

**WORK ORDER 15**

**11<sup>th</sup> Drive and 37<sup>th</sup> Street Roadway and Intersection Improvements  
IRC-2001**

This Work Order Number 15 is entered into as of this \_\_\_ day of \_\_\_\_\_, 2020, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of this 17<sup>th</sup> 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 MBV Engineering, 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 D (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 B (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:**  
**MBV Engineering, Inc.**

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

**By:**   
**Title:** Vice President

**By:** \_\_\_\_\_  
**Susan Adams, Chairman**

**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 - SCOPE OF WORK

It is understood the COUNTY desires to construct a new Public Road (11<sup>th</sup> Drive) from the south property line of the Harbor Bluffs parcel to 37<sup>th</sup> Street. It is also understood the COUNTY desires to re-align a portion of existing 11<sup>th</sup> Drive immediately south of 37<sup>th</sup> Street and to carry the improvement through the 36<sup>th</sup> Court 4-way stop intersection to approximately 150 feet south. In addition, the COUNTY also desires to improve the existing intersection at 11<sup>th</sup> Drive and 37<sup>th</sup> Street by installing a new mast arm traffic signal with pedestrian crosswalks, curb ramps, sidewalk ramps with landings and the associated signage and miscellaneous pavement markings, as needed. Furthermore, we understand the COUNTY desires a safety upgrade to the existing Go-Line bus stops that are presently located in the 37<sup>th</sup> Street grassed rights-of-way, by installing separate turn-outs that will allow for the busses to pull off the 37<sup>th</sup> Street east/west travel lanes to load and off-load passengers. In order to provide enough area for the new bus turn-outs, portions of the existing swale located in the southern ROW of 37<sup>th</sup> street will require culverting. Finally, we understand the COUNTY must provide sidewalk connections to the Cleveland Clinic Indian River Hospital from the 11<sup>th</sup> Drive roadway.

Through preliminary consultation with County staff, this proposal assumes that the drainage for the north portion of the 11<sup>th</sup> Drive Public Road improvements will be collected utilizing a curb and gutter system with an underground piping network. The design will provide for the stormwater to be collected and conveyed to the north via an underground piping network to a new dry pond that will be located on the north side of the project area. The CONSULTANT assumes that the roadway improvements associated with the areas south of 37<sup>th</sup> Street will be permitted to continue to drain to the existing Indian River Hospital District's master drainage system through the network of pipes and existing swales and will not require further treatment ponds or modifications to their existing wet ponds.

Project survey will be provided by Indian River County, inclusive of any additional utility and underground infrastructure that may be required for design and that is not presently depicted on the County's topographical survey for this location. COUNTY shall conduct Title Search on the SW corner of 37<sup>th</sup> Street & 11<sup>th</sup> Drive for the existing utilities equipment / services located in this area. CONSULTANT will work with County staff and the franchise utility operators for this area to identify any surface or subsurface utility information needed in order to provide for a proper design.

The CONSULTANT proposes to provide the COUNTY with the necessary design plans and engineering to complete the below detailed scope of work associated with the 11<sup>th</sup> Drive and 37<sup>th</sup> Street Roadway and Intersection improvements project.

### **A. 11<sup>th</sup> Drive Roadway Improvements**

#### **1. Task 1 - Geotechnical Investigation**

A soils investigation conducting (5) Augers with HCP every 200 ft on the south side of 37<sup>th</sup> Street along existing 11<sup>th</sup> Drive, (8) Augers with HCP every 100 ft on the north side of 27<sup>th</sup> Street for the new section of roadway, 4 SPTs (1 for each Mast Arm Location) to a depth of 35ft and one Auger to a depth of 10ft and (3) Shelby Tube samples in the proposed new dry pond location for the horizontal and vertical permeability tests. CONSULTANT will coordinate above with the geotechnical firm and all testing shall be in accordance with ASTM D – 1586.

**2. Task 2 - Utility Locating Services (Horizontal and Vertical)**

**DISCLAIMER NOTE:** Final cost of this service cannot be determined until further coordination has occurred with Franchise Utility Operators and County representative(s) with regards to actual locations, lines and utilities will be desired for said service. The fee has been estimated for budgetary purposes in Exhibit D, Fee Schedule. Should it be determined from the Utility coordination meeting that additional Utility Locate Services will be required, an Amendment can be developed at that time and presented to COUNTY for approval.

The CONSULTANT will coordinate with Blood Hound Utility Locating Company (BHUG) on their following scope:

- a. Horizontally and vertically locate detectable underground utilities within the project improvements area.
- b. Meeting on site with CONSULTANT, COUNTY and Franchise Utility Operators to confirm the locates area and specific requests and assist with access.
- c. EM and Real-Time GPR Locating equipment will both be utilized to locate and mark any detectable underground utilities. A not to scale digital field sketch will be provided of our discoveries for surveying purposes. We will also provide pictures and the raw GPR data for review.
- d. Estimate does not include any surveying services. Survey services to obtain any vertical elevations and horizontal alignments will be provided by COUNTY.
- e. Customer is advised that Blood Hound utilizes water-based paint and flags to identify any discoveries onsite. If this is an issue, Blood Hound must be made aware of this when scheduling. All discoveries will be painted and flagged for surveying purposes.
- f. All findings will be marked according to APWA standard.
- g. Any available as-built, engineered or other record drawings, if available, should be supplied to BHUG prior to commencement of field work.
- h. BHUG is not responsible for, moved, altered, obliterated or maintaining marks. BHUG will impose an additional fee to relocated / remark facilities.
- i. The performance of BHUG's services is limited to full and unobstructed access to include but not limited to: mechanical rooms, manholes, hand holes, vaults, meter rooms, telecom rooms, fixtures (plumbing, electrical, communication), dispensers, fenced compounds, tanks and structures. Full cooperation from the on-site personnel is necessary to perform a complete survey.
- j. Results are dependent upon field conditions at the time of locating services. It may be necessary to have parked vehicles or machinery moved to allow for a full scan and to access structures.
- k. CUSTOMER IS ADVISED THAT LIMITATIONS EXIST IN LOCATING PLASTIC MATERIALS WITHOUT TRACEABLE WIRES ATTACHED.
- l. During subsequent mobilizations Vacuum Excavation will be utilized to provide the precise horizontal and vertical position of specific utilities within the specified areas. CONSULTANT, COUNTY and Franchise Utility Operators representatives will assist in identifying the areas for vacuum excavation and provide guidance to BHUG.

- m. Test hole data forms will be provided with pertinent information to include size, function, depth, material (of pipes if known) and provide the precise horizontal and vertical position of any discoveries. Offsets will be provided to existing above ground features as well and all discoveries will be painted and flagged with all verification's staked with a semi-permanent marker for surveying purposes. A digital field sketch will be provided along with pictures of the areas in question.
- n. Customer is advised the vertical portion of the estimate will be based on a ***per hole fee***. Only completed test holes will be invoiced. A mobilization fee is required (if second day of MOB is not required it will not be invoiced).
- o. Customer understands any fees required for permits and MOT services are not provided and included in this estimate and none are anticipated.
- p. Cavities will be refilled with dry, native spoils (compacted in 6" lifts).
- q. Estimate does not include any final restoration such as hot mix asphalt, milling / resurfacing or special back fill requirements (flowable fill.) If final restoration is required by end client, city, state, or any other entity, that restoration will be the responsibility of the client. Blood Hound does not perform final concrete or asphalt surfacing. BHUG will not perform any excavations thru sidewalk without prior permission. Test holes performed under the roadway will be repaired with an asphalt cold patch and any concrete surfaces will be repaired with a Quikrete type product.
- r. All Survey work will be completed by IRC. BHUG will coordinate with CONSULTANT on scheduling times for surveying services to avoid delays as much as possible.

### **3. Task 3 – 11<sup>th</sup> Drive Roadway Construction Plans**

The roadway construction plans shall be developed to provide roadway design from the south property line of the Harbor Bluffs parcel to approximately 150' south of 36<sup>th</sup> Court. It is anticipated that the Public Road portion to be located on the north side of 37<sup>th</sup> Street will contain two (2) 12'- wide lanes, a 5'- wide bike lane and a 6'-wide sidewalk. A new driveway connection to the CCIRH Behavioral Health Center to the east, along with a new driveway connection to 12<sup>th</sup> Court to the west, will also be designed and incorporated into the plans for this section of the road improvement. The roadway plans shall include the design of a southbound left turn / through lane and a dedicated right turn lane at the intersection of 37<sup>th</sup> Street.

It is anticipated the public road portion to be located on the south side of 37<sup>th</sup> Street will contain (2) 12'- wide lanes and a 6'- wide sidewalk. The Roadway Plans shall include the design of a northbound left turn / through lane and a dedicated right turn lane at the intersection of 37<sup>th</sup> Street.

The CONSULTANT will develop the necessary Demolition plans for those areas north and south of 37<sup>th</sup> Street as needed to support the 11<sup>th</sup> Drive Roadway Improvement project and as discussed in preliminary coordination meetings with County staff. CONSULTANT will rely on COUNTY to coordinate with the Cleveland Clinic Indian River Hospital (CCIRH) for all demolition activities that will occur on CCIRH property as associated with this project.

The construction plans shall include both plan and profile views of the proposed roadway, as well as cross-sections at appropriate intervals. Roadway Plans shall include Signage and Striping Plans for both 11<sup>th</sup> Drive roadway sections along with the appropriate signage and striping details for the new signalized intersection. Plans will be designed to include the necessary roadway drainage infrastructure associated with this project along with the necessary franchise utility design improvements required for installation of the new roadway system. All plans will be prepared in accordance with the latest design standards and practices (MUTCD) and the FDOT Standard Specifications and Indexes.

Roadway Plans shall depict existing rights-of-way, section lines, property lines, temporary construction easements (as applicable) and center line of construction. Horizontal control points with State Plane coordinates for all PC's, PT's, curve radii, curve lengths and horizontal PI's shall be included on the plans or summarized in an alignment table.

Erosion Control plans and applicable details sheets shall be developed as applicable to support the roadway design project.

All specifications shall be noted and contained on the roadway construction plans and shall reference either Indian River County and/or FDOT Specifications for Road and Bridge Construction. Any deviations from County and/or FDOT Specifications for Road and Bridge Construction shall be noted and clarified on the construction plans.

**4. Task 4 - Stormwater Management Report**

It is anticipated that all roadway improvements proposed north of 37<sup>th</sup> Street will drain to a new dry detention pond that will be located in the north section of the project area. CONSULTANT will provide all necessary design and permitting of said pond to provide for the required water quality treatment and attenuation associated with this section of the new roadway. It is anticipated that all roadway improvements proposed south of 37<sup>th</sup> Street will drain to the Indian River Hospital District's existing Master Stormwater system via existing swales and or piping. A Stormwater management report will be developed substantiating this proposed system and design and provided to Indian River County and the St. Johns River Water Management District. It is understood the COUNTY will coordinate any easements necessary for the associated drainage design to flow to the locations stated above. As it is assumed this project will be permitted to drain to the aforementioned systems, this proposal includes stormwater pond modification (north roadway system) design and minor modifications to the IR Hospital District's Master stormwater pond bodies.

**5. Task 5 - Permitting**

CONSULTANT shall coordinate with COUNTY and develop the necessary permit applications in support of the 11<sup>th</sup> Drive Roadway Improvement project. CONSULTANT shall complete all applications and coordinate with County representative(s) for necessary signatures and authorizations. CONSULTANT shall coordinate and submit all application packages (once complete) to the applicable jurisdictional agencies.

CONSULTANT shall respond to RAIs as applicable and will work closely and coordinate with COUNTY on RAIs issued by the permitting agencies. It is understood this project is only required to apply for the following permits and is therefore based on such:

- St. John's River Water Management District Permit modification to the existing Indian River Hospital District Master Permit for the portion of 11<sup>th</sup> Drive south of 37<sup>th</sup> Street (Report format only, excludes ICPR modeling)
- St. John's River Water Management District ERP Permit for the portion of 11<sup>th</sup> Drive north of 37<sup>th</sup> Street

**6. Task 6 - Franchise Utility Coordination**

The CONSULTANT will coordinate with franchise utility operators in the vicinity of the project such that the proposed construction activities can be developed to minimize impacts to existing utilities located within the project limits. Franchise utility adjustments, designed by the respective franchise utility, will be requested by the CONSULTANT and reflected within the prepared construction documents. The CONSULTANT will also coordinate with the electrical service provider relative to the location and infrastructure required to accommodate the proposed power supply location in support of the proposed 11<sup>th</sup> Drive and 37<sup>th</sup> Street signalized intersection.

**B. 11<sup>th</sup> Drive & 37<sup>th</sup> Street Signalization - Mast Arm Assembly**

**1. Task 1 - Signal Design Construction Plans**

The CONSULTANT will prepare traffic signal design plans, and special details for construction. The plans will be signed and sealed.

The plans will include the design and layout of proposed signal poles, signal heads, video detection, conduit, and pull boxes. The plans will include call outs, controller timing chart, signal head details, sign details, controller notes, signal operating plan, overhead street name sign details, pole schedules, tabulation of quantities.

Plan sheets will include generals notes, layout sheets, sign work sheets (if needed), and mast arm assemblies data tables.

The plans will be prepared in accordance with County and applicable FDOT standards to provide all elements necessary to accommodate the scope of work. This effort will include at a minimum; Key Sheet, General Notes Sheet, Plan Sheets, Cross Section Sheets, Erosion Control Sheets, Signalization Sheets, Opinion of Probable Construction Cost and other detail sheets as necessary to produce the construction bid plans.

The following additional data shall be utilized for the development of the plans:

- a. The roadway plan sheets will be drawn at a scale of 1" = 40' prepared on 11" x 17" sheets.
- b. Plan sheets shall depict existing right-of-way, section lines, property lines, temporary construction easements, and centerline of construction. Horizontal control points with state plane coordinates for all PC's, PT's, curve radius, curve length and horizontal PI's shall be included on the Plan or summarized in an alignment table.

- c. Signing and Pavement Markings will be included within the Construction Documents. All signing and pavement markings are to be prepared in accordance with the latest design standards and practices (MUTCD), FDOT Standard Specifications, Indexes, and COUNTY standards.
- d. Plans shall include spot grades adequate to describe any proposed grading.
- e. Match lines shall not be located within the limits of an intersection.
- f. If applicable, soil boring information shall be plotted on cross sections with soil classification and high season water table.
- g. All quantities shall reference FDOT Pay Item Numbers.
- h. All details shall reference FDOT Index Numbers, where applicable.
- i. All specifications shall reference the FDOT Specifications for Road and Bridge Construction. Any deviations or special specifications not included in FDOT Specifications will be provided in the Technical Specifications.

**2. Task 2 – Intersection Signing and Pavement Marking Plans**

Signing and Pavement Marking plans shall include: Preparation of the plan layout, key map, quantities (including signing and pavement marking quantity), tabulation of quantities, and detail of major signs. Plans are to be prepared in accordance with the latest design standards and practices (MUTCD), FDOT Standard Specifications, Indexes, and shall be accurate, legible, complete in design and drawn at the same scale as the Roadway Plans, furnished in reproducible form.

**C. Cost Estimates**

The consultant will produce three (3) Opinion of Probable Cost (OPC) at the designated milestones of the project. A summary of pay items sheet shall be prepared with all required initial (30%), interim (60%) and Final (100%) plans submission. The final plans (signed and sealed) will be provided to COUNTY based upon English units and provided in digital and PDF formats.

**D. Bidding Phase**

The COUNTY shall be responsible for setting the providing the front-end bid documents, bid opening date, advertisement of the bid, scheduling the pre-bid meeting, and scheduling the bid opening. The Consultant will provide the following:

- Preparation of Civil and Traffic Plan Documents for Bidding
- Attendance at Pre-Bid Meeting (Both civil and traffic representatives will be in attendance)
- Response to requests for additional information (RAIs) for bidders

NOTE: All construction specifications will be on the applicable plan sheets in lieu of a specifications manual. The Consultant will prepare a pdf file of the final bid package for the COUNTY's use in distribution to prospective bidders via Demandstar.

## **EXHIBIT B - SCHEDULE**

Upon authorization to proceed by the COUNTY, the above described services will be provided based on the following schedule:

- Initial Submittal (30% design drawings)                      3 months from issuance of Notice to Proceed
- Interim Submittal (60% design drawings)                      5 months from issuance of Notice to Proceed
- Final Submittal (100% design drawings)                      7 months from issuance of Notice to Proceed

## **EXHIBIT C - DELIVERABLES**

The CONSULTANT shall provide the COUNTY with the following at the designated milestones:

- Initial (30%) completion:
  - Three (3) sets of plans in 24" x 36" format
  - One (1) Opinion of Probable Cost (OPC)
  - One (1) CD with drawings in PDF format
- Interim (60%) completion:
  - Three (3) sets of plans in 24" x 36" format
  - One (1) Opinion of Probable Cost (OPC)
  - One (1) CD with drawings in PDF format
- Final (100%) completion:
  - Three (3) sets of plans in 24" x 36" format (signed & sealed)
  - One (1) Opinion of Probable Cost (OPC)
  - One (1) electronic version of the plans in pdf and CAD format

## EXHIBIT D - FEE SCHEDULE

The COUNTY agrees to pay and the Consultant agrees to accept for services rendered, pursuant to this Agreement, fees inclusive of expenses in accordance with the following:

| Task  | Fee               |
|---|-------------------|
| <b>A. 11<sup>th</sup> Drive Roadway Improvements</b>                                    |                   |
| 1. Task 1 - Geotechnical Investigation  | \$ 8,250          |
| 2. Task 2 - Utility Locating Services (Horiz. & Vert.) *                                | \$ 10,000         |
| 3. Task 3 - 11 <sup>th</sup> Drive Construction Plans                                   | \$ 55,500         |
| 4. Task 4 - Stormwater Management Report  | \$ 8,500          |
| 5. Task 5 - Permitting  | \$ 5,500          |
| 6. Task 6 - Franchise Utility Coordination  | \$ 8,500          |
| <b>B. 11<sup>th</sup> Dr. &amp; 37<sup>th</sup> St. Signalization Mast Arm Assembly</b> |                   |
| Signalization Plans and Intersection Signing and Pavement Marking Plans                 | \$ 42,500         |
| <b>C. Cost Estimates</b>  | \$ 4,500          |
| <b>D. Bidding Phase</b>   | \$ 4,800          |
| <b>TOTAL</b>  | <b>\$ 148,050</b> |
| <b>Permit Application Fees:</b>   |                   |
| a. SJRWMD ERP for new dry pond  | \$ 490.00         |
| b. SJRWMD ERP modification**  | \$ 527.50         |

\*Refer to section A. Task 2 for disclaimer notes.

\*\*Based on 62-330 FAC, 25% of the fee for a new permit for activity proposed in modification.

## ADDITIONAL SERVICES

When required by the COUNTY or the Contract Documents, where circumstances exist beyond the Consultant's control, Consultant shall provide or obtain from others, as circumstances required, those additional services not listed as part of the Work Order, the Consultant shall notify the COUNTY promptly prior to commencing said Additional Services, and if agreed upon, will be paid for by COUNTY in accordance with the Master Agreement, Professionals and vendor intended to provide additional services shall first be approved by the COUNTY, in writing, by the COUNTY's Project Manager.

The COUNTY has selected the Consultant to perform the professional services set forth on this Work Order. The professional services will be performed by the Consultant for the fee schedule set forth in this Work Order. The Consultant will perform the professional services within the timeframe more particularly set forth in this Work Order 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.