

CHANGE ORDER #5

DATE: 2/3/2025

PROJECT #6093070 -SR684 (CORTEZ RD) - GULF DR - 123RD ST W (BRIDGE UTILITY) AND
PROJECT #6093170 - SR64 (MANATEE AVE) - SR789 - PERICO BAY BLVD (BRIDGE UTILITY)

PARAMETRIC SUB-BOTTOM PROFILING & MULTI-BEAM BATHYMETRIC SURVEY OF
MANATEE AND CORTEZ BRIDGES - WATER MAINS AND FORCE MAIN

Pursuant to the Manatee County, Florida, Agreement NO. 21-TA003596CD for Professional Utility Engineering Design Services For Cortez Road and Manatee Avenue West Bridge Replacement, entered into by and between MANATEE COUNTY, a political subdivision of the State of Florida, hereinafter referred to as "COUNTY" and Kimley-Horn and Associates, hereinafter referred to as "CONSULTANT," a determination has been made by COUNTY that there is a need for the performance of or rendering of services by CONSULTANT of a certain "Work Assignment" under the purview of said Agreement, and CONSULTANT is hereby authorized to perform or render the Services described as follows:

TITLE OF THE PROJECT: Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects
Work Assignment Change Order No. 5 – Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey for Manatee and Cortez Bridges – Water Mains and Force Main

PHASES AND/OR TASKS OF PROFESSIONAL SERVICES AUTHORIZED:

CONSULTANT shall perform Tasks as more specifically detailed in Attachments 1 through 3 as follows:

Attachment 1: Scope of Services

Attachment 2: Hourly Fee Schedule

Attachment 3: Schedule

PROJECT #6093070 -SR684 (CORTEZ RD) - GULF DR - 123RD ST W (BRIDGE UTILITY) AND
PROJECT #6093170 - SR64 (MANATEE AVE) - SR789 - PERICO BAY BLVD (BRIDGE UTILITY)

PARAMETRIC SUB-BOTTOM PROFILING & MULTI-BEAM BATHYMETRIC SURVEY OF
MANATEE AND CORTEZ BRIDGES - WATER MAINS AND FORCE MAIN

Compensation to CONSULTANT for rendering all the above identified Services shall not exceed **\$130,220.00**. Compensation for the Tasks shall not exceed the amounts set forth as follows:

		Contract Original Fee	C.O.#1	C.O.#2	C.O.#3	C.O.#4	C.O.#5	Revised Task Total
IIA	TASK IIA - SURVEY - CIP #6093070 - CORTEZ ROAD	\$34,595.79					\$65,110.00	\$99,705.79
IIC	TASK IIC - SURVEY - CIP #6093170 - MANATEE AVE	\$29,362.00					\$65,110.00	\$94,472.00
TOTAL:		\$1,343,223.94	\$25,120.00	\$26,746.50	\$295,765.38	\$140,046.87	\$130,220.00	\$1,961,122.69

COUNTY may authorize, in writing, in advance, adjustments in the compensation for particular tasks established above, provided such adjustments do not exceed the maximum compensation authorized for this Work Assignment.

Partial compensation may be requested on a monthly basis for unit prices and actual hours incurred but not to exceed the percentage of the Task completed.

Consultant has provided the additional table below for clarification purposes, showing all tasks and change orders to date.

PROJECT #6093070 -SR684 (CORTEZ RD) - GULF DR - 123RD ST W (BRIDGE UTILITY) AND
PROJECT #6093170 - SR64 (MANATEE AVE) - SR789 - PERICO BAY BLVD (BRIDGE UTILITY)

PARAMETRIC SUB-BOTTOM PROFILING & MULTI-BEAM BATHYMETRIC SURVEY OF
MANATEE AND CORTEZ BRIDGES - WATER MAINS AND FORCE MAIN

Task	Project	Contract Original Fee	Change Order No. 1	Change Order No. 2	Change Order No. 3	Change Order No. 4	Change Order No. 5	Revised Contract Total
TASK I - PROJECT MANAGEMENT, MEETINGS, COORDINATION								
IA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$31,040.00						\$31,040.00
IB	Project B: Cortez Road UWHC Project	\$28,100.00						\$28,100.00
IC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$31,040.00						\$31,040.00
ID	Project D: Manatee Avenue UWHC Project	\$28,100.00						\$28,100.00
TASK II - SURVEY								
IIA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$34,595.79					\$65,110.00	\$99,705.79
IIC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$29,362.00					\$65,110.00	\$94,472.00
TASK III - GEOTECHNICAL SUBSURFACE SOIL EXPLORATION								
IIIA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$47,755.15						\$47,755.15
IIIC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$47,435.15				\$20,678.87		\$68,114.02
TASK IV - PUBLIC INFORMATION AND COMMUNITY OUTREACH								
IVA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$33,880.40			\$58,700.00			\$92,580.40
IVC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$32,084.90				\$95,808.00		\$127,892.90
TASK V - DESIGN AND PERMITTING								
VA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$265,410.00	\$25,120.00	\$16,382.00				\$306,912.00
VB	Project B: Cortez Road UWHC Project	\$134,450.00						\$134,450.00
VC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$216,810.00			\$43,270.00			\$260,080.00
VD	Project D: Manatee Avenue UWHC Project	\$78,360.00						\$78,360.00
TASK VI - EASEMENT COORDINATION AND NEGOTIATIONS								
VI	EASEMENT COORDINATION AND NEGOTIATIONS	\$25,540.55						\$25,540.55
TASK VII - BIDDING AND CONSTRUCTION PHASE SERVICES								
VIIA	Project A: Cortez Road Intracoastal Crossing Utility Relocation	\$95,150.00		\$10,364.50	\$176,785.38	\$23,560.00		\$305,859.88
VIIIB	Project B: Cortez Road UWHC Project	\$58,010.00						\$58,010.00
VIIIC	Project C: Manatee Avenue Intracoastal Crossing Utility Relocation	\$79,410.00			\$17,010.00			\$96,420.00
VIIID	Project D: Manatee Avenue UWHC Project	\$46,690.00						\$46,690.00
TOTAL:		\$1,343,223.94	\$25,120.00	\$26,746.50	\$295,765.38	\$140,046.87	\$130,220.00	\$1,961,122.69

CHANGE ORDER #5 DATE:2/3/2025

PROJECT #6093070 -SR684 (CORTEZ RD) - GULF DR - 123RD ST W (BRIDGE UTILITY) AND
PROJECT #6093170 - SR64 (MANATEE AVE) - SR789 - PERICO BAY BLVD (BRIDGE UTILITY)

PARAMETRIC SUB-BOTTOM PROFILING & MULTI-BEAM BATHYMETRIC SURVEY OF
MANATEE AND CORTEZ BRIDGES - WATER MAINS AND FORCE MAIN

CONSULTANT agrees to perform the Services in accordance with this Agreement No. 21-
TA003596CD and this Work Assignment dated 8/1/2025.

Kimley-Horn and Associates, Inc.

By:  _____

Print Name: Jordan Walker, P.E.

Title: Associate

Date: 2/3/2025

**MANATEE COUNTY, a political
subdivision of the State of Florida**

Brent Sargent, CPPO, Digitally signed by Brent
Sargent, CPPO, CPPB, NIGP-CPP,
FCCM, FCCN
Date: 2026.05.05 14:34:32 -04'00'
CPPB, NIGP-CPP, FCCM,
FCCN

**Brent Sargent, CPPO, CPPB, NIGP-CPP, FCCM, FCCN
Purchasing Official**

Date: 5/5/2026

PROJECT #6093070 and PROJECT #6093170
“Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects”
Change Order No. 5 – Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey of Manatee and Cortez Bridges – Water Mains and Force Main
Attachment No. 1: Scope of Services

KIMLEY-HORN AND ASSOCIATES, INC.
February 3, 2026

OBJECTIVE

Manatee County, a political subdivision of the State of Florida (hereinafter in this Scope referred to as County), has selected Kimley-Horn and Associates, Inc. (hereinafter in this Scope referred to as Consultant) to perform Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects ("the Projects").

Projects Associated with the Cortez Bridge Project (FDOT FPID #430204-2) – Cortez CIP #6093070

- Project A: Cortez Road Intracoastal Crossing Utility Relocation
 - Project consists of relocating the 24-inch water main and 20-inch force main to the south side of the existing Cortez Bridge, outside of the proposed bridge alignment.

The County has requested that Kimley-Horn provide an additional scope of services to perform additional construction observation services for the project for the Cortez Bridge Project.

Projects Associated with the Manatee Avenue Bridge Project (FDOT FPID #408185-3) - Manatee CIP #6093170

- Project C: Manatee Avenue Intracoastal Crossing Utility Relocation
 - Project consists of relocating the 18-inch water main to the north side of the existing Manatee Avenue Bridge, outside of the proposed bridge alignment with proposed 20-inch HDPE Directional Bore.

The County has requested that Kimley-Horn provide an additional scope of services for Professional Services for the parametric sub-bottom profiling & multi-beam bathymetric survey of Manatee and Cortez water mains and force mains.

Project A - Cortez CIP #6093070

TASK IIA - SURVEY - CIP #6093070 - CORTEZ ROAD

1. The Consultant’s Subconsultant (Hyatt Survey Services, Inc.) will perform the Scope of Services provided in Appendix A. The technical specifications contained within the Scope of Work provided by the County shall supersede those contained within other parts of the agreement if a disagreement in terms arise.
2. Consultant will perform a kickoff meeting with the County and the Consultant’s sub-consultant prior to performing the Sub-bottom Profiling and Multi-Beam Bathymetric Survey of the water main and force main.

3. Consultant will manage subconsultant during the performance of their work doing the Sub-bottom Profiling and Multi-Beam Bathymetric Survey of the water main and force main.

Project C - Manatee CIP #6093170

TASK IIC - SURVEY - CIP #6093170 - MANATEE AVE

1. The Consultant's Subconsultant (Hyatt Survey Services, Inc.) will perform the Scope of Services provided in Appendix A. The technical specifications contained within the Scope of Work provided by the County shall supersede those contained within other parts of the agreement if a disagreement in terms arise.
2. Consultant will perform a kickoff meeting with the County and the Consultant's sub-consultant prior to performing the Sub-bottom Profiling and Multi-Beam Bathymetric Survey of the water main.
3. Consultant will manage subconsultant during the performance of their work doing the Sub-bottom Profiling and Multi-Beam Bathymetric Survey of the water main.

PROJECT WORK PLAN PERSON-HOUR ESTIMATE

Project Name: Utility Engineering Design Services for Cortez Road and Manatee
 Avenue West Bridge Replacement Projects - Change Order No. 5
 Project Number: _____
 Date Prepared: 2/3/2026
 Estimated By: Jordan Walker, P.E.

KHA Task # Subtask ID Number	KHA Task Name Subtask Name/Description	Principal	Sr Proj Engineer	Project Manager	Sr. Design Eng	Project Eng	Senior Env. Scientist	Env. Scientist	Sr CADD Tech	Admin Asst	Total Labor Hours	KHA Labor Total	Other Direct Cost	Subcons Cost	Total Fee
		225.0	210.0	200.0	160.0	145.0	190.0	140.0	100.0	80.0					
TASK II - SURVEY															
2A	SURVEY - CIP #6093070 - CORTEZ ROAD														
	Project Management and Coordination		20			30				10	60	\$9,350			\$9,350
	Perform Multibeam Bathymetric Surveys:										0	\$0		\$19,340	\$19,340
	Conduct marine geophysical SUE surveys to locate the subaqueous sections of the target pipelines										0	\$0		\$36,420	\$36,420
	Subtotal Task 2A (Hours)		0	20	0	0	30	0	0	0	10	0	\$9,350	\$0	55,760.00
2C	SURVEY - CIP #6093170 - MANATEE AVE														
	Project Management and Coordination		20			30				10	60	\$9,350			\$9,350
	Perform Multibeam Bathymetric Surveys:										0	\$0		\$19,340	\$19,340
	Conduct marine geophysical SUE surveys to locate the subaqueous sections of the target pipelines										0	\$0		\$36,420	\$36,420
	Subtotal Task 2C (Hours)		0	20	0	0	30	0	0	0	10	0	\$9,350	\$0	55,760.00
														TOTAL	130,220.00

PROJECT #6093070 and PROJECT #6093170
“Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects”
Change Order No. 5 – Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey of Manatee and Cortez Bridges – Water Mains and Force Main

Attachment No 3: Schedule

KIMLEY-HORN AND ASSOCIATES, INC.
February 3, 2026

The contract start date will be the day of the approval of the agreement. The following table summarizes the project schedule.

Milestone	Weeks to Complete Tasks
Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey	12 weeks

APPENDIX A

MANATEE COUNTY GOVERNMENT
SCOPE OF LAND SURVEYING SERVICES

WORK ASSIGNMENT NO. 14

Master Contract # 24-TA005348ED

Pursuant to the Manatee County, Florida, Agreement for SURVEYING Services for the various Departments, and entered into by and between the COUNTY OF MANATEE, hereinafter referred to as the "County" and Hyatt Survey Services, Inc. hereinafter referred to as the "Consultant," a determination has been made by the County that there is a need for the performance of or rendering of services by the Consultant of a certain "Work Assignment" under the purview of said Contract and the Consultant is hereby authorized to perform or render the particular services of work described as follows:

PROJECT TITLE: Manatee County Bridges Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey Desoto, Manatee & Cortez Bridges

PROJECT UNDERSTANDING:

Perform a Bathymetric Survey and Sub-bottom Profiling Survey for submerged pipelines located at each of the following three (3) bridges: DeSoto Bridge, Anna Maria Island Bridge & Cortez Bridge.

Timeframes for completion of each task shall be specified where possible

Attachments: Exhibit A – Survey Fee Cost Breakdown Spreadsheet
 Exhibit B – Project Limits and Location Map

Scope of Services and Cost will be limited to the Manatee and Cortez Bridges for this amendment.
Desoto Bridge will be in a separate amendment.

All the requirements of a particular type of survey (Boundary, Topographic, etc.) listed in 5J-17.050 -.052 F.A.C. along with any relevant portions of Florida Statutes including Chapters 472 and 177 and Manatee County's Administrative Code applicable to Land Surveying will be met. Additionally, unless specifically directed otherwise, the following are to be delivered to the County: AutoCAD (2005 or newer but not newer than the version currently in use by the County) .dwg file using the current County template with project in State Plane Coordinate – West Florida Zone NAD 1983 (1990 or later adjustment), Electronic Raw Data file(s) / copy of field notes, Electronic Coordinate file(s).

Two Bridge Sites
Scope of Services and Cost will be limited to the Manatee and Cortez Bridges for this amendment.
Desoto Bridge will be in a separate amendment.

SCOPE OF WORK:

CONTROL SURVEY of: Three Bridge Sites

Survey consultant shall establish:

Horizontal Control - Unless directed otherwise, the Horizontal Datum of the project shall be in State Plane Coordinates - NAD 1983 (1990 adjustment or later) Florida West Zone utilizing or referencing two published geodetic control points.

Vertical Control – Note: Unless otherwise directed, the Vertical Datum is to be **NAVD 1988**. A minimum of two reasonably permanent site benchmarks with company identification shall be set at or immediately to the project and shall be based on two published control points from the County, State, or Federal Government. The survey notes shall include the relationship to NGVD 1929 and the method of conversion. Benchmarks shall be set at a maximum spacing of 1,100 feet along the project.

HYDROGRAPHIC SURVEY:

All work will be performed in accordance with the attached scope of work entitled:

**“PIPE CROSSINGS AT THREE
MANATEE COUNTY BRIDGES
PARAMETRIC SUB-BOTTOM PROFILING &
MULTI-BEAM BATHYMETRIC SURVEY
DESOTO, MANATEE & CORTEZ BRIDGES
MANATEE COUNTY, FLORIDA”**

Two Bridge Sites
Scope of Services
and Cost will be
limited to the
Manatee and Cortez
Bridges for this
amendment.
Desoto Bridge will
be in a separate
amendment.

Further summarized as follows:

Perform a Bathymetric Survey and Sub-bottom Profiling Survey for submerged pipelines located at each of the following three (3) bridges: DeSoto Bridge, Anna Maria Island Bridge & Cortez Bridge:

1. A Multibeam Bathymetric Survey will be performed in the vicinity (100’ either side) of each submerged pipeline (where accessible). In areas too shallow for the use of multibeam bathymetric survey methods, a single beam bathymetric survey and/or manual soundings will be performed.
2. Hyatt Survey will enlist the services of Echo Ocean Science, LLC to conduct marine geophysical surveys to locate the subaqueous sections of the three target pipelines. To achieve this goal, EOS will mobilize a survey crew consisting of a subbottom profiler and two personnel. This equipment will be installed on the Hyatt survey vessel in Florida. The sonar transducer will be installed on the existing over-the-side pole onboard the survey vessel. The vessel and positioning equipment will be operated by Hyatt personnel. The subbottom profiler equipment will be operated by EOS personnel. EOS will provide the following system:
 - A. Compact Parametric Subbottom Profiler – for use during imaging of the shallow pipelines at Desoto and Anna Maria Bridges.
 - B. Deep Penetration Parametric Subbottom Profiler – for use during imaging of the deeply buried pipeline at the Cortez Bridge.

The Surveyor shall clearly identify the methods, procedures, and equipment used to obtain any of the following:

- Cross-sections/soundings taken every 25 feet within the survey limits.
- The depth of water and configuration of bottom
- Directions and force of current
- Heights and times of water stages
- Location of fixed objects for survey and navigation purposes.
- Digital copies of photos of the site,
- Signed and sealed survey – (6 copies) **or**
- A signed and sealed Surveyor’s Report – (____ copies).

WORK ASSIGNMENT NO. 14

PROJECT NO.

PROJECT TITLE: Manatee County Bridges Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey Desoto, Manatee & Cortez Bridges

DATE: 1-18-26

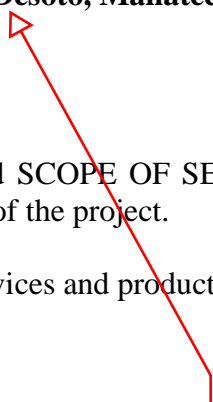
Pursuant to the Manatee County, Florida, Agreement No. 24-TA005348ED for Professional Services for Supplemental Surveying & Mapping entered into by and between the COUNTY OF MANATEE, FLORIDA, hereinafter referred to as the "COUNTY" and HYATT SURVEY SERVICES, INC., hereinafter referred to as the "Consultant", a determination has been made by the COUNTY that there is a need for the performance of or rendering of services by the Consultant of a certain "Work Assignment" under the purview of said Contract, and the Consultant is hereby authorized to perform or render the particular services of work described as follows:

TITLE OF THE PROJECT: Manatee County Bridges Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey Desoto, Manatee & Cortez Bridges

TASKS OF PROFESSIONAL SERVICES AUTHORIZED:

Consultant shall perform tasks as more specifically detailed in attached SCOPE OF SERVICES, Tasks 1 through 3. This work assignment shall remain in effect until completion of the project.

Compensation to the Consultant for rendering all the above identified services and products shall not exceed:



Two Bridge Sites
Scope of Services
and Cost will be
limited to the
Manatee and Cortez
Bridges for this
amendment.
Desoto Bridge will
be in a separate
amendment.

TASK	TASK DESCRIPTION	ORIGINAL CONTRACT AMOUNT	CHANGE ORDER AMOUNT	REVISED CONTRACT AMOUNT
1	DESOTO BRIDGE: Perform Multibeam Bathymetric Surveys:	\$19,340.00		
2	DESOTO BRIDGE: Conduct marine geophysical SUE surveys to locate the subaqueous sections of the three target pipelines:	\$36,420.00		
3	MANATEE BRIDGE: Perform Multibeam Bathymetric Surveys:	\$19,340.00		
4	MANATEE BRIDGE: Conduct marine geophysical SUE surveys to locate the subaqueous sections of the three target pipelines:	\$36,420.00		
5	CORTEZ BRIDGE: Perform Multibeam Bathymetric Surveys:	\$19,340.00		
6	CORTEZ BRIDGE: Conduct marine geophysical SUE surveys to locate the subaqueous sections of the three target pipelines:	\$36,420.00		
TOTAL COST		\$167,280.00		

Scope of Services and Cost will be limited to the Manatee and Cortez Bridges for this amendment

EXHIBIT A – Cost Breakdown (DeSoto Bridge)

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Survey (DeSoto Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	Senior Survey Technician	Field Crew (2 man)	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Multibeam Bathymetric Surveys: (DeSoto Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$130.00	\$175.00	\$200.00	\$750.00	\$200.00	
Task 1: H/V Control Survey								
Recover/establish Horizontal & Vertical Project Control Points from Published Benchmarks at each of three (3) submerged pipeline crossings:		1	3	8				\$1,965.00
Task 2: Bathymetric Survey:								
Perform three (3) Multibeam Bathymetric Surveys:		3	6		30	3		\$9,555.00
Task 3: Data Processing & CAD:								
Process hydro data, prepare DTM surfaces and prepare draft CAD deliverables for three (3) Multibeam Bathymetric Surveys:		6	32					\$5,210.00
Task 4: Final Deliverables:								
Prepare Survey Reports and Final Deliverables:		6	12					\$2,610.00
								\$0.00
Total Hours	0	16	53	8	30	3	0	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$19,340.00

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Surveys (DeSoto Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	SUE Technician	Senior Survey Technician	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Marine Geophysical SUE Surveys: (DeSoto Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$120.00	\$130.00	\$200.00	\$750.00	\$200.00	
Task 1: Marine Geophysical SUE Surveys:								
Conduct three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:			28	40			70	\$21,600.00
Logistical support for three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:		8		8	20	2		\$7,940.00
Task 2: Data Processing & CAD:								
Process geophysical SUE data, prepare draft CAD deliverables for three (3) marine geophysical SUE Surveys:			10	32				\$5,360.00
Task 3: Final Deliverables:								
Prepare Final Deliverables:			4	8				\$1,520.00
								\$0.00
Total Hours	0	8	34	88	20	2	70	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$36,420.00

Scope of Land Surveying Services

Page 6

1/18/2026

EXHIBIT A – Cost Breakdown (Manatee Bridge)

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Survey (Manatee Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	Senior Survey Technician	Field Crew (2 man)	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Multibeam Bathymetric Surveys: (Manatee Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$130.00	\$175.00	\$200.00	\$750.00	\$200.00	
Task 1: H/V Control Survey								
Recover/establish Horizontal & Vertical Project Control Points from Published Benchmarks at each of three (3) submerged pipeline crossings:		1	3	8				\$1,965.00
Task 2: Bathymetric Survey:								
Perform three (3) Multibeam Bathymetric Surveys:		3	6		30	3		\$9,555.00
Task 3: Data Processing & CAD:								
Process hydro data, prepare DTM surfaces and prepare draft CAD deliverables for three (3) Multibeam Bathymetric Surveys:		6	32					\$5,210.00
Task 4: Final Deliverables:								
Prepare Survey Reports and Final Deliverables:		6	12					\$2,610.00
								\$0.00
Total Hours	0	16	53	8	30	3	0	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$19,340.00

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Surveys (DeSoto Bridge) Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	SUE Technician	Senior Survey Technician	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Marine Geophysical SUE Surveys: (Manatee Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$120.00	\$130.00	\$200.00	\$750.00	\$200.00	
Task 1: Marine Geophysical SUE Surveys:								
Conduct three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:			20	40			70	\$21,600.00
Logistical support for three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:		8		8	20	2		\$7,940.00
Task 2: Data Processing & CAD:								
Process geophysical SUE data, prepare draft CAD deliverables for three (3) marine geophysical SUE Surveys:			10	32				\$5,360.00
Task 3: Final Deliverables:								
Prepare Final Deliverables			4	8				\$1,520.00
								\$0.00
Total Hours	0	8	34	88	20	2	70	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$36,420.00

EXHIBIT A – Cost Breakdown (Cortez Bridge)

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Survey (CORTEZ Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	Senior Survey Technician	Field Crew (2 man)	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Multibeam Bathymetric Surveys: (Cortez Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$130.00	\$175.00	\$200.00	\$750.00	\$200.00	
Task 1: H/V Control Survey								
Recover/establish Horizontal & Vertical Project Control Points from Published Benchmarks at each of three (3) submerged pipeline crossings:		1	3	8				\$1,965.00
Task 2: Bathymetric Survey:								
Perform three (3) Multibeam Bathymetric Surveys:		3	6		30	3		\$9,555.00
Task 3: Data Processing & CAD:								
Process hydro data, prepare DTM surfaces and prepare draft CAD deliverables for three (3) Multibeam Bathymetric Surveys:		6	32					\$5,210.00
Task 4: Final Deliverables:								
Prepare Survey Reports and Final Deliverables:		6	12					\$2,610.00
								\$0.00
Total Hours	0	16	53	8	30	3	0	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$19,340.00

Hyatt Survey Services, Inc.							Date:	1/18/2026
Project: Submerged Pipeline: Bathymetric Surveys (Cortez Bridge)								
Project Manager: Danny Swain, PSM Client: Manatee Co							Subsurface Utility Exploration	
	Principal (PSM)	Professional Surveyor (PSM)	SUE Technician	Senior Survey Technician	Field Crew (HYDRO)	Vessel/ Boat	SUE Designation Crew (4 Person)	Fee Per Task
Marine Geophysical SUE Surveys: (Cortez Bridge)								
Hourly Rate \$/Hr.	\$260.00	\$175.00	\$120.00	\$130.00	\$200.00	\$750.00	\$200.00	
Task 1: Marine Geophysical SUE Surveys:								
Conduct three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:			20	40			70	\$21,600.00
Logistical support for three (3) marine geophysical surveys to locate the subaqueous sections of the three target pipelines:		8		8	20	2		\$7,940.00
Task 2: Data Processing & CAD:								
Process geophysical SUE data, prepare draft CAD deliverables for three (3) marine geophysical SUE Surveys:			10	32				\$5,360.00
Task 3: Final Deliverables:								
Prepare Final Deliverables			4	8				\$1,520.00
								\$0.00
Total Hours	0	8	34	88	20	2	70	
							Reimbursable:	\$0.00
Project Observations/Assumptions:							Total Fee:	\$36,420.00

Exhibit B - Survey Limits:

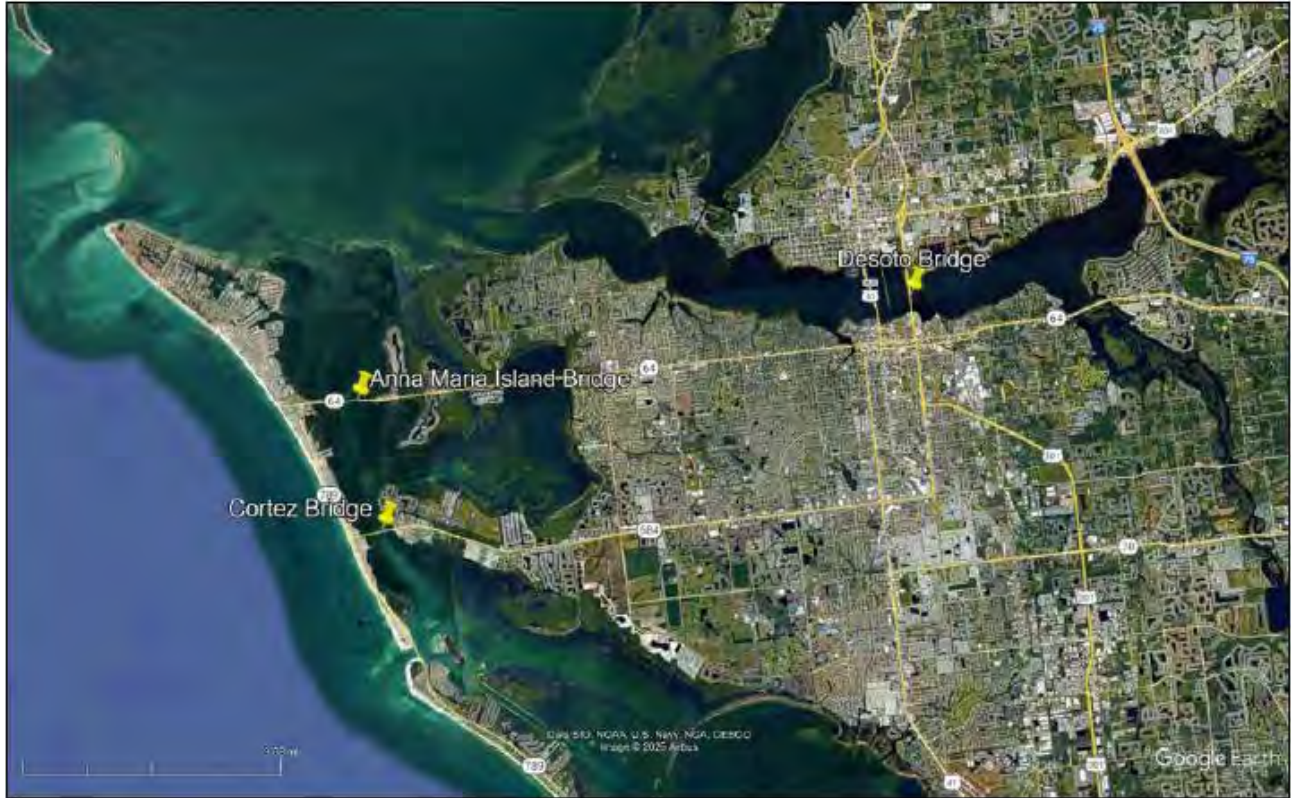


Figure 1: The general location of the three pipelines crossings near the Desoto Bridge, Anna Maria Island Bridge, and Cortez Bridges.

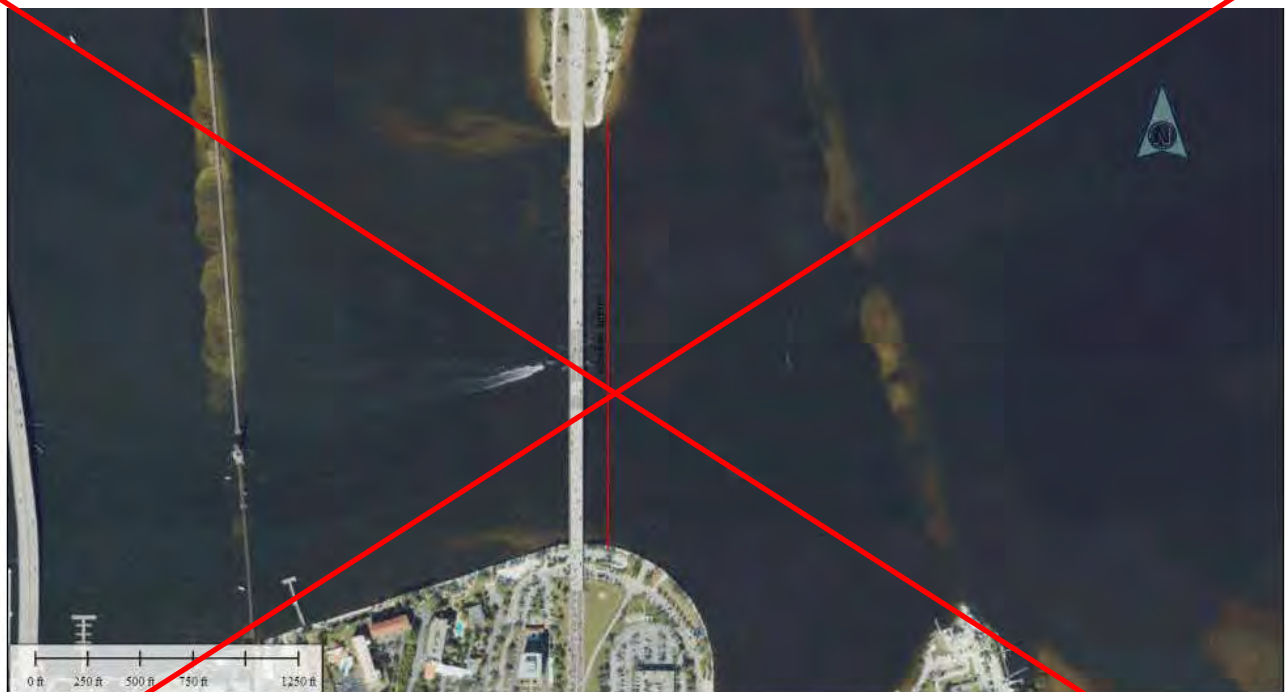


Figure 3: The pipeline (shown as a red line) crossing at the Desoto Bridge is subaqueous for the entire length and is located 150 ft east of the bridge centerline.



Figure 4: Proposed survey lines (green lines) at the Anna Maria Island Bridge. The subaqueous section of the pipeline is shown as red line.

At the Desoto Bridge, survey lines will be spaced at 100 ft intervals along the pipeline route (Figure 5). This line spacing will be used due to the longer length of the subaqueous section and the relatively straight course of the pipeline within that section. Each line will be surveyed in both directions.

Details of the pipeline crossing at the Cortez Bridge were not available at the time of this proposal writing; however, the effort is envisioned to be like the Desoto Bridge survey. Planned survey lines for this crossing will be agreed upon with Manatee County when pipeline data become available.



**SCOPE OF WORK
PIPE CROSSINGS AT THREE
MANATEE COUNTY BRIDGES
PARAMETRIC SUB-BOTTOM PROFILING &
MULTI-BEAM BATHYMETRIC SURVEY
DESOTO, MANATEE & CORTEZ BRIDGES
MANATEE COUNTY, FLORIDA**

Hyatt Survey Services, Inc.
Bradenton, FL

1. General Description of Work:

Due to bridge relocation projects, the County requires the horizontal locations of subaqueous pipes located at three separate bridges, Desoto, Manatee and Cortez. The locations of each pipe within the survey areas are required to meet positional tolerances of ± 1.00 foot at a 95% (1.96σ) confidence level. In order to achieve the desired outcomes, it's recommended the Innomar Compact Parametric Sub-Bottom Profiler be employed during the surveys at the Manatee and Desoto Bridges, and the Innomar Medium 100 Parametric Sub-Bottom Profiler at the Cortez Bridge due to depth of burial.

In addition to sub-bottom profiling, the County requires bathymetric data collected using a fully calibrated multi-beam echosounder configuration within the same survey area as the sub-bottom profiling.

2. Information Supplied by, or through, the County:

- a) PDF and CAD data of approximate locations of expected pipes to be encountered at each bridge site.
- b) All hydrographic survey techniques must be consistent with the U.S. Army Corps of Engineers Engineering Manual for Hydrographic Surveying (EM 1110-2-1003) dated 30 November 2013: http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1003.pdf
- c) Safety is always a County priority; therefore, adherence to the relevant elements found EM 385-1-1 dated 30 November 2014 or later version shall be strictly followed: http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_385-1-1.pdf

3. Work to be Performed by the Contractor(s):

The Contractor(s) shall provide equipment, supplies, and personnel to complete the work described herein.

Specific work shall include:

- a) Datums and units used project wide:
 - a. Bearings and coordinates will have the following metadata:
 - i. Datum: North American Datum of 1983 with a 2011 realization.
 - 1. NAD83(2011).

- 2. Epoch 2010.
 - ii. Projection Zone: Florida West State Plane.
 - iii. Projection Type: Transverse Mercator.
- b. All elevations shall be referenced to the North American Vertical Datum of 1988.
 - i. NAVD88.
 - ii. The Geoid 18 model (or latest version) shall be used.
- c. Depths shall be referenced to NAVD88.
- d. Units:
 - i. US Survey Foot Definition.

b) Survey Activities Associated with this task order:

- a. Multi-beam bathymetric and parametric sub-bottom profile data shall be collected 100 feet on each side of the as-built pipe locations as shown on maps provided by the County.
 - i. Multi-beam echo sounder data shall be collected using a motion reference unit (MRU), heading sensor, and RTK or PPK GNSS receiver for positioning. The data shall be integrated via an inertial navigation system (Kalman Filter) using a tightly coupled solution.
 - 1. The along and across track beam angles shall not exceed one degree.
 - 2. The swath width chosen shall allow for object detection of less than 6".
 - 3. The multi-beam data shall be collected with a 50% overlap (150% coverage).
 - a. Line spacing = 75% of swath width.
 - i. Swath width = $2 \cdot D \cdot \tan(1/2\beta)$
 - 1. D = depth
 - 2. B = swath angle
 - ii. Sensor offsets shall be carefully determined and entered into the online data acquisition software.
 - iii. A patch test shall be performed prior to the commencement of any work in order to calibrate for the systematic errors (roll, pitch, yaw and latency) created by the positioning and mounting angles of the different sensors. These values shall be used and entered into the online data acquisition software.
 - iv. Sound velocity cast shall be performed at the following minimum intervals:
 - 1. Start of each day's bathymetric work.
 - 2. At the approximate middle of each day's bathymetric work.
 - 3. Near the conclusion of each day's bathymetric work.
 - 4. At any time, the surveyor expects a noticeable change in the sound velocity profile.
 - v. The entire sound velocity profile shall be used.
 - vi. Under no circumstances shall the sound velocity profile be extrapolated.
 - vii. If conductivity, temperature and depth are measured and used in lieu of a sound velocity probe, the sound velocity profile shall be determined using the Chen and Millero algorithm.
 - viii. The portion of the sound velocity profile in the same depth range as the sound velocimeter at the multi-beam head shall be compared for satisfactory agreement.
 - ix. Soundings shall be shown as elevations relative to the national vertical datum cited herein.
 - x. Date, time, and elevation of the water surface shall be taken at least twice daily and tabulated in an Excel spreadsheet for delivery.

Easting	Northing	Elevation	Date	Time (24 hr)
---------	----------	-----------	------	--------------
 - xi. Daily position checks shall be conducted.
 - xii. While the U.S. Army Corps of Engineers Engineering Manual for Hydrographic

Surveying (EM 1110-2-1003) dated 30 November 2013 stresses repeatability, it's of vital importance the data collection not just be repeatable, but accurate as well.

- xiii. The selection of frequencies used shall be carefully considered to ensure the quality of data collected.
- xiv. The pulse repetition (update) rate of the echo sounder shall be chosen to maximize the data collected based on water depth.
- xv. Vertical uncertainty shall meet: $\sqrt{(a^2 + (b \times d)^2)}$
 - 1. a: 0.1 m
 - 2. b: 0.0075
 - 3. d: survey depth
- xvi. Horizontal uncertainty shall meet: $a + 0.01d$
 - 1. a: 0.35 m
 - 2. d: survey depth
- xvii. Uncertainty analysis:
 - 1. An apriori multi-beam uncertainty analysis (T.V.U., T.H.U. and T.P.U.) shall be performed to ensure the appropriate sensor configuration and sensor specifications are chosen to meet the aforementioned specifications.
 - 2. A posteriori multi-beam uncertainty analysis (T.V.U., T.H.U. and T.P.U.) shall be performed at the conclusion of the work to ensure the actual work itself complied with the aforementioned specifications.
 - 3. The results from both (apriori and posteriori) shall be submitted as part of the final submittal package to the County at the conclusion of said work.
- b. Parametric Sub-Bottom Profiler data shall be collected using a motion reference unit (MRU), heading sensor, and RTK or PPK GNSS receiver for positioning. The data shall be integrated via an inertial navigation system (Kalman Filter) using a tightly coupled solution.
 - i. All pre-deployment, field performance, and latency calibrations as deemed necessary by the Surveyor in Charge shall be performed to ensure the precisions and accuracies specified herein are achieved.
 - 1. Latency determination and correction, at a minimum, shall be determined and applied.
 - ii. Sensor offsets shall be carefully determined and entered into the online data acquisition software.
 - iii. Horizontal uncertainty is a primary concern, therefore, the positional tolerance of ± 1.00 foot at a 95% (1.96σ) confidence level is the target the County is looking for in terms of successful achievement.

4. **End Results Expected:**

- a) Fully processed x, y, z, ASCII formatted files of the areas surveyed shall be delivered each day. Separate files and a combined file containing the following.
 - a. Elevations referenced to NAVD88.
 - b. Depths referenced to water surface at time of collection.
- b) Copies of all raw files, edited files and files used for processing (Hypack and POSPac if used).
- c) Electronic copies of all files provided to the Corps, become the property of the Government.
- d) A metadata file compliant with the Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata shall be produced for all aspects of this task order.
- e) All files shall be delivered electronically using DoD SAFE: <https://safe.apps.mil/>

5. Schedule and Submittal:

- a) The Contractor shall daily prepare and submit all pertinent data electronically no later than **Day**
Month 2026 to:
 - a) Manatee County Technical POC is Danny R. Swain at 941-748-4501 Ext. 3024
(Danny.Swain@MyManatee.Org).
 - b) Other Manatee County Technical POC is Tim Johnston at 941-748-4501 Ext. 6223
(Tim.Johnston@MyManatee.Org)
 - c) Other Manatee County Technical POC is Anita Wang at 941-708-7450 Ext. 7220
(Anita.Wang@MyManatee.Org)


Doc #	PR-1137-001	
Title	Manatee County Pipeline Survey	

Figure 2: The subaqueous section of the water pipeline at the Anna Maria Island Bridge is shown as a red line located to the south of the bridge.



Figure 3: The pipeline (shown as a red line) crossing at the Desoto Bridge is subaqueous for the entire length and is located 150 ft east of the bridge centerline.

Scope of Service

EOS will conduct marine geophysical surveys to locate the subaqueous sections of the three target pipelines. To achieve this goal, EOS will mobilize a survey crew consisting of a subbottom profiler and two personnel. This equipment will be installed on the Hyatt survey vessel in Florida. The sonar transducer will be installed on the existing over-the-side pole onboard the survey vessel. The vessel and positioning equipment will be operated by Hyatt personnel. The subbottom profiler equipment will be operated by EOS personnel. EOS will provide the following system:

- Compact Parametric Subbottom Profiler – for use during imaging of the shallow pipelines at Desoto and Anna Maria Bridges.
- Deep Penetration Parametric Subbottom Profiler – for use during imaging of the deeply buried pipeline at the Cortez Bridge.
- Sound Velocity Profiler.



May 5, 2026 - Regular Meeting

Subject

Execution of Change Order No. 5 to Agreement No. 21-TA003596CD for Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects, Dafne Seeland, Project Manager - District 3

Category

CONSENT AGENDA

Briefings

None

Contact and/or Presenter Information

Presenters: Dafne Seeland - Project Manager, Ext. 7236 and Jeff Streitmatter - Project Management Division Manager, Ext. 7335, Public Works Department, Project Management Division

Action Requested

Authorization for the Purchasing Official, or designee, to execute Change Order No. 5 to Agreement No. 21-TA003596CD for Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue West Bridge Replacement Projects with Kimley-Horn & Associates, Inc., in the amount of \$130,220.00, for a revised not-to-exceed agreement amount of \$1,961,122.69.

Enabling/Regulating Authority

Manatee County Code of Laws

Applicable Advisory Board

N/A

Background Discussion

Change Order No. 5 to Agreement 21-TA003596CD provides an additional \$130,220.00 for Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey for the Cortez Bridge and Manatee Avenue Bridge projects for a revised not-to-exceed total of \$1,961,122.69.

Procurement History

On September 28, 2021, the Board of County Commissioners authorized the execution of Agreement No. 21-TA003596CD with Kimley-Horn & Associates, Inc. for the provision of Professional Utility Engineering Design Services for Cortez Road and Manatee Avenue

West Bridge Replacement Projects, that includes design services to relocate the intercoastal 24 inch water main and 20 inch sewer force main to south of the existing Cortez Bridge, and to relocate the intercoastal 18 inch water main to the north of the existing Manatee Avenue West Bridge, outside of the proposed new bridge alignments for a not-to-exceed amount of \$1,343,223.94.

On January 10, 2023, the Board of County Commissioners authorized the execution of Change Order No. 1 to Agreement No. 21-TA003596CD that provided an \$25,120.00 to provide additional design services to add a fiber conduit alongside the horizontal directional drills for a revised not-to exceed Agreement amount of \$1,368,343.94.

On October 10, 2023, the Board of County Commissioners authorized the execution of Change Order No. 2 to Agreement No. 21-TA003596CD that provided an additional \$26,746.50 to provide additional design services design an electric metering system for the force main and water main, as well as an electrically actuated control valve for the water main for a revised not-to exceed Agreement amount of \$1,395,090.44.

On December 10, 2024, the Board of County Commissioners authorized the execution of Change Order No. 3 to Agreement No. 21-TA003596CD authorizing an additional \$295,765.38 to provide additional design services to design electrical and instrumentation along Manatee Bridge and at master control panel at receiving end, along with agency permitting fees, and construction administration services to include additional outreach services during construction phase of Cortez Bridge for a revised not-to exceed Agreement amount of \$1,690,855.82.

On September 2, 2025, the Board of County Commissioners authorized the execution of Change Order No. 4 to provide an additional \$140,046.87 for additional design services to provide additional construction materials testing for the Cortez Bridge project and construction administration services to include additional outreach services during the construction phase of the Manatee Avenue Bridge project for a revised not-to-exceed total of \$1,830,902.69.

Change Order No. 5 to Agreement 21-TA003596CD provides an additional \$130,220.00 for Parametric Sub-Bottom Profiling & Multi-Beam Bathymetric Survey for the Cortez Bridge and Manatee Avenue Bridge projects for a revised not-to-exceed total of \$1,961,122.69.

Attorney Review

Not Reviewed (Utilizes exact document or procedure approved within the last 24 months)

Instructions to Board Records

Please ensure that the Chairperson signs page 4 of the Change Order.

Original to Board Records and Copies to:

Public Works Department: Dafne Seeland (dafne.seeland@mymanatee.org) and Alyssa Wetzel (alyssa.wetzel@mymanatee.org)

Procurement Division: Dave Janney (Dave.Janney@mymanatee.org) /
(approvedeagendas@mymanatee.org)

Distributed to everyone listed under the Instructions 5/7/26, RT

Cost and Funds Source Account Number and Name

\$130,220.00 - Utility Rates in Projects 6093070 and 6093170

Amount and Frequency of Recurring Costs

N/A