Town of Berlin

Request for Qualifications
Berlin Bid #2024-10
Sidewalk Design Project

Submitted to:
Engineering Office
Berlin Town Hall
240 Kensington Road
Berlin, CT 06037

CARDINAL
ENGINEERING ASSOCIATES

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SECTION 1

Cover Letter

TOWN OF BERLIN, CONNECTICUT
BERLIN BID #2024-10 - CONSTRUCTION ADMINISTRATION

CARDINAL
ENGINEERING ASSOCIATES

60 YEARS STRONG 1962-2022

180 Research Prkwy. | Meriden, CT 06451 | 457 Bantam Rd, | Litchfield, CT 06759 | cardinal-engineering.com | T 203.238.1969 | F 203.630.2056

March 22, 2024

Town of Berlin
Engineering Office
240 Kensington Road
Berlin, CT 06037

RE: Request for Qualifications
Sidewalks Project #2024-10
Berlin, Connecticut

Cardinal Engineering Associates, Inc. (Cardinal) is pleased to submit our qualifications in response to your Request for Qualifications for Engineering Services for the Design of Sidewalk projects in the Town of Berlin.

We are a Meriden-based consulting firm which has been offering a complete range of civil engineering services to Connecticut municipalities for over sixty (60) years. We believe that the Cardinal team is exceptionally qualified for this project, given our firm's previous experience in the design, contract administration and construction inspection of many roadway and sidewalk projects including many LOTCIP, STP and Community Connectivity Grant projects. We have completed many LOTCIP, STP and CCG funding applications and have performed peer reviews of several sidewalk designs. We would like to summarize the following advantages for your consideration during the consultant evaluation process:

Extensive Relevant Experience: Over the past 12 years, we have designed and inspected construction of over 50 miles of roadway improvements including many complete streets projects which included new sidewalks, streetscapes, multi-use trails, bike lanes, intersection improvements, and pedestrian safety improvements.

Recent Experience on Similar Projects: Cardinal recently completed design of several similar projects including the following:

Community Connectivity Grant (CCG) Projects:

Historic District Sidewalks, Litchfield, Connecticut
Cardinal recently designed the replacement of 5 miles of sidewalk in the Litchfield Historic District. This project included sidewalks and pedestrian safety improvements along Routes 202, 63 and 118 which required coordination with CTDOT. Cardinal also prepared an application for CCG funding.

Spielman Highway Sidewalks, Burlington, Connecticut
Design of Phase 2 & 3 of the Spielman Highway (Route 4) sidewalks. Cardinal assisted the towns in obtaining funding through the CCGP and STEAP, including preparing applications, archaeological studies, and SHPO coordination.

Meeting House Lane Sidewalks, Woodbridge, Connecticut
Cardinal recently completed design of a sidewalk extension in the Town Center to connect municipal buildings and Amity Regional High School. This project was funded by the CCG program.

Titus Block, Washington, Connecticut
Conceptual design for improvements to the Titus Block commercial area in the center of Washington Depot adjacent to the town hall and library. Cardinal assisted the Town in preparing an application for CCG funding.

Other Recent Sidewalk Projects:

Berlin, Connecticut: *Main Street Streetscape Phase* along New Britain Road and Kensington Avenue.

Vernon, Connecticut *Standalone Sidewalk Connectivity Project*: Cardinal recently completed peer review of the Town's design and assisted the Town in preparing the LOTCIP application, cost estimates, and bid documents.

South Street Reconstruction (STP Urban): Complete reconstruction of 3,500 lf. of roadway with new sidewalks.

Cromwell, Connecticut: *Coles Road Reconstruction (LOTCIP),* Reconstruction and widening of 3,000 lf. of roadway with new sidewalks.

Meriden, Connecticut:
Gravel Street Reconstruction, STP Urban: 1.5 miles of complete reconstruction of the roadway including new sidewalks and pedestrian safety improvements.

Downtown Pavement Rehabilitation Project, LOTCIP: The project included 2.75 miles of roadway rehabilitation and sidewalk improvements to meet ADA standards. The Project included coordination with AMTRAK RR, CTDOT and adjacent projects including the Congestion Mitigation and Air Quality project.

New Britain, Connecticut:

East Main Street Complete Streets, LOTCIP and LAARP: Design of 3,000 lf. of reconstruction, a road diet for traffic calming, new *sidewalks,* street trees and lighting, and traffic signals.

Allen Street Streetscape, LOTCIP: In 2015, Cardinal completed the design of the reconstruction of Allen Street with new sidewalks, bike lanes and traffic signals.

New Haven, Connecticut:
Prospect Street, Canal & Lock Streets Reconstruction: 3,000 lf. of road reconstruction and streetscape improvements as part of Yale University's Campus Wide Beautification program.

***Experienced Project Team*:** Joseph A. Cermola III, P.E., President, will serve as Principal-in-Charge for this assignment. Mr. Roy Seelye, P.E., who will be assigned as Project Manager, has over 35 years' experience in the design of roadway and sidewalk projects. He recently designed the four Community Connectivity projects listed above. He has also completed many CCG, LOTCIP, and TRIPS funding applications. Our staff has an average of 25 years' experience and includes eleven (11) licensed civil engineers, two licensed land surveyors, and an experienced support staff of engineers, technicians, CAD operators and construction inspectors.

Construction Engineering Experience: Cardinal provides construction engineering services on most of our major municipal projects including over one hundred roadway and sidewalk projects. Our construction inspectors are graduate engineers and NICET certified inspectors with experience on state funded projects. Roadway and sidewalk construction inspection projects completed in the past 5 years include:

Main Street, Berlin; Dunham Street, Norwich (LOTCIP); Coles Road, Cromwell (LOTCIP); South Street, Vernon (STP); Columbus Avenue, West Lake Drive, Mazzotta Place, Fountain Street, Old Mill Road, Middletown; Maple Avenue, Norfolk; Evergreen Road and Furnace Avenue(LOTCIP), Stafford; Beach Street (STP), Fern Avenue (STP), and West Street, Litchfield; Derby Milford Road, Orange (LOTCIP); Downtown Roadway and Sidewalks, Meriden (LOTCIP).

Good Record of Past Performance - We have identified several references throughout the submittal and encourage you to contact these individuals to verify the quality of our service and overall performance. We have an excellent track record of completing projects on time and within budget.

We appreciate this opportunity to submit our proposal and qualifications to the Town of Berlin and look forward to the opportunity to meet with you to discuss our qualifications in further detail. Should you have any questions regarding this submission or require additional information, please do not hesitate to contact me.

Very truly yours,

CARDINAL ENGINEERING ASSOCIATES, INC.

Joseph A. Cermola, III, P.E., President

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SECTION 2

PROPOSER INFORMATION

COMPANY PROFILE

REFERENCES

PROJECT EXPERIENCE

KEY PERSONNEL

HOURLY RATES

Proposer Information

a. Firm Name	Cardinal Engineering Associates Inc.
b. Permanent main office address	180 Research Parkway Meriden, CT 06451
c. Date firm organized	January, 1962
d. Legal form of ownership	Corporation
e. Primary client relationship manager	Joseph Cermola, III, PE President
f. Location of office from which services will be performed	180 Research Parkway Meriden, CT 06450
h. Conflict of interest	None
i. Contracts with Town of Berlin	None
j. Statement of qualifications	Cardinal Engineering Associates has completed hundreds of projects for municipalities throughout the State. We are prequalified by CTDOT for the design of roads and bridges. We believe that the Cardinal team is exceptionally qualified for this project, given our firm's previous experience with funding programs and our experience with sidewalk complete streets projects including projects funded under the Connecticut Connectivity Grant program. Company Profile Attached Key Personnel Resumes Attached Project Experience Sheets Attached
k. References	Town of Vernon David Smith, P.E. Town Engineer 14 Park Place Vernon, CT 06066 860-870-3665 Project: Town of Vernon Road Bond – 12.5 miles of roadway reconstruction – 10 Construction Projects; South Street Reconstruction (STP Urban) Location: Vernon, Connecticut Cardinal's Role: Prime Consultant, All Engineering Services: Survey, Design, Contract Administration, Resident Engineering Cost: Road Bond: $ 20,000,000; South Street: $ 3,000,000. Date of Completion: 2012; 2019

Proposer Information

k. References	Town of Burlington Scott Tharau, Director of Public Works 200 Spielman Highway Burlington, CT 06013 860-673-6789 Project: Covey Road Bridge Replacement Location: Burlington, CT Cardinal's Role: Prime Consultant, All Engineering Services: Survey, Design, Permitting Cost: $ 625,000. Date of Completion: Design completed January, 2021 Town of Litchfield: Razen Alexe, P.E., Director of Public Works 101 Russell Street Litchfield, CT 06759 860-597-7571 Project: Replacement of White Woods Road Bridge Location: Litchfield, Connecticut Cardinal's Role: Prime Consultant, All Engineering Services Survey, Design, Permitting, Contract Administration, Resident Engineering Cost: $3,300,000 Date of Completion: December 2017 Additional References Attached
l. Hourly Rates	Hourly Rates Attached

Company Overview

History, Experience & Capabilities

Cardinal Engineering Associates, Inc. ("Cardinal") is a Connecticut-based consulting engineering firm established in 1962 and headquartered in the City of Meriden since 1965. The firm was originally founded as a Partnership and later incorporated in 1971 under the laws of the State of Connecticut.

Cardinal provides comprehensive, innovative and cost-effective design solutions for multi-disciplined municipal engineering projects.

Cardinal has over 60 years' experience in planning, design and supervision of construction for a wide range of public works projects. In addition to the extensive list of Towns and Cities that we have worked for, our firm has completed assignments for the State of Connecticut Department of Transportation, Department of Energy and Environmental Protection, and Division of Construction Services.

Cardinal is pre-qualified by the Connecticut Department of Transportation in the categories of Highway and Bridge Design, Bridge & Structure Inspection, Construction Contract Administration and Construction Inspection (Road & Bridge).

Our seasoned team of professionally-licensed engineers have diverse backgrounds and complementary areas of specialization. We have a support staff of experienced technicians, surveyors, draftsmen and inspectors. Cardinal is capable of managing and performing the services required for the successful completion of complex civil engineering projects. Our extensive portfolio, technical expertise, and strong leadership combine to yield successful results for our clients.

- Feasibility Studies
- Surveying and Mapping
- Preliminary and Final Design
- Preparation of Construction Plans and Specifications
- Environmental Permitting
- Preparation of Funding Applications
- Preparation of Bid Documents
- Bid Phase Services
- Construction Contract Administration
- Resident Engineering

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Company Overview

History, Experience & Capabilities

Cardinal has extensive expertise in all areas related to the design of civil engineering projects including, but not limited to the following:

Transportation Systems

- Roadway Design
- Intersection Improvements
- Route Selection and Alignment Studies
- Bridges, Culverts, and Retaining Walls
- Utility Relocations and Improvements
- Drainage Design
- Pavement Analysis and Design
- Pavement Rehabilitation Programs
- Traffic Engineering
- State and Federal Funding Assistance
- Streetscapes & Sidewalks

Site Planning & Design

- Schools & Colleges
- Industrial Parks
- Public Parks & Playgrounds
- Parking Facilities
- Athletic Fields
- Bike Trails
- Residential Developments
- Commercial Developments

Wastewater Collection

- Wastewater Management
- Feasibility Studies & Facility Plans
- Sanitary Sewer Extensions
- Combined Sewer Separation
- Sewer User Charges & Assessments
- Inflow & Infiltration studies
- Sewer System Evaluation Surveys
- Pumping Station Design
- Septic System Design
- Environmental Permitting
- Funding Applications and Assistance

Water Resources

- Hydraulic Analysis
- Hydrologic Studies
- River Hydraulics
- Bridge and Culvert Design
- Flood Control & Drainage Studies
- Beach Erosion Control
- Storm Drainage Facility Plans
- Environmental Permitting
- Wetland Mitigation
- Storm Water Management

Land Surveying

- Topographic Surveys
- Boundary Surveys
- Easement & Taking Maps
- Construction Stakeout

Construction Engineering

- Contract Administration
- Resident Engineering
- Bidding & Award Assistance
- Funding Reimbursements
- As-Built Drawings

Client References
Contact Information

Town of Litchfield:
Razen Alexe, P.E.
Director of Public Works
101 Russell Street
Litchfield, CT 06759
860-597-7571

Town of Washington:
James Brinton
First Selectman
2 Bryan Plaza
Washington Depot, CT 06794
860-868-2259

Town of Winchester:
James Rollins
Public Works Director
189 Rowley Street
Winsted, CT 06098
860-379-4101

Town of Norfolk
Matthew Riiska
First Selectman
19 Maple Avenue
Norfolk, CT 06058
860-542-5829

Town of Kent
J. Rick Osborne
41 Kent Green Blvd
Kent, CT 06757
860-927-3491

Town of Morris
Thomas Weik
First Selectman
3 East Street
Morris, CT 06763
860-567-7431

Town of Stafford
Devin Cowperthwaite
Director of Public Works
210 East Street
Stafford Springs, CT 06076
860-684-3448

Town of Burlington
Scott Tharau, Dir. Public Works
200 Spielman Highway
Burlington, CT 06013
860-673-6789

City of New Britain:
Robert Trottier, P.E.
City Engineer
27 West Main Street
New Britain, CT 06457
860-826-3372

City of Middletown:
Thomas Nigosonti, P.E.
City Engineer
245 deKoven Drive
Middletown, CT 06457
203-389-3421

Town of Cromwell
Jon Harriman, P.E.
Town Engineer
41 West Street
Cromwell, CT 06416
860-632-3465

Town of Vernon:
David A. Smith, P.E., Town Engineer
Engineering Department
14 Park Place
Vernon, CT 06066
860-870-3665

Summary of Experience

Roadway Reconstruction

In the past 12 years, Cardinal has completed the design and construction administration and full-time resident engineering services for over 50 miles of roadway projects.

Scope of Services:

- Survey
- Pavement Evaluation and Design
- Drainage Design
- Traffic and Traffic Calming Studies
- Geometric Improvements
- Intersection Improvements
- Traffic Signal Design
- Public Involvement Programs
- Easement Mapping
- Environmental Investigations
- Permitting
- Construction Contract Administration
- Resident Engineering services

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Summary of Experience
Roadway Reconstruction Projects

Summary of roadway reconstruction projects completed since 2005

Municipality	Project	Total Miles
Meriden	Gravel Street Reconstruction & Traffic Signal Design (SPN 79-210) STP Urban Program	1.50
Vernon	South Street Reconstruction (SPN 146-195) STP Urban Program	0.90
Vernon	Regan Road Reconstruction	1.00
Vernon	Center Road Reconstruction	1.25
Vernon	Bolton Road Reconstruction	2.50
Vernon	Hatch Hill Road Reconstruction	1.00
Vernon	Brandy Hill Road Reconstruction	1.00
Vernon	Prospect Street Reconstruction	0.85
Vernon	Mountain, Webster and Lawrence Streets Reconstruction	0.80
Vernon	High Street Reconstruction	0.25
Vernon	Local Suburban Streets Reconstruction	3.50
Litchfield	Campville Road Reconstruction	1.00
Litchfield	Reconstruction of Moosehorn Road LOTCIP Program	1.00
Litchfield	Reconstruction of West Street	.50
Litchfield	Reconstruction of Fern Street STP Rural Program	.50
Suffield	Reconstruction of Thrall Avenue LOTCIP Program	1.00
Suffield	First – Fourth Streets Reconstruction	1.50
Suffield	Ffyler Place Reconstruction	0.50
Middletown	Industrial Park Road Reconstruction (SPN 82-306)	0.80
Middletown	City Wide Combined Sewer Separation / Roadway Reconstruction and Streetscape	8.00
Middletown	Nejako Drive Reconstruction	1.00
Middletown	Westfield Street Reconstruction	0.40
Middletown	Columbus Avenue/Mazzotta Place Reconstruction & Streetscape	0.50
Middletown	West Lake Drive Reconstruction - LOTCIP Program	1.00
Middletown	Birchwood Drive and Spruce Street Reconstruction	1.00
Middletown	Old Mill Road Reconstruction	1.00
Middletown	Saybrook Road Reconstruction LOTCIP Program	1.00
Middletown	Sand Hill Road Reconstruction	0.60
Middletown	Lee Street Reconstruction	0.80
Middletown	Fountain Avenue Reconstruction	0.50
New Haven	Lexington Avenue Realignment	0.40
New Haven	Prospect Street Reconstruction and Streetscape	0.40
New Haven	Canal & Lock St. Reconstruction and Streetscape	0.30
New Britain	Shuttle Meadow Avenue Reconstruction	0.60
New Britain	High, Court and Walnut Streets Reconstruction	0.50
New Britain	Allen Street Reconstruction, Signal Design & Streetscape LOTCIP Program	1.00
New Britain	East Main Street and Myrtle Street Downtown Streetscape LOTCIP Program	0.40
New Britain	Eddy Glover Boulevard Realignment Local Area Accident Prevention	0.50
New Britain	Lafayette Street Intersection Improvements Local Area Accident Prevention	N/A
Southington	Mt. Vernon Road Reconstruction (SPN 131-198) STP Urban Program	0.75
South Windsor	Nevers Road Reconstruction	0.40
South Windsor	Hayes Road Reconstruction	0.40

Summary of Experience
Roadway Reconstruction Projects

Summary of roadway reconstruction projects completed since 2005

Municipality	Project	Total Miles
Cromwell	Coles Road Reconstruction LOTCIP Program	0.60
Cromwell	Chelsea Estates Roadway Reconstruction	1.80
Cromwell	County Road Reconstruction	0.50
Stafford	Evergreen Road Reconstruction	0.60
Stafford	Furnace Avenue Reconstruction LOTCIP Program	0.70
Washington	Tinker Hill Road Reconstruction	1.0
Bloomfield	West Dudley Town Road Reconstruction	1.0
Cheshire	Marion Road Realignment	0.25
Cheshire	Scenic Court Reconstruction	0.60
Cheshire	East Johnson Avenue Reconstruction	1.0
Winchester	Hubbard Road Reconstruction	0.50
Winchester	Overlook Road Reconstruction	0.50
Kent	Bulls Bridge Road Reconstruction	1.0
Norfolk	Maple Avenue Reconstruction	1.0
Orange	Derby-Milford Road Reconstruction LOTCIP Program	1.0
Orange	Glenbrook Road Reconstruction	0.8
Woodbury	Old Sherman Hill Road Realignment	

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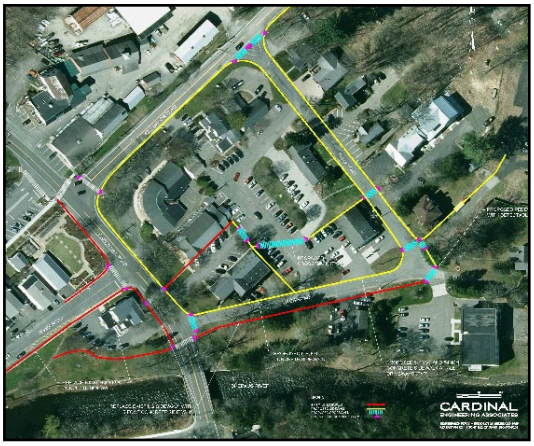
Recent Community Connectivity Projects

Litchfield, Washington, Woodbridge, Burlington – *Completed: 2024*

Borough of Litchfield Historic District Sidewalks

Cardinal recently designed the replacement of 23,000 linear feet of sidewalks in the Litchfield Historic District. This project included sidewalks and pedestrian safety improvements along local streets and Routes 202, 63 and 118 which required close coordination with CTDOT. The sidewalks were designed for compliance with current ADA standards. Cardinal assisted the Borough with the preparation of the Community Connectivity Grant Program application. The construction cost for this project is $3,200,000.

Titus Block Pedestrian Safety and Traffic Calming, Washington



In Washington, Cardinal completed conceptual drawings and cost estimates for improvements to the Titus Block commercial area in the center of the Washington Depot section of the town. The block contains restaurants, retail and office establishments. The area known as Titus Block is bounded by Titus Road to the south and east, Green Hill Road (Route 47) to the west and Bee Brook Road (Routes 47 & 109) to the north. The town hall and library are located on the west side of Green Hill Road as well as other commercial properties. A community center is planned for the area immediately to the southeast of the site. The Washington Primary School is located to the southwest. Immediately to the south of Titus Road is the Shepaug River and associated trail system. The plan includes establishing a perimeter sidewalk around the block and improving not only the internal pedestrian circulation, but also providing safe pedestrian connections to the town facilities east and west of the site. As part of the safety improvements, Cardinal examined a number of options to reduce the speeds of the vehicles traveling through the area including adding islands which also provide pedestrian refuge, adding on-street parking, narrowing travel lanes, reducing curve radii at intersections and adding additional signage. Cardinal assisted the Town in preparing an application for funding through the CCGP.

Woodbridge Center Sidewalk and Pedestrian Safety Improvements Project (CCGP)

Cardinal recently completed design of 900 linear feet of concrete sidewalk along Meetinghouse Lane and Newton Road. The project is the second phase of a pedestrian safety project in the Town Center and will provide additional pedestrian connections to the Town Hall, the Police Department, Community Center, Library, Amity High School and

the athletic fields to the west. Coordination with local stakeholders concerned with the historic features of the area was an important component of the project. The project includes stamped concrete sidewalks, pedestrian ramps, and decorative pedestrian lighting. The project is funded under the Community Connectivity Grant Program (CCGP). The construction cost for this project is $ 500,000. Construction is scheduled for 2024.

Burlington Streetscape, Phase II and III, Burlington (CCGP, STEAP)

In Burlington, Cardinal completed the design of approximately 3,000 linear feet of concrete sidewalk along sections of Library Lane, Spielman Highway (Route 4) between Library Lane and Route 69, Spielman Highway from Savarese Lane to Covey Road and George Washington Turnpike to Thompson Way, the Town's senior housing complex. The project will provide pedestrian connections between the commercial areas along Route 4 and access to Town facilities on Library Lane. The project included the design of traffic signal improvements adding pedestrian signals at the intersection of Spielman Highway (Route 4) and Milford Street (Route 69). The construction along Route 4 and the modifications to the existing traffic signal required coordination with CT DOT. Phase II is funded through a Community Connectivity Grant with a construction cost of $320,000. Phase III is funded through a Small Town Economic Assistance Program (STEAP) Grant with a construction cost estimated at $235,000. Cardinal assisted the Town in preparation of the STEAP Grant application as well.

As noted above, Cardinal assisted the Towns in obtaining funding for these projects through both the CCGP and the STEAP programs, including preparation of applications, conceptual plans and cost estimates and coordination with SHPO. Cardinal assisted the Town in administering the projects through the funding sources.

MAIN STREET STREETSCAPE - PHASE II

BERLIN, CONNECTICUT

PROJECT COMPLETION: 2020| **PROJECT COST:** $565,000

SCOPE OF SERVICES: SURVEYING & MAPPING | HIGHWAY DESIGN | TRAFFIC SIGNAL DESIGN | PREPARATION OF CONSTRUCTION DOCUMENTS | BIDDING PHASE SERVICES | CONSTRUCTION CONTRACT ADMINISTRATION AND INSPECTION

In 2020, Cardinal Engineering prepared the design and provided construction engineering services for the design of the Main Street Phase II Streetscape in the downtown Kensington Business District in the Town of Berlin.

This project included the replacement of existing concrete sidewalks and driveway aprons, and curbing, a permeable brick paver snow shelf, street trees, and street lights along New Britain Road (Route 71) and Kensington Avenue (Route 372) This project also included modifications to the existing improvements on Main Street to increase on street parking and accommodate truck and bus traffic. The existing raised center median was replaced with flush brick paver islands. A

Rectangular Rapid Flashing Beacon at the mid-block pedestrian crossing.

This project also included conceptual design of a new parking lot to provide 30 additional spaces to ease congestion of on-street parking. The parking lot will be constructed in a future phase.

CLIENT REFERENCE:

MR. MICHEAL AHERN, P.E.
DIRECTOR OF PUBLIC WORKS
TOWN OF BERLIN
240 KENSINGTON ROAD
BERLIN, CT 06037
(860) 828-7022

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LOTCIP FUNDED PROJECT

EAST MAIN STREET AND MYRTLE STREET COMPLETE STREETS PHASE VI

NEW BRITAIN, CONNECTICUT

PROJECT COMPLETION: 2020 | **PROJECT COST:** $2,500,000

SCOPE OF SERVICES: SURVEYING & MAPPING | HIGHWAY DESIGN | PAVEMENT DESIGN | DRAINAGE DESIGN | PERMITTING | UTILITY COORDINATION | TRAFFIC SIGNAL DESIGN | PREPARATION OF CONSTRUCTION DOCUMENTS | BIDDING PHASE SERVICES

The East Main Street and Myrtle Street Downtown Streetscape Improvements included approximately 2,000 linear feet of roadway reconstruction on Myrtle Street and East Main Street. Planned improvements included road diet to narrow the pavement, granite curbing, brick paving strip, concrete sidewalks, street trees and street lighting, a bike lane, and the replacement of the traffic signal at the New Brite Plaza/Route 72 on ramp intersection. The existing center median was eliminated and a single roadway crown was constructed at the center line.

Additionally, on Myrtle Street the pavement was milled and overlaid to the existing grades and East Main Street received a full depth pavement reconstruction curb to curb.

This project was funded under the LOTCIP program.

CLIENT REFERENCE:
ROB TROTTIER, P.E.
CITY ENGINEER
CITY OF NEW BRITAIN
27 WEST MAIN STREET
NEW BRITAIN, CT 06457
(860) 826-3372

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Titus Block Plaza

Engineering and Surveying Services

Washington, Connecticut

Project Completion: 2022 | **Project Cost:** $1,500,000

Existing Conditions

Proposed Parking & Pedestrian Improvements

Cardinal Engineering Associates was engaged by the Town of Washington to develop conceptual plans for improvements to the existing pedestrian and vehicular circulation within the Project Area, known as the Titus Block.

The block is bounded by Bee Brook Road (Routes 47 & 109) to the north, Green Hill Road (route 47) to the west and Titus Road to the south and east. The existing parking lot is located in the center of the properties within the block on parcels owned by the Town of Washington and private owners.

The Project included modifications to the parking and driveway alignments to improve and increase the parking capacity of the site and to improve vehicular and pedestrian access through the parking lots, connecting them to properties both within the block and to the surrounding municipal and commercial sites and restaurants within the Town Center at Washington Depot, as well as the Shepaug River Greenway located immediately south of the Project Area. Additional parking was proposed along the south side of Titus Road. Traffic counts and speed measuring were performed along the roadways adjacent to the site. Options for traffic calming to improve pedestrian safety along Green Hill road were also provided as part of the project.

Project goals included meeting tight grades and updating the existing walk segments to ADA standards including installation of sidewalk pedestrian ramps, crosswalks and signage. An important aspect of the project was providing communication with the adjacent property owners and businesses..

Client Reference:

James Brinton
First Selectman
Town of Washington
2 Bryan Plaza
Washington Depot, CT 06794
P: (860) 868-2259

Existing Sidewalks

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New Preston Center Sidewalks
Engineering Services
Washington, Connecticut

Project Completion: 2022 | **Project Cost:** $300,000 (Phase I & II)

Cardinal Engineering Associates (Cardinal) provided complete engineering and construction inspection services for the reconstruction of the New Preston Center sidewalks for the Town of Washington.

Preliminary Design Services included the original scope from New Preston Hill Road southerly to Main Street. The project included the installation of sidewalks along the west side of the roadway, extending from the intersection with Main Street northerly to immediately north of the intersection with New Preston Hill Road. The project is within the Right-of-Way of State Route 45. Due to the funding available, the project was divided into two phases. Final Design was completed for the first phase from New Preston Hill Road to Church Street which was constructed in 2022.

Coordination with the Connecticut Department of Transportation was required as part of the project. The project goal was to provide a safe pedestrian route connecting a number of commercial establishments along this section of the roadway.

Client Reference:
James Brinton
First Selectman
Town of Washington
2 Bryan Plaza
Washington Depot, CT 06794
P: (860) 868-2259

Roadway Reconstruction Program

Roadway Design and Construction Engineering Services

Vernon, Connecticut

Project Completion: 2012 | **Project Cost:** $20,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Subsurface Exploration | Easement Mapping | Preparation of Construction Documents | Bidding Phase Services | Construction Contract Administration | Resident Engineering

Cardinal provided complete engineering services for the reconstruction of over 12 miles of Urban and Rural Collector streets in Vernon. Services included survey, roadway design, drainage design, contract administration, and full time resident engineering services for 10 construction contracts.

The work included 3 miles of pavement reclamation, as well as 9 miles of complete roadway reconstruction with minor geometric improvements, traffic calming, full depth pavement reconstruction, subsurface drainage, 6 miles of new storm drainage, culvert improvements, water, gas, telephone and electrical relocations and sanitary sewer improvements. *The project also included several miles of new sidewalks.*

Safety improvements included intersection improvements, roadway realignments to improve sight distance, traffic calming including textured crosswalks, granite curbing, shoulder striping, police pull out areas, interactive speed signs, and enhanced pavement markings and traffic signage.

Cardinal also conducted 20 public information meetings and assisted the Town in obtaining supplemental funding for this program with four phased STEAP grants.

Client Reference:

David A. Smith, P.E. L.S.
Town Engineer
Town of Vernon
14 Park Place
Vernon, CT 06066
(860) 870-3665

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STATE PROJECT NO. 146-195

South Street Reconstruction

Roadway Design and Construction Engineering Services
Vernon, Connecticut

Project Completion: 2016| **Project Cost:** $3,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Subsurface Exploration | Easement Mapping | Preparation of Construction Documents | Bidding Phase Services | Construction Contract Administration | Resident Engineering

Cardinal recently completed the design of the complete reconstruction of 4,700' of Urban Collector roadway located within a dense residential neighborhood with an ADT of 2,900vpd. The roadway was unsafe for bicyclists and pedestrians with a 24' width without shoulders or sidewalks, and, in most areas, without a snow shelf. Several houses with steep driveways are within close proximity to the roadway.

Client Reference:
David A. Smith, P.E. L.S.
Town Engineer
Town of Vernon
14 Park Place
Vernon, CT 06066
(860) 870-3665

The roadway was widened to a uniform 26' width with a sidewalk on one side. Other improvements included lowering a vertical crest curve with very limited sight distance, and improving a horizontal curve to improve sight lines. The project also included improvements to 12 intersections to increase intersection sight distance.

Pre-construction

Roadway widening required cutting into a steep slope on the south side of the road, and the relocation of several driveways. Cardinal prepared 37 property maps and coordinated the ROW acquisition with the CTDOT.

This project also included the design of a new storm drainage system to replace the existing inadequate system and relocation of gas and water mains, and utility poles throughout the entire length of the road.

Funding for this project will be provided by the CTDOT under the STP Urban Program. Cardinal provided construction contract administration and resident engineering inspection services for this project which was completed in 2018. The final cost was below the original bid price.

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STATE PROJECT NO. L033-0001
LOTCIP FUNDED

Coles Road Reconstruction

Cromwell, Connecticut

Project Completion: 2020 | **Project Cost:** $3,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Easement Mapping | CTDOT Coordination | Construction Inspection

Cardinal recently completed the design and full-time resident engineering services for the complete reconstruction of 3,000 lf of Urban Collector roadway within a dense residential neighborhood which was unsafe for bicyclists and pedestrians with a 24' width without shoulders or sidewalks, and without a snow shelf. Many houses with steep driveways are within close proximity to the roadway. The roadway was widened to a uniform 30' width with a new sidewalk on the north side. Other improvements included improving a horizontal curve to improve sight lines. The project also included improvements to 6 intersections to increase intersection sight distance and improvements to the Route 3 intersection, which included traffic signal modifications.

Roadway widening required cutting into a steep slope on the south side of the road, the relocation of several driveways, and construction of retaining walls. Cardinal prepared 37 property maps and coordinated the ROW acquisition with the CTDOT.

This project also included the preparation of 26 easement maps and coordination with CTDOT ROW and design of a new storm drainage system to replace the existing inadequate system, installation of underdrains on the south cut side and relocation of gas and water mains, and utility poles throughout the entire length of the road.

Funding for this project was provided by the CTDOT under the LOTCIP Program.

Client Reference:
Jon Harriman, P.E.
Town Engineer
Town of Cromwell
41 West Street
Cromwell, CT 06416
(860) 632-3465

Pre-Construction

CARDINAL
ENGINEERING ASSOCIATES

Canal & Lock Streets Reconstruction

New Haven, Connecticut

Project Completion: 2010 | **Project Cost:** $1,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Subsurface Exploration | Easement Mapping | Streetscape Design | Preparation of Construction Documents | Bidding Phase Services

Cardinal designed approximately 1,000 lf of roadway reconstruction and streetscape improvements on Lock and Canal Streets. This was done in conjunction with the construction of a new Yale Health Services building and the implementation of the Yale Development Authority Plan for beautification of streets adjacent to the Yale campus, Farmington Canal Linear Trail, and the historic Grove Street Cemetery.

Client Reference:
Giovanni Zinn, P.E.
City Engineer
City of New Haven
200 Orange Street
New Haven, CT 06510
(203) 946-6417

The project included total roadway reconstruction on both streets, realignment of the Canal/Lock intersection, installation of pedestrian crosswalk signals, decorative street lighting, a Blue Light system to improve pedestrian safety, new granite curbing, *concrete sidewalks,* fencing, street trees and landscaping. Overhead power and telecommunications were relocated underground.

CARDINAL
ENGINEERING ASSOCIATES

Prospect Street Reconstruction

New Haven, Connecticut

Project Completion: 2012 | **Project Cost:** $1,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Subsurface Exploration | Easement Mapping | Streetscape Design | Preparation of Construction Documents | Bidding Phase Services

Cardinal completed the design of streetscape improvements and reconstruction of approximately 1,000 LF of Prospect Street, a major collector road located on the Yale University campus. This project was in conjunction with the implementation of the Yale Development Authority plan for beautification of streets adjacent to the Yale campus. This project required close coordination with the City of New Haven and representatives of Yale University.

Client Reference:
Larry Smith, P.E.
Acting City Engineer
City of New Haven
200 Orange Street
New Haven, CT 06510
(203) 946-6417

The project included total roadway reconstruction, realignment of the Edwards Street intersection and installation of decorative street lighting, a Blue Light system to improve pedestrian safety, new granite curbing, concrete sidewalks, and improved crosswalks. The project also included evaluation of existing street trees and a plan for the removal of unhealthy or unsafe trees and planting of new trees more appropriate for roadside installation.

Overhead power lines were eliminated and underground power and telecommunications conduits were installed. Parking meters were replaced with parking kiosks.

STATE PROJECT NO. 79-210

GRAVEL STREET RECONSTRUCTION

MERIDEN, CONNECTICUT

PROJECT COMPLETION: 2016 | **PROJECT COST:** $6,000,000

SCOPE OF SERVICES: SURVEYING & MAPPING | HIGHWAY DESIGN | PAVEMENT DESIGN | DRAINAGE DESIGN | PERMITTING | UTILITY COORDINATION | TRAFFIC SIGNAL DESIGN | SUBSURFACE EXPLORATION | EASEMENT MAPPING | STREETSCAPE DESIGN | PREPARATION OF CONSTRUCTION DOCUMENTS

Cardinal provided all engineering services for the design of this project and also provided consultation during construction.

This project consisted of the complete reconstruction of Gravel Street and a portion Baldwin Avenue, both of which are classified as Minor Urban Arterials. The project included reconstruction of 6,800 linear feet of roadway with new concrete curbing and sidewalks, as well as installation of over 7,500 linear feet of storm sewers (including two outfalls and 3 hydrodynamic separators) and replacement of a traffic signal at the intersection of Baldwin Avenue and Gravel Street. This project included coordination with the Maloney High School renovation project, which was underway during the road reconstruction project. This project also included improvements at 12 intersections to improve sight distance and turning movements.

Funding for this project was provided by the Connecticut DOT under the STP Urban program.

CLIENT REFERENCE:
BRIAN ENNIS, P.E.
ASSOCIATE ENGINEER
142 EAST MAIN STREET
MERIDEN, CT 06450
(203) 630-4018

CARDINAL
ENGINEERING ASSOCIATES

LOTCIP FUNDED PROJECT

Allen Street Reconstruction

New Britain, Connecticut

Project Completion: 2013 | **Project Cost:** $5,000,000

Scope of Services: Surveying & Mapping | Highway Design | Pavement Design | Drainage Design | Permitting | Utility Coordination | Traffic Signal Design | Subsurface Exploration | Easement Mapping | Preparation of Construction Documents | Bidding Phase Services

Allen Street was subject to up to a foot of annual flooding due to inadequate storm sewer capacity, forcing local road closures and causing flooding on private properties.

To alleviate these problems, the design will include approximately 2,500' of storm sewer and 2,000' of sanitary sewer improvements in order to provide increased capacity and prevent surcharging of the existing system.

This project involves the complete reconstruction of 3,500 lf of roadway, including geometric improvements to meet current design standards and improve drainage.

Additionally, the installation of granite curbing, new concrete sidewalks, and aprons on both sides of the street and an effective pavement structures will be implemented.

The remaining 2,500 lf of the project includes milling and overlay with partial full-depth reconstruction, brick pavers, street trees, granite curbing, and new concrete driveway aprons and sidewalks.

New traffic signals will be installed at two primary intersections. Close coordination with CT DOT was required as a portion of the project is located on Route 175. This project was funded through LOTCIP.

Client Reference:

Rob Trottier, P.E.
City Engineer
City of New Britain
27 West Main Street
New Britain, CT 06457
(860) 826-3372

CARDINAL
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Staff Experience

Prior to joining Cardinal Engineering, our staff have developed a broad range of experience with similar projects throughout Connecticut. These projects included many of the features and issues associated with the construction of multi-use trail projects including pedestrian safety / ADA compliance, coordination with CTDOT, traffic signals, signage and environemental compliance. The following highlights the experience of some of Cardinals's key staff who will be involved with the Stand Alone Sidewalk project.

ROY SEELYE, PE – Sr. Project Engineer

BIKE PATH, STREETSCAPE, PEDESTRIAN SAFETY, COMPLETE STREETS PROJECTS, CRCOG EXPERIENCE

Borough of Litchfield Historic District Sidewalks, Litchfield, CT
Burlington Multi-use Trail Grant Application, Burlington, CT
Burlington Streetscape – Phase 2, Burlington, CT
Burlington Streetscape – Phase 3, Burlington, CT
Burlington Streetscape – Phase 4 Concept Plan, Burlington, CT
New Preston Pedestrian Safety, Washington CT
Richmond Hill Road Sidewalks Peer Review, New Canaan, CT
Sue Grossman Still River Greenway Multi-use Trail, Winchester, CT
Titus Block Pedestrian Safety and Traffic Calming Study, Washington, CT
Townwide ADA Compliance Study, Burlington, CT
Woodbridge Center Sidewalks – Phase 2, Woodbridge, CT

Riverwalk North - Phase 2 Hartford, CT
Bushnell Park North – Complete Streets Hartford, CT
Bushnell Park Site Improvements to Sidewalks & Lighting Hartford, CT
Park Street Streetscape Hartford, CT
Historic Longwalk, Trinity College Hartford, CT
Park Terrace Roundabout Hartford, CT
City-wide Sidewalk ADA Compliance Hartford, CT
River Road and Bike Path Farmington, CT
Stadium Road Sidewalks, UCONN Storrs, CT
Student Union Terrace and Sidewalks, UCONN Storrs, CT
Sidewalk and Stair Repais (5 Proejcts), UCONN Storrs, CT
Horsebarn Hill Road Safety Improvements, UCONN Storrs, CT
NVCC Campus Site Improvements Waterbury, CT
Riverfornt Park and Boathouse – Phase 2 Glastonbury, CT

CRCOG LOTCIP Peer Reviews

Buckland St. Sidewalks – South Windsor
Church St. Sidewalk Project – Hebron
Mountain Road / Route 168 Multi-use Trail – Suffield
Plantsville Streetscape - Southington
Route 75 Pedestrian Safety – Windsor Locks
Trout Brook Multi-Use Trail, Phases 6 and 7 – West Hartford

CARDINAL
ENGINEERING ASSOCIATES

CRCOG LOTCIP Application Reviews

Blue Hills Avenue Complete Streets – Phase 1, Bloomfield, CT
South Street Roadway and Pedestrian Improvements Project, Coventry, CT
Tolland Turnpike Sidewalks, Manchester, CT
Multi-Use Trail, Hartford Road & Bidwell Street, Manchester, CT
Blackledge River Greenway – Phase 2, Marlborough, CT
Complete Streets Upgrade, Robbins Road & Maple Hill Avenue, Newington, CT
Rockville Center Complete Streets and Multi-Use Trail, Vernon, CT
New Park Avenue Complete Streets Improvements, West Hartford, CT

Biographies of Other Key Personnel

Joseph Cermola, III, P.E. - Principal in Charge

Mr. Cermola has over 37 years' experience in the design and construction of a wide variety of municipal engineering projects including roadway, bridge, water and wastewater, and storm drainage projects. Mr. Cermola has provided Contract Administration and overseen Inspection of over 100 roadway and bridge projects including many state and federally funded projects over the past 10 years.

Roy Seelye, P.E. - Project Manager

Mr. Seelye has a strong background in the field of Civil Engineering with over 37 years of experience in utility, roadway, and site development projects, both as a municipal official and as an engineer in private practice. Projects he has been involved with include the design and construction of town and state roadways, storm drainage conveyance and treatment systems, sanitary sewer systems and other utilities. Mr. Seelye has served as Resident Engineer and provided Contract Administration for many roadway reconstruction projects including many LOTCIP, STP and Local Bridge projects. He is very familiar with CRCOG and CTDOT requirements for LOTCIP projects. He has provided peer review for over 50 projects as On- Call consultant for CRCOG municipalities.

Jon Hadley, BSCE, NICET III, NETTCP HMA, ACI – Resident Project Representative

Mr. Jonathan Hadley will be assigned as Resident Engineer. Mr. Hadley has over 30 years of construction inspection experience for CTDOT where he was Supervising Engineer of the District 1 Municipal Systems Assistance Team. Mr. Hadley has been Resident Engineer for Cardinal for the past five years. He has inspected two major roadway reconstruction projects in Middletown and the reconstruction of Dunham Street in Norwich, a LOTCIP funded project. He is currently assigned as Resident Engineer for the Furnace Avenue Reconstruction project in Stafford.

Charles Hornak, P.E., NETTCP HMA and ACI Certification – Contract Administration

Mr. Hornak has over 20 years' experience in the design, inspection, and contract administration of roadway reconstruction projects, including many LOTCIP and STP projects as well as many bridge and culvert replacement projects including 50 projects funded by the State or Federal Local Bridge program. Therefore, he is very familiar with CT DOT requirements and procedures during construction.

Bernard Cermola, L.S., NICET IV, NETTCP HMA and ACI Certification - Land Surveying

Mr. Cermola has over 30 years of professional experience encompassing the entire range of land surveying services. As Chief of Surveying Services, he oversees all field crews and reviews all mapping produced in the survey department. Mr. Cermola is responsible for boundary and topographic surveys, ALTA/ACSM Land Title surveys, construction stakeout, right-of way and easement mapping, and related survey work.

JOSEPH A. CERMOLA, III, P.E.

PRINCIPAL-IN-CHARGE

Since joining the staff at Cardinal Engineering in 1986, Mr. Cermola assumed the duty of Project Manager, and more recently as Principal and Senior Project Manager. Project responsibilities have included, design team supervision, liaison with client and other agencies, quality control and quality assurance, budgetary controls, scheduling, state and local permitting, extensive public hearing presentation and construction administration.

The following is a brief summary in which Mr. Cermola served as Principal-in-Charge and Senior Project Manager:

ROADWAY RECONSTRUCTION

Reconstruction of Coles Road, Cromwell, CT
Principal in Charge for the recently completed the design of the complete reconstruction of 3,000 lf of Urban Collector roadway within a dense residential neighborhood which is unsafe for bicyclists and pedestrians with a 24' width without shoulders or sidewalks, and without a snow shelf.

Vernon Road Reconstruction Program, Vernon, CT
Project Manager for the design of the Town of Vernon's $20 million roadway reconstruction program, which involved reconstruction of over 12 miles of collector roads including extensive drainage improvements and utility relocations. Mr. Cermola was also responsible for oversight of construction contract administration and inspection of 10 construction contracts.

Reconstruction of Allen Street, New Britain CT
Senior Project Manager for the reconstruction of the Allen Street. This project involved the full- depth pavement reconstruction of over 3,300' of urban collector road. This project was funded through LOTCIP.

Reconstruction of West Lake Drive, Middletown, CT
Project Manager for the design and contract administration of this LOTCIP-funded reconstruction project for the City of Middletown. The project involved the reconstruction and drainage improvements to over 5,300' of West Lake Drive.

Reconstruction of Thrall Avenue, Suffield, CT
Project Manager for the design of this LOTCIP-funded reconstruction project for the Town of Suffield. This project involved the a combination of milling and overlay and full- depth reconstruction of over a 6,400' of roadway including new storm drainage.

South Street Reconstruction, Vernon CT (SPN 146-195)
Project Manager for this STP Urban-funded reconstruction project of 4,700' of South Street, an urban collector road. This project included geometric improvements to upgrade the road from a 30 to a 40 MPH design speed, widening from 22' to 30', installation of a new storm drainage system, pedestrian safety improvements, and improvements to six intersections.

Gravel Street and Baldwin Avenue Reconstruction, Meriden CT (SPN 179-210)
Project Manager for the design of this STP Urban-funded reconstruction project for the City of Meriden. This project involved the full-depth reconstruction of over a 6,800' of roadway, new storm drainage, gas, water and sanitary sewer relocations, improvements to twelve intersections and replacement of one traffic signal.

REGISTRATION

- Professional Engineer, Connecticut

EDUCATION

- BSCE, Rensselaer Polytechnic Institute, 1977
- MSCE, Rensselaer Polytechnic Institute, 1978
- SCS Seminar: TR55 Hydrology Workshop ASCE Seminars: Applications of EPA SWMM, Urban Watershed Management, Stormwater BMP's, HEC-RAS Graduate Courses at the University of Connecticut : Open Channel Flow, Advanced Foundation Design, Hydrology, Pavement Design, Bridge Design, and Geographic Information Systems.

AFFILIATIONS AND MEMBERSHIPS

- American Society of Civil Engineers
- American Concrete Institute
- American Water Works Association
- Chi Epsilon National Civil Engineering Honor Society

JOSEPH A. CERMOLA, III, P.E.
CONTINUED

Citywide Roadway Reconstruction Program, Middletown, CT
Mr. Cermola has been Project Manager for the design and contract administration and inspection of over 25 major projects with a total construction cost of over $ 45 million which included complete reconstruction of 20 miles of roadway.

Mount Vernon Road Reconstruction, Southington, CT (SPN 139-198)
Senior Project Manager for the design of this STP Urban-funded reconstruction project, acting as the design liaison between the Town of Southington and CT DOT.

Reconstruction of Shuttle Meadow Road, New Britain CT
Senior Project Manager for the reconstruction of the Shuttle Meadow Road. This project involved the full-depth pavement reconstruction of over 3,300' of urban collector road.

ROY C. SEELYE, P.E.

PROJECT MANAGER

Mr. Seelye has a strong background in the field of Civil Engineering with over 39 years of experience in utility, roadway and site development projects, both as a municipal official and as an engineer in private practice. Areas of expertise include storm water management, site design, grading, utility design and permitting. Mr. Seelye is familiar with the policies and procedures of many municipalities including the City of New Britain. Projects he has been involved with include the design and construction of town and state roadways, storm drainage conveyance and treatment systems, sanitary sewer systems and other utilities. He is very familiar with the design elements and construction standards required in the construction of roadway and streetscape projects having been Design Engineer, Project Manager and Construction Inspector on numerous similar projects.

AREAS OF EXPERTISE:

- Project Management
- Familiar with CT DEEP, DAS/DCS, CTDOT/OSTA, DPH permitting policies and procedures
- Municipal, Educational, Residential, Commercial and Industrial Project Experience
- Construction Contract Administration and Inspection
- Geometric design of highways, roads and parking facilities
- Site layout and grading, utility design, water supply, subsurface sewage disposal and sediment and erosion control.
- Extensive experience in stormwater management involving the storm drainage collection systems, water quality treatment measures, detention basin design, underground storage facilities, watershed analysis and dam design.

REPRESENTATIVE PROJECTS

Burlington Streetscape Phases 2 and 3 Burlington, CT
Project Manager and Lead Engineer. Currently in design, the Project includes the extension of a 6-foot wide concrete sidewalk along Spielman Highway (Route 4), Library Lane and George Washington Turnpike. Prepared the Small Town Economic Assistance Program (STEAP) grant application for Phase 3. Phase 2 of the Project is funded through a Community Connectivity Grant. Prepared design of the sidewalk, stairs, retaining walls. Coordinated the project with CTDOT District 4 and Project 174-0352 (Pedestrian Signal Modifications). Estimated Project Construction Cost - $900,000.

Town Center Sidewalk and Pedestrian Safety Project, Woodbridge, CT
Project Manager and Lead Engineer. Currently in design, the Project includes the extension of a5-foot wide concrete sidewalk along the south side of Meetinghouse Lane and the west side of Newton Road. The goal of the project is to improve pedestrian safety through the Town Center. Amity Regional High School is located at the northern terminus of the Project and currently the students walk in the roadway to get to the athletic fields located southwest of the Center. The Town Center is also home to the Town of Woodbridge's municipal facilities including the Town Hall, library, Community Center, Police Department and a day-care center. The construction of the Project is funded through a Community Connectivity Grant. Prepared design of the sidewalk, pedestrian ramps and lighting. The project also included the installation of storm drainage along Newton Road. Estimated Project Construction Cost - $500,000.

Burlington Multi-Use Trail Grant Application, Burlington, CT
Prepared the application for a Connecticut Recreational Trails Program Grant, administered by the CTDEEP. The project includes the repair of approximately 3800 linear feet of the 12-foot wide paved trail (AKA the Farmington Canal Heritage Trail) due to damage caused by

EDUCATION

- BS, Civil Engineering, Worcester Polytechnic Institute

REGISTRATION

- Professional Engineer, Connecticut

CARDINAL
ENGINEERING ASSOCIATES

ROY SEELYE, P.E.
CONTINUED

tree roots and the age of the trail (originally constructed in 2009). Total Construction cost - $890,000.

Stand Alone Sidewalks Project, Vernon, CT
Performed Peer Review services of the Town's plans and cost estimates to be included in their LOTCIP application to CRCOG. The project includes the construction of approximately 7,800 linear feet of concrete sidewalk in five locations including along South Street. Hartford Turnpike (Route 30), Talcottville Road (Route 83), Dobson Road and Lake Street (Route 533). The project is intended to improve pedestrian safety, replace walkways in poor condition and close gaps in the Town's pedestrian system. Once the Commitment to Fund letter has been received from CTDOT, Cardinal will provide design, permitting, bidding and construction administration and inspection services. Two of the sections are adjacent to an elementary and a middle school. The Dobson Road section of the project includes an interface with the I-84 EB on-ramp and the intersection with Route 30. This section will also include the installation of a Rectangular Rapid Flashing Beacon to enhance pedestrian safety. Coordination and approval by CTDOT will be an important part of the project. Estimated cost - $3,400,000.

New Preston Center Pedestrian Safety Project, Washington, CT
Project includes the reconstruction of the existing sidewalks and construction of new sidewalks on East Shore Drive (Route 45) in the center of the village of New Preston. The goal of the project is to promote pedestrian safety in the commercial area of the village, connecting the various commercial / retail establishments with the nearby restaurants. The Project construction will be in two phases. Issues include meeting tight grades, update the existing walk segments to ADA standards, including installation of sidewalk pedestrian ramps, crosswalks and signage. An important aspect of the project is providing communication with the adjacent property owners and businesses. Estimated construction value: $220,000.

Titus Block Pedestrian Safety and Parking Lot Improvements, Washington, CT
The Project Area, known as the Titus Block, is bounded by Bee Brook Road (Routes 47 & 109) to the north, Green Hill Road (route 47) to the west and Titus Road to the south and east. The existing parking lot is located in the center of the properties within the block on parcels owned by the Town of Washington and private owners. The Project included modifications to the parking and driveway alignments to improve and increase the parking capacity of the site and to improve vehicular and pedestrian access through the parking lots, connecting them to properties both within the block and to the surrounding municipal and commercial sites and restaurants within the Town Center at Washington Depot, as well as the Shepaug River Greenway located immediately south of the Project Area. Additional parking was proposed along the south side of Titus Road. Traffic counts and speed measuring were performed along the roadways adjacent to the site. Options for traffic calming to improve pedestrian safety along Green Hill Road were also provided as part of the project. Issues include meeting tight grades, update the existing walk segments to ADA standards including installation of sidewalk pedestrian ramps, crosswalks and signage. An important aspect of the project is providing communication with the adjacent property owners and businesses. Estimated construction value: $1,500,000.

Sue Grossman Still River Multi-use Trail, Winchester, CT
Project manager and Lead Engineer. Provided engineering design and permitting services for the design of the first phase of the Town of Winchester's section of the Sue Grossman Still River Greenway Multi-use Trail. Prepared contract documents, technical specifications and cost estimates for the project. The existing trail is located int the former right-of-way of the Torrington and Winchester Street Railway Company and ends at the Torrington – Winchester town-line and runs between the Still River and Torrington Road (Route 800 – AKA "Old Route 8") in the former railroad right-of-way. The length of the trail in this phase is approximately 3,300 linear feet. The project includes two pedestrian bridges over the Still River and the relocation and preservation of the existing historic Pittsburg Steel Co. bridge to create a monument to the bridge and the Railway Company. Permitting includes the Winchester Inland Wetlands and Watercourses Commission, Connecticut Department of Energy and Environmental Protection and the United States Army Corps of Engineers. Provided Construction Administration services. The total estimated construction cost is $2.2 million dollars.

Town of Berlin Experience
Having grown up in Berlin and worked for a couple of local engineering firms, Mr. Seelye has a unique blend of experience within the Town. The projects he has designed in Berlin include subdivisions, commercial developments, condominiums, thee Town-wide water system improvements and the two miniature golf courses on the Berlin Turnpike.

Anthony M. Doornweerd, P.E.

Senior Project Engineer

Mr. Doornweerd has over 30 years of civil engineering experience in the municipal and private sector. Since joining Cardinal Engineering in 2006 as Senior Project Engineer, he has been responsible for the design of transportation projects, in particular roadway reconstruction projects both local and state funded projects.

Mr. Doornweerd's responsibilities include included design and preparation of contract drawings, liaison with the client and the CTDOT, bid documents, utility coordination and public hearing presentations.

The following is a brief summary of his experience.

Roadway Reconstruction

Reconstruction of Allen Street, New Britain CT
Senior Project Engineer for the reconstruction of Allen Street. This project involved the full-depth pavement reconstruction of over 3,300' of urban collector road. This project was funded through LOTCIP.

Reconstruction of West Lake Drive, Middletown, CT
Project Engineer for the design and contract administration of this LOTCIP-funded reconstruction project for the City of Middletown. The project involved the reconstruction and drainage improvements to over 5,300' of West Lake Drive.

Reconstruction of Thrall Avenue, Suffield, CT
Project Engineer for the reconstruction of approximately 1.5 miles of Thrall Avenue along with drainage improvements. This project was funded through LOTCIP.

Reconstruction of Gravel Street/Baldwin Avenue, Meriden CT (SPN 079-210)
Senior Project Engineer for the design of this STP Urban-funded reconstruction project for the City of Meriden acting as the liaison between the City of Meriden and CT DOT. This project involved the design for the full- depth pavement reconstruction of over 6,800 feet of roadway, new closed system drainage, improvements to twelve intersections and a traffic signal replacement.

Reconstruction of Mount Vernon Road, Southington, CT (SPN 131-198)
Senior Project Engineer for the design of this STP Urban-funded reconstruction project, acting as the design liaison between the Town of Southington and CT DOT.

2005 Road Reconstruction Program, Vernon, CT
Senior Project Engineer for the Town of Vernon's $20 Million Dollar roadway reconstruction program. This projects involved the reconstruction of over 12 miles of urban collector and local roads.

Reconstruction of South Street , Vernon, CT (SPN 146-195)
Senior Project Engineer for the design of the reconstruction of 4,700 LF. of South Street, an urban collector road. This project includes geometric improvements to upgrade the road from a 30 to a 40 MPH design speed, widening from 22' to 30', installation of a new storm drainage system, pedestrian safety improvements, and improvements to six intersections.

Registration

- Professional Engineer, Connecticut

Education

- BSCE, Worcester Polytechnic Institute, Worcester, MA, 1979

Anthony M. Doornweerd, P.E.
Continued

Reconstruction of Canal and Lock Streets, New Haven, CT
Senior Project Engineer for the reconstruction of Canal and Lock Streets. This project involved the full- depth pavement reconstruction of over 1,000' of roadway, streetscape improvements, and pedestrian improvements including new sidewalks and decorative street lighting.

Reconstruction of Prospect Street, New Haven, CT
Senior Project Engineer for the reconstruction of Prospect Street. This project involved the full- depth pavement reconstruction of over 1,000' of roadway, streetscape improvements, and pedestrian improvements including new sidewalks and decorative street lighting.

Realignment of Lexington Avenue, New Haven, CT
Senior Project Engineer for the reconstruction and realignment of Lexington Avenue. This project in conjunction with the construction of the Benjamin Jepson Elementary School involved realignment of the existing roadway. Design issues included horizontal and vertical geometric improvements, establishing a consistent roadway cross-section, surface and sub-surface drainage improvements including a closed storm drainage system.

Reconstruction of Nejako Drive, Middletown, CT
Senior Project Engineer for the reconstruction of Nejako Drive. This project involved the full- depth pavement reconstruction of over a mile of residential roadway.

Intersection Improvements to US1 at Route 122, West Haven, CT (SPN 156-170)
Project Engineer responsible for the design and preparation of contract drawings, utility coordination. Improvements consisted of a multi-lane signalized intersection that required over 3,000' of reconstruction/widening of two principal urban arterials, new traffic signal, a permanent sediment basin and extensive drainage improvements and ROW acquisition.

Reconstruction of East Village Road and Maple Avenue, Shelton, CT (SPN 126-160)
Project Engineer responsible for the design and preparation of contract drawings, bid documents and utility coordination.

Reconstruction of Grenhart Road and I-95 Interchange 6 Westbound Ramps, Stamford, CT (SPN 135-281)
Project Engineer responsible for the design and preparation of contract drawings, bid documents and utility coordination. High traffic volumes on the I-95 exit ramp and surrounding road network required extensive MPT plans for the re-alignment of this built-up urban collector road.

I-91 Widening, Enfield, CT
Project Engineer for the design of the widening of Interstate 91. Responsible for drainage design.

Reconstruction of Cosey Beach, First and Second Avenues, East Haven, CT
Project Engineer responsible for design and contract documents for the reconstruction of three streets. This project involved the full- depth pavement reconstruction and raising the roadway above maximum high tide. Design issues included horizontal and vertical geometric improvements, establishing a consistent roadway cross-section, surface and sub-surface drainage improvements including a closed storm drainage system with a tide gate at its outfall.

Reconstruction of River Road, Westfield Street and Maple Street, Middletown, CT
Responsible for design of three road reconstruction projects, including traffic study, plans and specifications for two semi-actuated span-wire traffic signals.

Reconstruction of Route 44, Providence, RI
Project Engineer for conceptual design study 3R improvements to 2.6 miles of US44, a principal, 2-lane, urban arterial with 65 intersections.

BERNARD J. CERMOLA, L.S., NICET III

CHIEF OF SURVEYING SERVICES

Mr. Cermola has more than 30 years of professional experience encompassing the entire range of land surveying services. As Chief of Surveying Services, he oversees all field crews and reviews all mapping produced in the survey department. Mr. Cermola is responsible for boundary and topographic surveys, ALTA/ACSM Land Title surveys, construction stakeout, right-of way and easement mapping, and related survey work. The following is a brief summary of his experience.

ROADWAY RECONSTRUCTION

North End Combined Sewer Separation, Middletown, CT
Served as Chief of Surveys for this 80-acre subdivision which included the design of one mile of industrial roadways and all utilities including two (2) miles of water, sewer extension, and a bridge spanning a wetland area. Responsible for providing design team with topographical survey of project area.

Reconstruction of West Lake Drive, Middletown, CT
Served as Chief of Surveys for the Reconstruction of West Lake Drive which involved the topographical survey for a .5 mile roadway reconstruction project. This project was funded through LOTCIP.

Reconstruction of Allen Street, New Britain CT
Served as Chief of Surveys for the reconstruction of the Allen Street. This project involved the full-depth pavement reconstruction of over 3,300' of urban collector road. This project was funded through LOTCIP.

Reconstruction of Thrall Avenue, Suffield, CT
Served as Chief of Surveys for this LOTCIP-funded reconstruction project for the Town of Suffield. This project involved the a combination of milling and overlay and full-depth reconstruction of over a 6,400' of roadway including new storm drainage.

Road Reconstruction Program, Vernon, CT
Served as Chief of Surveys for the Town of Vernon's 2005 Road Reconstruction Program, which involved topographical survey for a 12.5 mile roadway reconstruction project.

Reconstruction of Gravel Street, Meriden, CT
Served as Chief of Surveys for the reconstruction of Gravel Street , (State Project No. 179-210) which involved the topographical survey for a 1.5 mile roadway reconstruction project.

Reconstruction of Mount Vernon Road, Southington, CT
Served as Chief of Surveys for the reconstruction of Mount Vernon Road , (State Project No. 139-198) which involved the topographical survey for a 1 mile roadway reconstruction project.

Reconstruction of South Street, Vernon, CT
Served as Chief of Surveys for the reconstruction of Gravel Street , (State Project No. 146-195) which involved the topographical survey of approximately 4,700LF roadway reconstruction project.

REGISTRATION

- Registered Land Surveyor, Connecticut

EDUCATION

- Courses in Civil Engineering Technology, Hartford State Technical College

Bernard J. Cermola, L.S.

Continued

Prospect Street Streetscape Improvement, New Haven, CT
Served as Chief of Surveys for the Prospect Street Streetscape Improvement project which involved topographical survey for .8 miles of roadway.

Reconstruction of Olive Street, Meriden, CT
Served as Chief of Surveys for reconstruction of Olive Street , which involved the topographical survey for a .5 mile roadway reconstruction and streetscape improvement project.
Reconstruction of Shuttle Meadow Avenue, New Britain, CT
Served as Chief of Surveys for reconstruction of Shuttle Meadow Avenue which involved the topographical survey for a 1.0 mile roadway reconstruction project.

Reconstruction of Nejako Drive, Middletown, CT
Served as Chief of Surveys for the Reconstruction of Nejako Drive which involved the topographical survey for a 1.0 mile roadway reconstruction project.

Reconstruction of Randolph Road, Middletown, CT
Served as Chief of Surveys for the Reconstruction of Randolph Road which involved the topographical survey for a .75 mile roadway reconstruction project.

Reconstruction of Torringford West Street, Torrington, CT
Served as Chief of Surveys for the Reconstruction of Torringford West Street which involved the topographical survey for a 1.0 mile roadway reconstruction project.

Reconstruction of South High, Court Street and Bingham Street, New Britain, CT
Served as Chief of Surveys for the reconstruction of South High, Court Streets and Bingham Streets which involved the topographical survey for a 1.0 mile roadway reconstruction and streetscape improvement project.

Reconstruction of Williams Street, Meriden, CT
Served as Chief of Surveys for the reconstruction of Williams Street, which involved topographical survey for 1.0 mile of roadway.

Charles A. Hornak, P.E.

Senior Civil Engineer

Mr. Hornak joined Cardinal Engineering Associates in January 2010 as a Civil Engineer. Prior to that he was employed by several other firms in Connecticut and also served as an officer in the United States Army. Mr. Hornak, a graduate of the United States Military Academy, has a broad background in civil engineering which includes roadway and bridge design, stormwater design, environmental engineering, site design, land surveying and construction inspection.

Mr. Hornak's responsibilities include design, preparation of contract drawings and bid documents.

The following is a brief summary of his experience.

Roadway Reconstruction

Reconstruction of Allen Street, New Britain, CT
Civil Engineer responsible for the design of the reconstruction of Allen Street. This project involved the complete reconstruction of 3,300 of urban collector roadway and pavement rehabilitation of 3,000 LF of roadway and the replacement of two traffic signals.

Reconstruction of Hubbard Street, Winchester, CT
Civil Engineer responsible for the design of the reconstruction of Hubbard Street. This project involved the complete reconstruction of Hubbard Street, a one (1) mile rural collector road.

Reconstruction of Hatch Hill Road, Vernon, CT
Civil Engineer responsible for the design of the reconstruction of Hatch Hill Road. This project involved the complete reconstruction of Hatch Hill Road, a one (1) mile rural collector road.

Reconstruction of West Lake Drive, Middletown, CT
Civil Engineer responsible for the design of the reconstruction of West Lake Drive approximately 5,300 feet of full depth reconstruction. The project included pavement reclamation,bituminous concrete curbing and underdrains were installed at various locations throughout the project. Funding for this project provided through LOTCIP.

Reconstruction of Old Mill Road, Middletown, CT
Civil Engineer responsible for the design of the reconstruction of approximately 3,600 linear feet of Old Mill Road the project will consist of milling and overlay to match existing grades.

Bridge Rehabilitation and Replacement Design

Replacement of Brush Hill Road, Litchfield, CT
Design and Contract Administration for this bridge replacement project, which consisted of the replacement of an existing bridge found to be structurally and hydraulically inadequate.

Mike Road Culvert, Litchfield, CT
Design and Contract Administration for this culvert replacement project, which consisted of the replacement of an existing bridge found to be structurally and hydraulically inadequate.

Replacement of the Milton Road Bridge, Litchfield, CT (SPN 73-189)
Senior Civil Engineer for design and construction contract administration of this bridge replacement project, which consisted of the replacement of an existing bridge found to be structurally and hydraulically inadequate. Funding for this

Registration

- Professional Engineer, Connecticut

Education

- BSCE, United States Military Academy, 1989

Charles A. Hornak, P.E.
Continued

project is provided by the Federal Local Bridge program.

Replacement of Merritt Avenue Bridge, Woodbridge, CT (State Project 167-106)
Design and Contract Administration for this bridge replacement project, which consisted of the replacement of an existing bridge found to be structurally and hydraulically inadequate. Funding for this project is provided by the Federal Local Bridge program.

Rehabilitation of the North Shore Road Bridge, Litchfield, CT (SPN 73-187)
Senior Project Manager for design and construction contract administration of this bridge rehabilitation project. Funding for this project is provided by the Federal Local Bridge program.

Replacement of West Main Street Bridge, Vernon, CT (State Project 146-188)
Civil Engineer for the design of this bridge replacement project. This project involves the replacement of an existing bridge found to be structurally and hydraulically inadequate. Funding for this project is provided by the Federal Local Bridge program.

Replacement of East Johnson Avenue Bridge, Cheshire, CT (State Project 25-143)
Design and Contract Administration for this bridge replacement project. The bridge was considered scour critical as well as hydraulically inadequate. Funding for this project is provided by the Federal Local Bridge program.

Replacement of Country Club Road Bridge, Cheshire, CT
Design and Resident Engineer for this bridge replacement project. The new bridge was a 20' cast in place arch. The design included structural type studies, subsurface investigations, scour analysis, hydrologic and hydraulic analysis, preparation of property taking maps, environmental permitting.

Replacement of the White Woods Road Bridge, Litchfield, CT (State Project 73-184)
Design and Contract Administration for this bridge replacement project. The existing bridge, constructed in 1963 consists of steel stringers with partial length welded cover plates supported on stub pile cap abutments. The major concern associated with the bridge is the scour and undermining of both abutments. The bridge is considered scour critical. Funding for this project is provided by the Federal Local Bridge program.

Rehabilitation of the Gold Star Bridge, Groton/New London, CT (SPN 94-252)
Civil Engineer for design of this bridge rehabilitation project. The project consisted of the rehabilitation of an existing bridge found to be structurally deficient. Repairs included the replacement of existing overlay and waterproofing membrane, partial / full depth patches in the reinforced concrete deck, repair defective welds and repair steel superstructure ,replace strip seal expansion deck joints,repair the modular deck joints,replace modular deck joint seal glands.

Replacement of Remington Street Bridge, Suffield, CT
Design Engineer for design and construction contract administration of this bridge replacement project. Funding for this project is provided by the Federal Local Bridge program.

Replacement of West Road Bridge, Winchester, CT
Design and Contract Administration for this bridge replacement project. The design included structural type studies, subsurface investigations, scour analysis, hydrologic and hydraulic analysis, preparation of property taking maps, environmental permitting. Funding for this project is provided by the State Local Bridge program.

Replacement of High Road Bridge, Berlin, CT
Civil Engineer for design of this bridge replacement project. The design included structural type studies, subsurface investigations, scour analysis, hydrologic and hydraulic analysis, preparation of property taking maps, environmental permitting. Funding for this project is provided by the State Local Bridge program.

Name of Consulting Firm: Cardinal Engineering Associates

Hourly Fee Schedule

Consultant Services for Berlin Sidewalk Design Project Berlin Bid # 2024-10

Employee Classification	Hourly Fee*	
	to December 31, 2024	January 1, 2025 to December 31, 2025
Project Manager	**$ 170.00**	**$175.00**
Project Engineer	**$ 140.00**	**$150.00**
Civil Engineer	**$90.00 - $120.00**	**$ 94.00- $125.00**
Survey Party Chief	**$100.00**	**$104.00**
Survey Technician	**$ 96.00**	**$100.00**
Licensed Surveyor	**$160.**	**$165.00**

- Hourly fees include burden fringe, overhead, and profit.

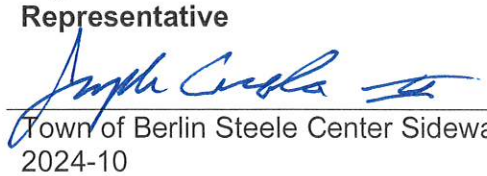
These rates, unless modified and approved by both the Town of Berlin and Consultant, shall be utilized by Consultant in estimating for Berlin Sidewalk Design Project.

Name of Consultant Firm

Joseph Cermola, III, President

Authorized Representative Name and Title

Signature of Authorized Representative



Town of Berlin Steele Center Sidewalk Design Project Berlin Bid # 2024-10

CARDINAL
ENGINEERING ASSOCIATES

SECTION 3

Work Plan

Services Expected of Town

TOWN OF BERLIN, CONNECTICUT
BERLIN BID #2024-10 - CONSTRUCTION ADMINISTRATION

WORK PLAN

PROJECT DESCRIPTION

The Connectivity Grant Sidewalks Design Project will consist of the design of two sections of sidewalk, Kensington Road from Carriage Drive to Norton Road (approximately 2,585 linear feet) and Four Rod Road from Norton Road to Wildemere (approximately 1,300 linear feet). The purpose of the project is to to allow residents to walk to and from the Kensington Village/Berlin Train Station area and between key destinations in the vicinity of the Village including the Town Hall complex, McGee Middle School, Willard Elementary School and Berlin High School. This project is part of a long-term comprehensive effort to revitalize Kensington Village and the Berlin Train Station. The Town's goal is to have designs and cost estimates ready for submission with the application in July, 2024. Construction is planned for 2026.

SCOPE OF SERVICES

The scope of services statement is provided as a general overview which may be expanded and further defined through negotiation. The selected firm and its consultant team will be responsible for the following tasks and any others required by the Department of Transportation pursuant to the Connectivity Grant Program.

Cardinal has thoroughly reviewed the background information and conducted on-line research to help prepare the following Scope of Services. Throughout the project, Cardinal will work closely with Town staff to address issues as they arise and modify work phases, as appropriate. Flexibility to adapt to unforeseen site information will be critical to the success of the project.

Background Information:

1. Attend a Kickoff Meeting with the Town to review / determine Project Challenges, Critical Path Items, CTDOT CCGP Processes, Reporting Requirements, Design Submissions and Schedule Dates.
2. Review existing mapping, proposed development plans as prepared by others.
3. Retain the services of a Certified Soil Scientist to delineate the Connecticut regulated inland wetlands along the two project segments. Prepare delineation report.

Survey and Topographic Mapping:

A field survey for this project is included in this proposal. Cardinal will review the existing mapping provided by the Town of Berlin. The survey of the project area be performed in the field. The field survey will be supplemented by the Town of Berlin GIS mapping and the UCONN CTECO mapping.

1. Survey limits along the route of the proposed sidewalks include a width from the centerline of the roadway to approximately 10 feet beyond the assumed streetline. The survey of Kensington Road will be performed from the intersection with Carriage Drive to Norton Road (approximately 2,585 linear feet). The survey of Four Rod Road will be performed from the intersection of Norton Road southerly to Wildemere Road (approximately 1,300 linear feet).
2. Perform control survey and establish at least three (3) (combined) vertical benches and horizontal control points in each project area; one at each of the ends of the project. Swing ties will be obtained for each control point and shown on the index plan. All work will be based upon NAD 83 datum for horizontal control and NAVD 88 datum for vertical control.

3. Approximate street line and property lines shall be based on the requirements of a compilation plan as defined in Section 20-300b-8 of the "Minimum Standards for Surveys and Maps in the State of Connecticut". The Town will compile and provide one copy of all available deeds and property maps for properties that abut the project. Where no property mapping, property descriptions or field evidence is found the approximate lot lines will be plotted based on the Town's Tax Assessor map.
4. Obtain from public utility companies owning underground utilities in the project area any available as-built plans or other records identifying type, size, location and depth of utilities.
5. Locate and identify all visible drainage piping, swales, ditches, catch basins, manholes and other drainage structures in the project area, indicating pipe type, size and direction, as well as outfall locations and inverts and sizes and inverts of all structures. Locate wetland flagging identified by others.
6. Plot on the plans and profiles the existing drainage pipe diameters and utility sizes, inverts and type, if necessary, for design based on available as-built utility plans along with field survey information. Note invert elevations of all storm sewers within the above-described limits.
7. Locate the inland wetland identification flags and delineated by a Certified Soil Scientist.
8. Prepare plan and profile sheets of existing conditions at a scale of 1"= 20' horizontal and 1"=4' vertical for use in design.

Conceptual Design Services

Cardinal will prepare conceptual construction drawings which shall generally define the 35% plan stage presenting the preliminary layout of proposed road work. This phase will generally include the following tasks:

1. Develop horizontal and vertical alignment geometry for the selected alignment.
2. Prepare roadway plans and profiles at a scale of 1" = 20' Horizontal and 1" = 4' Vertical Scale.
3. Prepare Conceptual Typical Cross Sections.
4. Prepare (1" = 5' scale) cross-sections at 50-feet intervals including all driveways and walkways, within the project limits.
5. Prepare conceptual stage quantity and cost estimates.
6. Attend monthly progress meetings with the Town during the conceptual stage design.
7. Prepare and submit one (1) hard copy of the following to the Town: (including PDF of the submission) for review and comment.
    a. Conceptual Sidewalk Design Plans including cross sections and details.
    b. Conceptual Construction Cost Opinion.
8. Submit one (1) copy of conceptual plan sheets to the appropriate utility companies. Organize a meeting with utility companies and the Town to review the proposed design and potential impacts on utilities. Prepare and distribute a Report of Meeting (ROM).
9. Revise the plans and cost estimate in response to review comments provided by the Town and the utility companies.
10. Submit one (1) hard copy of the Conceptual Design documents (including PDF of the submission) to the Town for submittal as part of the

Permitting

1. Prepare applications for permitting, including but not limited to Local Planning Commission (P&Z) and Inland Wetlands and Watercourses Commission.
2. Attend up to two commission meetings to present the project.

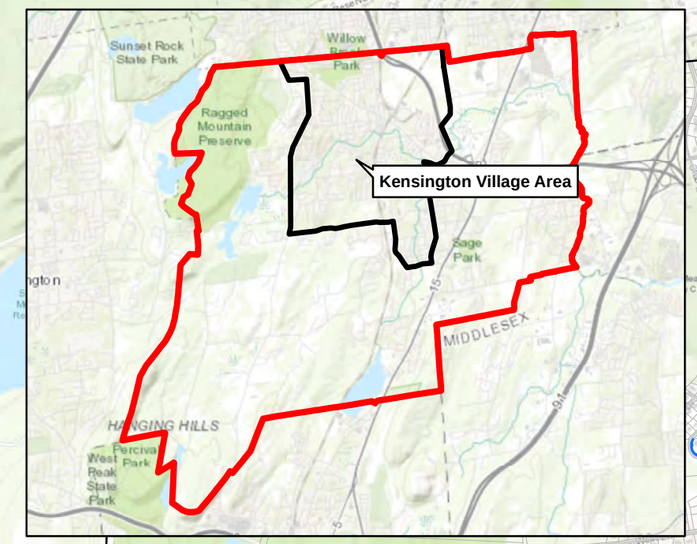
Preparation of Easement Maps

1. After addressing preliminary design review comments, prepare easement and taking maps as may be required for the proposed construction.
2. It is assumed that the Town will acquire any property rights, takings, or easements that are required including, appraisals, negotiations, and legal services.

Additional Services

If requested by the Town, the Engineer shall furnish additional services of the following types:

1. Assisting the Town of Berlin in the preparation of the CCGP application forms and supporting documents other than the conceptual plans and cost estimate.
2. Preparation of contract documents, special provisions and technical specifications.
3. Final design of construction plans.
4. Attend a Public Informational Meeting.



KESNINGTON ROAD - NORTON ROAD TO CARRIAGE DRIVE

FOUR ROD ROAD - NORTON ROAD TO WINDEMERE ROAD

TRAIN STATION

TOWN HALL

Town of Berlin, Connecticut

Kensington Village Area Pedestrian Improvements

Map Produced: January 2024

NEGEO New England Geosystems www.negeosystems.com

0.25 0 0.25 0.5 Miles

DISCLAIMER:
THIS MAP IS PREPARED FOR THE INVENTORY OF REAL PROPERTY WITHIN THE TOWN OF BERLIN AND IS COMPILED FROM RECORDED DEEDS, PLATS, TAX MAPS, SURVEYS, PLANIMETRIC MAPS AND OTHER PUBLIC RECORDS AND DATA. USERS OF THIS TAXMAP ARE HEREBY NOTIFIED THAT THE AFOREMENTIONED PUBLIC PRIMARY INFORMATION SOURCES SHOULD BE CONSULTED FOR VERIFICATION OF THE INFORMATION CONTAINED ON THIS MAP. THE TOWN OF BERLIN AND ITS MAPPING CONTRACTORS ASSUME NO LEGAL RESPONSIBILITY FOR THE INFORMATION CONTAINED HEREIN.

N

Sidewalks

- Existing
- Completed 2017, STEAP Grant
- Completed 2023, Connectivity & STEAP Grants
- Connectivity Grant Awarded 2023
- Newport Center Rail Trails, CT Community Challenge Grant 2023
- Percival Field to Town Hall, completed 2023

CARDINAL
ENGINEERING ASSOCIATES

E. Services Expected of the Town

The most important assistance the Town of Berlin can give to Cardinal as its consultant is a primary point-of-contact and an open line of communications. Because communication between the Town and Cardinal is paramount to any project's success, assigning one person in this capacity gives our project manager the ability to coordinate effectively with a single individual to whom we can respond on a regular basis.

Of equal importance is the Town's ability to make available all the technical information it has regarding any assignment, at no cost to Cardinal. This would include reports, mapping, or other data that could assist Cardinal and perhaps serve to reduce levels of effort or costs associated with any given project.

Other expectations from the Town include the following:

1. The Town will provide all available information relevant to the project including as-built plans, utility maps, ROW mapping, assessor's maps, previous engineering studies, etc.

2. The Town will publish the invitation for bid in local newspapers.

3. The Town will prepare appraisals and obtain easements and other property rights, if required.

4. The Town will pay the cost for all fees required for permits.

5. The Town will provide Berlin standard details and Specifications.

7. The Town will provide the standard boiler plate to be used for Bid Documents including, Contract Documents, General Conditions and Special Conditions ("front end") and Bid Forms.

CARDINAL
ENGINEERING ASSOCIATES

SECTION 4

Information Regarding: Failure to Complete Work

TOWN OF BERLIN, CONNECTICUT
BERLIN BID #2024-10 - CONSTRUCTION ADMINISTRATION

Failure to Complete Work

a. Have you ever failed to complete any work awarded to you?	No
b. Have you ever defaulted on a contract?	No
c. Is there any pending litigation which could affect your organization's ability to perform this agreement?	No
d. Has your firm every had a contract terminated for cause within the past five years?	No
e. Has your firm been named in a lawsuit related to errors and omissions within the past five years?	No
f. During the past seven years, has your firm ever filed for protection under the Federal bankruptcy laws?	No
g. Are there any other factors or information that could affect your firm's ability to provide services being sought about which the Town should be aware?	No

CARDINAL
ENGINEERING ASSOCIATES

SECTION 5

EXCEPTIONS & ALTERNATIVES

TOWN OF BERLIN, CONNECTICUT
BERLIN BID #2024-10 - CONSTRUCTION ADMINISTRATION

5. Exceptions and Alternatives

Cardinal Engineering Associates Inc. *does not* take any exceptions to this Request for Proposals.

www.cardinal-engineering.com

QUALIFICATIONS STATEMENT

Presented To The

For

ENGINEERING SERVICES
For
DESIGN OF A SIDEWALK PROJECT

March 2024

Wengell, McDonnell & Costello
-Consulting Engineers-

WMC
CONSULTING ENGINEERS

87 Holmes Road
Newington, CT 06111

Phone: (860) 667-9624
Fax: (860) 665-1551

March 22, 2024

Mr. Michael Ahern, P.E.
Town Engineer & Public Works Director
Town of Berlin
240 Kensington Road
Berlin, Connecticut 06037

Re: Sidewalk Project Design Services – Bid #:2024-10
Our Reference NO. 24034

Dear Mr. Ahern:

WMC Engineers respectfully requests that our firm be considered for the above referenced assignment.

To introduce you to our firm, WMC is a thirty-person consulting firm providing municipal infrastructure planning, design and permitting services to Connecticut communities. We have provided services to over 100 Connecticut towns, including Berlin, on projects ranging in size to over $70,000,000. We have performed numerous design assignments for these municipalities including sidewalk surveys, design of sidewalks, roadway design, bridge design and other projects. Recently, WMC has completed the following assignments:

- Design of several thousand feet of sidewalk for Berlin
- Design of 5,000 feet of sidewalk for Winsted funded through a Connecticut DECD grant
- Site improvements including sidewalks for 5 fire stations, police facility, community center and library for Farmington funded by the State of Connecticut
- Sidewalk improvements for the Harwinton Town Hall and Library complex
- Design of over 5,000 feet of sidewalk for South Windsor
- Design of over 10,000 feet of sidewalk for New London
- Streetscape design including new sidewalks for over 2,000 feet for Southwick
- Site improvements including parking lots, sidewalks, drainage and wastewater disposal systems for six schools including schools in Redding, Stafford, Newington and Old Lyme
- Roadway and 2,000 feet of paved greenway design for Farmington
- Design of over 10,000 feet of greenway for Burlington
- Numerous roadway and sidewalk reconstruction projects for municipalities such as Plymouth, Winsted, South Windsor, Newtown, Farmington, Somers, Bristol and Haddam

Because of the importance of this project, WMC will assign principals of the firm and senior engineering personnel, to ensure professional and timely design services. The personnel that would be assigned have specific expertise in sidewalk, roadway and drainage design, construction management, environmental studies and permitting.

Thank you for considering our team for this assignment and should you have any questions concerning our qualifications, please do not hesitate to contact us.

Sincerely,
Wengell, McDonnell & Costello

Stephen R. McDonnell, P.E.
Vice President

WMC
CONSULTING ENGINEERS

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WMC
CONSULTING ENGINEERS

QUALIFICATIONS STATEMENT

Presented To The

For

ENGINEERING SERVICES for DESIGN OF A SIDEWALK PROJECT

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WMC
CONSULTING ENGINEERS

Section I

WMC
CONSULTING ENGINEERS

PROPOSER INFORMATION

Company Name and Type of Firm:

Wengell, McDonnell & Costello, Inc. (doing business as WMC Consulting Engineers) is a Connecticut Corporation founded in 1988 and is legally authorized to do business in Connecticut

Firm's Representative and Structure:

Stephen R. McDonnell, P.E., Vice President
Wengell, McDonnell & Costello, Inc.
87 Holmes Road
Newington, CT 06111

Phone: (860) 667-9624
Fax: (860) 665-1551
e-mail:smcdonnell@wmcengineers.com

WMC is a consulting firm located in Newington and is owned equally by the three principals:

Jay A. Costello, P.E., President
Stephen R. McDonnell, P.E., Vice President
Keegan O. Elder, P.E., Vice President

Nature of Firm's Principal Business:

The firm specializes in municipal and State infrastructure improvement projects related to dams, roadway and bridge/culvert construction. Additionally, the firm performs computer mapping assignments, water supply, sewage disposal and solid waste/recycling projects as well as environmental studies and evaluations.

WMC is a Connecticut based, privately owned consulting organization providing a full range of services to government, private and industry clients throughout Connecticut. The firm is a certified small business enterprise (SBE).

The three principals of the firm represent over 120 years of hands-on project management experience on projects ranging from feasibility studies to construction management of multi-million-dollar projects.

Technical excellence and competence are first and foremost at WMC and we have been able to merge this philosophy with an exceptional blend of interpersonal relations and management skills. A philosophy reflected in the fact that each and every assignment is performed with the direct involvement of a principal of the firm.

Since our formation over 35 years ago, WMC has earned a reputation for engineering excellence, innovation and for completing projects on time and within budget. We are particularly sought by municipalities, State agencies and private clients for our community relations skills and for our sensitivity to local issues.

Our multi-disciplined capabilities include structural, civil, environmental, sanitary, geotechnical and construction management personnel along with specialists in quality assurance, public presentations and computer systems. Other specific expertise available from WMC includes surveying, and pre-design subsurface utility location engineering.

Proposed Sub-Contractors:

WMC intends to use two sub-contractors for the design work; Flynn & Cyr Land Surveyors of Berlin for survey and REMA environmental Services for wetland delineation. Both of these firms are highly qualified and have been in business for over 25 years. They have successfully performed these services for over twenty of WMC's projects.

WMC
CONSULTING ENGINEERS

Conflict of Interest:

WM has no business, financial, personal or other types of relationships which may pose a conflict of interest.

Contracts or Purchase Orders with Berlin:

WMC has had contracts or purchase orders from the Town including design and construction administration of the Farmington Avenue Bridge, design and construction administration of Steele Boulevard and design and construction administration of a sidewalk project.

Statement of Qualifications:

WMC has broad experience in all aspects of civil engineering design and construction administration including site evaluations, master planning, traffic studies, roadway, sidewalk and drainage design, bridge design, parking area design, streetscape improvements, playing fields, water supply and wastewater disposal. We have performed services for over 100 Connecticut municipalities as well as state agencies such as the Departments of Transportation, Energy & Environmental Protection and Public Works on projects ranging from roads, bridges and drainage systems, to playing fields and site improvement projects such as schools, public safety facilities, community facilities, industrial parks, residential and commercial developments and others. WMC has designed the following projects:

- Sidewalk design for over 4,000 feet of new sidewalk for Woodbury
- Sidewalk Design for 6,000 feet of new sidewalk for Berlin
- Greenway design and construction administration for over 2 miles of trail for Burlington
- streetscape sidewalk improvements for over a mile of sidewalk in Winsted,
- sidewalk design and construction inspection for several miles of walk for New London,
- greenway trail design for 6 miles of trail for Torrington and Winsted, including six structures,
- greenway trail design including a box culvert under Route 4 for Farmington,
- bridge, road and sidewalk design on over 200 ConnDOT funded bridges for municipalities such as Berlin, Meriden, Greenwich, Glastonbury, Farmington and others,
- all site improvements, including roadways, sidewalks, lighting, parking lot, drainage, 1 mg water tank and other amenities for the Winsted Water Treatment Plant,
- site improvements including sidewalks for five fire stations, police station and community center for Farmington,
- site improvements for a $17 million capital program and three playing fields for the Salisbury School including roadways, sidewalks, drainage, sewage disposal system, lighting and grading,
- numerous roadway and sidewalk reconstruction projects as well as new roads for municipalities such as Plymouth, Winsted, Newtown, Farmington, Somers, Bristol, Haddam and Tolland.

References:
Sidewalk Improvements – Woodbury

WMC recently designed over 4,000 feet of sidewalk for Woodbury, Connecticut. The walks are all in residential areas with no prior sidewalks. WMC held public information meetings and met with individual property owners to answer questions and respond to any concerns. The sidewalks were well received by the property owners and are scheduled for construction in the spring of 2022. Minor drainage improvements are included in the project.

Mr. Rich Lamothe, Public Works Director Phone: (203) 263-3633
rlamothe@woodburyct.org

WMC
CONSULTING ENGINEERS

Conflict of Interest:

WM has no business, financial, personal or other types of relationships which may pose a conflict of interest.

Contracts or Purchase Orders with Berlin:

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- bridge, road and sidewalk design on over 200 ConnDOT funded bridges for municipalities such as Berlin, Meriden, Greenwich, Glastonbury, Farmington and others,
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References:
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WMC recently designed over 4,000 feet of sidewalk for Woodbury, Connecticut. The walks are all in residential areas with no prior sidewalks. WMC held public information meetings and met with individual property owners to answer questions and respond to any concerns. The sidewalks were well received by the property owners and are scheduled for construction in the spring of 2022. Minor drainage improvements are included in the project.

Mr. Rich Lamothe, Public Works Director Phone: (203) 263-3633
rlamothe@woodburyct.org

WMC
CONSULTING ENGINEERS

Sidewalk Improvements – Berlin

WMC recently designed over 6,000 feet of sidewalk for Berlin, Connecticut. The walks are all in residential areas with no prior sidewalks. WMC held public information meetings and met with individual property owners to answer questions and respond to any concerns. The sidewalks were well received by the property owners and are scheduled for construction in the spring of 2022.

Mr. James Horbal, Deputy Director of Public Works Phone: (860) 828-7069
jhorbal@town.berlin.ct.us

Sidewalk and Streetscape Improvements – Winsted

WMC recently designed over a mile of sidewalk improvements for Winsted, including walks, drainage, retaining walls and other improvements. WMC provided construction administration of the project which is complete. The project was funded under a Community Development Block Grant. All of the walks were in residential areas with no previous sidewalks.

Mr. Mark Douglass, Purchasing Agent Phone: (860) 738-6960
mdouglass@townofwinchester.org

Safe Routes to School Project – South Windsor

WMC Engineers performed construction administration and inspection on a safe routes to school sidewalk project designed by others. WMC performed complete inspection services in compliance with ConnDOT requirements. In addition to this project WMC has designed over 4,000' of sidewalk for the town associated with roadway improvement projects. These sidewalks were all new, in residential areas and were well received by the neighboring property owners.

Mr. Jeff Doolittle, P.E., Town Engineer Phone: (860) 644-2511
jeffrey.doolittle@southwindsor.org

Site Improvements – Farmington

WMC designed all site improvements including new roadways, parking areas, lighting, sidewalks and drainage systems for five fire stations (1 new, 4 existing) and a new police station and community center for Farmington.

Mr. Bruce Cyr, Assistant Town Planner Phone: (860) 675-2305
cyrb@farmington-ct.org
Other clients that can provide references for WMC include:

Other client references include:

Mr. Brian Ennis, P.E.,
City Engineer
City of Meriden
(203) 630-4026

Mr. Elizabeth Lunt,
Public Works Director
Town of Columbia
(860) 228-=0110

Mr. James Grappone, P.E.,
Asst. Town Engineer
Town of Southington
(860) 276-6231

Mr. Jim Brinton,
First Selectman
Town of Washington
(860) 868-2259

WMC
CONSULTING ENGINEERS

Ms. Julia Pemberton,
First Selectman
Town of Redding
(203) 938-2002

Mr. Antonio Iadarola, P.E.
City Engineer
City of Danbury
(203) 797-4641

Mr. Jim Ventres,
Town Planner
Town of East Haddam
(860) 873-5020

Mr. Dan Pennington, P.E.
Town Engineer
Town of Glastonbury
(860) 652-7735

Mr. Scott Tharau,
Public Works Director
Town of Burlington
(860) 673-6789

Mr. Matt Riiska,
First Selectman
Town of Norfolk
(860) 542-5829

Mr. Jack Healy, P.E.
Director of Public Works
Town of New Milford
(203) 355-6043

Mr. Travis Sirrine
Director of Public Works
Town of Putnam
(860) 963-6800

Mr. Mark Douglass
Purchasing Director
Town of Winchester
(860) 738-6960

Mr. Larry Baril, P.E
Town Engineer
Town of Avon
(860) 409-4322

Mr. Kirk Severance
Public Works Director
Town of Granby
(860) 653-8960

Mr. Curtis Rand,
First Selectman
Town of Salisbury
(860) 435-5170

Schedule of Hourly Rates: Next Page

Name of Consulting Firm: WMC Consulting Engineers

Hourly Fee Schedule

Consultant Services for Berlin Sidewalk Design Project Berlin Bid # 2024-10

Employee Classification	Hourly Fee	
	to December 31, 2024	January 1, 2025 to December 31, 2025
Project Manager	**$175.00**	**$180.00**
Senior Engineer	**$165.00**	**$170.00**
Senior CADD Technician	**$145.00**	**$148.00**
Technician	**$90.00**	**$92.00**
Title 5	**$xx.xx**	**$xx.xx**
Title 6	**$xx.xx**	**$xx.xx**
Title 7	**$xx.xx**	**$xx.xx**

These rates, unless modified and approved by both the Town of Berlin and Consultant, shall be utilized by Consultant in estimating for Berlin Sidewalk Design Project.

Name of Consultant Firm WMC Consulting Engineers

Stephen McDonnell, P.E.
Vice President
Authorized Representative Name and Title

Signature of Authorized Representative

WMC
CONSULTING ENGINEERS

Section II

WMC
CONSULTING ENGINEERS

WORK PLAN

Our understanding of the project is based our discussions with Town staff and our experience providing similar services for Berlin as well as several local communities including Winsted, Plymouth, Harwinton, Norfolk, North Canaan and Burlington. In providing services to these and other communities, we find that the towns require timely, accurate and cost-effective services. The services required by this assignment will primarily be provided by WMC's in-house staff members whom have expertise in virtually all aspects of civil engineering, including planning studies, sidewalk design, storm drainage, site investigations, erosion and sedimentation control compliance, roadway design and construction management and inspection.

The only work that WMC will sub-contract out will be for survey, which we will subcontract out to Flynn & Cyr Land Surveying of Berlin, whom has provided services to WMC on over 20 transportation projects and for wetland delineation for which we will utilize REMA Environmental Services, whom has provided services to WMC on over 20 similar projects.

We understand that the Town wishes to design and construct approximately 3,885 feet of sidewalk located on Kensington Road and Four Rod Road. The concept is to revitalize the project area and to encourage pedestrian traffic. Importantly the neighbors within the area must be included in the planning and design process to encourage a consensus building effort of all stakeholders.

Upon receipt of a project initiation request from the Town, a principal of WMC will meet with the Town staff to discuss the scope of services and we will initiate the field survey.

WMC will re-visit the project site following receipt of the survey from the surveyor, to check the survey and perform field editing of the drawings.

Following this, WMC will complete a Conceptual Plan, of the proposed sidewalk improvements. This task will include preliminary plans and cost opinion for review and comment by the Town. Included are the meeting with various agencies and stakeholders.

Following approval of the Conceptual Plan by the Town, WMC will complete Final Design, Permitting and preparation of a Bid Package. This task will include preparation of final plans, specifications, bid documents and cost opinion. Additionally, the task will include and required permitting. WMC will attend the pre-bid meeting, bid opening and will report to the Town on the apparent low bidder. WMC will review the bids received and will make recommendation for award of the contract. WMC will prepare the construction agreement and will attend the contract signing. WMC will organize and run the pre-construction meeting.

WMC can provide full construction administration services including shop drawing review, review of pay requisitions, change order review, issuing supplemental sketches if required, inspection of the work, job meetings, preparation of a punch list and recommendation for project acceptance upon completion.

Services Expected of the Town:

WMC needs minimal input from the Town to perform the required services. Timely review of submittals and invoices would be all that is required.

WMC
CONSULTING ENGINEERS

Section III

WMC
CONSULTING ENGINEERS

INFORMATION REGARDING: FAILURE TO COMPLETE WORK, DEFAULT and LITIGATION

a. WMC has never failed to complete any work awarded to our firm.

b. WMC has never defaulted on a contract.

c. WMC has no pending litigation which could affect our organization's ability to perform this agreement.

d. WMC has never had a contract terminated for cause.

e. WMC has never been named in a lawsuit related to errors and omissions within the last five years.

f. WMC has never filed for protection under the Federal bankruptcy laws.

g. There are no other factors or information that could affect WMC's ability to provide the services being sought by the Town.

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Section IV

WMC
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EXCEPTIONS and ALTERNATIVES

WMC Consulting Engineers takes no exception to any requirement of the Town's RFQ.

Alternatives – None