

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) ID/IQ A/E SERVICES THROUGHOUT NORTH ATLANTIC DIVISION W912DR-09-R-0011; W912DR-06-R-0038; DACA 31-02-D0018 (3 contracts)		22. YEAR COMPLETED PROFESSIONAL SERVICES 2003-current CONSTRUCTION (If applicable)	
23. PROJECT OWNER'S INFORMATION			
a. PROJECT OWNER US ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT	b. POINT OF CONTACT NAME Mr. Sean Dawson Mr. Nathan Barcomb	c. POINT OF CONTACT TELEPHONE NUMBER (410) 962-6156 (410) 436-4007	
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost) Under ID/IQ task order agreement, various projects included engineering studies, evaluation, analysis, design, construction documents, specification using SPECSINTACT and cost estimate using MCACAE MII. Various survey task included establishment of survey controls with High Order Accuracy from NGS controls, topographic survey, GPS, stream cross sections, hydrographic survey for tidal basins and water bodies, wetland location survey, utility survey and mapping and preparation of base maps in accordance with the USACE standards. Sample assignment include, but not limited to: <u>CAMERON RUN SEDIMENT TRANSPORT MODELING STUDY, ALEXANDRIA, VA-</u> a sediment modeling study was performed to determine the amount of sediment being transported and did a recommendation of potential locations and sizes of a dredging envelope for accumulating the sediment for future dredging efforts. The existing HEC-RAS model was also analyzed to access bed shear-stress and to predict when near-bed incipient motion thresholds are exceeded. <u>CAMERON RUN 35% STREAM RESTORATION DESIGN, ALEXANDRIA, VA</u> –design plans for the Lower Watershed of Cameron Run, beginning at the CSX Bridge to the Potomac River. Geomorphological data was collected to perform a Rosgen Level I and II classification of the reach and prepare the Stream restoration design plans. <u>COWANESQUE DAM SPILLWAY REPAIRS, PA:</u> Structural inspections, field testing and assessments of spillway concrete panels, side slope walls to improve drainage and rock fall protection design for overburden. <u>SLOPE PROTECTION AT CALVERT CLIFF NAVAL RESEARCH LABORATORY:</u> This was a semi-emergency and upon request from US Army Corps of Engineers (USACE), we performed Phase I site inspections and prepared feasibility study report with recommendations and detailed design for phase 2 remediation. Phase II investigations included structural inspections of existing soldier pile retaining wall, extensive geotechnical investigations for slope stability analysis, surface drainage analysis, preliminary design for various alternatives and cost estimate. <u>VARIOUS BRIDGE INSPECTIONS, PA & MD:</u> Visual and underwater inspections were performed on eight (8) separate bridges at five different dam facilities located in Pennsylvania and Maryland which are owned or operated by the USACE using CEBIS. <u>BISHOPVILLE POND ECOSYSTEM TECHNICAL REVIEW, BISHOPVILLE, MD</u> – Performed an initial technical review of previously submitted design plans submitted to the Corp of Engineers for comments. Meetings with the designer and other stakeholders was held to discuss the submitted design plans and recommendations were given at the meeting on revisions that would be necessary in order to ensure a quality set of design plans. <u>FOUR MILE RUN, ALEXANDRIA, VA</u> –HEC-RAS analysis to determine the amount of proposed dredged material and any potential environmental improvements that could be designed. <u>REMOTE TRUCK INSPECTION FACILITY, FORT DETRICK, MD:</u> surveys and utility designation were required for a proposed expansion of the Truck Inspection Facility for the contractor's entrance to Fort Detrick. <u>POPLAR ISLAND, MD</u> - Survey for the 1,200 acres of island located in theCheseapeake Bay created from dredging materials of Baltimore Inner Harbor. <u>WICOMICO RIVER CHANNEL MAPPING, SALISBURY, MD</u> –Survey and mapping of Wicomico River beginning at the US 50 Bridge to the mouth of the Monie Island point, totaling approximately 20.5 miles to determine the shipping alignments and areas of encroachment into the shipping channel by permitted as well as non-permitted docks and piers.			
25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
a.	(1) FIRM NAME AB Consultants, Inc.	(2) FIRM LOCATION (City and State) Lanham, Maryland	(3) ROLE Multi-Disciplinary Engineering / Surveying Services
b.	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE

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

20. EXAMPLE PROJECT KEY NUMBER:

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

Cameron Run Stream Restoration Feasibility Study
City of Alexandria and Fairfax County, Virginia

22. YEAR COMPLETED

PROFESSIONAL SERVICES
2013

CONSTRUCTION (*If applicable*)
N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

USACE, Baltimore District

b. POINT OF CONTACT NAME

Mr. Sean Dawson

c. POINT OF CONTACT TELEPHONE NUMBER

410-962-6156

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

AB Consultants, Inc. was the prime contractor for this Task Order with responsibility for all work performed. AB established new project survey control and performed surveying of eleven cross sections along Cameron Run located in Alexandria, Virginia, beginning at the confluence of the Backlick Creek and Holmes Run and terminating at the Potomac River. AB performed new aerial mapping for the project limits beginning at the I-95 Springfield Interchange and terminating at the Potomac River, totaling approximately 9 miles of mapping at a corridor width of two hundred feet each side of the bank. Along with its subconsultants, AB provided stream restoration designs on Lower Cameron Run Watershed. Geomorphological data was collected to perform a Rosgen Level I and II classification of the 4 separate reaches and prepare the stream restoration design plans. AB and its subconsultants reviewed and updated existing conditions hydrologic (HEC-HMS) and hydraulic (HEC-RAS) models for use for the 1-, 2-, 10-, 50-, 100-, and 500-year water surface elevations. For proposed stream restoration conditions, a HEC-RAS model was developed that showed the 100-year flood elevation will not increase by more than 0.1 feet anywhere, and take into consideration a future USACE levee project in the Huntington area downstream. Additional tidal wetland creation was also evaluated.

Relevancy:

- Topographical and Stream Surveys
- Aerial Mapping
- Ecosystem/Stream Restoration
- Flood Damage Reduction Projects
- Hydrologic/Hydraulic Numerical Modeling
- Wetlands
- Soil Surveys
- Subsurface Exploration/Utility Surveys

Additionally, a sediment modeling study was performed with the assistance of our subconsultant to determine the amount of sediment being transported and did a recommendation of potential locations and sizes of a dredging envelope for accumulating the sediment for future dredging efforts. The existing HEC-RAS model was also analyzed to access bed shear-stress and to predict when near-bed incipient motion thresholds are exceeded.

The position of cross-streams with a 1-foot or greater vertical drop that likely constitute fish blockages were identified. Wetland boundaries of vegetated wetlands, plant form (grass, shrub, tree [>3 " diameter]), and unvegetated above-water sediment deposits within the trapezoidal stream channel for subsequent base map interpretation were identified and surveyed.

Thirty five percent (35%) design plans were prepared for the stream restoration project beginning at the CSX Bridge to the Potomac River using AutoCAD 2009 Civil 3D and follow Tri-Service CAD standards to feasibility-level stream restoration design stage. The 35% design plans included fish passage, wetland creation and enhancement, stream bank stabilization, and construction access / staging areas. Jay hooks, step pools and weirs were included. Construction quantities were developed and an engineering construction cost estimate in a format compatible with MCASESII was prepared. An Engineering Report and Engineering Appendices were prepared.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE:
a.	AB Consultants, Inc.	Lanham, MD	Prime Contractor
b.	Michael Baker, Jr. Inc.	Alexandria, VA	Subcontractor- Hydrologic/Hydraulic Modeling, 10% Stream Restoration Design



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Contacts: Mr. Amrish Patel, PE, President Mr. Kirk McClelland, PE, Senior VP Mr. Michael Morse, FE/EIT, Marketing	amrish.patel@abconsultantsinc.com kirk.mcclelland@abconsultantsinc.com michael.morse@abconsultantsinc.com

The below is a representative list of projects, which include, but may not be necessarily limited to water resources services performed by AB Consultants, Inc.:

Project Name: Brandywine Road Temple
Project Owner: Mr. Thakorlal Mistry
Services Performed: Surveying / Engineering
Scope of Work: AB provided surveying and complete site engineering services, including roads, SWM Concept, Preliminary SWM, Final SWM, SD, ESC, W&S, natural resources permitting, landscaping, entrance, and overall permitting.

Project Name: Alabama Avenue Sub Station - Shunt Reactor
Project Owner: PEPCO Holdings, Inc.
Services Performed: Engineering Services which included: Site Plan, Site Drainage, Storm Water Management Concept and Design, Landscape Design, Erosion and Sediment Controls.
Scope of Work: AB Consultants, Inc. provided site civil engineering for PEPCO's Alabama Avenue electrical substation and shunt reactor site. The services included site demolition and restoration plans, vehicular access/roadway plans, drainage plans, stormwater management design, landscape design, erosion and sediment control design, preparing construction specifications as well as obtaining the related permits and approvals.

Project Name: Bridge 180 Repairs at Naval Medical Center
Project Owner: NAVFAC, Pub Works Dept- N. Potomac/FEAD
Services Performed: Environmental, Surveying, Construction Management
Scope of Work: This construction project was necessary to address stream scour occurring at the foundation of an existing bridge. AB Consultants performed construction stakeout, utility coordination and locating, and acquired permits through MDE (sediment control, wetlands, waterways, NPDES).

Project Name: Cross County Connector: Phase 5, 6 & 7
Project Owner: Charles County Government CIP
Services Performed: Provide multi-disciplinary engineering, surveying and heavy highway construction for several major arterial roadways
Scope of Work: AB provided multi-disciplinary engineering and surveying services for a major arterial roadway, Cross County Connector, approximately 7.2 miles long (Phases 5, 6 & 7) in Charles County from Middletown Road to MD 210 through urban and suburban settings. This linear highway project was designed in three phases, however for MDE and USACE permitting, the three phases required permitting through those environmental agencies as one project, due to impacts to wetlands, Waters of the US, and floodplains. Engineering services included highways, structural, environmental, geotechnical, stormwater management, landscape architectural, utilities, surveying, public presentations, permitting, value engineering, construction documents and cost estimate. Estimated construction cost is \$50 Million.



Project Name: Darby Store: Phase 2
Project Owner: MNCPPC, Montgomery County
Services Performed: Engineering / Surveying / Geotechnical Investigations
Scope of Work: AB provided site civil engineering services the relocation and rehabilitation of Darby Store, a project established by The Cultural Resources Stewardship Section of Montgomery County Department of Parks. AB performed/prepared: surveying; geotechnical services to evaluate site for stormwater management facilities, and make design and construction recommendations; stormwater management concept and obtained approval; sediment and erosion control design, and acquired approval; site and grading plan, design of parking lot and on-site utilities, and acquired approvals; final SWM design and surface drainage plan and acquired approvals; landscaping; and obtained SHA access permit.

Project Name: DOE Germantown Solar
Project Owner: Department of Energy, c/o Min Engineering, Inc
Services Performed: Surveying / Engineering
Scope of Work: AB provided geotechnical, surveying and engineering services for the PV Solar Panel Installation at Department of Energy Campus. Not only was it necessary to provide geotechnical services for the support of these solar arrays, but also AB had to address stormwater management as part of their site civil design work.

Project Name: Gore Mill Road
Project Owner: MDSHA
Services Performed: Engineering Services
Scope of Work: The AB Consultant was responsible for Quality Control Reviews, Engineer Estimates, H&H Reports, SWM Design, E&S, addressing project comments and revisions.

Project Name: Hyattsville Elementary School
Project Owner: Prince George's County Public Schools
Services Performed: Civil / Geotechnical Engineering
Scope of Work: For this project, AB Consultants performed topographic surveys, existing features and infrastructure surveys, property survey and plat services, structural evaluations, foundation evaluations, soil boring and material sampling and testing, and site civil design. Site civil design included such elements as site planning, site geometrics, stormwater management concept and design, landscape design, and structural engineering. Additional services included construction administration and site construction permitting. Green Enhancement Initiatives were incorporated into this project.

Project Name: Marlboro Pike, Parcel 7
Project Owner: Mr. Jay Adams
Services Performed: Storm Drain, Water Management, & Stormwater Quality, Transportation, Flood Plain Studies, Soils Information, Concept Plan
Scope of Work: AB Consultants, Inc provided feasibility concept engineering services including evaluation of soils, environmental, zoning, SWM, SD, and transportation. Prepared SWM Concept.

Project Name: Middletown Road and Billingsley Road Roundabout
Project Owner: Charles County Government
Services Performed: Roadway Design, Civil Engineering
Scope of Work: The projects consisted of the design of a closed section urban double lane roundabout at the intersection of Middletown Road and Billingsley Road. The existing roadway conditions consisted of a 3-way stop with left turn and right turn movements. AB engineered and permitted improvements for an urban double lane roundabout to meet FHWA, State, and County standards.



Project Name: NPDES Phase II GIS Development in Washington County
SHA Statewide Contract BCS 2005-06E
Project Owner: Maryland State Highway Administration
Services Performed: Populating SWM NPDES GIS Geodatabase
Scope of Work: The NPDES Municipal Separate Storm Sewer System (MS4) Phase II general permit required Maryland State Highway Administration (SHA) to identify all infrastructure that capture, treat and convey stormwater runoff from SHA facilities such as roadways, shops, district offices, welcome centers and park and rides including hydraulic structures and stormwater management facilities. The project included development of GIS for Best Management Practices located within Maryland SHA right-of-way in Washington County, Maryland.

Project Name: Potomac Park Levee
Project Owner: USACE
Services Performed: Hydraulic Modeling; Risk and Uncertainty Analysis
Scope of Work: Reviewed, analyzed and provided comment on the existing hydraulic modeling and its associated data and to perform a Risk and Uncertainty analysis for Potomac Park Levee.

Project Name: Prince George's Community College's Center for Health Studies
Project Owner: Prince George's Community College
Services Performed: Surveying, Geotechnical Investigations, Civil Engineering Design, Landscape Architecture, Permitting, Construction Support Services
Scope of Work: The project included construction of a 100,000 GSF new facility called "Center for Health Studies (CHS)" at Prince George's Community College at Largo, Maryland. The building was to achieve LEED Silver certification and site to be designed with Sustainable Sites (SS) principles.

Project Name: Tanglewood Stormwater Management Retrofit & Stream Stabilization
Project Owner: Charles County Government Capital Services
Services Performed: Project Management, Survey, Stream Assessment, Stabilization & Engineering, Landscape.
Scope of Work: AB Consultants, Inc provided engineering, environmental, landscape architectural and surveying services to complete the design of the Tanglewood stormwater management (SWM) retrofit and Stream Stabilization. The Tanglewood SWM retrofit and Stream Stabilization included stabilization of an existing downcut and degraded unnamed perennial stream which flows to Mattawoman Creek. Acquired permits through County, MDE (wetlands & NPDES & USACE)

Project Name: The Commons at Addison Road
Project Owner: Dawn Limited Partnership
Services Performed: Engineering
Scope of Work: AB Consultants, Inc. provided engineering services including stormwater management concept and design and storm drainage design and permitting for The Commons at Addison Road, in Prince George's County, Maryland.