PROPOSAL
for
PROFESSIONAL ENGINEERING SERVICE
to the
STATE OF NEW JERSEY
DEPARTMENT OF THE TREASURY
DIVISION OF PROPERTY MANAGEMENT AND CONSTRUCTION
for the
NORTH FERRY DOCK REPAIR
at
LIBERTY STATE PARK
DPMC Project No. P1098-00

May 2013

submitted by

CIVIL DYNAMICS, inc.
CIVIL ENGINEERING & LAND SURVEYING
109A County Rte. 515, P.O. Box 760, Stockholm, N.J. 07460-0760
Phone (973) 897-3496 Fax (973) 697-1678
May 20, 2013

Ms. Catherine Douglass  
Department of Treasury  
Division of Property Management and Construction  
Contracts and Procurement Unit  
33 West State Street, 9th Floor, Plan Room  
P.O. Box 034  
Trenton, New Jersey 08625-0034

Re: Proposal for Professional Engineering Services  
DPMC Project No. P1098-00  
North Ferry Dock Repair at Liberty State Park

Dear Ms. Douglass,

Civil Dynamics, Inc. is pleased to transmit one original and three copies of our Technical Proposal, and one original and three copies of our Fee Proposal for professional services related to the North Ferry Dock Repair at Liberty State Park.

We Have a Great Team!

We have assembled a very well-qualified and experienced team to successfully complete this project for the DPMC and the Department of Environmental Protection (DEP). The Team consists of the following companies:

Civil Dynamics, Inc. will be the prime consultant responsible to the DPMC and the DEP for the work. We will provide specialty engineering services related to the general site engineering and subsidence repairs.

Churchill Consulting Engineers will be a subconsultant to Civil Dynamics specializing in bridge and roadway design services.

Eastern Consultants, Inc. will be a subconsultant to Civil Dynamics specializing in lighting and electrical design services.
We Have the Experience!

The varied nature of the damage to the North Ferry Dock is such that a high level of expertise and proficiency is required in multiple engineering specialty areas. Therefore, Civil Dynamics has assembled a team of engineers who have a demonstrated history of successful project design and construction, with specific experience in working with the DPMC and the DEP.

To supplement Civil Dynamics' experience with seepage and subsidence at critical retaining structures, as well as recreational site development, we have teamed with Churchill Consulting Engineers (bridge and road construction specialists) and Eastern Consultants, Inc. (lighting and electrical specialists). Both of these firms are familiar with DPMC projects and familiar to the DPMC. A further "plus" is that all three members of our Team have experience working with each other on a variety of prior projects. Together, our Team has the expertise and proficiency necessary to successfully meet the unique requirements of this critical project.

We are Proposing an Accelerated Schedule!

Returning the North Ferry Dock to operation as quickly as possible is critical to the success of this project. Therefore, Civil Dynamics' approach is to provide efficient and workable solutions on an accelerated schedule. Specifically we are proposing to complete the Schematic Design Phase in two (2) weeks and then the Final Design Phase in two (2) weeks.

The Civil Dynamics Team has the knowledge and expertise, plus the experience with DPMC projects to meet this accelerated schedule. We are ready to begin work upon receiving authorization!

We look forward to the opportunity to provide our services to the State of New Jersey, Department of Property Management and Construction. If you have any questions regarding our proposal, please do not hesitate to call me.

Very truly yours,

[Signature]

Christopher S. Adams, P.E.
President
CLIENT
Highland Lakes Country Club and Community Association

LOCATION
Vernon Township
Sussex County, New Jersey

OVERVIEW OF SERVICES
Site Evaluation
Subsurface Investigation
Stormwater Management
Recreational Features Design
Barrier Free Access Design
Court Facilities Design
Septic Design
Building Renovations
Structural Design
Contract Documents
Drawings and Specifications
Permit Applications
Soil Erosion and Sediment Control
Construction Phase Services

Plan of Beach 1 Redevelopment

Located in Northern NJ, the Beach 1 Recreational Area is a major source of outdoor recreational activity for the 4000+ residents of the private lake community.

The Owner selected the team of Civil Dynamics and The Reynolds Group to develop an approach to transform the aging facility into a modern recreational area which would provide expanded services to the growing community. A key factor of the redevelopment process was to keep the current level of service intact, while adding recreational components requested by the community.

The 8.6 acre site, located upstream of Upper Highland Lake, offered many design challenges such as steep slopes, open waters, and wetlands. Additionally, due to the private ownership, budget constraints also impacted the design.

The Beach 1 Redevelopment included the addition of new tennis, basketball and utility courts, age specific playgrounds and provided an expanded beach area. Barrier free walkways were provided throughout the site for access to all the courts and features. A gazebo and support building providing restrooms and snack bar facilities were also included in the design. Additionally, care was taken in providing a parking area which limited off-site traffic through the park to the adjoining neighborhood and at the same time allowing for safe school bus pick-up during the school year.

The redevelopment of Beach 1 Recreational Area successfully met the requirements of the Community, Township and State; and was completed in June 2005.
CLIENT
State of New Jersey
Department of the Treasury
Division of Property Management / Division of Parks and Forestry

LOCATION
Stephens State Park
Hackettstown, New Jersey

OVERVIEW OF SERVICES
Site Evaluation
Subsurface Investigations
Sanitary Sewer Design
Municipal Water Connection
Contract Documents (Drawings and Specifications)
Permits/Approvals:
  Treatment Works Approval
  T1 Permit
  HUMA Approval
  Highlands Act Exemption
  County Road Opening Permit
  SESC Plan Certification
  Code Review
Bidding Assistance
Construction Phase Services

Within Stephens State Park is a small campground consisting of 40 sites that is located along the Musconetcong River. The campground consists of one access road about 2,200 feet long that loops past the sites. The sites are served by a single comfort station that was built in 1980. Water for the comfort station and several fountains along the campground access road is supplied from a nearby well.

The purpose of this project was to perform the design and permitting tasks required for the addition of shower facilities to the existing comfort station along with the installation of a new septic system and a connection to the Hackettstown Municipal Utilities Authority water line on Route 604.

Civil Dynamics teamed with Lammey & Giorgio and Eastern Consultants who designed the building upgrades and new showers.

Numerous permits and approvals were required for this project, including obtaining a Highlands Act Exemption. The key to successfully and economically completing this project for the Division of Parks and Forestry was managing the permitting requirements. Specifically, the NJDEP was not supportive of issuing a Highlands Act Exemption, but we were able to prove that the proposed project met the conditions of an exemption. Obtaining approval from the HMUA and Warren County for the water line connection was also tedious, but our perseverance paid off.

The project was successfully constructed in 2011 at a cost well below the original project budget.
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<th>CLIENT</th>
<th>Town of Clinton</th>
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<td>LOCATION</td>
<td>Town of Clinton</td>
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<td>Hunterdon County, New Jersey</td>
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<td>OVERVIEW OF SERVICES</td>
<td>Site Evaluation</td>
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<td>Geotechnical Investigation</td>
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<td>Stability Analysis</td>
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<td>Hydrologic and Hydraulic Analysis</td>
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<td>Final Design Analyses</td>
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<td>Construction Plans and Specifications</td>
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<td>Bidding Assistance</td>
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<td>Construction Phase Services</td>
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This project involved updating the existing Auditorium built in the 1920's including new energy efficient lighting while maintaining the historic character of the Auditorium. Eastern Consultants, Inc. (EC) researched and found that the existing chandeliers had not been the original fixtures but were a replacement made in the 1950's. New Chandeliers and house lighting in the auditorium were replaced with new, historically correct styled fixtures that matched the original design and used energy efficient fluorescent lamps to reduce energy consumption while providing improved lighting levels for multi-purpose use of the space.

EC also provided a new stage lighting system. This used new, higher efficiency flood lights and LED lighting and a new electronic Lighting Control System to control both the stage lighting and the house lighting. This resulted in a new and improved lighting system that reduced energy consumption, by more than seventy-five percent, from the existing lighting in the Auditorium.

EC also designed a new sound system for the Auditorium that along with Architectural upgrades transformed the existing Stage and Auditorium into a beautiful space with first class state of the art stage lighting and sound control while maintaining the historic beauty of the original Auditorium.

The cost of this Project was $927,350 and was completed in 2012.
**CLIENT**
Borough of Ship Bottom

Architect: Ronald A. Sebring
Associates, LLC

**LOCATION**
Borough of Ship Bottom,
Municipal Building
Ship Bottom, Long Beach Island
Ocean County, NJ

**OVERVIEW OF SERVICES**
MEP Design Services including
Site Lighting for new Municipal Building.

Eastern Consultants, Inc. (EC) designed site lighting including parking lot, sidewalks, and building entrance exterior lighting along with the design of the entire new Municipal Building in 2008. The total construction cost for the building is $4,000,000 of which $250,000 was budgeted for the exterior lighting.

EC designed the parking lot using low-cutoff, decorative, metal-halide lighting fixtures to provide lighting levels in the Parking Lot in accordance with IES standards. We provided special historic poles and light fixtures to meet the lighting fixtures requested by the Owner in order to match existing decorative Street Lighting fixtures used in the community. We met the Owner’s style selection and included energy efficient metal halide lamps for these fixtures.

EC insured that all exterior lighting used on this project conformed and met the current energy code design codes. EC provided calculations to show that the amount of energy consumed for site lighting was less than allowed by the code.

This project is waiting for construction funding.

The existing Municipal Building (pre-construction).
KATZENBACH, THE NEW JERSEY SCHOOL FOR THE DEAF

CLIENT
State of New Jersey, DPMC
New Jersey School for the Deaf,
Katzenbach Campus

Architect: Ronald A. Sebring
Associates, LLC

LOCATION
Trenton, Mercer County, NJ

OVERVIEW OF SERVICES
Schematic Design
Final Design
Campus Site Lighting Improvements

Existing Katzenbach Campus Lighting

This project included the upgrading of the existing and additional new site lighting. This was to improve the lighting for safety and security on the Campus of Katzenbach, the New Jersey School for the Deaf in Trenton, New Jersey.

The Campus consists of 28 buildings including dormitories, Cottages, Administration, and educational buildings. The lighting design included the lighting of roadways and pedestrian walkways between these buildings. The existing site lighting consisted of a limited number of newer pole-mounted, colonel style acorn lighting fixtures, at the main entrance to the Administration building and older, smaller fixtures around some of the campus buildings.

The client wanted to maintain the classic look achieved by the newer acorn-styled fixtures. We determined that we could use the same style of fixture with newer, high-efficiency metal halide lamps on the existing poles, add supplemental poles with the same fixture to increase lighting levels, where needed (in areas now currently illuminated) to meet IES standards, and also added new poles and fixtures in areas, not currently covered, where lighting was needed for the safety and security of the students and staff.

The newly selected fixtures included improved optics and cut-off devices, to direct the light down and reduce the up light, to increase lighting levels on the ground and to be in compliance with black sky Federal guidelines developed to limit excessive lighting of sky.

The final design includes the installation of a total of 102 light poles including 19 existing and 83 new lighting fixtures. This included new electrical wiring and underground distribution to old and new lighting poles from electrical panels in the existing buildings. The total construction cost is $341,000.

This was designed last year and was delayed due to funding; it is currently in the Bidding process for installation this year.

Eastern Consultants, Inc.

Project Abstract
PROJECT TEAM ORGANIZATION CHART
FOR THE
NORTH FERRY DOCK REPAIR
at
Liberty State Park
DPMC Project No. P1098-00

OWNER
State of New Jersey

PROJECT MANAGER
Christopher S. Adams, P.E.

REGULATORY AGENCIES
Historic Preservation Office
DPMC Code Review
DCA,UCC Permits

PROJECT ADMINISTRATION

LIGHTING / ELECTRICAL DESIGN
EASTERN CONSULTANTS, INC.
Dave Parsons, P.E.

SITE DESIGN AND SUBSIDENCE REPAIR
CIVIL DYNAMICS, INC.
Christopher S. Adams, P.E.
Victor Maglio
Rick Benz
Matt Beksel

DOCK STRUCTURAL REPAIR DESIGN
CHURCHILL CONSULTING ENGINEERS
David Paintin, P.E.

LIGHTING / ELECTRICAL CONSTRUCTION
EASTERN CONSULTANTS, INC.
Dave Parsons, P.E.

SITE CONSTRUCTION
CIVIL DYNAMICS, INC.
Christopher S. Adams, P.E.
Victor Maglio
Rick Benz
Matt Beksel

DOCK CONSTRUCTION
CHURCHILL CONSULTING ENGINEERS
David Paintin, P.E.
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<th>a. Name &amp; Title:</th>
<th>Christopher S. Adams, P.E.</th>
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<td></td>
<td>President</td>
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<tr>
<td>b. Project Assignment:</td>
<td>Project Manager</td>
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<td>c. Name of Firm with which associated:</td>
<td>Civil Dynamics, Inc.</td>
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<td>d. Years experience:</td>
<td>With this firm 12+ With other firms 20</td>
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<td>e. Education: Degree(s) / Year / Specialization</td>
<td>M.S. / 1981 / Geotechnical Engineering</td>
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<td>B.S. / 1980 / Civil Engineering</td>
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<td>f. Active Registration: Year First Registered / Discipline</td>
<td>1985 / Professional Engineer in New York and New Jersey</td>
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<td>g. Other Experience and Qualifications relevant to the proposed project:</td>
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Mr. Adams has over 31 years of experience in civil engineering. During this time, Mr. Adams has managed and participated in a wide range of civil and environmental projects mainly related to water resources. Some representative projects that Mr. Adams has been responsible for are presented below.

**Lake Stockholm Dredging:** Principal in charge for the development of the construction plans and specifications for the dredging of an existing lake. Responsible for state and local permitting and construction phase services. About 17,000 cubic yards of sediment were removed from the lake bottom.

**Best Lake Dredging and Dam Restoration:** Principal in charge for the development of the construction plans and specifications for the dredging of an existing lake and the rehabilitation of an existing embankment dam. Investigation and design of the lake dredging project included sediment sampling and testing, hydrologic and hydraulic modeling, wetland impacts and mitigation, bank stabilization and water quality issues. Responsible for all permitting and construction phase services. The completed project was an award-winning effort.

**Sussex Branch Trail:** Principal responsible for the design, permitting and construction of the restoration of a portion of the Sussex Branch Trail in Branchville, NJ for the Division of Parks and Forestry.

**Beach 1 Redevelopment, Sussex County, NJ:** Principal responsible for redevelopment of an 8+ acre existing recreational facility. Work included the development of conceptual layouts, the final design and permitting phases and the construction phase. The project was successfully completed in 2005.

**Westbrook Tennis Courts, West Milford:** Project manager for the Rehabilitation of the Westbrook Tennis Courts. The project consists of rehabilitating five tennis courts and one basketball court. Two parking areas, a segmented block retaining wall and an improved drainage system were also part of the project. To upgrade the aesthetics of the park, an integrated series of site amenities including benches, bleachers, water fountain, garbage receptacles and bike racks was specified. The project was completed in 2009.

**Improvements to Muscotah Road, Sussex County, NJ:** Principal responsible for the preparation of Contract Documents in support of roadway reconstruction including storm drainage design within the Highland Lakes Community of Vernon, NJ.

**Upper Highland Lakes 319(h) Grant:** Principal responsible for the development of a stormwater management plan for a residential community surrounding a lake. The plan including the assessment of potential pollutants, a conceptual plan of drainage and roadway improvements to reduce potential pollutants from entering the lake.

**Pinecliff Lake Dam:** Principal in charge of rehabilitation design of High Hazard Dam in West Milford, NJ. The rehabilitation work included replacement of the spillway with a new 200-foot long concrete Ogee section. The work was completed in 2003.

**Estuary Enhancement Program:** Responsible engineer for the restoration design of about 1,500 acres of degraded tidal salt marsh in the Delaware Estuary as part of the Estuary Enhancement Program undertaken by Public Service Electric & Gas Co. (PSE&G). Mr. Adams was then the construction project manager for the dredging and construction work at three sites for a total of about 6,000 acres. Over 1 million cubic yards were hydraulically dredged to restore the tidal flow into the three sites. The projects included numerous interpretive features such as trails, boardwalks and bird observation platforms.

**Newark Watershed Dams:** Principal in charge of the engineering studies for the City of Newark's water supply dams. Responsibilities have varied from conducting regular inspections to the design of rehabilitation projects for the dams.

**National Park Service, Delaware Water Gap PA/NJ:** Principal responsible for the design of subsurface sewage disposal systems for five historic residences within the Delaware Water Gap National Recreation Area.
Mr. Adams has worked on over 200 dams, dikes, tailing dams and weirs across the country.

Within the last ten years, he has been the Responsible Engineer for the analyses, design and construction of numerous dam rehabilitation projects. His technical and project management experience has contributed to the successful completion of each of these projects. A few of the projects are described below.

**Various Dam Rehabilitation Projects for the State of New Jersey:** Principal in charge of the analyses, design, permitting and construction inspection for the rehabilitation and reconstruction of ten (10) dams owned by the State of New Jersey.

- Twin Lakes Dam
- Harrisonville Lake Dam
- Thundergut Pond Dam
- Bear Swamp Dam
- Lake Hopatcong Dam
- Whites Pond Dam
- Maskells Mills Pond Dam
- Upper Mill Pond Dam
- Willow Crest Dam
- Elmer Lake Dam

**Inundation Mapping and EAPs for State-Owned Dams:** Principal in charge of the hydrologic and hydraulic studies and inundation mapping for eight (8) dams owned by the State of New Jersey.

**Newark Watershed Dams:** Principal in charge of the City of Newark’s 20 water supply dams. Responsibilities have included dam inspections, dam break modeling, preparation of the EAPs and major rehabilitations of large dams.

**Long Pond Dam, Second Pond Dam, Mill Pond Dam & Martin Dunham Reservoir Dam:** Principal in charge of the hydrologic and hydraulic analyses of the watershed and spillway structures of these four dams located in series to determine each of the individual dam spillway adequacy with current acceptable state and federal design standards. Developed various dam failure scenario modeling for the evaluation of current hazard classification and the preparation of downstream inundation mapping and Emergency Action Plan documentation for each dam. These dams are located in Grafton Lakes State Park and owned by the NYS Office of Parks, Recreation & Historic Preservation.

**Gilboa Dam and New Croton Dam:** Member of two Value Engineering Teams developing alternatives to reduce costs on the rehabilitation of two large High Hazard dams within New York City Water Supply System.

**Jersey City Municipal Utilities Authority:** Principal in charge of the Regular and Formal Dam Inspections of the following High Hazard Dams:
- Boonton Dam (2006 and 2008)
- Parsippany Dike (2006 and 2008)
- Split Rock Dam (2006, 2008 and 2009)

**Lake Hopatcong Dam, Saxton Falls Dam, Batsto Lake Dam and Harrisville Lake Dam:** Principal in charge of the hydrologic and hydraulic analyses to determine the appropriate hazard classification and spillway design flood for these dams. A dam failure analyses was performed for each dam using HEC-RAS and HEC-1 computer models for various storm magnitudes and multiple failure conditions. Inundation mapping of various non-failure and failure conditions was prepared.

**Lake Fred Dam:** Principal in charge of rehabilitation design of Lake Fred Dam at Stockton State College. The dam was damaged by overtopping during a storm event in October 2005. The rehabilitation design included a new primary spillway and overtopping protection. The work was completed in April 2006.

**No Name Dam No. 40:** Principal in charge of the dam failure analyses which was performed for this dam using HEC-RAS and HEC-1 computer models for the ½ PMP storm and multiple failure conditions. Inundation mapping of various non-failure and failure conditions was prepared.

**Spruce Run Reservoir and Round Valley Reservoir Dams, New Jersey Water Supply Authority:** Responsible Engineer for the 1998 and 2004 Formal Dam Inspections of the four dams at these two water supply reservoirs. The dams are four of the largest dams in New Jersey.

**Seneca Lake Dam:** Principal in charge of reconstruction of Seneca Lake Dam. The dam was breached during a large storm event in 2000. The reconstruction was completed in August 2004 and included a new larger, circular spillway. The completed project was an award-winning effort.

**Pinecliff Lake Dam:** Principal in charge of rehabilitation design of High Hazard Dam in West Milford, NJ. The work included replacing the spillway with a new 200-foot long concrete Ogee section. The work was completed in summer 2003.

**Yards Creek Station:** Project Manager for the dam breach modeling work and development of the inundation maps for the numerous earth dams at the Yards Creek Pumped Storage Generating Station in Blairstown, NJ.

**Manasquan Reservoir System, New Jersey Water Supply Authority:** Supervision of the final investigation program and preparation of the construction plans and specifications relating to the civil aspects of the Manasquan Reservoir System. The system consists of a 760-acre reservoir, a 5-mile long pipeline and an intake facility on the Manasquan River. The reservoir is impounded by a 60-ft high dam and a 35-ft high dike.

Resident engineer during the 2½-year construction phase of the Manasquan Reservoir System projects including wetland mitigation and wildlife habitat creation. Project Manager for inspection of the dams at the Manasquan Reservoir System during 1991, 1992 and 1994.
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<tr>
<th>a. Name &amp; Title:</th>
<th>Victor J. Maglio</th>
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<td>Project Design Manager</td>
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| b. Project Assignment:   | Design Manager & CADD Supervisor |

| c. Name of Firm with which associated: | Civil Dynamics, Inc. |

| d. Years experience:       | With this firm 21   | With other firms 20 |

| e. Education: Degree(s) / Year / Specialization | NA / NA / Civil Engineering Major |

| f. Active Registration: Year First Registered / Discipline |

| g. Other Experience and Qualifications relevant to the proposed project: |

Mr. Maglio joined the Civil Dynamics staff in 1992, after having worked for Civil Dynamics as an independent consultant for more than 6 years. He has over 40 years experience in civil engineering design, construction, and project management in areas including site development, dam repair & construction, and residential & commercial buildings, as well as an international background in pharmaceutical, petrochemical and water treatment facilities planning, design and construction.

Mr. Maglio is responsible for the management of our design and contract drawing packages, as well as our CADD and graphics production capabilities and our document control and quality control systems.

In this role, Mr. Maglio is directly involved with the development of all of the critical design details that are required to successfully complete a design project. His involvement extends from the research and specification of materials, to design development and construction phase oversight.

Mr. Maglio’s work on projects has included the following:

1. Evaluation of available existing survey and construction data.
2. Coordination of field survey efforts.
3. Coordination of geotechnical investigations, including initial scheduling, soil boring layout, “on-site” during drilling operations, and evaluation of test results.
4. Assisting in the development of conceptual design for both repairs and new construction.
5. Assisting in the development of technical specifications and other elements of project manuals (CSI Format).
6. Coordination and preparation of the design and contract drawing packages.
7. Construction inspection and design modifications to suit field conditions.
8. Shop Drawings drawing review and approval.
9. Mr. Maglio provided key design services in the development of the plans and specifications for the Beach 1 Redevelopment, Sussex County, NJ: His work included the development of conceptual layouts through final design for the retaining walls and barrier free walkways.

A partial list of Mr. Maglio’s design experience with site development includes:
- Sussex Branch Trail, Kittatinny Valley State Park, NJ
- Beach 1 Redevelopment, Vernon, NJ
- Rehabilitation of East Highland Lake Dam, Highland Lakes, NJ
- Lake Stockholm Dredging, Stockholm, NJ
- Westbrook Tennis Courts, West Milford, NJ
### Brief resume of key personnel, specialists, and individual consultants anticipated for this project:

| a. Name & Title: | Matthew Beksel, E.I.T.  
Assistant Project Engineer |
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<td>b. Project Assignment:</td>
<td>Design, Bid and Construction Phases</td>
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<tr>
<td>c. Name of Firm with which associated:</td>
<td>Civil Dynamics</td>
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</table>
| d. Years experience: | With this firm 4+  
With other firms 0 |
| e. Education: | Degree(s) / Year / Specialization  
BS / 2008 / Civil Engineering |
| f. Active Registration: | Year First Registered / Discipline  
2008 / Engineer-In-Training |
| g. Other Experience and Qualifications relevant to the proposed project: | Mr. Beksel has prepared bid documents for the following projects:  
- Rehabilitation of the Camp Allamuchy Dams  
- Brookside Heights Paving Repairs  
- Rehabilitation of Summit Lake Dam  
- Rehabilitation of Lake Neepaulin Dam  
- Rehabilitation of Forest Lake Dam  
- Rehabilitation of Leddell's Pond Dam  
Mr. Beksel is managing the following construction projects:  
- Rehabilitation of Lake Lenape Dam, Andover, NJ  
- Rehabilitation of Barry Lakes Dam No. 1 and the South Barry Lake Dike, Highland Lakes, NJ  
- Rehabilitation of Lake Neepaulin Dam, Wantage, NJ  
Mr. Beksel has also performed construction inspection for the following projects:  
- Rehabilitation of Summit Lake Dam, Hardyston, NJ  
- Shower Facility and Water Supply System Upgrade, Hackettstown, NJ  
- Rehabilitation of Sussex Branch Trail, Sussex County, NJ  
- Lake Stockholm Dredging, Stockholm, NJ  
- Rehabilitation of Best Lake Dam, Watchung, NJ  
- Rehabilitation of Kay Pond Dam, Chester, NJ  
- Restoration of Clinton Mills Dam and Dike, Clinton, NJ  
- Rehabilitation of Gordon Lakes Dam, West Milford, NJ  
- Rehabilitation of East Highland Lake Dam, Vernon, NJ  
- Rehabilitation of Maskells Mill Pond Dam, Lower Alloways Twp., NJ  
- Rehabilitation of Erskine Upper Lake Dam, Ringwood, NJ  
- Emergency Maintenance and Repair Work to Leddell's Pond Dam, Mendham, NJ |

Mr. Beksel was hired by Civil Dynamics as a full-time staff engineer in 2008 after graduating with a Bachelor of Science in Civil Engineering. Since joining Civil Dynamics, Mr. Beksel has been involved with the evaluation, analyses, design, bid and construction phases of various projects.

Mr. Beksel has also contributed to several design projects. He has been responsible for the following tasks:

- Structural stability analyses for various structures.
- Development of conceptual design for interim dam repairs.
- Development of final design details.
- Development of technical specifications.
- Stormwater systems design layout.
- Grading and earth embankment design.
- Subsurface investigation programs (soil borings, test pits and well installation).
**Brief resume of key personnel, specialists, and individual consultants anticipated for this project:**

| a. Name & Title: | Rick Benz  
| | Chief Construction Inspector |
| b. Project Assignment: | Surveying and Construction Inspector |
| c. Name of Firm with which associated: | Civil Dynamics |
| d. Years experience: | With this firm 13+  
| | With other firms 26.5 |
| e. Education: Degree(s) / Year / Specialization | BA / 1992 / Political Science  
| | Diploma / 1977 / Surveying & Mapping, ICS  
| | Certificate / 1980 / Architecture, ICS  
| | Certificate / 1981 / Blue Print Reading & Estimating, BCVT  
| | Certificate / 2000 / Uniform Construction Code Official Course West Essex College |
| f. Active Registration: Year First Registered / Discipline | |
| g. Other Experience and Qualifications relevant to the proposed project: | Mr. Benz has over 35 years of field and office experience in the civil engineering profession, with an emphasis on land surveying and construction project inspections.  
Mr. Benz has been responsible for all aspects of construction management and inspection related to our site work, dam repairs and rehabilitation and lake dredging projects. Specifically, Mr. Benz has significant background related to new concrete and concrete repair construction, steel sheet pile installations, earthwork practices directly related to embankment construction and possesses a significant background related to water valve and sluice gate rehabilitation work. He also coordinates and performs land surveying practices necessary to quantify dredged material for our lake dredging projects.  
Mr. Benz's other responsibilities include construction cost estimates, quantity estimating, providing shop drawing and submittal review, evaluation of progress payments, report writing, and direct participation in construction meetings.  
Mr. Benz also coordinates and performs land surveying to support hydrologic and hydraulic analyses for dams and other projects, in addition to typical topographic surveying, property surveying and construction stakeout. |

**Partial List of Representative Projects:**

- Summit Lake Dam Rehabilitation, Hardyston, NJ
- Camp Allamuchy Dams Rehabilitation, Andover, NJ
- Lake Lenape Dam Rehabilitation, Andover, NJ
- Elmer Lake Dam Rehabilitation, DPMC No. P1056-00
- Thundergut Pond Dam Rehabilitation, DPMC No. P0923-02
- Rehabilitation of Frenches' Pond Dam, Byram, NJ
- Rehabilitation of Reservoir Lake Dam, Byram, NJ
- Rehabilitation of Lake Lenape Dam, Andover, NJ
- Lake Stockholm Dredging, Stockholm, NJ
- Best Lake Dredging and Dam Restoration, Watchung, NJ
- Rehabilitation of Clinton Mills Dam and Dike, Clinton, NJ
- Harrisonville Lake Dam Rehabilitation, DPMC No. P0923-01
- Maskells Mill Pond Dam Rehabilitation, DPMC No. P0923-03
- East Highland Lake Dam Rehabilitation, Vernon, NJ
- Rehabilitation of Sussex Branch Trail, DPMC No. P0890-00
- Gordon Lakes Dam Rehabilitation, West Milford, NJ
- Upper Erskine Lake Dam Rehabilitation, Ringwood, NJ
- Lake losco Dam Rehabilitation (two dams), Bloomingdale, NJ
- Repairs to Rock Lodge Pond Dam, Stockholm, NJ
- Reconstruction of Upper Mill Pond Dam, DPMC No. P0991-00
- Lake Fred Dam Rehabilitation, DPMC No. I0151-00
- Rehabilitation of Sally's Pond Dam, DPMC No. P0873-00
- Macopin Reservoir Dam Rehabilitation Project, City of Newark, NJ
- Canistear Reservoir Dam Rehabilitation Project, City of Newark, NJ
- Cedar Grove Reservoir Dam, Security Project, City of Newark, NJ
- Highland Lakes Main Dam Rehabilitation Project, Highland Lakes, NJ
- Pleasant Valley Country Club Dam Rehabilitation Project, Vernon NJ
- Charlottsburgh Reservoir Dam Rehabilitation Project, City of Newark, NJ
- Clinton Reservoir Dam and Outlet Structures Rehabilitation Project, City of Newark
- Pinecliff Lake Dam Rehabilitation Project, West Milford, NJ
- Fox Hollow Lake Dam Rehabilitation Project, Sparta, NJ
- Lake Morski Oko Dam Rehabilitation Project, Jefferson, NJ
- Rehabilitation of Whites Pond Dam and Twin Lakes Dam, DPMC No. P0934-00
- Reconstruction of Seneca Lake Dam, Sparta, NJ
- Beach 1 Redevelopment, Highland Lakes, NJ
- National Park Service Sewage Disposal Systems, Delaware Water Gap, PA and NJ
DAVID J. PARSONS

CAREER SUMMARY

President and Principal Engineer, Eastern Consultants, Inc.

PROFESSIONAL LICENSES


EDUCATION

Clarkson University Bachelor of Science in Mechanical Engineering.
Engineers Officer Basic Course, Ft. Belvoir.
Engineer Advanced Course Command and General Staff College.

GRADUATE STUDIES

Western New England College
University of North Carolina

PROFESSIONAL DEVELOPMENT

Solar Energy, University of Massachusetts at Amherst.
Energy Conservation: Elizabethtown Gas, General Public Utilities

RESEARCH

AIA research Corporation: Member of Team of 184 Design Professionals Researching Energy Performance Standards for New Construction.

PROFESSIONAL AFFILIATIONS

Past President, Lehigh Valley Chapter of the American Society of Heating, Refrigeration and Air Conditioning Engineers.
Served on Pennsylvania Power & Light Co. Architects and Engineers Professional Cooperative committee.
National Society of Professional Engineers, Illuminating Engineering Society.
Construction Specification Institute.
International Code Council.

MILITARY EXPERIENCE

Commissioned Officer Army Reserve
Rank: Major
Army Reserve Corps of Engineers Officer
Company Commander: Heavy Construction Company
Commander: Bridge Company.

PROFESSIONAL EXPERIENCE

David R. Paintin, P.E.
Bridge Design Engineer

Education
BS, Civil Engineering, Clemson University, Clemson, S.C., 1982

Professional Certifications
Professional Engineer in New Jersey, Pennsylvania and Maryland

Structural engineer and project manager with more than 25 years of experience in the design of transportation structures including various highways, bridges, retaining walls, and drainage structures. Also responsible for project management, design leadership, and client and public relationships.

Extensive experience with NJDOT, PennDOT and NJTA structures including bridge replacements, repairs and widening involving substructures, superstructures, and decks for more than 50 single and multi-span pre-stressed concrete and steel bridges for NJTA, NJDOT, PennDOT and numerous NJ counties (Atlantic, Gloucester, Cape May, Burlington, Camden, Mercer and others). Certified NBIS Team Leader and has completed hundreds of bridge inspections for NJTA, NJDOT and PennDOT bridges, as well as the long-span Betsy Ross Bridge over the Delaware River. Extensive experience with NJTA and NJDOT design procedures and the preparation of construction plans, details and supplemental specifications.

NJTA Garden State Parkway Bridges; 02/98-02/99 - Project Engineer directly responsible for the structural detailing and preparation of contract documents for structural repairs to five major bridges along the Garden State Parkway for NJHA. Rehabilitation included installation of a supplemental floorbeam to the ends of the cantilevered thru-girders at the connection to the multi-stringer spans on the southbound bridge over Great Egg Harbor. The supplemental floorbeam had to be designed so that it could be installed without disruption to traffic on the bridge. Duties included inspection of the Driscoll Bridge, Great Egg Harbor Bridge and other structures. Construction documents included Maintenance of Traffic Staging Plans. Reference: NJTA, Bill Wilson (732) 750-5300, x8279

NJTA Garden State Parkway over Jimmie Leeds Road (M.P. 41.69); 05/04-01/06 - Project Engineer for the review of shop drawings and design of maintenance of traffic for the replacement of the northbound and southbound bridges on this NJTA Parkway Project. Reference: NJTA, Bill Wilson (732) 750-5300, x8279

NJDOT Route 33 Bypass; 03/99-03/00 - Project Engineer for the accelerated design of 4 bridges, 13 retaining walls, and 9 sign-support structures along the Route 33 Bypass for NJDOT.

The design featured a 3-span continuous curved bridge, 122m total length, with integral abutments spanning potential habitat for the endangered bog turtle. Responsibilities included structural design and detailing of a 3-span continuous steel superstructure with integral piers on abutments, using PennDOT LFRD Programs. Reference: Richard Gramlich (Retired from NJDOT)

NJTA 2008 NJTA/GSP Southern Bridge Deck Repairs, MP 0 to MP 125; 01/08-10/08 - Project Engineer for the inspection and contract documents for repairs to thirty-four (34) bridges. Mr. Paintin was involved in the field inspection of 34 bridges. Also responsible for the preparation of a Phase A Report including repair recommendations and costs for 10 of the structures. Mr. Paintin was also involved in the preparation of Construction Documents and MPT Plans for the design phase. Reference: NJTA, Mark Bernard (732) 750-5300, x8234

NJTA 2007 NJTA / GSP Bridge Deck Repairs North, MP 121 to MP 172; 03/07-10/08 - Project Engineer for the inspection and preparation of contract documents for repairs to thirteen (13) bridges. Responsibilities included a field investigation; Phase A Report, including repair recommendations and costs; Contract Drawings; MPT Plans; and Supplemental Specifications for 5 bridges. Reference: NJTA, Suresh Shah (732) 750-5300, x8268

NJTA 2005 NJTA/GSP Miscellaneous Structural Repairs, MP 2.4 to MP 128.2; 07/04-07/05 - Project Engineer for the inspection and contract documents for repairs to thirty (30) bridges. Responsibilities included a field investigation; Phase A Report including repair recommendations and costs; Contract Drawings; MPT Plans; and Supplemental Specifications. Reference: NJTA, Suresh Shah (732) 750-5300, X8268

Mercer County, Cherry Valley Road over a Branch of Beden’s Brook Bridge Replacement; 2012; $400K - Project Engineer for the bridge replacement design of this structurally deficient bridge, located in the Princeton Township, Mercer County and Montgomery Township, Somerset County. Responsibilities include engineering cost estimates; the bridge design; and preparation of the construction plans and specifications. Reference: Mercer County, Gregory Sandusky (609) 989-6600

Gloucester County - Blackwood – Barnsboro Road over Mantua Creek Bridge Replacement, Gloucester County, NJ; 2010; $2M - Project Engineer for the design of this replacement structure located in Gloucester County. Responsibilities include preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Gloucester County, Vincent Voltaggio (856) 307-6600
Kings Highway over Manning Creek
Project Engineer responsible for the
SWedesboro-Wilson Road over
Project Engineer for the
Jacksonville-Hedding Road over
Woodstown Road over
Hopewell
Responsibilities included preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Gloucester County, Vincent Voltaggio (856) 307-6600

Salem County - Kings Highway over Manning Creek
Bridge Replacement Design; 2008-2009 - Project Engineer for the design of this replacement structure. Responsibilities included preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Salem County, Joseph Federici, Jr. (856) 589-1400

Cumberland County - Dante Ave. Bridge Replacement; 2005-2006 - Project Engineer for the design of this replacement structure. Responsibilities included preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Cumberland County, Daniel Orr (856) 453-2192

Cumberland County - West Park Drive over Sunset Lake
Raceway Bridge Replacement; 2005-2006; $560,000 - Project Engineer responsible for the preparation of plans for the design of this superstructure replacement project. Responsibilities included preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Cumberland County, Daniel Orr (856) 453-2192

Gloucester County - Main Street (C.R. 533A) over Chestnut Branch Bridge Replacement; 2005-2006; $1.6M - Project Engineer responsible for the preparation of plans and specifications for the replacement of the single-span bridge. Responsibilities included design and detailing of the pile-supported abutments and wingwalls, and preparation of plans for four mechanically stabilized earth retaining walls. Reference: Gloucester County, Vincent Voltaggio (856) 307-6600

Gloucester County - Wilson Road over Bells Lake Branch Bridge Replacement; 2003-2004; $1.2M - Project Engineer responsible for the preparation of plans for the bridge replacement and roadway realignment for Gloucester County. Directly responsible for the geometric design and preparation of the roadway plans. Reference: Gloucester County, Vincent Voltaggio (856) 307-6600

Cumberland County - Seeley Road Bridge Replacement, Hopewell Twp. and Upper Deerfield Twp., Cumberland Co., NJ; 2003; $475,000 - Project Engineer responsible for the design of this superstructure replacement project. Responsibilities included preliminary and final engineering cost estimates; and the preparation of the bridge design and construction plans and specifications. Reference: Cumberland County, Daniel Orr (856) 453-2192

Cumberland County - West Avenue over Ireland's Mill Run Bridge Widening; 2001-2002; $350,000 - Project Engineer responsible for the preparation of plans for the widening of this single-span concrete arch and approach roadway. Responsible for the geometric roadway design including grading and drainage. Directly responsible for preparation of the Contract Drawings and Supplemental Specifications. Design included preparation of Maintenance of Traffic Staging Plans. Responsibilities also included correspondence with local utility authorities. This project involves the relocation of an underground water main and relocation of utility poles. Reference: Cumberland County, Daniel Orr (856) 453-2192

Cumberland County - Almond Road Bridge Superstructure Replacement; 2002-2003; $500,000 - Project Engineer responsible for the preparation of plans for the design of the superstructure replacement of the 3-span bridge over Maurice River for Cumberland County. Responsible for the structural detailing and preparation of contract drawings for the replacement of the bridge superstructure and rehabilitation of the abutments and pile caps. Responsibilities also included correspondence with local utility authorities and provisions in the design of the superstructure for support of telephone conduits and a sewer force main. Reference: Cumberland County, Daniel Orr (856) 453-2192

Salem County - Swedesboro – Woodstown Road over Oldmans Creek; 2007-2008; $101,000 - Project Engineer responsible for the preparation of the M.O.T. plans, channel armoring plans, specifications and construction cost estimates for the design of scour countermeasures. Reference: Salem County, Joseph Federici, Jr. (856) 589-1400

Cape May County - Schellengers Landing Bridge Replacement; 1995 - Structural engineer responsible for design and detailing for preparation of contract drawings for the superstructure replacement of the two-leaf bascule bridge in Cape May County. Design included strengthening of the bascule girders with cover plates and by permanently connecting the spans. The superstructure replacement included replacement of the steel stringers and open-grate steel decking. Reference: Cape May County, Dale M. Foster (609) 465-1035

Burlington County - Jacksonville-Hedding Road over Branch of Assicunk Creek Bridge Replacement, Mansfield Township, NJ; 2000; $400,000 - Project Engineer for the substructure design for the replacement of this Burlington County bridge. Responsible for the design and detailing of the concrete piers and abutments, along with preparation of the supplemental specifications. Reference: Burlington County, Todd Eagleson (856)642-3700
### KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

<table>
<thead>
<tr>
<th>NAME</th>
<th>Christopher S. Adams, P.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>President</td>
</tr>
<tr>
<td>FIRM</td>
<td>Civil Dynamics, Inc.</td>
</tr>
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<table>
<thead>
<tr>
<th>PROJECT TITLE LOCATION AND TOTAL CONSTRUCTION COST OR FEE</th>
<th>A/E OF RECORD FOR THIS REFERENCED PROJECT</th>
<th>SPECIFIC TYPE OF WORK EXPERIENCE (STUDY SCHEMATIC CONSTRUCTION ADMINISTRATION)</th>
<th>TEAM MEMBER'S SPECIFIC ROLE OR TITLE ON THE REFERENCED PROJECT</th>
<th>DURATION OF TEAM MEMBER'S INVOLVEMENT ON THE REFERENCED PROJECT</th>
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<th>DATES OF THE TEAM MEMBER’S INVOLVEMENT IN THE REFERENCED PROJECT</th>
<th>CLIENT NAME</th>
<th>CONTACT PERSON AND PHONE NUMBER</th>
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<tbody>
<tr>
<td>Agency Consultant Program Various Civil Engineering Repair Projects</td>
<td>Civil Dynamics</td>
<td>Studies, Design and Permitting</td>
<td>Project Executive and Project Manager</td>
<td>18 months</td>
<td>10%</td>
<td>2011-2013</td>
<td>NJDEP Natural &amp; Historic Resources Office of Resource Development Edward Mulvan (609) 984-3819</td>
<td></td>
</tr>
<tr>
<td>Rehabilitation and Repair of Three Dams – Harrisonville, Maskells, and Thundergut Div. of Fish &amp; Wildlife, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Executive and Project Manager</td>
<td>120 months</td>
<td>10%</td>
<td>2001-2013</td>
<td>NJDEP Division of Fish and Wildlife John Piccolo (609) 203-7146</td>
<td></td>
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<tr>
<td>Shower Facility and Water Supply Upgrade at Stephens State Park Hackettstown, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Executive and Project Manager</td>
<td>48 months</td>
<td>10%</td>
<td>2008-2011</td>
<td>NJDEP Division of Parks and Forestry Bill White (732) 462-5866</td>
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<tr>
<td>Rehabilitation of Sussex Branch Trail Frankford Twp., NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Executive and Project Manager</td>
<td>18 months</td>
<td>10%</td>
<td>2005-2010</td>
<td>NJDEP Division of Parks and Forestry Don DeLuca (609) 306-1584</td>
<td></td>
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<tr>
<td>Dredging and Rehabilitation of Best Lake and Dam Watchung, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Executive and Project Manager</td>
<td>36 months</td>
<td>10%</td>
<td>2006-2008</td>
<td>Borough of Watchung Arlene McCoy, P.E. (908) 756-0091</td>
<td></td>
</tr>
<tr>
<td>Beach 1 Redevelopment Vernon, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Executive and Project Manager</td>
<td>60 months</td>
<td>10%</td>
<td>2002-2007</td>
<td>Highland Lakes Mr. Jack McLaughlin (973) 764-4366</td>
<td></td>
</tr>
</tbody>
</table>

A KEY TEAM MEMBER IS A TECHNICAL OR MANAGEMENT PERSON DEVOTING 20% OR MORE OF THEIR TIME TO ANY PHASE OF THE PROJECT.
**KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET**

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<thead>
<tr>
<th>PROJECT TITLE / LOCATION AND TOTAL CONSTRUCTION COST OR FEE</th>
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<tbody>
<tr>
<td>Rehabilitation and Repair of Three Dams – Harrisonville, Maskells, and Thundergut Div. of Fish &amp; Wildlife, NJ $2,300,000</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Design Manager</td>
<td>30 months</td>
<td>25%</td>
<td>2001-2013</td>
<td>NJDEP Division of Fish and Wildlife</td>
<td>John Piccolo (609) 203-7146</td>
</tr>
<tr>
<td>Shower Facility and Water Supply Upgrade at Stephens State Park Hackettstown, NJ $289,000</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Design Manager</td>
<td>15 months</td>
<td>20%</td>
<td>2008-2011</td>
<td>NJDEP Division of Parks and Forestry</td>
<td>Bill White (732) 462-5668</td>
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<tr>
<td>Rehabilitation of Sussex Branch Trail Frankford Twp., NJ $160,000</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Design Manager</td>
<td>18 months</td>
<td>25%</td>
<td>2005-2010</td>
<td>NJDEP Division of Parks and Forestry</td>
<td>Don DeLuca (609) 306-1584</td>
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<tr>
<td>Dredging and Rehabilitation of Best Lake and Dam Watchung, NJ $1,400,000</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Design Manager</td>
<td>36 months</td>
<td>20%</td>
<td>2006-2008</td>
<td>Borough of Watchung</td>
<td>Arlene McCoy, P.E. (908) 756-0091</td>
</tr>
<tr>
<td>Beach 1 Redevelopment Vernon, NJ $1,500,000</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Project Design Manager</td>
<td>24 months</td>
<td>20%</td>
<td>2002-2007</td>
<td>Highland Lakes</td>
<td>Mr. Jack McLaughlin (973) 764-4366</td>
</tr>
</tbody>
</table>

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# KEY TEAM MEMBER PROJECT EXPERIENCE DATA SHEET

**NAME** | Matthew Beksel, E.I.T.  
---|---  
**TITLE** | Assistant Project Engineer  
**FIRM** | Civil Dynamics, Inc.  

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Rehabilitation of Lake Neepaulin Dam</td>
<td>Civil Dynamics</td>
<td>Design, Permitting, Bidding and Construction Phase Services</td>
<td>Assistant Project Engineer, Construction Project Manager and Construction Inspector</td>
<td>8 months</td>
<td>25%</td>
<td>2012-2013</td>
<td>Friends of Lake Neepaulin, Inc. Tom Jable (973) 513-2981</td>
</tr>
<tr>
<td>Agency Consultant Program Various Civil Engineering Repair Projects</td>
<td>Civil Dynamics</td>
<td>Studies, Design and Permitting</td>
<td>Staff Engineer, Design and Permitting</td>
<td>18 months</td>
<td>20%</td>
<td>2011-2013</td>
<td>NJDEP Natural &amp; Historic Resources Office of Resource Development Edward Mulvan (609) 984-3819</td>
</tr>
<tr>
<td>Shower Facility and Water Supply Upgrade at Stephens State Park Hackettstown, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Staff Engineer, Construction Project Manager and Construction Inspector</td>
<td>8 months</td>
<td>25%</td>
<td>2010-2011</td>
<td>NJDEP Division of Parks and Forestry Bill White (732) 462-5868</td>
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<tr>
<td>Rehabilitation of Sussex Branch Trail Frankford Twp., NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Staff Engineer and Construction Inspector</td>
<td>2 months</td>
<td>20%</td>
<td>2009</td>
<td>NJDEP Division of Parks and Forestry Don DeLuca (609) 306-1584</td>
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<tr>
<td>Rehabilitation of Kay Pond Dam Chester, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Staff Engineer, Design, Permitting, and Construction Inspector</td>
<td>8 months</td>
<td>30%</td>
<td>2009-2010</td>
<td>Morris County Park Commission Art Vitale, P.E. (973) 326-7600</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>NAME</th>
<th>Rick Benz</th>
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<tbody>
<tr>
<td>TITLE</td>
<td>Chief Construction Inspector</td>
</tr>
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<td>Civil Dynamics, Inc.</td>
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<tr>
<td>Shower Facility and Water Supply Upgrade at Stephens State Park Hacketstown, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Chief Construction Inspector</td>
<td>8 months</td>
<td>20%</td>
<td>2008-2011</td>
<td>NJDEP Division of Parks and Forestry Bill White (732) 462-5688</td>
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<tr>
<td>Rehabilitation of Sussex Branch Trail Frankford Twp., NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Surveyor and Chief Construction Inspector</td>
<td>10 months</td>
<td>20%</td>
<td>2005-2010</td>
<td>NJDEP Division of Parks and Forestry Don DeLuca (609) 306-1584</td>
</tr>
<tr>
<td>Dredging and Rehabilitation of Best Lake and Dam Watchung, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Surveyor and Chief Construction Inspector</td>
<td>10 months</td>
<td>20%</td>
<td>2006-2008</td>
<td>Borough of Watchung Arlene McCoy, P.E. (908) 756-0091</td>
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<tr>
<td>Beach 1 Redevelopment Vernon, NJ</td>
<td>Civil Dynamics</td>
<td>Studies, Schematic, Design, Permitting and Construction Phase Services</td>
<td>Surveyor and Construction Inspector</td>
<td>12 months</td>
<td>20%</td>
<td>2002-2007</td>
<td>Highland Lakes Jack McLoughlin (973) 764-4366</td>
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</table>

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<table>
<thead>
<tr>
<th>NAME</th>
<th>David J. Parsons, P.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE</td>
<td>Principal Engineer</td>
</tr>
<tr>
<td>FIRM</td>
<td>Eastern Consultants, Inc.</td>
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<tbody>
<tr>
<td>Campus Lighting Upgrades Katzenbach School For the Deaf $341,000</td>
<td>Ronald A. Sebring Associates, LLC.</td>
<td>Schematic, Final Design, Campus Lighting</td>
<td>Principal Engineer, Design of Lighting</td>
<td>17 months</td>
<td>30%</td>
<td>January 2012 - May 2013</td>
<td>State of NJ, DPMC - Mr. David Pittman 609-984-5062</td>
</tr>
<tr>
<td>Shower Facility and Water Supply Upgrade at Stephens State Park Hackettstown, NJ $289,000</td>
<td>Civil Dynamics, Inc.</td>
<td>Schematic, Final Design, Permitting and Construction Inspection</td>
<td>Principal Engineer, Design of Plumbing, Ductwork and Indoor/Outdoor Lighting</td>
<td>42 months</td>
<td>30%</td>
<td>June 2008 - November 2011</td>
<td>NJDEP Division of Parks and Forestry - Bill White (732) 462-5668</td>
</tr>
<tr>
<td>New Municipal Building and Site Lighting, Ship Bottom, NJ $4,000,000</td>
<td>Ronald A. Sebring Associates, LLC.</td>
<td>MEP Design Services and Site Lighting</td>
<td>Principal Engineer, Design of Parking Lot and Walkway Lighting</td>
<td>10 months</td>
<td>40%</td>
<td>January 2008 - October 2008</td>
<td>Mr. Ronald A. Sebring, Ronald A. Sebring Associates, LLC 732-701-9128</td>
</tr>
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</table>

A KEY TEAM MEMBER IS A TECHNICAL OR MANAGEMENT PERSON DEVOTING 20% OR MORE OF THEIR TIME TO ANY PHASE OF THE PROJECT.
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<th>SPECIFIC TYPE OF WORK EXPERIENCE (STUDY, SCHEMATIC, CONST ADMINISTRATION)</th>
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<th>% OF TIME DURING DURATION BASED UPON A 40 HR WORK WEEK</th>
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* A KEY TEAM MEMBER IS A TECHNICAL OR MANAGEMENT PERSON DEVOTING 20% OR MORE OF THEIR TIME TO ANY PHASE OF THE PROJECT
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<td>Eastern Consulting Inc.</td>
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Insert the wage level from 1 to 7 of each key person. **DO NOT** insert any hourly rate.
PROJECT APPROACH
North Ferry Dock Repair at Liberty State Park

The purpose of the proposed scope of work is to conduct the necessary on-site evaluations and design improvements to repair the damage incurred by the North Ferry Dock during Superstorm Sandy (Sandy), the catastrophic October 2012 hurricane. Sandy rendered the dock completely non-operational. The urgent need is to restore the dock to full functionality as quickly as possible, by addressing the structural and safety-related deficiencies which currently preclude the use of the dock by the public. The restoration must be done with an appreciation for the historic setting.

In order to best address the needs of the Park and the public, a proper project approach must include:

...an Accelerated Schedule.
...an Attention to Detail.
...an Appreciation for the Impacts of the Repair Design.

The varied nature of the damage to the dock and concourse is such that a high level of expertise and proficiency is required in multiple engineering specialty areas. Therefore, Civil Dynamics has assembled a Team of engineers who have a demonstrated history of successful project design and construction, with specific experience in working with the DPMC and other State Agencies.

To supplement Civil Dynamics experience in water retaining structures, as well as recreational site development, we have teamed with Churchill Consulting Engineers (bridge and road construction specialists) and Eastern Consultants, Inc. (lighting and electrical specialists). Both of these firms are familiar with DPMC projects, and familiar to the DPMC. A further “plus” is that all three members of our Team have experience working with each other on a variety of prior projects. Together, our Team has the expertise and proficiency necessary to successfully meet the unique requirements of this critical project.

BACKGROUND

The North Ferry Dock serves the concourse at the historic Central Railroad of New Jersey (CRRNJ) Terminal at Liberty State Park. The National Park Service utilizes this dock to provide ferry service to both Ellis Island and the Statue of Liberty. The North Ferry Dock was the only dock in use for this ferry service. As a result, the loss of use of this dock will have a significant impact on the Park when Ellis Island and Liberty Island opens on July 4, 2013. Therefore, it is critical that the North Ferry Dock be repaired and returned to service as soon as possible.

The DPMC Scope of Work (P1098-00) includes a fairly “typical schedule” for a design project of this type and scope, allowing, for example, 60 days for the Schematic Design Phase, and another 30 days for the Final Design Phase. However, the impact of the loss of service of the North Ferry Dock makes this an “atypical project”, requiring an accelerated schedule, in order to meet the needs of the Park and the public it serves.
Civil Dynamics' approach is designed to provide efficient workable solutions to the current deficiencies on an accelerated schedule so that the dock can be returned to use as quickly as possible. The Civil Dynamics Team has the knowledge and experience necessary to meet this accelerated schedule.

In developing our approach for this project, we have reviewed the following construction drawings:

- “North Terminal Ferry Concourse” – P662-01; dated August 1997.

Additionally, we have given careful consideration to the expressed needs of the Park personnel who know the day-to-day needs and functions of this important historic facility.

**PROPOSED SCOPE OF WORK**

The DPMC Scope of Work identifies the project phases and the design criteria but it appropriately does not define the work tasks within each project phase. Therefore, we are presenting a brief description of the key work tasks that we are proposing. Most importantly, we present key issues associated with tasks that will allow us to meet the project objectives and successfully complete this critical project for the Department of Environmental Protection (DEP) in an accelerated manner.

**SCHEMATIC DESIGN PHASE**

As previously noted, the Scope of Work allows a time frame of 60 days for the Schematic Design Phase effort. We have carefully reviewed and considered the tasks to be addressed during this phase, and, we are committed to having a Schematic Design Phase Report prepared and submitted within two (2) weeks. We believe this accelerated schedule is not only doable, but necessary.

The Schematic Design Phase tasks are discussed below.

**Data Collection and Surveying Task:** Civil Dynamics will conduct a detailed review of available drawings and other documentation related to the history and construction of the ferry dock and the CRRNJ Terminal concourse. We will also conduct site inspections and a topographic survey of the dock, concourse and adjacent areas as necessary to support the design process. This work is critical in developing cost-effective design alternatives and then in properly completing the design process and providing accurate details for construction.

**Repair Design Alternatives Task:** Using the results of the data collection and surveying task, we will review and evaluate all of the various elements of the required repairs itemized in the Scope of Work, with the goal of establishing the extent, materials and methods to be employed in
the repair. Some repair items can only be addressed at a conceptual level at this stage, and others will require the development of options to be presented to the DEP and to the NJDEP Historic Preservation Office (HPO) for consideration, before proceeding with the Final Design Phase. Our approach to addressing the following key issues is highlighted below:

- Subsidence at the North Abutment of the Ferry Dock
- Surface Treatment at CRRNJ Terminal Building Concourse
- Railing Replacement
- Wood Decking Replacement
- Lighting and Wiring Replacement

The subsidence at the north abutment of the ferry dock will require a detailed evaluation of the existing construction using available drawings, other historical documentation, and on-site investigation. While the general concept of excavating the area and filling the voids is clearly established, the specifics of this element of the repairs will have to be developed based on on-site engineering observation and inspection during the construction phase in order to confirm the existing conditions, evaluate the extent of the voids, and develop a solution that will seal the voids.

Civil Dynamics has extensive experience in addressing issues of internal erosion and subsidence due to water movement within critical structural interfaces in dams. This experience will enable us to effectively evaluate the likely causes of the subsidence and to develop a solution to address the problem.

The selection of a new surface treatment to replacement of the wood block pavers on the concourse between the CRRNJ Terminal Building and the ferry dock slips will require interaction with both the DEP and the HPO. During the Schematic Design Phase, options will be explored and alternatives presented, so that the preferred alternate can be selected before the Final Design Phase is started.

Key concerns to be addressed are the need for a “maintenance free” finished surface and the need to provide a surface that is unique to the historic Terminal Building concourse area to distinguish it from the modern concrete paver surfaces on the general pedestrian walkways to the north and south. We believe that the replacement of the concourse surface should also include the replacement of the existing unsightly, make-shift metal utility trench covers along the ferry dock with new aesthetically appropriate covers.

While a different style or pattern of concrete pavers is a possibility for the new concourse surface, we believe another option worth pursuing is a stamped and stained concrete surface. This surface would address the maintenance issues involved in any type of “paver.” Further, for this large an area, it would be reasonable to fabricate a unique “stamp” would replicate the texture and appearance of the original wood blocks, in a surface that exceeds the blocks in functionality. Also, the pattern of the stamped concrete would allow for saw cutting and patching of local areas of the concourse as necessary to complete future projects without impacting the overall appearance.
Replacement of the railing system is an element for which options should be developed and
alternates presented to the DEP and the HPO as part of the Schematic Design Phase. Our
inspection of the condition of the existing railing confirms that the generally rusted and
deteriorated condition of many of the remaining connections precludes the option of salvaging
sections of the existing railing and reconnecting new or rehabilitated sections of the original
railing. The selected replacement system should be both functional and aesthetically consistent
with the facility. It will also be critical that consideration be given to future improvements to the
remaining slips when selecting the new railing system for the North Ferry Dock.

Civil Dynamics has successfully worked with the HPO in coordinating repairs on historic
structures, including a number of dam repair projects, so we are familiar with the process of
interfacing with them in achieving a finished project that is both functional and respectful of
historic considerations.

Replacement of the wood decking on the dock is straightforward. The key is the timely
replacement of the concrete substructure. We have already observed the underside of the
cement deck and have noted both the extent of the deterioration to the existing structure and the
configuration of the support system between the concrete "bridge" section and the remainder of
the dock structure. Churchill Consulting Engineers, part of the Civil Dynamics Team, has
reviewed the existing conditions and will employ their extensive experience in bridge and
roadway design and construction to develop a precast concrete system that is properly suited to
this unique location and designed to address the specific connection and installation issues.

Another repair element that will warrant interaction with, and acceptance by both the DEP and
the HPO is the lighting. Selection of a replacement system must be aesthetically consistent with
the historic facility, but must also take into account proposed future improvements to the
remaining slips as part of a separate project. While the North Ferry Dock will require nine (9)
single fixture poles plus five (5) double fixture poles, the future work will be addressing more
than seventy (70) poles.

As noted earlier, the Civil Dynamics Team also includes Eastern Consultants, Inc., who have
already observed the on-site conditions of the lights and wiring runs. They have also researched
the history of the existing fixtures and determined that the fixtures are no longer in production.
Based on the field observations and product research already completed, we are prepared to
provide lighting solution options for the consideration of the DEP and the HPO that will serve
the current need at the North Ferry Dock, with a proper consideration for the future work on the
remainder of the Terminal Building dock area. The options presented for consideration will be
both structurally and aesthetically suited, energy efficient and will meet the "instant restart"
requirements included in the Scope. A key issue for the selection of the fixtures will be wind
loading as noted in the Scope of Work. The existing fixtures are heavy with a large cross
sectional area, making them susceptible to wind damage.

**Summary Report Task:** The results of the Schematic Phase work will be summarized in a
report for submittal and review by both the DEP and the HPO. As noted above, the key goal of
this report will be to provide sufficient data and options to support a quick selection of preferred
alternates for key repair items such as the concourse surface, railing, and lighting system.
The input received in response to this report will provide the basis for moving ahead with the Final Design Phase effort.

**FINAL DESIGN PHASE**

Once the Schematic Design Phase work is accepted, the Final Design Phase can proceed quickly and efficiently. Having determined the preferred design alternatives for the concourse surface, railings and lighting, the focus of the Final Design Phase effort will be on the final preparation of design drawings and technical specifications for all elements of the proposed repairs. This will be done in a manner which considers and addresses permitting requirements as well as key Construction Phase issues, such as site access and construction staging areas.

Communication with the DEP and the HPO is no less important during this Final Design Phase than during the earlier Schematic Design Phase. Making sure that all parties are aware of the visible details of the proposed construction will minimize the possibility for misunderstandings and un-met expectations during the Construction Phase, which would result in undesirable and unnecessary delays in the completion of this critical project.

**PERMIT APPLICATION PHASE**

DPMC Plan and UCC Code Review approval will be the primary “permitting” to be obtained. As noted throughout our approach; however, interaction with the NJDEP Historic Preservation Office for their input and acceptance of repair design options will be an ongoing element of the design process.

Based on communication with the NJDEP, there should be no NJDEP permits required for these repairs to an existing structure.

**BIDDING AND AWARD PHASE**

Civil Dynamics will provide bidding assistance during this phase of this project in accordance with the Scope of Work. This will include involvement in the pre-bid meeting, as well as an evaluation of the bids presented. We have conducted such work to the satisfaction of the DPMC many times in the recent years.

**CONSTRUCTION PHASE**

The Civil Dynamics Team will provide construction site administrative services during this phase of the project in accordance with the Scope of Work.

Our approach to providing construction administration services is to provide the DPMC and Client Agency with cost-effective and task-specific services. To accomplish this, we utilize personnel who are experienced in both design and construction. The same personnel who will be involved with the field investigation and design phases will also be involved during the Construction Phase.

Our on-site observation will be scheduled to suit the specific construction work in progress at any given time. For example, as noted above, the presence of Civil Dynamics personnel will be
critical as the subsidence area is being worked on, in order to both confirm the existing conditions, and to develop a design solution. On-site observation of the concrete substructure replacement will require the presence of representatives from Churchill, and representatives from Eastern Consultants will be on-site for critical elements of the work on the lighting and wiring repairs.

Our Civil Dynamics Construction Inspector will also participate in the initial field investigation and site survey, and will provide support to the design team during the Schematic and Final Design Phases. Similarly, our inspector will then be assisted during the Construction Phase by the Design Engineer, who will have been responsible for the development of the layout and critical construction details during the Design Phase of this project. These same individuals are also prepared to review shop drawing submittals and make appropriate revisions in the field, if and when conditions warrant. This arrangement has proven valuable in the past, as we have provided similar services for other projects which have been successfully completed.

The level of effort required for field observation will vary with the particular construction activities which are occurring. Specifically, there are certain critical construction activities which require full-time inspection and other tasks which can be monitored on a part-time basis.

**SCHEDULE**

Civil Dynamics is prepared to immediately begin work on this project. As stated earlier, completion of the Schematic Design Phase is critical to the success of this project and will require that the development, evaluation and selection of preferred design alternatives for the key repair elements be accomplished very quickly. Therefore, we will provide the DEP with a Schematic Design Phase Report within two (2) weeks.

To keep the schedule moving at an accelerated pace, we will be in regular communication with the HPO from the start of the project through the selection of alternatives.

Once the DEP and the HPO have reviewed the options presented, decisions can be made with regard to the preferred design alternates and the Final Design Phase effort can move ahead. We will continue to push the schedule and complete the Final Design Phase documents within two (2) weeks of the receipt of comments on and/or approval of the Schematic Design Phase Report.

Our approach will significantly reduce the durations specified in the DPMC Scope of Work for both the Schematic Design Phase and the Final Design Phase efforts. However, there will be other factors that can impact the schedule, such as Code Review, Bid Phase scheduling and the delivery time for the selected products. The Civil Dynamics Team will be proactive during the various work phases to reduce the potential for these other factors to slow the schedule. We believe that we have been successful with such an approach on other time sensitive projects for the DPMC.

The estimated construction phase duration of four months appears more than adequate. With careful scheduling and coordination of the varied repair elements, we believe this time frame can also be reduced.
PROFESSIONAL SERVICES FEE PROPOSAL
DIVISION OF PROPERTY MANAGEMENT & CONSTRUCTION

THIS FEE PROPOSAL TO BE RETURNED
IN A SEPARATELY SEALED ENVELOPE TO:

Division of Property Management & Construction
33 WEST STATE ST 9TH FLOOR, PLAN ROOM
P.O. Box 034
Trenton, NJ 08625-0034
Attention: CATHERINE DOUGLASS

DATE: May 21, 2013
PROJECT NO.: P1098-00

THIS PROPOSAL DUE DATE, NO LATER THAN 2:00 PM, TUESDAY, MAY 21, 2013

FIRM NAME CIVIL DYNAMICS, INC.

THE UNDERSIGNED PROPOSES TO PROVIDE ALL PROFESSIONAL SERVICES AS STATED IN THE REQUEST FOR PROPOSAL AND SCOPE OF WORK

CONSULTANT DESIGN $40,010.00
SUB CONSULTANT DESIGN $22,900.00
CONSULTANT CONSTRUCTION ADMINISTRATION $32,680.00
SUB-CONSULTANT CONSTRUCTION ADMINISTRATION $8,040.00
TOTAL LUMP SUM FEE FOR PROFESSIONAL SERVICES $103,630.00
PERMIT FEE ALLOWANCE $0.00
ALLOWANCE FOR WORK SPECIFIED BY THE DPMC $0.00
ALLOWANCE FOR WORK SPECIFIED BY CONSULTANT $0.00

TOTAL CONTRACT AMOUNT $103,630.00

FOR 60 DAYS AFTER THE DUE DATE.

Signature and Title of Principle or Individual of the firm authorized to sign contractual documents:
Signature of the consultant below attests that the Consultant has read, understands and agrees to all terms, conditions and specifications set forth in the Request for Proposal (RFP) and Consultant Proposal Package.

Signature: [Signature] Print Name: Christopher S. Adams
Title: President Date: 5/20/2013
Witness Signature: [Signature] Print Name: Victor J. Maglio

ATTACH PROOF OF REQUIRED INSURANCE COVERAGE
See attached requirements per "General Conditions to Consultant Agreement" Section 27, pp. 18-19

PROFESSIONAL LIABILITY INSURANCE
($100,000 MIN LIMIT/$25,000 MAX DEDUCTIBLE)
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## SUB-CONSULTANT TASK/LABOR/FEE SHEET

### A/E: Civil Dynamics, Inc.

**Project # P1098-00**

**Project Name: North Dock Ferry Repair**

**Project Location: Liberty State Park, Hudson County, NJ**

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**TOTAL**

* PROVIDE FIRM NAME(S) AT TOP OF COLUMN(S). MAKE COPY OF THIS SHEET IF MORE SPACE IS NEEDED.

PLEASE ATTACH PROOF OF SUBCONSULTANT PREQUALIFICATION (48A) WITH DPMC