Response to

REQUESTS FOR PROPOSALS

Solicitation No. 7448315

Replacement of the Laurel Avenue Bridge
Bridge No. 397, Coventry, Rhode Island




prepared for

The State of Rhode Island

Submission Deadline:
April 22, 2011
by 11:30 am EST

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SECTION I: LETTER OF SUBMITTAL

CARDI CORPORATION
CONSTRUCTION INDUSTRIES

400 LINCOLN AVENUE WARWICK, RHODE ISLAND 02888 (401) 739-8300

April 22, 2011

RI Department of Administration
Division of Purchases (2nd Floor)
One Capitol Hill
Providence RI 02908-5855

RE: Bid No. 7448315, Design/Build Services for the Replacement of Laurel Avenue Bridge (No. 397), Coventry

To Members of the Reviewing Committee:

CME Associates, Inc. respectfully submits this response to the above reference Request for Design/Build proposals on behalf of Cardi Corporation and our other team members. CME hereby certifies the information contained in this proposal is current, accurate and true. Further, CME affirms receipt of the RFP documents for Bid No. 7448315 and Addenda 1 – 6.

The Design Build Team is comprised of the following:

Company Name	Structure	Role & Assignment	DBE
CME Associates, Inc. (CME)	Corporation	Lead Designer providing hydraulic and structural engineering, permitting	☐
Cardi Corporation (Cardi)	Corporation	Lead Contractor responsible for construction and bonding	☐
VN Engineers, Inc. (VN)	Corporation	CME Sub-Consultant providing road design, traffic design, and drainage	☒
Paul B. Aldinger & Associates, Inc. (Aldinger)	Corporation	CME Sub-Consultant providing geotechnical services	☐
ATC Associates	Corporation	Cardi Sub-contract providing QC	☐

Principal Contacts for the Design Build Team are as follows:

Cardi: Carl C. Engle, email: cengle@cardi.com
400 Lincoln Avenue, Warwick RI 02888
Tel: 401.739.8300; Fax: 401.736.2977

CME: Michael P. Culmo, Vice President of Transportation, email: culmo@cmeengineering.com
333 East River Drive, Suite 400, East Hartford CT 06108
Tel: 860.290.4100; Fax: 860.290.4114; Cell: 508.864.7956

Financial responsibility for this project will be undertaken by Cardi Corporation. We trust that you will find the enclosed complete; however, please contact us if we can offer clarification or if you need additional information.

Sincerely,

Carl C. Engle

Carl C. Engle, Vice President/Chief Engineer
Cardi Corporation

SECTION II: QUALIFICATION/TECHNICAL PROPOSAL

Section II: Qualifications

Team Overview

Cardi Corporation, located in Warwick RI, has reached a leading national position and a prominent ranking among the northeast's largest construction firms. We are proud of our long family history of providing quality construction services and materials since 1900. Cardi Corporation operates asphalt and concrete plants, along with aggregate quarries producing RIDOT approved materials. Through modernization of their capital equipment and growth of new business, Cardi has remained an industry leader. As the largest provider of construction services within the State of Rhode Island, Cardi Corporation strives to establish longstanding client relationships and pursue high profile projects. In the May 16, 2005 issue of Engineering News Record, Cardi Corporation was among the Top 50 Domestic Heavy Contractors in the Country, ranking in at #47 and has consistently ranked among the top 400 contractors nationwide. Our annual volume of work exceeds $250 million and we employee over 500 people in the peak of the construction season.

Cardi Corporation draws on the strength and competence of its experienced, dedicated employees to undertake federal, state, municipal and private construction contracts of all sizes. The successful and timely fulfillment of each project has earned Cardi a solid reputation as one of the largest, most respected road, bridge and site construction firms in the Northeast.

CME Associates, Inc. (CME) is a multi-disciplined consulting engineering firm that was founded in 1973 as an environmental consulting firm focused on natural resource management. As CME expanded its client base and took on increasingly complex contracts, it grew to include land surveying and civil engineering in its offering of technical services. As those portions of the business flourished, CME added a specialized structural and transportation group to take on complex building and bridge assignments, and added additional services such as architecture. With all of these services in one company, CME has been able to establish itself as one of the largest and most diverse engineering teams in Connecticut.

Through the relationships CME built and their quality of work, CME has been awarded more and more complex projects. This has led to national recognition as a leader in Bridge Design and as an expert in Accelerated Bridge Construction (ABC) design and implementation. CME bridge engineers are sought for their expertise both domestically and abroad.

CME has built a reputation on integrity, top-quality services and deliverables, with the ability to provide a timely, cost-effective approach on every project. Our commitment to these core principles has helped to develop long-lasting relationships with clients in all tiers of private and public enterprise.

Key Personnel

CME and Cardi propose the following individuals to fulfill the following roles in the performance of this assignment.

Design-Build Project Manager: *Stephen Cardi, II, Cardi Corporation*
Mr. Cardi II has over 30 years of construction and management experience. Born into the construction business in 1960, he has grown up alongside his grandfather and father building

numerous projects under the Cardi domain from Maine to Florida. Mr. Cardi is responsible for the modernization of the material plants (asphalt & concrete) and brought them up to Federal and State certifications. He has worked closely on the I-Way project, particularly during the construction of the Network Arch Signature Span Bridge. The 5,100,000 pound bridge was built at Quonset Point Shipyard and transferred onto barges, then floated up the Providence River and set in place, as seen on the Discovery Channel. With his vast knowledge of the local industry, construction methodologies and available resources, Mr. Cardi will employ these attributes to facilitate the construction of the project with its aggressive schedule. His expertise in construction, communication and management has helped construct many projects successfully over the years. Mr. Cardi is also currently involved in many professional and civic organizations.

Design Manager: *Bryan Busch, P.E., CME Associates, Inc.*
Mr. Busch is a Professional Engineer licensed in the State of Rhode Island. He possesses over 16 years of specialization in Structural Engineering and has extensive experience in the design, load rating and inspection of concrete, steel and timber bridges. Mr. Busch, as Director of Structural Engineering at CME, has designed bridges using all common materials (steel prestressed concrete, concrete, timber, etc.). He was responsible for designs of bridges with spans up to 250 feet. Additionally, he has played an integral role in CME's development of ABC Standards and Specifications for various DOTs and acted as a contributor and lecturer at ABC workshops in Utah and Florida.

Construction Manager: *Luigi Colapietro, Cardi Corporation*
Mr. Colapietro has 32 years of extensive heavy civil construction experience with the Cardi Corporation. Presently, Mr. Colapietro is responsible for managing the construction process on the I-Way project from pre-planning to final project completion. He is responsible for coordination and communication between all Cardi supervisory personnel. Resource management is one of Mr. Colapietro's attributes. He ensures that adequate personnel and other resources are made available for the project to meet schedule and cost concerns. His knowledge of construction and schedule concerns has made the I-Way project a success. All milestones on this $300 million dollar project have been met. Roadways scheduled to be opened on required dates were opened. His ability to foresee construction issues and take required steps before the work actually commences is invaluable. Mr. Colapietro handles contractual matters and is ultimately responsible for the quality and timelines of the Company's performance. He works closely with the Safety Division to ensure safe working conditions for all. Cardi Corporation's safety record is well below the national averages, in part due to Mr. Colapietro. He will oversee monthly quality tours with RIDOT to ensure the work built meets or exceeds the Owner's expectations. Mr. Colapietro has worked on numerous Amtrak projects and also numerous projects requiring coordination with Amtrak and other various concerns. His reputation and extensive experience in the oversight and management with large bridge and railroad projects speaks for itself.

Geotechnical Engineer: *Paul Aldinger, PhD., P.E., Paul B. Aldinger & Associates, Inc.*
Dr. Aldinger has over 40 years of experience in geotechnical engineering and will serve as a sub-consultant to CME. His experience centers in the geotechnical and geohydrological engineering fields. He is the President and Chief Engineer at Aldinger and will lead the efforts for

geotechnical engineering supported by his staff. Dr. Aldinger is a registered professional engineer in Rhode Island.

Quality Control Manager: *Kevin Martin, P.E., ATC Associates*
Mr. Martin provides the technical, engineering and administration of the company's construction materials testing and inspection offices and laboratories. Mr. Martin is the director of testing at ATC Associates. Mr. Martin also has over 10 years of direct oversight of materials sampling and testing activities. Mr. Martin's management and engineering experience encompass 20 years of construction materials testing and inspection with emphasis in the transportation field, including airport facilities and highway construction and reconstruction. Prior to joining ATC, Mr. Martin conducted geotechnical investigations for Geotechnical Services and Jaworski Geotech. Duties included planning testing to ensure tests satisfy client needs, maintaining quality of testing programs, reviewing test results for accuracy and completeness, scheduling plant and field inspection personnel, attending project meetings, and ensuring adherence to project schedules and compliance with contract terms. He conducted random inspections of project locations to ensure that QA\QC protocol was performed in accordance with project specifications.

Safety Manager: *Jason Berard, Cardi Corporation*
Mr. Berard is responsible for all aspects of safety, health and environmental regulatory compliance including, but not limited to OSHA, MSHA, DOT, EPA and DEM etc. Jason has over 12 years of heavy civil construction experience and is currently responsible for overseeing the safety programs of all projects performed throughout the Cardi Corporation territories. He implements and manages project safety programs, supervises and trains safety managers throughout the territory, conducts regular site inspections to ensure safety compliance, monitors safety performances and identifies hazardous workplace conditions. Mr. Berard performs job hazard analysis for non-routine tasks prior to the start of the operation to identify potential hazards. Additionally, he conducts root cause analysis and investigation of accidents. Mr. Berard also ensures compliance to all OSHA standard regulations. Jason continuously pursues the improvement of his own safety education, as well as safety education of all employees through regular territory wide safety meetings and safety meetings on job sites. Mr. Berard has experience working adjacent to or above live rail lines on many projects including Route 403 relocation, Amtrak's Replacement of Bridge *(UG 114.30)* over Miamicock Bridge, and Amtrak's Replacement of East and West Harbor Bridges *(UG 135.51 and UG 135.67 over Stonington Harbor).*

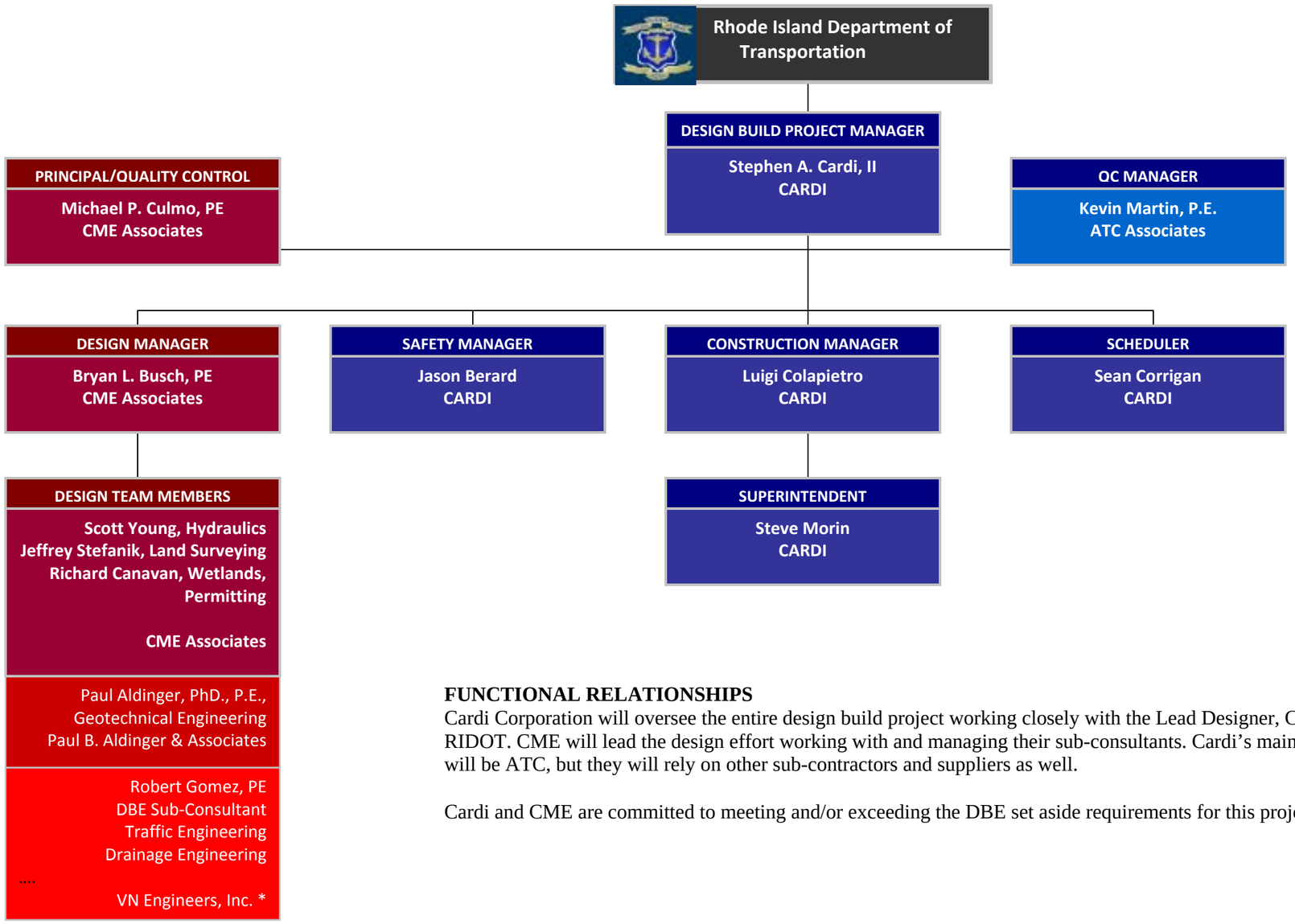
Scheduler: *Sean Corrigan, Cardi Corporation*
Sean Corrigan has over 15 years of heavy civil construction experience. Mr. Corrigan's field history and knowledge of construction methodology is invaluable as schedules are developed for construction. He has over 5 years experience in direct charge of schedule development and over 3 years which include design-build projects. Mr. Corrigan has been involved with design/build schedules with Amtrak, government and other private concerns. Mr. Corrigan is responsible for all aspects of scheduling, including baseline schedule submissions, schedule updates for real time analysis, recovery schedules, acceleration schedules and time extension request within the Cardi Corporation. He oversees project engineers who perform project updates on various heavy highway construction projects throughout our firm. Mr. Corrigan is also responsible for project administration, such as shop drawing coordination, supplier/subcontractor coordination, utility

coordination and issue resolution. Presently, Mr. Corrigan is working with RIDOT's schedule representatives on numerous heavy civil projects throughout the state.

Environmental Manager: *Richard Canavan, PhD., CME Associates, Inc.*
Richard W. Canavan is an environmental scientist with 16 years combined experience as a researcher, consultant and educator. In his work, Dr. Canavan has examined physical, chemical, and biological aspects of environmental processes to better understand how natural systems respond to change. He possesses a Doctorate in Biogeochemistry and is a Senior Environmental Scientist at CME. In his position at CME, he is charged with coordinating and compliance with local, state and federal environmental regulations. He is familiar with RI DEM regulation, RI CRU laws and regulations, and the RI Natural Resource Unit.

Organizational Chart for Design Build Team

* denotes DBE firm



FUNCTIONAL RELATIONSHIPS
Cardi Corporation will oversee the entire design build project working closely with the Lead Designer, CME and the Client, RIDOT. CME will lead the design effort working with and managing their sub-consultants. Cardi's main sub-contractor will be ATC, but they will rely on other sub-contractors and suppliers as well.

Cardi and CME are committed to meeting and/or exceeding the DBE set aside requirements for this project.

Relevant Work Experience

The Design Build Teams project experience is detailed below, organized by participant.

CARDI CORPORATION

LEAD CONTRACTOR

I-195 Relocation Contract 7, Providence, Rhode Island

This project involved the relocation of the I-95/I-195 interchange in Providence, one of the most congested sections of interstate in RI. Worth approximately $85 million, this was the largest single contract of the I-95/I-195 project, and incorporates the 1,250 foot long seven-span Providence River Bridge.

The Providence River Bridge spans both the Providence River and a portion of the east side. It consists of three distinct structural types: a 400-foot main span that utilizes a network arch; two west spans totaling 500 feet with steel box girders 8 feet deep; and four east spans over land totaling 350 feet that use prestressed concrete box beams. The substructure of the arched main span consists of shafts drilled to bedrock and filled with concrete, and cast-in-place concrete abutments and piers. The span supported by the concrete-filled casings is a network arch, or Neilson-Lohse bridge.

This unique structure was constructed miles from its final resting place. Bridge superstructure components — except for the concrete decks — were fabricated in Plainville, CT, by National Eastern Corp. They were delivered by trucks to the former Naval Base at Quonset Point, where the bridge was assembled. Once the bridge was completed it was raised and moved onto a barge, using its self-propelled modular transporters. Then the bridge was barged upriver to the job site. There, the bridge was guided into position at high tide, and utilized the receding tide to lower the span to its final position on the piers and abutment.

During this contract, Cardi presented an innovative technology to RIDOT for building the superstructure in Quonset and floating the bridge up the Providence River. This proves that Cardi has the ability to develop creative and innovative methods that reduce risks and provides a quality construction product on time and within budget. Additionally, the original job called for high strength steel and after the contract was awarded the global economic crisis caused the steel to be unavailable. RIDOT and the Designer redesigned the bridge and worked with Cardi and their supplier to develop a fabrication schedule to get the steel fabricated and delivered to Quonset. This shows that we are able to team up to complement other team member's skills and provide a cooperative solution.

Route 403 Relocation Project, North Kingstown, Rhode Island

This eight-year, $130 million project, provided direct highway access from Route 4 to the growing Quonset Business Park. This project involved the construction of a new limited access highway, new interchanges with Route 4 and Route 1 and many other changes. Approximately 4.5 miles long, this new freeway provided two travel lanes and shoulders in each direction. The project included three interchanges, 300,000 cubic yards of earthwork, 15 bridges, one railroad bridge, one Amtrak bridge and 15 ramps. The project contained valued and sensitive wetlands with numerous wetland replication areas.

The $70 million Phase 1 was completed on June 22, 2006, in time for the Rhode Island Air Show at Quonset State Airport. “Phase 1” opened with a full interchange with U.S. Route 1 and a partial interchange with West Davisville Road. Construction of the second segment of Route 403, which included the construction of new bridges over Routes 402 and 4, and a trumpet interchange with Route 4 in East Greenwich. Construction of Phase 2 of “Relocated Route 403” began in March 2004 at the site of the “trumpet” interchange with RI 4. New bridges over RI 402 and the Amtrak right-of-way are included in Phase 2, as is the demolition of the existing bridge from southbound RI 4 to eastbound Davisville Road. Completion of the $100 million Phase 2 was completed in December 2008, one year earlier than scheduled originally. The Quonset Freeway carries as many as 30,000 vehicles per day.

This extensive project provided Cardi with several lessons. First, the importance of working with the designer to stage and phase shop drawings/submittals so the fabrication process can start as early as possible, without risking any fit-up coordination issues. Second, continue to place tight project controls on subcontractors and suppliers so not to impact the project schedule. Cardi had to work above and beyond a normal sub contractor/supplier relationship on this project due to the suppliers struggles to maintain his fabrication schedule. Finally, the need for pre-construction and/or pre-installation meetings on the major scope of work allowed all parties to have a better understanding of the procedure requirements involved with the project.

I-195 Relocation Contract 8, Providence, Rhode Island

This $54 million project consisted of construction of four viaduct ramps - SE, WN, WP, and NP. Abutment construction included cast-in-place footings, backwalls, stems and MSE wall construction which was utilized in the structure as permanent earth supports. The bridge construction included pile driving, excavation support, cast-in-place concrete piers, trapezoidal steel box girders, and cast-in-place concrete decks and parapets. Retaining wall construction consisted of MSE walls and cast-in-place walls.

Other associated work included retaining walls; modifications to the existing Eddy Street overpass; construction of Ramp WN, Ramp PE and temporary Ramp SE. Reconstructing and resurfacing city streets and interstate lanes. City streets included Allens Avenue, Eddy Street, Globe Street, Hospital Street, Plain Street, Borden Street, Crary Street, and Point Street. Road construction included concrete and bituminous pavement, drainage, lighting, pavement marking, signing, overhead signs, traffic signals, excavation, hauling, and grading. Incidental construction included site preparation, plantable soil and seed, monitoring instrumentation, maintenance and protection of traffic including detours and temporary closures, dewatering, excavation, handling and disposal of contaminated soil, and all other incidentals, within the project. This work was completed in a phased manner to support future contracts on the Iway project and maintain the existing I-95 and I-195.

Due to the fact that a substantial amount of work was being completed over live traffic, this project involved an extreme amount of proactive coordination with motoring public, RIDOT,

subs and suppliers. Our team learned that coordination with RIDOT design, steel fabricator, steel erector, and Cardi's personnel was critical for the fabrication and erection of the trapezoidal steel box girders. In addition, this high profile job stressed the importance of communicating with the public when altering traffic patterns through the heart of the 95 and 195. The public needs to understand what the impact is going to be on their daily commute and therefore, it is critical to partner with RIDOT's traffic engineers as well as RIDOT's Public Affairs office to communicate change in traffic flow and design to the public.

I-195 Relocation Contract 10/11, Providence, Rhode Island

Contract 10 and 11 is a multi-phased $60 million project that constructs the final connections between I-95 and I-195. Contract 10/11 is divided geographically into two parts with Contract 10 starting east of the Providence River to the Washington Bridge and Contract 11 starting on the west of the Providence River that includes the construction of I-95 from Eddy Street to Westminster Street that constructs the Clifford Street Bridge and Ramp PS Bridge. Other major elements of construction are the following list of retaining walls: walls R, S, T, V, W, X, Y. The phasing is planned around four major traffic switches. Each of these switches opens a new ramp between I-95 and I-195 with the I-195 eastbound lanes being moved first. I-95 northbound was the initial switch followed by I-95 Southbound onto I-195 eastbound. I-195 westbound lanes were next with the I-95 southbound ramp opening first and northbound being the last ramp to open.

This project was the biggest impact to traffic patterns because this contract connected all the previous jobs. This high profile project altered traffic patterns through the heart of the 95 and 195 connector. Cardi learned in a project such as this to never underestimate the public's needs to understand what the impact is going to be on their daily commute. It is critical to partner with RIDOT's traffic engineers as well as RIDOT's Public Affairs office to communicate change in traffic flow and design to the public. Additionally, our team learned that no one individual knows best and in order to successfully completethe work, constant communication with all involved is vital.

CME ASSOCIATES, INC.

LEAD DESIGNER

The project RFP document asks for relevant experience with similar design/build bridge replacement projects. The fact is that there is little history in the northeast of design/build projects, and virtually no history with design/build projects of this size and nature. In lieu of this, we will present experience that is similar to this project through both the design/build projects and conventional design/bid/build projects.

CME Associates is a general civil engineering firm with a significant bridge engineering staff. CME provides bridge engineering services for state departments of transportation including Connecticut, Massachusetts and Utah. In the past ten years, CME has designed over 20 bridges for these agencies. CME also has provided bridge and roadway engineering services for the Town of Burrillville, RI, including the design of three bridges.

CME has worked on bridge project of varying sizes. Projects that demonstrate our experience relative to the requirements in the RFP documents include:

1. Route 151 over the Salmon River, East Haddam, CT
   250 foot single span steel plate girder bridge
   $5.7 million construction cost
   Deep foundations (designed for 26 feet of scour)
   Complex multi-stage water control plan including ice flow design
   Accelerated design schedule (6 months)
2. Brainard Road Exit Ramp from Route 5/15, Hartford, CT
   Two span curved steel plate girder bridge
   $5 million construction cost
   Deep foundations
3. Old State Highway over Westfield River
   Rehabilitation and widening of a 116 foot span skewed historic concrete arch
   $2.4 million construction cost
   Wild and Scenic River
4. Bridge Street over the North River, Marshfield, MA
   Three span continuous steel bridge (superstructure replacement)
   $2.3 million construction cost
5. I-93 Fast Fourteen, Medford, MA
   Design of 14 multi-span bridge superstructures
   $75 million construction cost
   Design/Build project (preliminary design and owners representative)
6. Park Street Bridge, Manchester, CT
   Two span steel plate girder bridge over abandoned rail bed
   $1.4 million construction cost
   Rehabilitation and re-use of historic stone abutments (cleaning and re-pointing)
   Adjacent to Historic Cheney Mills
7. Tarkiln Road Over the Tarkiln River, Burrillville, RI
   Prefabricated Bridge Structure
   Adjacent to a historic stone dam (50 feet upstream)
   Accelerated Construction (2 months using Town forces)
   Hydraulic design and permitting through RI DEM
8. Rehabilitation of Stone Dam at the Putnam WPCA, Putnam, CT
   Rehabilitation of stone dam (concrete seal along rear face)
   Replacement of training walls above the dam
   Complex water handling including the use of a “Portadam” with piping through the dam water control gate combined with pumping into the water company intake.
   Hydraulic analysis of the site

CME is a national leader in Accelerated Bridge Construction (ABC). They have developed standard plans, specifications, and manuals for the Utah DOT, and have written two ABC manuals for the Federal Highway Administration (FHWA). The first, published in 2009 is entitled “Connection Details for Prefabricated Bridge Elements and Systems”. The second, which is scheduled to be published this summer, is entitled “Accelerated Bridge Construction – Experience in Design, Fabrication, and Erection of Prefabricated Bridge Elements and Systems”.

CME has also assisted FHWA with numerous workshops and the current Every Day Counts initiative.

CME is in the forefront of the new Massachusetts DOT Accelerated Bridge Program. CME is designing several ABC bridges for the department and is also reviewing numerous projects designed by other firms. CME largest project to date is the "Fast Fourteen" project in Medford MA. CME developed the concept and 30 percent design plans for this $75 million project that involves the replacement of 14 superstructures (41 spans) in 10 weekends. The emergency nature of this project required CME to complete the design as fast as possible. The 30 percent plans, specifications and estimates were completed in only three months. This project has now been handed over to a design/build team, and CME is overseeing the final design for the department and assisting the department's construction staff. This demonstrates the ability of CME to work in a design/build environment with very short design schedules.

CME was involved in one of the earliest implementations of ABC in Rhode Island using pre-cast methods, which was the design of the replacement of the Tarkiln Bridge over Tarkiln River in Burrillville. CME was responsible for the bridge layout and roadway design for a prefabricated concrete arch bridge that replaced the original steel span. CME provided coordination with the precast supplier, surveying, roadway design of the approaches, the layout of the bridge, and the environmental permitting. CME also assisted the Town with the general contracting for the bridge as it was built by the Town Public Works Department with assistance from subcontractors hired to perform specific tasks. This approach saved the Town over $100,000 when compared to a conventional full bid scenario. The bridge was awarded first prize in the short span bridge category of the 2004 PCI National Bridge Design Awards.

VN ENGINEERS, INC.
DESIGN SUB-CONSULTANT
Preliminary Engineering for Statewide High Hazard Intersections/Ramps – Contract 5/Warwick, Warwick, Rhode Island
Working as a team partner with Caputo & Wick, VN Engineers, Inc. assisted with project, RIC 2005-ET-008, "Statewide High Hazard Intersections/Ramps – Contract No. 5 – Warwick". Five of the eighteen intersections in the contract were investigated by VN Engineers, Inc.

Field surveys for the intersections were conducted and summarized in a field inventory summary document to identity the current condition of existing traffic signal equipment. Existing as-built traffic signal plans were reviewed and utilized in the development of peak hour intersection levels of service analysis for the am and pm peak hours utilizing Synchro analysis software.

Accident records were researched and entered into an accident database to develop a statistical analysis of the raw data. Intersection accident rates were developed and documented in the report findings. Collision diagrams were developed for each intersection utilizing Highway Safety Analysis Software.

Conceptual intersection improvement design sketches were developed to offer operational and safety improvements. VN Engineers, Inc. assisted Caputo & Wick in the preparation of a preliminary assessment report documenting the analysis findings and suggested recommendations for improvements.

Arterial Traffic Control Systems – Contract 5. Warwick Avenue & Allens Avenue , Warwick, Cranston, Providence, RI.

Working as a sub-consultant to Caputo & Wick, VN Engineers, Inc. conducted a traffic count program to develop timing and phasing patterns for the Arterial Traffic Control Systems – Contract 5 project in Rhode Island, Contract #2001-ET-012.VN Engineers coordinated and managed a team of ten personnel to conduct a manual turning traffic count program for twenty-five intersections located along Warwick Avenue and Allens Avenue. The count program consisted of performing 12-16 hour continuous turning movement counts. In addition to conducting the count program the traffic data was checked, analyzed and documented in a report that summarized the counts and peak hour periods observed.

VN Engineers, Inc. also conducted a field inventory of twenty-five intersections to document the condition of existing traffic signal hardware and noted observed deficiencies.

RI Commuter Rail Extension Study: Phase 2, Statewide, Rhode Island

Working as a subconsultant to Vanasse Hangen Brustlin, VN Engineers prepared conceptual rail alignment and station platform location sketches for five proposed rail stations in Rhode Island located in Westerly, Kingston, West Davisville, East Greenwich and Cranston. This was part of a study to address the feasibility of extending commuter rail service in Rhode Island south to Westerly from the current proposed terminus at Wickford Junction. VN Engineers presented rail concept designs at board meetings held with Town and local stakeholders.

Commodore Hull Bridge Rehabilitation, Shelton/Derby, CT

The Commodore Hull Bridge (Bridge No. 00571A) carries Route 8 over the Housatonic River, Hull Street, and Howe Avenue (Route 110) in Shelton/Derby, Connecticut. VN Engineers was responsible for the drafting of permit plates and structural sheets. Further responsibilities included the development of multi-phased short-term (work zone setup on weekends only) maintenance and protection of traffic plans to accommodate the reconstruction of four bridge joints across northbound and southbound lanes. The design included ramp and lane closures, advanced signing, VMS layout, temporary traffic control devices for the work zone, specifications, and estimate.

Rehabilitation of Bridge 00947 Carrying Route 34 over Naugatuck River

VN Engineers, Inc. assisted in the design of SPN. 36-182. The project involved the widening and rehabilitation of the Route 34 bridge over the Naugatuck River in the Town of Derby. The project improved safety by widening the existing sidewalk and incorporating timing changes at one signalized intersection.

One traffic signal design was prepared implementing far side head traffic signal heads, utilizing Connecticut Department of Transportation traffic signal design standards. Traffic signal installation details, special provisions and quantity estimates were developed. A complicated three stage Maintenance and Protection of Traffic involving temporary traffic signal designs at

three intersections for all three stages were also designed. The three stages of Maintenance and Protection of Traffic were modeled utilizing SYNCHRO traffic signal coordination software to view the impacts during construction. Pavement Marking and Signing plans were also developed, including special provisions and quantity.

PAUL B. ALDINGER & ASSOCIATES

DESIGN SUB-CONSULTANT

Laurel Avenue Bridge, Coventry, RI

The project consisted of a geotechnical engineering interpretive report is to provide foundation design and earthwork recommendations for the bridge replacement. The scope of services for this project included development of recommendations for foundation design alternatives and our recommended foundation support option as well as general earthwork construction recommendations.

Fairview Avenue Bridge, West Warwick, RI

This project included the analysis of an existing steel and concrete bridge to determine if it was capable of supporting a new water main. This included the design of the attachment of this new pipe to the abutments and the steel bridge.

Route 403/Quonset Point, North Kingstown, Rhode Island

This project which consisted of the design and construction of approximately 5 miles of a new limited access four lane highway including the design and construction of 17 new or rehabilitated bridge crossings. Services provided include coordination and review of several extensive subsurface exploration programs, developing geotechnical reports with recommendations for the design of roadway drainage systems, drainage ponds, several new temporary and permanent bridge abutment foundations supported on either shallow spread footings or deep pile foundations, assessment of liquefaction potential, design of ground improvements, and retaining system design, including mechanically stabilized earth.

Relocation of Route 195, Providence, Rhode Island

PBA is currently involved in this project which moved the major interchange between Routes 1-95 and 1-195 located in Downtown Providence south of its former location. PBA's work includes the coordination and review of several subsurface exploration programs, developing geotechnical reports with recommendations for the design of several new bridge crossings, long term monitoring of embankment settlement, and pore pressure dissipation and lateral movement near a fragile underground utility, design and monitoring of excavation support systems, design of several retaining walls, and design of permanent highway underdrains.

Great Island Bridge, Narragansett, Rhode Island

PBA is currently working on the final design of this replacement bridge which provides the only access to Great Island. This project entails the design and construction of the new bridge while maintaining traffic on the existing timber structure. The new bridge will be supported on a combination of drilled micropiles at the abutments and driven composite piles at the center piers.

Middlebridge Road Bridge, South Kingstown, Rhode Island

PBA developed and completed a subsurface investigation program, laboratory testing, geotechnical analysis and foundation recommendation report for this replacement bridge. PBA also assisted in the final design and field load testing of the piles. The new bridge is supported on pre-cast concrete piles.

Bridge Replacement projects for the following bridges in Rhode Island:

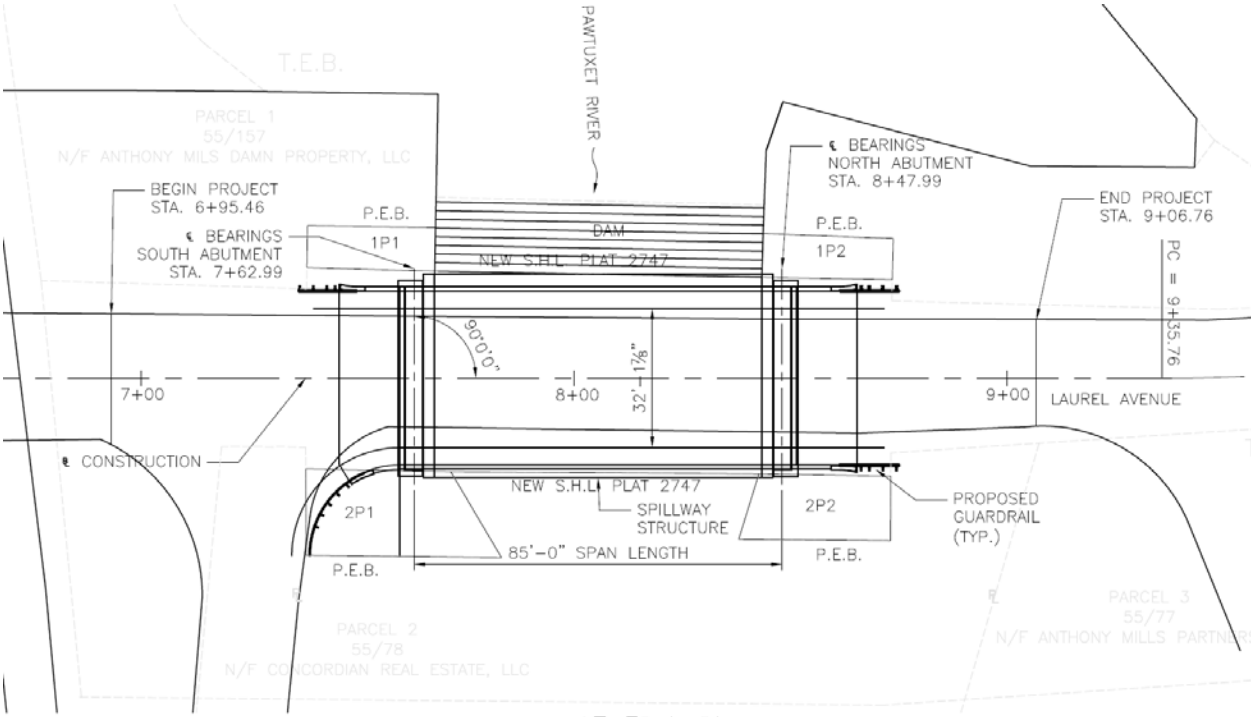
- Beach Avenue Bridge on Block Island
- Greenwood Avenue Bridge in East Providence
- Roger Williams Avenue Bridge in Providence
- Main Street Bridge in West Warwick
- Stoney Lane Bridge in North Kingstown
- Greenwood Railroad Bridge in Warwick
- Tarkiln Road Bridge in Burrillville
- Cahoone Road Bridge in Coventry
- Barbs Hill Road Bridge in Coventry

Section II: Technical Criteria

Design Concept

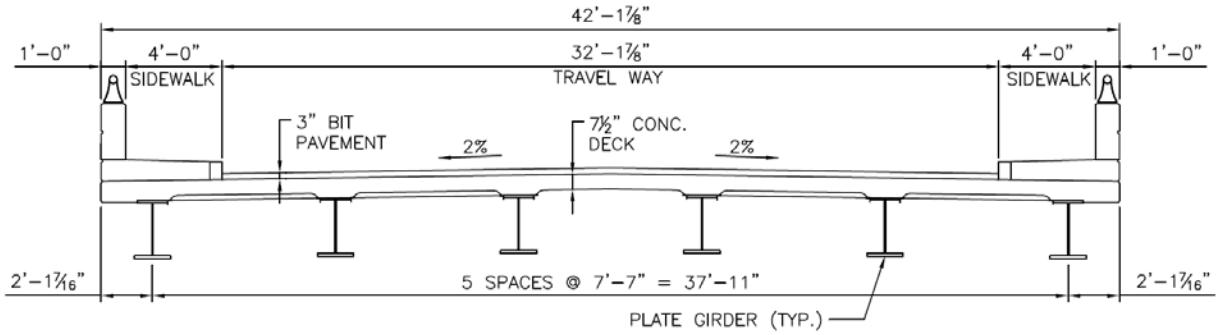
The Cardi design/build (DB) team has studied the Laurel Avenue Bridge site in detail and reviewed the history of the site. The design of the new Laurel Avenue Bridge needs to account for the historical sensitivity of the site, while producing a modern bridge that can service the State of Rhode Island and the Town of Coventry for at least the next 75 years.

The layout of the bridge is essentially in the same location as the previous bridge. The alignment was set to match the existing roadway on either side of the site. The following is a preliminary layout plan for the bridge.



GENERAL PLAN

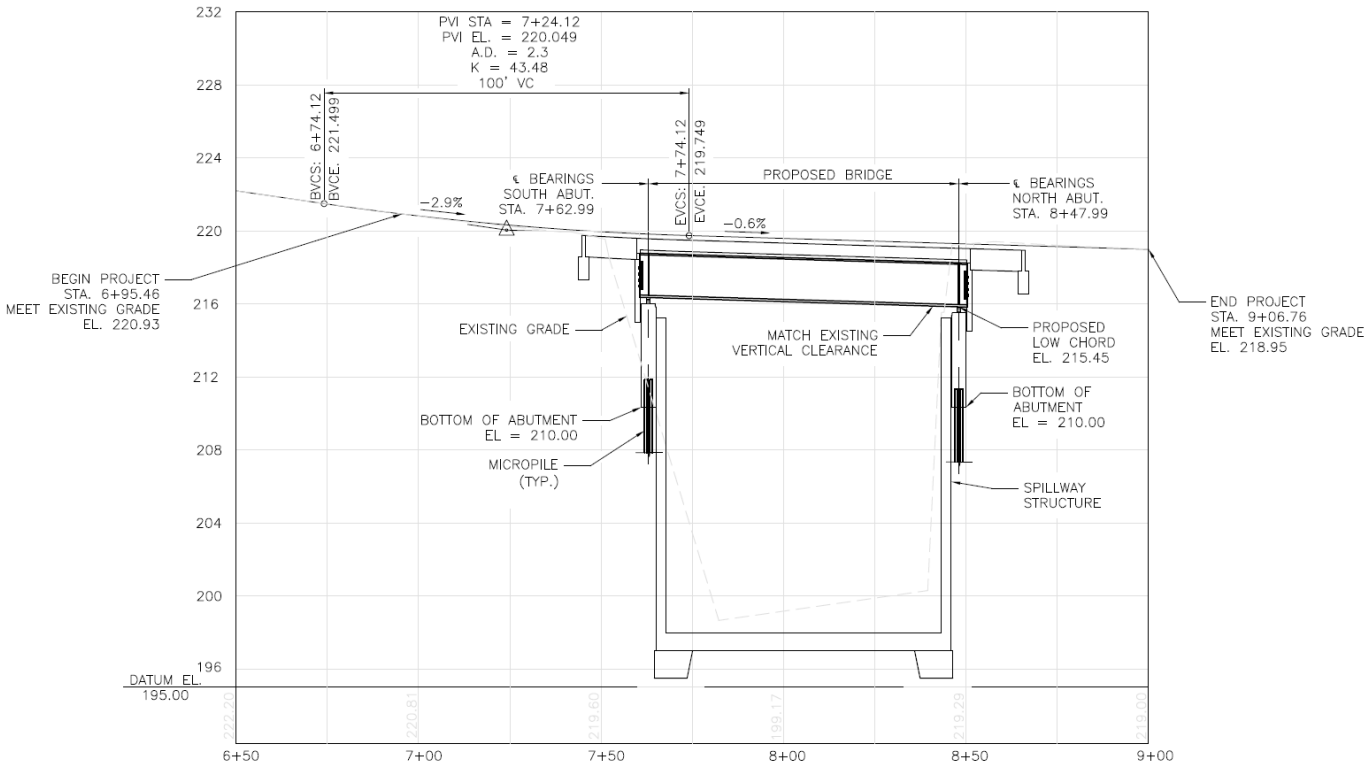
The proposed cross section is as requested in the RFP documents. The proposed roadway with is 32.15' measured from curb to curb. Two, four-foot wide sidewalks are also proposed. The following is a typical section of the roadway on the bridge.



TYPICAL TRANSVERSE SECTION

The approach roadway will be built to the same width and transition to the existing width at the project limits.

The roadway profile will closely match the existing profile. CME has surveyed the area and developed a proposed profile. This limits the amount of roadway reconstruction, while maintaining an adequate waterway opening.

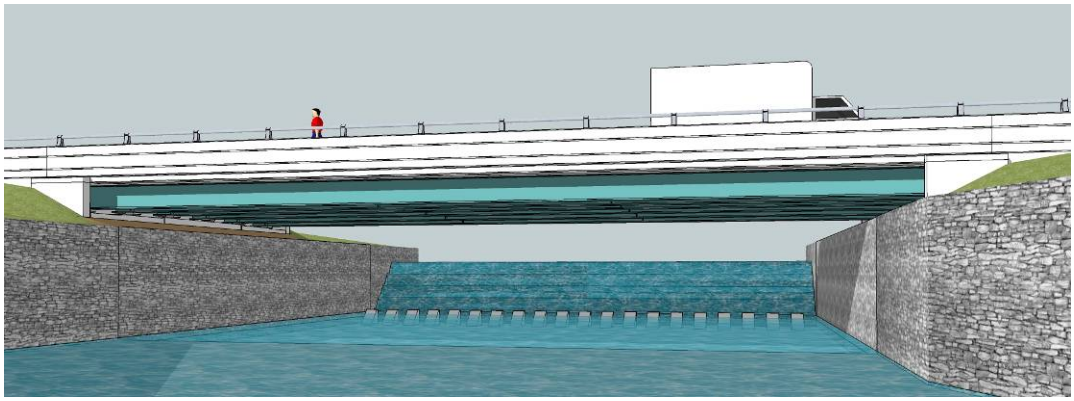


LAUREL AVENUE PROFILE

The design concept for the Laurel Avenue Bridge is to use a single span semi-integral abutment steel girder bridge. The bridge will span over a concrete splash pad/training wall structure that will be constructed as part of this contract. The splash pad structure will eliminate the potential for scour of the new bridge. Concrete energy dissipation devices will be included near the base of the dam to reduce the water velocity under the bridge and downstream.

Construction of the splash pad will need to occur in two stages. Water will either be diverted or pumped through the construction site to one side allowing for work in the dry in the channel on the other side. The goal is to build the splash pad, training walls, and retaining wall tie-ins prior to the start of bridge construction. This will occur during the fabrication of the bridge elements.

The new bridge will incorporate many of the features of the previous bridge that was recently lost. These include the details of the parapets, end blocks and bridge railings. The sketch below shows an elevation of the proposed bridge looking upstream toward the dam. The color of the steel girders may change after coordination with the Department and the Town.

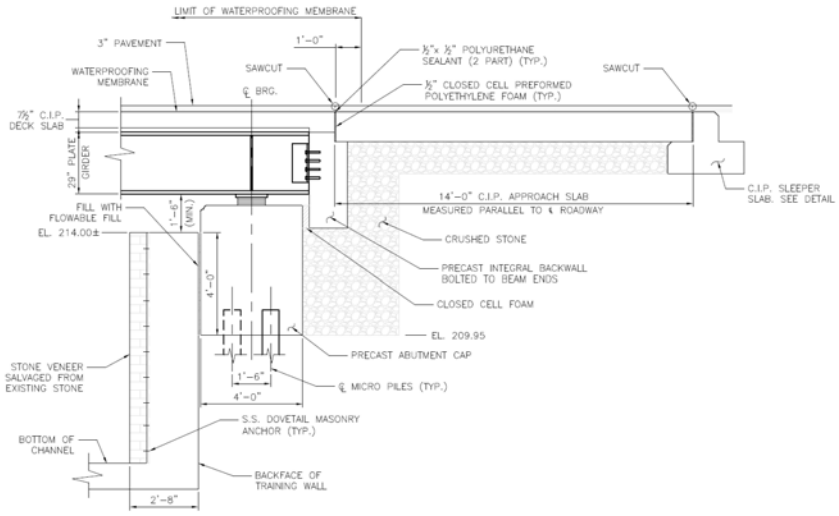


We are aware of the Department's goal to reduce construction through the use of Accelerated Bridge Construction Techniques. The Cardi DB team proposes to use ABC techniques that are cost effective while reducing the overall construction timeframe. The following techniques are proposed:

1. The proposed abutments will be precast concrete. An innovative pile connection developed by the Iowa DOT is proposed, that makes use of corrugated steel pipes cast into the abutment cap. The corrugations efficiently transfer the micro-pile loads into the precast cap. This connection was tested by Iowa State University and the University of California at San Diego and has been used on several projects in Iowa and Utah.
2. The abutment backwalls will also be constructed using precast concrete. An innovative detail that was used in Utah, based on Washington State DOT details is proposed. In this detail, the backwall is attached to and supported by the ends of the girders, which results in a semi-integral abutment. The backwall is made integral with the deck slab and it overhangs the abutment cap along the back and side faces. This detail offers rapid construction that can accommodate construction tolerances. Once complete, there is a complete seal between the bridge deck and the bridge seat, which will provide a very

durable structure. The integral nature of the design also eliminates large lateral loads on the micropiles. The detail below is a typical section of this proposed approach.

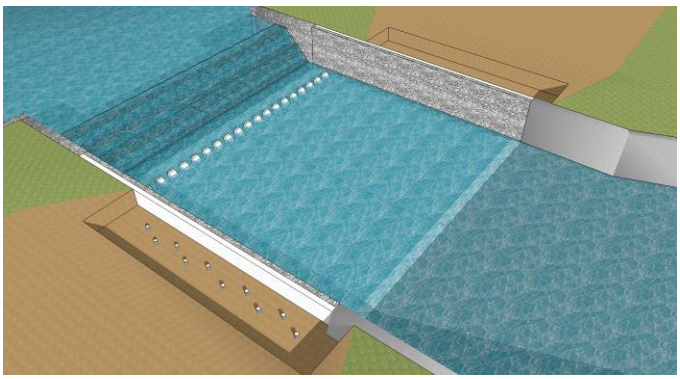
3. Stay in place deck forms will be used to facilitate and accelerate the construction of the deck.



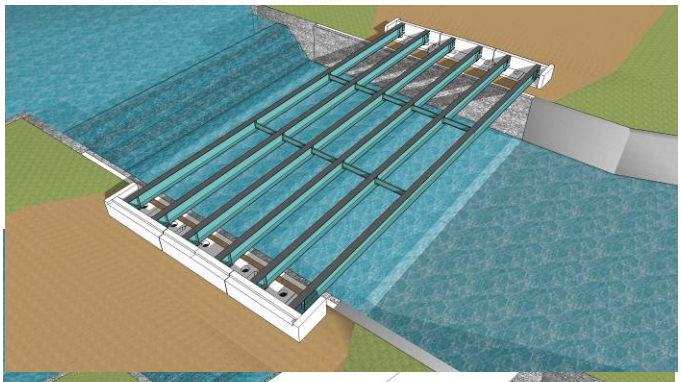
TYPICAL ABUTMENT SECTION

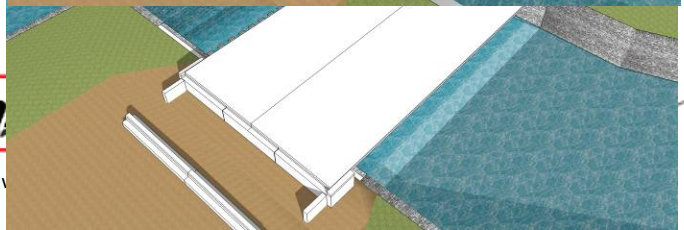
Attached to this proposal are 11”x17” preliminary plans for the bridge that demonstrate the design concept. The following graphics demonstrate the major features of the proposed bridge including the accelerated construction techniques:

- Construct the splash pad and training walls prior to start of bridge construction. Use open cut excavation as much as possible to reduce vibration on adjacent structures.
- Once complete, the training walls will act as water control for the abutment construction.
- Inspect the dam and mill buildings and install monitoring devices.
- Install micropiles behind the new training walls



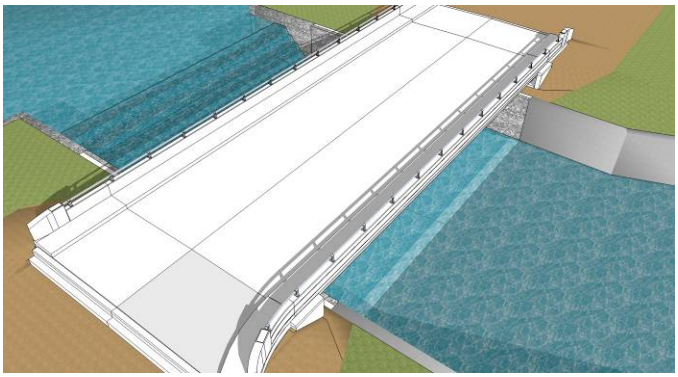
- Place precast abutment cap over piles
- Pour concrete in voids to connect piles to cap.
- Backfill around abutment cap
- Install elastomeric bridge bearings
- Erect steel girders
- Attach precast backwall elements to ends of steel beams
- Seal joints between backwall



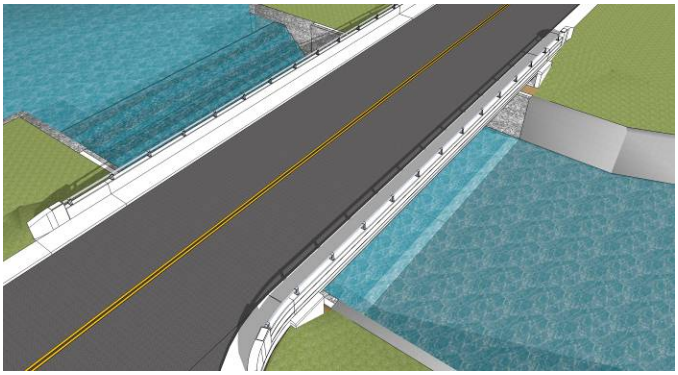


elements
- Install seismic keeper blocks and sleeper slab
- Install metal stay-in-place forms
- Cast deck including integral connection to backwall

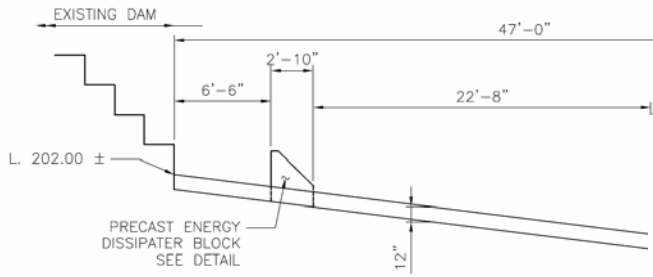
- Install gas main
- Cast approach slabs
- Cast sidewalks, parapets, end blocks and railing



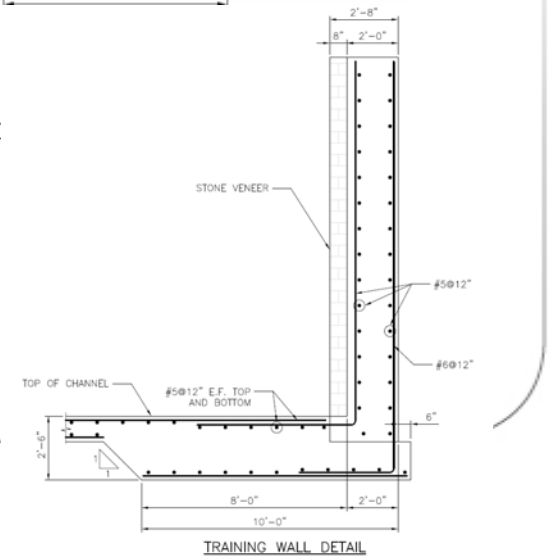
- Complete approach roadway
- Install waterproofing system and pavement on bridge
- Install approach railings
- Open bridge



The approach for the design of the splash pad and training walls is to mimic the lower half of a reinforced concrete box culvert. A continuous reinforced concrete slab is proposed. The pad will run from the base of the dam to approximately the eastern edge of the bridge. Energy dissipater blocks are proposed near the base of the dam. A slight up ramp is also used to reduce the velocity of the water at the downstream end of the slab. These will be used to reduce the velocity of the flowing water under the bridge and downstream. The detail below shows a schematic longitudinal section in the river.



The training walls will be cast on top of the base slab, using the base slab as the structural footing. Stone veneer will be added to the inside face of the training walls. Original wall stone will be used for this facing.



The stone will be attached to the wall face by means of dovetail slots with stone anchors. The adjacent detail shows the schematic section of the wall structure. The bridge abutments will be constructed just behind this structure.

Construction of the splash pad will need to occur in two stages. Water will either be diverted, siphoned, or pumped through the construction site to one side allowing for work in the dry in the channel on the other side. The goal is to build the splash pad, training walls, and retaining wall tie-ins prior to the start of bridge construction.

The Cardi DB team includes the firm of Paul B. Aldinger and Associates, Inc. They are thoroughly familiar with the bridge site and performed a preliminary design for the new foundations. Supplemental geotechnical investigations are not anticipated for the final design.

Based on the RFP documents, the previous bridge supported a gas main within the sidewalk. The proposed bridge will include a new 4" gas main within an 8" diameter sleeve. This main will be installed and hung from the structural steel beams. The sleeve will run through the abutment backwall and under the approach slabs. There are other utilities that are proposed for the future. The bridge will be designed to accommodate these utilities; however the actual utilities will not be included in the project. The existing overhead utility wires will remain in place.

This project is important to the Town of Coventry and the Rhode Island DOT. The RFP documents do not specifically require a public hearing; however coordination with the Town is still important. The Cardi DB team intends to meet with the Town and the Coventry Historical Society to discuss the project and its impact on the historic structures that are nearby. The design of the project will also be coordinated with Rhode Island Historical Preservation Commission.

The design team intends to use the approach identified in section 2.6.2 of the project technical requirements. We would immediately delineate State and Federal Wetland resource areas and determine Ordinary High Water elevations. Our initial field investigations would also examine conditions in areas of potential water handling activities (i.e. emergent vegetation, shallow sediment depths) and would review the existing stormwater drainage area delineation. This environmental information will be added to the preliminary design plans prepared for this application. We would then schedule a meeting with RIDOT's Natural Resources Unit (NRU) to review the preliminary project design including areas of work in wetland, water handling and a draft stormwater management checklist (Appendix A of the 2010 manual). In this meeting we review the findings of the initial discussions that NRU had with DEM in developing the bid documents, identify critical elements of the project design, confirm which State and Federal permits are required based on the list developed in the bid documents, and develop a preliminary schedule where design and permit application material would be submitted to the NRU and for submittal to regulatory agencies. Based on the results of the initial meeting with NRU, the design-build team will seek to clarify and refine elements identified for further analysis. We would then have a pre-application meeting with NRU staff and regulatory staff from RIDEM and New England District Army Corps to review the project with regulators and identify their concerns. The design-build team will prepare the permit applications and supporting

documentation for submission to NRU based on the schedule determined at initial meetings. Regular status reports and contact between the project Environmental Manager and RIDOT are expected to review developments in the design process and the permitting process to ensure the schedule is being met. We will be available for discussion and will provide written comment responses to comments as required by both RIDOT and regulatory staff.

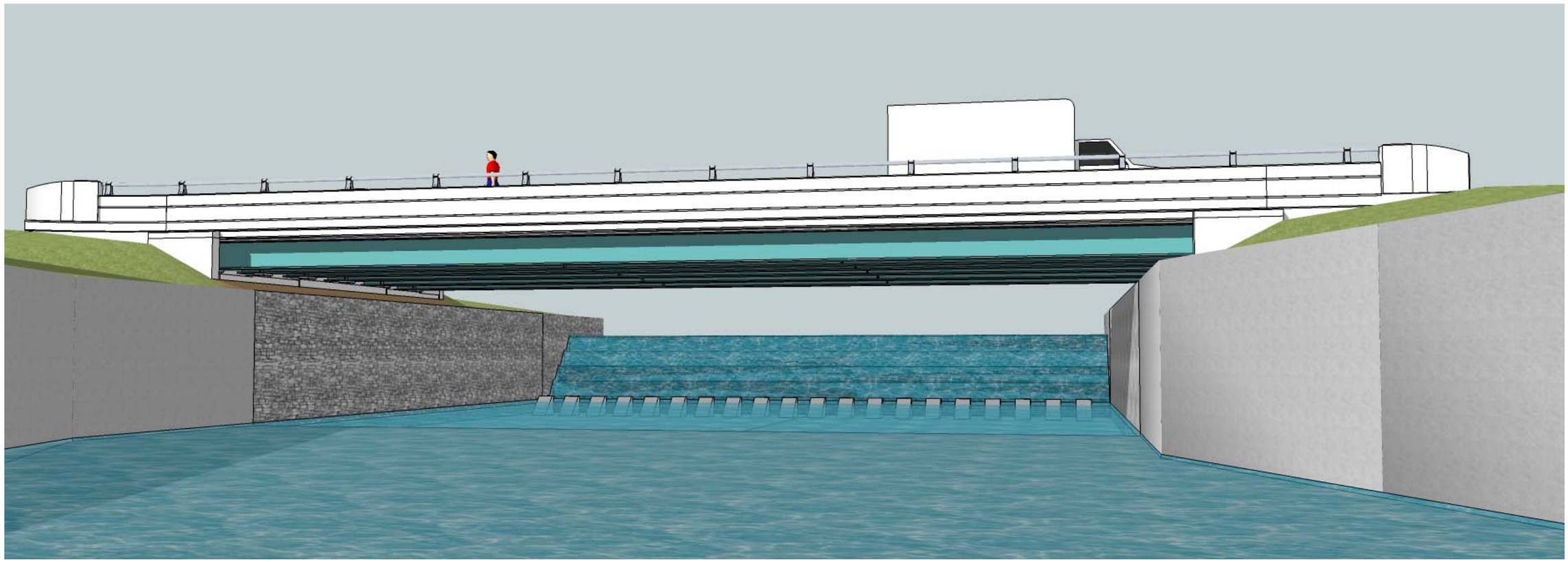
Proposed Plan for Design

CME Associates will be the lead designer on the project. Their staff will be supplemented by Paul B. Aldinger and Associates for geotechnical design and VN Engineers, Inc. for highway and drainage design. VN Engineer will be used to fulfill the required 10% DBE engineering participation goal.

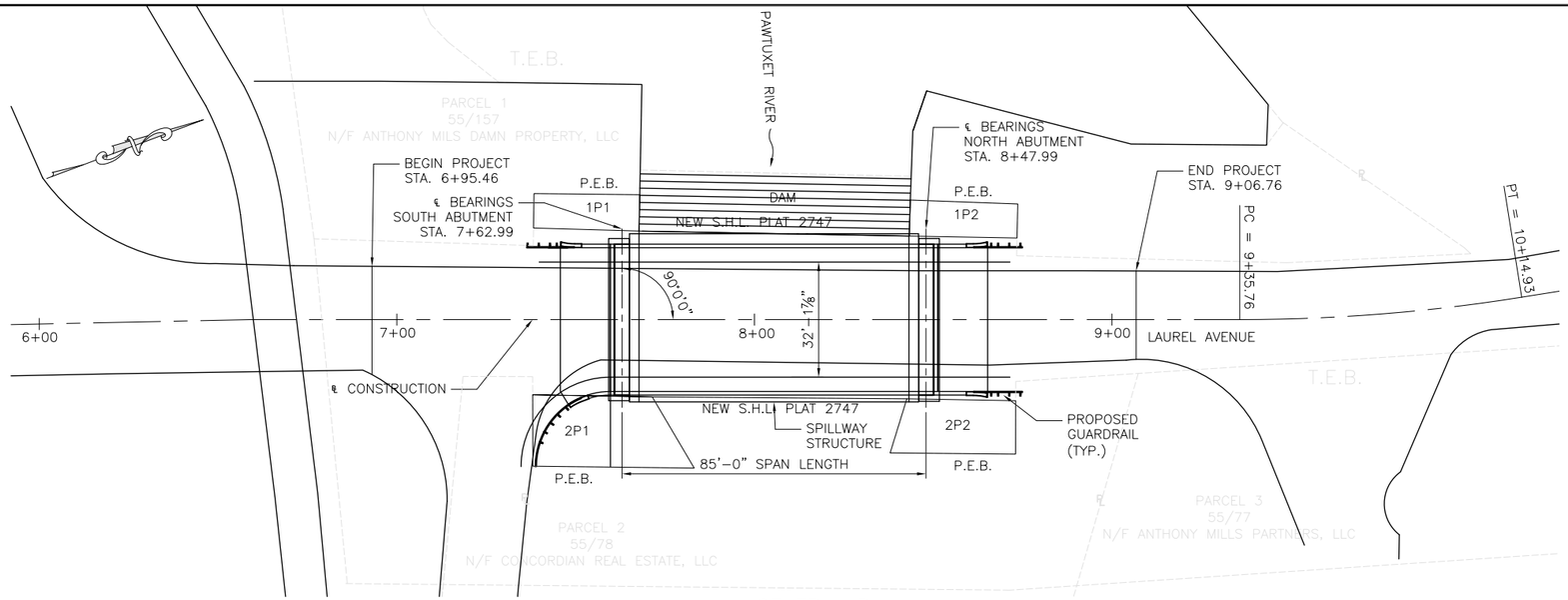
Cardi Corporation will be the lead contractor on the project as well as the lead for the team. The design team will work closely with Cardi Corporation during all phases of design. CME will coordinate all design efforts with Cardi. CME has been providing engineering services to Cardi for many years. One significant project that demonstrates this relationship was the construction of the Providence River Bridge. CME assisted Cardi with the lifting, movement and installation of the Main Arch span using Self Propelled Modular Transporters. CME designed the arch framing and designed the temporary framing for the lift. CME also designed the temporary support of the precast concrete cofferdam structures. This project demonstrates the close working relationship that CME and Cardi have developed.

The design team will meet often during the development of the final design. This process has already begun. The team has met via internet meetings to develop the preliminary design and coordinate the proposal. Using internet technology, the team can meet often and share information and ideas including plans and details. This process eliminates time out of the office, thereby streamlining design development. Face to face meetings between the design team and Cardi Corporation will also be used at critical junctures in the design.

The design team will be available to meet with RIDOT and local officials. RIDOT is an important member of the design team. If desired, internet meetings can be used for more frequent meetings as opposed to milestone meetings near submission dates. This approach can reduce the amount of comments during reviews, since the RIDOT staff will be more involved in the design development process.

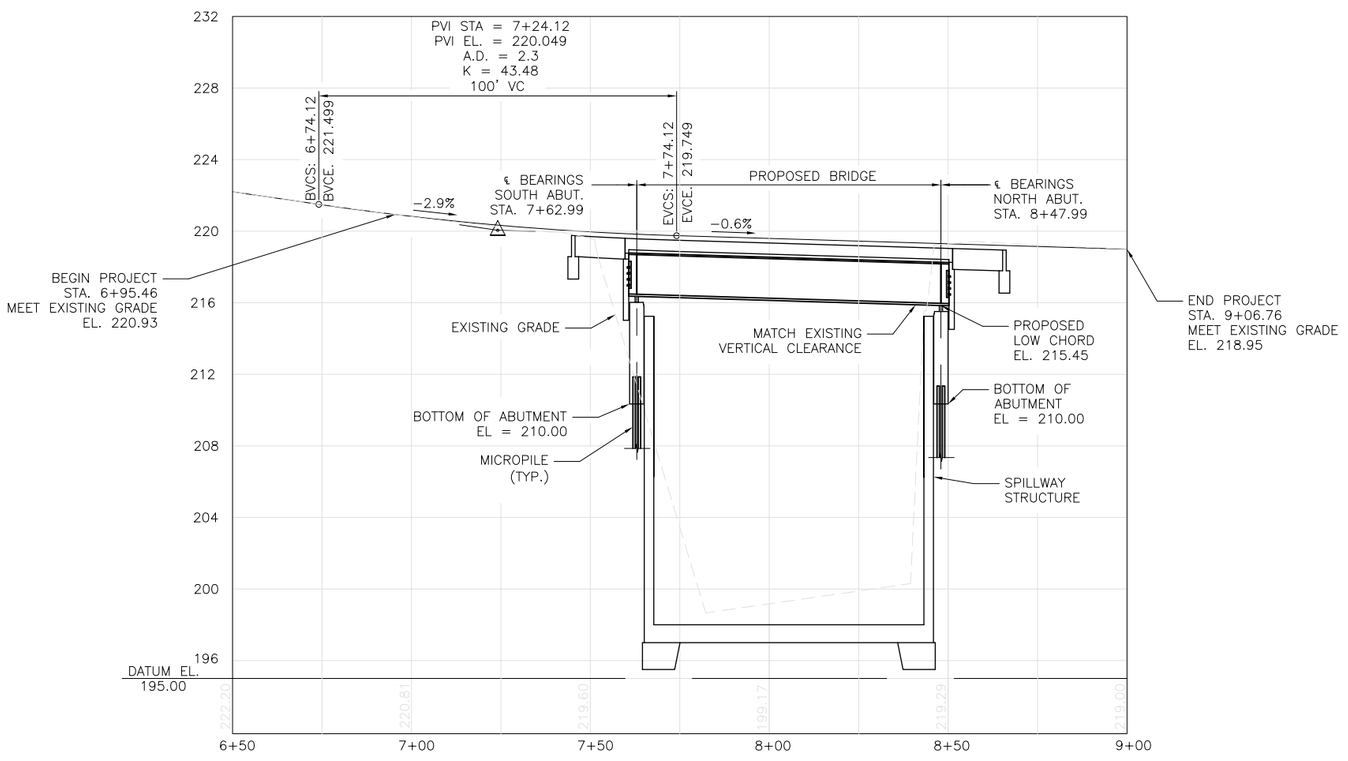


Elevation View of Proposed Laurel Avenue Bridge



GENERAL PLAN

SCALE: 1" = 20'

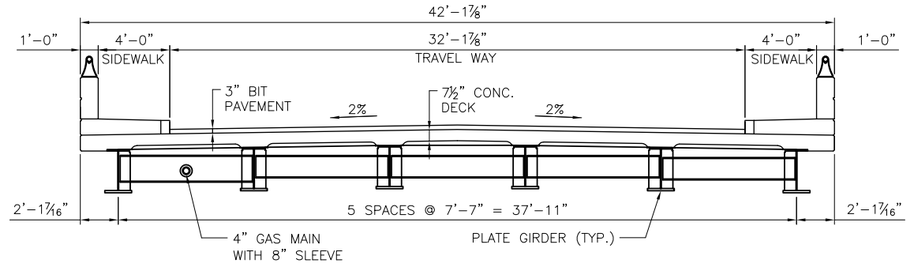


LAUREL AVENUE PROFILE

VERTICAL SCALE: 1" = 4'-0"
HORIZONTAL SCALE: 1" = 20'-0"

SEQUENCE OF CONSTRUCTION

1. INSTALL WATER HANDLING.
2. INSTALL SPILLWAY STRUCTURE.
3. TIE SPILLWAY STRUCTURE INTO ADJACENT TRAINING WALLS.
4. INSTALL MIRCOPILES TO THE ELEVATIONS SHOWN ON CONSTRUCTION DRAWINGS.
5. INSTALL PRECAST ABUTMENT CAPS AND GROUT VOIDS.
6. BACKFILL AROUND ABUTMENT CAPS.
7. ERECT STEEL BEAMS
8. INSTALL PRECAST BACKWALL ELEMENTS AND BOLT TO BEAM ENDS.
9. CAST SLEEPER SLABS AND INSTALL SEISMIC KEEPER BLOCKS.
10. CAST CONCRETE DECK AND CONNECT TO BACKWALL.
11. BACKFILL UNDER APPROACH SLABS.
12. CAST APPROACH SLABS.
13. CAST SIDEWALKS.
14. CAST PARAPETS AND END BLOCKS.
15. INSTALL RAILINGS.
16. COMPLETE APPROACHES AND PAVING.



TYPICAL TRANSVERSE SECTION

SCALE: ¼" = 1'-0"

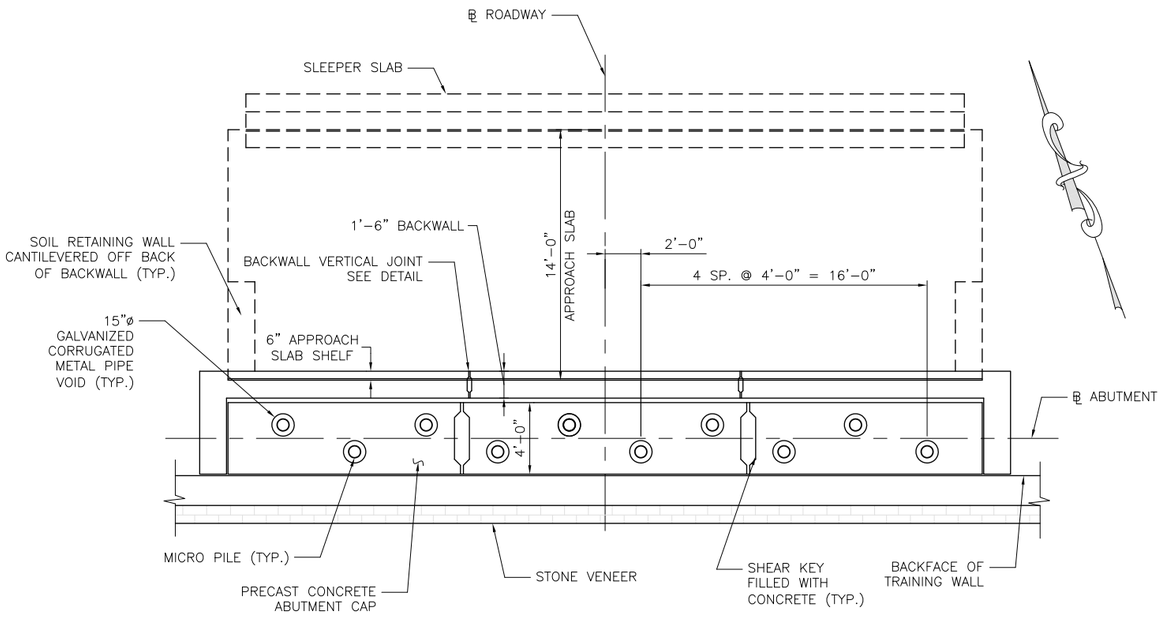
ALL ELEVATIONS SHOWN ARE BASED ON AN ASSUMED DATUM. FINAL ELEVATIONS TO BE NGVD29

REVISIONS	
No.	DATE

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
DIVISION OF PUBLIC WORKS

LAUREL AVE BRIDGE
BRIDGE REPLACEMENT

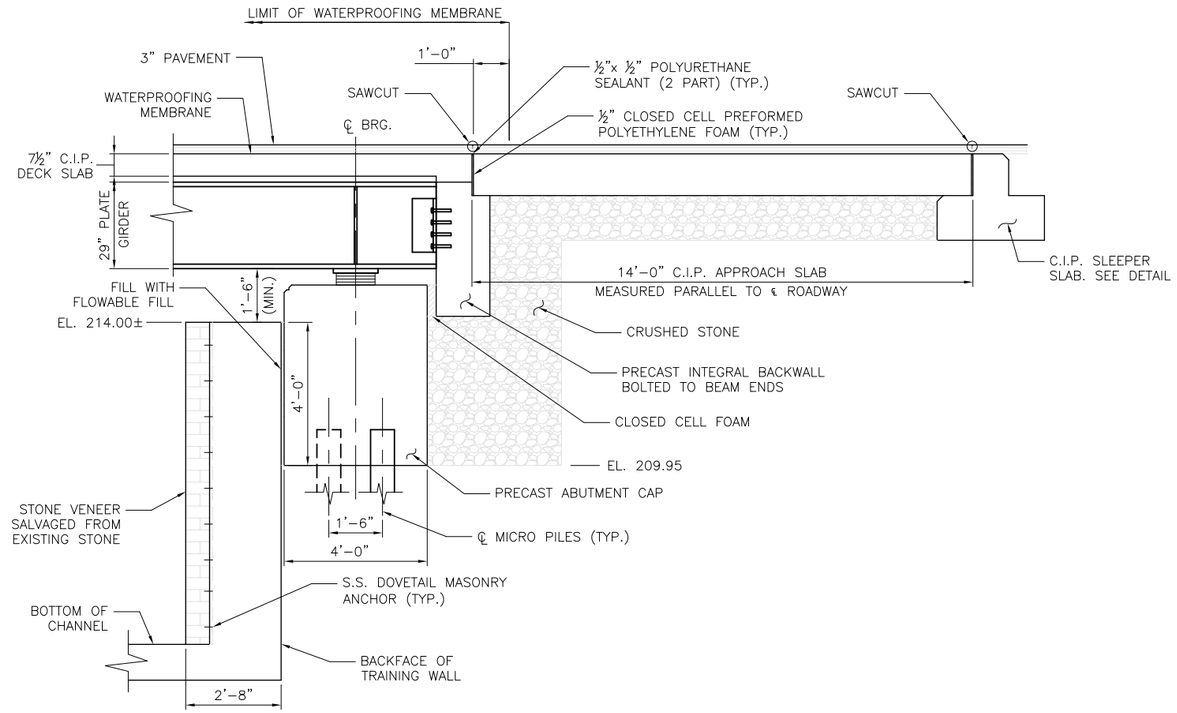
GENERAL PLAN



ABUTMENT PLAN

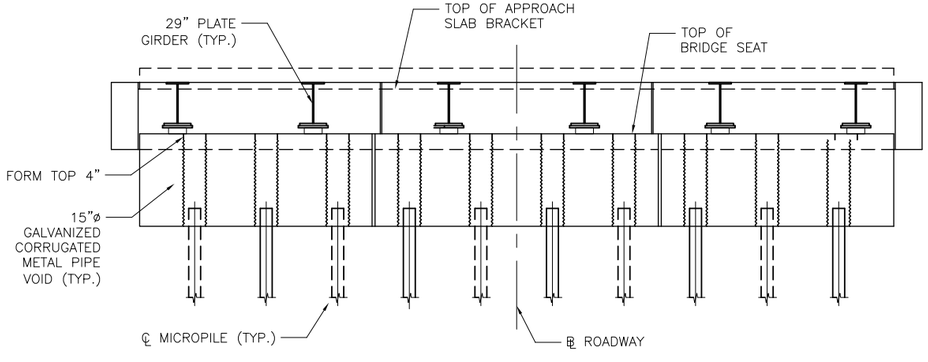
SCALE: ¼" = 1'–0"

NOTE: NORTH ABUTMENT SHOWN. SOUTH ABUTMENT SIMILAR



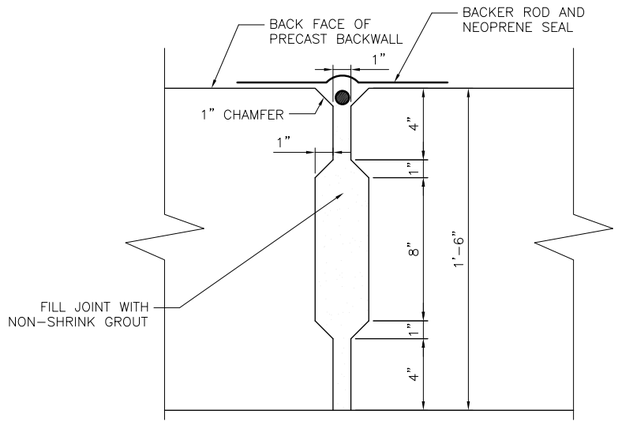
TYPICAL ABUTMENT SECTION

SCALE: ½" = 1'–0"



ABUTMENT ELEVATION

SCALE: ¼" = 1'–0"



BACKWALL VERTICAL JOINT DETAIL

SCALE: 3" = 1'–0"

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No.	DATE

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION
DIVISION OF PUBLIC WORKS

LAUREL AVE BRIDGE
BRIDGE REPLACEMENT

ABUTMENT DETAILS I

Quality Control and Quality Assurance - Cardi

Cardi will be utilizing ATC Associates (ATC) to provide the Quality Control on this project. ATC provides systematic testing and inspection services to assure materials utilized during construction meet project specifications and sustainability goals. ATC routinely provides testing and inspection services during construction of foundations, highways, railroads, dams, bridges, towers, low and high-rise buildings, airports, auto plants, distribution centers, industrial plants, stadiums, healthcare facilities, higher education, K-12 schools, water supply and sewage treatment facilities, dock and waterway facilities, power plants and many other construction projects. ATC works with architects, engineers, owners, general contractors and participants throughout each phase of the project – from feasibility/planning, design development, construction and fabrication and post-construction operations.

Cardi believes that quality assurance provides the accepting agency (RIDOT) with the product that meets or exceeds the performance needs of the project. Based on the plans and specifications, Cardi will build the structural facilities on this project that meet or exceed the project specification requirements. ATC Associates will perform the necessary quality control tests and inspection requirements of the project. ATC has more than 30 certified technicians and professionals located in their Avon and Springfield facilities (resumes of some of their highly experienced professionals are located in the Appendix). As it has in the past, ATC Associates will work with Cardi to identify the specific contract requirements set forth by the agency to inspect and test the materials for conformance to project specifications. Based on the quality criteria for construction materials identified in the contract documents, Cardi and ATC will develop a Quality Control (QC) Plan that will serve as the blueprint for providing acceptable construction materials and procedures on a continuous basis. The QC Plan will establish process controls to provide a uniform product, and incorporate sampling and testing procedures that can verify the quality level of the product during construction. They will also identify evaluation methods to determine any necessary actions required to maintain an acceptable quality level. Cardi and ATC will partner with RIDOT to develop this plan that establishes a framework for producing the right product the first time.

The QC Plan

The QC Plan will be developed and submitted prior to the initial pre-construction conference for review by the RIDOT. The QC Plan will identify:

- Sources of material for the project
- Necessary laboratory facilities for on-site sampling and testing activities as well as production facilities.
- Managers, inspectors, and technicians participating in the quality control activities for the project, and delineate the roles and responsibilities for the personnel involved.
- Contractor personnel participating in the production of quality assurance materials and their respective roles and responsibilities.
- Equipment that will be utilized in the production and placement of materials.
- Inspection and testing specifications established by RIDOT that will be used to determine the quality of the materials used on the project. As necessary, mix designs will be submitted for approval and added to the QC Plan.

Cardi Corporation and ATC will work with RIDOT to incorporate necessary changes and items of concern. Resolving issues prior to the beginning of construction activities provides for a fundamental understanding of the roles of all the parties and can reduce problems as production commences.

Quality Control and Quality Assurance - CME

CME will ensure timely submission of the design plans and Quality Control by following the Policies outlined below.

Overview

CME's Design Manager, Bryan Busch, directs all aspects of the design portion of the project, manages the project daily progress and ensures timely completion, conformance to RIDOT standards, and the design plan. The Design Manager reports to a Principal at CME who will review all submittals, milestones, etc. to ensure compliance with project goals, budgets, and timeframes. The Principal in Charge for this assignment, Michael Culmo, will perform Quality Control and Assurance checks and is responsible for ensuring compliance to project goals and contract requirements.

The QC Plan

CME follows strict internal Quality Control procedures. These procedures ensure that projects are completed accurately and on time. In addition to regular review meetings with clients and all involved technical groups at CME, Weekly Project Status Reports keep the lines of communication open with clients and help to avoid delays. Quality Control procedures include:

- Design Team Assignment Meeting
- Design/Build Team Progress Meeting
- Weekly Project Status Reports to Cardi and Client
- 10%, 60% & 90% Internal Quality Reviews
- Final Quality Assurance/Control Review & Sign off

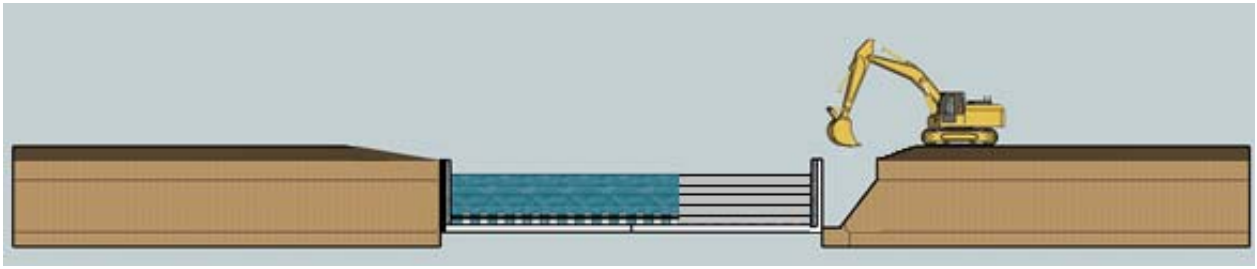
Cardi Corporation Approach to Construction Laurel Ave. Bridge

Overview

With the utilization of an Accelerated Bridge Construction method, Cardi will construct the Laurel Ave. Bridge within the 2012 construction season. The key to constructing the bridge in the shortest amount of time, resulting in the least amount of public inconvenience, is to engineer and design the bridge prior to November, 2012 and ensure procurement items are available for construction the following year. Only the existing bridge demolition may proceed prior to the 2011 winter shutdown and construction will commence the following April. The following is a conceptual approach to how Cardi will construct the Laurel Ave. Bridge;

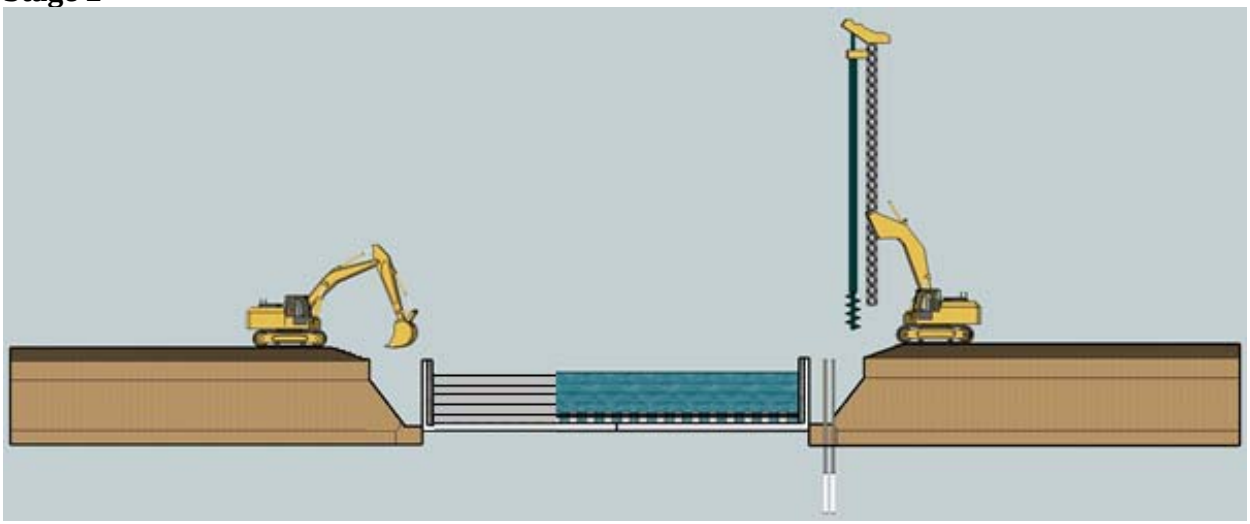
Substructure

Stage 1



North Abutment: Divert water south utilizing sand bags and siphon, excavate for north abutment utilizing an excavator, install south Splash Pad, Energy Dissipaters, and Training Wall.

Stage 2

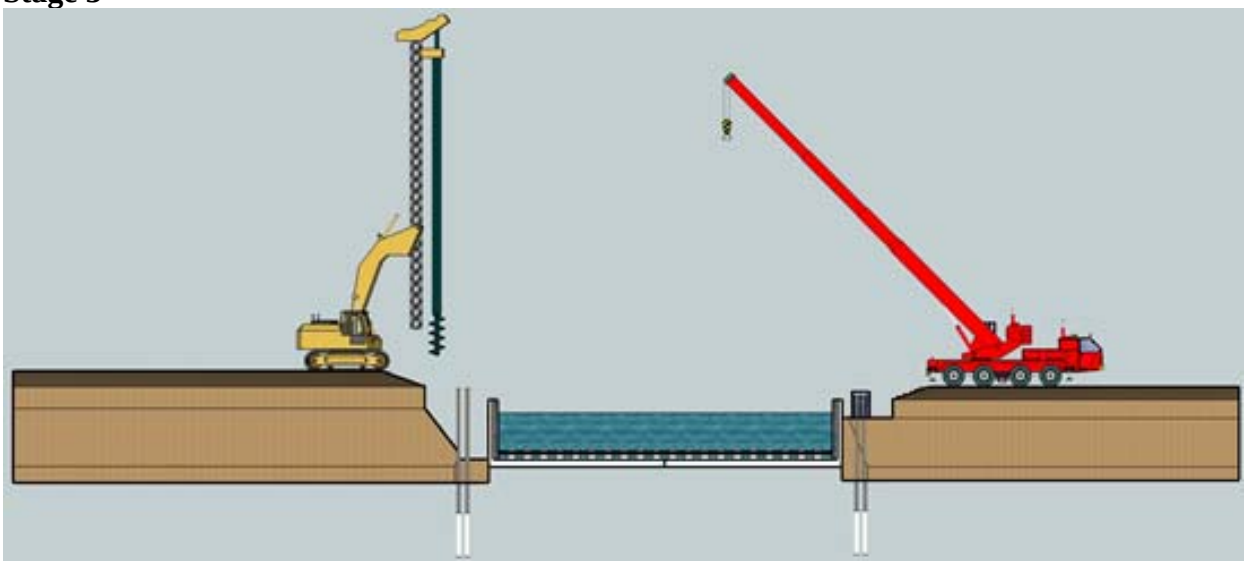


North Abutment: Mobilize geotechnical subcontractor and install north abutment Micro Piles with drill rig[1], backfill and consolidate soils for Precast Abutment Cap.

South Abutment: Demobilize excavator from north abutment and transport to south abutment, divert water north from previous Stage 1 configuration, construct south Splash Pad, Energy Dissipaters, and Training Wall, remove water diversion after completion.

[1] A test pile will be installed loaded prior to installing production piles

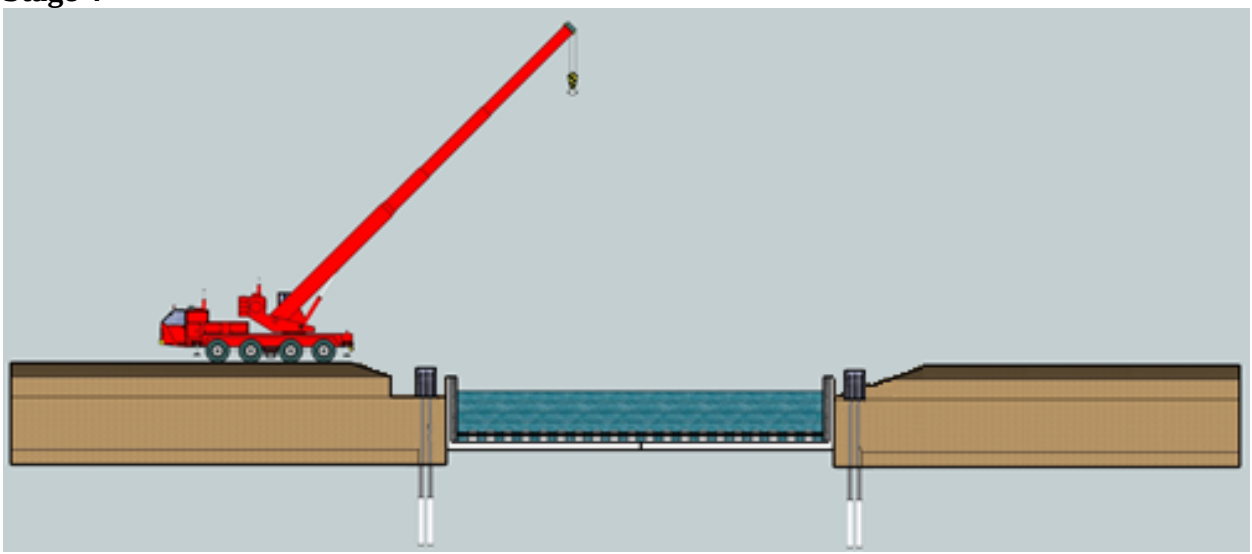
Stage 3



North Abutment: Assemble north abutment precast cap sections with 40 ton crane, install neoprene waterstop seal, and fill joints with grout. Once grout has cured, backfill half of the abutment.[2]

South Abutment: Transport drill rig from north to south abutment and repeat Micro Pile operation.

Stage 4

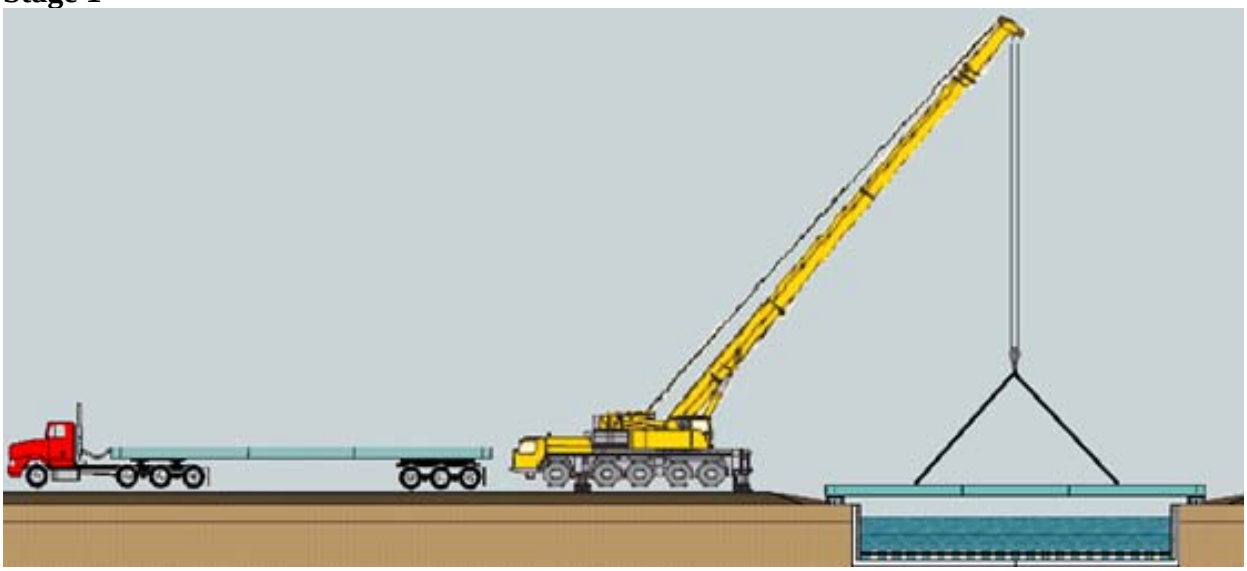


North Abutment: Mobilize 40 ton crane from north abutment to south abutment, and repeat Precast Abutment Cap installationl.

[2] Backfill abutment cap up to the precast backwall bottom elevation.

Superstructure

Stage 1

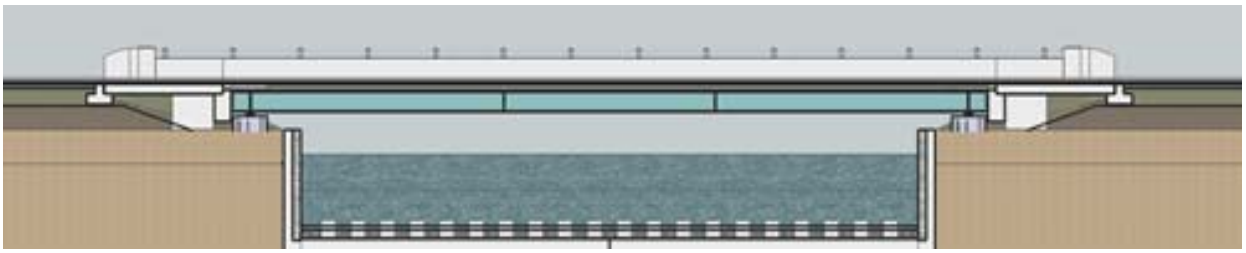


Mobilze 170 ton Hydraulic crane and erect plate girders and install all diaphram connections, install and bolt Precast Backwall to beam ends.

Stage 2: Deck Placement

Survey tenth points, install shear studs and stay-in-place forms, erect brackets for deck overhang, install deck superstructure reinforcing steel, install self-propelled deck screed and rails, conduct trial run to ensure crown is true, place concrete, and wet cure deck.

Stage 3: Sidewalks and Parapets



Once deck has cured, remove wet curing application, then install bridge curb and sidewalk reinforcing, form outer fascia and place sidewalk concrete. Once cured, form, reinforce and place concrete for bridge parapet, cure and strip.

Approaches and Pavement Structure:

Once the Precast Backwall has been installed and prior to being backfilled, the Sleeper Slab will be constructed at both the north and south approaches. When the Sleeper Slab has cured and striped, the crushed stone will be installed to subgrade and the approach slabs, end post, and bridge rail will be installed. Finally, when the approach structure is complete, the bridge will receive a waterproofing application, paving, and finally, striping.

Summary

Through Cardi Corporation's savvy construction methods, experienced project managers, and exceptional resources, the Laurel Ave. Bridge will be completed and fully operational to the public in November 2012, with construction duration under nine months.

Project Controls

Cardi utilizes a combination of personnel, policies and procedures to provide a collaborative project management and controls system. We understand that on-schedule, on-budget completion demands complete project control. To develop and implement an effective schedule, our team collaborates with all the different groups representing different disciplines, from project managers, suppliers, architects, engineers, etc., all trying to manage multiple issues and changes while also managing people, finances, schedules, contracts, documents, etc. To do this effectively, a Project Control system is utilized.

Cardi utilizes Primavera P6 and Contract Manager to support their project control initiative. All project team members are intimately familiar with the software, its data and reporting capabilities, and how to use the software for managing and controlling projects. For scheduling, Cardi utilizes a schedule development and update process that is efficient, timely and accurate. The schedule development process utilizes weekly meetings to collaborate and integrate information from all contractors, subcontractors, suppliers, owners, and other second and third party team members and stakeholders. The information is quickly gathered and utilized to complete the baseline schedule. A Primavera schedule and reports are distributed to all team members. These reports identify the critical and near critical activities by utilizing a combination of longest path and total float. Activities are grouped and organized for easy reporting including Work Breakdown Structure (WBS) Responsibility and Type of Work. The baseline schedule is used to measure performance on the project from initiation to completion. On a bi-weekly basis the schedule is updated by gathering on-site project status and collaborating with team members. Status is entered and performance is measured. Reports are distributed to appropriate personnel, any changes or anomalies are identified, and everyone involved in the project is held accountable. In the event that any unforeseen change occurs, the team can analyze the cost and/or schedule to identify the impacts, and what appropriate actions need to taken.

Cardi also has established procedures for controlling documentation on all projects. Cardi utilizes Primavera Contract Manager to allow all team members to collaborate and manage all the documentation that is important to delivering quality projects on-time and on-budget. The system minimizes delays, keeps costs low, and helps maintain on-time or accelerated completion dates by improving the communication and collaboration among all team members. The document management aspect of the system entails the recording, coordination and distribution of Submissions, Correspondence, and Requests for Information (RFI), and Meeting Minutes. Cardi maintains a list of standard reports and logs to manage the documents. Some of the standard logs are: Submittals, RFIs, Pay Requisitions, Change Orders, and Issues.

Integrated with project controls is a change control system that manages the changes on the project including modifications in plans and specifications, changes in the field, Request of Change from the owner, Value Engineering proposals, and project issues that may produce changes. These issues, potential changes, and changes will also be integrated with the project schedule to assess criticality and help the team prioritize their actions.

The record keeping not only involves document management, but it also involves cost management. Cardi ensures that all costs are maintained accurately, including verification of quantities and subcontractor payments. Cardi integrates its field project controls with its internal financial management system to keep the field and home office in sync. Policies and procedures utilizing a Contract/PO and Invoice Financial Management System maintain accurate accountability of all payables and receivables to maintain accurate cost accounting on the project. The system also ensures that all subcontractors and suppliers are paid on a timely basis.

To keep the team apprised of the latest data, which is critical to controlling the project, Cardi utilizes a series of reports and delivers these reports via email, fax, corridor and mail. Often, project owners are on the go too much to be retrieving critical reports from their email, or logging on to web based computer systems, so Cardi ensures that all team members have the necessary information in a timely, accurate manner.

WBS Form on following page.

WBS

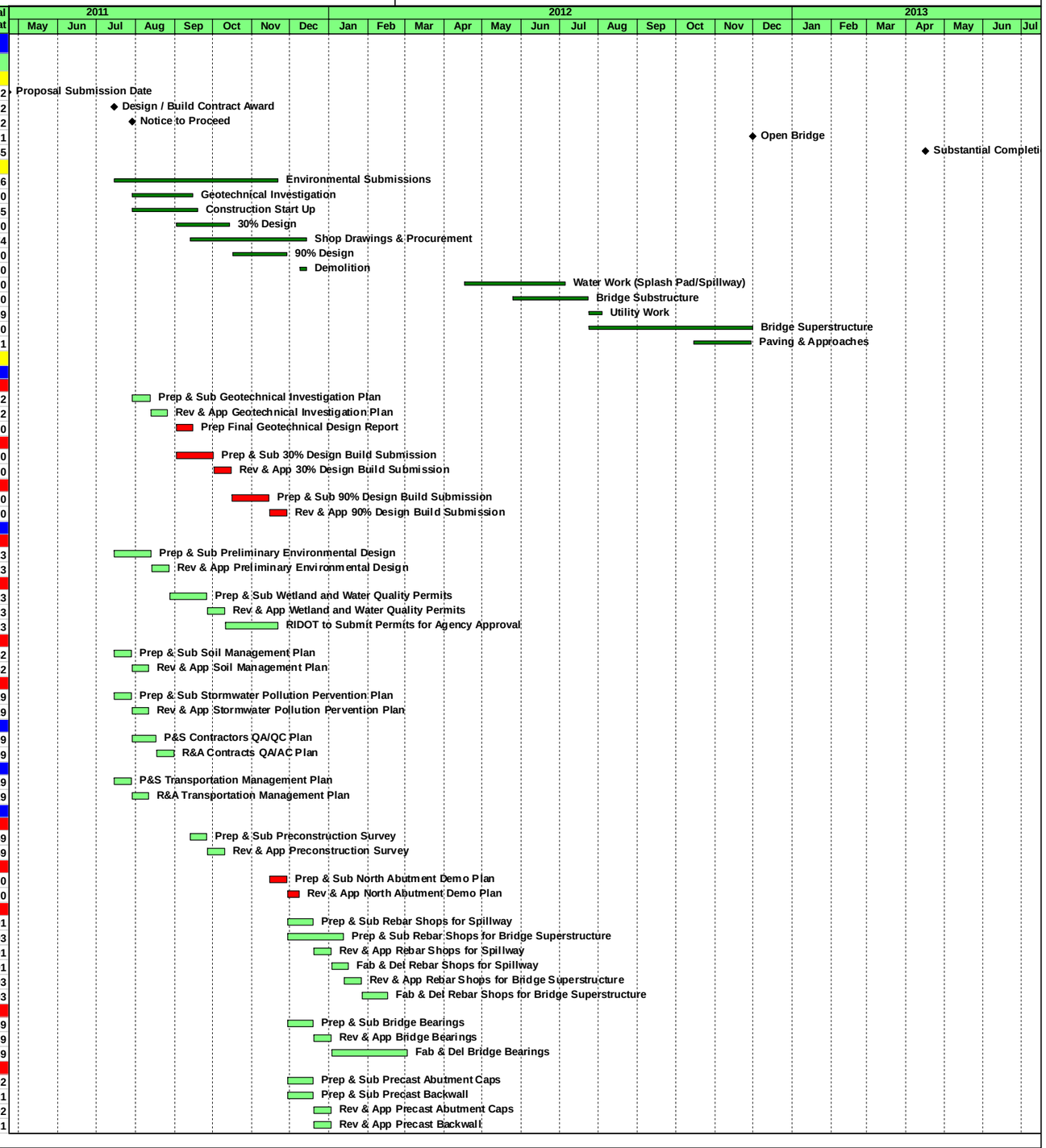
- Design/Build - Laurel Ave Bridge
  - Design / Build Laurel Ave Bridge No. 397
    - Milestones
    - Summary Activities
    - Design / Procurement
      - Design Process
        - Geotechnical Investigation
        - 30% Design Build Submission
        - 90% Design Build Submission
      - Environmental Submissions
        - Preliminary Environmental Design Submission
        - Wetland and Water Quaility Permits
        - Soil Management Plan
        - Stormwater Pollution Prevention Plan
      - Contractors QA/QC Plan
      - Transportation Management Plan
      - Project Specific Shop Drawing Submissions
        - Preconstruction Survey
        - North Abutment Demo Plan
        - Rebar Shop Drawings
        - Bridge Bearings
        - Precast Elements
        - Structural Steel Shops
        - Stay in Place Forms
        - Bridge Curb
        - Waterproofing Membrane
        - Guardrail End Sections
    - Utility Work
    - Construction Start Up
    - Construction
      - North Abutment - Demo Work
      - Splash Pad / Spillway Structure Construction
        - Phase 1 (North Side of Channel)
        - Phase 2 (South Side of Channel)
      - Bridge Substructure Construction
        - Micro Pile Installation
        - Abutments
      - Bridge Superstucture Work
      - Bridge Paving & Approach Work
    - Close Out Work

Design/Build - Laurel Ave Bridge

Schedule Baseline Propsal

21-Apr-11

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
Design/Build - Laurel Ave Bridge							
Design / Build Laurel Ave Bridge No. 397							
Milestones							
LA10000010	Proposal Submission Date	0	22-Apr-11		24-Apr-11		2
LA10000015	Design / Build Contract Award	0	15-Jul-11		17-Jul-11		2
LA10000020	Notice to Proceed	0	29-Jul-11		31-Jul-11		2
LA10000025	Open Bridge	0		30-Nov-12		01-Dec-12	1
LA10000030	Substantial Completion	0		16-Apr-13		31-May-13	45
Summary Activities							
LA15000025	Environmental Submissions	88	15-Jul-11	21-Nov-11	14-Nov-11	14-Dec-11	16
LA15000010	Geotechnical Investigation	33	29-Jul-11	15-Sep-11	01-Aug-11	15-Sep-11	0
LA15000040	Construction Start Up	35	29-Jul-11	19-Sep-11	26-Aug-11	08-Dec-11	55
LA15000015	30% Design	29	02-Sep-11	14-Oct-11	02-Sep-11	14-Oct-11	0
LA15000030	Shop Drawings & Procurement	64	13-Sep-11	14-Dec-11	14-Nov-11	31-Jul-12	74
LA15000020	90% Design	29	17-Oct-11	28-Nov-11	17-Oct-11	28-Nov-11	0
LA15000045	Demolition	4	09-Dec-11	14-Dec-11	09-Dec-11	14-Dec-11	0
LA15000050	Water Work (Splash Pad/Spillway)	56	17-Apr-12	05-Jul-12	17-Apr-12	05-Jul-12	0
LA15000055	Bridge Substructure	40	25-May-12	23-Jul-12	06-Jul-12	23-Jul-12	0
LA15000035	Utility Work	9	24-Jul-12	03-Aug-12	24-Jul-12	14-Nov-12	69
LA15000060	Bridge Superstructure	89	24-Jul-12	30-Nov-12	24-Jul-12	30-Nov-12	0
LA15000065	Paving & Approaches	32	15-Oct-12	29-Nov-12	15-Nov-12	30-Nov-12	1
Design / Procurement							
Design Process							
Geotechnical Investigation							
LA30050010	Prep & Sub Geotechnical Investigation Plan	15	29-Jul-11	12-Aug-11	31-Jul-11	14-Aug-11	2
LA30050015	Rev & App Geotechnical Investigation Plan	14	13-Aug-11	26-Aug-11	15-Aug-11	28-Aug-11	2
LA30050020	Prep Final Geotechnical Design Report	14	02-Sep-11	15-Sep-11	02-Sep-11	15-Sep-11	0
30% Design Build Submission							
LA30050030	Prep & Sub 30% Design Build Submission	30	02-Sep-11	01-Oct-11	02-Sep-11	01-Oct-11	0
LA30050035	Rev & App 30% Design Build Submission	14	02-Oct-11	15-Oct-11	02-Oct-11	15-Oct-11	0
90% Design Build Submission							
LA30050040	Prep & Sub 90% Design Build Submission	30	16-Oct-11	14-Nov-11	16-Oct-11	14-Nov-11	0
LA30050045	Rev & App 90% Design Build Submission	14	15-Nov-11	28-Nov-11	15-Nov-11	28-Nov-11	0
Environmental Submissions							
Preliminary Environmental Design Submission							
LA30100010	Prep & Sub Preliminary Environmental Design	30	15-Jul-11	13-Aug-11	07-Aug-11	05-Sep-11	23
LA30100015	Rev & App Preliminary Environmental Design	14	14-Aug-11	27-Aug-11	06-Sep-11	19-Sep-11	23
Wetland and Water Quality Permits							
LA30100020	Prep & Sub Wetland and Water Quality Permits	30	28-Aug-11	26-Sep-11	20-Sep-11	19-Oct-11	23
LA30100025	Rev & App Wetland and Water Quality Permits	14	27-Sep-11	10-Oct-11	20-Oct-11	02-Nov-11	23
LA30100030	RIDOT to Submit Permits for Agency Approval	42	11-Oct-11	21-Nov-11	03-Nov-11	14-Dec-11	23
Soil Management Plan							
LA30100035	Prep & Sub Soil Management Plan	14	15-Jul-11	28-Jul-11	23-Mar-12	05-Apr-12	252
LA30100040	Rev & App Soil Management Plan	14	29-Jul-11	11-Aug-11	06-Apr-12	19-Apr-12	252
Stormwater Pollution Prevention Plan							
LA30100045	Prep & Sub Stormwater Pollution Pervention Plan	14	15-Jul-11	28-Jul-11	11-Nov-11	24-Nov-11	119
LA30100050	Rev & App Stormwater Pollution Pervention Plan	14	29-Jul-11	11-Aug-11	25-Nov-11	08-Dec-11	119
Contractors QA/QC Plan							
LA30150010	P&S Contractors QA/QC Plan	20	29-Jul-11	17-Aug-11	05-Nov-11	24-Nov-11	99
LA30150015	R&A Contracts QA/AC Plan	14	18-Aug-11	31-Aug-11	25-Nov-11	08-Dec-11	99
Transportation Management Plan							
LA30200010	P&S Transportation Management Plan	14	15-Jul-11	28-Jul-11	11-Nov-11	24-Nov-11	119
LA30200015	R&A Transportation Management Plan	14	29-Jul-11	11-Aug-11	25-Nov-11	08-Dec-11	119
Project Specific Shop Drawing Submissions							
Preconstruction Survey							
LA30300010	Prep & Sub Preconstruction Survey	14	13-Sep-11	26-Sep-11	11-Nov-11	24-Nov-11	59
LA30300015	Rev & App Preconstruction Survey	14	27-Sep-11	10-Oct-11	25-Nov-11	08-Dec-11	59
North Abutment Demo Plan							
LA30300020	Prep & Sub North Abutment Demo Plan	14	15-Nov-11	28-Nov-11	15-Nov-11	28-Nov-11	0
LA30300025	Rev & App North Abutment Demo Plan	10	29-Nov-11	08-Dec-11	29-Nov-11	08-Dec-11	0
Rebar Shop Drawings							
LA30300030	Prep & Sub Rebar Shops for Spillway	21	29-Nov-11	19-Dec-11	28-Feb-12	19-Mar-12	91
LA30300045	Prep & Sub Rebar Shops for Bridge Superstructure	45	29-Nov-11	12-Jan-12	09-Jun-12	23-Jul-12	193
LA30300035	Rev & App Rebar Shops for Spillway	14	20-Dec-11	02-Jan-12	20-Mar-12	02-Apr-12	91
LA30300040	Fab & Del Rebar Shops for Spillway	14	03-Jan-12	16-Jan-12	03-Apr-12	16-Apr-12	91
LA30300050	Rev & App Rebar Shops for Bridge Superstructure	14	13-Jan-12	26-Jan-12	24-Jul-12	06-Aug-12	193
LA30300055	Fab & Del Rebar Shops for Bridge Superstructure	21	27-Jan-12	16-Feb-12	07-Aug-12	27-Aug-12	193
Bridge Bearings							
LA30300060	Prep & Sub Bridge Bearings	21	29-Nov-11	19-Dec-11	16-Apr-12	06-May-12	139
LA30300065	Rev & App Bridge Bearings	14	20-Dec-11	02-Jan-12	07-May-12	20-May-12	139
LA30300070	Fab & Del Bridge Bearings	60	03-Jan-12	02-Mar-12	21-May-12	19-Jul-12	139
Precast Elements							
LA30300075	Prep & Sub Precast Abutment Caps	21	29-Nov-11	19-Dec-11	10-Mar-12	30-Mar-12	102
LA30300090	Prep & Sub Precast Backwall	21	29-Nov-11	19-Dec-11	29-Mar-12	18-Apr-12	121
LA30300080	Rev & App Precast Abutment Caps	14	20-Dec-11	02-Jan-12	31-Mar-12	13-Apr-12	102
LA30300095	Rev & App Precast Backwall	14	20-Dec-11	02-Jan-12	19-Apr-12	02-May-12	121



Remaining Level of Effort | Remaining Work | ◆ Milestone

Actual Work | Critical Remaining Work

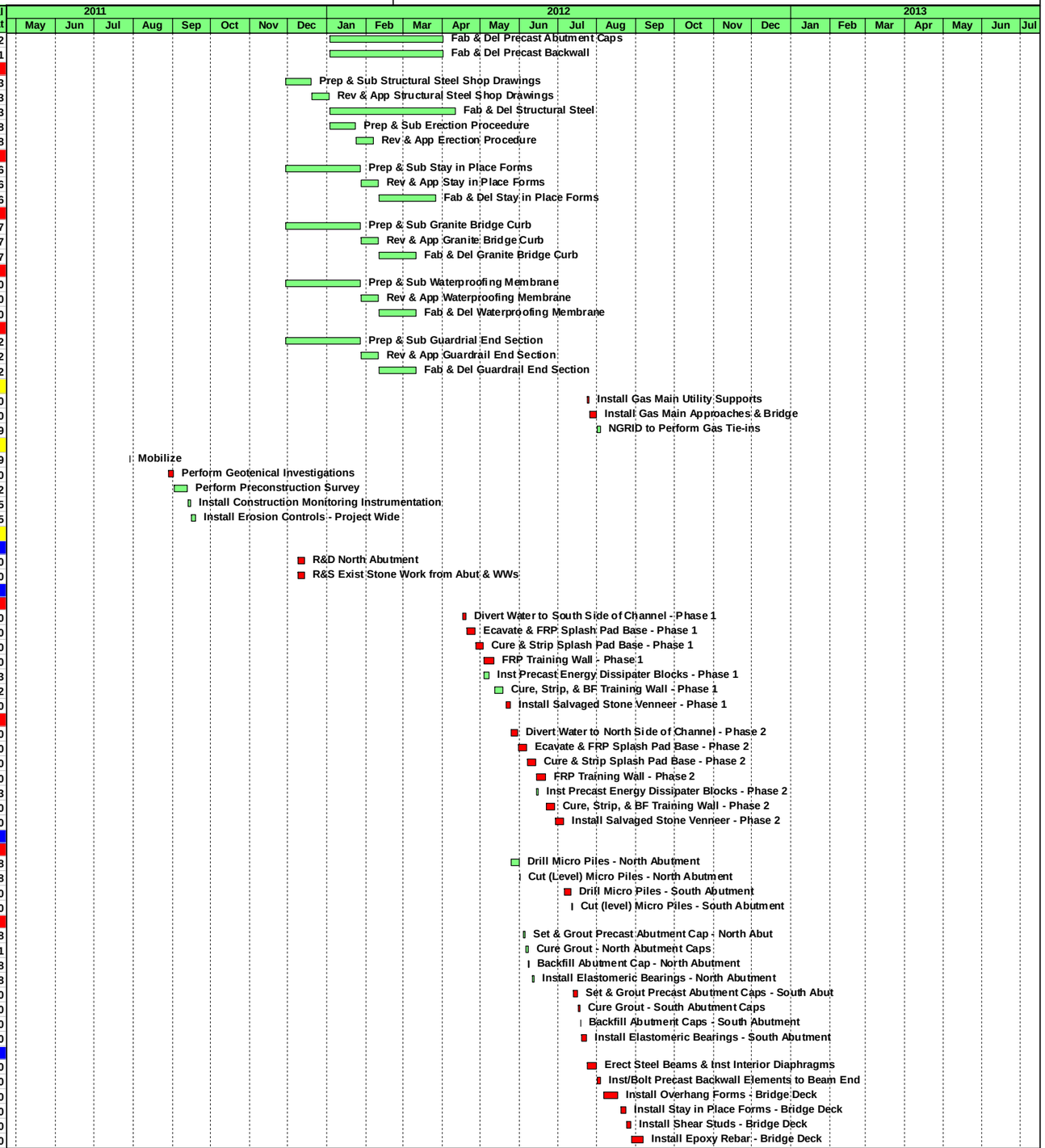
TASK filter: All Activities

Design/Build - Laurel Ave Bridge

Schedule Baseline Propsal

21-Apr-11

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
LA30300085	Fab & Del Precast Abutment Caps	90	03-Jan-12	01-Apr-12	14-Apr-12	12-Jul-12	102
LA30300100	Fab & Del Precast Backwall	90	03-Jan-12	01-Apr-12	03-May-12	31-Jul-12	121
Structural Steel Shops							
LA30300105	Prep & Sub Structural Steel Shop Drawings	21	29-Nov-11	19-Dec-11	11-Mar-12	31-Mar-12	103
LA30300110	Rev & App Structural Steel Shop Drawings	14	20-Dec-11	02-Jan-12	01-Apr-12	14-Apr-12	103
LA30300115	Fab & Del Structural Steel	100	03-Jan-12	11-Apr-12	15-Apr-12	23-Jul-12	103
LA30300120	Prep & Sub Erection Proceedure	21	03-Jan-12	23-Jan-12	19-Jun-12	09-Jul-12	168
LA30300125	Rev & App Erection Procedure	14	24-Jan-12	06-Feb-12	10-Jul-12	23-Jul-12	168
Stay in Place Forms							
LA30300130	Prep & Sub Stay in Place Forms	60	29-Nov-11	27-Jan-12	23-Apr-12	21-Jun-12	146
LA30300135	Rev & App Stay in Place Forms	14	28-Jan-12	10-Feb-12	22-Jun-12	05-Jul-12	146
LA30300140	Fab & Del Stay in Place Forms	45	11-Feb-12	26-Mar-12	06-Jul-12	19-Aug-12	146
Bridge Curb							
LA30300145	Prep & Sub Granite Bridge Curb	60	29-Nov-11	27-Jan-12	03-Jul-12	31-Aug-12	217
LA30300150	Rev & App Granite Bridge Curb	14	28-Jan-12	10-Feb-12	01-Sep-12	14-Sep-12	217
LA30300155	Fab & Del Granite Bridge Curb	30	11-Feb-12	11-Mar-12	15-Sep-12	14-Oct-12	217
Waterproofing Membrane							
LA30300160	Prep & Sub Waterproofing Membrane	60	29-Nov-11	27-Jan-12	15-Aug-12	13-Oct-12	260
LA30300165	Rev & App Waterproofing Membrane	14	28-Jan-12	10-Feb-12	14-Oct-12	27-Oct-12	260
LA30300170	Fab & Del Waterproofing Membrane	30	11-Feb-12	11-Mar-12	28-Oct-12	26-Nov-12	260
Guardrail End Sections							
LA30300175	Prep & Sub Guardrial End Section	60	29-Nov-11	27-Jan-12	17-Aug-12	15-Oct-12	262
LA30300180	Rev & App Guardrail End Section	14	28-Jan-12	10-Feb-12	16-Oct-12	29-Oct-12	262
LA30300185	Fab & Del Guardrail End Section	30	11-Feb-12	11-Mar-12	30-Oct-12	28-Nov-12	262
Utility Work							
LA40000010	Install Gas Main Utility Supports	2	24-Jul-12	25-Jul-12	24-Jul-12	25-Jul-12	0
LA40000015	Install Gas Main Approaches & Bridge	4	26-Jul-12	31-Jul-12	26-Jul-12	31-Jul-12	0
LA40000020	NGRID to Perform Gas Tie-ins	3	01-Aug-12	03-Aug-12	09-Nov-12	14-Nov-12	69
Construction Start Up							
LA50000005	Mobilize	1	29-Jul-11	29-Jul-11	26-Aug-11	26-Aug-11	19
LA50000010	Perform Geotenical Investigations	4	29-Aug-11	01-Sep-11	29-Aug-11	01-Sep-11	0
LA50000015	Perform Preconstruction Survey	6	02-Sep-11	12-Sep-11	03-Nov-11	10-Nov-11	42
LA50000020	Install Construction Monitoring Instrumentation	3	13-Sep-11	15-Sep-11	02-Dec-11	06-Dec-11	55
LA50000025	Install Erosion Controls - Project Wide	2	16-Sep-11	19-Sep-11	07-Dec-11	08-Dec-11	55
Construction							
North Abutment - Demo Work							
LA60050010	R&D North Abutment	4	09-Dec-11	14-Dec-11	09-Dec-11	14-Dec-11	0
LA60050015	R&S Exist Stone Work from Abut & WWs	4	09-Dec-11	14-Dec-11	09-Dec-11	14-Dec-11	0
Splash Pad / Spillway Structure Construction							
Phase 1 (North Side of Channel)							
LA60100010	Divert Water to South Side of Channel - Phase 1	3	17-Apr-12	19-Apr-12	17-Apr-12	19-Apr-12	0
LA60100020	Ecavate & FRP Splash Pad Base - Phase 1	5	20-Apr-12	26-Apr-12	20-Apr-12	26-Apr-12	0
LA60100025	Cure & Strip Splash Pad Base - Phase 1	7	27-Apr-12	03-May-12	27-Apr-12	03-May-12	0
LA60100030	FRP Training Wall - Phase 1	6	04-May-12	11-May-12	04-May-12	11-May-12	0
LA60100045	Inst Precast Energy Dissipater Blocks - Phase 1	2	04-May-12	07-May-12	23-May-12	24-May-12	13
LA60100035	Cure, Strip, & BF Training Wall - Phase 1	7	12-May-12	18-May-12	14-May-12	20-May-12	2
LA60100040	Install Salvaged Stone Venneer - Phase 1	4	21-May-12	24-May-12	21-May-12	24-May-12	0
Phase 2 (South Side of Channel)							
LA60100050	Divert Water to North Side of Channel - Phase 2	3	25-May-12	30-May-12	25-May-12	30-May-12	0
LA60100060	Ecavate & FRP Splash Pad Base - Phase 2	5	31-May-12	06-Jun-12	31-May-12	06-Jun-12	0
LA60100065	Cure & Strip Splash Pad Base - Phase 2	7	07-Jun-12	13-Jun-12	07-Jun-12	13-Jun-12	0
LA60100070	FRP Training Wall - Phase 2	6	14-Jun-12	21-Jun-12	14-Jun-12	21-Jun-12	0
LA60100075	Inst Precast Energy Dissipater Blocks - Phase 2	2	14-Jun-12	15-Jun-12	03-Jul-12	05-Jul-12	13
LA60100080	Cure, Strip, & BF Training Wall - Phase 2	7	22-Jun-12	28-Jun-12	22-Jun-12	28-Jun-12	0
LA60100085	Install Salvaged Stone Venneer - Phase 2	4	29-Jun-12	05-Jul-12	29-Jun-12	05-Jul-12	0
Bridge Substructure Construction							
Micro Pile Installation							
LA60150010	Drill Micro Piles - North Abutment	4	25-May-12	31-May-12	06-Jul-12	11-Jul-12	28
LA60150015	Cut (Level) Micro Piles - North Abutment	1	01-Jun-12	01-Jun-12	12-Jul-12	12-Jul-12	28
LA60150020	Drill Micro Piles - South Abutment	4	06-Jul-12	11-Jul-12	06-Jul-12	11-Jul-12	0
LA60150025	Cut (level) Micro Piles - South Abutment	1	12-Jul-12	12-Jul-12	12-Jul-12	12-Jul-12	0
Abutments							
LA60150030	Set & Grout Precast Abutment Cap - North Abut	2	04-Jun-12	05-Jun-12	13-Jul-12	16-Jul-12	28
LA60150035	Cure Grout - North Abutment Caps	2	06-Jun-12	07-Jun-12	17-Jul-12	18-Jul-12	41
LA60150040	Backfill Abutment Cap - North Abutment	1	08-Jun-12	08-Jun-12	19-Jul-12	19-Jul-12	28
LA60150045	Install Elastomeric Bearings - North Abutment	2	11-Jun-12	12-Jun-12	20-Jul-12	23-Jul-12	28
LA60150050	Set & Grout Precast Abutment Caps - South Abut	2	13-Jul-12	16-Jul-12	13-Jul-12	16-Jul-12	0
LA60150055	Cure Grout - South Abutment Caps	2	17-Jul-12	18-Jul-12	17-Jul-12	18-Jul-12	0
LA60150060	Backfill Abutment Caps - South Abutment	1	19-Jul-12	19-Jul-12	19-Jul-12	19-Jul-12	0
LA60150065	Install Elastomeric Bearings - South Abutment	2	20-Jul-12	23-Jul-12	20-Jul-12	23-Jul-12	0
Bridge Superstucture Work							
LA60200010	Erect Steel Beams & Inst Interior Diaphragms	6	24-Jul-12	31-Jul-12	24-Jul-12	31-Jul-12	0
LA60200015	Inst/Bolt Precast Backwall Elements to Beam End	3	01-Aug-12	03-Aug-12	01-Aug-12	03-Aug-12	0
LA60200020	Install Overhang Forms - Bridge Deck	9	06-Aug-12	17-Aug-12	06-Aug-12	17-Aug-12	0
LA60200025	Install Stay in Place Forms - Bridge Deck	4	20-Aug-12	23-Aug-12	20-Aug-12	23-Aug-12	0
LA60200030	Install Shear Studs - Bridge Deck	2	24-Aug-12	27-Aug-12	24-Aug-12	27-Aug-12	0
LA60200035	Install Epoxy Rebar - Bridge Deck	7	28-Aug-12	06-Sep-12	28-Aug-12	06-Sep-12	0



Remaining Level of Effort | Remaining Work | ◆ Milestone

Actual Work | Critical Remaining Work

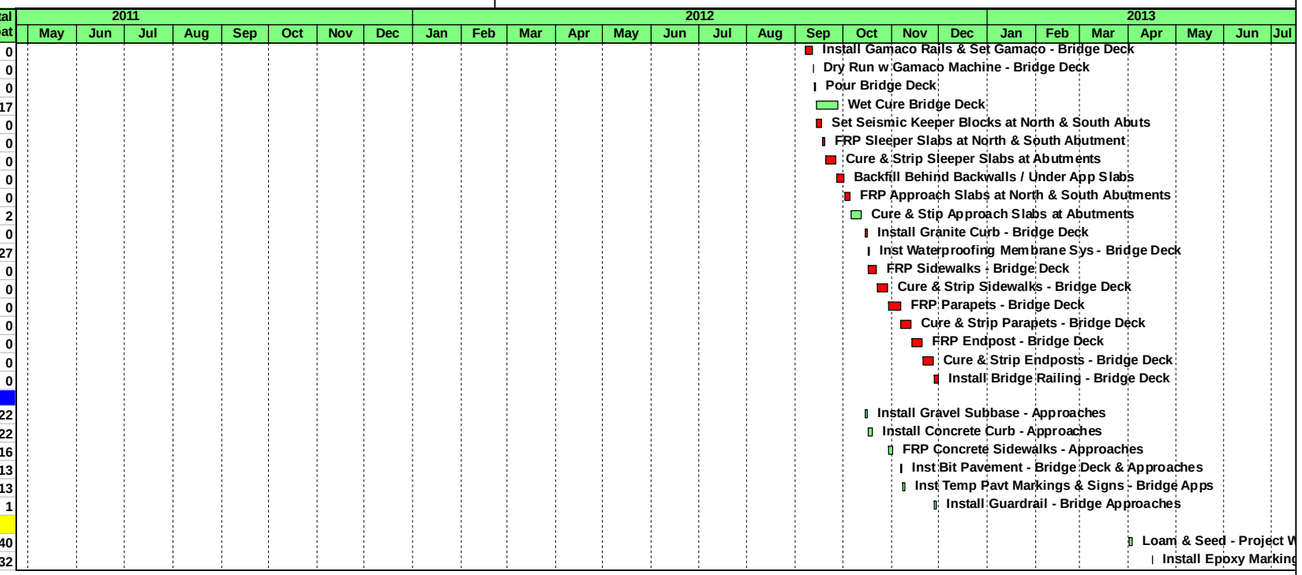
TASK filter: All Activities

Design/Build - Laurel Ave Bridge

Schedule Baseline Propsal

21-Apr-11

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float
LA60200040	Install Gamaco Rails & Set Gamaco - Bridge Deck	3	07-Sep-12	11-Sep-12	07-Sep-12	11-Sep-12	0
LA60200045	Dry Run w Gamaco Machine - Bridge Deck	1	12-Sep-12	12-Sep-12	12-Sep-12	12-Sep-12	0
LA60200060	Pour Bridge Deck	1	13-Sep-12	13-Sep-12	13-Sep-12	13-Sep-12	0
LA60200065	Wet Cure Bridge Deck	14	14-Sep-12	27-Sep-12	01-Oct-12	14-Oct-12	17
LA60200070	Set Seismic Keeper Blocks at North & South Abuts	2	14-Sep-12	17-Sep-12	14-Sep-12	17-Sep-12	0
LA60200075	FRP Sleeper Slabs at North & South Abutment	2	18-Sep-12	19-Sep-12	18-Sep-12	19-Sep-12	0
LA60200080	Cure & Strip Sleeper Slabs at Abutments	7	20-Sep-12	26-Sep-12	20-Sep-12	26-Sep-12	0
LA60200085	Backfill Behind Backwalls / Under App Slabs	3	27-Sep-12	01-Oct-12	27-Sep-12	01-Oct-12	0
LA60200090	FRP Approach Slabs at North & South Abutments	4	02-Oct-12	05-Oct-12	02-Oct-12	05-Oct-12	0
LA60200095	Cure & Stip Approach Slabs at Abutments	7	06-Oct-12	12-Oct-12	08-Oct-12	14-Oct-12	2
LA60200100	Install Granite Curb - Bridge Deck	2	15-Oct-12	16-Oct-12	15-Oct-12	16-Oct-12	0
LA60200103	Inst Waterproofing Membrane Sys - Bridge Deck	1	17-Oct-12	17-Oct-12	27-Nov-12	27-Nov-12	27
LA60200105	FRP Sidewalks - Bridge Deck	4	17-Oct-12	22-Oct-12	17-Oct-12	22-Oct-12	0
LA60200110	Cure & Strip Sidewalks - Bridge Deck	7	23-Oct-12	29-Oct-12	23-Oct-12	29-Oct-12	0
LA60200115	FRP Parapets - Bridge Deck	6	30-Oct-12	06-Nov-12	30-Oct-12	06-Nov-12	0
LA60200120	Cure & Strip Parapets - Bridge Deck	7	07-Nov-12	13-Nov-12	07-Nov-12	13-Nov-12	0
LA60200125	FRP Endpost - Bridge Deck	5	14-Nov-12	20-Nov-12	14-Nov-12	20-Nov-12	0
LA60200130	Cure & Strip Endposts - Bridge Deck	7	21-Nov-12	27-Nov-12	21-Nov-12	27-Nov-12	0
LA60200135	Install Bridge Railing - Bridge Deck	3	28-Nov-12	30-Nov-12	28-Nov-12	30-Nov-12	0
Bridge Paving & Approach Work							
LA60300015	Install Gravel Subbase - Approaches	2	15-Oct-12	16-Oct-12	15-Nov-12	16-Nov-12	22
LA60300025	Install Concrete Curb - Approaches	3	17-Oct-12	19-Oct-12	19-Nov-12	21-Nov-12	22
LA60300030	FRP Concrete Sidewalks - Approaches	3	30-Oct-12	01-Nov-12	23-Nov-12	27-Nov-12	16
LA60300020	Inst Bit Pavement - Bridge Deck & Approaches	1	07-Nov-12	07-Nov-12	28-Nov-12	28-Nov-12	13
LA60300040	Inst Temp Pavt Markings & Signs - Bridge Apps	2	08-Nov-12	09-Nov-12	29-Nov-12	30-Nov-12	13
LA60300035	Install Guardrail - Bridge Approaches	2	28-Nov-12	29-Nov-12	29-Nov-12	30-Nov-12	1
Close Out Work							
LA00000005	Loam & Seed - Project Wide	3	01-Apr-13	03-Apr-13	28-May-13	30-May-13	40
LA70000010	Install Epoxy Markings - Project Wide	1	16-Apr-13	16-Apr-13	31-May-13	31-May-13	32



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
◆ Milestone

TASK filter: All Activities

BASELINE NARRATIVE REPORT

DESIGN/BUILD Services for the
Replacement of the Laurel Avenue Br. No. 397,
Coventry, Rhode Island

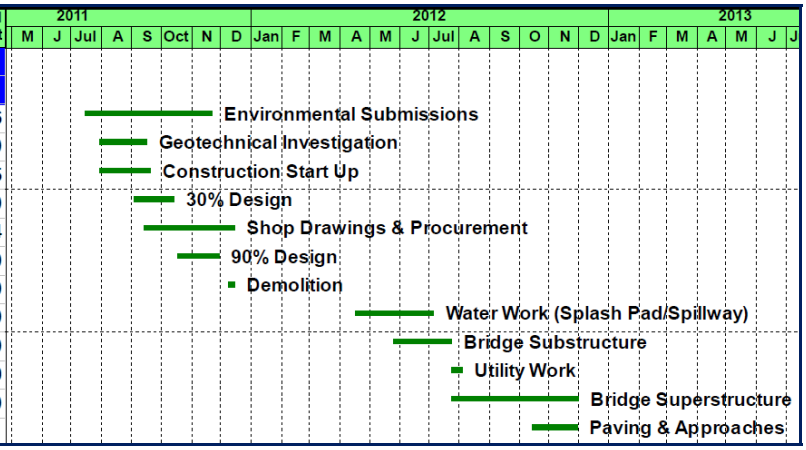
BID # 7448315

PROPOSAL BASELINE SCHEDULE

DATA DATE: 04/21/11
FILE NAME: "LAB-BL00-042111"

This narrative describes Cardi Corporation's intended initial sequencing of Design-Build activities for the above referenced project. Cardi developed this schedule utilizing Primavera P6 Project Management®. The following is a summarized list of Cardi Corporation's initial sequencing for this project.

Activity Name	Original Duration	Start	Finish	Total Float
Design/Build - Laurel Ave Bridge				
Summary Activities				
Environmental Submissions	88	15-Jul-11	21-Nov-11	16
Geotechnical Investigation	33	29-Jul-11	15-Sep-11	0
Construction Start Up	35	29-Jul-11	19-Sep-11	55
30% Design	29	02-Sep-11	14-Oct-11	0
Shop Drawings & Procurement	64	13-Sep-11	14-Dec-11	74
90% Design	29	17-Oct-11	28-Nov-11	0
Demolition	4	09-Dec-11	14-Dec-11	0
Water Work (Splash Pad/Spillway)	56	17-Apr-12	05-Jul-12	0
Bridge Substructure	40	25-May-12	23-Jul-12	0
Utility Work	9	24-Jul-12	03-Aug-12	69
Bridge Superstructure	89	24-Jul-12	30-Nov-12	0
Paving & Approaches	32	15-Oct-12	29-Nov-12	1



Overview

With the utilization of an Accelerated Bridge Construction method, Cardi will construct the Laurel Ave. Bridge within the 2012 construction season. The bridge will be operational to the public November 30, 2012, and Substantially complete April 16th, 2013. The key to constructing the bridge in the shortest amount of time, resulting in the least amount of public inconvenience, is to engineer and design the bridge prior to November, 2012 and ensure procurement items are available for construction the following year. Only the existing bridge demolition may proceed prior to the 2011 winter shutdown and construction will commence the following April.

Planned Flow of Work

Design

Engineering and design of the project will commence as soon as the project is awarded and will be completed early winter.

Procurement

With engineering and design being completed early winter, as well as not proceeding with construction until the following April, there is a sufficient time to prepare, submit, approve and fabricate all pertinent bridge items and will not be applicable to delay construction.

Construction Start-up Activities

Mobilization and activities which pertain to geotechnical monitoring and environmental control.

Construction

Substructure

Stage 1

North Abutment: Divert water south utilizing sand bags and siphon, excavate for north abutment utilizing an excavator, install south Splash Pad, Energy Dissipaters, and Training Wall.

Stage 2

North Abutment: Mobilize geotechnical subcontractor and install north abutment Micro Piles with drill rig[1], backfill and consolidate soils for Precast Abutment Cap.

South Abutment: Demobilize excavator from north abutment and transport to south abutment, divert water north from previous Stage 1 configuration, construct south Splash Pad, Energy Dissipaters, and Training Wall, remove water diversion after completion.

Stage 3

North Abutment: Assemble north abutment precast cap sections with 40 ton crane, install neoprene waterstop seal, and fill joints with grout. Once grout has cured, backfill half of the abutment.[2]

South Abutment: Transport drill rig from north to south abutment and repeat Micro Pile operation.

Stage 4:

North Abutment: Mobilize 40 ton crane from north abutment to south abutment, and repeat Precast Abutment Cap installationl.

Superstructure

Stage 1:

Mobilze 170 ton Hydraulic crane and erect plate girders and install all diaphram connections, install and bolt Precast Backwall to beam ends.

Stage 2: Deck Placement

Survey tenth points, install shear studs and stay-in-place forms, erect brackets for deck overhang, install deck superstructure reinforcing steel, install self-propelled deck screed and rails, conduct trial run to ensure crown is true, place concrete, and wet cure deck.

Stage 3: Sidewalks and Parapets

[1] A test pile will be installed loaded prior to installing production piles

[2] Backfill abutment cap up to the precast backwall bottom elevation.

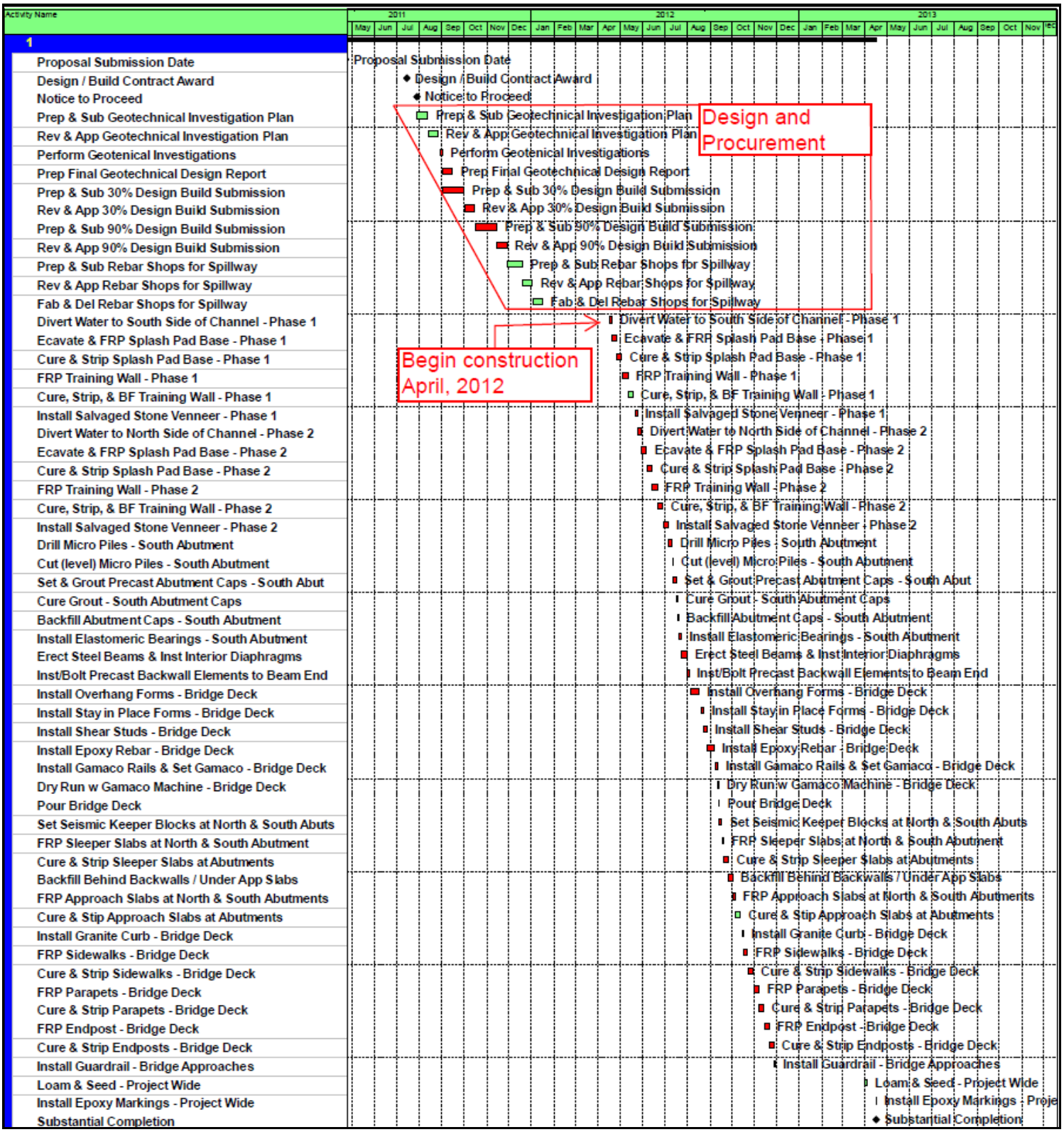
Once deck has cured, remove wet curing application, then install bridge curb and sidewalk reinforcing, form outer fascia and place sidewalk concrete. Once cured, form, reinforce and place concrete for bridge parapet, cure and strip.

Approaches and Pavement Structure:
Once the Precast Backwall has been installed and prior to being backfilled, the Sleeper Slab will be constructed at both the north and south approaches. When the Sleeper Slab has cured and striped, the crushed stone will be installed to subgrade and the approach slabs, end post, and bridge rail will be installed. Finally, when the approach structure is complete, the bridge will receive a waterproofing application, paving, and finally, striping.

Summary

Through Cardi Corporation's savvy construction methods, experienced project managers, and exceptional resources, the Laurel Ave. Bridge will be completed and fully operational to the public in November 2012, with construction duration under nine months.

Critical Path


Activity Name
2011
2012
2013
May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov
1
Proposal Submission Date
Design / Build Contract Award
Notice to Proceed
Prep & Sub Geotechnical Investigation Plan
Rev & App Geotechnical Investigation Plan
Perform Geotenical Investigations
Prep Final Geotechnical Design Report
Prep & Sub 30% Design Build Submission
Rev & App 30% Design Build Submission
Prep & Sub 90% Design Build Submission
Rev & App 90% Design Build Submission
Prep & Sub Rebar Shops for Spillway
Rev & App Rebar Shops for Spillway
Fab & Del Rebar Shops for Spillway
Divert Water to South Side of Channel - Phase 1
Ecavate & FRP Splash Pad Base - Phase 1
Cure & Strip Splash Pad Base - Phase 1
FRP Training Wall - Phase 1
Cure, Strip, & BF Training Wall - Phase 1
Install Salvaged Stone Venneer - Phase 1
Divert Water to North Side of Channel - Phase 2
Ecavate & FRP Splash Pad Base - Phase 2
Cure & Strip Splash Pad Base - Phase 2
FRP Training Wall - Phase 2
Cure, Strip, & BF Training Wall - Phase 2
Install Salvaged Stone Venneer - Phase 2
Drill Micro Piles - South Abutment
Cut (level) Micro Piles - South Abutment
Set & Grout Precast Abutment Caps - South Abut
Cure Grout - South Abutment Caps
Backfill Abutment Caps - South Abutment
Install Elastomeric Bearings - South Abutment
Erect Steel Beams & Inst Interior Diaphragms
Inst/Bolt Precast Backwall Elements to Beam End
Install Overhang Forms - Bridge Deck
Install Stay in Place Forms - Bridge Deck
Install Shear Studs - Bridge Deck
Install Epoxy Rebar - Bridge Deck
Install Gamaco Rails & Set Gamaco - Bridge Deck
Dry Run w Gamaco Machine - Bridge Deck
Pour Bridge Deck
Set Seismic Keeper Blocks at North & South Abuts
FRP Sleeper Slabs at North & South Abutment
Cure & Strip Sleeper Slabs at Abutments
Backfill Behind Backwalls / Under App Slabs
FRP Approach Slabs at North & South Abutments
Cure & Stip Approach Slabs at Abutments
Install Granite Curb - Bridge Deck
FRP Sidewalks - Bridge Deck
Cure & Strip Sidewalks - Bridge Deck
FRP Parapets - Bridge Deck
Cure & Strip Parapets - Bridge Deck
FRP Endpost - Bridge Deck
Cure & Strip Endposts - Bridge Deck
Install Guardrail - Bridge Approaches
Loam & Seed - Project Wide
Install Epoxy Markings - Project Wide
Substantial Completion
Design and Procurement
Begin construction April, 2012

SECTION III: DBE & OTJ REQUIREMENTS

Section III:
DBE & OTJ Training Statements

DBE

Cardi Corporation routinely performs contract work for various State agencies which require Disadvantaged Business Enterprise goals. We have complied with the DBE requirements on past projects and we are committed to meeting or exceeding the goal percentage set for this project. In every case possible, Cardi Corporation will emphasize utilizing Under-utilized DBE (UDBE) groups during the design and construction of this project.

Yours truly,

Carl C. Engle
Vice President/Chief Engineer

.....

TRAINEES

Cardi Corporation presently has in place an on-the-job training program which is utilized on the majority of our projects. Most certainly will we develop and maintain a continuous on-the-job (OJT) program achieving the required Training hours for this project.

Yours truly,

Carl C. Engle
Vice President/Chief Engineer

DBE Statements

CME ASSOCIATES, INC.

CME Associates, Inc. performs engineering design services for various Federal, State and Local agencies requiring Disadvantaged Business Enterprise, (DBE) goals. We have complied with the DBE requirements on all past and on-going projects and we are committed to meeting or exceeding the 10% DBE goal percentage set for this project. VN Engineers, Inc. has consented to join our design team as a certified DBE firm in Rhode Island and the associated Letter of Intent is included in the appendix for your information.

CME will make every effort to utilize Under-utilized DBE (UDBE) groups during the design and construction of this project.

Sincerely,

P. Bradford Cheney, P.E., L.S., President
CME Associates, Inc.

SECTION IV: REQUIRED FORMS

State of Rhode Island and Providence Plantations Contract Offer

RIVIP GENERATED BIDDER CERTIFICATION COVER FORM

SECTION 1 - VENDOR INFORMATION

Bid/RFP Number:	7448315A6
Bid/RFP Title:	RFP - DESIGN / BUILD SVCS FOR REPLACEMENT OF LAUREL AVE BRIDGE #397 (ADDEN
Opening Date & Time:	4/22/2011 11:30 AM
RIVIP Vendor ID #:	221
Vendor Name:	Cardi Corporation
Address:	400 Lincoln Ave. Warwick, RI 02888 USA
Telephone:	(401) 739-8300
Fax:	(401) 732-0006
E-Mail:	sacardi@cardi.com
Contact Person:	Carl C. Engle
Title:	Vice President/Chief Engineer
R.I. Foreign Corp #:	

NOTICE TO VENDORS

Effective January 1, 2011 all public works project related bids or proposals exceeding one million ($1,000,000) dollars are required to include a "public copy". All agency contract solicitations, requests for proposals, invitations for bids, etc. shall state that any bid or proposal that exceeds one million ($1,000,000) dollars must include a copy to be available for public inspection upon the opening of the bids. Any bid or proposal in excess of one million ($1,000,000) dollars which does not include a copy for public inspection shall be deemed to be non-responsive. For further information, please see R. I. Gen. Laws §37-2-18 (P.L. 221) http://www.rilin.state.ri.us/PublicLaws/law10/law10221.htm and Purchasing Rules & amendment at http://www.purchasing.ri.gov/Notices2.aspx. See Question #11 below for further instructions regarding RIDOT Highway and Bridge Construction projects.

In addition, the Division of Purchases has promulgated proposed regulations pursuant to R.I. Gen. Laws § 37-2-18 that implements the "public copy" requirement. Public hearing on the proposed regulations was held on Friday, December 17, 2010. The proposed regulations became final on January 11, 2011. For further information please visit www.sos.ri.gov.

NOTE: AWARD OF CONTRACTS AND PURCHASE ORDERS SHALL BE SUBJECT, AT THE DISCRETION OF THE PURCHASING AGENT, TO THE OFFEROR COMPLETING AN ON-LINE RIVIP REGISTRATION at www.purchasing.ri.gov. It is THE RESPONSIBILITY OF THE VENDOR to make on-line corrections/updates using the Vendor maintenance program on the RI Division of Purchases Web Site.

SECTION 2 - REQUIREMENTS

ALL OFFERS ARE SUBJECT TO THE REQUIREMENTS, PROVISIONS AND PROCEDURES CONTAINED IN THIS THREE-PAGE CERTIFICATION FORM. Offerors are expected to READ, SIGN and COMPLY with all requirements. Failure to do so may be grounds for disqualification of the offer contained herein.

Section 2.1 - RULES FOR SUBMITTING OFFERS

2.1A. This CERTIFICATION FORM MUST BE ATTACHED IN ITS ENTIRETY TO THE FRONT OF THE OFFER and shall be considered an integral part of each offer made by a vendor to enter into a contract with the State of Rhode Island, Division of Purchases. As such, submittal of the entire Bidder Certification Cover Form, signed by a duly authorized representative of the offeror attesting that he/she (1) has read and agrees to comply with the requirements set forth herein and (2) to the accuracy of the information provided and the offer extended, is a mandatory part of any contract award.

To assure that offers are considered on time, each offer must be submitted with the specific Bid/RFP/LOI number (provided above), date and time of opening marked in the upper left hand corner of envelope. Each bid/offer must be submitted in separate sealed envelopes.

A complete, signed (in ink) offer package, must be delivered to the Division of Purchases (via any mail or messenger service) by the time and date specified for the opening of responses in a sealed envelope.

Bids must be submitted on the RI bid solicitation forms provided, indicating brand and part numbers of items offered, as appropriate. Bidders must submit detailed cuts and specs on items offered as equivalent to brands requested WITH THE OFFER. Bidders must be able to submit samples if requested.
Mail To: Division of Purchases, One Capitol Hill, Second Floor, Providence, RI 02908-5855.

Documents misdirected to other State locations or which are not present in the Division of Purchases at the time of opening for whatever cause will be deemed to be late and will not be considered. For the purposes of this requirement, the official time and date shall be that of the time clock in the Division of Purchases. Postmarks shall not be considered proof of timely submission.

2.1B. RIVIP SOLICITATIONS. To assure maximum access opportunities for users, public bid/RFP solicitations shall be posted on the RIVIP for a minimum of seven days and no amendments shall be made within the last five days before the date an offer is due. Except when access to the Web Site has been severely curtailed and it is determined by the State Purchasing Agent that special circumstances preclude extending a solicitation due date, requests to mail or fax hard copies of solicitations will not be honored. When the result of an Internet solicitation is unsuccessful, the State of Rhode Island will cancel the original solicitation and resolicit the original offer directly from vendors.

2.2. PRICING. Offers are irrevocable for sixty (60) days from the opening date (or such other extended period set forth in the solicitation) and may not be withdrawn, except with the express permission of the State Purchasing Agent. All pricing will be considered to be firm and fixed unless otherwise indicated. The State of Rhode Island is exempt from Federal excise taxes and State Sales and Use Taxes. Such taxes shall not be included in the bid price. PRICES QUOTED ARE FOB DESTINATION.

2.3. DELIVERY and PRODUCT QUALITY. All offers must define delivery dates for all items; if no delivery date is specified, it is assumed that immediate delivery from stock will be made. The contractor will be responsible for delivery of materials in first class condition. Rejected materials will be at vendor's expense.

2.4. PREVAILING WAGE, OSHA and APPRENTICESHIP.

2.4.1 Prevailing Wage and OSHA Safety Training Requirements. The provisions of the State labor laws and OSHA Safety Training, including but not limited to Rhode Island General Laws 37-13-1 et seq. and 28-20-1 et seq., shall apply for all public works contracts. Prevailing wage rates are posted in the information section of the RIVIP. The RI Department of Labor and Training should be contacted for regulatory requirements.

2.4.2 (a) Apprenticeship. Rhode Island General Laws §37-13-3.1 requires all general contractors and subcontractors who perform work on any public works contract awarded by the state valued at one million dollars ($1,000,000) or more shall employ apprentices required for the performance of the awarded contract. The number of apprentices shall comply with the apprentice to journeyman ratio for each trade approved by the apprenticeship council of the department of labor and training.

2.4.2(b) In addition to executing this certification, the general contractor shall be responsible for requiring that all subcontractors on the awarded project certify their compliance with R.I. Gen. Laws §37-13-3.1 prior to allowing the subcontractor to commence work on the awarded project. The general contractor shall be responsible for submitting the subcontractors compliance certification to the Division of Purchases after the contracts are finalized between the contractor and subcontractor.

2.5. PUBLIC RECORDS. Offerors are advised that all materials submitted to the State for consideration in response to this solicitation will be considered without exception to be Public Records pursuant to Title 38 Chapter 2 of the Rhode Island General Laws, and will be released for inspection immediately upon request once an award has been made. Offerors are encouraged to attend public bid/RFP openings to obtain information; however, bid/RFP response summaries may be reviewed after award(s) have been made by using the RIVIP at any time or appearing in person at the Division of Purchases Mondays through Fridays between 8:30 a.m. and 3:30 p.m. Telephone requests for results will not be honored. Written requests for results will only be honored if the information is not available on the RIVIP.

SECTION 3 - AWARD DETERMINATION

Award will be made to the responsive and responsible offeror quoting the lowest net price in accordance with specifications, for any individual item(s), for major groupings of items, or for all items listed, at the State's sole option.
3.1. BID SURETY. Where bid surety is required, bidder must furnish a bid bond or certified check for 5% of the bid total with the bid, or for such other amount as may be specified. Bids submitted without a required bid surety will not be considered.

3.2. SPECIFICATIONS. Unless specified "no substitute," product offerings equivalent in quality and performance will be considered (at the sole option of the State) on the condition that the offer is accompanied by detailed product specifications. Offers which fail to include alternate specifications may be deemed nonresponsive.

SECTION 4 – CONTRACT PROVISIONS

4.1. VENDOR AUTHORIZATION TO PROCEED.

4.1A. When a purchase order, change order, contract/agreement or contract/agreement amendment is issued by the RI Division of Purchases, no claim for payment for services rendered or goods delivered contrary to or in excess of the contract terms and scope shall be considered valid unless the vendor has obtained a written change order or contract amendment issued by the Division of Purchases PRIOR TO delivery.

4.1B. Any offer, whether in response to a solicitation for proposals or bids, or made without a solicitation, which is accepted in the form of an order OR Pricing Agreement made in writing by the Purchasing Agent, or a state official with purchasing authority delegated by the Purchasing Agent, shall be considered a binding contract.

4.2. REGULATIONS, GENERAL TERMS AND CONDITIONS GOVERNING STATE CONTRACTS. This solicitation and any contract or purchase order arising from it are issued in accordance with the specific requirements described herein, and the State's Purchasing Laws and Regulations and other applicable State Laws. The Regulations, General Terms and Conditions are incorporated into all state contracts. These regulations and basic information on How To Do Business with the State of Rhode Island are posted on the Rhode Island Vendor Information Program Website (www.purchasing.ri.gov).

4.2A. ARRA SUPPLEMENTAL TERMS AND CONDITIONS. Contracts and sub-awards funded in whole or in part by the American Recovery and Reinvestment Act of 2009. Pub.L.No. 111-5 and any amendments thereto, such contracts and sub-awards, shall be subject to the Supplemental Terms and Conditions For Contracts and Sub-awards Funded in Whole or in Part by the American Recovery and Reinvestment Act of 2009. Pub.L.No. 111-5 and any amendments thereto located on the Division of Purchases website at www.purchasing.ri.gov.

4.3. EQUAL EMPLOYMENT OPPORTUNITY. Compliance certificate and agreement procedures will apply to all awards for supplies or services valued at $10,000 and more. Minority Business Enterprise policies and procedures, including subcontracting opportunities as described in Title 37 Chapter 14.1, of the Rhode Island General Laws, also apply.

4.4. PERFORMANCE BONDS. Where indicated, successful bidder must furnish a 100% performance bond and labor and payment bond for contracts subject to Title 37 Chapters 12 and 13 of the Rhode Island General Laws. All bonds must be furnished by a surety company authorized to conduct business in the State of Rhode Island. Performance bonds must be submitted within 21 calendar days of the issuance of a tentative notice of award.

4.5. DEFAULT and NON-COMPLIANCE. Default and/or non-compliance with the RIVIP requirements and any other aspects of the award may result in withholding of payment(s), contract termination, debarment, suspension, or any other remedy necessary that is in the best interest of the state.

4.6. COMPLIANCE. Vendor must comply with all applicable federal, state and local laws, regulations and ordinances.

4.7. SPRINKLER IMPAIRMENT AND HOT WORK. The Contractor agrees to comply with the practices of the State's insurance carrier for sprinkler impairment and hot work. Prior to performing any work, the Contractor shall obtain the necessary information for compliance from the Risk Management Office at the Department of Administration or the agency for which work will be performed.

SECTION 5 – CERTIFICATIONS AND DISCLOSURES
ALL CONTRACT AWARDS ARE SUBJECT TO THE FOLLOWING DISCLOSURES & CERTIFICATIONS
Offerors must respond to every disclosure statement.
A person authorized to enter into contracts must sign the offer and attest to the accuracy of all statements.

Indicate Yes (Y) or No (N):

N 1. Has your firm (or any principal) been subject to any of the following findings by the Federal Government, the State of Rhode Island or any other jurisdiction? Suspension, Debarment, Indictment, Criminal Conviction. CIRCLE APPROPRIATE ITEM(S).

N 2. Has your firm (or any principal) been fined more than $5000 for a single violation by the Rhode Island Department of Environmental Management for violation of Rhode Island Wetlands law?

Y 3. I/we certify that I/we will immediately disclose, in writing, to the Chief Purchasing Officer any potential conflict of interest, which may occur during the course of the engagement authorized pursuant to this contract.

Y 4. I/we acknowledge that, in accordance with Chapter 37-2-54(c) of the Rhode Island General Laws "no purchase or contract shall be binding on the state or any agency thereof unless approved by the Department [of Administration] or made under general regulations which the Chief Purchasing Officer may prescribe", including change orders and other types of contracts and under State Purchasing Regulation 8.2.1.1.2, "any alleged oral agreement or arrangements made by a bidder or contractor with any agency or an employee of the Office of Purchases may be disregarded and shall not be binding on the state".

Y 5. I/we certify that the above vendor information is correct and complete.

Y 6. I/we certify that I/we or my/our firm possesses all licenses required by Federal and State laws and regulations as they pertain to the requirements of the solicitation and offer made herein and shall maintain such required license(s) during the entire course of the contract resulting from the offer contained herein and should my/our license lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.

Y 7. I/we certify that I/we will maintain required insurance during the entire course of the contract resulting from the offer contained herein and should my/our insurance lapse or be suspended, I/we shall immediately inform the Rhode Island State Purchasing Agent in writing of such circumstance.

Y 8. I/we certify that I/we understand that falsification of any information herein or failure to notify the Rhode Island State Purchasing Agent as certified herein may be grounds for suspension, debarment and/or prosecution for fraud.

Y 9. I/we acknowledge that the provisions and procedures set forth in this three-page form apply to any contract arising from this offer.

Y 10. I/we acknowledge that I/we understand the State's Purchasing Laws (37-2 of the General Laws of Rhode Island) and Purchasing Regulations and General Terms and Conditions available at the Rhode Island Division of Purchases Website (www.purchasing.ri.gov) apply as the governing conditions for any contract or purchase order I/we may receive from the State of Rhode Island, including the offer contained herein.

Y **11. NEW REQUIREMENT* - IMPORTANT!!! I/we hereby acknowledge that I/we understand that effective January 1, 2011 all public works related project bids or proposals exceeding One Million Dollars ($1,000,000), inclusive of all proposed alternates, must include a "public copy" as required by R.I. Gen. Laws § 37-2-18 and the "Rules, Regulations and General Conditions of Purchases". It is further understood that any bid or proposal in excess of One million Dollars ($1,000,000) which does not include a copy for public inspection shall be deemed to be non-responsive.**

RIDOT Highway and Bridge Public Works related projects utilizing Quest Lite program only – Effective immediately, submission to the Division of Purchases of a duplicate original of a vendor's Quest Lite compatible electronic copy on a readable compact disk shall satisfy the statutory "public copy" requirements. Quest Lite software is defined in the Division of Purchases "Rules, Regulations and General Conditions of Purchases" §12.102.05 (Preparation of Proposal), as adopted on December 15, 2010 and January 11, 2011.

For further information, please see R.I Gen. Laws § 37-2-18 and specific instructions at www.purchasing.ri.gov .

IF YOU HAVE ANSWERED "YES" TO QUESTIONS #1–2 OR IF YOU ARE UNABLE TO CERTIFY YES TO ITEMS #3–11 OF THE FOREGOING, PROVIDE DETAILS/EXPLANATION BELOW AND/OR IN AN ATTACHED STATEMENT. INCOMPLETE CERTIFICATION FORMS SHALL BE GROUNDS FOR DISQUALIFICATION OF OFFER.

Signature below commits vendor to the attached offer and certifies (1) that the offer has taken into account all solicitation amendments, (2) that the above statements and information are accurate and that vendor understands and has complied with the requirements set forth herein. When delivering offers in person to One Capitol Hill, vendors are advised to allow at least one hour additional time for clearance through security checkpoints.

Carl C. Engle

Vendor's Signature (Person authorized to enter into contracts; signature must be in ink.) Date April 22, 2011

Carl C. Engle, Vice President/Chief Engineer

Print Name and Title of company official signing offer

Revised: 3/21/11

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

Design-Build Services for the Replacement of Laurel Avenue Bridge No. 397

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
02/25/2011	7448315

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Michael P. Culmo, P.E.

5. NAME OF FIRM

CME Associates, Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
860-290-4100	860-290-4114	culmo@cmeengineering.com

C. PROPOSED TEAM

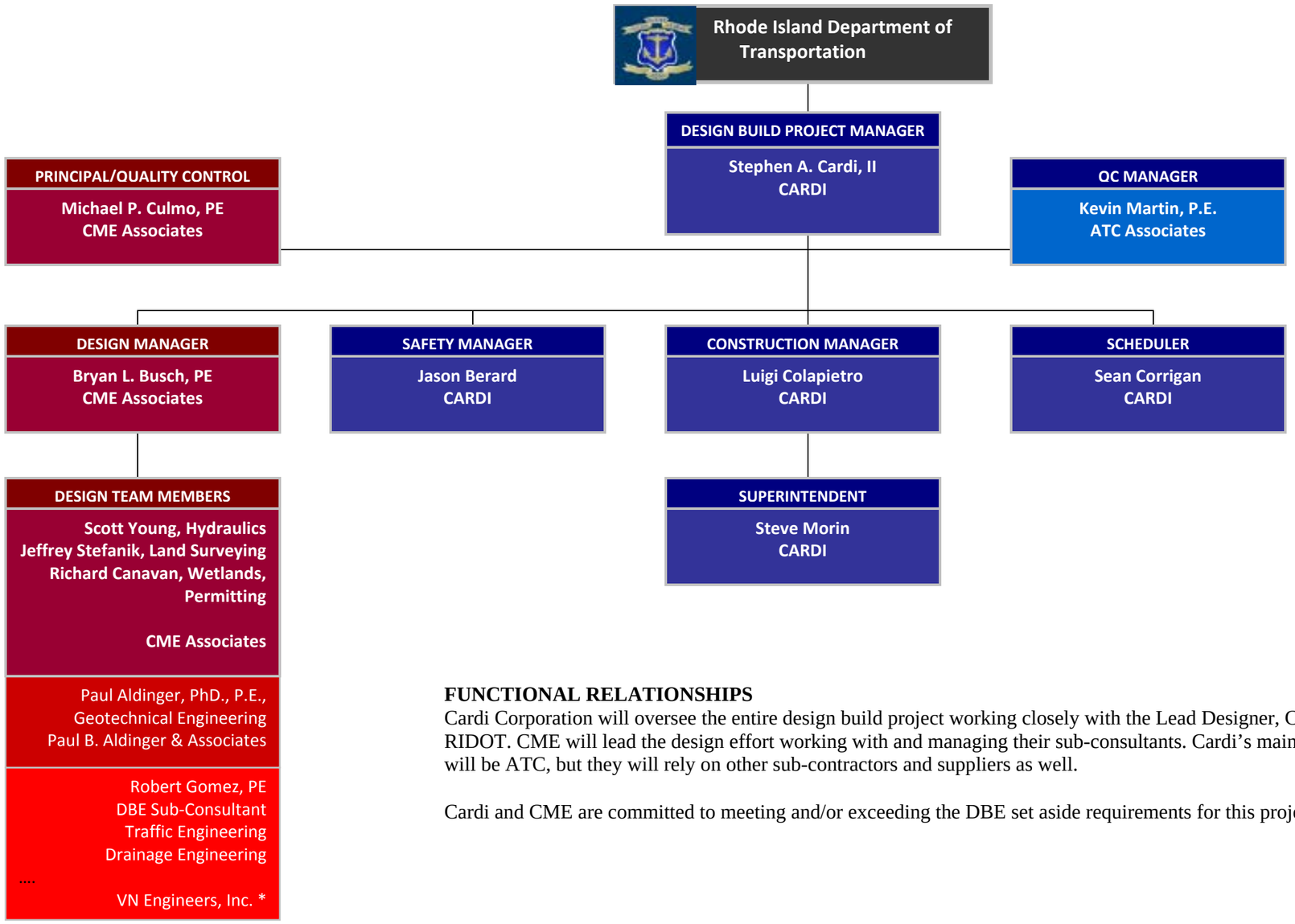
(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	✘			CME Associates, Inc. ☒ CHECK IF BRANCH OFFICE	333 East River Drive Suite 400 East Hartford, CT 06108	Structural Engineering & Construction Inspection
b.	✘			CME Associates, Inc. ☐ CHECK IF BRANCH OFFICE	32 Crabtree Lane Woodstock, CT 06281	Survey and Environmental services
c.			✘	VN Engineers, Inc. ☐ CHECK IF BRANCH OFFICE	90 High Street Westerly, RI	Traffic Design, Hydrology DBE Sub-consultant
d.			✘	Paul B. Aldinger & Associates, Inc. ☐ CHECK IF BRANCH OFFICE	860 A Waterman Avenue, Suite 9 East Providence, RI 02915	Geotechnical Engineering
e.				☐ CHECK IF BRANCH OFFICE		
f.				☐ CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ *(Attached)*

Organizational Chart for Design Build Team

* denotes DBE firm



FUNCTIONAL RELATIONSHIPS
Cardi Corporation will oversee the entire design build project working closely with the Lead Designer, CME and the Client, RIDOT. CME will lead the design effort working with and managing their sub-consultants. Cardi's main sub-contractor will be ATC, but they will rely on other sub-contractors and suppliers as well.

Cardi and CME are committed to meeting and/or exceeding the DBE set aside requirements for this project.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Michael P. Culmo, P.E.	Lead Engineer/Engineer in Charge	25	12

15. FIRM NAME AND LOCATION *(City and State)*

CME Associates, Inc., East Hartford, CT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS/1986/Structural Engineering BS/1983/Civil Engineering	PE Civil Engineering: CT, MA, MD, ME, NH, UT

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member American Society of Civil Engineers. Member of the Precast Prestressed Concrete Institute
Member - Transportation Research Board, Concrete Bridge Committee & Steel Bridge Committee

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bridge Replacement, Rte 151 over Salmon River, East Haddam, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 — CONSTRUCTION *(If applicable)*: 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Design for replacement of a 230-foot 3-span bridge with a new 250-foot single span. Design of temporary bridge for use during construction also included. Project is currently in the final stages of construction. Role: Engineer in Charge. Construction: $6M. Design:$250,000.

b.

(1) TITLE AND LOCATION *(City and State)*: Naubuc Avenue Bridge, Glastonbury, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2006 — CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

This project involved historic rehabilitation of an 1870's brownstone arch bridge in Glastonbury. The approach walls to this arch failed. The design approach was to reconstruct and strengthen the walls while returning the structure to its original appearance. Study: $15,250, Design:$19,500 Construction $450,000 Role: Engineer in Charge

c.

(1) TITLE AND LOCATION *(City and State)*: Tarkiln Road over the Tarkiln River, Burrillville, RI

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(If applicable)*: 2003

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

Design for bridge layout and roadway for a prefabricated concrete arch bridge to replace the original steel span that was closed by the state due to advanced deterioration. Role: Project Manager. Construction: $150,000.

d.

(1) TITLE AND LOCATION *(City and State)*: Park Street Bridge Over abandoned Railroad, Manchester, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007 — CONSTRUCTION *(If applicable)*: 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

CME's design involves replacement of the steel superstructure and salvaging the historic stone foundations. The new structure will be a two span weathering steel bridge. Construction was completed this Fall (2008). Role: Engineer in Charge Design: $114,500 Construction:$1,825,000

e.

(1) TITLE AND LOCATION *(City and State)*: Pleasant Street Bridge over the Blackstone River, Grafton, MA

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2005 — CONSTRUCTION *(If applicable)*: 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] Check if project performed with current firm

The existing bridge is a two span stone arch. The innovative design consists of construction of a two span integral concrete slab bridge over the top of the existing arch. This will maintain the historic look of the bridge, while allowing for minor widening. Role: Engineer in Charge Design: $85,000 Construction:$2,500,000

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Bryan L. Busch, P.E.	Project Manager	14	10

15. FIRM NAME AND LOCATION *(City and State)*
CME Associates, Inc., East Hartford, CT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS/1998/Structural Engineering BS/1993/Civil Engineering	PE Civil Engineering: CT, MA, RI, NY, NJ, UT

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Training: FHWA 80-Hour Bridge Inspection Course

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bridge Replacements, Route 1, Stonington, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Design of 2 single span, galvanized steel stringer bridges with integral abutments. The bridges are over tidal zones of Stonington, CT. Role: Project Manager Design:$215,000 Construction:$2,536,000

b.

(1) TITLE AND LOCATION *(City and State)*: Bridge Replacement, Rte 151 over Salmon River, East Haddam, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 | CONSTRUCTION *(If applicable)*: 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Design for replacement of a 230-foot 3-span bridge with a new 250-foot single span. Design of temporary bridge for use during construction also included. Project is currently in the final stages of construction. Role: Project Manager. Construction: $6M. Design:$250,000.

c.

(1) TITLE AND LOCATION *(City and State)*: Brainard Road Exit Ramp over Routes 5/15, Hartford, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007 | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Design for replacement of an off ramp bridge. The design for this curved structure includes increasing both the vertical clearance and the radius of the curve including widening and pier replacement of a two span bridge overpass. The proposed structure is a two span curved steel girder structure. Design is complete and construction is underway. Role: Project Manager Design: $200,000 Construction: $6,090,000

d.

(1) TITLE AND LOCATION *(City and State)*: Times Farm Road Bridge over the Hop River, Andover, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Design for replacement and minor widening of the bridge superstructure. Work includes hydraulic analysis of the river and plans for scour mitigation. An adjacent precast prestressed concrete voided slab bridge is proposed. Project is currently on hold pending funding. Project Role: Project Manager. Construction: $400,000.

e.

(1) TITLE AND LOCATION *(City and State)*: Park Street Bridge Over abandoned Railroad, City of Manchester, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007 | CONSTRUCTION *(If applicable)*: 2008

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — [X] Check if project performed with current firm

Design for replacing steel superstructure and salvaging the stone foundations. The proposed bridge will be a two span bridge made with either weathering steel or prestressed concrete bulb tee beams. Construction was completed in the fall (2008) for this project. Role: Project Manager. Construction: $1,825,000.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Scott G. Young, P.E.	Civil Engineering/Drainage Design	24	15

15. FIRM NAME AND LOCATION *(City and State)*

CME Associates, Inc., Woodstock, Connecticut

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S.- Civil Engineering	Professional Engineer: CT, MA CT DOT Approved Hydraulics Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

MEMBER: Soil and Water Conservation Society, American Society of Civil Engineers, Association of State Dam Safety Officials, Chi Epsilon, Civil Engineering Honor Society, American Water Works Association

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Road and Drainage Improvements, Post Office Road, Enfield, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(if applicable)*: 2003

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design for roadway reconstruction, drainage improvements and a culvert. Included channel stabilization on escarpment areas near the Scantic River where erosion led to slope failure. The slopes were reconfigured and subsurface drainage was added to stabilize the outlet area. Role: Project Manager. Construction: $166,000.

b.

(1) TITLE AND LOCATION *(City and State)*: Times Farm Road Bridge over the Hop River, Andover, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

CME is responsible for the superstructure replacement and scour mitigation for a 30-foot single span bridge. Role: Mr. Young is providing the full hydraulic and scour analysis. Design is 50% complete. Construction: $400,000.

c.

(1) TITLE AND LOCATION *(City and State)*: Realignment of Mowry Road, Burrillville, RI

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 — CONSTRUCTION *(if applicable)*: 2006

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design for realignment of Mowry Road. Rhode Island Contract No. 2004-CH-056. Design is complete, project is currently out to bid. Project Role: Drainage design Construction: $524,217.00.

d.

(1) TITLE AND LOCATION *(City and State)*: Drainage Design East Quasset Road Woodstock, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1999 — CONSTRUCTION *(if applicable)*: 1999

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design of road drainage system for a two-mile section adjacent to a lake. Included hydrologic and hydraulic analyses and preparation of drainage system plans suitable for construction by the Town Highway Department Role: Project Manager Construction: $220,000.

e.

(1) TITLE AND LOCATION *(City and State)*: Tarklin Road over the Tarklin River, Burrillville, RI

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(if applicable)*: 2003

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design for bridge layout and roadway for a prefabricated concrete arch bridge to replace the original steel span that was closed by the state due to advanced deterioration. Role: Hydraulic Analysis. Construction: $150,000.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Richard W. Canavan, Ph.D.	**Project Manager**	16	2

15. FIRM NAME AND LOCATION *(City and State)*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BA Botany Conn. College; MS Soil Science Cornell University; PhD Biogeochemistry Utrecht University

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Registered Profession Soil Scientist, SSSSNE

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Connecticut Federation of Lakes Board of Directors;
Publications: Connecticut Lakes: A Study of the Chemical and Physical Properties of Fifty-Six Connecticut Lakes, 1995 R.W. Canavan and P.A. Siver, 1995 Connecticut College Arboretum.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Superfund Remedial Action Wetland Restoration Plan Willington and Ashford, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008-present; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Conducted a wetland delineation using both State and Federal methods. Developed wetland restoration plan and specifications for forested and scrub-shrub wetlands that were impacted by a remedial action. Role: Wetland Scientist

b.

(1) TITLE AND LOCATION *(City and State)*: **Application Review Eureka V LLC, Ridgefield CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007-2008; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Conducted a review of an application to the Ridgefield Planning and Zoning Board on behalf of the applicant. The application was a preliminary site design of a 389-unit residential development. My review focused on the potential water quality impacts relating to work in a public water supply watershed. Role: Expert Review

c.

(1) TITLE AND LOCATION *(City and State)*: **Ecological Studies (CT and MA), US Army Corps of Engineers Various Sites, Connecticut & Massachusetts**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Managed an ecological study of five US Army Corps of Engineers flood control facilities in CT and MA. Project included documentation of vernal pools and a variety of state-listed species and natural communities, including GPS field locations. Final report included GIS mapping and management recommendations. Role: Project Manager, Field Ecologist

d.

(1) TITLE AND LOCATION *(City and State)*: **Woodstock Academy Consulting Services, Woodstock, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007-present; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Projects include the development of athletic fields and installation of sewer line. Prepared NEPA documentation for both projects in support of USDA funding applications. Additional work has included public hearing presentations and documentation of wetland functions and values for US Army Corps permitting. Role: Wetland Scientist

e.

(1) TITLE AND LOCATION *(City and State)*: **ConnDOT Routes 2/2A/32 DEIS, New London County CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1998-2001; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Prepared existing conditions and impact reporting for a NEPA environmental impact statement for a transportation study in southeastern Connecticut. Report sections prepared included: Rare and Endangered Species, Floodplain, and Farmland Soils. Role: Environmental Scientist

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jeffrey J. Stefanik, L.S.	Project Manager/Land Surveyor	22	20

15. FIRM NAME AND LOCATION *(City and State)*

CME Associates, Inc., Woodstock, CT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
	CT - Professional Land Surveyor RI - Professional Land Surveyor NH - Professional Land Surveyor VT - Professional Land Surveyor

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

MEMBER: American Congress on Surveying and Mapping, Connecticut Association of Land Surveyors Board of Directors, New Hampshire Association of Land Surveyors, Rhode Island Society of Professional Land Surveyors
TRAINING: 1996 Land Surveying -Hartford Graduate Center, 1987, Plane Surveying-Central New England College

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: CT Department of Agriculture On-Call Surveyor - A-2 Boundary Map, Palmer Farm, Voluntown, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2004 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

A-2 Boundary survey for this 153 acre farm as part of the Connecticut Department of Agricultures Farm Preservation Program. Fees: $19,000. Role: Project Surveyor.

b.

(1) TITLE AND LOCATION *(City and State)*: Surveying Services at University of Connecticut, Storrs

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1999-2007 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Land Surveyor/Project Manager of various surveying projects including boundary, topographic mapping, utility mapping, existing condition mapping, construction layout, and final location mapping at the Storrs Campus.

c.

(1) TITLE AND LOCATION *(City and State)*: Provincetown Harbor, Provincetown, MA

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager for provision of a detailed survey for a Landscape Architect's use in making improvements to the site.

d.

(1) TITLE AND LOCATION *(City and State)*: Shepherds Pond Dam, Putnam, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2000 — CONSTRUCTION *(if applicable)*: 2001

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager/Professional Land Surveyor for survey used in connection with the firm's design for repairs and upgrade of the dam structure including replacement of the masonry training walls. Project is located along the Little River.

e.

(1) TITLE AND LOCATION *(City and State)*: The Rectory School Master Plan, Pomfret, CT

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for boundary and topographic survey and documentation of existing conditions for use in developing the school's Master Plan. Survey also provided for design and construction of two soccer fields and a baseball field. Role: Project Surveyor

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Craig J. Lanphear, E.I.T.	Project Engineer	14	14

15. FIRM NAME AND LOCATION *(City and State)*
VN Engineers, Inc., 116 Washington Ave, North Haven, CT 06473

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFFESIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science, Civil Engineering University of Rhode Island	Engineer In Training, Rhode Island

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Institute of Transportation Engineers, Member since 1995

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Statewide High Hazard Intersections/Ramps – Contract 5, Warwick, RI	2007	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer. Conducted Preliminary Engineering analysis of five intersections located on US Route 1. Created accident database coding raw accident report data, generated collision diagrams, and accident analysis statistics, conducted peak hour levels of services analysis, and performed traffic signal field inventories of intersections.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Britain – Hartford Busway SPN. 93-H046, New Britain & Hartford CT.	Ongoing	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Prepared an under-bridge lighting design. Developed permanent signing and pavement marking designs. Prepared design plans, specifications and construction cost estimates.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Route 7 – Brookfield Bypass, Brookfield CT	2009	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer. Designed three signalized intersections at ramp termini. Prepared a highway ramp interchange lightings system. Conducted stormwater runoff drainage design for the 2.3 mile project corridor.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Contract E - Route 95/91/SR 34 Interchange in New Haven, CT	2010	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer. Preliminary and final design of illumination for the re-configuration of the I-95/91/SR 34 interchange. Preliminary and final design of six traffic signals and major route signage.

e.

((1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Britain – Hartford Busway SPN. 155-H025, Hartford CT	2011	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Prepared design plans, specifications and construction cost estimates.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Michael W. Dion, P.E., PTOE	Project Engineer	12	12

15. FIRM NAME AND LOCATION *(City and State)*
VN Engineers, Inc., 116 Washington Ave, North Haven, Connecticut, 06473

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFFESIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science, Civil Engineering University of Rhode Island	P.E., Connecticut Professional Traffic Operations Engineer, CT

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Institute of Transportation Engineers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation of Bridge No. 00947 Route 34 over the Naugatuck River, Derby, CT

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2009	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] *Check if project performed with current firm*

Project Engineer for the Rehabilitation of Bridge No. 00947 Route 34 over the Naugatuck River, Derby, CT. Revised one existing signal plan. Prepared three temporary traffic signal plans for three (3) stage maintenance and protection of traffic during construction. Prepared detour plans and analyzed traffic impacts during construction utilizing SYCHRO (Version 7, Build 763) traffic signal coordination software.

b.

(1) TITLE AND LOCATION *(City and State)*
Partial Replacement of the Metro-North Railroad Bridge over the Saugatuck River Westport, Connecticut.

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] *Check if project performed with current firm*

Project Engineer. Prepared maintenance and protection of traffic plans, specifications, quantities and cost estimates for the Partial Replacement of the Metro-North Railroad Bridge over the Saugatuck River. Design of Traffic signal improvements at five intersections to improve operational characteristics.

c.

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation of Metro-North Bridge No. 37.82 (00316R), Darien, Connecticut.

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2004	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] *Check if project performed with current firm*

Project Engineer. Prepared maintenance and protection of traffic plans, specifications, quantities and cost estimates for the rehabilitation of Metro-North Bridge over U.S. Route 1, Darien, CT. Traffic signal improvements at two intersections to improve operational characteristics. Designed highway geometry, pavement markings and signing.

d.

(1) TITLE AND LOCATION *(City and State)*
Project Engineer for the Franklin Avenue Sewer Separation Project, Package D-West Side Project, Hartford, CT.

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ongoing	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] *Check if project performed with current firm*

Engineer responsible for the developing maintenance and protection of traffic plans, specifications and estimates. To accommodate the planned construction activities, Maintenance and Protection of Traffic design included detour plans, typical mid-block work zone details, and customized intersection details for the anticipated twenty-two month construction schedule.

e.

(1) TITLE AND LOCATION *(City and State)*
Project Engineer for the Design of the I-84 Interchange 5, 6 and 11 Improvements, Danbury and Newtown, CT.

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2010	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[X] *Check if project performed with current firm*

Project Engineer. Prepared PE report outlining improvements addressing safety and operations to I-84 and the route 34 and route 25 intersection including acceleration lanes, deceleration lanes, taper lengths and the need for turning lanes. Design of three traffic signals and traffic signal improvements for four signalized intersections including quantities and special provisions. Prepare preliminary and final ground mounted and overhead signing plans, including guide signs regulatory signs and warning signs as well as any other signs required for the freeway corridor, ramps and local streets. Prepared quantities and special provisions.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Robert S. Gomez, PE	Project Manager	23	2

15. FIRM NAME AND LOCATION *(City and State)*

VN Engineers, Inc., 116 Washington Ave, North Haven, Connecticut, 06473

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS / 1994 / Civil Engineering	1999/P.E./FL/#53847; 2004/P.E./GA/#29873; 2004/P.E./CT/#23842; 2007/P.E./NY/#85134-1

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Society of Highway Engineers – Past President
Connecticut Society of Civil Engineers – Member

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Orange Avenue (SR 68), from N 32nd Street to 13th Street, St. Lucie County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☐ Check if project performed with current firm

Project Manager for the design of a five-lane typical section, 3R project including utility coordination, drainage improvements and the replacement of three mast arm signalized intersections and lighting throughout the project.

b.

(1) TITLE AND LOCATION *(City and State)*: **Flatbush Avenue, West Hartford/ Hartford, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager for the design of the reconstruction of Flatbush Avenue over the Busway and Amtrak Railroad. Design services include: Full horizontal and vertical design for the proposed realignment using InRoads. The project also included survey and utility coordination, roadway design, property acquisition coordination, environmental and railroad permitting, drainage design and public involvement.

c.

1) TITLE AND LOCATION *(City and State)*: **Hartford – New Britain Bus Rapid Transit (BRT), Hartford/New Britain, CT.**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Manager for a 2.5-mile section of a new BRT contained within the Amtrak rail corridor in Hartford Connecticut. The project entails design of a new two-lane BRT facility including drainage design, permit coordination, public involvement, signalization, lighting design, four new bridges and multiple retaining walls. Project included the development of the signing and marking plans for the project.

d.

1) TITLE AND LOCATION *(City and State)*: **SR A1A, from Southern Blvd to Royal Palm Way, Palm Beach County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2007 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☐ Check if project performed with current firm

Project Manager for the design of a two-lane typical section, 3R project including drainage improvements and safety upgrades. Project included signalization and lighting replacements and resurfacing a bifurcated four–lane downtown area.

e.

1) TITLE AND LOCATION *(City and State)*: **CTDOT Contract E - Route 95/91/SR 34 Interchange in New Haven, CT.**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Ongoing — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Engineer of Record Preliminary and final design of illumination for the re-configuration of the I-95/91/SR 34 interchange. Preliminary and final design of six traffic signals and major route signage. Work included all lighting calculations, signal timings, plans and specifications.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Joseph M. Bambara, PE	Project Engineer	9	3

15. FIRM NAME AND LOCATION *(City and State)*
VN Engineers, Inc., 116 Washington Ave, North Haven, CT 06473

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFFESIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science, Civil Engineering Roger Williams University	Professional Engineer, Rhode Island, Civil Professional Engineer, Connecticut, Civil

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Institute of Transportation Engineers, Member since 1995

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Reconstruction of I-95/I-91/Route 34 Interchange - Contract E2, New Haven, CT	2008-Present	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Prepared traffic analysis and design of three (3) signalized intersections to facilitate mainline ramp relocations. Designed overhead and ground mounted guide, regulatory and warning signing for highways, ramps and local roadways. Prepared maintenance and protection of traffic stage signing plans for overhead and ground mounted signing. Prepared permanent and temporary illumination design plans.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Newton – Sparta Rd. (County Route 616 & 517) in Newton, Andover & Sparta, NJ	2002-2004	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Preparation of preliminary design & roadway layout for project feasibility scoping project. Obtain traffic counts and prepare accident analysis for the 7.25 mile long project. Conduct informational meeting with the public to obtain feedback on project design.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Stockholm Rd. (County Route 515) in Vernon, NJ	2002-2004	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☐ Check if project performed with current firm

Preparation of preliminary design & roadway layout for project feasibility scoping project. Obtain traffic counts, prepare accident analysis and perform field surveys for the 2.25 mile long project. Conduct informational meeting with the public to obtain feedback on project design.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Reconstruction of I-95 Interchange 14, Norwalk CT.	2010	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer for the preliminary and final traffic engineering design services for the reconstruction of I-95 Interchange 14, Norwalk, CT. Designed four (4) traffic signals including required revisions to an existing traffic signal interconnect. Prepared pavement marking and ground mounted regulatory, warning and guidance signing design for all state and town roadways within the project limits, estimated quantities and prepared special provisions.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Britain – Hartford Busway SPN. 155-H025 & 93-H046, Hartford CT	2008-Present	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Also, prepared illumination and signing & pavement marking design. Prepared design plans, specifications and construction cost estimates.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Kaethe Podgorski, P.E., PTOE	Project Engineer	10	2

15. FIRM NAME AND LOCATION *(City and State)*

VN Engineers, Inc., 116 Washington Ave, North Haven, Connecticut, 06473

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science, Civil Engineering, Tufts University Master of Science, Civil Engineering, U. of Texas- Austin	P.E., Connecticut, Oklahoma, Texas Professional Traffic Operations Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Institute of Transportation Engineers, Women's Transportation Seminar; Authored "Public Perceptions of Toll Roads: A Survey of the Texas Perspective" *Transportation Research* Part 40A: 888-902 (2006).

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Rehabilitation of Bridge No. 00947 Route 34 over the Naugatuck River, Derby, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2009 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project Engineer for the Rehabilitation of Bridge No. 00947 Route 34 over the Naugatuck River, Derby, CT. Revised one existing signal plan. Prepared three temporary traffic signal plans for three stage maintenance and protection of traffic during construction. Prepared detour plans and analyzed traffic impacts during construction utilizing SYNCHRO (Version 7, Build 763).

b.

(1) TITLE AND LOCATION *(City and State)*: **Commodore Hull Bridge Rehabilitation, Shelton, CT.**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Commodore Hull bridge is the Route 8 bridge over the Housatonic River in Shelton and Derby. Phase I plans for this bridge rehabilitation project are complete. Traffic engineer for developing multi-phased short-term (work zone setup on weekends only) maintenance and protection of traffic plans to accommodate the reconstruction of four bridge joints across northbound and southbound lanes. Design included ramp and lane closures, advanced signing, VMS layout, temporary traffic control devices for the work zone, specifications, and estimate.

c.

1) TITLE AND LOCATION *(City and State)*: **I-95 New Haven Harbor Crossing Corridor Improvement Program Contract E2, New Haven, CT.**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project involves the design and construction of the proposed I-95 Northbound to Route 34 Westbound flyover bridge and associated improvements to Long Wharf Drive at I-95 Exit 46. Project Engineer responsible for capacity and signal timing analysis using SYNCHRO for the Sargent Drive signal system. Also responsible for development and calibration of simulation models using SimTraffic (prepared for client use). Also finalized three traffic signal designs for this project

d.

1) TITLE AND LOCATION *(City and State)*: **I-84 Interchange 5 Improvements, Danbury, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project involves operational improvements to Interchange 5 including lengthening of deceleration lanes on I-84 and widening the approach to the ramp at its intersection with the surface street network. Project engineer for generating signing and pavement marking plans including highway guide signs, and all required regulatory and warning signs.

e.

1) TITLE AND LOCATION *(City and State)*: **Flatbush Avenue Breakout Project for the Hartford/New Britain Busway, Hartford and West Hartford, CT**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project engineer for developing traffic signal and signing and pavement marking plans for the proposed grade separation of Flatbush Avenue from the busway. Developed lane arrangements, signal phasing and timings, ADA compliant pedestrian accommodations, span wire signal layouts, and loop detection for semi-actuated operation. Also coordinated parapet mounting of span poles and signs and generated cost estimate.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME: Paul B. Aldinger, P.E., Ph.D.

13. ROLE IN THIS CONTRACT: Geotechnical Engineer

14a. YEARS EXPERIENCE - TOTAL: 38 years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 21 years

15. FIRM NAME AND LOCATION *(City and State)*: *Paul B. Aldinger & Associates, Inc.*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*: *BSCE/Civil Engineering - University of Vermont /MSCE/ Geotechnical Engineer-University of Vermont/ Ph.D./Geotechnical Engineer – University of Rhode Island*

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*: *Rhode Island Civil, Massachusetts, Vermont, Connecticut and New Jersey all Civil Engineering.*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organization, Training, Awards, etc.)*: *The Freeman Award, Prov, Eng. Society, 2003, Engineer of the Year, Rhode Island – 1996.*

19a(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Barrington & Warren River Temporary Bridges, Barrington, RI***

19a(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 1989

19a(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: 1992

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.) AND SPECIFIC ROLE:*

Developed geotechnical engineering report and pile foundation design for temporary bridges subjected to cyclic lateral loads caused by currrent, ice, and centrifugal traffic forces. Designed and conducted pile installation monitoring of driving of test piles, conduct of lateral load test pile program and production driving of piles on the Barrington & Warren Rivers. Cost: $ 7,000,000. Dr. Aldinger's role was that of Chief Geotechnical Engineer

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: : √

19b(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Replacement of the Albion Bridge, Lincoln & Cumberland, Rhode Island***

19b(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 1993

19b(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: *1995*

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:

The Albion Bridge consists of two, 100 foot spans of Pratt Trusses that cross the Blackstone River. The trusses were build in the mid-1880's. They are considered a valuable visual element in the Blackstone River Valley National Heritage Coorider. In order to maintain their historic value the trusses were completely refurbished and placed astride a structural steel system designed to carry nearly all loadings. The bridge now appears exactly as it did in the turn of the 20th century. This project included the design of a permanent soil nailed wall with a period stone façade.
Construction Cost: $ 1,100,000. Dr. Aldinger's role was that of Chief Geotechnical Engineer.

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19c(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Relocated Route 403, Improved access to Quonset Point/Davisville, North Kingstown, Rhode Island***

19c(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: Ongoing

19c(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: Ongoing

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
Ongoing analysis of field data, including the development of engineering design parameters of subsurface soils, monitoring of undisturbed soil sampling; geotechnical analyses of project foundations, including those for retaining structures, embankments, bridge abutments, and roadways; geotechnical analyses and recommendation development, including those for estimation of bearing capacity, settlement, and soil improvement techniques for the mitigation of potentially liquefiable soils and buried organic deposits; and drainage analyses, which included groundwater flow characterization, elevated groundwater prediction for the proposed realignment of an existing highway, field pumping and hydraulic conductivity testing, and development of numerous geotechnical and geohydrological reports for these facilities. Construction Cost: $ 40,000,000. Dr. Aldinger's role was that of Chief Geotechnical Engineer.

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19d(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Replacement of Middle Bridge Road Bridge, Narragansett, Rhode Island***

19d(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2002

19d(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: *2004*

19d(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
The Old Middle Bridge carried Middle Bridge Road across the Pettaquamscott River about ½ mile north of the Narrow River inlet. The Old Bridge, after 50 years of service met all criteria for complete replacement. The Old Bridge also carried three important utilities (sewer, water & gas) across the river. This became a major requirement of the project; to maintain these utilities in service during construction of the new bridge. A temporary structure was provided for this purpose. The New Middle Bridge is a three span (40'-90'40') structure located near the middle of the Pettaquamscott River. The concrete deck provides a 30 foot roadway and two utility bays for the permanent location of the three utilities. The superstructure supported by two interior concrete piers and abutments. The east and west over the water approaches to the new bridge are earth embankments, the sides of which are protected by heavy riprap. Construction Cost: $ 2,900,000. Dr. Aldinger's role was that of Chief Geotechnical Engineer.

19d(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: : √

19e(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Berkley-Martin Bridges, Cumberland & Lincoln, RI***

19e(2) RELEVANT PROJECT - YEAR COMPELTED - PROFESSIONAL SERVICES 1995

19e(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: *Ongoing*

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
Conducted a subsurface investigation to evaluate contaminants within a construction area within the limits of the Peterson-Puritan Superfund site. Provided recommendations for excavation contaminated soils and construction dewatering of contaminated groundwater. Also provided complete geotechnical investigation with foundation recommendations, special provisions for piling, earthwork, and excavation support systems associated with the construction of the abutments and the piers for a new bridge. Provided bridge pile design and retaining walls for protection of Blackstone canal. Construction Cost: $5,000,000. Dr. Aldinger's role was that of Chief Geotechnical Engineer.

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME: Mary M. Caouette, P.E.

13. ROLE IN THIS CONTRACT: Geotechnical Engineer

14a. YEARS EXPERIENCE - TOTAL: 14 years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 13 years

15. FIRM NAME AND LOCATION *(City and State)*: *Paul B. Aldinger & Associates, Inc.*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*: *BSCE/Civil & Environmental Engineering - University of Massachusetts*
MSCE/ Geotechnical Engineering-Northeastern University

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*: *Rhode Island, Civil.*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organization, Training, Awards, etc.)*: *ASCE, NSPE.*

19a(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Relocated Route 403, Improved access to Quonset Point/Davisville, North Kingstown, Rhode Island***

19a(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2011

19a(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: Ongoing

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
The overall project consists of the design and construction of 4.9 miles of new 4-lane highway, including 16 new or rehabilitated bridges, 11 detention basins, and numerous steepened slopes. Scope of work includes the ongoing analysis of field data, including the development of engineering design parameters of subsurface soils, monitoring of undisturbed soil sampling; geotechnical analyses of project foundations, including those for retaining structures, embankments, bridge abutments, and roadways; geotechnical analyses and recommendation development, including those for estimation of pile capacity, allowable bearing capacity, settlement, slope stability, and soil improvement techniques for the mitigation of potentially liquefiable soils and buried organic deposits; and drainage analyses, which included groundwater flow characterization, elevated groundwater prediction for the proposed realignment of an existing highway, design of new highway and basin underdrains, field pumping and hydraulic conductivity testing, and development of numerous geotechnical and geohydrological reports for these facilities. Estimated Project Cost: $ 170,000,000. Ms. Caouette's role is that of Senior Project Geotechnical Engineer.

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19b(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Relocation of Route 195, Providence, Rhode Island***

19b(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: Ongoing

19b(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable:*: Ongoing

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE: The overall project consists of the relocation of the Route 95 and 195 interchange in Downtown Providence. Scope of work includes the ongoing analysis of field data, including the development of engineering design parameters for subsurface soils, geotechnical analyses of project foundations, including those for retaining structures, bridge abutments, and roadways; geotechnical analyses and recommendation development, including those for estimation of pile capacity, allowable bearing capacity, settlement, slope stability, and drainage analyses, which included groundwater flow characterization, elevated groundwater prediction, design of new highway underdrains, and development of numerous geotechnical reports for these facilities. Also completed geotechnical instrumentation during construction, including survey monitoring of deformation and settlement, vibration monitoring during pile installation, pile load testing, monitoring of piezometers and inclinometers during surcharge loading, extended monitoring of groundwater elevations; condition surveys of adjacent properties prior to

demolition of the obsolete highway; and monitoring of vibration and noise during the demolition of the obsolete elevated highway and bridges. Estimated Project Cost: $ 610,000,000. Ms. Caouette's role is that of Senior Project Geotechnical Engineer.

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19e(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State* ***Great Island Bridge, Narragansett, Rhode Island***

19e(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: Ongoing

19e(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable:*: Not Applicable

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:

Conducted a subsurface investigation program in order to evaluate subsurface soil conditions and develop geotechnical design parameters for design of a replacement bridge to be constructed while maintaining traffic on the existing timber structure. Ms. Caouette also developed special provisions for micropile installation, composite piling, earthwork, and excavation support systems associated with the construction of the abutments and the piers for the new bridge. Ms. Caouette's role was that of Geotechnical Engineer.

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19c(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State):* ***Berkley-Martin Bridges, Cumberland & Lincoln, RI***

19c(2) RELEVANT PROJECT - YEAR COMPELTED - PROFESSIONAL SERVICES 2005

19c(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable):* *2007*

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
Conducted a subsurface investigation program in order to evaluate subsurface soil conditions and develop geotechnical design parameters for two new bridges, a new bike path ramp, and retaining walls located along the edge of the Blackstone River. Also developed special provisions for piling, earthwork, and excavation support systems associated with the construction of the abutments and the piers for the new bridge and retaining wall. Construction Cost: $7,000,000. Ms. Caouette's role was that of Geotechnical Engineer.

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19e(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State* ***the 903 Residences, Providence, Rhode Island***

19e(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2002

19e(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable:*: 2003

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:

Completed subsurface investigations and analysis related to the design of the foundation for this multi-story residential and retail development. The development also included a multi-level parking garage and swimming pool. Ms. Caouette also observed the static load test of a 100-year old existing pile foundation which was reused under a portion of the new structure. Ms. Caouette's role was that of Geotechnical Engineer.

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME: Jody S. Richards

13. ROLE IN THIS CONTRACT: Geotechnical Engineer

14a. YEARS EXPERIENCE - TOTAL: 13 years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 12 years

15. FIRM NAME AND LOCATION *(City and State)*: *Paul B. Aldinger & Associates, Inc.*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*: *BS-Civil & Environmental Engineering - University of Rhode Island*

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*: *Massachusetts, Engineer-in-Training*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organization, Training, Awards, etc.)*:

19a(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Warwick Intermodal Station, Warwick, RI***

19a(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2006-2009

19a(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: *Ongoing*

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
The overall project consists of the construction of a new train station consisting of a 3,200 space parking garage, rental office building, train platform and a 1,250-foot skywalk structure. The scope of work included development of the subsurface exploration program, assessment of engineering design parameters for subsurface soils, geotechnical analyses of project foundations including driven H-piles and drilled minipiles, geotechnical analyses and recommendation development, including those for estimation of pile capacity, allowable bearing capacity, settlement, and slope stability. As part of the project, additional geotechnical services included geotechnical instrumentation and field monitoring during construction including vibration monitoring, pile load testing and installation monitoring of approximately 1,000 H-piles and minipiles. Estimated Project Cost: $200,000,000. Mr. Richards role was that of Senior Project Geotechnical Engineer.

19a(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19b(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Middle Bridge Road Bridge, S.Kingstown/Narragansett, RI***

19b(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 1999

19b(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: 2002

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
Conducted a subsurface investigation program in order to evaluate subsurface soil conditions and develop geotechnical design parameters for the new bridge which carries Middle Bridge Road over the Narrow River. Also developed special provisions for piling and excavation support systems associated with the construction of the abutments and the piers for the new bridge. Construction Cost: ~$4,000,000. Mr. Richards role was that of Staff Geotechnical Engineer.

19b(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19c(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Table Rock Road Bridge, Lincoln, Rhode Island***

19c(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2002

19c(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: 2003

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
The overall project consisted of the replacement of an existing bridge over a small river at Barney Pond at the entrance of the Lincoln Woods State Park. Scope of work included development of a subsurface exploration program, development of engineering design parameters of subsurface soils, geotechnical analyses of project foundations, geotechnical analyses and recommendation development, including those for estimation of allowable bearing capacity, settlement, and development of a geotechnical engineering report for the project. Estimated Project Cost: $ 700,000. Mr. Richards role is that of Project Geotechnical Engineer.

19c(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19d(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Bridge No. R-04-001 Rehoboth, MA***

19d(2) RELEVANT PROJECT - YEAR COMPLETED - PROFESSIONAL SERVICES: 2002

19d(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable:*: NA

19d(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE: The overall project consists of the construction of a new bridge which carries Winthrop Street (Rt. 44) over the Palmer River. The scope of work includes the a subsurface exploration program, development of engineering design parameters for subsurface soils, geotechnical analyses of the spread footing foundations, and geotechnical analyses of allowable bearing capacity, settlement, and slope stability and development of a geotechnical engineering report. Estimated Project Cost: $ NA. Mr. Richards role is that of Project Geotechnical Engineer.

19d(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

19e(1) RELEVANT PROJECT - TITLE AND LOCATION *(City and State)*: ***Ten Mile River Bikeway Bridge Pawtucket, RI***

19e(2) RELEVANT PROJECT - YEAR COMPELTED - PROFESSIONAL SERVICES 2000

19e(2) RELEVANT PROJECT - YEAR COMPLETED - CONSTRUCTION *(If applicable)*: *2003*

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION *(Brief scope, size, cost etc.)* AND SPECIFIC ROLE:
Conducted a subsurface investigation program in order to evaluate subsurface soil conditions and develop geotechnical design parameters for the new bridge which extended a new bike path along the Ten Mile River. The work included development of engineering design parameters for subsurface soils, geotechnical analyses of the spread footing foundations, and geotechnical analyses of allowable bearing capacity, settlement and development of a geotechnical engineering report. Construction Cost: $500,000. Mr. Richards role is that of Project Geotechnical Staff Engineer.

19e(3) RELEVANT PROJECT - BRIEF DESCRIPTION - Check here if project performed with current firm: √

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 1

21. TITLE AND LOCATION *(City and State)*

Park Street Bridge Over Abandoned Railroad, Manchester, CT

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2008

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Town of Manchester, Connecticut	Mark F. Carlino, P.E., Town Engineer	(860) 647-3067

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

The existing bridge was a three span steel superstructure supported on masonry abutments and steel piers. CME's design involved replacement of the steel superstructure and salvaging the original historic stone foundations which date to the early 1800s. The new structure is a two span weathering steel bridge. Architectural features such as stone form liner, concrete parapets and a decorative fence were incorporated in order to fit in with the adjacent historic Cheney Mills.

CME's Survey Group provided survey of the entire area including two nearby intersections, approaches to the bridge, and Right of Way mapping of 4 parcels. CME staff also provided construction inspection.

This bridge project was funded through the Connecticut DOT Federal Local Bridge Program and was completed in 2008.

Design: $114,300
Construction: $1,825,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Engineers & Construction Inspection
b.	CME Associates, Inc.	Woodstock, CT	Land Surveying
c.	Applied Earth Technologies	Meriden, CT	Geotechnical
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 2

21. TITLE AND LOCATION *(City and State)*

Naubuc Avenue Bridge, Glastonbury, CT

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2006	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Town of Glastonbury, Connecticut	Daniel A. Pennington, P.E., Town Engineer	(860) 652-7736

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT
(Include scope, size and cost)

This project consists of the historic rehabilitation of a circa 1870s brownstone arch bridge in Glastonbury. The approach walls to this arch have failed. The design approach is to reconstruct and strengthen the walls while returning the structure to its original appearance. CME completed a rehabilitation study for the repairs in June 2005. CME has completed the final design; construction has been delayed until funding can be appropriated.

Study: $15,250
Design: $19,500
Construction: $450,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Engineers
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 3

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Union Street/Bridge Street over the North River, Marshfield, MA		

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Massachusetts Highway Dept.	Manny Patel	(617) 973-7217

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

The project involves the replacement of a non-functional bascule bridge superstructure with a new three span continuous fixed steel structure. The existing foundations will be salvaged.
Our design includes a slight re-alignment in the approach roadway to improve geometry and reduce the impact to wetlands.
During construction, staged one-way alternating traffic with signalization is proposed.
CME performed a hands-on structural inspection of the bridge foundations including the cellular cofferdam piers. We also performed the geotechnical engineering for the existing foundations. CME is assisting the State with the permitting for the project including coordination with the US Coast Guard.

.

CME Fee:$120,000.00
Construction Cost:$2,500,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	Woodstock, CT	Structural Design
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 4

21. TITLE AND LOCATION *(City and State)*

Route 151 over Salmon River, East Haddam, CT

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2004	2008

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Connecticut Dept. of Transportation	Bartholomew Sweeney, PE	(860) 594-2084

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

Preparation of design for replacement of a 230-foot 3-span bridge with a new 250-foot single span bridge. Included design of a temporary bridge.

The new bridge design employs a high performance steel plate girder structure. Grade 70 high performance weathering steel was used in the bridge beams, and the foundations were designed for 26 feet of scour. The roadway was raised 4 feet in order to provide an adequate waterway opening. This required a complex geometric solution in order to maintain the existing design speed and adequate sightlines for the new road and a nearby local road intersection.

This project is a good example of our ability to meet tight deadlines despite a dramatic change in scope and a shortened time frame. Construction was completed in fall 2008.

CME Fee:$250,000.00
Construction:$6.086 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Design
b.	Applied Earth Technologies	Meriden, CT	Geotechnical
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 5

21. TITLE AND LOCATION *(City and State)*

Bridge M-29-002 River Road over The Konkapot River
Monterey, MA

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2007

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Massachusetts Highway Department	Steven McLaughlin	(617) 973-7245

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

CME prepared the design of a 20-meter single span precast concrete box beam bridge supported on drilled shafts. The bridge replaces a deficient bridge that had a poor foundation and was structurally deficient. The bridge is over the Konkapot River in Monterey, Massachusetts. A detour was used for traffic during construction.

This project is relevant as it demonstrates the firm's expertise and experience with bridge design using prestressed concrete.

Construction completed in 2007.

Construction Cost: $1,100,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Engineers
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 6

21. TITLE AND LOCATION *(City and State)*

Dow Road Bridge Widening
Plainfield, CT

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2008

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Connecticut Dept. of Transportation	Bartholomew Sweeney	(860) 594-2084

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

CME provided design services for the widening of Dow Road Bridge. For this project the existing bridge superstructure and substructure were widened by several feet. The approach roadways were widened along with drainage improvements. The project included the development of traffic control plans and mitigation of streambed erosion. The design and construction of the project was completed in 2008.

CME Fee:$15,000.00

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Design
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 7

21. TITLE AND LOCATION *(City and State)*

Preliminary Design of the "Fast Fourteen", Accelerated Bridge Replacements Along I-93 in Medford, MA

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010-present	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Massachusetts Department of Transportation	Thomas Donald	617-973-7494

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

Feasibility study and development of the concept and preliminary design (30%) for rapid replacement of 14 bridges. Coordination with Mass DOT and subcontractors on the roadway design, traffic management approach, geotechnical design, and materials specifications development. Ongoing assistance during construction including review of all bridge submissions and on-site technical assistance during construction.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Design
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 8

21. TITLE AND LOCATION *(City and State)*

Old State Highway over the Westfield River, Chester, MA

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*

23. PROJECT OWNER'S INFORMATION

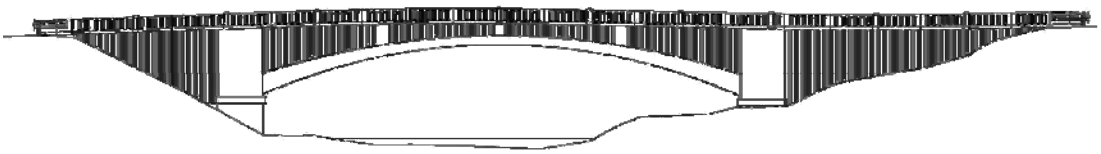
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Massachusetts Highway Department	Michael Papadopoulos	(617) 973-7356

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

The existing bridge is a 110 foot long skewed concrete arch. CME was asked to complete a study to look into the feasibility of salvaging this historic arch. The study included concrete core and reinforcing steel sampling. The results of the study indicate that the bridge can be salvaged and widened. The project includes significant roadway approach work due to sharp curvature and steep slopes. The project also involves significant environmental permitting since the river is designated a "Wild and Scenic River".

This project is currently under construction – approximately 80% complete.

CME Fee:$175,000.00
Estimated Construction Cost:$3,000,000



OLD STATE HIGHWAY OVER THE WESTFIELD RIVER
CHESTER, MASSACHUSETTS

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Design
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects if not specified. Complete one Section F for each project.)

21. EXAMPLE PROJECT KEY NUMBER: 9

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Tarkiln Road over the Tarkiln River, Burrillville, RI	2003	2003

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Town of Burrillville, Rhode Island	Richard A. Bernardo	(401) 568-4440

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size and cost)*

CME was responsible for the bridge layout and roadway design for a prefabricated concrete arch bridge that replaced the original steel span that was closed by the state due to advanced deterioration. We provided coordination with the precast supplier, survey, roadway design of the approaches, the layout of the bridge, and the environmental permitting. We also assisted the Town with the general contracting for the bridge as it was built by the Town Public Works Department with assistance from subcontractors hired to perform specific tasks. This approach saved the Town over $100,000 when compared to a conventional full bid scenario.

The bridge was awarded first prize in the short span bridge category of the 2004 PCI National Bridge Design Awards.

Construction Cost: $150,000

Pictured at left is the completed award winning bridge.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (*City and State*)	(3)ROLE
a.	CME Associates, Inc.	East Hartford, CT	Structural Engineers
b.			
c.			
d.			
d.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
Rehabilitation of Bridge No. 00947, Route 34 over the Naugatuck River, Derby, CT	PROFESSIONAL SERVICES 2009	CONSTRUCTION (if applicable)

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER ConnDOT/Dewberry	b. POINT OF CONTACT NAME Anand Seshardi	c. POINT OF CONTACT TELEPHONE NUMBER (203) 776-2277

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to the Proposed Project:

- Pavement Marking and Signing Design
- Maintenance and Protection of Traffic Design

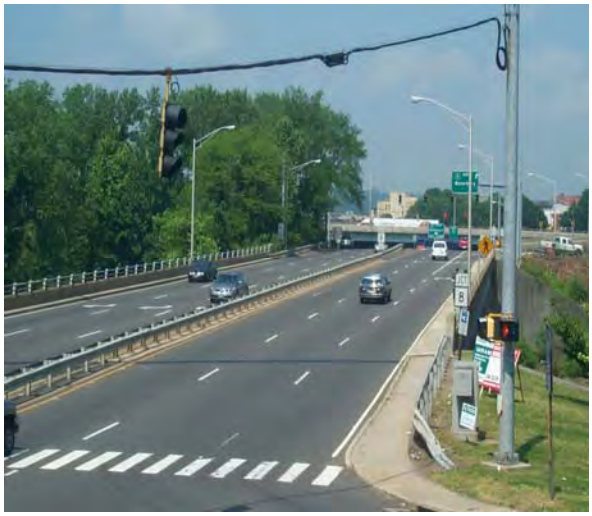
Estimated Cost of Project:

$30M

Project Description:

VN Engineers, Inc. assisted in the design of SPN. 36-182. The project involved the widening and rehabilitation of the Route 34 bridge over the Naugatuck River in the Town of Derby. The project improved safety by widening the existing sidewalk and incorporating timing changes at one signalized intersections.

One traffic signal design was prepared implementing far side head traffic signal heads, utilizing Connecticut Department of Transportation traffic signal design standards. Traffic signal installation details, special provisions and quantity estimates were developed. A complicated three stage Maintenance and Protection of Traffic involving temporary traffic signal designs at three intersections for all three stages were also designed. The three stages of Maintenance and Protection of Traffic were modeled utilizing SYNCHRO traffic signal coordination software to view the impacts during construction. Pavement Marking and Signing plans were also developed, including special provisions and quantity.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	VN Engineers, Inc.	North Haven, CT	Sub-Consultant
b.			
c.			

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Michael Culmo	Lead Engineer	X	X	X	X	X	X	X	X	X	
Bryan Busch	Project Manager	X	X	X	X	X	X	X	X	X	
Scott Young	Hydraulic Engineer										
Richard Canavan	Permitting & Environmental Science										
Jeffrey Stefanik	Land Surveying	X		X						X	
Craig Lanphear	Drainage Design										X
Michael Dion	Roadway Design										X
Robert Gomez	Drainage Design										X
Joseph Bambara	Roadway Design										X
Kaethe Podgorski	Traffic Design										X
Paul Aldinger, PE	Geotechnical										
Mary Caoudette, PE	Geotechnical										
Jody Richards< PE	Geotechnical										

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Park Street Bridge Over abandoned Railroad, Manchester, CT	6	Bridge Replacement, US Route 1, Stonington, CT
2	Naubuc Avenue Bridge, Glastonbury, CT	7	"Fast Fourteen" Bridge Replacements, Medford MA
3	Union Street/Bridge Street, Marshfield, MA	8	Old State Highway over the Westfield River, Chester, MA
4	Bridge Replacement, Rte 151 over Salmon River, East Haddam, CT	9	Tarkiln Road over the Tarkiln River, Burrillville, RI
5	Bridge M-29-002 River Road, Monterey, MA	10	Rehabilitation of Bridge No. 00947, Derby, CT (VN)

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Company Expertise

The CME engineers listed in this document encompass the core of CME's bridge and transportation design team and will be the actual personnel assigned to this project. Members of this team have become nationally recognized for their expertise with the emerging technology of accelerated bridge construction. Mr. Culmo and Mr. Busch have been asked to speak at numerous seminars and workshops nationally on this subject and were recently asked to speak at an international conference.

Our affiliation with regional and national bridge engineering committees brings insight into the latest technologies that are available today in the fields of bridge design and the use of innovative construction techniques. At CME, we have always had the goal of not just developing the ability to design bridges, but to become one of the best bridge engineering groups in the nation. We will continue to grow and add expertise in the bridge engineering field, while maintaining the core values of our firm and assisting the state and municipalities in our home region.

The level of expertise our bridge design staff possesses sets our firm apart from the rest. Michael P. Culmo, P.E., our Vice Presid[illegible]20 of Transportation and Structures and proposed engineer in charge, holds a Master's degree in Structural Engineering and is involved in bridge engineering on a regional and national level. He currently sits on the New England Technical Committee for Bridges for the Precast / Prestressed Concrete Institute, and is the chairman of the Bridge Bearing Committee of the National Steel Bridge Collaboration. He also attends the annual AASHTO Bridge Sub-Committee meeting. By attending this annual meeting, we are able to better understand the rationale for changes in design methodologies such as the development of the Load and Resistance Factor Design Method that is now in use in Connecticut. The work on these committees keeps CME on the forefront of bridge engineering technology. Bryan L. Busch, P.E. is a senior design engineer on our staff and holds a Master's degree in Structural Engineering. His expertise includes bridge inspection, structural analysis, and the structural rating of bridges.

Supplemental Services

As evidenced by our general company information included with this submission, CME's support teams include a Land Surveying Department, Planning Department, and an Environmental Science division. These groups can be called upon to provide land surveying, permitting assistance, planning and grant writing expertise, and wetlands assessments and natural resource planning. CME's diversity will allow the State to receive comprehensive design services from a single firm thereby reducing the delays that can occur when seeking services from outside firms and sub contractors when unexpected issues arise. This is particularly a concern with bridge projects and floodway areas where there maybe impact to wetland areas of specialized habitats. CME's environmental science and other divisions have worked with our bridge team on a number of projects and are always prepared to be called upon to assist with any issue.

Scheduling

CME has routinely worked with area governments and municipalities to meet aggressive design and construction schedules. Our ability to meet these schedules is a result of having a large and diverse project team on hand to assist with unforeseen issues that can delay design or construction, such as additional survey data, environmental concerns, or permitting issues as illustrated above.

Executive Summary

CME Associates, Inc. has an excellent reputation and proven track record with area State DOTs as a firm that can deliver quality designs in a limited time frame. We possess the expertise and equipment to deliver a quality, cost conscious design that meets the fiscal, construction and scheduling goals of the RIDOT.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE
P. Bradford Cheney	April 19, 2011

33. NAME AND TITLE

P. Bradford Cheney, President

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*

PART II – GENERAL QUALIFICATONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
CME Associates, Inc., East Hartford Branch Office	2005	614965502

2b. STREET	5. OWNERSHIP
333 East River Drive, Suite 400	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
East Hartford	CT	06108	State of Connecticut Certified

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If block 2a is a branch office)*
Michael P. Culmo, Vice President of Transportation & Structures	CME Associates, Inc.

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
860-290-4100	culmo@cmeengineering.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. DUNS NUMBER
CME Associates, Inc. dba CME/CPK Design Group		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	6	3
08	CADD Technician	3	0
12	Civil Engineer	5	1
15	Construction Inspector	0	0
23	Environmental Professional	2	1
24	Environmental Scientist	1	0
30	Geologist	1	0
38	Land Surveyor	1	0
47	Planner	2	0
48	Project Manager	2	1
57	Structural Engineer	11	11
	Prof. Engineer/Land Surveyor	2	0
	Survey Party Chief	1	0
	Communication Specialist	1	0
	Other Employees		
	Total	38	17

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A03	Agricultural	1
B02	Bridges	4
C10	Commercial Buildings	2
C11	Community Facilities	1
E09	Envr. Impact Studies, Assessments	2
H07	Highways; Streets; Parking Lots	2
H11	Housing	1
I06	Irrigation; Drainage	1
O01	Office Buildings, Industrial Parks	1
P07	Planning	3
R04	Recreation Facilities	1
S04	Sewage Collection	2
S09	Structural Design, Special Structures	2
S10	Surveying	4
S13	Storm Water Handling & Facilities	1
T03	Traffic & Transportation Engineering	2
U02	Urban Renewals; Community Dev.	1
W02	Water Resources; Hydrology;	1
W03	Water Supply; Treatment and Dist	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	6
c. Total Work	6

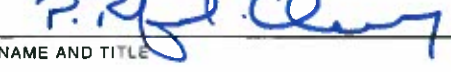
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



b. DATE: 4/19/11

c. NAME AND TITLE

P. Bradford Cheney, President

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*

PART II – GENERAL QUALIFICATONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
CME Associates, Inc.	1986	788534188

2b. STREET	5. OWNERSHIP
32 Crabtree Lane	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Woodstock	CT	06281	State of Connecticut Certified

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If block 2a is a branch office)*
P. Bradford Cheney, P.E., L.S.	

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
860-928-7848	bradcheney@cmeengineering.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. DUNS NUMBER
CME Associates, Inc. dba CME/CPK Design Group		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	6	3
08	CADD Technician	3	3
12	Civil Engineer	5	4
15	Construction Inspector	0	0
23	Environmental Professional	2	1
24	Environmental Scientist	1	1
30	Geologist	1	1
38	Land Surveyor	1	1
47	Planner	2	2
48	Project Manager	2	1
57	Structural Engineer	11	0
	Prof. Engineer/Land Surveyor	2	2
	Survey Party Chief	1	1
	Communication Specialist	1	1
	Other Employees		
	Total	38	21

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A03	Agricultural	1
B02	Bridges	4
C10	Commercial Buildings	2
C11	Community Facilities	1
E09	Envr. Impact Studies, Assessments	2
H07	Highways; Streets; Parking Lots	2
H11	Housing	1
I06	Irrigation; Drainage	1
O01	Office Buildings, Industrial Parks	1
P07	Planning	3
R04	Recreation Facilities	1
S04	Sewage Collection	2
S09	Structural Design, Special Structures	2
S10	Surveying	4
S13	Storm Water Handling & Facilities	1
T03	Traffic & Transportation Engineering	2
U02	Urban Renewals; Community Dev.	1
W02	Water Resources; Hydrology;	1
W03	Water Supply; Treatment and Dist	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	6
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE P. Bradford Cheney

b. DATE 4/19/11

c. NAME AND TITLE

P. Bradford Cheney, President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(if any)*: 7448315

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: VN Engineers, Inc.		3. YEAR ESTABLISHED: 1983	4. DUNS NUMBER: 118375047
2b. STREET: 90 High Street		5. OWNERSHIP a. TYPE: Corporation	
2c. CITY: Westerly	2d. State: RI / 2e. ZIP CODE: 02891	b. SMALL BUSINESS STATUS: Small Business (DBE)	
6a. POINT OF CONTACT NAME AND TITLE: Robert S. Gomez, P.E., Vice President		7. NAME OF FIRM *(if block 2a is a branch office)*	
6b. TELEPHONE NUMBER: (401) 596-3726	6c. E-MAIL ADDRESS: rgomez@vnengineers.com		
8a. FORMER FIRM NAME(S) *(if any)*: N/A		8b. YR. ESTABLISHED	8C. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	2	
08	CADD Technician	2	1
12	Civil Engineer	4	1
15	Inspector	14	
55	Soil Engineer	1	
60	Transportation Engineer	5	2
47	Planner: Urban/Regional	1	
	Other Employees	7	1
	Total	36	5

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C15	Construction Inspection	5
H07	Design	3
L06	Design	2
P06	Studies/Concept Design	2
S05	Studies/Design	2
T03	Design	4
P05	Planning	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	1
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Sofia M. Nirshberg

b. DATE: 04/12/11

c. NAME AND TITLE: Sofia M. Nirshberg, P.E., President

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Business Regulation
DIVISION OF DESIGN PROFESSIONALS
1511 Pontiac Avenue, Bldg. 68-2
Cranston, RI 02920
(401) 462-9530 Fax: (401) 462-9532 www.bdp.state.ri.us

21 May 2010

CME ASSOCIATES, INC.
P. BRADFORD CHENEY
32 CRABTREE LANE, PO BOX 849
WOODSTOCK, CT 06281

Sole No.
Part No.
Corp No. 5490
LLC No.
LLP No.

To The Principal in Charge:

Your renewal application for a Certificate of Authorization (COA) has been approved in the discipline.

Your COA to practice engineering as defined in Chapter 5-8-24 of the General Laws of Rhode Island is renewed **through 30 June 2012.**

Attached please find a COA validation sticker. This sticker is to be placed in the upper right hand corner of your COA Certificate which was previously provided to you, at the time of the initial issuance.

Very truly yours,

BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Christopher Duhamel, PE, PLS
Secretary

Attachment

RI Board of Registration for Professional Engineers
Expires
June 30, 2012

STATE BOARD OF REGISTRATION FOR
PROFESSIONAL LAND SURVEYORS
DEPARTMENT OF BUSINESS REGULATION
DIVISION OF DESIGN PROFESSIONALS
1511 PONTIAC AVENUE
BUILDING 68-2
CRANSTON, RI 02920

(401) 462-9595 FAX: (401) 462-9532

www.bdp.state.ri.us

August 4, 2010

CME ASSOCIATES, INC.
32 CRABTREE LANE
P. O. BOX 849

LS-A400

WOODSTOCK, CT 06281

Dear Sir or Madam:

Your renewal application for a Certificate of Authorization (COA) has been approved. Your COA to practice Land Surveying as defined in Chapter 5-8.1-13. of the General Laws of Rhode Island, was renewed from **June 1, 2010 to May 31, 2012**.

Please find a COA validation sticker attached. This sticker is to be placed in the upper right hand corner of your COA Certificate which was previously issued to you.

If you have any questions concerning this procedure, please contact the staff at this office.

Very truly yours,

Alfred W. DiOrio, PLS
Secretary

/cms

Sticker Attached

STATE OF RHODE ISLAND

RI Board of Registration for Professional Engineers
Expires
June 30, 2012

STATE BOARD OF REGISTRATION
FOR PROFESSIONAL ENGINEERS

BE IT KNOWN THAT

VN ENGINEERS, INC.

having given satisfactory evidence that having the qualifications required by law is hereby authorized to practice

Professional Engineering

IN THE STATE OF RHODE ISLAND

as a Corporation

IN WITNESS WHEREOF, THE BOARD HAS ISSUED THIS CERTIFICATE OF REGISTRATION NO. 5256 UNDER THE SEAL OF THE BOARD THIS 14TH DAY OF JANUARY 1994.

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

CHAIRMAN

SECRETARY

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Business Regulation
DIVISION OF DESIGN PROFESSIONALS
1511 Pontiac Avenue, Bldg. 68-2
Cranston, RI 02920
(401) 462-9530 Fax: (401) 462-9532 www.bdp.state.ri.us

14 April 2011

PAUL B. ALDINGER & ASSOCIATES, INC.

860A WATERMAN AVE., STE 9

E. PROVIDENCE, RI 02840

Sole No.
Part No.
Corp No. 5007
LLC No.
LLP No.

To The Principal in Charge:

Your renewal application for a Certificate of Authorization (COA) has been approved in the discipline.

Your COA to practice engineering as defined in Chapter 5-8-24 of the General Laws of Rhode Island is renewed **through 30 June 2012.**

Attached please find a COA validation sticker. This sticker is to be placed in the upper right hand corner of your COA Certificate which was previously provided to you, at the time of the initial issuance.

Very truly yours,

BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

Kazem Farhoumand, PE
Secretary

Attachment

STATE OF RHODE ISLAND
CONTRACTORS'
REGISTRATION BOARD

REGISTRATION NO. 31583

EXP. DATE

REGISTRANT'S NAME
CARDI CORPORATION

AUTHORIZED REPRESENTATIVE
STEPHEN A CARDI II

DRIVER'S LICENSE #
RI 7608650

EXECUTIVE DIRECTOR

HIS LICENSE IS ISSUED IN ACCORDANCE
/ITH THE REQUIREMENTS OF TITLE 5,
HAPTER 8, PUBLIC LAWS, STATE OF
HODE ISLAND

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PARTMENT OF BUSINESS REGULATION • DIVISION OF DESIGN PROFESSIONALS
BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

THE REGISTRANT HAS MET THE REQUIREMENTS OF THE LAW AND HAS BEEN GRANTED THIS CERTIFICATE OF REGISTRATION AS A **PROFESSIONAL ENGINEER** CIVIL

REGISTRANT (VALID WHEN STAMPED)

BRYAN L. BUSCH
OME ASSOCIATES INC.
133 EA RIVER DR, STE 400
EA HARTFORD, CT 06084

REGISTRATION NUMBER
8605

EXP. DATE
06/30/2011

SIGNATURE (NOT VALID UNLESS SIGNED)

IMPORTANT

If this is lost or destroyed, notify in writing, **Board of Registration for Professional Engineers, 1511 Pontiac Ave., Bldg. 68-2, Cranston, RI 02920.** If name or address shown hereon is changed, notify your Board **in writing**, of your correct name or address to insure proper mailing of next Renewal Application. **Always refer to your registration number.**

Registration is subject to the provisions of the General Laws as amended. It is a personal privilege and must not be loaned or assigned to any other person. Keep this license on your person or posted as required by law.

THIS LICENSE IS ISSUED IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 5, CHAPTER 8, PUBLIC LAWS, STATE OF RHODE ISLAND

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF BUSINESS REGULATION • DIVISION OF DESIGN PROFESSIONALS
BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

THE REGISTRANT HAS MET THE REQUIREMENTS OF THE LAW AND HAS BEEN GRANTED THIS CERTIFICATE OF REGISTRATION AS A
PROFESSIONAL ENGINEER
CIVIL

REGISTRANT (VALID WHEN STAMPED)

ROBERT S. GOMEZ
300 PATTON DRIVE
CHESHIRE. CT 06410

REGISTRATION NUMBER
9378

EXP. DATE
04/28/2010- 08/30/2011

SIGNATURE (NOT VALID UNLESS SIGNED)

IMPORTANT

If this is lost or destroyed, notify in writing, **Board of Registration for Professional Engineers, 1511 Pontiac Ave., Bldg. 68-2, Cranston, RI 02920.** If name or address shown hereon is changed, notify your Board **in writing**, of your correct name or address to insure proper mailing of next Renewal Notification. **Always refer to your registration number.**

Registration is subject to the provisions of the General Laws as amended. It is a personal privilege and must not be loaned or assigned to any other person. Keep this license on your person or posted as required by law.

THIS LICENSE IS ISSUED IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 5, CHAPTER 8, PUBLIC LAWS, STATE OF RHODE ISLAND

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF BUSINESS REGULATION - DIVISION OF DESIGN PROFESSIONALS
BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS
THE REGISTRANT HAS MET THE REQUIREMENTS OF THE LAW AND HAS BEEN GRANTED THIS CERTIFICATE OF REGISTRATION AS A
PROFESSIONAL ENGINEER CIVIL

REGISTRANT (VALID WHEN STAMPED)

JOSEPH M. BAMBARA

REGISTRATION NUMBER
8964

EXP. DATE
06/30/2011

Joseph M. Bambara
SIGNATURE (NOT VALID UNLESS SIGNED)

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF BUSINESS REGULATION • DIVISION OF DESIGN PROFESSIONALS
BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS
THE REGISTRANT HAS MET THE REQUIREMENTS OF THE LAW AND
HAS BEEN GRANTED THIS CERTIFICATE OF REGISTRATION AS A
PROFESSIONAL ENGINEER CIVIL

REGISTRANT (VALID WHEN STAMPED)

MARY M. CAOUETTE
1237 E. MAIN RD.
PORTSMOUTH, RI 02871

REGISTRATION NUMBER
7638

EXP. DATE
06/30/2011

SIGNATURE (NOT VALID UNLESS SIGNED)

THIS LICENSE IS ISSUED IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 5, CHAPTER 8, PUBLIC LAWS, STATE OF RHODE ISLAND

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF BUSINESS REGULATION • DIVISION OF DESIGN PROFESSIONALS
BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS
THE REGISTRANT HAS MET THE REQUIREMENTS OF THE LAW AND
HAS BEEN GRANTED THIS CERTIFICATE OF REGISTRATION AS A
PROFESSIONAL ENGINEER

REGISTRANT (VALID WHEN STAMPED)

PAUL B. ALDINGER
2 COGGESHALL AVENUE
NEWPORT, RI 02840

REGISTRATION NUMBER
3449

EXP. DATE
06/30/2013

SIGNATURE (NOT VALID UNLESS SIGNED)

IMPORTANT

If this is lost or destroyed, notify in writing, **Board of Registration for Professional Engineers, 1511 Pontiac Ave., Bldg. 68-2, Cranston, RI 02920.** If name or address shown hereon is changed, notify your Board **in writing**, of your correct name or address to insure proper mailing of next Renewal Notification. **Always refer to your registration number.**

Registration is subject to the provisions of the General Laws as amended. It is a personal privilege and must not be loaned or assigned to any other person. Keep this license on your person or posted as required by law.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION
LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

CONTRACT/PROPOSAL NAME:
Design-Build Services for the Replacement of Laurel Avenue Bridge No. 397

NAME OF BIDDER/RESPONDENT:
CME Associates, Inc.
PO Box 849, 32 Crabtree Lane
Woodstock CT 06281

The undersigned intends to perform work in connection with the above contract upon the execution and subsequent award of the contract by RIDOT:

Name of DBE Subcontractor VN Engineers, Inc.
Address 90 High Street
City Westerly State Rhode Island Zip 02891

Please check if RI certification letter attached:

Disadvantaged Business Enterprise (DBE) X

The DBE status of the above named subcontractor is certified by the Rhode Island Department of Administration. The above named subcontractor is prepared to perform the described work listed on the DBE Utilization Plan, in connection with the above contract upon execution of such and subsequent award of the contract by RIDOT. The above named subcontractor is prepared to perform the described work for the Price identified on the DBE Utilization Plan. (See Price Proposal).

The above named bidder and subcontractor mutually accepts the commitment total estimated for the Unit Prices and Quantities. This commitment total is based on estimated quantities only and most likely will vary up or down as the project is completed. Final compensation and DBE credit will be based on actual quantities of work performed and accepted during the pursuance of work. The listed amount represents the entire dollar amount quoted based on these estimated quantities. No conversations, verbal agreements, and/or other forms of non-written representations shall serve to add, delete, or modify the terms as stated. This document shall not serve in any manner as an actual subcontract between the two parties. A separate subcontractor agreement will describe in detail the contractual obligations of the bidder and the DBE subcontractor.

Affirmation

The above named DBE subcontractor affirms that it will perform the portion(s) of the contract for the estimated dollar value as stated in the DBE Utililzation Plan (see Price Proposal).

VN Engineers, Inc.	CME Associates, Inc.
Name of DBE Subcontractor	**Name of Bidder**
President 4/15/2011	4/19/2011
Signature / Title **Date**	**Signature / Title** **Date**

RIDOT
ON-THE-JOB TRAINING
ACKNOWLEDGEMENT AND STATEMENT OF INTENT

4/22/11
Date

To: RIDOT OJT Coordinator
Office of Business and Community Resources
Rhode Island Department of Transportation
2 Capitol Hill Rm109
Providence, RI 02903

Project Name and Number: Design-Build Services for Replacement of Laurel Avenue Bridge #397

Cardi Corporation **(Respondent) will review the OJT requirements (Training Specification) in the contract for the above noted project. Based on these requirements, the availability of applicants within a reasonable area of recruitment, and in an effort to meet the minority and female participation goals outlined in the OJT Specification, our company will select a qualified trainee(s) and conduct training under the classification(s) identified below in accordance with the RIDOT OJT Program.**

*** Selected firm must submit a copy of training plan (training classification) to be used during post qualification.**

The undersigned has personally reviewed the content of each selected training classification in relation to the project scope and assures that all portions of training can be completed if initiated by the "no later than" (NLT) date indicated below.

1 Selected Training Classification	2 Number of Trainees in Classification	3 Projected Start Date	4 NLT Start Date in Order to Complete training hours
1. Safety Officier Trainee	1	6/1/12	8/1/12
2. Jr Project Mgr/Scheduler	1	6/1/12	8/1/12
3.			
4.			
5.			

IMPORTANT: Written justification is required to substantiate the selection of training classifications where company representation is below the minority and female participation goals specified in the contract. Compare columns (i) and (j) of the table on page 2 of 2 with 41 CFR 60-4.2, Affirmative Action Requirements.

Please provide information regarding your company's current workforce demographics in the trades listed below:

(a) Trade Classification	(b) Total Employees	(c) Female	(d) Hispanic	(e) American Indian or Alaskan Native	(f) Black	(g) Asian or Pacific Islander	(h) Total of columns (d) through (g)	(i) Minority Percentage (h) / (b)	(j) Female Percentage (c) / (b)
Constr. Supervisors	12	0	0	0	0	0	0	0	0
Constr. Foreperson	40	1	3	0	2	1	7	18	3
Carpenters	25	0	0	0	1	0	1	4	0
Equipment Mechanics	5	0	1	0	0	0	1	20	0
Equipment Operators	30	0	2	0	1	0	3	10	0
Grade Foreman Asst.	2	0	1	0	0	0	1	50	0
Ironworker	3	1	0	0	0	0	1	33	33
Laborers	72	17	5	0	3	2	10	14	24
Truck Drivers	30	2	0	0	1	0	3	10	7

The authorized representative below certifies that the information proved herein is accurate and is made in good faith:

Vlatka Drouic

Company EEO Officer

Vlatka Drouic Date: 4-22-2011

Signature

Approval ☐ Disapproval ☐

_____ Date: _____

RIDOT OJT Coordinator

Revised: 4/12/2002

ANTI-COLLUSION CERTIFICATE FOR CONTRACT AND FORCE ACCOUNT
[Unsworn Declaration]

Title 23, United States Code, Section 112(c), requires, as a condition precedent to approval by the Director of Public Roads of the contract for this work, that there be filed an unsworn declaration executed by, on behalf of, the person, firm, association, or corporation submitting the bid certifying that such person, firm, association, or corporation has not either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This unsworn statement shall be in the form of a declaration executed under penalty of perjury under the laws of the United States.

To the: **STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**
DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS

State of RI

County of Kent

I, Carl C. Engle, Vice President/Chief Eng, under penalty under the laws of the United States, do depose and say:

On behalf of Cardi Corporation, of Warwick, RI that said Contractor has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with Rhode Island Contract Number , Federal-Aid Project Number , County of , Town-City , Road-Bridge .

Carl C. Engle

4/22/11

Revised: 5/9/90

ANTI-COLLUSION CERTIFICATE FOR CONTRACT AND FORCE ACCOUNT
[Sworn Affidavit]

Title 23, United States Code, Section 112(c), requires, as a condition precedent to approval by the Director of Public Roads of the contract for this work, that there be filed a sworn statement executed by, on behalf of, the person, firm, association, or corporation to whom such contract is to be awarded, certifying that such person, firm, association, or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with such contract. This sworn statement shall be in the form of an affidavit executed and sworn to by the successful bidder before a person who is authorized by the Laws of this State to administer oaths.

The person, firm, association, or corporation submitting the bid [under 23 U.S.C.112(c)] has the option to sign either:

(a) the sworn affidavit executed and sworn to by the bidder before a person who is authorized by the laws of the State to administer oaths; or

(b) the unsworn declaration executed under penalty of perjury under the laws of the United States [as allowed by 28 U.S.C. 1746].

A bidder will not be considered for award of contract under this invitation for bids unless such bidder completes either the unsworn declaration (as stated on following page) or the sworn affidavit as prescribed below:

PLEASE NOTE: CONTRACTOR TO COMPLETE ONLY ONE (1) CERTIFICATION STATEMENT. DO NOT SIGN BOTH STATEMENTS.

To the: **STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**
DEPARTMENT OF TRANSPORTATION, DIVISION OF PUBLIC WORKS

State of Connecticut

County of Windham

I, P. Bradford Cheney (name of party signing affidavit) President (title), being duly sworn, do depose and say: On behalf of CME Associates, Inc. (name of Contractor), of Woodstock, Connecticut that said Contractor has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with Rhode Island Contract Number 7448315, Federal-Aid Project Number ----------, County of ----------, Town-City Coventry, Rhode Island, Road-Bridge Bridge No. 397.

Contractor: CME Associates, Inc

Signature: P. Bradford Cheney

Sworn to before me this 19th day of April, 2011. My commission expires July 31, 2015

Giuseppina Leone

Signature and Seal of Notary Public

STATE OF CONNECTICUT NOTARY PUBLIC
GIUSEPPINA LEONE
My Commission Expires
July 31, 2015

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

In accordance with the code of Federal Regulations, Part 49 CFR Section 29.5 10, the prospective primary participant

Carl C. Engle, Vice President/Chief Eng., being duly sworn (or executed under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily Excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (l)(b) of this certification;

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

Carl C. Engle

VP/CHIEF ENGR.

4/22/11

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

In accordance with the code of Federal Regulations, Part 49 CFR Section 29. 510, the prospective primary participant P. Bradford Cheney (name of Authorized Agent), President of CME Associates, Inc. (Title), being duly sworn (or under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

P. Bradford Cheney
Signature of Authorized Agent

April 19, 2021
Date

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

In accordance with the code of Federal Regulations, Part 49 CFR Section 29. 510, the prospective primary participant Sofia M. Nirshberg, P.E. (name of Authorized Agent), President (Title), being duly sworn (or under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

Sofia M. Nirshberg
Signature of Authorized Agent

03/30/2011
Date

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

In accordance with the code of Federal Regulations, Part 49 CFR Section 29. 510, the prospective primary participant Paul B. Aldinger (name of Authorized Agent), President (Title), being duly sworn (or under penalty of perjury under the laws of the United States), certifies to the best of his/her knowledge and belief, that its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification;

d. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify any of the statements in this certification, such prospective participant shall list exceptions below.

Exceptions will not necessarily result in denial of award, but, will be considered in determining contractor responsibility. For any exception noted, indicate below to whom it applies, the initiating agency, and the dates of the action. Providing false information may result in criminal prosecution or administrative sanctions. If an exception is noted the contractor must contact the Department to discuss the exception prior to award of the contract.

Paul B. Aldinger
Signature of Authorized Agent

4/11/11
Date

Certification for Federal-Aid Construction/Consultant Contracts

IN ACCORDANCE WITH PUBLIC LAW 101-1210 SECTION 319 (DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES) THE PROSPECTIVE PARTICIPANT CERTIFIES, BY SIGNING AND SUBMITTING THIS BID OR PROPOSAL, TO THE BEST OF HIS/HER KNOWLEDGE AND BELIEF, THAT:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employe of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such subrecipients shall certify and disclose accordingly.

(R.I.D.O.T. APPENDIX C)

Complete this form to disclose lobbying activities pursuant to 31 U.S.C 1352 - 0348 - 0046
(see reverse for public disclosure)

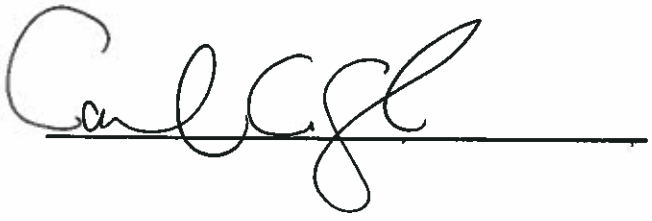
1. Type of Federal Action:	2. Status of Federal Action:	3. Report Type: a.
a.	a.	For Material Change Only: year quarter Date of last report

4. Name and Address of Report Entity:	5. If Reporting Entity in No. 4 is Subawardee, Name and Address of Prime:
Cardi Corporation, 400 Lincoln Ave Warwick, RI 02888 Congressional District, if known: 2nd	Congressional District, if known:
6. Federal Department Agency: FHWA	7. Federal Program Name/Description: CFDA Number, if applicable: N/A
8. Federal Action Number, if known: N/A	9. Award Amount, if known: N/A
10. a. Name and Address of Lobbying Entity: N/A	10. b. Individuals Performing Services (including address if different from No. 10a) N/A
11. Amount of Payment (check all that apply) Actual Planned N/A	13. Type of Payment: _Retainer _One _Contingent Fee -Time Fee _Deferred _Commission _Other; Specify; N/A
12. Form of Payment: Cash In-kind: specify: Nature: Value: N/A	

14. Brief Description of Services Performed or to be Performed and Date(s) of Service; including officer(s), employee (s), or Member(s) contracted, for Payment indicated in Item 11:

15. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. this information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

For Federal user Only:	Authorized for Local Reproduction Standard Form - LLL



4/22/11

Approved by
0348-0046

DISCLOSURE OF LOBBYING ACTIVITIES

CONTINUATION SHEET

Reporting Entity: Cardi Corporation Page ____ of ____

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Standard Form LLL-A

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:
[A] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[A] a. bid/offer/application
b. initial award
c. post-award

3. Report Type:
[A] a. initial filing
b. material change

For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:
☒ Prime ☐ Subawardee
Tier _____, if known:
CME Associates, Inc.
PO Box 849
Woodstock CT 06281
Congressional District, if known:

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:
Congressional District, if known:

6. Federal Department/Agency:
RIDOT

7. Federal Program Name/Description
CFDA Number, if applicable: _____

8. Federal Action Number, if known:

9. Award Amount, if known:
$

10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):
NONE
(attach Continuation Sheet(s) SF-LLL-A, if necessary)

b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): NONE

11. Amount of Payment (check all that apply):
$ N/A ☐ actual ☐ planned

12. Form of Payment (check all that apply):
N/A
☐ a. cash
☐ b. in-kind; specify: nature _____
value _____

13. Type of Payment (check all that apply):
☐ a. retainer
☐ b. one-time fee
☐ c. commission
☐ d. contingent fee
☐ e. deferred
☐ f. other; specify: _____
N/A

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:
No lobbying activities have taken place
(attach Continuation Sheet(s) SF-LLL-A if necessary)

15. Continuation Sheet(s) SF-LLL-A attached: ☐ Yes ☒ No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: P. Bradford Cheney
Print Name: P. Bradford Cheney
Title: President
Telephone No.: 860-928-7848 Date: 4-19-11

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL-A

Approved by
OMB 0348-0046

DISCLOSURE OF LOBBYING ACTIVITIES

CONTINUATION SHEET

Reporting Entity: _____ Page ____ of ____

N/A

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Standard Form LLL A

Approved by OMB
0348-0046

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:
   - [a] a. contract
   - [ ] b. grant
   - [ ] c. cooperative agreement
   - [ ] d. loan
   - [ ] e. loan guarantee
   - [ ] f. loan insurance

2. Status of Federal Action:
   - [a] a. bid/offer/application
   - [ ] b. initial award
   - [ ] c. post-award

3. Report Type:
   - [a] a. initial filing
   - [ ] b. material change

   For Material Change Only:
   year _____ quarter _____
   date of last report _____

4. Name and Address of Reporting Entity:
   - [ ] Prime
   - [X] Subawardee
   Tier _____, if known:
   Paul B. Aldinger & Assoc. Inc.
   360A Watchman Ave, Suite 9
   Congressional District, if known: E. Prov. RI 02914

5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:
   CME Associates, Inc.
   333 East River Dr., Suite 400
   East Hartford, CT 06108
   Congressional District, if known:

6. Federal Department/Agency:
   RIDOT

7. Federal Program Name/Description:
   Design/Build Services for the Replacement of Laurel Ave Bridge #397, Coventry, RI
   CFDA Number, if applicable:

8. Federal Action Number, if known: N/A

9. Award Amount, if known:
   $ N/A

10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):
    N/A
    (attach Continuation Sheet(s) SF-LLL-A, if necessary)

    b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):
    N/A

11. Amount of Payment (check all that apply):
    $ N/A
    - [ ] actual
    - [ ] planned

12. Form of Payment (check all that apply): N/A
    - [ ] a. cash
    - [ ] b. in-kind; specify: nature _____ value _____

13. Type of Payment (check all that apply): N/A
    - [ ] a. retainer
    - [ ] b. one-time fee
    - [ ] c. commission
    - [ ] d. contingent fee
    - [ ] e. deferred
    - [ ] f. other; specify: _____

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:
    N/A
    (attach Continuation Sheet(s) SF-LLL-A if necessary)

15. Continuation Sheet(s) SF-LLL-A attached: [ ] Yes [X] No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature: Paul B. Aldinger
Print Name: Paul B. Aldinger
Title: President
Telephone No.: 401-435-5570 Date: 4/11/11

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL-A

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action:
[A] a. contract
b. grant
c. cooperative agreement
d. loan
e. loan guarantee
f. loan insurance

2. Status of Federal Action:
[A] a. bid/offer/application
b. initial award
c. post-award

3. Report Type:
[A] a. initial filing
b. material change
For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:
☐ Prime ☒ Subawardee
Tier _____, *if known*:
VN Engineers, Inc.
90 High Street
Westerly, RI 02891
Congressional District, *if known*:

5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:
CME Associates, Inc.
333 East River Drive
Suite 400
East Hartford, CT 06108
Congressional District, *if known*:

6. Federal Department/Agency:
RIDOT

7. Federal Program Name/Description:
CFDA Number, *if applicable*: _____

8. Federal Action Number, *if known*:

9. Award Amount, *if known*:
$

10. a. Name and Address of Lobbying Entity
(*if individual, last name, first name, MI*):
None

b. Individuals Performing Services (*including address if different from No. 10a*)
(*last name, first name, MI*):
None

(attach Continuation Sheet(s) SF-LLLA, if necessary)

11. Amount of Payment (*check all that apply*):
$ N/A ☐ actual ☐ planned

12. Form of Payment (*check all that apply*):
☐ a. cash N/A
☐ b. in-kind; specify: nature _____
value _____

13. Type of Payment (*check all that apply*):
☐ a. retainer
☐ b. one-time fee N/A
☐ c. commission
☐ d. contingent fee
☐ e. deferred
☐ f. other; specify: _____

14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11:
No lobbying has taken place.

(attach Continuation Sheet(s) SF-LLLA, if necessary)

15. Continuation Sheet(s) SF-LLLA attached: ☐ Yes ☒ No

16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less that $10,000 and not more than $100,000 for each such failure.

Signature: Sofia M. Nershberg
Print Name: Sofia M. Nershberg, P.E.
Title: President
Telephone No.: (203) 234-7862 Date: 4/12/2011

Federal Use Only:

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Standard Form LLL (Rev. 7-97)

CONFLICTS DISCLOSURE POLICY

To ensure that the Rhode Island Department of Transportation (RIDOT) maintains the continued confidence and trust of the people of Rhode Island in carrying out its mission, prospective vendors must disclose any family (or other personal) relationships, associations or connections that the vendor, its affiliates, or employees, may currently have with any RIDOT employee. A Conflicts Disclosure Statement shall be submitted to RIDOT from the following:

- Owners;
- Directors;
- Principals;
- Officers, board members, or individuals with corporate authority;
- If the vendor is a partnership, the applicant's partners;
- If the vendor is a limited liability company, its members and managers;
- Employees with decision-making authority, including executive directors, managers or individuals in a similar position with corporate authority; and
- Shareholders with a controlling interest.

RIDOT 12/27/07

CONFLICTS DISCLOSURE STATEMENT

RE: Design-Build Services for Replacement of Laurel Avenue Bridge #397

I, Carl C. Engle **hereby certify as follows:**

I am employed as a Vice President/Chief Eng **[TITLE]** **of** Cardi Corporation **[COMPANY]**
and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

☒ **I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.**

☐ **I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):**

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

❖ *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

Carl C. Engle — 4/22/11
SIGNATURE **DATE**

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

RIDOT 12/27/07

CONFLICTS DISCLOSURE STATEMENT

RE: RFP No. 7448315 - Design Build Services for the Replacement of Laurel Avenue Bridge No. 397 Coventry, Rhode Island

I, P. Bradford Cheney **hereby certify as follows:**

I am employed as a President **[TITLE]** **of** CME Associates, Inc. **[COMPANY]**
and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

☒ **I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.**

☐ **I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):**

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

- *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

P. Bradford Cheney — APRIL 19, 2011
SIGNATURE **DATE**

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

CONFLICTS DISCLOSURE POLICY

To ensure that the Rhode Island Department of Transportation (RIDOT) maintains the continued confidence and trust of the people of Rhode Island in carrying out its mission, prospective vendors must disclose any family (or other personal) relationships, associations or connections that the vendor, its affiliates, or employees, may currently have with any RIDOT employee. A Conflicts Disclosure Statement shall be submitted to RIDOT from the following:

- Owners;
- Directors;
- Principals;
- Officers, board members, or individuals with corporate authority;
- If the vendor is a partnership, the applicant's partners;
- If the vendor is a limited liability company, its members and managers;
- Employees with decision-making authority, including executive directors, managers or individuals in a similar position with corporate authority; and
- Shareholders with a controlling interest.

RIDOT 12/27/07

CONFLICTS DISCLOSURE STATEMENT

RE: "Design-Build Services for the Replacement of the Laurel Avenue Bridge No. 397, Coventry, RI"

I, Sofia M. Nirshberg, P.E. **hereby certify as follows:**

I am employed as a President **[TITLE]** **of** VN Engineers, Inc. **[COMPANY]**
and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

☒ **I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.**

☐ **I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):**

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

❖ *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

Sofia M. Nirshberg — 03/30/2011
SIGNATURE **DATE**

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

RIDOT 12/27/07

CONFLICTS DISCLOSURE STATEMENT

RE: Design/Build Services for the replacement of Laurel Ave Bridge #397.

I, Paul B. Aldinger **hereby certify as follows:**

I am employed as a President **[TITLE]** **of** Paul B. Aldinger + Assoc. Inc. **[COMPANY]**

and to the best of my knowledge:

PLEASE CHECK THE APPROPRIATE BOX:

☒ **I have no family or personal relations currently employed either on a full-time or part-time basis at the Rhode Island Department of Transportation.**

☐ **I do have family or personal relations currently employed at the Rhode Island Department of Transportation. Please list their name(s), title(s), and RIDOT Division(s) (if known):**

NAME	TITLE	RIDOT DIVISION

If necessary, please add any additional names as attachments hereto.

FOR ILLUSTRATIVE PURPOSES, FAMILY RELATIONS SHALL INCLUDE, WHETHER BY BLOOD, ADOPTION OR MARRIAGE, ANY OF THE FOLLOWING RELATIONSHIPS:

Father, Mother, Son, Daughter, Brother, Sister, Grandfather, Grandmother, Grandson, Granddaughter, Father-In-Law, Mother-In-Law, Brother-In-Law, Sister-In-Law, Son-In-Law, Daughter-In-Law, Stepfather, Stepmother, Stepson, Stepdaughter, Stepbrother, Stepsister, Half-Brother Or Half-Sister, Niece, Nephew, And Cousin

❖ *If you are unsure whether a relationship, association, or connection you have may need to be disclosed, please consult with RIDOT's Legal Office at (401) 222-6510.*

Paul B. Aldinger — 4/13/11

SIGNATURE **DATE**

By signing this form you: (1) certify that the information contained in this form is complete and accurate to the best of your knowledge; and (2) acknowledge your continuing obligation to complete and submit a new Disclosure form when there is any change in your family or personal relations during the course of this Contract.

This document is used for internal RIDOT purposes only in order to address and avoid any potential conflicts at the inception of the contract process and to avoid any impropriety or the appearance of impropriety during the contract process. Any disclosures made hereto will not prejudice prospective vendors from selection.

CONFLICTS DISCLOSURE POLICY

To ensure that the Rhode Island Department of Transportation (RIDOT) maintains the continued confidence and trust of the people of Rhode Island in carrying out its mission, prospective vendors must disclose any family (or other personal) relationships, associations or connections that the vendor, its affiliates, or employees, may currently have with any RIDOT employee. A Conflicts Disclosure Statement shall be submitted to RIDOT from the following:

- Owners;
- Directors;
- Principals;
- Officers, board members, or individuals with corporate authority;
- If the vendor is a partnership, the applicant's partners;
- If the vendor is a limited liability company, its members and managers;
- Employees with decision-making authority, including executive directors, managers or individuals in a similar position with corporate authority; and
- Shareholders with a controlling interest.

RESPONSE TO CONFLICTS DISCLOSURE
(Section 9.2 of the RFP)

The geotechnical sub-consultant Design Build team member, Paul B. Aldinger & Associates, provided a geotechnical engineering interpretive report providing foundation design and earthwork recommendations for the Laurel Avenue bridge replacement. All information collected was reported and is available to all Design Build Teams.

Form **W-9**
(Rev. January 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
Cardi Corporation

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification (required): ☐ Individual/sole proprietor ☒ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
400 Lincoln Avenue

City, state, and ZIP code
Warwick, Rhode Island 02888

Requester's name and address (optional)

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
___ - ___ - ____

Employer identification number
05-0314973

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here | **Signature of U.S. person** ▶ CaOCC VP/CHIEF ENGR. **Date** ▶ April 22, 2011

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

Form **W-9**
(Rev. January 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
CME Associates, Inc.

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification (required): ☐ Individual/sole proprietor ☐ C Corporation ☑ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)
PO Box 849, 32 Crabtree Lane

Requester's name and address (optional)

City, state, and ZIP code
Woodstock CT 06281

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

			–			–				

Employer identification number

0	6	–	0	9	2	4	9	7	5

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here | **Signature of U.S. person** ▶ P. Ryf Clay | **Date** ▶ 4-19-2011

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

APPENDIX

Liberty Mutual

Liberty Mutual **Surety**

April 18, 2011

State of Rhode Island
One Capitol Hill
Providence, RI 02908

RE: Cardi Corporation, 400 Lincoln Avenue, Warwick, RI 02888
Project: Design/Build Services for the Replacement of the Laurel Avenue Bridge No. 397, Coventry, RI

To Whom It May Concern:

Liberty Mutual Insurance Company, 175 Berkeley Street, Boston, MA, has served as Surety for **Cardi Corporation**, 400 Lincoln Avenue, Warwick, RI, for several years. In the event that **Cardi Corporation** is the successful bidder and is awarded the contract and makes application for the bonds **Liberty Mutual Insurance Company** will execute the performance and payment bonds on the referenced project. While we have not set a firm single job limit, we have supported Cardi on single jobs up to $200 million. Similarly, we have not set a firm aggregate program limit, but are prepared to support an aggregate program in excess of $400 million.

Naturally this is subject to negotiations of a mutually acceptable contract, satisfactory bond forms and confirmation on the adequacy of financing of the project and full underwriting particulars necessary to finalize this commitment.

Liberty Mutual Insurance Company is licensed to conduct business in the State of Rhode Island. Our underwriting limitation as stated in the Treasury Department Circular 570 is substantially in excess of the value of the project referenced herein.

Sincerely,
Liberty Mutual Insurance Company

Joann Dombrowski
Attorney-in-Fact

2481307

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

LIBERTY MUTUAL INSURANCE COMPANY
BOSTON, MASSACHUSETTS
POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS: That Liberty Mutual Insurance Company (the "Company"), a Massachusetts stock insurance company, pursuant to and by authority of the By-law and Authorization hereinafter set forth, does hereby name, constitute and appoint

JOANN DOMBROWSKI, RUSSELL M. CANTERBURY, MARION R. VAIL, ALL OF THE CITY OF FARMINGTON, STATE OF CONNECTICUT

, each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations in the penal sum not exceeding TWO HUNDRED FIFTY MILLION AND 00/100********** DOLLARS ($ 250,000,000.00*****) each, and the execution of such undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company in their own proper persons.

That this power is made and executed pursuant to and by authority of the following By-law and Authorization:

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

By the following instrument the chairman or the president has authorized the officer or other official named therein to appoint attorneys-in-fact:

Pursuant to Article XIII, Section 5 of the By-Laws, Garnet W. Elliott, Assistant Secretary of Liberty Mutual Insurance Company, is hereby authorized to appoint such attorneys-in-fact as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

That the By-law and the Authorization set forth above are true copies thereof and are now in full force and effect.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Company and the corporate seal of Liberty Mutual Insurance Company has been affixed thereto in Plymouth Meeting, Pennsylvania this 2nd day of February, 2009.

LIBERTY MUTUAL INSURANCE COMPANY

By Garnett W. Elliott
Garnet W. Elliott, Assistant Secretary

COMMONWEALTH OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 2nd day of February, 2009, before me, a Notary Public, personally came Garnet W. Elliott, to me known, and acknowledged that he is an Assistant Secretary of Liberty Mutual Insurance Company; that he knows the seal of said corporation; and that he executed the above Power of Attorney and affixed the corporate seal of Liberty Mutual Insurance Company thereto with the authority and at the direction of said corporation.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

TERESA PASTELLA COMMONWEALTH OF PENNSYLVANIA NOTARY PUBLIC

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires Mar. 28, 2009
Member, Pennsylvania Association of Notaries

By Teresa Pastella
Teresa Pastella, Notary Public

CERTIFICATE

I, the undersigned, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the officer or official who executed the said power of attorney is an Assistant Secretary specially authorized by the chairman or the president to appoint attorneys-in-fact as provided in Article XIII, Section 5 of the By-laws of Liberty Mutual Insurance Company.

This certificate and the above power of attorney may be signed by facsimile or mechanically reproduced signatures under and by authority of the following vote of the board of directors of Liberty Mutual Insurance Company at a meeting duly called and held on the 12th day of March, 1980.

VOTED that the facsimile or mechanically reproduced signature of any assistant secretary of the company, wherever appearing upon a certified copy of any power of attorney issued by the company in connection with surety bonds, shall be valid and binding upon the company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said company, this 18th day of April, 2011.

By David M. Carey
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

OP ID: RT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/10/11

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER		CONTACT NAME:	
ARCHAMBAULT INSURANCE ASSOC. 143 Providence St. PO Box 153 Putnam, CT 06260-0153 Marc L. Archambault, CPCU, CIC	860-928-0811 860-928-6462	PHONE (A/C, No, Ext):	FAX (A/C, No):
		E-MAIL ADDRESS:	
		PRODUCER CUSTOMER ID #: CMEAS01	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
CME Associates, Inc. CME Associates Engineering & Land Surveying, PLLC CME Architecture Inc. P.O. Box 849	INSURER A : AELC, Inc.	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR X Professional Liab GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			AEICPG-11	01/12/11	01/12/14	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 2,000,000 $ $ $ $ 4,000,000 $
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DEDUCTIBLE RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A					WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

Page 34

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Marc L Archambault

OP ID: RT

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/11/11

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PRODUCER **ARCHAMBAULT INSURANCE ASSOC.** 860-928-0811 **143 Providence St. PO Box 153** 860-928-6462 **Putnam, CT 06260-0153**	**CONTACT NAME:** **PHONE (A/C, No, Ext):** **FAX (A/C, No):** **E-MAIL ADDRESS:** **PRODUCER CUSTOMER ID #:** CMEAS01
INSURED **CME Associates, Inc. & CME Associates Engineering, Land Surveying and Architecture ,PLLC & CME Architecture, Inc.**	**INSURER(S) AFFORDING COVERAGE** / **NAIC #** **INSURER A :** PEERLESS INSURANCE / 24198 **INSURER B :** **INSURER C :** **INSURER D :** **INSURER E :** **INSURER F :**

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY** COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR X **Business Owners** GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			BOP1800886	02/07/10	02/07/11	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 50,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	**AUTOMOBILE LIABILITY** ANY AUTO ALL OWNED AUTOS X SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS X **BUSINESS AUTO**			BA8113645 BA8110944	02/07/10 02/07/10	02/07/11 02/07/11	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000
A	**UMBRELLA LIAB** OCCUR **EXCESS LIAB** CLAIMS-MADE DEDUCTIBLE X RETENTION $ **10,000**			CU8110546	02/07/10	02/07/11	EACH OCCURRENCE AGGREGATE	$ 3,000,000 $ 3,000,000
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WC4233473	08/06/10	02/07/11	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
A	**PROPERTY**			BOP1800886	02/07/10	02/07/11	**PROPERTY**	225,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

Page 34

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Marc L Archambault

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/9/2011

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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PRODUCER

Camilleri & Clarke Assoc. Inc.
85 Wolcott Hill Road

Wethersfield CT 06109

CONTACT NAME: Fayne Lewis, ACSR, CISR
PHONE (A/C, No, Ext): (860)257-4555 FAX (A/C, No): (860)257-7536
E-MAIL ADDRESS: flewis@camillericlarke.com
PRODUCER CUSTOMER ID #: 00001338

INSURED

VN Engineers Inc.
116 Washington Avenue

North Haven CT 06473

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : XL Specialty Insurance Company	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** Master11-12 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS						BODILY INJURY (Per accident)	$
	☐ SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident)	$
	☐ HIRED AUTOS							$
	☐ NON-OWNED AUTOS							$
	☐ **UMBRELLA LIAB** ☐ OCCUR						EACH OCCURRENCE	$
	☐ **EXCESS LIAB** ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DEDUCTIBLE							$
	☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)**	N / A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	Professional Liability			DPR9690770	1/16/2011	1/16/2012	$3,000,000	Each Claim
	Incl Environmental			RetroDate:6/27/1983			$3,000,000	Annual Aggr.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

FOR PROFESSIONAL LIABILITY COVERAGE, AGGREGATE LIMIT IS THE TOTAL INSURANCE AVAILABLE FOR CLAIMS PRESENTED WITHIN THE POLICY PERIOD FOR ALL OPERATIONS OF THE INSURED. THIS LIMIT WILL BE REDUCED BY PAYMENTS OF CLAIMS & EXPENSES. THIS INSURANCE IS NOT FOR A SPECIFIC PROJECT.

CERTIFICATE HOLDER

For Proposal Only

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

D Overton, CPIW/FAL

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/9/2011

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PRODUCER

Nicholson Associates, Inc.
395 New Haven Ave.
P.O. Box 5189
Milford CT 06460

CONTACT NAME: Susan Krasnow, CISR
PHONE (A/C, No, Ext): (203)877-2741 FAX (A/C, No): (203)877-9004
E-MAIL ADDRESS: s.krasnow@nicholsonassoc.com
PRODUCER CUSTOMER ID #: 00009854

INSURED

VN ENGINEERS, INC.
116 WASHINGTON AVE

NORTH HAVEN CT 06473

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Hartford Fire Insurance Co.	19682
INSURER B : Htfd Underwriters Ins Co	30104
INSURER C : Multiple Companies	00914
INSURER D : Landmark American	
INSURER E :	
INSURER F :	

COVERAGES CERTIFICATE NUMBER: 11-12 GL Auto WC Umb REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC			31SBADD7150	2/25/2011	2/25/2012	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	1,000,000 300,000 10,000 1,000,000 2,000,000 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			31UECUE0631	1/10/2011	1/10/2012	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) Uninsured motorist combined Underinsured motorist	$ $ $ $ $ $	1,000,000 1,000,000 1,000,000
A	X UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DEDUCTIBLE X RETENTION $ 10,000			31SBADD7150	2/25/2011	2/25/2012	EACH OCCURRENCE AGGREGATE	$ $	1,000,000 1,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		31WECIV4723	2/25/2011	2/25/2012	WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $	1,000,000 1,000,000 1,000,000
D	Railroad Protective Liab			LHA107583	7/29/2010	7/29/2011	Aggregate Limit Each Occurrence		2,000,000 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

For Evidence of Insurance Purposes

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

S Krasnow, CISR/BARB

Terra Insurance Company
(A Risk Retention Group)
Two Fifer Avenue, Suite 100
Corte Madera CA 94925

CERTIFICATE OF INSURANCE

DATE
03/09/11

NAME AND ADDRESS OF INSURED

Paul B. Aldinger & Associates, Inc.
860A Waterman Avenue, Suite 9
East Providence, RI 02914

This certifies that the "claims made" insurance policy (described below by policy number) written on forms in use by the Company has been issued. This certificate is not a policy or a binder of insurance and is issued as a matter of information only, and confers no rights upon the certificate holder. This certificate does not alter, amend or extend the coverage afforded by this policy.

The policies of insurance listed below have been issued to the insured named above for the policy period indicated. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies. Aggregate limits shown may have been reduced by paid claims.

TYPE OF INSURANCE	Professional Liability	
POLICY NUMBER	EFFECTIVE DATE	EXPIRATION DATE
211153	01/01/11	12/31/11

LIMITS OF LIABILITY
$1,000,000 EACH CLAIM
$1,000,000 ANNUAL AGGREGATE

PROJECT DESCRIPTION

CANCELLATION If the described policy is cancelled by the Company before its expiration date, the Company will mail written notice to the certificate holder thirty (30) days in advance, or ten (10) days in advance for non-payment of premium. If the described policy is cancelled by the insured before its expiration date, the Company will mail written notice to the certificate holder within thirty (30) days of the notice to the Company from the insured.

CERTIFICATE HOLDER

ISSUING COMPANY:
TERRA INSURANCE COMPANY
(A Risk Retention Group)

President

Stephen A. Cardi II

Design-Build Project Manager

Years of Experience

Cardi: 18 Years
Total: 30 Years

Education

BS/1984/Civil Engineering
Roger Williams University

Current Assignments

Sakonnet River Bridge
$163.6 million
4/09 to 5/12

Rt. I-195 Contract 6
$66 million
10/04 to 3/10

Rt. I-195
$56 million
9/05 to 7/09

Associations & Certifications

President, Associated General Contractors of RI

National Director, National Asphalt Pavement Association

Chairman, RI Building Scholarship Fund

Member, Construction Industries of RI, American Road & Transportation Builders Association, RI Utility Contractors Association

Professional Profile:

As Executive Vice President, Mr. Cardi II has over 30 years of construction and management experience. Born into the construction business in 1960, he has grown up along side his grandfather and father building numerous projects under the Cardi domain from Maine to Florida. Mr. Cardi took the material plant (asphalt & concrete) and brought them up to Federal and State certifications. Cardi Corporation is currently the largest asphalt and concrete supplier in the State of Rhode Island. He has worked closely on the I-Way project, particularly during the construction of the Network Arch Signature Span Bridge. The 5,100,000 pound bridge was built at Quonset Point Shipyard and transferred onto barges, then floated up the Providence River and set in place, as seen on the Discovery Channel. His expertise in construction, communication and management has helped construct many projects successfully over the years. Mr. Cardi is also currently involved in many professional and civic organizations.

Representative Projects:

Sakonnet River Bridge
$163.6 million project for RIDOT. The bridge (RI Bridge No. 250) is currently under development and will be 3,160-feet and features two lanes in each direction along with a combined bike and pedestrian path. Work under this contract consists of, but is not limited to, deep foundation installation, excavation support, concrete abutments, piers and footings, superstructure steel and pre-stressed concrete beam fabrication and erection, decks, railings, lighting, and bridge concrete repairs and modifications. The highway approach construction includes bituminous pavement, concrete barriers, drainage, lighting, excavation, hauling and grading. Retaining wall construction includes concrete and mechanically stabilized earth (MSE) walls.

Reconstruction and Relocation of Route 195 (Iway), Providence, RI
$306 million project for RIDOT. The Iway project is the major realignment of Interstate I-195 with I-95 through Providence, RI and includes 15 new bridges, numerous ramp bridges, a 50-foot wide pedestrian bridge at India Point Park, a Network Arch Signature Span (950-foot

bridge) over the Providence River and modifications to local city streets. The project also consisted of MSE walls, cast in place walls, traffic signals, utility relocations, environmental controls, demolition of existing structures, new utilities, drainage and more. Cardi Corporation is the General Contractor for seven of the first eleven contracts ranging in price from $16 million to $85 million, with three contracts worth over $50 million. Cardi built the single span 400-ft-long steel network arch bridge off-site and in 2006 floated the span up the Narragansett Bay from Quonset where it was constructed in its final destination.

Freight Rail Improvement Project
Originally designed to improve safety and capacity by separating freight movement from Amtrak operations, the Freight Rail Improvement Project (FRIP) is a 22-mile long project located within Amtrak's Northeast Corridor. This project entailed constructing a Freight Dedicated Track along Amtrak's mainline tracks, linking Quonset/Davisville to the Boston Switch at Central Falls and out to Western markets. An extremely complex job, including design components, environmental issues, constructability issues, and historic concerns, the FRIP involved extensive coordination with several state and federal agencies Work completed includes the Garnet Street Pedestrian Bridge in Warwick; the Rocky Hollow Bridge in East Greenwich; and the Lincoln Avenue Railroad Bridge in Warwick.

403 Relocation
This eight-year, $130 million Route 403 Relocation Project for RIDOT, provided direct highway access from Route 4 to the growing Quonset Business Park. This project involved the construction of a new limited access highway, new interchanges with Route 4 and Route 1 and many other changes. Approximately 4.5 miles long, this new freeway provided two travel lanes and shoulders in each direction. The project included three interchanges, 300,000 cubic yards of earth work, 15 bridges, one railroad bridge, 1one Amtrak bridge and 15 ramps. The project contained valued and sensitive wetlands with numerous wetland replication areas.

Foxwoods Route 2 Improvements
The Route 2 Corridor Improvement Plan is for the construction of a four-lane highway in the vicinity of the Foxwoods Resort Casino. This project is approximately 2.8 miles of road work running parallel to the existing Route 2. This section consisted of approximately 1.4 miles of highway with 6 bridges and retaining walls and approximately 1 mile of widening of existing Route 2 from two to four lanes. With the inclusion of ramps, the entire length of road will be 4.9 miles. Within the 2.8 mile segment, constuction will include 6 bridges (bridges 1 thru 5 are single span, steel plate girder bridges and brige 6 will span precast concrete arech bridge), 7,320 linear feet of segmented block and earth reinforced retaining wall (172,000 sq-feet). Also, construction includes 1,600 linear feet of 16" water main and 8,385 linear feet of new 12"

Jason P. Berard

Safety Manager

Years of Experience

Cardi: 2 Years
Total: 12 Years

Education

Candidate for A.A.S/Fall 09
Occupational Safety & Health
Columbia Southern University

Current Assignments

Mount Hope Bridge Repair
$5.6 million
12/08 to 11/09

Weaver Hill Road Bridge
$4.3 million
1/09 to 6/11

Sakonnet River Bridge
$163.6 million
4/09 to 5/12

Mohegan Sun Route 2A
$9 million
5/07 to 10/09

Associations & Certifications

RIAGC
RI SAFER Alliance
Construction Outreach Trainer
Hazwoper Certified
ATSSA Traffic Control Technician
CPR, AED, First Aid Certified
Supervisor Reasonable Suspicion Certified
Respirator Trainer Certified
HAZMAT Transportation Certified
OSHA 10
OSHA 30
RI, MS, CT Hoisting license
Forklift Certified

Professional Profile:

Mr. Berard is responsible for all the aspects of safety, health and environmental regulatory compliance including but not limited to OSHA, MSHA, DOT, EPA, and DEM etc. The responsibilities of this position include but are not limited to loss prevention, risk management, accident investigation, injury and illness management, insurance claims management, development and maintenance of comprehensive health & safety programs, safety training and orientation, loss prevention audits, drug and alcohol policy administration, and recordkeeping. Mr. Berard has attended the following safety courses at New England OSHA Training Institute & Education Center at Keene State College: Safety trainings include: Construction Safety & Health Specialist, Mobile Crane Hazard, Fall Arrest Systems Trainer Course, OSHA Accident Investigation, Work Zone Traffic Control Course, Electrical Standards, OSHA Recordkeeping, Excavation, Trenching & Soil Mechanics, Fall Prevention & Protection for Construction.

Representative Projects:

Henderson River Bridge
$3.3 million project for RIDOT. This project included repairs to a bridge over the Providence River. Work included deck joint repairs, installation of asphaltic joints at the existing fixed joints, replacement of bridge drain pipes and deck joint drainage troughs, replacement of missing expansion plates, installation of bicycle lane mansion plates, resealing sidewalk and parapet joints, structural steel repairs, installation of bicycle safe sliding plates, sidewalk and parapet joint sealant replacement, structural steel repairs, use of temporary barriers for maintenance and protection of traffic and other incidentals.

Reconstruction and Relocation of Route 195 (Iway)
$306 million project for RIDOT. The Iway project is the major realignment of Interstate I-195 with I-95 through Providence, RI and includes 15 new bridges, numerous ramp bridges, a 50-foot wide pedestrian bridge at India Point Park, a Network Arch Signature Span (950-foot bridge) over the Providence River and modifications to local city streets. The project also consisted of MSE walls, cast in place walls, traffic signals, utility relocations, environmental controls, demolition of existing structures, new utilities, drainage and more. Cardi built the single

span 400-ft-long steel network arch bridge off-site and in 2006 floated the span up the Narragansett Bay from Quonset where it was constructed in its final destination.

Route 403 Relocation
This eight-year, $130 million Route 403 Relocation Project for RIDOT, provided direct highway access from Route 4 to the growing Quonset Business Park. This project involved the construction of a new limited access highway, new interchanges with Route 4 and Route 1 and many other changes. Approximately 4.5 miles long, this new freeway provided two travel lanes and shoulders in each direction. The project included three interchanges, 300,000 cubic yards of earth work, 15 bridges, one railroad bridge, one Amtrak bridge and 15 ramps. The project contained valued and sensitive wetlands with numerous wetland replication areas.

Foxwoods Route 2 Improvements
$48 million project for MPTN Tribal Nation. Construction of a four-lane highway in the vicinity of the Foxwoods Resort Casino. This project is approximately 2.8 miles of road work running parallel to the existing Route 2. Construction will include 6 bridges (bridges 1 thru 5 are single span, steel plate girder bridges and bridge 6 will span precast concrete arech bridge), 7,320 linear feet of segmented block and earth reinforced retaining wall (172,000 sq-feet). Also, construction includes 1,600 linear feet of 16" water main and 8,385 linear feet of new 12" water main. Additional work within the project includes the installation of new traffic signals, modifying existing traffic signals, lighting, roadway signage and wetland mitigation.

Luigi Colapietro

Construction Manager

Years of Experience

Cardi: 32 Years
Total: 32 Years

Education

BS/1977/Civil & Environmental Engineering
University of Rhode Island

Current Assignments

Sakonnet River Bridge
$163.6 million
4/09 to 5/12

Rt. I-195 Contract 6
$66 million
10/04 to 3/10

Rt. I-195
$56 million
9/05 to 7/09

Associations & Certifications

OSHA

Professional Profile:

Mr. Colapietro oversees all aspects of the Construction & Asphalt Divisions at Cardi Corporation. All superintendents report to Mr. Colapietro on all projects. Mr. Colapietro works closely with each superintendent to ensure quality workmanship, project completion and project cost. Mr. Colapietro coordinates field personnel and equipment for all projects. He is responsible for review and response to all construction and design issues. Mr. Colapietro is also responsible for the Materials and Plant Divisions. He works closely in conjunction with the Safety Division and Engineering Department to ensure safe and cost controls for all the projects.

Representative Projects:

Sakonnet River Bridge
$163.6 million project for RIDOT. The bridge (RI Bridge No. 250) is currently under development and will be 3,160-feet and features two lanes in each direction along with a combined bike and pedestrian path. Work under this contract consists of, but is not limited to, deep foundation installation, excavation support, concrete abutments, piers and footings, superstructure steel and pre-stressed concrete beam fabrication and erection, decks, railings, lighting, and bridge concrete repairs and modifications. The highway approach construction includes bituminous pavement, concrete barriers, drainage, lighting, excavation, hauling and grading. Retaining wall construction includes concrete and mechanically stabilized earth (MSE) walls.

Freight Rail Improvement Project
Originally designed to improve safety and capacity by separating freight movement from Amtrak operations, the Freight Rail Improvement Project (FRIP) is a 22-mile long project located within Amtrak's Northeast Corridor. This project entailed constructing a Freight Dedicated Track along Amtrak's mainline tracks, linking Quonset/Davisville to the Boston Switch at Central Falls and out to Western markets. An extremely complex job, including design components, environmental issues, constructability issues, and historic concerns, the FRIP involved extensive coordination with several state and federal agencies Work completed includes the Garnet Street Pedestrian Bridge in Warwick; the Rocky Hollow Bridge in East Greenwich; and

the Lincoln Avenue Railroad Bridge in Warwick.

403 Relocation
This eight-year, $130 million Route 403 Relocation Project for RIDOT, provided direct highway access from Route 4 to the growing Quonset Business Park. This project involved the construction of a new limited access highway, new interchanges with Route 4 and Route 1 and many other changes. Approximately 4.5 miles long, this new freeway provided two travel lanes and shoulders in each direction. The project included three interchanges, 300,000 cubic yards of earth work, 15 bridges, one railroad bridge, one Amtrak bridge and 15 ramps. The project contained valued and sensitive wetlands with numerous wetland replication areas.

Reconstruction and Relocation of Route 195 (Iway), Providence, RI
$306 million project for RIDOT. The Iway project is the major realignment of Interstate I-195 with I-95 through Providence, RI and includes 15 new bridges, numerous ramp bridges, a 50-foot wide pedestrian bridge at India Point Park, a Network Arch Signature Span (950-foot bridge) over the Providence River and modifications to local city streets. The project also consisted of MSE walls, cast in place walls, traffic signals, utility relocations, environmental controls, demolition of existing structures, new utilities, drainage and more. Cardi Corporation is the General Contractor for seven of the first eleven contracts ranging in price from $16 million to $85 million, with three contracts worth over $50 million. Cardi built the single span 400-ft-long steel network arch bridge off-site and in 2006 floated the span up the Narragansett Bay from Quonset where it was constructed in its final destination.

Site Restoration, Old Saybrook, CT
$620,000 project for Amtrak. Project consisted of erosion and sedimentation control, removal of existing track 5, placement of sub-ballast and ballast, removal of existing curb and fencing, placement of new inter-track fence, grading and drainage work, catenary foundations.

Rehab of Station Platform & Lowering of Bridge 141.35 - Westerly Train Station, Westerly, RI
$1.8 million project for Amtrak. Project consisted of rehabilitation of the Westerly Train Station Platform and the lowering of both bridge spans (Track 1 and 2) of Undergrade Bridge 141.35 over the Pawcatuck River. The existing trestle bridges needed to be jacked for removal of bearing and pads, installation of new bearings and bridge seats, installation of precast ballast tubs, drainage work, curbing with deadman, new platforms, site lighting, asphalt paving and ornamental handrails. All operations were conducted in or adjacent to live electrified overhead contact system (OCS) in a corridor operating high speed train sets. All work on, over, within, or adjacent to railroad property was performed in conformance with all applicable railroad rules and regulations.

Sean P. Corrigan

Scheduler

Years of Experience

Cardi: 12 Years
Total: 15 Years

Education

BS/1993/Civil Engineering
North Eastern University

MS/1997/Civil Engineering
University of Rhode Island

Current Assignments

Rt. I-195 Contract 10/11
$60 Million
4/08 to Present

Rt. I-195 Contract 6
$64.5 Million
10/04 to 12/09

Mount Hope Bridge Rehab
$5.5 Million
9/08 to 11/09

Henderson Bridge Rehab
$3.3 Million
6/08 to 10/09

Rehab Great & Main St. Bridges
$7.6 Million
8/07 to 9/10

Weaver Hill Bridge Rehab
$4.3 Million
2/09 to 6/11

Resurfacing of Route 246
$1.3 Million
5/09 to 9/11

Special Expertise

Primavera Scheduling Software
P3.2 and P6.2

Professional Profile:

Mr. Corrigan is responsible for all aspects of scheduling including baseline schedule submissions, schedule updates for real time analysis, recover schedules, acceleration schedules and time extension request. Mr. Corrigan is also responsible for project management on smaller projects with limited project site overhead including shop drawing coordination, supplier/subcontractor coordination, utility coordination, and issue resolution.

Representative Projects:

Relocated Route 403 – Bridge No. 1012 Over Route 4
$6 million project for RIDOT. The highway work on this project included the partial construction of sections of the Relocated Route 403, Ramp 4-C, and the construction of Bridge No. 1012 over Route 4. Other work included rock excavation, earth excavation, drainage system installation, drainage basin work, highway lighting, pavement, guardrail, and other highway work items.

Freeway Construction – Route I-295 & Scituate Ave. Interchange
$4 million project for RIDOT / RIRRC. Work included the addition of four highway ramps to the existing Scituate Avenue Bridge, including the drilling, blasting, and excavation of mass rock along the new ramp system and the installation of utilities including water and gas with the associated services. The installation of extensive drainage systems and infiltration basins and construction of new pavement structures along the ramps and Scituate Avenue, including concrete curbing, sidewalks, concrete islands, and guardrail.

Relocated Route 403 (Phase I), North Kingston RI
$18 million project for RIDOT. Partial construction of relocated Route 403, including the demolition of buildings, construction of 4 new bridges, the blasting of trench rock for utility relocations (sewer, water, & phone), 3 new detention basins with geo-membranes, perforated pipe matrix drainage systems & storm water quality discharge chambers, and vibratory compaction.

W. Davisville Interchange - Relocated Rte. 403 (Phase II), N. Kingston, RI

$9 million project for RIDOT. Partial construction of relocated Route 403, including the construction of 2 bridges with associated ramps, the installation of 1,000-foot of 6'x 3' and 3'x 3' box culvert drainage systems, several utility relocations including water, phone, and sewer force mains, and the construction of 2 new detention basins with geo-membranes, perforated pipe matrix drainage systems, and storm water quality discharge chambers, and vibratory compaction.

The Reconstruction of Rt. 2. & 32, Norwich, CT
$24 million project for CONNDOT. Total realignment and reconstruction of the interchange, including a 150-foot rock cut for an egress ramp, over 475,000 C.Y. of mass rock excavation, a 30-foot deep 4 x 4 culvert installed in Bedrock Ledge under Route 2 (Stream Crossing), and extensive drainage work. This massive multi staged project included the construction of two new bridges, 3 earth retaining walls, several wood noise barriers, miles of new pavement structure, and the installation of a wetland mitigation site with over 400 plants & shrubs.

Richard D. Macksoud

Project Engineer

Years of Experience

Cardi: 6 Years
Total: 6 Years

Education

BS/2004/Engineering
University of Rhode Island

Current Assignments

I-195 Relocation Contract 8
$56.8 million
9/05 - 7/09

I-195 Relocation Contract 10/11
$60 million
4/08 – 10/10

Associations & Certifications

Professional Engineer License, State of RI
ASCE

Special Expertise

Project Administration
Project Schedule Management
Heavy & Highway Construction Coordination
Project On-time Completion

Professional Profile:

Mr. Macksoud is responsible for all project administrative duties as required by the projects. Said duties include but are not limited to coordination, communication with and payment from owner and subcontractors, advising and coordinating field employees, communication with the engineer of record and/or the owner's consultants, coordination of subcontractors and the engineer of record and/or the owner's consultants, management, including review and tracking, of all project submittals from Cardi and its subcontractors, management of the project schedule, and negotiations of Value Engineering and/or change in work directives.

Representative Projects:

I-195 Relocation - Contract 6
$64 million project for RIDOT. This project consisted of construction of three viaduct ramps named NE, WS, and WES. The bridge construction includes pile driving, excavation support, cast-in-place concrete piers, trapezoidal steel box girders, and cast-in-place concrete decks and parapets. Retaining wall construction includes Mechanically Stabilized Earth (MSE) walls and cast-in-place walls. Reconstructing and resurfacing city, road construction includes concrete and bituminous pavement, drainage, lighting, pavement marking, signing, overhead signs, traffic signals, excavation, hauling, and grading. Incidental construction includes site preparation, plantable soil and seed, monitoring instrumentation, maintenance and protection of traffic including detours and temporary closures, dewatering, excavation, handling and disposal of contaminated soil, and all other incidentals within the project.

I-195 Relocation - Contract 8
$54 million project for RIDOT. Consisted of construction of four viaduct ramps named SE, WN, WP, and NP. Abutment construction included cast-in-place footings, backwalls, stems and MSE wall construction which was utilized in the structure as permanent earth supports. The bridge construction includes pile driving, excavation support, cast-in-place concrete piers, trapezoidal steel box girders, and cast-in-place concrete decks and parapets. Retaining wall construction includes MSE walls and cast-in-place walls. Other associated work includes retaining

walls; modifications to the existing Eddy Street overpass; construction of Ramp WN, Ramp PE and temporary Ramp SE. Reconstructing and resurfacing city streets and interstate lanes. Road construction includes concrete and bituminous pavement, drainage, lighting, pavement marking, signing, overhead signs, traffic signals, excavation, hauling, and grading. Incidental construction includes site preparation, plantable soil and seed, monitoring instrumentation, maintenance and protection of traffic including detours and temporary closures, dewatering, excavation, handling and disposal of contaminated soil, and all other incidentals, within the project.

I-195 Relocation - Contract 10/11
$60.5 million project for RIDOT. A multi-phased project that constructs the final connections between I-95 and I-195. Contract is divided geographically into two parts with Contract 10 starting east of the Providence River to the Washington Bridge and Contract 11 starting on the west of the Providence River that includes the construction of I-95 from Eddy Street to Westminster Street that constructs the Clifford Street Bridge and Ramp PS Bridge. Other major elements of construction are the following list of retaining walls: walls R, S, T, V, W, X, Y. The phasing is planned around four major traffic switches. Each of these switches opens a new ramp between I-95 and I-195.

Other Representative Projects:

- *I-195 Relocation Contract 6A; $15 million; 2005-2008, RIDOT*
- *TF Green Resurfacing; June 2004 – July 2004, RIAC*

Steven Morin

Project Superintendent

Years of Experience

Cardi: 7 Years
Total: 12 Years

Education

BS/1996/Civil Engineering
University of Maine

Current Assignments

Rte 403 Relocation
$130 million
2003 to 2008

Weaver Hill Road Bridge
$4.3 million
1/09 to 6/11

Associations & Certifications

OSHA
Amtrak On-Track Safety Certifications

Special Expertise

Heavy & Highway Construction
Project Administration

Professional Profile:

Mr. Morin is responsible for all aspects of project construction from preconstruction planning to final project completion. Mr. Morin is responsible for project manpower and equipment along with project costs. Working closely with subcontractors for scheduling work and quality of work, he is responsible for coordination of scheduling with public utilities, Amtrak, railroads, municipalities, businesses and various representatives to ensure project continuity. Mr. Morin also works closely on change directives from the Owners.

Representative Projects:

Rte 403, Bridge 1009 over Amtrak, North Kingstown, RI
The project consisted of a single span structure consisting of steel plate girders, reinforced concrete abutments and decks, mechanically stabilized earth (MSE) retaining walls, granite curbing, protective screens, and other incidentals. Highway work consisted of the construction of sections of Relocated Route 403 to bituminous surface course level, jacking steel casing under Amtrak right-of-way, complete construction of a drainage basin and installation of guardrail. Also included was earth excavation, temporary earth support, modification to Amtrak electrification facilities, construction of drainage systems, cold planning, water main construction, the maintenance and protection of traffic, erosion protection, new pavement markings, and other highway items of work.

Boat Section and Railroad Sitework, Providence, RI
An extremely complex job, including design components, environmental issues, constructability issues, and historic concerns, the FRIP involved extensive coordination with several state and federal agencies including the Federal Railroad Administration, the Federal Highway Administration, Amtrak, the Environmental Protection Agency, the Rhode Island Department of Environmental Management, and the Rhode Island Economic Development Corporation. As part of the project, several bridges had to be reconstructed or raised to provide additional clearance.

Amtrak High Level Platforms and Pedestrian Overpass, Old Saybrook, CT
This project consisted of designing and building an

enclosed structure for pedestrians to access eastbound or westbound tracks without crossing railroad tracks at grade. The structure has covered stairways on both sides of the tracks leading to towers which support an enclosed pedestrian bridge over two sets of railroad tracks. The towers also house elevators to accommodate ADA requirements. The Amtrak train schedule was maintained during construction.

Other Representative Projects:

- *Repairs to Cliff Walk, Newport, RI*
- *Emergency Repair on Warren Bridge, Warren, RI*
- *Salt Sheds, Scituate & Coventry, RI*
- *Rocky Hollow Road Bridge, North Kingstown, RI*
- *Water Storage Tank - Massachusetts Water Resource Authority, Weston, MA*

KEVIN CAINE
Laboratory Manager

EDUCATION

Christopher Columbus High School, Boston, MA, 1986

PROFESSIONAL SUMMARY

Mr. Caine is responsible for the scheduling and processing of construction materials through the Avon, Massachusetts, laboratory. This processing includes proctor determinations, mechanical analysis of soils and aggregates, mix design verifications, the compressive testing of cementatious materials such as mortar cubes, standard concrete test cylinders, flex beams as well as asphalt testing including recovery analysis, extraction, viscosity and penetration tests and marshall mix design. Mr. Caine is also involved in the Strategic Highway Research Program (SHRP).

Prior to joining ATC, Mr. Caine was employed by Professional Service Industries, where he was responsible for the scheduling and processing of construction materials through the laboratory.

PROFESSIONAL EXPERIENCE

Construction Materials Testing

- **Delta Airlines Terminal A Redevelopment / Making Projects Work, Inc. / Atlanta, GA**
  Responsible for all scheduling and processing of materials through the laboratory.

- **Bridgewater Elementary School / Bridgewater, MA / Symmes Maini & McKee Associates**
  Responsible for all scheduling and processing of materials through the laboratory.

- **Wilson Middle School / Natick, MA / Architecture Involution, LLC**
  Responsible for all scheduling and processing of materials through the laboratory.

- **North Beverly Elementary School / North Beverly, MA / Flansburg Associates Inc.**
  Responsible for all scheduling and processing of materials through the laboratory.

- **Wrentham Elementary School / Wrentham, MA / Dore & Whittier, Inc.**
  Responsible for all scheduling and processing of materials through the laboratory.

- **Manchester Airport / Edwards and Kelcey, Inc. / Londonderry, NH**

Performed hot mix asphalt plant inspections in accordance with project/state specifications.

- **T.F. Green State Airport / Edwards and Kelcey, Inc. / Providence, RI** Performed a subsurface soils investigation and performed hot mix asphalt plant inspections in accordance with project/state specifications.

- **Massachusetts Port Authority / Various sites at Logan International Airport and Hanscom Air Force Base** Performed concrete, soils and hot mix asphalt plant inspections in accordance with project/state specifications.

- **Massachusetts Turnpike Authority / Various sites** Performed concrete, soils and hot mix asphalt plant inspections in accordance with project/state specifications.

- **Massachusetts Highway Department Project #30032 / Rte. 3/44, Plymouth/Kingston / D.W. White Construction Co. /Acushnet, MA** Developed quality assurance/quality control plan. Performed concrete plant and field inspections in accordance with project/state specifications.

- **Massachusetts Highway Department Project #31080 / Route 2 Bridge Over Minuteman Bike Path, Arlington, MA / Roads Corporation / North Billerica, MA** Developed quality assurance/quality control plan. Performed concrete plant and field inspections in accordance with project/state specifications.

- **Massachusetts Highway Department Project #31016 / Bridge Replacement Route 68 Gardner Rd., Templeton, MA / Fiore Construction Co.** Developed quality assurance/quality control plan. Performed concrete plant and field inspections in accordance with project/state specifications.

TRAINING AND CERTIFICATIONS

- Massachusetts Class "A" Concrete Field Technician
- ACI Concrete Technician
- NETTCP Concrete Technician Certification
- PCI Level I Precast Concrete Technician Certification
- PCI Level II Precast Concrete Technician Certification
- NETTCP Soils & Aggregate Inspector Certification
- NETTCP Soils & Aggregate Laboratory Technician Certification
- NETTCP Hot Mix Asphalt Plant Technician Certification
- NETTCP Hot Mix Asphalt Field Inspector Certification
- NATC Superpave Binder Technician
- NATC Superpave Level I Technician
- Nuclear Gauge Certification

water main. Additional work within the project includes the installation of new traffic signals, modifying existing traffic signals, lighting, roadway signage and wetland mitigation.

PAUL DELANEY
Project Manager

EDUCATION

University of Akron, Akron, OH
B.S. Physics

PROFESSIONAL SUMMARY

Mr. Delaney is responsible for the field inspection and testing of construction materials including soils, concrete, steel, and hot mix asphalt.

Prior to joining ATC Mr. Delaney was employed by Industrial Services Industries where he was Experienced Manager and Quality Control Professional in the design, construction, inspection and maintenance of buildings, and other facilities. He worked closely with Architects, Contractors, Owners and University Faculty and Administrative personnel in the planning and execution of several projects in limited time, including multiple projects with multiple designers and users.

PROFESSIONAL EXPERIENCE

Construction Materials Testing

Institutional Facility Experience
- Suffolk University, Boston, MA
- Massachusetts Institute of Technology, Cambridge, MA
- Bridgewater Elementary, Bridgewater, MA
- University of Massachusetts Amherst, Amherst, MA

Selected Highway and Airport Projects
- Massachusetts Turnpike Authority-Various Projects
- Massachusetts Port Authority- Various Projects
- Massachusetts Highway Department - Various Projects
- Connecticut DOT, Various Projects
- Terminal B, Logan Airport, East Boston, MA
- Newport State Airport, Middletown, RI
- T.F. Green Airport, Warwick, RI

Other Facilities
- T.D. Banknorth, Various Locations
- Bose Headquarters, Newton, MA
- St. Francis Hospital, Hartford, CT
- Digital Fab 6 Plant, Hudson, MA
- Prudential Shopping Mall Enclosure, Boston, MA
- 2 International Place, Boston, MA
- City Place 2, Hartford, CT

TRAINING AND CERTIFICATIONS

- Massachusetts Class "A" Concrete Field Technician
- ACI Concrete Technician
- NETTCP Concrete Technician Certification
- NETTCP Soils and Aggregate Inspector Certification
- American Welding Inspector Certification #9042601
- Nuclear Gauge Certification
- ASNT Level I, II in Ultrasonic Magnetic Particle, Liquid Penetrant Inspection
- ASNT Level I Radiographic

KEVIN MARTIN, P.E.
Geotechnical Engineer

EDUCATION

- M.S.C.E., Geotechnical Engineering, University of Massachusetts at Lowell, 1995
- B.S.C.E. Civil Engineer, New England College, Henniker, NH, 1989

PROFESSIONAL REGISTRATION

- Professional Engineer, Massachusetts #38206
- Professional Engineer, New Hampshire #8634
- Professional Engineer, Maine #8738
- Professional Engineer, Vermont #018-0007358
- Professional Engineer, Connecticut #19926
- Professional Engineer, Rhode Island #6819

PROFESSIONAL SUMMARY

Mr. Martin is responsible for geotechnical investigations and associated engineering evaluations. Geotechnical engineering evaluations include bearing capacity, foundation settlements, seismic site review, retaining structures, slope stability, groundwater management, earth support systems, pavement designs and earthwork construction. Responsible for site investigations, laboratory testing programs, engineering reports, technical specifications and project management associated with geotechnical projects. Prior to joining ATC, he conducted geotechnical investigations for Geotechnical Services and Jaworski Geotech.

PROFESSIONAL EXPERIENCE

Geotechnical Investigations

- **Filene's Stores, North Dartmouth, Brockton, Saugus, Marlborough, Hyannis, Leominster, Kingston, Hanover, MA** Completed geotechnical studies and construction related services for Filene's building expansions and new stores throughout New England. Some of the sites are underlain by unsuitable fill and buried organic soils which required pile foundations for support. Most of the projects are located at existing malls with various underground utilities and questionable soils. Geotechnical recommendations for foundation design and site development were provided for each project per the Geotechnical Specifications.
- **Communications Towers, Various Sites throughout New England**
  ATC has completed over 100 geotechnical studies for various communication towers throughout the region. The towers generally include monopole, free-standing lattice or guy-supported structures varying in height from 80 to 250 ft. Test borings and a Geotechnical Report are provided for foundation design which generally involves a large mat footing or drilled shaft to encounter the large overturning moments. Occasionally, deep piles and rock anchors are necessary depending upon the subgrade conditions. ATC also completes resistivity testing and environmental review for these projects.

- **Bristol-Plymouth Regional Technical High School Building Expansion, Taunton, MA** Completed a geotechnical study for a building expansion to the existing high school. The site was underlain by questionable fill, buried organic soils and a shallow groundwater table. Over-excavation and replacement would have been difficult due to the depth of the unsuitable materials, the shallow groundwater and the loose density of the fill and organics which readily collapse upon exposure. As such, the addition was supported upon concrete filled steel pipe piles driven to end-bearing resistance with design capacities of 40-50 tons. ATC monitored the pile driving activities per the design, the Wave Equation Analysis (WEAP) and the Building Code.

- **Massachusetts Highway Bridge, Route 1A over the MBTA and B&M Railroad, Revere, MA / Massachusetts Highway Dept. Geotech Division Boston, MA** Completed a geotechnical study for a three span replacement bridge which conveys four lanes of traffic in a dense urban setting. The project was complicated by site constraints, two serviceable rail lines, and a bridge skew of greater than 50º. The substructure included the reuse of the existing cantilevered concrete abutments and new column piers supported upon 10-inch nominal diameter cast in-place piles.

- **Rowe Earth Dam, Amherst, NH** The stability of this 20 ft. high, privately owned, earth embankment dam was in question per the NH Department of Environmental Resources. A geotechnical study was completed and remedial repairs were undertaken to improve the stability and hydraulic capacity of the dam. A widened spillway was constructed and the upstream and downstream slopes were flattened.

TRAINING AND CERTIFICATIONS

- 40-Hour Hazardous Waste Site Health and Safety Training
- Massachusetts Class "A" Concrete Field Technician
- Troxler Nuclear Density Gauge
- BSCES, Geo-Institute, Deep Foundation Analysis, Design & Const., 2003
- BSCES, Developing New Foundation Alternatives: Helical Piles & Geopiers, 2003
- BSCES, Soil-Structure Interaction & Interaction with Geotechnical & Structural Engineers, 2002
- BSCES, Blasting in Urban Environments and Near Critical Structures, 2002
- Foundation Courses, Inc., Geotechnical &Structural Design and Construction Monitoring of Deep Foundations, 2001
- ADSC Anchored Geo-Support Seminar, 2000
- BSCES, Design and Construction of Integral Abutment Bridges, 1999
- ASCE GeoCongress Convention, 1998
- Northeastern University, Fundamentals of Seismic Design, 1997
- BSCES, Dam Safety Seminar, 1996
- ASCE, Professional Malpractice Seminar, 1996
- ASFE, Loss Prevention Seminar, 1994
- Boston Earth Retention Seminar, 1993
- ACI Concrete Proportioning Seminar, 1992

PROFESSIONAL ACTIVITIES

- International Who's Who of Entrepreneurs
- American Society of Civil Engineers
- Boston Society of Civil Engineers
- New Hampshire Society for Civil Engineers
- Who's Who of Scientists and Engineers

PAUL MATTHEWS
Senior Project Manager

EDUCATION

B.S. Materials Engineering Rensselaer Polytechnic Institute, Troy, NY, 1985
Purdue University, West Lafayette, IN, 1990

PROFESSIONAL SUMMARY

As Project Manager, Mr. Matthews is responsible for the on-site management of all laboratory testing and all field inspection and testing of construction materials, including soils, concrete, and hot mix asphalt.

PROFESSIONAL EXPERIENCE

Construction Materials Testing

- Route 3 North Transportation Improvements Project
- New Hampshire Department of Transportation, Concord, NH
- Town of Concord, Various Paving Locations

TRAINING AND CERTIFICATIONS

- ACI Concrete Technician Grade I
- PCI Level I Precast Concrete Technician Certification
- PCI Level II Precast Concrete Technician Certification
- NETTCP Concrete Technician Certification
- NETTCP Concrete Inspector Certification
- NETTCP Soils & Aggregate Laboratory Technician Certification
- NETTCP Soils & Aggregate Inspector Certification
- NETTCP Hot Mix Asphalt Paving Inspector Certification
- NETTCP Quality Assurance Technologist Certification
- NATC Superpave Binder Technician
- NATC Superpave Level I Technician
- Nuclear Gauge Certification

PAUL B. ALDINGER, PhD, P.E.

EDUCATION:

Ph.D. in Civil Engineering,
University of Rhode Island (1983)
M.S. in Civil Engineering,
University of Vermont (1973)
Naval Civil Engineering Officers School
B.S. in Civil Engineering
University of Vermont (1969)

REGISTRATION:

Member, RI Board of Registration for Professional Engineers Registered Professional Engineer
States of Rhode Island, Vermont, New Jersey, Connecticut, the Commonwealth of Massachusetts

PROFESSIONAL SOCIETIES:

National Society of Professional Engineers,
RI Section Past President
American Society of Civil Engineers,
Past Member of National Committee on Environmental Geotechnics,
Rhode Island Section Past President
Earthquake Engineering Research Institute
National Ground Water Association
American Geophysical Union
Tau Beta Pi
Chi Epsilon

AWARDS:

Rhode Island Young Engineer of the Year
Rhode Island Engineer of the Year
Providence Engineering Society - Freeman Award

PROFESSIONAL EXPERIENCE:

Dr. Aldinger has been involved in a wide range of civil engineering projects in areas such as building construction, highway and bridge construction; solid waste handling, disposal and/or recovery systems; power generation facilities; pollution control facilities; waterfront development; water supply development and protection; and groundwater studies. Dr. Aldinger's involvement has been concentrated in the geotechnical and geohydrological analysis and design of these projects.

Dr. Aldinger has been responsible for the geotechnical aspects of numerous major bridge and highway designs. The following projects are representative of this experience.

- **Laurel Avenue Bridge, Coventry, RI**
  The project consisted of a geotechnical engineering interpretive report is to provide

foundation design and earthwork recommendations for the bridge replacement. The scope of services for this project included development of recommendations for foundation design alternatives and our recommended foundation support option as well as general earthwork construction recommendations.

- **Route 403/Quonset Point, North Kingstown, Rhode Island.** Paul B. Aldinger & Associates is currently involved in this project which consists of the design and construction of approximately 5 miles of a new limited access four lane highway including the design and construction of 17 new or rehabilitated bridge crossings. Services provided include coordination and review of several extensive subsurface exploration programs, developing geotechnical reports with recommendations for the design of roadway drainage systems, drainage ponds, several new temporary and permanent bridge abutment foundations supported on either shallow spread footings or deep pile foundations, assessment of liquefaction potential, design of ground improvements, and retaining system design, including mechanically stabilized earth.

- **Relocation of Route 195, Providence, Rhode Island.** PBA is currently involved in this project which moves the major interchange between Routes I-95 and I-195 located in Downtown Providence south of its current location. PBA's work includes the coordination and review of several subsurface exploration programs, developing geotechnical reports with recommendations for the design of several new bridge crossings, design and monitoring of excavation support systems, design of several retaining walls, and design of permanent highway underdrains.

- **Memorial Boulevard, Capital Center and Civic Center Projects, Providence, RI**: These projects are significant in that they require the driving of more piling and earth moving than has been performed in the previous two or three decades in the City of Providence, RI. The Providence basin has deep deposits of varved silt which become particularly challenging to pile penetration, slope stability, and load development.

- **Bridge replacement/rehabilitation projects for the following bridges in Rhode Island**:

Albion Bridge - Cumberland and Lincoln
Berkeley-Martin Bridges - Cumberland and Lincoln

Kelly House Bridge - Lincoln	Rumford Railroad Bridge - E Providence
Roger Williams Bridge - Providence	Main Street Bridge - West Warwick
Stoney Lane Bridge - North Kingstown	Greenwood R.R. Bridge - Cranston
Tarkiln Road Bridge - Burrillville	Cahoone Road Bridge - Coventry
Barbs Hill Road Bridge - Coventry	Greenwood Ave. Bridge - East Providence
Beach Avenue Bridge - Block Island	Dry Bridge Rd Bridge - North Kingstown

Rt 114 Bridges - Barrington & Warren

- **Bridge replacement/rehabilitation projects for the following bridges in Massachusetts**:

  County Bridge - Haverhill
  Wading River - Norton
  Bridge #L-71-11 - Lunenburg
  Rt 128 at Rt 2 Bridge - Lexington
  Auburn St Bridge - Bridgewater

  The work included completion of a subsurface investigation program, engineering analysis, and development of a geotechnical engineering report.

- **Route 25, Plymouth, MA**: Provided geotechnical and geohydrological analysis and design for 10 miles of roadway and 25 bridges of this four lane highway.

- **East Providence Industrial Highway, East Providence, RI**: Prepared a vibration impact study for this highway planning project.

- **Bridge Replacements in South Carolina**: Provided geotechnical engineering, analysis and design for four bridges located in this state.

- **Elimination of At-Grade Railroad Crossings, Warwick and Cranston, RI**: Provided geotechnical analysis and design for bridges to eliminate at-grade railroad crossings.

Dr. Aldinger has provided the geotechnical analysis and design for numerous building projects including the following:

- $25 Million Rhode Island Department of Administration Building and Garage, Providence, RI: Geotechnical analysis of this 238,000 sq.ft. office building with a 3-level, 600-car underground parking garage. Project involved a complete geotechnical investigation and report with consideration of impact on adjacent structures. Recommended slab on grade foundation. Limited site area resulted in a temporary support system with earth tiebacks to serve as an exterior form for the permanent foundation wall.

- $35 Million FDA Headquarters Laboratory Complex, Beltsville, MD: Subsurface geotechnical investigation for multi-phased project including compressor foundations.

- $20 Million Visitors Information and Transportation Facility, Newport, RI: Geotechnical analysis and design of concrete filled pipe pile and timber pile foundations.

- $25 Million T.F. Green Airport Terminal Building Expansion in Warwick, RI: Geotechnical analysis and design of slab on grade foundation.

- Four 100,000 sq.ft. single story Super Stop & Shop Supermarkets with related retail developments at existing and new locations. This required consideration of sequencing around the existing stores which will remain in operation. Considerable savings were realized by the use of innovative retaining walls in lieu of a conventional cast in place concrete retaining wall at these facilities. These facilities are located in Cranston, North Providence, Smithfield and Cumberland, RI.

- A 78,000 sq.ft. Walmart retail facility on a new site in North Kingstown, RI. This work included a full geotechnical investigation and construction monitoring. It also included a report of a geohydrological study dealing with a nitrate loading to a sole source aquifer.

- A feasibility geotechnical investigation and budget estimate for a 65,000 sq.ft. single story Big Y Supermarket with related retail development on the site of an existing retail facility in Worcester, MA.

- A 110,000 sq.ft. retail facility (KMart) on a new site in Warwick, RI. This work included a full geotechnical investigation and report as well as on-call construction monitoring.

- 9-Story Arcade Parking Garage, Providence, RI: Geotechnical analysis and design requiring concrete filled shell piling support.

- 6-Story Harvard Square Parking Garage, Cambridge, MA: Geotechnical analysis and design supported by concrete prestressed piles pre-augered and then driven through Boston Blue clay to glacial till and/or bedrock.

Dr. Aldinger's experience in several other areas are briefly described below:

- water development investigation and geotechnical design of facilities for municipalities and industrial parks such as water source development, distribution lines, reservoirs and tanks.
- geotechnical analysis and design in conjunction with numerous dam projects such as the Two Mile Dike in Hanson-Halifax, MA and the Bristol Dams No. 2,4 and 5 in Bristol Ct.

- geotechnical aspects of numerous airport construction projects, such as Green Airport Terminal modifications and Taxiways in Warwick, RI and Quonset Point Apron repairs

in North Kingston, RI.

- geotechnical investigation and design of Resource Recovery and Power Generation Facilities including the Hartford, CT and Detroit, MI Resource Recovery plants, gas recovery power plant at Johnston, RI and coal handling facilities at Brayton Point, MA.

- the geotechnical design and analysis for several wastewater treatment projects with the most recent being the Quonset Pt. Plant in North Kingston, RI. This included pile driving observation, testing and dewatering concerns.

- waterfront development includes the geotechnical analysis and design for numerous projects some as large as major expansion of facilities at Portsmouth, NH or as small as slope protection at a residence in Massachusetts.

PUBLICATIONS

Master's Thesis - "Geotechnical Properties of a Varved Clay Deposit" (1973).
Ph.D. Dissertation - "Groundwater Flow Simulation by a Stochastic Representation of Soil" (1983).

Aldinger, Paul B., "Effects of Variations in Hydraulic Conductivity (Permeability) On Flow Quantity and Dispersion", American Geophysical Union, Annual Spring Meeting Paper No. H32A-04, May 1985.

Aldinger, Paul B., Amenta, Sebastion, Carver, Paul, "Block Island, Rhode Island Water Supply Development", Third Annual Eastern Regional Groundwater Conference, NWWA, July 1986.

Mason, Christopher O., Aldinger, Paul B., Wright, Thomas E., Forkey, Beth, "Evaluating Private Well Contamination in Rhode Island", Third Annual Eastern Regional Groundwater Conference, NWWA, July 1986.

Stapleton, Daniel C., Aldinger, Paul B., Turner, G. Stuart, "Geotechnical Considerations in the Design of the Wando Terminal Wharf Extension - Charleston, South Carolina", ASCE Ports 86 Conference, May 1986.

Floyd, Drew, Aldinger, Paul B., "Load Testing of Steel Sheet Piling Driven with a Vibratory Hammer" Deep Foundations Institute, 14th Annual Members' Conference Preprint Volume, October, 1989.

Floyd, Drew, Aldinger, Paul B., "Load Testing of Steel Sheet Piling Driven with a Vibratory Hammer", Transportation Research Board 69th Annual Meeting Paper No. 890752, January, 1990.

MARY M. CAOUETTE, P.E.
Senior Geotechnical Engineer

EDUCATION: Master of Science in Civil Engineering
Northeastern University, 2001

Bachelor of Science in Civil & Environmental Engineering
University of Massachusetts - Dartmouth, 1997

REGISTRATION: Registered Professional Engineer (Civil)
State of Rhode Island

PROFESSIONAL SOCIETIES: American Society of Civil Engineers
National Society of Professional Engineers

PROFESSIONAL EXPERIENCE:

Ms. Caouette's experience includes geotechnical office analysis, design work, and geotechnical report preparation as w ell as work as an engineering field and laboratory technician. Her experience has included responsibility for geotechnical engineering analyses, including estimation of soil bearing capacity, pile capacity, settlement, liquefaction potential, slope stability, retaining wall stability, excavation support, dewatering, and nitrate loading studies; the on-site monitoring of subsurface exploration field programs for both geotechnical and environmental objectives, including obtaining and classifying soil and rock samples, preparation of field logs, and laboratory testing of soil. She has also been involved in groundwater analyses and monitoring. Ms. Caouette has experience in construction monitoring/field engineering including but not limited to pile driving inspection, subsurface exploration monitoring, groundwater monitoring, environmental sampling, in situ hydraulic conductivity testing, pumping tests, compaction testing, and surveying.

Ms. Caouette's experience has included analysis and report development for numerous projects. A representative list of those types of projects is as follows:

- **Auburn Street Bridge, Bridgewater/ Middleborough, MA:** Conducted slope stability analysis of geotextile reinforced soil adjacent to a bridge abutment.

- **Sprague Street Bridge, Boston, MA:** Conducted field monitoring of subsurface explorations and stability analyses for the rehabilitation of an historic bridge.

- **Rhode Island Route 403 Realignment, North Kingstown, Rhode Island**: Development of field investigation program requirements; analysis of field data, including the development of engineering design parameters of subsurface soils, monitoring of undisturbed soil sampling, observation of pile driving and pile load testing; geotechnical analyses of project foundations, including those for retaining structures, embankments, bridge abutments, and roadways; geotechnical analyses and recommendation

development, including those for rock removal, estimation of bearing capacity, settlement, and soil improvement techniques for the mitigation of potentially liquefiable soils and buried organic deposits; drainage analyses, which included groundwater flow characterization, elevated groundwater prediction for the proposed realignment of an existing highway, field pumping and hydraulic conductivity testing; development of specifications and review of contractor submittals; and development of numerous geotechnical and geohydrological reports for these facilities.

- **Improvements to Interstate 195, Providence, Rhode Island**: Development of field investigation requirements; analysis of field data, including the development of engineering design parameters of subsurface soils; geotechnical analyses of project foundations, including those for excavation support, retaining structures, embankments, and bridge abutments; geotechnical analyses and recommendation development, including those for estimation of bearing capacity, settlement, and pile capacity; development of specifications and review of contractor submittals; and development of several geotechnical reports for these facilities.

- **Breakneck Hill Road Improvements, Lincoln, RI:** Geotechnical subsurface exploration monitoring, environmental screening of soil, and quantitative estimates of rock removal and developing a report for the proposed realignment of an existing roadway.

- **Replacement of the Berkeley and Martin Street Bridges, Cumberland & Lincoln, Rhode Island**: Assisted in the collection of data and development of reports during a subsurface exploration program performed for the proposed construction of a new marine terminal and related building structures.

- **Replacement of the Great Island Bridge, Narragansett, Rhode Island:** Ms. Caouette is currently working on the final design of this replacement bridge which provides the only access to Great Island. This project entails the design and construction of the new bridge while maintaining traffic on the existing timber structure. The new bridge will be supported on a combination of drilled micropiles at the abutments and driven composite piles at the center piers.

- **Airport Connector Skywalk, Warwick, Rhode Island:** Assistance in development of the foundation design for a new transportation facility which will be connected to the airport terminal by a 1,250-foot long elevated skywalk. Ms. Caouette reviewed data obtained during the geotechnical investigation, completed geotechnical analyses and developed a geotechnical recommendations report for the skywalk project.

- **Rhode Island Public Transit Authority Maintenance Facility, Providence, RI:** Geotechnical subsurface exploration monitoring, assistance in the development of foundation design recommendations and report for the proposed reconstruction and addition to an existing bus garage.

JODY S. RICHARDS
Senior Geotechnical Engineer

EDUCATION:

B.S. in Civil Engineering (1998),
University of Rhode Island

Health & Safety Training,
40-hour course per OSHA 29 CFR 1910.120

Troxler Density Gauge Training
8-hour course by Q/C Resource

REGISTRATION:

Engineer-in-Training
Commonwealth of Massachusetts

PROFESSIONAL EXPERIENCE:

Mr. Richards' experience includes geotechnical office analysis, design work, and geotechnical report preparation as well as field investigations, construction monitoring and laboratory testing of soils. His experience has included the responsibility for the on-site monitoring of subsurface exploration field programs for both geotechnical and geo-environmental objectives, including obtaining and classifying soil samples and preparing field boring logs. He has also been involved in groundwater analyses and monitoring. Mr. Richards also has an extensive experience in laboratory testing of soil. Mr. Richards has completed the design and field monitoring of several temporary excavation support systems for building construction. These have included the use of steel sheeting, H-pile and lagging as well as soil nail wall techniques.

Prior to joining Aldinger & Associates, Mr. Richards worked in the Materials Section for the Rhode Island Department of Transportation where he performed a variety of tests on soil, asphalt and concrete. Mr. Richards has experience in construction monitoring/field engineering including but not limited to pile driving inspection, subsurface exploration monitoring, groundwater monitoring, environmental sampling, in situ hydraulic conductivity testing, pumping tests of groundwater wells, compaction testing of soil, and surveying.

PROJECT EXPERIENCE

Mr. Richards' experience has included analysis and report development for numerous projects. A representative list of those types of projects is as follows:

- Bridge No. R-04-001 Winthrop Street (Route 44) over the Palmer River located in Rehoboth, MA: Monitored the subsurface exploration program and developed a geotechnical engineering report providing foundation design and earthwork

recommendations for the replacement of an existing bridge.

- Table Rock Road Bridge, Lincoln, RI: Planned and monitored the subsurface exploration program and developed a geotechnical engineering report providing foundation design and earthwork recommendations for the rehabilitation of an existing bridge over a stream at Barney Pond at the entrance of the Lincoln Woods State Park.

- Middlebridge Road Bridge, Narragansett, RI: Development of a geotechnical report providing pile foundation design and earthwork recommendations for the proposed structure.

- Warwick Intermodal Station, Warwick, RI: Developed a geotechnical report providing foundation design and earthwork recommendations for the 3,200-space parking garage and 1,250-foot long elevated skywalk. Provided geotechnical related assistance for the final design which utilized spread footing, minipile and H-pile foundations.

- Ten Mile River Bikeway Bridge, Pawtucket, RI: Geotechnical subsurface exploration monitoring, assistance in the analysis of field data, and development of a geotechnical report providing foundation design and earthwork recommendations for the new bridge.

- Clement's Supermarket, Portsmouth, RI: Geotechnical subsurface exploration monitoring, assistance in the analysis of field data, and development of foundation design recommendations.

- North Kingstown High School, North Kingstown, RI: Geotechnical subsurface exploration monitoring, assistance in the analysis of field data, and development of geotechnical report providing foundation design and earthwork recommendations for the proposed structure.

- Providence College Athletic Field & Garage, Providence, RI: Geotechnical subsurface exploration monitoring, and development of geotechnical report providing foundation design and earthwork recommendations. Construction monitoring of earthwork operations including compaction testing, non-engineered fill removal and soil anchor testing.

- Tyco Building Addition, Cranston, RI: Construction monitoring of earthwork operations including compaction testing and observation of non-engineered fill removal.

- Taco Building Addition, Cranston, RI : Geotechnical subsurface exploration monitoring, and development of geotechnical report providing foundation design and earthwork recommendations.

Michael P. Culmo, P.E.

VICE PRESIDENT OF TRANSPORTATION AND STRUCTURES

General Qualifications

Michael P. Culmo is a Civil Engineer with specialization in bridge/structure design and highway design. He supervises a staff of engineers and designers in the Transportation and Structures Group of CME. He has extensive experience in the design of steel, concrete, pre-stressed concrete and timber structures, and has been responsible for directing a design team on new expressway bridges, bridge rehabilitations, repairs of steel bridges and repair of pre-stressed concrete bridges. He brings to the table an in-depth knowledge of bridge design and innovative construction strategies, traffic engineering and materials specifications. He is a nationally recognized expert in Accelerated Bridge Construction (ABC) practices and has routinely delivered keynote addresses and spoken at seminars on the subject and its utilization around the world. He regularly works with the Federal Highway Administration and State Departments of Transportation to develop manuals and standards, and works with industry representatives to promote ABC implementation.

Technical Papers and Manuals:

Principal Author, Connection Details for Prefabricated Bridge Elements and Systems, *for the Federal Highway Administration*

Co-Author, AASHTO NSBA Steel Bridge Bearing Design and Detailing Guidelines, G9.1-2004

Co-Author, PCI Northeast Guidelines for Accelerated Bridge Construction Using Precast/Prestressed Concrete Components, PCINER-06-ABC

Co-Author, PCI Northeast Bridge Member Repair Guidelines, PCINER-01-BMRG

The Use of Precast Prestressed Box Beams for Temporary Bridge Construction
2004 PCI National Bridge Conference, Atlanta, GA

Behavior of Steel Bridges Under Superload Permit Vehicles
Transportation Research Record No. 1892, Journal of the Transportation Research Board

Bridge Deck Rehabilitation Using Precast Concrete Slabs
The 8th International Bridge Conference, Pittsburgh, PA

Design, Fabrication and Construction of the New England Bulb Tee
PCI Journal, November/December 1997
(Selected as one of the Landmark Papers in the 50 Year History of the Journal)

Three Bearing Concept For Prestressed Concrete Adjacent Box Beam Bridges
2002 Concrete Bridge Conference, Portland Cement Association, Nashville, TN

Registration

Licensed Professional Engineer
CT, FL, MA, NH, ME, MD, UT

Education

B.S., Civil Engineering, 1983
University of Connecticut

M.S., Structural Engineering, 1986
University of Connecticut

Member of the Engineering School Academy of Distinguished Engineers

Professional Affiliations

Chi Epsilon, Engineering Honor Society
UCONN Chapter Honor Member

American Society of Civil Engineers

Precast/Prestressed Concrete Institute

Transportation Research Board, Washington, D.C.

Committees

High Performance Steel Design Advisory Group,
American Iron & Steel Institute

Chair, *National Steel Bridge Bearing Committee,*
National Steel Bridge Alliance

Chair, Northeast DOT Electronic Data Transfer Committee

New England Technical Committee for Bridges,
Precast Prestressed Concrete Institute

Steel Bridge Committee & Concrete Bridge Committee,
Transportation Research Board

Michael P. Culmo, P.E.

VICE PRESIDENT OF TRANSPORTATION AND STRUCTURES

Accelerated Bridge Construction

U. S. Federal Highway Administration:
Manual: *Connection Details for Prefabricated Bridge Elements and Systems*

Mr. Culmo was responsible for all research, data collection and quality control for the 568 page document. He assembled, categorized and cross-referenced all schematic components, composed key text and edited all illustrative and technical content.

State of Utah Department of Transportation:

- **On-Call Engineering and ABC Standards Development**

Mr. Culmo provided principal oversight and guidance in the development of the ABC Standards, manuals, and specificationsfor the State of Utah. He was a primary contributer and editor of the manual. He also served as the chief coordinator and lecturer at the educational workshops given to UDOT staff, contractors and manufacturers to inform key users of policies and procedures outlined in the new ABC standards.

- **Utah SPMT Task Force**

Mr. Culmo served as chairman for a collaborative task force created to investigate stresses induced on prefabricated bridge structures using SMPT-based transporters. The Task Force was a joint effort comprised of engineers from the Utah Department of Transportation, local consultants and Utah State University.

Cardi Corporation: Providence River Bridge Installation
Construction Engineering: Prefabrication Support and Transport

Mr. Culmo managed design development and provided principal quality control for the erection, transportation and installation of a 400 foot long, 8 lane steel superstructure. The team designed temporary framing, verified load-bearing capacities of the launching pier and developed an innovative installation technique for the support piers.

Relevant Experience

Bridge Design Projects:

- **Highway Liaison Engineering, ConnDOT**
  Provide project management services for a wide range of projects including the Hartford to New Britain Busway Project.

- **Replacement of Fourteen Bridges, Interstate 93**, Medford, MA
  Accelerated Bridge Construction
  Design of prefabricated bridge elements that enable the replacement of fourteen bridges during ten weekend closures. The system consists of pre-topped steel beam units that are joined together in the field after placement.

Special Experience

Adjunct Professor:
University of Connecticut, Graduate School
Course: Design of Bridges for Extreme Events using the LRFD Code

Yearly Guest Lecturer:
University of Connecticut, Graduate School
LRFD Bridge Engineering Course
Topic: Fatigue Design of Bridges

Speaker:
The 2006 International Bridge Conference in Pittsburgh, PA
Topic: Complete Steel Framing Prefabrication & Rapid Const. of the Providence River Bridge

2007 Maryland Quality Initiative Conference
Baltimore, MD
Accelerated Bridge Construction

FHWA Prefabricated Bridge Construction Conference,
St. Louis, MO
Rapid Bridge Deck Replacement with Full-Depth Precast Concrete Slabs

Accelerated Construction Conference
CT Dept. of Transportation
Precast Full Depth Deck Panels

ASCE, Connecticut Chapter
Topic: Seismic Design and Retrofit of the I-84/Route 8 Interchange in Waterbury, CT

Team Member:
FHWA Accelerated Construction Technology Transfer program
Facilitator of the Structures Group at workshops around the country including:
Minnesota, Oregon, Wyoming, New York State, New York City, New Hampshire, Rhode Island, Iowa, and Hawaii

Bryan L. Busch, P.E.

DIRECTOR OF STRUCTURAL ENGINEERING

General Qualifications

Bryan Busch is a Civil Engineer with over 16 years of specialization in Structural Engineering and has extensive experience in the design, load rating and inspection. Several of past projects include the use of self-propelled modular transporters (SPMTs) to move entire bridges for Accelerated Bridge Construction (ABC) or large equipment over existing bridges. Performs structural rating for highway bridges throughout New England and the Midwest. Has also played an integral role in CME's development of ABC Specifications for various DOTs and acted as a contributor and lecturer at ABC workshops in Utah and Florida.

Accelerated Bridge Construction

Connecticut Department of Transporation

- **List Bridge Program**

  Mr. Busch managed a wide variety of bridge design projects as part of the List Bridge Program, Projects include all types of structures, from small culverts to a 250 foot span steel plate girder bridge.

State of Utah Department of Transportation:

- **On-Call Engineering and ABC Standards Development**

  Mr. Busch was responsible for coordinating efforts to determine gather information, organize, verify and compile details for inclusion in a UDOT Standards Manual for ABC. He also was involved in the development of the manual text, specifications and corresponding educational workshops given to introduce the standard concepts to end users including UDOT staff engineers, contractors and fabricators.

- **Development of Utah SPMT Task Force**

  Mr. Busch manages the design of numerous bridge replacement projects as part of the MassDOT Bridge Program. Bridges include multi-span steel, prestressed concrete, concrete, and timber.

Cardi Corporation: Providence River Bridge Installation

Construction Engineering: Prefabrication Support and Transport

Mr. Busch was responsible for project management for the design of the temporary support framing, construction engineering support including analyzed load-bearing capacities of the existing pier and performed evaluation of the bridge superstructure for transport stresses.

Registration

Licensed Professional Engineer
CT, FL, MA, NJ, NY, RI, UT

Education

B.S., Civil Engineering, 1993
University of Connecticut

M.S., Structural Engineering, 1998
University of Connecticut

FHWA 80-Hour Bridge Inspection Course
U.S. Department of Transportation

Professional Affiliations

American Society of Civil Engineers

American Institute of Steel Construction

ACCERATED BRIDGE CONSTRUCTION, *cont.*

Bridge Design Projects:

State of Massachusetts Department of Transportation:

- **Accelerated Bridge Design Contract**
  Mr. Busch is responsible project management of several current design projects utilizing accelerated bridge construction with prefabricated elements. Designs include bridges on interstate highways with high volumes of traffic that require all aspects of the construction to be completed in short term roadway closures. One project assignment includes 14 superstructure replacements occurring with weekend closures in which an entire superstructure will be removed and replaced.

Town of Burrillville, Rhode Island

- **Replacement of the Tarkiln Road Bridge**, Burrillville, RI
  (PCI National Award Winner)
  Mr. Busch directed design for the bridge layout and roadway alignment for a prefabricated concrete arch bridge to replace the original steel span structure that had been closed by the state due to advanced deterioration.

SUPER LOAD PERMIT RATINGS

Mr. Busch has managed super load permit bridge ratings throughout New England with loads ranging from 400,000 pounds to over 1,000,000 pounds. His work involves route analysis, layout design of the trailers, and load rating of bridges and culverts. Each analysis was carried out according to each State's procedures and policies.

RELEVANT EXPERIENCE

- Replacement of Six Bridges, Connecticut DOT List 14 Bridge Program
  (250' span steel girder, two integral steel beam single span, semi-integral prestressed concrete single span, metal culvert, concrete culvert)

- Replacement of the Park Street Bridge, Manchester, CT
  (2 span steel bridge)

- Replacement of Nine Bridges, Mass. Highway Footprint Bridge Program
  (2 span stone arch, single span Prestressed Concrete (3), timber bridges (2))
  (1 span steel girder, 3 span steel girder, 1 span PS Concrete Girder)
  (110' Span Concrete Arch Restoration, Single Span Steel bridge)

- Replacement of the Brainard Road Overpass, ConnDOT
  (two span curved and skewed steel bridge)

SPECIAL EXPERIENCE

Speaker/Presenter:

Accelerated Construction Conference
Utah Dept. of Transportation
Moderator of Contractors Session

Accelerated Construction Workshop
Collier County, Florida
Development of ABC Standards

Lecture: Pre-Assembly and Shipping of the I-Way Bridge, Providence, RI

Connecticut Society of Civil Engineers •

Boston Society & American Society • of Civil Engineers

New Hampshire Society of Civil Engineers •

Paper

Co-Author- Pre-Assembly & Shipping of the New Providence River Bridge, for Civil Engineering Practice, a BSCES/ASCE publication

Richard W. Canavan, Ph.D.

SENIOR ENVIRONMENTAL SCIENTIST

General Qualifications

Richard W. Canavan is an environmental scientist with 16 years combined experience as a researcher, consultant and educator. In his work, Dr. Canavan has examined physical, chemical, and biological aspects of environmental processes to better understand how natural systems respond to change.

Selected Project Experience

Ecological Study, US Army Corps of Engineers, *CT & MA*
Managed an ecological study of five flood control facilities including vernal pool mapping and documentation, relocating state listed species, documenting natural community areas, and invasive plant species mapping. Final report included GIS mapping and management recommendations.

Wetland Delineation, ConnDOT, *East Lyme & Waterford, CT*
Conducted wetland delineations and documented stormwater outfalls along a 9-mile section of I-95. Obtained wetland locations using GPS and provided photo documentation.

Environmental Permitting, Woodstock Academy, *Woodstock, CT*
Prepared documentation for environmental review under NEPA for federal funding of two projects for Woodstock Academy. Additional work included state and federal wetland delineation, functions and values assessment, and mitigation plan development.

Wetland Permit Applications, MassHighway, *MA*
Prepared 401 Water Quality Certification and Section 404 US Army Corps of Engineering permit applications for multiple bridge projects.

Environmental Monitoring, CRRA, *Hartford, CT*
Managed the collection of water quality samples of ground, surface and stormwater and landfill leachate and the interpretation of results.

Expertise:

Environmental

- Soil and Water Sampling
- Wetland delineation
- Wetland restoration and mitigation
- Wetland Functional Assessment
- Lake Management
- Watershed Management
- Vegetation Mapping
- Stormwater Management
- Geochemical modeling
- Expert Witness

Permitting

- Wetlands
- Stormwater
- Environmental impact statements

Registration

Registered Soil Scientist,
S.S.S.S.N.E.

Technical Service Provider,
U.S.D.A. / N.R.C.S.

Education

B.A., Botany, 1993
Connecticut College

M.S., Soil Science, 1997
Cornell University

Ph.D., Biogeochemistry, 2006
Utrecht University, Netherlands

Professional Affiliations

Society of Soil Scientists of Southern New England

Connecticut Federation of Lakes

Richard W. Canavan, Ph.D.

SENIOR ENVIRONMENTAL SCIENTIST

Past Experience

Environmental Scientist
Vanasse Hangen Brustlin, Inc.
Worked on a variety of commercial, transportation, and utility development projects. Tasks included EIS and MEPA reporting on rare species, floodplain, wetlands, water resources and farmland soils; wetland delineation, wetland mitigation design; stormwater monitoring; construction site inspections, and permit preparation under local, state and federal environmental regulations.

Lecturer
Connecticut College, Cornell University and
Utrecht University, Netherlands
Prepared, taught and assisted with laboratory classes at the university level in biology, cell biology, botany, plant physiology, geochemical cycling, geomicrobiology, and limnology. Served as an advisor to a master student and on master thesis review committees.

Geochemist
Utrecht University
Conducted a research study of contaminated sediments in a coastal lake in the Netherlands. The study examined the impact of proposed estuarine restoration (salinization) of a fresh water lake. Work included sample collection, experimentation, and geochemical modeling to determine the rates of biogeochemical processes. The project was funded by the Dutch inland water management agency and its findings were presented at several international conferences and published in leading research journals.

Soil Scientist
Cornell University
Examined the fate of phosphorus on agricultural fields which received applications of sewage sludge compost and municipal solid waste co-compost.

Limnologist
Connecticut College
Collected and analyzed water from over 50 lakes in Connecticut, as part of an award-winning honors thesis. Results were compared with previous data, and used in GIS and paleolimnological studies to examine trends in water quality over the past century.

Laboratory Technician
U. S. Geologic Survey, Western Regional Office
Performed chemical analyses on deep-core sediment samples from Owens Lake (California) as part of a high-resolution climate reconstruction study.

Selected Publications & Presentations

Connecticut Lakes: A Study of the Chemical and Physical Properties of Fifty-Six Connecticut Lakes
R.W. Canavan and P.A. Siver, 1995
Connecticut College Arboretum,
New London, CT

Biogeochemical Cycling of Nutrients and Trace Metals in the Sediment of Haringvliet Lake: Response to Salinization
R.W. Canavan,
Ph.D. Thesis, Utrecht University 2006

Trace Metal Geochemistry in a Fresh Water Lake Sediment
presented at the 2006 European
Geoscience Union meetings
Vienna, Austria

Estuarine Restoration of a Coastal Fresh Water Lake: Potential Response of Sediment Nutrient Cycles to Salinization
presented at the
2005 Shallow Lakes meeting
Dalfsen, Netherlands

Review of Stormwater Monitoring Results and Evaluation of Permit Effectiveness
presented at the
1998 Society for Risk Analysis meetings
Phoenix, AZ
with R.M. Rollins & K.K. Chellman

Phosphorus Additions in Compost Amended Cultivated Soils
presented at the 1996 N.E. Branch
American Society of Agronomy meetings
Ithaca, NY
with J.H. Peverly

Scott G. Young, P.E.

DIRECTOR OF CIVIL ENGINEERING: Hydrology & Water Resources

General Qualifications

Mr. Young has extensive experience in the design and construction of storm drainage, roadways, dam repairs, slope stabilization, water and sewer mains, flood control and on-site sewage disposal. In addition, he performs hydraulic and hydrologic studies related to the above designs and for bridge and building projects handled by the CME's Structural Group.

As the Director of the Hydrology & Water Resources Group, Mr. Young oversees the functions of a staff of experienced engineers and bears overall responsibility for hydrologic and hydraulic studies and analyses performed. Prior to joining CME, Mr. Young worked for the USDA Soil Conservation Service in the area of Flood Control.

Selected Experience

Dams: Investigation, Design of Repairs & Construction Inspection

***Larner Pond Dam**, Dudley, MA*

***Low Pond Dam**, Dudley, MA*

***Shepherd's Pond Dam**, Woodstock, CT*

Hydrology: Analysis and Remedial Design

***Culvert Replacement,** Post Office Road, Enfield, CT*

***Floodway Study,** Avery Brook Watershed Area, South Windsor, CT*

***Drainage Design,** East Hill & Crawford Roads, Oakham, MA*

(continued on overleaf)

Expertise:

Channel Protection
- Flood Control Structures
- Flood Control Channels
- Flood Control Dams
- Flood Proofing Homes
- Scour Countermeasures

Hydraulics
- Bridge Studies
- Scour Analysis
- Hydraulic Studies
- Hydrologic Analysis

Dams & Spillways
- Rehabilitation
- Repairs
- Reconstruction

Roadway Design
- Geometric Design
- Drainage Studies
- Traffic Management
- Roadway Safety

Project Management

Registration

Licensed Professional Engineer
CT & MA

Registered Soils Evaluator
Department of Environmental Protection
MA

Education

B.S., Civil Engineering, 1986
Worcester Polytechnic Institute

Professional Affiliations

American Society of Civil Engineers

Soil and Water Conservation Society

Association of State Dam Safety Officials

Chi Epsilon,
Civil Engineering Honor Society

Software

AutoCad 2006 Land Desktop
HEC-RAS v.4.0
HydroCAD v.8.5
TR-55
TR-20

SELECTED EXPERIENCE *(continued)*

Hydrology: Analysis and Remedial Design

Road Reconstruction, including Drainage Design
Bethel Road, Griswold, CT

Hydraulic & River Floodway Analysis
Mill Brook, Webster, MA

Hydraulic Analysis
Pearl Hill Brook, Ashby, MA

Drainage Design
East Quasset Road, Woodstock, CT

Roadway Design, including Hydrologic & Hydraulic Analysis
Hidden Acres Sub-division, Ledyard, CT

Lake & Watershed Management Plan, Massachusetts DEM Pond Grant,
Lake Chargoggagoggmanchauggagoggchaubunagungamaugg (Webster Lake), Webster, MA

Dam Repair & Dredging Design
Bungee Lake, Woodstock, CT

Flood Water Retarding Dam
Avery Brook Watershed Area, South Windsor, CT

Flood Prevention Channel
Piper & Mill Brook, Newington & West Hartford, CT

Hydraulic & River Analysis: Hop River
XtraMart Convenience Store, Andover, CT

Slope Stabilization Design & Drainage Repair
JFK Middle School, Enfield, CT

Watershed Management Plan
Washington Park Pond, Windsor, CT

Agricultural Water Quality Projects

Environmental Quality Incentives Program (EQIP), USDA NRCS

Waste Storage Structure
Morse Farm, Woodstock, CT

Waste Storage Structure
Becket Farm, Glastonbury, CT

Aerobic Lagoon
Perrachio Farm, Coventry, CT

PAST EXPERIENCE

Civil Engineer
USDA
Natural Resource Conservation Service

Mr. Young was responsible for the design and construction of flood protection measures including slope stability analysis, earthquake analysis of risers, riprap design for flood channels, embankment drainage for dams, storm drainage quantities, and total system design of individual flood proofing measures for residences throughout the state of Connecticut.

He also has been responsible for the design and installation of agricultural water quality measures, and soil erosion control

Mr. Young was the contracting officer's representative for the federal government on many projects. He was solely responsible for 13 contracts that repaired nearly one million dollars worth of damage due to flooding, over a six-month period.

Mr. Young also participated as a member of the multi-agency task force on the development of the Manual for Agricultural Best Management Practices, which was published by the Connecticut Department of Environmental Protection.

Jeffrey J. Stefanik, L.S.

DIRECTOR OF LAND SURVEYING

General Qualifications

Jeff Stefanik has been involved in boundary, route, topographic and aerial control surveying since 1983. He is technically proficient with the use of a wide array of field survey equipment including total stations, data collectors and GPS systems. He has years of experience conducting research for obtaining land records on properties throughout New England.

In his position as Director of Surveying, Mr. Stefanik is responsible for leading research efforts to verify property and boundary information for the surveys CME performs. He carries out reconnaissance prior to commencing field research and calculating and certifying boundary lines. Mr. Stefanik provides training to his staff and manages all field crew operations. He oversees the transition of field data into the CME computer system and is accountable for closing the field traverses and providing quality control, checking data and calculations prior to submission to drafting personnel. Mr. Stefanik provides final review of all survey products for accuracy before release to our clients.

Mr. Stefanik has donated generous portions of his time for the pursuit of land and historical preservation and has served as a consultant for the Massachusetts Department of Environmental Protection, the Connecticut Department of Environmental Protection and Department of Agriculture, the Nature Conservancy, the Preservation Society of Newport County RI, the Trust for Public Lands, Old Sturbridge Village, Hancock Shaker Village and many other organizations.

Expertise:

Land Surveying
- Field Crew Director
- Field Survey Procedures
- Records Research
- GPS Survey
- Quality Control
- Construction Layout

Boundary & Topographic Surveys
Aerial Control
ALTA Surveys
Expert Witness/Forensics
Natural Resource Mapping

Registration

Registered Land Surveyor
CT, NH, NY, RI & VT

Education

Land Surveying, 1996
Hartford Graduate Center

Plane Surveying, 1987
Central New England College

Liberal Arts, 1978-80
Quinsigamond College

Professional Affiliations

American Congress on Surveying & Mapping

Connecticut Association of Land Surveyors, Board of Directors

New Hampshire Association of Land Surveyors

Rhode Island Society of Professional Land Surveyors

Vermont Society of Land Surveyors

Jeffrey J. Stefanik, L.S.

DIRECTOR OF LAND SURVEYING

Relevant Experience

Survey & Mapping. Groton Long Point Association,
Road & Utility Reconstruction projects, Groton, CT

Survey & Mapping, Inn at Woodstock Hill,
Support New Sanitary Sewer Design, Woodstock, CT

Survey and Mapping - Sprague Housing Authority,
Parking Lot & Sidewalk Reconstruction, Sprague, CT

GPS Mapping - Fishers Island Recreational Path
Support design of recreational pathway, Fishers Island, NY

Construction Layout, Navy Housing Privitazation Project
Layout of house sites, roadway, and utility improvements as a sub-consultant to government prime contractor, Groton/New London, CT

ALTA Survey, Cambridge Estates, Norwich, CT

ALTA Survey, Rectory School, Pomfret, CT

Boundary Surveys - Connecticut Department of Environmental Protection
Provided boundary surveys and mapping as requested for the CTDEP

Boundary Surveys - Connecticut Department of Agriculture
Provided boundary surveys and mapping for farmland preservation projects throughout the state

Construction Support & Utility Layout - AZ Corporation
Supporting large construction firm as they make improvements to industrial facility in S.E. Connecticut

Topographic Survey - Windsor Locks Train Station
Sub-consultant to Landscape Architect, provided detailed topography, Windsor Locks, CT

Topographic Survey, The Elms
Sub-consultant to Landscape Architect, provided detailed topography, Newport, RI

Cell Tower Location Surveys, Various Sites, New England
Provided location mapping for cellular phone towers throughout New England

Utility Mapping Services, Norwich Public Utilities
Mapping sewer system areas, Norwich, CT

Public Service

Vice Chairman,
Town of Woodstock Open Space Land Acquisition and Farmland Preservation Committee

Town Historian
Town of Woodstock

Donation of Services
Donated countless hours surveying and mapping properties for the preservation of farmlands and green-space in the state of Connecticut.

VN Engineers, Inc.

Joseph M. Bambara, P.E.

Project Title:
Drainage Engineer

Education:
Roger Williams University
Bristol, RI
B.S. Civil Engineering, 2002

Years of Experience:
9

Years with VN:
2

Professional Registrations:
Professional Engineer
Rhode Island
Connecticut

Professional Affiliations:
Institute of Transportation Engineers

American Society of Civil Engineers

Mr. Bambara is a registered Professional Engineer with more than 8 years experience in the field of Transportation/Civil Engineering. He has worked on dozens of transportation and civil design projects in Rhode Island, Connecticut, New Jersey and Massachusetts. This experience includes drainage design, site design, surveys, roadway design, traffic studies, traffic signal designs, roadway lighting design, maintenance & protection of traffic design, pavement marking design and signing design. Mr. Bambara has worked with a number of clients in several states, including DOTs, Counties and Cities.

Experience:

Newport Fed Savings Bank in Portsmouth, RI. Project Engineer. Prepared plans and obtained approval from the town and state for construction of a bank on a 2 ac. site. Designed and obtained approval from Rhode Island Department of Environmental Management for septic system. Prepared stormwater management measures which included the design of a detention pond. Prepared site plan including parking lot and access layout.

Wattupa Plantations in Tiverton, RI. Project Engineer. Prepared plans and obtained approval from the town and Rhode Island Department of Environmental Management for the construction of a 14 lot subdivision. Designed roadway layout (Horizontal & Vertical), stormwater management with detention pond, prepared grading and utility layout plans, erosion control measures and coordinated sanitary sewer connections.

Condominium Complex in Glocester, RI. Project Engineer. Prepared plans and obtained approval from the town and Rhode Island Department of Environmental Management for the construction of a 25 unit Condominium Complex. Designed roadway layout (Horizontal & Vertical), stormwater management with detention pond, prepared grading & utility layout plans, wetlands (Preliminary Wetlands Determination), erosion control measures and coordinate sanitary sewer connections.

Rhode Island Boulevard in Portsmouth, RI. Project Engineer. Prepared plans and obtained approval from state for construction of an underground infiltration system. Designed and obtained approval (UIC Permit) from Rhode Island Department of Environmental Management for a catch basin and infiltrator system.

5 Lot Subdivision in Exeter, RI. Project Engineer. Prepared plans and obtained approval from the town and state for construction of a 5 lot on a 53

ac. site. Designed and obtained approval from Rhode Island Department of Environmental Management for septic system, wetlands (Preliminary Wetlands Determination) and roadway over wetland area.

Sea Fare Inn in Portsmouth, RI. Project Engineer. Prepared plans and obtained approval from the town and state for the construction of an 82 room hotel addition on an 8 ac. site. Designed and obtained approval from Rhode Island Department of Environmental Management for Septic system. Prepared stormwater management measures which included the design of a detention pond. Prepared site plan including parking lot with 140 spaces and access layout.

New Britain – Hartford Busway SPN. 155-H025, Hartford CT. Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Also, prepared illumination and signing & pavement marking design. Prepared design plans, specifications and construction cost estimates.

New Britain – Hartford Busway SPN. 93-H046, New Britain & Hartford CT. Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Prepared design plans, specifications and construction cost estimates.

New Britain – Hartford Busway SPN. 63-H137, Hartford CT. Project Engineer. Prepared detour, temporary & permanent illumination, signing & pavement markings designs for project corridor. Also, prepared a 200 space parking lot design including layout and striping. Prepared design plans, specifications and construction cost estimates.

Contract E2 - Reconstruction of I-95/I-91/Route 34 Interchange in New Haven, CT. Project Engineer. Prepared traffic analysis and design of three (3) signalized intersections to facilitate mainline ramp relocations. Prepared capacity and simulation models with Synchro analysis software. Designed overhead and ground mounted guide, regulatory and warning signing for highways, ramps and local roadways. Prepared maintenance and protection of traffic stage signing plans for overhead and ground mounted signing. Prepared permanent and temporary illumination design plans.

Stockholm Rd. (County Route 515) in Vernon, NJ. Assistant Engineer. Prepared preliminary design & roadway layout for project feasibility scoping project. Obtained traffic counts, prepare accident analysis and perform field surveys for the 2.25 mile long project. Conducted informational meeting with the public to obtain feedback on project design.

Newton – Sparta Rd. in Newton, Andover & Sparta, NJ. Assistant Engineer. Prepared preliminary design & roadway layout for project feasibility scoping project. Obtained traffic counts and prepared accident analysis for the 7 mile long project. Conducted an informational meeting with the public to obtain feedback on project design.

VN Engineers, Inc.

Michael Dion, P.E., PTOE

Project Title:
Traffic Engineer

Education:
Bachelor of Science, Civil Engineering
University of Rhode Island

Years of Experience:
12

Years with VN:
12

Professional Registrations:
P.E., Connecticut
Professional Traffic Operations Engineer

Professional Affiliations:
Institute of Transportation Engineers

Mr. Dion is a registered Professional Engineer with more than 11 years experience in the field of Traffic Engineering/Transportation Planning. He has extensive familiarity with signalization projects, design standards, procedures, practices and guidelines. Mike has worked on dozens of signal design projects in Connecticut. This experience includes traffic impact studies, capacity/level of service analyses, safety/crash analyses, traffic simulation modeling, traffic signal designs, coordinated signal system designs, roadway lighting design, maintenance and protection of traffic design, pavement marking design and signing design. Mr. Dion has broad knowledge of most traffic analysis tools including SYNCHRO 7.0, the Highway Capacity Software (HCS+), TSDWIN, Highway Safety Analysis Software 3.0 (HSA) and Simtraffic.

Experience:

Project Engineer for the Rehabilitation of Bridge No. 00947 Route 34 over the Naugatuck River, Derby, CT. Prepared maintenance and protection of traffic plans, three temporary traffic signal plans, detour plans, specifications, quantities and cost estimates.

Rehabilitation of Metro-North Bridge No. 37.82 (00316R), Darien, CT. Designed roadway geometry, pavement markings and signing and illumination. Prepared maintenance and protection of traffic plans, specifications, quantities and cost estimates for the rehabilitation of Metro-North Bridge over U.S. Route 1, Darien, CT. Traffic signal improvements at two intersections to improve operational characteristics.

Randall's and Ward's Island Viaducts at the Triborough Bridge Bronx and Queens, New York. . Designed maintenance and protection of traffic plans, specifications, quantities and cost estimates for the deck replacement at the Triborough Bridge. Designed ground mounted and overhead route guidance signing

Main Cable and Suspender Ropes Replacement, Bronx-Whitestone Bridge Bronx and Queens, New York. Designed maintenance and protection of traffic plans, specifications, quantities and cost estimates for the main cable and suspender rope replacement at the Bronx-Whitestone Bridge. Design included one and two lane closures on the bridge deck.

Project Engineer for the Franklin Avenue Sewer Separation Project, Package D-West Side Project, Hartford, CT. Engineer responsible for the developing maintenance and protection of traffic plans, specifications and

estimates for this sewer separation in the Franklin Area, west of Campfield Avenue and south of Mountford Street. Construction activities include the installation of 5.1 miles of new sanitary sewer, installation of 1.6 miles of new storm drains, and conversion of existing combined sewers to either storm drains or sanitary sewers. To accommodate the planned construction activities, Maintenance and Protection of Traffic design included detour plans, typical mid-block work zone details, and customized intersection details for the anticipated twenty-two month construction schedule.

Ocean Parkway Bridge, Brooklyn, NY. Project Engineer for the Preliminary Design of Illumination for the reconstruction of the Belt Parkway over Ocean Parkway Bridge.

Route 7 in Brookfield Bypass, Connecticut. Project Engineer for the preliminary design of Illumination for Bypass including design calculations and conceptual plan layout.

Project Engineer for the Preliminary and Final Design of Illumination, including electrical design, for I-84, Cheshire, CT. Designed high mast illumination and electrical design for 8-lane highway way. Designed illumination and electrical design for all ramps and local streets within project limits.

Project Engineer for the design of re-location of Route 72, Bristol, Connecticut. Preliminary engineering traffic analysis of nine intersections, utilizing HCS and Synchro traffic signal software. Prepared preliminary traffic signal design plans. The project also included preliminary design of illumination, including design calculations and conceptual plans.

Project Engineer for the Preliminary and Final Design of Illumination, including electrical design, for I-84, Waterbury, CT. Designed high mast illumination and electrical design for 8-lane highway way. Designed illumination and electrical design for all ramps and local streets within project limits. Also, designed traffic signal improvements at seven locations and pavement markings and signing for highway, ramps and all local roads within project limits.

Project Engineer for the Upper Albany Avenue Sewer Separation Project, Contract No. 1-East Side Sewer Separation, Hartford, CT. Engineer responsible for developing maintenance and protection of traffic plans, specifications and estimates for this sewer separation project in The Upper Albany Avenue Area. The Upper Albany Avenue area is located in the north-central part of Hartford, along State Road Route 44 (Albany Avenue within the Hartford Limits). The area is generally bound by Woodland Street on the West, West & East Raymond Streets to the north, Brook Street on the East, and Homestead Avenue on the South. Construction activities include the installation of 9,600 linear feet of new sanitary sewer, installation of 900 feet of new storm drains, and conversion of existing combined sewers to either storm drains or sanitary sewers. To accommodate the planned construction activities, Maintenance and Protection of Traffic design included detour plans, typical mid-block work zone details, and customized intersection details for the anticipated four month construction schedule.

VN Engineers, Inc.

Robert S. Gomez, P.E.

Project Title:
Project Manager

Education:
BS / 1994
Civil Engineering
Florida International University;
Miami, Florida

Years of Experience:
23

Years with VN:
1

Professional Registrations:
Professional Engineer
1999 FL
2004 GA
2004 CT
2007 NY
2009 MA
2010 RI

Professional Affiliations:
The Past president of American Society of Highway Engineers

Secretary
Connecticut Society of Civil Engineers

Mr. Gomez has 23 years of experience in transportation engineering. He has extensive familiarity with design standards, procedures, practices, and guidelines. He also has considerable knowledge in a wide variety of roadway and CADD software including MicroStation, Geopak and InRoads. As a project manager, he takes a hands-on approach to project management and is involved in all phases of roadway design.

Experience:

Orange Avenue (SR 68), from N 32nd Street to 13th Street, St. Lucie County, Florida: Project Manager for the design of a five-lane typical section, 3R project including utility coordination, drainage improvements and the replacement of three mast arm signalized intersections and lighting throughout the project.

Flatbush Avenue, West Hartford/ Hartford, CT: Project Manager for the design of the reconstruction of Flatbush Avenue over the Busway and Amtrak Railroad. Design services include: Full horizontal and vertical design for the proposed realignment using InRoads. The project also included survey and utility coordination, roadway design, property acquisition coordination, environmental and railroad permitting, drainage design and public involvement.

Hartford – New Britain Bus Rapid Transit (BRT): Project Manager for a 2.5-mile section of a new BRT contained within the Amtrak rail corridor in Hartford Connecticut. The project entails design of a new two-lane BRT facility including drainage design, permit coordination, public involvement, signalization, lighting design, four new bridges and multiple retaining walls. Project included the development of the signing and marking plans for the project.

SR A1A, from Southern Blvd to Royal Palm Way, Palm Beach County, Florida: Project Manager for the design of a two-lane typical section, 3R project including drainage improvements and safety upgrades. Project included signing and marking plans for both residential and a bifurcated four–lane downtown commercial area.

Engineer of Record for CTDOT Contract E - Route 95/91/SR 34 Interchange in New Haven, CT: Preliminary and final design of illumination for the re-configuration of the I-95/91/SR 34 interchange. Preliminary and final design of six traffic signals and major route signage. Work included all lighting calculations, signal timings, plans and specifications.

Robert S. Gomez, P.E.

SR A1A, Martin County Project Development and Engineering (PD&E) Study - Ernest Lyons Bridge Replacement, FDOT District IV; Martin County, Florida. Project manager on the PD&E study for a 1.2 mile corridor which includes the Ernest F. Lyons Bridge, built in 1957, which consisted of a two-lane mid-level bascule structure over the Atlantic Intracoastal Waterway. The corridor also included two low-level fixed bridges which join two fill islands in the Intracoastal - one to Sewall's Point on the mainland side and one to Hutchinson Island, a barrier island along the Atlantic Ocean. His responsibilities included performing the highway engineering, data collection, and analysis and report elements necessary to prepare an environmental assessment. The preferred alternative replacement structure was a 4,700-foot-long high level segmental box girder with 65 feet of clearance over the main channel.

Pearl Lake Road, Waterbury, Connecticut: Design Manager overseeing the design of the reconstruction of Pearl Lake Road, a two-lane urban collector roadway through a residential neighborhood. The ½-mile long project includes: topographic survey, right-of-way mapping, environmental permit preparation, utility coordination, public involvement, drainage design, roadway design , and contract document preparation.

Farmington Avenue Corridor Project, Hartford, Connecticut: Design Manager overseeing the design of streetscape and median retrofit improvements to Farmington Avenue through the Asylum Hill and West End neighborhoods in Hartford, Connecticut. The project will implement select aspects of a corridor improvement concept plan developed in close coordination with community and business groups. Streetscape elements will include a full complement of street furniture, decorative lighting, street trees and other plantings, brick pavers and other decorative pavement finishes, as well as special crosswalk treatments.

Biscayne Boulevard from NE 87th Street to NE 121th Street; Miami, Florida. Design Manager for a Florida Department of Transportation (FDOT) District VI reconstruction project. The project included the design a new four-lane divided section. Responsible for the drainage calculations based on the FDOT District 6 method of exfiltration trench design using adICPR (Advanced Interconnected Pond Routing) software. This project also included utility coordination and public involvement.

SR 472/I-4 Interchange; Volusia County, Florida. Project Engineer for the design of interchange modifications including two ramps connecting SR 472 and I-4. This project also included drainage enhancements and coordination for the widening of I-4.

SR-A1A, Ernest Lyons Bridge Design Build RFP & Criteria Package, FDOT District IV; Martin County, Florida. The Ernest F. Lyons Bridge Replacement project included the preliminary design of a mile long concrete segmental bridge and associated roadways. The project included an extensive public involvement with the formation of a Corridor Design Committee. This project included drainage design and permit coordination.

Craig Lanphear, EIT

Project Title:
Drainage Engineer

Education:
University of Rhode Island, Kingston, RI
B.S. Civil Engineering, 1995
Major in Transportation Eng.

Years of Experience:
14

Years with VN:
14

Professional Registrations:
EIT, Rhode Island

Professional Affiliations:
Institute of Transportation Engineers

Mr. Lanphear is a registered Engineer In Training with more than 14 years experience in the field of Traffic Engineering/Transportation Planning. His knowledge and experience includes traffic analysis and design, traffic simulation/modeling, highway/traffic capacity analysis, illumination, stormwater drainage design, maintenance & protection of traffic, and highway pavement marking & signing design. Craig is versed in several traffic analysis tools including SYNCHRO 7.0, Highway Capacity Software (HCS+), TSDWIN, Highway Safety Analysis Software 3.0 (HSA) and Simtraffic analysis tools. Craig has worked on several State of Connecticut design projects and is familiar with the Department's design standards, procedures, practices and guidelines.

Experience:

Statewide High Hazard Intersections/Ramps – Contract 5, Warwick, RI - Project Engineer. Conducted Preliminary Engineering analysis of five intersections located on US Route 1. Created accident database coding raw accident report data, generated collision diagrams, and accident analysis statistics, conducted peak hour levels of services analysis, and performed traffic signal field inventories of intersections.

Warwick Avenue and Allens Avenue, Warwick, Cranston, Providence, RI - Project Engineer. Coordinated and managed a team of personnel to conduct a manual turning count program for 16 hour counts at 25 intersections. Collected raw data, checked and prepared reports utilizing PETRA software. **Route 372 in Berlin, CT -** Project Engineer. Final design of Reconstruction of Route 372 including design of two traffic signals, pavement markings & signing, storm water drainage and a storm water pumping station.

New Britain – Hartford Busway SPN. 93-H046, New Britain & Hartford CT - Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Prepared an under-bridge lighting design. Developed permanent signing and pavement marking designs. Prepared design plans, specifications and construction cost estimates.

Route 7 – Brookfield Bypass, Brookfield CT - Project Engineer. Designed three signalized intersections at ramp termini. Prepared a highway ramp interchange lightings system. Conducted stormwater runoff drainage design for the 2.3 mile project corridor.

Contract E - Route 95/91/SR 34 Interchange in New Haven, CT Project Engineer. Preliminary and final design of illumination for the re-configuration of the I-95/91/SR 34 interchange. Preliminary and final design of six traffic signals and major route signage.

Craig Lanphear, EIT

New Britain – Hartford Busway SPN. 155-H025, Hartford CT - Project Engineer. Prepared stormwater drainage design for project corridor, including stormwater quality remediation measures. Prepared design plans, specifications and construction cost estimates.

Route 7 & 15 Interchange in Norwalk, CT - Project Engineer. Designed illumination of Route 7 mainline and associated ramps. Design included the incorporation of existing illumination on Route 7 into the new lighting circuits. Prepared traffic signal design for four coordinated intersections. Prepared signing and pavement markings design.

Route 72 Relocation Project in Bristol, CT - Project Engineer. Preliminary and final design of ten traffic signals including traffic signal interconnect. Design of Pavement markings and signing. Design of illumination for a Route 72 viaduct structure, the reconfiguration of the Route 72 expressway terminus and a commuter parking lot.

Interstate 95 in Bridgeport, CT - Project Engineer. Preliminary and final design of an eight traffic signal system to operate utilizing a closed loop fiber optic interconnect. Developed pavement markings and signing plans. Prepared seven ROW property maps.

Route 7 Widening in New Milford, CT - Project Engineer. Designed six traffic signals, pavement markings and signage and the maintenance and protection of traffic.

Contract C2 - I-95 New Haven Harbor Crossing Corridor Improvement Program, New Haven CT - Project Engineer. Conducted preliminary engineering and traffic signal design of a town owned coordinated traffic signal. Designed temporary illumination measures and permanent illumination design of the Pearl Harbor Memorial Bridge including adjacent ramps, highways and local roadways. Prepared special provisions, installation details as well as contract construction estimate costs.

Contract B - I-95 New Haven Harbor Crossing Corridor Improvement Program, New Haven CT - Project Engineer. Designed temporary illumination measures and permanent illumination design of the Pearl Harbor Memorial Bridge including adjacent ramps, highways and local roadways. Prepared special provisions, installation details as well as contract construction estimate costs.

Contract E2 - I-95/I-91/Route 34 Interchange, New Haven CT - Project Engineer. Preliminary engineering and traffic signal design for intersections. Designed temporary and permanent illumination and signing of highways, ramps, and local roadways within the project limits. Prepared PS&E for all components. Prepared temporary and permanent signing designs.

Route 80 Reconstruction SPN. 98-93, North Branford CT - Project Engineer. Prepared traffic signal design for three traffic signals within the project limit. Prepared signing and pavement markings design. Developed M&PT traffic measures for the project corridor. Prepared design plans, specifications and construction cost estimates.

VN Engineers, Inc.

Craig Lanphear, EIT

Kaethe V. Podgorski, P.E., PTOE

Project Title:
Traffic Engineer

Education:
BS / 2000
Civil Engineering
Tufts University;
Medford, MA

MS / 2004
Civil Engineering
University of Texas,
Austin, TX

Years of Experience:
10

Years with VN:
2

Professional Registrations:
Professional Engineer
2006 Texas
2008 Oklahoma
2009 Conneticuit

Professional Traffic Operations Engineer
2007

Professional Affiliations:
Institute of Transportation Engineers

Women's Transportation Seminar

Ms. Podgorski has over 10 years of experience in the analysis and design of traffic, transportation, and civil improvement projects. She has considerable experience in corridor and subarea planning studies, micro-level operations analysis, safety studies, traffic design, traffic control planning, and data collection and analysis. Ms. Podgorski has worked with a number of clients in several states, including DOTs, Counties, Cities, and Toll Authorities.

Experience:

Route 34 Bridge Rehabilitation, Derby, CT. Project is in the semi-final design phase. Project engineer for developing maintenance and protection of traffic, signing and pavement marking, and traffic signal modification plans in association with the rehabilitation of the Route 34 bridge over the Naugatuck River. Performed traffic analysis and detour planning to accommodate the already congested conditions in the project vicinity during the planned construction. Developed MPT plans and temporary signal modification plans for three phases of construction. Developed final signing and pavement marking plans with new overhead signing for the Route 8 interchange.

Commodore Hull Bridge Rehabilitation, Shelton, CT. The Commodore Hull bridge is the Route 8 bridge over the Housatonic River in Shelton and Derby. Phase I plans for this bridge rehabilitation project are complete. Traffic engineer for developing multi-phased short-term (work zone setup on weekends only) maintenance and protection of traffic plans to accommodate the reconstruction of four bridge joints across northbound and southbound lanes. Design included ramp and lane closures, advanced signing, VMS layout, temporary traffic control devices for the work zone, specifications, and estimate.

I-95 New Haven Harbor Crossing Corridor Improvement Program Contract E2, New Haven, CT. This project involves the design and construction of the proposed I-95 Northbound to Route 34 Westbound flyover bridge and associated improvements to Long Wharf Drive at I-95 Exit 46. Project Engineer responsible for capacity and signal timing analysis using SYNCHRO for the Sargent Drive signal system. Also responsible for development and calibration of simulation models using SimTraffic (prepared for client use). Also finalized three traffic signal designs for this project.

MDC Clean Water Project: Upper Albany Avenue Sewer Separation Area, Garden Street Relief Sewer Project, Hartford, CT. This project is currently under construction. Project engineer responsible for developing maintenance and protection of traffic plans, specifications, and estimates for this sewer separation project along Garden and Liberty Streets. Construction

activities will include micro-tunneling and open cut sewer installation, new junction manhole construction at the intersection of US 44 (Albany Ave.) and Garden Street, and reconnection of all sewer service laterals to properties throughout the project area. To accommodate the planned construction activities, Maintenance and Protection of Traffic design included detour plans, typical mid-block work zone details, and customized intersection details for the anticipated four month construction schedule.

Flatbush Avenue Breakout Project for the Hartford/New Britain Busway, Hartford and West Hartford, CT. Project is in the final design phase. Project engineer for developing traffic signal and signing and pavement marking plans for the proposed grade separation of Flatbush Avenue from the busway. Developed lane arrangements, signal phasing and timings, ADA compliant pedestrian accommodations, span wire signal layouts, and loop detection for semi-actuated operation. Also coordinated parapet mounting of span poles and signs and generated cost estimate.

I-84 Interchange 5 Improvements, Danbury, CT. Project involves operational improvements to Interchange 5 including lengthening of deceleration lanes on I-84 and widening the approach to the ramp at its intersection with the surface street network. Project engineer for generating signing and pavement marking plans including highway guide signs, and all required regulatory and warning signs.

I-95 Interchange 14 Traffic Improvements, Norwalk, CT. This project will improve safety and operations for heavily traveled segments of I-95 and Route 1 in Norwalk by re-aligning I-95 and adding auxiliary lanes on Route 1. Project engineer responsible for operations and signal timing analysis on Route 1. The four interconnected traffic signals were designed to incorporate the additional turn lanes planned for the roadway and the new signal phasing to accommodate them. Conducted capacity analyses utilizing SYNCHRO and developed timing patterns to minimize delays.

MDC Clean Water Project: Franklin Avenue Sewer Separation Project, Package D – West Side Project, Hartford, CT. This project is at 60% completion. One of the project engineers responsible for developing the maintenance and protection of traffic narrative, plans, specifications, and estimates for three sewer separation design contracts in the vicinity of Maple Avenue. Sewer separation will be achieved with the installation of over 27,000 linear feet of new sanitary sewer and over 8,600 linear feet of new storm drain piping. This project also requires the determination of building reconnection requirements and plans for approximately 1,200 buildings and requires substantial underground utility relocations. Due to the large project area for this design effort, extensive coordination of multiple work zones and potential confliction of detours is required. Three separate packages were developed for Contracts 4, 5, and 12 to enable phased bidding and construction.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Administration
Minority Business Enterprise Compliance Office
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Providence, RI 02908-5860
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RI Relay: 711
www.mbe.ri.gov

November 26, 2010

Ms. Sofia Nirshberg P.E.
VN Engineers, Inc.
116 Washington Avenue
North Haven, CT 06473

Dear Ms. Nirshberg:

Based on the recertification application and supplemental information provided by you, your application for recertification for the State of Rhode Island's MBE Program and/or the U.S. Department of Transportation's DBE Program has been approved. Your company has been approved as a **WBE/DBE** to conduct business primarily as a **"civil engineering consulting firm specializing in transportation, traffic, infrastructure, highway, planning, construction inspection and water resources fields"** firm under primary NAICS Code 541330. Your "Minority Business Certification Number" which you can use as proof of your status is MBCN 54. If your company has been identified as a DBE, be advised that the MBE Compliance Office, acting as certification agent for RIDOT, RIAC, and RIPTA, has determined that your firm meets the certification criteria as established by U.S. DOT under 49 CFR Part 26.

Your certification is valid until **12/31/2013** unless revoked sooner based on a determination of ineligibility. It is your responsibility to notify the Minority Business Enterprise Compliance Office of any changes in the ownership or control of your business within 30 days of such changes. At the end of your certification period, if you wish to recertify, your company will undergo a substantive review, including a new site visit, as applicable.

In order to maintain your certification during the certification period, you must submit your annual review package sixty (60) days prior to your annual review date which is **12/31/2011**. Your annual review package must include: (a) a completed No Change Affidavit; (b) current corporate financial statements; (c) current corporate and personal tax returns including all schedules and attachments; (d) completed Personal Financial Statement and Statement of Disadvantage Forms; and (e) a copy of your current certification letter from your home state UCP if firm is not based in Rhode Island. Failure to submit your annual review package will result in an administrative removal of your certification.

We wish you success in the State of Rhode Island's MBE Program and/or the Department of Transportation's DBE Program, and if we can be of further assistance to you, please contact this office.

Sincerely,

Charles C. Newton, Administrator
MBE Compliance Office

Cardi Corporation's Safety Program

It is Cardi Corporation's policy to construct every project in the safest possible manner consistent with good construction practices, in order to prevent accidents and to provide each of its employees a place of employment free from recognized hazards that are likely to cause death or injury. The safety and health of employees, the public, and the protection of the environment from company operations is paramount. In fact, our safety record has earned us a well-deserved reputation as a low-risk company in a high-risk industry. Over the past four years, our E***xperience Modification Factor has trended well below the current national average ensuring an excellent loss history and safety factor***.

Cardi has consistently improved our safety performance through management commitment, training, zero tolerance, discipline, and employee accountability. Our safety record has earned us a well-deserved reputation as a low-risk company in a high-risk industry. Cardi has never experienced any cancellation or discontinuation of any insurance policy by its insurance carriers. When compared with the most recent U.S. Bureau of Labor's statistical construction industry rate of 4.6, Cardi's performance is exceptional. In fact, Cardi's Total Incident Rate has been lower that the industry average for the past 5 years and is expected to remain lower for the current year.

Development of Safety Plan

A successful project is dependent on a strong safety culture as well as an in depth site specific safety plan outlining expectations throughout all aspects of the construction project. The Cardi safety team has in the past and continues to deliver a manual to address relevant hazards and exposures.

The safety team, consisting of Cardi's Safety Director, Independent safety consultants, and our insured's loss prevention staff meet to identify all hazards for the personnel and public on the project. An in depth review of drawings, scope of work and schedule requirement in conjunction with pre-construction site visits allow for multiple viewpoints into the complexities of the project.

The observed data is analyzed and used for hazard recognition for the development of the site specific safety plan. Of paramount consideration are the four focused hazards within the construction industry; Falls, Struck-by, Electrocution and Caught in-between. Careful consideration for public exposures, traffic, the environment and emergency planning and response will also be addressed.

Resources to Achieve Success

Cardi is dedicated to the concept that all injuries are preventable. We strive to achieve and sustain a zero injury performance goal through continuous improvement practices. Every project participant is required to participate in our safety program and we require the same level of commitment and adherence to the program from subcontractors as we do our own staff. *No foreperson, supervisor or job superintendent may ever be relieved of any part of his responsibility for the safety and health of his/her employee(s).*

To ensure that we meet our goal, Cardi supports every component of its program, including:

- Zero Tolerance 6' fall protection policy.
- Providing and making available all necessary safety equipment including: head protection, eye protection, hearing protection, hand and body protection, full body harnesses, lanyards, respiratory protection, chap and leathers during cutting and burning, high visibility clothing, etc.
- Promote environmental, safety and health objectives as a constant value in designing, planning, training, and executing work.
- Ongoing safety training for all managers, foremen and employees.
- Suitable equipment in top condition with trained operators and a consistent maintenance program.
- Mandatory pre-employment drug testing.
- Mandatory first day safety orientation.
- Investment in paid weekly toolbox meetings and weekly superintendent safety training.
- Job Hazard Analysis will be developed for all non-routine tasks to identify potential hazards before the work begins and address the steps to be taken to eliminate them.
- Conduct regular on-site safety audits inspections by both on-site OSHA 30-hour trained staff, the Cardi safety director and Risk & Safety Management (Consultant firm).

Upon notice of Award, Cardi will develop and submit a site-specific Safety and Health Plan in accordance with the Owner's site and project requirements and the Cardi Safety Program.

The site-specific manual will specifically address the most concerning hazards on this project including: Public Protection, Site Security, Electrocution Hazards, Fall Protection, Caught in Between/Struck By, Material Handling.

Commitment Partnerships

Cardi Corporation is a signatory partner in the Rhode Island Construction Health and Safety Excellence (CHASE) partnering program of the Associated General Contractors (AGC) of RI and OSHA Region 1, Rhode Island. The agreement between the AGC of America and OSHA is designed to reduce by 3% annually the number of injuries, illness and fatalities affecting participant employers, with an emphasis on reducing injuries and fatalities resulting from those hazards that are the four leading causes to death on construction sites (falls, struck-by, caught in/between electrocution). The partnership recognizes specialty contractors with ***exemplary*** safety and health programs and site specific safety and health plans. The partnership is structured in three levels, RED (entry level), White and Blue (top level). Cardi Corporation currently holds the White level and is seeking the Blue level this year. A white level member shall inspect its jobs regularly, conduct new employee orientations, and provide evidence of ongoing training for the avoidance of hazards specific to the contractor's work. Weekly employee safety meetings, self audits, drug free workplace, and an injury/illness rate that is less than 10% of the most current BLS national rate for the construction industry are also requirements of the partnership.

Top-Down Commitment and Accountability

All managers on the jobsite and above are held accountable for safety performance of their projects. All personnel attend weekly corporate meetings and safety is always the first and the

most important item on the agenda. With 100% buy-in to the safety program and an approach that all injuries are preventable, the projects can function safely and properly.

Training and educating all employees of safe work practices and the expectations of the company is constant at Cardi. Behavioral issues are key and reinforced daily by managers and staff. Cardi follows the philosophy to never ignore an unsafe act or condition. All safety issues are treated seriously and result in disciplinary action up to and including termination. Cardi has a zero tolerance fall protection policy; any employee exposed to a fall without the appropriate protection devices will face immediate suspension. Cardi also has a “STOP WORK” policy. In the event any job is halted for safety issues, all employees, including the managers, will be required to attend a principals meeting to discuss the violation. Affected employees will then be required to complete applicable refresher training.