

CCNA2018 WORK ORDER 8

**ROSELAND ROAD 6" FORCE MAIN EXTENSIONS &
WASTEWATER FACILITIES FOR DALE WIMBROW & DONALD MCDONALD PARKS**

This Work Order Number 8 is entered into as of this ___ day of _____, 20___, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17th day of April, 2018 (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Masteller & Moler, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit A (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit A (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

**CONSULTANT:
MASTELLER & MOLER, INC.**

**BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY**

By: _____

By: _____

Print Name: Earl H. Masteller, PE, BCEE

Susan Adams, Chairman

Title: President

BCC Approved Date: _____

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By: _____

Deputy Clerk

Approved: _____

Jason E. Brown, County Administrator

Approved as to form and legal sufficiency: _____

Dylan T. Reingold, County Attorney

EXHIBIT "A"

WORK ORDER 8

ROSELAND ROAD 6" FORCE MAIN EXTENSIONS & WASTEWATER FACILITIES FOR DALE WIMBROW & DONALD MCDONALD PARKS

Masteller & Moler, Inc. is pleased to present you with Work Order 8 which provides Professional Engineering Services for preparation of a Preliminary Engineering Study and Report, design and construction plans with specifications, permitting, bidding, and construction administration / observation for the extension of the existing force main system in Roseland Road, and wastewater collection and conveyance facilities to serve Wimbro and Donald McDonald Parks. We will use our innovative skills and experience to design the most efficient system with the lowest construction, operational, and maintenance costs. Masteller and Moler Inc. will provide for outside consulting services including surveying and soils engineering for the project.

PROJECT DESCRIPTION

The Indian River County Department of Utility Services and the County Parks and Recreation Department have determined that a substantial environmental benefit to the St. Sebastian River will result from the construction of wastewater facilities along Roseland Road and within the two (2) aforementioned parks. This project will include a wastewater force main conveyance system along portions of Roseland Road between Rivers Edge and the Kashi Village. The project will also involve the necessary wastewater collection and conveyance systems to eliminate the existing septic systems serving the Dale Wimbro and Donald McDonald parks.

The estimated construction costs for the utility improvements for Work Order 8, including both the Roseland Road wastewater force main system and the collection and conveyance systems to service Dale Wimbro and Donald McDonald Parks, is at this time unknown and will be addressed as part of Task A as described below in the Scope of Services.

In order that these wastewater facilities can be constructed and to accurately estimate their associated costs, Masteller & Moler, Inc. proposes to perform the following Scope of Services:

SCOPE OF SERVICES

Task A – Preliminary Engineering Report

Masteller & Moler, Inc. will study the project areas and prepare a Preliminary Engineering Report (PER). The PER will present alternatives and recommend the most cost benefit solution. A Conceptual Layout Plan of the proposed force mains and a construction cost estimate will be prepared and included for the proposed 6" force main extensions including valves, fittings, restoration, etc.

Another section of the PER will discuss the location and proposed facilities in order to eliminate the existing septic tank systems located at Dale Wimbro and Donald McDonald parks. The proposed collection and conveyance system for the parks will not only consider the lowest construction cost but also environmental concerns, including minimizing or eliminating impacts to the existing, densely-wooded conditions. A Conceptual Sketch of the proposed collection and conveyance system layout to eliminate the existing septic systems will be included in the Report. In addition, we will prepare and include a construction cost estimate of the proposed wastewater improvements.

The following information is requested from the Utilities and Parks & Recreation Departments:

1. As-Built Plans of the existing force main systems in Roseland Road.
2. Pressures in the Roseland Road force mains at Rivers Edge and Kashi Village.
3. As-Built Plans of the potable water pipeline in Roseland Road between Rivers Edge and Kashi Village.
4. Two (2) years-worth of flow data for Dale Wimbrow and Donald McDonald Parks.
5. Maximum (actual or estimated) daily number of people (per park) using Dale Wimbrow and Donald McDonald Parks.
6. Details on dump station – the quantity and frequency the drain field is pumped out, etc.

Task B – Surveying Services

Masteller & Moler, Inc. will use the services of our survey sub-consultant Masteller, Moler & Taylor, Inc. to provide a Route Survey for the Roseland Road force main extensions and a survey showing the location of the existing septic systems in the Dale Wimbrow and Donald McDonald parks. The survey will show all visible improvements and other information as needed for Engineer to design the project. Elevations will be taken based on NAVD 1988 datum as required for the project design.

Task C – Design & Construction Plan Services

Masteller & Moler, Inc. will provide design and engineering services in order to prepare Construction Plans and Specifications suitable for the project's permitting and construction, showing and describing the proposed 6" force main system, as well as the collection and conveyance system to serve and eliminate the septic systems in Dale Wimbrow and Donald McDonald parks. Construction Plans and Specifications will be prepared for the force main and collection & conveyance systems in the parks based on the assumption that the project will be bid as one (1) project. We will also prepare an estimate of construction cost based on the bid ready Construction Plans.

Task D – Permitting Services

The above-described project will require the preparation of three (3) separate FDEP permit applications for construction of the force main system and for construction of the collection and conveyance system in the two (2) parks. In addition, a County Right-of-way permit will be required for construction of the Roseland Road force main system. A City of Sebastian Right-of-way permit may be required for construction of a portion of the Roseland Road force main system. Our services will include preparing applications to secure the FDEP permits and the Indian River County Right-of-way permit, along with the necessary plans and supporting data. Our services will also include coordination with the City of Sebastian (CoS) to determine if a Right-of-way permit is required and preparation of the application to secure the CoS Right-of-way permit, if necessary. No other permit applications are included. Permit application fees associated with the permits which we are securing are not included in our fees.

Task E – Soils Engineering Services

Masteller & Moler, Inc. will use the services of our soils engineering sub-consultant KSM Engineering & Testing to provide soils engineering services for the project along Roseland Road and within the parks. The soils

engineering services will include the performance of necessary soil borings as well as a report detailing all the findings and conclusions regarding the soil information and water table levels.

Task F – Electrical Engineering Services

Masteller & Moler, Inc. will use the services of our electrical engineering sub-consultant Treasure Coast Engineering to provide electrical engineering services for the project for the pumping station sites. The electrical engineering services will generally include the evaluation of existing power to the sites (if any) to determine the suitability for this project's needs, interfacing with the power utility to ensure adequate power is delivered to the lift station sites, and furnishing of electrical plans and diagrams as necessary.

Task G – Bidding Services and Specifications

Using IRCDUS standard bid documents, we shall prepare Contract Plans and Specifications with Bid Documents to allow the Indian River County Purchasing Department to advertise and bid the project. Additionally, we will provide engineering services during the project's bidding process generally including but not limited to 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. Revise and/or amend Contract Plans and Specifications and prepare written addendum / addenda during bidding to reflect any comments and/ or requirements by permitting agencies.
3. Research and responses to bidders' questions to be incorporated into written addenda during the bidding process.
4. Review submitted bids, evaluate for correctness and completion, compile bid comparison by line item for each bidder, contact references (if applicable), and provide Letter of Findings and Recommendation of Contract Award.

Task H – Construction Administration / Observation

Masteller & Moler, Inc. will provide engineering services during the project's construction and completion process generally including the following:

Construction Administration / Certifications

1. 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, SWPPP, and critical path schedule.
3. Process (catalog) and review shop drawing and material submittals and provide recommendations to departments.
4. Conduct periodic progress meetings (record and maintain meeting minutes).
5. 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 departments for their direction.
 - Evaluate change orders and time extension requests.
6. Review Contractor pay requests and provide recommendations to departments 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 departments.
 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 departments. 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

1. Conduct a pre-work walk through to document existing conditions with an emphasis on minimizing interruption of 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.

Deliverables – The **ENGINEER** shall provide the **COUNTY**:

- a. Preliminary Engineering Report - 6 Copies + PDF
- b. 60% Construction Plans and Preliminary Specifications - 2 Sets
- c. 90% Construction Plans, Preliminary Specifications, and Permit Applications - 2 Sets
- d. Final Construction Plans - 2 Sets + PDF
- e. Bid Documents and Final Specifications necessary for Advertisement and Bidding of the work
- f. Related digital AutoCAD, DOC, and PDF files

TIME SCHEDULE

Project shall be completed as follows:

Preliminary Engineering Study (after NTP Receipt)	60 Calendar Days
60% Construction Plans & Preliminary Specifications (after NTP Receipt)	120 Calendar Days
90% Construction Plans & Permit Application Submittals (after NTP Receipt)	140 Calendar Days
Final Construction Plans (after NTP Receipt)	160 Calendar Days

FEE SCHEDULE

Consultant proposes to provide the outlined Scope of Services based on the following lump sum fees:

	Total Consultant Fee	Utilities	Parks & Recreation
Task A – Preliminary Engineering Study & Report	\$ 9,080.00	\$ 2,270.00	\$ 6,810.00
Task B – Surveying Services	\$ 12,000.00	\$ 8,930.00	\$ 3,070.00
Task C – Design & Construction Plans Services	\$ 48,300.00	\$ 28,700.00	\$ 19,600.00
Task D – Permitting Services	\$ 12,520.00	\$ 5,220.00	\$ 7,300.00
Task E – Soils Engineering Services	\$ 5,750.00	\$ 2,760.00	\$ 2,990.00
Task F – Electrical Engineering Services	\$ 4,890.00	\$ 0.00	\$ 4,890.00
Task G – Bidding Services & Specifications	\$ 6,220.00	\$ 3,730.00	\$ 2,490.00
Task H – Construction Admin/Observation/Certifications	\$ 18,120.00	\$ 10,770.00	\$ 7,350.00
Total Lump Sum Fee	\$ 116,880.00	\$ 62,380.00	\$ 54,500.00

The total lump sum fees will be invoiced to the Utilities Department. The fee breakdown between the Utilities Department and Parks & Recreation Department is provided to facilitate intergovernmental transfers of funds related to our engineering services.