ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(if any)*:

PART II – GENERAL QUALIFICATIONS

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

2a. FIRM (OR BRANCH OFFICE) NAME: LIBERTY ENGINEERING, PC	3. YEAR ESTABLISHED: 1995
	4. DUNS NUMBER: 94-131-7844
2b. STREET: 4521 E Honeygrove Rd. Suite 108	5. OWNERSHIP
	a. TYPE: Corporation
2c. CITY: Virginia Beach / 2d. STATE: VA / 2e. ZIP CODE: 23455-6008	b. SMALL BUSINESS STATUS: Yes Veteran Owned
6a. POINT OF CONTACT NAME AND TITLE: Jan M. Harris, PE, President	7. NAME OF FIRM *(if block 2a is branch office)*
6b. TELEPHONE NUMBER: (757) 499-2791 / 6c. E-MAIL ADDRESS: jan@libertyeng.net	

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
NA		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	1	1
08	CADD Technician	2	2
57	Structural Engineer	3	3
	Total	6	6

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

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
B02	Bridges	1
C06	Churches, Chapels	1
C10	Commercial Buildings (low rise)	1
C12	Communications Systems; TV Microwave	1
D07	Dining Halls; Clubs, Restaurants	1
F02	Field Houses; Gyms Stadiums	1
F05	Forensic Engineering	1
G01	Garages; Vehicle Maintenance Facilities; Parking Decks	1
H01	Harbors; Jetties; Piers, Ship Terminal Facilities	1
I01	Industrial Buildings; Manufacturing Plants	1
L06	Lighting (Exteriors; Streets, Airfield Athletic Fields)	1
O01	Office Parks, Industrial Parks	1
R04	Recreation Facilities (Parks, Marinas, etc.)	1
S03	Seismic Designs and Studies	1
S04	Sewage Collection, Treatment and Disposal	1
S05	Soils & Geologic Studies, Foundations	1
S09	Structural Design; Special Structures	1
S13	Storm Water Handling & Facilities	1
T05	Towers (Self Supporting & Guyed Systems)	1
W01	Warehouses & Depots	1
W03	Water Supply Treatment & Distribution	1
W04	Wind Tunnels; Research/Testing Facility Design	1

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

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	2
c. Total Work	3

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

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

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Jan M. Harris

b. DATE: July 12, 2010

c. NAME AND TITLE: Jan M. Harris, PE, President

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jan M. Harris, PE	Structural Engineer	32	14

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

Liberty Engineering, PC Virginia Beach, Virginia

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

Master of Engineering, 1993, Old Dominion University, Norfolk, Virginia, Structural Engineering Emphasis

Bachelor of Science, 1978, School of Civil and Environmental Engineering, Cornell University, Ithaca, New York

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

Professional Engineer: VA, NC, WV, MD, PA, NY, DE, CO
Board Certified by the Structural Engineering Certification Board: #1704

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

Mr. Harris has a diverse background in construction and design. Prior to self-employment at Liberty Engineering, he worked in both small and large consulting engineering firms and served as a commissioned officer in the US Army Corps of Engineers. He has successfully designed or managed over 250 federal design projects. He has participated in over 60 Indefinite Quantity Contracts including Structural, Civil/Structural, Mechanical/Electrical and Architectural. He has completed several federal design projects using metric units. ASCE Fellow, NSPE Member, AISC Member, ECHR President (1996)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: CEC Coal Unloading Project

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2006 — CONSTRUCTION *(if applicable)*: 2007

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

Project manager and structural engineer for construction of a 360 foot trestle and 360 ft by 50ft coal pier for unloading 55,000 MT colliers. The pier will support a conveyor system and two 100 ton traveling hoppers when complete. Seven mooring or berthing dolphins are provided for mooring and wharfing ships up to 600 feet in length. Liberty Engineering provided IBC Special Inspections for this project. Construction cost of $10,000,000.

b.

(1) TITLE AND LOCATION *(City and State)*: Marina Renovations and Expansions; Fort Monroe, Hampton, VA and Naval Station Norfolk

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2002 — CONSTRUCTION *(if applicable)*: 2004

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

Prime Design Professional for two NAF marina improvements design-build contracts. Naval Station contract added 24 slips on precast concrete floating dock system at a cost of $625,000. Fort Monroe contract included 144 slips on timber floating piers, 750 feet of timber pile wave screen, bathhouse parking lot and major power, water and sewage utility improvements at a cost in excess of $3,000,000. ADA compliance at Fort Monroe included a timber ramps and a custom gangway serving one of the floating docks

c.

(1) TITLE AND LOCATION *(City and State)*: BT-11 Fuel Facility Improvements, Piney Island MCAS Cherry Point, NC

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(if applicable)*: 2006

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

Structural engineer for reinforcement of bulkhead, pier repair and new tank foundations for remote fueling station. Cantilever bulkhead had originally been installed as an emergency measure to protect fuel facility and was failing. Helical pile tie backs were designed to stabilize wall. Site is subject to flooding and new tank foundations included helical piles to offset flotation of empty tanks during flood events.

d.

(1) TITLE AND LOCATION *(City and State)*: Little Island Pier Improvements Virginia Beach, VA

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

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

Prime Design Professional for City CIP project to extend existing fishing pier to the dune line. Design features including regarding through the dune line, curving sidewalk approach, pile supported, timber framed walkways and ramps leading to the beach and to the existing fishing pier, wood railings, fish cleaning station, site lighting, water service. Several features supporting compliance with the Americans with Disabilities Act (ADA) were incorporated into the work including appropriate ramp slopes, courtesy landing beach observations from wheelchairs, accessible fishing areas and accessible fish cleaning station. Construction cost of $360,000

e.

(1) TITLE AND LOCATION *(City and State)*: Dredge Transfer Station Bulkhead at Crab Creek Virginia Beach, VA

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

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

Structural consultant for design of a tied-back steel bulkhead, approximately 200 feet long. A crane will unload dredged material from barges and transfer it to trucks at this facility. Construction cost of $400,000

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Garold L. Moore, PE	Structural Engineer	27	6

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

Liberty Engineering, PC Virginia Beach, VA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

Graduate Studies, 1987-1989 Old Dominion University, Norfolk, Virginia, Structural Engineering, Port Design
Bachelor of Science, 1983, Civil Engineering, Old Dominion University, Norfolk, Virginia

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

Professional Engineer: VA, NC

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

Mr. Moore is experienced in the design of steel, concrete, masonry and timber structures. He has worked for federal, industrial, state, municipal and private clients on a wide variety of new construction, renovation and repair projects. He has participated in Indefinite Quantity Design Contracts including Structural, Civil/Structural, and Civil. He has completed design projects using metric units and is familiar with federal design standards. AISC Member, ASCE member.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Norfolk Dredging Bulkhead

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

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

Structural engineering services for the design of approximately 800 linear feet of steel bulkhead. Anchor rods, tiebacks, deadman, mooring points for barges provided along the length of the project.

b.

(1) TITLE AND LOCATION *(City and State)*: Pier F Replacement, Naval Base Norfolk

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

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

Project manager and structural engineer for a design-build project to replace a dilapidated timber pier's deck in its entirety. Based on an underwater survey, selected pier pilings were also replaced. Several fender systems were investigates and two alternate designs were provided for consideration. Approximate pier size is 400 feet by 28 feet with provisions for berthing six tug boats. Performed calculations for tug berthing and mooring studies as required to complete the project

c.

(1) TITLE AND LOCATION *(City and State)*: Little Island Pier Improvements, Virginia Beach, VA

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2005 — CONSTRUCTION *(if applicable)*: 2006

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

Structural engineer for design of extenson of fishing pier from water line to dune line. The entire facility was made wheelchair accessible including replacement of railings along the fishing stations. Site lighting, power distrbutiion were included in this project..

d.

(1) TITLE AND LOCATION *(City and State)*: Haven Creek Boat Ramp, Norfolk, VA

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

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

Project structural engineer for a replacement boat ramp. Project includes boat ramp capable of being constructed without dewatering or cofferdams at the site, bulkheads, timber-framed pedestrian walkways and courtesy piers, floating canoe/kayak launching pier with aluminum gangway. Ramps and gangways designed for compliance with Americans with Disabilities Act (ADA). Construction Cost $1,500,000

e.

(1) TITLE AND LOCATION *(City and State)*: Vacuum Sewage Pumping Station, Langley AFB, VA

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2005 — CONSTRUCTION *(if applicable)*: Ongoing

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

Structural engineer for design of 3000 square foot vacuum type sewage lift station serving family housing area. Project includes, elevated loading dock, finish floor elevated above 100 year flood elevation and below grade, deep well vacuum tank room Cast in place concrete foundations, masonry walls with brick veneer and precast concrete elements were incorporated into the design.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Benjamin J. Curtis, EIT	Intern Engineer	4	4

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

Liberty Engineering, PC Virginia Beach, VA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science, 2005, Civil Engineering, Old Dominion University, Norfolk, Virginia	Engineer in Training, VA

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

Mr. Curtis is a young engineer with an excellent work ethic. Liberty Engineering is pleased to have this 2006 addition to our staff.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: CEC Coal Unloading Project

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2006 — CONSTRUCTION *(if applicable)*: 2007

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

Structural engineering design of beam and slab components. Provided construction phase inspections of the work.

b.

(1) TITLE AND LOCATION *(City and State)*: Pier F Repairs, Naval Base Norfolk

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

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

Project structural engineer for a design-build project to replace a dilapidated timber pier's deck in its entirety. Based on an underwater survey, selected pier pilings were also replaced. Several fender systems were investigates and two alternate designs were provided for consideration. Approximate pier size is 400 feet by 28 feet with provisions for berthing six tug boats. Performed calculations for tug berthing and mooring studies as required to complete the project

c.

(1) TITLE AND LOCATION *(City and State)*: Hawk Towert, Kiptopeke State Park

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

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

Structural engineer for design of a wood framed tower for hawk spotting and other research.

d.

(1) TITLE AND LOCATION *(City and State)*: Pier 86, 1 Intrepid Square, New York New York

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

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

Performed engineering calculations, designed lifting arrangements for precast concrete components Prepared shop drawings for precast concrete components of a

e.

(1) TITLE AND LOCATION *(City and State)*: Dredge Transfer Station Bulkhead at Crab Creek, Virginia Beach, VA

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

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

Structural consultant for design of a tied-back steel bulkhead, approximately 200 feet long. A crane will unload dredged material from barges and transfer it to trucks at this facility. Construction cost of $400,000

Block H :

Liberty Engineering is a professional corporation licensed in accordance with the laws of the Commonwealth of Virginia to provide professional engineering and architectural services. Jan M. Harris, PE founded the firm in 1995 to provide structural engineering design services. Mr. Harris has over 30 years of experience in design and construction. Liberty Engineering can assign up to three design professionals and three technicians to our design projects. We are specialists in the design and evaluation of structural systems for foundations, buildings, bridges and public or industrial infrastructure made of wood, steel, aluminum, masonry and concrete

Liberty Engineering serves a diverse clientele including private and government facility owners, architects, consulting engineers, general contractors and specialty contractors. Our specialty contractor clients include communications equipment suppliers, structural steel fabricators, manufacturers of canopies and awnings, glazing contractors, light gage cold-rolled steel installation contractors and masons. We take pride in our ability to successfully work with clients from the entire breadth of the facilities design, management and construction industries.

Liberty Engineering maintains a modern, fully equipped office in the heart of Virginia Beach. State of the art computer, fax, printing and telephone systems allow for efficient, high quality service. Liberty Engineering is available on the internet. Visit our website: www.LibertyEng.net. In addition to word processing, spreadsheet and accounting software, we have software for computer aided design and drafting. The firm has the latest releases of IES Visual Analysis and AutoCAD 2010. Visual Analysis is a structural analysis program. AutoCAD is a popular computer aided drawing program. The REVIT STRUCTURAL software, paired with AutoCAD for Building Information Modeling is a new addition to our toolbox. Liberty Engineering is a member of the Hampton Roads Chamber of Commerce and the Builders and Contractors Exchange. The firm has certificates of authority to perform engineering work in Virginia, North Carolina, West Virginia, Delaware, Colorado and New York.

Our staff is committed to continual improvement of our services. We remain abreast of current issues in engineering by actively participating in continuing education efforts, local and national professional societies, by corresponding with design and construction professionals worldwide via internet interest groups sponsored by engineering societies and private individuals, and by pursuing appropriate professional development opportunities.

AWARDS And Quality Of Past Performance On Similar Projects:

Liberty Engineering received numerous high marks for its work on the Fort Monroe Marina. The Design-Build Team earned an “Above Average Performance Rating” from the Norfolk District Corps of Engineers. The design team contributed by garnering “Outstanding” ratings for the performance elements: Cooperation and Responsiveness; As-Builts; “Above Average” ratings were received for elements related to Quality of Design, Submittals, Management, Coordination, Professional Conduct, and Timely Performance. No elements of the evaluation were rated as less than “Satisfactory”.

The Virginia Beach Planning Commission cited the Lynnhaven Boat Ramp project as the outstanding municipal project of 2003. The project also was cited by the Virginian Pilot as runner-up municipal improvement in their annual “Best of the Beach” Awards.

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 on Section F for each project	20. EXAMPLE PROJECT KEY NUMBER X

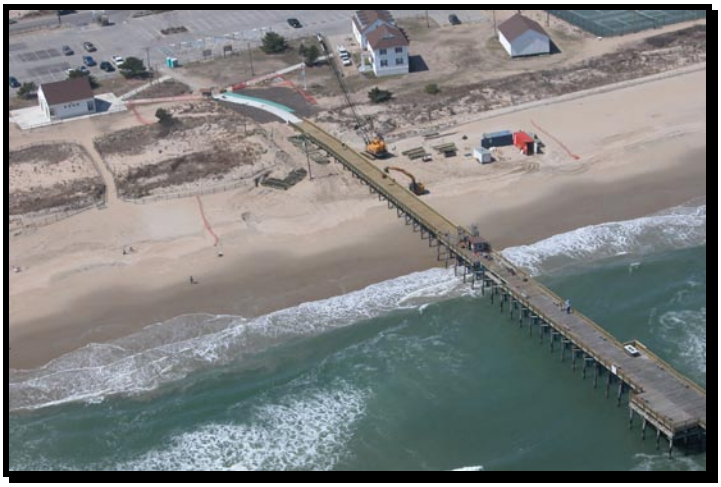
Little Island Fishing Pier Improvements	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
	2005	2006

23. PROJECT OWNERS INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Virginia Beach, VA	Phil Roehrs, PE Public Works, Beach Management	(757) 385-4167

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

Structural Design and project management for a landward extension of an ocenfront fishing pier. Work included replacement of site lighting, water line, providing sidewalk and site grading and a beach access and dune walkover. Accessiblity by wheelchair throughtout the facillity was an owner priority. Estimated cost (in thousands): Entire Project: 425 Work for which the firm was responsible: 425



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION	(3) ROLE
a.	Liberty Engineering, PC	Virginia Beach, VA	Lead Design Firm, Structural Engineer
b.	Waterway Survey & Engineering	Virginia Beach, VA	Surveying, Waterline Design
c.	GeoEnvironmental Resources, Inc	Virginia Beach, VA	Project Geotechnical Engineer
d.	Cherwa Ewing, PC	Virginia Beach, VA	Project Electrical Engineer

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 on Section F for each project	21. EXAMPLE PROJECT KEY NUMBER
	X

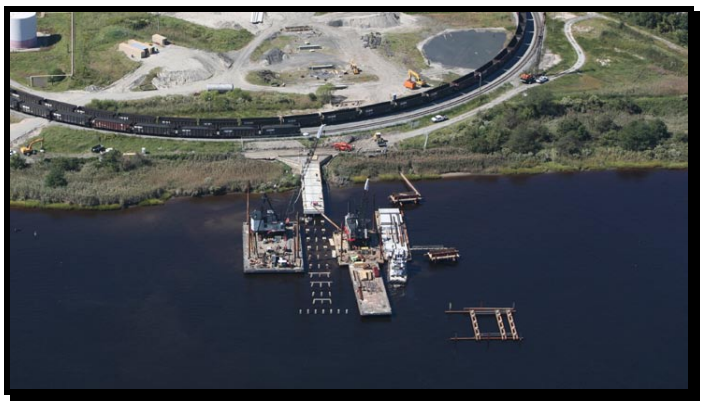
	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Chesapeake Energy Center Coal Unloading Project Pier and Trestle Design by Liberty Engineering, PC	2006	2007

23. PROJECT OWNERS INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Chesapeake Energy Center Dominion Power	Bob Jackson	(757) 485-6623

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

Structural Design construction of a 360 foot trestle and 360 ft by 50ft coal pier for unloading 55,000 MT colliers. The pier will support a conveyor system and two 100 ton traveling hoppers when complete. Seven mooring & berthing dolphins are provided for mooring and wharfing ships 600 feet in length.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION	(3) ROLE
a.	Liberty Engineering, PC	Virginia Beach, VA	Structural Engineer Marine Facilities
b.	GeoEnvironmental Resources, Inc	Virginia Beach, VA	Project Geotechnical Engineer

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 on Section F for each project	22. EXAMPLE PROJECT KEY NUMBER X

Pier F Repairs Norfolk Naval Base, Norfolk, VA	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES 2007	CONSTRUCTION *(if applicable)* 2008

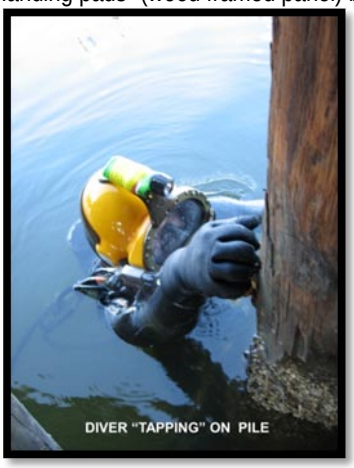
23. PROJECT OWNERS INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
PWD Norfolk, NAVFAC Mid-Atlantic	Jennifer Britt, EIT	(757) 444-1138 ext 3143

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

This project was awarded as a design-build contract to Pipeline Industrial Group. The facility is used primarily by contracted privae tug companies that are providing services to the Navy. Liberty Engineering provided design services to Pipeline's major subcontractor, Marine Contracting Corporation. Marine Contracting is a longtime Liberty Engineering client with whom we have completed over $25 million dollars worth of design build construction. Their project role in construction mirrored Liberty Engineering's design scope of work. This included: Removal and replacement of all wood framing for deck including pile caps, stringers, deck, curbs and fender system wales. An enhanced framing design for mooring cleats was provided in lieu of replacement in kind, which had been determined as inadequate. Based on the underwater survey by Seaward Marine, selected timber pilings are to be removed and new piles provided. Construction of a replacement fender system was not included in the construction portion of the contract but Liberty Engineering provided design of options for fender system replacements for selection by the Navy. Two fender systems were designed as additive alternates to the contract- a replacement of the traditional wood fender pile system and an improved fender system consisting of "tug landing pads" (wood framed panel) backed by rubber fender blocks anchored to the deck.

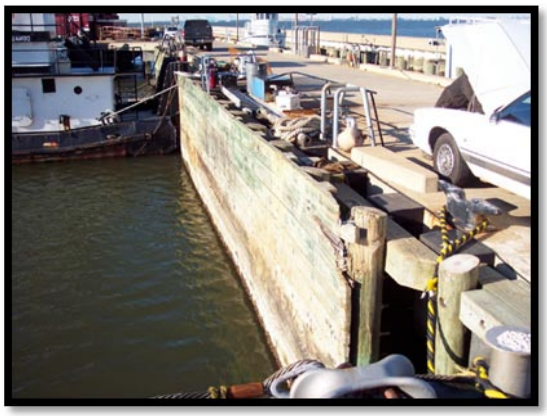
Existing Pier F, Deck



Diver

Deteriorated Pile

Detail of Tug Pad



Tug Pad Similar to Proposed for Pier F

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION	(3) ROLE
a.	Liberty Engineering, PC	Virginia Beach, VA	Lead Design Firm, Structural Engineer
b.	Waterway Survey & Engineering	Virginia Beach, VA	Toppgraphic Surveying,
c.	GeoEnvironmental Resources, Inc	Virginia Beach, VA	Project Geotechnical Engineer

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 on Section F for each project	23. EXAMPLE PROJECT KEY NUMBER
	X

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Lynnhaven Boat Ramp Virginia Beach, VA	2003	2004

23. PROJECT OWNERS INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Virginia Beach, VA	Phil Roehrs, PE Public Works, Beach Management	(757) 385-4167

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

Structural design of site work related improvements.
Prepared construction contract documents with a unit price bid schedule for:
Four-lane boat ramp of precast concrete planks on screed beams; with adjacent precast concrete sheet pile retaining walls.
Wood framed finger piers and docks supported on timber piles; Reinforced concrete retaining walls to protect adjacent highway, parking lots and new bathhouse.
Liberty Engineering provided coordination of landside site plan with channel dredging plans.
During design and review phases Liberty Engineering provided cost studies and other evaluations for the use of various fastener finishes and the use of plastic, fiberglass and recycled framing materials.
The Virginia Beach Planning Commission cited the Lynnhaven Boat Ramp project as the outstanding municipal project of 2003. The project also was cited by the Virginian Pilot as runner-up municipal improvement in their annual "Best of the Beach" Awards.

Estimated cost	(in thousands)
Entire Project	1,600
Work for which the firm was responsible	650

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION	(3) ROLE
a.	URS Corporation	Virginia Beach, VA	Lead Design Firm, Civil
b.	Liberty Engineering, PC	Virginia Beach, VA	Structural Engineer, Site
c.			
d.			
e.			