DOTD FORM: 24-102

PROPOSAL TO PROVIDE CONSULTANT SERVICES

(Revised January 1, 2023)

Prime consultant shall complete the DOTD Form 24-102 without altering the Form's text; however, the instruction and/or guidance for Sections 12 through 23 can be removed but do not remove Section title and number.

ANY CONSULTANT FAILING TO SUBMIT ANY OF THE INFORMATION REQUIRED ON THE DOTD FORM 24-102, OR PROVIDING INACCURATE INFORMATION ON THE DOTD FORM 24-102, MAY BE CONSIDERED NON-RESPONSIVE.

1.	Contract Name as shown in the advertisement	NEW FERRY BOAT – PLAQUEMINES STATEWIDE
2.	Contract Number(s) as shown in the advertisement	4400028122
3.	State Project Number(s), if shown in the advertisement	H.015425.5
4.	Prime consultant name (name must match as registered with the Louisiana Secretary of State where such registration is required by law)	ELLIOTT BAY DESIGN GROUP LLC
5.	Prime consultant license number (as registered with the Louisiana Professional Engineering and Land Surveying Board (LAPELS) if registration is required under Louisiana law)	EF.0004906
6.	Prime consultant mailing address	109 Northpark Blvd. Suite 520 Covington, LA 70433-5031
7.	Prime consultant physical address (existing or to be established, if location is used as an evaluation criteria)	109 Northpark Blvd. Suite 520 Covington, LA 70433-5031
8.	Name, title, phone number, and email address of prime consultant's contract point of contact	Joey Cardella, Project Manager Phone: 504-383-0165 Mobile: 504-957-4802 Email: jcardella@ebdg.com
9.	Name, title, phone number, and email address of the official with signing authority for this proposal	John Waterhouse, Principal in Charge Phone: 206-204-1308 Email: jwaterhouse@ebdg.com

Prime consultant should enter the firm name in the footer at the bottom of this page. (It will carry over to subsequent pages.)

10.	This is to certify that all information contained herein is accurate and true, and that the team
	presently has sufficient staff to perform these services within the designated time frame. By
	submitting this proposal, proposer certifies that it is not engaged in a boycott of Israel and it
	will, for the duration of its contract obligations, refrain from a boycott of Israel. Proposer also
	certifies and agrees that the following information is correct: In preparing its response, the
	proposer has considered all proposals submitted from qualified, potential subcontractors and
	suppliers, and has not, in the solicitation, selection, or commercial treatment of any
	subcontractor or supplier, refused to transact or terminated business activities, or taken other
	actions intended to limit commercial relations, with a person or entity that is engaging in
	commercial transactions in Israel or Israeli-controlled territories, with the specific intent to
	accomplish a boycott or divestment of Israel. The proposer also has not retaliated against any
	person or other entity for reporting such refusal, termination, or commercially limiting actions.
	DOTD reserves the right to reject the response of the bidder or proposer if this certification is
	subsequently determined to be false, and to terminate any contract awarded based on such a
	false response.

John W. Waterhouse

Signature above shall be the same person listed in Section 9:

February 8, 2024

Date:

11. If a Disadvantaged Business Enterprise (DBE) goal has been set for this advertisement, indicate which firm(s) will be used to meet the DBE goal N/A and each firm(s)' percentage.

Firm(s):

Firm(s)' %:

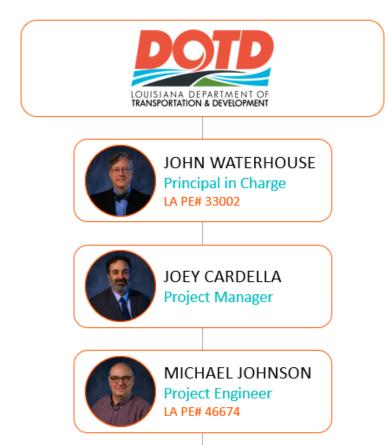
12. Past Performance Evaluation Discipline Table:

Past Performance	% of Overall	Prime	Firm B	Firm C	Firm D	Firm E	Each Discipline
Evaluation Discipline(s)	Contract	Elliott Bay Design					must total to 100%
		Group LLC					10000
Other (naval architecture	100%	100%					100%
and marine engineering)							
T1 (C 1)	1 C 41	n 4 4 1 C	11 /1 :	1, , 1 1	1 1, ,		
Identify the percentage of work for the <u>overall contract</u> to be performed by the prime consultant and each sub-consultant.							
Percent of Contract	100%	100%					100%

13. Firm Size:

		Number of	Total number of personnel
Firm name	DOTD Job Classification	personnel committed	available in this DOTD Job
		to this contract	Classification (if needed)
Elliott Bay Design Group LLC	Principal	1	3
Elliott Bay Design Group LLC	Supervisor - Other	1	5
Elliott Bay Design Group LLC	Supervisor - Engineer	2	2
Elliott Bay Design Group LLC	Engineer	2	3
Elliott Bay Design Group LLC	Engineer - Other	-	5
Elliott Bay Design Group LLC	CADD Technician	1	7
Elliott Bay Design Group LLC	Technician	-	7
Elliott Bay Design Group LLC	Administrative	-	2

14. Organizational Chart:





WILL AYERS Electrical Engineer LA PE# 46104



TRYGVE REID
Naval Architect
LA PE# 32523



CATHERINE TAN
Marine Designer



CHRIS BIERNAT Naval Architect LA PE# 46683

15. Minimum Personnel Requirements:

MPR No. Do not insert wording from ad	Personnel being used to meet the MPR (Individual(s) may not satisfy more than one MPR unless specifically allowed by Attachment B of the advertisement)	Firm employed by	Type of license and discipline meeting MPR/certification & number (Ex: PE # - Civil)	State of license	License / certification expiration date
1	John Waterhouse	Elliott Bay Design Group LLC	PE # 33002 - Naval Architect/Marine Engineer	LA	9/30/25
2	John Waterhouse	Elliott Bay Design Group LLC	PE # 33002 - Naval Architect/Marine Engineer	LA	9/30/25
3	John Waterhouse	Elliott Bay Design Group LLC	Master of Science in Naval Architecture and Marine Engineering from MIT 40 YRS experience in the marine industry PE # 33002 - Naval Architect/Marine Engineer	LA	9/30/25
4	Michael Johnson	Elliott Bay Design Group LLC	11 YRS experience USCG 46 CFR Sub H & W PE # 46674 - Mechanical Engineer	LA	9/30/24
4	Will Ayers	Elliott Bay Design Group LLC	20 YRS experience USCG 46 CFR Sub H & W PE # 46104 – Electrical and Computer Engineer	LA	3/31/24

			9 YRS experience USCG 46 CFR Sub H & W		
4	Trygve Reid	Elliott Bay Design Group LLC	PE # 32523 - Naval Architect/Marine Engineer	LA	3/31/24
4	Chris Biernat	Elliott Bay Design Group LLC	6 YRS experience USCG 46 CFR Sub H & W PE # 46683 - Naval Architect/Marine	LA	9/30/24
			Engineer		

16. Staff Experience:

Firm employ	ved by Elliott Bay Design Group LLC				
	John Waterhouse, PE, PMP		Years of relevant experience with this employer	36	
Title	Principal in Charge		Years of relevant experience with other employer(s)	3	
Degree(s) / Y	Years / Specialization	BS / 1	1979 / Mechanical Engineering	<u>.</u>	
	-		1984 / Naval Architecture and Marine Engineering		
Active regist	tration number / state / expiration date	33002	2 / Louisiana / 9/3/25		
Year register	1	Naval	1 Architect / Marine Engineer		
Contract role(s) / brief description of responsibilities			John will serve as the Principal in Charge for the project, providing direction and assistance as needed. He will be the advocate for LADOTD, ensuring EBDG resources and staff are readily available to complete the project. He will provide support and expertise in passenger vessel design.		
03/21-Currer	LADOTD for Cameron Parish. Offer tracked project progress. LADOTD C	pt desig ed guid Contract	gn, contract design and current construction of a diesel-ele lance during design phase, participated in weekly meeting t #4400019165/Task Order #H.010037.5 (46CFR SubH&	s with the client and W)	
05/20-04/21	Supported development of a tonnage electric Olympic Class ferries for Wa	-	nd ADA modifications for the double-ended, 144 car / 2,00 cm State Ferries. (46CFR SubH&W)	00 passenger hybrid	
03/20-Currer					
05/18-Currer	nt Principal in charge for the concept de Subchapter K ferry for Casco Bay Liz		ontract design, and current construction of a 30-car, 600 p rtland, ME.	assenger hybrid electric	
03/18-10/23	North Carolina Department of Transp	Principal in Charge for the contract design and subsequent construction support of the Diesel Electric River Class ferries for North Carolina Department of Transportation. Provided ferry expertise and guidance throughout, served as a direct liaison with the client and oversaw final deliverables. (46CFR SubH&W)			
02/18-02/19			elopment of the long-term range plan for Washington Stateach of the vessels long term functionality.	e Ferries. This has	
10/16-03/20	Principal in Charge for the design of a new River Class double-ended, shallow-draft passenger/vehicle ferry for North Carolina Department of Transportation. Scope of services included preliminary design, contract design, model testing supervision, CFD analysis, bid support and owner's representation during construction. (46CFR SubH&W)				
10/14-03/17	Designed a 30-car passenger/vehicle ferry to comply with USCG regulations for a small passenger vessel carrying 150 or le passengers under 46 CFR Subchapter T. Design encompassed arrangement and structural drawings as well as stability assessment, speed calculations and vessel specifications for Fisher Island Community Association.			ssel carrying 150 or less	
08/14-06/15	Principal in Charge while EBDG provided all design and engineering services for a new 35-car ferry for the Cameron Parish Crossing for Louisiana Department of Transportation and Development. LADOTD Contract #4400004488/Task Order #H.010037.5/Cameron Parish. (46CFR SubH&W)				

08/09-04/23	Principal of preliminary design investigation of Staten Island Ferries which resulted in contract design of their 4500 passenger
	Ollis Class ferries. John performed vessel survey and design work during the preliminary design investigation, which
	developed a strategy for the SIF fleet over the following 20 years. Following the investigation, John remained Principal in
	Charge while EBDG provided contract design, bid support, construction liaison and delivery support of the double ended
	ferries. Three ferries were delivered to this design. (46CFR SubH&W)
09/03-09/04	Project Sponsor for the design study report, concept design, preliminary design, contract design and construction liaison of the
	255' passenger/vehicle ferry ISLAND HOME for Woods Hole, Martha's Vineyard and Nantucket Steamship Authority.
	(46CFR SubH&W)
01/08-Current	Principal of EBDG – resident expert on passenger vessel design. Experience includes major vessel modifications,
	refurbishments and ongoing engineering support, highly experienced with regulatory review process for USCG LPV (46CFR
	SubH&W) Regulatory Compliance.
01/88-01/08	President and founding partner of EBDG – innovative design and engineering solutions for large passenger vessels, tugs and
	fishing vessels involved with ABS and USCG LPV (46CFR SubH&W) Regulatory Compliance.
08/84-12/87	Naval Architect for Nickum & Spaulding Associates. ABS/USCG (46CFR SubH&W) Regulatory Compliance

Firm emplo	oyed by Elliott Bay Design Group LLC					
Name	Joey Cardella	Years of relevant experience with this employer	4			
Title	Project Manager	Years of relevant experience with other employer(s)	13			
Degree(s) /	Years / Specialization	BS / 2006 / Naval Architecture and Marine Engineering				
Active regi	istration number / state / expiration date					
Year regist						
Contract ro	ble(s) / brief description of responsibilities	Joey will serve as Project Manager, overseeing staff and responsible engineering and regulatory compliance on LADOTD projects.	•			
09/22-Curr	enclosing the keel line void to improve	the Texas Department of Transportation ferry ESPERANZA. Move maintenance/reliability and enhancing the structure around the Storage System (ESS) room. (46CFR SubH&W)				
07/22-Curr		on oversight of a new hybrid battery electric double ended vehicers for Texas Department of Transportation. (46CFR SubH&W)	ele ferry that will carry 70			
03/21-Curr	meetings to review preliminary ferry reviewed electrical propulsion system ensured that drawing and engineering	on Ferry Design. Joey managed project team tasks including orgadesign through development. Joey conducted oversight on constant options from vendors and prepared team to develop trim and signocuments complied with regulatory and client requirements for evelopment. LADOTD Contract #4400019165/Task Order #H.0	truction cost estimates, tability calculations. He or the Louisiana			
12/18-07/2	As project manager for both the ASC support including project status update	As project manager for both the ASCENSION and CAMERON II ferry repowers, Joey provided ongoing management support including project status updates with team, task scheduling, client liaison and conducted quality assurance reviews of engineering documents for LADOTD Contract #4400009954/Task Order #H.013486 & H.012692.5				
11/20-03/2	Provided project management service recommendation of appropriate properties.	Provided project management services and conducted an on-site survey at shipyard and engineering evaluation for recommendation of appropriate propulsion and power plant systems for upgrades to the JOHN W JOHNSON ferry for Texa Department of Transportation. (46CFR SubH&W)				
11/20-07/2	1 Conducted inspection of the ferry RC	DBERT C LANIER to obtain approval by ABS to replace the GA ent of Transportation. The upgrade included providing costs esti				
11/20-10/2	Provided management administration	n including budget review for the improvement in function and carry fleet. Tasks include inspection, evaluation, modification studies				
01/07-06/2	ship estimates, stability analyses, load	aval Architect and Project Engineer at Friede & Goldman - Prep ding conditions, load line calculations, incline experiment proce dance with Domestic and International Class Society Rules & Ro	dures, operating manuals,			

Firm employed by	y Elliott Bay Design Gro	oup LLC			
	nael Johnson, PE	1	Years of relevant experience with this employer	27	
Title Proje	ect Engineer		Years of relevant experience with other employer(s)	0	
Degree(s) / Years	/ Specialization	BS	S / 2006 / Mechanical Engineering		
			S / 2004 / Information Management		
	n number / state / expira	tion date 46	674 / Louisiana / 9/30/24		
Year registered	2022		echanical Engineer		
Contract role(s) /	brief description of resp	en	ichael will provide project engineering support and serve as gineering lead. His diverse work experience encompasses ac stem, safety, propulsion, marine engineering power systems	dvanced mechanical	
07/22-Current	arrangement for a hy technical specification	brid battery electric ns for ship piping sy	Michael oversaw the design of ship piping, HVAC systems double ended vehicle ferry for Texas Department of Transportstems. (46CFR SubH&W)	ortation. Michael drafted	
03/21-Current	deliverables meetings	s, reviewed engineer	orid ferries for Cameron Parish / LADOTD. Michael held proving drawings and documents for accuracy and liaised with corder H.010037.5 (46CFR SubH&W)	3	
09/19-09/21	estimates, reviewed s	ystem drawings for	ooling and exhaust systems, developed a grid cooler hull pla compliance with design requirements, and completed azipod for a hybrid electric Olympic Class ferry for Washington Sta	d feasibility study for	
03/18-10/23	Project Engineer for the diesel-electric version of our 183' River Class ferry for North Carolina Department of Transportation. Michael updated machinery arrangement, provided quality assurance of onboard systems and developed the technical specification. (46CFR SubH&W)				
09/14-08/23	New design and construction support for new and modified Staten Island ferries for the New York City DOT. Michael developed document review for deliverables to client, designed the propulsion system, AUS dosing system, and machinery arrangements, authored contract specifications, provided project management assistance by responding to client questions, onsite inspections and liaison with client and shipyard, and evaluated contractor submittals during construction. (46CFR SubH&W)				
12/13-04/17	Coordinated the team and vendor meetings for equipment selection, development of mechanical systems; engine room arrangements, shafting arrangements, developed purchase technical specifications for major equipment and responded to bidder's questions during bid process on a 235' passenger/vehicle ferry for The Steamship Authority. (46CFR SubH&W)				
06/13-07/15	the Alaska Marine H	ighway System. He	ering lead during the contract and functional design of the 25 developed the propulsion selection study and led the developed also provided construction support for the two vessels built to	pment and integration of	

Firm employed by	y Elliott Bay Design Group LLC				
Name Will	Ayers, PE	Years of relevant experience with this employer	8		
Title Elect	trical Engineer	Years of relevant experience with other employer(s)	20		
Degree(s) / Years	/ Specialization	BS / 1995 / Electrical Engineering			
Active registration	n number / state / expiration date	46104 / Louisiana / 3/31/24			
Year registered	2021 Discipline	Electrical Engineer			
Contract role(s)	brief description of responsibilities	Will Ayers will serve as the electrical team lead and primary ele- project. He will dedicate his efforts to systems design and evalua- analysis and mitigation, feasibility studies and on-site inspection principal liaison on the EBDG side of the project with the propu	ation as well as risk s. He will be the		
O1/16-Current Expertise with vessel electrical system studies, electrical system software modeling, and all levels of system design on a marine vessel including USCG LPV (46CFR SubH&W) Regulatory Compliance. Played a key role in promoting plug-in hybrid technology for the Pacific Northwest with related technical papers in 2016 and 2017 and speaking appearances in Washington, DC, Tampa, Houston and Seattle. Industry leader in alternative propulsion, has visited every major electric-fe operator in Scandinavia observing first-hand the onboard and shoreside battery-power technology.					
02/20-Current					
11/21-03/23	Analyzed and developed electrical modifications for the Alaska Marine Highway System on the COLUMBIA to assist in resolving an issue risking continued service authorization by the USCG. Performed extensive ship checks, developed accurate as-built for fire damper control panel, worked with switchboard manufacturer to develop changes to successfully solve the issue. (46CFR SubH&W)				
03/20-01/22	As Lead electrical engineer, reviewed design reports for upgrades and modifications to the propulsion control and alarm and monitoring systems, medium-voltage switchgear and cycloconverters, additions of large battery banks and new redundant battery room layouts, converters and transformers to integrate the battery power into the medium-voltage power network and the addition of a rapid charging system (RCS) intended for the Jumbo Mark II hybridization projects for Washington State Ferries. (46CFR SubH&W)				
02/19-06/20	Developed Failure Modes and Effects Analysis, Design Verification Test Procedure and Periodic Safety Test Procedure for Texas Department of Transportation ferries with USCG LPV (46CFR SubH&W) Regulatory Compliance.				
11/18-01/20	Developed a Purchase Technical Specification for the propulsion system on the Washington State Ferries hybrid electric Olympic Class ferries, including the lithium-ion batteries, drives, motors, propulsion generator sets, etc. (46CFR SubH&W)				
08/18-03/20		or COHO for Black Ball Transport including switchboard design r			

04/17-10/17	Supported Alaska Marine Highway System with a regulatory crisis regarding a non-existent failure mode and effects analysis
	(FEMA) and device verification test procedures (DVTP) for a newly installed car ferry steering system on the COLUMBIA.
	(46CFR SubH&W)
01/16-05/16	Developed arc flash reports that included vessel visits, analyses, and calculations development for six passenger/vehicle ferries
	for the Texas Department of Transportation. (46CFR SubH&W)
09/04-01/16	Electrical Engineer at Washington State Ferries - Will designed and developed all phases of marine electrical systems on
	various vessels for WSF and developed their electrical drawings including one-lines, load analyses, and voltage drop
	calculations. USCG LPV (46CFR SubH&W) Regulatory Compliance.
01/00-09/04	Electrical Engineer at GE Automation - Involved in all phases of the design, manufacture, and installation of propulsion and
	alarm systems for five Washington State ferries and the cruise ship EMPRESS OF THE NORTH. Performed various testing
	on manufactured systems and solved punch list items. Integrated USCG CFR, IEEE and ABS regulatory requirements into
	designs and USCG Regulatory Compliance for the passenger/vehicle ferries.

Firm employed by	y Elliott Bay Design Gro	up LLC					
	eve Reid, PE	1	Years of relevant experience with this employer	10			
Title Nava	al Architect		Years of relevant experience with other employer(s)	18			
Degree(s) / Years	/ Specialization]	BS / 1997 / Naval Architecture				
	•		AS / 1989 / Architecture				
Active registration	n number / state / expirat	ion date	32523 / Louisiana / 3/31/24				
Year registered	2006	Discipline	Naval Architect / Marine Engineer				
Contract role(s) /	brief description of response		Trygve will serve as the naval architecture team lead. He will sof Plans, Specifications and Estimates (PS&E) for the ferry desprovide quality assurance review of project deliverables.				
03/21-Current	Tasks included arrang client and USCG, Try	ral architect for the ement design, rev gve also supporte	ne design of a 500 passenger, 33-car ferry for LADOTD to serview and oversight of structural and stability calculations and led regulatory submittals. He is now supporting the client with descriptions. LADOTD Contract #4400019165/Task Order #H.0100	iaison services with the construction oversight			
Provided naval architecture support and review during the repair and repower of the passenger/vehicle ferry CAMERON II. Tasks included development of a NavCAD analysis for propulsion requirements, engine and thruster foundations, structural modifications stability analysis and USCG submittals for the LADOTD Contract #4400009954/Task Order #H.012959.5/Statewide.							
11/19-10/23	Provided on-site construction inspections at Gulf Island Shipyard on behalf of North Carolina Department of Transportation during the construction of their Z-drive passenger-only ferry. During the inspections, Trygve documented shipyard progress and discrepancies against contract documents, provided oversight for on-site inspections, documented review process, periodic on-site inspections, bi-weekly shipyard and client meetings, and hosted client meetings as required. (46CFR SubH&W)						
06/18-7/22	For the LADOTD ferr foundation developme	ry ASCENSION rent, provided opticability analysis d	repower, created GHS model to determine longitudinal strength ons regarding replacement of existing diesel driven compresso locumentation for final vessel layout design. LADOTD Contraction	h and stability for vessel r/fire pump with electric			
12/17-01/20	Developed preliminary calculations and ramp design for a ferry landing barge to the current design of the ABS barge building requirements for the State of Louisiana Department of Transportation and Development. Additional tasks included revising drawings per LADOTD's review and provide quality assurance review of preliminary weight estimate and scantling calculations. LADOTD Contract #4400009954/Task Order #H.012959.5-1/Statewide.						
06/16-04/17	Evaluated existing VFD cooling system and provided recommendations for improvements to Texas Department of Transportation for approval with final submission to USCG and ABS on the ferry JOHN W. JOHNSON on behalf of Southwest Shipyard, L.P. (46CFR SubH&W)						
06/16-03/17	the Texas Department	Provided quality assurance review of electrical calculations for an electrical power loads assessment with arc flash study for the Texas Department of Transportation ferry fleet. (46CFR SubH&W)					
07/97-09/14	Senior Marine Engine construction in the Gu		Passenger Vessels. Responsible for marine engineering, operati	ons, repairs, and new			

Firm emplo	oyed by Elliott Bay Design Group LLC					
Name	Catherine Tan	Years of relevant experience with this employer	3			
Title	Marine Designer	Years of relevant experience with other employer(s)	14			
Degree(s) /	Years / Specialization	MS Applied Statistics, University of New Orleans, 2005				
		Diploma of Computer Systems Technology, Northern Alberta l	Institute of Technology,			
		1999				
	stration number / state / expiration date					
Year registe			0 1			
Contract ro	le(s) / brief description of responsibilities	Catherine will serve as the marine designer and primary design	1 5			
		will work to develop design models with our proposed enginee	· ·			
		She will be a key contributor to the quality assurance efforts by				
		standards for the project, monitoring compliance with all applic design (CAD) standards and performing frequent reviews of the	*			
		interferences and MicroStation Compliance.	e 3D model to identify			
07/23-01/24	4 Adjusted locations for vents drains	& piping diagram per updated Xref tower for general assistance	e with Washington State			
07725 0172	Ferries electrification plan for the hyb		e with washington state			
08/22-08/22		om engineers on-site vessel inspections of the Ollis Class ferrie	es for the New York City			
		Department of Transportation. USCG LPV (46CFR SubH&W) Regulatory Compliance.				
08/22-04/23		haust system, fuel oil service system, general electric plant and	outfit and furnishings for			
	a 293', 70-car, 499 passenger ferry de	sign to operate in Galveston County for the Texas Department of	f Transportation.			
		nto EBDG standards. Updated piping, electrical, fire and safety	plan and boundary plan.			
		electrical drawings. (46CFR SubH&W)				
04/22-10/23		support and construction oversight of a 152', 30-car ferry, Cathe				
		orporated client comments not various structural drawings and co	ompleted subsequent			
00/00 06/0	quality assurance review for Fisher Is		1 1'			
02/22-06/22	•	ement and systems drawings including machinery arrangement, l	-			
		ems for the propulsion and power plant modernization for the JC	JHN W. JOHNSON for			
10/21-05/22	Texas Department of Transportation. Modified drawings for systems during	g preliminary design and final revision of the design of a 500 pas	senger 33-car ferry for			
10/21-03/2		on and Development to service Cameron Parish. LADOTD Con	•			
	Order H.010037.5					
06/18-04/20		Structural Designer at Huntington Ingalls Industries – 3D modeling for ship outfitting and structure, audited for ship units				
	drawings.		1			
05/17-04/18		2D ship hull key plan checking and modification, prepared client	response documents.			
12/14-09/13	5 Senior Structural Designer at MiNo N	farine – ship hull structure design, prepared weight estimates / b	ill of materials.			
05/12-03/14		s Offshore Energy – offshore structure design, prepared weight e	estimates / bill of			
	materials.					

Firm employed b	by Elliott Bay Design Group LLC					
	ris Biernat, PE	Years of relevant experience with this employer	12			
	val Architect	Years of relevant experience with other employer(s)	0			
Degree(s) / Year	rs / Specialization	BS / 2012 / Naval Architecture	-			
	on number / state / expiration date	46683 / LA / 9/30/24				
Year registered	2022 Discipline	Naval Architecture and Marine Engineering				
Contract role(s)	/ brief description of responsibilities	Chris will provide naval architecture and marine engineering su development and 3D hull computer modeling.	apport including stability			
03/21-Current	options for layout, powering and regu and fire zone plan for the Louisiana D	sign a 35-car ferry for Cameron Parish, Chris attended client med latory requirements. Several tasks included development of a 3E separtment of Transportation and Development. He is also providions. LADOTD Contract #4400019165/Task Order H.010037.5	O hull model, lines plan ding construction			
02/20-Current						
06/18-10/22	Provided engineering support including developing deadweight report, updates to Fire & Safety Plan and preparing a stability assessment report for the ASCENSION repower for LADOTD. LADOTD Contract #4400009953/Task Order H.013486					
05/18-10/22	Engineering tasks conducted for the contract design of a 400-to-500-person, 15-20 vehicle ferry included quality assurance review of vessel weight estimate and verification of hull model and tanks for the stability assessment for Casco Bay Lines Transit District.					
08-20-06/22						
12/18-07/22		or the repower of the ferry CAMERON II including developmen TD. LADOTD Contract #4400009954/Task Order H.012692.5	t of deadweight			
12/17-01/20		eveloped barge assembly drawings for the design of a new landing for LADOTD. LADOTD Contract #4400009954/Task Order #				
10/16-3/17	Reviewed existing plans and drawings, and conducted visual inspections of six ferry vessels, then prepared recommendations for the improvement of both function and operation of identified areas of concern for Texas Department of Transportation USCG LPV (46CFR SubH&W) Regulatory Compliance.					
01/15-03/17	USCG LPV (46CFR SubH&W) Regu		-			
04/15-04/16	passenger/vehicle ferry GIBB GILCH	replacement of two ship service generators and emergency general RIST for Southwest Shipyard, L.P. Tasks included developing a LPV (46CFR SubH&W) Regulatory Compliance.				

07/15-11/15	Assisted with the new design and construction of the emergency evacuation plan, passenger capacity plan and the vessel
	structure for the Ollis Class Ferries for New York City Department of Transportation. USCG LPV (46CFR SubH&W)
	Regulatory Compliance.
08/14-06/15	Provided 3D hull model and rendering for a new 35-car ferry for the Cameron Parish ferry for the Louisiana Department of
	Transportation and Development. LADOTD Contract #4400004488/Task Order #H.010037.5
12/12-03/15	Recommended modifications to various vessel systems, including updated steering system and USCG LPV (46CFR
	SubH&W) Regulatory Compliance for the passenger/vehicle ferry JOHN W. JOHNSON for Southwest Shipyard, L.P.

17. Firm Experience:

Firm name	Elliott Bay Design Group LLC		Past Performance Evaluation Discipline(s)* Other (naval architecture and marine engineering)				
Project name	Diesel-Electric Hybrid F	erries for LADOTD			Firm responsib	ility (prime or sub	?) Prime
	Contract Design and Con	nstruction Support			_		
Project number	4400019165	Owner's name	Owner's name Louisiana Department of Transportation and Development (LA			t (LADOTD)	
	H.010037.5						
Project location	Louisiana			Owner's Proj	ect Manager	Steven Sibley	
Owner's address, pho	ne, email PO Box 9424:	5, Baton Rouge, LA	70804				
	(225) 379-182	0					
steven.sibley@la.gov							
Services commenced by this firm (mm/yy) 03/21			Total consult	ant contract co	ost (\$1,000's)		\$1029
Services completed by	y this firm (mm/yy)	Current	Cost of cons	ultant services	provided by this	s firm (\$1,000's)	\$1029

In 2021, EBDG was awarded the contract to complete the contract design (originally completed by EBDG in 2015) of the **diesel-electric hybrid** Cameron Parish Ferry. The ferry has an overall length of 190', a beam of 50', and a depth of 13'. The vessel will have the capacity for up to 34 automobiles and passengers and meets USCG **Subchapter H** regulations.

The ferries will be some of the first US new-build ferries equipped with the Siemens BlueDrive ECO™ hybrid propulsion system and is designed to operate in a hybrid mode. In this mode the diesel engines will share load with the propulsion batteries whereby the propulsion system will maximize the usage of the battery energy capabilities, resulting in lower exhaust emissions. The vessel will have enhanced maneuvering capabilities provided by the Thrustmaster TH500MZ azimuthing thrusters. The ferries are currently under construction and EBDG is providing technical support services to LADOTD as the ferries progresses through construction. The ferries are expected to enter operating service in 2025.

- John Waterhouse Principal in Charge during the contract design phase, participated in weekly meetings with the client and tracked project progress.
- Joey Cardella Project Manager for new ferry design, managed project team tasks, reviewed preliminary design through development, conducted construction oversight, reviewed systems and drawings for regulatory compliance.
- Michael Johnson Chief Engineer, held project schedule and deliverables meetings, reviewed engineering drawings and documents for accuracy and liaised with client and vendors.
- Will Ayers Electrical Engineer, heavy involvement with the systems integrator selection and liaison with finalizing their project proposal.
- Trygve Reid Lead Naval Architect, involved with arrangement design, review and oversight of structural and stability calculations, liaison services with the client and USCG and supported regulatory submittals.
- Catherine Tan Marine Designer, modified drawings for systems during preliminary design and final revision of the design.
- Chris Biernat Naval Architect, determined best options for layout, powering and regulatory requirements. Developed a 3D hull model, lines plan and fire zone plan.

Firm name	Elliott Bay Design Group LLC		Past Performance Evalu	uation Discipline((s)* Other (naval marine engin	architecture and eering)	
Project name	Diesel-Electric Hybrid Ferries for TXDOT Contract Design and Construction Support			Firm responsibi	lity (prime or sub?	Prime	
	Contract	Design and Con	istruction Support				
Project number	16-41DP	5001	Owner's name	Texas Department of Ti	ransportation (TX	XDOT)	
Project location	Port Arai	nsas, Texas		Owner's Pro	oject Manager	Nolan Holik	
Owner's address, pho	ne, email	619 West Cott	er Avenue, Port Ar	ransas, TX 78373			
		(361) 749-2850	0				
	Nolan.Holik@txdot.gov						
Services commenced by this firm (mm/yy) 01/15		Total consultant contract cost (\$1,000's)		\$1,818			
Services completed by	y this firm	(mm/yy)	12/20	Cost of consultant services	s provided by this	s firm (\$1,000's)	\$1,818

EBDG began support for TXDOT in 2008 when selected to prepare a design for a new 28-car ferry for service between Port Aransas and Harbor Island. Following the completion of the 28-car ferry design, EBDG was chosen to provide four years of on-call naval architect and marine engineering support for TXDOT. The first project under the level-of-effort contract was for the design of a **diesel-electric** version of the 28-car ferry.

The ferries have an overall length of 160', a beam of 52', and a depth of 12'. The vessels have a capacity of 149 passengers and 28 vehicles, meet USCG **Subchapter T** regulations, and were built with an ABS classification. The initial design and construction effort resulted in two dieselmechanical vessels delivered in 2011. The success of these vessels led to a further refinement of the design to utilize diesel-electric propulsion, with three additional vessels delivered by 2018.

EBDG performed the engineering and design work and was on-site during the construction of all five vessels as Owner's Representative. EBDG worked with TXDOT through all stages of the project, beginning with establishing owner's needs through concept design through contract design, construction as Owner's Representative, testing and delivery, and acceptance.

EBDG provided leadership on Buy America compliance to both TXDOT and the shipyard throughout the project. Our work included research, tracking log, and vendor confirmation letters during construction, periodic inspection and audits of Buy America materials and equipment, and coordinated and assisted the shipyard contractor with satisfying Buy America limits during the project.

Five vessels in total have been built at Southwest Shipyard and are in operation by TXDOT. EBDG's expertise in ferry design as well as our experience in shipyard inspection and Owner's Representative roles resulted in successful contract execution and quality vessel construction.

- Will Ayers Provided document review and electrical technical support during construction.
- Trygve Reid Provided minimal document review of the watertight doors during construction at Southwest Shipyard.

Firm name	Elliott Bay Design Group LLC		Past Performance Evalu	uation Discipline(s)	* Other (naval a marine engine	architecture and eering)
Project name	Diesel-Electric Hybrid F	erries for TGI		Firm responsibilit	y (prime or sub?)	Prime
	Contract Design and Co	nstruction Support		_		
Project number	TGI 2020003	Owner's name	The Trust for Governor	s Island (TGI)		
Project location	New York, New York		Owner's Pro	oject Manager S	ebastian Coss	
Owner's address, pho	one, email 10 South Stree	et, Slip 7, New Yorl	k, NY 10004			
	(212) 440-222	1.5				
scoss@govisland.org						
Services commenced by this firm (mm/yy) 02/20		Total consultant contract of	cost (\$1,000's)	·	\$1,647	
			Cost of consultant services	s provided by this fi	rm (\$1,000's)	\$1,647

EBDG designed a **hybrid electric** passenger-vehicle ferry for the Trust for Governors Island to provide transportation between the Battery Maritime Building in Lower Manhattan and Soissons Landing. The ferry has an overall length of 190', a beam of 62', a depth of 13' and a draft of 8.5'. The vessel has capacity for 600 passengers and 220 LT of vehicle weight and meets USCG **Subchapter K** regulations.

The ferry will be the first US-built vessel equipped with the Siemens BlueDrive ECO hybrid propulsion system and is designed to be capable of battery-only operation once shore charging facilities become available. It will have enhanced maneuvering capabilities provided by the Schottel SRP azimuthing thrusters.

The ferry has now entered the construction phase and EBDG will continue to provide technical support services to TGI as the ferry progresses through construction. The ferry is expected to enter operating service in 2024.

- John Waterhouse Principal in Charge during the entire design cycle starting with statement of owner requirements through contract design and shipyard bid support. Regular interaction with the client and support through public engagement process.
- Michael Johnson Provided mechanical engineering oversight and guidance to the project team at various stages of contract design.
- Will Ayers Electrical Engineer, supported the interface with the systems integrator in exploring all-electric propulsion and charging options.
- Catherine Tan Provided administrative support to the Project Manager by creating the MS Project file for the construction supervision phase.
- Chris Biernat Naval Architect, contract design including deckhouse structure and scantling calculations and on-site construction inspection and support.

Firm name	Elliott Bay Design Group LLC		Past Performance Evalu	1 \ / \ \		rchitecture and
					marine engine	ering)
Project name	Naval Architecture S	upport for WSF Syster	n-Wide Electrification	Firm responsible	ility (prime or sub?)	Sub
Project number	Y-12756	Owner's name	Hill International			
Project location	Seattle, Washington		Owner's Pro	ject Manager	Harry Jarnagan	
Owner's address, phor	ne, email 719 2nd A	venue, Suite 1075, Sea	ttle, WA 98104			
	(509) 385-	9127				
	harryjarnagan@hillintl.com					
Services commenced by this firm (mm/yy) 02/23			Total consultant contract cost (\$1,000's)			N/A
Services completed by	y this firm (mm/yy)	Current	Cost of consultant services	s provided by this	s firm (\$1,000's)	\$1,181

EBDG is currently supporting our nation's largest ferry operator, Washington State Ferries (WSF) in their efforts to convert their ferry system to hybrid-electric power by 2040. We are on the General Engineering Consultant team led by Hill International, providing naval architecture services as WSF progresses to system-wide fleet electrification. We have been an integral part of the hybridization of the WSF fleet by (1) developing their Long Range Plan, which identified opportunities and benefits of fleet electrification and the costs associated, (2) preparing the System Electrification Plan, which detailed a plan for the fleet-wide deployment of hybrid electric vessels, (3) developing the initial cost-benefit analysis and comprehensive feasibility study of converting the Jumbo Mark II Class to hybrid propulsion, (4) developing a feasibility study and lifecycle cost analysis for the hybridization of the Olympic Class, and (5) supporting Vigor with functional design engineering services for the **hybrid electric** Olympic Class.

EBDG was the naval architect responsible for redesigning the Hybrid Electric Olympic Class vessels systems to accommodate the major change in propulsion type without disrupting structural components. Project scope included developing the design drawings, studies, and other documentation required for regulatory review. EBDG teamed with Vigor and the propulsion integrator vendors to ensure the design will integrate appropriately. Once constructed the 362' ferries will accommodate 144 vehicles and 1,500 passengers and will meet USCG **Subchapter H** regulations.

- John Waterhouse John has been an instrumental leader and technical resource for WSF over the years, providing guidance and ferry design expertise on their projects. He served as the Principal in Charge during the development of the System Electrification Plan, which evaluated alternatives and proposed an efficient plan for the deployment of hybrid electric vessels throughout the ferry system.
- Michael Johnson Performed calculations and analysis for cooling and exhaust systems, developed a grid cooler hull plan, conducted weight estimates, reviewed system drawings for compliance with design requirements, and completed azipod feasibility study.
- Will Ayers Electrical engineer on the design team providing detailed design support for the construction of an Olympic Class hybrid ferry. Will's tasks included review of USCG comments/revisions on electrical system drawings, attending meetings with regulatory agencies and staff, and ensuring drawing and document deliverables were on time per project schedule. He also developed a purchase technical specification (PTS) for propulsion system integrators.
- Trygve Reid Conducted quality assurance review of various structural drawings and weight estimate.
- Catherine Tan Revised electrical systems drawings per USCG comments and adjusted locations for vents, drains & piping diagram.
- Chris Biernat Assisted with development of the weight estimate fire control plan and the scantling calculations.

Firm name	ame Elliott Bay Design Group LLC		Past Performance Evalu	ation Discipline	(s)* Other (naval a marine engine	architecture and eering)
Project name Diesel-Electric Hybrid Ferries for NCDOT Contract Design and Construction Support			Firm responsibi	lity (prime or sub?)) Prime	
Project number	7000017157	Owner's name	North Carolina Departm	ent of Transport	ation (NCDOT)	
Project location	North Carolina		Owner's Pro	ject Manager	Keith Stegall	
Owner's address, ph	Owner's address, phone, email 8550 Shipyard Road, Manns Harbor, NC, 27953 (252) 764-7415 kmstegall@ncdot.gov					
Services commenced by this firm (mm/yy) 03/18		Total consultant contract co	ost (\$1,000's)		\$1,346	
			Cost of consultant services	provided by this	s firm (\$1,000's)	\$1,346

Under our on-call agreement for naval architecture and marine engineering services for NCDOT, EBDG designed a double-ended **diesel-electric hybrid** River Class ferry. The 183' passenger/vehicle ferries have capacity for 300 passengers and 40 vehicles and were designed specifically for operation between the Hatteras and Ocracoke Terminals where water depths can be less than 10 feet along the route, with a design draft of 4.5-feet. The vessel utilizes diesel-electric propulsion and four azimuth drives and meets USCG **Subchapter H** regulations. Two vessels of this design, the SALVO and AVON, were built at Gulf Island Fabricators in Houma, Louisiana and entered service in 2023.

For the project, EBDG provided preliminary design, contract design, model testing supervision, computation fluid dynamics (CFD) analysis for hull shape, scale model testing in Europe, bid support and owner's representation during construction including detail design review related to structure, mechanical, electrical and propulsion systems. EBDG reviewed steel fabrication, weld procedures and provided on-site inspection of welding and construction processes.

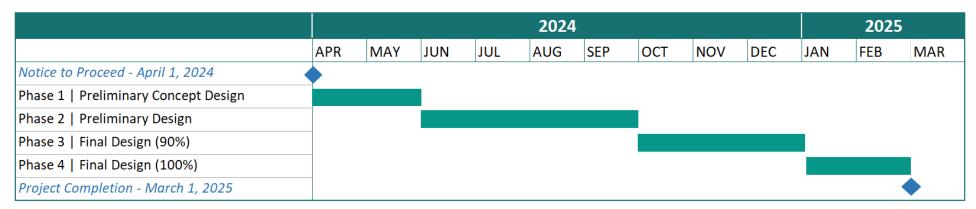
- John Waterhouse Principal in Charge during the design and construction support of the Diesel Electric River Class ferries for NCDOT. Provided ferry expertise and guidance throughout, served as a direct liaison with the client and oversaw final deliverables.
- Michael Johnson Project engineer, updated machinery arrangement, provided quality assurance of onboard systems, and developed updated technical specification.
- Will Ayers Conducted an on-site inspection focused on the electrical components of the AVON while at Gulf Island Shipyard. Supported the electrical engineering team with
- Trygve Reid Provided on-site construction inspections at Gulf Island Shipyard on behalf of NCDOT during the construction of the ferries. During the inspections, he documented shipyard progress and discrepancies against contract documents, provided oversight for on-site inspections, documented review process, attended periodic on-site inspections, bi-weekly shipyard and client meetings, and hosted client meetings as required.
- Chris Biernat Provided on-site construction inspections at Gulf Island Shipyard on behalf of NCDOT during the construction of the ferries. During the inspections, Chris documented shipyard progress and discrepancies against contract documents, documented review process, attended periodic on-site inspections, and attended bi-weekly shipyard and client meetings.

18. Approach and Methodology:

Project Schedule Overview

We understand the project timeline for delivery of final plans & specifications is critical. To support LADOTD with an expedited process we will draw upon our extensive experience on past and current ferry designs. Additionally, we have developed a preliminary MS Project plan that can be further optimized upon project execution and will aid in the reduction of design cycles. Based on our preliminary project schedule, we anticipate the final plans & specifications to take approximately 11 to 12 months to complete from receipt of NTP.

LADOTD - New Ferry Boat



Preliminary Concept Design

Upon receipt of NTP from LADOTD, EBDG will immediately schedule an on-site project kickoff with LADOTD along with the operations personnel. EBDG will establish a preferred communications plan, an agreeable recurring meeting frequency with LADOTD during the entire design phases, and an Owner's Requirements document. The Owner's Requirements document will build on the Owner Desired Configuration & Amenities that are included in the advertisement and will aim to identify additional key design parameters. The Owner's Requirements document is intended to streamline the design process and will be developed in parallel with the review of the POINTE-A-LA-HACHE. The Owner's Requirements document will be used as the basis for the new vessel. There are several areas of the vessel that will merit careful examination for changes. The first is the requirement to accommodate passengers with disabilities as required by the 1990 Americans with Disabilities Act. There is a Final Notice of Proposed Rulemaking that has been issued by the U.S. Access Board with construction standards for passenger vessels that will apply to this project. The second area is the revised United States Coast Guard (USCG) requirements for passenger weight and stability. The intact righting energy standards for vessels of unusual proportion and form was likely not applied to the original design. We have also seen changes in structural fire protection requirements for passenger vessels admeasuring in excess of 100 gross tons which are certified under 46 CFR Subchapter H. Of course, we also expect to incorporate changes that reflect new requirements for pollution protection, areas where maintenance can be simplified, and features that will improve safety.

EBDG will then prepare a set of preliminary concept general arrangements and investigate alternative fuel options for the vessel.

Preliminary Plans

Upon LADOTD's acceptance of the preliminary conceptual general arrangements, EBDG will then move forward with completing the preliminary design that will meet ABS and USCG regulatory requirements for a Subchapter H passenger-vehicle ferry vessel. Upon completion of the preliminary design, EBDG will provide LADOTD the preliminary design PS&E package which will include the plans, specifications, construction cost estimate and schedule for review and comment.

Based on our extensive experience with Subchapter H passenger vessels, we recommend that the following items be included in the Preliminary Design package:

- Inboard and Outboard Profile Drawing
- Deck Arrangement Plans
- Fire Zone Plan
- Lines Plan
- Midship Section Drawing
- Propulsion Machinery Study
- Electrical One-line Diagram
- Outline Specification
- Equipment List
- Weight Estimate
- Trim and Stability Calculations (Intact & Damaged)
- Scantling Calculation per ABS Rules
- 3-D Structural and Mechanical Model
- Reliability & Powering Study (considering both diesel-electric and liquified natural gas (LNG) powered options)

This package will also include a construction cost estimate commensurate with the level of design detail, preliminary construction schedule, and weight estimate. We will also develop a schedule and estimate of the time and costs required to finalize the preliminary PS&E contract design documents. Additionally, we will provide a report summarizing the design development and advising of the required steps for additional design development.

A critical area of focus for the preliminary design is the propulsion machinery. We want to be sure that the propulsion plant selected for the new Plaquemines Parish design is reliable, fuel efficient, easy to maintain, and provides good maneuvering performance. In consultation with the LADOTD project manager, we will develop appropriate selection criteria to evaluate different propulsion configurations including LNG and dieselelectric. Current LADOTD and TXDOT experience with hybrid propulsion will be used to inform the propulsion choice. The evaluation and

recommendations will be documented in a report study, which we will present for review and approval. Using our established process, we can identify the ideal propulsion system integrator and provide the right technology partner(s).

Electronic deliverables will be developed in accordance with LADOTD Software and Deliverable Standards for Electronic Plans. The draft and final preliminary design plans will be delivered electronically in both PDF and Microstation V8.5 (DGN) file formats. Written specifications will be delivered electronically in Microsoft Word 2010 (DOCX) file format.

Once the review of the preliminary design is complete and comments are received by EBDG, we will schedule a meeting to discuss the preliminary design comments and answer any questions.

Final Plans

EBDG will finalize the Preliminary Design and develop additional engineering documents as needed to create a solid shipyard bid package. The final design package will be provided for review and comment and will represent the 90% completion milestone. Upon receipt of comments, EBDG will schedule a meeting to answer any questions and discuss any outstanding comments prior to finalizing the design. EBDG will then complete the final design which will be suitable for a firm-fixed shipyard bid package. The final PS&E package will include the final design plans and specifications, construction cost estimate, and estimated time for construction and a summary letter detailing the final design and any other considerations for LADOTD.

While completing the final design plans, EBDG will work with LADOTD to define the appropriate level of detail for the construction package and risk mitigation features that LADOTD may wish to incorporate into the package. For example, LADOTD may wish to have EBDG develop the layout of the pilothouse control console rather than leaving that design effort, and the risk of a poorly functioning layout, to the shipyard. Alternatively, we may simply specify that the shipyard build a full-scale mockup of the control console for LADOTD's review and approval. Both approaches reduce risk through the expenditure of additional design time and funds.

Based on Subchapter H vessel designs that we are currently preparing, we recommend that the USCG Marine Safety Center be engaged early in the development of the final plans. This should include an initial meeting with the Major Vessel Branch at the Marine Safety Center in Washington, DC. We also recommend that the Marine Safety Office at USCG Sector New Orleans be contacted for their participation. When the final plans are substantially complete, we recommend that they be sent to the USCG for review prior to issuing a bid package to shipyards. This will ensure that any USCG concerns can be incorporated into the final bid package.

We understand that LADOTD requires a revision of the construction cost estimate as part of the final plans. EBDG regularly provides such estimates for our clients and we have a good track record of accurately predicting shipyard costs. We will also work with LADOTD to identify and price other cost areas associated with the new construction of a vessel. These may include on-site inspection, plan review regulatory fees, surety, delivery, training, and testing.

Construction Administration

We understand that the scope of work for construction administration will be agreed upon by supplemental agreement. If LADOTD elects to proceed with the construction of the new vessel we will provide a cost estimate for construction administration. We will provide the specifications necessary for the bidding and advertisement of the project. We will coordinate with the contractor, Department representatives, USCG representatives, and all others as necessary to deliver a fully constructed, operational vessel in full compliance with all current applicable USCG and ABS requirements.

These activities will include, but may not be limited to the following:

- 1. Review and approve all shop drawings as required.
- 2. Provide general supervision of the construction activities conducted by the awarded contractor.
- 3. Coordinate with the USCG and ABS to ensure compliance of the new vessel.
- 4. Provide a weekly progress report based on field observations and man-hours charged.
- 5. Attend all final commissioning activities of the vessel to provide their approval.

19. Workload:

Firm(s) ALL FIRMS MUST BE REPRESENTED IN THIS TABLE	Past Performance Evaluation Discipline(s) *	Contract Number and State Project Number	Project Name	Remaining Unpaid Balance**
Elliott Bay Design	Other (naval	4400019165	New Cameron Ferry	25,062
Group LLC	architecture and	H.010037.5		
	marine engineering)	F.A.P. No. H010037		

20. Certifications/Licenses:

If the advertisement requires submission of licenses and/or certificates, include them here. Otherwise, leave this section blank.

N/A

21. QA/QC Plan:

If the advertisement requires submission of a QA/QC plan, include it here. Otherwise, leave this section blank. If a QA/QC plan is included in this section and was not required by the advertisement, it will be redacted.

N/A

22. <u>Sub-consultant information:</u>

If one or more sub-consultants will be used, provide the name, address, point of contact and phone number for each. Otherwise, leave this section blank.

Firm Name	Address	Point of Contact and email address	Phone Number
(Name must match as registered with			
Louisiana's Secretary of State)			
N/A			

(Add rows as needed)

23. Location:

If location is an evaluation criterion for this advertisement and the prime consultant intends to establish a local presence, describe the plan for doing so. Otherwise, leave this section blank. Any information included in this section will be redacted if not required by the advertisement.

N/A