ALPHA
SURVEY GROUP

COASTAL & ENVIRONMENTAL
PROJECT EXPERIENCE

ECOLOGICAL

Riverwalk & Boardwalk Parkers River, Main Street (Rte 28) Yarmouth, MA – BETA Group, Inc./Town of Yarmouth

The purpose of the project is to support the Town of Yarmouth's goal of developing a 23 acre former Drive-in Theater parcel into recreational open-space use by the public, and subdivide a portion for commercial/retail redevelopment. Boundary research was performed with the Town, MassDOT, and the Barnstable Registry of Deeds for record deeds and plans. Utility research was also performed with utility companies providing services in the project area. Survey control was established in the NAD83 and NGVD88 Datums, reconnaissance performed for record boundary monumentation, and survey control established throughout the site. Benchmarks were recovered and levels run between them to reference the project to a known vertical datum. The horizontal and vertical control was adjusted by the method of least squares. A boundary and topographic/existing conditions survey was performed, with particular attention paid to locating the edge of the Parkers River, and ditches feeding to it at low-tide. Wetland resource areas delineated by others were located. An Existing Conditions Plan was created showing the boundary, topography, man-made improvements, wetland resources and buffer zones, and one-foot contours. The Client was provided with a stamped and signed drawing and AutoCAD 2016 C3D file and elevation model. The project is in progress with the preparation of a Definitive Subdivision Plan to create separate parcels for the Riverwalk and private development parcels.

MWRA Dam Safety Compliance – Wachusett Dikes and Weston & Brookline Reservoir, & Schencks Pond Dam – Boylston/Clinton, Weston, & Brookline-GZA/MWRA

Alpha performed existing conditions surveys of the North & South Dikes at Wachusett Reservoir (+/- 13,700LF); Weston Reservoir Dam (+/- 900 LF), Weston Reservoir Dam (+/-1200 LF), and Chestnut Hill Reservoir Dam (+/- 2000 LF) from the water line, over the crest of the dike/dam to beyond the toe. Survey control was established based on NAD83, and NAVD 88 converted to Boston City Base (MWRA vertical datum). Cross-sections were taken at 50-foot intervals and plan and cross-sections were generated for each of the 4 sites. The data was merged with the Client's bathymetry and a digital deliverable prepared in AutoCAD C3D 2016.

Rattlesnake Brook Restoration – 9 Narrows Rd, Freetown, MA - RC & D, Inc./Town of Freetown

Alpha provided survey support for a dam removal and river restoration project. The existing site control set by others was verified, and additional control established for the client to localize their GPS system. On-site benchmarks were set and the limits of work laid-out.

Old Mill Dam, Pearl St., Bellingham, MA - RC & D, Inc.

Alpha provided survey support of a dam removal and river restoration project. The existing site control set by others was verified, and additional control established for the client to localize their GPS system. On-site benchmarks were set and the limits of work laid-out.

Pontiac Dam/Pawtuxet River, Greenwich Ave., Warwick, RI – PrincetonHydro

Alpha performed a cross-sectional survey of a 2.5 mile section of the Pawtuxet River, North and South of the Pontiac dam in support of a study project. Nine cross-sections were obtained by GPS observations and included portions of the river that could only be accessed by boat.

Oak Island NRD Compensation Project, Oak Island, Route 1 & Diamond Creek, Revere, MA – RC&D/ARCADIS

Alpha provided survey support for a site comprised of a Natural Resource Damage (NRD) and Release Abatement Measure (RAM) Mitigation project. The project entailed the excavation and removal of sediment to restore salt marsh habitat, increase flood storage capacity, and provide feeder creeks through the marsh to increase tidal flow and flushing of the wetlands. Alpha established survey control and performed an as-built survey to obtain cross-section data of the area of removal and of the feeder creeks.

Charter Environmental/ACOE Muddy River Flood Damage Reduction & Environmental Restoration Project (Ph 1) Project, Boston, MA

Alpha provided survey support for this +/- 3-year project from initial project control to final as-built surveys of the various project components. The horizontal and vertical survey control provided by the ACOE was densified for this 10+ acre urban site and adjusted by the Least Squares Method. Numerous surveys were performed for both pre-construction, interim and final as-built surveys including drilled shafts, culverts, temporary and relocated permanent traffic control devices, boring locations, and access improvements to the Landmark Center. A bathymetric pre-construction survey of the existing exposed section of Muddy River was performed by conventional means for preparation of interim dredge surveys.

Restoration of the White Horn Brook, URI Kingston Campus, Kingstown Rd (Rte. 138) – RC & D, Inc. & URI Office of Capital Improvements/GRA, Inc (Project #13130 - $7780)

Alpha provided the contractor with pre- and post-construction survey support for the restoration of a 1000 LF portion of the White Horn Brook running through the URI Campus. Utilizing GPS and conventional survey instrumentation, survey control was established referenced to NAD83 and NAVD88. Benchmarks were established along the project for the contractor to control the design elevations. The limits of disturbance were laid out thorough-out the project area, and numerous cross sections were obtained to verify the pre-construction conditions.

State Hospital Dam Removal, Commonwealth of MA, Dept. of Mental Health, Danforth St, Taunton, MA - RC & D, Inc./inter-fluve

Alpha provided the contractor with pre- and post-construction survey support for a dam removal project on the Mill River. Prior to dam demolition, Alpha performed a bathymetric survey of the impoundment, and obtained ‘depth of muck’ to make an assessment of the volume of material to be removed. The excavation contract contained a critical ‘pay item’ regarding the volume of muck to be removed and capped on-site. In addition to using a sonar echosounder to obtain the

top of muck, measurements were obtained between the top of muck and 'point of refusal', which the client agreed would be indicative of the original bottom of impoundment. In addition to the bathymetric survey, Alpha laid-out limits of disturbance, centerline of proposed stream bed, and other items as requested. Upon project completion, a final as-built was performed of the excavated impoundment area, re-channeled stream bed and area of dam removal.

George Nichols Multi-Purpose Dam Rehabilitation Project, Assabet River, Westborough, MA - R C & D/NRCS US Dept. of Agriculture

Alpha provided survey services in support of construction activities for the rehabilitation of the George Nichols Dam. Survey control was established utilizing GPS to reference the project to NAD83 and to NAVD88. An existing conditions survey was performed prior to construction to be used as a basis for future volume calculations and to assist with further construction grading stakeout. The survey included the earthen dam, inlet headwall structure and outlet channel, 100-foot long auxiliary spillway, and downstream embankment and toe of dam. The construction limits/siltation fencing were laid out prior to construction. Alpha has assisted the contractor with layout of the various components of a new 350 foot long auxiliary spillway, downstream underdrain, concrete sidewalls, downstream earthen berms, and access road to the bottom of the dam. Alpha has also performed volume calculations to determine the amount of material removed and replaced. A final as-built was prepared in the Spring of 2012 upon project completion.

Arch Street Culvert Replacement, Assabet River, Westborough, MA - EA Engineering / DCR

An existing conditions survey was performed of an approximate 1.5 acre area in support of the redesign of a failing twin 60" corrugated metal culvert system crossing Arch Street. The culvert conveys the headwaters of the Assabet River into the reservoir at the George Nichols Multi-purpose Dam. Alpha established survey control in NAD83 utilizing GPS, and vertically referenced the survey to NGVD29 utilizing a benchmark on the George Nichols Dam outlet structure while checking into other published benchmarks. An existing conditions survey was performed of the culvert and adjacent terrain in support of the design and determining a contractor lay-down area. River bed cross-sections were developed up and down stream based on the existing river bank configuration, which varied significantly on the upstream side of the culvert. Particular detail was also collected of the downstream channel as it flowed into the reservoir of the George Nichols Dam. There was significant variation in the stream bottom depths within feet of both inverts at both ends of the culvert. Numerous observations were obtained within the ends of the culvert to assist the client with understanding the riverbed topography. Additional planimetric/topographic detail included the limits of the paved road surface, the fence and paved drive to an adjacent sewer pump station, utilities within Arch Street including invert elevations on gravity structures, retaining walls, guard rails, fencing and other relevant features. An AutoCAD2009 drawing file and TIN, prepared in Alpha's CAD layering and symbology conventions, was delivered to the client.

Lincoln Lace & Braid Remediation Project, City of Providence Parks Dept., Ponagansett Ave., Providence, RI - RC & D, Inc.

Survey services were provided in support of a remediation project at a former mill site bordering the Woonasquatucket River and a minor tributary stream. Alpha's services included the densification of the existing survey control, layout of the Limit of Work, and an existing conditions pre-construction survey prior to remediation activity. Preconstruction survey included location of existing pavement and building foundation, site grading and cross-sections of the

minor tributary for future quantity take-off calculations. A post-construction survey was performed, volumes determined, and a final as-built plan was prepared. An Environmental Land Use Restriction (ELUR) location plan, and metes and bounds description, were also prepared for the site.

Phase 2 Inspection of Hawkins Pond Dam, Providence Pike (Rte. 44) Glocester, RI - EA Engineering/Glocester Land Trust

Hawkins Pond is nearly 10 acres in extent and the upper end of the pond contains extensive wetlands supporting a variety of plant species. The pond lies downstream of three other ponds and Bowditch Reservoir, and was created by a man-made dam structure. Beginning around 1750, the water provided by the pond powered a sawmill, and in convening years was used to power a cotton mill, a woodworking and sawmill, and from 1924 to 1936 powered a generator to provide electricity for the area. The dam is approximately 600 linear feet in length and contains a 200 feet concrete spillway. There was an additional dam outlet consisting of two 60-inch metal outlet pipes which has been blocked to prevent outflow.

Utilizing GPS, Alpha established survey control referencing the survey to the Rhode Island State Plane System and to NAVD88. Alpha performed an existing conditions survey of the dam structure and 100 feet of the shoreline on either side. The survey included the dam structure from the toe on the upstream side to the downstream toe and beyond. Cross-sections of the dam profile were observed to obtain the upstream toe and top, centerline, and, downstream top and toe. Approximately 1.5 acres of downstream topography was obtained including isolated wetlands (from possible pond seepage). Topography was also obtained for approximately 250 feet of each of the downstream channels for the main spillway and the former twin outlet pipes. Other planimetric/topographic features include the location of an existing woodworking mill building and the remains of the former main two-story stone mill building, an access road to Route 44 and a concrete foundation, all which will provide future site access and contractor lay-down area. The client obtained their own bathymetry on the upstream side of the dam and provided the data to Alpha for incorporation into the project elevation surface model.

Alpha prepared a three-sheet 20 scale plan set depicting the entire dam structure, former mill buildings, topography (with one-foot contours), wetland delineation, and other relevant features. Alpha delivered to the client an AutoCAD2009 Land Desktop drawing file prepared utilizing Alpha's CAD layering and symbology standards, and a TIN of the elevation surface.

Phase 2 Remediation and Shoreline Stabilization Former Cos Cob Power Plant, Sound Shore Drive, Greenwich, CT - R C & D/Town of Greenwich, CT

Alpha provided survey services in support of construction activities for the site Remediation and Shoreline Stabilization at the former Cos Cob Power Plant on the Mianus River. Survey control was established by utilizing existing control referenced to the CT State Plain Coordinate System and based on the NAVD88 vertical datum. An existing conditions survey was performed prior to construction to be used as a basis for future volume calculations and to assist with further construction grading stakeout. The survey included the removal and reconstruction of approximately 1700 LF of revetment seawall, on-site drainage and re-grading to create a new park with walkways and future athletic fields. Alpha performed numerous interim as-built surveys to assist the client with volume calculations for determination of the amount of material removed and replaced. A final as-built is being prepared as the project nears completion.

Red Brook Dam - Lyman Preserve, Red Brook Road, Wareham and Plymouth, MA - Trustees of Reservation

Alpha performed a topographic survey in support of the removal of an abandoned dam structure and flume on the Red Brook in the Lyman Preserve. The survey included location of the earthen dike, wooden flume and bulkhead support structure, wetland resource delineation (by others), cross-sections of the brook and topography of the adjacent floodplain and uplands. A topographic plan prepared of the site included ten-foot cross sections of the earthen dam structure and flume.

Restoration of Beaverdam Brook and former Settling Lagoon, Framingham, MA - Clean Harbors Environmental and Construction Services/Framingham Conservation Commission

Provided survey services supporting the restoration of approximately 1100 linear feet of Beaverdam Brook and an approximately one (1) acre lagoon. Cross-sectional surveys of the brook channel were performed at fifty (50) foot intervals before, during, and after restoration activity. The final as-built included the brook channel, rock transition structures, erosion control outfalls, and a topographic grid of the lagoon to define the final post-dredged state of the lagoon bottom and top and toe of banks. A topographic plan was prepared depicting the conditions before, during and after restoration.

Boat Cove Bathymetric Survey Wachusett Reservoir, Clinton, MA - Massachusetts Water Resources Authority (On-Call Survey Contract)

Under on-call Task Order contract, an on-shore and bathymetric survey was performed of Boat Cove comprising approximately 0.7 acres on Wachusett Reservoir. The survey was in support of an upgrade in DCR's boat mooring facilities to include the addition of a floating dock with gangway access. A ten (10) foot grid system was required for the bathymetric survey. The terrestrial survey included the boat launch site, the adjacent shore, and the shore line of an island opposite the boat launch. Survey control was based on coordinates values and elevations on existing site monumentation. The final deliverable plan was prepared utilizing the MWRA's sheet format and CAD standards.

Proposed Dam Reconstruction - Upper Shawme Dam, Sandwich MA - Town of Sandwich Natural Resources Office

A limited topographic survey was performed of the dam and surrounding area, wetland location, and boundary survey at the Upper Shawme Dam. The final deliverable consisted of a plan showing the existing dam and surrounding topography, delineated wetlands, and boundary, combined with a larger topographic survey performed by another consultant. The ultimate use of the survey was for the preparation of a Notice of Intent being filed of a proposed larger dam structure.

Gardner Street/Kings Pond Dam Layout and Takings Plan, Raynham, MA - Town Of Raynham Department of Public Works

Alpha provided survey and wetland resource delineation services in support of a layout and taking, where none currently existed, of a portion of Gardner Street at Kings Pond Dam in Raynham, MA. This section of roadway crossed the earthen dike structure of Kings Pond Dam where it flows into Forge River. The survey included a topographic survey of approximately 1050 linear feet of the road/earthen dam, the dam structure, and abutting river and pond including

the delineation of the bordering vegetated wetlands. The project requirements specified only a vertical datum and the project was established in the National Geodetic Vertical Datum of 1929 (NGVD29). Research was performed with the Town of Raynham Assessor's Department to obtain ownership information of the abutting property owners and at the County Registry of Deeds to obtain record deeds and plans of the properties abutting the proposed taking.

The wetland resource delineation was completed prior to starting the ground survey and included the preparation of a narrative report. Reconnaissance was performed to recover record property monumentation. Survey control was established to locate the record monumentation and perform an existing conditions survey to locate edge of pavement, walls, fences, driveways, walks, buildings, visible evidence of utilities, rim and invert elevations on gravity systems, and delineated wetland resource areas. The survey also included the full extent of the earthen dam from the water line on King's Pond, the up and down stream rip rap embankments, and the dam spillway and abutments.

A plan was prepared at a scale of 1inch = 20 feet depicting the record monumentation recovered in the field, proposed layout and taking lines, location of existing road features including edge of pavement, guard rails, signage, visible utility structures, earthen dam structure, spillway and abutments, delineated wetland resource areas, and gravity utilities with rim and invert data, and one-foot contours. The Client was provided with a draft copy of the plan and metes and bounds descriptions of the proposed areas of layout and taking for review and comment. The final project delivery incorporated the Client's comments and consisted of a recordable Plan of Proposed Layout and Takings, and metes and bounds descriptions of the proposed layout and taking areas.

Montatiquot River Private Development at 10 Plain Street, Braintree, MA - FX Messina, Inc.

Survey services were performed in support of the private development of a 31 acre former mill site in Braintree, MA. The site contains two ponds formerly known as Upper and Lower Mill Pond and presently referred to as Monatiquot River. An existing conditions survey was performed of the entire site, and more particularly, a bathymetric survey of the Upper Mill Pond was performed to determine the volume of impounded water. The survey of the four plus acre pond was based on a 100-foot grid system using conventional survey methods.

COASTAL

Plymouth Long Beach Dike Repair, Plymouth, MA- SumCo Eco Contracting/ACOE

Alpha established survey control for the contractor performing the repair of the +/- 4800 LF Dike. There were 10 Major and 15 Minor Repair Areas distributed along the dike. Pre-repair cross-sections were performed of the Major & Minor repair areas utilizing GPS, and cross-sections were prepared at the 5-foot contract required interval. The data was delivered for ACOE approval prior to the contractor beginning work. As the Major and Minor areas were repaired, Alpha performed As-built surveys and prepared as-built cross-sections at 5-foot intervals for delivery and approval by the ACOE.

Survey, Study, Permitting and Design of Improvements at the Frazier State Pier & Pilgrim Memorial State Park, Plymouth, MA - Bourne Consulting Engineering / MA Department of Conservation and Recreation

Alpha performed an existing conditions survey of Frazier State Pier, docking location of the Mayflower II, and Pilgrim Memorial State Park, home of the Plymouth Guild/Plymouth Rock. The limits of the survey was bounded on the west by the westerly line of Water Street (including +/- 1250 LF Water Street), and follows the shoreline from where the Park meets the shoreline to the north, southerly along the shoreline for approximately +/-2500 LF to where the shore line meets Water Street southerly of the Pilgrim Rock Memorial. The total upland area including the rip rapped shoreline and Water Street is +/- 9 acres. GPS was utilized to establish survey control referenced to NAD83, and vertical datum was referenced to Mean Low Water (MLW) utilizing an NGS Bench Mark located at the State Pier. Detail of the pier included locating the horizontal extents, the Museum building, and associated features. The survey extended to low water along the Rip Rap shoreline. The data was reduced, elevations converted to MLW, and plotted utilizing Alphas' CAD layering and symbology conventions in AutoCAD2009. An elevation model was created for contouring the beach data, and the Client was provided with a digital file of the beach/seawall survey and the TIN to merge with their bathymetry.

Crescent Beach Seawall Improvement Project, Gunrock & Atlantic Aves, Hull, MA – Town of Hull

Alpha performed extensive boundary research and survey to identify individual ownership of parcels abutting a 1660LF section of seawall. An existing conditions survey was performed of the rip-rap shoreline from the top of bank to the Mean Low Water of Massachusetts Bay. The survey was referenced to NAD83, and NAVD88 converted to Mean Low Water. A plan of the shoreline and property ownership was prepared and delivered to the client. A Chapter 91 License Plan set was prepared and delivered to Mass DEP.

Seawall Rehabilitation Project, Oceanside Dr, Scituate , MA-RC&D/Town of Scituate

Alpha established GPS survey control for the contractor for this on-going 600LF Seawall replacement project. The project was referenced to NAD83 and NAVD88 converted to MLW. A project baseline was established for the contractor, benchmarks set, and layout of sheet piling.

Gulf Oil Terminal Bulkhead Repair Project, 123 Eastern Ave, Chelsea, MA – BTT Marine Construction Company/GZA/Gulf Oil

Alpha verified/densified the existing project control as needed in support of the bulkhead repair work. Pre-repair spot grades were taken through the repair area, and settlement monitoring points were set on critical features including pipe racks, and existing retaining wall, concrete loading platform, and concrete headwall. Initial locations were obtained on the monitoring points for comparison with future periodic readings. Various components of the bulkhead including soldier and king pile locations were calculated and laid-out, along with other related features. Upon completion of the repair, an as-built survey was performed to locate the King and sheet pile locations, face of bulkhead wall, fuel platforms and lines, rip-rap and revetment. A stamped & signed drawing and AutoCAD file of the as-built were delivered to the client.

Survey, Study, Permitting and Design of the Fore River Avenue and Fort Point Road Seawalls, Weymouth, MA - Bourne Consulting Engineering / Town of Weymouth

Alpha performed an existing conditions survey of two different shorelines totaling approximately 3850 linear feet of seawall and a total area of +/- 17 acres. The purpose of the survey was to support the design of wall repair/replacement where over-topping was occurring during storm surges. GPS was utilized to establish survey control referenced to NAD83 and NAVD88 observing to published benchmarks, which had been researched on the MassDOT and NGS websites. The bordering inshore was highly developed with closely spaced 'beach houses' and paved/gravel roads abutting the wall with drainage structures penetrating the seawall. The survey was extended out-shore to a shallow water depth at low-tide to create overlap with the Bourne's bathymetry. RTK GPS methodology was used to observe the out-shore and beach area to the base of the seawall. Conventional survey methodology was used to observe cross-sectional detail of the seawall and continue the survey landward to include the abutting road. Three salt marsh areas, as delineated by the Town of Weymouth Shellfish Warden, were located during the survey. Invert elevations were obtained on the drainage structures in the abutting streets and on the concrete encased outfall pipes extending beyond the seawall. Numerous man-made rock jetties were located within the survey limits and the survey was extended 200 feet beyond the ends of the seawalls. The data was reduced, elevations converted to MLW, and plotted utilizing Alphas' CAD layering and symbology conventions in AutoCAD2009. An elevation model was created for contouring the beach data, and the Client was provided with a digital file of the beach/seawall survey and the TIN to merge with their bathymetry.

Duxbury Beach Seawall/Barrier Beach Duxbury, MA - Bourne Consulting Engineering / Town of Duxbury

An existing conditions survey was performed of approximately five miles of barrier beach and adjacent dunes to be used as a base-line comparison to prior and future surveys. Utilizing GPS technology survey control was established to reference the survey to the Mass State Plane Coordinate System (NAD83) and to NGVD88. Published benchmark elevations were obtained by researching the MassDOT and NGS websites, and with the Town of Duxbury Engineering Department, and also researched the Tide Chart for planning the survey. Alpha utilized GPS to observe to eight (8) published benchmarks, including four established for prior surveys, and two associated with a prior seawall project performed within the project limits. The client's tide gauge(s) being used for their bathymetry were tied into the survey control. Transects were observed at 500-foot intervals along the open beach, beginning at an out-shore limit of shallow water depth at low-tide (to create overlap with the bathymetry) to the rack line, and beyond, to pick-up changes in slope of the adjacent dunes. RTK GPS methodology was used to obtain the elevations along transects at appropriate intervals to observe the natural changes in the shoreline slope. Along the existing seawall, transects were observed at 200-foot intervals along the approximately 4400 linear feet of wall. GPS was used to obtain the observation from shallow water depth at low tide up to the seawall. Conventional survey equipment was used to obtain

cross-section elevation data of the seawall and continue the transect to beyond the existing beach houses to an abutting paved access road parallel to the beach. The data was reduced, elevations converted to MLW, and plotted utilizing Alphas' CAD layering and symbology conventions in AutoCAD2009. An elevation model was created for contouring the beach data, and the Client was provided with a digital file of the beach/seawall survey and the TIN to merge with their bathymetry.

Manomet Beach Monitoring, Plymouth, MA - Bourne Consulting Engineering/Save our Shores Association

An existing conditions survey was performed to be used as a base-line for a future annual beach erosion monitoring program. The survey was established on the NGVD29 vertical datum and Massachusetts State Plane (NAD83) horizontal datum. Base lines were established at predetermined intervals for approximately 2000 feet of shoreline for gathering topographic cross-sectional data. A topographic plan was prepared depicting one-foot contours of the dune and abutting shoreline to mean low water. The survey will be used as a basis for comparison with future annual monitoring surveys.

George's Island Seawall Restoration, Boston Harbor, Boston, MA - Bourne Consulting Engineers / Metropolitan District Commission

A topographic survey was performed of the perimeter of Historic George's Island, home to Fort Warren a National Historic Landmark. The island is comprised of approximately 30 acres and a mile of shore line. The survey included topography of one hundred feet of upland around the island perimeter, beaches, rip-rap, concrete and stone revetment walls and shoreline. The survey control was established horizontally in the Massachusetts State Plane Coordinate System and vertically in the North American Vertical Datum of 1988 (NAVD88).

Proposed Revetment Improvements at Point Allerton Boston Harbor, Hull, MA - Bourne Consulting Engineering / MA Department of Conservation & Recreation

Survey services were provided for a boundary survey of a privately owned parcel on Point Allerton. The survey was in support of a land swap and taking of permanent easements for proposed sand renourishment and revetment construction and maintenance on Boston Harbor.

94 Millway Barnstable, MA – Notice of Intent for Private Residence
Survey services included the preparation of a Notice of Intent filing for proposed site improvements on a residential property. Survey included boundary retracement and location of existing site features and the delineated bordering vegetated wetland. Prepared a Plan and Notice of Intent for property owner and filed with the Barnstable Conservation Commission.

16 Pine Tree Drive, Onset, MA – Notice of Intent and Chapter 91 Private Residence
Survey services were provided for the preparation of a Notice of Intent filing and for a Chapter 91 plan for proposed dock improvements. Survey included boundary retracement, location of existing site features and complete topography with one-foot contours, location of eel grass, and mean high and low water lines. A bathymetric survey utilizing conventional survey methods was performed along the shoreline abutting the property. Prepared Plans for Notice of Intent and Chapter 91 filings depicting the site conditions with one-foot contours buffer and mean high and low water lines.

1518 Washington Street, Stoughton, MA – Notice of Intent for Commercial Property

Survey services included the preparation of a Notice of Intent filing for proposed site improvements of a commercial property. Survey included boundary retracement, location of existing site features and complete topography with one-foot contours, location of delineated vegetated wetlands and Whitman Brook. Prepared Plan for future Notice of intent filing depicting the site conditions and topography, bordering wetlands and Riverfront and Buffer Zone lines.