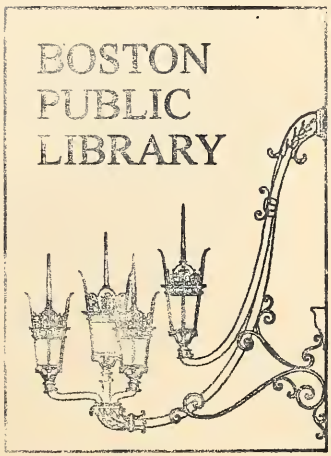
The BSC Group

STATEMENT OF QUALIFICATIONS

DESIGN SERVICES AND
RESIDENT ENGINEERING FOR
ST. BOTOLPH STREET

BOSTON REDEVELOPMENT AUTHORITY
MARCH 25, 1988



425 Summer Street
Boston MA
02210

March 25, 1988

617 330 5300

Mr. Paul Reavis
Assistant Director for Engineering
and Design Services
Boston Redevelopment Authority
One City Hall Plaza
Boston, MA 02201

RE: Statement of Qualifications
St. Botolph Street

Proposal Reference Number: 403

Dear Mr. Reavis:

The BSC Group - Boston, Inc., in conjunction with Lin Associates, Inc. (BSC/LA), is pleased to submit this letter of interest and statement of qualifications to provide design services and resident engineering for streetscape improvements to St. Botolph Street from Harcourt Street to West Newton Street.

BSC's staff has extensive experience in roadway design, traffic engineering, surveying, community participation, and streetscape design and resident engineering. Members of the BSC/LA team have worked in the past with personnel from various City of Boston departments and agencies on similar street improvement projects. The BSC Group - Boston, Inc. is currently working on the South Boston Neighborhood Transportation Plan for the Boston Transportation Department and on two Urban Systems projects in the Town of Lexington.

The BSC/LA team will provide the required field survey, traffic data collection and analysis, roadway, utility and street lighting design, streetscape design and resident engineering services required for the St. Botolph Street reconstruction project.

BSC's teaming with Lin Associates reflects our commitment to the spirit of affirmative and equal opportunities involving work within the City of Boston. Lin Associates, Inc. is a minority owned consulting engineering firm which provides a full range of services in civil engineering, structural engineering and construction management. Lin's clients include the private industry, and various State and Federal agencies. The BSC/LA team proposes to utilize the services of Wordfirst, a women's business enterprise which also qualifies as a minority business enterprise (WBE/MBE), for all word processing of technical reports and construction specifications for this project. The BSC Group - Boston, Inc. is committed to meeting the MBE and WBE participation requirements set by the Boston Redevelopment Authority.

William Carlson, Manager of Transportation Services at BSC will be assigned as Project Manager for this project with Jeffrey Paul coordinating community liaison. Mr. Carlson is familiar with the BRA and Transportation Department's requirements from his design experience on the Fenway Area Urban Renewal projects and the Huntington Avenue and Park Plaza Urban Systems projects. Jeffrey Paul has fourteen years of transportation planning/environmental assessment experience and has previously worked on the City of Boston's Tremont Street/Columbus Avenue Urban Systems project.

Mr. William Burbank, a landscape architect with BSC will provide the streetscape design for St. Botolph Street. Mr. Burbank has over 20 years of experience in urban design and examples of his project experience are included with this statement of qualifications.

The BSC Group - Boston, Inc. utilizes an Intergraph CADD system similar to the City of Boston's for major design projects and would recommend that new survey detail or development of roadway base plans for this project be developed on our CADD system to enhance the capabilities of implementing design changes and to update the BRA's information systems for City streets.

This statement of qualifications includes our general qualifications and capabilities and specific qualifications in roadway design, traffic engineering, streetscape design, and resident engineering. Resumes of engineers, planners, surveyors and landscape architects who will be assigned to this project are also included.

We are pleased to have this opportunity to submit this letter of interest and statement of qualifications and look forward to being given an opportunity to prepare a detailed proposal for professional services for this project.

Sincerely,

THE BSC GROUP - BOSTON, INC.

Charles A. Kalauskas, P.E.
Vice President

BC/AB6
2.2126.00

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QUALIFICATIONS

General

The BSC Group - Boston, Inc.is a multidisciplinary engineering and planning firm that provides professional consulting services for the planning and design of facilities that are compatible with the natural and built environment. Among the many areas of expertise of The BSC Group are: civil engineering, site design, traffic engineering, environmental planning, geology and hydrology, survey and mapping, community planning, landscape architecture and construction supervision and monitoring.

The project team concept utilized by BSC involves first allocating specific elements of its projects to the team member who specializes in a particular area. Design elements are subsequently reviewed and modified in a group forum. The BSC Group - Boston, Inc. believes that this concept of idea exchange, made possible because of the group's size and rapport with one another, helps to provide its clients with the highest quality project possible within budget and time resource constraints.

The professionals assigned to a project are highly skilled in their respective fields and have years of experience working both at BSC and other consulting firms in the Boston area. A more detailed description of the related experience and a list of references follows.

Lin Associates, Inc. established in 1978, is a minority owned engineering firm and a small business concern serving both private industry and various government agencies. The firm provides full range of services in structural engineering, civil engineering, and construction management. The professional staff of Lin Associates, consisting of engineers and drafters, offers a broad base of design expertise drawn from a variety of projects conducted in the

United States and abroad. The firm is proud of its high degree of commitment to excellence as well as its responsiveness to client needs.

Wordfirst is a WBE/MBE enterprise which provides word processing services to a variety of clientele. BSC has used this organization many times over the past few years to prepare reports and technical specifications.

Related Experience - Roadway Design

BSC has performed roadway improvement and traffic engineering design services successfully for a number of municipalities and for private industrial or residential site development projects throughout Massachusetts in recent years. BSC is presently working on two on-going Urban Systems funded projects (Marrett Road and Bedford Street in Lexington, MA) and on two projects with the Boston Transportation Department. BSC has developed an outstanding reputation for the high quality of its design work that is sensitive to the needs of both people and the environment. Listed below are several examples of projects which are similar to or have similar components as the St. Botolph Street reconstruction project.

- South Boston Neighborhood Transportation Plan
  Boston, MA

  Under contract to the City of Boston's Transportation Department, traffic engineers from The BSC Group are currently developing plans to improve traffic circulation and parking and re-routing truck traffic in the South Boston area. This work has involved numerous community meetings with city and state officials.

- Fort Point Channel Area - PWED Project
  Boston, MA

  As a subconsultant to Fay, Spofford and Thorndike, BSC is preparing base plans for the Fort Point Channel Project Area. BSC will assist FST in community liasion and in the development of 25% design plans for a new street system for the project area.

- North Lexington Roadway Improvements, Lexington, MA
  (Urban Systems)

  Engineering design and environmental permitting for several major roadways in the industrial section of Lexington, a suburb of Boston. The project is in progress and involves a great deal of review by federal, state and local officials, local businessmen and residents in the area who would be affected by the proposed design.

- Historic District Streetscape Design - Bedford, MA

  BSC designed landscape, streetscape and sidewalk improvements to the Town Common. The design and construction of the improvements were funded by a state grant, and required approval on the State, as well as local level.

- South Main Street/Summer Avenue, Reading, MA

  Design of traffic signal and geometric roadway improvements for a high hazard location on Route 28. Construction documents must follow MDPW submission guidelines and standard specifications.

- Route 114/Watson Parkway, Danvers, MA

  Field survey, roadway and signal design and preparation of construction documents (plans and specifications)

for a 1,500 foot segment of State Route 114 which is proposed to be widened from a three to a five lane section. Improvements also include granite curbing, signalization and bituminous concrete overlay. BSC will provide construction monitoring services on this project.

- Centre Street/Pearl Street/Jefferson Street Intersection Improvements, Newton, MA

  The City of Newton hired The BSC Group to prepare contract documents to signalize an intersection in Newton Center. This project included signal design, the preparation of contract documents and working with state officials to gain approvals prior to construction. BSC will provide advice during construction on an as-needed basis.

- Concord Road Reconstruction, Bedford, MA

  Field survey, engineering design and construction monitoring of a 1600-foot section of Concord Road (Route 62) in a residential area adjacent to the central business district of Bedford, a suburb of Boston.

- Mill Brook Revitalization Project Roadway Improvements, Arlington, MA

  Field survey, traffic engineering, highway design and environmental permitting for a Public Works Economic Development Grant project just north of Arlington Center. The redesign of 1200 linear feet of urban roadway included the design of two traffic signals and extensive landscaping to improve aesthetics.

- South Washington Street, Norton, MA

  Field survey, traffic engineering and preparation of design plans for a 2,000 foot segment of roadway which was reconstructed from a two-lane to three-lane roadway for access to a new industrial park in a town in southeastern Massachusetts. A Public Works Economic Development Grant funded the construction of the roadway improvements. BSC provided resident engineering services to monitor construction of the improvements.

- Sycamore Heights, Braintree, MA

  Field survey and engineering for a residential subdivision in Braintree, MA. Design of roadway, storm sewer, sanitary sewers, waterworks and other utilities. BSC also performed construction monitoring, prepared record drawings, and construction layout.

Related Experience - Streetscape Design

Listed below are several examples of streetscape design projects completed by BSC personnel. Some of these projects were undertaken by Scape Unlimited, which is now a subsidiary of The BSC Group called: The BSC Group - Springfield, Inc.

- Mattoon Street Revitalization, Springfield, MA

  As property owners in a fringe area of the City's CBD, the principals of Scape became active members of a neighborhood group to save historic structures and reinvest in the public landscape. Our work included forming a non-profit group, creating a master plan, evolving implement strategy including special tax covenants, coordinating Neighborhood Work Periods, fund raising and construction. The program included street

utilities, street trees and ornamental lighting a new park and sewer separation. The project costs (1974) $325,000.00; this investment has led to private investment of over $8 million in housing rehab and new construction.

Project Reference: David Moriarity, Planning Director
City of Springfield
1-413-788-6020

o Armoury Commons, Springfield, MA

The success on Mattoon Street generated the first state-wide private financing of inner city neighborhood revitalization. As a national award winner in 1984, Mr. Burbank and Mr. Kent were honored at the White House. Armoury is a special project. The results in two years is a total rebirth of a four-block area of blighted three/four walk up bow fronts. Our role was coordinating all planning, design, funding and implementation of $6.3 million dollar reinvestment. The planning work included CDBG funds, local share of general funds and private development funding. This neighborhood was Mr. Burbank's neighborhood for ten years prior to moving to BSC.

Project Reference: Harry Nelson, Vice President
Springfield Institution for Savings
1-413-781-8000

o Pynchon Plaza, Springfield, MA

This public park is a contemporary design area on a forty (40) foot hillside connecting levels of downtown. The role of the Project Manager was to take an idea born from his graduate thesis project, funded by private funds, generate a credible advisory committee

of local officials and sell the project merits. A local developer added "seed funds" and the project became the focus of the 1976 Bicentennial. The Plaza won regional AIA Design awards and remains a dominant landscape feature in Springfield Center.

Project Reference: David Moriarity, Planning Director
City of Springfield
1-413-788-6020

o Bennington Downtown Living Program, Bennington, VT

In 1976, Scape won a design competition of regional planners and architects to prepare a blueprint for reinvestment in the Village of Bennington. Street and park improvements were included as well as site specific building renovation. Our role was to create the theme, plan, raise funds and implement Phase 1. We raised $300,000 of matching funds from several property owners to meet a state EDA grant. We prepared contract documents and oversaw construction.

Project Reference: Thomas Cuto, Past Community
Development Director
Bennington, VT

o East End Master Plan, Gloucester, MA

Scape was retained by the City to coordinate property awareness and the public landscape in the East End of Gloucester's Main Street. The master plan process included the door to door review of plan alternatives, public workshops and a series of final plan recommendations. We were retained to complete a related phase of work for parking and pedestrian improvements. This design was honored by the local Garden Club as a civic improvement landscape in 1981.

Project Reference: Jack Howard
Gloucester, MA

- City of Pittsfield: Open Space Project
  City of Pittsfield: Urban Parks Master Plan
  City of Pittsfield: Tucker Playground

Scape was actively involved in local understanding of public and private investment requirements for recreation. The work included needs assessment for parks, layout and analysis of costs and report assistance to the UPARR Team. Further, we developed master plans for their unique Common and other underused open space in downtown. As a final segment of our work, we were involved with neighborhood groups to develop a target park. Scape undertook on-site concept review, presentation, contract documents and construction review.

Project Reference: William Angelo, Director Office of
Economic and Community Development
1-413-499-1100

- Great Hill Park, Weymouth, MA

The most important part of a design process is communications. Developing links of dialogue and trust amongst players will usually result in a successful program. In Weymouth, BSC was retained because of the project manager's communication skills and previous successes in Springfield. At Great Hill, the strong neighborhood issues often ran into priorities of the Park Commission. A workshop program over a ten week period provided the opportunity for site walks, map analysis, plan review and development. The proposal includes mitigation of traffic, security and maintenance issues while creating a direct link between the sea and the top of Great Hill which overlooks

Boston Harbor and the Weymouth Fore River. Grantmanship and coordination for local funding is on schedule for a 1989 construction of this important regional resource.

Project Reference: Amentha L. Cinotti
Program Coordinator
Office of Planning and
Community Development
1-617-335-2000

Related Experience - Lin Associates

- Recent projects undertaken by the civil engineering staff at Lin Associates include the $1.5 million roadway reconstruction at Hanscom AFB, Bedford, MA.; Evaluation and Ratings of 100 bridges in various cities of Massachusetts; Highrock Street over MBTA railroad bridge at Needham, MA; Rehabilitation of 18 bridges on Interstate - 91 in Northampton, Holyoke, and Greenfield, MA; and Walpole Sewer Survey for the town of Walpole, MA.

References

Listed below are five municipal references who are familiar with BSC's survey and design capabilities:

- Mr. Joseph Beggan
  Boston Transportation Department
  One City Hall Plaza
  Boston, Massachusetts
  Telephone: (617) 725-4847

- Mr. Francis X. Fields, P.E.
  Town Engineer
  Engineering Department
  Lexington, Massachusetts
  Telephone: (617) 862-0500

- Mr. Richard White
  (Former Town Administrator, Town of Bedford)
  Town Manager
  Lexington, Massachusetts
  Telephone: (617) 862-0500

- Mr. Robert Hanson
  Executive Secretary - Board of Selectmen
  Town Hall
  Bryant Street
  Dedham, Massachusetts
  Telephone: (617) 326-5770

- Mr. Alan McClennen, Jr.
  Department of Planning and Community
  Development
  Arlington, Massachusetts

  Telephone: (617) 643-6700

Key Personnel

The project team approach most effectively utilizes the multidisciplinary talents of the individuals on the team. The project manager will oversee the entire project, and will report directly to the the BRA's project manager. The project manager will be responsible for administering the contract, directing the project team, and maintaining open lines of communication between The BSC Group, the BRA and interested parties during the design and construction. To accomplish this, meetings at specific intervals during the design and construction of the improvements would be scheduled for the exchange of ideas and information. With this approach, the BRA will be provided with the highest quality and most comprehensive engineering design services possible.

The following individuals would be assigned to the project and their resumes are included in this submission.

Project Manager:	William D. Carlson
Community Liasion:	Jeffrey Paul
Project Engineers:	Robert Buckley, P.E. (Lin Associates) Joel Williams, P.E. Adrienne J. MacNeill Joseph B. Kopaskie
Survey:	Stephen E. Springer, P.L.S. David Garcelon, P.L.S.
Streetscape Design:	William Burbank, R.L.A.

All of the individuals listed above are experienced professionals who combine their specialized skills with a broad knowledge of transportation engineering, roadway, traffic and streetscape signal design. The key personnel on the project team are adept at working with government officials and citizen groups, and have had supervisory experience on past projects.

BC/AA9
2.2126.00

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2.2126.00

Profile

The BSC Group was founded in 1965 as Boston Survey Consultants on the basis of providing accurate data for planning and design projects in both the natural and built environment. Today, we provide a full range of engineering, architectural, and land planning services based on our history of understanding the limits of our natural resources and today's complex regulatory requirements.

Industrial and commercial corporations, real estate developers, utilities, government agencies, law firms, architects, and individual homeowners have all enlisted our services. We assist them in making decisions which comply with current regulations, are successful from a financial, technical, and environmental standpoint, and are aesthetically pleasing.

Our group of specialists represent the disciplines of engineering, surveying, environmental science, architecture, landscape architecture and planning. Our professional staff has the expertise to take projects from the conceptual planning stage, through design and engineering, into construction.

By combining people, technology and services in an innovative way, our division offices located throughout Massachusetts form skilled and experienced multidisciplinary teams. Our staff blends their knowledge of local areas with the ability to rapidly collect complete and accurate data. This expedites the process of making informed decisions regarding the use of the land, its resources and its supporting infrastructure.

As our nation has become more aware of the fragility and limits of our natural resources, government regulations at the federal, state and municipal level have become more complex. We provide strategies to guide clients through this process and advocate an early and open negotiation process with local, state and federal regulators. This, together with a careful analysis of the project and its context, allows for a timely, efficient, and cost-effective design and construction process.

Our clients, many of whom we continue to work for over the years, value us for the wide range of our services and for our commitment to innovative and thoughtful designs for projects in environmentally sensitive areas. This concern for the natural and built environment will continue to guide all of us at the BSC Group as we work toward the goal of improving the overall quality of life.

Divisions

Office Locations

Boston
425 Summer Street
Boston MA 02210
617 350 4090

Bedford
18 North Road
Bedford MA 01730
617 275 7979

Mashpee
Madaket Place B12
Route 28
Mashpee MA 02649
617 477 2525

Springfield
136 William Street
Springfield MA 01105
413 788 9148

Barnstable
3236 Main Street
Route 6A
Barnstable Village MA 02630
617 362 8133

Halifax
590 Monponsett Street
Halifax MA 02338
617 293 2226

Norwell
293 Washington Street
PO Box 185
Norwell MA 02061
617 659 7981

Worcester
33 Waldo Street
Worcester MA 01608
617 756 6083

An efficient transportation system necessary for the movement of people and goods is a critical element for economic development. Prior to making changes to the design or management of any transportation system, the BSC Group believes that comprehensive data on the flows, capacities and physical characteristics of the system are needed for proper planning and design.

The BSC Group's transportation planners and engineers have the technical skills needed to analyze and design various components of a transportation system. In addition, they have worked closely with federal, state and local officials in the public sector who are responsible for reviewing, designing and funding transportation improvement projects.

Our transportation services begin with the collection and analysis of data and end with the preparation of contract documents for the construction of transportation system improvements. The BSC Group's transportation planners and engineers are skilled in working in multidisciplinary project teams to develop and expedite the implementation of planning and design solutions. Our services include:

Transportation Planning

- Travel Demand Forecasting
- Transportation Impact Analysis
- Corridor and Location Planning
- Operations Analysis
- Transportation Systems Management
- Funding Procurement Assistance

Highway/Parking Design

- Pavement Evaluation and Design
- Street Improvement Programs
- Arterial and Subdivision Road Plans
- Bicycle and Pedestrian Way Plans
- Parking Facilities Design

Traffic Engineering

- Circulation Studies
- Capacity Analysis
- Traffic Control Systems
- Safety Studies
- Parking Analysis
- Permit Applications

Civil Engineering

Planning and designing modifications to the landscape or infrastructure requires a thorough familiarity with the utilization of land information system data. The BSC Group's experience has shown that the best planning and design decisions are made when civil engineers use an accurate, concise and complete set of information.

Our civil engineers, who are highly skilled in their specialized fields, are trained in obtaining and interpreting data for planning and design purposes. Their backgrounds include: environmental/sanitary engineering, highway engineering, marine engineering, site design, water resource management, and construction management. The BSC Group's civil engineers utilize in-house computers for planning, managing, and designing large and small scale projects for clients in the public and private sector.

The range of the BSC Group's civil engineering services cover all phases of a project from problem identification to the preparation of contract documents and through construction. Our civil engineers are adept at working interactively on multidisciplinary project teams, which allows a positive exchange of ideas and solutions to complex problems. Engineering services include:

Site Engineering

- Site Layout and Grading
- Subdivision Design
- Drainage System Analysis and Design
- Erosion and Sediment Control Plans
- Evaluation and Design of Utilities
- Compensatory Wetlands Plans

Waste Disposal Engineering

- Subsurface Disposal Systems
- Wastewater Collection and Treatment Facilities
- Leachate Collection and Treatment Systems
- Wastewater Treatment Facilities
- Sanitary Landfill Operation Plans
- Infiltration/Inflow Studies

Water Supply Engineering

- Water Resource Analysis
- Storage and Distribution System Design
- Pumping Station Design
- Water Main Testing

Hydraulic and Hydrologic Engineering

- Drainage Basin Master Plans
- Stormwater Management Studies
- Flood Control Facility Design
- Dam Inspections
- Storm Drain Design

Construction Management

- Bid Review and Contract Negotiation
- Review of Shop Drawings
- Materials Testing
- Resident Inspection

The BSC Group was founded based on a respect for our land and natural resources. Since its inception, the firm has continued to generate complete and accurate information for making cost effective decisions regarding the use of our land and water. Precise surveying and mapping together with proper land information management are crucial in this decision making process.

At the BSC Group, our professional surveying staff provides services ranging from conventional land surveying to taking precision measurements of structures for deformation studies and preparing area-wide municipal base plans. Our research services include collecting data from: governmental agencies for information regarding deeds, assessments and regulations; utilities regarding easements and other encumbrances; and historical references regarding past land uses and natural features.

Because projects depend on complete and accurate information, precise measurements and detailed analysis, we maintain state-of-the art instrumentation and in-house computer capabilities, including a Computer Aided Design and Drafting (CADD) System with surveying and mapping software. We also provide our clients with a variety of presentation materials and exhibits. In addition, the BSC Group offers expert witness testimony for every phase of the measurement sciences which includes:

Geodetic Surveys

- Horizontal Control
- Vertical Control
- Network Adjustments
- Astronomic Determinations

Engineering Surveys

- Topographic Surveys
- Route Alignments
- Utility Mapping
- Construction and Control Stakeouts
- As-built Plans
- Quantity Calculations
- Settlement and Deformation Measurements

Legal Surveys

- Property Line Surveys
- Residential and Industrial Subdivisions
- Right-of-Way Surveys
- Condominium Descriptions and Plans
- Title Insurance Surveys
- Land Court Surveys
- Boundary Retracements
- Leasehold Area and Measurements

Photogrammetric Surveys

- Aerial Photography
- Line & Symbol and Orthophoto Mapping
- Architectural Photogrammetry
- Digital Mapping

Hydrographic Surveys

- Bathymetric Surveys
- Dredging Surveys
- Offshore Positioning

Land Information Management

- Creation of Integrated Data Bases
- Preparation of Cadastral Maps
- Assessors Mapping

Land Planning and Design

Awareness of the relationship between land use and the natural environment is reflected in the land planning performed by the BSC Group. Our professional staff fully understands the environmental context and regulatory process associated with modifications to the land and its natural resources brought about by a project.

The BSC Group's landscape architects and site planners have worked on commercial, industrial and residential development projects as well as federal, state and municipal projects. Our projects have included performing site selection and feasibility studies throughout the United States, providing master planning services for large tracts of land, and providing site design services for urban streetscape improvements, commercial and residential development and recreational facilities.

The land planners in the BSC Group are experienced in working with the staff from other disciplines to exchange ideas and develop innovative designs that are environmentally sensitive, aesthetically pleasing, and cost effective. Our services include:

Community Planning

- Master Plans
- Land Use Planning
- Population and Employment Projections
- Zoning By-Laws & Ordinances
- Community Redevelopment Plans
- Open Space and Recreation Plans
- Capital Improvements Programming

Site Planning

- Site Evaluation Studies
- Development Potential Analysis
- Land Economy Analysis
- Master Planning
- Fiscal Impact Analysis
- Permitting Strategies

Natural Resource Planning

- Watershed Management
- Aquifer Protection Planning
- Coastal Zone Management
- Forest Management Plans
- Soil Conservation Planning

Landscape Architecture

- Streetscape Analysis and Design
- Park and Recreation Facilities Design
- Landscape Planting Plans
- Maintenance Programs

Environmental sciences form the basis at the BSC Group for land and water resource management, and for integrating construction projects into the natural environment. Collecting land information, performing environmental analyses, and providing assistance throughout the regulatory process are an integral part of our project planning and design.

The BSC Group's environmental scientists and planners provide expert services directly to clients in both the private and public sector in the fields of geology, hydrology, biology, botany, forestry and wetland science. In addition, our environmental scientists perform an integral role on multidisciplinary project teams to expedite the federal, state and local permit process. Our staff has experience in performing baseline environmental studies, impact assessment reports and statements, mitigation planning, and impact monitoring.

Our technical capabilities include performing research, tests, analysis, and studies, as well as preparing permit and license applications. Our experience has shown that an early investment in collecting accurate and complete data during the planning and preliminary design stages can assist in avoiding costly mistakes later in the project. These environmental science services include:

Soils and Groundwater

- Subsurface Exploration
- Soil and Water Quality Testing
- Well Installation and Monitoring
- Groundwater Modeling
- Aquifer Protection Programs

Hazardous Waste

- Site Assessments (M.G.L. Chapter 21E) Contamination Evaluation
- Oil and Hazardous Waste Cleanup Plans
- Waste Facilities Siting
- Landfill Leachate Analysis

Coastal and Marine Science

- Coastal and Marine Resource Mapping
- Storm Surge and Floodplain Evaluation
- Current, Wave, and Wind Analysis
- Engineering Design Criteria

Aquatic and Terrestial Ecology

- Wetlands Identification and Mapping
- Vegetation and Wildlife Surveys
- Habitat Evaluation Studies
- Rare and Endangered Species Analysis
- Lake Restoration and Watershed Management

Architecture

The BSC Group's sensitivity to land use and environmental issues extends to and includes the built environment. Our registered architects have the capability to carry projects from inception to completion, while treating the land with respect and integrating man-made structures into the natural environment.

The architects on our staff have many years of experience in all types of building projects including major new construction for corporate, commercial and institutional clients, adaptive reuse of existing buildings, and rehabilitation of historic structures. Utilization of our in-house Computer Aided Design and Drafting (CADD) system for architectural design projects enables us to rapidly evaluate alternatives and increases our productivity on large-scale projects.

Combining standard design services with the breadth of other services offered by the BSC Group on a day-to-day basis, including planning, civil engineering, surveying and landscape architecture, provides clients with the opportunity to work with one professional team. This eliminates the necessity to piece together teams from various disciplines. Our architectural design services include:

Basic Services

- Facility Programming
- Space Schematics/Flow Diagrams
- Project Budgeting and Development Scheduling
- Architectural Schematic Design
- Design Development Plans
- Construction Drawings and Specifications
- Statement of Probable Construction Cost
- Preparation of Bidding Documents
- Bidding and Negotiation Assistance
- Contract Administration
- Construction Monitoring

Supplemental Services

- Economic Feasibility Studies
- Marketing and Project Financing Studies
- Life Cycle Cost and Value Analysis
- Presentation Models and Renderings Solar Design
- Interior Design
- Graphics and Signage
- Brochure and Manual Preparation
- Progress Certification
- Post Occupancy Evaluation

North Lexington Traffic Improvements

Photo Credit: Aerial Photos International

Over the past 25 years the Route 128 area of Lexington has become more industrialized bringing with it increased traffic problems. BSC undertook a study of North Lexington roadways for the Town and conducted a comprehensive traffic data collection and analysis program, including the forecasting of future traffic conditions.

The Town and the major corporations in North Lexington accepted BSC's proposed traffic recommendations and allocated the necessary funds needed for continuing the project. The estimated construction cost is $5.5 million, and the project is being phased under four separate construction contracts. The North Lexington Traffic Improvements Project is an example of the productivity that can be achieved by public and private entities working together to accomplish a common objective.

1. Hartwell Ave
2. Route 4/225
3. Route 128

Arlington MA

Mill Brook Drive Revitalization Project

A combination of funds from several federal and state programs was used to design and build infrastructure improvements in a commercial district near Arlington Center. The Town looked to BSC to provide surveying, traffic engineering, highway design and resident construction inspection services for the reconstruction of 1200 feet of roadway and a one acre park.

The project was designed and advertised for bids in a period of six months and construction was completed in eight months without any major disruptions to local businesses in the area.

Historic District Streetscape Design

During the Bicentennial year, the Town of Bedford received a grant for landscape, street and sidewalk improvements to its Town Common. The landscaping of this area was designed by BSC with sensitivity to the historic elements within the community and consistent with the natural environment of the community's lifestyle.

To enhance the streetscape and landscape of the Historic District, BSC recommended cobblestone sidewalk and crosswalk treatments in areas experiencing major activity. Improvements to the Town Hall grounds were incorporated into the project's landscaping, and parking spaces were modified to provide for convenient on-street parking.

BSC's assistance in attaining the design concept's approval from state and local review authorities contributed to a smooth and cost-effective design and construction process.

Westborough Business Park

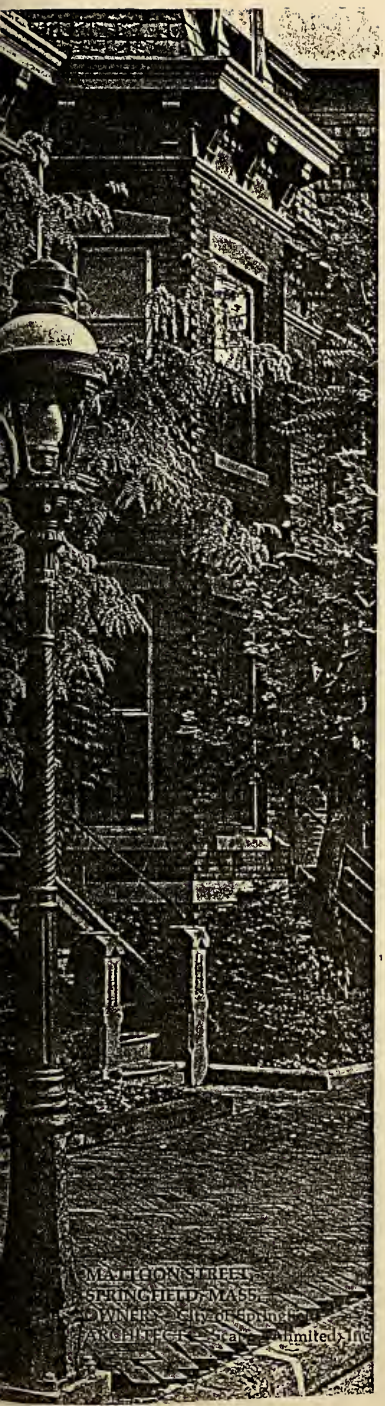
Photo Credit: Aerial Photos International

This 100 acre site on a hillside near the Route 9/Interstate 495 interchange houses GTE in an office/industrial park developed by Hines Industrial. BSC was part of the project team headed by architects Drummey, Rosane and Anderson that prepared the master plan, obtained state and local permits and designed the site's infrastructure.

BSC prepared plans, coordinated permit applications, designed roadways, parking lots, sewer and water lines and pumping stations, and provided resident construction inspection services for Friberg Parkway, a 5,000 foot long access road to the site.

A unique aspect of the site and roadway design plans involved land swaps with a conservation organization that increased the value of the land, improved roadway safety and reduced construction costs.

1. Route 9
2. I-495
3. Friberg Parkway
4. Flanders Road



MATTOON STREET
Springfield, Massachusetts

A MAJOR ACHIEVEMENT

Scape Unlimited helped the residents of Mattoon Street to renovate one of Springfield's most derelict neighborhoods without federal or state assistance. It was the first turn-around since the city's historic decline had begun more than 30 years previously, and has lead directly to other renovation efforts which have since transformed the social and economic life of this community.

SERVICES

* Assisted client in obtaining financing from private sources by helping neighborhood acquire historic district status.
* Produced master plan which showed physical and economic feasibility of project.
* Helped residents convince city to pay for street improvements through surtax, benefits accuring from masterplan, and record of success in obtaining financial support for building renovations.

PROJECT DATA

Owners: Individual Citizens

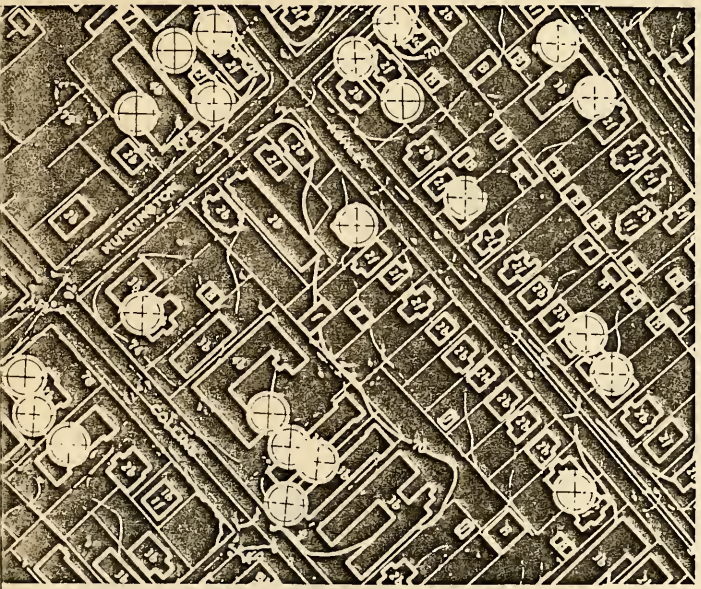
Date of Study: 1974

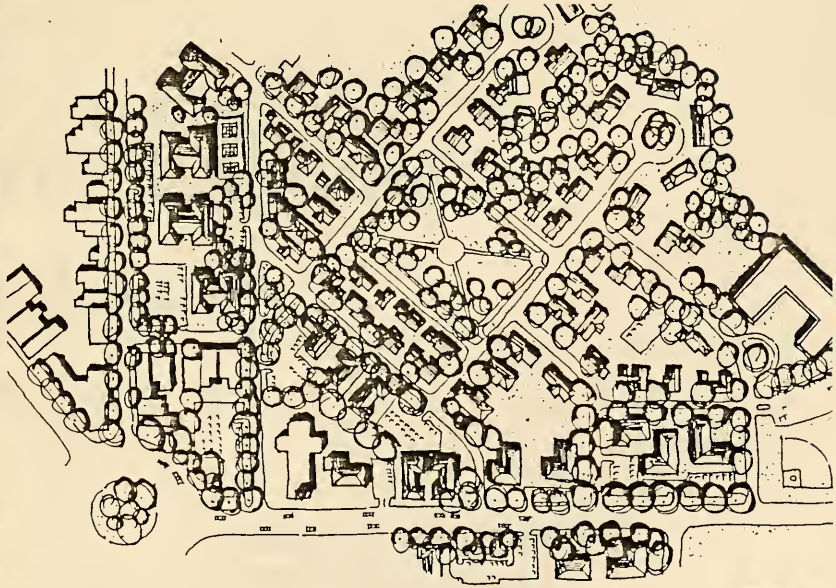
AVENUE A BEAUTIFICATION: Turners Falls, MA

Mixed Vehicular & Pedestrian Zone: Springfield, MA

SAFE NEIGHBORHOODS

The Environmental Security Planning and Design Process





NATIONAL INSTITUTE OF LAW
ENFORCEMENT AND CRIMINAL JUSTICE
LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
UNITED STATES DEPARTMENT OF JUSTICE

With the Assistance of

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT,
OFFICE OF POLICY DEVELOPMENT AND RESEARCH

BOSTON SOCIETY OF LANDSCAPE ARCHITECTS

MAINE • MASSACHUSETTS • NEW HAMPSHIRE AND VERMONT CHAPTER
THE AMERICAN SOCIETY OF LANDSCAPE ARCHITECTS

Presents To

Court Square,
Springfield, Massachusetts

Honor Award

Park, Recreation and Open Space

Presented by

President

November 10, 1987
Date

Scape Unlimited Inc.
Landscape Architect

City of Springfield
Mass. Dept. of Environmental Management
Owner

City of Springfield
Hampden Nurseries
Contractor

Project Experience
Roadway Design

North Lexington Roadway Improvements Lexington, MA	Planning and design of $5 million roadway improvements under the federal aid Urban Systems program. Roadways include Bedford Street, Hartwell Avenue and Marrett Road (Route 2A).
Mill Brook Drive Revitalization Arlington, MA	Planning, design and resident construction inspection of 1,200 feet of roadway reconstruction to include design of interconnected traffic signal system.
Concord Road Bedford, MA	Design and construction inspection of 1,600 feet segment of roadway reconstruction in residential area adjacent to Bedford Center.
South Washington Street Norton, MA	Design of 2,000 foot section of two lane roadway to be reconstructed into four lane roadway for access to proposed industrial park.
Nahatan Street Norwood, MA	Planning and preliminary design of a 9,200 foot two lane arterial street reconstruction progect in a commercial area.
First Parish Road Scituate, MA	Design of roadway reconstruction arterial street (Route 123) in a residential area.

Project Experience
Roadway Design

Great Road Bedford, MA	Planning and design of federal aid Urban Systems project on Route 4/225 in Bedford Center that includes widening lanes and adding an interconnected traffic signal system.
Route 114 Roadway Improvements Danvers, MA	Planning and design of signalized intersection to improve access to proposed office park.
Friberg Parkway Westborough, MA	Preparation of plans, specifications and cost estimates for 3,500 foot access road to Westborough Business Park.
Neighborhood Street Improvements Quincy, MA	Engineering design of several local streets under a Community Development Block Grant program for the City of Quincy.

Project Experience
Traffic Impact Studies

Haverhill Technology Park Haverhill, MA	Evaluation of traffic impacts of proposed 144 acre office park on I-495 and local roadway network.
Avon West Industrial Park Avon, MA	Evaluation of traffic impacts of 112 acre industrial park on local roadway intersections.
Bronx Office Park Marlborough, MA	Analysis of traffic impacts of 320,000 square foot office development on Route 20 and local streets.
One and Two Adams Place Quincy, MA	Analysis of traffic and air quality impacts of proposed 250,000 square foot office park development on local street network in Quincy and Braintree.
Westborough Office Park Westborough, MA	Evaluation of traffic impacts and mitigating measures for Leggatt McCall & Werner's Westborough Office Park on Route 9, Flanders Road and other local roadways.
Northwoods Business Park Danvers, MA	Evaluation of traffic impacts and mitigating measures for proposed 450,000 square foot office park.

Project Experience
Traffic Impact Studies

99 State Street Boston, MA	Analysis of traffic impacts of proposed 500,000 square foot office building with 50,000 square feet of retail spaces and 450 parking spaces on local street network in downtown Boston.
Braintree Commerce Center Braintree, MA	Evaluation of traffic impacts of proposed 800,000 square feet of light manufacturing and warehousing facilities on local street network.
The Fields Office Park Billerica, MA	Analysis of traffic impacts and identification of mitigating measures for 400,000 square foot research and development office park near the Concord Road interchange of Route 3.
Spire Corporation Bedford, MA	Evaluation of traffic impacts of proposed 100,000 square foot expansion of office and research and development space on local roadway network.
Itek Corporation Lexington, MA	Analysis of traffic impact of 103,000 square foot addition to existing research and development facility near Hanscom Field in North Lexington.
BASF Systems Bedford, MA	Evaluation of traffic impacts of proposed 105,000 square foot expansion of manufacturing facility on Crosby Drive.

Project Experience
Traffic Circulation Studies

Everett Square Everett, MA	Evaluation of existing traffic patterns and identification of alternative traffic improvements to improve traffic flow.
Boynton Yards Somerville, MA	Analysis of travel patterns in East Somerville to develop alternative roadway plans for proposed redevelopment.
Wakefield Center Wakefield, MA	Analysis of traffic circulation and parking patterns in central business district to identify improvements to existing system.
Northshore Shopping Center Peabody, MA	Evaluation of impacts of proposed Route 128 roadway improvements on traffic circulation patterns and highway access to regional shopping mall.
Newport Avenue Galleria Attleboro, MA	Design of internal roadway system for traffic circulation for one million square foot regional shopping center.

Project Experience
Landscape Design

Mill Entry Courtyard Maynard, MA	Preparation of plans and specifications of landscaping, planting and pavement treatment for courtyard entrance to Digital Equipment Corporation's world headquarters.
Madaket Place Mashpee, MA	Preparation of plans and specifications for landscape design and planting for retail and office condominium complex.
Boston Design Center Boston, MA	Design of landscape plantings and pavement treatment for the site of a major building devoted to the interior design profession.
Itek Headquarters Lexington, MA	Preparation of landscape design plans to improve appearance of main entrance to Itek's 370,000 square foot office and manufacturing facility.
Battleship Cove Park Fall River, MA	Preparation of final design plans specifications for plantings and pavement for the Heritage State Park for the Massachusetts Department of Environmental Management.

Firm provides full range of professional services

BSC Group uses Computer Aided Design and Drafting to improve efficiency

BOSTON, MA. -- The use of sophisticated computer systems in engineering firms is creating a comprehensive and accurate data base of information. This is allowing an efficient response to difficult design issues caused by both the regulatory process and the limits to our natural resources.

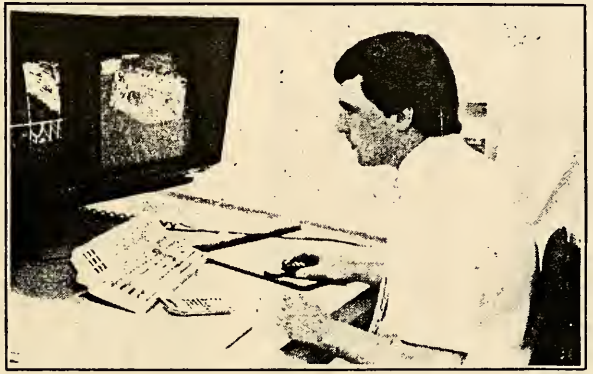
At the BSC Group, a multi-disciplinary firm with offices throughout Massachusetts, Computer Aided Design and Drafting (CADD) has been in place for over a year.

According to Graham Copeland, division manager of BSC's Automated Information Systems Division, "The reason many BSC projects require use of a minicomputer instead of a personal computer is the size, complexity and nature of the project. The personal computer is not the best solution for these types of projects."

Throughout BSC's various offices, base plan information and site design criteria are loaded into the Integraph CADD system. The CADD then becomes an effective tool for site planning and engineering, allowing the users to produce plots at various scales without redrawing. Information such as landscape data can be placed in the system, allowing easy estimation of quantities and costs.

Another important function of the CADD is the ease with which change can take place, Copeland says. Some elements can be changed, while other elements remain constant.

The BSC Group provides a full range of professional services, including engineering, surveying, land planning and architecture. At BSC, according to Bill Bryant, principal, the CADD system has enabled to the professional staff to quickly analyze alternative designs, and efficiently produce final design plans.



One BSC client, Daniel Hotstetter, developer of the "Willowbend" project in Mashpee had this to say about the use of CADD by BSC's Cape Cod office. "It was a fantastic job that was done quickly, neatly and concisely for such a large project. More importantly, it enabled us to meet a zoning deadline that otherwise would never have been met if it had been done by hand."

The $10 million Willowbend project involved the preparation of subdivision plans, landscape plans and architural drawings for the 340 unit residential project which is being built around a new 18 hole championship golf course designed by Kidwell & Hurzan, Inc.

The BSC staff has also produced subdivision plans and site engineering plans on the CADD system for a 119 lot residential subdivision in Hingham, Mass. The use of the CADD, Copeland said, allowed BSC to produce the plans within a three week period to meet a deadline prior to a change in the local zoning bylaw.

BSC president, Fritz Petersohn summarizes the use of CADD as, "the means by which complicated data can be analyzed and studied, creating the beginning of a land information system which has long been needed by both the private and public sector."

Jan 1, 1988

ABOUT LIN ASSOCIATES

Lin Associates offers a broad base of design expertise in highways, bridges and structural design on military, industrial, office and residential buildings as well as water and pollution control plants.

Lin Associates is MBE certified in all the New England states. Lin is also certified for national and international work by the Corps of Engineers. We are a 100 % minority owned engineering firm. We are participants in the Federal Small Business Program.

We feel that the lengthy experience and expertise of the key personnel provide an excellent supplementary basis for evaluating the capability of Lin Associates. The key engineers of Lin Associates have worked together on highway and bridge projects in all the New England states for 25 to 30 years.

EXPERIENCE

MASSACHUSSETS

Lin has the following projects:

Under Design

An open end contract for Bridge Rating as the need arises.
150 bridges evaluated in the last 18 months.
Design of Maintenance Ramps for Mass Turnpike.
Consultant for Orange Line Demolition.

Consultant to URS for the review for the MBTA of the impact of Central Artery and Third Harbor Tunnel on MBTA facilities.
Subconsultant to Howard Needles Tammen & Bergendorf on the Notre Dame Bridge Project in Manchester. Lin is Designing Relocation of a section of I 293.
Subconsultant to Howard Needles Tammen & Bergendorf on Seven Miles of Chittenden County Circumferential Highway (I 289)
Design of Roadway Reconstruction for U.S. Coast Guard at Otis Air Force Base.
Design of Parking Area Reconstruction for U.S. Coast Guard at Otis Air Force Base.
Design of Roadway and Driveway Reconstruction for Coast Guard Housing on Nantucket.

Under Construction

Mass. D.P.W.

Needham Bridge Replacement & Roadway Reconstruction
Bridge Deck Replacement and General Repairs on 2 bridges on Interstate Rte. I-91 in Northampton
Bridge Deck Replacement and General Repairs on 2 bridges on Interstate Rte. I-91 over Fairview Road in Greenfield.
Bridge Deck Replacement and General Repairs on 8 bridges on Interstate Rte. I-91 in Holyoke.
Bridge Deck Replacement and General Repairs on 4 bridges on Interstate Rte. I-91 over Bernardston Road and Log Plain Road in Greenfield.
Bridge Deck Replacement and General Repairs on 2 bridges on

Interstate Rte. I-91 over Green River in Greenfield.

Norfolk - Bridge Replacement & Roadway Reconstruction

Completed Projects

Charlton - Bridge Replacement & Roadway Reconstruction

Lanesborough - " " " "

Uxbridge - " " " "

Interstate Route 495 - Replace Bridge Screening on 15 Bridges.

Mass. Bay Transportation Projects

Subconsultant on Fort Point Channel Railroad Bridge

Subconsultant on Railroad Parking Lot in Woburn

Subconsultant on Winchester Railroad Station Parking Lot in Winchester

Subconsultant on Wedgemere Railroad Station Parking Lot in Winchester

Subconsultant on Misc. Bridge Inspections to Anderson -Nichols & Co.

Subconsultant on Misc. Bridge Inspections to C.E. MaGuire.

Subconsultant on Misc. Bridge Inspections to Parsons, Brinckerhoff, Quade & Douglas

Corps of Engineers

Roadway reconstruction of six roads in Hanscom Air Force Base.

NEW HAMPSHIRE

Bridge Repairs on the Bridge to Black Cat Island in Moultenborough

VERMONT

Subconsultant to Gannet Fleming on Bridge Replacements in the towns of Hartland and Jamaica.

CONNECTICUT

We are a design subconsultant on three Projects with the Conn. Dept. of Transportation. We are a design subconsultant with Fay Spofford & Thorndike on two bridges in Torrington and one in Simsbury. We did the structural design and shop drawing review for a new terminal building at Bradley International Airport as a subconsultant to C.E. MaGuire. We were a subconsultant to C.E. MaGuire on a pumping station project at Bradley Field.

Other Areas of work

Structural Design on Two Long Range Radar Facilities and at Air Force Facilities at Sonderstrom AFB in Greenland.

Reconsruction and upgrading of ten Long Range Radar Staions (The Dew Line) accross Northern Canada and Alaska.

Revisions to buildings at Hanscom Air Force Base.

The review of large army ordinance crane structures in the Albany, New York area.

Structural design on various Mass. Prison Construction Projects.

Metropoliton District Commission - Structural Review of Various Buildings.

Mass. Port Authority - Structural Reviews of Various buildings and Marine Facilities.

Structural design on Industrial, office and residential buildings.

Structural Design on Water and Pollution Control Plants.

We feel that Lin Associates can make a positive contribution to your program based on the following considerations:

1. The key people at Lin associates have over 25 years experience working on highway and bridge projects.

2. Mr.Robert Buckley has been working on the highway design of projects for 30 years.

3. Mr. Chan Lin has been working on the bridge design of projects for 25 years.

4. Lin Associates is a 100% minority owned engineering firm, certified by all the New England states.

5. Lin Associates has a low overhead and can therefore furnish the work at an economical cost.

Resumes

Charles A. Kalauskas, P.E.
Vice President

Experience

Mr. Kalauskas is a civil engineer and planner with more than 15 years of project experience in transportation planning and design and site development planning. With his diverse educational and professional practice background, Mr. Kalauskas has served the BSC Group in several technical and administrative capacities. He has supervised multidisciplinary teams of engineers, surveyors, scientists, planners and landscape architects on many community and site development and highway design projects. He has worked closely with federal, state and local officials and citizen advisory groups and is thoroughly familiar with transportation, environmental and land use regulations at all levels of government.

Mr. Kalauskas was the Manager of Design and Environmental Planning for the Boston Metropolitan Planning Organization where he was responsible for preparing the Boston region's Transportation Plan for Improved Air Quality and supervised the preparation of numerous transportation studies and environmental impact assessments. He has designed data collection programs and surveys for highway, parking and transit facility improvement projects.

Mr. Kalauskas has authored several papers for the Transportation Research Board and has lectured at universities in the Boston area. He is an active member of several professional service organizations.

Education

Master in City Planning, Harvard University
B.S. in Civil Engineering, Worcester Polytechnic Institute

Registrations

Professional Engineer in Massachusetts

Affiliations

American Society of Civil Engineers
Boston Society of Civil Engineers
Harvard Planners in Real Estate
Institute of Transportation Engineers
Society of Marketing Professional Services
Transportation Research Board

William D. Carlson
Senior Associate

Experience

As Manager of Transportation Services, Mr. Carlson directs transportation planning and engineering assignments for the BSC Group. He has more than 15 years of project experience as a transportation engineer with the BSC Group and other Boston area consulting engineering firms. He has performed numerous transportation planning studies and has prepared plans, specifications and cost estimates for roadway and traffic signalization improvement projects in urban and rural areas. He has worked closely with federal, state and local officials and a variety of community interest groups.

Mr. Carlson's assignments have varied in size and type. He has designed sections of Interstate highways and interconnected traffic signal systems for Urban Systems projects. He has also prepared contract documents and monitored construction of neighborhood public works improvements projects. Mr. Carlson has authored the transportation sections of several Environmental Impact Reports and has managed numerous traffic impact and parking studies for commercial, residential and industrial development projects.

Education

B.S. in Civil Engineering, Northeastern University
Traffic Signal Workshop, Northeastern University

Affiliations

Institute of Transportation Engineers

Jeffrey M. Paul
Associate

Experience

Mr. Paul is an Associate with the BSC Group. His management expertise lies in transportation and utility planning, project management, land use/zoning and public participation.

A Project Director with nearly fifteen years of experience, Mr. Paul has a strong background in municipal/state agency affairs. This experience includes the project management of Water Transportation Facilities Assessments for the Massachusetts Water Resources Authority. In this capacity, Mr. Paul was responsible for the day to day management of a $2 million project, including both Deer Island and Boston Harbor site selections. He managed the activities of more than twenty in-house technical specialists, as well as eight subcontractors; conducted a public participation program; was principal author of the On-Shore Facilities Plan; and wrote technical sections of the On-Shore Environmental Impact Reports and On-Island Facilities Plan.

Mr. Paul's project management experience also includes work with the Boston Metropolitan Planning Organization for: the development of programs which reduce vehicular emissions along Interstate 95; the preparation of annual federal certification documents for highway and transit capital construction and planning projects; and community liaison activities with 101 cities and towns in the Metropolitan Boston Region regarding local and regional transportation needs.

As well, Mr. Paul has conducted numerous environmental impact studies for the Massachusetts Department of Public Works, New England Power Service Company, University of Massachusetts Medical Center and the Metropolitan Council for the Twin Cities Area - St. Paul, Minnesota.

Education

M.A., Urban Social and Environmental Policy,
Tufts University
B.A., Colby College

Kevin Hanley, PLS
Vice President

Experience

As General Manager of Land Surveying and Mapping for the BSC Group's Boston office, Mr. Hanley uses his academic training and professional experience to direct his project teams of land surveyors and land information specialists in a wide range of survey projects. Mr. Hanley has been responsible for the design of geodetic control networks and flight plans for the preparation of plans from aerial photographs. He has supervised numerous geodetic, cadastral and hydrographic surveys. He is familiar with all of BSC's state-of-the-art survey equipment and computer programs.

Mr. Hanley has worked on major survey projects throughout the world. While in Ireland, he worked in geodetic control surveys for a proposed pump storage electricity generation project in the Comeragh Mountains and for an extension of the M4 Motorway in Wales. He had a six month assignment in West Africa working on the South Chad Irrigation Project, Nigeria and a photogrammetric mapping project in Dahomey.

Since arriving in the United States, Mr. Hanley has been in charge of such major survey projects as: the mapping of the Conecticut River from Haddam to Windsor Locks; Massachusetts coastline from Quincy to Plymouth; the Neponset River Basin; the Town of Woodstock, New York; geodetic surveys for the highway and bridge design of the South Station Transportation Center; geodetic surveys along the F.E. Everett Turnpike between Nashua and Bedford, New Hampshire; and the laying of cable beneath the Hudson River near Hook Mountain, New York.

Education

Degree in Geo-Surveying
College of Technology, Dublin, Ireland

Registrations

Professional Land Surveyor in Massachusetts

Affiliations

American Association of Geodetic Surveyors

9/87

Stephen E. Springer, PLS
Land Surveyor

Experience

Mr. Springer is the Assistant Division Manager for Boston Survey Consultants, the BSC Group's surveying and mapping division in the Boston office. He handles the management of projects, including communication with clients and cooperation with other divisions within the BSC Group. He confers with the technical staff to ensure that projects meet professional standards as well as contractual obligations.

Mr. Springer has managed a full spectrum of projects from construction layouts to title insurance surveys. His special expertise is in land information systems--how to work within existing systems to obtain the record description of properties and how existing systems can be modernized to make this work less time consuming and more productive. Mr. Springer has extensive experience searching both public and private repositories of land information in Massachusetts and northern New England. He has transformed detailed yet independent descriptions into cohesive surveys of the multi-layered property rights in Boston (the Prudential Center, Penn Central and Boston & Maine railroad yards); he has assembled the scattered records of licenses and permits to fill public tidelands into title insurance reports on Boston properties once under water (South Boston Flats, East Cambridge); and he has deciphered the ancient metes and bounds descriptions of former woodlands for surveys of prime real estate in Boston's suburbs.

Prior to joining the BSC Group, Mr. Springer developed, implemented and managed two land information systems. One system was for a New Hampshire timberland company's records of 20,000 acres of woodlots to support forestry operations, real estate development and property tax management. The other system maintained forest inventories for Chile's Ministry of Agriculture on public and private reforestation activities.

Education

B.S., Resources Management, State University of New York

Registrations

Professional Land Surveyor, Massachusetts, Vermont and New Hampshire

Affiliations

American Congress on Surveying and Mapping
Institute for Land Information
Mass. Association of Land Surveyors and Civil Engineers

David Garcelon, PLS
Associate

Experience	Mr. Garcelon is an Associate and Surveying Project Director with the BSC Group. In this capacity, he provides oversight for survey projects, coordinating work of control surveyors, aerial photographers and photogrammetrists, topographic surveyors, boundary surveyors, calculators, researchers and draftsmen. In addition, he is responsible for the scheduling and budgeting of projects. Mr. Garcelon has over twenty-five years of professional experience. His responsibilities have included the supervision of the following projects: boundary survey for the 6,000 acre John T. Gile Forest in Wilmot, NH; boundary survey, topographic survey for 10,000 acre site in Bretton Woods Development in Bretton Woods, NH; Boundary survey and property appraisal and 4,300 acre site for Waumbek Property in Jefferson, NH; aerial photo control and stereo compilation of topographic maps for 325 acre for the Locust Valley Country Club in Attleboro, NH; and survey of the International Boundary in Vermont and New Hampshire.
Education	B.S. Forestry, University of Massachusetts at Amherst
Registration	Registered Land Surveyor in Massachusetts, New Hampshire, Maine and Vermont
Affiliations	American Congress of Surveying and Mapping Massachusetts Association of Land Surveyors and Civil Engineers New Hampshire Land Surveyors Association

1/88

Joel Williams, PE
Civil Engineer
Sanitary Engineer

Experience

Mr. Williams is a Project Manager with the BSC Group specializing in site design, hydrology, hydraulics, wastewater collection and treatment design. He writes technical specifications for site design and roadway projects. Mr. Williams utilizes computer programs that he has written or modified to perform hydraulics calculations, cost estimates, and grading plans for large projects. Mr. Williams has served as the Project Manager/Engineer for various projects at all scales.

Mr. Williams' skills in the areas of sanitary system design, hydraulics, and cost estimating, and his familiarity with standard and state design specifications, has made him a valuable member of the BSC Group project teams. He has produced cost estimates and specifications for a number of site and transportation projects and has also assisted in the contract bid and award process.

Prior to joining BSC, Mr. Williams was a project engineer for a large environmental engineering firm where he was responsible for designing wastewater collection and treatment systems. He prepared the operations and maintenance manual for Penacook Sewage Treatment Plant, located in Concord, New Hampshire. He was also in charge of preparing Flood Insurance studies in a number of Massachusetts Communities.

Education

B.S., Civil Engineering, Northeastern University

Registrations

Professional Sanitary Engineer in Massachusetts

Affiliations

Boston Society of Civil Engineers

Adrienne J. MacNeill
Transportation Engineer

Experience	Ms. MacNeill is a senior transportation engineer with the BSC Group. Her responsibilities include the conducting of traffic planning studies and parking surveys, including preparation of technical material, supervision of project staff, client and agency contact, report writing and public presentation. She is familiar with the preparation of highway design plans, cost estimates and specifications. Ms. MacNeill operates the BSC Group's computers, utilizing coordinate geometry programs used for roadway design and traffic engineering programs for highway capacity analysis. Ms. MacNeill also conducts research on other traffic related considerations, such as accident analysis, air quality analysis and scenic roads designations. She also has authored many traffic impact statements, traffic sections of environmental impact reports and assessments dealing with transportation issues.
Education	B.S., Civil and Environmental Engineering, University of Rhode Island
Affiliations	Institute of Transportation Engineers Women's Transportation Seminar

Joseph B. Kopaskie
Civil/Transportation Engineer

Experience

Mr. Kopaskie is a civil/transportation engineer with the BSC Group. He performs site and transportation engineering duties which involve interpreting design plans, developing and implementing layout plans, preparing technical specifications and cost estimates, and providing construction inspection services. He is familiar with state and local regulations pertaining to construction.

With the BSC Group, Mr. Kopaskie has been assigned project engineer for site and highway design and drainage improvement projects. He has prepared contract documents, reviewed shop drawings and contractor payment requests and monitored construction for roadway reconstruction and site work for commercial and industrial development projects. He also conducts traffic studies and authors impact reports for public and private sector clients.

Prior to joining the BSC Group, Mr. Kopaskie was a construction engineer for a firm in New York. In this position, he managed the implementation of site designs and developed layout plans for construction projects including roadways, rehabilitation of traveled ways in urban retail districts, a water treatment plant, an entrance pavilion, and a storm drainage system. In addition, he performed field surveys using theodolites, levels and pipe lasers to layout utility lines, sanitary and storm sewers, and all other appurtenances to project construction.

Education

B.E., Civil Engineering, Manhattan College, New York

William L. Burbank, RLA
Senior Landscape Architect

Experience

Mr. Burbank serves as design services coordinator and senior landscape architect for the BSC Group Cape Cod division in Barnstable, Massachusetts. He is a Registered Landscape Architect with extensive experience, expecially in housing, open space and horticultural design in both the public and private sector. Mr. Burbank's rather unusual background in safety and behavioral issues involved in open space and recreational facilities design enables him to apply special insight into landscape architecture ensuring projects which are both aesthetically pleasing and truly useable.

Prior to joining the BSC Group, Mr. Burbank was a founder and partner in a land planning and landscape architectural firm; SCAPE UNLIMITED, INC. located in Springfield, Massachusetts. He assumed administrative and design responsibilities on projects including: residential construction, subdivision and multi-family housing and cluster concepts; historic preservation, park design and neighborhood planning and construction management.

Education

M.S., Landscape Architecture, University of Massachusetts - Amherst, MA
Boston Architectural Center, Boston, MA
B.S., Urban Sociology, American International College, Springfield, MA

Registrations

Registered Landscape Architect In Massachusetts and North Carolina

Affiliations

American Planning Association
Mattoon Street Preservation Association, Founding Director
Partners for Livable Places

Robert L. Kent, Jr., RLA
Landscape Architect

Experience

Mr. Kent is a Division Manager of the BSC Group. He has more than 25 years experience as a landscape architect. Mr. Kent is particularly known for his ability to facilitate all aspects of the planning, design and construction phases of work. He has the unusual talent of creating several alternative suggestions to problem solving and permitting the client the opportunity to participate in the selection and development of the planning/design approach.

Mr. Kent's travel experiences throughout the country and world further enhance his ability to bring ideas to the development program. His study of China landscapes has added a valuable resource to understanding people's use of rural and urban development.

Mr. Kent's design abilities surfaced in merit award programs at Michigan State University. Since his arrival in New England in 1960, he has worked to enhance urban and rural landscapes in southern and central regions. He continues his involvement in the growth of the profession by teaching courses in design, professional practice and construction at the University of Massachusetts - Amherst.

Education

M.S., Landscape Architecture, Michigan State University
B.S., Landscape Architecture, Michigan State University

Registrations

Registered Landscape Architect in Massachusetts, Rhode Island, Connecticut and Michigan

Affiliations

American Society of Landscape Architects
Connecticut Chapter, American Society of Landscape Architects
Urban Landscape Task Lower Pioneer Valley Regional Planning Commission

Laurie P. Tarr
Landscape Designer/Planner

Experience

Ms. Tarr is a landscape designer and planner with the BSC Group. Her responsibilities include site planning research, landscape design, wetlands delineation, cost estimating and graphic presentation of BSC projects.

Ms. Tarr's professional experience has included residential, commercial, industrial and governmental projects. She has been responsible for the research, design and cost estimation of town parks; site planning and design of residential condominium developments; the design of ponds using wetland plants; preparation of Notices of Intent; and the delineation of wetland for projects.

In addition, Ms. Tarr is skilled in the application of BSC's Computer Aided Design and Drafting (CAD/D) system for site planning and design projects located in environmentally sensitive areas.

Education

B.S., Environmental Design, University of Massachusetts - Amherst

ROBERT D. BUCKLEY

EDUCATION

University of Massachusetts
1949, Electrical Engineering
Northeastern University
1957, A.C.E., Civil Engineering

REGISTRATION & MEMBERSHIP

Professional Engineering registered in the States of Massachusetts, Connecticut, New Hampshire, and Vermont
Member of the Boston Society of Civil Engineers/ Section of American Society of Civil Engineers

EXPERIENCE

1982 - Present
Chief Highway Design Engineer
LIN ASSOCIATES, INC.
Boston, MA.

1966 - 1982
Highway Design - Department Head
WHITMAN & HOWARD, INC.
Wellesley, MA.
In responsible charge of multiple projects, dams, preliminary studies, municipal assistance, construction review and the design of various highway projects from local roads to interstate highways.

1961 - 1966
Chief of Highway Design Department
CONGDON, GURNEY & TOWLE, INC.
Boston, MA.
In responsible charge of highway projects. These consisted primarily of interstate highway projects, various local roads and parking areas for municipalities, colleges and airports.

1960 - 1961
Project Engineer
CLARKESON ENGINEERING COMPANY
Boston, MA.
In responsible charge of interstate highway design projects in Rhode Island.

1958 - 1960
Project Engineer
CONGDON, GURNEY & TOWLE, INC.
Boston, MA.
In responsible charge of interstate highway design project in Massachusetts.

1956 - 1958
Project Engineer
CLARKESON ENGINEERING COMPANY
Boston, MA.
In responsible charge of highway design project in Massachusetts and Maryland.

1954 - 1956
Assistant Project Engineer
MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS
Boston, MA.
In responsible charge of various highway design projects.

The following is a list of some of the projects where Mr. Buckley was the project engineer:

Date	Project	Municipality
1958	The Southeast Expressway	Hingham
1959	Interstate Route 495	Westford
1960	Interstate Route 95	Providence
1961	Interstate Route 91	Northampton
1962	Interstate Route 91	Springfield
1963	Interstate Route 495	Franklin
1965	Southeastern Mass.University	Dartmouth
1966	Interstate Route 290	Shrewsbury
1968	Interstate Route 95 (not constructed)	Canton
1970	Fall River Western Expressway	Fall River
1972	Copicut Dam & Reservoir	Fall River
1974	Oakville Ave.	Waterbury,Cn.
1976	Lake Avenue	Worcester
1978	Willow Street	Manchester,N.H.
1980	French Street	Watertown,Cn.
1981	Route 3A	Plymouth
1982	Homeward Ave. & Bridge	Uxbridge
1983	Old State road & Bridge	Lanesborough
1984	Stafford Street & Bridge	Charlton
1985	18 Bridge Deck Replacements	Holyoke,Northampton Greenfield
1986	Park Street & Bridge	Norfolk
1987	High Rock Street & Bridge	Needham

THE BSC GROUP
AFFIRMATIVE ACTION POLICY STATEMENT

It is the policy of The BSC Group, Inc. (The Company) to promote the realization of equal employment opportunity through a positive and continuing program of specific practices designed to ensure the full realization of equal employment opportunity without regard to race, color, religion, sex or national origin.

To implement these policies, the company will continue to:

A. Recruit, hire, train and promote persons in all job classifications without regard to race, color, religion, sex or national origin.

B. Base decisions on employment so as to further the principle of Equal Employment Opportunity.

C. Ensure that promotion decisions are in accordance with principles of Equal Employment Opportunity by imposing only valid requirements for promotional opportunities.

D. Ensure that all personnel actions, including but not limited to compensation, benefits, transfers, layoffs, return from layoff, company sponsored training, education, tuition assistance, social and recreational programs, will be administered without regard to race, color, religion, sex or national origin.

E. The Company will meet its legal and social responsibilities for Equal Employment Opportunity/Affirmative Action as authorized and required by all pertinent state and federal legislation, executive orders and regulations including the following:

1. Title VII of the Civil Rights Act of 1964 which prohibits discrimination in employment on the basis of race, color, religion, sex or national origin; and
2. The Age Discrimination in Employment Act of 1967 which prohibits discrimination in employment on the basis of age with regard to those individuals who are at least 40 years of age, but less than 70 years of age; and
3. Section 504 of the Rehabilitation Act of 1973 and the regulations promulgated pursuant thereto which prohibit discrimination against qualified handicapped individuals on the basis of handicap and requires employers to make reasonable accommodations to know physical o mental limitations of otherwise qualified handicapped applicants and employees; and
4. M.G.L. C.151B s4 as amended by Chapter 533, 1983, which prohibits discrimination in employment on the basis of race, color, sex, religious creed, national origin, ancestry, age or handicap.

F. In addition, The BSC Group, Inc. agrees to abide by:

1. Massachusetts Executive Order 143
2. Massachusetts Executive Order 227
3. Massachusetts Executive Order 237
4. Equal Pay Act of 1963
5. Massachusetts Executive Order 74 as amended by Executive Order 116
6. Executive Orders 11246 and 11375.

Equal Employment Opportunity is not only the law, but it is a principle of our company's operation. I expect each employee to cooperate to achieve this goal and I personally stand behind this principle.

William H Bryant

WILLIAM H. BRYANT, CHIEF EXECUTIVE OFFICER

Britton S. O'Brien

EEO COORDINATOR

March 7, 1988

DATE