences, batting and pitching cages along with the as-built location of underground water and irrigation systems. (2009)

Siena College, Drainage Study, Latham, NY, Surveyor. Responsible for the researching of record plans, utility investigation, inverts along with a 1200' long corridor for topographic survey for the development of a storm water drainage study. (2008 & 2010)

Troy High School District, Main Entrance and Access Survey, Troy, NY, Surveyor. Responsible for the field and office work to provide a topographic survey of the front of the existing high school main entrance area for the design of new stairs and handicap ramp accessibility. (2007)

NYOGS, Camp Gabriels, Gabriels, NY, Survey Manager. Responsibilities included determining the budget per scope, research of public and private records, scheduling of field personnel, field location, downloading of field data (GPS and conventional), office computations and drafting to produce a topographic boundary map. (2005)

Town of Ashland, Fire Department, Ashland, NY, Surveyor. Responsible for research, topographic survey which included boundary line tie-in, underground utilities with inverts, computations and mapping of the former fire house site destroyed by fire. (2010)

Town of Guilderland, Walden Pond Dams, Guilderland, NY, Surveyor. Responsibilities included topographic surveys and mapping of three dam locations and detailed diagrams for the outfall structures located in various locations around the pond system. (2010)

NYSOGS, Pine Bush Discovery Center, Albany, NY, Surveyor. Responsible for computations, stakeout, boundary and topographic surveys at the Pine Bush Discovery Center. Project included stakeout of the new parking expansion, a topographic survey for the expansion of the handicap hiking trail and layout of 170 retaining wall anchors with elevations. (2007-2008)

NYOGS, Northern Hub Facilities, Upstate, NY (included Gouverneur, Riverview, Ogdensburg, Cape Vincent and Watertown Correctional Facilities), Survey Manager. Projects were done in tasks to eventually become total facility topographic surveys for the design of above ground heating systems and the addition of 100 bed special housing units. These surveys required the location of all existing utilities and above ground

features to be located and elevated. Responsibilities included determining the budget per supplied scopes, research of public record mapping, scheduling of field personnel, field location, downloading of field data, office computations and drafting. (1997-2005)

Town of Malta, Malta Community Center, Malta, NY, Surveyor. Responsible for the computations and field stakeout the column lines and main interior columns of a 28,500 sq. ft. addition to the existing community center. (2008)

NYOGS, Sing-Sing Correctional Facility, Ossining, NY, Survey Manager. Project was done in tasks to eventually become a total facility boundary and topographic survey. The boundary line portion was necessary to determine the location of the MTA rail line and pedestrian bridge. Included was also the location of utilities (above and below) with inverts when possible and all above ground features. Responsibilities included determining the budget per supplied scopes, research of public and private records, scheduling of field personnel, field location, downloading of field data, office computations and drafting. (1997-2005)

NYS DOT Statewide, Multiple Bridge / Culvert Flood Plain Surveys, Survey Manager. Responsibilities included determining the budget per scope, managing multiple field / office personnel, field location and office computations, review final drawings and reports for 26 sites located in Orange, Westchester, Dutchess and Rockland Counties. (2014)

NYOGS, Sullivan Correctional Facility, Woodbourne NY, Survey Manager. Responsibilities included determining the budget per scope, research of public and private records, scheduling, management and overview of multiple field personnel, office computations and drafting to produce a topographic and boundary map for 700 acre site (correctional facility included) to determine lands owned by the state. (2014)

NYOGS, Flood Protection Survey, Whitney Point, NY, Survey Manager. Responsibilities included determining the budget per scope, research of public and private records, scheduling, management and overview of multiple field personnel and sub-consultants, field location, downloading of field data (GPS and conventional), office computations and drafting to produce a topographic and boundary map for approximately 3 miles of right of way and flood berm rights to be used for future design and upgrades. (2013)

NYOGS, Ulster Correctional Facility, Napanoch, NY, Survey Manager. Responsibilities included determining the budget per scope, research of public and private records, scheduling and management of multiple field personnel, field location, downloading of field data (GPS and conventional), office computations and drafting to produce a topographic and boundary map for 250 acre site to be used for future design and upgrades. (2013)

NYOGS, CPS Secure Center, Goshen, NY, Survey Manager. Responsibilities included determining the budget per scope, research of public and private records, scheduling and management of multiple field personnel and subcontractors, field location, downloading of field data (GPS and conventional), office computations and drafting to produce a topographic map and boundary map for 100 acre site to be used for future design and upgrades of utilities. (2012)

NYS DOT Region 1, Route 28N over the Hudson River and Upper Hudson Railroad, North Creek, NY, Survey Manager, Responsible for topographic survey of one mile of highway. Also, responsible for vertical and horizontal photogrammetry control and 14 hydrographic cross sections and the preparation of the control report. (2011)

Background

2012-Present
Construction Services Manager
Weston & Sampson
Peabody, Massachusetts

2001-2012
Senior Resident Engineer
Weston & Sampson
Peabody, Massachusetts

1996-1999
Senior Engineer
Weston & Sampson
Peabody, Massachusetts

1993-1996
Project Engineer
Weston & Sampson
Peabody, Massachusetts

1987-1993
Associate Project Engineer
Weston & Sampson
Peabody, Massachusetts

1985-1987
Environmental Engineer
Weston & Sampson
Peabody, Massachusetts

1978-1982
Civil Engineer Technician
U.S. Army Corps of Engineers,
Waltham, Massachusetts

Education

1985
Bachelor of Science
Civil Engineering
Tufts University
Medford, Massachusetts

Professional Certifications

40-Hour OSHA Hazardous Waste Site
Worker Training

10-Hour OSHA Construction Site
Safety Training

Professional Societies

American Water Works Association

Water Environment Federation

EXPERIENCE

Mr. Burke has more than 25 years of experience specializing in design and construction, including supervising field construction and designing major water and wastewater projects. As manager of Weston & Sampson's Construction Services Department, he is responsible for all construction administration and resident representative services.

Mr. Burke routinely performs constructability reviews of design documents for various utility and roadway infrastructure improvement projects. Reviews specifically focus on mitigating construction claims arising from potential conflicts or misinterpretations within proposed bid documents. He also supervises resident representatives who provide general oversight, construction administration, quality assurance and control, and contract document interpretations and modifications. In addition, he assists owners with claims and dispute resolution.

SPECIFIC PROJECT EXPERIENCE

Project Manager for Boston Water and Sewer Commission's Dudley Square Sewer Separation project in Roxbury, Massachusetts. The project includes construction of approximately 5,000 linear feet of 8- to 42-inch gravity sewer plus 15,000 linear feet of 12- to 54-inch and 72-inch by 48-inch drain as part of BWSC's city-wide sewer separation program. Work includes extensive coordination with private utility and community infrastructure improvements within a heavily trafficked urban area. The \$15.4M construction project also includes approximately 6,000 linear feet of 8- to 24-inch water main improvements located. Management responsibilities include overseeing a comprehensive public information and community relations program to provide continuous coordination with local residents and businesses throughout the 3-year construction period.

Project Manager for Boston Water and Sewer Commission Newmarket Square Sewer Separation project in Lower Roxbury, Massachusetts, which includes construction of approximately 3,500 linear feet of 8- to 36-inch gravity sewer and drain plus 2,300 linear feet of water main. The area is home to wholesale food distributors relying on uninterrupted transportation access and utility services. Work includes coordination to mitigate temporary construction impacts within a confined yet highly active commercial area.

Construction Manager for constructability review of various Weston & Sampson project design documents. Recent reviews include the Spruce Street and Heard Street Area Roadway Improvements Project, the Spruce Street and Beech Street Roadway and Utility Improvements Project and the Phase IV Gateway Center Infrastructure Improvements Project. All three projects are located in Chelsea, Massachusetts and combined include over 10,000 linear feet of full depth roadway reconstruction in addition to new sanitary sewers, storm drains and water mains. Scope of work also includes new granite curbing, concrete sidewalks and ornamental street lighting. Total infrastructure improvements have a combined value of approximately \$10.3M.

Project Engineer responsible for coordinating the Program Management/Program Support services for the secondary upgrade for the South Essex Sewerage District in Salem, Massachusetts. Mr. Burke assisted in program scheduling, design reviews, value engineering, and other oversight tasks in the initial stages of the project design.



Senior Resident Engineer for Boston Water and Sewer Commission's Merrimac Street and Causeway Street sewage works improvements, a component of a MassDOT reconstruction project that included construction of approximately 1,100 linear feet of 48- to 54-inch drain, plus 1,100 linear feet of 24- to 36-inch sanitary sewer. Work included extensive utility relocations, including 16-inch high-pressure fire service mains, and a 12-inch gas main on Stanford Street with telephone, electric, and CATV lines. The project was characterized by extensive coordination and scheduling to avoid interference with Fleet Center (now TD Garden) events and Central Artery activities, construction disruptions at the "Tip" O'Neill Federal Building, and operations at the Suffolk Court House.

Senior Resident Engineer on the Cliffs Area Sewer project, Contract 03-WW-01 in Scituate, Massachusetts. The project includes construction of approximately 19,000 linear feet of 8-inch gravity sewer, 5,000 linear feet of 4-inch force main, three submersible pumping stations, and structural improvements to the Edward Foster Road Bridge. Scope of work includes approximately 20,000 linear feet of full depth roadway reconstruction. The project, located adjacent to Scituate Harbor, includes a sewer crossing of a tidal tributary, limited alteration of wetland areas and wetland restorations.

Senior Resident Engineer for the Greenbush/Reservoir Area Sewer project, Contract 02-WW-01 in Scituate, Massachusetts. Work included construction of approximately 33,000 linear feet of 8-inch gravity sewer, including cuts to 23 feet deep within Massachusetts Route 3A, 5,700 linear feet of 8-inch force main, a 130 gpm submersible pump station and appurtenant work. Scope of work includes approximately 30,000 linear feet of full depth roadway reconstruction.

Senior Resident Engineer for the Department of Conservation and Recreation's (DCR's) Newton Square Sewer Replacement Project in Worcester, Massachusetts (DCR No. P09-2587-C1A). This project includes installation of 3,300 linear feet of 36-inch RCP replacement sewer at depths between 16 and 27 feet within Pleasant Street, Newton Avenue, and Midland Street. This project was funded under the American Recovery and Reinvestment Act (ARRA) and the Massachusetts State Revolving Fund (SRF) Program.

Senior Resident Engineer on the Cambridge Street Relief Sewer project in the City of Worcester, Massachusetts for the DCR. Work includes construction of cast-in-place sewer junction chambers, approximately 1,300 linear feet of 54-inch RCP gravity relief sewer and appurtenances, replacement of 30-inch water main, excavation, stockpiling, characterization and disposal of hazardous waste, and appurtenant work.

Senior Engineer for design of the pump station and 8,200 linear feet of force main for the Massachusetts Department of Correction, Norfolk/Walpole Correctional Complex, which included the rehabilitation/replacement of 7,500 linear feet of gravity sewer and abandonment of 5,400 linear feet of gravity sewer. Participated in the design and coordination of key areas, such as work in the public ways of Norfolk and Walpole; crossings of railroad, gas, and electrical rights-of-way; and crossing of a bridge.

Project Engineer for planning and design of seven miles of interceptor sewers, lateral sewers, and force main for the U.S. Navy facility at the Naval Education and Training Center in Newport, Rhode Island. The design consisted of upgrading the existing collection and transmission system on a coastal area.

Project Engineer for the design and construction of 20 miles of interceptor sewers, lateral sewers, force main, and wastewater pump stations for Bellingham, Massachusetts. This project included over 7,000 linear feet of utility in Woonsocket, Rhode Island, as well as preparation and implementation of site controls described within DEM-approved URAM for onsite handling and treatment of petroleum contaminated soils and groundwater.

2000-Present
Associate
Manager of Geotechnical
Engineering Services
Weston & Sampson

1993-2000
Principal
Sr. Geotechnical/
Environmental Engineer
Camp Dresser & McKee, Inc.

1982-1993
Sr. Geotechnical Engineer/
Project Manager
Haley & Aldrich, Inc.

Education

1981
Master of Science
Civil/Geotechnical Engineering
Syracuse University, L.C. Smith
College of Engineering

1979
Bachelor of Science
Forest Engineering
SUNY College of Environmental
Science and Forestry

Professional Registration

Florida No. 68764
Massachusetts No. 46681
New Hampshire No. 11194
New York No. 063131-1
Connecticut No. 0024084

Professional Societies

Boston Society of Civil
Engineers Section, ASCE
American Society of Civil Engineers
Association of Dam Safety Officials

Papers & Publications

October 1998
"Case History of a Successful
'Brownfields' Site in Wichita, Kansas,
Part 1: Innovative Approaches to
Remediation, and Part 2: Innovative
Approaches to Funding and Liability,"
Proceedings of the American Society
of Civil Engineers Convention,
Boston, Massachusetts

1988
"Underpinning of an 11-Story
Building in Boston—A Case Study,"
Second International Conference
on Case Histories in Geotechnical
Engineering, St. Louis, Missouri

EXPERIENCE

Mr. Mitsch is the manager of geotechnical engineering services for Weston & Sampson. He has over 29 years of geotechnical design and construction experience, including dam design, inspection, and rehabilitation, landfill design and construction, building foundations, tunneling, trenchless technologies, and both structural and environmental slurry walls.

SPECIFIC PROJECT EXPERIENCE

Project manager for the geotechnical evaluation and rehabilitation of the North River Canal in the City of Peabody, Massachusetts. Rehabilitation of the walls was necessary to alleviate flooding. Evaluated wall foundation and backfill conditions and designed a cantilevered sheet pile wall for an approximately 300 linear foot reach of the canal. The wall design accounted for normal soil and groundwater loading and the surcharge load due to an active freight rail line five feet from the canal wall. Construction required daily coordination with PanAm Railway and frequent rapid demobilization and mobilization of construction equipment for regular freight train service along the rail spur at the top of the wall.

Project manager for the Town of Arlington's Mill Brook Bank Stabilization project. Weston & Sampson designed a bioengineering solution for stabilizing an approximately 10 foot high scarp face along an approximately 150 foot length of stream bank along a bend of the Mill Brook. The bank stabilization solution required a combination of a live timber crib wall, live log revetment, traditional heavy riprap slope stabilization, and vegetated slope reinforced with geotextile materials.

Geotechnical Engineer for the design and construction of a 200-foot retaining wall for the Separatist Road Bikeway in Meriden, Connecticut.

Project engineer involved in all phases of geologic explorations and geotechnical design of a 22-mile system of rock tunnels and shafts in Rochester, New York. Responsibilities included conducting subsurface investigations, compiling, analyzing and interpreting geologic data for tunnel and shaft design. Engineering interpretations included determining rock mass properties, evaluating overall rock mass stability and conducting design analyses for both initial and permanent support for both mined tunnels and open cut shafts.

Mr. Mitsch managed and conducted geotechnical investigations and evaluations for the design of approximately 233,000 linear feet of new and replacement sewers for the Weymouth, Massachusetts Capital Improvements Project. Services included subsurface explorations and pipeline design and construction recommendations reports and geotechnical design.

Mr. Mitsch managed subsurface investigations, feasibility assessments, and design services for installation of multiple electrical conduits across the Sudbury River. The alignment is within a Massachusetts Bay Transportation Authority (MBTA) right-of-way adjacent to a highway bridge over the river. Crossing alternatives considered included direct river bottom burial, hanging the conduits from the Route 62 bridge or a separate new bridge, horizontal directional drilling (HDD) and microtunneling. HDD was selected based on environmental constraints and anticipated costs among other



October 1985

"Uplift of Helical Anchors in Sand,"
with S.P. Clemence, Uplift Behavior of
Anchor Foundations in Soil, published
as Proceedings of the American
Society of Civil Engineers Convention,
Detroit, Michigan

1981

"The Uplift Capacity of Multi-helix
Anchors in Sand," M.S.C.E. Thesis,
Syracuse University

factors. Subsurface conditions require that the HDD bore(s) extend into bedrock below the river to maintain adequate protection against hydraulic connection between the drilling fluid and the river. The project is currently in design.

Developed an innovative design and managed construction of repairs to the Arlington Reservoir Dam in Arlington, Massachusetts. Local residents were adamantly opposed to removing the trees from this 1,600-foot long earth embankment dam located in the middle of a residential neighborhood near the Arlington/Lexington town line. The design includes installation of an interlocking steel sheetpile wall with a reinforced concrete cap through the full length of the earth embankment from the crest of the dam. This "I-Wall" serves as the barrier to flow through the embankment and is designed to resist stability failure if trees are toppled during a storm until the embankment can be repaired. The design also includes a new 50-ft. wide emergency spillway constructed using reinforced concrete training walls. The training walls are designed as retaining walls for lateral earth and water pressures as well as for support of a pedestrian bridge that spans the spillway.

Project manager for the Town of Chester's Emergency Bank Stabilization, Riverbank, and Road Restoration project on Old State Road. Weston & Sampson provided field survey, engineering, permitting assistance, and construction administration for a portion of an eroded bank section of the Westfield River that has resulted in the undermining of a portion of the Old State Road in Chester, Massachusetts.

Project manager for the Town of Chester's Emergency Riverbank Stabilization and Road Restoration on East River Road. Weston & Sampson provided field survey, engineering, permitting assistance, and construction administration for a portion of an eroded bank section of the West Branch of the Westfield River that has resulted in the undermining of a portion of East River Road in Chester, Massachusetts.

Conducted Phase II Dam Safety Inspections for 13 dams in eight communities. These projects included dam safety inspections, topographic surveys, subsurface explorations, engineering evaluations of watershed hydrology, spillway and outlet hydraulics, earth embankment stability and seepage through the embankments, and documenting the work in engineering reports. The Phase II Inspections are in response to Orders issued by the Commonwealth of Massachusetts Department of Conservation and Recreation Office of Dam Safety to the dam owners.

Currently managing the evaluation and design of the Lake Eden Dam project for the Vermont Department of Environmental Conservation (VTDEC). The project involved a dam safety inspection, review of all available information on the dam, hydrologic and hydraulic computations for determining the hydraulic adequacy of the spillway, a dam breach analysis, and development of design and construction alternatives to be implemented to bring the dam into compliance with the Vermont dam safety regulatory requirements.

Managed a team of four engineers conducting dam breach analyses to develop flood inundation maps and Emergency Action Plans (EAPs) for over 20 dams in eastern and central Massachusetts. The EAPs were prepared in accordance with Federal Energy Regulatory Commission (FERC) Engineering Guidelines for the Evaluation of Hydro-power Projects and the requirements of 302 CMR 10, the Massachusetts Dam Safety Regulations.

Background

2014-Present
Associate
Weston & Sampson

2009-2014
Team Leader
Weston & Sampson

2008-2009
Associate
Stantec

2000-2008
Senior Project Manager
Maguire Group, Inc.

1994-1999
Project Engineer/Project Manager
Beta Group, Inc.

1989-1994
Project Engineer
Odeh Engineers, Inc.

1988-1989
Senior Project Engineer
Pare Engineering Corporation

1985-1988
Structural Engineer
DeStefano Associates

1984-1985
Structural Engineer
Flaherty Giavara Associates

1992-1996
Special Program Faculty
University of Rhode Island
College of Continuing Education

Education

1984
Master of Science
Civil Engineering
University of Rhode Island

1982
Bachelor of Science
Civil/Environmental Engineering
University of Rhode Island

Professional Registration

Massachusetts (No. 36256)
Connecticut
Rhode Island
Vermont
Maine
New Hampshire
Florida
Pennsylvania
Virginia

EXPERIENCE

Mr. Campbell has over 30 years of experience in the structural engineering field and is well-versed in the design and construction of bridges, buildings and a multitude of site structures such as retaining walls, dams and light supports. Mr. Campbell has experience in working with state agencies including the Massachusetts Department of Transportation (MassDOT), Massachusetts Bay Transportation Authority (MBTA), the Massachusetts Division of Capital Asset Management & Maintenance (DCAMM), municipal clients, and private clients.

Mr. Campbell is familiar with the American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Specifications, AASHTO Standard Specifications, AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, the Massachusetts Department of Transportation (MassDOT) LRFD Bridge Manual, and the MassDOT Standard Specifications. He is also familiar with MassDOT's AutoCAD Standards and cost estimating procedures.

SPECIFIC PROJECT EXPERIENCE

Cochituate Aqueduct Trail, Natick, Massachusetts: Team Leader for the design of a new boardwalk system approximately 6-feet wide, that consists of wooden sleepers (directly bearings on grade) with new heavy 2x deck boards. The trail boards will be accessible and minimize impacts to wetlands. Where required, the boardwalk will be supported by a system of helical piers to elevate above the wet areas.

Newman School Eastman Elevated Boardwalk & Dock, Needham, Massachusetts: Team Leader for the replacement of the existing boardwalk system that currently traverses a portion of the Eastman Conservation Area. The goals of the project include exploring ways to make primary areas of the linear pathway system (boardwalks, trails, docks, other resource area crossings) accessible using a foundation system of helical piers to minimize impacts to wetlands. The superstructure will be framed with treated lumber and 2x wood decking boards.

Ipswich Pedestrian Bridge and Riverwalk, Ipswich, Massachusetts
Project Manager - The Ipswich Historic Riverwalk and Pedestrian Bridge is the result of years of planning by the town. It was designed to heighten awareness of the town's natural resources, particularly the river, and to provide a recreational destination for residents and tourists. The new 120 foot pedestrian bridge replaces a foot bridge that had spanned the river for many years. It connects the town's historic heritage on both sides of the river with its commercial center. The design and construction was overseen by MHD as part of their Enhancement projects program.

Elevated Walkway & Ramp, Somerville, Massachusetts
Team Leader - As part of the City of Somerville's new Community Bike Path, design of a new structural steel stair and ADA compliant ramp that will allow users of the facility to get from Ludlow Street to the bike path. Design was done in accordance with MassDOT's Bridge Manual and Standard Specifications and AASHTO's LRFD Guide Specifications for the Design of Pedestrian Bridges, 2009.

Hugh Farren Pedestrian Bridge, Boston, Massachusetts - MassDOT
Project Manager for the design of a \$1.6 million historic bridge renovation project. The



Professional Societies

American Society of Civil Engineers

bridge is a two-span continuous structure that experienced severe steel deterioration and was damaged by a vehicle collision causing damage to one of the girders. Provided structural/geotechnical inspection services for the Hugh Farren Bridge to evaluate the steel decking, railings, and concrete pier. The existing steel girders were completely restored by removing and replacing the bottom flanges. The damage caused by the collision was repaired using a "heat- straightening" method. The design also includes replacement of the bridge deck, as well as new ADA-compliant handrails. All work was done over live traffic.

Statewide Accelerated Bridge Program, MassDOT

Structural Engineer for the design, inspection and evaluation of bridges under the Massachusetts Department of Transportation (MassDOT) Accelerated Bridge Program.

Ireland Street Bridge Replacement, Chesterfield, Massachusetts

Team Leader – As part of our master service agreement with MassDOT, 25% design for structurally deficient bridge that spans approximately 80 feet across the West Branch of the Bronson Brook. Design will be in accordance with AASHTO and MassDOT bridge standards using accelerated bridge practices.

Mountain Road Bridge Rehabilitation, Charlemont, Massachusetts

Team Leader for the design of the repairs to the wingwalls, bridge rail and approaches to correct damages sustained during the tropical storm Irene. All work will be done following FEMA/EMMA protocols and MassDOT's Bridge Manual and Standard Specifications and AASHTO's Load and Resistance Factor Design (LRFD) Specifications.

Howley Street Bridge, Peabody, Massachusetts - MassDOT

Project manager for the design of a \$1.85 million replacement bridge structure as part of MassDOT's Accelerated Program. Oversaw the preparation of design documents for the replacement of a three-span structure along Howley Street over the North River. In conformance with MassDOT criteria, prepared detailed bridge type studies, highway/bridge/construction plans, and special provisions. The recommended structure addresses site constraints, topography, roadway alignment, geology and hydrology, cost, future maintenance of the bridge, constructability, environmental impacts, and overall aesthetics. Located adjacent to active railroad tracks and a historic masonry building, the project also required water, sewer, gas and electrical utility relocations.

Miscellaneous Bridge & Culvert Assignments, Massachusetts (All projects within the last six years) – As Team Leader, oversaw and managed several projects, including:

- Downtown Improvements - Existing Bridge Modifications, Franklin, MA
- Woodside Road Culvert Repairs, Winchester, MA
- Horn Pond Brook Road Bridge, Winchester, MA
- New Culvert Construction at McCracken Road, Millbury, MA
- Culvert Restoration at Maple Street, Framingham, MA
- Mill Lane and Brattle Street Culvert Replacement. Arlington, MA
- Pedestrian Bridge repair of the Good Harbor Bridge, Gloucester, MA
- Bridge and Guardrail improvements to the Huguenot Road Culvert, Oxford, MA
- Harwood Street Bridge Rehabilitation, Oxford, MA
- Dedham Street Culvert, Newton, MA
- Bridge Street Culvert Replacement, Hamilton, MA
- Feeding Hills Road Culvert Extension, Southwick, MA
- Bridge Rating of the Ball Hill Road Bridge in Princeton, MA for MassDOT

All of the assignments listed above were conducted in accordance with MassDOT standards and details.

Background

2004-Present
Engineer
Weston & Sampson

2001-2004
Structural Engineer
H.W. Lochner, Inc.
Boston, Massachusetts

2000
Project Engineer
Jay Cashman Inc.
Boston, Massachusetts

1997-2000
Field Engineer
Jay Cashman Inc./Perini/Kiewit/
Atkinson Joint Venture
Boston, Massachusetts

Education

2001
Bachelor of Science
Civil Engineering Technology
Wentworth Institute of Technology
Boston, Massachusetts

Professional Registration

Massachusetts No. 48061
New York No. 090911

Professional Societies

American Society of Civil Engineers

Boston Society of Civil Engineers

EXPERIENCE

Mr. Bruso is an engineer with more than 10 years of civil/structural engineering experience. He is well versed in the regulations of the Massachusetts State Building Code, the Rhode Island State Building Code, the International Building Code, AASHTO Standard Specification for Highway Bridges, AASHTO LRFD Bridge Design Specifications, and the Massachusetts Highway Department Bridge Design Manual. Mr. Bruso has experience in working with state agencies including the Massachusetts Highway Department (MassHighway), Massachusetts Bay Transportation Authority (MBTA), Massachusetts Turnpike Authority (MTA), the Massachusetts Division of Capital Asset Management and Maintenance (DCAMM), municipal clients, and private clients.



SPECIFIC PROJECT EXPERIENCE

Cheesecake Brook - Newton, Massachusetts

Performed visual structural inspection of drainage channel walls. Responsibilities included preparation of a report summarizing inspections, findings and recommendations for repairs.

Provided structural engineering services for the Saugatucket Greenway Improvements Project in South Kingstown, Rhode Island.

Newell Field Stadium Bleacher Support - Gloucester, Massachusetts

Provided structural design of temporary shoring/support for the bleachers. This project also implemented settlement monitoring of the bleachers.

Performed structural inspection of 500 linear feet of drainage channel for the City of Newton, Massachusetts

Pedestrian Bridge Inspections - Blue Line, Massachusetts Bay Transportation Authority

Performed structural inspections of pedestrian bridges/walkways at all MBTA Blue Line Stations. Responsibilities included the preparation of inspection reports summarizing inspection findings and recommendations.

Prospect Street Improvements - Orange, Massachusetts

Provided structural design of a new cantilever retaining wall and a concrete moment slab supporting a bridge rail atop an existing stone masonry retaining wall. Responsibilities included the preparation of structural contract drawings and specifications.

New Department of Public Works Facility - Weston, Massachusetts

Provided structural design of new a vehicle storage garage and an operations The vehicle storage garage is a single story building with a wash bay attached to one side. The Operations building consists of a single story maintenance garage and workshop area with a two-story office building attached. This project required placing a portion of the Operations building into the hillside and support of various overhead crane systems. Responsibilities included the preparation of structural contract drawings and specifications.

Bristol County Water Authority Fish Ladder Improvement Project - Warren, Rhode Island
Provided structural design of a 60 linear foot concrete fish ladder at the Warren Reservoir.

Solid Waste Support Building - Barnstable, Massachusetts
Provided structural design of a single story office building. Responsibilities included the preparation of structural contract drawings, specifications, and performance of construction administration and required inspections.

Department of Public Works Vehicle Storage Garage - Brockton, Massachusetts
Provided structural design of the foundation for a pre-engineered metal building for storage of DPW vehicles. Responsibilities included the preparation of structural contract drawings, specifications, and performance of construction administration and required inspections.

Springfield Water and Sewer Commission, Colton Street Facility Improvements, Springfield, Massachusetts. Performed a preliminary structural inspection of the existing building. A report was delivered summarizing observations made during the inspection and recommendations for required repairs to existing floor slabs and heavy timber framed connections. The report was followed up by providing design of repairs to existing heavy timber connections, new openings in walls, and support for reconstructed parapets.

C+O Transfer Station - Bourne, Massachusetts
Provided structural design of the foundation for an 11,000 square foot pre-engineered metal building to be used as a transfer station. The building had a clear span of 130 feet with a 33-foot eave height. Responsibilities included the preparation of structural contract drawings, specifications, and performance of construction administration and required inspections.

DCAMM - Tewksbury Hospital Demolition - Tewksbury, Massachusetts
Performed visual structural inspections of six existing buildings for the Tewksbury Hospital Demolition in Tewksbury, Massachusetts to determine temporary shoring requirements for performance of abatement activities prior to demolition of the structures. Prepared a report summarizing inspection observations and provided recommendations on areas requiring shoring.

New Silver Beach Wastewater Treatment Facility - Falmouth, Massachusetts
Provided structural design for a 3800 square foot single story wastewater treatment facility. The project included the design of four concrete tanks and an under hung crane for servicing equipment within the building. Responsibilities included the preparation of structural contract drawings, specifications, and performance of construction administration and required inspections.

Wastewater Treatment Facility Upgrades - Maynard, Massachusetts
Provided structural design of a single story masonry structure constructed on top of an existing out-of-service concrete tank. The project required the use of the existing tank structure to be used as the new building foundation. The structural design included several concrete tanks, platforms, and containment walls. Responsibilities included the preparation of structural contract drawings and specifications.

Wastewater Treatment Facility Upgrades - Southbridge, Massachusetts
Provided structural design of two new 23-foot square reinforced concrete aeration flow splitter tanks for upgrades to a wastewater treatment facility.

Background

2012-Present
Senior Electrical Engineer
Weston & Sampson

2009-2012
Team Leader/Project Manager/
Senior Electrical Engineer
Consulting Engineering
Services

2008-2009
Project Manager/
Senior Electrical Engineer
RDK Engineers

2003-2008
Project Manager (Principal)
The Collaborative
Engineers, Inc.

2000-2003
Project Manager and Senior
Electrical Engineer
Erdman Anthony, Inc.

1982-2000
Electrical Department Head and
Project Manager
Anderson-Nichols/Dewberry
Goodkind

Education

1984
Bachelor of Science
Electrical Engineering
Northeastern University

Professional Registration

Professional Engineer (Electrical):
Connecticut No. PEN.0022067
Massachusetts No. 48017
Pennsylvania No. PE080764
Vermont No. 018.008481
Virginia No. 0402051790

Professional Training

Project Management
Training Seminars
Leadership Training Seminar
Project Financial Training Seminars
Miscellaneous Technical/Leadership
Training Seminars

EXPERIENCE

Mr. McAleer is a seasoned engineering and management professional with more than 25 years of professional experience as a Registered Electrical Engineer and M/E/P/FP project manager. His experience spans the design, management, and marketing of building systems services for both new and retrofit buildings for a variety of facility types within the private, public, municipal, and military sectors. These facility types include commercial office, research and development, medical and electronic laboratories, Skiff and Tempest facilities, private and public K-12, college and university, manufacturing facilities, clean rooms, biopharmaceutical laboratories, pump station and water treatment facilities, sports facilities, data centers, health care, retail and educational facilities.



SPECIFIC PROJECT EXPERIENCE

Recreational and Sports Facilities

Aquatic Maintenance Contract, Worcester, Massachusetts
Electrical technical support for aquatic maintenance of public pools and spray parks.

New England Patriots Stadium, Foxboro, MA
Project Manager and engineering for an electrical design of site electric and telephone power distribution systems, as well as site lighting for over 4.5-million-square-foot site. Design included coordination and negotiations with local utilities for obtaining a dual 10-megawatt redundant service to a new 68,000-seat NFL football stadium, as well as the associated facility support buildings including indoor practice facility and wastewater treatment plant.

HO+K Sport, Foxboro, MA
Project Manager and engineering electrical design of the plaza area power and lighting distribution system for the New England Patriots stadium.

Fidelity Investments, Marlborough, MA
A new employee fitness center within an existing on-site garage facility.

Boston University, Boston, MA
Electrical design of competition pool U.V. system.

Town of Hamilton Pool, Hamilton, MA
Electrical design of new pool, shower facility, and office support building.

Waldstein Park, Brookline, MA
Electrical design of comfort station offices, toilet facilities, and sports field lighting.

Wellesley Country Club, Wellesley, MA
Electrical design of new recreational pool and mechanical pump house.

Public Park Splash Pad, Wilbraham, MA
Electrical design including complete bonding system design.

Water and Wastewater Facilities

Electrical Engineer for the Old Garden Beach Pump Station Upgrade Project for the Town of Rockport, Massachusetts. Project included the design of a pump station replacement, including the retrofit, replacement, and upgrade of all equipment in an existing flooded suction pump station.

Electrical Engineer for the Patty Ann Terrace Pump Station Project in Derby, Connecticut.

Electrical Engineer for the Peabody water treatment plant chemical feed design/bid project in Peabody, Massachusetts.

Provided electrical engineering services at the North Andover Water Treatment Plant in North Andover, Massachusetts.

Electrical Engineer for the Peabody water treatment plant chemical feed design/bid project in Peabody, Massachusetts.

Municipal Buildings

HVAC Upgrades at the Mount Hope Christian School, Burlington, MA. Providing electrical engineering services as part of a complete HVAC renovation at the Mt. Hope School owned by the Town of Burlington. The HVAC system (which is original to the building) is being renovated, including but not limited to hot water boilers, ductwork, piping, variable speed pumps, exhaust and a new web-based Direct Digital Control (DDC) system.

Town Hall Steam Boiler Replacement. Rhinebeck, NY. Providing new individual space temperature controls for this 1930s vintage historic 10,000-square-foot town hall in the Hudson River valley.

Educational Facilities

New School, Westminster, MA

Electrical design of 120,000 SF school, including classrooms, gymnasium, administration and auditorium.

Three Schools, Fall River, MA

Electrical design of three new, 100,000-SF schools, including classrooms, gymnasiums, administration space, auditoriums, and community education centers.

The Carroll School, Lincoln, MA

Electrical and structural engineering services and lightning protection.

New Jewish High School, Waltham, MA

Performed a technical and economic feasibility study of alternative HVAC approaches and prepared the design to implement the chosen approach. Emphasis was placed on selecting the system with the minimum life cycle cost, and the design was performed on a fast track basis to assist the client in implementing this project of a design/build basis.

Background

2011-Present
Vice President
Weston & Sampson

2004-2011
Associate
Weston & Sampson

2000-2004
Project Manager/Team Leader
Weston & Sampson

1997-Present
Project Manager
Weston & Sampson

1996-1997
Senior Hydrogeologist
Weston & Sampson

1993-1996
Project Hydrogeologist
Weston & Sampson

1993
Manager of Site
Assessment Services, EnviroBusiness,
Inc.
Cambridge, Massachusetts

1990-1991
Master of Science Student
Research Assistant,
Infiltration Studies - Lake Tahoe Basin

1990
Field Technician
Water Research and
Development, Inc., Reno,
Nevada

1989-1990
Research Assistant
University of Nevada, Reno
Crop Water Requirement
Study
Fernley, Nevada

1985-1988
Geologist
UNOCAL (UK) Ltd.
Sunbury on Thames,
Middlesex, UK

Education

1991
Master of Science
Hydrology/Hydrogeology
University of Nevada

1985
Bachelor of Science (Honors)
Geology
Royal School of Mines
Imperial College of Science,
Technology, and Medicine
University of London

GEORGE D. NASLAS, PG, LSP

EXPERIENCE

Mr. Naslas has 28 years of experience, 24 in the environmental industry and an additional three years' experience as an exploration geologist for a petroleum company. Mr. Naslas is our Practice Leader for Environmental Services, responsible for developing and growing environmental services across the company. Mr. Naslas also leads our Brownfields Developments, as well as our demolition services practices. He has completed over 200 Phase I and Phase II assessments, and evaluated remedial feasibility studies under Phase III. He has worked on all phases of the Massachusetts Contingency Plan (MCP), including Immediate Response Actions (IRAs) and Remediation Action Measures (RAMs). Mr. Naslas has managed soil and groundwater remediation projects and has been involved in the operation and maintenance and upgrade of treatment systems. He has written plans and specifications, and provided construction oversight for numerous remediation and demolition projects. He has performed comprehensive site assessments and hydrogeological investigations at several landfills in New England. Mr. Naslas has worked on hazardous waste and water supply projects throughout New England and in California, Nevada, Pennsylvania, and Washington.



Mr. Naslas has also provided environmental training and completed facility compliance audits that involved stormwater/NPDES permitting, and SARA Title III-Form R and OSHA compliance. He has provided Brownfields workshops and presented at the National Brownfields Conference, the UMASS Soils Conference, the New England Environmental Expo, Build Boston, as well as regional presentation in Florida. In addition, Mr. Naslas has conducted Peer Review assessment of hundreds of environmental reports for a billion-dollar commercial bank transaction of sites throughout the United States.

SPECIFIC PROJECT EXPERIENCE

LSP for the City of New Bedford Brownfield Assessment and Cleanup Program funded through an Environmental Protection Agency (EPA) Brownfield Assessment Grant. The projects consisted of numerous response actions under the MCP including site assessments, risk characterizations, immediate response actions, release abatement measures and other services at several former manufacturing facilities.

Brownfields Program Manager for an EPA-funded city-wide inventory and assessment program for the City of Lawrence. The program included identification of suitable sites, inventory, community outreach, and Phase I and Phase II environmental site assessment.

Senior professional on an EPA Coalition Grant between the Metropolitan Area Planning Council and the Cities of Peabody and Salem, Massachusetts. Weston & Sampson is managing the overall program for the coalition partners. This program includes area-wide planning along the North River Corridor, including the development of a Brownfield inventory, site pre-characterization, community outreach, Phase I and II assessments, reuse planning, quarterly reporting, as well as updates of EPA's ACRES database.

Team Leader for the City of Lowell's Brownfields Program.

Brownfields Project Manager for an EPA-funded environmental site assessment program for the Franklin Regional Council of Governments, which serves 26 towns in Franklin County, Massachusetts.

Professional Registration

Licensed Site Professional:
Massachusetts No. 6524

Professional Geologist:
New Hampshire No. 00185

Professional Geologist:
Tennessee No. 4357

40-hr OSHA Training Certified

Professional Societies

Licensed Site Professional Association
Rhode Island Society of
Environmental Professionals

Papers & Publications

Naslas, G.D., et al, "*Effects of Soil Type, Plot Conditions, and Slope of Runoff and Interrill Erosion of Two Soils in the Lake Tahoe Basin*," published by American Water Works Association in *Water Resources Bulletin*, Vol. 30, No. 2, pp 319-328.

Naslas, G.D., et al, "*Sediment, Nitrate, and Ammonium in Surface Runoff from Two Tahoe Basin Soil Types*," published by American Water Works Association in *Water Resources Bulletin*, Vol. 30, No. 3, pp 409-417.

Deputy Project Manager for an \$800,000 task order contract at multiple sites including former state hospital facilities for the Division of Capital Asset Management. This project involved subsurface investigations; MCP-compliance; Tier Classifications; IRAs, RAMs, Response Action Outcomes (RAOs), and Activity Use Limitations (AULs); confined space entry; compliance audits, including identification of asbestos containing material and lead-based paint; underground storage tank (UST) audits and removal oversight; hazardous material audits and inventory; wastewater plant decommissioning; and preparing and implementing IRAs

Provided technical guidance for Weston & Sampson's Area-Wide Planning Grant (AWPG) in Sanford, Maine. This is a new pilot program, with 23 programs nationwide and only three AWPG's issued in New England. Mr. Naslas attended community outreach meetings and worked with the planning team to evaluate current Brownfield sites, as well as develop a redevelopment strategy for key parcels in the community.

Mr. Naslas is Project Manager for all Springfield projects including landfill monitoring, MCP compliance and LSP services, assessment, demolition, and remediation. He is part of the Brownfields task force team to redevelop the 56-acre Chapman Valve site, one of Governor Patrick's five priority Brownfields sites in the Commonwealth.

Mr. Naslas was project manager for a Phase I ESA at the I4C2 parcel as part of the City of Gloucester's Harbor Master Plan. The parcel is a waterfront with hundreds of years of former industrial and commercial use. Mr. Naslas worked with the City and their acquisition team on this project..

Brownfields Program Manager for an EPA-funded transit oriented development for the City of Revere. The program included identification of suitable sites, inventory, community outreach, and Phase I and Phase II environmental site assessment.

Deputy Project Manager for a \$750-million Brownfields project in support of the new Boston Convention Center. This project, conducted on behalf of the Boston Redevelopment Authority (BRA), included site assessment and remedial cost estimates of approximately 60 parcels prior to their acquisition by BRA. Mr. Naslas coordinated all field work including site inspections, geophysical surveys, test pit and soil borings, soil and groundwater sampling, and building inspections. He was responsible for emergency response and coordination of reportable releases with DEP, as well as remediation of PCB and lead impacted soils.

Project Manager for an EPA-funded assessment grant to evaluate waste sites in two minority neighborhoods in Springfield, Massachusetts. The projects included site assignment, Phase I and Phase II ESAs, building assessments, and community outreach. In 2002 and 2003 Mr. Naslas also managed an EPA Brownfields contract to evaluate a mill site in Springfield. Both sites required Quality Assurance Project Plans (QAPPs) and remedial cost estimates.

Project Manager for a multi-million dollar site assessment and remediation task order for the Volpe Center of the Department of Transportation. The task orders included Brownfields site assessments, remediation cost estimates, lead and asbestos survey and abatement, risk characterization, and building demolition and remediation.

Project Manager for the BRA's multi-million dollar PCB and heavy metal remediation project in conjunction with the Boston Convention and Exhibition Center. Mr. Naslas was responsible for design and implementation of this ACEC award-winning project that included an indirect thermal desorption and stabilization remedial system, including construction of an engineered cap and stormwater management. Mr. Naslas coordinated with DEP and EPA and assisted in the public participation process.

2012-Present
Permitting Manager
Weston & Sampson

2002-2011
Environmental Scientist
Weston & Sampson

2002
Laboratory Technician
Biomarine Laboratories

1998-2002
Environmental Science Student
Bates College

1998 and 1999
Department of Public Works
Gloucester, Massachusetts

Education

2002
Bachelor of Science
Environmental Science
Bates College

Professional Certifications

OSHA HAZWOPPER 40 Hour
Regulations 29 CFR
1910.120 and 1926.65

Army Corps Certified
Wetlands Delineation
June 2003

EXPERIENCE

Mr. Zerilli is an environmental scientist with over ten years of professional experience in the environmental and natural resource management field. Mr. Zerilli coordinates all aspects of environmental permitting for Weston & Sampson. Working within the fields of hydrogeology, engineering, water resource development, wetlands sciences, renewable energy and construction oversight, Mr. Zerilli has specialized experience with developing permitting strategies that follow stringent federal and state specific permitting requirements for a variety of environmental engineering projects. Projects include public infrastructure and construction projects, renewable energy siting and development, in lake management and dredging, and wetland creation/restoration projects for a range of clients.



SPECIFIC PROJECT EXPERIENCE

Development of Permitting Strategies

Wetlands Delineation

- Trained in US Army Corp. of Engineers Federal Methodology
- Wetlands Delineation in Massachusetts (>100 sites)

US Army Corps of Engineers 404 General Permit

- Permit Application
- Wetlands Replication/Restoration
- Wetlands Replication & Monitoring

401 Water Quality Certificate

- Minor Fill/Dredge Permit
- Major Fill/Dredge Permit

Massachusetts Environmental Policy Act Permitting

- Expanded Environmental Notification Form (EENF)
- Environmental Notification Form (ENF)
- Notice of Project Change for Environmental Notification Form

National Pollutant Discharge Elimination system (NPDES) permit

MESA (Massachusetts Endangered Species Act) filing

- Natural Heritage and Endangered Species (NHESP) Species Request
- NHESP Project Review
- NHESP Conservation and Management Permit
- MESA Consultation

Chapter 91 Waterways Licensing

- Waterways License
- Simplified License
- License Renewal

Wetlands Permitting

- Dredge & Fill Permit (NH)
- Shoreland Permits (NH)
- Alteration of Terrain Permits (NH)
- Notice of Intent
- Request for Determination of Applicability
- Abbreviated Notice of Resource Area Delineation
- Wetlands Delineation
- Wetland Replication & Monitoring
- Invasive Species Management Plans

Water Supply Permitting

- Site Screening Worksheet for Siting a New or Expanding Source of Public Water Supply
- New Source Approval (NSA) including work for BRP WS 19 and BRP WS 15

Provided environmental permitting assistance associated with wetlands impacts and restoration in several communities. Permits included Massachusetts Environmental Policy Act (MEPA) certification, Army Corp of Engineers (ACOE) General Permit (NH & MA), MassDEP 401 Water Quality Certification, Chapter 91 Licensing, Natural Heritage and Endangered Species Program (NHESP) Notification, and wetlands permitting within Massachusetts, New Hampshire, Connecticut, Rhode Island, and Maine. Major permitting projects, in which Mr. Zerilli completed several of these permits, included remediation within Mill Creek and Ashuelot River in Keene; Medfield State Hospital Remediation for the Division of Capital Asset Management; Miller's River restoration and monitoring for MassDOT; Willow Pond Dredging for Look Park in Northampton; Weymouth Sewer Main Replacement and wetland restoration for the Town of Weymouth; Salisbury Industrial Park for the Town of Salisbury; Kingman Pond Dam for the Town of Mansfield; and the Arlington Reservoir Dam for the Town of Arlington.

Conducted in lake management studies and bathymetric surveys as part of dredging and dam rehabilitation projects. These projects required permitting, GIS mapping and analysis, GPS data collection, sediment quality and quantity sampling, and wetlands replication. Projects include Ellis Pond Dredging Feasibility Study in Norwood, Salisbury Pond Dredging Feasibility Study in Worcester, Coes Reservoir Dam rehabilitation and wetlands restoration in Worcester, Kingman Pond Dam rehabilitation in Mansfield, Willow Pond Dredging in Northampton, and Old Water Supply Dam rehabilitation in Bedford.

Provided wetland and ecological permitting support for the Western Massachusetts Electric Company (WMECo), Cape and Vineyard Electric Cooperative (CVEC), and American Capital Energy (ACE) solar programs. Assignments included preliminary design and local and state permitting for a multiple Megawatt projects in Pittsfield, Dennis, Barnstable, Brewster, Duxbury, and Edgartown Massachusetts. The projects required local and state permitting approvals with respect to floodplain development, wetlands resource impacts, endangered species habitat and other environmental conditions including wetland restoration and habitat protection.

Designed and ran water quality and sediment sampling and analysis on lakes and ponds throughout Massachusetts. Work was coordinated through grants received by various town agencies, including conservation committees and parks and recreation departments, and consisted of installing piezometers and running tests for bacteria, metals, waste effluent, etc. Projects included the Runnins River in Seekonk, Rockwell Pond in Leominster, Lake Mascuppic in Tyngsboro, and Lake Pearl in Wrentham, Massachusetts.

Worked on sampling possible hazardous waste sites, including polluted reservoirs and abandoned factories, at the Charles River in Boston, the Coes Reservoir in Worcester, and sites in Bellingham, Carver, and Milford, Massachusetts.

Provided environmental inspection services and prepared weekly or daily compliance control monitoring reports in accordance with Orders of Conditions issued by conservation committees as they pertained to water and sewer main replacement and other construction services. Completed these services for a landfill redevelopment project (Home Depot/Jordan's Furniture Plaza) in Reading, Massachusetts; as well as for projects in North Andover, Truro, Weymouth, and Winchendon, Massachusetts.



Clive Tysoe, MRICS, CCP

Divisional Director/Project Director

Education:

Salford University, 1988
Manchester, England
RICS Approved

Professional Affiliations:

Professional Associate of the Royal
Institution of Chartered Surveyors,
England

Association for the Advancement of
Cost Engineering – 2008

Experience:

VJ Associates of New England
Divisional Director
September 2011-present

VJ Associates of New Jersey
Senior Cost Estimator and
Divisional Director
2004-2011

VJ Associates Inc. of Suffolk
Senior Cost Estimator
2003 – 2004

Various Construction Firms
Bahamas and St. Lucia
1989 – 2003

Quantity Surveyor
Manchester, England
1978 - 1989

Mr. Tysoe has over 36 years of experience in field inspection, design, construction management, scheduling, value engineering and general cost estimating in both public and private sectors. He has been with VJ Associates for twelve years. From 2004 to 2011 Clive was Divisional Director of our New Jersey office. In 2011 Clive relocated to our New England office where he continues to excel in his performance as Divisional Director/Project Director.

He regularly attends design meetings, coordinates all changes in scope of work, and reviews all estimates prior to submission ensuring the highest standards of quality control. Clive acts as a liaison with architects and engineers to obtain all necessary information to provide accurate cost estimates and obtains current material pricing through constant vendor contact.

RELEVANT PROJECT EXPERIENCE – LANDSCAPE & INFRASTRUCTURE

Northeastern University Carter Playground & Fields; Boston, MA

Chief Cost Estimator for the planning and design for the improvements of sports and recreational spaces at the corner of Cedar Street and Columbus Avenue.

Weston Case Campus Master Plan; Weston, MA

VJ Associates is providing cost estimating services for the development of a master plan for the Town of Weston. includes the installation of a rural pedestrian walking train that will connect the various town buildings on the front of the campus and provide recreational uses; the installation of landscaping to restore an arboretum presence; removal of interior campus roadways and parking surrounding the Administration Building and Community Center.

MIT Killian Court Redevelopment; Cambridge, MA

Chief Cost Estimator for Concept Design for the main green space at MIT. Scope includes new ADA entry ramps into the buildings surrounding the courtyard, water features, and improved subsurface infrastructure.

Pulaski Park; Northampton, MA

VJ Associates provided cost estimating services for the renovation of a one-acre public park in downtown Northampton, MA. Last renovated in the mid 1970's, the goals of the project included reconnecting the park to its ecological history and improve park amenities. Project scope included landscape improvements, site work, and site furnishings.

Belmont Light New Substation; Belmont, MA

VJ Associates, working as a sub-consultant to PMA Consultants, provided cost estimating services for this project which included demolition of an existing building on the site and transmission lines from Alewife.

Background

2012-Present
Vice President
Weston & Sampson

2009-2012
Assistant Chief Engineer
Massachusetts Department of
Transportation (MADOT)

2007-2009
Assistant Chief Engineer
Massachusetts Turnpike Authority
(MTA)

2003-2007
Deputy Project Director
Central Artery/Tunnel
Project (CA/T)

1995-2003
Deputy Director of Construction
MassHighway

1989-1993
Project Manager
Massachusetts Bay Transportation
Authority (MBTA)

Education

1982
Bachelor of Science
Civil Engineering
Northeastern University

Professional Registration

Professional Civil Engineer:
Massachusetts No. 43353

Certified Construction Manager
(CCM)

Professional Affiliations

Construction Management
Association of America (CMAA)
Past President-New England Chapter

Boston Society of Civil Engineers
Section of the American Society of
Engineers (BSCES)

Women's Transportation Seminar
(WTS)

Professional Recognition Awards

2006
CMAA New England Chapter
Person of the Year

2006 BSCES Government Civil
Engineer Award

EXPERIENCE

Mr. Wright, manager of Weston & Sampson's Transportation Division, is a seasoned professional with more than 30 years of experience in the management of large-scale construction projects. His experience spans vast types of projects, including heavy/highway, bridges, tunnels, buildings, power, utilities, and transit/rail systems. Mr. Wright is experienced in dealing with public agencies, at all levels, from local/city to the federal government. An effective communicator and proven leader, Mr. Wright has excellent analytical and managerial skills, is highly skilled in motivating and supervising staff, and possesses a proven ability to simultaneously manage complex projects.



SPECIFIC PROJECT EXPERIENCE

Owner's Representative for MBTA Fitchburg Track and Signal Contract. Principal for improvements to the Fitchburg Commuter Rail Line between Somerville and Fitchburg. The Project consists of realignment and reconstruction of the existing tracks, a new train control signal system, new interlockings, new second track through the South Acton Station, replacement of Automatic Grade Crossing Warning Systems (AGCWS), and the upgrade of existing at-grade highway and roadway track crossing surfaces.

Owner's Representative for MBTA Downtown Crossing Vertical Accessibility (DTX). Principal for the renovation of the Downtown Crossing Station (DTX) in Boston, MA making it fully accessible. The Project consists of improvements to the existing egress, four new elevators, a pedestrian tunnel crossing diagonally beneath the Station and the final modernization of the Station's architectural elements.

Manager of MassDOT's Owner Representative Program, which is responsible for oversight of all state projects that exceed \$50 million. Mandated by State Law, the Owner's Representatives (ORs) are required to perform evaluations of the projects, including Peer Reviews and Cost Recovery. ORs must also submit an annual report to the Legislature certifying the project cost and schedule.

Assistant Chief Engineer for the Massachusetts Turnpike Authority. Responsible for management of all aspects of the \$14.8 billion Central Artery/Tunnel project. These responsibilities included management of design, construction, safety, budget, quality, personnel, environmental, administration, public affairs, facilities, as well as coordination with city and state agencies, impacted neighborhoods, and business abutters. The project included the design and construction of immersed tube, jacked and cut and cover tunnels; long span bridges and viaducts; as well as supporting vent buildings, power substations and intelligent systems. Direct reports included Director of Construction, Director of Design, Safety Manager, Quality Control Manager, and the Manager for Dispute Resolution. Areas of emphasis included lead negotiator on settlements larger than \$1 million; oversight of the closeout of more than 100 contracts, and managing staff reduction from over 600 to 30 employees.

Deputy Director of Construction, Central Artery/Tunnel Project for MassHighway. Responsible for oversight of the construction component of this public works mega-project, which included champion of the project-wide partnering program; coordination with the City of Boston; coordination with the Massachusetts Bay Transportation Author-

ity (MBTA); MassHighway champion for the project-wide VECP program; chairman of prequalification committee survey services, and chairman of prequalification committee for geotechnical instrumentation monitoring contract.

Acting Director of Construction, Central Artery/Tunnel Project. Responsible for oversight of the multi-billion dollar construction program, as well as maintaining duties as the Area Construction Manager for the Central Artery section of the project.

Area Construction Manager (ACM), Central Artery/Tunnel Project. Responsible for the Central Artery construction program, between Kneeland Street and Causeway Street. Oversight of this area included over \$3 billion worth of construction. As the ACM for downtown, responsibilities varied from pure construction issues to countless abutter concerns that had to be addressed. Specific duties included approving all payments to contractors; approving all contract modifications; overseeing construction management consultant; participating in partnering program; negotiating FHWA funding participation on contract modifications; serving as MassHighway technical representative for multiple subcontracts; attending and participating in evening meetings with residential abutters; and participating in meetings with business abutters.

Project Manager for the MBTA's Central Artery/Tunnel Coordination. Responsible for MBTA coordination with the billion dollar Central Artery/Tunnel project. Responsibilities included protection of existing MBTA assets; development of joint construction opportunities, and commuter support during CA/T construction.

Project Manager for the South Boston Piers Transitway. Responsible for managing the design and construction for this \$500 million new start transit service, which included managing multiple consultant contracts for both designing the future service and supporting the EIS/R process.

Project Manager for Aquarium Station. Responsible for managing all aspects of this \$70 million station rehabilitation and expansion, including a separately-funded section of the depressed Central Artery worth an additional \$55 million. These projects required managing the design and construction of cut and cover tunnels, deep bore tunneling, immersed tube, and bridge viaduct. This work included slurry walls, caissons, composite steel decks, and innovative methods, such as top down construction. Responsibilities included budget, design, scheduling, and all public processes.

Resident Engineer for various projects. Responsibilities included overseeing inspection forces, interacting with consultant, preparing payments and change orders, and using all other skills required to manage the field office and the contractors for the following contracts:

- Repairs to the Gloucester Drawbridge
- North Station Trestle Reconstruction
- Beverly/Salem Bridge
- Station Improvements, Beverly and Ipswich
- Green Line Improvements, Power and Signal
- Forge Park/495 Station, Franklin
- Taunton Bridges and Trestles
- South Attleboro Commuter Train Station

Contracts included the construction of many bridge variations, including movable spans (bascul and turret) and postentioned trestles capable of carrying train loadings, as well as many types of piling, from prestressed concrete, spliced in the field, to the first minipile wall constructed in Massachusetts.

EXAMPLES



Founded in 1899, Weston & Sampson has been providing municipalities, public agencies, and private sector clients with innovative solutions to their planning, recreational design, infrastructure, and environmental challenges for 117 years. Our professionally trained staff of designers, architects, landscape architects, engineers, environmental professionals, and construction specialists has provided quality consulting services to communities throughout New England.

Throughout our history, Weston & Sampson has exceeded our clients' expectations by providing attentive personal service, superior technical quality, and adherence to cost and schedule requirements. Weston & Sampson has built a reputation based on the successful completion of project goals, attention to detail, and cost-effective, quality work. **With this reputation, our firm has become the preferred landscape architecture consultant for many communities in New England, including Boston, Framingham, Needham, Newton, Somerville, and Worcester, Massachusetts.** For all of our projects, Weston & Sampson's goal is to tailor our approach to meet the needs of both the project and the client. The combination of our creative and technical design expertise, wealth of in-house resources, ability to develop and maintain valuable client relationships, and our highly collaborative project approach has led to repeat assignments in these communities.



To meet the diverse needs of our clients, Weston & Sampson offers extensive in-house capabilities to address the complex challenges of today's projects. Our areas of expertise include:

- Historic Landscape Planning & Restoration
- Landscape Architecture & Urban Design
- Transportation & Traffic Engineering
- Infrastructure Design & Construction
- Commercial & Residential Land Development
- Site/Civil Development
- Architecture
- Public Facilities Planning & Design
- Geotechnical & Structural Engineering
- Watershed & Stormwater Management
- Wastewater Collection & Treatment
- Wetlands Replication & Restoration
- Peer Review
- Land Surveying
- Master Planning
- Recreational Area and Athletic Field/Complex Design
- Renewable Energy
- Environmental Site Assessment/Demolition/Remediation
- Environmental Compliance/Permitting
- Regulatory & Enforcement Assistance
- Hydrology & Hydraulics
- Solid Waste Planning, Design & Management
- Water Supply Development & Treatment
- Water Supply Pumping & Distribution
- Construction Inspection, Oversight & Management
- GIS & Digital Mapping
- Operation, Maintenance, and Repair of Water & Wastewater Systems

Weston & Sampson has completed hundreds of successful landscape architecture design, riverwalk/recreational trail, and open space projects for communities in Massachusetts and throughout New England. Our creative designers consistently complete thoughtful, pragmatic,

EXAMPLES

and cost-effective pedestrian/bike trails and paths; master plans; park and streetscape designs; environmental and historical restorations; and open space projects.

Our capabilities and specialized services include:

- Riverwalk/harborwalk, rail-to-trail, greenway, and recreational corridor master planning/design/construction
- Master planning, feasibility studies, and site analysis and redevelopment
- Passive and active recreation facilities design and construction, including conservation land management and historic landmark restoration
- Comprehensive community involvement and participation, including charrettes/websites and volunteer coordination
- LSP services, soil assessments, and remediation
- Environmental permitting and restoration/ coordination with local, state, and federal agencies
- Structural, geotechnical, electrical, and mechanical engineering
- Civil and stormwater engineering
- Transportation, traffic, and parking planning as well as highway, bridge, and railroad/transit systems
- Streetscape design, including street/sidewalk restoration
- Existing conditions inventory/mapping
- Waterfront and recreation design and construction
- Sustainable designs and resiliency planning
- Utilities relocation and undergrounding
- Project inspection and construction monitoring
- High-quality illustrative graphics, renderings, and photo-realistic designs
- Interpretive signage and wayfinding systems
- ADA/AAB-related design services and compliance



Weston & Sampson has successfully completed planning, design, engineering, and landscape architectural services for many Massachusetts communities. Our staff has been responsible for the layout and design of numerous multi-use paths, rail-to-trail conversions, and/or bike routes, all of which have been or will be built, and therefore conform to all of the requirements of local, state, and federal agencies, including the Federal Highway Administration (FHWA), the Massachusetts Department of Transportation (MassDOT), the American Association of State Highway and Transportation Officials (AASHTO), and the ADA. **Our recreational trails project experience ranges from designing small pedestrian/bicycle paths in neighborhood parks to complex rail-to-trails/bikeways involving environmental permitting, right-of-way, structural, and landscape architecture design.** Among our recent projects, Weston & Sampson has successfully completed trail projects utilizing MassDOT standards for 15 projects in the last 10 years.



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BIKE / PEDESTRIAN / TRAIL EXPERTISE

Weston & Sampson's key team member for this project, **Alta Planning + Design**, is North America's leading multi-modal transportation firm that specializes in the planning, design, and implementation of bicycle, pedestrian, greenway, park, and trail corridors and systems. Founded in 1996, Alta has more than 150 staff in 28 offices across North America, including a **local office in Cambridge**. On any given day, most staff walk, bike, or take transit to work. Alta is committed to transforming communities, one trip at a time, one step at a time, and one street, intersection, and park at a time.



Alta has experience working in all size communities, from a few thousand to millions, from rural to mountain and desert to suburban and urbanized areas. The firm strives to tailor each project to the community's unique setting, history, and culture through an active public participation process. Alta staff is proud to have designed and implemented over 8,000 miles of bikeways, walkways, and trails.

Alta staff is at the forefront of the sustainable transportation movement. They are active in the Association of Pedestrian and Bicycle Professional (APBP), the Institute of Transportation Engineers, the Transportation Research Board, the Complete Streets Coalition, and have conducted national studies for the U.S. Department of Transportation. Alta is proud to be a founder of the NACTO Urban Bikeway Design Guide, the Initiative for Bicycle & Pedestrian Innovation at Portland State University, and APBP.

Alta provides a full range of services including:

- Master plans (bicycle, pedestrian, trail, open space and park)
- Landscape architecture and project design
- Transportation and traffic engineering
- Greenway and corridor plans
- Bicycle and pedestrian integration with transit
- Bicycle and pedestrian facility design guidelines
- Counts, surveys, and demand analysis
- Complete Streets
- Bicycle parking design
- Trail safety and sustainability audit
- Signage and wayfinding plans
- GIS and mapping services
- Construction documentation and administration
- Safe Routes to School studies and plans
- Public involvement
- Technical assistance and training
- Education, encouragement, and marketing services
- Bike share feasibility studies

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MASSACHUSETTS CONSTRUCTION EXPERIENCE

Weston & Sampson has been assisting public clients in Massachusetts with design and construction oversight of their “vertical” and “horizontal” infrastructure projects for more than a century. Therefore, our design staff members have compiled valuable hands-on experience and developed an expert-level familiarity with all Massachusetts public bidding and construction regulations.

Weston & Sampson maintains a thorough, up-to-date knowledge base of the Massachusetts State Building Code, Regulations of the Architectural Access Board, the American with Disabilities Act, and MGL Chapter 149 and Chapter 7. Our team has experience with and knowledge of all statutes and regulations governing Massachusetts public building construction and procurement law. In addition, we have significant experience with land procurement under the Chapter 30B Uniform Procurement Act, along with DEP land development regulations.

Weston & Sampson has well over 100 years of experience preparing plans and specifications for public bidding, as well as providing administration and resident engineering services for a wide range of construction projects, including recreational facilities (i.e., walks/paths, parks, playgrounds, sports fields, etc.), public facilities, treatment facilities, sewer main construction, wastewater pump station rehabilitation and construction, in-situ sewer main rehabilitation, and other associated infrastructure improvements. Our knowledge of Massachusetts and federal public construction laws, regulations, and procedures spans from the field staff to our office staff, ensuring that the necessary requirements are considered even before the construction phase of a project begins. The vast majority of our contract work is for state and municipal agencies, and our firm has existing, repeat-client relationships with more than 65% of all municipalities in Massachusetts.

Our experience extends into all ranges of contract procurement, tailored to meet the best interests of our clients. This range of procurement experience allows us to provide focused services, and advise our clients on the benefits of various procurement approaches based on real project experience. This specific experience has included design-bid-build, design-build, and design-build-operate (DBO) procurements. We have both responded to these procurements and assisted our clients in preparing and managing them.

We help our clients through the permitting and construction bidding phase, bringing our extensive experience to assist in



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completing these tasks in compliance with Massachusetts regulations and best practices. Our proposed project team includes engineers who specialize in design and professionals with experience in the construction administration of publicly bid municipal projects. Our personnel have demonstrated experience in construction administration in accordance with current development practices and standards, and thoroughly understand the unique technical and procedural requirements required for this project.

We have highly skilled and dedicated construction management staff that can guide the construction process through to completion in a cost-effective manner. Our Construction Services Department (CSD) offers superior services in construction management/administration and resident representation; they are experts in overseeing construction contractors, reviewing documents for constructability before bid, and negotiating change orders. Our team offers these talents, and many others to ensure that a full range of support is available to the Town of Belmont.

The majority of our design projects involve at least some aspects of construction, and many involve full construction administration services and/or resident representative, construction documentation, or bidding components. What differentiates Weston & Sampson from other consultants is our ability to provide all of the services required for this project utilizing in-house landscape architecture, engineering, environmental, and construction management staff, while still offering the benefits of a broad perspective (planning, engineering, contracting, construction, and operation).

Weston & Sampson has extensive experience in the project management and construction management of a large number of recreational, transportation, wastewater, water, and public works facilities projects, providing us with a broad range of experience to draw from in assisting our clients. Since we have been in business for 117 years, and our construction experience is extensive, we have highlighted only a small selection of our most recent construction administration work in Massachusetts below:

- Engineering, design, and construction phase services for Mayor Thomas M. Menino Park, including the associated harborwalk
- Final designs and construction services for the Somerville Community Path
- Design and construction administration of boardwalks, at-grade trails, overlooks, piers at the Newman Elementary School – Eastman Conservation Area in Needham, MA
- Design and construction phase services for LoPresti Park in East Boston, MA that includes harborwalk promenade and improved pedestrian connections
- Design and construction administration at Greenwood Park in Worcester, MA



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- Design and construction administration of a new High School Athletic Complex in Danvers, MA
- Master planning, design, and construction phase services for John Harvard Mall in Boston, MA for Boston Parks & Recreation that included significant ADA accessibility challenges
- Design and construction phase services for the North Street Playground in Somerville, MA
- Design and construction administration for the Soldiers and Sailors Monument at the Boston Common for Boston Parks & Recreation
- Design and construction administration of accessibility improvements at Boston Common for Boston Parks & Recreation
- Planning, design, and construction phase services for pathway improvements at the Public Garden for Boston Parks & Recreation
- Planning, design, and construction administration services for the MacArthur Mall accessibility and drainage improvements project at the Boston Common for Boston Parks & Recreation
- Design and development of construction documents for the fully accessible multi-use Cochituate Rail Trail in Framingham, MA
- On-Call inspection, design, and construction phase services for the Hugh Farren Pedestrian Bridge Rehabilitation project for MassDOT
- Preparation of final design documents, detailed bridge type studies, 25% highway plans and bridge sketch plans, construction plans, and special provisions for the replacement of an existing three-span structure along Howley Street over the North River for MassDOT in Peabody, MA
- Owner's Representative Services for the MBTA's Vertical Accessibility project at Downtown Crossing in Boston in conformance with MGL Chapter 30 Section 39.5
- Owner's Representative Services for the MBTA's Fitchburg Line Track and Signal Contract in conformance with MGL Chapter 30 Section 39.5
- Comprehensive design, bidding, and construction phase services as part of an Operations & Maintenance Facility Expansion for the Cape Cod Regional Transit Authority's bus maintenance facility in Dennis, Massachusetts
- Full design and construction administration services at the Cape Cod Regional Transit Authority's Hyannis Transportation Center



Our staff includes a full contracting department to prepare plans and specifications for public bidding, as well as a public relations department to develop graphics and informational material for public education and outreach. Our in-house resources also include qualified risk assessors and environmental scientists, as well as CADD, GIS, and technical support groups including geotechnical and structural engineers and wetland and permitting specialists. In addition to the staff capabilities identified above, we provide 24-hour a day, 7-day a week response services with fully equipped maintenance vehicles through our affiliate, Weston & Sampson Services.

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SIMILAR PROJECT EXPERIENCE

Weston & Sampson's creative designers consistently complete thoughtful, pragmatic, and cost-effective pedestrian/bike trails and paths; master plans; park/streetscape designs; open space natural area planning; municipal public space beautifications; playgrounds/field design; and environmental and historical restorations, both on time and on budget. Our capabilities and specialized services include rail-to-trail, riverwalk, greenway, and recreational corridor master planning, design, and construction.

Weston & Sampson has completed hundreds of successful landscape architecture planning, design, and construction administration projects for communities throughout the Northeast, and all of our projects depend on a comprehensive approach to the public participation process that includes workshops, thought provoking presentations supported by high-quality illustrations, and an open and honest discourse between all participants.

Our collective experience on similar walk/path/trail projects ranges in complexity from master planning for the Cochetuate Rail Trail in Framingham and the Cheesecake Brook Southern Corridor in Newton to the design of the harborwalk at Mayor Menino Park and the design of boardwalks, at-grade trails, overlooks, and piers at the Newman Elementary School / Eastman Conservation Area in Needham. Our experience also includes urban trails like the Somerville Community Path with its ramp/stair system and the McKnight Community Path in Springfield. Our most recent work includes the design of a technically challenging path with boardwalks cantilevered over waterways for Segment 5 of the Rutland Creek Path in Rutland, Vermont. Each of these projects includes extensive community involvement, as well as creativity/adaptability to the individual project environment.

In addition, Weston & Sampson has provided civil and transportation engineering services for a multitude of projects of varying complexity for municipal clients throughout Massachusetts and New England. These services have included multi-use trails, roadway designs, streetscapes, preparation of contract bid documents, and varying degrees of construction support.

In response to your RFP, we have included detailed project descriptions and graphics for our most relevant walkway/path/trail projects at the end of this section.

PUBLIC INVOLVEMENT

Our professional staff has extensive experience in conducting public participation and communication programs through our work on numerous projects, including the Somerville Community Path, Wareham Bikeway, Cochetuate Rail Trail, Scituate Bike Path, and nearly a dozen other path/trail projects throughout New England. We have successfully used a "community workshop" approach on a number of projects,



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through which we have met with abutters and other interested parties in an informal setting to defuse controversial issues on a one-on-one basis. Many of our similar projects have required extensive community participation and community-wide involvement by individuals and extensive numbers of vested interest groups.

With the majority of our work in the public sector, Weston & Sampson has worked extensively with public groups to gauge public opinion and build consensus within a community. We understand the need for **engaging public outreach** for truly innovative urban design within the public realm and offer extensive experience preparing and presenting legible plans, renderings, photorealistic graphics, estimates, phasing options, 3D models, studies, and other information to public officials, boards, committees, and the general public through a community meeting or hearing process. Our ability to understand our clients' needs and establish highly positive working relationships invariably yields maximum project benefits.



We are deeply committed to engaging the community through a series of public workshops, site visits, and meetings with project stakeholders to create working sketches and ideas that will be legible and easily understood by the public. We believe it is imperative the project be presented to the community in the appropriate format and venue in order to gain input before, during and after the design process. Through our experience, we have developed solid working relationships with local governments and residents, and have gained valuable and practical insight regarding riverwalk, walking path, and rail trail design.



Our designated team leader, **Cheri Ruane, RLA**, has special expertise in facilitating the community engagement process. The combination of managing the public process from the perspective of the owner, as well as supporting the public sector from the perspective of the consultant, has given Cheri a unique understanding of how best to manage public projects and work in close coordination with municipalities. Cheri is passionate about engaging the full cross-section of the community and understands that public landscapes require a creative and collaborative approach to successful design, from coordinating the goals and concerns of various stakeholders to choosing appropriate construction materials.



SURVEY

Weston & Sampson's has a solid background in a range of land surveying services, including topographic surveys, field surveys, utility surveys, bathymetric surveys, construction layouts, and setting monumentation. Our surveyors also prepare legal descriptions and certifications for easements, rights-of-ways, boundary lines, and a variety of other purposes.

COCHITUATE RAIL TRAIL

town of framingham, massachusetts



Weston & Sampson recently completed the design for the construction of a 1.25-mile multi-use trail along an abandoned former Massachusetts Bay Transportation Authority (MBTA) rail bed, which was purchased by the Town of Framingham in 2009.

The trail begins at Route 30 (adjacent to the future Natick RT) and travels northerly, crossing the TJX driveway (at-grade), the Luchetti driveway (at-grade), Old Connecticut Path (at-grade), and two bridges over the Cochituate Brook before connecting to School Street.

The project required coordination with several town departments, including the Department of Public Works, the Department of Community and Economic Development, the Planning Board, the Board of Selectmen, the Cochituate Rail Trail Committee, the Conservation Commission, and the Traffic Safety Advisory Committee, as well as the general public, through a series of public workshops and meetings to obtain the necessary permits and approvals.

The project also required coordination with the design of a new sewer interceptor project utilizing the same corridor.

- **design of two new prefabricated pedestrian bridges over the cochituate brook**
- **at-grade crossing at luchetti and TJX driveways**
- **at-grade crossing of old connecticut path**
- **coordinated design with new sewer interceptor along the same corridor**
- **invasive species removal**

client contact

David R. Ivany PE, PTOE
Senior Project Manager
Department of Public Works – Engineering
Division
508-532-6095

MAYOR THOMAS M. MENINO PARK ENGINEERING AND DESIGN SERVICES

boston redevelopment authority / boston parks & recreation department



When Mayor Menino visited Spaulding Hospital's brand-new state-of-the-art rehabilitation facility at Charlestown Navy Yard in early 2013, he saw potential in the vacant waterfront land that lay next door. No less, he hoped that a fully accessible playground and park would be in place by the end of his term in November. In order to meet the challenge of designing and constructing a park within just three short months, the Boston Redevelopment Authority enlisted the support of Weston & Sampson's design studio. Boston's newest waterfront park is a dramatic open space resource designed as a place of recovery from health challenges and respite from the daily rigor of urban life. Much of the design inspiration drew from the park's history as the Navy Yard's first shipbuilding dry dock built during World War II.

At the time, the dry dock's construction required that the Navy Yard expand beyond the existing pier and bulkhead line. Granite blocks that once held back seawater now form the battened walls of Mayor Thomas M. Menino Park's playground, which not only provides seating, but creates elevated lawns and viewing decks oriented to capture the splendor of Boston's working waterfront and stunning downtown skyline. Most importantly, innumerable opportunities for active play, physical therapy, and exercise for all generations are incorporated into the park. The park also includes an accessible harborwalk with spectacular views of the city and the water.

The finished park is intended to honor those focused on perseverance, renewal, recovery, awakening, and revival. Phase I of Mayor Thomas M. Menino Park opened to the public on November 4, 2013.

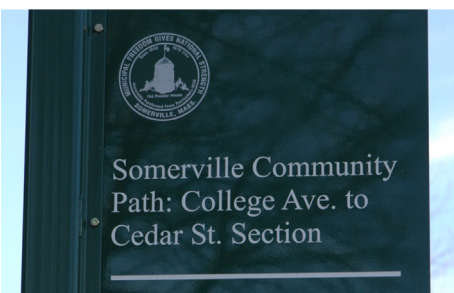
client contact

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Weston&Sampson®

SOMERVILLE COMMUNITY PATH

city of somerville, massachusetts



The City of Somerville selected Weston & Sampson to develop final designs for the Community Bikepath beginning at the intersection with Cedar Street and connecting to the existing bridge at Lowell Street. The project consists of:

- Full depth construction
- New hot mix asphalt porous pavement
- Connections to the Lowell Street Bridge using stairs and ramps (structural steel frame with aluminum grating, galvanized guard rail, and stainless steel handrails)
- Construction of low stone retaining walls
- Minor drainage improvements
- Fixed and removable bollards
- New cement concrete pavers
- New cement concrete walks
- New ornamental lighting
- Enhancements including benches
- Trash receptacles and bicycle racks
- Brick pavers and landscaping
- New pavement markings
- Signs
- Other incidental items of work

Our work in the design and construction of the path involved extensive coordination with the Massachusetts Architectural Access Board (MAAB) to ensure accessibility for all. In addition, the project was reviewed and constructed by the Massachusetts Department of Transportation, and met their design standards and public bid requirements.

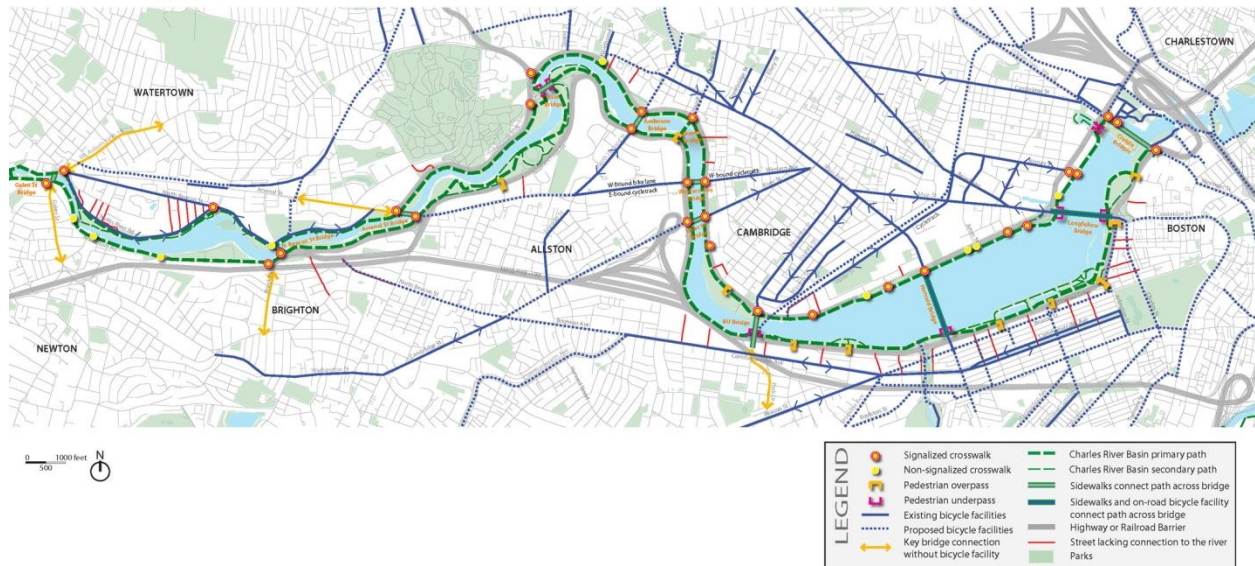
The project included a comprehensive community participation component and required coordination with key stakeholders, including the existing Veteran Nurses Association property, a residential community currently under construction (i.e., MaxPak) and the future Massachusetts Bay Transportation Authority Green Line Station currently under design. In addition, the project required permanent and temporary right-of-way acquisitions, utility coordination, and a Phase I soil investigation. The path opened to the public in the summer of 2015.

client contact

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City of Somerville, Massachusetts
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Charles River Basin Connectivity Study

Boston, Cambridge, Newton and Watertown, MA



Alta's work along the Charles River Basin included thorough site analysis and conceptual design for enhanced connections to adjacent neighborhoods, transit stations, commercial districts, and open spaces. The team worked with the Massachusetts Department of Transportation (MassDOT) and the Department of Conservation and Recreation (DCR) to develop a plan addressing the needs of pedestrians, joggers, and cyclists along an eight-mile stretch of the river. The three-year effort included oversight, recommendations for path improvements along the river, and review and comment of current final design efforts for enhanced pedestrian and bike connections to and across the multiple bridges within the Basin. The recommendations are currently being used to plan and implement new path and on-street connections in various areas of the Basin, including the Charlesgate Green project currently under final design for DCR.

Helping to inform the planning and design work were bi-annual, Alta-led counts of pedestrians, joggers, and cyclists at 23 locations along the entire bridge and pathway system during weekday afternoons and weekends. These efforts began in the fall of 2009 and concluded in the fall of 2014. The ten counts yielded valuable data that has informed DCR and MassDOT's efforts to make a more pedestrian and bicycle friendly environment along the Basin.

Client: Massachusetts Department of Transportation

Year: 2012-2014

Contacts: 1) Dan Driscoll, Department of Conservation and Recreation, (617) 626-4974, Dan.Driscoll@state.ma.us and 2) Steve Miller, LivableStreets Alliance, (617) 686-1050, Steve@livablestreets.info



Brookline Emerald Necklace/Rt. 9 Crossing Project



Alta helped develop conceptual and final design for critical pedestrian and bicyclist crossings within the Emerald Necklace along the Boston/Brookline border. The Emerald Necklace is an historic linear park system designed by Frederick Law Olmsted in the late 19th century and is listed on the National Register of Historic Places. The scope of the project focused on a half-mile section of park where pedestrians and cyclists have to cross a series of complex and unsafe intersections—particularly Route 9—a multi-lane state highway. Alta developed a series of conceptual design ideas for the critical crossings and a seamless path route. The route also included a long-term plan for alterations to the adjacent Riverway/Jamaicaway bridge that would include a multi-use path or cycle track connection over Route 9. With feedback from the public and the Project Review Committee, Alta refined the design which recently began construction in 2016.

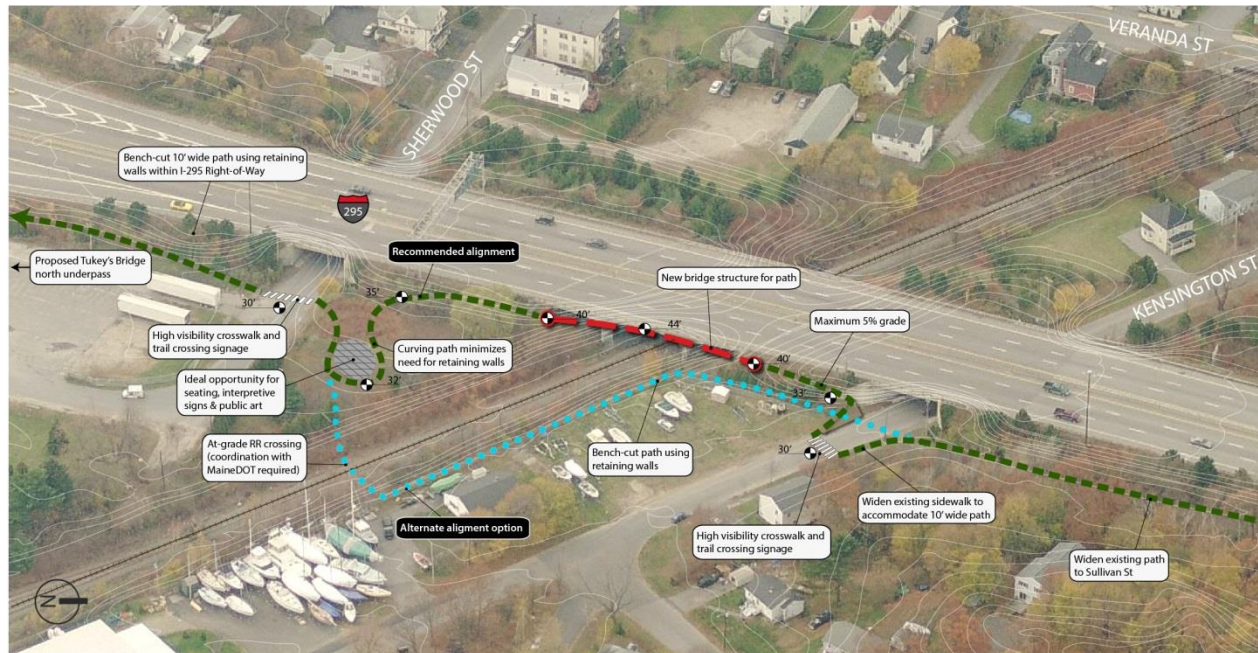
Client: Town of Brookline

Year: 2011–2013

Contacts: 1) Erin Chute Gallentine, Parks and Open Space Director, (617) 730-2088, egallentine@brooklinema.gov and 2) Peter Furth, Brookline Pedestrian and Bicycle Advisory Committee, (617) 459-7856, pfurth@coe.neu.edu



Martin's Point Path Connection Study, Portland, ME



A critical link in Portland's shared use path network overlaps with a gap in the East Coast Greenway between downtown Portland and the nearby town of Falmouth to the north. Alta was brought in by the City of Portland and PACTS to create a link between the sidewalk/paths on Tukey's Bridge and the Martin's Point Bridge with a short and long term plan for bike lanes and a shared use path.

While space for the shared-use path exists within the I-295 right-of-way, connections to the adjacent neighborhoods, as well as to the existing sidewalk/paths on both bridges create a unique challenge. Alta's recommendations include a new underpass, a trail bridge over railroad tracks, widening existing sidewalks, on-street bike facilities, and intersection enhancements. While the focus of the effort was to develop a shared use path between Tukey's Bridge and the Martin's Point Bridge, Alta also studied short term improvements. Potential low-cost improvements between the bridges include bike lanes on Veranda Street and portions of Route 1, along with new signage, crosswalks, and ADA improvements.



Client: Portland Area Comprehensive Transportation Services (PACTS) and the City of Portland

Year: 2015

Contacts: 1) Bruce Hyman, Transportation Program Manager, City of Portland, Dept. of Planning and Urban Development, (207) 874-8717, bhyman@portlandmaine.gov and 2) Jim Tasse, PhD, Bicycle Coalition of Maine, (207) 318-0386, jim@bikemaine.org

SAUGATUCKET RIVER GREENWAY

town of south kingstown, rhode island



For the Town of South Kingstown, Weston & Sampson developed final construction documents for the completion of public improvements along the Saugatucket River Greenway in the Wakefield Village area.

Work included refurbishment of a pedestrian bridge that crosses the river and that provides a key linkage between residential neighborhoods, an elementary school, and the primary retail and commercial area of Wakefield. The pedestrian bridge is a wooden structure. Our structural engineers developed restoration plans and details that included the replacement of select piles, pile caps, bridge superstructure, and decking and railing systems. Work also included the design of extensive bridge approaches in order to make this important pedestrian corridor completely American with Disabilities Act (ADA) compliant.

Other improvements within the Wakefield Village Area included the refurbishment of a municipal parking area making use of low impact development stormwater management techniques, construction of a children's outdoor classroom that cantilevers out over the banks of the Saugatucket River, and other related enhancements to numerous open space and park properties within the larger Greenway.

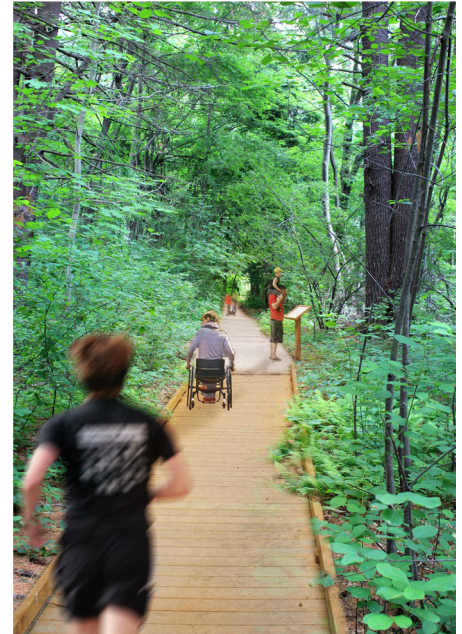
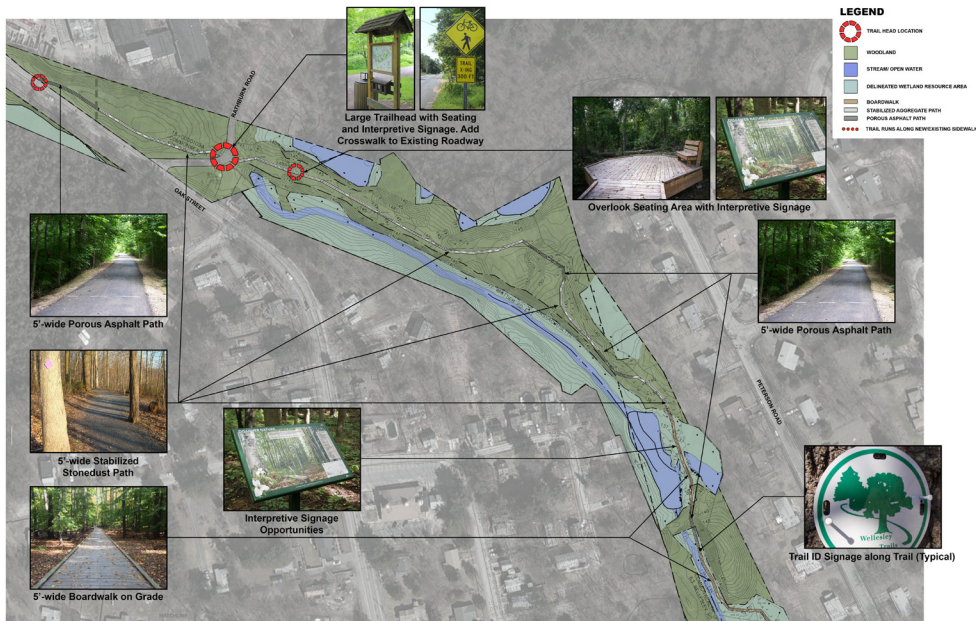
Weston & Sampson provided multi-disciplinary design services to the Town of South Kingstown in relation to this project. These services included landscape architecture and park planning, civil engineering and stormwater management design, structural engineering, electric engineering, and construction inspection.

client contact

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COCHITUATE AQUEDUCT TRAIL

cochituate aqueduct study committee, natick, massachusetts



Weston & Sampson is developing construction documents for a one-mile-long, fully accessible trail along the Cochituate Aqueduct in Natick, Massachusetts. The project was undertaken in response to a 2012 initiative by the Massachusetts Water Resources Authority, permitting the construction of trails along MWRA aqueduct properties.

The project entails the construction of a pedestrian and bicycle trail from the Wellesley town line to the Pine Oaks wells property and Pickerel Pond. The trail is designed to be fully accessible, meeting Architectural Barriers Act and U.S. Forest Service guidelines for accessible trails, and will provide recreational opportunities for people of all ages and abilities. The new Cochituate Aqueduct Trail will link with the Wellesley trail system, and provide important linkages for future trail systems within the Town of Natick.

The majority of the trail surfacing will consist of a compacted aggregate surfacing specifically designed for accessible trails. Boardwalk systems will be installed where the trail corridor passes through wetland resource areas to limit environmental impacts. In addition to adequate signage and trail markings, trail heads will be installed at all roadway crossings. These trailheads will provide interpretive signage with descriptions of the trail conditions and rules, wayfinding signage, and seating to provide opportunities for resting.

client contact

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CAPE COD RAIL TRAIL

town of chatham, massachusetts



Weston & Sampson developed contract documents for the construction of a six-mile bikeway, which makes use of a former Old Colony Railroad right-of-way.

The bikeway follows the abandoned railroad right-of-way, traverses along four local roads, occupies an electrical transmission line easement, and includes six at-grade roadway crossings. The typical cross section consists of a 10-foot-wide paved bicycle path and three-foot shoulders. The project also includes the construction of bicycle lanes and a sidewalk along a portion of George Ryder Road and the reconstruction and realignment of the Old Queen Anne Road/Stepping Stones Road/Wilfred Road intersection.

The Chatham Spur links a previously constructed bikeway in Harwich with Chatham Center. All work was designed and constructed in conformance with the Massachusetts Highway Department's Standard Specifications.

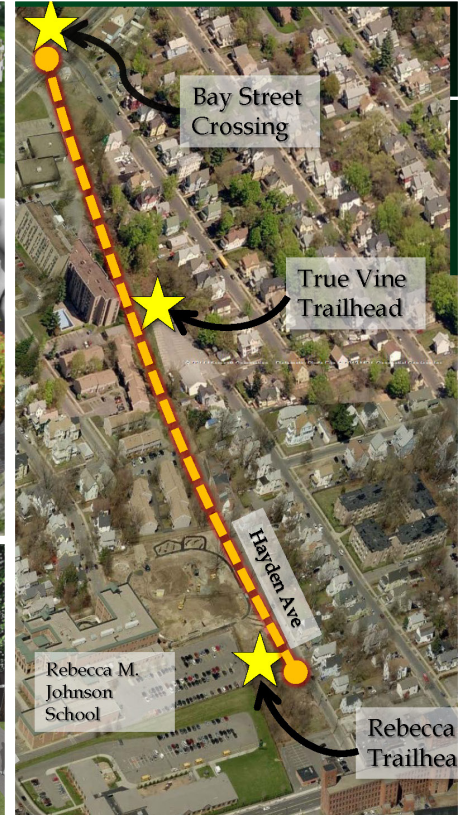
- **on-road and off-road alternative corridors**
- **coordination with connecting towns**
- **study of tunnel crossing state route**

client contact

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MCKNIGHT MULTI-USE TRAIL

city of springfield, massachusetts



Weston & Sampson provided services related to the feasibility of a multi-use trail through the McKnight neighborhood of Springfield, Massachusetts along the former Highland Division of the New York, New Haven, and Hartford Railroad. In 1997, a Master Plan for the potential trail for the 12.5 mile Highland Division Line (from Enfield, Conn. to Springfield, Mass.) was developed and never put into action. The intent of the project was to gather information to analyze the opportunities and constraints that would emerge when proposing a multi-use trail in this location and identify future steps and procedures to establish a successful and well maintained trail.

We gathered preliminary data for the study through site visits, client interactions, and resource mapping. Wetland and stream areas were determined in accordance with the Massachusetts Wetlands Protection Act. Abutting and adjacent property limits and ownerships were identified based upon existing assessor and available GIS information. Direct outreach to the owners of these properties will begin once the design for the trail begins.

Weston & Sampson developed a comprehensive base plan with existing site features for use in the analysis and design of the site. A preliminary environmental review was completed in accordance with the National Environmental Policy Act (NEPA) as well as the Massachusetts Environmental Policy Act (MEPA). The site was also studied to reveal any underlying contamination issues that may arise through the development of this project. Subsequently, we developed a concept Master Plan for the site with suggestions for new trail amenity areas. Finally, Weston & Sampson developed a strategy for the implementation of the multi-use trail, which included options for project phasing, funding suggestions, and a preliminary cost estimate. The above deliverables culminate in the creation of this feasibility study, which serves as the final deliverable of the current project scope.

client contact

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WATERFORD CANAL HARBOR/CANAL CORRIDOR

town and village of waterford, new york



**MERIT AWARD-WINNER FROM
THE ASLA NEW YORK UPSTATE
CHAPTER**

The Town and Village of Waterford (the oldest continuously occupied, incorporated village in the United States), are based at the confluence of the Mohawk and Hudson Rivers and the convergence of the Erie and Champlain Canals. The HUD Canal Corridor Initiative and the support of the Canal Corporation prompted these municipalities to embark on a waterfront development effort that has increased tourist trade and fostered economic development.

Weston & Sampson worked with the Town and Village to develop a strategy, formulate a plan for development, and guide the project through implementation.

Our work included:

- Assisting the two communities with grant writing to support planning, design and/or construction efforts for waterfront linear parks, docking, pump-out facilities, a visitor center, an inn & restaurant, and neighborhood improvements (including the village central business district)
- Researching, writing, and coordinating the submittal of the Town's and Village's joint application to the HUD Canal Corridor initiative program which included program development, urban economic growth, financing, small business loan funds, and micro enterprise program. The Town and Village were awarded \$5.1 million
- Administering construction of the canal harbor
- Working with the two communities to develop conceptual design plans that were presented to the Town and Village residents, community businesses, and the New York State Canal Corporation
- Specific design elements for the Waterford Canal Harbor Development include:
 - A 1,400 foot long promenade and bulkhead rehabilitation along the Village's canal shoreline.
 - A Visitors Welcome Center building along the Canal.
 - Four pocket parks to be developed at the foot of each street intersecting the canal promenade.
- Streetscape and pedestrian improvements in adjacent residential and commercial neighborhoods.
- Rehabilitation of the boat launch at the east end of the promenade.
- An Inn-Restaurant complex and several other commercial ventures.
- Creative financing, utilizing CDBG subsidized Section 108 loans and private and state financing.
- Contacting private developers in order to generate interest within the communities which helped support the HUD application and generate interest.
- Completion of a boundary and topographic survey of the Promenade site and construction documents for the canal harbor (Promenade, Visitors Welcome Center, Fourth Street Pocket Park, and concrete bulkhead rehabilitation).

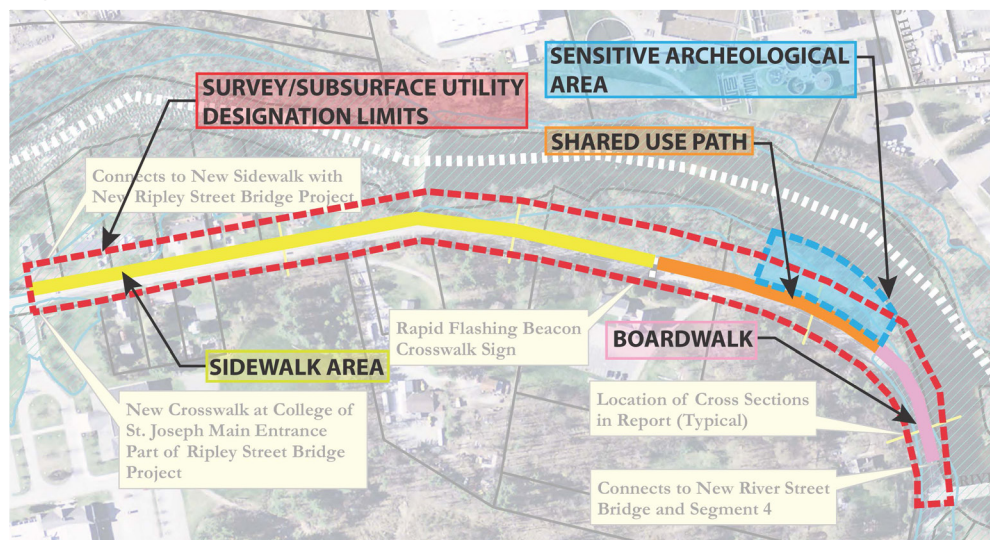
client contact

Honorable J. Bert Mahoney
Mayor
Village of Waterford, New York
518-235-9898

Weston&Sampson®

RUTLAND CREEK PATH – SEGMENT 5

city of rutland, vermont



Weston & Sampson is currently contracted by the City of Rutland, Vermont to design the fifth and final segment of the Rutland Creek Path project. Once each segment is constructed, the trail will serve as a commuter and recreational trail connecting the College of St. Joseph to Giorgetti Park, providing connections to various destination points in the community.

This technically challenging path segment includes three distinct areas, including sidewalk and multi-use asphalt trail sections. Additionally, an elevated, 300-foot long cantilevered boardwalk will be developed along the edge of Otter Creek before transitioning into the multi-use trail section.

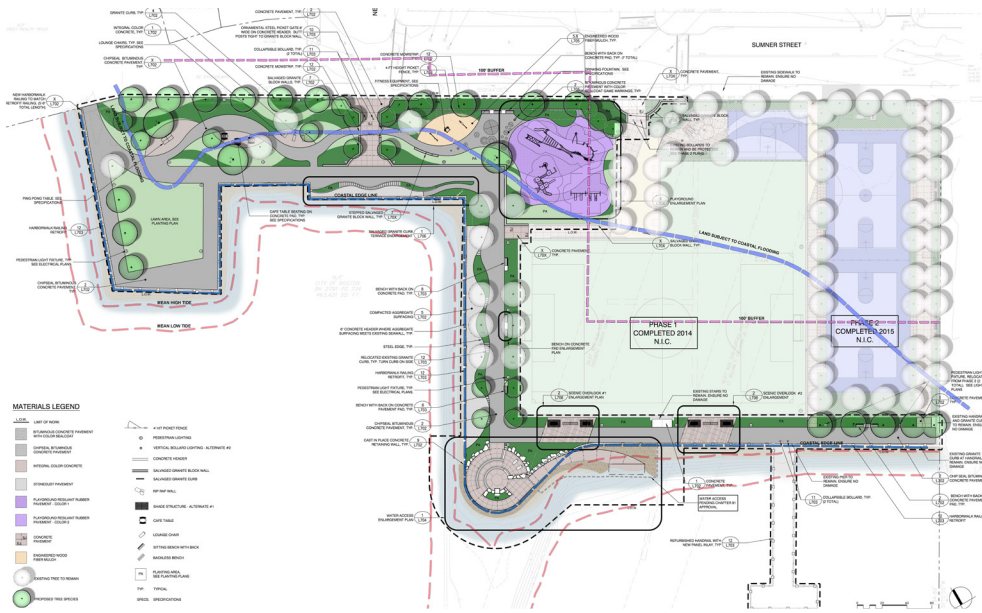
In addition to designing the cantilevered boardwalk for the trail and providing access to previously unseen natural resources, our responsibilities also include navigating a comprehensive community involvement component. In addition, as part of our development of this path segment, we are coordinating with the Vermont Transportation Agency, as well as with construction crews currently reconstructing the Dorr Drive and Ripley Road Bridges on either end of the segment. We are working diligently to manage our project goals while working within the constraints of another project and ensuring that all details and requirements are addressed.

client contact

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IMPROVEMENTS TO LOPRESTI PARK

boston parks and recreation department



LoPresti Park is a four acre park located on the waterfront of Boston's inner harbor in the farthest most corner of East Boston. This premiere location affords some of the most dramatic and sweeping views of the Boston skyline, July 4th fireworks, and sunsets all year long. With Pier Park as a nearby attraction, LoPresti Park is reportedly one of the best kept secrets of the city and often overlooked as a destination for anyone other than the locals. LoPresti functions as a well-used neighborhood park and playground and is frequented by residents who arrive mostly on foot or by bike.

Now in the third and final phase of construction, the latest improvements at LoPresti Park provide a number of active recreational amenities, including two basketball courts, a children's playground, splash pad, fitness equipment, an open lawn, and a state-of-the-art synthetic turf playing field that is the centerpiece of the park. Passive activities will be organized in a way to complement the amazing vistas that exist throughout the park. A renovated harborwalk promenade will be the spine of the park and provide for pedestrian circulation. Additional programming includes benches, ping-pong, and lounge chairs organized around the scenic promontory and a kayak launch that provides direct access to the harbor waters.

In 2012, Boston Parks and Recreation Department selected Weston & Sampson to design a modern-day park that links the Maverick Gardens neighborhood back to the water and strengthens pedestrian connections to the surrounding housing development and, since that time, we have worked together to achieve that vision. The park's new main entry is a plaza space centered on the Maverick Gardens housing development and provides sweeping views of the park and the city skyline. The park improvements are scheduled for completion in Spring 2016, and the improvements to LoPresti Park are sure to become part of East Boston's legacy for years to come.

- **active and passive recreational designs**
- **waterfront amenities**
- **harborwalk promenade and improved pedestrian connections**
- **synthetic turf fields**

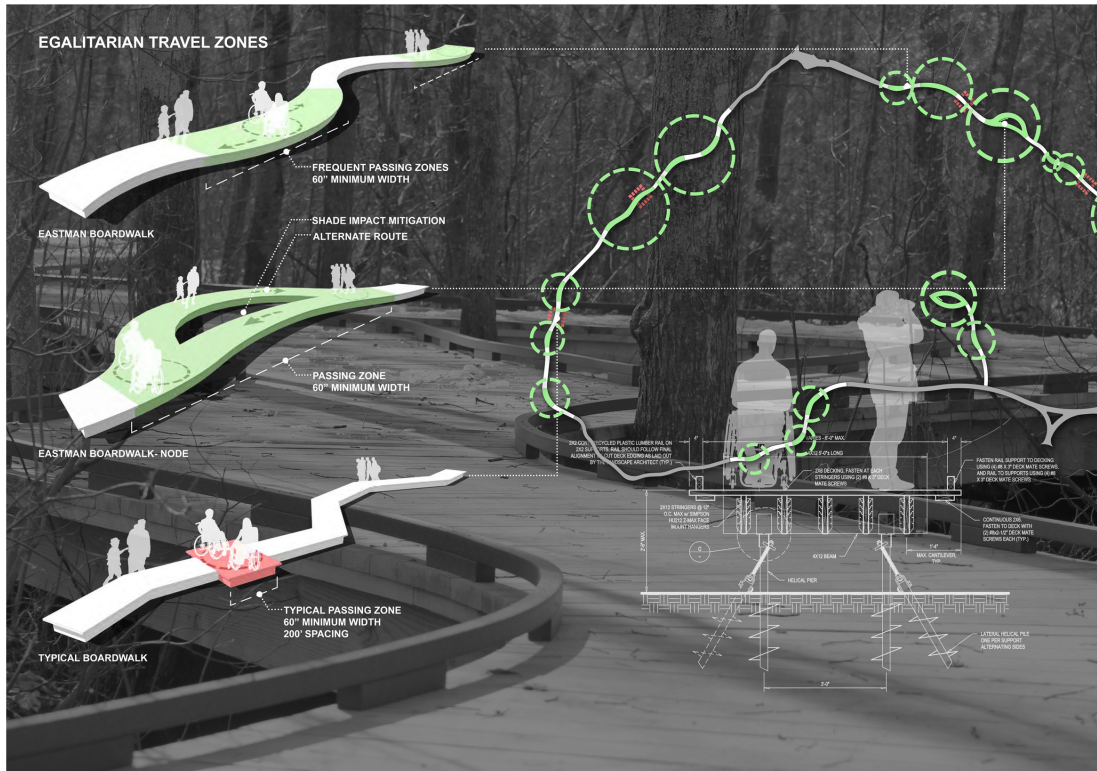
client contact

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Boston Parks & Recreation Department
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Weston&Sampson®

NEWMAN ELEMENTARY SCHOOL FIELDS – EASTMAN CONSERVATION AREA

town of needham, massachusetts



Weston & Sampson was retained by the Town of Needham to design sports field upgrades and improvements to the Eastman Conservation Area. The Eastman Conservation Area serves as an outdoor learning laboratory for the elementary school and the Needham Science Center, which is located at the school. The conservation area possesses an amazingly varied landscape within a relatively small footprint that includes wetlands, meadows and streams, open bodies of water, uplands, and rock outcroppings.

Weston & Sampson is working closely with teaching professionals to develop compelling interpretive and interactive signage that will enhance teaching at various "learning pods" located throughout the site. Specific work has included the design of boardwalks, at-grade trails, overlooks, piers, and a wide range of other site amenities that help to support the storytelling about wildlife and wetlands and woodlands and other environmental features that are unique to this rich and varied conservation landscape. Boardwalks and outdoor classroom spaces have been designed to be minimally invasive and unobtrusive; they were constructed in a way that allows users to experience the unique ambiance of the wetland resources from within the environment and not just from the outside looking in.

- **conservation area improvements**
- **outdoor learning laboratory**
- **boardwalks, trails, overlooks, and piers**
- **sports fields upgrades**

client contact

Edward Olsen
Parks and Forestry Superintendent
Public Service Administration Building
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SOUTH BOSTON/NSTAR HARBORWALK – BOSTON, MA

nstar (now eversource)



Eversource (formerly NSTAR) has several large power distribution points in South Boston that assist in serving the City of Boston and surrounding areas with electricity. As a part of the expansion of one facility located on the Reserved Channel in South Boston, NSTAR was required to design and install public open space in the form of a linear waterfront park known locally as The Harborwalk. A key component to the development of the Harborwalk included the design of four interpretive signage panels.

Weston & Sampson was hired by NSTAR to assist with permitting, construction oversight, and the design of the interpretive signage for the Harborwalk project. Weston & Sampson sought the help of Boston historian Nancy Seasholes to assist in researching the history of the site and the surrounding areas. Her efforts turned up amazing facts and historic images describing the site's industrial past. Once the information was collected, Weston & Sampson's art and marketing team designed a series of four panels that underwent rigorous public review. Both the Boston Conservation Commission and Boston Redevelopment Authority unanimously approved the signage program, which now stands along the Boston waterfront educating visitors with engaging graphics and text that tell the story of how iron rail was once manufactured and shipped by boat around Cape Horn to be laid as some of the first pieces of the Transcontinental Railroad.

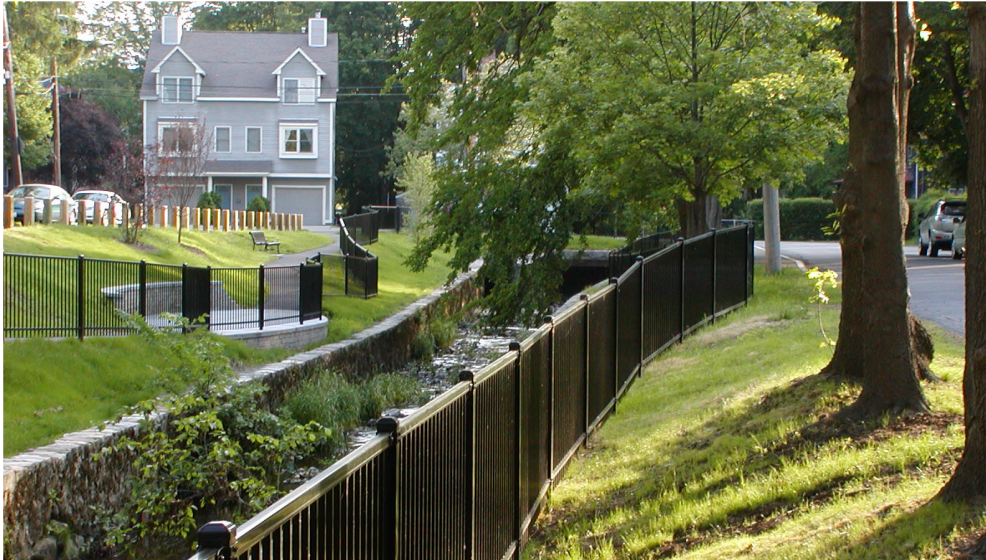
client contact

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Weston & Sampson®

CHEESECAKE BROOK SOUTHERN CORRIDOR MASTER PLAN AND PHASE 1 CONSTRUCTION

city of newton, massachusetts



Weston & Sampson worked closely with the Planning and Development Department of the City of Newton, Massachusetts on a Master Plan for the southern portion of Cheesecake Brook between Eddy Street and Watertown Street.

Weston & Sampson's design team, through a series of community meetings, garnered many divergent opinions regarding the potential passive recreational use of this historic corridor. Graphics were developed and presented by Weston & Sampson for discussions. During the course of these meetings, we developed an enhancement program to satisfy all interested parties.

Critical to the planning and conceptual design effort was the need to flush out the full range of potential enhancements to the Cheesecake Brook corridor, which might include the development of some or most of the following:

- A safe and attractive amenity for the use and enjoyment of neighborhood residents and visitors, including designating the extent of the corridor that is accessible to non-residents and the extent of the corridor that may be left off limits to residential abutters. Channel depth, channel slope, and maintenance requirements of the new public access amenities are important considerations.
- A manageable amenity in regard to the performance of regular stormwater maintenance efforts by the public works department.
- An open space resource that is more environmentally friendly and includes a series of potential stormwater management improvements.

Potential implementation of a series aesthetic improvements to enhance the overall visual qualities of the Cheesecake Brook greenway that potentially include: Replacement of an existing chain link fence with a more attractive fence system; management of vegetation along the corridor to include removal of invasive species, damaged or diseased vegetation, and improved visibility; management of the corridor to include a mix of open lawn, meadow, shrub, ornamental, evergreen and deciduous plantings; and introduction of pedestrian crossings and points of public access and use.

The Master Plan for a portion of the corridor was finalized in August of 2007. After finalizing the Master Plan, Weston & Sampson prepared documents for the construction of a Phase 1 program for the corridor. The construction of the Phase 1 program was completed in June of 2008.

client contact

Carol Schein
Open Space Coordinator
Parks and Recreation Department
124 Vernon Street
Newton, MA 02458
617-796-1500
cschein@newtonma.gov

Chase Road Before



Key challenges for the Study included integrating trail-oriented development strategies, coordination with the redevelopment of former industrial and commercial properties, and creating opportunities with limited available publicly-owned land along the river. The adopted study was funded with a grant from the local United Way chapter, and greenway development funding has been secured through federal funding and is ongoing.

Contact: Kathy McNamara, City of Waterbury
Grants Administrator, (203) 573-5871,
kmcnamara@waterburyct.org

Primary Route

- Shred-Use Off-Street Path
- Shred-Use Path Within Public Road ROW
- Shred-Use Off-Street Path Trailhead Section
- Nature Trail

Secondary Route

- Shred-Use Off-Street Path
- Shred-Use Path Within Public Road ROW
- Shred-Use Off-Street Path Trailhead Section

Other Features:

- Train Station (Future Intermodal Center)
- Suggested Intersection Improvement
- Potential New or Rehab Bridge Location
- Underpass Below Existing Bridge
- Potential New Park Location
- Ped/Bike Trailhead
- Trailhead With Parking (10 - 30 Cars)
- Trailhead With Parking (5 - 10 Cars)
- Small Boat Launch
- Rest Station

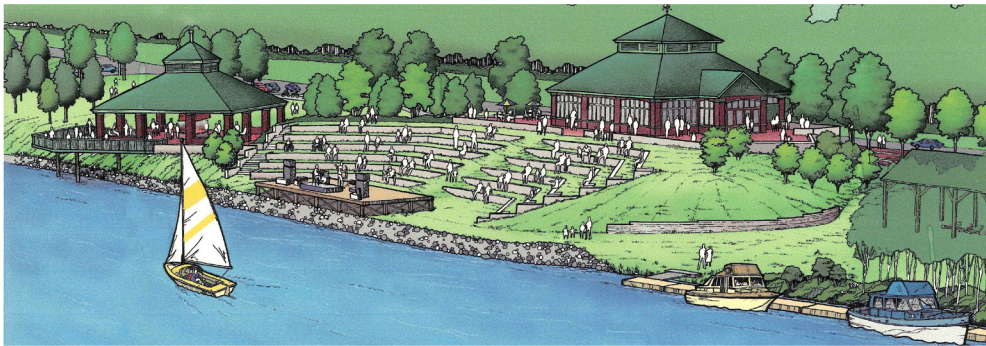
Trailhead Markers: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Other Labels: Potomac River, Annapolis Ave, Washington Ave, Huntington Ave, Thompson Ave, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Naugatuck River Greenway Routing Study
Waterbury, Connecticut

WHITEHALL CANAL HARBOR

new york state thruway authority



Implementation of the New York State Canal Recreationway Plan sparked development of canal harbors at strategic locations along the various components of the statewide canal system. Whitehall is the northern terminus of the Champlain Canal and the birthplace of the U.S. Navy, and has undergone major improvements to its harbor.

Weston & Sampson (formerly Fraser Associates) helped to transform the harbor site with changes to public parking, the rehabilitation of the canal wall, the addition of floating docks for transient boaters, a boat launch and a promenade along the canal wall, a 2-mile extension of the Canalway Trail, a new 2,000 square-foot recreation center, an open air pavilion and amphitheater, and a gateway gazebo. The total design theme links the canal to the historic Village of Whitehall.

Our services included boundary line, topographic and utility surveys, design services from schematics through construction documents, and construction period services. The project construction budget was \$1,292,000.

client contact

Joseph Savoie
Acting Director Canal Design Bureau
New York State Canal Corp.
518-471-4378

MASSDOT STATE-WIDE ACCELERATED BRIDGE PROGRAM

massachusetts department of transportation



Weston & Sampson was selected to provide engineering and technical support services to the MassDOT for various types of highway and bridge projects under the state's Accelerated Bridge Program. Assignments under this program include a range of services, such as project scoping, design reviews, highway/bridge design, geotechnical studies, environmental studies, construction phase services, special studies, report and document preparation and emergency assignments.

Hugh Farren Pedestrian Bridge Rehabilitation

As part of our on-call contract with MassDOT, Weston & Sampson is assisting with the inspection, design and construction administration for rehabilitations to the Hugh Farren Pedestrian Bridge in Boston. The DCR-owned bridge, built in 1940, spans across Old Colony Avenue, a six-lane roadway, and is listed as a contributing element to a National Register-listed historic district. It provides access to Moakley Park for the Mary Ellen McCormack Housing Complex (BHA). The bridge was constructed using a center cast-in-place reinforced concrete pier with cantilevered ramps, decks and continuous steel railings.

Weston & Sampson provided structural and geotechnical inspection services to determine the soundness of the steel decking and railings as well as the concrete pier. Our team also provided environmental testing to determine if lead is present in the deck and railing paint.

Weston & Sampson's engineers determined that the concrete foundation could be reused in the rehabilitation design. The design also includes structural repairs to the steel girders, replacement of the bridge deck, as well as new ADA-compliant handrails.

The rehabilitation project cost \$1.5 million and was completed in Summer 2013.

client contact

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Boston, Massachusetts 02116
857-368-9323

Weston&Sampson®

DRIFTWAY MULTI-USE TRAIL, PHASE II

town of scituate, massachusetts



Weston & Sampson was retained by the Town of Scituate, Massachusetts to provide engineering design and construction administration services for improvements to Phase II of the Driftway Trail.

The project involved the construction of approximately 2000' of new multi-use trail along New Kent Street and approximately 3000' of an exclusive bicycle lane, completing Phase II of a 10-mile system within the town.

The project required environmental permitting, construction of a low retaining wall, ADA/AAB compliance, and safety upgrades, including new timber rail construction, signs, and pavement markings. The project also required installation of a root barrier system to protect the trail from knotweed, an invasive plant species.

client contact

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Scituate Conservation Commission
600 Chief Justice Cushing Highway
Scituate, Massachusetts 02066
617-545-8721

SOUTHWICK RAIL TRAIL - PHASE I

town of southwick, massachusetts



Weston & Sampson recently completed contract documents for the construction of a three-mile bikeway, which makes use of the former Penn-Central Railroad right-of-way.

The bikeway passes through farm, residential, and wetland areas and includes one at-grade roadway crossing, one bridge, and one tunnel. The cross section consists of a ten-foot-wide paved path and two foot shoulders.

The bikeway begins at the Connecticut/Massachusetts stateline and extends for three miles north to the intersection of Point Grove Road where it will pass under the road in a tunnel. All work is being designed and constructed in conformance with the Massachusetts Highway Department's Standard Specifications.

- **restoration of stone arch bridge**
- **design of new prefabricated pedestrian bridge**
- **design of precast tunnel under point grove road**
- **trailhead parking areas at miller road**
- **grade bikeway crossing at congamond road**

client contact

Richard Grannells
Engineer
Town of Southwick, Massachusetts
413-569-5001

NORTH SUBURBAN REGIONAL BICYCLE TRANSPORTATION PLAN AND PHASE I DESIGN

lynnfield, north reading, reading, wakefield, and wilmington, massachusetts



Weston & Sampson prepared the final master planning and preliminary design and construction documents for Phase I of the North Suburban Regional Bicycle Transportation Plan.

The North Suburban Regional Bicycle Transportation Plan is a network of 50 miles of trail through the communities of Wilmington, North Reading, Reading, Wakefield, and Lynnfield. Renovated state highway roads, rural country roads, downtown roads with parking, off-road trails, and abandoned railroad lines make up this system.

This trail was designed to provide an alternate means for residents to commute instead of driving by automobile. By linking main corridors with other transportation modes, such as train and bus, it is intended to reduce the number of vehicles on the road to improve safety, health, the cost of living, and the environment.

Creating this network of bike trails is not only helpful to commuters, but serves a recreational purpose as well. People can use these trails to get away from urban sprawl.

Wilmington - This town offers many commercial areas that are easily accessible along these bike trails. This provides many possibilities for trail heads and rest areas. The trails also connect to various transportation hubs, schools, the downtown, and Silver Lake.

North Reading - This town provides many areas that accommodate casual biking and access to pleasant surroundings. There are commercial areas where trail heads could be developed, but the overall character of this experience is rural. The trails connect to schools and the Harold Parker State Forest.

Wakefield - Attracting people out of the urban development of downtown and to the neighboring rural towns can be achieved with the bike trails. They also connect transportation hubs, the "Bike to the Sea," Lake Quannapowitt, and the rail trail through Lynnfield connecting to the Peabody line.

Reading - This town offers quiet roads that lead to an attractive but busy downtown commercial district. There is an excellent opportunity to create a central gathering area downtown. In addition to aesthetic aspects of the trail and trail head system, commuters are able to utilize the trails to access other transportation modes.

Lynnfield - The trail network through this town is primarily off-road trails that occupy abandoned train lines or trails through the woods. These trails offer attractive ways to get people to and from destinations without conflicting with vehicles and create the perception of being in the country.

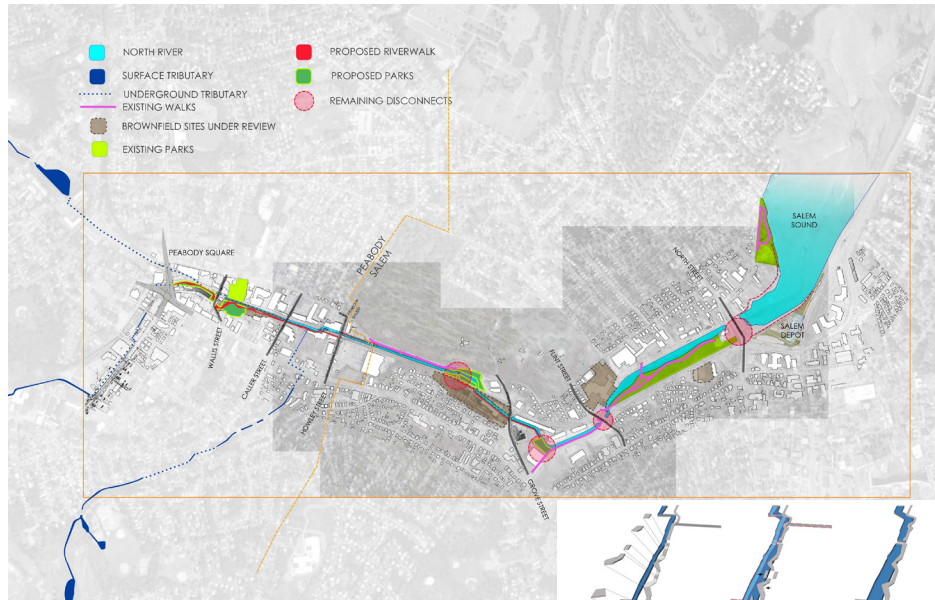
- **extensive coordination with multiple town officials and PAC groups**
- **on-road and off-road alternative corridors**
- **extensive shared road bike routes/substandard roads**

client contact

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Town of North Reading, Massachusetts
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PEABODY | SALEM RIVERWALK

metropolitan area planning council & cities of peabody and salem, ma



2012
American Planning Association
Massachusetts Chapter (APA-MA)
Planning Project Award



Weston & Sampson was selected by the Metropolitan Area Planning Council (MAPC) to manage and administer their EPA Coalition Brownfields Grant with the cities of Peabody and Salem, Massachusetts. Weston & Sampson assisted MAPC and the two cities to:

- Identify potential Brownfields sites
- Develop an inventory and GIS-based mapping
- Prioritize sites for assessment
- Engage the community
- Comply with the Massachusetts Contingency Plan (MCP)
- Provide Licensed Site Professional (LSP) services
- Conduct reuse planning and visioning
- Coordinate with other contractors

The project's primary focus is the corridor between Peabody Center and the North River in Salem. This is an area of extensive flooding, and the Brownfields assessments are intended to focus on properties that will be impacted by a major flood mitigation project that the cities are conducting to alleviate periodic flooding in the area. By assessing properties prior to construction, it is anticipated that environmental issues that can affect the flood mitigation project can be identified, and the planning for construction can include those elements.

Weston & Sampson conducted a number of community outreach and public information meetings to present the program. Weston & Sampson, working with MAPC, EPA, and the planning departments of the cities of Peabody and Salem, prioritized sites and allocated resources to assess the various parcels.

Weston & Sampson led the community process, which yielded a rich and diverse strategy for reuse of this important corridor. Boardwalk segments put in place now would have to be relocated when the Army Corps of Engineers widened the river as part of their flood mitigation efforts. This informed a temporary / permanent strategy for boardwalk construction.

Extensive illustrative graphics and text were crafted to support this effort and create a viable roadmap for future development by identifying actionable outcomes, goals and objectives.

- **EPA brownfields coalition grant**
- **riverwalk planning**
- **boardwalk design**
- **site assessment / LSP services**
- **reuse planning**
- **community outreach**
- **visioning**
- **leverage of funding**
- **corridor project**

client contact

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Brendan Callahan, Senior Planner
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Community Development & Planning
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Tom Devine, Conservation Agent/Staff Planner
City of Salem, MA
Department of Planning & Community Development
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MAPC Brownfields Coalition Grant Cities of Peabody and Salem Riverwalk Visioning Study Summary Report



March 2013

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SpurrSM
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DESIGN STUDIO

MAPC Brownfields Coalition Grant
Cities of Peabody and Salem
Riverwalk Visioning Study Summary Report

March 2013

Introduction:

Weston & Sampson has prepared this Riverwalk Visioning Study Summary Report on behalf of the Metropolitan Area Planning Council (MAPC) and the Cities of Peabody and Salem. The project was funded by the United States Environmental Protection Agency (EPA) through a Brownfield Coalition Grant.

A key goal within the overall Brownfields Coalition Grant was to create a vision for a Riverwalk between the communities of Peabody and Salem along the North River that would create a continuous pedestrian greenspace from Peabody Square to Salem Sound. The conceptual vision for the Riverwalk weaves together plans for future widening of the river to accommodate flood storage, remediation of existing brownfield sites and efforts to revitalize the overall health of the river as a viable ecological corridor thus creating a uniquely energized urban greenway experience spurred by a new collaboration between these two cities.

A secondary objective is creating a parallel track to Main Street in Peabody, currently under renovation and redesign.

The North River Corridor:

The North River basin is a large urban watershed fed by several smaller urban streams including; the Goldwaith, Strongwater and Proctor brooks. Historically the North River was the heart of a thriving industrial corridor. Lands adjacent to the North River were heavily utilized by mills, leather tanneries and factories while water from the river was used for both the processing and disposal of these industries. The river was channelized during the 19th Century to accommodate railroad tracks along its banks. The railroad corridor and right-of-way exists and is utilized on an infrequent basis to transport freight. The dissipation of these industries over time has left the river dotted with large vacant parcels of underutilized, potentially contaminated land that has impeded the quality of life with the corridor's communities of Peabody and Salem.

The river begins below the site of a former commercial building on Wallis Street and flows channelized to the Peabody Salem border becoming tidal at this point and continuing to flow eastward widening at Salem Sound and merging with the Danvers River. It is the largest fresh water tributary to Salem Sound. The Riverwalk Vision includes a new boardwalk to complement the proposed widening project in Peabody as well as a new path created adjacent to the current channel in the Salem stretch.

Peabody Passage:

The initial work of the study gave actual form and layout to the Peabody section of the Riverwalk based on clearly stated goals and objectives from the community and past planning efforts by the City. As early as 1990 it was recommended the river be 'reclaimed as the centerpiece of a new urban park'. A design competition was held for a riverwalk in 1993 and a comprehensive master plan focusing on the Riverwalk was produced in 2001.

Goals key to our design effort included:

- Preserve and enhance the ecology of the river corridor
- Create a new urban park
- Provide greenspace
- Enhance views
- Link historic and cultural sites
- Create recreational opportunities
- Create an auto-free zone for pedestrians



The first section to be conceptualized was the stretch between Wallis and Howley Streets. This stretch is unique in that it is the main focus of the future widening project. The river is currently ten feet in width and is channelized by granite walls on either side. The south bank of the river, which has been established as a construction easement and is the site for the Riverwalk and the future widening currently varies in width from 10 to 48 feet. The proposed widening project calls for a canal 38' in width which narrows the remaining bank.

Given the timeframe for the widening construction we worked closely with the City to propose a temporary and a permanent park solution, both working within the linear easement for future construction. The short term solution takes advantage of the wide south bank

of the river prior to the widening and proposes a long linear green park with a boardwalk winding through it. The boardwalk does not form a straight line but rather bends and winds its way along the south bank mimicking the current of the river. It narrows to a width of 10 feet allowing ample flow for pedestrians and widens in specific areas to accommodate areas for seating and viewing the river. The unique bends in the boardwalk allow for the creation of larger pockets of planted green space.

The boardwalk is designed to be fabricated in smaller segmented panels which could be constructed in the near future then dismantled and reassembled to use in the permanent riverwalk solution once the widening has been completed. The permanent solution allows for sections of the original boardwalk to cantilever over the water creating a unique pedestrian connection between land and water integrating the riverwalk experience into the edge of the widening. The planting strategy for both the temporary and permanent solutions aims to slow and cleanse the flow of water into the river as well as tie into existing urban forestry efforts. The plantings will be native species appropriate to urban environments as well as those pertinent to riparian corridors.

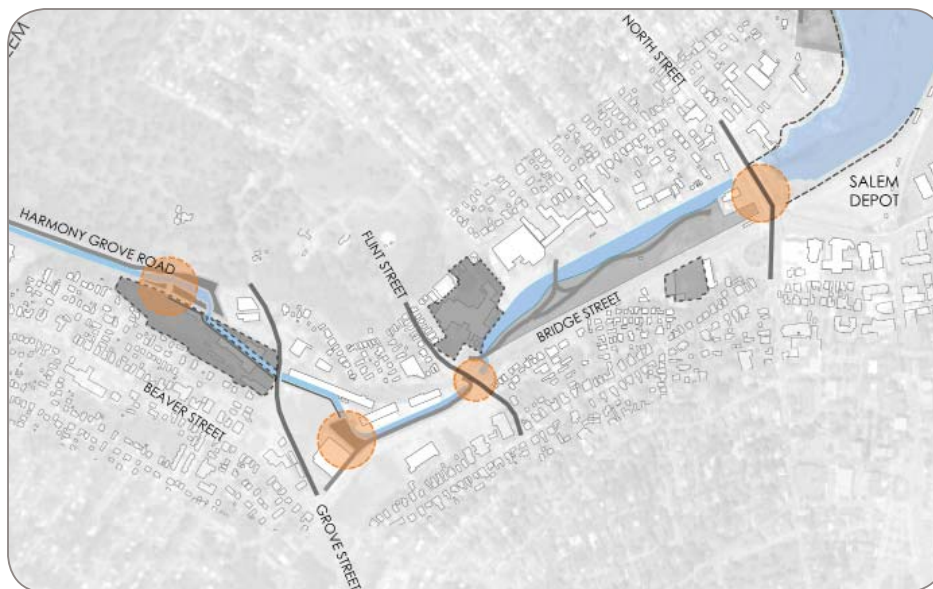


A key historical and cultural link to the Peabody Institute Library is also made in this segment of the Riverwalk. The library abuts land adjacent to the North River. The design creates an urban terrace to the rear of the library that overlooks the river and steps down to meet a large open greenspace which opens onto the Riverwalk. The greenspace is mirrored by a new park at 45 Walnut Street, on the north side of the river, currently under construction. This site was a former brownfield which has been remediated and repurposed as a public park.

Salem Passage:

Salem already has established parks and open spaces existing along the banks of the North River. However these parcels are disparate and create a discontinuous pedestrian corridor. Our task with regard to the Salem sector was to recommend sites that would link these existing parcels as well as review projects currently in various planning stages along the river to ensure these plans make an allowance for a pedestrian connection appropriate in material and scale to the rest of the Riverwalk. Our scope included existing Leslie's Retreat Park, newly constructed Furlong Park, future plans for the MBTA Salem Depot station and two parcels included as part of the brownfield component of the grant, Salem Oil and Grease and 28 Goodhue Street. Tying existing open spaces with future developments and creating a seamless connection at the Salem Peabody border.

The development of the former Salem Oil and Grease site will be occupied by three apartment buildings and has proposed a 10' wide bituminous concrete walkway running west from Grove Street along the North River ending at the entry drive to the development. A 6' wide planting buffer between the edge of the river and the walkway is slated to be planted with various native shrubs, groundcovers, bulbs and small flowering trees. Close to the Grove Street entrance of the walkway a pedestrian bridge will cross the river and connect the site internally to the existing office building on the north side of the river. Our recommendation in the masterplan for this particular site is to include a pedestrian connection over the north river adjacent to the entry drive which would connect the proposed walk through this site with the existing walk on Harmony Grove Road.



Future development of the 28 Goodhue Street has proposed a four story structure with commercial retail on the first level and three stories of residential units above. It includes a ten foot wide bituminous concrete walkway with a three and a half foot planted buffer between the edge of the river and the walkway. It connects to the existing sidewalk on Grove Street and runs along the river ending at the property boundary to the south. Parking for the development runs parallel to the walkway with a landscaped buffer of varying widths between. A self storage facility sits south of this site and does not have a walkway adjacent to the river which creates a disconnect. Our recommendation in this study, is to extend the walkway from the property boundary of the 28 Goodhue Street site, run it along the river, and connect back out to Bridge Street where a recently completed concrete sidewalk follows the edge of the North River to Flint Street, an existing entry point for Leslie Retreat Park.

Our study also examined another area of pedestrian disconnect between the end of Leslie Retreat Park and the future development of the Salem Depot Station. Existing rail tracks, which accommodate occasional rail freight, run along the ground level of this site and the bridge crossing for Route 114 sits above. It is a challenging site with pedestrians forming their own points of access across the tracks and the majority of the site sits in shadow from the bridge above. Pedestrians currently cross the tracks at two points, one being the end of Leslie Retreat Park and the second crosses the tracks north and runs along the eastern abutment of Route 114 along private property. Both points of access pose a safety issue and our study recommends formalizing the two points with at grade crossings and appropriate signaling. Weston & Sampson developed conceptual renderings for the space under the bridge which has the opportunity to become a unique pedestrian space passage to the Salem Depot. The renderings illustrate a walkway flanked by a landscape which is comprised of typical railway construction materials possibly recycled, illumination of the structural elements of the bridge to make the passage safe at night and planting pockets where enough light would penetrate to allow for successful growth.



Summary:

Our efforts concluded in the production of a riverwalk conceptual masterplan illustration. This document depicts the new layout for the Riverwalk and green open space spine system in Peabody, identifies existing open spaces along the North River in Salem, lays out current plans for two brownfield parcels in Salem and highlights areas of disconnect where new segments of riverwalk should be implemented.

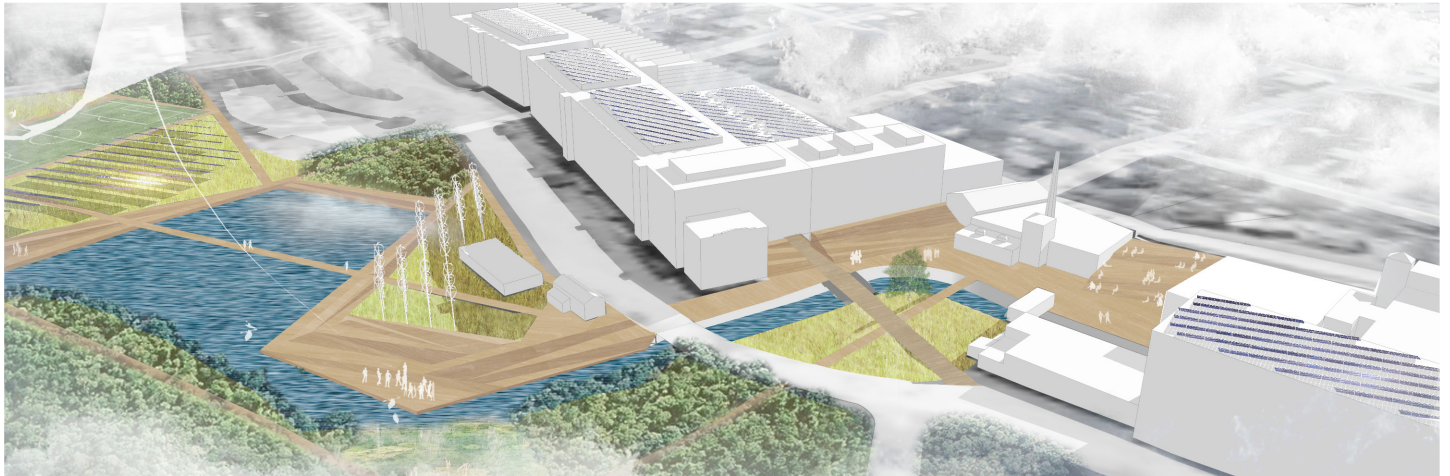
The overall process mapped current and future open space efforts the City of Peabody has on the table against the new riverwalk design demonstrating how these efforts would only be strengthened by this new resource. Re-connecting the two cities via this resource will bring a renewed focus to the North River corridor which will help stimulate it's rebirth as a vibrant component of these two communities.

More importantly the study and the grant as a whole brought these Cities to the same table creating a cohesive vision through a successful collaboration between Peabody and Salem.



EPA BROWNFIELD AREA-WIDE PLAN, SANFORD MILLYARD

town of sanford, maine



BOSTON SOCIETY OF ARCHITECTS 2012 DESIGN AWARD FOR PLANNING
BOSTON SOCIETY OF LANDSCAPE ARCHITECTS 2013 MERIT AWARD FOR
LANDSCAPE ANALYSIS AND PLANNING

Weston & Sampson was selected by the Town of Sanford to lead the Brownfields Pilot Area-Wide Planning Grant, funded by the Environmental Protection Agency (EPA). Sanford was one of only three communities in Region 1 to secure this highly competitive grant. Our multi-disciplinary team understood that in order for Sanford to reach a new, more sustainable prosperity, it must take bold action. Sanford's impressive success in securing EPA funding for the assessment, clean-up, and planning of its Millyard Area was a significant step in the right direction. The premise for our work that supported Sanford's commitment to high quality growth: economic success and quality places go hand in hand.

In order to revive the Millyard Area as a successful enclave, the area must be considered as an employment base and primary economic growth area for the town. This first concept is also based on actively engaging existing residents and business owners who are currently the lifeblood of Sanford. Secondary to that theme (and one that need not necessarily run counter to the industrial legacy of Sanford) is improving and enhancing the natural resources of the district, specifically the Mousam River and #1 Pond. The third theme is using this district redevelopment as an opportunity to improve the quality of life for the residents and create a compelling environment that will draw first-time home buyers, emerging businesses, and retail to form a vibrant mixed-use destination. With these successes in hand, Sanford will become the most sought-after neighborhood in perhaps not just Southern Maine, but all of inland Maine.

Our team of landscape architects, urban designers, planners, architects, environmental engineers, infrastructure experts and structural engineers worked hand in hand with economic redevelopment specialists to define a sustainable vision for the Millyard that included early action phasing and longer term goals. An extensive community outreach process involving the latest technology in representation and audience response systems created an excitement that has continued throughout the life of the project.



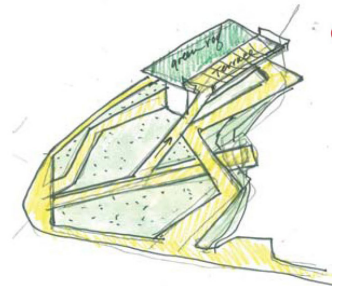
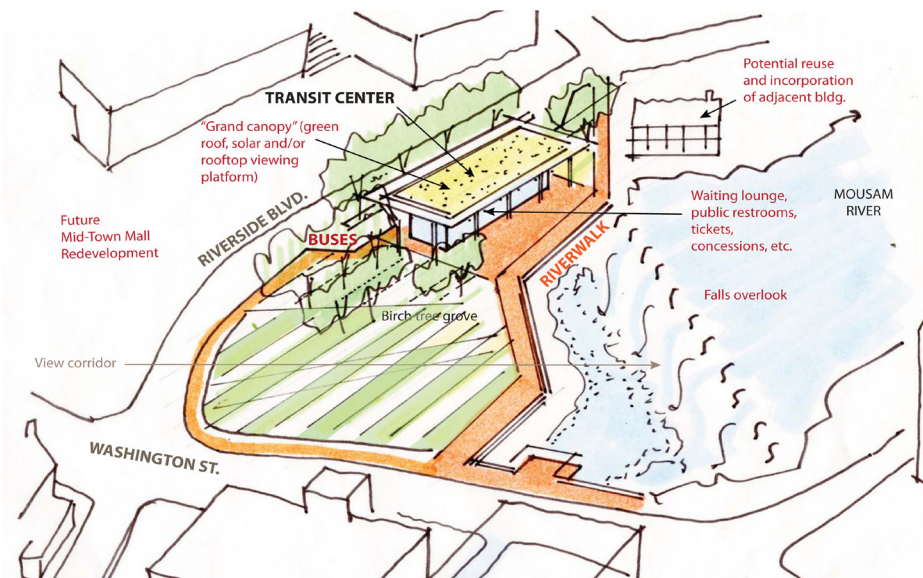
client contact

James Q. Gulnac, AICP
Planning Director
Town of Sanford, Maine
207-324-9150

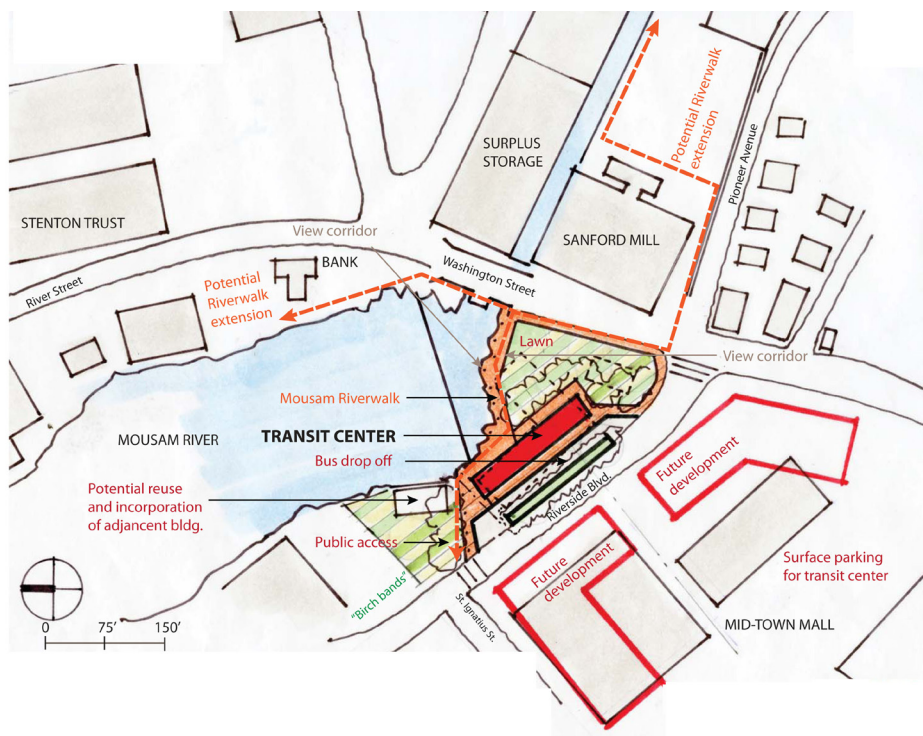
EPA BROWNFIELD AREA-WIDE PLAN, SANFORD MILLYARD (CONT.)

Weston & Sampson's involvement has created opportunities for new development in the Millyard area, opened possibilities for collaboration with mill owners, identified and supported grant writing efforts for future improvement funding, and orchestrated renewable energy potential for hydro, solar, and geothermal power solutions.

In conjunction with the Planning Grant the City of Sanford received additional funding for a park at the corner of Washington Street and Riverside Boulevard overlooking the falls. Weston and Sampson provided a conceptual design for this prominent urban corner which includes; passive green space, an extension of the riverwalk along the Mousam and a location for a new transportation center.



Concept sketches







MEMORANDUM**TO: Interested Parties****FROM: Cathy Buckley Lewis, Bicycle-Pedestrian Coordinator****RE: Reconnaissance Study of the Saxonville Branch Right-of-Way**

The Towns of Framingham and Natick in early 1999 requested that CTPS conduct a study of potential trail use of the Saxonville Branch railroad right-of-way (ROW). Trail use of the ROW will depend on many factors, including availability of the ROW, private and public interest, and availability of funding. Preparation of this report does not represent a financial commitment to any future phase of the proposed trail.

This preliminary reconnaissance study is divided into the following sections:

- Past and Current Rail Use;
- Ownership;
- Description of Right-of-Way;
- Crossings;
- Potential Trail Use;
- Trail Feasibility; and,
- Next Steps.

The proposed trail on the Saxonville ROW has been described at three public forums. On May 27, 1999, a fact-finding session held at the Natick Town Hall was attended by members of the Natick and Framingham Bicycle-Pedestrian Committees, the co-sponsors of the meeting, and by other citizens and business representatives of the area. On June 9, a public information meeting was held in Framingham and a presentation was made at the Lake Cochituate Annual Meeting.

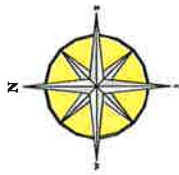
Past and Current Rail Use

The Saxonville Branch ROW extends from Natick Center to a point just north of School Street in the Saxonville section of Framingham, a distance of 3.8 miles. This ROW diverges from the Framingham/Worcester main line just west of the Massachusetts Bay Transportation Authority (MBTA) Natick commuter rail station (see Figure 1 and Photo 1). The southern 2.3 miles provides freight service (see Figure 2). The northern 1.4 miles of the line is abandoned; track was removed several years ago from this section north of Route 30 (see Figure 3). About 700 feet of the line, just south of Route 30, is neither abandoned nor used.








Although the Saxonville Branch has been primarily a freight line, it also provided passenger service.

FIGURE 1

Saxonville Branch



LEGEND

-  State Parks
-  Other Protected Open Space
-  Rail operation, passengers and freight
-  Rail operation, freight
-  Rail abandoned or out of service: not publicly owned
-  Aqueduct
-  MBTA commuter rail station



CTDES

12/10/99

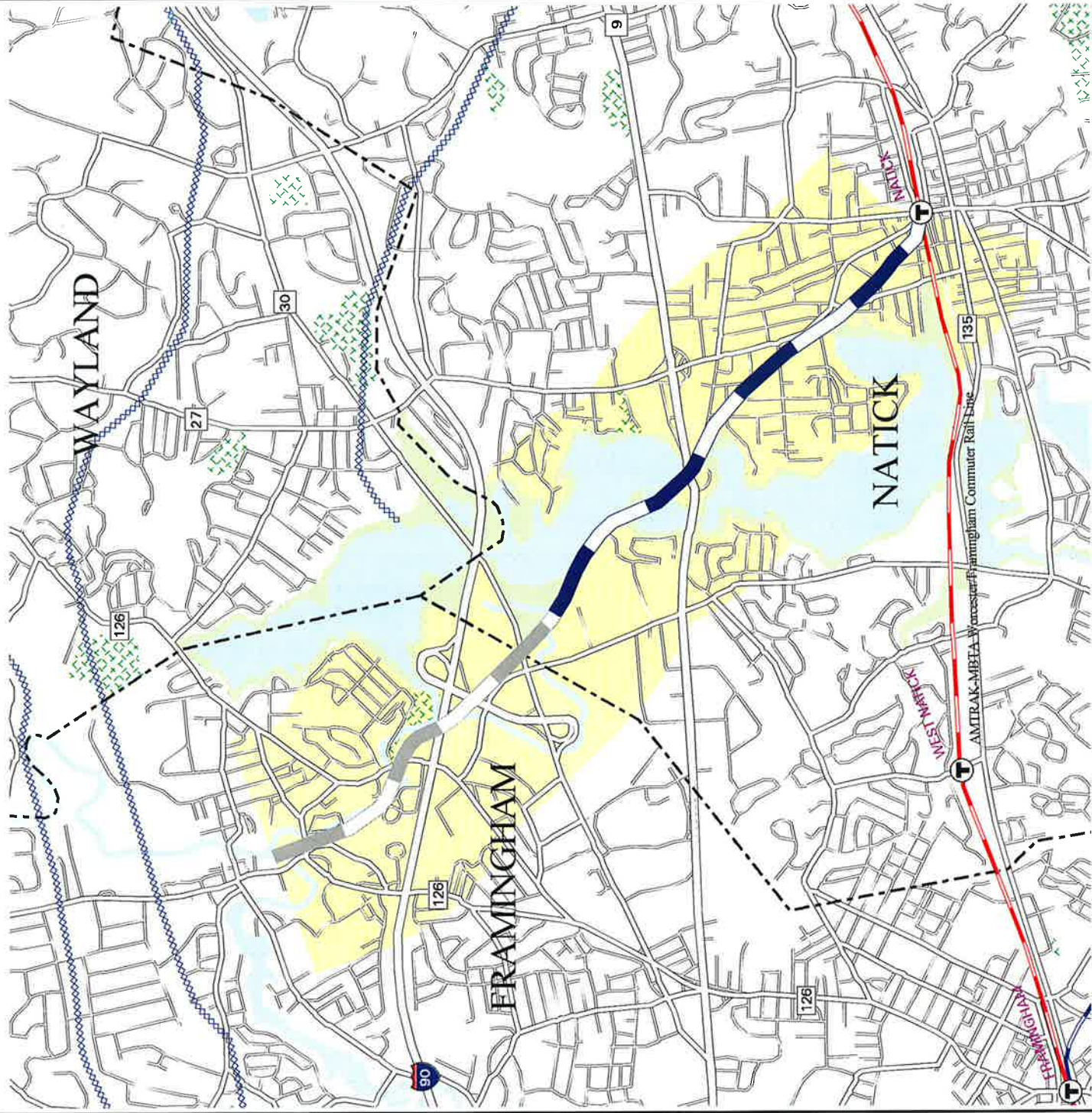
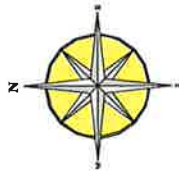









FIGURE 2

Saxonville Branch

Active Section



LEGEND

-  State Parks
-  Other Protected Open Space
-  Rail operation, passengers and freight
-  Rail operation, freight
-  Rail abandoned or out of service; not publicly owned
-  Aqueduct
-  MBTA commuter rail station

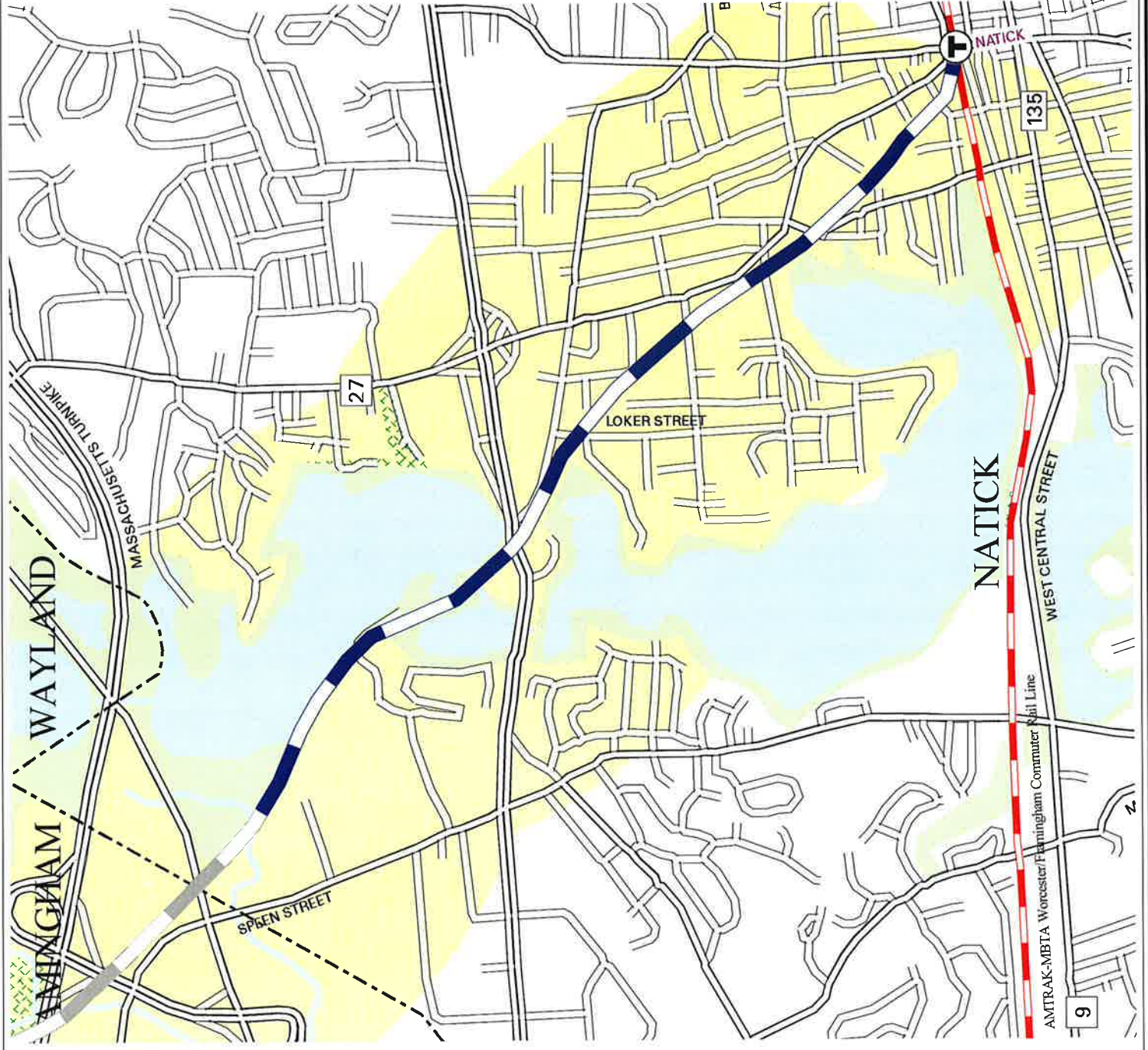
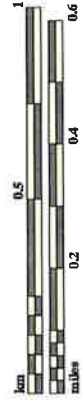
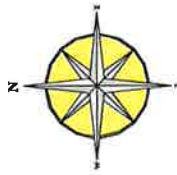









FIGURE 3

Saxonville Branch

Inactive Section



LEGEND

-  State Parks
-  Other Protected Open Space
-  Rail operation, passengers and freight
-  Rail operation, freight
-  Rail abandoned or out of service: not publicly owned
-  Aqueduct
-  MBTA commuter rail station



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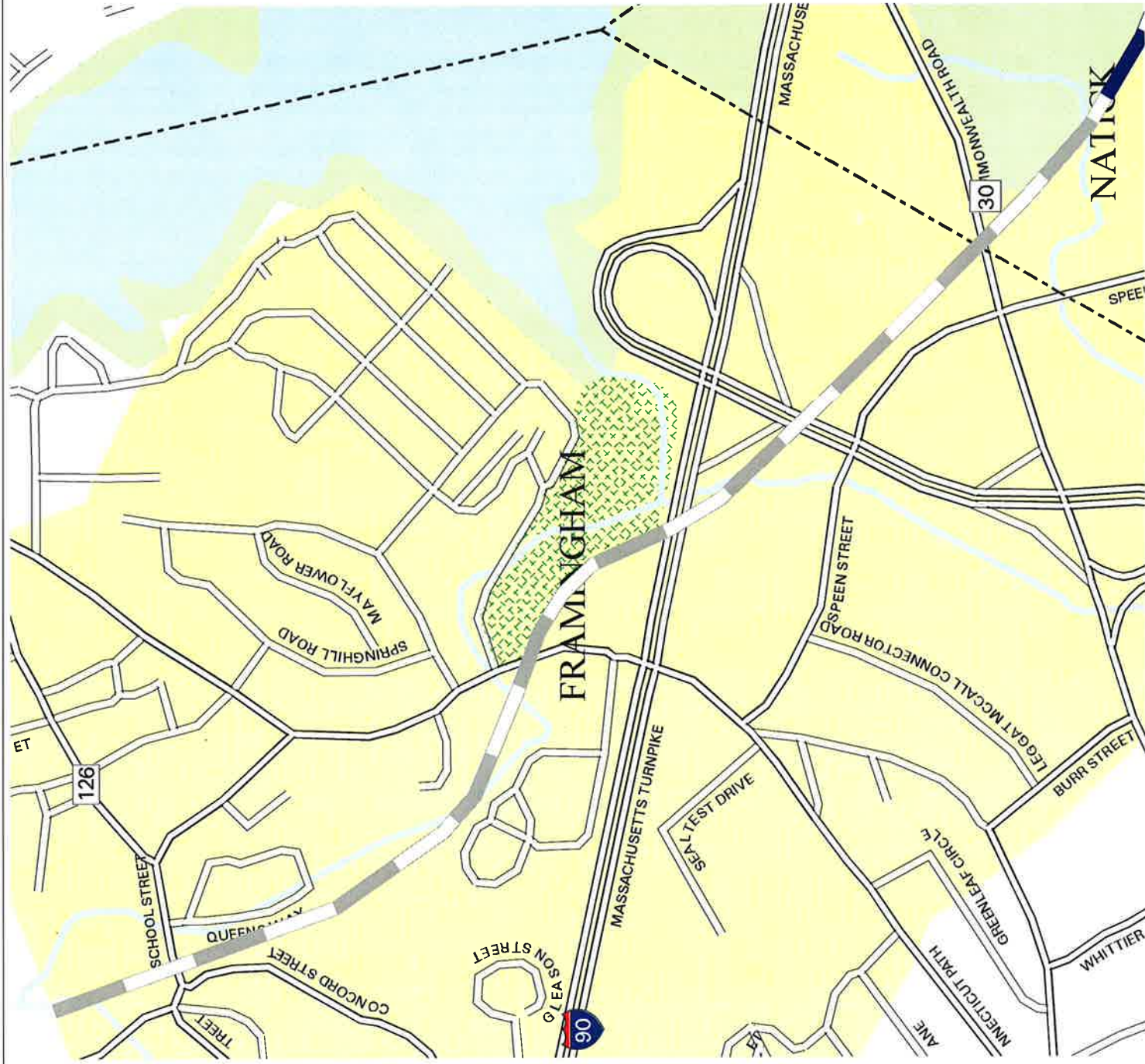




Photo 1: Saxonville Branch coming off main line in Natick Center.
 MBTA commuter rail train shown passing under Route 27 overpass.
 Photo taken just west of Natick commuter rail station.

Passenger Service

Passenger service on the Saxonville Branch began in 1846 with two daily round-trips between Saxonville and Boston. Old schedules show that service remained at this level until some time between 1912 and 1915, when it was reduced to a single round-trip. In 1936 this trip was replaced by a bus connection between Natick and Saxonville, but patronage was so low that service was provided by an automobile driven by the Saxonville station agent until passenger service ended in 1943. A probable reason for the paucity of passengers was that many residents of the Saxonville area were employed in local industries and did not commute to Boston.

The only passenger station on the Saxonville Branch shown in public timetables was Saxonville itself. Employee timetables, however, show that for many years there was also a station called Cochituate at the Route 30 crossing. There were also shorter-lived stations at the crossing of Route 9 and about halfway between Route 9 and Natick Center.

In 1888 a horse-drawn street railway line opened between South Framingham, Framingham Centre, and Saxonville. This line was converted to electric trolley service a few years later. In 1897 Saxonville was linked with Natick Square by another trolley line, which connected with trolley routes to several other points. In the 1920s trolley service to Saxonville was replaced by buses. (The route to downtown Framingham was the forerunner of the present town-operated LIFT bus route to Saxonville.)

Freight Service

The Saxonville Branch historically served a large number of industries, with the highest concentrations between Routes 9 and 30. Track maps indicate that the Framingham portion of the line (between Route 30 and Saxonville) was out of service by 1977. That segment was officially abandoned in the early 1980s.

For many years the heaviest freight user on the Saxonville Branch was a bakery on Speen Street that closed most of its operation in 1999. A contract to sell the property to a developer recently expired. There is one remaining freight customer on the branch, a food company located on the east side of Speen Street. According to the railroad, there are several trips a week on the line and no plans for abandonment.¹

Ownership

The Framingham/Worcester commuter rail line was chartered by the Massachusetts legislature in 1831 as the Boston & Worcester Railroad (B&W) and was owned and operated by the B&W. The line from Boston to Worcester opened in several stages between April 1834 and July 1835, reaching Natick in September 1834. The railroad opened the Saxonville Branch on July 6, 1846. Through an 1867 merger, the newly created Boston & Albany Railroad (B&A) acquired the line. Eventually, through a series of leases and mergers, the Saxonville Branch became the property of Conrail (Consolidated Rail Corporation).

The ROW passes under the Massachusetts Turnpike (I-90) and the turnpike's Interchange 13 ramps. The Massachusetts Turnpike Authority (MTA) owns the ROW from the Natick/Framingham line (at Route 30) to where it passes under the turnpike, a segment approximately 1,000 feet long. The northern section of the ROW, from the turnpike section to the northern terminus of the ROW, is owned by the MBTA.

In 1997, the other two major eastern freight railroads, CSX Corporation and Norfolk Southern Corporation, agreed to jointly acquire Conrail. The former B&A lines in New England, including the southern section of the Saxonville Branch, were acquired by CSX on June 1, 1999.

The MTA has approached adjacent landowners to see if they are interested in buying the ROW. The MTA knows of the interest in a trail, has indicated to prospective buyers that an easement for a trail would be required as part of the sale, and has talked to the Town of Framingham about transferring the easement to the town at no cost. The MTA is planning to maintain an easement in order to reach its ramp and roadway.

¹ Telephone conversation, April 19, 1999, with Conrail.

Description of Right-of-Way

Natick

The Saxonville Branch heads northwest from the main line at a point just west of the Natick commuter rail station platform and the Route 27 overpass.² (See Photo 1.) The ROW runs parallel to Route 27, on the west side. There are commercial and residential uses adjacent to the ROW, which is located in a cut. The ROW passes under Cochituate Street and then gradually rises to the same level as the adjacent land. It crosses Washington and Lake Streets at grade (no traffic controls). The next intersection is a signalized at-grade crossing of Kansas Street, which is the entrance to the Natick Army Labs. (See Photo 2.) The ROW then descends into a cut and crosses under Loker Street. This overpass is closed to motor-vehicle traffic. (See Photo 3.)

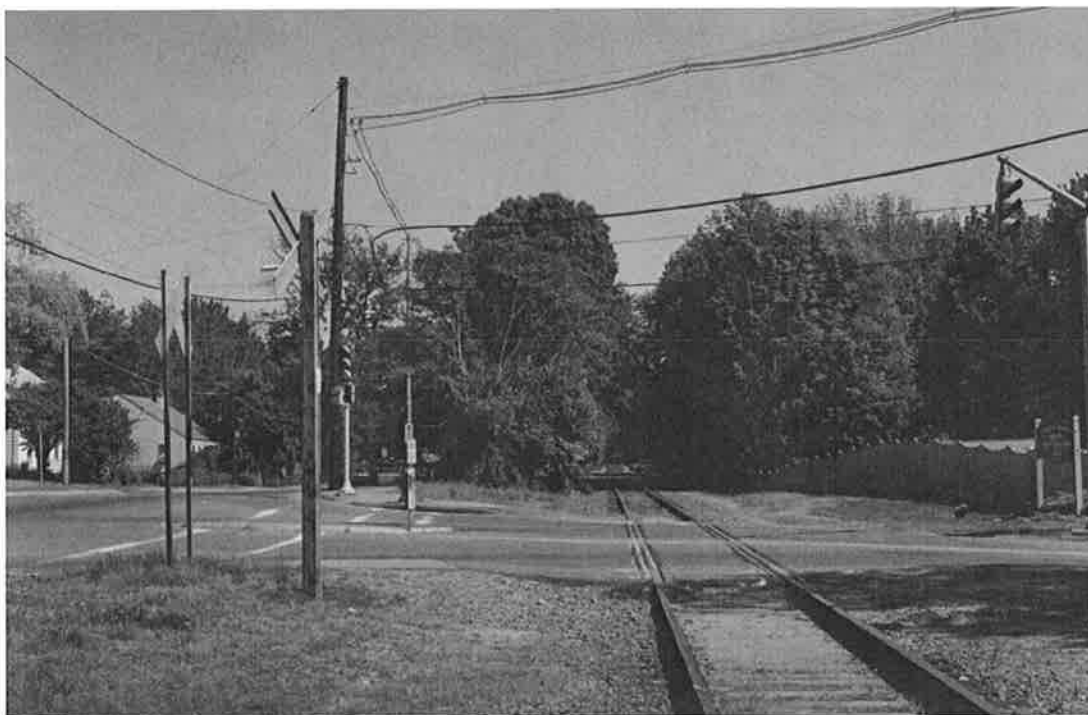


Photo 2: ROW crossing Kansas Street, Natick, looking south, just west of Route 27.

The ROW crosses Route 9 on a bridge (see Photo 4). The ROW is then on an embankment on the channel separating South Lake Cochituate and Middle Lake Cochituate. The ROW continues on an embankment, with a view of Middle Lake Cochituate on the east.

² Construction of this overpass began in 1897; until then the railroad ran at grade through Natick Center.



Photo 3: Loker Street overpass, Natick, looking west.

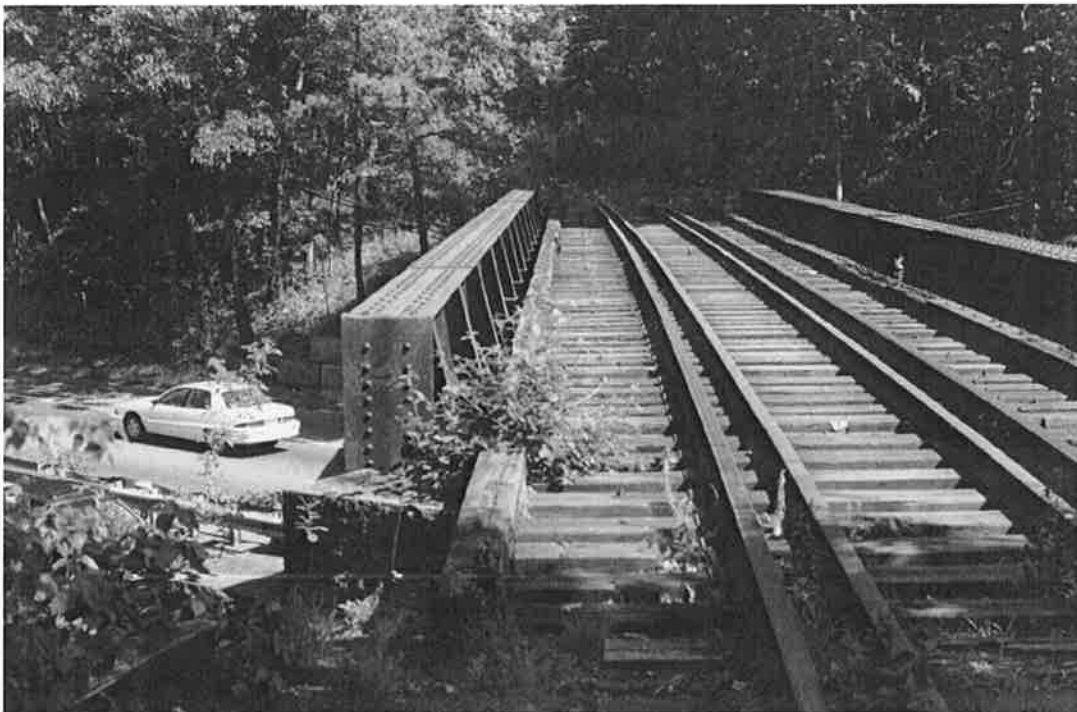


Photo 4: ROW crossing over Route 9, Natick, looking south.

Further north, there is a minor at-grade crossing (a driveway to a veterans club). The freight spurs then go off to the west, just south of where Chrysler Drive abuts the ROW. The active freight section ends just north of Chrysler Drive. At this point, there are commercial uses (office and retail) on both sides of the ROW.

Framingham

The ROW enters Framingham at Route 30 and proceeds between a sand and gravel company³ and a gas station. (See Photo 5.) Further on, office buildings are on both sides. The ROW crosses an entrance to an office development and then proceeds under the Speen Street ramps of the turnpike (see Photo 6). On the other side of the ramps, there are commercial uses on both sides of the ROW. The ROW then proceeds into a wooded area and under the turnpike. Beyond the turnpike, the ROW passes through woods, with commercial uses visible beyond.



Photo 5: Looking south along ROW from Natick across Route 30 to Framingham.
Sand and gravel company visible on right.

The ROW crosses Old Connecticut Path at grade. A bridge crossing Snake Brook is in some disrepair, although passable by pedestrians. The next crossing of Snake Brook is in similar condition. The ROW then crosses School Street at grade, just east of a signalized intersection. (See Photo 7.) The intact ROW ends in a parking lot of a closed shopping center.

³ A business owning an adjacent office building has an option to purchase this company.

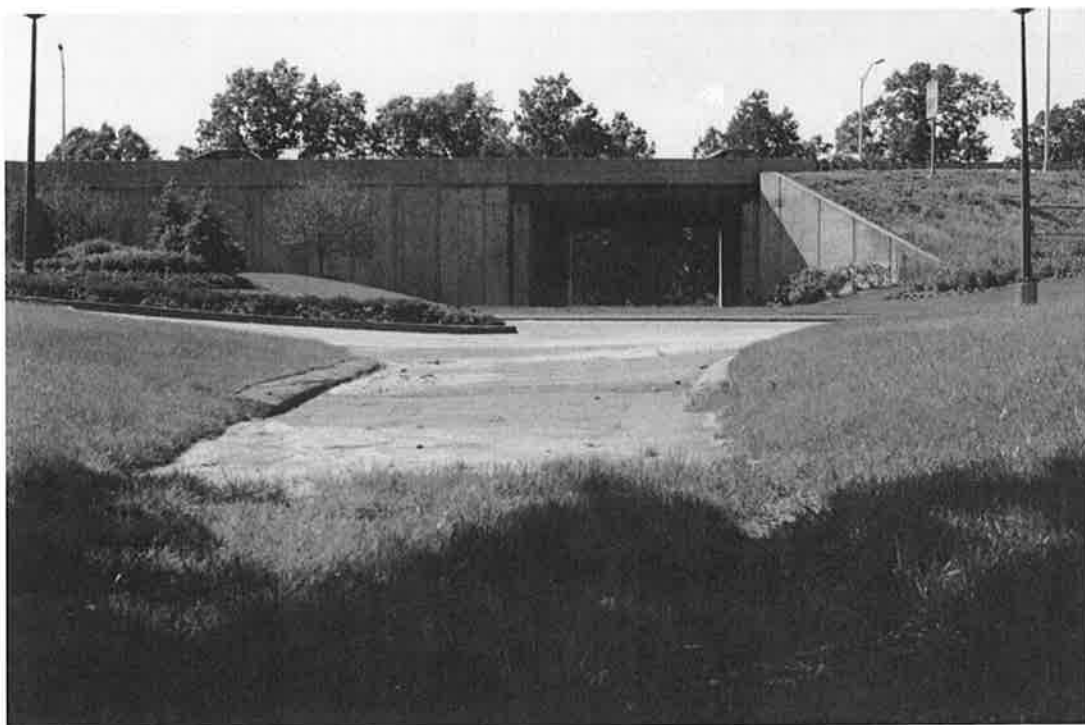


Photo 6: ROW passes across company driveway and under turnpike ramps in Framingham.



Photo 7: Looking south as ROW crosses School Street, just east of Route 126, Framingham.

Width

The ROW widths given in this report are based on assessors maps in Natick and Framingham. In general, the width varies between 25 and 100 feet, with most of the right-of-way 65 to 70 feet wide. All of the ROW is wide enough for a trail.

The ROW is 45 to 60 feet wide where it branches off the main line in Natick Center. It narrows a little near Willow Street and then becomes quite variable, becoming as wide as 150 feet north of LaGrange Street and as narrow as 45 feet just south of the Washington Street crossing. It is 65 feet at the Kansas Street crossing, about 80 feet at Second Street, and 100 feet at the Loker Street bridge. It is 80 feet wide just south of Route 9 and 70 feet just north of that highway. The width is 100 feet where the railroad spurs head west toward Speen Street. The ROW is 70 feet wide at the end of Chrysler road.

At the Natick-Framingham line the width is 65 feet, then gradually increases; it then fluctuates between 75 and 80 feet through the area of the turnpike. It is about 70 feet wide at either side of the Old Connecticut Path crossing. It then fluctuates between 85 and 48 feet until School Street, where it narrows to 25 feet.

Crossings

There are seven bridges and six roads that intersect with the ROW. Of the seven bridges, five separate the ROW from roads, two go over Snake Brook. No structural analysis of bridges was performed for this study. The only railroad bridge to go over a roadway is the Route 9 bridge, which carries freight traffic and can be assumed to be adequate for trail use. The four bridges that go over the ROW are those at Cochituate and Loker Streets and the two Massachusetts Turnpike (I-90) overpasses.

Of the six road crossings, two of these (Lake at Washington Street, and Fisher Street) are residential roads. Two (Routes 30 and 126) are arterials. School Street is a feeder road to Route 126. Kansas Street is the entrance to the U.S. Army Natick Laboratories. School Street and Kansas Street are the only crossings near traffic signals.

An advantage of an off-road trail is that it provides a place that is separate from motor vehicles. Trail users share road space with motor vehicles only at the road crossings. A trail on a railroad ROW generally has fewer crossings with roads than a comparable trip on the road system. That is, once the railroad is built, a road crossing must be a bridge or a tunnel, which are expensive, or an at-grade crossing, which requires road users to stop for trains. As a result, a railroad becomes a de facto barrier to crossings.

A rail trail allows a user to decrease the number of at-grade intersections required for a given trip. For example, one possible on-road route from Natick Center to

School Street in Saxonville would require going through approximately 50 at-grade intersections.⁴ The proposed rail trail would reduce this to 6 at-grade crossings.

Safety at the at-grade crossings is related to sight distance, which is the distance the trail and roadway users are from the intersection when they can be sighted. Fast-moving traffic clearly needs greater sight distances than slow-moving traffic. Trail users also need adequate warning of an upcoming intersection. The width of an intersection and the trail's angle of crossing determine the distance over which the trail user will be exposed to potential conflicts.

Potential Trail Use

A trail on the Saxonville ROW would serve multiple interests, including bicycling, walking, and skating, as well as people using wheelchairs and strollers. Weekend use would likely be greater than weekday use. Weekday utilitarian travel would include people traveling to employment and retail sites adjacent to or near the ROW, as well as those traveling to the commuter rail station to take the train toward Boston or Worcester. Bicycle racks are provided at the Natick station and bicycles are allowed on all off-peak commuter trains by the MBTA.

The ROW serves the "Golden Triangle" area of Natick and Framingham, which includes many shopping malls and other retail developments, as well as offices and hotels. With provisions to cross Speen Street, a trail could provide good access to these areas.

A major attraction for trail users would be Cochituate State Park, located on the northern edge of the lake, south of Route 30. The Massachusetts Department of Environmental Management (DEM) has indicated support for a Saxonville trail to provide alternative access to the lake.⁵ At present, it is very difficult to reach this area except by automobile. On hot summer days, the lot fills early and people in automobiles are turned away.

The ROW is located in an area that experiences high levels of traffic and is very challenging for bicycling. Speen Street, which is parallel to and west of the ROW between Route 9 and Old Connecticut Path, connects Routes 135, 9, 30, and I-90. Speen Street also provides access to many of the commercial and office areas. A trail on the Saxonville ROW would provide an attractive alternative to the busy roadway system.

A trail on the Saxonville ROW potentially could connect in the future with other proposed regional trails. The northern terminus is located within two miles of the Central Mass. ROW, which has been proposed for a trail. A trail on the Central Mass. (also known as the Wayside), which would go west to Berlin and east into Cambridge, also would allow a connection to the proposed Lowell-Sudbury trail (in Sudbury). The northern portion (Lowell, Chelmsford, and Westford) of that trail,

⁴ Using Route 27 to West Plain Street to Route 126 to School Street.

⁵ The connection between the trail and the state park would be determined during design.

also known as the Bruce Freeman Trail, is nearing 100% design. In Cambridge, the Central Mass. would connect to the Minuteman Bikeway at the Alewife MBTA station. There are also plans to connect the Minuteman to the Charles River Bicycle Paths via a potential rail trail on the Watertown Branch ROW.

Trail Feasibility

This preliminary study addresses only the feasibility of building a trail on this ROW. The trail feasibility factors considered are ROW width, bridges, road crossings, and environmental issues. Whether a trail will be built depends on many factors, including the availability of the ROW for trail use, private and public interest, and availability of funding.

Width

According to the AASHTO⁶ *Guide for the Development of Bicycle Facilities* (1999), the minimum width for a shared-use trail "under most conditions" is 10 feet. Widths of 12 or 14 feet are recommended for trails with "substantial" use. A minimum two feet of clearance on each side is recommended, with three feet on each side being desirable.⁷ Therefore the total recommended width is 14 to 20 feet. As indicated above, most of the ROW is 65 to 70 feet wide. Even the narrowest ROW section, at 25 feet, will accommodate a trail conforming to AASHTO design guidance.

Bridges

There are four bridges over the ROW: Cochituate Street, Loker Street, and the two turnpike (I-90) overpasses. The Cochituate Street bridge has recently been reconstructed. The turnpike bridges are well maintained and carry thousands of motor vehicles a day. The Loker Street bridge, closed to motor vehicles, carries only pedestrian and bicycle traffic.

There are three bridges that carry the ROW. One goes over Route 9; the other two go over Snake Brook. The Route 9 bridge is still carrying trains and is structurally able to carry a trail. If the trains were discontinued, the bridge would have to be retrofitted for trail use. The structural condition of the two Snake Brook bridges is unknown. Detailed analysis of the bridges will be required if the trail proposal advances to the design stage, to determine both the adequacy of the existing structures and what retrofitting would be necessary.

⁶ American Association of State Highway and Transportation Officials.

⁷ "Substantial" is not defined in the AASHTO guide. Even more than three feet of clearance is recommended under certain conditions. See pp. 35-36.

Road Crossings

There are six roads that the ROW crosses at grade level.⁸ From south to north, the first crossing is at Lake and Washington. The traffic volumes are relatively low here, and the sight distance from the west is good. The sight distance for motorists turning from the east is not as good, as the ROW crosses close to Route 27. The next crossing is at Kansas Street, the entrance to the U.S. Army facility, where there is a traffic signal. Sight distance from the west is very good. As at Lake and Washington, the traffic turning onto Kansas Street from Route 27 has less sight distance, and it is not stopped by the traffic signal.⁹ The volumes here are low.

The next intersection, Fisher Street, it is a minor residential street and the sight distances are good. The next crossing is at Route 30 (Cochituate Road). Traffic volume here is very high. Also, there is a heavily used commercial driveway immediately west of the ROW. There are traffic signals on Route 30 both at Speen Street¹⁰ and at a company driveway, which are about 100 feet east and west, respectively, of the ROW crossing. The possibility of having the trail crossing shifted to one or both of these signals could be addressed during design.

The next crossing is at Route 126 (Old Connecticut Path). Traffic volumes are moderate, speeds are relatively high, and sight distances are good. It takes some time to get a gap in traffic in both directions. The final crossing is at School Street, just east of Route 126. The traffic volumes here are relatively high and there are many turns. It is likely that the crossing would be moved slightly west to use the traffic signal at School Street and Route 126.

Overall, there are six at-grade crossings on the 3.8-mile ROW, or one at an average of every 0.6 miles. This number of crossings is reasonable, allowing trail users to have fairly long uninterrupted segments.¹¹

⁸ Several factors are important in considering a trail crossing a roadway. One is the amount of traffic. Another is the speed, which affects both how much time motorists and trail users have to react to each other, and in the case of a crash, the severity of injuries. The combination of sight distance and speed yields the available reaction time. Roadway crossings are addressed in detail in the AASHTO guide, which will serve as a basis for any future trail design.

⁹ Traffic turning right from Route 27 southbound to Kansas Street has a free right-turn-on-red. Traffic turning left from Route 27 northbound is stopped only when Kansas Street traffic is moving, which is when the trail traffic would be stopped.

¹⁰ There are plans to reconstruct the Route 30/Speen Street intersection.

¹¹ By comparison, there is an at-grade crossing an average of every 0.7 miles for the Minuteman Commuter Bikeway and every 0.6 miles for the proposed Central Mass. Trail. The Cape Cod and Norwottuck rail trails, in more rural areas of the state, have a grade crossing at an average of every 1.0 miles.

Environmental Issues

The two environmental issues addressed here are hazardous materials and wetlands. According to records of the Massachusetts Department of Environmental Protection, there are no known hazardous materials within the corridor.

Flood Insurance Rate Maps were used to assess flood plain issues. These maps use three land categories: Zone C (areas of minimal flooding), Zone B (areas between limits of 500-year flood and 100-year flood), and Zone A (areas of 100-year flood). Zone C is considered to be land that is not subject to flooding. Zone B is considered land subject to flooding in extreme circumstances and is given a 0.2 to 1.0 percent chance of flooding in a given year.¹² Zone A is land given a 1.0 percent chance of flooding in a given year.

The ROW appears to be in Zone C from Natick Center to the turnpike ROW. Immediately north of the turnpike, a short section is in Zone A. The ROW is again in Zone A at the two crossings of Snake Brook, and then alternates between Zones A and B until the terminus in Saxonville. In some cases, the ROW embankment is high and wide enough that a trail would have no impact on the adjacent lands that are zoned A or B. It might also be assumed that the original rail-bed embankment was designed and constructed to minimize exposure to flooding.

If a trail were to be built in these areas, requirements would be determined through orders of conditions issued by the local conservation commissions. Possibilities include compensatory storage (for increases in fill), a narrowing of the trail, or alternative construction methods such as boardwalks.

Costs

Assuming \$250,000¹³ per mile, the construction of a twelve-foot-wide, paved path along the entire Saxonville Branch would be about \$1,000,000. Using the same per mile figure, the construction cost estimate of the northern 1.4 miles in Framingham is \$350,000. These estimates could be high or low and would be affected by decisions made in design. Some conditions that would affect the ultimate price are installation of traffic signals and construction of boardwalk sections.

A general rule of thumb is that design costs for a project are about 10 percent of construction costs. Based on the above construction estimates, the design costs for the total project and the Framingham portion are \$100,000 and \$35,000 respectively.

¹² Zone B also includes: certain areas subject to 100-year flooding with depths of less than one foot or where the contributing drainage area is less than one square mile; areas protected by levies from the base flood.

¹³ The \$250,000-per-mile cost is based on recent costs of trail construction in Massachusetts. The Minuteman Bikeway, built from 1992 to 1993, cost approximately \$190,000 per mile. This included bridge work and intersection treatments.

Summary

Based on this preliminary level of analysis, a trail on the Saxonville Branch ROW appears to be technically feasible. The ROW width is adequate to design a trail meeting AASHTO guidance. Further analysis is required to determine how much bridge work would be required. Intersection locations will require detailed design in conformance with AASHTO guidance. There may be sections of the trail located in or near wetlands; the trail design in those areas would be established in conjunction with the local conservation commissions.

Next Steps

The southern portion of the Saxonville ROW is an active freight line owned by CSX; no termination of freight service is anticipated. This active rail use and private ownership of the ROW likely will preclude any trail use.

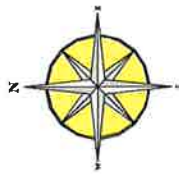
In the meantime, the town of Framingham and/or DEM could pursue the use of the northern portion as a trail. The northern portion could stand on its own as a connection to Cochituate State Park and to the commercial and office developments for those living north of Route 30.

Suggestions have been made to utilize the entire Saxonville ROW for other transportation purposes as well. Should rail freight service end, other uses of the ROW could be examined, possibly in combination with trail use. Public transportation use might include shuttle services to the Natick station. Some shuttle services, such as small electric trolleys, might be more compatible with trail use than other alternatives, especially fixed rail or even large diesel buses.








If there is interest in pursuing the northern section of the ROW for trail purposes, then the town, DEM, or other entity would need to work with the MTA and the MBTA. The MTA has already begun discussions with adjacent landowners and the town regarding disposition of its property along the Saxonville Branch ROW.

FIGURE 1

Saxonville Branch



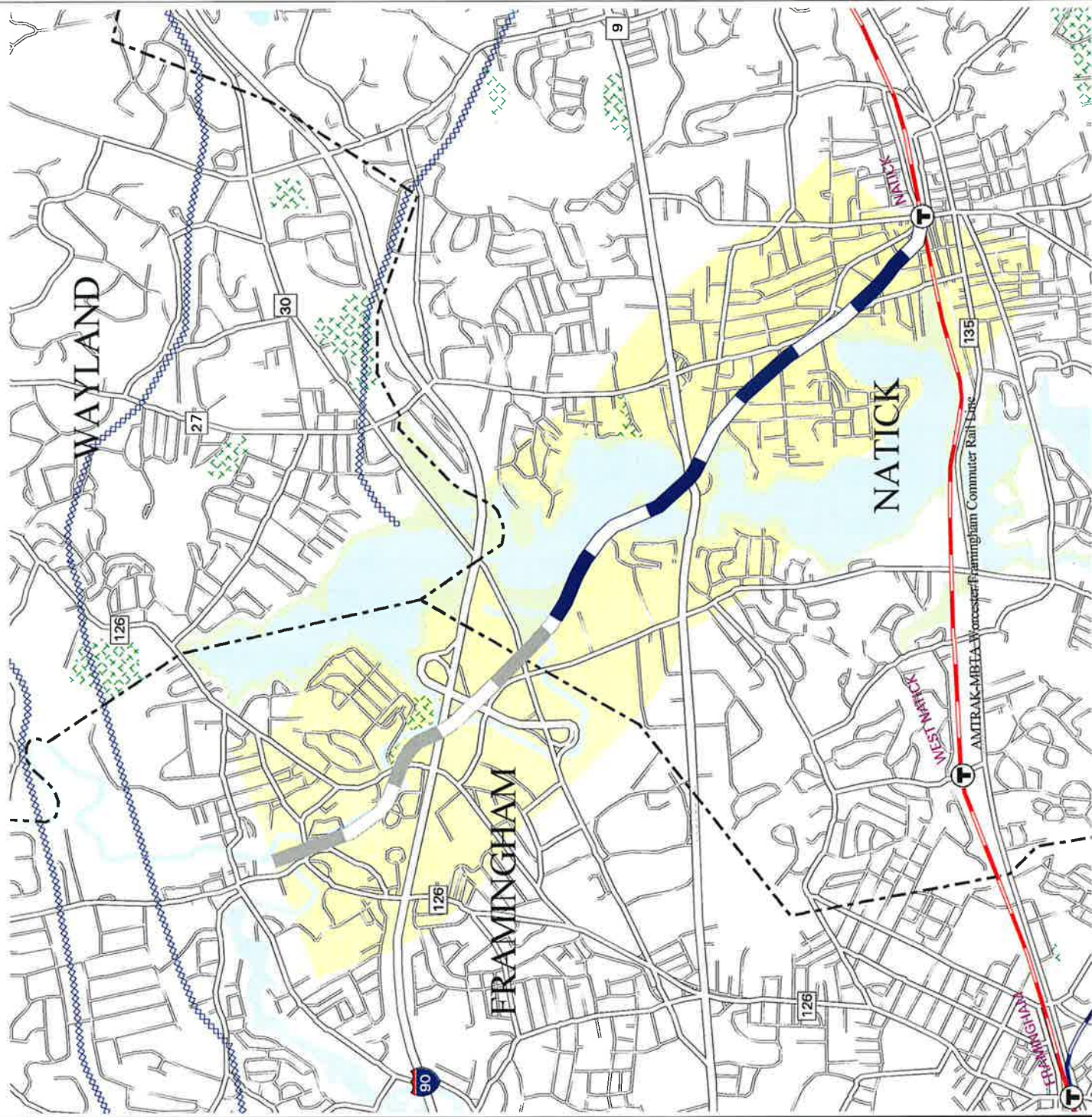
LEGEND

-  State Parks
-  Other Protected Open Space
-  Rail operation, passengers and freight
-  Rail operation, freight
-  Rail abandoned or out of service; not publicly owned
-  Aqueduct
-  MBTA commuter rail station



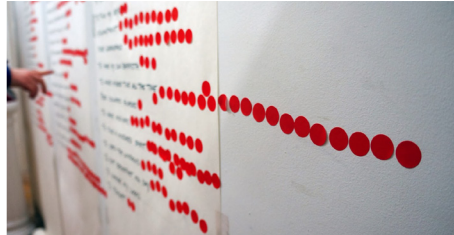
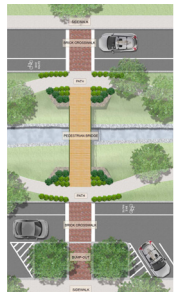
CTDES

12/10/99



PUBLIC PARTICIPATION

various clients



Weston & Sampson has a successful history of assisting our clients with community outreach programs. To effectively communicate technical and regulatory information related to the engineering and environmental fields, Weston & Sampson employs a number of full-time marketing, communication, and graphics professionals. Presenting information in a user-friendly and understandable manner, our staff has prepared and distributed informational pieces for projects with technical and public relations goals for many communities. We have provided multimedia services, including project web sites and social media feeds, Automated Response Systems (ARS) for real-time quantitative audience feedback, local access television, site walks, design charrettes and on-site, multi-day workshops, consensus building strategies, presentations at community meetings, mailings, and other informational literature.

- **photo/plan renderings**
- **project websites**
- **videos**
- **posters**
- **doorknob tags**
- **direct mailers**
- **resident surveys**





DISCLOSURES

Weston & Sampson is always actively tracking the climate of the public bid environment as it relates to Chapter 30 for horizontal construction. On the vast majority of our projects we have not designed, engineered, created bid specifications, proposed a budget and/or otherwise assisted in the development of any municipal projects in Massachusetts in the past five years that subsequently required rebidding, or were significantly delayed and/or redesigned due to receiving bids higher than the project budget. We have had two projects in the last five years that required rebidding due to receiving bids higher than the project budget; however, there were no significant delays as a result. In both cases, the Weston & Sampson team applied the resources necessary to expedite the required changes to plans, and was able to rebid the project within a few weeks of initial bid.

REFERENCES

On all of our projects, we strive to develop efficient, productive working relationships with our clients. We have identified a selection of our client references in the following table, as well as with the detailed project descriptions included in Section 5, *Examples*. We invite and encourage you to contact these individuals; they can attest to the quality of our team's capabilities and past performance on similar projects within the past five years.

SIMILAR PROJECTS PAST 5 YEARS – WESTON & SAMPSON

**Newman Elementary School/Eastman Conservation
Area Needham, MA**

Edward Olsen
Parks and Forestry Superintendent
781-455-7550, ext. 317
eolsen@needhamma.gov

Patricia Carey
Director of Parks and Recreation
781-455-7521
pcarey@needhamma.gov

**Cheesecake Brook
Newton, MA**

Carol Schein, Open Space Coordinator
Parks and Recreation Department
617-796-1500
cschein@newtonma.gov

Robert DeRubeis
Parks Commissioner
617-796-1640
parks@newtonma.gov

**Somerville Community Path
Somerville, MA**

Brad Rawson
Transportation & Infrastructure
617-625-6600 ext. 2518
brawson@somervillema.gov

Luisa Oliveira
Office of Strategic Planning and Community Development
617-625-6600 ext. 2500
loliveira@somervillema.gov

**Mayor Thomas M. Menino Park & Harborwalk
Charlestown, MA**

Lauren Bryant
Boston Parks & Recreation Department
617-634-4505
lauren.bryant@boston.gov

Stephen Healy
Boston Redevelopment Authority
617-918-6207
stephen.healy.bra@cityofboston.gov

**Rutland Creek Path – Segment 5
Rutland, VT**

Susan Schreibman, Assistant Director
Rutland Regional Planning Commission
802-775-0871
Susan@rutlandrpc.org

Paul Gallo
Creative Economy
802-775-7673
magicbrush@me.com

**Cochituate Rail Trail
Framingham, MA**

David R. Ivany PE, PTOE
Senior Project Manager, DPW – Engineering Division
508-532-6095
dri@framinghamma.gov

James Duane
Assistant Town Manager
508-532-5972
jpd@framinghamma.gov

REFERENCES

SIMILAR PROJECTS PAST 5 YEARS – WESTON & SAMPSON (cont.)

**Cochituate Aqueduct Trail,
Cochituate Aqueduct Study Committee,
Natick, MA**

Robert Bois
Conservation Commission
508-647-6404
bbois@natickma.org

Matthew Gardner
Chairman, Conservation Commission
508-651-7230
matthew.gardner@sustainerv.com

SIMILAR PROJECTS PAST 5 YEARS – ALTA PLANNING + DESIGN

**Brookline Emerald Necklace/Rt. 9 Crossing
Brookline, MA**

Erin Chute Gallentine
Parks and Open Space Director
617-730-2088
egallentine@brooklinema.gov

Peter Furth, Brookline Pedestrian and
Bicycle Advisory Committee
617-459-7856
pfurth@coe.neu.edu

**Charles River Basin Connectivity Study
Boston, Cambridge, Newton & Watertown, MA**

Dan Driscoll
Department of Conservation and Recreation
617-626-4974
Dan.Driscoll@state.ma.us

Steve Miller
LivableStreets Alliance
617-686-1050
Steve@livablestreets.info

**Martin's Point Path Connection Study
Portland, ME**

Bruce Hyman, Transportation Program Manager
City of Portland, Dept. of Planning and Urban Development
207-874-8717
bhyman@portlandmaine.gov

Jim Tasse, PhD
Bicycle Coalition of Maine
207-318-0386
jim@bikemaine.org

CAPACITY

LOCAL, RESPONSIVE STAFF

Weston & Sampson's dedicated team of transportation engineers and landscape architects is well suited to complete this project for the Town of Belmont. Our creative landscape architects, working alongside our transportation engineers and designers, has a successful track record for completing conceptual designs, contract documents, plans and specifications, and construction projects for community trails, riverwalks, urban parks, ballfields, recreational facilities, city and town commons, and municipal memorials.

Headquartered in Peabody, Weston & Sampson maintains regional offices throughout Massachusetts, the Northeast, and along the East Coast. **Weston & Sampson will manage this project from our local design studio in Boston, located approximately 10 miles from Belmont**, with support from our offices in Peabody, Foxborough, and Worcester, as needed. Additionally, **our bike/pedestrian planning consultant, Alta, will support this project from their nearby office in Cambridge.**

As a mid-size regional firm, Weston & Sampson is highly responsive to our clients' needs. Located in Boston, approximately 10 miles from Belmont, our staff can be on site and meet with town staff promptly - in a matter of hours, if needed.

AVAILABILITY

Weston & Sampson carefully considers the current and projected workload of each of our team members to ensure that the work required by all of our projects is successfully completed in a timely manner. Weston & Sampson has the depth of resources to respond to client needs and can assure the assignment of highly qualified personnel for all project tasks.

Our designated staff for this assignment will be available to provide the Town of Belmont with exceptional services, despite their ongoing projects. In organizing and scheduling our key personnel for your project, we take into account their commitments for other work underway to ensure their availability throughout your project. Upon selection, these individuals will be available and committed to meet your needs. **During critical points in the scope of work, these team members will devote up to 100% of their time to your project as workflow demands.**

Weston & Sampson is capable of providing multi-disciplinary services, and has structured our team for depth of technical competence and to provide significant production capabilities. In addition to the professionals identified within this submittal, Weston & Sampson **has nearly 450 qualified landscape architecture, engineering, environmental, and construction staff members** whom we can draw upon to support work for your project, if necessary.

SCHEDULE DEVELOPMENT & ACHIEVEMENT

Weston & Sampson consistently establishes workable project schedules or works within pre-set project schedules. Our detailed project schedules identify key milestone and deliverable dates, including reference to task numbers, brief task descriptions, anticipated task duration, allocated submittal review periods, and interrelation with other work tasks. As part of these schedules, we also identify "critical time" events that require input from town staff or other key milestone events.



CAPACITY

Our project management team has overall responsibility and accountability for project execution; they manage the performance of our project team members, ensure technical quality at each stage of the project, and monitor personnel assignments and allocations to consistently meet project deliverables and schedule milestones.

All of our project team members recognize the importance of establishing proper project controls to meet an established schedule. We manage the various tasks and team members to achieve completion of our scheduled milestones, and monitor the project schedule and compare it to the target schedule. This observation allows us to adjust the basic logic behind the schedule and the relationship between tasks to adapt to variations in resource requirements.

We are committed to fully attending to this Community Path project for the Town of Belmont and exceeding your expectations at every turn. Should you believe, at any time, that this is not the case, we pride ourselves on an open and candid relationship with all of our clients and, therefore, would want to know so that we can make it right.

FINANCIAL STATEMENTS

Weston & Sampson is a financially stable, privately held corporation. Weston & Sampson was established in 1899, and since that time we have never filed for bankruptcy under any provision of the Federal Bankruptcy Laws. Our financial reference is as follows:

Bruce Daniels, Sr. Vice President
Boston Private Bank & Trust Company
Commercial Banking
Ten Post Office Square
Boston, Massachusetts 02109
617-912-3755

As a privately held corporation, Weston & Sampson generally does not publish our financial information. However, for the purposes of this proposal, we have attached a copy of our consolidated financial statements for December 2015 and December 2014, prepared on March 7, 2016 by Marcum LLP, accountants and advisors.

Note: *As our financial statements are considered confidential, we have included these documents with the paper copies only, and not with the electronic PDF versions of our proposal submission.*

POTENTIAL CONFLICTS OF INTEREST

Weston & Sampson does not foresee any potential conflicts of interest and is not affiliated with any groups or persons that have an interest in this Community Path project for the Town of Belmont.

APPENDIX D

REQUEST FOR PROPOSALS

BELMONT COMMUNITY PATH FEASIBILITY STUDY

CERTIFICATION OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

April 22, 2016

Date

Weston & Sampson Engineers, Inc.

Name of Entity submitting bid, whether individual, partnership, corporation, joint venture or other business or legal entity.

Corporation

Type of Entity

85 Devonshire Street, 3rd Floor

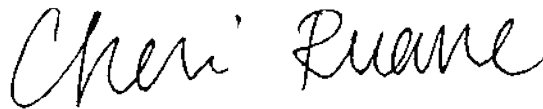
Address

Boston, MA 02109

617-412-4480

Telephone

By



Authorized signature of entity submitting proposal

Cheri Ruane, RLA, Vice President | Landscape Architecture

Signer's duly authorized position, office or title

APPENDIX E

REQUEST FOR PROPOSALS

BELMONT COMMUNITY PATH FEASIBILITY STUDY

STATEMENT OF TAX COMPLIANCE

Pursuant to M.G.L. Chapter 62c, Section 49A, I certify under the penalties of perjury that this firm, to the best knowledge and belief, has filed all State Tax returns and paid all State Taxes required under law.

04-2601194

Federal Identification Tax Number

Weston & Sampson Engineers, Inc.

Name of Entity submitting bid, whether individual, partnership, corporation, joint venture or other business or legal entity.

Corporation

Type of Entity

85 Devonshire Street, 3rd Floor

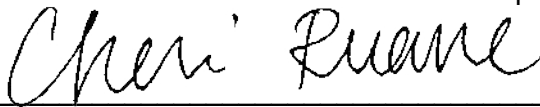
Address

Boston, MA 02109

617-412-4480

Telephone

By



Authorized signature of entity submitting proposal

Cheri Ruane, RLA, Vice President | Landscape Architecture

Signer's duly authorized position, office or title

MINIMUM & EVALUATIVE CRITERIA

Weston & Sampson has reviewed the Town of Belmont's Selection Criteria listed on pages 10 through 13 of your Request for Proposals (RFP). We have addressed all of the minimum and evaluative criteria in this section and throughout our proposal, thereby demonstrating our understanding of and capability to complete your project.

MINIMUM CRITERIA

- **Professional qualifications and experience of the proposed project team members, especially the project manager, in the evaluation, design, and construction of public works facilities in general and in particular construction of community paths.**

The Weston & Sampson team has decades of experience providing services for similar projects. Our staff has been responsible for the layout and design of numerous multi-use paths, riverwalks/harborwalks, rail-to-trail conversions, and/or bike routes, all of which have been or will be built, and therefore conform to all of the requirements of local, state, and federal agencies, including the Federal Highway Administration (FHWA), the Massachusetts Department of Transportation (MassDOT), the American Association of State Highway and Transportation Officials (AASHTO), and the ADA. **Our recreational trail/path project experience ranges from designing small pedestrian/bicycle paths in neighborhood parks to complex harborwalks and rail-to-trails/bikeways involving environmental permitting, right-of-way, structural/bridge designs, and landscape architecture design.**

Our designated **project manager, Laurence Keegan, Jr., PE**, has more than 30 years of experience in civil/site design and traffic engineering, and has managed projects for a number of public transportation agencies as well as for many municipal clients. Larry brings to this project specific experience in the evaluation, design, and construction of community path/trail projects, as noted in Section 4, *Organizational Chart & Resumes*, and in our response to *Evaluative Criteria #1*, highlighted later within this section.

Additionally, our team includes bike/pedestrian planning specialists from **Alta Planning + Design**, North America's leading multi-modal transportation firm that specializes in the planning, design, and implementation of bicycle, pedestrian, greenway, park, and trail corridors and systems. We have also included on our team members of Weston & Sampson's structural engineering group, as they provide valuable insight whenever pedestrian bridges and cantilevered walkways/overlooks are involved. These same professionals are on-call with MassDOT for their expedited bridge repair and renovation contract.

- **Adequacy of proposed project team in terms of training, experience and availability of proposed project team members for this project.**

Weston & Sampson's collaborative team of experts has successfully completed many projects similar in both scope and size to Belmont's Community Path project. Upon authorization to proceed, our team members will be immediately available. During critical points in your project, each of the proposed team members will be available as necessary for successful completion of the project.

MINIMUM & EVALUATIVE CRITERIA

We will ensure the appropriate level of qualified staff to successfully achieve your project objectives. Toward that goal, we commit to your project **Dean Groves, PE**, as principal-in-charge, **Larry Keegan, PE**, as project manager, and **Cheri Ruane, RLA**, as team leader. Collectively, Dean, Larry, and Cheri have more than 80 years of experience in a wide variety of pedestrian, landscape architecture and open space improvement projects including the Community Path Project in Somerville. We have included more information regarding the qualifications and experience of our individual team members in Section 4, *Organization Chart & Resumes*.

Weston & Sampson will be available to provide the Town of Belmont with exceptional services, despite our ongoing projects. We looked seriously at the commitments of our project team to their existing projects, and we are confident that we will be able to provide the staff resources required to meet your needs. The involvement of experienced key staff on this project will provide significant value to the town in many areas, including expediting assignments. In addition to our proposed personnel, Weston & Sampson can draw upon our combined staff of hundreds of qualified professionals as needed to readily meet the needs of your project and assure prompt delivery of service.

- **Completeness and responsiveness to the RFP. Specifically, applicant's understanding of the project requirements, technical competency to address all project elements, and originality and thoughtfulness of proposed approach to achieving completion of the project described in the RFP.**

Weston & Sampson offers a clear approach and innovative solutions to your scope of services and is prepared to complete this project in a timely and cost-effective manner. We discuss our specific plan of services for this important project in Section 2, *General Approach, Variances, Insights & Scope of Work*. Our multi-disciplinary team and depth of personnel and expertise allows us to respond efficiently and perform survey, design and engineering concurrently for the various project components. We are committed to exceeding your expectations in the timely delivery of a successful project.

- **Applicant's demonstrated ability to prepare, support and implement a project of this type and scale that requires design, engineering, construction cost estimation, problem solving, and writing ability, among other skills.**

Weston & Sampson has completed hundreds of successful landscape architecture design, multi-modal/community path, and open space projects for communities in Massachusetts and throughout New England. Our creative designers consistently complete thoughtful, pragmatic, and cost-effective pedestrian/bike trails and paths; master plans; park and streetscape designs; environmental and historical restorations; and open space projects. Our representative projects presented in Section 5 demonstrate our team's ability to successfully prepare, support, and implement a project of this type and scale. We invite you to contact our client references listed with our project descriptions, as well as those listed in Section 7. These clients can attest to the design, engineering, construction cost estimation, problem solving, and writing skills that our team has brought to each of these projects.

MINIMUM & EVALUATIVE CRITERIA

- **List of feasibility studies and applicable references that demonstrate studies that were completed on time and within budget, required modifications to the scope of services and were delayed and over budget, and those that led to funding and construction of the path.**

In Section 7, *References*, we have included a list of feasibility studies and other trail design projects, all of which were completed on time and within budget.

- **Financial stability of the applicant firm.**

Weston & Sampson is a financially stable, privately held corporation. Weston & Sampson was established in 1899, and since that time we have never filed for bankruptcy under any provision of the Federal Bankruptcy Laws. We have included our financial reference, along with audited financial statements, in Section 9 of our proposal.

The Town is seeking a consultant with experience in the evaluation, design, and construction of similar public works facilities in general and in particular construction of community paths. The following minimum criteria apply:

1. **The consultant's proposed project manager (PM) should have an engineering degree and be a licensed professional engineer in Massachusetts.**

Project Manager **Laurence Keegan, Jr., PE (MA #33708)** is a Massachusetts registered Professional Engineer with more than 30 years of experience. He holds a Bachelor's of Science in Civil Engineering from Northeastern University.

2. **Team members should include highly qualified individuals with backgrounds in civil, environmental, structural engineering, rail engineering, bridge and tunnel design, right-of-way/easement requirements, landscape architecture, construction management, budgeting, quality control, and scheduling.**

In addition to Larry, our team includes nine more Massachusetts registered Professional Engineers, five Massachusetts Registered Landscape Architects, two LEED Accredited Professionals, one Massachusetts Licensed Site Professional, and one Certified Construction Manager, among other qualified staff with expertise in the evaluation, design, and construction of community paths. As demonstrated in Section 4, *Organizational Chart & Resumes*, our multi-faceted team offers comprehensive experience in all of the required tasks for this assignment, including civil, environmental, structural engineering, rail engineering, bridge and tunnel design, right-of-way/easement requirements, landscape architecture, construction management, budgeting, quality control, and scheduling.

3. **The proposal must meet the submission requirements outlined in Section 3.**

We have taken care to review your RFP and address all items outlined in a concise, informative, and highly detailed manner. For ease of review, we have organized this proposal to match the requirements listed in Section 3 of your RFP. Each of the sections throughout this proposal demonstrates the high quality of personnel and professionalism that is typical of Weston & Sampson. Our project management team understands the tasks and level of effort necessary to successfully complete this project, and we are committed to assisting the Town of Belmont in successfully achieving your project goals.

MINIMUM & EVALUATIVE CRITERIA

The Town is seeking a consultant with experience designing community paths in Massachusetts, and with knowledge of the path funding process in the Commonwealth. The following minimum criteria apply:

- 1. The consultant should have completed at least two comparable feasibility studies for municipalities in Massachusetts/New England within the past ten years, and be familiar with the relevant state and federal laws and regulations relating to public construction projects.**

Weston & Sampson has completed more than a dozen comparable path/trail projects for municipalities in Massachusetts within the past 10 years. Having been assisting public clients in Massachusetts with design and construction oversight of their “vertical” and “horizontal” infrastructure projects for more than a century, our design staff members have compiled valuable hands-on experience and developed an expert-level familiarity with all Massachusetts and federal public bidding and construction regulations. We provide a summary of our construction experience with Massachusetts projects in Section 5, *Examples*.

EVALUATIVE CRITERIA

Criteria #1, Professional Qualifications:

- **Project Manager** - At least five years of experience designing and building community paths with references for each project.
- **Project Team** - At least five years of experience working together as a team to effectively complete similar projects.

Highly Advantageous: A proposal will be considered highly advantageous if you can show proof that the firm and key person for this project has more than five (5) years of experience with a project similar in scope to these specifications.

Project Manager Larry Keegan and our selected team members for this assignment have well over five years of experience designing and building community path projects. **Below, we list path/trail projects completed by Weston & Sampson in which Larry played a key role:**

WESTON & SAMPSON'S BICYCLE, MULTI-USE, COMMUNITY PATH/TRAIL PROJECTS INVOLVING PROJECT MANAGER LARRY KEEGAN		
Project	Client Reference	Key Staff
Cochituate Rail Trail Framingham, MA	David R. Ivany PE, PTOE Senior Project Manager Department of Public Works – Engineering Division 508-532-6095 dri@framinghamma.gov	Larry Keegan Project Manager Other Key Staff: Eugene Bolinger Scott Bruso, Rick Campbell Mark King, Alyssa Peck Brandon Riley, Jack Wright

MINIMUM & EVALUATIVE CRITERIA

WESTON & SAMPSON'S BICYCLE, MULTI-USE, COMMUNITY PATH/TRAIL PROJECTS INVOLVING PROJECT MANAGER LARRY KEEGAN		
Project	Client Reference	Key Staff
Somerville Community Path Somerville, MA	Brad Rawson, Director Transportation and Infrastructure 617-625-6600 brawson@somervillema.gov	Larry Keegan Project Manager Other Key Staff: Cheri Ruane, S. Roger Alcott Dean Groves, Scott Bruso Eugene Bolinger, Rick Campbell, Alyssa Peck
Mcknight Multi-Use Trail Feasibility Study Springfield, MA	Michael Tully Senior Parks Project Manager Department of Parks, Buildings & Recreational Management 413-886-5183 mtully@springfieldcityhall.com	Larry Keegan Civil/Traffic Engineer Other Key Staff: Cheri Ruane, Dan Biggs
Driftway Multi-Use Trail, Phase II Scituate, MA	Mark Stewart Scituate Conservation Commission 617-545-8721 markstew@comcast.net	Larry Keegan Team Leader Other Key Staff: Eugene Bolinger
Cape Cod Rail Trail Chatham, MA	Daniel L. Tobin Superintendent of Public Works 508-945-5158 dtobin@chatham-ma.gov	Larry Keegan Team Leader
Southwick Rail Trail Southwick, MA	Richard Grannells Engineer 413-569-5001	Larry Keegan Team Leader Other Key Staff: S. Roger Alcott Scott Bruso Alyssa Peck
North Suburban Regional Bicycle Transportation Plan and Phase I Design Lynnfield, North Reading, Reading, Wakefield, and Wilmington, MA	Heidi Griffin Planning Administrator Town of North Reading 978-664-6050 nrplanning@northreadingma.com	Larry Keegan Team Leader Other Key Staff: Eugene Bolinger

MINIMUM & EVALUATIVE CRITERIA

Additional information for these and other relevant projects is provided in Section 5, *Examples*.

Criteria #2, Quality of Proposal:

- **Clarity of thought, creativity, and thoroughness in addressing the issues outlined in the Scope of Services and elsewhere in the RFP.**
- **Understanding of the context surrounding the project, including insights into local conditions and project-critical challenges.**

Highly Advantageous: *A proposal will be considered highly advantageous if it demonstrates a strong understanding of the project requirements and challenges, high technical competency to address all project elements, and/or originality and thoughtfulness of proposed approach to achieving completion of the project outlined in the Scope of Services.*

We are passionate about providing smart, insightful consulting services that will leverage the good work already done and the resources Belmont brings to bear on this important project. We welcome the opportunity to discuss this project in person and would be happy to come in to present a detailed strategy for carrying out this work successfully.

Criteria #3, Relevant Experience:

Highly Advantageous: *A proposal will be considered highly advantageous if you can show proof that the firm and key person for this project has a demonstrated record of achievement in the timely completion of comprehensive analysis and engineering feasibility studies of similar community paths. Demonstrates detailed knowledge, skills, and experience in conducting recommending options to municipal decision makers. Has completed five (5) or more feasibility studies for local governments or related organizations in Massachusetts.*

- **Designing and building community paths in communities similar to Belmont.**
As noted throughout our proposal, Weston & Sampson's recreational trails project experience ranges from designing small pedestrian/bicycle paths in neighborhood parks to complex rail-to-trails/bikeways involving environmental permitting, right-of-way, structural, and landscape architecture design.
- **Working on rail-with-trail projects.**
For the Cochrane Rail Trail in Framingham, Weston & Sampson recently completed the design for the construction of a 1.25-mile multi-use trail along an abandoned former MBTA rail bed. Our experience also includes the development of contract documents for the construction of a six-mile bikeway, which makes use of a former Old Colony Railroad right-of-way in Chatham. The Somerville Community Path, an extension of the existing facility from prior terminus to the proposed Green Line Extension corridor, was also rail with trail.
- **Designing and estimating the cost of tunnels and bridges for community paths.**
Our structural engineers are on-call for the MassDOT expedited bridge contract and have assisted with several assessments that have supported feasibility study results. Rick Campbell and his team have design and estimated a number of tunnels and bridges for multi-use paths in Massachusetts and Vermont.

MINIMUM & EVALUATIVE CRITERIA

- **Working with and designing paths using MassDOT compliant design standards.**
Weston & Sampson has successfully completed trail/path projects utilizing MassDOT standards for 15 projects in the last 10 years.
- **MassDOT prequalification.**
Weston & Sampson is prequalified by MassDOT in multiple disciplines. A copy of our current MassDOT prequalification certificate is attached.
- **Working with the MBTA on path-related projects, and resultant knowledge of MBTA regulations, operations and procedures.**
In addition to the above-noted projects, Weston & Sampson's other recent experience with MBTA includes our work on the following projects:
 - Owner's Representative for the Red Line/Orange Line Infrastructure Improvements
 - Owner's Representative Services for the MBTA's Vertical Accessibility project at Downtown Crossing in Boston in conformance with MGL Chapter 30 Section 39.5
 - Owner's Representative Services for the MBTA's Fitchburg Line Track and Signal Contract in conformance with MGL Chapter 30 Section 39.5
- **Working with the Massachusetts Department of Conservation and Recreation.**
Weston & Sampson has a successful relationship with the Massachusetts DCR, having assisted DCR with dozens of project over the past two decades.

Criteria #4, Utilization of Feasibility Study in Securing Funding and Advancing to Construction:

- **Designing projects that were subsequently funded (e.g., by MassDOT, state, and MAPC) by grants and other sources of funding, and applied knowledge of the Federal Transportation Improvement Program (TIP) path funding process.**

Highly Advantageous: *A proposal will be considered highly advantageous if the firm can demonstrate that it has completed useful feasibility study(s) to subsequently secure funding for the subject project with more than one grant source outside of the municipality's general fund and that the project was ultimately constructed.*

Weston & Sampson assists clients with their grant and funding application preparation and consistently remains at the forefront of obtaining available financial support from federal, regional, state, and local sources to expand the scope of projects for our municipal clients. For more than 20 years, Weston & Sampson has also successfully worked within the framework MassDOT and state funded projects. We have most recently worked on grant-funded projects in Framingham, Medford, Plymouth, Wilbraham, and Worcester, Massachusetts.

For the recently completed Cochituate Rail Trail project in Framingham, which began as a study and was ultimately constructed, Weston & Sampson was instrumental in securing funds through MassDOT.

MINIMUM & EVALUATIVE CRITERIA

Our staff has worked with communities in many capacities to maximize the money available for each particular project under many programs, including:

- American Recovery and Reinvestment Act (ARRA)
- Department of Housing and Urban Development (HUD)
- Chapter 90 Funding
- Clean Renewable Energy Bond (CREBs)
- Community Development Block Grants (CDBG)
- Community Development Action Grants (CDAG)
- Community Preservation Act Funds (various municipalities, matched by the Commonwealth of Massachusetts)
- Enhancement Funds (FHA through MassHighway)
- Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- Historic Landscape Initiatives (through both Mass Historical and Mass DCR)
- Growth District Initiative Grants (GDI)
- High Priority Project Funds (FHA through MassHighway)
- Massachusetts Chapter 90
- Massachusetts Emergency Management Agency (MEMA)
- Massachusetts Office of Coastal Zone Management
- Massachusetts Opportunity Relocation and Expansion Program (MORE)
- Massachusetts Parkland Acquisitions and Renovations for Communities (PARC)
- Massachusetts Common Backyard Grants
- Massachusetts Small Cities Program (MSCP) Ready Resource Fund
- Massachusetts Water Resources Authority I/I Local Financial Assistance Program
- Massachusetts Water Resources Authority Local Pipeline Assistance Program (LPAP)
- Public Works Economic Development (PWED)
- State Revolving Loan Funds (SRF)
- State Transportation Improvement Program (TIP)
- Transit Oriented Development (TOD) Grant Program
- UPARR Funds (NPS)
- Various private funding entities and endowments

Many of these funding sources are being utilized on more than a dozen of our current recreation, park, urban design, and open space projects.



Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Stephanie Pollack, Secretary & CEO
Thomas J. Tinlin, Acting Administrator



Architects and Engineers Review Board - Prequalification

Effective: May 8, 2015

Expires: May 7, 2017

Weston & Sampson Engineers, Inc.
5 Centennial Drive
Peabody MA 01960

You are Prequalified in the following Disciplines:

- | | |
|--|--|
| <input type="checkbox"/> Major Environmental Documentation | <input type="checkbox"/> Transportation Planning |
| <input checked="" type="checkbox"/> Basic Roadway Design | <input type="checkbox"/> Intelligent Transportation Systems |
| <input checked="" type="checkbox"/> Intermediate Roadway Design | <input type="checkbox"/> Transit and Rail Systems Design |
| <input type="checkbox"/> Complex Roadway Design | <input checked="" type="checkbox"/> Subsurface Utility Engineering |
| <input checked="" type="checkbox"/> Basic Bridge Design/Rating | <input checked="" type="checkbox"/> Value Engineering |
| <input checked="" type="checkbox"/> Intermediate Bridge Design/Rating | <input type="checkbox"/> Cultural Resources |
| <input type="checkbox"/> Complex Bridge Design/Rating | <input checked="" type="checkbox"/> Hazardous Waste - Site Investigation and |
| <input type="checkbox"/> NBIS Bridge Inspection | <input checked="" type="checkbox"/> Hazardous Waste - Remediation |
| <input type="checkbox"/> Moveable Bridge Design/Rating | <input checked="" type="checkbox"/> Wetlands - Delineation and Assessment |
| <input type="checkbox"/> Moveable Bridge Inspection | <input checked="" type="checkbox"/> Wetlands - Mitigation |
| <input checked="" type="checkbox"/> Traffic Operations Studies and Design | <input checked="" type="checkbox"/> Water Quality - Assessment |
| <input checked="" type="checkbox"/> Geotechnical Engineering Including
Soils and Foundation Studies | <input checked="" type="checkbox"/> Water Quality - Mitigation |
| <input checked="" type="checkbox"/> Construction Oversight | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Construction Contract Assistance | <input type="checkbox"/> Noise Studies |
| <input checked="" type="checkbox"/> Hydraulics and Hydrology | <input checked="" type="checkbox"/> Engineering Field Survey |
| <input type="checkbox"/> Materials Inspection and Testing | <input checked="" type="checkbox"/> Total Station AutoCAD Base Plan Services |
| <input checked="" type="checkbox"/> Architecture | <input checked="" type="checkbox"/> Layout Document Preparation |
| <input checked="" type="checkbox"/> Landscape Architecture | <input type="checkbox"/> Photogrammetry |

MassHighway will retain this rating on its list of prequalified firms until the Expiration Date shown above. Your firm is required to submit a new or updated ADM-016 Form on or before the Expiration Date if you wish to continue to be considered for new services by the Department. Revised ADM-016 Forms may also be submitted at any time prior to the Expiration Date.

Failure to furnish an updated ADM-016 Form prior to the Expiration Date will result in your firm being removed from the Department's approved list.

This will disqualify you from being selected for new services by the Department until an updated form is submitted and the A&E Board has issued a new rating.

Sincerely,


Peter VanBuskirk, Secretary
Architects & Engineers Review Board

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