

Request for Proposal - Land Survey

Dover High School & Regional Career Technical Center

December 12, 2014





December 12, 2014
14480

Dr. Elaine Arbour, Ed.D., Superintendent
The Dover School District
School Administrative Unit # 11
McConnell Center
61 Locust Street, Suite 409
Dover, NH 03820-4132

Proposal for Surveying Services

Dear Dr. Arbour:

Thank you for the opportunity to assist the Dover School District through the provision of surveying and environmental services for your Dover High School & Regional Career Technical Center project in Dover, New Hampshire. We received your Request for Proposal (via email from HMFH Architects) dated December 5th, containing the Request for Proposal (RFP) and 3 parcel sketches from the City GIS site. We also received your revised RFP dated December 9th and clarification email dated December 11th.

We have reviewed the RFP, GIS parcel exhibits and aerial photography of the parcels. We understand that the survey work requested needs to be performed in the winter months. With this in mind we have separated the project into two phases. The product of the first phase will be the Existing Conditions Plans described in the Phase One Scope of Services below. The second phase includes setting rebar property markers, wetlands inspections, and survey site inspections as described in phase two below.

Per item 1.4.1 of the RFP requires a listing of our limits of liability for liability insurances.

Commercial General Liability	\$2,000,000
Automobile Liability	\$1,000,000
Umbrella Liability	\$2,000,000
Workers Compensation and Employers' Liability	\$1,000,000
Professional Liability	\$2,000,000

For more particular information, Certificates of Insurance can be provided at the Owner's request.

Based on our understanding of the project, we have prepared the following detailed scope of services for your project:

Scope of Services

Phase One:

1.0 Existing Conditions Survey

- 1.1 We will be performing technical research for this project at the City of Dover (including Assessors Office, Public Works, and School Department), the Strafford County Registry of Deeds and other sources as needed.
- 1.2 We will establish control points on the New Hampshire State Plane Coordinate System utilizing dual frequency GPS receivers. Utilizing this control we will search for existing survey monumentation on the locus parcels as well as abutters' parcels. In addition to the boundary information, site features such as: buildings, driveways, walkways, fences, grade changes, specimen trees flagged by the Owner or Architect, and visible surface utilities will be located.
- 1.3 We will obtain Airborne Light Detection and Ranging (LIDAR) data to supplement our on the ground topography due to the winter request for topographic surveying.
- 1.4 We will analyze the boundary evidence as located with the research we gathered to delineate the properties boundaries.
- 1.5 The topographic information will be used to create line work showing the site features and elevation contours at 1 foot intervals.
- 1.6 The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) will be reviewed to note the location of the 100 year flood elevation. This flood line will be added to the plan based upon the elevation and our on-site topographic survey.
- 1.7 This survey information will be combined onto an Existing Conditions Plan showing the boundary, topography, utility and flood zone information.

Phase Two:

2.0 Spring Inspections

- 2.1 If the locus parcels major property corners are not currently marked, we will return in the spring and set 5/8" rebar property markers.
- 2.2 Since the initial wetlands delineation will be performed in the winter, a spring inspection is needed to verify the delineation. If deviations are found they will be located and revised on the plan.
- 2.3 Since the initial surveying work will be performed in the winter and is subject to snow cover, we will perform a visual spring inspection and locate observed site deviation. Any deviations will be revised on the plan and resubmitted to the Architect.

Assumptions

- RFP item 3.3 requests north be a Magnetic Declination. We commonly use grid north for our basis of bearing. However, we can provide the drawings in either declination and will discuss it with the Architect prior to commencement of the project.
- RFP item 3.7 requests the elevation datum to use NGVD29. The current standard, which is also used on the Flood Insurance Maps is the North American Vertical Datum of 1988 (NAVD 88). We can provide the drawings on either datum and will discuss it with the Architect prior to commencement of the project.
- RFP item 4.2 requests that we "Reconcile any discrepancies between the survey and the recorded legal description". We will show any observed discrepancies, however the city's legal counsel would need to reconcile any discrepancies. We can assist the city's legal counsel for an additional fee, once requirements are known, should they need further surveying services.
- RFP item 5.7 Utility Information. Although we are subcontracting the services to an Underground Utility Locator, we are not proposing to excavate in any manner to determine depths, sizes or pressures of pipes. He will use an electronic locator and mark the approximate depth of utilities when known. We will measure pipe sizes, and depths within accessible sewer and storm drainage manholes within the project area. We will add pressures, sizes, and types of utilities as available or provided by the utility companies.
- We understand that Parcel H0017-00000 on the westerly side of Bellamy Road straddles both sides of the river. The city however only needs survey information on the portion of the parcel on east side of the river abutting Bellamy Road.

Conclusion

As requested we have are performing the tasks outlined above for Lump Sum Costs with the phase one Existing Conditions Plan separated from the phase two Spring Inspections.

Phase One: Existing Conditions Survey Lump Sum Fee \$34,300.00
Phase Two: Spring Inspections Lump Sum Fee \$5,500.00

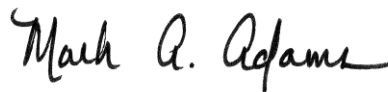
We have attached the signed Request for Proposal, as well as an introduction to Sebago Technics, Inc. Again, thank you for considering Sebago Technics for this work. We look forward to assisting you with your project. Please, contact us if you have any questions or require additional information.

Sincerely,

SEBAGO TECHNICS, INC.



Matthew W. Ek, PLS
Senior Survey Manager



Mark A. Adams
President/CEO

MWE

Enc.

Cc: Ms. Tina Stanislaski, HMFH Architects, Inc.



AIA® Document G60f" -1994

Request for Proposal- Land Survey

] SURVEYOR
] OWNER
] ARCHITECT

DATE: December 5, 2014

PROJECT (*Name and address*)

Dover High School & Regional Career Technical Center
25 Alumni Drive, Dover, NH 03820

OWNER (*Name, Legal Status and Address*)

The Dover School District
School Administrative Unit #11
McConnell Center
61 Locust Street, Suite 409
Dover, NH 03820-4132

SURVEYOR (*Name, Legal Status and Address*)

ARCHITECT (*Name, Legal Status and Address*)

HMFH Architects, Inc.
130 Bishop Allen Drive
Cambridge, Massachusetts 02138

ATTENTION (*In Architect's office*)

Tina Stanislaski, AIA

ARCHITECT'S PROJECT NUMBER:

403114

REQUEST FOR PROPOSAL

The Owner requests the Surveyor to submit to the Owner a proposal for a Land Survey of the property described below.

The Surveyor shall submit the proposal by attaching hereto (and identifying in Article 8) the material required, and returning three signed copies of this document to the Owner. The Surveyor shall include with the proposal a statement defining any proposed deviations from the requirements of this document, including additions, deletions, exceptions and revisions.

If the Owner accepts the proposal, all three copies of this document will be signed by the Owner; one will be returned to the Surveyor and one to the Architect. Upon execution and receipt by both parties, this document and all attachments listed in Articles 6, 7 and 8 shall form the Agreement between the Owner and the Surveyor.

ADDITIONS AND DELETIONS:
The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The Surveyor shall hold the proposal open for acceptance by the Owner for a period of thirty (30) calendar days after the date of submittal to the Owner.

LAND SURVEY PROPOSAL

ARTICLE 1 GENERAL PROVISIONS

§ 1.1 TIME

§ 1.1.1 Subject to any limitations stated in this proposal, the specified Land Survey shall be completed and the drawing(s) and report(s) delivered to the Owner and the Architect within sixty (60) calendar days after written authorization to proceed is received, barring circumstances beyond the Surveyor's control that force a delay. In such instance, the Surveyor will inform the Owner of the cause of the delay.

§ 1.2 COMPENSATION

§ 1.2.1 The Surveyor shall attach the lump sum fee or rate and price schedule information or both to this proposal. The cost of the Land Survey (including the furnishing of all materials, surveying equipment and computers, labor and any required insurance) shall be based upon the method(s) checked below:

a stipulated sum for all services based on this proposal, with adjustments to the stipulated sum being computed in accordance with the Surveyor's attached rate schedule if changes in the work are authorized;

OR

charges computed in accordance with the Surveyor's current attached rate schedule which shall include a lump sum for mobilization, demobilization, travel and per diem expenses, stating the maximum amount of cost that will be incurred without prior written authorization by the Owner;

OR

as specified below.

§ 1.3 BILLING AND PAYMENT

§ 1.3.1 Billing for the survey shall be as checked below:

to the Owner's address above, with a copy to the Architect;

OR

to the Owner in care of the Architect, in duplicate, at the Architect's office address.

§ 1.3.2 Payment shall be made as follows:

(Here insert payment provisions.)

On a lump sum basis following the satisfactory completion and transmittal of a site survey in accordance with these specifications. Upon receipt of the Surveyor's invoice, the Architect will bill the Owner and pay the Surveyor within (30) days after receiving the funds from the Owner.

§ 1.4 INSURANCE

§ 1.4.1 The Surveyor shall provide and maintain insurance coverage for claims under Workers' Compensation Acts; claims for damages because of bodily injury, including personal injury, sickness or disease, or death of employees or of any other person; and from claims for damages because of injury to or destruction of tangible property, including loss of use resulting there from. The Surveyor's proposal shall state the coverages and limits of liability of professional liability insurance that will be maintained for protection from claims arising out of the performance of professional services. Certificates of Insurance evidencing the above coverages shall be made available at the Owner's request.

§ 1.5 PROTECTION OF PROPERTY

§ 1.5.1 The Surveyor shall contact the Owner for information regarding the site and shall take all reasonable precautions to prevent damage to property, visible and concealed, and shall reasonably restore the site to the condition existing prior to the Surveyor's entry, including, but not limited to, repair of lawns and plantings.

§ 1.6 QUALIFICATIONS

§ 1.6.1 All services shall be performed by qualified personnel under the supervision of a professional licensed or otherwise qualified by the state to practice land surveying, and the document(s) submitted shall bear the Surveyor's seal and statement to that effect.

§ 1.7 USE OF SURVEYOR'S DRAWINGS

§ 1.7.1 It is understood that the Owner, or the Architect on the Owner's behalf, may reproduce the Surveyor's drawings without modification and distribute the prints in connection with the use or disposition of the property without incurring obligation for additional compensation to the Surveyor. The original drawings shall remain the property of the Surveyor.

§ 1.8 ACCURACY STANDARDS

§ 1.8.1 Precision of the survey shall be based on the positional accuracy concept. The Surveyor shall recommend in the proposal positional accuracy limits and error of closure limits for the property being surveyed.

ARTICLE 2 PROPERTY INFORMATION PROVIDED BY OWNER

§ 2.1 LEGAL DESCRIPTION:

(Insert legal description of the property and attach supporting data.)

See attachments, if any, identified in Article 7.

§ 2.2 COMMON DESCRIPTION:

(Insert property name and address.)

Three parcels of land as shown in the attachments including the 44-acre parcel identified as 25 Alumni Drive, the property identified as 16 Daley Drive, and the town owned property with play fields identified as Belamy Road, Dover, NH.

See attachments, if any, identified in Article 7.

§ 2.3 PROPERTY LINES AND ACCESS

§ 2.3.1 Property lines and means of access are shown on the attached drawings, identified in Article 7. Site access is provided by the arrangement checked below:

The Owner has title to this property and the right of entry for this survey.

The Owner has secured permission from the present owner and tenant for entry to the property for this survey, subject to the following conditions:

The present owner is:

The present tenant is:

Other conditions:

The Surveyor shall contact the following person(s) in order to schedule site access and make necessary arrangements:

(Insert names, addresses and telephone numbers, if any.)

Jeffrey White, Facilities Director, Dover School District, (603) 516-6882

As otherwise specified below.

ARTICLE 3 DRAWING REQUIREMENTS

Requirements for land survey drawings are as indicated below.

§ 3.1 Drawings shall note all dimensions and elevations in:

imperial units at 1" = 40' (unless otherwise authorized by the Architect) scale.

metric units at scale.

§ 3.2 Drawing sheets shall be trim size 30" x 42" with left binding edge and 1/2" borders.

§ 3.3 Show NORTH arrow and locate magnetic North:

directed to the top of the sheet;

OR

as specified below.

- § 3.4 Include legend of symbols and abbreviations used on the drawing(s).
- § 3.5 Spot elevations on paving or other hard surfaces shall be to the nearest .01 foot; on other surfaces, to the nearest .10 foot. If required by Section 3.1, use equivalent metric units.
- § 3.6 Boundary and topographic information, where both are required, shall be on the same drawing unless otherwise requested by the Architect.
- § 3.7 State elevation datum on each drawing:
- use National Vertical Geodetic Datum (NVGD) 1929 and give location of benchmark used;
 - OR
 - use assumed elevation at
 - OR
 - use official town datum;
 - OR
 - as specified below.
- § 3.8 Furnish to the Architect one reproducible transparency and three prints of each drawing. The Surveyor shall sign and seal each drawing and shall state that to the best of the Surveyor's knowledge, information and belief, all information thereon is true and accurately shown.

ARTICLE 4 LAND (BOUNDARY) SURVEY REQUIREMENTS

Survey requirements shall be established as indicated below.

- § 4.1 Show boundary lines, giving length and bearing (including reference or basis) on each straight line; interior angles, radius, point of tangency and length of curved lines. Unless otherwise prohibited by law, where no monument exists, set permanent iron pin (monument) or other suitable permanent monument at property corners; drive pin adequately into ground to prevent movement and mark with wood stake; state on the drawing(s) whether corners were found or set and describe each.
- § 4.2 Furnish a legal description that conforms to the record title boundaries. Prior to making this survey and insofar as is possible, the Surveyor shall acquire data including, but not limited to, deeds, maps, certificates or abstracts of title, section line and other boundary line locations in the vicinity.
- Reconcile any discrepancies between the survey and the recorded legal description.
- § 4.3 Give area in square feet if less than one acre; in acres (to .001 acre) if over one acre. If required by Section 3.1, use equivalent metric units.
- § 4.4 Note identity, jurisdiction and width of adjoining streets and highways, width and type of pavement. Identify street monuments and show distance to the nearest intersection.
- § 4.5 Plot location of structures on the property. Dimension to property lines and other buildings. Note vacant parcels as VACANT. Describe building materials and note number of stories.
- Dimension perimeters in feet and inches to nearest 1/2 inch;
 - OR
 - dimension perimeters in feet and decimals to .05 foot;
 - OR
 - dimension perimeters in metric units to the nearest millimeter.
 - Include adjacent property within (*indicate feet or meters*) 50 feet.
- § 4.6 Show encroachments, including cornices, belt courses, etc., either way across property lines.
- § 4.7 Describe fences and walls and locate them with respect to property lines.
- Include identification of party walls.

- [X] § 4.8 Show recorded or otherwise known easements and rights-of-way and identify owners (holders).
- [X] § 4.9 Note planned rights-of-way and the nature of each.
- [X] § 4.10 Note planned street widenings.
- [X] § 4.11 Show individual lot lines and lot block numbers; show street numbers of buildings if available.
- [X] § 4.12 Show zoning of property. If more than one zone, show the extent of each. Show zoning of adjacent property and property across the street(s) or highway(s).
- [X] § 4.13 Show building line and setback requirements, if any.
- [X] § 4.14 Give names of owners of adjacent property.
- [X] § 4.15 Other: Show parking layouts that delineate the number of parking spaces and parking arrangement

ARTICLE 5 TOPOGRAPHICAL SURVEY REQUIREMENTS

All lines of levels shall be checked by separate check level lines, or on previous turning points or benchmarks. Topographical survey requirements shall be established as indicated below. If required by Section 3.1, use equivalent metric units.

- [X] § 5.1 A minimum of one permanent benchmark on site for each four acres and a description and elevation to nearest .01 foot.
- [X] § 5.2 Contours at 1 foot intervals; error shall not exceed one-half contour interval.
- [X] § 5.3 Spot elevation at each intersection of a 50 foot square grid covering the property.
- [X] § 5.4 Spot elevations at street intersections and at 10 feet on center of curb, sidewalk and edge of paving, including far side of paving. If elevations vary from established grades, also state established grades.
- [X] § 5.5 Plotted location of structures, paving and improvements above and below ground.
- [X] § 5.6 Floor elevations and elevations at each entrance of buildings on the property.
- [X] § 5.7 Utility information. The following information is to be shown on the drawings. An underground utility locator should be employed to accurately locate any subsurface utilities.
 - [X] Location, size, depth and pressure of water and gas mains, central steam and other utilities including, but not limited to, buried tanks and septic fields serving, or on, the property.
 - [X] Location of fire hydrants available to the property and the size of the main serving each.
 - [X] Location, elevation and characteristics of power, cable television, fiberoptic cable, street lighting, traffic control facilities and communications systems above and below grade.
 - [X] Location, size, depth and direction of flow of sanitary sewers, combination sewers, storm drains and culverts serving, or on, the property; location of catchbasins and manholes, and inverts of pipe at each.
- [X] Name of the operating authority, including contact person and phone number, for each utility indicated above. [X] § 5.8 Show Shoreland setbacks if applicable. Wetlands are required to be documented and flagged by a Certified Wetland Scientist in accordance with Chapter 170-27.1 of the City of Dover Zoning Ordinance.
- [X] § 5.9 Location of flood plain and flood level of streams or adjacent bodies of water. The 100 year flood elevation data shall be provided for that portion of the lot located within a "Special Flood Hazard Area" as designated on the Flood Boundary and Flooding Maps and Flood Insurance Rate Maps for the City of Dover, dated May 17, 2005 or later.

[X] § 5.10

[X] § 5.11 Location of test borings if ascertainable, and the elevation of the tops of holes.

[X] § 5.12 Location of trees 6 inches and over (caliper three feet above ground); locate within one foot tolerance and identify species in English and botanical terms.

[X] § 5.13 Location of specimen trees flagged by the Owner or the Architect (50 in number); locate to center within six inches tolerance; give species in English and botanical terms, give caliper three feet above ground and ground elevation on upper slope side.

[X] § 5.14 Perimeter outline only of thickly wooded areas unless otherwise directed.

[X] § 5.15 Description of natural features.

[X] § 5.16

§ 5.17 Other: Location, material and approximate size of all permanent monuments.

ARTICLE 6 ADDITIONAL REQUIREMENTS

(Describe any additional requirements specific to this Project.)

ARTICLE 7 ATTACHMENTS BY OWNER

(Identify attachments by Owner as described in Sections 2.1, 2.2 and 2.3, and any other documents that are incorporated by reference below.)

§ 7.1

§ 7.2

§ 7.3

ARTICLE 8 ATTACHMENTS BY SURVEYOR

(Identify and attach any other terms or conditions, accompanying sketches and any other documents that are incorporated by reference below.)

§ 8.1

§ 8.2

§ 8.3



An Introduction





What Sets Us Apart?

Approach

Our approach to project delivery provides a single point of contact, responsive scheduling and cost efficiency.

Reputation

Sebago Technics is recognized as a firm that excels in the permitting of projects through experienced knowledge and excellent reputation.

Ownership

Employee ownership results in improved responsiveness, commitment and accountability throughout the organization.

Quality

Our designs, graphics and plans are subject to rigorous quality standards and review which results in clear, effective documents.

Innovation

Sebago Technics' design professionals employ the latest engineering and technological methods to develop practical, cost-effective solutions.

Results

Sebago Technics' resources and experience combined with our project team approach provide the capacity to meet client needs and deliver results.

Founded in 1981, Sebago Technics, Inc. is a consulting firm of more than forty design professionals and technical staff providing services throughout New England. From the start, our business plan was simple: "to provide quality, cost-effective civil engineering services that are responsive to a customer's goals, schedule and budget." Our One Company capabilities and resources provide clients with experience and solutions to respond to their planning, permitting and design needs. Guided by integrity, experience and teamwork we understand that we can only succeed when quality, responsive and cost-effective service is provided to our customers.

At a Glance:

Year Established: 1981
(Employee Owned Since 1998)

Licensed & Certified Professionals

- | | |
|-------------------------------|--|
| Professional Engineers | Registered Landscape Architects |
| Certified Flood Plain Manager | Licensed Soil Scientist |
| Certified Wetland Scientist | Subsurface Disposal Systems Designers |
| DOT Project Administrators | Erosion Control, Sedimentation & |
| LEED Accredited Professionals | Stormwater Inspectors |
| Professional Land Surveyors | Professional Traffic Operations Engineer |

Approach & Services



We provide engineering, planning, surveying and environmental services to companies, developers, land owners and the public sector for customers and projects, both large and small. Our experience includes projects in commercial, industrial, retail, residential, recreation, utility and government sectors. We meet our client needs through an efficient and effective delivery system providing clients a single point of contact. Our approach combined with our expertise and services allows us to meet the needs of our customers within One Company.

Nearly every project requires some level of regulatory permitting and public process. Sebago Technics excels in these areas. The nature of our work enables us to remain current on the latest regulations and forge important relationships with regulatory and enforcement personnel in governments and agencies throughout the region. Our project managers and technicians are experienced with the requirements and processes of various federal, regional, state and municipal authorities. We work diligently and proactively in pursuit of permits and approvals striving to balance compliance with our clients' needs and interests.

Clients rely on Sebago Technics to guide their projects through design, permitting and construction processes utilizing either traditional or design-build delivery. Our licensed professionals remain current in the latest engineering practices and are certified in LEED, Erosion, Sedimentation and Stormwater Control & Inspection, Wetlands, Soils, Septic Design, and Traffic Operations. Our One Company range of services and expertise allows us to assist projects from concept through construction.

As a 100% employee owned company our employees set us apart through commitment and integrity. Our team-based approach to services provides each client with the expertise and input of multiple disciplines. Whether an engineer, surveyor, landscape architect or environmental scientist each project benefits from the perspective and skills of varied professionals. The combined experience and knowledge, under one roof, benefits each project and customer for a better result.

General Services

- Land Surveying
- Site and Civil Engineering
- Transportation/Traffic Engineering
- Landscape Architecture
- Environmental Engineering
- Natural Resources and Soils Science
- Permitting (Local/State/Federal)
- Construction Services

Civil & Site Engineering



Civil Engineering is a broad based profession that deals with the design, construction and maintenance of the physical and naturally built environment. Civil and Site Engineering projects may include regulatory permitting at all levels of government, technical studies and evaluations, planning and implementation, feasibility assessments, stormwater modeling, infrastructure design, site and subdivision planning/design. Often, the Civil Engineer will take the lead on a project coordinating other disciplines such as environmental, geotechnical, survey and transportation components that comprise a complete project approach.

From the beginning, Sebago Technics, Inc. has focused on offering a broad range of Civil Engineering services to the public and private sector. Our diverse Civil Engineering staff provides customers the experience and expertise to evaluate, design and permit projects covering a broad spectrum. As technology advances and regulatory processes evolve, our Civil Engineering staff has remained flexible and adaptive with a focus on customer service. Our Civil Engineer's work together in teams of experienced professionals to assist customers on a variety of projects. Our staff works with customers from inception to completion to plan, design, permit and construct projects. Throughout a project, we strive to be attentive to the customer's goals and seek solutions that are cost-effective and responsive to regulatory requirements.

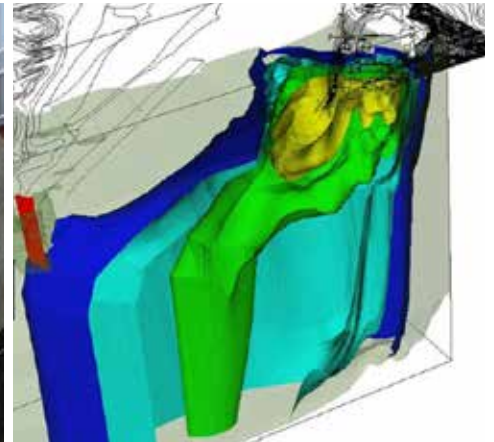
- **Fort Meade**
- **Department of Defense, MD**
- Masterplanning for the 500-Acre, Ft. Meade housing development including civil design for Phase I consisting of 1,000 new homes, 330 acres, and 9 miles of roadway and supporting infrastructure.
- **Eastern Manufacturing Facility**
- **Brewer, ME**
- Civil Engineering, permitting and transportation planning for a \$19 million site redevelopment for fabricated assembled modular industrial structures for shipment via rail, barge and highway throughout the United States.
- **Government & Municipal**
- **General Engineering Services**
- Sebago Technics has a long history of ID/IQ delivery of services to municipalities and government agencies.
- **U.S.P.S. Distribution Center Expansion**
- **North Reading, MA**
- Civil Engineering, Regulatory permitting and Traffic Impact Assessment for 140,000 s.f. (design-build) expansion of an existing postal facility.
- **Exit 3, I-295**
- **South Portland, ME**
- \$6.5 million redesign of existing interchange to expand capacity and eliminate 3 High Crash Locations.
- **Municipal Streets**
- **Portland, ME**
- Redesign of 16 arterial and collector streets, including storm sewer separation, totaling more than 4 miles in length as part of the City's CSO program.

Land Surveying



Survey is a fundamental component required by almost every project. We believe maintaining a qualified in-house staff of survey professionals and technicians provides enhanced project coordination and responsive customer service. With one of the largest survey staffs in Maine, we are able to respond promptly to client and project needs. We can produce multiple survey crews on any given day with state of the art technical equipment including GPS systems, robotic instruments, total stations and technical support. Sebago maintains our own GPS base station allowing us to complete real time kinematic GPS within a supporting network. Data collected in the field is processed electronically by survey technicians and professional land surveyors to produce quality final products whether it is a stand alone survey plan or engineering data to be used in design and construction.

- **Cutler Naval Communications Facility**
- **Cutler, ME**
- Boundary and Existing Conditions Survey using aerial mapping for 51 acre Naval Facility along the coast of Maine.
- **Brunswick Naval Air Station**
- **Brunswick, ME**
- Boundary Survey of Base perimeter and supporting Existing conditions survey for Base projects.
- **Remote Terminal Survey**
- **Statewide, ME**
- Boundary survey, existing conditions surveys and topographic surveys on hundreds of Remote Terminal sites. Site design, civil engineering and landscape design were a few of the services performed on the sites. In addition, we performed the site selection, property owner negotiation and represented the utility company before municipal/state agencies.
- **Maine Medical Center**
- **Multiple Locations, ME**
- Boundary, Existing Conditions, Construction Layout and As-Built Surveys for multiple campus and single facility locations throughout Maine. Including a recently completed As-built survey of the entire Bramhall Campus consisting of several city blocks within Portland, Maine.
- **GPS Mapping – Maine Superfund Sites**
- **Statewide, ME**
- Created maps of all locations identified on the Maine Department of Environmental Protection's Uncontrolled Site Program List. A 2,500 foot radius was mapped to identify all properties within 2,500 feet of the published Superfund Sites for all easements or transfer or real property.



Our environmental engineers and technical staff provide customers with planning, assessments, design, project management and permit acquisition for a variety of projects. Sebago Technics assists with the design of municipal and private water, wastewater and stormwater conveyance systems. Our experienced team has completed miles of sewer separation projects, designed sanitary pump stations and solid waste facilities. We also support businesses and landowners with the completion of Environmental Site Assessments (ESAs) and remediation prior to land transfers or project development.

We complete high intensity soil surveys for development projects and environmental studies along with wetland and vernal pool assessments and mapping. Our licensed site evaluators and engineers work together to design subsurface wastewater disposal systems for both small and large engineered systems including local and state permits.

Our engineering staff completes assessments and watershed modeling to develop stormwater design solutions along with Stormwater Pollution Prevention Plans (SWPP) and Spill Prevention Control and Countermeasure (SPCC) plans. We are also experienced in hydrologic modeling and flood plain mapping including FEMA permit applications. Our technical staff assists with compliance monitoring and permitting under the National Pollutant Discharge Eliminations System (NPDES) and Multi-Sector permitting.

- **Maine Coast Heritage Trust**
- **Natural Resource Inventories**
- **Islands and Coastal Properties**
- **North Haven to Mount Desert Island**
- Natural resource field mapping of a variety of natural resources, particularly vegetation habitat communities, on 11 different preserves owned by Maine Coast Heritage Trust, and publishing the data in ArcGIS
- **City of Portland, ME**
- Hydrology and FEMA flood plain analysis, mapping and permitting.
- **Turner Farm Restoration**
- **North Haven, ME**
- Inventory of natural resources on 260 acres of land. Delineation, classification, and GPS location of the wetlands was performed. Class 'B' High Intensity Soil Survey was prepared to classify all soils on the property. A wetlands map, a soils map, and natural resources report were final deliverables.
- **Freeport Village Station**
- **Freeport, ME**
- Sebago Technics conducted Phase II remediation in conjunction with the site's application to the Maine Department of Environmental Protection (MDEP) Voluntary Response Action Program (VRAP). Working closely with the developer and the MDEP, coordinated the most cost-effective and permanent solutions to remediate the site in concert with the construction schedule.



We approach planning much as we do all opportunities; with pragmatism and creativity. Combining site specific information (such as topography, natural resources, and existing development on site), with regulatory criteria, and local ordinance requirements we work to create conceptual and long term master plans that move our client's vision to reality.

Every great land development project needs a solid plan as the foundation. Without this crucial piece of design, sites never realize their true potential and become victim to an ad-hoc style of development, wedging uses together, creating poor internal site circulation and wasted space within the development as well as reduced income potential for land owners.

During the planning process we meet with local, state and federal regulators to ensure the design not only fits the site and the restrictions but to identify potential red flags from a permitting perspective early in the planning process. This is extremely important to both budget and timeline. Understanding the regulatory obstacles at the outset allows for simplified navigation throughout the permitting and development process.

- **Unum Provident Headquarters**
- **Portland, ME**

- Master planning and landscape architecture for Unum Provident Home Office III, the largest office building in Maine, together with a three level parking structure with 1200 parking spaces and employee amenities including walking pathways constructed with porous paving materials.

- **LL Bean Order Fulfillment Center**
- **Freeport, ME**

- Site planning and permitting for 1.2 million square feet of warehousing and distribution space, employee parking and site amenities on a 72 acre campus in Freeport. This facility processes and ships every order from LL Bean to customers worldwide.

- **Central Maine Medical Center**
- **Lewiston, ME**

- Site design to accommodate a major expansion and new emergency department at Central Maine Medical Center, including arrival and visitor drop off areas, ambulance service arrival bays, visitor parking and related site features.

- **Edward T. Gignoux Federal Courthouse**
- **Portland, ME**

- Streetscape and site planning for the \$20 million renovation of this federal facility, located in Portland's civic district. Site materials selected reflect the institutional nature of the courthouse, instilling a character of authority and permanence.

Site Evaluation & Regulatory Permitting



The site alternatives and selection process is often an evolutionary one that begins with defining the project needs and objectives. Over the past 25 plus years Sebago Technics, Inc. has participated in site selection process and permitting for projects ranging in size and complexity. While there are commonalities in the process, no two projects are exactly the same. As a result, we apply our knowledge and depth of experience to develop specific solutions to each and every project.

We have gained a tremendous amount of experience over the years with permitting projects in many regulatory environments. In the development of a design we strive to anticipate the regulatory issues and address them in the design process so that they do not become obstacles later in the process. When considering alternative sites or alternative site designs we are able to quickly summarize the permitting considerations as well as the cost and performance considerations.

When it comes to permitting we have had a great deal of experience with the Maine Department of Environmental Protection (MDEP) and the Army Corps of Engineers (ACOE). We have developed working relationships with the project analysts at the MDEP and the ACOE and as a result have been able to get projects through the permitting process with successful outcomes for our clients.

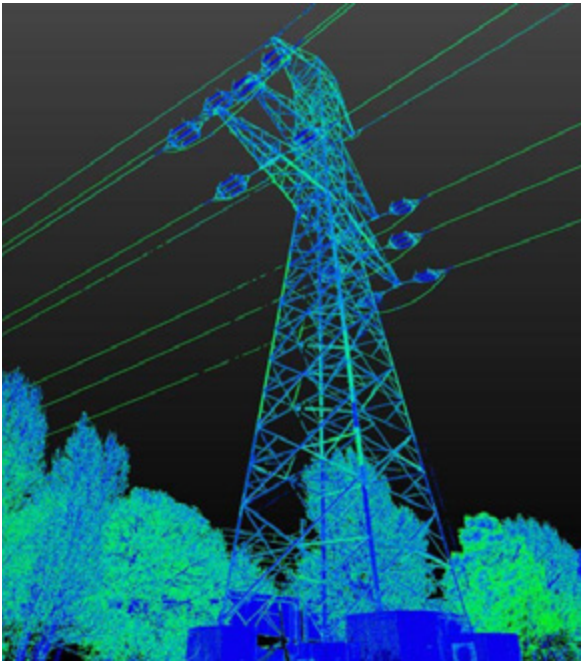
- **Maine Crossing**
- **South Portland, ME**
- Site evaluations and investigation to develop a 13 acre wetland mitigation area responsive to project impacts including permitting through the Maine DEP, USACE and EPA.
- **Cliff Island and Cushing Barge Landings**
- **City of Portland, ME**
- Sebago Technics, Inc. assisted the City of Portland with natural resource assessments and permitting for two municipal barge landings.
- Multiple regulatory permits and coordination were required to include the Harbor Commission, Submerged Lands lease, Maine DEP, USACE, Department of Marine Resources, Inland Fisheries and Wildlife, City of Portland Flood Plain and Shoreland Zoning permits.
- **International Jetport (GA) Facility**
- **Portland, ME**
- Planning and Design of a 7 acre General Aviation Facility required preparation of comprehensive permit application for the Maine DEP Site Location of Development Act, Federal Aviation Administration (FAA) and City of South Portland for a new major development project.
- **Eastern Fine Paper Redevelopment**
- **Brewer, ME**
- Engineering and permitting for redevelopment of a 39 acre manufacturing site. Permitting was extensive and fast-tracked to include City of Brewer approvals, Maine DEP Site Location of Development Act and Natural Resources Protection Act permits, Submerged Lands lease USACOE permitting, Maine Department of Transportation coordination, Beneficial Use permit for dredging and coordination with multiple agencies (Historic Preservation Office, Dept. of Marine Resources, Inland Fisheries & Wildlife).



The Design-Build process offers a coordinated team approach to the planning, design and construction of a Project. Sebago Technics, Inc. has successfully participated on a wide variety of Design-Build projects. Our success is a function of an open working relationship committed to customer service, innovation balanced by practicality and the timely delivery of services.

Sebago Technics, Inc. has participated in a wide range of design-build projects throughout Maine and New England. We have partnered with national and local teams for transportation and site development projects focused on government and private/public projects. At the federal level we have successfully completed large scale military housing, infrastructure and facility support projects along with postal services expansions and new facilities. Our broad design-build experience also includes unique private-public partnerships including wind generation and site redevelopment projects. Sebago Technics, Inc. successfully participated in Maine's first large scale Island wind generation project on Vinal Haven Island. We also participated in a fast-tracked private-public partnership of a Brownfield's site in Brewer, Maine. The project included substantial permitting and agency coordination to accommodate a new modular construction facility. Our experienced team of professionals understands the design-build process, importance of strong partnerships and the delivery of quality services focused on the customer.

- 72 Unit Family Housing, Phase I
Brunswick Naval Air Station, Brunswick, ME
- Bachelor Enlisted Quarters (BEQs)
Brunswick Naval Air Station, Brunswick, ME
- Brunswick Gardens Sewer Realignment
Brunswick Naval Air Station, Brunswick, ME
- 50-Unit Navy Lodge, Naval Station
Newport, RI
- Naval Exchange Addition, Naval Station
Newport, RI
- Naval Submarine Base
New London, Groton, CT
- 126 Unit Family Housing, Phase II
Brunswick Naval Air Station, Brunswick, ME
- U.S.P.S. Flat Sequencing System Expansion
North Reading, MA
- U.S. Postal Service Distribution Center
Scarborough, ME
- Picerne Military Housing, Fort Meade
Fort Meade, MD
- Killock Pond Road
Hollis, ME
- Fox Island Wind Power Project
Vinal Haven, ME
(Partnership with Cianbro Corporation)



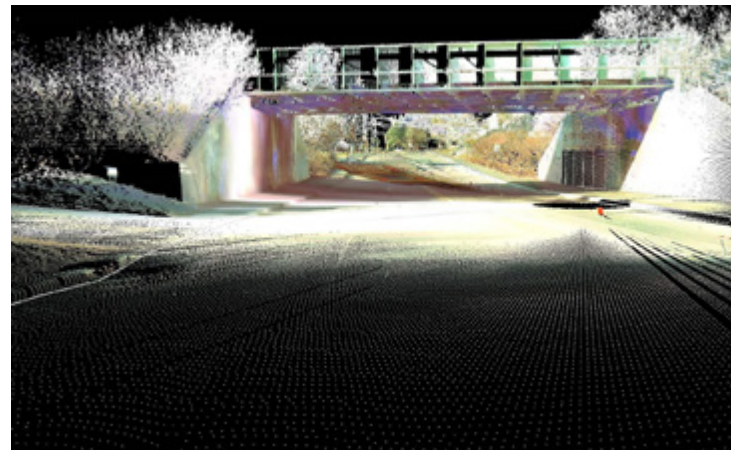
Whether you're surveying a roadway, examining a bridge, documenting a historic building, quantifying material volumes or retrofitting an existing structure, High Definition 3D Laser Scanning is an ultra-accurate, time-saving, cost effective solution

Our 3D Laser Scanner is a survey grade instrument that measures and records a real world object or environment by collecting data on its shape and color. The collected data is in XYZ coordinates with RGB color space and reflectivity values representing physical measurements. The collected data is represented by a 'point cloud' of millions of data points which can be used to construct highly accurate, three dimensional, digital models that are the basis for a wide variety of applications.

With a maximum scan rate of 50,000 points per second, Sebago Technics can supply the data to power today's 3D design software. Point cloud data and surfaces are processed through Leica Cyclone and Cloudworx software and can be exported for use in AutoCAD 2014 (Civil 3D), Micro Station, Revit, Sketchup, Solidworks.

We can scan your project and generate the 3 dimensional line work and models you need now. When you need additional information in the future we can often generate it from the same scan without another trip to the field.

Owning our own Scanner and software provides us the opportunity to respond quickly to our client's needs.



Sebago Technics has successfully completed a wide variety of scans including:

- Penobscot Narrows Bridge**
(3 Field Days / 17 million points)
- 4 Miles of Urban Streetscape**
(5 Field Days / 81 million points)
- Fitzpatrick Stadium**
(6 Hours / 26 Million Points)
- Historic Mansion**
(4 hours / 72 million points)
- 285' Electrical Transmission Tower**
(1.5 Field Days / 509 Million Points)

Civil Engineering

Site Plans
Grading & Drainage Design
Utility Design (Water, Sewer)
Stormwater Management
Permitting (Local, State & Federal)
Quarry/Gravel Pit Studies & Permitting
Technical Review
Construction Inspection

Environmental Engineering

NRPA/NEPA Studies
Site Assessments (ESAs, VRAPs)
Septic Design & Analysis
Floodplain Studies & Permitting

Transportation Engineering

Signal Analysis, Design & Management
Traffic Analysis & Permitting
Intersection, Road & Highway Design
Alternatives Analysis & Route Design

Landscape Architecture

Conceptual & Site Design
Park & Public Space Design
Urban Design
Master and Campus Planning
Waterfront Planning
Planting Design

Land Surveying

Boundary & Topographic Survey
Subdivisions
GPS Survey & Mapping
Construction Layout
As-Built Survey
Deed Research
GIS Mapping

Soil Sciences

Soil Surveys & Testing
Wetland Assessment & Permitting
Turf Impact Testing
Vernal Pool Mapping



CIVIL ENGINEERING • SURVEYING • LANDSCAPE ARCHITECTURE

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