

Statement of Qualifications for Professional Engineering Services

TOWN OF BARRINGTON, NEW HAMPSHIRE

February 1, 2021



Submitted to:
Conner MacIver, Town Administrator
Town of Barrington
333 Calef Highway
Barrington, NH 03825

Submitted by:
CMA
ENGINEERS
35 Bow Street
Portsmouth, NH 03801
with



Robert E. Doyle PE RA

Table of Contents

1. Letter of Transmittal
2. Firm Profile
3. Project Team
4. Related Experience
5. References
6. Firm Performance
7. Billing Rate (Separate Envelope)
8. Conflict of Interest



Appendix A - Subconsultant Qualifications



February 1, 2021

Conner MacIver, Town Administrator
Town of Barrington
333 Calef Highway
Barrington, NH 03825

**Re: Town of Barrington, NH
Professional Engineering Services Statement of Qualifications
CMA #P-3083**

Dear Mr. MacIver:

In response to the Town's Request for Qualifications, CMA Engineers is pleased to submit our Statement of Qualifications for professional engineering services. CMA Engineers is a consulting engineering firm with offices in Portsmouth and Manchester, New Hampshire as well as Portland, Maine. The firm was formed in New Hampshire in 1998, has 30 engineers and support staff. It is a registered engineering firm in NH, is pre-qualified by NHDES, and is a recognized consulting firm by NHDOT.

It has been our pleasure to have served the Town of Barrington for many years on the planning, design, and construction of closure of the Barrington landfill and septage lagoons, operation of the transfer/recycling facility, and subsequently with coordination of the environmental monitoring and reporting to NHDES of those closures.

The firm's focus is engineering for municipalities and other public sector clients. It is what we do: planning, design, permitting and construction services for civil, structural, environmental, and geotechnical engineering services for a wide range of state and municipal clients in NH and northern New England.

Barrington is a growing community. It has a range of public facilities including highways, roadways, bridges, dams, stormwater drainage, and municipal facilities. Engineering to support the Town's capital needs will require targeted and responsive design and construction in many areas. As described in later sections, CMA Engineers provides engineering in all of these areas, including:

- *Roadway reconstruction, improvements, and pavement management programs*
- *Multimodal projects funded by NHDOT through the LPA program*
- *Bridge and culvert design and construction, including NHDOT State Aid Bridge projects*
- *Stormwater and drainage systems*
- *Public buildings and facilities*
- *Dam maintenance and regulatory compliance*
- *Project permitting*
- *Project funding through State and federal grants and loans*
- *Planning Board support of design review and construction*

We highlight our work in support of municipal Planning Boards In the design review and construction inspection services for numerous communities throughout the region. We currently represent five communities in the region, including Portsmouth, Hampton, Northwood, Nottingham, and Kittery. In each of these communities, we provide detailed review of development projects in accordance with the community's land use ordinances and general engineering standards. In many cases we followed with construction reviews in accordance with the Planning Board-approved plans. Projects have ranged from residential subdivisions, to "cluster" concept subdivisions, commercial and institutional projects. Key members of our project team are members of the planning boards in their home communities. As such they understand the responsibilities of being a board member as well as the professional aspects of consultant support.

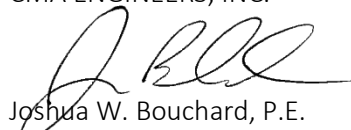
CMA Engineers has significant experience in the design and construction administration of State Aid Bridge projects. We design bridges for NHDOT (Laconia, recently), for municipalities (Madbury, recently) and in 2020 we administered the construction of a bridge in Freedom, NH designed by another engineer, in similar circumstances to what is now required of all State Aid Bridge projects as of January 1.

CMA Engineers has also prepared comprehensive pavement management programs including for Somersworth, NH and Eliot, Wells and Ogunquit, Maine.

Each of the scope areas requested by Barrington represents a core area of our practice on behalf of municipalities.

We would greatly appreciate the opportunity to be of continued and further service to Barrington. If you have any questions, please do not hesitate to let us know,

Very truly yours,
CMA ENGINEERS, INC.


Joshua W. Bouchard, P.E.
Project Manager


William A. Straub, P.E., P.G.
Principal

Enc.

2

Firm Profile



CMA Engineers is a NH-based consulting engineering firm with offices in Portsmouth and Manchester, NH, and Portland, ME. The firm has 30 principals and staff and is wholly owned by working principals of the firm. The firm specializes in engineering for municipal public works projects. *The team has full capabilities in civil, highway, traffic, structural, and environmental engineering.*

Municipal Focus

CMA Engineers understands the way municipal projects are completed, including the planning, budgeting, financial planning, funding, and decision-making. For CMA Engineers municipal service means providing responsive engineering by assembling and managing experienced project teams.

The depth, diversity, and strength of the CMA Engineers team allows us to be responsive to the full range of project needs. Establishing solid and effective working relationships with elected officials, municipal managers, public works directors and staff and other municipal participants is always a primary goal of CMA Engineers. This helps keep engineering focused, timely, responsive, and excellent. Project goals and expectations are clearly articulated, understood, and meet needs and expectations. Effective communication is critical at all levels of interaction, including coordination with key staff, public works leadership, governmental leadership, regulators, and the public.

A major feature of CMA Engineers municipal services is responsive engineering over the entire period of project development and delivery. CMA Engineers brings full capabilities and experience covering the full spectrum of services we have highlighted, including:

- Feasibility Studies and Evaluations
- Project Planning
- Third Party Peer Review
- Capital Improvements Plans
- Asset Management Programs
- Project funding, including coordination of funding agencies and grant applications
- Project decision-making including Public Participation programs
- Environmental Permitting (Local, State, Federal)
- Preliminary Design and Budgeting
- Final Design and Cost Estimates
- Contract Documents
- Bidding and Project Award
- Construction Services
- Contract Administration
- Resident Engineering

CMA Engineers' key personnel stay involved throughout all phases of a project to assure technical and managerial continuity, and responsive service. In the last 30 years, the firm has been responsible for projects with an aggregate completed construction value of well over \$300 million.

- Highway, complete streets, roadway
- Recreational and athletic facilities
- Sidewalks, multi-modal facilities including bicycle and pedestrian facilities
- Comprehensive bridge projects, including structures, culverts, and drainage projects
- Stormwater management and treatment
- Project permitting, including environmental and Section 106

Offices and Resources

The principal office of **CMA Engineers** is 35 Bow Street, Portsmouth. Other offices are located in Manchester, NH and Portland, Maine. Work for Barrington projects will be managed primarily from our Portsmouth, NH office. All offices of **CMA Engineers** function collaboratively and interactively, not as separate entities.

CMA Engineers was formed in 1988 and has grown carefully and effectively since that time. Our staff of 30 employees includes 16 professional engineers. The firm has principal and senior staff in areas of civil, environmental, structural, and geotechnical engineering. Our experience includes state and municipal projects with a full range of design, permitting, utility coordination, public participation, right-of-way, and construction/contract administration services.

The firm's strength lies in its ability to identify, clearly define, and create solutions to public works project problems. The principals and staff of the firm draw upon an extensive background from which to provide responsive engineering services. Their experience represents many years of successful engineering and a long history of planning and managing projects of significant scope and duration, as well as smaller scope projects with tight schedules and budget constraints. **CMA Engineers** responsively serves clients' needs from project conception through implementation.

CMA Engineers, Inc. is registered in the State of New Hampshire with the Secretary of State's Corporate Division as a company in good standing since 1988. **CMA Engineers** is also listed on the Roster of Pre-Qualified Consulting Engineers maintained by the State of New Hampshire Department of Environmental Services (DES).

Approach to Engineering Services

CMA Engineers is committed to providing responsive engineering services of the highest quality. Effective engineering project management and attention to detail is a cornerstone of this commitment and is reflected through our guiding principles that are adopted by each *CMA Engineers* representative.

- **Central Involvement** of a principal of the firm in every undertaking, from initial concept through project completion.
- **Collaborative Coordination** with the client and their representatives throughout all phases of a project.
- **Comprehensive Assessment** of all project requirements at the outset of any involvement. Complete assessment identifies project issues early on, allows for appropriate project planning, and minimizes costly changes during the project's design, construction, or implementation phases.

- **Formulation of the most effective** multi-disciplinary team from among *CMA Engineers'* principals, staff, and professional subconsultants. The flexibility inherent in this approach allows *CMA Engineers* to carefully formulate an experienced team which precisely meets the project's and client's needs in the most cost-effective manner.
- **Effective Functioning** of *CMA Engineers'* project team with other project participants, which often include legal counsel, financial advisors, financial personnel, architects, environmental scientists, surveyors, or structural, mechanical, and electrical and lighting engineers. *CMA Engineers* is experienced in taking the lead in such teams based on project requirements and client desires.
- **Attention to changes** in project scope direction or requirements. Anticipation and identification of unexpected project developments, communication of these, and development and implementation of corrective measures are key to successfully managing projects.
- **Consistent Monitoring** of project schedules and costs through the use of *CMA Engineers'* project cost accounting system. Project progress, staff workload issues, dealings and deliverables are discussed at bi-weekly project planning meetings to ensure project needs are met.

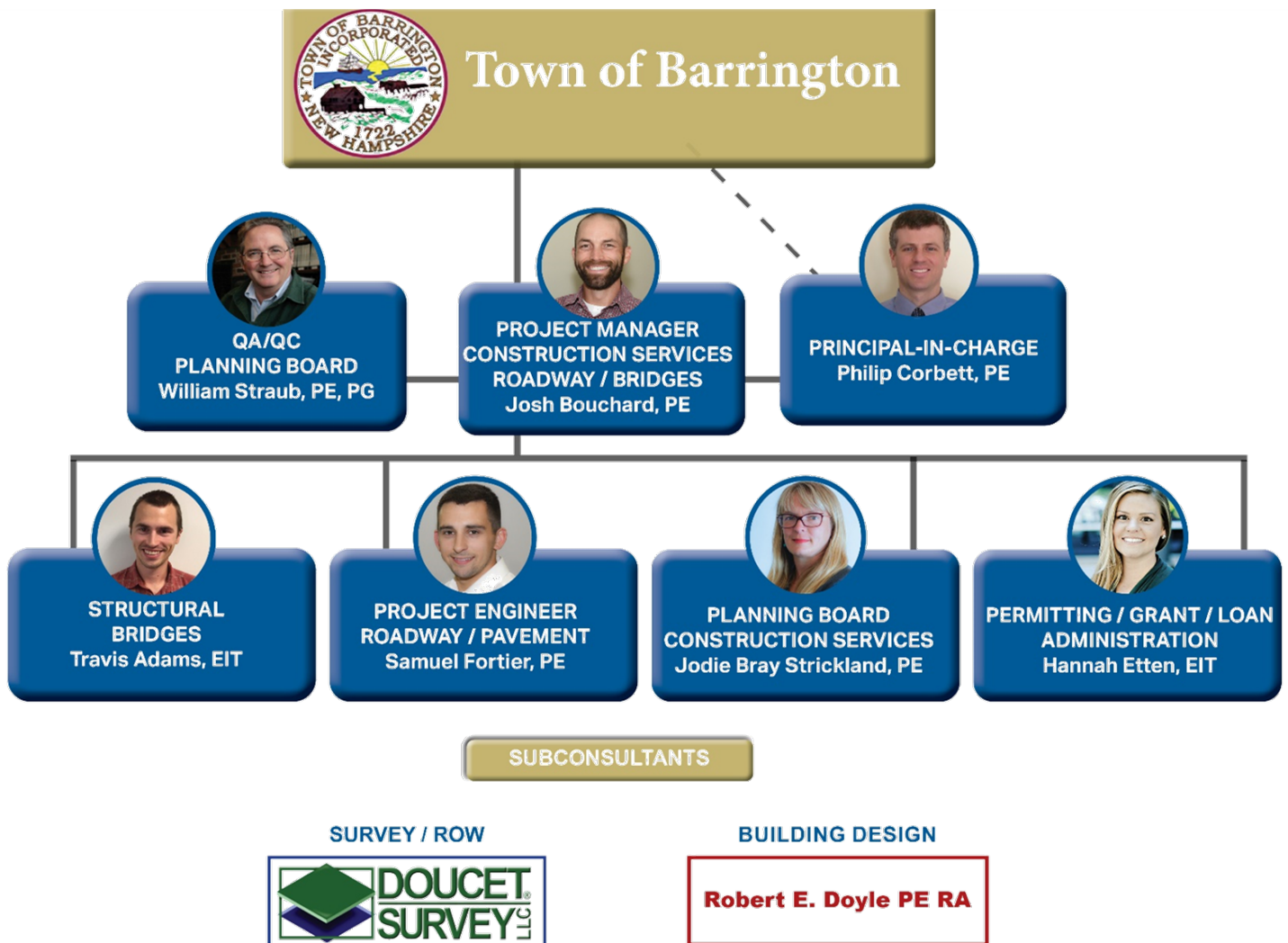
CMA Engineers understands the way municipal projects are completed, including the planning, budgeting, financial planning, funding, and decision-making. For *CMA Engineers* municipal service means providing responsive engineering by assembling and managing experienced project teams.

The depth, diversity, and strength of the CMA Engineers team allows us to be responsive to the full range of project needs. Establishing solid and effective working relationships with elected officials, municipal managers, public works directors and staff and other municipal participants is always a primary goal of *CMA Engineers*. This helps keep engineering focused, timely, responsive, and excellent. Project goals and expectations are clearly articulated, understood, and meet needs and expectations. Effective communication is critical at all levels of interaction, including coordination with key staff, public works leadership, City governmental leadership, regulators, and the public.

Municipal projects are usually multi-faceted. Most involve several related elements. For example, an urban roadway or streetscape project requires excellent civil and transportation engineering but also utility work involving water, sewer, drainage, and stormwater treatment. Municipal bridge projects necessarily require roadway, pedestrian, traffic safety, and detailed utility work. All projects include comprehensive environmental permitting. *CMA Engineers* brings the integrated expertise and capabilities needed to comprehensively develop and deliver all parts of municipal projects.

Project Team Description

CMA Engineers has assembled a comprehensive project team with unique relevant experience and a proven record of performance. Adding to CMA Engineers’ capabilities, we are pleased to be supported by the firms of *Doucet Survey, and Robert E. Doyle PE, RLA* for Barrington. Doucet Survey will provide field survey and ROW support. Robert Doyle will support building analysis, architectural design, and code reviews. These firms will be integrated into the project team and lead specific tasks to meet the Town’s needs on a wide range of infrastructure projects. Individual task leaders will be supported by the full resources of CMA Engineers and their respective firms to meet project needs and for the comprehensive success of the project. Our team organization chart provides a formal structure of the team, task responsibilities, and reporting relationships.



JOSH BOUCHARD'S HIGHLIGHTED EXPERIENCE:

TOWN OF COLEBROOK

Main St Utilities Project

Main St Reconstruction Project

TOWN OF NORTHUMBERLAND

Water and Sewer Rehabilitation

City of Rochester

Salmon Fall Road

TOWN OF FREEDOM

Multiple Culvert Replacements

TOWN OF DURHAM

Coe Drive Culvert

Longmarsh Road Bridge

PHIL CORBETT'S

HIGHLIGHTED EXPERIENCE:

CITY OF LACONIA

Union Avenue Reconstruction

Franklin Street

CITY OF PORTSMOUTH

Sagamore Avenue

Athletic Fields

TOWN OF EXETER

Lincoln Street

Epping Road Utilities

TOWN OF HUDSON

Kimball Hill Road Int.

TOWN OF CONCORD, MA

Cambridge Turnpike

BILL STRAUB'S

HIGHLIGHTED EXPERIENCE

CITY OF PORTSMOUTH

Pease Multi-Purpose Path

Lower Court and State Street

CITY OF ROCHESTER

Salmon Falls Road

TOWN OF EXETER

Lincoln Street

Kingston Road

TOWN OF CONCORD, MA

Cambridge Turnpike

SAM FORTIER'S

HIGHLIGHTED EXPERIENCE:

CITY OF LACONIA

Union Avenue Reconstruction

Franklin Street

TOWN OF EXETER

Kingston Road TAP

TOWN OF SALEM

Bike-Ped Corridor Phase 2

TOWN OF CONCORD, MA

Cambridge Turnpike

CITY OF MANCHESTER

Rockingham Trail (TAP)

Project Manager - Construction Services / Roadway / Bridges

Josh W. Bouchard, P.E. is a project manager with over 16 years' experience as a civil engineer. His project experience includes planning, design, and construction administration on a broad range of roadway and general civil projects. Josh is currently the project manager for several bridge, culvert, roadway rehabilitation, and utility projects. He coordinates all aspects, including project permitting, design, and construction. In addition to major utility and roadway projects, his experience includes dozens of culvert replacements, bridge, and dam rehabilitation projects. Mr. Bouchard has a BSCE from the University of New Hampshire and is a licensed professional engineer in New Hampshire and MA.



Principal-in-Charge

Philip A. Corbett, P.E. is a Principal and Project Manager at CMA Engineers and has over 20 years' experience in municipal engineering projects. Mr. Corbett will ensure that project requirements and client needs are being met. He has a strong background in utilities, roadway design, pedestrian improvements, traffic analysis, site design, and drainage projects. He has led public presentations and meetings on complex municipal projects. He has completed numerous projects in other communities, including roadway and utilities projects throughout New Hampshire. Mr. Corbett received a BSCE from the University of Colorado and an MS in Civil Engineering from the University of Washington, and is a licensed professional engineer in NH, ME, CO, and FL.



Independent Quality Assurance Review/ Planning Board

William A. Straub, P.E., P.G. is Vice President of CMA Engineers and has over 39 years' experience in a wide range of civil and environmental engineering projects for municipalities across New Hampshire. He has served as project manager for numerous drainage projects over many years, including bridge and structural projects, dam projects, environmental projects, and roadway projects. Mr. Straub has a Bachelor's Degree in Civil Engineering from the University of New Hampshire and a Master's Degree in Engineering from Dartmouth College and is licensed in NH, VT, ME, and MA and was presented the Engineer of the Year Award by the New Hampshire Engineering Societies in 2006.



Senior Project Engineer – Roadway / Pavement Management

Sam Fortier, P.E. is a project engineer with over 10 years' experience in roadway and municipal project engineering. Sam is an accomplished roadway/highway design engineer with experience on municipal and DOT projects. He is project engineer for roadway rehabilitation projects in Laconia, Concord MA, Manchester, and Durham. Sam's design experience includes roadway alignments, profiles, cross-sections, sidewalk, curbing, drainage design, utility coordination, and development of final plans and specifications for bidding. Sam completed work on roadway/streetscape projects in New Hampshire, Vermont, and Massachusetts. Mr. Fortier received a Bachelor of Science in Civil Engineering from UNH and is a licensed professional engineer in NH.



**JODIE STRICKLAND'S
HIGHLIGHTED EXPERIENCE:**

TOWN OF HAMPTON

RPR services

Planning Board Services

CITY OF PORTSMOUTH

RPR for Sagamore Avenue

CITY OF DOVER

RPR Tolend Road

CITY OF MANCHESTER

RPR Rockingham Rail Trail

LANDFILL POST – CLOSURE MONITORING

Monitoring and Reporting

Assistance for Various

Municipalities throughout NH

TRAVIS ADAMS'

HIGHLIGHTED EXPERIENCE:

TOWN OF CONCORD, MA

Cambridge Turnpike

Improvement Project (Bridge,

Multiple Culverts, Pedestrian

Bridge, and Retaining Walls)

MAINEDOT

Load Ratings for Multiple

Bridges

TOWN OF MANCHESTER-BY-THE-SEA

Pier and Seawall Rehabilitation

HANNAH ETTON'S

HIGHLIGHTED EXPERIENCE:

TOWN OF COLEBROOK

Water & Wastewater Evaluation

Colebrook Homeowner's Assoc.

TOWN OF WELLS, ME

Swamp John Rd Maine DEP

Permitting

SOLAR PROJECTS (THROUGHOUT NH)

Environmental Permitting

Planning Board / Construction Services

Jodie Bray Strickland, P.E. is project engineer with over 14 years' experience on a wide range design and construction projects. Jodie has provided project engineering and construction reviews for a wide range of projects in Hampton for over 10 years, including planning board reviews, and was the project engineer and resident engineer on the Lafayette Road, High Street, and Hampton Depot stormwater project. She provides resident engineering services for many municipal projects, including utilities, roadway, drainage, transportation, and environmental projects. Example projects include those in Portsmouth, Dover, Stratham, Kittery and Hampton. In addition, she completes detailed planning board reviews for several communities, including both design review during construction. Jodie received a BSCE from the University of New Hampshire and is a licensed professional engineer.



Structural/Bridge Engineer

Travis M. Adams, E.I.T. will assist with bridge analysis, inspection and design. Travis joined CMA Engineers as a Project Engineer in 2016, after joining as an intern. He has an educational background in civil engineering with a structural focus, and performed graduate research involving model-based structural health monitoring using dynamic data for parament estimation. He has both a B.S. in Civil Engineering and a M.S. in Civil Engineering from the University of New Hampshire.



Structural/Bridge Engineer

Hannah Etten, E.I.T. is a project engineer with 5 years' experience in civil and environmental engineering projects. Her background includes planning, permitting, process design, security design, and construction administration, for water and wastewater treatment, distribution, sewer collection systems. Hannah is currently a project engineer on projects that include permitting for historical review, wastewater engineering reports, infrastructure design, and environmental site assessments. She has both a B.S. in Civil Engineering and a M.S. in Civil Engineering from the University of New Hampshire



Subconsultants

Survey/Right-Of-Way

William Doucet, LLS is the President and founder of Doucet Survey, a full service land use and survey firm. Mr., Doucet is a Licensed Land Surveyor in the State of New Hampshire and manages survey projects of all types, including topographic, cadastral, ROW determinations, and other survey necessary for engineering and project support. He has worked with CMA Engineers on numerous projects.

Building Design

Robert E. Doyle PE, RA is a sole proprietorship offering engineering and architectural consulting services, located in Dover, NH. Mr. Doyle has over 25 years' experience providing engineering and architectural design and management services. Mr. Doyle is a registered architect and professional engineer. Mr. Doyle has experience with multiple project types including municipal, corporate, institutional, health care, and housing. He regularly subcontracts with CMA Engineers to provide architectural review and design services on building projects. CMA Engineers and Mr. Doyle have worked together on numerous municipal building projects.

4

Related Experience

CMA Engineers has significant experience working with municipalities to provide a wide range of services including:

- *Project planning and evaluation of alternatives*
- *Capital improvements plans & Pavement Management*
- *Project Funding*
- *Comprehensive Permitting*
- *Public Participation*
- *Preliminary and Final Design*
- *Construction Documents*
- *Bidding and Award*
- *Construction Services*
- *Documentation for Funding and Regulatory*

CMA Engineers understands the way municipal projects are completed, including the planning, budgeting, financial planning, funding, and decision-making. For CMA Engineers municipal service means providing responsive engineering by assembling and managing experienced project teams.

The depth, diversity, and strength of the CMA Engineers team allows us to be responsive to the full range of project needs. Establishing solid and effective working relationships with elected officials, municipal managers, public works directors and staff and other municipal participants is always a primary goal of CMA Engineers. This helps keep engineering focused, timely, responsive, and excellent. Project goals and expectations are clearly articulated, understood, and meet needs and expectations. Effective communication is critical at all levels of interaction, including coordination with key Town staff, elected officials, municipal boards, regulators, funding agencies, and the public.

Municipal projects are usually multi-faceted. Most involve several related elements. For example, roadway or streetscape project requires excellent civil and transportation engineering but also utility work involving, drainage and stormwater treatment. Municipal bridge projects necessarily require roadway, pedestrian, traffic safety, and detailed utility work. All projects include comprehensive environmental permitting.

CMA Engineers brings the integrated expertise and capabilities needed to comprehensively develop and deliver all parts of municipal projects.

On the following page is a graphical summary of the broad areas of municipal services that CMA Engineers provides.

Following that are several CMA Engineers' Highlighted Projects for in the areas of:

- *Municipal Engineer of Record*
- *Roadway Rehabilitation and Upgrades*
- *Pavement Management Programs*
- *Bridges, Culverts and Dams*
- *Construction Services*

CMA Engineers, Inc. Municipal Engineering Services



Municipal Streetscapes



Streets & Intersections



Urban Utilities



Wastewater Facilities



Drainage Features



Culverts & Bridges



Parks & Recreation



Environmental Facilities



Rural Roadways



Geotechnical Repairs



Public Work Facilities



Utilities

Engineering for Municipalities – Engineer of Record

CMA Engineers provides general engineering support to numerous municipalities on an “on-call” basis. Services are provided over a wide range of areas. Under master services agreements, individual task assignments are commonly developed for separate distinct projects. Additionally, CMA Engineers provides general support to town administration, public works departments, and others as “a phone call away”.



Town of New Castle New Castle, NH

CMA Engineers has provided consulting engineering services to the Town of New Castle for the past 25 years. These comprehensive services have included a town-wide sewer study, pumping station evaluations, the review of private sewer connections to the town's force main, evaluations of the Town's wastewater pumping stations, the design and construction administration of a water main replacement in Main Street from Wentworth Road to Cranfield Street, the design of meter pit modifications to allow water flow from the New Castle village system to the Portsmouth system at Wentworth Road, the design of mitigation methods for protecting the hung water and sewage force mains at the New Castle causeway during NHDOT bridge rehabilitation, the review of the Wentworth by the Sea (WBTS) development project on behalf of the New Castle Planning Board, review of subdivision plans for other private developments, the design and construction administration of a pedestrian path adjacent to Route 1B, and the preliminary design of sidewalk improvements at the New Castle Elementary School.

Throughout all of these projects, and this long period of time, CMA Engineers has maintained effective communication with the New Castle Board of Public Works, Board of Selectmen, Planning Board, and the public as applicable for each project. CMA Engineers has a unique understanding of the Town of New Castle and its infrastructure. Selected water projects are described below.



Client:

Town of New Castle, NH

Engineering Services:

Planning
NHDOT/Transportation
Enhancement (TE) Program
Design
Utility Coordination
Bidding Services
Construction Services
Resident Services

Period of Service:

Since 1989

Key Personnel:

Craig N. Musselman, P.E.
Principal

William Straub, P.E.
Principal

Philip Corbett, P.E.
Project Engineer

Project Contact:

David McGuckin
Board of Selectmen
Town of New Castle
(603) 433-6198

P L A N N I N G

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In 1991, CMA Engineers designed and administered the construction of water system improvements to replace an old 6 inch water main in Main Street from Wentworth Road to Cranfield Street with an 8 inch CL DI pipe. This main created a competent loop and improved fire flow in the village. Note- This main is currently modeled as a 6 inch line with a c factor of 35 in the City's model. This line appears not to have been updated on the City's water system maps, likely because it was in the village, and not the City, system.

In the early 2000's CMA Engineers used the City's hydraulic model at the time to evaluate water service to the Wentworth by the Sea project, both from the perspectives of providing adequate service to the hotel and condominiums, and to assure that fire flows and pressures to the rest of New Castle were not significantly diminished. At that time, actual fire flows were not matching model output using reasonable assumptions of c values. There was a significant hydraulic constraint in an old water main in Little Harbor Road between Sagamore Avenue and the back channel. Replacement of a substantial part of that main was completed as the hotel project was developed. CMA Engineers formulated an effective before and after fire flow testing and approval process to assure that the hydraulic constraint was remedied by the Little Harbor Road construction. Similar actual testing of fire flows is necessary now to "true up" the model with the present hydraulic function.

In 2010, CMA Engineers designed meter pit improvements at the intersection of Main Street and Wentworth Road to allow water to flow from the New Castle village system to the Portsmouth system, improving available fire flow in Wentworth Road and to the hotel. At the time, CMA Engineers used the City's hydraulic model to predict fire flow improvements from that small project. This project has been held in abeyance while the City and New Castle conduct their on-going and favorable discussions regarding City operation and maintenance of the New Castle water and sewer systems. The City's current water model allows flow from Main Street to Wentworth Road under existing conditions, which are precluded in actuality by a permanently closed valve that is not likely shown on the City's water maps. We believe that adding that detail to the water system model will show modest, but significant, improvement in available fire flows in Wentworth Road from meter pit removal and minor piping modifications alone, as part of an overall improvement project.



P L A N N I N G





General Engineering Services Concord, NH

Since 2012, CMA has served the City of Concord, NH as a selected “on-call” engineering firm, and has provided engineering for design and construction of several large projects for the City Engineer and General Services departments. These projects include:

- Reconstruction of roadway and streetscape in the Penacook village area, including a traffic roundabout, park, and other features;
- Conversion of 1.5 miles of Loudon Road from four lanes to three, with significant vehicle and pedestrian improvements (NHDOT LPA project);
- Major improvement to wastewater facilities, including pump station rehabilitation, headworks rehabilitation;
- Bridge deck, abutment, and expansion joint repair/replacement;
- Management of environmental issues at two closed City landfills; and
- Evaluation of site development alternatives for City-owned parcels.

These multi-disciplinary projects have utilized a broad range of engineering expertise and capabilities, and included several specialists as subconsultants.



GENERAL SERVICES

Client:

City of Concord, NH

Engineering Services:

Highway Design
Peer Review

Streetscape Preliminary
and Final Design

Bridge Design
and Construction

Building Design
and Construction

Public Facilitation

Period of Service:

2012 - Present

Key Personnel:

William Straub, P.E.
Principal

Paul Schmidt, P.E.
*Project Manager
Water & Wastewater*

Liam Kalloch, P.E.
Project Manager Structural

Project Contact:

Edward Roberge, P.E.
City Engineer

Earl M. Chesley, P.E.,
*General Services Director
City of Concord
(603) 225-8520*

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General Engineering Services Hampton, NH

Since 2010, CMA has served as Town Engineer for the Town of Hampton, NH. In that role, the firm has provided engineering for design and construction of several public works projects, including:

- Rehabilitation of the drainage system in the Village center, including assistance in FEMA funding, Design, and Construction services,
- Preliminary design of a complete streets roadway and utilities replacement for over a mile of Exeter Road, a major gateway route into Hampton ,
- Review of sewer service alternatives for several locations,
- Construction services for a major drainage rehabilitation.
- Review of solid waste management alternatives.

CMA Engineers also provides construction review of approved projects to assure that projects are constructed and comply with the Town approved designs, and for subdivisions for Town acceptance.



TOWN ENGINEER

Client:

Town of Hampton, NH

Engineering Services:

Planning

Preliminary and Final Design

Design Review for

Planning Board

Construction Services

Period of Service:

2010 through current

Key Personnel:

William Straub, P.E.

Principal / Project Manager

Philip Corbett P.E.

Project Engineer

Jodie Strickland, P.E.

Project Engineer

Project Contact:

Chris Jacobs, P.E.

Public Works Director

(603) 926-3202

Jason Bachand, AICP

Town Planner

(603) 926-5913

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Roadway Rehabilitation and Upgrades

CMA Engineers provides engineering for many municipal and State roadway projects, including rehabilitations, “complete streets” projects with utilities, in rural and urban settings. Engineering includes all phases of projects, from concept through completion. Many projects are entirely municipal. Others involve State and Federal funding managed locally but through the NHDOT Local Project Administration (LPA) program. (One of the highlighted sheets on the following pages is a map of the many LPA projects CMA Engineers has completed in NH.).



Tolend Road / Watson Road Reconstruction Dover, NH

CMA Engineers planned, permitted, designed and provided construction administration for the Tolend Road/Watson Road Reconstruction. This project included complete reconstruction and widening of five miles of mixed rural roadway through established neighborhoods beginning at the Barrington Town line and extending to the intersection with Whittier Street. Once a lightly travelled rural roadway, it had become a significant collector and arterial, with heavy truck traffic from industries on the west end. The corridor had significant drainage issues and safety issues associated with poor geometry, limited sight distance and substandard road conditions. The road base also failed structurally in many locations.

An initial safety assessment and the development of design standards was followed by a public participation program. Design included resolution of vertical and horizontal alignments, drainage analysis and design, and property owner and utility coordination. Wetlands permitting included a significant wetlands mitigation/presentation package as well as Comprehensive Shoreland Protection and Alteration of Terrain Permits. Construction started in 2013 and was completed in 2016.



R O A D W A Y S

Client:

City of Dover, NH

Engineering Services:

Planning/Corridor Safety
Evaluation

Preliminary and Final Design

Public Facilitation

Utility Coordination

Permitting/Mitigation

Bidding

Construction Services

Resident Services

Period of Service:

2010 - 2016

Key Personnel:

William Straub, P.E.

Principal

Jodie Strickland, P.E.

Project Engineer

John Kareckas, CET

Inspection

GZA GeoEnvironmental

Mitigation

Doucet Survey, Inc.

Survey

Project Construction Cost:

\$5,000,000 (2013-15)

Project Contact:

David White, P.E.

City Engineer

City of Dover

(603) 516-6450

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Sagamore Avenue Reconstruction Portsmouth, NH

CMA Engineers designed the complete restoration of Sagamore Avenue in Portsmouth. The corridor is Route 1A and is a major gateway to the City from the seacoast area to the south. Sagamore Avenue also is a densely developed residential area, and adjacent to historic cemeteries. Between South Street and the bridge over Sagamore Creek, the roadway is 4,400 feet long, and has an average ADT of over 8,000. The roadway is also a very popular and well-used route for pedestrians and bicyclists. A major design criteria is “complete streets” treatment, which accommodates all users of the roadway (motorists, pedestrian, and bicyclists), replaces utilities as necessary, and incorporates sustainable stormwater management and treatment.

Design included establishing two bike lanes, a new sidewalk, incorporating traffic calming measures, an improved intersection with crosswalk, replacement of some water and sewer utilities, and application of stormwater treatment. Preliminary design was completed for the entire corridor, and final design completed for construction of the first of two phases in 2014/2015. That construction was coordinated with the replacement of the tidal Sagamore Creek bridge, during which traffic was greatly reduced. Design development included a robust public outreach process.



R O A D W A Y S

Client:

City of Portsmouth NH

Engineering Services:

Planning

Roadway and

Streetscape Design

Sewer, Water and Drainage

Design

Utility Coordination

Construction Services

Resident Services

Period of Service:

2013- 2015

Key Personnel:

William Straub, PE
Principal

Philip Corbett, PE
Senior Engineer

Jodie Bray Strickland, PE
Project Engineer

Joshua Bouchard, PE
Project Engineer

Ironwood Design Group
Landscape

Doucet Survey
Survey

Project Construction Cost:

\$1,900,000

Project Contact:

Peter Rice, P.E.
Director of Public Works
City of Portsmouth
(603) 427-1530

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Lincoln and Winter Street Complete Street Project Exeter, NH

CMA Engineers assisted the Town of Exeter in the completion of a major utilities replacement and streetscape transformation project on Lincoln Street. The project also included water main replacements on Winter Street and Daniel and Tremont Streets. New water mains were needed to increase hydraulic capacity and fire flows in this central part of the community. The project area included commercial, institutional (including the Lincoln Street Elementary School), and residential sections, including the Amtrak station. Streetscape improvements addressed safety and economic revitalization of each section. Engineering included a phased design and construction of the water main replacement and the streetscape improvements. Services for both phases included preparation of construction documents, bidding, and full construction services including contract administration and resident services.



Client:

Town of Exeter, NH

Engineering Services:

Hydraulic Analysis
Design
Bidding
Permitting
Construction Services
Resident Services

Period of Service:

2017-2020

Key Personnel:

William Straub, P.E.

Principal

Phil Corbett, P.E.

Project Manager

Sam Fortier, P.E.

Project Engineer

John Kareckas, CET

Resident Project

Representative

Ironwood Design

Landscape Design

Project Construction Cost:

\$1.96 Million

Project Contact:

Jennifer Perry, P.E.

Public Works Director

Town of Exeter

(603) 773-6157

jperry@exeternh.gov

R O A D W A Y S

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Cambridge Turnpike Improvement Project, Concord, MA

CMA Engineers has assisted the Town of Concord, MA with planning, permitting, final design, bidding, and construction of the reconstruction of the Cambridge Turnpike (CTIP). The project includes over 7,000 linear feet of arterial roadway and sidewalks that connect the historic Town center to the MA Route 2 Corridor.

Historic elements were incorporated in the design, particularly near the intersection with historic Lexington Road, bordering the Emerson House and Concord Museum. Landscape architecture elements combined with stormwater design and coordination with the Town’s historic commission resulted in strong, historic, and appealing streetscapes.

The project was unique. It includes over 1,300 linear feet of ground improvement using drilled bi- modulus columns across freshwater marsh areas where the roadway was built over deep peat; a 40-foot span bridge on steel pile foundations at Mill Brook; two concrete box culverts, over 2,000 linear feet of retaining walls; and underground utilities. Extensive environmental permitting was required.

The Town viewed the project as an important opportunity to design and construct improvements to the corridor to enhance the experience of the people who live in and visit the area. The project integrated several modes of transportation in an aesthetically pleasing manner, which complements the community’s character and is sensitive to the nearby environmental and historical resources that Concord values.



Client:

Town of Concord, MA

Engineering Services:

Roadway Design

Bridge Design

Period of Service:

2016- Present

Key Personnel:

William Straub, P.E.

Principal & Project Manager

Philip Corbett, P.E.

Senior Project Engineer

Liam Kalloch P.E.

Structural Engineer

Jason Beaudet, P.E.

Project Engineer

Sam Fortier, P.E.

Project Engineer

Project Construction Cost:

\$10,000,000

Project Contact:

Steve Dookran, PE

Town Engineer

978-318-3210

R O A D W A Y S

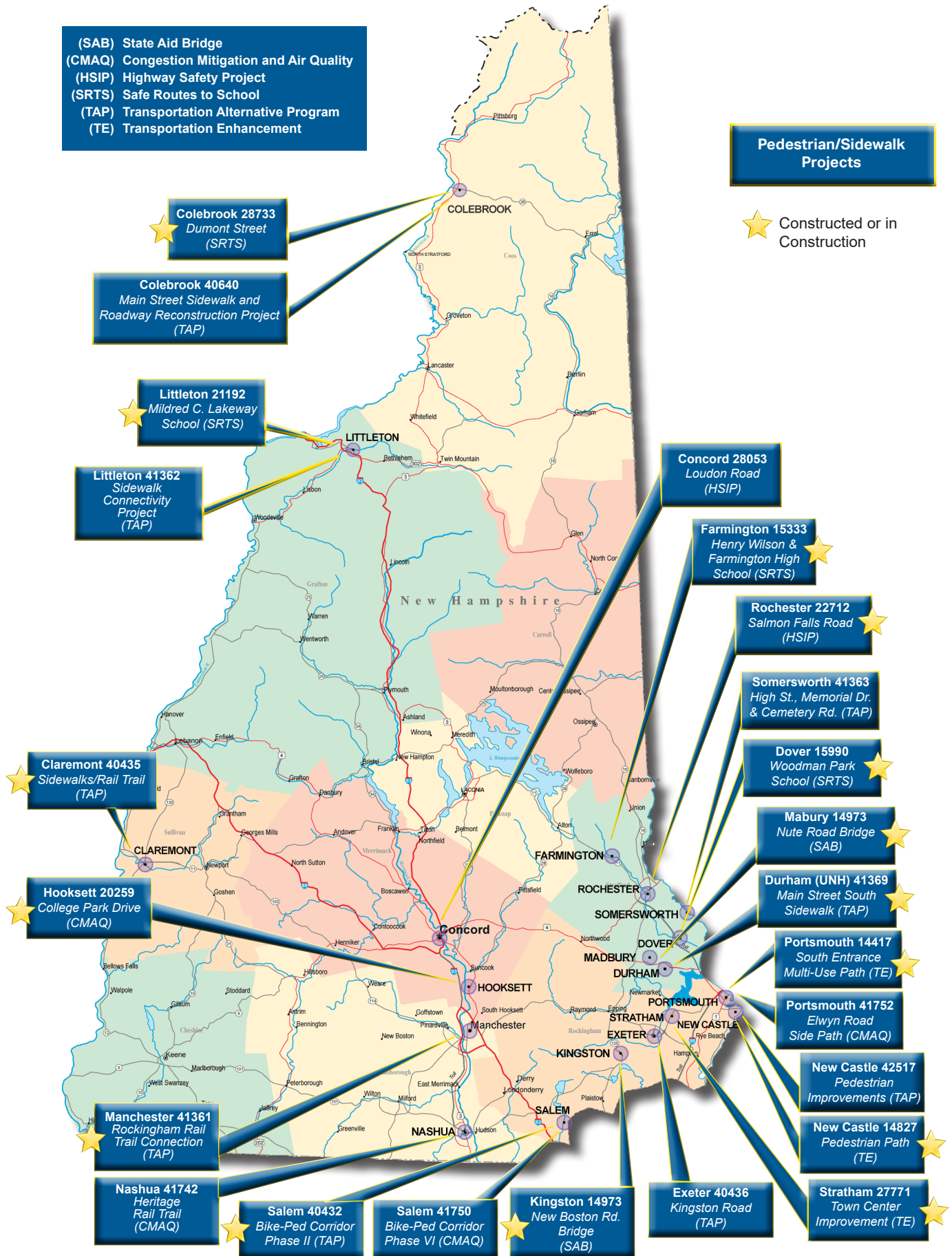
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Recently Completed or Current NHDOT Municipal Managed Projects

(SAB) State Aid Bridge
(CMAQ) Congestion Mitigation and Air Quality
(HSIP) Highway Safety Project
(SRTS) Safe Routes to School
(TAP) Transportation Alternative Program
(TE) Transportation Enhancement

**Pedestrian/Sidewalk
Projects**

★ Constructed or in
Construction

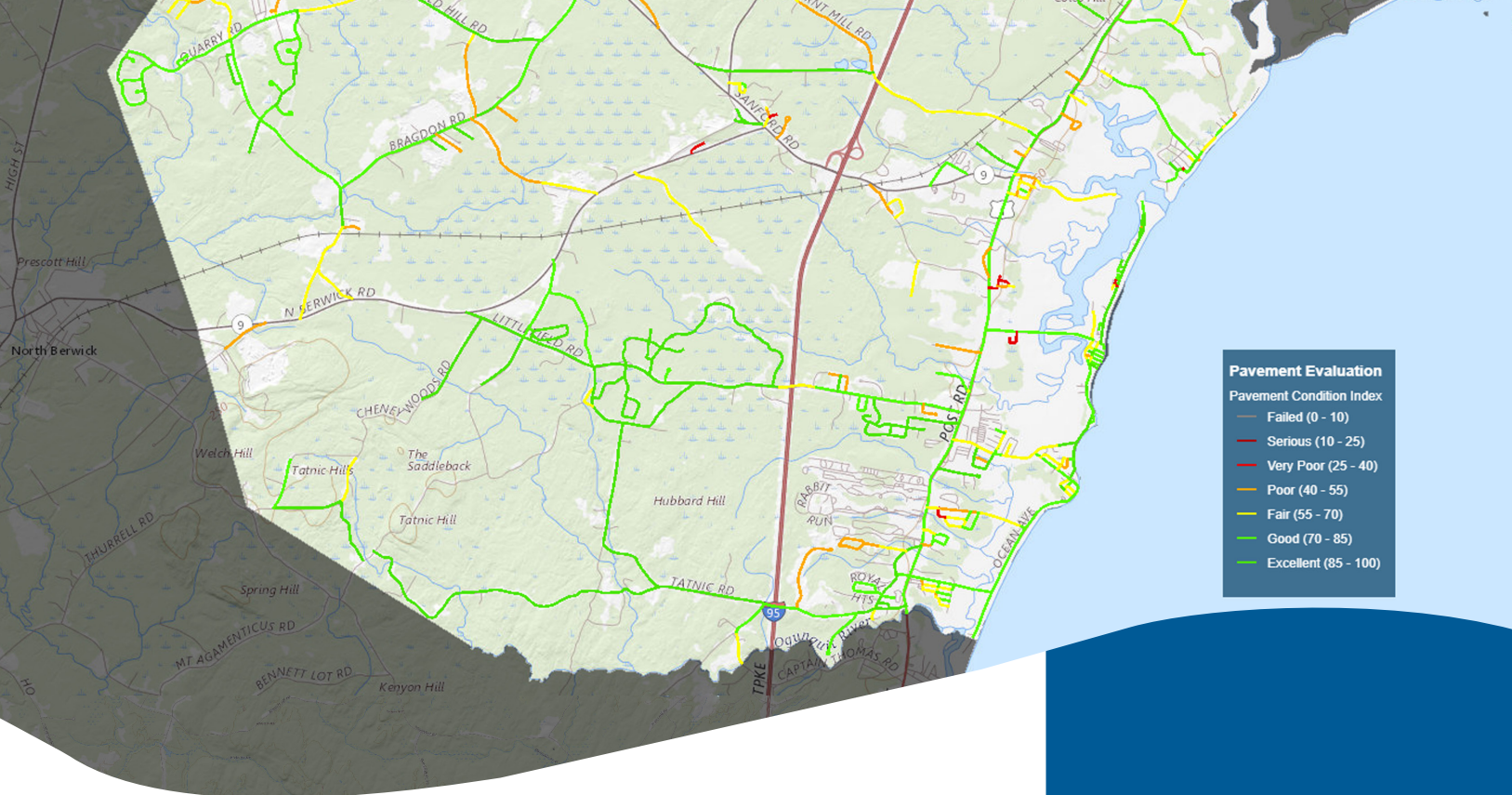


A map of Barrington, New Hampshire, showing a network of roads. The roads are color-coded to represent different pavement conditions or management programs. Green roads indicate the highest condition, followed by yellow, orange, and red. The map includes labels for various roads such as Wire Rd, Chick Crossing Rd, Burnt Mill Rd, Sainford Rd, Post Rd, Bragdon Rd, Littlefield Rd, Tatnic Rd, and Ocean Ave. It also shows geographical features like Hubbard Hill, Tatnic Hill, and Coles Hill, as well as the town center and surrounding areas.

Pavement Management Programs

Increasingly towns and cities in NH are applying asset management practices. Roadways and pavements are often the largest single assets in these communities. Most communities have annual budgets for pavement management. These can be significant expenditures and should be optimized to maintain and improve roadway conditions over the long term. This is measured by so-called Pavement Condition Index (or PCI) which is a measure of pavement condition. CMA Engineers has completed numerous pavement management plans for a range of community sizes, including several of Barrington's neighbors. Our project approach includes data-driven pavement inventories, and optimization techniques with local cost estimates to develop pavement funding programs that are based on logic, affordability, and community-wide pavement quality.

Several of these projects are presented on the following pages.



Pavement & Roadway Asset Ogunquit, ME and Wells, ME

For the Towns of Wells and Ogunquit Maine CMA Engineers completed a comprehensive evaluation and management plan of Towns' public roadway assets. The pavement inventory was done in both communities (which share a common border) late 2018 using StreetLogix automated data collection methodologies using specialized vans with multiple data collection devices. CMA Engineers utilized the data base and pavement inventory to complete comprehensive evaluations of pavement maintenance and rehabilitation strategies.

Management options included preservation, maintenance and reconstruction in a balanced and optimized program. Recommended 5-year pavement programs were developed that maintain and improve overall community pavement condition index, or PCI. The plan allows the Towns to plan and execute a pavement management program in a logical and supportable way, based on predicible annual costs.

Client:

Town of Ogunquit, Maine
Town of Wells, Maine

Engineering Services:

Planning
Evaluation
Program Recommendations

Period of Service:

2018-Present

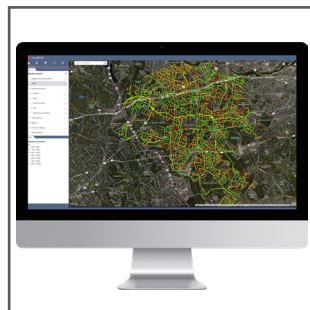
Key Personnel:

William Straub, P.E.
Principal / Project Manager

Jason J. Beaudet, P.E.
Project Engineer

StreetScan
Data Gathering and Data Processing

Project Contact:
Carol Murray, P.E.
Public Works Director
Town of Wells
(207) 646-3014



P L A N N I N G

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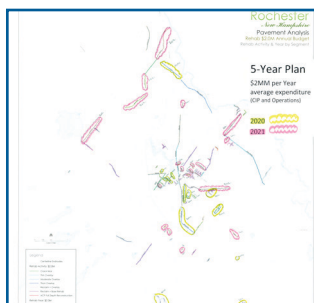
Pavement Condition Assessment Rochester, NH

For Rochester, NH, CMA Engineers completed a state-of-the-art automated inventory and assessment of pavement conditions for all City maintained roads with data delivered and accessible in GIS/ESRI formats. CMA Engineers developed a pavement maintenance and repair strategy and costs based on knowledge of the local conditions and then applied these to the data to develop work plans for various budget scenarios.

CMA Engineers utilized the services of IMS (Infrastructure Management Services) for state-of-the-art automated data gathering and imaging of all roadways. IMS used a van equipped with 3D laser crack detection measurement system and high resolution panoramic camera for completely objective (and repeatable) roadway inventory. IMS also collected roadside imagery of all other assets, including sidewalks, drainage, signals and other city facilities.

The inventory data was processed to generate individual roadway segment Pavement Conditions Index (PCI) based on methods in the current ASTM Standard Practice D-6433. The evaluation then applied decision methodologies and costs developed specifically for Rochester to optimize the allocation of annual expenditures based on different scenarios for funding.

Results were used to support decision-making by the City Council for funding, including objective recommendations for a 5-year maintenance, repair, and rehabilitation program, and recommended annual series of expenditures. The methodology is structured so that subsequent objective inventories can be done to update the program.



Client:

City of Rochester, NH

Engineering Services:

- Planning
- Evaluation
- Program Recommendations

Period of Service:

2016

Key Personnel:

William Straub, P.E.
Principal / Project Manager

Jason Beaudet, P.E.
Project Engineer

Infrastructure Management
Services (IMS)

*Data Gathering and Data
Processing*

Project Contact:

Michael S. Bezanson, PE
City Engineer
City of Rochester
(603) 332-4096



P L A N N I N G

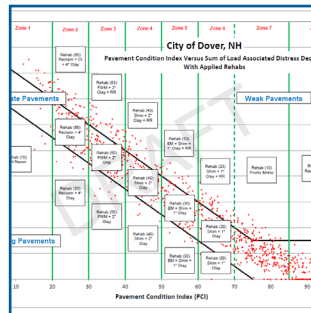


Pavement & Roadway Asset Dover, NH

For the City of Dover, NH, CMA Engineers completed a comprehensive evaluation and management plan of City's public roadway assets. The project included a complete inventory of the City's roadway network, including detailed assessment of the conditions and PCI of every road. CMA Engineers utilized the services of IMS (Infrastructure Management Services) for state-of-the-art automated data gathering and imaging of all roadways. IMS used a van equipped with 3D laser crack detection measurement system and high resolution panoramic camera for completely objective (and repeatable) roadway inventory. IMS also collected roadside imagery of all other assets, including sidewalks, drainage, signals and other city facilities.

The inventory data was processed to generate individual roadway segment Pavement Conditions Index (PCI) based on methods in the current ASTM Standard Practice D-6433. The evaluation then applied decision methodologies and costs developed specifically for Dover to optimize the allocation of annual expenditures based on different scenarios for funding. Several scenarios were compared, and a sequence of recommended maintenance and repair/rehabilitation actions developed.

Results were used to support decision-making by the City Council for funding, including objective recommendations for a 5-year maintenance, repair, and rehabilitation program, and recommended annual series of expenditures. The methodology is structured so that subsequent objective inventories can be done to update the program.



Client:

City of Dover, NH

Engineering Services:

Planning
Evaluation
Program Recommendations

Period of Service:

2015-16

Key Personnel:

William Straub, P.E.
Principal / Project Manager

Jason J. Beaudet, P.E.
Project Engineer

Infrastructure Management
Services (IMS)

*Data Gathering and Data
Processing*

Project Contact:

Douglas Steele
Community Services Director
City of Dover
(603) 516-6450

P L A N N I N G

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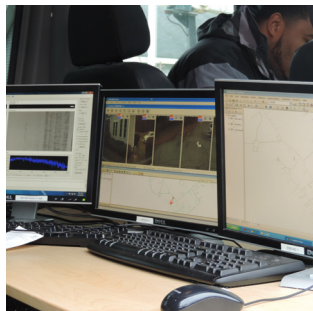


Eliot Road Management Plan Eliot, Maine

For the Town of Eliot, Maine, CMA Engineers completed a comprehensive evaluation and management plan of the Town's public roadway assets. The project included a complete inventory of the Town's roadway network, including detailed assessment of the conditions and PCI of every road. CMA Engineers utilized the services of Enterprise Information Solutions (EnterInfo) for state-of-the-art automated data gathering and imaging of all roadways. EnterInfo used a van equipped with 3D laser crack detection measurement system and high resolution panoramic camera for completely objective (and repeatable) roadway inventory.

The inventory data was processed to generate individual roadway segment Pavement Conditions Index (PCI) based on methods in the current ASTM Standard Practice D-6433. The evaluation then applied decision methodologies and costs developed specifically for Eliot to optimize the allocation of annual expenditures based on different scenarios for funding. Several scenarios were compared, and a sequence of recommended maintenance and repair/rehabilitation actions developed.

Results were used to support decision-making at a Town meeting for funding, including objective recommendations for a 5-year maintenance, repair, and rehabilitation program, and recommended annual series of expenditures. The methodology is structured so that subsequent objective inventories can be done to update the program.



P L A N N I N G

Client:

Town of Eliot, Maine

Engineering Services:

Planning
Evaluation
Program Recommendations

Period of Service:

2013-14

Key Personnel:

William Straub, P.E.
Principal / Project Manager

Enterprise Information
Solutions
Data Gathering and Imaging

Project Contact:

Dana Lee
Town Manager
Town of Eliot
(207) 439-1813

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City of Somersworth, NH

CMA Engineers served as City Engineer for the City of Somersworth, NH. In that role, the firm provided a wide range of services for several City Departments, including the City Manager, Public Works, Finance, and Planning. General services include review of public works projects and capital planning for the City. Working with City management, City Council, and the Public Works Committee of the Council, CMA Engineer provided critical input for numerous projects and maintenance activities within the City. CMA Engineers also worked closely with City staff and elected officials to prioritize the City's Capital Improvements Plan.

CMA Engineers also completed specific design and construction projects, including drainage and culvert, structural, utility, and roadway maintenance projects.

A major project was assisting the City in completion of a roadway and pavement asset management plan. The project included a complete inventory of the City's roadway network, including detailed assessment of the conditions and PCI of every road. CMA Engineers utilized state-of-the-art automated data gathering and imaging of all roadways. Technology included 3D laser crack detection measurement system and high resolution panoramic camera for completely objective roadway inventory. The data was processed for application in a data-based system. The evaluation applied decision methodologies and costs developed specifically for Somersworth to optimize the allocation of annual expenditures based on different scenarios for funding. Several scenarios were compared, and a sequence of maintenance and repair/rehabilitation actions recommended.

Client:

City of Somersworth, NH

Engineering Services:

Planning
Design
Public Facilitation
Utility Coordination
Construction Service
Bidding
Resident Services

Period of Service:

2011 - 2016

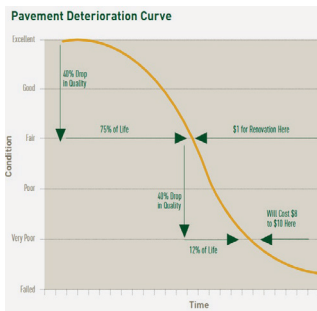
Key Personnel:

William Straub, P.E.
Principal

Philip Corbett, P.E.
Senior Project Engineer

Project Contact:

Robert Belmore
City Manager
City of Somersworth
(603) 516-6450



CITY ENGINEER

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Bridges, Culverts, and Dams

The CMA Engineers team brings significant experience in culvert and bridges to the Town of Barrington. The firm has designed, permitted, and provided engineering during construction for dozens of municipal structures. These include bridges in the NHDOT State Bridge Aid program. We are fully familiar with the requirements and practices of the program, including administering construction. In addition to projects we have designed, we have been retained for construction services for major bridges designed by others, including a significant bridge with challenging subsurface conditions being completed in Freedom.

In addition, CMA Engineers has completed several dam projects, including compliance with NHDES requirements.

Several of these projects are presented on the following pages.



Multiple FEMA Funded Bridge and Culvert Structure Replacement Projects

CMA Engineers has assisted numerous communities using FEMA's Hazard Mitigation Grant Program Application and other FEMA programs for major culvert and bridge replacements. Since 2006, we have done 15 projects in 5 communities through completed construction, representing over \$3M in constructed value.

The culvert and bridge projects have been completed in the following communities:

- New Durham (*Six projects*)
- Kingston (*Four projects*)
- Colebrook (*One project*)
- Claremont (*One project*)
- Alton (*Three projects*)

Engineering has included completing the FEMA Applications and assistance in administering the grant process, preliminary and final design, permitting, bidding, and representation during construction.

Projects have included bridge structures with 20 foot or larger spans and with significant associated roadway improvements, to smaller pre-cast box culvert structures. All have met current stream crossing regulations as well as applicable AASHTO and NHDOT standards.



Client:

Towns of New Durham,
Kingston, Colebrook,
Claremont, Alton

Engineering Services:

Secure FEMA GRANT
Design
Bidding
Construction Services
Resident Services

Period of Service:

2006 - 2016

Key Personnel:

William Straub, P.E.
Project Manager

Josh Bouchard, P.E.
Project Engineer

Jack Kareckas, C.E.T.
Resident Services

Project Construction Cost:

Total over \$3M

Project Contacts:

New Durham: Scott Kimmond
603-859-2091

Kingston: Rich St. Hilaire
603-642-3342

Colebrook: Greg Placy
603-237-4070

Claremont: Victor St. Pierre
603 504-0353

Alton: Ken Roberts
603-875-6808

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STORMWATER



Linden Street and Court Street Culvert Replacements, Exeter, NH

CMA Engineers assisted the Town of Exeter with the planning, design, permitting, bidding and construction phase services of replacement bridges for two crossings of the Little River. The project involves replacing the existing, deteriorated corrugated metal culverts with clear span precast concrete bridges on pile-supported substructures. The project planning phase included the evaluation of multiple bridge design alternatives. The design phase required a detailed hydraulic analysis of the Little River and the Exeter River which influences the hydraulics of the Little River during large storm events.

The proposed single span bridges increase the hydraulic capacity at both crossings and improve river access for wildlife and paddlers. Project design also included coordination of existing water, sewer, and overhead electric utilities. Both crossings include replacement of existing water mains. CMA Engineers completed the environmental and land use permitting for the projects which required minor impacts to designated Prime Wetlands. The Linden Street bridge was completed in 2015. The Court Street bridge was constructed in 2017 and 2018.



STRUCTURAL

Client:

Town of Exeter, NH

Engineering Services:

Hydraulic Analysis

Design

Bidding

Permitting

Construction Administration

Resident Services

Period of Service:

2014 - 2018

Key Personnel:

William Straub, P.E.

Principal

Liam Kalloch, P.E.

Project Engineer

Jason Beaudet, P.E.

Highway Engineer

Jack Kareckas, C.E.T.

Resident Services

Project Construction Cost:

\$1.9 million

Project Contact:

Jennifer Perry, P.E.

Public Works Director

Town of Exeter

(603) 773-6157

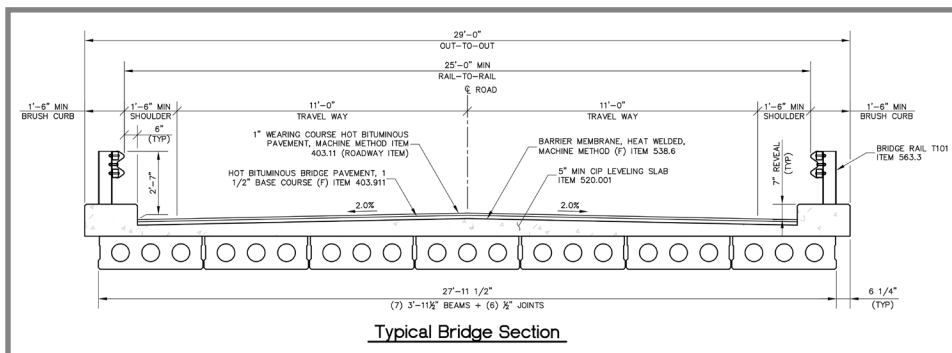
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Nute Road Bridge Madbury NH

In 2012, CMA Engineers assisted the Town of Madbury with the design of emergency interim repairs to NHDOT Bridge No. 056/072 which carries Nute Road over the Bellamy River. CMA Engineers worked closely with NHDOT Bureau of Planning and Community Assistance on behalf of the Town after the structure was closed and barricaded following a NHDOT bridge inspection identified significant deterioration of the plate arch structure.

In 2018, the Town contracted CMA Engineers to conduct an engineering study for the replacement of the culvert with funding through the NHDOT State Aid Bridge Program. Through the engineering study, it was determined that the existing culvert will be replaced with a 33-foot single span bridge comprised of precast concrete beams supported on abutments with spread footings. The engineering study and preliminary design documents have currently been approved by NHDOT and CMA Engineers is under contract for final design and bidding phase services. The project is currently scheduled for construction in the summer of 2020.



STRUCTURAL

Client:

Town of Madbury, NH

Engineering Services:

Planning
Design
Bidding
Construction Services
Resident Services

Period of Service:

2012 - Present

Key Personnel:

William Straub, P.E.
Principal & Project Manager

Josh Bouchard, P.E.
Project Engineer

Stephen McNally, P.E.
Chief Structural Engineer

Liam Kalloch, P.E.
Structural Engineer

Project Construction Cost:

\$750,000

Project Contact:

Eric Fiegenbaum
Town Administrator
Town of Madbury
(603) 742-5131

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Bridge Inspection and Ratings Statewide, MaineDOT

CMA Engineers is in its sixth year of bridge rating contracts for the Maine Department of Transportation, which requires comprehensive field inspections followed by extensive load rating calculations for twenty-two steel girder bridges and thirty-one concrete bridges. The analysis included complex fatigue analyses and evaluation of composite action in bridges that were originally designed to be non-composite.



Client:

Maine Department of
Transportation

Engineering Services:

Bridge Inspection
Bridge Analysis
Bridge Rating

Period of Service:

2013-Present

Key Personnel:

Stephen McNally, PE
Chief Structural Engineer

Liam Kalloch P.E.
Structural Engineer

Travis Adams E.I.T.
Project Engineer

Engineering Fee:

\$610,000

Project Contact:

Leanne R. Timberlake
MaineDOT Bridge Program
(207) 624-3422

Benjamin Foster
MaineDOT
Bridge Maintenance
(207) 624-3600

STRUCTURAL

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March's Pond Dam Reconstruction New Durham, NH

CMA Engineers managed the rehabilitation of a 100-year old, 800 foot-long, low earthen-berm dam. The structure included a smaller section of retaining wall, small spillway and a maximum depth of 8 feet on impoundment. CMA Engineers assisted the Town in preliminary design and permitting, and then the local financing which allowed for final permitting with the NHDES Dam and Wetlands Bureaus, final design, and construction. With others, CMA Engineers resolved NHDES permitting, including final permit documentation and confirmation of hydrologic modeling.

Design was conservative due to NHDES' designation of the dam as a high hazard facility, including extensive seismic analysis, hydrologic/hydraulic modeling, stability analysis and other issues. Final design included a new spillway structure, and rehabilitation of over 700 feet of earthen berm, and access controls. The design was coordinated with numerous residences that had been developed over many years around the pond. Construction was completed in fall of 2009.



Client:

Town of New Durham, NH

Engineering Services:

Hydraulic Analysis
Permitting
Design
Bidding
Construction Administration
Resident Services

Period of Service:

2006 - 2009

Key Personnel:

William Straub, P.E.
Project Manager

Josh Bouchard, P.E.
Project Engineer

Robert Grillo, P.E.
Geotechnical

Project Construction Cost:

\$450,000

Project Contact:

Matthew Ingham
Department of Public Works
Town of New Durham
(603) 859-8000

STRUCTURAL

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Construction Engineering

CMA Engineers has successfully delivered, managed, and executed more than \$300 million in construction projects in the last 20 years. We represent municipal clients in comprehensive construction engineering services. These include complete contract administration, resident engineering, quality assurance programs, and project acceptance. We routinely complete construction bid documents and assist in bidding and award. Construction services includes providing reporting and documentation for funding reimbursement through the various state or federal programs. CMA Engineers also has experience formulating and administering design/build contracts.

Example projects are presented on the following pages.



Main Street South Sidewalk University of New Hampshire Durham, NH

CMA Engineers was retained by the University of New Hampshire to complete the design of this Federally Funded Transportation Alternative Program (TAP) project. The project involves installing approximately 925 feet sidewalk along the south side of Main Street between the roundabout and the Fieldhouse main driveway. Sidewalk installation will include minor shoulder rehabilitation, drainage modification, landscaping, fencing, pedestrian lighting, retaining walls, and ADA compliant ramps, sidewalks, and bus shelter.

This project also involved historic/archeological coordination of a 19th century burial that concluded in positively identifying its location which had been unknown for more than 60 years. The project is currently in final design, with construction in spring 2020.

CMA Engineers is providing comprehensive services during construction in accordance with the requirements of the NHDOT LPA program. Administration of the contract has been closely coordinated with resident services. The project is currently in construction.



Client:

University of New Hampshire

Engineering Services:

Engineering Study

Preliminary Design

Final Design

Bid document preparation

Construction Administration

Resident Project Representative
Services

Period of Service:

2018-Present

Key Personnel:

William Straub, PE
Principal

Jason Beaudet, PE
Project Manager

Sam Fortier, P.E.
Project Engineer

Whitney Chamberlain, PE
*Permitting & Historical Research
Resident Project Representative*

Ironwood Design Group, LLC
Landscape Architecture

Project Construction Cost:

\$460,000

Project Contact:

Daniel Rines

Project Manager

University of New Hampshire

(603) 862-1727

daniel.rines@unh.edu

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P E D E S T R I A N

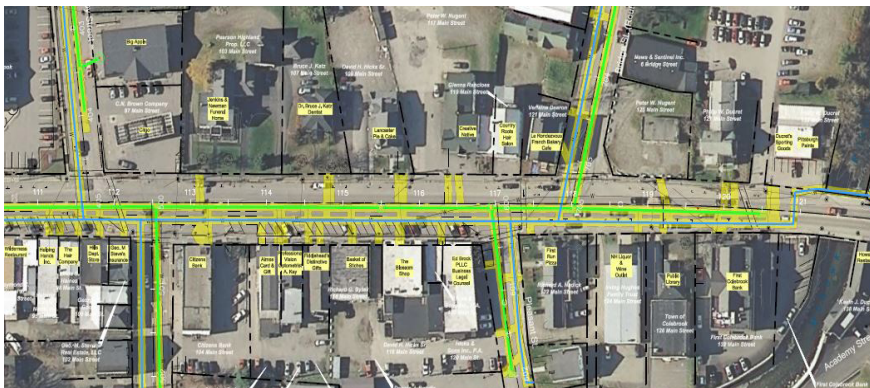


“Main Street” Utilities Project Colebrook, NH

MA Engineers has completed the planning, design, and construction of a “complete streets” project in Colebrook, NH. The Main Street Project includes the complete replacement of aged and failing water and sewer mains along Main Street, which is also US Route 3. After a comprehensive preliminary engineering phase, the Town secured a USDA Rural Development loan and grant package and NH DES SRF low interest loans. Additional funding provided by the NH GWDW Trust Fund, and the Northern Borders Regional Commission.

This comprehensive project transformed this small but vital North Country community, rehabilitating critical infrastructure.

Comprehensive construction services have been provided by CMA Engineers throughout the project since 2016. Full administration of construction contracts, and full-time resident engineering have been provided for all parts of the project, including documentation and compliance with requirements of funding agencies.



UTILITIES

Client:

Town of Colebrook, NH

Engineering Services:

Study/Permitting
Design
Bidding
Construction Administration
Resident Project Representative
Services

Period of Service:

2013 - Present

Key Personnel:

William A. Straub, P.E.
Principal & Project Manager

Josh Bouchard, P.E.
Project Engineer

Jason Beaudet, P.E.
Project Engineer

Project Construction Cost:

\$4.5 Million (utilities)

Project Contact:

Sharon Penney
Town Manager
Town of Colebrook
(603) 237-4070
spenney@colebrooknh.org

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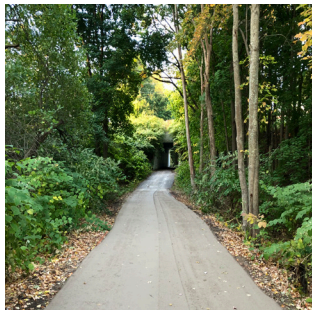


Rockingham Rail Trail TAP Project Manchester, NH

CMA Engineers was retained by the City of Manchester, New Hampshire to complete the design of this Federally Funded Transportation Alternatives Program (TAP) project. The proposed project is for a pedestrian/bicycle trail along the abandoned railroad bed from Mammoth Road to Lake Shore Road. The proposed trail project will improve connectivity between the east side of the City and the Rockingham Trail.

Design involved ADA compliant bicycle and pedestrian facilities, coordination with the NHDOT, utility and abutter coordination, public involvement, completing the permitting/NEPA process, and conformance to the NHDOT Local Public Agency (LPA) requirements associated with the Federal funding.

CMA Engineers is providing comprehensive services during construction in accordance with the requirements of the NHDOT LPA program. Administration of the contract has been closely coordinated with resident services.



P E D E S T R I A N

Client:

City of Manchester, NH

Engineering Services:

Engineering Study

Preliminary Design

Final Design

Bid Document Preparation

Construction Administration

Resident Inspection Services

Period of Service:

2018-Present

Key Personnel:

William Straub, P.E.

Principal

Jason Beaudet, P.E.

Project Manager

Philip Corbett, P.E.

Project Review

Sam Fortier, P.E.

Project Engineer

Whitney Chamberlain, PE

Permitting & Historical Research

Jodie Bray Strickland, PE

Resident Project Representative

Doucet Survey LLC

Survey & ROW

Project Construction Cost:

\$820,000

Project Contact:

Todd Connors, P.E.

Highway Chief Engineer

Manchester DPW

475 Valley Street

Manchester, NH 03104

(603) 624-6444

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5

References

We are pleased to provide the following references for representative municipal engineering services. Each is familiar with CMA Engineers' current or past project performance, responsiveness, and working relationships.

In addition to these, we are pleased to note that the Town of Barrington itself is a reference for CMA Engineers for our work supporting the Barrington landfill closure and transfer/recycling facility.

Name	Representing	Project	Phone	Email
Peter Rice, PE <i>Director of Public Works</i>	City of Portsmouth, NH	Multiple roadway, stormwater, and planning board review projects	(603) 427-1530	pprice@cityofportsmouth.com
Jennifer Perry, P.E. <i>Director of Public Works</i>	Town of Exeter, NH	Multiple Bridge and Culvert Projects	(603) 773-6157	jperry@exeternh.gov
Jason Bachand, AICP <i>Town Planner</i>	Town of Hampton, NH	Multiple Planning Board Reviews and Construction Monitoring Projects	(603) 929-5913	jbachand@hamptonnh.gov

Firm Performance

CMA Engineers has consistently met the needs of all our clients on project assignments since the firm's inception in 1988. We have successfully completed the engineering (planning, design, construction services) for hundreds of millions of dollars of constructed public works projects of all types, primarily municipal projects.

At the initiation of each project, we assign a Principal-In-Charge, Project Manager, and a Senior/Independent Quality Assurance Reviewer. The Project Manager communicates with the Client at all times, who has direct access to the Principal to communicate on any matter throughout the project. Internally, the Principal guides the project team, assists the Project Manager with staff assignments, and allocates company resources at the appropriate levels. The Senior/Independent Q/A Reviewer plays the important internal role of reviewing project engineering and major products at key milestones of design development.

The project team includes staff that best meets the requirements of the project. This approach allows CMA Engineers to manage multiple projects for a single client simultaneously. The PIC and PM designated to serve the Town of Barrington will be consistent throughout all projects.

CMA Engineers principles for project management include:

- Client responsiveness and service are the cornerstones of CMA Engineers commitment. We work closely with municipal public works officials, administrative staff, and elected officials to coordinate technical work with other project elements, including funding, legal considerations, political issues, and the municipal public process. To support our experienced staff, CMA Engineers has established relationships with several specialists as sub-consultants to leverage our engineering capabilities.
- CMA Engineers will work with the Town of Barrington to develop targeted, responsive, and effective scopes. The scopes will address all aspects of the project, how they will be completed, engineering products, schedule, and communications between the Town and CMA Engineers. This scope will also be the basis for establishing a detailed work plan for the project manager and staff, delineation of effort, and project budget.
- With these detailed work plans, the project manager directs the day-to-day activities of assigned staff. This direction will assure that progress is maintained, and project goals are met. Goals include achieving technical responsiveness and creativity, and meeting the project schedule, within the project budget.
- CMA Engineers has the technical resources available to deliver high-quality projects that meet project schedules. Comprehensive assessment of all project requirements is completed during the scoping phase that identifies critical path project issues early; allows for appropriate project planning; assignment of staff best suited to serve the client's needs.
- Constant monitoring of project schedules and costs are done through CMA Engineers' project cost accounting system. Project progress, staff workload projections, and deliverables are discussed at regular project planning meetings to ensure success for each of our clients' projects. Monthly progress reports will be developed and submitted by CMA Engineers' project manager outlining progress of the work toward project milestones.

- Project quality control, including review of key milestones by independent internal engineer, detailed design and constructability review, and regular communications with client.

The Project Manager and Principal-in-Charge make project decisions to meet project milestones and budgets. We recognize that conditions may arise during a project that can affect project requirements. We monitor closely for factors that can result in such conditions and work closely with the client to manage overall project progress and decision-making to keep the project focused and successful.

CMA Engineers maintains project review and quality control procedures throughout all phases of projects to assure that technical completeness is achieved and that project objectives are maintained. The Project Manager uses principal level reviews at key points in the project as independent assessments of project progress and adherence to company standards and client expectations. In addition, there is significant collaboration among all staff at CMA Engineers in a project's technical development.

Finally, as a project design nears completion, the design package is critically reviewed by a senior staff member whose career has focused on construction review and observation. That individual takes a "contractor's" perspective in assessment of the construction requirements in the design to assure project constructability and to provide input in design decisions before the designs are complete. We also note that federally-funded projects in DOT's LPA program require step-reviews by Department staff. These collaborative reviews valuable to the project development process and ensure our designs meet the Client's goals and objectives.

CMA Engineers has had no claims or lawsuits filed against our professional liability insurance within the past 5 years.

7

Billing Rate
(Separate Envelope)

8

Conflicts of Interest

CMA Engineers has no past or present conflicts of interest in Barrington. We represent no private interests or entities in the Town. We have represented solely the Town of Barrington since the early 2000s on landfill and solid waste projects.

If CMA Engineers is selected by Barrington to provide engineering under this RFQ, the firm can readily commit to continue to have no conflicts of interest in Barrington during the duration of the services.

Appendix A

Subconsultant Qualifications





Doucet Survey is pleased to submit this statement of qualifications specific to land surveying services. We have reviewed the scope of services and assessed the challenges of the project. Having completed fifty eight (58) projects for **CMA Engineers** and surveyed over one hundred (100) miles of roadway and utilities we are confident that with our combined experience and personnel, we can provide the Town of Hooksett with a high-quality survey within the project timeframe, and in a cost effective manner. Local projects we have completed include the Ardon Dr. Well Access Rd., Fred C. Underhill School, Hooksett Memorial School, and several commercial sites along D.W. Hwy & Route 3A.

FIRM DESCRIPTION

• **OVERVIEW**

Doucet Survey, Inc. was established in 1994 to perform professional land surveying and mapping services for the government and private sector. We offer experience in areas such as surveying, mapping, and land planning. All associates of Doucet Survey, Inc. are skilled professionals who strive to provide our clients with innovative and cost effective solutions for all their surveying needs.

Between the five licensed staff members Doucet Survey is licensed to practice in New Hampshire, Maine, Massachusetts, Rhode Island and Vermont.

• **SERVICES**

Reliable survey data is essential for site planning, engineering design, permitting and construction. Our professional surveyors use automated survey systems to collect data with greater accuracy and speed. They use total stations, robotic instruments, data collectors, and GPS equipment in the field to record information, and computer workstations (CAD) in the office for analysis. The judgment and analytical skill of our professionals are required to interpret complex data and convert it to property lines, right of way plans, and topographic maps. As one of the largest Land Surveying firms in Northern New England we have the staff necessary to provide the highest level of service to our clients.

We have provided land surveying services for over 3,500 projects including 50+ Multi-unit Residential Projects, 25+ Office Buildings, 130+ Supermarkets, 15+ Drug Stores, 75+ Retail, 30+ Restaurants, 15+ Hotels, 50+ Other Commercial, 45+ Industrial, 15+ Health Services, 25+ Energy Sector, 45+ Marine, 150+ Municipal and State projects and over 100 miles of roadway and utility lines. **Doucet Survey is a pre-approved firm by NHDOT, Maine DOT and Mass DOT.**

• **SURVEYING**

- Boundary Surveys
- Existing Conditions Surveys
- Topographic Surveys
- Subdivisions
- Riparian Rights Definition
- Construction Layout
- Activity & Use Restriction Surveys
- Monitoring Well Surveys
- Elevation Certificates (FEMA-LOMA & LOMR-F)
- ALTA/ACSM Land Title Surveys
- Ground Control for Aerial Photography
- GPS (Sub-Meter) Mapping Grade
- GPS (Centimeter) Survey Grade
- As-Built Surveys
- Expert Testimony
- Conservation Easement Survey

RESUMES

WILLIAM J. DOUCET, P.L.S.



President

EDUCATION:

University of New Hampshire,
B.S.F. Forest Management
Over 350 hours of survey specific
courses

PROFESSIONAL CERTIFICATIONS:

New Hampshire Licensed Land Surveyor #824
Maine Professional Land Surveyor #2263
Massachusetts Professional Land Surveyor #45709

SOCIETIES:

American Congress on Surveying and Mapping
National Society of Professional Surveyors (Governor 04 - 07)
New Hampshire Land Surveyors Association (Director 04 - 07)
Society of American Foresters
Maine Society of Land Surveyors
Massachusetts Society of Land Surveyors & Civil Engineers

KEY QUALIFICATIONS:

Mr. Doucet has been working in land surveying since 1981 completing over 3000 projects. He supervises all phases of boundary, topographic, control and construction surveys. The majority of his experience is in highly detailed existing conditions surveys where a vast amount of data is collected and compiled into a comprehensive digital CAD file to be used by Civil Engineers for design. Work products include preparation of Boundary Site Plans, Highway Right of Way Plans, As-Built Surveys, ALTA Title Surveys, Topographic Plans, Hydrographic Plans, Subdivision Plans and Standard Boundary Surveys. Mr. Doucet has been working with CAD systems since 1987, which allows for seamless transfer of data to clients for use in engineering analysis and design. His Civic duties include participation with the Economic Advisory Committee - Master Plan Committee, former Chair of the Newmarket Conservation Commission, Community Development Committee and member of the Newmarket Business Association. Mr. Doucet has experience presenting a range of projects to municipal boards throughout the area.

STEVEN V. MICHAUD, L.L.S.



Vice-President

EDUCATION:

University of Rhode Island, BS Resource Economics
University of Massachusetts, Legal Aspects of Land Surveying Coursework
New Hampshire Technical College, AutoCAD Coursework
University System of New Hampshire, Survey Research & Boundary Law Coursework
University of Wyoming, Survey Computations Coursework

SOCIETIES:

New Hampshire Land Surveyors Association
American Congress on Surveying and Mapping
National Society of Professional Surveyors
Vermont Society of Land Surveyors
Rhode Island Society of Professional Land Surveyors

PROFESSIONAL CERTIFICATIONS:

New Hampshire Licensed Land Surveyor #916
Vermont Licensed Land Surveyor #728
Rhode Island Professional Land Surveyor #1986

KEY QUALIFICATIONS:

Mr. Michaud began his surveying career in 1995 as a Rod Man on a field crew, and worked his way to Instrument Operator and eventually Chief of Party. He then ran a field crew before obtaining a position as a Survey Technician, whereby he began doing records research and computer drafting. Currently his duties include: client interaction, records research, boundary analysis, computations, project management, planning board presentations and permitting. He obtained his Land Surveyor In Training certificate by passing the National Fundamentals of Land Surveying examination in November 1997. He earned his Certified Survey Technician Level III, by successfully passing both the office and field portions of a national examination duly sponsored by the National Society of Professional Surveyors and the American Congress on Surveying and Mapping in December, 2000. In April of 2003, Mr. Michaud obtained his Land Surveyors License in the State of New Hampshire, his Vermont license in October of 2005 and most recently his Rhode Island License in December of 2009.

ROADWAY & UTILITY LINE PROJECT EXAMPLES

ROADWAYS:

- 5 mi. Tolend Rd. Dover, NH
- 1 mi. NH Rte 108/Durham Road, Dover, NH
- 1,300 ft. NH Rte 4 & Morgan Way, Durham, NH
- 4 mi. Jady Hill neighborhood, Exeter, NH
- 1,400 ft. Market St., Portsmouth, NH
- 1,650 ft. Ashbrook Road, Exeter, NH
- 3,100 ft. Portsmouth Ave. & Post Road, Greenland, NH
- 1 mi. Camp Sargent Rd., Merrimack, NH
- 1 mi. Main Street, Milton, NH
- 1.3 mi. Bridge St., Salem, NH
- 4,000 ft. School Street, Milton, NH
- 3,900 ft. Linscott Road, N. Berwick, ME
- 2,400 ft. Goosebay Road, Portsmouth, NH
- 1.8 mi. NH Rte 33 & Grafton, Portsmouth, NH
- 3,745 ft. Lake Ave. Sunapee, NH
- 1,800 ft. Rochester Road., Berwick, ME
- 6,000 ft. Main St., Exeter, NH
- 1 mi. NH Rte 9, Dover, NH
- 2 mi. Eight Streets, Concord, MA
- Elm St. Bridge, Peterborough, NH
- Nashawtuc Rd. Bridge, Concord, MA



MULTI-USE PATHWAYS:

- 1.8 mi. Bike Path, Durham & Madbury, NH
- 1,800 ft. Pedestrian Walkway, New Castle, NH
- 1,200 ft. Piscataqua Riverwalk, Portsmouth, NH
- 1.7 mi. Bike Path, Grafton Rd. Portsmouth, NH
- North Bridge Multi-Use Trail over Rte 9,10 & 12, Keene, NH

UTILITY LINES:

- 7,000 ft. Sewer Line, Sunapee
- 1.9 mi. Reyners Brook Sewer Line, Dover
- 12.7 mi. UNH Bio-Gas Project, Durham
- 3 mi. Sewer Line, Wolfeboro
- 32 mi. Transmission Line, Fitzwilliam to Amherst
- 5 mi. Transmission Line, Danville
- 3 mi. Transmission Line, Bow
- 19 mi. Transmission Line, Deerfield to Rochester
- 3.2 mi. Transmission Line, Madbury-Dover
- 4,000 ft. of Utility Trenches, Portsmouth Naval Shipyard, Kittery, Me
- 17 Cross country sections of 90 mi. Sewer, Merrimack



Robert E. Doyle PE RA

22 West Concord Street
Dover, NH 03820
603.738.2872 (C)
rdoylepera@gmail.com

FIRM PROFILE

Robert E. Doyle PE, RA is a sole proprietorship offering engineering and architectural consulting services, located in Dover, NH. I have over 25 years experience providing engineering and architectural design and management services. I am a registered architect and professional engineer. I have experience with multiple project types including: municipal, corporate, institutional, health care, and housing.

The approach on every project is to collaborate with the Client in determining the specific needs of the project and then meeting those needs with a thoughtful and efficient solution. A goal of every project is to provide as sustainable and energy efficient a building as possible within the budget constraints. I am a LEED accredited professional and have completed multiple LEED certified and high performance buildings.

Services Offered:

- Architectural and Engineering Design
- Land Planning, Analysis and Feasibility
- Building Assessment
- Construction Management
- Owner Representation

FEE SCHEDULE

Architectural and Engineering Design, Project Management \$100.00 per hour

Robert E. Doyle PE RA

22 West Concord Street
Dover, NH 03820
603.738.2872 (C)
rdoylepera@gmail.com

REGISTRATION

Professional Civil Engineer Massachusetts, Washington State
Registered Architect New Hampshire
LEED AP USGBC Accredited Professional

EDUCATION

Master of Architecture, University of Washington, Seattle, WA
Bachelor of Science, Civil Engineering, Lehigh University, Bethlehem, PA

SELECTED PROJECTS

Municipal / Government

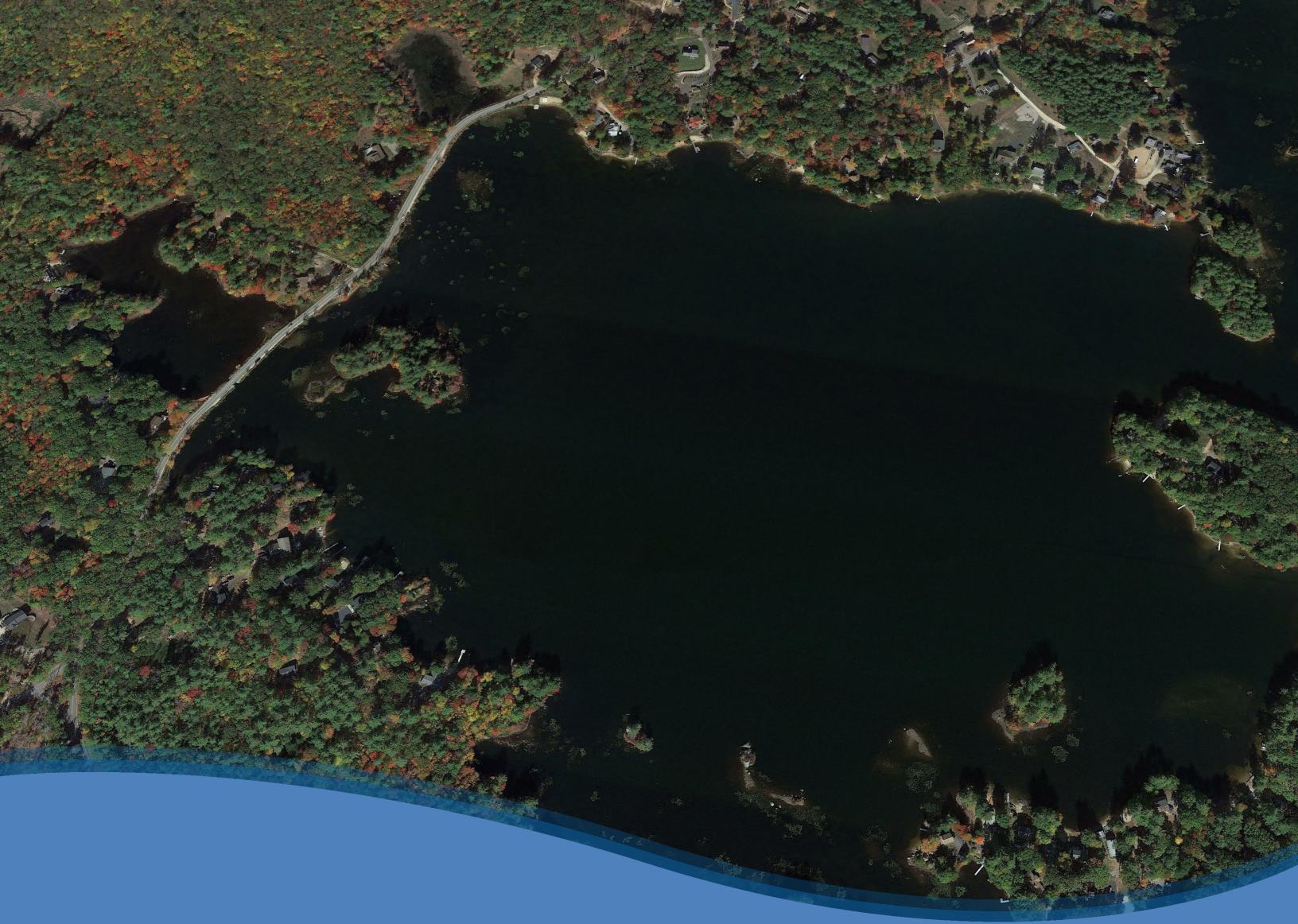
- *Waterville Valley Town Complex Study and DPW Garage, Waterville Valley, NH*
Programming and conceptual design of renovations, additions and standalone buildings to provide for Town's administration, public safety and Department of Public Works needs. Phase 1 implementation of study includes design and construction administration for new DPW building.
- *GSA, Cleveland Rudman Federal Building, Energy Improvements Project, Concord, NH*
Energy improvements for 320,000 sf, 6 story federal complex including LEED application. The project is anticipated to receive gold LEED certification.
- *Old Trolley Barn Building Study, Rye, NH*
Building assessment of existing 1900 timber frame structure. Study included architectural, structural, environmental and building systems review with renovation options and cost estimates.
- *Concord WWTF Building Assessment, Concord, NH*
Architectural building assessments for the City of Concord's wastewater facilities.
- *Concord Area Cooperative Single Stream Recycling Facility, Concord NH*
55,000 sf recycling facility and administrative offices, anticipated silver LEED certification.
- *Nashua Transit Garage and Transit Center Renovations, Nashua, NH*
18,000 sf bus storage and maintenance facility and renovations to downtown transit center.

Corporate / Institutional / Education

- *American Youth Foundation, Camp Minniwanca, Dining Hall, Shelby, Michigan*
360 person timber frame dining hall for summer camp.
- *Haigh-Farr Inc, Bedford, NH*
45,000 sf headquarters and manufacturing facility for high technology defense contractor.
- *AYF Camp Merrowvista, Activity Center and Dining Hall, Tuftonboro, NH*
10,000 square foot activity center and 8,000 main dining hall for a summer camp.
- *Anderson Hall Performance Center at Brewster Academy, Wolfeboro, NH*
Renovation of hall into performance facility. Including new stage, acoustical treatments and av system.

Health Care

- *Goodwin Community Health, Somersworth, NH*
32,500 square foot community health center. Program included primary care, dental, mental health services and a WIC program.
- *Concord Hospital, 18 Foundry Street and Concord Hospital East, Concord and Epsom, NH*
32,000 and 24,000 square foot medical office buildings. Hospital services included primary care, rehabilitative services, sleep center and radiology.
- *Pemi-Baker Community Health, Plymouth, NH*
24,000 sf community health center.



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