





### CONTRACT FOR OFF SYSTEM HIGHWAY BRIDGE PROGRAM | STATELINE RD OVER CREEK

Contract No. 4400025050

State Project Number H.015014.5

December 20, 2022



#### PROPOSAL TO PROVIDE CONSULTANT SERVICES

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.

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

1. Co	ontract title as shown in the advertisement	CONTRACT FOR OFF SYSTEM HIGHWAY BRIDGE PROGRAM STATELINE RD OVER CREEK
2. Co	ontract number(s) as shown in the advertisement	4400025050
3. St	tate Project Number(s), if shown in the advertisement	H.015014.5
	rime consultant name (as registered with the Louisiana Secretary of ate where such registration is required by law)	Crescent Engineering & Mapping, LLC  CRESCENT  ENGINEERING & MAPPING LLC
Pr	rime consultant license number (as registered with the Louisiana rofessional Engineering and Land Surveying Board (LAPELS) if egistration is required under Louisiana law)	Engineering: EF-0007140   Surveying: VF-0000871
6. Pr	rime consultant mailing address	PO Box 370, Vacherie, LA 70090
	rime consultant physical address (existing or to be established, if cation is used as an evaluation criteria)	1815 LA 18, Vacherie, LA 70090
	ame, title, phone number, and email address of prime consultant's ontract point of contact	Dennis M. Hymel, Jr., PE, President/Engineering Manager 225.329.1742   Dennis.Hymel@crescentengla.com
	ame, title, phone number, and email address of the official with gning authority for this proposal	Dennis M. Hymel, Jr., PE, President/Engineering Manager 225.329.1742   Dennis.Hymel@crescentengla.com



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.

Signature (shall be the same person as #9):

Date: December 20, 2022

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 and each firm(s)' percentage.

Firm(s):

Firm(s)' %:



### 12. Past Performance Evaluation Discipline Table:

As indicated in the advertisement, insert the completed table here. The percentages for the prime and sub-consultants must total 100% for each past performance evaluation discipline, as well as the overall total percent of the contract.

Evaluation Discipline(s)	% of Overall Contract	Crescent	ELOS	Each Discipline must total 100%
Survey	18%	100%		100%
Road (Incl. Hydraulics)	42%	100%		100%
Bridge	32%	100%		100%
Environmental	8%		100%	100%

Identify the percentage of work for the overall contract to be performed by the prime consultant and each sub-consultant.

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<sup>\*</sup>The past performance evaluation disciplines are: Road, Bridge, Traffic, CE&I/OV, Geotech, Survey, Environmental, Data Collection, Planning, Right-of-Way, CPM, ITS, Appraiser and Other.

If sub-consultants are used, the prime consultant must perform greater than 50% of the work for the overall contract.



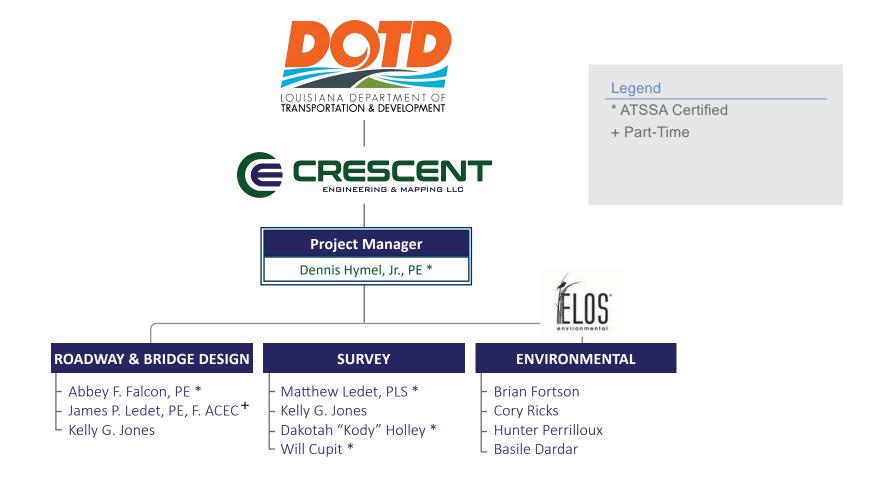
# 13. Firm Size:

Firm name	DOTD Job Classification	Number of personnel committed to this contract	Total number of personnel available in this DOTD Job Classification (if needed)
Crescent Engineering & Mapping, LLC	Supervisor Engineer	1	1
	Engineer	2	2
G CDEECENIT	Sr. Technician	1	1
CRESCENT ENGINEERING & MAPPING LLG	Surveyor	1	1
	Technician	2	2
ELOS Environmental, LLC	Biologist / Wetlands	2	10
And the second second	Environmental Professional	3	11
FIOS	Environmental Manager	1	2
environmental	GIS Analyst	2	6





# 14. Organizational Chart:





# 15. Minimum Personnel Requirements:

Use the table below to identify both prime consultant and sub-consultant staff designated to work on this contract meeting the Minimum Personnel Requirements (MPRs) specified in the advertisement. Ensure the résumé reflects the required experience stated in the MPR.

MPR No.	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 / certification & number	State of license	License / certification expiration date
1	Dennis Hymel Jr., PE		Civil Engineer PE-38172	LA	09/30/2023
2	Dennis Hymel Jr., PE	<b>€</b> CRESCENT	Civil Engineer PE-38172	LA	09/30/2023
3	Dennis Hymel Jr., PE	ENGINEERING & MAPPING LLC	Civil Engineer PE-38172	LA	09/30/2023
4	Matthew J. Ledet, PLS		LA Registered Surveyor PLS - 5104	LA	09/30/2024
5	Brian Fortson	Fine	5 years' wetland delineation		
5	Cory Ricks	ELU5 environmental	5 years' wetland delineation		



### Firm employed by: Crescent Engineering & Mapping, LLC



**Dennis M. Hymel, Jr., PE**Engineering Manager



Years of employe	reference with this	1.5
Years of employe	relevant experience with other	17

Degree(s) / Years / Specialization			Bachelor of Science/2009/Civil Engineering	
Active registration number / state / expiration date			38172 / LA / 09/30/2023	
Year registered	2013	Discipline	PE/Civil Engineering	
Contract role(s) / bri	ief description of resp	onsibilities	<b>Project Manager/EOR.</b> Dennis will serve as the Project Manager, oversee road and bridge design and plan production. His 18 years' of experience meet <b>MPRs #1-#3.</b>	
Experience dates (mm/yy-mm/yy)	Experience and qualifintersection", etc. Exp	ications releve perience date	ant to the proposed contract; i.e., "designed drainage", "designed girders", "designed s should cover the time specified in the applicable MPR(s).	
05/20 – 08/21 (previous employer)	Manager/Engineer of R design elements includi structures) including RC	Record. Performing hydraulics a Slab Span and	eplacement Initiative Phase I (47 bridge structures), Districts 04, 05, 08, 58 (LADOTD) — Project med QC review of topographic surveys, served as the EOR for roadway, geometrics, and bridge analysis, scour, horizontal/vertical alignments, Level 1/2 TMP's, bridge design & LRFR (non-standard LG-25 girders, oversight of geotechnical services and environmental, SOV's, CE document preparation eplacement of 47 bridge structures in northern Louisiana containing nine (9) Off-System Bridges.	
03/18 – 04/21 (previous employer)  S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, roadway and bridge plan product for the 6-span Off-System bridge replacement near Rayville, LA.				
03/22 – Ongoing Engineer. Responsible for all roadway horizontal/vertical alignments, bridge design, oversight of plan preparation, geotechnical and enviro			Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) – Project Manager/Lead horizontal/vertical alignments, roadway and bridge hydraulic analysis, retaining wall design, LRFD ration, geotechnical and environmental services for the replacement of four (4) Off-System Bridge throughout Tangipahoa Parish on E. Lewiston Rd., Easley Rd. and Old Genessee Rd. (2) sites.	
(previous employer)	Responsible for tonographic surveys, roadway and hridge design, special LRFD) bent and span design to accommodate hydraulic condition			
06/15 = 04/18			, Iberville Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway ics, bridge TS&L, hydraulics, foundation layout, SOV's, guardrail layout, roadway and bridge plan bridge replacement project.	



16. Staff Experience	<u>ce:</u>
03/15 – 01/17 (previous employer)	S.P. No. H.011767, Bayou Crab Road Bridge, Assumption Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, hydraulics, foundation layout, special bridge spans (25'), LRFR, roadway and bridge plan production for the 3-span Off-System bridge replacement project.
04/13 – 03/16 (previous employer)	S.P. No. H.010559, Bayou Mercier Road/Berard Canal Bayou, St. Martin Parish, LA (LADOTD) — Project Manager/Engineer of Record — Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, Quad-Beam Superstructure and Substructure, Bearing design, LRFR, roadway and bridge plan production for the 200' long, 5-span Quad Beam Off-System bridge replacement project near Catahoula, LA.
03/15 – 08/20 (previous employer)	S.P. No. H.010867, Jude & Placide Road Bridges, Vermilion Parish, LA (LADOTD) — Project Manager/Engineer of Record — Responsible for all roadway and bridge design including geometrics, bridge TS&L, hydraulics, SOV's, foundation layout, special guard rails, special bridge spans and bents (25'), LRFR, roadway and bridge plan production for the replacement of two (2) Off-System Bridges, 1 @ 50'; 1 @ 60' near Erath and Maurice, LA.
03/13 – 03/15 (previous employer)	S.P. No. H.010598, Derrick Road Bridge, Iberville Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, special bridge bents, LRFR, roadway and bridge plan production for the 3-span Off-System bridge replacement project.
03/13 – 03/18 (previous employer)	S.P. No. H.011524, Katie Ln. & Leo Morrow Rd. Bridges, Avoyelles Parish, LA (LADOTD) – Project Manager/Engineer of Record – Responsible for all roadway and bridge design including geometrics, bridge TS&L, SOV's, hydraulics, foundation layout, special bridge bents & spans, LRFR, roadway and bridge plan production for the replacement of two (2) Off-System Bridges near Plaucheville, LA.
09/16 – 08/21 (previous employer)	S.P. No. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) — Project Manager/Engineer of Record. Responsible for all roadway design including H&V geometrics and drainage, prepared Level 4 TMP and construction phasing plans; Quality Control & bridge design engineer for the widening of Pontchatolawa Creek and Tammany Trace bridges including AASHTO Type III prestressed girders with varying skewed, bobtail spans and LRFR. Performed Construction Support Services. Design completed under an accelerated project schedule.
01/12 – 08/15 (previous employer)	S.P. No. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) – Staff Engineer. Performed roadway and bridge design including special 23' spans for the three-lane, 210' long Off-System Bridge over Bayou Lafourche, LRFR of special bents and spans, prepared bridge plans and details.
09/18 – 08/21 (previous employer)	S.P. No. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD) — Quality Control Manager. QC/QA of roadway design elements. Responsible for bridge design report, QC of bridge plan development for a horizontally curved, superelevated, 1400-footlong bridge over the Bouge Falaya River using LG 36 and LG 54 prestressed concrete girders, 30' rectangular column bents, low water pier foundations.
12/18 – 02/20 (previous employer)	S.P. No. H.013144 Pine Bluff Rd./Drain to Cypress Creek; Tack Allen Rd./Drain to Cypress Creek, Ouachita Parish, LA (LADOTD) — QC Manager. Responsible for topographic surveys, performed oversight and QC reviews of roadway and bridge design including hydraulics, H&V geometry, bridge TS&L, roadway and bridge plan production for the replacement of two (2) Off-System Bridge sites in Ouachita Parish.
02/14 – 12/18 (previous employer)	S.P. No. H.010724, Pecan Island Road Bridge over The Chenal, Point Coupee Parish, LA (LADOTD) — Quality Control Engineer. Responsible for QC reviews of all roadway design and plan preparation, vertical and horizontal geometry, drainage and geometrics, hydraulics design; performed QC reviews of bridge design and bridge plan production for 150' long Off-System Bridge using special detail 25' precast deck and CIP substructure, design of steel pipe piles, anchored steel bulkhead.



### Firm employed by: Crescent Engineering & Mapping, LLC



**Abbey F. Falcon, PE**Project Engineer



Years of relevant experience with this employer	<1
Years of relevant experience with other employer(s)	5

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Degree(s) / Years / Specialization				Bachelor of Science/2017/Civil E	ngineering	
Active registration number / state / expiration date			ation date	46035 / LA / 03/31/2024		
Year registered		2021	Discipline	P.E./Civil Engineering		
Contract role(s) / b	rief de	escription of resp	onsibilities	Road & Bridge Project Engineer - analysis and assist with plan prep	<ul> <li>Abbey will lead the road &amp; bridge design, perform hydrau paration and Inroads modeling.</li> </ul>	ılics
Experience dates (mm/yy-mm/yy)	Expe inter	rience and qualif section", etc. Exp	ications relev perience date	ant to the proposed contract; i. s should cover the time specifie	.e., "designed drainage", "designed girders", "designed ed in the applicable MPR(s).	l
04/20 – 04/22 (previous employer)	roadv	way and bridge des	sign, bridge hyd	draulics & scour analysis, develope	rish, LA (LADOTD) – Lead/Engineer of Record. Responsible roadway and bridge H&V alignments, drainage design, presign criteria for the eight (8) span Off-System bridge replaces	repared
04/20 – 05/22 (previous employer)	20 – 05/22 roadway and bridge design, bridge hydr			draulics & scour analysis, SOV's deared roadway and bridge plans, d	rish, LA (LADOTD) – Lead/Engineer of Record. Responsible developed roadway and bridge H&V alignments, drainage design criteria for the replacement of five (5) LADOTD On-	design,
04/20 – 04/22 (previous employer)	and b	oridge design, brid	ge hydraulics 8	& scour analysis, developed roadw	(LADOTD) – Lead/Engineer of Record. Responsible for all roway and bridge H&V alignments, superelevation, drainage, s for the replacement of three (3) LADOTD On-System bridge.	, bridge
06/18 – 04/21 (previous employer)	S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD) – Project Engineer. Assisted with roadway and bridge including Inroads modeling, geometrics, bridge TS&L, hydraulics, foundation layout, and bridge plan production for the 6-span Off-S bridge replacement near Rayville, LA.			_		
07/22-Ongoing	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) — Project Engi Lead engineer for hydraulics analysis, roadway and bridge design including horizontal/vertical alignments, roadside drainage, bridge Troadway and bridge plan production for the replacement of four (4) Off-System Bridges in Tangipahoa Parish with multi-barrel Box Cul and RC slab spans varying from 60-100 feet long along Old Genessee, Easley and E. Lewiston Rd.			e TS&L,		
04/20 – 02/22 (previous employer)	bridg	e design, bridge hy	draulics & sco	ur analysis, developed roadway an	<b>DOTD)</b> – Lead/Engineer of Record. Responsible for all roadv nd bridge H&V alignments, drainage design, prepared bridg for the <b>3-span Off-System bridge replacement</b> .	•



16. Staff Experien	ce:
05/17 – 08/21 (previous employer)	S.P. No. H.011152, I-12 Widening (US 190 to LA 59), St. Tammany Parish, LA (LADOTD) — Project Engineer. Assisted with all roadway design elements on the 4-mile Interstate widening project including geometrics, Level 4 TMP and drainage. Prepared quantities, Inroads roadway modeling, summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans. Accelerated project schedule.
04/18 – 10/21 (previous employer)	<b>S.P. No. H.001344, US 190: LA 437 to US 190 BUS (Ph. 1), St. Tammany Parish (LADOTD)</b> – Project Engineer. Assisted with all roadway design elements on the 1-mile Urban, multi-lane roadway widening project including geometrics and drainage. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, assisted with the preparation of preliminary and final roadway plans.
03/21 – 07/22 (previous employer)	S.P. No. H.014233, LA 160: Cypress Bayou and Relief Bridges, Bossier Parish, LA (LADOTD)— Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Final Plans, design criteria for the replacement of two (2) LADOTD On-System bridges.
05/17 – 08/21 (previous employer)	<b>S.P. No. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD)</b> – Project Engineer. Assisted with all roadway design elements on the 5.5 rural, 4-lane corridor project including geometrics and drainage design. Prepared quantities, performed Inroads roadway modeling, prepared summary sheets, typical sections, detailing, Sequence of Construction sheets, prepared preliminary and final roadway plans.
03/21 – 07/22 (previous employer)	S.P. No. H.014217, LA 537: Bridges Near Plain Dealing, Bossier Parish, LA (LADOTD)— Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour analysis, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Final Plans, design criteria for the replacement of three (3) LADOTD On-System bridges.
03/21 – 07/22 (previous employer)	S.P. No. H.014231, LA 153: Topy Creek Relief & Drain Bridges, Bienville Parish, LA (LADOTD) – Lead/Engineer of Record. Responsible for all roadway and bridge design, bridge hydraulics & scour, developed roadway and bridge H&V alignments, drainage design, bridge TS&L, prepared roadway and bridge plans up to 60% Prelim Plans for the replacement of four (4) LADOTD On-System bridges.
07/17 – 06/21 (previous employer)	S.P. No. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Project Engineer. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 2.7 mile rural safety widening project including split phased bridge construction of the RC slab span bridge over unnamed Bayou.
07/17 – 09/18 (previous employer)	S.P. No. H.011540, Babin Road Bridge/Bayou Narcisse, Ascension Parish, LA (LADOTD) – Engineering Support. Assisted with H&V geometrics, roadway drainage design, roadway and bridge plan production, Inroads modeling, quantity calculations for the 3-span Off-System bridge near Gonzales, LA.
12/18 – 07/19 (previous employer)	S.P. No. H.013144 Pine Bluff Rd./Drain to Cypress Creek; Tack Allen Rd./Drain to Cypress Creek, Ouachita Parish, LA (LADOTD) – Engineering Support. Assisted with roadway and bridge design including hydraulics, H&V geometry, assisted in preparation of roadway and bridge plan production for the replacement of two (2) Off-System Bridge sites in Ouachita Parish.
07/17 – 12/18 (previous employer)	<b>S.P. No. H.010724, Pecan Island Road Bridge over The Chenal, Point Coupee Parish, LA (LADOTD)</b> – Engineering Support. Assisted with roadway design and plan preparation, quantity calculations and summary sheets, assisted with bridge plan production and quantities for <b>150' long Off-System Bridge</b> using special detail 25' precast deck and CIP substructure, steel pipe piles, and anchored steel bulkhead.



### Firm employed by: Crescent Engineering & Mapping, LLC



James P. Ledet, PE, F. ACEC Quality Control Engineer



Years of relevant experience with this employer	<1
Years of relevant experience with other employer(s)	44

Degree(s) / Years / S	Specialization		Bachelor of Science/1982/Civil Engineering	
Active registration r	number / state / expir	ation date	22428 / LA / 03/31/2024	
Year registered	1986	Discipline	P.E./Civil Engineering	
Contract role(s) / br	ief description of resp	onsibilities	Bridge Quality Control Engineer – Jimmy will serve as the bridge Quality Control Manager	
Experience dates (mm/yy-mm/yy)	Experience and qualintersection", etc. Ex	fications relev perience date	ant to the proposed contract; i.e., "designed drainage", "designed girders", "designed s should cover the time specified in the applicable MPR(s).	
07/22 – Ongoing	_	of roadway and	<b>Branch, Tangipahoa Parish, LA (Tangipahoa Parish)</b> – Quality Control Engineer – Responsible for d bridge design, hydraulics analysis and report, roadway and bridge plan reviews for the replacement entwood, LA.	
05/15 – 08/17 (previous employer)	S.P. No. H.004113, I-12 to Bush: LA 3241 (LA 435 to LA 40/41), St. Tammany Parish, LA (LADOTD) – Senior Supervising Engineer. Supervision and oversight of roadway design including QC of hydraulic analysis, geometrics and supervision of plan production for the new 5.5-mile, four-lane RA-3 roadway from LA 435 to Bush, LA.			
11/10 – 06/14 (previous employer)				
11/13 – 11/18 (previous employer)	S.P. No. H.010557, Lajaunie Road/Lateral 1 Bridge over Bayou St. Clair, Lafayette Parish, LA (LADOTD) — Senior Professional/QA/QC. Supervision of topographic surveying and engineering design including roadway and bridge design for preliminary plans of the 80' RC Slab and quad-beam, superelevated, curved Off-System bridge structure including roadway upgrades to RL-3 criteria.			
03/10 – 05/14 (previous employer)	SP 713-04-0002, LA 400 Bridge over Cancienne Canal, Assumption Parish, LA (LADOTD) – Engineer of Record. Responsible for topographic surveying, roadway design including approaches, and bridge design, supervised roadway and bridge plan production including bridge details, roadway details for the 7-span off-system bridge replacement.			
10/09 – 11/17 (previous employer)	<ul> <li>Engineer of Record ( drainage and geometri</li> </ul>	Ph. I)/Supervisi cs, and oversigl	ension: LA 660 to LA 316, Terrebonne Parish, LA (Terrebonne Parish Consolidated Government) ing Engineer (Ph. II). Responsible for topographic surveying, oversight of roadway design including ht of 160' Off-System RC Slab Span bridge design including special/curved spans for 1.6-mile, fourng signal upgrades and turn lanes on state routes.	



16. Staff Experien	<u>ce:</u>
07/22 – Ongoing	Old Genessee Rd. Bridges over Creeks, Tangipahoa Parish, LA (Tangipahoa Parish) – Quality Control Engineer. Responsible for performing QC reviews of roadway and bridge design, hydraulic analysis and report, roadway and bridge plan reviews for the replacement of two (2) Off-System Bridges near Tickfaw, LA with multi-barrel RCB's and RC Slab span bridges.
08/22 – Ongoing	<b>22-084, Rousseau Rd. Bridge Over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government)</b> – Quality Control Engineer. Responsible for performing QC reviews of roadway and bridge design, bridge TS&L and split phase construction, hydraulic analysis and report, roadway and bridge plan reviews for the replacement of an 80' <b>Off-System Bridge over Tchefuncte River</b> near Covington, LA with a 120' RC slab span bridge using split-phase construction sequencing.
1997-2011 (previous employer)	<b>S.P. No. 713-55-0100, St. Ann Bridge Replacement, Terrebonne Parish, LA (LADOTD)</b> – Engineer of Record. Responsible for topographic surveying and all roadway design aspects, bridge design and approaches for the <b>Off-System moveable bridge</b> replacement with a single-leaf, bascule span bridge.
02/05 – 05/08 (previous employer)	S.P. No. 246-01-0054, Route LA 57: Grand Caillou Road, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for all roadway design aspects including and subsurface drainage design; construction support and topographic survey for two-mile long UA-2, five-lane widening project.
11/99 – 01/01 (previous employer)	S.P. No. 742-07-0019, Bayou Gardens Blvd. Widening: LA 659 to Alma St., Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for topographic surveying, roadway design including geometrics and intersection improvements and subsurface drainage design for the one-mile UA-2 widening project.
1994 – 1997 (previous employer)	S.P. No. 413-01-0011, Hollywood Rd./LA 311 Intersection Improvements/Bridge Replacement, Terrebonne Parish, LA (LADOTD) – Engineer of Record/Project Manager. Responsible for design of roadway, hydraulics, utility relocations, drainage improvements, bulkheads and bridge design services for intersection improvement and Off-System bridge replacement project.
1993 – 1997 (previous employer)	S.P. No. 065-91-0011; S.P. 855-04-0052; S.P. 855-08-00340, Howard Avenue Bridge and Approaches, Terrebonne Parish, LA (LADOTD) – Engineer of Record. Responsible for roadway design including subsurface drainage, geometrics, and bridge design of Off-System steel lift span bridge replacement (using towers from Pinhook Rd. bridge) for preliminary and final plans.
1985 – 1991 (previous employer)	S.P. No. 700-26-100, Off-System Bridge Replacement Program, Lafourche Parish, LA (LADOTD) — Engineer of Record/ Project Manager. Responsible for engineering design services for the replacement of four (4) Off-System bridges and associated roadway approaches: S.P. 713-46-98, Parish Road 16 (Choctaw Road) over St. James Canal; S.P. 713-53-93, Parish Road 18 (60 Arpent Road) over Bayou Boudreaux; S.P. 713-53-94, Parish Road 11 (Lepine Rd. #1) over unnamed canal; and S.P. 713-53-92 Parish Road 579 (Hamilton Road) over 40 Arpent Canal.
1994 – 1995 (previous employer)	S.P. No. 742-05-0042, Combon Bridge and Approaches, Terrebonne Parish, LA (LADOTD) – Project Manager. Responsible for EIS document and design supervision of the Off-System 100 Ft. vertical lift span across Grand Caillou including roadway approaches and shop drawing reviews during construction.
1984 – 1986 (previous employer)	S.P. No. 855-14-08 & 65-90-23, LA 3087: Bridge over Bayou Terrebonne at East Street, Terrebonne Parish, LA (LADOTD) — Project Manager. Responsible for the roadway and bridge design services to retrofit the existing Prospect Street bridge to be relocated to construct a vertical lift bridge at East Street, and associated intersection improvements at LA 24 and LA 659.



### Firm employed by: Crescent Engineering & Mapping, LLC



Matthew Ledet, PLS
Survey Manager



Years of relevant experience with this employer	1
Years of relevant experience with other employer(s)	16

Degree(s) / Years / Specialization			Bachelor of Science/2008/Manufacturing Engineering Technology Bachelor of Science/2010/Geomatics	
Active registration I	Active registration number / state / expiration date		ation date	5104 / LA / 09/30/2024
Year registered		2013	Discipline	PLS/Surveying
Contract role(s) / bi	rief de	escription of resp	onsibilities	Lead Surveyor/Surveyor of Record – Matt will lead the survey effort and serve as the Surveyor of Record. His 17 years' of experience meets <b>MPR # 4.</b>
Experience dates (mm/yy-mm/yy)	Exper	rience and qualif section", etc. Exp	ications releva perience dates	ant to the proposed contract; i.e., "designed drainage", "designed girders", "designed s should cover the time specified in the applicable MPR(s).
05/20 – 12/21 (previous employer)	Surve prope	Contract 44-17598 – Rural Bridge Replacement Initiative Phase I (47 bridge structures), Districts 04, 05, 08, 58 (LADOTD) – Lead Surveyor of Record. Led survey effort including GPS control establishment, topographic surveys, data processing, deliverable preparation property surveys and Right of Way Mapping for the replacement of 47 bridge structures in northern Louisiana containing nine (9) Of System Bridges.		
08/15 – 08/18 (previous employer)	<b>S.P. No. H.011540, Babin Road Bridge/Bayou Narcisse, Ascension Parish, LA (LADOTD)</b> – Lead Surveyor/Surveyor of Record. Responsib for topographic surveys, crew coordination, oversight of data processing, LiDAR processing for surface generation and use in existing drainage maps, deliverable preparation, title take off, property surveys, prepared base, and final right of way maps for the <b>Off-Syste Bridge replacement</b> project.			
11/13 – 05/14 (previous employer)	S.P. No. H.010557, Lajaunie Road/Lateral 1 Bridge over Bayou St. Clair, Lafayette Parish, LA (LADOTD) – Lead Surveyor/Surveyor Record. Responsible for topographic surveys, crew coordination, oversight of data processing, LiDAR processing, existing drainage of deliverable preparation, title take off, property surveys, prepared base, and final right of way maps for the Off-System Bridge replace project.			urveys, crew coordination, oversight of data processing, LiDAR processing, existing drainage maps,
03/22 – 07/22	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) — Lead/Surv Record. Responsible for topographic surveys, crew coordination, data processing, LiDAR processing for surface generation and existing drainage maps for the replacement of four (4) Off-System Bridge replacements with RC Slab Span sites throughout Tangerish.			surveys, crew coordination, data processing, LiDAR processing for surface generation and use in
04/14 – 12/18 (previous employer)	data processing and oversight of field crew coordination for the tonographic surveys of 5.5 miles of virgin, wooded terrain with a			



16. Staff Experien	<u>ce:</u>
07/21 – 12/21 (previous employer)	Contract 44-19336 – Rural Bridge Replacement Initiative Phase II (40 bridge structures), Districts 04 & 05, (LADOTD) – Lead Surveyor/Surveyor of Record. Led survey effort including GPS control establishment, topographic surveys, data processing, deliverable preparation for the replacement of 40 bridge structures in northern Louisiana.
04/16 – 08/21 (previous employer)	S.P. No. H.013116, LA 20 Widening (LA 307 to S. Vacherie), St. James & Lafourche Parishes (LADOTD) – Surveyor of Record, Lead Surveyor. Led topographic survey effort for the 2.7 mile rural safety widening project including control establishment, topographic surveys, and property surveys. Performed field reconnaissance, prepared survey field crew packs, processed data and prepared deliverables. Prepared base and Final Right of Way Maps including 9 parcels.
07/22 – 09/22	<b>22-084, Rousseau Rd. Bridge Over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government)</b> – Lead/Surveyor of Record. Responsible for topographic surveys, crew coordination, data processing, LiDAR processing, GPS control establishment, control sketch LADOTD deliverables for the replacement of an <b>Off-System Bridge over Tchefuncte River</b> with 120' long RC slab span near Covington, LA.
03/10 – 10/10 (previous employer)	S.P. No. 713-04-0002, LA 400 Bridge over Cancienne Canal, Assumption Parish, LA (LADOTD) – Survey Support. Performed field topographic surveys, processed data and prepared topographic survey deliverables on field roll for the eight (8) span Off-System Bridge replacement project in Thibodaux, LA.
06/18 – 10/18 (previous employer)	<b>S.P. No. H.013080, McLemore Road/Bee Bayou, Richland Parish, LA (LADOTD)</b> – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation for the <b>6-span Off-System bridge replacement</b> near Rayville, LA.
04/13 – 08/13 (previous employer)	S.P. No. H.010559, Bayou Mercier Road/Berard Canal Bayou, St. Martin Parish, LA (LADOTD) – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation for the 200' long, 5-span Quad Beam Off-System bridge replacement project near Catahoula, LA.
06/15 – 08/15 (previous employer)	<b>S.P. No. H.011806, Gracie Lane Bridge, Iberville Parish, LA (LADOTD)</b> – Lead Surveyor/Surveyor of Record. Responsible for topographic surveys, crew coordination, oversight of data processing, topographic survey deliverable preparation for the <b>7-span Off-System bridge replacement</b> project near Bayou Sorrel, LA.
02/18 – 12/18 (previous employer)	ENG-17-013, LA 3127 Extension (LA 70 to LA 1), Ascension Parish, LA (Ascension Parish Government) — Lead Project Surveyor. Responsible for topographic surveys, crew coordination, oversight of data processing, deliverable preparation, title take off, title research reports, property surveys, prepared base right of way maps including 12 parcels for the 6.8-mile roadway extension project including several Off and On-System Bridges.
02/11 – 01/13 (previous employer)	S.P. No. 713-29-0103, Tiger Drive Bridge over Bayou Lafourche, Lafourche Parish, LA (LADOTD) — Survey Support. Performed field topographic and property surveys, prepared topographic survey deliverables, prepared base, and final right of way maps for the urban, 3-lane Off-System Bridge replacement project in Thibodaux, LA.
09/04 – 06/07 (previous employer)	<b>S.P. No. 742-55-0102, Country Drive Widening, Terrebonne Parish, LA (LADOTD)</b> – Survey Support. Assisted with calculating 107 parcels on base and final right-of-way maps; performing topographic survey; boundary survey for 2.7 miles roadway widening project.



### Firm employed by: Crescent Engineering & Mapping, LLC



**Kelly G. Jones** Sr. Technician



Years of relevan	t experience with this	<1
Years of relevan	t experience with other	3

Degree(s) / Years /	Specialization		Bachelor of Arts/2012/Mathematics & English
Active registration i	number / state / expira	ation date	N/A
Year registered	N/A	Discipline	N/A
Contract role(s) / bi	ief description of resp	onsibilities	Sr. Technician – Survey & Engineering. Kelly will assist with the preparation of topographic surveys, roadway and bridge plans, detailing.
Experience dates (mm/yy-mm/yy)			ant to the proposed contract; i.e., "designed drainage", "designed girders", "designed s should cover the time specified in the applicable MPR(s).
02/19 – 04/20 (previous employer)	of roadway and bridge p	olans, temporai	<b>190 to LA 59), St. Tammany Parish, LA (LADOTD)</b> – Project Technician. Assisted with the preparation ry erosion control plans, summary of estimated quantities, quantity summary sheets, bridge quantity , title sheet and typical sections and details. Design completed under an accelerated project schedule.
03/22 – Ongoing	Tangipahoa Parish Off-System Bridge Replacement (4 Sites), Tangipahoa Parish (Tangipahoa Parish Government) — Project Technician Performed survey data processing, post-processing and topo survey deliverable preparation, assisting with roadway and bridge pla preparation including Inroads alignments, Plan/Profile sheets, Temporary Bench Marks, Erosion control plans, quantity summary sheet quantity calculations, typical sections, drainage maps, bridge general plan/elevation, and foundation layout for the replacement of four (4 Off-System Bridge replacements with RC Slab Span sites throughout Tangipahoa Parish.		
22-084, Rousseau Rd. Bridge Over Tchefuncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Project Technology Performed survey data processing and deliverable preparation, assisted with roadway and bridge plan preparation including alignment/surface, Plan/Profile sheets, Summary of Estimated Quantities, typical sections, existing drainage maps, bridge Genera Elevation, foundation layouts, bridge sequence of construction sheets for split-phase construction of the replacement of an Off-Bridge over Tchefuncte River with 120' long RC slab span near Covington, LA.			nd deliverable preparation, assisted with roadway and bridge plan preparation including Inroads s, Summary of Estimated Quantities, typical sections, existing drainage maps, bridge General Plan & sequence of construction sheets for split-phase construction of the replacement of an <b>Off-System</b>
11/19 – 09/20 (previous employer)	of roadway plans including utility relocation plans, actair sheets, summary of estimated qualitities, quantity summary sheets, calculati		
01/22 – 03/22 (previous employer)	Of roadway and bridge plans inclining typical sections, plan/brotiles, detail speets, slimmary of estimated dilabitides, title speet for		
12/21 – 03/22 (previous employer)	-	ling typical sec	<b>Ich &amp; Indian Creek BRs, Webster Parish (LADOTD)</b> – Project Technician. Assisted with the preparation tions, plan/profiles, detail sheets, summary of estimated quantities, title sheet for the replacement <b>ients</b> in Webster Parish.



### Firm employed by: Crescent Engineering & Mapping, LLC



**Dakotah "Kody" Holley**Survey Technician



Years of relevant experience with this employer	<1
Years of relevant experience with other employer(s)	3

Degree(s) / Years /	Degree(s) / Years / Specialization		High School Diploma/2017			
Active registration	numbe	r / state / expira	tion date	N/A		
Year registered		N/A	Discipline	N/A		
Contract role(s) / bi	rief des	cription of resp	onsibilities	Survey Field Technician – Mr. Ho	olly will serve as a field survey technician for topographic su	rveys.
Experience dates (mm/yy-mm/yy)	Experi interse	ence and qualifi ection", etc. Exp	cations releve erience date	ant to the proposed contract; i s should cover the time specifi	.e., "designed drainage", "designed girders", "designed ed in the applicable MPR(s).	l
05/19 – 01/21 (previous employer)	topogr	aphic and bounda	iry surveys as	well as assist with 3D laser scann	<b>LA (Port of New Orleans)</b> – Survey Technician. Performed ing of the existing single-leaf bascule bridge, railroad and retruction of the bridge approaches.	
10/20 – 03/21 (previous employer)	<b>S.P. No. H.001399, Happy Jack – N. Port Sulphur, Plaquemines Parish, LA (LADOTD)</b> – Survey Technician. Performed field topographic route surveys of the existing roadway sections including control and full .DTM survey using LADOTD procedures for the widening to 4 lanes.					
11/20 – 03/21 (previous employer)	Lapalco Bridge @ Harvey Canal, Jefferson Parish, LA (Jefferson Parish Government) — Survey Technician. Performed field topograph route surveys of the existing roadway sections and bridge including full .DTM survey and hydrographic survey using LADOTD procedures.					
06/22 – 08/22	topogr	aphic route surve	ys, control est		ames Parish Government) – Survey Technician. Performe all .DTM topographic surveys of the existing roadways Paris ject.	
09/21 – 02/22 (previous employer)					nt) – Survey Technician. Performed field topographic route cations, utilities and drainage using LADOTD procedures.	surveys
07/22 – Ongoing	GPS sta	atic control establ	ishment, digit	· · · · · · · · · · · · · · · · · · ·	s Parish Government) – Party Chief/Survey Technician. Per ys of the existing roadway with a 350' wide full .DTM surve	
07/22 – 09/22	Perforr	med site reconnais	ssance, prepar	ed field packs, field topographic su	(St. Tammany Parish Government) – Party Chief/Survey Tech urvey including GPS control establishment and full .DTM topo for the 6-span Off-System Bridge replacement near Coving	graphic



### Firm employed by: Crescent Engineering & Mapping, LLC



**Will Cupit** Survey Technician



Years of relevant experience with this employer	1
Years of relevant experience with other employer(s)	1.5

Degree(s) / Years / S	pecialization		High School Diploma/2019			
Active registration n	umber / state / expira	ntion date	N/A			
Year registered	N/A	Discipline	N/A			
Contract role(s) / br	ief description of resp	onsibilities	Survey Field Technician – Mr. Cupit will serve as a field survey technician for to	pographic sur	rveys.	
Experience dates (mm/yy-mm/yy)	Experience and qualifi intersection", etc. Exp	cations relev erience date	vant to the proposed contract; i.e., "designed drainage", "designed girders es should cover the time specified in the applicable MPR(s).	", "designed		
03/22 – 07/22		ent, ran digita	Branch, Tangipahoa Parish, LA (Tangipahoa Parish Government) — Survey Technic al levels and performed field topographic surveys of the existing bridge, channel, ect near Kentwood, LA.			
	/22 <b>Easley Rd. Bridge over Sweetwater Creek, Tangipahoa Parish, LA (Tangipahoa Parish Government)</b> – Survey Technician. Performed GPS static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for the <b>Off-System Bridge replacement</b> project near Loranger, LA.					
04/22 – 06/22	Old Genessee Rd. Bridge over Creek #1, Tangipahoa Parish, LA (Tangipahoa Parish Government) — Survey Technician. Performed of static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for Off-System Bridge replacement project near Tickfaw, LA.					
LA 3127 Widening (LA 20 to LA 3213), St. James Parish, LA (St. James Parish Government) – Survey Technician. Performed GPS st control establishment, digital levels, field topographic surveys of the existing roadway with a 350' wide full .DTM survey using LADC codes and procedures for the 2.5 mile widening to 4 lanes.						
09/21 – 02/22	•	•	ements, Vacherie, LA (St. James Parish Government) — Survey Technician. Per surveys of over 2 miles of existing roadway, drainage structures, utilities.	formed GPS (	control	
04/22 – 06/22	Old Genessee Rd. Bridge over Creek #2, Tangipahoa Parish, LA (Tangipahoa Parish Government) — Survey Technician. Performed G static control establishment, ran digital levels and performed field topographic surveys of the existing bridge, channel, and roadway for to Off-System Bridge replacement project near Tickfaw, LA.					
	site reconnaissance, pre	pared field pa	acks, field topographic survey including GPS control establishment and full .DTM	ncte River, St. Tammany Parish, LA (St. Tammany Parish Government) – Survey Technician. Performed acks, field topographic survey including GPS control establishment and full .DTM topographic surveys adway, bridge and channel for the 6-span Off-System Bridge replacement near Covington, LA.		



16. Staff Experien	<u>ce:</u>				
Firm employed by:	<b>ELOS Environmenta</b>	l, LLC			
Brian Fortson				Years of relevant experience with this employer	7
Senior Ecologist	ELU5 environmental			Years of relevant experience with other employer(s)	30
Degree(s) / Years /	Specialization		Juris Doctorate / 2006 / Civil Cu BS / 1995 / Wetland Ecology	m Laude	
<b>Active registration</b>	number / state / ex	piration date	N/A		
Year registered	N/A	Discipline	N/A		
Contract role(s) / b	rief description of r	esponsibilities	Brian will serve as the Senior Edagency coordination. Brian mee	cologist, providing his expertise for environmental perrets MPR #5.	nits and
Experience dates (mm/yy-mm/yy)			ant to the proposed contract; s should cover the time specif	i.e., "designed drainage", "designed girders", "des ied in the applicable MPR(s).	igned
permitting various coagencies such as USD	omplex developmenta A, NRCS, FEMA, USAC Dermitting process. M	II infrastructure pr E, DNR, and LDEQ.	ojects. Mr. Fortson serves as the Brian's knowledge of state and fe	nvironmental knowledge to ELOS personnel through ne Senior Environmental Scientist at ELOS, working wideral environmental regulations and his years of experinental scientists at ELOS on plant identification and the	th regulator ence enable
01/15 – 01/16	in field investigation	s to support wetl	and delineations and findings re	ADOTD, N-Y ASSOCIATES) – Mr. Fortson supervised and ports, biological surveys, and threatened and endanges, consultation with landowners, and outreach to pub	gered specie
08/17 – 07/18	CORP.) – Senior En Harrison Avenue in	vironmental Scient Abita Springs from ject area. He assis	tist. Assisted in the preparation In LA 59 to LA 36, a distance of 1. ted in the identification of land u	AVE EXT (LADOTD, PROFESSIONAL ENGINEERING CO of a DOTD Stage 0 Environmental Checklist for the 7 miles. Desktop and field data were collected to idea se, wetlands, community facilities, recreational assets	extension on tify relevan
09/17 – 02/21	Environmental Scier for three alternative	itist. Responsible fo e alignments bein	or the supervision of fieldwork, w g studied for the extension of E	IRONMENTAL ASSESSMENT (LADOTD, N-Y ASSOCIATIVE tland delineations, biological surveys, and Section 40 in University Avenue from LA 1065 to the Hammond costs for unavoidable impacts to wetlands.	4 application
05/21 – 03/22	process, coordinatin	g with regulatory	agencies, and providing senior-le	I Scientist. Serves as a Project Manager overseeing the velinsight for this project. ELOS is contracted to condustrial well as submit a joint permit application to the LDNR	uct a wetland



replacement of the Trace Bridge over Little Bayou Castine on Tammany Trace.

10. Staff Experience.									
Firm employed by:	ELOS Environmental, LLC								
Cory Ricks	FLOO		Years of relevant experience with this employer	6					
Project Manager/ Environmental Scie	ntist ELUS		Years of relevant experience with other employer(s)	2					
Degree(s) / Years /	Specialization	BS / 2015 / Biology							
Active registration	number / state / expiration date	R-I-99273-17-01464							
Year registered	2017 Discipline	proActive Safety Services Reno	vator Initial						
Contract role(s) / b	rief description of responsibilities	t Manager, providing his expertise for wetland delineations well as managing the collection of field data and the devel.							
Experience dates (mm/yy-mm/yy)									
infrastructure develo	pments. He has provided assistance s a team of environmental scientists,	with NEPA documentation, permit field biologists, and data processor	fforts for multiple projects for local entities, mitigation bar ting, GIS mapping, and cultural resources for a variety of p s who all assist on a variety of environmental and disaster r	orojects. recovery					
08/20 – Ongoing			National Control of the American Survey (I WHISKEY CHITTO CR (LADOTD, BURK-KLEINPETER, INC.) – sion, permit applications, and a threatened and endangered						
08/20 – 03/22			<b>VER CALCASIEU RIVER RELIEF (LADOTD, BURK-KLEINPETER,</b> delineation, permit applications, and a threatened and end						
08/20 - 01/22			ROUTE (LADOTD, BURK-KLEINPETER, INC.) – Project Managolications, and a threatened and endangered species survey						
08/20 - 09/21			(LADOTD, BURK-KLEINPETER, INC.) – Project Manager. Thins, and a threatened and endangered species survey.	s bridge					
08/20 – 09/21	S.P. H.013968, RURAL BRIDGE INIT This bridge replacement project inc		AL BRIDGES (LADOTD, BURK-KLEINPETER, INC.) — Project Nermit applications.	1anager.					
08/20 – 02/22	<b>S.P.</b> H.013970, RURAL BRIDGE INITIATIVE – LA 717: KLONDIKE CANAL AND BAYOU BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.								
08/20 – Ongoing	S.D. H. 013076. RURAL RRIDGE INITIATIVE - LA 376: RAVOLI RRIDGES (LADOTD. RURK-KLEINDETER, INC.) - Project Manager. This bridge								



16. Staff Experier	nce:
08/20 – 01/22	S.P. H.013982, RURAL BRIDGE INITIATIVE – LA 10 SPUR, LA 1042: BRIDGES NEAR GREENSBURG (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation and permit applications.
08/20 – Ongoing	S.P. H.013984, RURAL BRIDGE INITIATIVE – LA-0016/WRIGHT'S CREEK, HOLDEN'S CREEK, UNNAMED DRAIN, TALLEY'S CREEK, BERRY'S CREEK (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
08/20 – 01/22	S.P. H.013996, RURAL BRIDGE INITIATIVE – LA 1074, LA 1075: BRIDGES NEAR RIO (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
06/21	<b>BRAD POCHE: SISTERS ROAD PRELIMINARY WETLAND</b> – Mr. Ricks coordinated with USACE DNR to obtain the necessary permits, identified Jurisdictional wetlands, and completed wetland delineations.
08/20 - 09/21	S.P. H.013989, RURAL BRIDGE INITIATIVE – GRAYBOW ROAD/PALMETTO CREEK (LADOTD, BURK-KLEINPETER, INC.) – Project Manager. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.
10/19 – Ongoing	<b>WEST FELICIANA DISASTER RECOVERY ASSISTANCE</b> – Environmental Scientist. Mr. Ricks worked to conduct wetland delineations and manage permit requests in order to secure authorization for debris removal.
04/18 – 02/19	<b>LIVINGSTON PARISH CANALS BLOOD RIVER, TAYLOR BRANCH, CAMP AND RODERICK CREEKS</b> – Environmental Scientist. Mr. Ricks provided wetland delineation work to support a wetland delineation to submit to USACE. Mr. Ricks also provided a joint Permit Application to submit to DNR obtain an official permit for the cleanout work.
07/2018	<b>Upper LA 45 EVACUATION ROUTE TIDAL SURGE PROTECTION</b> – Environmental Scientist. Mr. Ricks led a field crew to perform a wetland delineation of the Upper LA 45 protection project located in Jean Lafitte, Jefferson Parish. He also produced a wetland delineation report to submit to USACE to obtain a jurisdictional determination.
05/18 – 06/18	<b>LIVINGSTON PARISH AIRPORT</b> – Environmental Scientist. Mr. Ricks led the field crew to perform the wetland delineation and produce the wetland delineation report to submit to the USACE to obtain a jurisdictional determination.



Firm employed by: ELOS Environmental, LLC									
Hunter Perrilloux	Fine	n°		Years of relevant experience with this employer	3				
Environmental Scie	ntist LU3			Years of relevant experience with other employer(s)	1				
Degree(s) / Years /	Specialization		BS / 2018 / Biology						
Active registration	number / state / e	expiration date	N/A						
Year registered	N/A	Discipline	N/A						
Contract role(s) / b	rief description of	responsibilities	Hunter will serve as the Field B wetland delineations and jurisc	iologist, providing his expertise for collecting and analyzing dictional determinations.	data for				
Experience dates (mm/yy-mm/yy)	Experience and continued intersection", etc.	ualifications relev . Experience date	rant to the proposed contract; is should cover the time specif	i.e., "designed drainage", "designed girders", "designed in the applicable MPR(s).	d				
	performed several f			itoring, endangered species monitoring, and performing Perrilloux has also assisted with mitigation bank monitoring					
8/20 – 7/21			TIVE, JESSE B ROAD OVER BAYOU a wetland delineation and permit	J MALLET (LADOTD, BURK-KLEINPETER, INC.) – Field Biolog applications.	gist. This				
8/20 – 7/21			ATIVE, SANDY CREEK BRIDGE and delineation and permit application	(LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This ations.	s bridge				
8/20 – 7/21			TIVE, SLIGO ROAD OVER WALTE wetland delineation and permit	R CREEK (LADOTD, BURK-KLEINPETER, INC.) — Field Biolog applications.	gist. This				
8/20 – 9/21				<b>DOTD, BURK-KLEINPETER, INC.)</b> – Conducted fieldwork. Thins, and a threatened and endangered species survey.	is bridge				
8/20 – 9/21			IVE, LA 404: BAYOU AND CANAL I ded a wetland delineation and pe	BRIDGES (LADOTD, BURK-KLEINPETER, INC.) – Conducted fie ermit applications.	eldwork.				
8/20 – 1/22			•	IEAR RIO (LADOTD, BURK-KLEINPETER, INC.) – Conducted fie it applications, and a threatened and endangered species su					
8/20 – 1/22	/20 – 1/22 S.P. H.013963, RURAL BRIDGE INITIATIVE, UNNAMED WATERWAY ROUTE (LADOTD, BURK-KLEINPETER, INC.) – Field Biologist. This bridge replacement project included a wetland delineation, permit applications, and a threatened and endangered species survey.								
8/20 – 1/22				RIDGES NEAR GREENSBURG (LADOTD, BURK-KLEINPETER, and delineation and permit applications.	INC.) –				
9/20 – In Progress	Biologist. Project i		delineation, section 404 and 401	IVIRONMENTAL ASSESSMENT (LADOTD, N-Y ASSOCIATES)  L permit applications, cultural resources site visit and repor					



Firm employed by:	ELOS E	nvironmental,	LLC				
Basile Dardar	П	Fino			Years of relevant experience with this employer	1	
Biologist		environmental			Years of relevant experience with other employer(s)	7	
Degree(s) / Years /	Specia	lization		BS / 2014 / Biological Sciences			
Active registration	numbe	er / state / exp	iration date	NA			
Year registered		N/A	Discipline	NA			
Contract role(s) / b	rief de	scription of res	ponsibilities	Basile will serve as a Biologist.			
Experience dates (mm/yy-mm/yy)	Exper	rience and qua section", etc. E	ifications relev xperience date	ant to the proposed contract; s should cover the time specifi	i.e., "designed drainage", "designed girders", "designe ied in the applicable MPR(s).	ed	
Mr. Dardar provides biologist, as well as a			e, accurate repo	orting, and a high degree of pro	fessionalism to every project. Mr. Dardar is also a certific	ed oyste	
08/20 – 08/22	enviro		y consulting for	the bridge replacement project,	y Chitto CR (LADOTD, Burk-Kleinpeter, Inc.) – Mr. Dardar which included a wetland delineation, permit application		
08/20 – 03/22	serve		nental biologist f	or the bridge replacement projec	casieu River Relief (LADOTD, Burk-Kleinpeter, Inc.) – Met, which included a wetland delineation, permit application		
08/20 – 02/22	an Env		ogist for the brid		you Bridges (LADOTD, Burk-Kleinpeter, Inc.) – Mr. Dardar scluded a wetland delineation, permit applications, and a th		
07/22 – Ongoing	<b>St. Tammany Parish Lake Road</b> – Mr. Dardar serves as an environmental biologist for the bridge replacement project, which includes collecting data and documentation, impact analysis, solicitation of views (SOV), preparing a document DOTD and federal highway administration (FHWA) compliant categorical exclusion (CE), conducting a wetland delineation, and obtaining USCG and scenic rivers permits. He assists with all field work and assisting for report preparation.						
04/22 – Ongoing	includ deteri	les floodplain, re	creational, cultu ened and endan	ıral/historic, wildlife impacts desk	nvironmental biologist for the bridge replacement projectop analysis, USACE permits, wetland delineation and jurisivs, and categorical exclusion checklist. He assists with all f	sdiction	





Firm name	Cres	cent Engineerir	ing, LLC			Past Performance Evaluation Discipline(s)*			S	Survey, Bridge, Road	
E. Lewiston Rd. Bridge over Wilson Branch								Firm responsibility (prime or sub?)  Prime			Prime
<b>Project numbe</b>	t number N/A Owner's name Tangipaho						Governmen	t			
<b>Project location</b>	n	Kentwood, LA				Owner's Project Manager Misty Evans, P.E.					
Owner's addre	ss, pl	none, email	206 E. Mu	lberry St.	, Ami	te, LA 70422 9	985-244-688	30 m	evans@tangipahoa.org		
Services comm	Services commenced by this firm (mm/yy)					Total consultar	nt contract o	cost (	\$1,000's)	\$190	_
Services compl	Services completed by this firm (mm/yy) Or					Cost of consult	ant service	s pro	vided by this firm (\$1,000's)	\$131	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

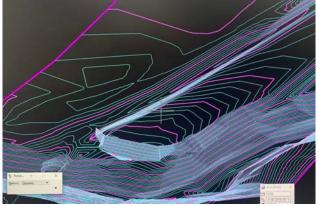
The E. Lewiston Rd./Wilson Branch Bridge Replacement project involves the replacement of 4-span structurally deficient timber trestle bridge in Tangipahoa Parish near Kentwood, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1500' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEO HEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys, hydraulics report, and 90% preliminary plans. Awaiting PIH meeting.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Matthew J. Ledet, PLS, James Ledet, PE, F. ACEC, Abbey Falcon, PE, Kelly Jones, Will Cupit









<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	Cres	cent Engineeri	ing, LLC			Past Performance Evaluation Discipline(s)*			Survey, Bridge, Road	
Old Genessee Rd. Bridge over Creek #1								Firm responsibility (prime or sub?)  Prime		
Project number	ect number N/A Owner's name Tangipahoa Paris							t		'
<b>Project locatio</b>	n	Tickfaw, LA				Owner's Project Manager Misty Evans, P.E.				
Owner's addre	ss, pl	hone, email	206 E. Mul	lberry St.,	, Ami	te, LA 70422 9	985-244-688	30 m	evans@tangipahoa.org	
Services commenced by this firm (mm/yy) 03/22					1	Total consultant contract cost (\$1,000's)			\$1,000's)	\$149
Services comp	Services completed by this firm (mm/yy) Ongoing				(	Cost of consultant services provided by this firm (\$1,000's) \$			\$105	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The Old Genessee Rd./Creek #1 Bridge Replacement project involves the replacement of a structurally deficient, 2-span timber trestle bridge in Tangipahoa Parish near Tickfaw, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 2200' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEO HEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys, hydraulics report, and 90% preliminary plans. Awaiting PIH meeting.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, PE, James Ledet, PE, F. ACEC, Matthew J. Ledet, PLS, Kelly Jones, Will Cupit









<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name C	resc	cent Engineeri	ng & Mapp	ing, LLC			Past Performance Evaluation Discipline(s)*			Survey, Bridge, Road
Easley Rd. Bri	over Sweet	water Cre	eek				Firm	responsibility (prime or sub?)	Prime	
<b>Project number</b>	number N/A Owner's name Tangipahoa Pa							t		
<b>Project location</b>		Loranger, LA				Owner's Project Manager Misty Evans, P.E.				
Owner's address	s, pł	none, email	206 E. Mu	lberry St	., Am	ite, LA 70422	985-244-688	30 m	evans@tangipahoa.org	
Services comme	Services commenced by this firm (mm/yy					03/22 Total consultant con			\$1,000's)	\$187
Services comple	services completed by this firm (mm/yy)				3	Cost of consult	tant service	s pro	vided by this firm (\$1,000's)	\$129

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The Easley Road over Sweetwater Creek Bridge Replacement project involves the replacement of a 3-span structurally deficient timber trestle bridge in Tangipahoa Parish near Loranger, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1600' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys, hydraulics report, and 90% preliminary plans. Awaiting PIH meeting.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Matthew J. Ledet, PLS, James Ledet, PE, F. ACEC, Abbey Falcon, PE, Kelly Jones, Will Cupit









<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	Cres	cent Engineerir	ing, LLC			Past Performance Evaluation Discipline(s)*			9	Survey, Bridge, Road	
Rousseau Rd. Bridge over Tchefuncte River								Firm responsibility (prime or sub?)			Prime
Project number	roject number 22-084 Owner's name St. Tammany P						Governme	nt			
<b>Project location</b>	1	Covington, LA				Owner's Pro	ject Manag	er	Daniel Hill, P.E.		
Owner's address	ss, pl	hone, email	21454 Koo	p Drive,	Build	ling B, Mandev	ille, LA 7047	1, 98	35-898-2552, dphill@stpgov.org		
Services comm	Services commenced by this firm (mm/yy)					Total consultar	nt contract o	cost (	\$1,000's)	\$220	)
Services comple	Services completed by this firm (mm/yy) Ong				3	Cost of consult	ant service	s pro	vided by this firm (\$1,000's)	\$134	1

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The Rousseau Road Bridge over Tchefuncte River project involves the replacement of a structurally deficient, 5-span pre-cast concrete bridge founded on timber piles in St. Tammany Parish near Covington, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production. Rousseau Rd. services the only access to a residential/commercial area and a detour bridge is necessary across the scenic river system of the Tchefuncte.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic & scour analyses, hydraulics and HEC-RAS modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey is enlarged (200' x 2200' DTM) due to the detour bridge and is being conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis will be performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys, hydraulic analysis, and 50% preliminary plans. 90% preliminary plans are underway along with environmental and geotechnical services.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, P.E., James Ledet, PE, F. ACEC, Matthew J. Ledet, PLS, Dakotah Holley, Will Cupit









<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	Cres	cent Engineeri	ng & Mapp	ing, LLC			Past Performance Evaluation Discipline(s)*			Survey, Bridge, Road
Old Genessee Rd. Bridge over Creek #2								Firm	responsibility (prime or sub?)	Prime
Project number N/A Owner's name Tangipahoa Parish Government								'		
<b>Project location</b>	n	Tickfaw, LA				Owner's Pro	ject Manag	er	Misty Evans, P.E.	
Owner's addre	ess, pl	none, email	206 E. Mul	lberry St.	, Ami	ite, LA 70422	985-244-688	30 m	evans@tangipahoa.org	
Services comm	nence	d by this firm	03/22	1	Total consultant contract cost (\$1,000's)			\$1,000's)	\$148	
Services comp	Services completed by this firm (mm/yy) Ongoing					Cost of consultant services provided by this firm (\$1,000's)			\$104	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

The Old Genessee Rd./Creek #2 Bridge Replacement project involves the replacement of a 2-span structurally deficient timber trestle bridge in Tangipahoa Parish near Tickfaw, LA. The project includes topographic surveys, property surveys, bridge design, roadway design, geotechnical, environmental and contract management. Project scoping and design is per LADOTD requirements including plan production.

Crescent Engineering & Mapping, LLC is the prime consultant for the project and is responsible for the topographic surveys, hydraulic analyses and modeling, roadway design, bridge design, utility surveys and roadway/bridge plan production. The project's topographic survey (140' x 1600' DTM) was conducted to LADOTD standards and processed in Bentley Microstation/Inroads. Hydraulic analysis was performed using GEOHEC-RAS and HYDR1130 as well as LADOTD HYDRWIN programs for roadside drainage. LADOTD design criteria are being followed and design drawings are also being developed as traditional LADOTD plans using Bentley Microstation/Inroads due to anticipated federal funding.

Crescent has completed the topographic surveys, hydraulics report, and 90% preliminary plans. Awaiting PIH meeting.

Team Members Highlighted in this Proposal: Dennis M. Hymel Jr., PE, Abbey Falcon, PE, James Ledet, PE, F. ACEC, Matthew J. Ledet, PLS, Kelly Jones, Will Cupit









<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	ELO	S Environmenta	l, LLC				Past Performance Evaluation Discipline(s)*			Environmental
LA 10 SPUR, LA 1042 Bridges Near Greensburg Rural Bridge Initiative  Firm responsibility (prime of the control								Firm responsibility (prime or	sub?)	Sub
Project number H.013982 Owner's name LADOTD										
Project locatio	n	St. Helena Par	ish, LA			Owner's Pro	ject Manager	Andrew Ranck, P.E.		
Owner's addre	ss, p	hone, email	1201 Capit	tol Acces	s Roa	d, Baton Roug	e, LA, (225) 379-1	1232, dotdcs@la.gov		
Services commenced by this firm (mm/yy) 08/20					-	Total consultant contract cost (\$1,000's)			\$16	
Services completed by this firm (mm/yy) 01/22				01/22	(	Cost of consultant services provided by this firm (\$1,000's) \$			\$16	

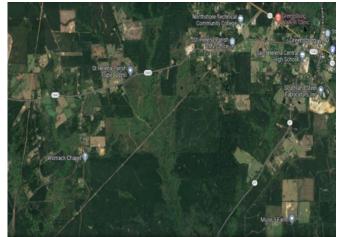
Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Services Provided: wetland delineations, preliminary jurisdictional determination, United State Army Corps of Engineers (USACE) nationwide permit applications, threatened and endangered species research, Categorical Exclusions checklist (CE), and solicitation of views (SOV).

ELOS was contracted by Burke-Kleinpeter to provide environmental services for H.013982. The Louisiana Department of Transportation and Development (LADOTD) proposed the replacement of four existing bridges including one site at LA 1042 over Choctaw Creek, one site at LA 1042 over an unnamed creek, one site at LA 10 Spur over Raby Branch, and one site at LA 10 Spur over St. Joseph Branch in St. Helena Parish. This project is one of many bridges part of the DOTD Rural Bridges Phase I projects, for which ELOS was the environmental consultant conducting the environmental reviews and documentation. This project primarily involved wetland delineations and a wetlands finding report. Evidence observed and documented indicates that approximately 0.22 acre of the site location meets the established criteria to be considered "Section 404 wetlands." In addition, approximately 2.19 acre of this site meet the established criteria to be considered "other waters of the U.S." The DOTD will mitigate the wetlands impacted by construction activities for this project by minimizing impacts as listed in the Louisiana Standard Specifications for Roads and Bridges, 2016 edition, and mitigate for lost wetland habitats by reseeding with appropriate plants and seedlings. No threatened and endangered species surveys were required for this project.

Site 1. LA 1042/ Choctaw Creek: Recall No. 058492) Site 2. LA 1042/ unnamed creek: Recall No. 058494 Site 3. LA 10 Spur/ Raby Branch: Recall No. 620045 Site 4. LA 10 Spur/ St. Joseph Branch: Recall No. 620046

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux, and Basile Dardar





<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	ELO	S Environmenta	l, LLC				Past Performance Evaluation Discipline(s)* Environme			Environmental
LA-4 Rural B	ridg	e Initiative						Firm responsibility (prime or	sub?)	Sub
Project number	er	H.014268	Owner's	name	LADO	OTD				
<b>Project locatio</b>	n	Jackson and C	aldwell Pa	rish		Owner's Proj	ect Manager	Andrew Ranck, P.E.		
Owner's addre	ess, p	hone, email	1201 Capit	tol Acces	s Roa	d, Baton Rouge	e, LA, (225) 379-1	1232, dotdcs@la.gov		
Services commenced by this firm (mm/yy) 09/21					7	Total consultant contract cost (\$1,000's)			\$16	
Services comp	Services completed by this firm (mm/yy) N/A				(	Cost of consultant services provided by this firm (\$1,000's)			\$16	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Services Provided: wetland delineations, preliminary jurisdictional determination, United State Army Corps of Engineers (USACE) nationwide and Department of Natural Resources CUP/Consistency Determination permit applications, threatened and endangered species research, Categorical Exclusion checklist (CE) and solicitation of views (SOV).

ELOS was contracted by Burke-Kleinpeter to provide environmental services for H.014268. The Louisiana Department of Transportation and Development (LADOTD) proposed the replacement of 8 separate bridges located on LA-4 in Jackson and Caldwell Parishes. This project is one of many bridges part of the DOTD Rural Bridges Phase II projects, for which ELOS was the environmental consultant conducting the environmental reviews and documentation. This project involved surveys for threatened and endangered species, including investigations for the Northern Long-eared Bat, Louisiana Pine Snake, and the Red Cockheaded Woodpecker. Evidence observed and documented indicates that approximately 17.40 acres of these sites meet the established criteria to be considered "wetlands" and approximately 6.05-acres of these sites meet the established criteria to be considered "other waters of the U.S.".

Site 1. Unnamed Creek: Recall No. 021100 Site 2. Unnamed Creek: Recall No. 021120 Site 3. Bear Creek: Recall No. 021130 Site 4. Squirrel Creek: Recall No. 046750 Site 5. Sugar Creek: Recall No. 046760 Site 6. Bill's Creek: Recall No. 046782 Site 7. Lost Creek Relief: Recall No. 046786

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux, and Basile Dardar





<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.

Firm name	ELOS	S Environmenta	l, LLC				Past Performance Evaluation Discipline(s)*			Environmental
Savanne Road Bridge Over Hanson Canal								Firm responsibility (prime or	sub?)	Sub
Project numbe	Project number H.014267 Owner's name LADOTD									
Project location	n	Terrebonne Pa	rish, LA			Owner's Project Manager Andrew Ranck, P.E.				
Owner's addre	ss, p	hone, email	1201 Capit	tol Acces	ss Roa	d, Baton Roug	e, LA, (225) 379-1	1232, dotdcs@la.gov		
Services commenced by this firm (mm/yy) 08/20					1	Total consultant contract cost (\$1,000's)			\$16	
Services compl	Services completed by this firm (mm/yy) N/A				(	Cost of consultant services provided by this firm (\$1,000's)			\$16	

Describe the project including the firm's role and members involved. (Highlight staff to be used in this proposal.)

Services Provided: Scenic Rivers and Streams Permits, USACE Permits, Wetland Delineation and Jurisdictional Determination, Threatened and Endangered Species, Solicitation of Views, and Categorical Exclusion Checklist.

ELOS was contracted by Infinity to provide environmental services for the improvement of DOTD Bridge Replacement projects. LADOTD proposed the replacement of the existing Savanne Road Bridge over Hanson Canal (Recall No. 020165) with a new concrete reinforced bridge at approximately 90° 48′ 56.088″ West and 29° 35′ 37.308″ North.

The existing bridge, located approximately 0.82 miles north of LA 182 in Terrebonne Parish, was recommended for replacement by the Louisiana Department of Transportation and Development (LA DOTD). The existing structure was a 4-span, 57-foot-long, and 24-foot-wide concrete bridge. The proposed action was to replace the existing bridge with three 20-foot spans, totaling 60 feet, with 3:1 riprap abutments and a proposed finished grade at branch crossing at 5.51 in accordance with current LADOTD and AASHTO guidelines.

This project included a wetland delineation and jurisdictional determination from the USACE, a Section 404 permit from the USACE, a scenic rivers and streams permit from the LDWF, and a threatened and endangered species survey for West Indian Manatees (Trichechus manatus). ELOS was also tasked with preparing and mailing the solicitation of views letters to the relevant agencies and responding to comments. This project qualified for a categorical exclusion (CATEX), meaning a detailed environmental analysis was not required. ELOS prepared and submitted the CATEX documentation.

Firm Name: CRESCENT ENGINEERING & MAPPING, LLC

Team Members Highlighted in this Proposal: Cory Ricks, Hunter Perrilloux





<sup>\*</sup> If there is more than one past performance evaluation discipline included in the proposal, then indicate which past performance evaluation discipline(s) this project is being used to represent.



### 18. Approach and Methodology:

#### **INTRODUCTION**

The staff provided by the Crescent Engineering & Mapping (Crescent) team offer a combined over **80 years' of LADOTD Off-System Bridge Replacement** (OSBR) experience with a proven record of project delivery for the OSBR program. Our staff has surveyed and prepared plans for OSBR projects involving both standard plan and non-standard structures in accordance with all LADOTD procedures and manuals including roadway and bridge design, BDEM, BDTM's, environmental and OSBR guidelines.

Crescent's team is led by **Dennis Hymel, Jr., PE** who has served in various roles on over **100 LADOTD bridge replacements,** including both On and Off-System bridges. Crescent's survey manager, **Matthew J. Ledet, PLS** has led the survey effort on over **80 LADOTD bridge replacements** and our QC Manager, **James "Jimmy" Ledet, PE** has been involved in the OSBR program **since 1986.** Crescent's team includes **ELOS Environmental** who has a long history of performing environmental services for LADOTD.



#### **PROJECT UNDERSTANDING & SITE VISIT**

Crescent visited the Stateline Rd. over Creek bridge site on 3/2/2022 to assess the project conditions and identify potential design challenges. The bridge is located within 400 feet another bridge (RN #108200), which is load posted at 10/15 tons. This will affect not only construction material delivery/staging, but also, the two bridges share hydraulic flows. Crescent has recently inspected and began planning for the replacement of the adjacent bridge with Tangipahoa Parish. The roadway is a very narrow two-lane roadway with minor amount of existing R/W. The bridge site has overhead utilities near the bridge deck and underground telephone very close to the structure — both will require relocation prior to construction. A residential access driveway is located on the northeast corner of the bridge and will be affected by guard rail.



Stateline Rd. bridge looking West Site Visit (3/2/2022)

#### **LADOTD & PARISH KICKOFF MEETING**

Following the NTP, Crescent will meet with the OSBR Program Manager and staff to discuss the project, review the schedule, receive LADOTD field books, review any program guideline changes, invoice requirements, and establish communication protocols. Our project schedule will be based on critical path items with concurrent items being utilized to **expedite project delivery**.

Crescent will also meet with **Tangipahoa Parish** representatives prior to the start of topographic surveys as required by the OSBR Guidelines. Additional items such as planned corridor improvements, hydraulics, structure preferences and corridor users will be discussed. Previous 5-years crash history will also be requested at this meeting. Meeting minutes for both meetings will be provided within 3 days of the meeting for review. Crescent has worked for Tangipahoa Parish for the past year developing a Parish-wide bridge assessment. **Crescent has a strong working relationship with Tangipahoa Parish, extensive knowledge of the area and is extremely familiar with this bridge site.** 



## 18. Approach and Methodology:

### **TOPOGRAPHIC SURVEY**

Crescent will perform the topographic survey for the project. Providing the topographic surveys in-house offers a distinct advantage for scheduling and delivery of these services. Crescent's engineering staff works closely with survey staff during this phase to ensure that all required data is collected. Surveys will be completed in accordance with LADOTD Off-System Bridge Guidelines and LADOTD Location & Survey requirements. GPS control will be established using at minimum four (4) control points set in concrete with digital levels run between these points.

### **Crescent Engineering & Mapping ADVANTAGE**

Crescent owns the latest in Trimble® Survey equipment, operated by our in-house survey crews for roadway and bridge projects. Providing surveys in-house allows for seamless coordination and communication of survey needs directly from our engineering staff to the field. Additionally, in-house survey services allow for immediate deployment of survey crews and near instantaneous data review, eliminating missing data and ensuring the most expedient project delivery. Lastly, should additional data be required during design, these services can be immediately performed, eliminating costly delays caused by subconsultant coordination.



Once control is established and sketches complete, the topographic surveys will continue for the existing roadway, bridge, and channel/river. Surveys will be extended beyond traditional limits to incorporate any curves or additional geometric changes needed for design. Additional data points needed to show .DTM break lines and surface anomalies will be collected, and any upstream structures in the channel/river will be surveyed.

Bridge sketches will be provided and the channel/river traverses shown on the field roll. Survey data will be processed in Inroads daily and reviewed by the project's engineering staff for completeness prior to preparation of survey deliverables and field rolls. The survey submittal will include all items required by the LADOTD OSBR Guidelines including photographs, point listing and plotted cross sections. Surveys will undergo extensive QC/QA by both the survey and engineering teams prior to submittal to LADOTD.

#### 50% PRELIMINARY PLANS & HYDRAULICS ANALYSIS

After surveys are reviewed and approved by LADOTD, Crescent will begin the hydraulics analysis and preparation of 50% Preliminary Plans.

### Desian Criteria

Crescent will review the 5-year crash history and traffic data in order to establish preliminary design criteria. The existing roadway is a very narrow, two-lane asphalt road with no posted speed, an apparent ADT of less than 400 vpd. A slight curve exists to the east of the site and design exceptions and waivers will likely be necessary. The proposed alignment and TS&L of the adjacent bridge should be considered when developing the same for the subject bridge. A residential driveway is located immediately adjacent to the northeast corner of the bridge that will be affected by guardrail. Crescent will alert the Parish to the presence of overhead power lines and underground utilities near the bridge early in the design to begin relocation plans.



Photo showing slight curvature east of bridge site looking towards adjacent bridge (site visit 3/2/22)

Upon review of supplied data, bridge design criteria and LADOTD Design Report Forms will be submitted for review and approval, guiding the remainder of plan development.

## **Hydraulics & Scour Analysis**

Crescent will begin the hydraulics and scour analysis by reviewing additional data including topographic maps, FEMA Firm maps, USGS Quadrangle maps and LiDAR to delineate the site's drainage basin. Peak discharges and water surface elevations will be developed using a suite of software including LADOTD's HYDR1130 and GeoCivil's GeoHECRAS. Hydraulic design will be conducted in accordance with the LADOTD Hydraulics Manual and the results prepared in report format along with the Hydraulic Data table. Hydraulic flows will need to be calculated considering both the subject bridge and the adjacent bridge to the east as they share some of the same watershed.



## 18. Approach and Methodology:

### **Bridge TS&L**

The bridge Type, Size and Location (TS&L), which will determine the appropriate bridge length, revetment slopes and hydraulic opening will be developed at the start of the hydraulics analysis. If curved bridge elements are needed, Crescent's staff has the experience and design tools to perform the design of a non-standard bridge structure in-house per LRFD methodology.

## 50% Preliminary Plans

Once hydraulics is completed, the remainder of the 50% PP will be developed including the roadway horizontal and vertical geometry, guardrail and embankment widening, roadside drainage, cross-sectional geometrics and transitions. The roadway will be modeled in Bentley Inroads to determine the limits of construction at this early stage. Plans will be developed in accordance with LADOTD plan preparation and OSBR Guidelines. If Design Exceptions or Waivers are needed, Draft forms will be completed upon structure approval and submitted for review by DOTD and/or the Parish.

## 75% PRELIMINARY PLANS (PRE-PIH) & SOLICITATION OF VIEWS (SOV's)

After review of the 50% Preliminary Plans, Crescent will address all comments, and if necessary, will prepare the Pre-PIH plans. Crescent's staff have historically been allowed to proceed to Plan in Hand without the submittal of Pre-PIH plans, aiding in project delivery. Upon approval of the replacement structure, Crescent and ELOS Environmental will prepare the Solicitation of Views (SOVs), receive DOTD approval thereof and mail these to the recipient list provided by LADOTD Environmental Section. Responses will be logged and loops closed to all SOV responses.

## **Crescent Engineering & Mapping ADVANTAGE**

- ✓ Extreme familiarity with OSBR Program ✓ In-house survey resources
- ✓ Extensive staff history with LADOTD
- ✓ Extensive ATSSA & NHI Training
- √ Commitment to LADOTD Processes
- ✓ Project Specific QC/QA Manager

### 95% PRELIMINARY PLANS (PLAN IN HAND)

Comments from the 50% PP or, 75% PP (if necessary) will be addressed in the Plan in Hand submittal. The roadway model, typical sections, plan & profiles, general notes, bridge GPE, summary of estimated quantities, and construction signing will continue to be developed from the previous plan submittal(s). If superelevation is required, the superelevation diagrams will be further developed and completed by the end of preliminary plans along with the foundation layouts. Standard Plan lists, cost estimate and the Constructability & Biddability Review form will be provided. Crescent will attend the Plan in Hand meeting onsite with LADOTD and Parish representatives. Meeting notes will be provided within three (3) days.

### 100% PRELIMINARY PLANS (POST PLAN IN HAND PRINTS)

Plan development will continue to progress as comments are addressed and major design elements are completed. Items discussed at the PIH meeting will be addressed and added to the plans per the PIH Meeting Memorandum.

### **Environmental**

The wetland delineation will be conducted onsite and a wetland findings report prepared in accordance with US Army Corps of Engineers (USACE) guidelines. A Preliminary Jurisdictional Determination (PJD) will be requested from the USACE upon report completion. Permit sketches sized 8.5"x11" will be prepared to accompany the wetlands report, SOV packet, and Environmental Determination Checklist.

### R/W Sketches & Other Documents

Crescent will prepare the Right of Way Sketch per OSBR guidelines showing the required taking lines and anticipated parcels affected along with a draft of the R/W agreements. A draft utility conflict matrix will be provided to the Parish to aide in their responsibility to relocate utilities. Due to the very narrow existing R/W, additional R/W will likely be required, and this area shown on the R/W sketches and agreements.

In addition to the 100% Preliminary Plans, environmental package and R/W sketches, the Design Report forms will be finalized and sealed by Crescent's Engineer of Record. The Level 1 or Level 2 TMP checklists will also be prepared and submitted. Pile length requests with all supporting documentation will be submitted at this stage for use by the geotechnical engineer.



## 18. Approach and Methodology:

### **60% FINAL PLANS (PRE-ADVANCED CHECK PRINTS)**

Following the environmental approval and receipt of the Notice to Proceed for Final Plans, Crescent will immediately begin the development of additional plan sheets required including embankment widening details, geometric layout (if necessary), erosion control plans, quantity summary sheets, Pile Data & Elevation, and concrete surface finish. All bridge structure and pile elevations will be finalized. Any special design superstructure or substructure bridge elements or special approach slabs will be fully detailed and placed on bridge sheets. Bridge railing, joint and bearing details will also be completed. If a non-standard structure is chosen for the site, a draft of the bridge calculations and Load Resistance and Factor Rating (LRFR) will be prepared at this stage to ensure adequacy of reviews.

### 95% & 98% FINAL PLANS (ADVANCED CHECK PRINTS)

Comments from the 60% Final Plans (Pre-ACP) will be reviewed with LADOTD and addressed. Additional details, notes or changes will be added to the plans and quantities will be completed. The ACP Plans will be provided to the Plan Quality Unit (PQU) if necessary. Crescent's staff have received few comments from PQU on previous OSBR projects. An ACP review meeting will be held to ensure all comments are addressed. Upon resolution, a 98% Final Plan set will be prepared for review by the Chief Engineer and use by General Files to prepare the proposal. Crescent will work with LADOTD staff to input pay items and quantities into AASHTOWARE and generate final cost estimates.

Crescent uses all **LADOTD** approved software including: *Microstation/Inroads, Open Roads Designer, ProjectWise, Interplot Organizer, CADConform, BlueBeam Revu.* 

## **100% FINAL PLANS (TRACINGS)**

Crescent will provide the 100% Final Plans (Tracings) as per OSBR Guidelines with the Title Sheet on Mylar for Chief Engineer signature. This submittal will be prepared once all comments are addressed from task managers, PQU and/or the Chief Engineer. Parish granted Design Exceptions will be noted on the Title Sheet. A bound calculations book will be prepared and submitted with the original field books and an electronic copy of the Hydraulics Report.

### QUALITY CONTROL AND QUALITY ASSURANCE (QC/QA)

A project specific QC/QA plan has been included Section 21. Proper QC/QA is a critical component of any successful bridge project and Crescent has designated a QC/QA manager for the project, **James "Jimmy" Ledet, PE,** with **45 years of experience** involving LADOTD projects and specifically Off-System Bridges. Each submittal will be accompanied by LADOTD QC/QA certification forms. Design and plan comments, along with their resolutions will be documented in Crescent's Design Comment Review forms.

#### **LETTING**

Crescent will respond to Falcon questions and assist LADOTD during letting. Upon receiving the bid results and tabulations, Crescent will provide additional information to LADOTD as needed regarding contract award, etc.

#### **STAGE 5: CONSTRUCTION**

Crescent's staff will be available to provide LADOTD with Construction Support (if necessary) by assisting with RFI's, reviewing shop drawings, evaluating contractor submittals, attending meetings, and providing design review assistance in the event of bridge component changes during construction such as bent modifications due to pile misalignment.

#### PROPOSED PROJECT SCHEDULE







## 19. Workload:

For all contracts where a firm on the team is a prime consultant or sub-consultant and where a) the consultant selection was made by DOTD, and b) a contract was executed by the consultant and the contracting entity by the date the advertisement for this proposal was posted, list all work meeting the following criteria:

- 1) one of the team's firms is responsible for the performance of the work;
- 2) authorization to perform the work has been provided, as provided in the contract between the consultant and the contracting entity;
- 3) the work has not yet been performed and invoiced; and
- 4) the work is not currently suspended for an indefinite period of time.

For indefinite delivery/indefinite quantity (IDIQ) contracts, list open Task Orders individually.

List only the portion of the fees attributable to firms on the team.

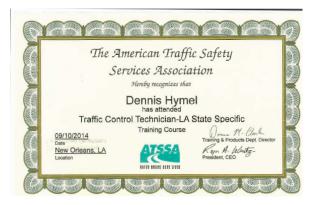
Firm(s)	Past Performance Evaluation Discipline(s) *	State project number	Project name	Remaining Unpaid Balance**
Crescent Engineering & Mapping, LLC	Road	N/A	No current projects	\$0
Crescent Engineering & Mapping, LLC	Survey	N/A	No current projects	\$0
Crescent Engineering & Mapping, LLC	Bridge	N/A	No current projects	\$0
ELOS Environmental, LLC	Environmental	H.014242	LA-124 Big Branch, Sandy etc.	\$5,085
ELOS Environmental, LLC	Environmental	H.014243	LA-472 Indian and Big Bear	\$57
ELOS Environmental, LLC	Environmental	H.014245	LA-119 Creeks & Bayou Pierre	\$111
ELOS Environmental, LLC	Environmental	H.014247	LA-399 Creeks, Little 6 Mile Creek	\$6,200
ELOS Environmental, LLC	Environmental	H.014248	LA-124 Creeks, Broke Leg Bayou	\$57
ELOS Environmental, LLC	Environmental	H.014249	LA-126 Creek	\$3,690
ELOS Environmental, LLC	Environmental	H.014250	LA-577 Creek & Bull Bayou	\$3,496
ELOS Environmental, LLC	Environmental	H.014268	LA-4 Creeks, Bear, Squirrel	\$134
ELOS Environmental, LLC	Environmental	H.013958	Carpenters	\$3,783
ELOS Environmental, LLC	Environmental	H.013970	LA 717	\$5,476
ELOS Environmental, LLC	Environmental	H.013984	LA 16 Bridge	\$2,054
ELOS Environmental, LLC	Environmental	H.014265	N. River Road Bridge Over Irving Branch	\$6,655
ELOS Environmental, LLC	Environmental	H.014267	Savanne Road Bridge Over Hanson Canal	\$6,640



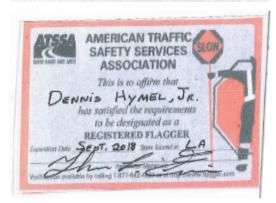


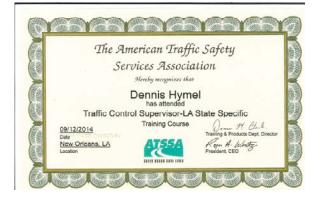
















## National Highway Institute

**Certificate of Training** 



## **Dennis Hymel**

NHI Course No. FHWA-NHI-130101

Introduction to Safety Inspection of In-Service Bridges - WEB-BASED

#### National Highway Institute

Location: Web-Based Course

1/4/2016

Hours of Instruction: 14 hours



## National Highway Institute

**Certificate of Training** 



## **Dennis Hymel**

has participated in

NHI Course No. FHWA-NHI-130081P

General Superstructure Design Considerations (Web-based)

#### National Highway Institute

10/12/2016

Hours of Instruction: 3 hours

Valerie Burgos















Certificate of Attendance
Dennis Hymel

has participated in

**AASHTOWare Bridge Rating Fundamentals Training** 

hosted by LA DOTD/LTRC

Date: August 1st-2nd, 2017

Location: Baton Rouge, Louisiana

Herman Lee, P.E., PMP

Professional Development Hours (PDHs) Awarded: 12

Michael S. Pichura P.E.





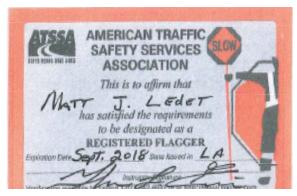






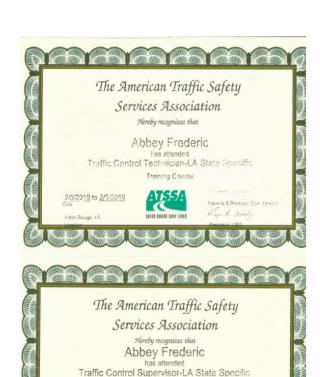












Training Course

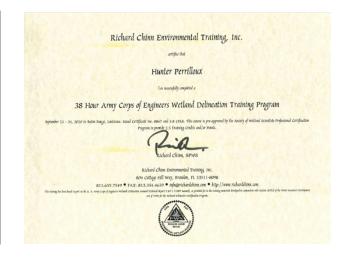
2/6/2019 to 2/7/2019

















LADOTD CONTRACT No. 4400025050

S.P. No. H.015014.5

F.A.P. No.H015014

STATELINE RD OVER CREEK

BRIDGE DESIGN QC/QA PLAN

"Committed to Excellence, Focused on Delivery"

December 2022



## 21. QA/QC Plan and/or Work Plan:

## **Table of Contents**

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Appendix A LADOTD Checklists & Worksheets

Appendix B Crescent Design Comment Review Forms

Appendix C LADOTD QC/QA Submittal Certifications



## 21. QA/QC Plan and/or Work Plan:

### Introduction

Crescent Engineering & Mapping, LLC (Crescent) understands that proper QC/QA is vital to the success of any bridge project. When a clearly outlined, known and repeatable process is followed by a team of bridge designers and technicians, design errors are eliminated, and plan accuracy is greatly enhanced. These QA/QC procedures and guidelines have been developed to ensure that bridge design team develops and accurately confirms that the project's design and resulting drawings meet LADOTD and AASHTO criteria and are in accordance with the requirements of the Contract. LADOTD's Bridge Design and Evaluation Manual requires that the Department's Policy for Quality Control and Quality Assurance is followed for all LADOTD projects. This QC/QA plan establishes the basis for Crescent to continue to be Committed to Excellence and Focused on Delivery.

This QC/QA plan has been developed consistent with LADOTD and Crescent policies specially for:

Contract No. 4400025050 S.P. No. H.015014.5 STATELINE RD OVER CREEK

Crescent will manager design and design quality control/quality assurance program throughout the development of bridge design and production of bridge plans and specifications for this project. Our designated QC/QA manager for this project will be responsible for overseeing the overall quality program, performing independent Quality Assurance reviews as well as the preparation and implementation of the QC/QA plan. Crescent fully understands that it is the LADOTD's expectation that it's consulting engineers take full responsibility for their design and bridge plan submittals throughout the design process. We further understand that review and comments by LADOTD does not relieve Crescent of this responsibility.

This QA/QC plan has been prepared in accordance with the requirements set forth in "Guidance on QC/QA in Bridge Design in Response to NTSB Recommendation (H-08-17)," FHWA, AASHTO, August 2011. Additionally, requirements of BDTM.37 and "Policy on Quality Control and Quality Assurance," Louisiana Department of Transportation and Development, Bridge Design Section, October 2012, as amended and the requirements of the LADOTD's Bridge Design and Evaluation Manual will be followed throughout the project.

Crescent has committed to this process and has dedicated resources to deliver bridge design projects for LADOTD. We strive for continuous improvement to our processes to the benefit of our team members, the clients we serve and the public as a whole. We are committed to partnering with our clients by properly planning our work efforts to achieve a repeatable, consistent and a seamless delivery of our bridge projects. Crescent is committed to continuing education, offering our employees ample opportunities to remain on the leading edge of technology, bridge modeling and design methodology improvements, changes and innovation.

### **Definitions**

Quality Control (QC): This process involves the procedures of checking the accuracy of the calculations and consistency of the drawings, detecting and correction design omission and errors before the design plans are finalized, and verifying that bridge components are adequately designed for the requirements of the AASHTO LRFD Bridge Design Specifications, LADOTD Bridge Design and Evaluation Manual and other technical memoranda.

Quality Assurance (QA): This process involves the procedures of reviewing the work to ensure the quality control procedures and processes are in place and effective in preventing mistakes, and consistency in the development of bridge design plans.

Designer: An individual directly responsible for the development of design calculations, drawings, specifications, and contract documents and, potentially, in the review of shop drawings related to a specific bridge design with a level of technical skills and experience commensurate with the complexity of the subject structure or structures being designed. A designer shall be either a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. The designer's experience should be commensurate with the complexity of the structure being designed.



Design Checker: An individual responsible for performing full technical review of the structural calculations, drawings, specifications and contract documents. A Design Checker shall be a Professional Engineer licensed in the State of Louisiana or certified as an Engineer Intern under the direct supervision of a licensed Professional Engineer. If the Designer is an Engineer Intern, the Design Checker should be a Professional Engineer. The checker's experience should be commensurate with the complexity of the structure being designed/checked.

Detailer: An individual responsible for the necessary Microstation/CAD duties of producing bridge design plans which reflect the designer's intentions and calculations. The Detailer shall be competent in operating Microstation/CAD software, able to read design sketches and drawings and shall communicate with the designer throughout the development of bridge design plans.

Reviewer: An individual responsible for performing QA procedures for assuring that QA/QC procedures have been performed.

Engineer of Record: A Licensed Professional Engineer responsible for all bridge structural aspects of the design of the structure including the design of all the bridge's systems and components. This individual is responsible for sealing and signing the final project plans.

### QC/QA Roles and Responsibilities

The following tables outline the team members who have been selected to perform the individual QC/QA assignments for this project's bridge elements. These assignments are subject to change with comparable personnel depending upon contract execution and timeline.

Bridge	Structural Design*	Constructio	n Support & Shop Drawings
Designer:	Dennis M. Hymel, Jr., P.E.	Drawing Review:	Dennis M. Hymel, PE.
Design Checker:	Abbey F. Falcon, P.E.	Review Checker:	Abbey F. Falcon, P.E.
Detailer:	Kelly G. Jones	QA Review:	James P. Ledet, P.E.
Detail Checker:	Abbey F. Falcon, P.E.		
QA Review:	James P. Ledet, P.E.		

Hydraulics	Design & Scour Analysis	Bridge Geometric Design		
Designer:	Abbey F. Falcon, P.E.	Designer:	Dennis M. Hymel, PE.	
Design Checker:	Dennis M. Hymel, Jr., P.E.	Design Checker:	Abbey F. Falcon, P.E.	
Detailer:	Kelly G. Jones	Detailer:	Kelly G. Jones	
Detail Checker:	Abbey F. Falcon, P.E.	Detail Checker:	Abbey F. Falcon, P.E.	
QA Review:	James P. Ledet, P.E.	QA Review:	James P. Ledet, P.E.	

<sup>\*</sup>For Non-Standard Structure Elements

Bridge Engineer of Record: Dennis M. Hymel, Jr., P.E.

QC/QA Manager: James P. Ledet, P.E.



### **QC/QA Procedures**

#### CALCULATIONS

### INTRODUCTION

Calculations are to be done on calculation tablet sheets for each design organization. Calculation tablets shall bear the name and address of the firm preparing the design. Calculations shall include sketches which are legible to detailers which may augment or clarify the calculations, list all assumptions, references, units, and conclusions. The calculations shall reference the specific component for which they apply and shall cite specific AASHTO codes being used for specific calculations being made.

#### **RESPONSIBILITIES**

Engineer of Record – Ensures that staff assigned to the project are capable of performing the analysis and calculations and that their experience is commensurate with the complexity of the structure or component being tasked. Responsible for direct oversight and supervision of the design of the bridge components and structure. Assembles or assigns personnel to assemble and maintain original calculations and calculation checks for the project.

Designers – Prepare all calculations in a neat and logical manner which is conducive to checking. Provide the calculations to the Checker in a timely fashion with time to properly and adequately check calculations prior to detailing.

Checkers – Thoroughly check the design calculations starting with assumptions, mandated parameters, references, given values and formulas, AASHTO codes, omissions, and correctness of arithmetic. The Checker is responsible for asking questions of the Designer in areas that are not clear or seeking technical advice if warranted for a particular element of the calculation.

QC/QA Manager – Performs independent review of the checked calculations and random audits to ensure that QC procedures are being followed for checking of calculations.

#### **PROCEDURES**

- 1. Identify each sheet of calculations with designer's initials, date, project name, and sheet number. Indicate portion of project being designed in the upper right corner of each sheet below the title block. For example: Bent 5 Design, Intermediate Bent Design, Span 3 Design, etc. A component of a project shall be checked promptly upon completion of calculations. Normally, design and quantity calculations are not combined.
- 2. The Designer shall make a copy (checking copy) of the calculation set and give to the checker. The originals shall then be placed in a designated binder or folder, in a convenient location, which can be accessed by the entire design team.
- 3. The checker shall fill in the checking copy headings with initials and date in red. All errors and disagreements shall be marked in red. Yellow shall be used to indicate information that has been checked is correct.
- 4. The checker shall promptly return the checking copy to the Designer for review. If the Designer agrees with the checker's markup then the Designer shall put a green check on red marks. When the Designer and Checker disagree, then the Engineer of Record shall resolve the dispute.
- 5. The Designer shall change the originals and return the originals and the checking copy to the checker for the checker's initials and date to be placed on the original.
- 6. The originals shall immediately be placed back into the calculation folder or binder. The checking copy shall be kept as required.



#### DRAWINGS

#### INTRODUCTION

Timely checking of drawings is important for efficient performance of plan producing and to minimize errors and prevent compounded error. A drawing used as a base file by several disciplines (road, bridge, hydraulics) should be checked and corrected before further additions are made; this will eliminate the need to check and correct the same items on subsequent drawings.

### **RESPONSIBILITIES**

The Engineer of Record, with the help of the QC/QA Manager, will ensure that this procedure is implemented on all project drawings and that the check prints are assembled and available for audit for each submittal milestone during project delivery.

The Designer of the structure or the bridge element on the drawing has the primary responsibility for accuracy and adequacy. It is not intended that the Designer rely upon the checking system to complete the drawing.

The Designer of each drawing or set of drawings is responsible for making the Check Print, stamping and dating it, following that Check Print through the process, and obtaining the required sign-offs.

Checkers are responsible for checking the drawings, independent of the Designer, for accuracy and adequacy of all the information shown, including geometrics, reinforcing and quantities.

QA/QC Manager performs particular QA reviews and audits to ensure that procedures are being followed in regard to the checking of drawings.

#### **PROCEDURES**

- 1. As each drawing individually is completed and deemed ready for checking, the Designer signs or initials the title block of drawings, makes a Check Print copy, and affixes, numbers, and dates the Check Print stamp on the print of each drawing. This is to be done on each drawing print separately, not on the set of prints as a whole, even if the same information is put on the check print stamp.
- 2. The Checker checks the Check Print of the drawing for technical adequacy and conformance to any applicable standards and format, and performs specific accuracy checks required for that type of drawing. Checking activity is recorded directly on the Check Print. The Checker is responsible for ascertaining that the drawing is consistent with the corresponding calculations, and signing off that those calculations have been properly checked. In order to document the checking process, the Checker highlights in yellow on the Check Print each part checked that is found to be correct and marks in red on the Check Print corrections, additions, or deletions.



### Use of Colors

Instrument	Use For	User
Yellow Highlight	Checker confirmation	Checker
Red Pen	Correction to be made	Checker
Blue Pen	Discussion Item, Design Issue	Checker
Green Pen	Concur or Alternate Resolution	Designer
Orange Highlight	Confirmation of Correction	Detailer
Pink Highlight	Verification of Corrections Made	Designer/EOR

The Checker signs and dates the Check Print stamp upon completion of the checking. The Checker completes the Design Review Form concurrently with the checking of the Check Prints in order to augment suggested corrections, provide additional information or suggestions.

In the case where no corrections, additions or deletions are found, there is no need for backchecking or further signatures on the Check Print stamp. The Check Print and original drawing, signed in the appropriate checked block, should be returned to the Designer for placement in the projects file.

3. The Designer (or designee, as Backchecker) reviews the Checker's marks on the Check Print as well as the Design Review Form with the Checker to ensure that comments are conveyed accurately and to discuss suggestions or other issues. The Designer then personally makes or supervises the update of the Drawing Original.

To document the backchecking process, the Designer:

- Check-marks in green each of the Checker's red-marked changes if in agreement that the Original should be changed and adds in green, with the concurrence of the Checker, any additional changes not picked up by the Checker.
- Crosses out in green each of the Checker's red-marked changes that both the Designer and the Checker agree should not be changed. The Backchecker should not obliterate the Checker's marks.

NOTE: The Backchecker and Checker should resolve differences encountered during the checking process so they are not repeated. If resolution cannot be achieved by the two individuals, the appropriate Design Unit Engineer or Design Manager should be requested to resolve the differences.

Signs and dates the Check Print stamp.



4. Correction of the Drawing Original should be supervised by (or drafted by) either the Designer or Checker, since both are familiar with the changes to be made.

When making the Check Print corrections to the Drawing Original, the engineer, draftsperson, or CADD operator highlights in orange each correction as incorporated. The person correcting the drawing signs and dates the Check Prints stamp upon completion of the corrections.

5. When corrections are made by a third party (not the Designer or checker), the Check Print should be verified by the Checker or Designer to assure that the agreed-to corrections have been incorporated without error. If the corrections are not made or are erroneous, the Check Print with penciled instructions is returned to the corrector. The Verifier puts a pink check mark next to or pink highlight over the item after reviewing its incorporation on the Original Drawing.

The Verifier signs and dates the Check Print stamp, as applicable.

After the corrections have been verified the Checker initials the "checked by" block on the title block of the Drawing Original.

6. The completed original (or CADD file) is put under the control of the Engineer of Record or a designee in order to prevent further changes in the drawing that could invalidate the checking which has been done. The Engineer of Record or a designee releases the checked drawing to other disciplines to use as a baseline for their input, or to the client.

NOTE: When there is a change to a checked drawing, a new Check Print must be made to check the area that has been changed. The Check Print is stamped and labeled Check Print 2, 3, 4, etc. as applicable and attached to the previous check print(s). The checking follows the same procedure as that of the original Check Print, except that only the portions that changed are marked up as having been checked.

7. If changes mandated by the client at the final review are simple in nature, the Engineer of Record or a designee may abbreviate the checking process by noting the changes in red on a new Check Print (which should be sequentially numbered) and signing the Check Print as the Backchecker, indicating that the changes do not materially affect the design. Then the normal correcting and verifying processes should be utilized.

Exceptions to the procedural documentation of the Check Prints can be given only by the QC/QA Manager based upon the size, character and complexity of the project.



## **Description of Appendices:**

The following review forms, checklists and certifications within the Appendices will be used during the project's QC/QA process as required by LADOTD's Bridge Design Section BDTM.37. The checklists and certification forms are included in the Appendices for reference.

## Appendix A

- LADOTD Design Criteria Worksheet
- LADOTD Project Activity Log Sheet
- LADOTD Consultant Project Bridge Design Kick-Off Meeting Agenda Checklist
- LADOTD Consultant Submittal Review Checklist
- Final Calculation Book Index Checklist

### Appendix B

• Crescent Design Comment Review Forms

### Appendix C

- LADOTD QA Information Package Checklist
- LADOTD QC/QA Certification
- LADOTD Consultant Submittal QC/QA Certification

The Consultant Submittal QC-QA Certification will accompany all submittals as required by the Bridge Design Section QC-QA Policy. Additional checklist(s) may be added by the QC/QA Manager based upon the scope, character and complexity of the project, should this change throughout the course of design.



# Design Criteria Checklist Design Criteria for each n

Design criteria for each project shall include, but not limited to, the following sections:

Cover Sheet

The following information must be included on the cover sheet:

- LADOTD project number
- Project name
- Revision date
- The Supervisor or Team Leader's signature and date
- Governing Design and Construction Specifications and Other References

A list of governing design and construction specifications and other references used for the project shall be included in this section. The edition number, interim revisions, and/or publication date must be specified for each reference.

Design Assumptions and Design Exceptions

All design assumptions and design exceptions received must be included in this section along with supporting documents.

General Information

The general information as listed below should be included in this section:

- Bridge information (no. of bridges, bridge clear width, length, no. of lanes, lane width, shoulder width, etc.)
- Road information (roadway classifications, design speed, traffic data, etc.)
- Vertical datum
- Vertical and horizontal clearances
- Other relevant information
- \_\_ Hydraulic Design Criteria

All hydraulic design criteria (design year, design water elevations, scour depth and scour elevation, etc.) shall be included in this section and the information shall be provided by the Hydraulic Engineer.

\_\_ Design Factors

The ductility factor  $\Pi D$ , redundancy factor  $\Pi R$ , and operational importance factor  $\Pi I$  shall be listed in this section.

\_\_ Design Loads

All design loads (dead load, live load, wind load, thermal loads, vessel collision loads, seismic load, wave loads, etc.) used for the project shall be included in this section.

Limit States

All applicable limit states for this project shall be listed in this section.



	Bridge Barrier Railing
	The design criteria, types, and test levels for bridge barrier railing shall be listed in this section. Standard plans should be listed if they are utilized.
	Guardrail
	The design criteria, types, and test levels for guardrails shall be listed in this section. Standard plans should be listed if they are utilized.
_	Approach Slab
	Design criteria for approach slab shall be included in this section. Standard plans should be listed if they are utilized.
	Deck and Deck Drainage
	All design criteria for deck and deck drainage design shall be included in this section. Standard plans should be listed if they are utilized.
	Bearing
	All bearing types and design criteria for each bearing type shall be included in this section. Standard plans should be listed if they are utilized.
	Joint
	All joint types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.
_	Superstructure
	All superstructure types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.
_	Substructure
	All substructure types and design criteria for each type shall be included in this section. Standard plans should be listed if they are utilized.
_	Piles and Drilled Shafts
	All pile types, sizes, and structural design criteria shall be included in this section. Standard plans should be listed if they are utilized.
_	Geotechnical Design
	All geotechnical design criteria shall be included in this section and the information shall be provided by the Geotechnical Engineer. Standard plans should be listed if they are utilized.
_	Mechanical Design
	All mechanical design criteria shall be included in this section if applicable. Standard plans should be listed if they are utilized.
_	Electrical/Lighting Design
	All electrical design criteria shall be included in this section if applicable. Standard plans should be listed if they are utilized.
_	As-Designed Bridge Rating Criteria
	All as-designed bridge rating criteria shall be included in this section.
_	Software
	All software used for design and check shall be included in this section.



### APPENDIX J-PROJECT ACTIVITY LOG SHEET

Project No.: Project Name: Bridge Task Manager:

Date	Project Activity	Comments
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	<u> </u>	

11/17/2014 I.Ch3-23



## APPENDIX H—CONSULTANT PROJECT BRIDGE DESIGN KICK-OFF MEETING AGENDA CHECKLIST

A kick-off meeting with the Consultant's bridge design team shall be initiated by the LADOTD Bridge Design Task Manager once the project is awarded. The meeting agenda shall include, but not be limited to, the following items:

- \_\_ Introduce LADOTD Bridge Task Manager and the Consultant's Key Team Members (The Supervisor or Team Leader and Key Designers/Design Checkers/Reviewers)
- \_\_ Discuss Consultant's Staffing Plan and Implementation of QC/QA Plan Document (The staffing plan should include names and responsibilities of the designers, detailers, checkers, reviewers, and the EOR.)
- Determine Schedules for Project Submittals (Design Criteria, TS & L, 30%, 60%, 90%, 100% of Preliminary Plans and Final Plans, Final Calculations, etc.)
- Share Expectations and Consultant Rating Criteria (Consultant rating will be performed for all project submittals shown on the project submittal schedule.)
- \_\_ Discuss Design Criteria
- Discuss Budget, Supplemental Requests, Invoices, and Importance of Avoiding Claims (Staff shown on invoices will be reviewed in accordance with the staffing plan.)



#### APPENDIX K-CONSULTANT SUBMITTAL REVIEW CHECKLIST

		_			_		Sal	enittals	_		5538433		_
Storms	Design Criteria	TS&L	30% PP	SPN PP	99% PP	100% PP	30% FP	60% 17	90% FP	100% FP	Final Calculation Beek	Plan Revisions	Order
Consultant Submittal QCQA Certification			R	R	R	R	R	R	R	R	R	R	R
Design Criteria	c												
TS&L		C			-								
Bridge Index			D	D	D	D	D	D	C	S			
General Notes		-	D	D	D	D	D	D	C	S			
Surrenary of Estimated Quantities			D	D	c	c	D	D	c	s			
General Plans			D	D	C	C	C	C	C	S			
Typical Sections			D	D	c	C							7
Superclevation Diagram				D	D	c	С	c	c	8			
Construction Plusing Details				D	D	c	c	c	c	8			
Traffic Controls Details				D	D	c	c	c	c	S			
Foundation/Pile Layout				D	D	C	C	C	c	8			
Pile Loads/Details				8	D	D	D	C	C	S			
Pile Data Tables						1	D	D	c	8			
Bent Details.							D	D	C	S			
Fender Details				1			D	D	C	S			
Girder Details							D	D	C	S			
Span Details							D	D	C	S			
Joint Details								D	C	S			
Bearing Details		-						D	c	S			
Approach Slab		-						D	c	8			
Guardenil Details		-					-	D	C	s		-	
Bridge Barrier Railing Details								D	c	s			
Bridge Drainage Details								D	c	8			
Detour Bridge Details								D	c	s			
Reverment Details								D	c	8			
Signing/Lighting Details								D	c	s			
Year Plate								D	c	S			
Rehar Support								D	C	S			-
Misc. Details								D	c	s			
Project Specific Standard Plans								D	c	S			
Electrical/Lighting Details								D	c	s		1	(
Mechanical Details								D	c	8			
As-Burk Plans								D	C	C			
Special Provisions/NS- Items							D	D	c	c			
Cost Estimate					D	D	D	D	C	C			
Final Calculations											s		
Revised Plans Calculations												s	s

Legends:

"R" = The item is required and shall be included in the subersital.

"C" = The item shall be complete and shall be included in the subersital.

"D" = The item shall be in development and shall be included in the subersital.

"S" = The item is stamped by the EOR and shall be included in the subersital.

88.2019



## **Final Calculation Book Checklist** The final calculation book for each project shall include, but not limited to, the following sections: **Cover Sheet** The following information must be included on the cover sheet: • LADOTD project number Project name The title of "Final Calculation Book" The EOR's seal with signature and date Final Calculation Book Check List QC/QA Certifications Peer Review Resolution Agreement (if peer review is performed) Design Criteria Final Hydraulic Analysis Report from Hydraulic Engineer Final Geotechnical Analysis Report from Geotechnical Engineer Superstructure Design Calculations **Substructure Design Calculations Quantity Calculations** Special Provisions/NS-Items **Construction Cost Estimate** As-Designed Rating Report List of All Final Electronic Design Files and File Locations (ProjectWise directory name)

Consultants shall submit the final calculation book to LADOTD bridge task managers; the submittal shall be on a CD or Flash Drive or placed to a designated



ProjectWise folder and include the following information:

A PDF File of the As-Designed Rating Report Only

A PDF File of the Calculation Book

All Electronic Design Files

QC/QA REVIEW COMMENT SUN	MARY AND RESOLUTION SHE	ET	DESPONSE CODE
Project Name: XXX	€ CRESCENT	Date: XXXXX	RESPONSE CODE 1. Concur / Accept comment 2. Non-Concur / Disagree with comment
Project Number: H.0XXXX	Engineer: Dennis Hymel, Jr., P.E.		Conflicts with previous directive     For Information Only     Clarify or discussion required     Delete comment
Submittal: 60% Preliminary	Reviewer: XXX	Page: 1 of 1	<ol> <li>Resolution of comment in next phase</li> <li>See additional comment</li> </ol>

Item No.	Date	(1)Source	Reviewer Comments	(2)Code	(2)Date	(3)Responses		inal olution
							Code	Date
1	8/31	2a	Revise typical section to include X.	1	9/10	Will Incorporate.	1	9/15
-								
							4	
- 2				_	_			
- 4		š		_	-			
- 3				-				
_				_			-	
							- 1	
- 0							3 2	

If no comment, write "NO COMMENT"	Signature of Reviewer	Agency/Company Sign-off
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<sup>(1)</sup> Indicates the document / model , or use "G" for General Comment

- (2) Design Firm/Agency response code & date to reviewer comment
- (3) Design Firm/Agency response to reviewer comment
- (4) To be filled out during back check / subsequent meeting/discussion



Project No.: Project Descrip	tion:
	Calculation Book
	Plans
	Special Provisions
	Cost Estimate

Other Documents \_\_\_\_\_

**QA Information Package Checklist** 



## QC/QA Certification

Project	No.:
Project	Name.

We, the undersigned designers, detailers, checkers and reviewers for this project, have reviewed and accepted the calculations, plans, quantities, special provisions, and cost estimate prepared for the project. We certify that the work for which we are responsible has been completed in accordance with the LADOTD Bridge Design Section policy on QC/QA.

Team Members	Name	PE Registration No.	Responsible Plan Sheets	Responsible Special Provisions	Construction Cost Estimate	Signature
Designers						
Design Checkers						
Detailers						
Detail Checkers						
Reviewers						
Peer Reviewer Geotechnical						
Engineer Hydraulic Engineer						
EOR						

Consultant Submittal QC/QA Certificat	ion		
Project No.:			
Project Name:			
• •	e Design Section policy on QC/Q	t the information included in this submittal has been prepared in accordance and the information presented is accurate and meets the requirements of	
Submittal Description			
	Signature	 Date	



## 22. Sub-consultant information:

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 (as registered with Louisiana's Secretary of State)	Address	Point of Contact and email address	Phone Number
ELOS Environmental, LLC	607 W. Morris Avenue	Drake Arnone	985-662-5501
	Hammond, LA 70403	President	
		Business Development	
		darnone@elosenv.com	

## 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.





"Committed to Excellence, Focused on Delivery"