# **WORK ORDER NUMBER 3**

# NORTH COUNTY SEWER SYSTEM – PHASE ONE BIDDING & CONSTRUCTION SERVICES

This Work Order Number <u>3</u>	_ is entered	into as of this day of
November 15, 2011, and that certa Agreement for Professional Services ent	in Extensio tered into as I between IN	act Agreement for Professional Services dated n and Amendment of Continuing Contract of this 4 <sup>th</sup> day of November, 2014 (collectively NDIAN RIVER COUNTY, a political subdivision of Her, Inc. ("Consultant").
Exhibit 1a (Scope of Work), attached to The professional services will be performed to the Exhibit 1b (Fee Schedule), attached to the Consultant will perform the profession forth in Exhibit 1c (Time Schedule), attached in accordance with the temparagraph 1.4 of the Agreement, nother	this Work ( rmed by the his Work Or sional service ached to thi ms and prove hing contain of the Agre	perform the professional services set forth or Order and made part hereof by this reference consultant for the fee schedule set forth in der and made a part hereof by this reference ses within the timeframe more particularly sets Work Order and made a part hereof by this isions set forth in the Agreement. Pursuant to ded in any Work Order shall conflict with the tement shall be deemed to be incorporated in the conflict with the tement shall be deemed to be incorporated in the conflict with the tement shall be deemed to be incorporated in the conflict with the conflict with the conflict with the tement shall be deemed to be incorporated in the conflict with the conflict
IN WITNESS WHEREOF, the part first written above.	ties hereto h	nave executed this Work Order as of the date
CONSULTANT: MASTELLER & MOLER, INC		BOARD OF COUNTY COMMISSIONERS OF INDIAN RIVER COUNTY
By: Earl H. Masteller) PE, BCEE  Title: President	By:	Joseph E. Flescher, Chairman
Trestacine	BCC Appro	ved Date:
	Attest: Jeff	rey R. Smith, Clerk of Court and Comptroller
	Ву:	
and the same of th		Deputy Clerk
	Approved:	
41		Jason E. Brown, County Administrator
Approved as to form and legal	sufficiency:	

Dylan T. Reingold, County Attorney

# NON-EXCLUSIVE PROFESSIONAL ENGINEERING AGREEMENT CONTINUING CONSULTING SERVICES

### "EXHIBIT 1a"

# WORK ORDER NO. 3 (Scope of Work)

The Indian River County Utilities Department has decided to move forward with bidding and construction of Phase One of the North County Sewer System. A previous Work Order provided for Engineering Services in connection with the design and preparation of construction plans and permitting applications for a gravity sanitary sewer collection and conveyance system to serve commercial areas in the North County and the City of Sebastian known as Study Area Number 1. Masteller & Moler, Inc. has completed this part of the project. The County has been successful in securing grant funding for construction and the County wishes to construct the project. This Work Order provides for Engineering Services necessary for the project's bidding and construction.

The estimated construction cost of this project is \$ 1,967,394,70

A brief description of the scope of services and deliverables for Work Order No. 3 is provided below:

### SCOPE OF SERVICES

### Task A – Contract Specifications & Bid Documents

Task A provides for professional engineering services in order to prepare contract specifications and bid documents to be used along with the construction plans to bid and construct the project.

### Task B – Bidding Services

Task B provides engineering services during the project's bidding process generally including the following:

- 1. Preparation for and attendance at a mandatory pre-bid meeting and preparation of a letter of response to include in an addendum.
- 2. Research and responses to bidders' questions to be incorporated into written addenda during the bidding process.
- 3. Review submitted bids, evaluate for correctness and completion, contact references (if applicable), and provide Letter of Findings and Recommendation of Contract Award.

### Task C - Construction Administration / Observation

Task C provides engineering services during the project's construction and completion process generally including the following:

## Construction Administration / Certifications

 Upon issuance of the Notice to Proceed, schedule and conduct a pre-construction conference with involved/affected parties and record and maintain minutes of meeting.

- 2. Review/evaluate Contractor's Maintenance of Traffic Plan and critical path schedule.
- 3. Process (catalog) and review shop drawing and material submittals and provide recommendations to Utilities Dept.
- 4. Conduct periodic progress meetings (record and maintain meeting minutes).
- Interpret the project documents (contract, plans and specifications) to help facilitate the construction activities and to respond to issues raised by the Contractor.
  - Analyze and address problems that arise (trouble-shoot).
  - Evaluate value engineering change order proposals and provide recommendations to Utilities Dept. for their direction.
  - Evaluate change orders and time extension requests.
- 6. Review Contractor pay requests and provide recommendations to Utilities Dept. to prevent delays and to facilitate prompt process by the County.
  - Contractor's pay request will be submitted to the County with appropriate backup and recommendations for payment and/or withholding of payment.
- 7. Process (catalog) and review RFIs and provide recommendations to Utilities Dept.
- 8. Coordinate and conduct punchlist procedures beginning with Initial Walkthrough (IW) within five (5) days of Substantial Completion.
- 9. As-built reviews.
- 10. Project close-out procedures and Engineer's Certifications as required.

Upon satisfaction that items of work have been completed in substantial conformance with the project documents, a construction completion package will be prepared and submitted to the Utilities Dept. The package will include inspection reports; field survey data provided by the Contractor; testing data provided by the Contractor; final as-built plans provided by the Contractor; meeting documentation; documentation of field changes; progress and final payment documentation; Contractor RFIs and change order requests; approved change orders; and final project punchlists.

## Construction Observation & Start-Up

- Conduct a pre-work walk through to document existing conditions with an emphasis on minimizing interruption of Utilities Dept. operations and vehicular traffic.
- 2. Observe the Contractor's construction activities and materials incorporated into the work during periodic site visits.
  - Prepare and maintain written reports of the Contractor's progress and of significant events affecting the work.
  - Record noteworthy incidents or events with video and/or still photography.
- 3. Observe and document construction testing activities including materials testing, utility testing, and other related activities.
- 4. Observe start-up of pumping systems to verify proper operation.

# WORK ORDER NO. 3 "EXHIBIT 1b" (Fee Schedule)

## Method and Amount of Compensation

Masteller & Moler, Inc. proposes to provide the outlined Scope of Services based on the following fees:

Task A. Preparation of Contract Specifications & Bid Documents (Lump Sum Fee)	\$ 17,400.00
Task B. Services during Project Bidding (Lump Sum Fee)	\$ 7,925.00
Task C. Project Construction Administration & Observation Services (Not to Exceed Fee - See Attached Estimated Fee Breakdown)	\$ 99,945.00

# WORK ORDER NO. 3 "EXHIBIT 1c" (Time Schedule)

# Time of Performance

The estimated time frame for completion of services from the approval of this Work Order No. 3 is as follows:

MILESTONE	COMPLETION DATE
Tasks A	90 Calendar Days after Notice To Proceed
Tasks B & C	412 Calendar Days after receipt of Notice to Proceed

# INDIAN RIVER COUNTY NORTH COUNTY SEWER SYSTEM PHASE ONE - BIDDING & CONSTRUCTION SERVICES

## WORK ORDER NO. 3

## ESTIMATED FEE BREAKDOWN FOR TASK C

## BASED ON 230 WORKING DAYS OR 322 CALENDAR DAYS

	Profess	Proje	lanager	Proje	nspector	Administration							
	\$ 175.00		\$ 110.00		\$ 85.00			\$ 60.00			Total Costs		
	Hours	Amount	Hours		Amount	Hours		Amount	Hours		Amount		
Pre-Construction Meeting	16	\$ 2,800.00	10	\$	1,100.00	9	\$	765.00	10	\$	600.00	\$	5,265.00
Review Critical Path Maintenance of Traffic	10	\$ 1,750.00	4	\$	440.00		\$	•	8	\$	480.00	\$	2,670.00
Shop Drawings	10	\$ 1,750.00	20	\$	2,200.00		\$	-	6	\$	360.00	\$	4,310.00
Address Issues Change Orders	10	\$ 1,750.00		\$	•		\$		40	\$	2,400.00	\$	4,150.00
Periodic Progress Meetings	12	\$ 2,100.00		\$	-	12	\$	1,020.00	12	\$	720.00	\$	3,840.00
Pay Requests	12	\$ 2,100.00		\$	-		\$		40	\$	2,400.00	\$	4,500.00
RFI	20	\$ 3,500.00	10	\$	1,100.00		\$	=	10	\$	600.00	\$	5,200.00
Punch List / Walkthru	12	\$ 2,100.00		\$	-	12	\$	1,020.00	4	\$	240.00	\$	3,360.00
As-Built Review	8	\$ 1,400.00	12	\$	1,320.00		\$	-	4	\$	240.00	\$	2,960.00
Construction Observations	150	\$ 26,250.00		\$		300	\$	25,500.00	30	\$	1,800.00	\$	53,550.00
Start-Up	8	\$ 1,400.00		\$	-	16	\$	1,360.00		\$	i e	\$	2,760.00
Project Close-out / Certifications	12	\$ 2,100.00	20	\$	2,200.00	8	\$	680.00	40	\$	2,400.00	\$	7,380.00
Total (hrs/cost)	280	\$ 49,000.00	76	\$	8,360.00	357	\$	30,345.00	204	\$	12,240.00	\$	99,945.00

File # 1422 Fee Breakdown\_16-1108.xlsx

# WORK ORDER NO. 3 NORTH COUNTY SEWER SYSTEM PHASE ONE - BIDDING & CONSTRUCTION SERVICES

# PREPARATION OF SPECIFICATIONS, BID DOCUMENTS AND CONSTRUCTION ADMINISTRATION / OBSERVATION SERVICES MANHOUR BREAK DOWN

11/8/2016

	Principal / PE			Project Manager			Project Inspector			Administration					
		\$ 175.00		\$ 110.00			\$	85.00		\$	\$ 60.00		Total Costs	Comments	
	Hours		Amount	Hours		Amount	Hours		Amount	Hours		Amount			
Task A - Contract Specifications & Bid Documents	72	\$	12,600.00		\$	<b>,</b>		\$	,	80	\$	4,800.00	\$	17,400.00	
Task B - Bidding Services	35	\$	6,125.00		\$	-		\$	-	30	\$	1,800.00	\$	7,925.00	
Task C - Construction Administration / Observation	280	\$	49,000.00	76	\$	8,360.00	357	\$	30,345.00	204	\$	12,240.00	\$	99,945.00	
Total (hrs/cost)	387	\$	67,725.00	76	\$	8,360.00	357	\$	30,345.00	314	\$	18,840.00	\$	125,270.00	

NOTE: Task C is a "Not To Exceed" amount and is based on an estimated timeframe of (230) working days or (322) calendar days. According to a reputable utility contractor, the portion of the project along U.S. #1 will require approximately (130) working days to construct due to the limited construction area and conflicts with existing storm sewer, gas pipeline, and potable water pipeline. This portion of the project will require more time and more frequent on-site engineering visits by the Engineer-of-Record as part of construction observation.

File #1422 1422LH\_manhours\_16-1108.xlsx