

**AGREEMENT BETWEEN BROWARD COUNTY AND R.J. BEHAR & COMPANY, INC.  
FOR CONSULTANT SERVICES FOR PINE ISLAND ROAD FROM GRIFFIN ROAD TO NOVA DRIVE  
(RFP # PNC2120376P1)**

This Agreement ("Agreement") is made and entered by and between Broward County, a political subdivision of the State of Florida ("County"), and R.J. Behar & Company, Inc., a Florida corporation ("Consultant") (each a "Party" and collectively referred to as the "Parties").

**RECITALS**

A. County issued a request for proposals ("RFP") No. PNC2120376P1 for consulting services to provide a complete contract package associated with the design of widening Pine Island Road from Griffin Road to Nova Drive from four to six-lanes with bicycle lanes and sidewalks in each direction.

B. County has met the requirements of Section 287.055, Florida Statutes, the Consultants' Competitive Negotiation Act, and has selected Consultant to perform the services hereunder.

C. Consultant is experienced in providing professional services set forth in the Scope of Services, Exhibit A, for the design of widening roadways with bicycle lanes and sidewalks.

D. County desires to engage Consultant to provide consulting services to prepare and provide a complete contract package associated with the design of widening Pine Island Road from Griffin Road to Nova Drive from four to six-lanes with bicycle lanes and sidewalks in each direction.

E. Negotiations pertaining to these services were undertaken between County and Consultant, and this Agreement incorporates the results of such negotiations.

Now, therefore, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

**ARTICLE 1. DEFINITIONS**

1.1 **Board** means the Board of County Commissioners of Broward County, Florida, which is the governing body of the Broward County government created by the Broward County Charter.

1.2 **Charter County and Regional Transportation System Sales Surtax Projects or Surtax Projects** means all projects approved by the Board and authorized to expend Charter County and Regional Transportation System Sales Surtax funding in accordance with Chapter 31½, Article V, of the Broward County Code of Ordinances.

1.3 **Contract Administrator** means the Director of Highway Construction and Engineering Division, the Assistant Director of Highway Construction and Engineering Division, or such other

person designated by the same in writing. The Contract Administrator is the representative of County concerning the Project.

1.4 **Contractor** means the person, firm, corporation, or other entity who enters into an agreement with County to perform the construction work for the Project.

1.5 **County Administrator** means the administrative head of County appointed by the Board.

1.6 **County Attorney** means the chief legal counsel for County appointed by the Board.

1.7 **County Business Enterprise** or **CBE** means an entity certified as meeting the applicable requirements of Section 1-81, Broward County Code of Ordinances.

1.8 **Notice to Proceed** means a written authorization to proceed with the Project, phase, or task thereof, issued by the Contract Administrator.

1.9 **Project** means work under this Agreement and is described in more detail in Exhibit A, Scope of Services.

1.10 **Purchasing Director** means County's Director of Purchasing as appointed by the Broward County Administrator.

1.11 **Services** means the work set forth in Exhibit A, Scope of Services, including all civil, structural, mechanical, and electrical engineering, architectural services, and other professional design services as applicable for the Project, and any Optional Services procured under this Agreement.

1.12 **Small Business Enterprise** or **SBE** means an entity certified as meeting the applicable requirements of Section 1-81, Broward County Code of Ordinances.

1.13 **Subconsultant** means an entity or individual providing services to County through Consultant for all or any portion of the work under this Agreement. The term "Subconsultant" shall include all subcontractors.

## ARTICLE 2. EXHIBITS

<b>Exhibit A</b>	<b>Scope of Services</b>
<b>Exhibit B</b>	<b>Maximum Billing Rates</b>
<b>Exhibit B-1</b>	<b>Reimbursables for Direct Non-Salary Expenses</b>
<b>Exhibit C</b>	<b>Minimum Insurance Requirements</b>
<b>Exhibit D</b>	<b>Work Authorization Form</b>
<b>Exhibit E</b>	<b>CBE Subconsultant Schedule and Letters of Intent</b>
<b>Exhibit F</b>	<b>Schedule of Subconsultants</b>

### **ARTICLE 3. SCOPE OF SERVICES**

3.1 Consultant shall provide all Services as set forth in Exhibit A, including all necessary, incidental, and related activities required for full and complete performance of this Agreement (the “Scope of Services”).

3.2 This Agreement does not delineate every detail and minor work task required to be performed by Consultant to complete the Project. During the course of the performance of the Services included in this Agreement, if Consultant determines that work should be performed to complete the Project and, in Consultant’s opinion, that work is outside the level of effort originally anticipated, whether or not the Scope of Services identifies the work items, Consultant shall notify Contract Administrator in writing in a timely manner before proceeding with the work. If Consultant proceeds with such work without notifying the Contract Administrator, the work shall be deemed to be within the original level of effort, whether or not specifically addressed in the Scope of Services. Notice to Contract Administrator does not constitute authorization or approval by County to Consultant to perform the work. Any such work that would entail additional compensation to Consultant by County, or additional time for performance, shall require an amendment to this Agreement pursuant to Section 6.1 or a Work Authorization pursuant to Section 6.2. Unless there is an executed amendment or Work Authorization or a dispute as set forth in Section 6.4, any work performed by Consultant outside the originally anticipated level of effort without prior written County approval shall be at no additional cost to County.

3.3 Exhibit A identifies the initial services related to the Project. Additional negotiations may be required for other phases or additional services under this Agreement. County and Consultant may negotiate additional services, compensation, time of performance, and other related matters, including for other phases of the Project. Notwithstanding the foregoing, County shall have the right to terminate negotiations at any time at no cost to County and procure services for other Project phases from any other source.

3.4 County shall assist Consultant by placing at Consultant’s disposal all information County has available pertinent to the Project, including previous reports and any other data relative to design or construction of the Project. County shall arrange for access to, and make all provisions for, Consultant to enter upon public and private property as required for Consultant to perform its Services. County shall review any itemized deliverables and documents required to be submitted by Consultant and respond in writing with any comments within the time set forth in Exhibit A. County shall give prompt written notice to Consultant whenever County observes or otherwise becomes aware of any material defect in the work of the Contractor or other material development that affects the scope or timing of Consultant’s Services.

### **ARTICLE 4. TIME FOR PERFORMANCE; DAMAGES**

4.1 Consultant shall perform the Services within the time periods specified in Exhibit A. Time periods shall commence from the date of the applicable Notice to Proceed.

4.2 Consultant must receive a Notice to Proceed from the Contract Administrator prior to commencement of Services and any phase of Services under this Agreement. Prior to granting

approval for Consultant to proceed to any phase, the Contract Administrator may, at his or her sole option, require Consultant to submit the itemized deliverables and documents identified in Exhibit A for the Contract Administrator's review.

4.3 If the Contract Administrator determines that Consultant is unable to complete Services because of delays resulting from untimely review by County or other governmental agencies having jurisdiction over the Project and such delays are not the fault of Consultant, or because of delays caused by factors outside the control of Consultant, County shall grant a reasonable extension of time for completion of the Services and shall provide reasonable compensation, if appropriate. It shall be the responsibility of Consultant to notify the Contract Administrator in writing whenever a delay in approval by a governmental agency is anticipated or experienced, and whenever a delay has been caused by factors outside of Consultant's control, and to inform the Contract Administrator of all facts and details related to the delay. Consultant must provide such written notice to the Contract Administrator within three (3) business days after the occurrence of the event causing the delay.

4.4 If Contractor fails to substantially complete the Project on or before the substantial completion date specified in its agreement with County, or (b) if Contractor is granted an extension of time beyond said substantial completion date and Consultant's Services are extended beyond the substantial completion date through no fault of Consultant, then Consultant shall be compensated in accordance with Article 5 for all Services rendered by Consultant beyond the substantial completion date.

4.5 Notwithstanding Section 4.4, if Contractor fails to substantially complete the Project on or before the substantial completion date specified in its agreement with County, and the failure to substantially complete is caused in whole or in part by Consultant, then Consultant shall pay to County its proportional share of any claim for damages to Contractor arising out of the delay. The provisions for the computation of delay costs, damages, or any other amounts, whether direct or indirect, in the agreement between the Contractor and County are incorporated herein. This section shall not affect the indemnification rights or obligations of either Party otherwise set forth in this Agreement.

## **ARTICLE 5. COMPENSATION AND METHOD OF PAYMENT**

5.1 Amount and Method of Compensation. The amounts set forth in this Article 5 are the total compensation payable to Consultant and constitute a limitation upon County's obligation to compensate Consultant for Services under this Agreement, but do not constitute a limitation of any sort upon Consultant's obligation to perform all Services required under this Agreement.

5.1.1 Maximum Amount Not-To-Exceed Compensation. For Services identified in Exhibit A as payable on a "Maximum Amount Not-To-Exceed" basis, compensation to Consultant shall be based upon the Salary Costs as described in Section 5.2 up to a maximum not-to-exceed amount of \$2,149,503.80.

5.1.2 Lump Sum Compensation. For Services identified in Exhibit A as payable on a "Lump Sum" basis, compensation to Consultant shall be not more than a total lump sum of \$0.

5.1.3 **Optional Services.** County may procure Optional Services up to a maximum not-to-exceed amount of \$111,337.44 in accordance with Article 6. Unused amounts of these Optional Services monies shall be retained by County.

5.1.4 **Reimbursable Expenses.** County will reimburse authorized Reimbursable Expenses as defined in Section 5.3 up to a maximum not-to-exceed amount of \$77,245.00. Unused amounts of those monies shall be retained by County.

5.1.5 **Salary Costs.** The maximum billing rates payable by County for each of Consultant's employee categories are shown on Exhibit B and are further described in Section 5.2.

5.1.6 **Subconsultant Fees.** Consultant shall bill Subconsultant fees using the employee categories for Salary Costs on Exhibit B as defined in Section 5.2 and Reimbursable Expenses defined in Section 5.3. Consultant shall bill Subconsultant fees with no mark-up and within any applicable maximum not to exceed amount.

5.1.7 **Phased Payments.** Payments for Services shall be paid out pursuant to the Project phasing specified in Exhibit A. Any funds for a particular phase can be allocated to other phases, subject approval by the Contract Administrator.

<b>Project Phase</b>	<b>Fee %</b>	<b>Phase Amount</b>
Phase I	<u>31.5%</u>	<u>\$672,456.60</u>
Phase II	<u>33.8%</u>	<u>\$721,737.88</u>
Phase III	<u>26.1%</u>	<u>\$557,475.61</u>
Phase IV	<u>7.1%</u>	<u>\$152,102.48</u>
Final (F) 100% Signed and Sealed Plans, Specifications with all required, approved Permits	<u>1.5%</u>	<u>\$31,988.35</u>
<b>Total Basic Services and Reimbursable Expenses Fee</b>	<b>100%</b>	<b>\$2,135,760.92</b>
<b>Optional Services</b>	<b>N/A</b>	<b>\$111,337.44</b>
<b>Post Design Services</b>	<b>N/A</b>	<b>\$90,987.88</b>
<b>Total Fee</b>	<b>N/A</b>	<b>\$2,338,086.24</b>

5.2 **Salary Costs.** The term Salary Costs as used herein means the hourly rate actually paid to all personnel engaged directly on the Project, as adjusted by an overall multiplier that consists of the following: 1) a fringe benefits factor; 2) an overhead factor; and 3) an operating margin. Said Salary Costs are to be used only for time directly attributable to the Project. The fringe benefit and overhead rates shall be Consultant's most recent and actual rates determined in accordance with Federal Acquisition Regulation ("FAR") guidelines and audited by an independent Certified Public Accountant. For the purposes of this Agreement, the rates must be audited for fiscal periods of Consultant within eighteen (18) months preceding the execution date of this Agreement. These rates shall remain in effect for the term of this Agreement except as provided for in this Section 5.2 inclusive of the subsections below.

5.2.1 Consultant shall require all of its Subconsultants to comply with the requirements of Section 5.2.

5.2.2 Salary Costs for Consultant and Subconsultants as shown in Exhibit B are the Maximum Billing Rates, which are provisional, subject to audit of actual costs, and if the audit discloses that the actual costs are less than the costs set forth on Exhibit B for Consultant or any Subconsultant, Consultant shall reimburse County based upon the actual costs determined by the audit. County may withhold the amount Consultant is required to reimburse County from any payment due Consultant.

5.2.3 Unless otherwise noted, the Salary Costs stated above are based upon Consultant's "home office" rates. Should it become appropriate during the course of this Agreement that a "field office" rate be applied, then it is incumbent upon Consultant to submit a supplemental Exhibit B reflective of such rates for approval by Contract Administrator and, upon such County approval, invoice County accordingly.

5.2.4 The total hours payable by County for any "exempt" or "nonexempt" personnel shall not exceed forty (40) hours per employee in any week. If the work requires Consultant's or Subconsultant's personnel to work in excess of forty (40) hours per week, any additional hours must be authorized in advance, in writing, by the Contract Administrator. If approved, Salary Costs for additional hours of service provided by nonexempt (hourly) employees or exempt (salaried) employees shall be invoiced at no more than one and one-half of the employee's hourly rate and in a manner consistent with Consultant's or Subconsultant's applicable certified FAR audit and all other provisions of Section 5.2. If a "Safe Harbor" rate is elected for use by Consultant or Subconsultant, then the additional hours are payable at no more than the employee's regular rate.

5.2.5 Consultant and any of its Subconsultants may alternatively use a "Safe Harbor" combined fringe benefit and overhead rate of 110% in lieu of providing fringe benefit and overhead cost factors certified by an independent Certified Public Accountant in accordance with the FAR guidelines. The Safe Harbor rate, once elected, shall remain in place for the entire term of this Agreement, and be applicable for use as "home" and "field" fringe benefit and overhead rates, if applicable, and shall not be subject to audit under this Agreement. All other provisions of Section 5.2 remain in place.

5.3 Reimbursable Expenses. For reimbursement of any travel costs, travel-related expenses, or other direct nonsalary expenses directly attributable to this Project permitted under this Agreement, Consultant agrees to adhere to Section 112.061, Florida Statutes, except to the extent otherwise stated herein. County shall not be liable for any such expenses that have not been approved in writing in advance by the Contract Administrator. Reimbursable Subconsultant expenses must also comply with the requirements of this section.

5.4 Method of Billing.

5.4.1 For Maximum Amount Not-To-Exceed Compensation under Section 5.1.1. Consultant shall submit billings that are identified by the specific project number on a monthly basis in a timely manner for all Salary Costs and Reimbursable Expenses attributable to the Project. These billings shall identify the nature of the work performed,

the total hours of work performed, and the employee category of the individuals performing same. Billings shall itemize and summarize Reimbursable Expenses by category and identify the personnel incurring the expense and the nature of the work with which such expense was associated. Where prior written approval by Contract Administrator is required for Reimbursable Expenses, a copy of said approval shall accompany the billing for such reimbursable. Billings shall also indicate the cumulative amount of CBE participation to date. The statement shall show a summary of Salary Costs and Reimbursable Expenses with accrual of the total and credits for portions paid previously. External Reimbursable Expenses and Subconsultant fees must be documented by copies of invoices or receipts that describe the nature of the expenses and contain a project number or other identifier that clearly indicates the expense is identifiable to the Project. Subsequent addition of the identifier to the invoice or receipt by Consultant is not acceptable except for meals and travel expenses. Internal expenses must be documented by appropriate Consultant's cost accounting forms with a summary of charges by category. When requested, Consultant shall provide backup for past and current invoices that records hours and Salary Costs by employee category, Reimbursable Expenses by category, and Subconsultant fees on a task basis, so that total hours and costs by task may be determined.

5.4.2 For Lump Sum Compensation under Section 5.1.2. Consultant shall submit billings that are identified by the specific project number on a monthly basis in a timely manner. These billings shall identify the nature of the work performed, the phase of work, and the estimated percent of work accomplished. Billings for each phase shall not exceed the amounts allocated to said phase. Billings shall also indicate the cumulative amount of CBE participation to date. The statement shall show a summary of fees with accrual of the total and credits for portions paid previously. When requested, Consultant shall provide backup for past and current invoices that record hours, salary costs, and expense costs on a task basis, so that total hours and costs by task may be determined.

## 5.5 Method of Payment.

5.5.1 County shall pay Consultant within thirty (30) days after receipt of Consultant's proper invoice, as defined by County's Prompt Payment Ordinance, minus any applicable retainage or other deductions permitted by this Agreement.

5.5.2 Unless otherwise provided in this section, retainage in the amount of ten percent (10%) of each invoice shall be retained by County until satisfactory completion of the applicable phase. When the Services to be performed on all phases of the Project are fifty percent (50%) complete, upon written request by Consultant and written approval by the Contract Administrator that the Project is progressing in a satisfactory manner, the Contract Administrator, in his or her sole discretion, may authorize the reduction of retainage to five percent (5%) of each invoice for subsequent payments. No amount shall be withheld from payments for Reimbursable Expenses or for Services performed during the construction phase.



5.5.3 Upon Consultant's completion of each phase to the satisfaction of the Contract Administrator, County shall remit to Consultant any amounts withheld as retainage for that phase. Final payment for the Project must be approved by the Purchasing Director.

5.5.4 Payment will be made to Consultant at the following address: 6861 SW 196 Avenue, Suite 302, Pembroke Pines, FL 33332.

5.6 Fiscal Year. The continuation of this Agreement beyond the end of any County fiscal year (October 1 through September 30) is subject to both the appropriation and the availability of transportation surtax funds in accordance with Chapter 129, Florida Statutes.

5.7 Funding for this Project will be paid exclusively from and subject to the availability of proceeds from the transportation surtax levied pursuant to Section 212.055(1), Florida Statutes, and County shall not have any obligation to provide nor shall County provide any funding from County's general revenue or any other County source. Funding shall be utilized only for the purposes permitted under Section 212.055(1), Florida Statutes.

5.8 Consultant shall pay Subconsultants and suppliers providing Services in accordance with this Agreement within fifteen (15) days following receipt of payment from County for such subcontracted work or supplies. If Consultant withholds an amount as retainage from a Subconsultant or supplier, Consultant shall release such retainage and pay same within fifteen (15) days following receipt of payment of retained amounts from County. The Contract Administrator may, at its option, increase allowable retainage or withhold progress payments unless and until Consultant demonstrates timely payments of sums due to all Subconsultants and suppliers. Consultant shall include requirements substantially similar to those set forth in this section in its contracts with Subconsultants and suppliers.

5.9 Withholding by County. Notwithstanding any provision of this Agreement to the contrary, County may withhold payment, in whole or in part, (a) in accordance with Applicable Law, or (b) to the extent necessary to protect itself from loss on account of (i) inadequate or defective work that has not been remedied or resolved in a manner satisfactory to the Contract Administrator, or (ii) Consultant's failure to comply with any provision of this Agreement. The amount withheld shall not be subject to payment of interest by County.

## **ARTICLE 6. OPTIONAL AND ADDITIONAL SERVICES; CHANGES IN SCOPE OF SERVICES**

6.1 County or Consultant may request changes that would increase, decrease, or otherwise modify the Scope of Services to be provided under this Agreement. Unless otherwise expressly permitted herein, such changes must be made in accordance with the provisions of the Broward County Procurement Code and must be contained in a written amendment, executed by the Parties hereto, with the same formality and of equal dignity herewith.

6.2 To the extent any goods or services under this Agreement, or the quantity thereof, are identified as optional ("Optional Services"), County may select the type, amount, and timing of such goods or services pursuant to a work authorization ("Work Authorization") in substantially



the form attached as Exhibit D executed by Consultant and County pursuant to this section. No such selection, when combined with those goods or services required under this Agreement, may result in a payment obligation exceeding the applicable maximum amount stated in Article 5. A Work Authorization for Optional Services shall specify the method of compensation applicable to that Work Authorization and the required completion date for those additional services.

6.3 Notwithstanding anything to the contrary in this Agreement, Work Authorizations for Optional Services shall be executed on behalf of County as follows: (a) the Contract Administrator may execute Work Authorizations for which the total cost to County in the aggregate is less than \$50,000.00; (b) the Purchasing Director may execute Work Authorizations for which the total cost to County in the aggregate is within the Purchasing Director's delegated authority; and (c) any Work Authorization above the Purchasing Director's delegated authority requires express approval by the Board. Subsequent to the full execution of any Work Authorization, the Contract Administrator will issue a Notice to Proceed for those authorized Optional Services. Consultant shall not commence work on any Work Authorization until after receipt of a purchase order and Notice to Proceed.

6.4 If a dispute between the Contract Administrator and Consultant arises over whether any work requested by County is within the scope of contracted Services and such dispute cannot be resolved by the Contract Administrator and Consultant, such dispute shall be promptly presented to the County Administrator or his or her designee for resolution, whose decision shall be in writing and shall be final and binding on the Parties. During the pendency of any dispute, Consultant shall promptly perform the disputed work.

## **ARTICLE 7. REPRESENTATIONS AND WARRANTIES**

7.1 Representation of Authority. Consultant represents and warrants that this Agreement constitutes the legal, valid, binding, and enforceable obligation of Consultant, and that neither the execution nor performance of this Agreement constitutes a breach of any agreement that Consultant has with any third party or violates any law, rule, regulation, or duty arising in law or equity applicable to Consultant. Consultant further represents and warrants that execution of this Agreement is within Consultant's legal powers, and each individual executing this Agreement on behalf of Consultant is duly authorized by all necessary and appropriate action to do so on behalf of Consultant and does so with full legal authority.

7.2 Claims Against Consultant. Consultant represents and warrants that there is no action or proceeding, at law or in equity, before any court, mediator, arbitrator, governmental, or other board or official, pending or, to the knowledge of Consultant, threatened against or affecting Consultant, the outcome of which may (a) affect the validity or enforceability of this Agreement, (b) materially and adversely affect the authority or ability of Consultant to perform its obligations under this Agreement, or (c) have a material and adverse effect on the consolidated financial condition or results of operations of Consultant or on the ability of Consultant to conduct its business as presently conducted or as proposed or contemplated to be conducted.

7.3 Solicitation Representations. Consultant represents and warrants that all statements and representations made in Consultant's proposal, bid, or other supporting documents submitted to County in connection with the solicitation, negotiation, or award of this Agreement, including BCF #202\_CS (Rev. 05.01.202021)

during the procurement or evaluation process, were true and correct when made and are true and correct as of the date Consultant executes this Agreement, unless otherwise expressly disclosed in writing by Consultant.

7.4 Contingency Fee. Consultant represents that it has not paid or agreed to pay any person or entity, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, gift, or other consideration contingent upon or resulting from the award or making of this Agreement. If this Agreement is subject to Section 287.055, Florida Statutes, the Parties agree and stipulate that the statutory language stated in Section 287.055(6)(a) is deemed included and fully incorporated herein.

7.5 Truth-In-Negotiation Representation. Consultant's compensation under this Agreement is based upon its representations to County, and Consultant certifies that the wage rates, factual unit costs, and other information supplied to substantiate Consultant's compensation, including, without limitation, in the negotiation of this Agreement, are accurate, complete, and current as of the date Consultant executes this Agreement. Consultant's compensation will be reduced to exclude any significant sums by which the contract price was increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs.

7.6 Public Entity Crime Act. Consultant represents that it is familiar with the requirements and prohibitions under the Public Entity Crime Act, Section 287.133, Florida Statutes, and represents that its entry into this Agreement will not violate that Act. Consultant further represents that there has been no determination that it committed a "public entity crime" as defined by Section 287.133, Florida Statutes, and that it has not been formally charged with committing an act defined as a "public entity crime" regardless of the amount of money involved or whether Consultant has been placed on the convicted vendor list.

7.7 Discriminatory Vendor and Scrutinized Companies Lists. Consultant represents that it has not been placed on the "discriminatory vendor list" as provided in Section 287.134, Florida Statutes, and that it is not a "scrutinized company" pursuant to Sections 215.473 or 215.4725, Florida Statutes. Consultant represents and certifies that it is not, and for the duration of the Agreement will not be, ineligible to contract with County on any of the grounds stated in Section 287.135, Florida Statutes.

7.8 Verification of Employment Eligibility. Consultant represents that Consultant and each Subconsultant has registered with and uses the E-Verify system maintained by the United States Department of Homeland Security to verify the work authorization status of all newly hired employees in compliance with the requirements of Section 448.095, Florida Statutes, and that entry into this Agreement will not violate that statute. If Consultant violates this section, County may immediately terminate this Agreement for cause and Consultant shall be liable for all costs incurred by County due to the termination.

7.9 Warranty of Performance. Consultant represents and warrants that it possesses the knowledge, skill, experience, and financial capability required to perform and provide all required and optional Services under this Agreement, and that each person and entity that will provide Services under this Agreement is duly qualified to perform such services by all appropriate governmental authorities, where required, and is sufficiently experienced and skilled in the BCF #202\_CS (Rev. 05.01.202021)

area(s) for which such person or entity will render Services. Consultant represents and warrants that the Services under this Agreement shall be performed in a skillful and respectful manner, and that the quality of all such services shall equal or exceed prevailing industry standards for the provision of such services.

7.10 Prohibited Telecommunications Equipment. Consultant represents and certifies that it and its Subconsultants do not use any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, as such terms are used in 48 CFR §§ 52.204-24 through 52.204-26. Consultant represents and certifies that Consultant and its Subconsultants shall not provide or use such covered telecommunications equipment, system, or services for the duration of this Agreement.

7.11 Criminal History Screening Practices. If this Agreement is subject to the requirements of Section 26-125(d) of the Broward County Administrative Code, Consultant represents and certifies that its policies, practices, and procedures regarding inquiry into the criminal history of an applicant for employment, including a criminal history background check, preclude inquiry into an applicant's criminal history until the applicant is selected as a finalist and interviewed for the position.

7.12 Domestic Partnership Requirement. Unless this Agreement is exempt from the provisions of the Broward County Domestic Partnership Act, Section 16½-157, Broward County Code of Ordinances, Consultant certifies and represents that it will comply with the provisions of Section 16½-157 for the duration of this Agreement. The contract language referenced in Section 16½-157 is deemed incorporated in this Agreement as though fully set forth in this section.

7.13 Breach of Representations. In entering into this Agreement, Consultant acknowledges that County is materially relying on the representations, warranties, and certifications of Consultant stated in this article. County shall be entitled to recover any damages it incurs to the extent any such representation or warranty is untrue. In addition, if any such representation, warranty, or certification is false, County shall have the right, at its sole discretion, to terminate this Agreement without any further liability to Consultant, to deduct from the compensation due Consultant under this Agreement the full amount of any value paid in violation of a representation or warranty, and to recover all sums paid to Consultant under this Agreement. Furthermore, a false representation may result in debarment from County's procurement activities.

## **ARTICLE 8. TERMINATION**

8.1 Termination. This Agreement or any Work Authorization issued under this Agreement may be terminated for cause by the aggrieved Party if the Party in breach has not corrected the breach within ten (10) days after receipt of written notice from the aggrieved Party identifying the breach. This Agreement may also be terminated for convenience by the Board. Termination for convenience by the Board shall be effective on the termination date stated in written notice provided by County, which termination date shall be not less than thirty (30) days after the date of such written notice. If this Agreement or any Work Authorization was approved by Board action, termination for cause by County of the Agreement or Work Authorization, as applicable, BCF #202\_CS (Rev. 05.01.202021)

must be by action of the Board or the County Administrator; in all other instances termination for cause may be effected by the County Administrator, the County representative expressly authorized under this Agreement, or the County representative (including any successor) who executed the Agreement or the Work Authorization, as applicable, on behalf of County. This Agreement may also be terminated by the County Administrator upon such notice as the County Administrator deems appropriate under the circumstances if the County Administrator determines that termination is necessary to protect the public health, safety, or welfare. If County erroneously, improperly, or unjustifiably terminates for cause, such termination shall be deemed a termination for convenience and shall be effective thirty (30) days after such notice of termination for cause was provided and Consultant shall be eligible for the compensation provided in Section 8.4 as its sole remedy.

8.2 This Agreement or any Work Authorization issued under this Agreement may be terminated for cause by County for reasons including, but not limited to, any of the following:

8.2.1 Consultant's failure to suitably or continuously perform the Services in a manner calculated to meet or accomplish the objectives in this Agreement or Work Authorization, or repeated (whether negligent or intentional) submission for payment of false or incorrect bills or invoices;

8.2.2 By the Contract Administrator or the Director of Office of Economic and Small Business Development ("OESBD") for any fraud, misrepresentation, or material misstatement by Consultant in the award or performance of this Agreement or that otherwise violates any applicable requirement of Section 1-81, Broward County Code of Ordinances; or

8.2.3 By the Director of the OESBD upon the disqualification of Consultant as a CBE or SBE if Consultant's status as a CBE or SBE was a factor in the award of this Agreement and such status was misrepresented by Consultant, or upon the disqualification of one or more of Consultant's CBE or SBE participants by County's Director of the OESBD if any such participant's status as a CBE or SBE firm was a factor in the award of this Agreement and such status was misrepresented by Consultant during the procurement or the performance of this Agreement.

8.3 Notice of termination shall be provided in accordance with the "Notices" section of this Agreement except that notice of termination by the County Administrator to protect the public health, safety, or welfare may be oral notice that shall be promptly confirmed in writing.

8.4 If this Agreement or a Work Authorization issued under this Agreement is terminated for convenience, Consultant shall be paid for any Services properly performed under this Agreement or the operative Work Authorization through the termination date specified in the written notice of termination, subject to any right of County to retain any sums otherwise due and payable. Consultant acknowledges that it has received good, valuable, and sufficient consideration for County's right to terminate this Agreement for convenience in the form of County's obligation to provide advance notice to Consultant of such termination in accordance with Section 8.1.

8.5 In addition to any right of termination stated in this Agreement, County shall be entitled to seek any and all available remedies, whether stated in this Agreement or otherwise available at law or in equity.

## **ARTICLE 9. INSURANCE**

9.1 For the duration of the Agreement, Consultant shall, at its sole expense, maintain the minimum insurance coverages stated in Exhibit C in accordance with the terms and conditions of this article. Consultant shall maintain insurance coverage against claims relating to any act or omission by Consultant, its agents, representatives, employees, or Subconsultants in connection with this Agreement. County reserves the right at any time to review and adjust the limits and types of coverage required under this article.

9.2 Consultant shall ensure that "Broward County" is listed and endorsed as an additional insured as stated in Exhibit C on all policies required under this article.

9.3 On or before the date this Agreement is fully executed or at least fifteen (15) days prior to commencement of Services, Consultant shall provide County with a copy of all Certificates of Insurance or other documentation sufficient to demonstrate the insurance coverage required in this article. If and to the extent requested by County, Consultant shall provide complete, certified copies of all required insurance policies and all required endorsements within thirty (30) days after County's request.

9.4 Consultant shall ensure that all insurance coverages required by this article shall remain in full force and effect for the duration of this Agreement and until all performance required by Consultant has been completed, as determined by Contract Administrator. Consultant or its insurer shall provide notice to County of any cancellation or modification of any required policy at least thirty (30) days prior to the effective date of cancellation or modification, and at least ten (10) days prior to the effective date of any cancellation due to nonpayment, and shall concurrently provide County with a copy of its updated Certificates of Insurance evidencing continuation of the required coverage(s). Consultant shall ensure that there is no lapse of coverage at any time during the time period for which coverage is required by this article.

9.5 Consultant shall ensure that all required insurance policies are issued by insurers: (1) assigned an A. M. Best rating of at least "A-" with a Financial Size Category of at least Class VII; (2) authorized to transact insurance in the State of Florida; or (3) a qualified eligible surplus lines insurer pursuant to Section 626.917 or 626.918, Florida Statutes, with approval by County's Risk Management Division.

9.6 If Consultant maintains broader coverage or higher limits than the minimum insurance requirements stated in Exhibit C, County shall be entitled to any such broader coverage and higher limits maintained by Consultant. All required insurance coverages under this article shall provide primary coverage and shall not require contribution from any County insurance, self-insurance or otherwise, which shall be in excess of and shall not contribute to the insurance required and provided by Consultant.

9.7 Consultant shall declare in writing any self-insured retentions or deductibles over the limit(s) prescribed in Exhibit C and submit to County for approval at least fifteen (15) days prior to the date this Agreement is fully executed or commencement of Services. Consultant shall be solely responsible for and shall pay any deductible or self-insured retention applicable to any claim against County. County may, at any time, require Consultant to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. Consultant agrees that any deductible or self-insured retention may be satisfied by either the named insured or County, if so elected by County, and Consultant agrees to obtain same in endorsements to the required policies.

9.8 Unless prohibited by the applicable policy, Consultant waives any right to subrogation that any of Consultant's insurer may acquire against County and agrees to obtain same in an endorsement of Consultant's insurance policies.

9.9 Consultant shall require that each Subconsultant maintains insurance coverage that adequately covers the Services provided by that Subconsultant on substantially the same insurance terms and conditions required of Consultant under this article. Consultant shall ensure that all such Subconsultants comply with these requirements and that "Broward County" is named as an additional insured under the Subconsultants' applicable insurance policies.

9.10 If Consultant or any Subconsultant fails to maintain the insurance required by this Agreement, County may pay any costs of premiums necessary to maintain the required coverage and deduct such costs from any payment otherwise due to Consultant. Consultant shall not permit any Subconsultant to provide Services under this Agreement unless and until the requirements of this article are satisfied. If requested by County, Consultant shall provide, within one (1) business day, evidence of each Subconsultant's compliance with this section.

9.11 If any of the policies required under this article provide claims-made coverage: (1) any retroactive date must be prior to the date this Agreement is fully executed; (2) the required coverage must be maintained after termination or expiration of the Agreement for at least the duration stated in Exhibit C, and (3) if coverage is canceled or nonrenewed and is not replaced with another claims-made policy form with a retroactive date prior to the date this Agreement is fully executed, Consultant must obtain and maintain "extended reporting" coverage that applies after termination or expiration of the Agreement for at least the duration stated in Exhibit C.

#### **ARTICLE 10. EQUAL EMPLOYMENT OPPORTUNITY AND CBE/SBE COMPLIANCE**

10.1 No Party may discriminate on the basis of race, color, sex, religion, national origin, disability, age, marital status, political affiliation, sexual orientation, pregnancy, or gender identity and expression in the performance of this Agreement. Consultant shall include the foregoing or similar language in its contracts with any Subconsultants, except that any project assisted by the U.S. Department of Transportation funds shall comply with the nondiscrimination requirements in 49 C.F.R. Parts 23 and 26.



10.2 Consultant shall comply with all applicable requirements of Section 1-81, Broward County Code of Ordinances, in the award and administration of this Agreement. Failure by Consultant to carry out any of the requirements of this article shall constitute a material breach of this Agreement, which shall permit County to terminate this Agreement or exercise any other remedy provided under this Agreement, the Broward County Code of Ordinances, the Broward County Administrative Code, or under other applicable law, all such remedies being cumulative.

10.3 Consultant will meet the required CBE goal by utilizing the CBE firms listed in Exhibit E (or a CBE firm substituted for a listed firm, if permitted) for thirty percent (30%) of total Services under this Agreement (the "Commitment").

10.4 In performing the Services, Consultant shall utilize the CBE firms listed in Exhibit E for the scope of work and the percentage of work amounts identified on each Letter of Intent. Promptly upon execution of this Agreement by County, Consultant shall enter into formal contracts with the CBE firms listed in Exhibit E and, upon request, shall provide copies of the contracts to the Contract Administrator and OESBD.

10.5 Each CBE firm utilized by Consultant to meet the CBE goal must be certified by OESBD. Consultant shall inform County immediately when a CBE firm is not able to perform or if Consultant believes the CBE firm should be replaced for any other reason, so that OESBD may review and verify the good faith efforts of Consultant to substitute the CBE firm with another CBE firm. Whenever a CBE firm is terminated for any reason, Consultant shall provide written notice to OESBD and, upon written approval of the Director of OESBD, shall substitute another CBE firm in order to meet the CBE goal, unless otherwise provided in this Agreement or agreed in writing by the Parties. Such substitution shall not be required in the event the termination results from modification of the Scope of Services and no CBE firm is available to perform the modified Scope of Services; in which event Consultant shall notify County, and OESBD may adjust the CBE goal by written notice to Consultant. Consultant shall not terminate a CBE firm for convenience without County's prior written consent, which consent shall not be unreasonably withheld.

10.6 The Parties stipulate that if Consultant fails to meet the Commitment, the damages to County arising from such failure are not readily ascertainable at the time of contracting. If Consultant fails to meet the Commitment and County determines, in the sole discretion of the OESBD Program Director, that Consultant failed to make Good Faith Efforts (as defined in Section 1-81, Broward County Code of Ordinances) to meet the Commitment, Consultant shall pay County liquidated damages in an amount equal to fifty percent (50%) of the actual dollar amount by which Consultant failed to achieve the Commitment, up to a maximum amount of ten percent (10%) of the total contract amount, excluding costs and reimbursable expenses. An example of this calculation is stated in Section 1-81.7, Broward County Code of Ordinances. As elected by County, such liquidated damages amount shall be either credited against any amounts due from County, or must be paid to County within thirty (30) days after written demand. These liquidated damages shall be County's sole contractual remedy for Consultant's breach of the Commitment, but shall not affect the availability of administrative remedies under Section 1-81. Any failure to meet the Commitment attributable solely to force majeure, changes to the scope of work by County, or inability to substitute a CBE Subconsultant where the OESBD Program



Director has determined that such inability is due to no fault of Consultant, shall not be deemed a failure by Consultant to meet the Commitment.

10.7 Consultant acknowledges that the Board, acting through OESBD, may make minor administrative modifications to Section 1-81, Broward County Code of Ordinances, which shall become applicable to this Agreement if the administrative modifications are not unreasonable. Written notice of any such modification shall be provided to Consultant and shall include a deadline for Consultant to notify County in writing if Consultant concludes that the modification exceeds the authority under this section. Failure of Consultant to timely notify County of its conclusion that the modification exceeds such authority shall be deemed acceptance of the modification by Consultant.

10.8 County may modify the required participation of CBE firms under this Agreement in connection with any amendment, extension, modification, change order, or Work Authorization to this Agreement that, by itself or aggregated with previous amendments, extensions, modifications, change orders, or Work Authorizations, increases the initial Agreement price by ten percent (10%) or more. Consultant shall make a good faith effort to include CBE firms in work resulting from any such amendment, extension, modification, change order, or Work Authorization, and shall report such efforts, along with evidence thereof, to OESBD.

10.9 Consultant shall provide written monthly reports to the Contract Administrator attesting to Consultant's compliance with the CBE goal stated in this article. In addition, Consultant shall allow County to engage in onsite reviews to monitor Consultant's progress in achieving and maintaining Consultant's contractual and CBE obligations. The Contract Administrator in conjunction with OESBD shall perform such review and monitoring, unless otherwise determined by the County Administrator.

10.10 The presence of a "pay when paid" provision in a Consultant's contract with a CBE firm shall not preclude County or its representatives from inquiring into allegations of nonpayment or exercising any right stated under this Agreement.

#### **ARTICLE 11. MISCELLANEOUS**

11.1 Contract Administrator Authority. The Contract Administrator is authorized to coordinate and communicate with Consultant to manage and supervise the performance of this Agreement. Unless expressly stated otherwise in this Agreement or otherwise set forth in an applicable provision of the Broward County Procurement Code, Broward County Code of Ordinances, or Broward County Administrative Code, the Contract Administrator may exercise any ministerial authority under this Agreement in connection with the day-to-day management of this Agreement provided that such instructions and determinations do not change the Scope of Services. The Contract Administrator may designate one or more County employees with authority pertaining to day-to-day Project management or activities. Consultant shall notify Contract Administrator in writing of Consultant's representative(s) to whom matters involving the Project shall be addressed.

11.2 Rights in Documents and Work. Any and all reports, photographs, surveys, documents, materials, or other work created by Consultant in connection with performing Services shall be

owned by County, and Consultant hereby transfers to County all right, title, and interest, including any copyright or other intellectual property rights, in or to the work. Upon termination of this Agreement, any reports, photographs, surveys, and other data and documents prepared by Consultant, whether finished or unfinished, shall become the property of County and shall be delivered by Consultant to the Contract Administrator within seven (7) days after termination of this Agreement. Any compensation due to Consultant may be withheld until all documents are received as provided in this Agreement. Consultant shall ensure that the requirements of this section are included in all agreements with its Subconsultant(s).

11.3 Ownership of Documents. All finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, specifications and reports prepared or provided by Consultant in connection with this Agreement shall be the property of County, whether the Project for which they are made is completed or not, and shall be delivered by Consultant to Contract Administrator within fifteen (15) days after the receipt of the written notice of termination. If applicable, County may withhold any payments then due to Consultant until Consultant complies with the provisions of this section.

11.4 Public Records. To the extent Consultant is acting on behalf of County as stated in Section 119.0701, Florida Statutes, Consultant shall:

11.4.1 Keep and maintain public records required by County to perform the services under this Agreement;

11.4.2 Upon request from County, provide County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time and at a cost that does not exceed that provided in Chapter 119, Florida Statutes, or as otherwise provided by law;

11.4.3 Ensure that public records that are exempt or confidential and exempt from public record requirements are not disclosed except as authorized by law for the duration of this Agreement and following completion or termination of this Agreement if the records are not transferred to County; and

11.4.4 Upon completion or termination of this Agreement, transfer to County, at no cost, all public records in possession of Consultant or keep and maintain public records required by County to perform the services. If Consultant transfers the records to County, Consultant shall destroy any duplicate public records that are exempt or confidential and exempt. If Consultant keeps and maintains the public records, Consultant shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to County upon request in a format that is compatible with the information technology systems of County.

A request for public records regarding this Agreement must be made directly to County, who will be responsible for responding to any such public records requests. Consultant will provide any requested records to County to enable County to respond to the public records request.

Any material submitted to County that Consultant contends constitutes or contains trade secrets or is otherwise exempt from production under Florida public records laws (including Chapter 119, Florida Statutes) ("Trade Secret Materials") must be separately submitted and conspicuously labeled "EXEMPT FROM PUBLIC RECORD PRODUCTION – TRADE SECRET." In addition, Consultant must, simultaneous with the submission of any Trade Secret Materials, provide a sworn affidavit from a person with personal knowledge attesting that the Trade Secret Materials constitute trade secrets under Section 812.081, Florida Statutes, and stating the factual basis for same. If a third party submits a request to County for records designated by Consultant as Trade Secret Materials, County shall refrain from disclosing the Trade Secret Materials, unless otherwise ordered by a court of competent jurisdiction or authorized in writing by Consultant. Consultant shall indemnify and defend County and its employees and agents from any and all claims, causes of action, losses, fines, penalties, damages, judgments, and liabilities of any kind, including attorneys' fees, litigation expenses, and court costs, relating to the nondisclosure of any Trade Secret Materials in response to a records request by a third party.

**IF CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (954) 577-4566, SGaffud@BROWARD.ORG, 1 NORTH UNIVERSITY DRIVE, BOX B300, PLANTATION, FLORIDA 33324.**

**11.5 Audit Rights and Retention of Records.** Consultant shall preserve all Contract Records (as defined below) for a minimum period of three (3) years after expiration or termination of this Agreement, any Work Authorization, or until resolution of any audit findings, whichever is longer. Contract Records shall, upon reasonable notice, be open to County inspection and subject to audit and reproduction during normal business hours. County audits and inspections pursuant to this section may be performed by any County representative (including any outside representative engaged by County). County may conduct audits or inspections at any time during the term of this Agreement and for a period of three (3) years after the expiration or termination of this Agreement (or longer if required by law). County may, without limitation, verify information, payroll distribution, and amounts through interviews, written affirmations, and on-site inspection with Consultant's employees, Subconsultants, vendors, or other labor.

Contract Records include any and all information, materials and data of every kind and character, including, without limitation, records, books, papers, documents, subscriptions, recordings, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, daily diaries, drawings, receipts, vouchers, memoranda, and any and all other documents that pertain to rights, duties, obligations, or performance under this Agreement. Contract Records include hard copy and electronic records, written policies and procedures, time sheets, payroll records and registers, cancelled payroll checks, estimating work sheets, correspondence, invoices and related payment documentation, general ledgers, insurance rebates and dividends, and any other records pertaining to rights, duties, obligations or performance under this Agreement, whether by Consultant or Subconsultants.

County shall have the right to audit, review, examine, inspect, analyze, and make copies of all Contract Records at a location within Broward County. Consultant hereby grants County the right to conduct such audit or review at Consultant's place of business, if deemed appropriate by County, with seventy-two (72) hours' advance notice. Consultant agrees to provide adequate and appropriate work space. Consultant shall provide County with reasonable access to Consultant's facilities, and County shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of this Agreement.

Consultant shall, by written contract, require its Subconsultants to agree to the requirements and obligations of this section.

Any incomplete or incorrect entry in such books, records, and accounts shall be a basis for County's disallowance and recovery of any payment upon such entry. If an audit or inspection in accordance with this section discloses overpricing or overcharges to County of any nature by Consultant or its Subconsultants in excess of five percent (5%) of the total contract billings reviewed by County, the reasonable actual cost of County's audit shall be reimbursed to County by Consultant in addition to making adjustments for the overcharges. Any adjustments or payments due as a result of such audit or inspection shall be made within thirty (30) days after presentation of County's findings to Consultant.

11.6 Subconsultants. Consultant shall utilize only the Subconsultants identified in Exhibit F, Schedule of Subconsultants, to provide the Services under this Agreement. Consultant shall obtain written approval of Contract Administrator prior to changing or modifying the Schedule of Subconsultants, which shall be automatically updated upon such written approval. Consultant shall bind in writing each and every approved Subconsultant to the terms stated in this Agreement, provided that this provision shall not, in and of itself, impose the insurance requirements set forth in Article 9 on Consultant's Subconsultants.

11.7 Assignment. Neither this Agreement nor any interest herein shall be assigned, transferred, or encumbered without the written consent of the other Party. Any assignment, transfer, encumbrance, or subcontract in violation of this section shall be void and ineffective, constitute a breach of this Agreement, and permit the non-assigning Party to immediately terminate this Agreement, in addition to any other remedies available to the non-assigning Party at law or in equity. County reserves the right to condition its approval of any assignment, transfer, encumbrance, or subcontract upon further due diligence and an additional fee paid to County to reasonably compensate it for the performance of any such due diligence.

11.8 Indemnification of County. Consultant shall indemnify and hold harmless County and its current, past, and future officers and employees from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness or intentionally wrongful conduct of Consultant or other persons employed or utilized by Consultant in the performance of this Agreement. The provisions of this section shall survive the expiration or earlier termination of this Agreement. To the extent considered necessary by Contract Administrator and County Attorney, any sums due Consultant under this Agreement may be retained by County until all of County's claims subject to this indemnification

obligation have been settled or otherwise resolved, and any amount withheld shall not be subject to payment of interest by County.

11.9 Prior Agreements Superseded. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein; and the Parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this document. Accordingly, the Parties agree that no deviation from the terms hereof shall be predicated upon any prior representations or agreements whether oral or written.

11.10 Amendments. No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

11.11 Notices. In order for a notice to a Party to be effective under this Agreement, notice must be sent via U.S. first-class mail, hand delivery, or commercial overnight delivery, each with a contemporaneous copy via e-mail, to the addresses listed below and shall be effective upon mailing or hand delivery (provided the contemporaneous email is also sent). The addresses for notice shall remain as set forth in this section unless and until changed by providing notice of such change in accordance with the provisions of this section.

FOR COUNTY:

Broward County Highway Construction and Engineering Division  
Attn: Richard Tornese, P.E.  
1 N. University Drive, Box B300, Suite 3200B  
Plantation, Florida 33324-2038  
Email address: rtornese@broward.org

FOR CONSULTANT:

R.J. Behar & Company, Inc.  
Attn: Robert J. Behar, P.E.  
6861 SW 196 Avenue, Suite 302  
Pembroke Pines, FL 33332  
Email address: bbeh@rjbehar.com

11.12 Interpretation. The titles and headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement. All personal pronouns used in this Agreement shall include the other gender, and the singular shall include the plural, and vice versa, unless the context otherwise requires. Terms such as "herein," "hereof," "hereunder," and "hereinafter" refer to this Agreement as a whole and not to any particular sentence, paragraph, or section where they appear, unless the context otherwise requires. Whenever reference is made to a section or article of this Agreement, such reference is to the section or article as a whole, including all of the subsections of such section, unless the reference is made to a particular subsection or subparagraph of such section or article. Any reference to "days" means calendar days, unless otherwise expressly stated.

11.13 Consultant's Staff. Consultant will provide the key staff identified in its proposal for Project as long as said key staff are in Consultant's employment. Consultant will obtain prior written approval of Contract Administrator to change key staff. Consultant shall provide Contract Administrator with such information as necessary to determine the suitability of proposed new key staff. Contract Administrator will be reasonable in evaluating key staff qualifications. If Contract Administrator desires to request removal of any of Consultant's staff, Contract Administrator shall first meet with Consultant and provide reasonable justification for said removal; upon such reasonable justification, Consultant shall use good faith efforts to remove or reassign the staff at issue.

11.14 Drug-Free Workplace. To the extent required under Section 21.31(a)(2), Broward County Administrative Code, or Section 287.087, Florida Statutes, Consultant certifies that it has a drug-free workplace program and that it will maintain such drug-free workplace program for the duration of this Agreement.

11.15 Independent Contractor. Consultant is an independent contractor under this Agreement, and nothing in this Agreement shall constitute or create a partnership, joint venture, or any other relationship between the Parties. In providing Services under this Agreement, neither Consultant nor its agents shall act as officers, employees, or agents of County, except as authorized by the Contract Administrator for permitting, licensing, or other regulatory requirements. Consultant shall not have the right to bind County to any obligation not expressly undertaken by County under this Agreement.

11.16 Regulatory Capacity. Notwithstanding the fact that County is a political subdivision with certain regulatory authority, County's performance under this Agreement is as a Party to this Agreement and in the capacity as owner. If County exercises its regulatory authority, the exercise of such authority and the enforcement of any rules, regulation, laws, and ordinances shall have occurred under County's regulatory authority as a governmental body separate and apart from this Agreement, and shall not be attributable in any manner to County as a Party to this Agreement.

11.17 Sovereign Immunity. Except to the extent sovereign immunity may be deemed to be waived by entering into this Agreement, nothing herein is intended to serve as a waiver of sovereign immunity by County nor shall anything included herein be construed as consent by County to be sued by third parties in any matter arising out of this Agreement. County is a political subdivision as defined in Section 768.28, Florida Statutes, and shall be responsible for the negligent or wrongful acts or omissions of its employees pursuant to Section 768.28, Florida Statutes.

11.18 Third-Party Beneficiaries. Neither Consultant nor County intends to directly or substantially benefit a third party by this Agreement. Therefore, the Parties acknowledge that there are no third-party beneficiaries to this Agreement and that no third party shall be entitled to assert a right or claim against either of them based upon this Agreement.

11.19 Conflicts. Neither Consultant nor its employees shall have or hold any continuing or frequently recurring employment or contractual relationship that is substantially antagonistic or incompatible with Consultant's loyal and conscientious exercise of judgment and care related to BCF #202\_CS (Rev. 05.01.202021)



its performance under this Agreement. During the term of this Agreement, none of Consultant's officers or employees shall serve as an expert witness against County in any legal or administrative proceeding in which he, she, or Consultant is not a party, unless compelled by court process. Further, such persons shall not give sworn testimony or issue a report or writing, as an expression of his or her expert opinion that is adverse or prejudicial to the interests of County in connection with any such pending or threatened legal or administrative proceeding unless compelled by court process. The limitations of this section shall not preclude Consultant or any persons in any way from representing themselves, including giving expert testimony in support of such representation, in any action or in any administrative or legal proceeding. If Consultant is permitted under this Agreement to utilize Subconsultants to perform any Services required by this Agreement, Consultant shall require such Subconsultants, by written contract, to comply with the provisions of this section to the same extent as Consultant.

**11.20 Materiality and Waiver of Breach.** Each requirement, duty, and obligation set forth in this Agreement was bargained for at arm's-length and is agreed to by the Parties. Each requirement, duty, and obligation set forth in this Agreement is substantial and important to the formation of this Agreement, and each is, therefore, a material term of this Agreement. County's failure to enforce any provision of this Agreement shall not be deemed a waiver of such provision or modification of this Agreement. A waiver of any breach of a provision of this Agreement shall not be deemed a waiver of any subsequent breach and shall not be construed to be a modification of the terms of this Agreement. To be effective, any waiver must be in writing signed by an authorized signatory of the waiving Party.

**11.21 Compliance with Laws.** Consultant and the Services must comply with all applicable federal, state, and local laws, codes, ordinances, rules, and regulations including, without limitation, American with Disabilities Act, 42 U.S.C. § 12101, Section 504 of the Rehabilitation Act of 1973, and any related federal, state, or local laws, rules, and regulations.

**11.22 Severability.** If any part of this Agreement is found to be unenforceable by any court of competent jurisdiction, that part shall be deemed severed from this Agreement and the balance of this Agreement shall remain in full force and effect.

**11.23 Joint Preparation.** This Agreement has been jointly prepared by the Parties and shall not be construed more strictly against either Party.

**11.24 Priority of Provisions.** If there is a conflict or inconsistency between any term, statement, requirement, or provision of any document or exhibit attached to, referenced by, or incorporated in this Agreement and any provision of Articles 1 through 11 of this Agreement, the provisions contained in Articles 1 through 11 shall prevail and be given effect.

**11.25 Law, Jurisdiction, Venue, Waiver of Jury Trial.** This Agreement shall be interpreted and construed in accordance with and governed by the laws of the State of Florida. The exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement shall be in the state courts of the Seventeenth Judicial Circuit in and for Broward County, Florida. If any claim arising from, related to, or in connection with this Agreement must be litigated in federal court, the exclusive venue for any such lawsuit shall be in the United States District Court or United States Bankruptcy Court for the Southern District of Florida. **BY ENTERING INTO THIS** BCF #202\_CS (Rev. 05.01.202021)



**AGREEMENT, CONSULTANT AND COUNTY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

11.26 Reuse of Deliverables. County may, at its option, reuse (in whole or in part) the resulting end-product or deliverables resulting from Consultant's Services (including, but not limited to, drawings, specifications, other documents, and services as described herein and in Exhibit A or any Work Authorization); and Consultant agrees to such reuse in accordance with this provision. If the Contract Administrator elects to reuse the services, drawings, specifications, and other documents, in whole or in part, prepared for any Services rendered under this Agreement for other projects on other sites, Consultant will be paid a reuse fee to be negotiated between Consultant and County, subject to approval by the proper awarding authority. Each reuse shall include all Services and modifications to the drawings, specifications, and other documents normally required to adapt the design documents to a new site. This reuse may include preparation of reverse plans, changes to the program, provision for exceptional site conditions, preparation of documents for off-site improvements, provisions for revised solar orientation, provisions for revised vehicular and pedestrian access, and modifications to building elevations, ornament, or other aesthetic features. In all reuse assignments, the design documents shall be revised to comply with building codes and other jurisdictional requirements current at the time of reuse for the new site location. The terms and conditions of this Agreement shall remain in force for each reuse project, unless otherwise agreed by the Parties in writing.

11.27 Payable Interest.

11.27.1 Payment of Interest. County shall not be liable to pay any interest to Consultant for any reason, whether as prejudgment interest or for any other purpose, and in furtherance thereof Consultant waives, rejects, disclaims, and surrenders any and all entitlement it has or may have to receive interest in connection with a dispute or claim arising from, related to, or in connection with this Agreement. This subsection shall not apply to any claim for interest, including for post-judgment interest, if such application would be contrary to applicable law.

11.27.2 Rate of Interest. If the preceding subsection is inapplicable or is determined to be invalid or unenforceable by a court of competent jurisdiction, the annual rate of interest payable by County under this Agreement, whether as prejudgment interest or for any other purpose, shall be, to the full extent permissible under applicable law, one quarter of one percent (0.25%) simple interest (uncompounded).

11.28 Incorporation by Reference. Any and all Recital clauses stated above are true and correct and are incorporated in this Agreement by reference. The attached Exhibits are incorporated into and made a part of this Agreement.

11.29 Counterparts and Multiple Originals. This Agreement may be executed in multiple originals, and may be executed in counterparts, each of which shall be deemed to be an original, but all of which, taken together, shall constitute one and the same agreement.

11.30 The Public Art and Design Program, Section 1-88, Broward County Code of Ordinances, is not an eligible expense under Section 212.055, Florida Statutes, and is not applicable to this project.

(The remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the Parties hereto have made and executed this Agreement: BROWARD COUNTY, through its BOARD OF COUNTY COMMISSIONERS, signing by and through its Mayor or Vice-Mayor authorized to execute same by Board action on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and R.J. BEHAR & COMPANY, INC., signing by and through its \_\_\_\_\_, duly authorized to execute same.

COUNTY

ATTEST:

\_\_\_\_\_  
Broward County Administrator, as  
ex officio Clerk of the Broward County  
Board of County Commissioners

BROWARD COUNTY, by and through  
its Board of County Commissioners

By: \_\_\_\_\_  
\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Approved as to form by  
Andrew J. Meyers  
Broward County Attorney  
Governmental Center, Suite 423  
115 South Andrews Avenue  
Fort Lauderdale, Florida 33301  
Telephone: (954) 357-7600  
Telecopier: (954) 357-7641

Digitally signed by Gavin Rynard  
Rynard  
Date: 2021.08.09 09:48:07  
-04'00'  
By: Gavin Rynard \_\_\_\_\_ (Date)  
Gavin P. Rynard  
Assistant County Attorney

Digitally signed by Angela Wallace  
Wallace  
Date: 2021.08.09 09:48:24  
-04'00'  
By: Angela Wallace \_\_\_\_\_ (Date)  
Angela J. Wallace  
Transportation Surtax General Counsel

AJW/GPR  
BCF 202  
05/01/2021  
#21-114.00

**AGREEMENT BETWEEN BROWARD COUNTY AND R.J. BEHAR & COMPANY, INC.  
FOR CONSULTANT SERVICES FOR PINE ISLAND ROAD FROM GRIFFIN ROAD TO NOVA DRIVE  
(RFP # PNC2120376P1)**

**CONSULTANT**

ATTEST:

**Dereth  
Behar**

Digitally signed by  
Dereth Behar  
Date: 2021.08.02  
11:12:27 -04'00'

Secretary

Dereth Behar

(Typed Name of Secretary)

CORPORATE SEAL



**R.J. BEHAR & COMPANY, INC.**

**Robert  
Behar**

Digitally signed by  
Robert Behar  
Date: 2021.08.02  
13:28:15 -04'00'

By

President/Vice President

Robert J. Behar, P.E., President

(Typed Name and Title)

2nd day of August, 2021.



**EXHIBIT A**

**SCOPE OF SERVICES**

**FOR CONSULTING ENGINEERING SERVICES  
HIGHWAY AND BRIDGE/STRUCTURAL DESIGN  
FOR**

**PINE ISLAND ROAD  
FROM GRIFFIN TO NOVA DRIVE**

**RFP No.: PNC 2120376P1**

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## 1. Purpose

The purpose of this Exhibit is to describe the scope of work and the responsibilities of R.J. Behar & Company, Inc. (Consultant) in connection with the design and preparation of a complete set of construction contract documents and incidental engineering services, as necessary, for improvements to the transportation facility described herein (Project).

The general objective is for the Consultant to prepare and provide Broward County (County) with a complete set of contract documents including signed and sealed plans, specifications, reports, supporting engineering analysis, calculations and other documentation as required. These contract documents will be used by the contractor to build the Project and test the Project components. These contract documents will be used by the County or its Construction Engineering Inspection (CEI) representatives for inspection and final acceptance of the Project. The Consultant shall follow a system engineering process to ensure that all required Project components are included in the development of the contract documents and the Project can be built as designed and to specifications.

This scope references activities and task numbers specific to this Project derived from the Florida Department of Transportation (FDOT) Staff Hour Estimate (SHE) guidelines. The activities and task numbers applicable to this Project were utilized to negotiate the level of effort to accomplish the Project's overall design intent in a maximum-not-to-exceed cost basis. Minor modifications to concepts or quantities of certain features from how they were originally negotiated are anticipated. Such modifications shall not be a basis for a supplemental or a reduced fee.

The Consultant shall demonstrate good project management practices while working on this Project. These include communication with the County and others as necessary, management of time and resources, and documentation. The Consultant shall set up and maintain a contract file throughout the design of the Project. Consultants are expected to know the laws and rules governing their professions and are expected to provide services in accordance with current regulations, codes and ordinances and recognized standards applicable to such professional services. The Consultant shall provide qualified technical and professional personnel to perform to applicable standards and procedures, the duties and responsibilities assigned under the terms of this agreement. The Consultant shall minimize to the maximum extent possible the County's need to apply its own resources to assignments authorized by the County.

## 2. Project Description

The Consultant shall design a new six-lane roadway known as Pine Island Road from Griffin Road to Nova Drive, including: one bridge widening, pavement marking and signing plans, five signalized intersections listed below, lighting plans, bulkhead wall along the CBWCD N-12 Canal and archeological assessment.

- (1) Nova Drive,
- (2) SW 36 Street,
- (3) SW 30 Street,
- (4) Orange Drive, and
- (5) Griffin Road



### 2.1. Develop Typical Sections

The Consultant shall investigate various typical sections and present recommendations to the County. The Project shall be designed in general conformance with the typical sections approved by the County.

## 3. Project Schedule and Submittals

Within ten (10) days after the Notice-To-Proceed, and prior to the Consultant beginning work, the Consultant shall provide a detailed Project activity/event schedule for County and Consultant scheduled activities required to complete the Project Services. The schedule shall be based upon the duration specified below from the date specified in the NTP. The schedule shall be accompanied by an anticipated payout and fiscal progress curve, including all required phase submittals. For scheduling purposes, the Consultant shall allow for 1 month review time for each phase submittal and any other submittals as appropriate.

The phase submittals shall be produced in accordance with the FDOT and Broward County Standards, using the current editions of the Standard Plans, FDOT Design Manual and Standard Specifications for Road and Bridge Construction, and any other applicable FDOT manual/guideline/standard. The Consultant shall furnish each phase submittal to the County and other agencies, including uploading the submittal to the FDOT Electronic Review Comment system. The Consultant shall respond to all comments and perform necessary corrections on all errors or deficiencies.

Table 1 below are the key milestones and their time to complete from the date identified in the County's Notice to Proceed.

*Table 1 - Key Milestones and Durations*

<i>Phase*</i>	<i>Duration (months)</i>
<i>Phase I</i>	4
<i>Phase II</i>	4
<i>Phase III</i>	4
<i>Phase IV</i>	4
<i>Final (F) 100% Signed and Sealed Plans, Specifications with all required, approved Permits</i>	2
<b>Total</b>	<b>18</b>

\*Chapter 301 - Sequence of Plan Preparation from FDOT Design Manual defines the requirements of each Phase submittal.

The items required for each phase submittal and their respective status (i.e. Preliminary (P), Complete but subject to change (C), and Final (F)) are listed in Table 2 below. These deliverable items shall follow the requirements set forth in the latest version of the FDOT Design Manual and the Project specific details referenced in its respective scope section.

*Table 2 - Summary of Phase Submittals*

ITEM	SCOPE SECTION	PHASE I	PHASE II	PHASE III	PHASE IV
<b>Key Sheet</b>	8	P	P	C	F
<b>Signature Sheet (sign and seal)</b>	1, 4.5, 6.5		P	C	F
<b>Summary of Pay Items</b>	8		P	C	F
<b>Summary of Quantities</b>	8			C	F
<b>Drainage Map</b>	9, 9.1.1, 9.2	P	P	C	F
<b>Summary of Drainage Structures</b>	9.2		P	C	F
<b>Typical Section</b>	7.1, 8	P	C	C	F
<b>Optional Materials Tabulation</b>	9.1.6		P	C	F
<b>Project Layout</b>	7, 8	P	C	C	F
<b>Project Control</b>	8	P	C	C	F
<b>Roadway Plan-Profile</b>	7, 8	P	C	C	F
<b>Special Profile</b>	7.3, 8	P	P	C	F
<b>Intersection Layout/Detail</b>	2, 7.3, 8	P	P	C	F
<b>Drainage Structures</b>	7.6, 9		P	C	F
<b>Cross Section Pattern</b>	7.5, 8		P	C	F
<b>Roadway Soil Survey</b>	8		P	C	F
<b>Cross Sections</b>	7.5, 8	P	P	C	F
<b>Stormwater Pollution Prevention Plan (SWPPP)</b>	9.2		P	C	F
<b>Temporary Traffic Control Plans (TTCP)</b>	7.6-7.7, 8	P	P	C	F
<b>Utility Adjustments</b>	8, 10			C	F
<b>Structures Plans</b>	12		P	C	F
<b>Signing and Pavement Marking Plans</b>	13, 14		P	C	F
<b>Signalization Plans</b>	15, 16		P	C	F
<b>Lighting Plans</b>	17, 18		P	C	F
<b>Landscape Plans</b>	19, 20	P	P	C	F
<b>Landscape Opportunity Plans</b>	19, 20	P	P	C	F
<b>Vegetation Disposition Plans</b>	19, 20	P	P	C	F

All fees and price proposals are based on the time periods specified in Table 1 above.

Periodically, throughout the life of the contract, the Project schedule and payout and fiscal progress curves shall be reviewed and if changes are necessary, they shall be performed in accordance with the Agreement.

The approved schedule and schedule status report, along with progress and payout curves, shall be submitted with the monthly progress report. The schedule shall be submitted in Microsoft Project or Primavera.

## 4. Project Requirements

### 4.1. Liaison Office

The County and the Consultant has designated a Liaison Office and a Project Manager below who shall be the representative of their respective organizations for the Project. While it is expected the Consultant shall seek and receive advice from various state, regional, and local agencies, the final direction on all matters of this Project remain with the County Project Manager.

For the Consultant: 6861 SW 196 Avenue, Suite 302  
Pembroke Pines, FL 33332  
Contact: Robert J. Behar, PE  
Phone: 954-680-7771  
Email: [bbehar@rjbehar.com](mailto:bbehar@rjbehar.com)

For the County: Highway Construction and Engineering Division  
1 N. University Drive, Box B300  
Plantation, FL 33324-2038  
Contact: Carolina Bustamante, PE  
Phone: 954-577-4603  
Email: [abustamante@broward.org](mailto:abustamante@broward.org)

### 4.2. Key Personnel

The Consultant's work shall be performed and directed by the key personnel identified in the proposal presentations by the Consultant. Any changes in the indicated personnel shall be subject to review and approval by County.

### 4.3. Progress Reporting

The Consultant shall meet with the County as required and shall provide a written monthly progress report with approved schedule, schedule status, and payout curve or by using the earned value method that describe the work performed on each task. The report shall include assessing Project risk through monthly documentation of identifying and updating the risk category and approach for monitoring those tasks. Invoices shall be submitted after the County approves the monthly progress report and the payout curve or with earned value analysis. The Project Manager will make judgment on whether work of sufficient quality and quantity has been accomplished by comparing the reported percent complete against actual work accomplished.

### 4.4. Correspondence

Copies of all written correspondence between the Consultant and any party pertaining specifically to this contract shall be provided to the County for their records within one (1) week of the receipt or mailing of said correspondence.

### 4.5. Professional Endorsement

The Consultant shall have a Licensed Professional Engineer(s) in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by Florida Statutes and applicable standards.

#### 4.6. Computer Automation

The Project shall be developed utilizing Computer Aided Drafting and Design (CADD) systems. FDOT makes available software to help assure quality and conformance with policy and procedures regarding CADD. It is the responsibility of the Consultant to meet the requirements in the FDOT CADD Manual. The Consultant shall submit final documents and files as described therein.

#### 4.7. Coordination with Other Consultants

The Consultant is to coordinate his work with any and all adjacent and integral consultants so as to effect complete and homogenous plans and specifications for the Project(s) described herein.

#### 4.8. Invoicing Limits

Payment for the work accomplished shall be in accordance with the Method of Compensation of this contract. Invoices shall be submitted to the County, in a format prescribed by the County. At a minimum Consultant is required to track staff hours by design Project Phase and Activity. The County Project Manager and the Consultant shall monitor the cumulative invoiced billings to ensure the reasonableness of the billings compared to the Project schedule and the work accomplished and accepted by the County.

The Consultant shall provide a list of key events and the associated total percentage of work considered to be complete at each event. This list shall be used to control invoicing. Payments will not be made that exceed the percentage of work for any event until those events have occurred and the results are acceptable to the County.

### 5. Project Common Tasks

Project Common Tasks, as listed below, are work efforts required to be performed by the Consultant that are applicable to Project activities listed in FDOT SHE forms.

- a. Cost Estimates: The Consultant is responsible for producing construction cost estimates.
- b. Technical Special Provisions: The Consultant shall provide Technical Special Provisions for all items of work not covered by the FDOT Standard Specifications for Road and Bridge Construction and the workbook of implemented modifications.

A Technical Special Provision shall not modify the Standard Specifications and implemented modifications in any way.

The Technical Special Provisions shall provide a description of work, materials, equipment and specific requirements, method of measurement and basis of payment. Proposed Technical Special Provisions shall be submitted to the County for initial review at the time of the Phase III submittal. This timing will allow for adequate processing time prior to final submittal. The Technical Special Provisions shall be reviewed for suitability in accordance with the FDOT Specifications Handbook. All comments will be returned to the Consultant for correction and resolution. Final Technical Special Provisions shall be digitally signed and sealed in accordance with applicable Florida Statutes.

- c. Modified Special Provisions (N/A): The Consultant shall provide Modified Special Provisions as required by the Project. Modified Special Provisions are defined in the FDOT Specifications Handbook.

A Modified Special Provision shall not modify or conflict with the Broward County Form (BCF) #170.

- d. Field Reviews: The Consultant shall make as many trips to the Project site as required to obtain necessary data for all elements of the Project.
- e. Technical Meetings: The Consultant shall attend all technical meetings necessary to execute the Scope of Services of this contract. This includes meetings with County and/or Agency staff, between disciplines and subconsultants, such as access management meetings, pavement design meetings, local governments, railroads, airports, progress review meetings (phase review), and miscellaneous meetings. The Consultant shall prepare, and submit to the County's Project Manager for review, the meeting minutes for all meetings attended by them. The meeting minutes are due within five (5) working days of attending the meeting.
- f. Quality Assurance/Quality Control: It is the intention of the County that design Consultants, including their subconsultant(s), are held responsible for their work, including plans review. The purpose of Consultant plan reviews is to ensure that Consultant plans follow the plan preparation procedures outlined in the FDOT Design Manual, that state and federal design criteria are followed with the County concept, and that the Consultant submittals are complete. All subconsultant document submittals shall be submitted by the subconsultant directly to the Consultant for their independent Quality Assurance/Quality Control review and subsequent submittal to the County.

It is the Consultant's responsibility to independently and continually QC their plans and other deliverables. The Consultant should regularly communicate with the County's Project Manager to discuss and resolve issues or solicit opinions from those within designated areas of expertise.

The Consultant shall be responsible for the professional quality, technical accuracy and coordination of all surveys, designs, drawings, specifications, and other services furnished by the Consultant and their subconsultant(s) under this contract.

The Consultant shall provide a Quality Control Plan that describes the procedures to be utilized to verify, independently check, and review all maps, design drawings, specifications, and other documentation prepared as a part of the contract. The Consultant shall describe how the checking and review processes are to be documented to verify that the required procedures were followed. The Quality Control Plan shall be one specifically designed for this Project. The Consultant shall submit a Quality Control Plan for approval within twenty (20) business days of the written Notice to Proceed and it shall be signed by the Consultant's Project Manager and the Consultant QC Manager. The Quality Control Plan shall include the names of the Consultant's staff that shall perform the quality control reviews. The Quality Control reviewer shall be a Florida Licensed Professional Engineer fully prequalified under F.A.C. 14-75 in the work type being reviewed. A marked up set of prints from a Quality Control Review indicating the reviewers for each component (structures, roadway, drainage, signals, geotechnical, signing and marking, lighting, landscape, surveys, etc.) and a written resolution of

comments on a point-by-point basis will be required, if requested by the County, with each phase submittal. The responsible Professional Engineer, Landscape Architect, or Professional Surveyor & Mapper that performed the Quality Control review shall sign a statement certifying that the review was conducted and found to meet required specifications.

The Consultant shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other products and services.

- g. Supervision: The Consultant shall supervise all technical design activities.
- h. Coordination: The Consultant shall coordinate with all disciplines of the Project to produce a final set of construction documents.

## 6. Project General Tasks (SHE Activity 3)

Project General Tasks, described below, represent work efforts that are applicable to the Project as a whole and not to any one or more specific Project activity. The work described in these tasks shall be performed by the Consultant.

### 6.1. Public Involvement (SHE Activity 3, Task No. 3.1)

Public involvement includes communicating to all interested persons, groups, and government organizations information regarding the development of the Project. The Consultant shall provide to the County drafts of Public Involvement presentation for review and approval at least [21] business days prior to printing and / or distribution.

#### 6.1.1. Community Awareness Plan (SHE Activity 3, Task No. 3.1.1)

Prepare a Community Awareness Plan (CAP) for review and approval by the County within 30 calendar days after receiving Notice to Proceed. The CAP shall include a brief description of Public Involvement activities including meetings with the Board of Broward County Commissioners, FDOT, Metropolitan Planning Organization (MPO), Town of Davie, City of Sunrise, and the Surface Water Management Entities.

#### 6.1.2. Notifications (SHE Activity 3, Task No. 3.1.2)

In addition to public involvement data collection, the Consultant shall assist the County or prepare a notification, flyer, and/or letter to elected officials and other public officials, private property owners, and tenants at intervals during plans production as identified by the County. All letters and notices shall be reviewed by the County to ensure that they are addressed to the correct and current public officials. The notification letter shall be prepared in accordance with the County's format. A sample letter will be provided by the County.

#### 6.1.3. Preparing Mailing Lists (SHE Activity 3, Task No. 3.1.3)

At the beginning of the project, the County shall identify all impacted property owners and tenants (within a minimum of 300 ft of the Project corridor). The Consultant shall prepare a mailing list of all such entities and shall update the mailing list as needed during the life of the Project.



**6.1.4. Renderings and Fly Throughs (SHE Activity 3, Task No. 3.1.7)**

The Consultant shall prepare renderings, provide a Project fly through, including a voice over presentation production and Quality Control documents.

**6.1.5. PowerPoint Presentations (SHE Activity 3, Task No. 3.1.8)**

The Consultant shall prepare PowerPoint presentations for use in public meetings, including coordination and review of slides with the County. There shall be 2 presentations. One PowerPoint presentation is for the residents of the Town of Davie to provide feedback in the early stage of the Project so that decisions can be provided by the Town of Davie on the Noise Walls and Lighting. When requested by County, the remaining PowerPoint presentation is to be developed for a County and City Commission audience and other miscellaneous public meetings.

**6.1.6. Public Meeting Preparations (SHE Activity 3, Task No. 3.1.9)**

The Consultant shall prepare the necessary presentation material, including handouts and exhibits for use in public meetings. Consultant shall brief staff on presentation material and discussion topics.

**6.1.7. Public Meeting Attendance and Follow-up (SHE Activity 3, Task No. 3.1.10)**

The Consultant shall attend four (4) public meetings, assist with meeting set-up, and take down. The Consultant shall also prepare a summary of the public meeting that includes copies of all materials (i.e. slides, boards, handouts, completed sign-in sheets and completed comment forms) shown or provided at the public meeting. The summary shall also include a listing of all comments made during or after the meeting and written responses to those comments. The Consultant shall attend the meetings with an appropriate number of personnel to assist the County's Project Manager.

**6.1.8. Other Agency Meetings (SHE Activity 3, Task No. 3.1.11)**

In addition to scheduled public meeting, the Consultant may be required to participate in meetings with local governing authorities and/or MPO. The Consultant's participation may include, but not be limited to, presentations during the meeting, note taking, and summarizing the meeting in a memo to the file. It is estimated for this Project there will be 4 meetings with local governing authorities such as: FDOT, Town of Davie, Metropolitan Planning Organization (MPO), and Broward County Commission.

In addition, the Consultant shall be responsible for coordinating with the State Archeologist and Florida Division of Historical Resources to address any burial sites within the Project limits.

**6.2. Joint Project Agreements (SHE Activity 3, Task No. 3.2)**

Consultant shall assist the County in the preparation of up to two Joint Project Agreement with local agencies, as deemed necessary. The Consultant services may include coordination, meetings, etc., required to establish an agreement which is compatible to the Project.

**6.3. Specifications Package Preparation (SHE Activity 3, Task No. 3.3)**

This task includes the time for Consultant to assemble the Specification Package.



#### 6.4. Contract Maintenance and Project Documentation Specifications Package Preparation (SHE Activity 3, Task No. 3.4)

Contract maintenance includes Project management effort for complete setup and maintenance of files, electronic folders, and documents, developing technical monthly progress reports and schedule updates. Project documentation includes the compilation and delivery of final documents, reports or calculations that support the development of the contract plans.

#### 6.5. Prime Consultant Project Manager Meetings (SHE Activity 3, Task No. 3.6)

Includes only the Prime Consultant Project Manager's time for travel and attendance at Activity Technical Meetings and other meetings included in the List of Project Manager Meetings in accordance with SHE Activity 3, Task No. 3.6. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

#### 6.6. Post Design Services (SHE Activity 3, Task No. 3.8)

The Consultant shall provide services during construction. These may include:

- Review of Shop Drawings
- Respond to Request for Information from the Construction Inspection team.
- Field visits, as necessary to clarify design issues during construction.

#### 6.7. Landscape and Existing Vegetation Coordination (SHE Activity 3, Task No. 3.12)

Consultant shall coordinate to ensure preservation and protection of existing vegetation. Relocation of existing vegetation may be necessary in some cases. Space for proposed landscape should be preserved and conflicts with drainage, utilities, signals, and signage should be minimized. Coordination with the County's Landscape Architect may be necessary as defined in Section 7.7 Tree Disposition Plan and Section 19 – Landscape Analysis. Additionally, coordination with the Florida Scenic Highways program should be included to ensure any requirements of the Florida State Highway program are met.

### 7. Road Analysis (SHE Activity 4)

Roadway Analysis, described below, represent work efforts that are applicable to the Project as a whole and not to any one or more specific Project activity. The work described in these tasks shall be performed by the Consultant.

#### 7.1. Typical Section Package (SHE Activity 4, Task No. 4.1)

The Consultant shall incorporate the following typical sections with the contract plans:

- Pine Island Road without adjacent canal
- Pine Island Road adjacent to canal – from approximately Sta 200+50 to Sta 269+50.
- Pine Island Road around the curves
- Pine Island Road, bridge over C-11 Canal
- Pine Island Road south of Griffin Road
- Pine Island Road north of Nova Drive

#### 7.2. Horizontal/Vertical Master Design Files (SHE Activity 4, Task No. 4.5)

The Consultant shall design the geometrics using the Standard Plans that are most appropriate with proper consideration given to the design traffic volumes, design speed, capacity and levels of service, functional classification, adjacent land use, design

consistency and driver expectancy, aesthetics, existing vegetation to be preserved, pedestrian and bicycle concerns, ADA requirements, Safe Mobility for Life Program, access management, previous study documents and scope of work. The Consultant shall also develop utility conflict information to be provided to Project Utility Coordinator in the format requested by the County.

This includes the Consultant efforts required for establishing the master design files for the horizontal and vertical geometry, drainage structure features, utilities (including conflict location identification and adjustments), etc. This includes all work to create elements showing the alignment for both horizontal and vertical geometries in plan and profile portion of plan sheets. Includes efforts required to place labels and required information in accordance with the FDOT CADD Manual and FDM in master design file. Also includes all engineering work for designing and analyzing elements required for the plan/profile geometries including horizontal/vertical alignments, back of sidewalk profiles, intersection layouts, curb return profiles, ramp profiles, utilities, etc.

#### 7.3. Access Management (SHE Activity 4, Task No. 4.6)

This includes the Consultant efforts required to determine the allowable median opening modification at Bamford Sports Complex entrance, associated Access Management Report, and any preparation required for related meetings. (Attendance at meetings is included under Technical Coordination Meetings).

#### 7.4. Cross Section Design Files (SHE Activity 4, Task No. 4.9)

The Consultant shall establish and develop cross section design files in accordance with the FDOT CADD Manual. Estimated cross section spacing is at 50 ft, or as required. This includes the work required to establish and utilize intelligent/automated methods for creating cross sections including determining the locations for which all cross sections will be shown, creating pattern line file, .tin file, .dat file, input files, criteria files, cross section .dgn files, cross section refinement (non-automated modification), placement of utilities, soil boxes, R/W lines, earthwork calculations, etc.

#### 7.5. Temporary Traffic Control Plan (TTCP) Analysis (SHE Activity 4, Task No. 4.10)

The Consultant shall design a safe and effective TTCP Level II to move vehicular and pedestrian traffic during all phases of construction. The design shall include construction phasing of roadways ingress and egress to existing property owners and businesses, routing, signing and pavement markings, and detour quantity tabulations, roadway pavement, drainage structures, ditches, front slopes, back slopes, drop offs within clear zone, transit stops, and traffic monitoring sites. Special consideration shall be given to the construction of the drainage system when developing the construction phases. Positive drainage must be always maintained. The design shall include construction phasing of roadways to accommodate the construction or relocation of utilities when the contract includes Joint Project Agreements (JPAs).

The Consultant shall investigate the need for temporary highway lighting, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis. The Consultant is to coordinate with Town of Davie during the design in order to maintain existing lighting levels. The TTCP shall be prepared by a certified designer who has completed training as required by the County. Before proceeding with the TTCP, the Consultant shall meet with the appropriate County personnel. The purpose of this meeting is to provide

information to the Consultant that will better coordinate the Preliminary and Final TTCP efforts.

The Consultant shall consider the local impact of any lane closures or alternate routes, when the need to close a road is identified during this analysis. Proposed road closings must be reviewed and approved by the County. Diligence shall be used to minimize negative impacts by appropriate specifications, recommendations, or plans development. Local impacts to consider will be local events, holidays, peak seasons, detour route deterioration and other eventualities. Consultant shall be responsible to obtain local authorities' permission for use of detour routes not on state/County highways.

The Consultant shall include all work necessary to develop a TTCP concept, such as determining the usage of lane closures, lane configurations, traffic pacing, detours, diversions, lane shifts, bridge transitions, temporary drainage, temporary signals including signal clearances, retaining walls, and pedestrian TTCP. This TTCP is categorized as a Level II. The Consultant shall include the analysis and development of TTCP cross sections based on 100 ft intervals.

#### 7.6. Master TTCP Design Files (SHE Activity 4, Task No. 4.11)

The Consultant shall develop master TTCP files showing each phase of the TTCP. This includes all work necessary for designing lane configurations, diversions, lane shifts, signing and pavement markings, temporary traffic control devices, and temporary pedestrian ways. The proposed TTCP is based on a four-phase construction operation.

#### 7.7. Tree Disposition Plan (SHE Activity 4, Task No. 4.13)

The Consultant shall prepare a Tree Disposition Plan based on the input provided by the Landscape Architect. A final deliverable shall be provided at Phase I plans in order for the County to begin necessary tree relocations from the medians prior to Project construction commencement.

#### 7.8. Design Report (SHE Activity 4, Task No. 4.15)

The Consultant shall prepare a Design Report, which shall identify the design criteria for the Project. The Design Report is to be delivered as a signed and sealed pdf file.

#### 7.9. Quantities (SHE Activity 4, Task No. 4.16)

The Consultant shall develop accurate quantities and the supporting documentation, including construction days when required. Includes all work required to determine the quantities for placement in the various summary of quantities sheets and boxes, preparing the supporting documentation, and estimating construction days when required.

#### 7.10. Cost Estimate (SHE Activity 4, Task No. 4.17)

The Consultant shall provide 3 cost estimates at the Phase II, III, and IV submittals

#### 7.11. Technical Special Provisions and Modified Special Provisions (SHE Activity 4, Task No. 4.18)

The Consultant shall prepare one Technical Special Provision. Modified Special Provision are not required.

#### 7.12. Other Roadway Analyses (SHE Activity 4, Task No. 4.19)

The Consultant shall prepare three (3) typical section alternatives and provide an Evaluation Report to the County for review and approval. The Consultant shall prepare 17 cross streets/driveways roadway tie-in details, which shall include nine (9) elevations points per roadway to driveway/cross street connection.

#### 7.13. Field Reviews (SHE Activity 4, Task No. 4.20)

The Consultant shall conduct field reviews to obtain necessary data for design.

#### 7.14. Monitor Existing Structures and Utilities (SHE Activity 4, Task No. 4.21)

The Consultant shall perform review of aerials, GIS data search for addresses, and visual field to identify existing structures within the Project limits which may require settlement, vibration, or groundwater monitoring by the contractor during construction in accordance with FDM Chapter 307. The Consultant shall identify the necessary pay items to be included in the bid documents to monitor existing structures.

#### 7.15. Technical Meetings (SHE Activity 4, Task No. 4.22)

The Consultant shall attend technical meetings to coordinate roadway analysis activities (typical section, pavement, access management, driveways, local government meetings (cities, counties, MPO), miscellaneous meetings.

### 8. Roadway Plans (SHE Activity 5)

The Consultant shall prepare Roadway, TTCP, Utility Adjustment Sheets, plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Key Sheet , Summary of Pay Items including Quantity Input, Typical Sections, Typical Section Details, General Notes/Pay Item Notes, Summary of Quantities Sheets, Project Layout, Profile Sheet, Plan Sheet, special profile, Intersection Layout Details, Special Details, Roadway Soil Survey Sheets, Cross Sections, TTCP Plan Sheets, TTCP Cross Section Sheets, TTCP Detail Sheets, Project Control Sheets, and Utility Verification Sheets (SUE Data). Plan Sheets shall be formatted to meet the required scale at an 11 inch x 17 inch size.

### 9. Drainage Analysis and Drainage Plans (SHE Activity 6a and 6b)

#### 9.1. Drainage Analysis (SHE Activity 6a)

The Consultant shall analyze and document Drainage Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums. The Consultant shall be responsible for designing a drainage and stormwater management system utilizing a combination of existing, open, and closed elements and determine the number of stormwater management facility sites and cross drains required. All design work shall comply with the requirements of the appropriate regulatory agencies' permits (i.e. Broward County Environmental Protection and Growth Management Division, South Florida Water Management District, etc.) and the FDOT's Drainage Manual.

The Consultant shall coordinate fully with the appropriate permitting agencies and the County's staff. All activities and submittals should be coordinated through the County's



Project Manager. The work shall include the engineering analyses for any or all of the following:

**9.1.1. Drainage Map Hydrology (SHE Activity 6a, Task No. 6a.1)**

Create a (pre- and/or post-condition) working drainage basin map to be used in defining the system hydrology. This map shall incorporate drainage basin boundaries, existing survey and/or LiDAR and field observations, as necessary, to define the system. Basin delineations shall also include any existing collection systems in a logical manner to aid in the development of the hydraulic model. Include coordination hours needed to convey drainage hydrologic features onto produced drainage maps.

**9.1.2. Base Clearance Calculations (SHE Activity 6a, Task No. 6a.2)**

Analyze, determine, and document high water elevations per basin which shall be used to set roadway profile grade and roadway materials. Determine surface water elevations at cross drains, floodplains, outfalls, and adjacent stormwater ponds. Determine groundwater elevations at intervals between the above-mentioned surface waters. Document findings in a Base Clearance Memo.

**9.1.3. Design of Cross Drains 6a, Task No. 6a.4)**

Analyze the hydraulic design and performance of existing cross drains. Utilize this information to design the replacement of existing cross drains with new cross drains. Document the design as required. Determine and provide flood data as required. Includes 3 cross drains.

**9.1.4. Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds) (SHE Activity 6a, Task No. 6a.7)**

Design stormwater management facilities to meet requirements for stormwater quality treatment, attenuation, and aesthetics. Develop proposed pond layout (contributing drainage basin, shape, contours, slopes, volumes, tie-ins, aesthetics, etc.), perform routing, pollutant/nutrient loading calculations, recovery calculations and design the outlet control structure.

**9.1.5. Design of Storm Drains (SHE Activity 6a, Task No. 6a.9)**

Delineate contributing drainage areas, determine runoff, inlet locations, and spread. Calculate hydraulic losses (friction, utility conflict and, if necessary, minor losses). Determine design tailwater and, if necessary, outlet scour protection. Includes design of cross drains and ditches as required by the permitting agencies.

**9.1.6. Optional Culvert Material (SHE Activity 6a, Task No. 6a.10)**

Determine acceptable options for pipe materials using the Culvert Service Life Estimator.

**9.1.7. French Drain Systems (SHE Activity 6a, Task No. 6a.11)**

Design French Drain Systems to provide stormwater treatment and attenuation. Identify location for percolation tests and review these, determine the size and length of French Drains, design the control structure/weir, and model the system of inlets, conveyances, French Drains, and other outfalls using a routing program.

**9.1.8. Drainage Design Documentation Report (SHE Activity 6a, Task No. 6a.13)**

Compile drainage design documentation into report format. Include documentation for all the drainage design tasks and associated meetings and decisions, except for stand-alone reports, such as the Pond Siting Analysis Report and Bridge Hydraulics Report.

**9.1.9. Bridge Hydraulic Report (SHE Activity 6a, Task No. 6a.14)**

Calculate hydrology, hydraulics, deck drainage, scour, and appropriate counter measures. Prepare report and the information for the Bridge Hydraulics Recommendation Sheet.

**9.1.10. Temporary Drainage Analysis (SHE Activity 6a, Task No. 6a.15)**

Evaluate and address drainage to adequately drain the road and maintain existing offsite drainage during all construction phases. Provide documentation. Based on 4 phases of construction.

**9.1.11. Existing Permit Analysis (SHE Activity 6a, Task No. 6a.19)**

Data gathering including desktop analysis of Local, State, and Federal Drainage permits.

**9.1.12. Other Drainage Analysis (SHE Activity 6a, Task No. 6a.20)**

Provide canal/bulkhead hydrological analysis, as necessary to obtain CBWCD permit.

**9.2. DRAINAGE PLANS (SHE Activity 6b)**

The Consultant shall prepare Drainage plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Drainage Map, Bridge Hydraulic Recommendation Sheets, Summary of Drainage Structures, Optional Pipe/Culvert Material Tabulation, Drainage Structure Sheets (Per Structure), Miscellaneous Drainage Detail Sheets, Erosion Control Plan Sheets, and SWPPP Sheets.

## **10. Utilities (SHE Activity 7)**

The Consultant shall identify utility facilities and secure agreements, utility work schedules, and plans from the Utility Agency Owners (UAO) ensuring all conflicts that exist between utility facilities and the County's construction Project are addressed and shall not conflict with the physical construction schedule. The Consultant shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken. The Consultant shall ensure County standards, policies, procedures, practices, and design criteria are followed concerning utility coordination.

The Consultant shall identify a dedicated person responsible for managing all utility coordination activities. This person shall be responsible for managing all utility coordination, including the following:

- Assuring that Utility Coordination and accommodation is in accordance with FDOT, FHWA, and AASHTO standards, policies, procedures, and design criteria.
- Assisting the engineer of record in identifying all existing utilities and coordinating any new installations. Assisting the Engineer of Record with resolving utility conflicts.
- Scheduling and performing utility coordination meetings, keeping and distribution of minutes/action items of all utility meetings, and ensuring expedient follow-up on all unresolved issues.

- Distributing all plans, conflict matrixes and changes to affected utility owners and making sure this information is properly coordinated and documented.
- Identifying and coordinating the completion of any utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the Project.
- Review and certify to the County Project Manager that all Utility Work Schedules are correct and in accordance with the County's standards, policies, and procedures.
- Prepare, review, and process all utility related reimbursable paperwork inclusive of betterment and salvage determination.

#### 10.1. Utility Kickoff Meeting (SHE Activity 7, Task No. 7.1)

Before any contact with the UAO(s), the Consultant shall meet with County to receive guidance, as may be required, to assure that all necessary coordination shall be accomplished in accordance with County procedures. Consultant shall bring a copy of the Project work schedule reflecting utility activities.

#### 10.2. Identify Existing Utility Agency Owner(s) (SHE Activity 7, Task No. 7.2)

The Consultant shall identify all utilities within and adjacent to the Project limits that may be impacted by the Project. At a minimum the following utilities are anticipated to be present within the Project limits:

1. AT&T Distribution
2. Broward County Traffic Engineering
3. City of Sunrise Water & Wastewater Department
4. City of Sunrise Gas
5. Town of Davie Utilities
6. Comcast Cable
7. Cooper City Utilities
8. Crown Castle Fiber
9. Florida Power & Light
10. MCI
11. TECO Peoples Gas South Florida

#### 10.3. Make Utility Contacts (SHE Activity 7, Task No. 7.3)

First Contact: The Consultant shall send letters and two sets of plans to each utility, one set for the utility office, and one set to the County Offices. Includes contact by phone for meeting coordination. Request type, size, location, easements, and cost for relocation if reimbursement is claimed. Request the voltage level for power lines in the Project area. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda. If scheduling a meeting, give a 4-week notice.

Second Contact: At a minimum of 4 weeks prior to the meeting, the Consultant shall transmit two complete sets of Phase II plans and the utility conflict information (when applicable and in the format requested by the County) to each UAO having facilities located within the Project limits, and one set to the County Offices.

Third Contact: Identify agreements and assemble packages. The Consultant shall send agreements, letters, the utility conflict information (when applicable and in the format requested by the County) and two sets of plans to the UAO(s) including all component sets, one set for the utility office, one set to construction and maintenance if required. Include the design schedule.



#### 10.4. Preliminary Utility Meeting (SHE Activity 7, Task No. 7.5)

The Consultant shall schedule (time and place), notify participants, and conduct a preliminary utility meeting with all UAO(s) having facilities located within the Project limits for the purpose of presenting the Project, review the current design schedule, evaluate the utility information collected, provide follow-up information on compensable property rights from the County, discuss the utility work by highway contractor option with each utility, and discuss any future design issues that may impact utilities. This is also an opportunity for the UAO(s) to present proposed facilities. The Consultant shall keep accurate minutes and distribute a copy to all attendees.

#### 10.5. Individual/Field Meetings (SHE Activity 7, Task No. 7.6)

The Consultant shall meet with each UAO as necessary, separately or together, throughout the Project design duration to provide guidance in the interpretation of plans, review changes to the plans and schedules, standard or selective clearing and grubbing work, and assist in the development of the UAO(s) plans and work schedules. The Consultant is responsible for motivating the UAO to complete and return the necessary documents after each Utility Contact or Meeting.

#### 10.6. Collect and Review Plans and Data from UAO(s) (SHE Activity 7, Task No. 7.7)

The Consultant shall review utility marked plans and data individually as they are received for content. Ensure information from the UAO (utility type, material, and size) is sent to the designer for inclusion in the plans. Forward all requests for utility reimbursement and supporting documentation to the County.

#### 10.7. Utility Design Meeting (SHE Activity 7, Task No. 7.9)

The Consultant shall schedule (time and place), notify participants, and conduct a Utility meeting with all affected UAO(s). The Consultant shall be prepared to discuss impacts to existing trees/vegetation and proposed landscape, drainage, traffic signalization, TTCP (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, provide follow-up information on compensable property rights, discuss with each UAO the utility work by highway contractor option, discuss any future design issues that may impact utilities, etc., to the extent that they may have an effect on existing or proposed utility facilities with particular emphasis on drainage and TTCP with each UAO.

The intent of this meeting shall be to assist the UAOs in identifying and resolving conflicts between utilities and proposed construction before completion of the plans, including utility adjustment details. Also, to work with the UAOs to recommend potential resolution between known utility conflicts with proposed construction plans as may be deemed practical by the UAO. The Consultant shall keep accurate minutes of all meetings and distribute a copy to all attendees within 3 days. See Scope Section 7.2 (Horizontal/Vertical Master Design File – SHE Activity 4, Task No. 4.5) and Section 7.4 (Cross Section Design Files – SHE Activity 4, Task No. 4.9) for utility conflict location identification and adjustments.

#### 10.8. Review Utility Markups & Work Schedules and Processing of Schedules & Agreements (SHE Activity 7, Task No. 7.10)

The Consultant shall review utility marked up plans and work schedules as they are received for content and coordinate review with the designer. Send color markups and schedules to the appropriate County office(s) such as survey, geotechnical, drainage, structures, lighting, roadway, signals, utilities, landscape architecture, municipalities, and Broward County Traffic

Operations for review and comment if required. Coordinate with the County for execution. Distribute Executed Final Documents. Prepare Work Order for UAO(s). The Consultant shall coordinate with the County Personnel the programming of necessary funds for utilities relocation.

#### 10.9. Utility Coordination/Follow-up (SHE Activity 7, Task No. 7.11)

The Consultant shall provide utility coordination and follow up. This includes follow-up, interpreting plans, and assisting the UAOs with completion of their work schedules and agreements. Includes phone calls, face-to-face meetings, etc., to motivate and ensure the UAO(s) complete and return the required documents in accordance with the Project schedule. Ensure the resolution of all known conflicts. The Consultant shall keep accurate minutes of all meetings and distribute a copy to all attendees. This task can be applied to all phases of the Project.

#### 10.10. Certification/Close-Out (SHE Activity 7, Task No. 7.16)

This includes hours for transmitting utility files to the County Project Manager and preparation of the Utility Certification Letter. The Consultant shall certify to the appropriate County representative one of the following below per each utility company:

- All utility negotiations (Full execution of each agreement, approved Utility Work Schedules, Technical Special Provisions or Modified Special Provisions written, etc.) have been completed with arrangements made for utility work to be undertaken and completed as required for proper coordination with the physical construction schedule.  
OR
- An on-site inspection was made, and no utility work shall be involved.  
OR
- Plans were sent to the Utility Companies/Agencies and no utility work is required.

Following utility certification Consultant is not responsible for utility owner's conducting relocations.

#### 10.11. Other Utilities (SHE Activity 7, Task No. 7.17)

The Consultant shall coordinate with subconsultant(s) and utilities, as required.

### 11. Environmental Permits and Environmental Clearances (SHE Activity 8)

The Consultant shall notify the County Project Manager, Environmental Permit Coordinator, and other appropriate County personnel in advance of all scheduled meetings with the regulatory agencies to allow a County representative to attend. The Consultant shall copy in the Project Manager on all permit related correspondence and meetings. The Consultant shall use current regulatory guidelines and policies for all permits required.

The Consultant is expected to obtain permits from the following agencies:

- Broward County Environmental Protection and Growth Management Division (EPGMD) Surface Water Management License
- Broward County EPGMD Tree Removal License
- SFMWD Environmental Resource Permit (ERP)
- SFMWD Water Use

- SFMWD Right of Way Occupancy
- Central Broward Water Control District
- Florida Department of Transportation, District 4 (temp work on Griffin Road)
- USA Corp of Engineers Nationwide Permit
- USA Corp of Engineers 408 Review
- Florida Department of Environmental Protection – NPDES General Permit

#### 11.1. Preliminary Project Research (SHE Activity 8, Task No. 8.1)

The Consultant shall perform preliminary Project research and shall be responsible for regulatory agency coordination to assure that design efforts are properly directed toward permit requirements. Preliminary Project research including obtaining and reviewing existing documents, studies and permits along the corridor. Project research includes review of available: federal, state, and local permit files and databases; and local government information including County and property appraiser data.

#### 11.2. Field Work (SHE Activity 8, Task No. 8.2)

##### 11.2.1. Establish Wetland Jurisdictional Lines and Assessments (SHE Activity 8, Task No. 8.2.2)

The Consultant shall be responsible for, but not limited to, the following activities:

- Determine landward extent of wetlands and other surface waters as detailed in Rule Chapter 62-340, F.A.C., as ratified in Section 373.4211, F.S.; United States Army Corps of Engineers (USACE) Wetland Delineation Manual (Technical Report Y-87-1); Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (ERD/EL TR-10-20).
- Obtain a jurisdictional determination as defined by the rules or regulations of each permitting agency processing a County permit application for the Project.
- Prepare aerial maps showing the jurisdictional boundaries of wetlands and other surface waters. Aerial maps shall be reproducible, of a scale of 1"=400' or more detailed and be recent photography. The maps shall show the jurisdictional boundaries of each agency. Photocopies of aerials are not acceptable. When necessary, a wetland specific survey shall be prepared by a registered surveyor and mapper. All surveyed jurisdictional boundaries are to be tied to the Project's baseline of survey.
- Collect all data and information necessary to determine the jurisdictional boundaries of wetlands and other surface waters as defined by the rules or regulations of each permitting agency processing a permit application for the Project. Wetland boundaries shall be provided to engineer for incorporation into plans.
- Prepare a written assessment of the current condition and functional value of the wetlands and other surface waters. Prepare data in tabular form which includes the ID number for each wetland (and other surface water, if necessary) impacted, size of wetland to be impacted, type of impact, and identify any wetland (by ID number and size) within the Project limits that shall not be impacted by the Project.
- Prepare appropriate agency forms to obtain required permits. Forms may include but are not limited to the USACE "Wetland Determination Data Form – Atlantic and Gulf Coastal Plain Region"; the USACE "Approved Jurisdictional Determination Form"; Uniform Mitigation Assessment Method forms and/or Project-specific data forms.

#### 11.2.2. Specific Surveys (SHE Activity 8, Task No. 8.2.3)

The Consultant shall conduct general wildlife surveys as defined by rules or regulations of any permitting agency or commenting agency that is processing a County permit.

The Consultant shall conduct a visual roosting survey for the Florida Bonneted Bat in accordance with the USFWS 2019 guidance. If cavities are identified above eye height, then an emergence survey shall be conducted at up to four locations for one (1) night.

Results shall be documented in a Technical Memorandum to be included with the USACE permit application package.

#### 11.3. Agency Verification of Wetland Data (SHE Activity 8, Task No. 8.3)

The Consultant shall conduct agency field reviews to obtain verification of wetland and other surface water data identified in Section 11.2 Field Work (SHE Activity 8, Task No. 8.2) and coordinating regulatory agency field reviews, including finalization of assessments and jurisdictional determinations with applicable agencies (SFWMD, USACE, & Broward County EPGMD). Includes preparation of one (1) Agency Verification Package.

#### 11.4. Complete and Submit All Required Wetland Permit Applications (SHE Activity 8, Task No. 8.4)

The Consultant shall collect the data and information necessary to prepare the permit applications and obtain the environmental permits required to construct the Project as identified in the Project Description and as described below. The Consultant shall prepare each permit application in accordance with the rules and/or regulations of the regulatory agency responsible for issuing a specific permit and/or authorization to perform work. The permit application packages shall be submitted to Broward County for their review and approval prior to submitting to the appropriate permitting agency.

The Consultant shall submit all permit applications, as directed by the County, and be responsible for payment of all permit and public noticing fees.

##### 11.4.1. Complete and Submit all Required Wetland Permit Applications (SHE Activity 8, Task No. 8.4.1)

The Consultant prepare, complete, and submit required Environmental permit (i.e. SFWMD ERP, USACE Section 404 Nationwide) application packages to the appropriate regulatory agencies. The application package may include but is not limited to attachments (e.g. Project location map, aerials, affidavit of ownership, pictures, additional technical analysis, etc.), a cover letter with Project description as well as completion of applicable agency forms. The Consultant shall prepare and respond to agency Requests for Additional Information (RAIs), including necessary revisions to the application package.

#### 11.5. Coordinate and Review Dredge and Fill Sketches (SHE Activity 8, Task No. 8.5)

The Consultant shall prepare and review Dredge and Fill Detail sheets to ensure information on the sketches meet the requirements of the regulatory agencies and are appropriate for environmental permit application submittal and acquisition. The Consultant shall also provide environmental data/information as needed to support the preparation of the Dredge and Fill sketches.

11.6. Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application (SHE Activity 8, Task No. 8.7)

Consultant shall prepare a complete package for the ROW Occupancy permit application in accordance with agency(ies) requirements.

11.7. Prepare USACE Section 408 Application to Alter a Civil Works Project (SHE Activity 8, Task No. 8.9)

The Consultant shall prepare the necessary information to prepare Section 408 (33 USC 408) application and obtaining Section 408 permission.

11.8. Mitigation Coordination and Meetings (SHE Activity 8, Task No. 8.11)

The Consultant shall coordinate with the County and mitigation banks to determine availability of credits and obtain letter for inclusion in permit application, as applicable.

11.9. Other Environmental Permits (SHE Activity 8, Task No. 8.12)

The Consultant shall obtain FDOT Construction and Access Permits. The Consultant shall prepare Broward County wetland application package to obtain a wetland license for impacts to wetlands and surface waters. Consultant shall prepare application for and obtain SFWMD Water Use permit for construction dewatering.

11.10. Archeological and Historical resources (SHE Activity 8, Task No. 8.14.2)

The Consultant shall prepare a Cultural Resource Assessment Survey. The Consultant shall coordinate with the County to obtain introductory material, incorporate background research from research design into proper format; develop context, methods, results, references as required by Chapter 1A-46, FAC; prepare maps, Florida Master Site File (FMSF), survey log, prepare draft report, revise per comments and prepare final report; prepare transmittal letter and State Historical Preservation Office (SHPO)/Florida Department of Historical Resources (FDHR) submittal (includes CD with electronic files, photographs, GIS shapefiles, hard copies of report, hard copies of survey log and FMSF forms). The Consultant services shall include testing to FDHR standards.

11.11. Contamination Impact Analysis (SHE Activity 8, Task No. 8.15)

The Consultant shall perform a Phase I Assessment. It will be limited to areas of concern. The Phase I Assessment shall verify that there are no areas of concern in vicinity of the bulkhead where outfall structures shall be located.

## 12. Structures (SHE Activities 9, 10, 12 and 18)

The Consultant shall design the following structures listed below:

A. Short Span Concrete Bridge Widening (SHE Activity 12 and 18).

a. Pine Island Road Bridge Widening over the C-11 Canal

Description: Bridge with a length of approximately 170 ft and width of approximately 120 ft, comprised of five 11-foot trough lanes, three 11-foot turn lanes, two 6-foot-wide sidewalks, with a 4-foot-wide traffic separator.

B. Retaining Walls (SHE Activity 17):

a. Consultant shall prepare retaining wall plans for the bulkhead wall located adjacent to the northbound side of Pine Island Road.

- C. Miscellaneous Structures (SHE Activity 18):
  - a. Mast Arms at signalized intersections

#### 12.1. Structures – Summary and Miscellaneous Tasks and Drawings (SHE Activity 9)

The Consultant shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 24, Provisions for Work. Individual tasks identified in Sections 12.2, 12.3, and 12.4 are defined in SHE Activities 12, 17 and 18; and within the provision defined in Section 24, Provisions for Work. Contract documents shall display economical solutions for the given conditions.

The Consultant shall provide Design Documentation to the County with each submittal consisting of structural design calculations and other supporting documentation developed during the development of the plans. The design calculations submitted shall adequately address the complete design of all structural elements. These calculations shall be neatly and logically presented on digital media or, at the County's request, on 8 ½"x11" paper and all sheets shall be numbered. The final design calculations shall be signed and sealed by a Florida-licensed professional engineer. A cover sheet indexing the contents of the calculations shall be included and the engineer shall sign and seal that sheet. All computer programs and parameters used in the design calculations shall include sufficient backup information to facilitate the review task.

The Consultant shall prepare Structures Summary and Miscellaneous Tasks and Drawings plan sheets, notes, and details. The plans shall include the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Key Sheet and Index of Drawings, Project Layout, General Notes and Bid Item Notes, Miscellaneous Common Details, Incorporate Report of Core Borings, and Assemble Plan Summary Boxes and Quantities for Bridges.

#### 12.2. Structures – Bridge Development Report (BDR) (SHE Activity 10)

The Consultant shall develop a technical memorandum describing the structural system proposed for the bridge widening.

##### 12.2.1. Constructability Requirements (SHE Activity 10, Task No. 10.26)

The Consultant shall analyze the constructability requirements for the proposed bridge widening.

##### 12.2.2. Report Preparation (SHE Activity 10, Task No. 10.33)

The Consultant shall prepare a technical memorandum to document structural system proposed for the bridge widening.

#### 12.3. Structures – Short Span Concrete Bridge (SHE Activity 12)

The Consultant shall prepare plans for Short Span Concrete Bridge(s) at the location(s) specified in Section 12 Structures (SHE Activities 12).



**12.3.1. Overall Bridge Final Geometry (SHE Activity 12, Task No. 12.1)**

Consultant shall make the determination of final bridge geometry including calculation of vertical and horizontal clearances based on final member sizes and locations, and final Project geometry.

**12.3.2. Expansion/Contraction Analysis (SHE Activity 12, Task No. 12.2)**

Consultant shall make the determination of structure and expansion joint movements and expansion joint type.

**12.3.3. General Plan and Elevation (SHE Activity 12, Task No. 12.3)**

Consultant shall develop the final general plan and elevation details considering potential utility conflicts.

**12.3.4. Construction Staging (SHE Activity 12, Task No. 12.4)**

Consultant shall develop the construction staging activities.

**12.3.5. Approach Slab Plan and Details (SHE Activity 12, Task No. 12.5)**

Consultant shall design approach slab Plans and Details utilizing FDOT standards.

**12.3.6. Miscellaneous Details (SHE Activity 12, Task No. 12.6)**

Consultant shall develop drainage details and Expansion Joints Details, including bridge demolition details of deck barriers.

**End Bent Design and Plans**

**12.3.7. End Bent Geometry (SHE Activity 12, Task No. 12.7)**

Consultant shall design end bent geometry, including beam seat elevations, pile/shaft layout, cut-offs, and bearing pad locations. Consultant shall consider potential conflicts with petroleum pipelines.

**12.3.8. End Bent Structural Design (SHE Activity 12, Task No. 12.8)**

Consultant shall design of bent cap and reinforcement including bar bending details, quantities and determination of pile/shaft loads, tie-back forces.

**12.3.9. End Bent Plan and Elevation (SHE Activity 12, Task No. 12.9)**

Consultant shall develop the End Bent Plan and Elevation.

**12.3.10. End Bent Details (SHE Activity 12, Task No. 12.10)**

Consultant shall develop the End Bent details for wingwalls, pedestal details, sections, etc.

**Intermediate Bent Designs and Plans**

**12.3.11. Bent Geometry (SHE Activity 12, Task No. 12.11)**

Consultant shall design bent geometry, including beam seat elevations, pile layout, cut-offs, and bearing pad locations.



**12.3.12. Bent Stability Analysis (SHE Activity 12, Task No. 12.12)**

Consultant shall design bent, column, footing, dimensions, and reinforcement including bar bending details, quantities, and determination of pile/shaft loads, including Straddle pier and hammerhead with potential integral pier. Based on one analysis only.

**12.3.13. Bent structural Design (SHE Activity 12, Task No. 12.13)**

Consultant shall provide bent structural design. Based on one analysis only.

**12.3.14. Bent Plan and Elevation (SHE Activity 11, Task No. 12.14)**

Consultant shall develop the bent plan and elevation

**Miscellaneous Substructure Design and Plans**

**12.3.15. Foundation Layout (SHE Activity 12, Task No. 12.16)**

Consultant shall develop foundation layout and notes, including the two bridge abutments and pier pile foundation details. Installation table information from geotechnical input.

**Miscellaneous Superstructure Deck Design and Plans**

**12.3.16. Finish Grade Elevation (FGE) Calculation (SHE Activity 12, Task No. 12.17)**

Consultant shall develop top of deck and approach slab finish grade elevations.

**12.3.17. Finish Grade Elevations (SHE Activity 12, Task No. 12.18)**

Consultant shall provide cross-sections, schematic plan, FGE table.

**Cast in Place Slab Bridges**

**12.3.18. Bridge Deck Design (SHE Activity 12, Task No. 12.19)**

Consultant shall develop deck reinforcement details and quantities.

**12.3.19. Superstructure Plan (SHE Activity 12, Task No. 12.20)**

Consultant shall include plan views with bar layout and spacing, barrier joint, light pilaster locations, drain locations, embedded conduit layout, etc. for curved bridge.

**12.3.20. Superstructure Section and Details (SHE Activity 12, Task No. 12.21)**

Consultant shall include cross-section showing concrete deck reinforcement and diaphragms (where necessary).

**Reinforcing Bar Lists**

**12.3.21. Preparation of Reinforcing Bar List (SHE Activity 12, Task No. 12.27)**

Consultant shall develop rebar table.

**Load Rating**

**12.3.22. Load Ratings (SHE Activity 12, Task No. 12.28)**

Consultant shall perform Load Rating as per FDOT standard.

12.4. Structures – Retaining Walls Concrete Bridge (SHE Activity 17)

Consultant shall prepare retaining wall plans for the bulkhead wall located adjacent to the northbound side of Pine Island Road.

12.4.1. Key Sheet (SHE Activity 17, Task No. 17.1)

Consultant shall prepare a key sheet cover retaining wall plans.

12.4.2. Horizontal Wall Geometry (SHE Activity 17, Task No. 17.2)

Consultant shall develop the horizontal wall geometry for 8 wall locations.

12.4.3. Design (SHE Activity 17, Task No. 17.17)

The bulkhead wall will be approximately 7000 ft long and will require multiple design calculations based on the soil type variation.

12.4.4. Vertical Wall Geometry (SHE Activity 17, Task No. 17.18)

Consultant shall design the vertical wall geometry for 8 wall locations.

12.4.5. General Notes, Tables and Misc. Details (SHE Activity 17, Task No. 17.19)

Consultant shall prepare general notes, tables and miscellaneous details.

12.4.6. Wall Plan and Elevations (SHE Activity 17, Task No. 17.20)

Consultant shall prepare wall plans and elevations for the bulkhead adjacent to Pine Island Road.

12.4.7. Details (SHE Activity 17, Task No. 17.21)

Consultant shall prepare details required for multiple cross drains and for tie back details.

12.5. Structures - Miscellaneous (SHE Activity 18)

The Consultant shall prepare plans for Miscellaneous Structure(s) as specified in Section 12 Structures (SHE Activity 18).

**Mast Arms**

12.5.1. Mast Arms (SHE Activity 18, Task No. 18.9)

Consultant shall gather and analyze information. Run Mathcad program. Check Clearances. Prepare construction plans. This considers converting a double mast to two single mast arms or if one additional mast arm within the Project limits requires replacing.

12.5.2. Mast Arms (SHE Activity 18, Task No. 18.9A)

Consultant shall gather and analyze information, run Mathcad program, check clearances, and prepare construction plans. This work includes the mast arm design at Pine Island Road and Forrest Ridge Drive.

12.5.3. Mast Arms Data Table Plan Sheets (SHE Activity 18, Task No. 18.10)

Consultant shall include production of data table plan sheets. 6 mast arms per sheet.

### Noise Barrier Walls

#### 12.5.4. Horizontal Wall Geometry (SHE Activity 18, Task No. 18.21)

Develop noise barrier horizontal wall geometry.

#### 12.5.5. Vertical Wall Geometry (SHE Activity 18, Task No. 18.22)

Develop noise barrier vertical wall geometry.

#### 12.5.6. Summary of Quantities – Aesthetic Requirements (SHE Activity 18, Task No. 18.23)

Consultant shall calculate quantities and develop aesthetic requirements.

#### 12.5.7. Control Drawings (SHE Activity 18, Task No. 18.24)

Consultant shall develop and design control drawings.

#### 12.5.8. Design of Noise Barrier Walls Covered by Standards (SHE Activity 18, Task No. 18.25)

Consultant shall design noise barrier walls utilizing by FDOT standards.

#### 12.5.9. Aesthetic Details (SHE Activity 18, Task No. 18.27)

Consultant shall provide aesthetics details per stakeholder input.

### 13. Signing and Pavement Markings Analysis (SHE Activity 19)

The Consultant shall analyze and document Signing and Pavement Markings Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The Consultant shall perform FDOT and MUTCD compliant signing and pavement markings within the Project limits affected by constructions and TTCP lane shifts.

The Consultant shall obtain the necessary traffic data to prepare a Median Warrant Analysis for a new median opening into the Bamford Sports Complex.

#### 13.1. Traffic Data Analysis (SHE Activity 19, Task No. 19.1)

The Consultant shall obtain the necessary data to prepare the Median Opening Warrant Study.

#### 13.2. Median Opening Warrant Study (SHE Activity 19, Task No. 19.2)

The Consultant shall prepare a Median Warrant Analysis for a new median opening into the Bamford Sports Complex.

#### 13.3. Signing and Pavement Marking Master Design File (SHE Activity 19, Task No. 19.3)

The Consultant shall prepare the Signing & Marking Design file to include all necessary design elements and all associated reference files.

#### 13.4. Multi-Post Sign Support Calculations (SHE Activity 19, Task No. 19.4)

The Consultant shall determine the appropriate column size from the FDOT's Multi-Post Sign Program(s). There are 6 multi-post sign support calculations.

**13.5. Sign Panel Design Analysis (SHE Activity 19, Task No. 19.5)**

Establish sign layout, letter size and series for non-standard signs. There are 17 sign panels.

**13.6. Quantities (SHE Activity 19, Task No. 19.7)**

Consultant shall include all work required to determine the quantities for each plan sheet.

**14. Signing and Pavement Markings Plans (SHE Activity 20)**

The Consultant shall prepare a set of Signing and Pavement Marking Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums that includes the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Key Sheet, Tabulation of Quantities, General Notes/Pay Item Notes, Plan Sheet, Guide Sign Work Sheets, and Special Details.

**15. Signalization Analysis (SHE Activity 21)**

Consultant shall design signal modifications at the proposed intersections of Pine Island Road and Griffin Road; Pine Island Road and Orange Drive; and Pine Island Road and Nova Drive. Consultant shall design new signals at the intersections of Pine Island Road and SW 30 Street; Pine Island Road and SW 36 Street; and Pine Island Road and Forest Ridge Drive (if warranted).

The Consultant shall analyze and document Signalization Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

**15.1. Traffic Data Collection (SHE Activity 21, Task No. 21.1)**

The Consultant shall obtain traffic necessary to prepare a Signal Warrant Analysis at Forest Ridge Drive.

**15.2. Traffic Data Analysis (SHE Activity 21, Task No. 21.2)**

The Consultant shall determine signal operation plan, intersection geometry, local signal timings, pre-emption phasing & timings, forecasting traffic, and intersection analysis run.

**15.3. Signal Warrant Study (SHE Activity 21, Task No. 21.3)**

The Consultant shall prepare a signal warrant study for a proposed signal at Forest Ridge Drive.

**15.4. Systems Timings (SHE Activity 21, Task No. 21.4)**

The Consultant shall determine proper coordination timing plans including splits, force offs, offsets, and preparation of Time Space Diagram.

**15.5. Reference and Master Signalization Design File (SHE Activity 21, Task No. 21.5)**

The Consultant shall prepare the Signalization Design file to include all necessary design elements and all associated reference files.

#### 15.6. Quantities (SHE Activity 21, Task No. 21.10)

Consultant shall include all work required to determine the quantities for each signalized intersection, traffic monitoring site and pedestrian crossing.

#### 15.7. Field Reviews (SHE Activity 21, Task No. 21.14)

The Consultant shall collect information from the maintaining agencies and conduct a field review. The review should include, but is not limited to, the following:

- Existing Signal and Pedestrian Phasing
- Controller Make, Model, Capabilities and Condition/Age
- Condition of Signal Structure(s)
- Type of Detection
- Controller Timing Data

#### 15.8. Technical Meetings (SHE Activity 21, Task No. 21.15)

The Consultant shall attend technical meetings with:

- Broward County Traffic Engineering
- Florida Power and Light (FPL)

### 16. Signalization Plans (SHE Activity 22)

The Consultant shall prepare a set of Signalization Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Key Sheet, Tabulation of Quantities, General Notes/Pay Item Notes, Plan Sheet, Guide Sign Worksheet, Special Service Point Details, and Mast Arm/Monotube Tabulation Sheet.

### 17. Lighting Analysis (SHE Activity 23)

New light system may be constructed along Pine Island Road if warranted. LED type luminaires shall be used. A lighting justification report shall be prepared in accordance with FDOT criteria with major emphasis for intersections where pedestrians and bicyclists are most vulnerable. Consultant shall provide a cost-benefit analysis. The Lighting Design Analysis Report shall include the latest FDOT requirements for intersection lighting to provide increased illumination within crosswalks for pedestrian safety. This report shall include photometric analyses along the roadway and at intersections; and include quantities, cost estimate, and voltage drop calculations. Consideration shall be given to temporary lighting for traffic control as required within the Project limits.

The Consultant shall analyze and document Lighting Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

#### 17.1. Lighting Justification Report (SHE Activity 23, Task No. 23.1)

The Consultant shall prepare a Lighting Justification Report. The Lighting Design Analysis Report shall include the latest FDOT requirements for intersection lighting to provide increased illumination within crosswalks for pedestrian safety. This report shall include photometric analyses along the roadway and at intersections, and include quantities, cost estimate, and voltage drop calculations.

#### 17.2. Lighting Design Analysis Report (LDAR) (SHE Activity 23, Task No. 23.2)

The Consultant shall prepare a Lighting Design Analysis Report (LDAR). The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report. The Consultant shall evaluate one alternative only.

**17.3. Voltage Drop Calculations (SHE Activity 23, Task No. 23.3)**

The Consultant shall submit voltage drop calculations showing the equation(s) used along with the number of luminaries per circuit, the length of each circuit, the size conductor or conductors used, and their ohm resistance values. The voltage drop incurred on each circuit (total volts and percentage of drop) shall be calculated, and all work necessary to calculate the voltage drop values for each circuit should be presented in such a manner as to be duplicated by the County. The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

**17.4. Reference and Master Design Files (SHE Activity 23, Task No. 23.5)**

The Consultant shall prepare the Lighting Design file to include all necessary design elements and all associated reference files.

**17.5. Design Documentation (SHE Activity 23, Task No. 23.7)**

The Consultant shall submit Design Documentation with each plan submittal under a separate cover and not part of the roadway documentation book. At a minimum, the design documentation shall include:

- Correspondence with the power company concerning new electrical service.

**17.6. Quantities (SHE Activity 23, Task No. 23.8)**

Consultant shall determine the quantities for each plan sheet included on the various quantity sheets.

**17.7. Other Lighting Analysis (SHE Activity 23, Task No. 23.11)**

Includes all efforts for a lighting task not covered by an existing defined task including photometric analysis.

**17.8. Field Reviews (SHE Activity 23, Task No. 23.12)**

The Consultant shall collect information from the maintaining agencies and conduct field reviews. The reviews shall include but are not limited to the following:

- Existing Lighting Equipment
- Load Center, Capabilities and Condition/Age
- Condition of Lighting Structure(s)
- Verification of horizontal clearances
- Verification of breakaway requirements

**17.9. Technical Meetings (SHE Activity 23, Task No. 23.13)**

The Consultant shall conduct technical meetings with the following:

- Broward County
- FPL
- Maintaining Agency
- Progress meetings with County Staff
- Phase review meetings with County Staff

## 18. Lighting Plans (SHE Activity 24)

The Consultant shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums, which includes the following sheets necessary to convey the intent and scope of the Project for the purposes of construction: Key Sheet, Summary of Pay Items, Tabulation of Quantities, General Notes/Pay Item Notes, Pole Data, Legend & Criteria, Service Point Details, Plan Sheet, and Special Details.

## 19. Landscape Analysis (SHE Activity 25)

The Consultant shall develop the Landscape plans in coordination with the County and as required by Broward County EPGMD Tree Removal Permit. The Consultant shall design a Landscape plan that is not conflicting with existing and/or proposed underground utilities or any other components of the plans. The Consultant shall analyze and document Landscape Architecture Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

### 19.1. Tree Disposition and Relocation Analysis at Phase I

#### 19.1.1. Data Collection (SHE Activity 25, Task No. 25.1)

Consultant shall visit the site to obtain and verify information regarding existing trees, palms, vegetation, and hardscape elements that shall be impacted by the proposed development. Task also includes identifying applicable local codes and other Project data related to the landscape.

#### 19.1.2. Site Inventory and Analysis for Proposed Landscape (SHE Activity 25, Task No. 25.2)

Consultant shall prepare a site inventory set of plans providing locations for existing trees and palms, their existing conditions, and an evaluation to determine if they are to be incorporated into the proposed design plans or relocated off site.

#### 19.1.3. Planting Design (SHE Activity 25, Task No. 25.3)

Consultant shall prepare planting relocation design based on the proposed relocation site layout, site inventory, and identified landscape areas during the analysis phase. Task to include proposed planting types, layout, and planting theme that is consistent with the planting site.

#### 19.1.4. Cost Estimate (SHE Activity 25, Task No. 25.7)

Consultant shall prepare a cost estimate for the landscape architectural elements detailed in the planting design and hardscape design.

#### 19.1.5. Technical Special Provisions (SHE Activity 25, Task No. 25.8)

Consultant shall prepare technical specifications and special provisions as they relate to landscape architecture.

#### 19.1.6. Meetings (SHE Activity 25, Task No. 25.12)

Consultant shall conduct meetings with the Municipality, County, and/ or other team members during the Project design.



## 19.2. Landscape Analysis at Phase II, III and IV

### 19.2.1. Planting Design (SHE Activity 25, Task No. 25.3a)

Consultant shall prepare planting designs based on the proposed road layout, site inventory, and identified landscape areas during the analysis phase. Task to include proposed planting types, layout, and planting theme that is consistent with the corridor.

### 19.2.2. Irrigation Design (SHE Activity 25, Task No. 25.4a)

Consultant shall prepare irrigation design based on the proposed landscape layout. Task to include determination of water and power source, approximate mainline location, and cost estimate.

### 19.2.3. Hardscape Design (SHE Activity 25, Task No. 25.5a)

Consultant shall prepare hardscape designs based on the proposed road layout, site inventory, and identified landscape areas during the analysis phase. Task to include proposed planting types, layout, and planting theme that is consistent with the corridor.

### 19.2.4. Cost Estimate (SHE Activity 25, Task No. 25.7a)

Consultant shall prepare a cost estimate for the landscape architectural elements detailed in the planting design and hardscape design.

### 19.2.5. Post Design (SHE Activity 25, Task No. 25.19 and 19a)

The Consultant shall provide services during construction. These may include:

- Review of Shop Drawings
- Respond to Request for Information from the Construction Inspection team.
- Field visits, as necessary to clarify design issues during construction.

## 20. Landscape Plans (SHE Activity 26)

The Consultant shall prepare a set of Landscape Plans for Phase I Median Tree Relocations through coordination with Broward County EPGMD, Broward County HCED, and the Town of Davie for the off-site plantings. The Consultant shall prepare a set of Landscape Plans for the on-site plantings in Phases II, III, and IV, which includes the following: Key Sheet, Tabulation of Quantities, General Notes, Tree and Vegetation Protection and Relocation Plans and Tree Disposition Plans, Planting Plans, Planting Details and Notes, Irrigation Plans, Irrigation Details and Notes, and Landscape Maintenance Plan. The Consultant shall provide services during construction.

## 21. Survey

The Consultant shall perform survey tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

The Consultant shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded in approved media and submitted to the County. Field books submitted to the County must be of an approved type. The field books shall be certified by the surveyor in charge of work being performed before the final product is submitted. The survey notes shall include documentation of decisions reached from meetings, telephone conversations or site visits. All like work (such as bench lines, reference points, etc.) shall be recorded contiguously.

### 21.1. Basic Services

The design survey has been provided by County with the solicitation documents. Supplemental survey work is needed to assist in the preparation of the proposed widening for this Project. Below is a list of the additional services needed for this Project:

1. Obtain canal cross sections located along the east side of Pine Island Road from the entrance to the Sports Complex to 100 ft north of Nova Drive. Obtain existing culvert inverts and sizes along the canal including the culvert crossing at Pine Island Road at approximately 600 ft south of the Sport Complex. Cross sections shall be obtained at 50-foot intervals, an approximate distance of 6700 ft. Cross sections shall be obtained from the west top of bank to 25 ft east of the east top of bank, total width of approximately 80 ft.
2. Obtain 8 cross sections at the C-11 Canal:
  - a. 2 at the face of existing bridge east/west,
  - b. 2 at 50 ft east/west of the bridge,
  - c. 2 at 100 ft east/west of the bridge,
  - d. 2 and at 150 ft east/west of the bridge.
3. Obtain cross sections of Pine Island Road from the west right of way line to 25 ft west. Cross sections will terminate at existing walls. The total approximate distance is 9600 ft.
4. Obtain cross sections of Pine Island Road from the east right of way line to 25 ft east for approximately 2900 ft. Cross sections will terminate at walls.
5. Obtain the title search to confirm right of way for 5 parcels.
6. Obtain trees 4 inch in diameter or larger located within the 25 foot area east of the east top of bank of the canal along Pine Island Rd.
7. Survey Deliverables
  - a. Topographic Survey (11"x17" sheets, 1" =40' scale)
  - b. The SURVRD01 file in a Microstation cad format
  - c. An ASCII file of points in terms of x,y,z, description
  - d. A DTM in XML format for Microstation
  - e. Digital signed PDF upon approval
  - f. Combined DTM of survey done by the County and the supplemental survey.

### 21.2. Test Hole Survey:

1. Provide field survey services for verifying horizontal and vertical data for up to 190 utility test holes. The test holes shall be marked by the Subsurface Utility Engineer with markers to obtain the location of the test holes in terms of station and offsets from the centerline of construction.
2. Consultant shall obtain station, offsets and depths of up to 190 utilities. Tie all vertical elevations to a minimum of two checked benchmarks or available datum. The accuracy of these elevations shall be in accordance with established surveying

practices. Utility locations shall be returned to the client in a digital format compatible with the FDOT's CADD systems.

### 21.3. Sketch and Legal Descriptions:

1. Review of Sketches and Legal Descriptions as requested by County. Estimated quantity of four (4).

### 21.4. Underground Utilities (SHE Activity 27, Task No. 27.10)

Upon completion of preliminary design for the improvements of Pine Island Road from Griffin Road to Nova Drive (approximately 3 miles in length), the Consultant shall be required to locate utilities by vacuum excavation that have a high potential for conflicts with the proposed improvements. The Consultant shall obtain precise horizontal and vertical position of the utility by excavating a test hole. The test holes shall be done using vacuum excavation or comparable nondestructive equipment in a manner as to cause no damage to the utility. After excavating a test hole, the Consultant shall perform a field survey to determine the exact location and position of the utility. This work is considered CI/ASCE 38-02 SUE Quality Level A. Test hole estimated quantity of one hundred ninety (190).

Consultant shall:

1. Pick up and review plans showing utilities requiring verification (test hole) within the Project limits. Recommend changes to the utility verification plan based upon utility infrastructure mapping best practices. Obtain utility company records as required.
2. Obtain all necessary permits from city, County, municipality, or other entity to allow the Consultant to work on existing streets, roads, rights-of-way and private property for the purpose of marking, measuring, and recording the location of existing underground utilities.
3. Comply with any and all State Law requirements for notification prior to excavation.
4. Coordinate with utility company inspectors as required.
5. Neatly cut and remove existing paving with the cut area not to exceed 225 square inches (0.14 square meters). Excavate using a method enabling vertical and horizontal exploration through this cut.
6. Excavate test holes in such a manner as to prevent any damage to wrappings, coatings, or other protective coverings, such as vacuum excavation, hand digging, etc...
7. Be responsible for any damage to the utility during excavation.
8. Backfill with removed material around utility structure.
9. Furnish, install, and color code a permanent above ground marker (i.e. nail, peg, steel pin, or hub) directly above the centerline of the structure and record the elevation of the marker.
10. Provide a permanent restoration of the pavement within the limits of the original cut at the time of backfill, including backfilling material in six (6) inch lifts (i.e. compacting the material every six (6) inches with a hand tamper at a minimum. If the test hole is excavated in an area other than the roadway pavement, the area disturbed shall be restored to equal or better than the condition before excavation.
11. Provide all maintenance and control of traffic to perform the work. Consultant shall strictly enforce Maintenance of Traffic policies and procedures. All

maintenance and control of traffic shall be performed in accordance with the current State Manual on Traffic Control Procedures for Utilities.

12. Provide complete cleanup of work site to equal or better than before excavation.
13. Provide the following test hole information on a certification form to the client:
  - Elevation of top and/or bottom of utility tied to datum of the furnished plan.
  - Elevation of existing grade over utility test hole.
  - Horizontal location referenced to Project coordinate datum. The Consultant shall perform all required survey work.
  - Outside diameter of pipe or width of duct banks and configuration of non-encased multi-conduit systems.
  - Utility structure material compositions and condition.
  - Identification of benchmarks used to determine elevations.
  - Elevations shall have an accuracy of +/- 0.05 ft (0.015 meters)
14. Close out permits as required.
15. Maintain the quality of the permanent pavement restoration for 1 year.
16. All completed verification services shall be certified by an official of the Consultant firm on the plans. The Consultant shall be responsible for the accuracy of all utility excavations services shown in the plans.

## 22. Noise Analysis/Barriers (SHE Activity 32)

### 22.1. Noise Analysis (SHE Activity 32.1)

The Consultant shall conduct a qualitative review of the existing Noise Study Report prepared in May 2020.

### 22.2. Public Involvement (SHE Activity 32.6)

The Consultant shall attend two public meetings and provide responses to comments by stakeholders.

## 23. Geotechnical (SHE Activity 35)

The Consultant shall provide geotechnical testing required for roadway, structures and drainage design as noted below:

### ROADWAY AND BRIDGE GEOTECHNICAL SERVICES

#### Geotechnical Field Investigation

1. Bridge Bent/Pier Borings – Two (2) Standard Penetration Test (SPT) borings to 100 ft each.
2. Bulkhead Wall Borings– Total of Forty-four (44) SPT borings ten (10) SPT borings to a 60 ft depth and thirty-four (34) at 45 ft depth.
3. Mast Arm Borings – Two (2) SPT borings to 25 ft each.
4. Lighting Structures – Shall use the borings performed for the utilities/ stormwater structures.
5. Roadway/Utilities/Stormwater Structures Borings – Thirty-one (31) SPT borings to 10 ft depth. An additional 300 ft SPT boring is allocated to locate the bottom of the muck depth up to a maximum of 20 ft depth.
6. Percolation /Exfiltration Tests – 9 tests at a depth of 10 ft each & 5 to depth of 15 ft each.
7. Pavement Cores – Eight (8) pavement cores with 2 ft hand augers at each core location.

### Laboratory Testing

1. On the six (6) bulk samples obtained from the upper 4 ft of material (expected to be a fill layer) below the proposed base course layer, perform 6 LBR tests to allow determination of the LBR in accordance with FDOT protocol.
2. Corrosion testing of soil – 8 series of tests accomplished as follows: Eight (8) soil series of test every 1,500 LF along the alignment, including one test at the bridge location.
3. Corrosion testing on canal surface water – 1 series of tests at the bridge structure location.
4. Grain size analyses – Up to a total of 53 samples shall be tested.
5. Moisture content determinations – Up to a total of 41 samples shall be tested.
6. Atterberg Limits – Up to a total of 10 samples shall be tested.
7. Organic Content – Up to a total of 20 samples shall be tested.
8. Unit weight determinations on undisturbed Shelby tube samples – Up to 10 Shelby tubes shall be obtained.
9. Consolidation tests – Up to a total of 5 samples shall be tested (this shall require undisturbed Shelby tube samples to be obtained on the organic stratum – load, unload and reload with final unload for each).
10. Unconsolidated Undrained Triaxial Tests or Unconfined Compression Tests – Up to a total of 4 samples shall be tested (tests on organic stratum – this shall require undisturbed Shelby tube samples to be obtained).
11. Consolidated Undrained Triaxial Tests – Up to a total of 3 sets of samples (tests on organic stratum – this shall require undisturbed Shelby tube samples to be obtained). For each of the 3 Shelby tubes at least three separate samples from each tube should be tested to generate a Mohr-coulomb failure envelope considering both total and effective stress parameters.

The Consultant shall be responsible for a complete geotechnical investigation. All work performed by the Consultant shall be in accordance with FDOT and other applicable standards.

Before beginning each phase of investigation and after the Notice to Proceed is given, the Consultant shall submit an investigation plan for approval and meet with the County's Project Manager to review the Project scope and County requirements. The investigation plan shall include, but not be limited to, the proposed boring locations and depths, and all existing geotechnical information from available sources to generally describe the surface and subsurface conditions of the Project site. Additional meetings may be required to plan any additional field efforts, review plans, resolve plans/report comments, resolve responses to comments, and/or any other meetings necessary to facilitate the Project.

The Consultant shall notify the County in adequate time to schedule a representative to attend all related meetings and field activities.

### Roadway:

The Consultant shall be responsible for coordination of all geotechnical related field work activities. The Consultant shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained as directed in writing by the County's Project Manager. Obtain pavement cores as directed in writing by the County Project Manager. If required by the County Project Manager, a preliminary roadway exploration shall be performed before the Phase I plans submittal. The preliminary roadway exploration shall be performed, and results provided to the Engineer of Record to assist in setting roadway grades and locating potential problem areas. The preliminary roadway exploration shall be performed as directed in writing by the County Project Manager.

Consultant shall perform specialized field-testing as required by Project needs and as directed in writing by the County Project Manager.

All laboratory testing and classification shall be performed in accordance with applicable FDOT and other applicable standards, such as: ASTM, AASHTO, etc. unless otherwise specified in the contract documents.

**23.1. Document Collection and Review (SHE Activity 35, Task No. 35.1)**

The Consultant shall review printed literature including topographic maps, County agricultural maps, aerial photography (including historic photos), ground water resources, geology bulletins, potentiometric maps, pile driving records, historic construction records and other geotechnical related resources. Prior to field reconnaissance, Consultant shall review U.S.G.S., S.C.S. and potentiometric maps, and identify areas with problematic soil and groundwater conditions.

**23.2. Develop Detailed Boring Location Plan (SHE Activity 35, Task No. 35.2)**

The Consultant shall develop a detailed boring location plan and meet with County Project Manager for boring plan approval. If the drilling program expects to encounter artesian conditions, the Consultant shall submit a methodology(s) for plugging the borehole to the County for approval prior to commencing with the boring program.

**23.3. Stake Borings/Utility Clearance (SHE Activity 35, Task No. 35.3)**

A geotechnical investigation is required for the widening of Pine Island Road from Griffin Road to Nova Dr (approximately 1.88 miles) and consists of widening Pine Island Road from 4 to 6 lanes with bicycle lanes and sidewalks in each direction.

Muck is anticipated throughout the alignment from approx. station 174+00 to 257+00 with the bottom of muck anticipated to depths of up to 8 ft below existing ground surface.

Assuming roadway boring spacing of 500 LF, staggered, estimate of roadway borings include 41 borings to 10 ft depth and 10 borings to 20 ft depth.

**23.4. Muck Probing (SHE Activity 35, Task No. 35.4)**

The Consultant shall provide muck delineation of suspect areas.

**23.5. Coordinate and Develop TTCP's for Field Investigation (SHE Activity 35, Task No. 35.5)**

The Consultant shall coordinate and develop TTCP's for field investigations.

**23.6. Drill Access Permits (SHE Activity 35, Task No. 35.6)**

The Consultant shall coordinate with the Town of Davie and Broward County to obtain right-of-way and MOT permits.

**23.7. LBR/Resilient Modulus Sampling (SHE Activity 35, Task No. 35.9)**

The Consultant shall obtain 3 LBR samples per mile or a minimum of 5 per project.

**23.8. Coordination of Field Work (SHE Activity 35, Task No. 35.10)**



The Consultant shall coordinate all field work required to provide geotechnical data for the Project. These include drainage borings and roadway borings.

**23.9. Soil and Rock Classification – Roadway (SHE Activity 35, Task No. 35.11)**

The Consultant shall obtain soil classifications for roadway borings.

**23.10. Design LBR (SHE Activity 35, Task No. 35.12)**

The Consultant shall provide a design LBR.

**23.11. Laboratory data (SHE Activity 35, Task No. 35.13)**

The Consultant shall process laboratory data.

**23.12. Seasonal High-Water Table (SHE Activity 35, Task No. 35.14)**

The Consultant shall obtain season high water table at 500-foot intervals along the Project.

**23.13. Parameters for Water Retention (SHE Activity 35, Task No. 35.15)**

The Consultant shall provide parameters for water retention (percolation tests).

**23.14. Delineate Limits of Unsuitable Material (SHE Activity 35, Task No. 35.16)**

The Consultant shall coordinate and develop TTCP's for field investigations of muck delineation. The Consultant shall provide a plan view of the muck limits.

**23.15. Electronic Files for Cross sections (SHE Activity 35, Task No. 35.17)**

The Consultant shall provide electronic files for cross sections.

**23.16. Monitor Existing Structures (SHE Activity 35, Task No. 35.19)**

The Consultant shall identify in the plans any adjacent structures which require monitoring.

**23.17. Geotechnical Recommendations (SHE Activity 35, Task No. 35.21)**

The Consultant shall provide the necessary Geotechnical recommendations.

**23.18. Preliminary Roadway Report (SHE Activity 35, Task No. 35.23)**

The Consultant shall provide a Preliminary Roadway Report.

**23.19. Final Report (SHE Activity 35, Task No. 35.24)**

The Final Roadway Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with Project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The Consultant shall respond in writing to any changes and/or comments from the County and submit any responses and revised reports.



**23.20. SPT Boring Drafting (SHE Activity 35, Task No. 35.26)**

Draft SPT borings as directed by the County.

**Structures excluding Noise Walls**

The Consultant shall be responsible for coordination of all geotechnical related fieldwork activities. The Consultant shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained until disposal is authorized by the County Project Manager.

Consultant shall perform specialized field-testing as required by needs of Project and as directed in writing by the County Project Manager.

All laboratory testing and classification shall be performed in accordance with applicable County standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the contract documents.

The staff hour tasks for high embankment fills and structural foundations for bridges, box culverts, walls, high-mast lighting, overhead signs, mast arm signals, strain poles, buildings, and other structures include the following:

**23.21. Develop Detailed Boring Location Plan (SHE Activity 35, Task No. 35.27)**

The Consultant shall develop a detailed boring location plan.

**23.22. Stake Borings/Utility Clearance (SHE Activity 35, Task No. 35.28)**

The Consultant shall stake borings and obtain utility clearance. Assumes up to 4 intersections with mast arm improvements (Orange Dr., SW 36 St., SW 30 St., and Nova Dr.

**23.23. Coordinate and Develop TTCP for Field Investigation (SHE Activity 35, Task No. 35.29)**

The Consultant shall coordinate and develop TTCP plan. All work zone traffic control shall be performed in accordance with the FDOT's Standard Plans Index 102 series.

**23.24. Drilling Access Permits (SHE Activity 35, Task No. 35.30)**

The Consultant shall obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

**23.25. Collection of Corrosion Samples (SHE Activity 35, Task No. 35.32)**

The Consultant shall collect corrosion samples for determination of environmental classifications. Shall collect 1 soil and 1 water sample for the proposed bridge and soil samples every 1,500 LF of alignment.

**23.26. Coordination of Field Work (SHE Activity 35, Task No. 35.33)**

The Consultant shall coordinate all field work required to provide geotechnical data for the Project.

**23.27. Soil and Rock Classification – Structures (SHE Activity 35, Task No. 35.34)**

The Consultant shall refine soil profiles recorded in the field based on the results of laboratory testing.

**23.28. Tabulation of Laboratory Data (SHE Activity 35, Task No. 35.35)**

The Consultant shall tabulate laboratory test results for inclusion in the geotechnical report and for the necessary calculations and analyses.

**23.29. Selection of Foundation Alternatives (BDR) (SHE Activity 35, Task No. 35.37)**

The Consultant shall provide recommendation for bridge foundation.

**23.30. Detailed Analysis of Selected Foundations (SHE Activity 35, Task No. 35.38)**

The Consultant shall provide detailed analyses of selected foundations.

**23.31. Bridge Construction and Testing Recommendations (SHE Activity 35, Task No. 35.39)**

The Consultant shall provide bridge construction and testing recommendations including potential constructability problems.

**23.32. Walls (SHE Activity 35, Task No. 35.41)**

Includes design wall parameters, external wall stability , and construction recommendations. Assumes 50% of the wall borings shall be evaluated.

**23.33. Design Soil Parameters for Signs, Signals, High Mast Lights and Strain Poles and Geotechnical Recommendations (SHE Activity 35, Task No. 35.43)**

The Consultant shall provide soil parameters for signs and traffic signal mast arms.

**23.34. Preliminary Report (BDR) (SHE Activity 35, Task No. 35.45)**

The Consultant shall prepare a preliminary geotechnical report.

**23.35. Final Report – Bridge and Associated Walls (SHE Activity 35, Task No. 35.46)**

The Consultant shall prepare a final geotechnical report for bridge and associated walls.

**23.36. Final Report – Signs, Signals, Box Culvert, Walls, and High Mast Lighting (SHE Activity 35, Task No. 35.47)**

The Consultant shall prepare a final geotechnical report for signals and walls.

**23.37. SPT Boring Drafting Data (SHE Activity 35, Task No. 35.48)**

The Consultant shall prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. The Consultant shall include these drawings in the Final Geotechnical Report. Draft borings, location map, S.C.S. map and U.S.D.A. map as directed by the County. Soil symbols must be consistent with those presented in the latest FDOT Soils and Foundations Handbook.

**23.38. Field Reviews (SHE Activity 35, Task No. 35.51)**

The Consultant shall conduct the necessary field review.

**23.39. Technical Meetings (SHE Activity 35, Task No. 35.52)**

The Consultant shall attend technical meetings with the County.

#### **Noise Walls:**

The Consultant shall be responsible for coordination of all geotechnical related fieldwork activities. The Consultant shall retain all samples until acceptance of Phase IV plans. Rock cores shall be retained until disposal is authorized by the County Project Manager.

The Consultant shall perform specialized field-testing as required by needs of Project and as directed in writing by the County Project Manager.

The Consultant shall perform all laboratory testing and classification in accordance with applicable County standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the contract documents.

The staff hour tasks for high embankment fills and structural foundations for Noise Wall structures include the following:

#### **23.40. Develop Detailed Boring Location Plan (SHE Activity 35, Task No. 35.27a)**

The Consultant shall prepare a detailed boring location plan for the Noise Wall borings.

#### **23.41. Stake Borings/Utility Clearance (SHE Activity 35, Task No. 35.28a)**

The Consultant shall stake out borings. It is based on 19 wall borings to 20 ft each for noise wall barrier walls with approximate spacing of 500 ft.

#### **23.42. Coordinate and Develop TTCPs for Field Investigation (SHE Activity 35, Task No. 35.29a)**

The Consultant shall coordinate and develop TTCP plan for noise wall borings. All work zone traffic control shall be performed in accordance with the FDOT's Standard Plans Index 102 series.

#### **23.43. Drilling Access Permits (SHE Activity 35, Task No. 35.30a)**

The Consultant shall coordinate with the Town of Davie and Broward County any required permits for drilling outside of the County's Right of Way related to the noise wall borings.

#### **23.44. Coordination of Field Work (SHE Activity 35, Task No. 35.33a)**

The Consultant shall coordinate all field work required to provide geotechnical data for the Project. These include noise wall borings.

#### **23.45. Soil and Rock Classification – Roadway (SHE Activity 35, Task No. 35.34a)**

The Consultant shall obtain soil classifications for noise wall borings.

#### **23.46. Tabulation of Laboratory data (SHE Activity 35, Task No. 35.35a)**

The Consultant shall process laboratory data.

#### **23.47. Walls (SHE Activity 35, Task No. 35.41a)**

The Consultant shall develop design wall parameters, provide the external wall stability and construction recommendations. It is based on 4 wall sections.

23.48. Final Report – Signs, Signals, Box Culvert, Walls and High mast Lights (SHE Activity 35, Task No. 35.47a)

The Final Noise Wall Report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with Project limits shown.
- A report of tests sheet that summarizes the laboratory test results, the soil stratification (i.e. soils grouped into layers of similar materials) and construction recommendations relative to Standard Plans Indices 120-001 and 120-002.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- An appendix that contains stratified soil boring profiles, laboratory test data sheets, sample embankment settlement and stability calculations, design LBR calculation/graphs, and other pertinent calculations.
- The Consultant shall respond in writing to any changes and/or comments from the County and submit any responses and revised reports.

23.49. SPT Boring Drafting (SHE Activity 35, Task No. 35.48a)

The Consultant shall draft SPT borings as directed by the County.

23.50. Field Reviews (SHE Activity 35, Task No. 35.51a)

The Consultant shall conduct the necessary field review.

23.51. Technical Meetings (SHE Activity 35, Task No. 35.52a)

The Consultant shall attend technical meetings with the County.

## 24. Provisions for Work

All work shall be prepared with English units in accordance with the latest editions of standards

and requirements utilized by the County which include, but are not limited to, publications such as:

- General:
  - Title 29, Part 1910, Standard 1910.1001, Code of Federal Regulations (29 C.F.R. 1910.1001) - Asbestos Standard for Industry, U.S. Occupational Safety and Health Administration (OSHA)
  - 29 C.F.R. 1926.1101 - Asbestos Standard for Construction, OSHA
  - 40 C.F.R. 61, Subpart M - National Emission Standard for Hazardous Air Pollutants (NESHAP), Environmental Protection Agency (EPA)
  - 40 C.F.R. 763, Subpart E - Asbestos-Containing Materials in Schools, EPA
  - 40 C.F.R. 763, Subpart G - Asbestos Worker Protection, EPA
  - Americans with Disabilities Act (ADA) Standards for Accessible Design
  - AASHTO - A Policy on Design Standards Interstate System
  - AASHTO - Roadside Design Guide
  - AASHTO - Roadway Lighting Design Guide
  - AASHTO - A Policy for Geometric Design of Highways and Streets
  - AASHTO - Highway Safety Manual
  - Rule Chapter 5J-17, Florida Administrative Code (F.A.C.), Standards of Practice for Professional Surveyors and Mappers
  - Chapter 469, Florida Statutes (F.S.) - Asbestos Abatement
  - Rule Chapter 62-257, F.A.C., Asbestos Program

- Rule Chapter 62-302, F.A.C., Surface Water Quality Standards
- Code of Federal Regulations (C.F.R.)
- Florida Administrative Codes (F.A.C.)
- Chapters 20, 120, 215, 455, Florida Statutes (F.S.) - Florida Department of Business & Professional Regulations Rules
- Florida Department of Environmental Protection Rules
- FDOT Basis of Estimates Manual
- FDOT Computer Aided Design and Drafting (CADD) Manual
- FDOT Standard Plans
- FDOT Flexible Pavement Design Manual
- FDOT - Florida Roundabout Guide
- FDOT Handbook for Preparation of Specifications Package
- FDOT Standard Plans Instructions
- FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways ("Florida Greenbook")
- FDOT Materials Manual
- FDOT Pavement Type Selection Manual
- FDOT Design Manual
- FDOT Procedures and Policies
- FDOT Procurement Procedure 001-375-030, Compensation for Consultant Travel Time on Professional Services Agreements
- FDOT Project Development and Environment Manual
- FDOT Project Traffic Forecasting Handbook
- FDOT Public Involvement Handbook
- FDOT Rigid Pavement Design Manual
- FDOT Standard Specifications for Road and Bridge Construction
- FDOT Utility Accommodation Manual
- Manual on Speed Zoning for Highways, Roads, and Streets in Florida
- Federal Highway Administration (FHWA) - Manual on Uniform Traffic Control Devices (MUTCD)
- FHWA - National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide
- FHWA Roadway Construction Noise Model (RCNM) and Guideline Handbook
- Florida Fish and Wildlife Conservation Commission - Standard Manatee Construction Conditions 2005
- Florida Statutes (F.S.)
- Florida's Level of Service Standards and Guidelines Manual for Planning
- Model Guide Specifications - Asbestos Abatement and Management in Buildings, National Institute for Building Sciences (NIBS)
- Quality Assurance Guidelines
- Safety Standards
- Any special instructions from the County
- Roadway:
  - FDOT - Florida Intersection Design Guide
  - FDOT - Project Traffic Forecasting Handbook
  - FDOT - Quality/Level of Service Handbook
  - Florida's Level of Service Standards and Highway Capacity Analysis for the SHS
  - Transportation Research Board (TRB) - Highway Capacity Manual
- Permits:
  - Chapter 373, F.S. - Water Resources

- US Fish and Wildlife Service Endangered Species Programs
  - Florida Fish and Wildlife Conservation Commission Protected Wildlife Permits
  - Bridge Permit Application Guide, COMDTPUB P16591.3C
  - Building Permit
- Drainage:
  - FDOT Drainage Manual
  - FDOT Drainage Design Guide
  - FDOT Erosion and Sediment Control Manual
  - FDOT Drainage Connection Permit Handbook
- Survey and Mapping:
  - All applicable Florida Statutes and Administrative Codes
  - Applicable Rules, Guidelines Codes and authorities of other Municipal, County, State and Federal Agencies.
  - FDOT Aerial Surveying Standards for Transportation Projects Topic 550-020-002
  - FDOT Right of Way Mapping Handbook
  - FDOT Surveying Procedure Topic 550-030-101
  - Florida Department of Transportation Right of Way Procedures Manual
  - Florida Department of Transportation Surveying Handbook
  - Right of Way Mapping Procedure 550-030-015
- Traffic Engineering and Operations and ITS:
  - AASHTO - An Information Guide for Highway Lighting
  - AASHTO - Guide for Development of Bicycle Facilities
  - FHWA Standard Highway Signs Manual
  - FDOT Manual on Uniform Traffic Studies (MUTS)
  - FDOT Median Handbook
  - FDOT Traffic Engineering Manual
  - National Electric Safety Code
  - National Electrical Code
- Florida's Turnpike Enterprise:
  - Florida's Turnpike Plans Preparation and Practices Handbook (TPPPH)
  - Florida's Turnpike Lane Closure Policy
  - Florida's Turnpike Drainage Manual Supplement
  - Rigid Pavement Design Guide for Toll Locations with Electronic Toll Collection
  - Flexible Pavement Design Guide for Toll Locations with Electronic Toll Collection
  - Florida's Turnpike General Tolling Requirements (GTR)
  - Additional Florida's Turnpike Enterprise standards, guides, and policies for design and construction can be found on the FTE Design Website: <http://design.floridasturnpike.com>
- Traffic Monitoring:
  - American Institute of Steel Construction (AISC) Manual of Steel Construction, referred to as "AISC Specifications"
  - American National Standards Institute (ANSI) RP-8-00 Recommended Practice for Roadway Lighting
  - AASHTO AWS D1.1/ANSI Structural Welding Code - Steel
  - AASHTO D1.5/AWS D1.5 Bridge Welding Code



- FHWA Traffic Detector Handbook
- FDOT General Interest Roadway Data Procedure
- FHWA Traffic Monitoring Guide
- FDOT's Traffic/Polling Equipment Procedures

Structures:

- AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications and Interims
- AASHTO LRFD Movable Highway Bridge Design Specifications and Interims
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, and Interims
- AASHTO/-AWS-D1. 5M/D1.5: An American National Standard Bridge Welding Code
- AASHTO Guide Specifications for Structural Design of Sound Barriers
- AASHTO Manual for Condition Evaluation and Load and Resistance Factor Rating (LRFR) of Highway Bridges
- FDOT Bridge Load Rating Manual
- FDOT Structures Manual
- FDOT Structures Design Bulletins (available on FDOT Structures web site only)
- Geotechnical:
  - FHWA Checklist and Guidelines for Review of Geotechnical Reports and Preliminary Specifications
  - Manual of Florida Sampling and Testing Methods
  - Soils and Foundation Handbook
- Landscape Architecture:
  - Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants
- Architectural:
  - Building Codes
  - Florida Accessibility Code for Building Construction
  - Rule Chapter 60D, F.A.C., Division of Building Construction
  - Chapter 553, F.S. - Building Construction Standards
  - ANSI A117.1 2003 Accessible and Usable Building and Facilities
  - Titles II and III, Americans With Disabilities Act (ADA), Public Law 101-336; and the ADA Accessibility Guidelines (ADAAG)
- Florida Building Code:
  - Building
  - Fuel Gas
  - Plumbing
- Architectural - Fire Codes and Rules:
  - National Fire Protection Association (NFPA) - Life Safety Code
  - NFPA 70 - National Electrical Code
  - NFPA 101 - Life Safety Code
  - NFPA 10 - Standard for Portable Fire Extinguishers
  - NFPA 11 - Standard for Low-Expansion Foam Systems
  - NFPA 11A - Standard for High- and Medium-Expansion Foam Systems
  - NFPA 12 - Standard for Carbon Dioxide Extinguishing Systems
  - NFPA 13 - Installation of Sprinkler Systems
  - NFPA 30 - Flammable and Combustible Liquids Code
  - NFPA 54 - National Gas Fuel Code

- NFPA 58 - LP-Gas Code
  - Florida Fire Prevention Code as adopted by the State Fire Marshal - Consult with the Florida State Fire Marshal's office for other frequently used codes
- Architectural - Extinguishing Systems:
  - NFPA 10 - Fire Extinguishers
  - NFPA 13 - Sprinkler
  - NFPA 14 - Standpipe and Hose System
  - NFPA 17 - Dry Chemical
  - NFPA 20 - Centrifugal Fire Pump
  - NFPA 24 - Private Fire Service Mains
  - NFPA 200 - Standard on Clean Agent Fire Extinguishing Systems
- Architectural - Detection and Fire Alarm Systems:
  - NFPA 70 - Electrical Code
  - NFPA 72 - Standard for the Installation, Maintenance and Use of Local Protective Signaling Systems
  - NFPA 72E - Automatic Fire Detectors
  - NFPA 72G - Installation, Maintenance, and Use of Notification Appliances
  - NFPA 72H - Testing Procedures for Remote Station and Proprietary Systems
  - NFPA 74 - Household Fire Warning Equipment
  - NFPA 75 - Protection of Electronic Computer Equipment
- Architectural - Mechanical Systems:
  - NFPA 90A - Air Conditioning and Ventilating Systems
  - NFPA 92A - Smoke Control Systems
  - NFPA 96 - Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment
  - NFPA 204M - Smoke and Heating Venting
- Architectural - Miscellaneous Systems:
  - NFPA 45 - Laboratories Using Chemicals
  - NFPA 80 - Fire Doors and Windows
  - NFPA 88A - Parking Structures
  - NFPA 105- Smoke and Draft-control Door Assemblies
  - NFPA 110 - Emergency and Standby Power Systems
  - NFPA 220 - Types of Building Construction
  - NFPA 241 - Safeguard Construction, Alteration, and Operations
  - Rule Chapter 69A-47, F.A.C., Uniform Fire Safety for Elevators
  - Rule Chapter 69A-51, F.A.C., Boiler Safety
- Architectural - Energy Conservation:
  - Rule Chapter 60D-4, F.A.C., Rules for Construction and Leasing of State Buildings to Insure Energy Conservation
  - Section 255.255, F.S., Life-Cycle Costs
- Architectural - Elevators:
  - Rule Chapter 61C-5, F.A.C., Florida Elevator Safety Code
  - ASME A-17.1, Safety Code for Elevators and Escalators
- Architectural - Floodplain Management Criteria
  - Section 255.25, F.S., Approval Required Prior to Construction or Lease of Buildings
  - Rules of the Federal Emergency Management Agency (FEMA)
- Architectural - Other:
  - Rule Chapter 64E-6, F.A.C., Standards for On Site Sewage Disposal Systems (Septic Tanks)

- Rule Chapter 62-600, F.A.C., Domestic Wastewater Facilities
- Rule Chapter 62-761, F.A.C., Underground Storage Tank Systems
- American Concrete Institute
- American Institute of Architects - Architect's Handbook of Professional Practice
- American Society for Testing and Materials - ASTM Standards
- Brick Institute of America
- DMS - Standards for Design of State Facilities
- Florida Concrete Products Association
- FDOT - ADA/Accessibility Procedure
- FDOT - Building Code Compliance Procedure
- FDOT - Design Build Procurement and Administration
- National Concrete Masonry Association
- National Electrical Code
- Portland Cement Association - Concrete Masonry Handbook
- United State Green Building Council (USGBC)

**EXHIBIT B**  
**MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant Name: R. J. Behar & Company, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Project Manager 3	\$82.88		2.98		\$246.98
Chief Engineer 2	\$77.16		2.98		\$229.94
Senior Engineer 1	\$70.15		2.98		\$209.05
Senior Engineer 2	\$68.27		2.98		\$203.44
Senior Designer	\$49.16		2.98		\$146.50
Engineer 2	\$46.71		2.98		\$139.20
Engineering Intern	\$33.84		2.98		\$100.84
Engineering Technician	\$28.88		2.98		\$86.06

Multiplier of 2.98 is calculated as follows:

OVERHEAD = 136.92%

FRINGE = 33.68%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**EXHIBIT B  
MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: Arehna Engineering Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
MAT Principal Engineer	\$71.81		2.88		\$206.81
MAT Project Manager	\$61.92		2.88		\$178.33
MAT Senior Engineer	\$55.29		2.88		\$159.24
MAT Chief Engineer	\$50.48		2.88		\$145.38
MAT Engineer	\$40.87		2.88		\$117.71
MAT CADD/Computer Technician	\$32.00		2.88		\$92.16
MAT Engineer Intern	\$30.05		2.88		\$86.54
MAT Senior Engineering Technician	\$26.00		2.88		\$74.88
MAT Engineering Technician	\$19.00		2.88		\$54.72
MAT Secretary/Clerical	\$18.00		2.88		\$51.84

Multiplier of 2.88 is calculated as follows:

OVERHEAD = 115.61%

FRINGE = 45.92%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**EXHIBIT B**  
**MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: Craven, Thompson & Associates, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Project Manager 1	\$67.50		2.77		\$186.98
Project Landscape Architect	\$55.75		2.77		\$154.43
Landscape Designer/Landscape Planner	\$38.00		2.77		\$105.26
Landscape Architect	\$38.46		2.77		\$106.53

Multiplier of 2.77 is calculated as follows:

OVERHEAD = 102.80%

FRINGE = 49.15%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$



**EXHIBIT B**  
**MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: Cyriacks Environmental Consulting Services Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Chief Scientist	\$69.72		3.00		\$209.16
Senior Environmental Specialist	\$54.09		3.00		\$162.27
Environmental Specialist	\$26.92		3.00		\$80.76
GIS Specialist	\$25.00		3.00		\$75.00
Scientist	\$19.23		3.00		\$57.69

Multiplier of 3.00 is calculated as follows:

OVERHEAD = 120.00%

FRINGE = 80.03%

OPERATING MARGIN = 0.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**EXHIBIT B  
MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: HSQ Group, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Chief Engineer 2	\$76.92		2.90		\$223.07
Engineer 2	\$64.66		2.90		\$187.51
Senior Engineer 1	\$72.12		2.90		\$209.15
SUR Senior Surveyor	\$43.27		2.90		\$125.48
Designer	\$40.87		2.90		\$118.52
Engineer 1	\$40.19		2.90		\$116.55
SUR Survey/GIS/SUE Analyst 3 (Senior)	\$29.00		2.90		\$84.10
SUR Party Chief	\$25.00		2.90		\$72.50
SUR Survey Technician 3 (Senior)	\$16.50		2.90		\$47.85

Multiplier of 2.90 is calculated as follows:

OVERHEAD = 100.13%

FRINGE = 63.84%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**EXHIBIT B  
MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: InfraMap Corp.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
SUR Project Surveyor	\$41.25		3.00		\$123.75
SUR Field Crew Supervisor I	\$38.23		3.00		\$114.69
CADD/Computer Technician	\$30.72		3.00		\$92.16
Secretary/Clerical	\$26.52		3.00		\$79.56
SUR SUE Technician 3 (Senior)	\$21.73		3.00		\$65.19
SUR SUE Technician 2 (Junior)	\$19.43		3.00		\$58.29
SUR Party Chief	\$18.54		3.00		\$55.62

Multiplier of 3.00 is calculated as follows:

OVERHEAD = 146.50%

FRINGE = 47.91%

OPERATING MARGIN = 2.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**EXHIBIT B**  
**MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant Name: R. J. Behar & Company, Inc.  
Subconsultant Name: Janus Research, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Chief Scientist	\$50.76		2.31		\$117.26
Project Manager 1	\$50.76		2.31		\$117.26
Senior Archaeologist	\$28.75		2.31		\$66.41
Scientist	\$24.08		2.31		\$55.62
Graphic Designer	\$21.70		2.31		\$50.13
Secretary/Clerical	\$16.00		2.31		\$36.96
Archaeologist	\$15.50		2.31		\$35.81

Multiplier of 2.31 is calculated as follows:

OVERHEAD = 110.00%

FRINGE = 0.00%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**Notes:**

Subconsultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**EXHIBIT B  
MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: Masuen Consulting, LLC

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Senior Designer	\$43.27		2.31		\$99.95
Designer	\$36.06		2.31		\$83.30

Multiplier of 2.31 is calculated as follows:

OVERHEAD = 110.00%

FRINGE = 0.00%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**Notes:**

Subconsultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.

**EXHIBIT B  
MAXIMUM BILLING RATES**

Project No: PNC2120376P1  
 Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
 Consultant Name: R. J. Behar & Company, Inc.  
 Subconsultant Name: Smith Engineering Consultants, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
Principal Engineer	\$57.69		2.31		\$133.26
Project Manager 3	\$46.00		2.31		\$106.26
Designer	\$41.20		2.31		\$95.17
Secretary/Clerical	\$20.00		2.31		\$46.20
CADD/Computer Technician	\$28.33		2.31		\$65.44

Multiplier of 2.31 is calculated as follows:

OVERHEAD = 110.00%

FRINGE = 0.00%

OPERATING MARGIN = 10.00%

MULTIPLIER =  $(1 + \text{OVERHEAD} + \text{FRINGE} + ((1 + \text{OVERHEAD} + \text{FRINGE}) \times \text{OPERATING MARGIN})) / 1$

**Notes:**

Subconsultant has elected to use "Safe Harbor" combined fringe benefit and overhead rate of 110% in accordance with Section 5.2.5.



**Exhibit B-1**  
**Reimbursables for Direct Non-Salary Expenses**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant: R. J. Behar & Company, Inc.  
Subconsultant: Arehna Engineering Inc.

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<b>Reimbursable</b> SUBSURFACE EXPLORATION AND LABORATORY SERVICES: (FDOT Job Class Pay Item Number - Name)	<b>Unit</b>	<b>Unit Cost</b>
211 - Asphalt Pavement Coring - 6 inches diameter with base depth check	Each	\$132.00
401 - Geo Auger Borings - Hand & Truck/Mud Bug	Feet	\$10.84
418 - Geo Drill Crew Support Vehicle	Day	\$153.20
427 - Geo Extra Standard Penetration Tests ("SPT") Samples - Truck / Mud Bug 0 - 50 feet	Each	\$38.43
428 - Geo Extra SPT Samples - Truck / Mud Bug 50 - 100 feet	Each	\$43.48
432 - Field Permeability 0 - 10 feet Open-End Borehole Method	Each	\$343.41
433 - Field Permeability 10 - 15 feet Open-End Borehole Method	Each	\$410.95
440 - Geo Grout Boreholes - Truck/ Mud Bug 0 - 50 feet	Feet	\$5.65
441 - Geo Grout Boreholes - Truck/ Mud Bug 50 - 100 feet	Feet	\$6.76
478 - Geo SPT Truck/ Mud Bug 0 - 50 feet	Feet	\$14.45
479 - Geo SPT Truck/ Mud Bug 50 - 100 feet	Feet	\$16.38
488 - Geo Temp Casing 3" Truck / Mud Bug 0 - 50 feet	Feet	\$8.75
489 - Geo Temp Casing 3" Truck / Mud Bug 50 - 100 feet	Feet	\$10.29
514 - Geo Truck/Mud Mobil (30 miles straightline distance)	Each	\$478.56
519 - Shelby Tubes 0-50'	Each	\$117.02
603 - Mobilization Asphalt Coring Equipment	Each	\$328.33
803 – Consolidation	Each	\$489.00
805 - Soils Corrosion Series Florida Method ("FM") 5-550 through 5-553	Each	\$160.73
810 - Soils Limerock Bearing Ratio ("LBR") FM 5-515	Each	\$355.00
811 - Soils Liquid Limit American Association of State Highway and Transportation Officials ("AASHTO") T89	Each	\$50.53
812 - Soils Materials Finer than 200 Sieve FM 1-T011	Each	\$37.20
815 - Soils Minimum Density American Society for Testing and Materials ("ASTM") D4253	Each	\$150.00
817 - Soils Natural Moisture Content Laboratory AASHTO T265	Each	\$13.31
819 - Soils Organic Content Ignition FM 1 T-267	Each	\$40.28

**Exhibit B-1**  
**Reimbursables for Direct Non-Salary Expenses**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant: R. J. Behar & Company, Inc.  
Subconsultant: Arehna Engineering Inc.

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822 - Soils Particle Size Analysis AASHTO T88 (No Hydrometer)	Each	\$62.40
826 - Soils Plastic Limit & Plasticity Index AASHTO T90	Each	\$52.22
836 - Soils Triaxial Compression Consolidated, Undrained AASHTO T 297	Each	\$293.98
837 - Soils Triaxial Compression Unconsolidated, Undrained AASHTO T 296	Each	\$228.91
Maintenance of Traffic	Day	\$500.00

**Exhibit B-1**

**Reimbursables for Direct Non-Salary Expenses**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant: R. J. Behar & Company, Inc.  
Subconsultant: HSQ Group, Inc.

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Reimbursable	Unit	Unit Cost
2-Person Survey Crew	Hour	\$120.35

**Exhibit B-1**  
**Reimbursables for Direct Non-Salary Expenses**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Consultant: R. J. Behar & Company, Inc.  
Subconsultant: Inframap Corp.

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Reimbursable	Unit	Unit Cost
Vacuum Excavations Pervious	Each	\$300.00
Vacuum Excavations Impervious	Each	\$450.00
Subsurface Designation	Crew Hour	\$150.00

# Exhibit C Minimum Insurance Requirements

Exhibit 1  
Page 87 of 95

## INSURANCE REQUIREMENTS

**Project:** Design Services of Pine Island Road for Mobility Improvements from Griffin Road to Nova Drive  
**Agency:** Highway Construction and Engineering Division

TYPE OF INSURANCE	ADDL INSD	SUBR WVD	MINIMUM LIABILITY LIMITS		
				Each Occurrence	Aggregate
<b>GENERAL LIABILITY - Broad form</b> <input checked="" type="checkbox"/> Commercial General Liability <input checked="" type="checkbox"/> Premises-Operations <input type="checkbox"/> XCU Explosion/Collapse/Underground <input checked="" type="checkbox"/> Products/Completed Operations Hazard <input checked="" type="checkbox"/> Contractual Insurance <input checked="" type="checkbox"/> Broad Form Property Damage <input checked="" type="checkbox"/> Independent Contractors <input checked="" type="checkbox"/> Personal Injury <b>Per Occurrence or Claims-Made:</b> <input checked="" type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made <b>Gen'l Aggregate Limit Applies per:</b> <input type="checkbox"/> Project <input type="checkbox"/> Policy <input type="checkbox"/> Loc. <input type="checkbox"/> Other _____	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Bodily Injury Property Damage Combined Bodily Injury and Property Damage Personal Injury Products & Completed Operations	   <b>\$1,000,000</b>	   <b>\$2,000,000</b>
<b>AUTO LIABILITY</b> <input checked="" type="checkbox"/> Comprehensive Form <input checked="" type="checkbox"/> Owned <input checked="" type="checkbox"/> Hired <input checked="" type="checkbox"/> Non-owned <input checked="" type="checkbox"/> Any Auto, If applicable <i>Note: May be waived if no driving will be done in performance of services/project.</i>			Bodily Injury (each person) Bodily Injury (each accident) Property Damage Combined Bodily Injury and Property Damage	   <b>\$500,000</b>	
<input type="checkbox"/> <b>EXCESS LIABILITY / UMBRELLA</b> <b>Per Occurrence or Claims-Made:</b> <input type="checkbox"/> Per Occurrence <input type="checkbox"/> Claims-Made <i>Note: May be used to supplement minimum liability coverage requirements.</i>					
<input checked="" type="checkbox"/> <b>WORKER'S COMPENSATION</b> <i>Note: U.S. Longshoremen &amp; Harbor Workers' Act &amp; Jones Act is required for any activities on or about navigable water.</i>	N/A	<input checked="" type="checkbox"/>	Each Accident	<b>STATUTORY LIMITS</b>	
<input checked="" type="checkbox"/> <b>EMPLOYER'S LIABILITY</b>			Each Accident	<b>\$500,000</b>	
<input checked="" type="checkbox"/> <b>PROFESSIONAL LIABILITY (ERRORS &amp; OMISSIONS)</b> All engineering, surveying and design professionals.	N/A		Each Claim: *Maximum Deductible:	<b>\$1,000,000</b> \$100,000	
<input type="checkbox"/> <b>POLLUTION/ENVIRONMENTAL LIABILITY</b>			Each Claim: *Maximum Deductible:		
<input type="checkbox"/> Installation floater is required if Builder's Risk or Property are not carried. <i>Note: Coverage must be "All Risk", Completed Value.</i>			*Maximum Deductible: CONTRACTORIS RESPONSIBLE FOR DEDUCTIBLE	\$10,000	<b>Completed Value</b>

Description of Operations: "Broward County" shall be listed as Certificate Holder and endorsed as an additional insured for liability, except as to Professional Liability. County shall be provided 30 days written notice of cancellation, 10 days' notice of cancellation for non-payment. Contractors insurance shall provide primary coverage and shall not require contribution from the County, self-insurance or otherwise. Any self-insured retention (SIR) higher than the amount permitted in this Agreement must be declared to and approved by County and may require proof of financial ability to meet losses. Contractor is responsible for all coverage deductibles unless otherwise specified in the agreement.

**CERTIFICATE HOLDER:**

Broward County  
 115 South Andrews Avenue  
 Fort Lauderdale, Florida 33301

 Digitally signed by  
 COLLEEN A. POUNALL  
 Date: 2021.07.02  
 09:07:51 -04'00'

Risk Management Division

**Exhibit D  
Work Authorization**

Agreement Title: \_\_\_\_\_  
Agreement Date: \_\_\_\_\_  
Contract Number: \_\_\_\_\_  
Work Authorization No. \_\_\_\_\_  
Consultant: \_\_\_\_\_

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This Work Authorization is between Broward County and Consultant pursuant to the Agreement. Consultant affirms that the representations and warranties in the Agreement are true and correct as of the date this Work Authorization is executed by Consultant. In the event of any inconsistency between this Work Authorization and the Agreement, the provisions of the Agreement shall govern and control.

The time period for this Work Authorization will be from the date of County's Notice to Proceed until [\_\_\_\_ (\_\_\_\_)] days after the Notice to Proceed, unless otherwise extended or terminated by the Contract Administrator.

**Services to be provided:**

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The applicable not-to-exceed amount stated in the Agreement for the work at issue is: \$[\_\_\_\_\_].

The total fee for goods and services under this Work Authorization is: \$[\_\_\_\_\_] ("Total Fee").

The Total Fee shall be invoiced by Consultant upon written acceptance by County of all goods and services provided under this Work Authorization.

*(Signatures appear on the following page.)*



IN WITNESS WHEREOF, the Parties hereto have made and executed this Work Authorization, effective as of the date the last party signs this Work Authorization.

**County**

\_\_\_\_\_  
Project Manager Date

\_\_\_\_\_  
Contract Administrator Date

Approved as to form by Office of the  
Broward County Attorney:

\_\_\_\_\_  
Board or Designee Date

\_\_\_\_\_  
Assistant County Attorney Date

**Consultant**

WITNESSES

[Name of Consultant]

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signed Date

\_\_\_\_\_  
Print/Type Name

\_\_\_\_\_  
Print/Type Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Print/Type Name

ATTEST

\_\_\_\_\_  
Signed Date

\_\_\_\_\_  
(Print/Type Name of Secretary)

CORPORATE SEAL

**Exhibit E**  
**CBE Subconsultant Schedule**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Facility Name: Pine Island Road

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No.	Firm Name	Discipline
1.	AREHNA ENGINEERING INC.	Geotechnical Engineering
2.	CYRIACKS ENVIRONMENTAL CONSULTING SERVICES INC.	Environmental Engineering
3.	HSQ GROUP, INC.	Survey and Roadway Engineering
4.	SMITH ENGINEERING CONSULTANTS, INC.	Roadway Lighting Engineering



## LETTER OF INTENT

### BETWEEN BIDDER/OFFEROR AND COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

**Solicitation No.:** PNC2120376P1

**Project Title:** Consulting Services for Pine Island Road from Griffin Road to Nova Drive

**Bidder/Offeror Name:** R. J. Behar & Company, Inc.

Address: 6861 SW 196th Avenue, Suite 302 City: Pembroke Pines State: FL Zip: 33332

Authorized Representative: Robert J. Behar, P.E. Phone: 954-680-7771

**CBE Firm/Supplier Name:** AREHNA Engineering, Inc.

Address: 12296 Wiles Rd. City: Coral Springs State: FL Zip: 33076

Authorized Representative: Jessica McRory, PE Phone: 813-758-4465

- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

### Work to be performed by CBE Firm

Description	NAICS <sup>1</sup>	CBE Contract Amount <sup>2</sup>	CBE Percentage of Total Project Value
Geotechnical Engineering Services	541330	\$ 222,904.35	10.37 %
			%
			%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**CBE Firm/Supplier Authorized Representative**

Signature:  Title: President Date: 06/15/2021

**Bidder/Offeror Authorized Representative**

Signature:  Title: President Date: 06/15/2021

<sup>1</sup> Visit [Census.gov](https://www.census.gov) and select [NAICS](#) to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

<sup>2</sup> To be provided only when the solicitation requires that bidder/offeror include a dollar amount in its bid/offer.

*In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*



## LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

**Solicitation No.:** PNC2120376P1

**Project Title:** Consulting Services for Pine Island Road from Griffin Road to Nova Drive

**Bidder/Offoror Name:** R. J. Behar & Company, Inc.

**Address:** 6861 SW 196th Avenue, Suite 302 **City:** Pembroke Pines **State:** FL **Zip:** 33332

**Authorized Representative:** Robert J. Behar **Phone:** 954-680-7771

**CBE Firm/Supplier Name:** CYRIACKS ENVIRONMENTAL CONSULTING SERVICES INC.

**Address:** 3001 SW 15th Street, Suite B **City:** Deerfield Beach **State:** FL **Zip:** 33442

**Authorized Representative:** Guillermo Guzman, VP **Phone:** 954-571-0290

- A. This is a letter of intent between the bidder/offoror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offoror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offoror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

### Work to be performed by CBE Firm

Description	NAICS <sup>1</sup>	CBE Contract Amount <sup>2</sup>	CBE Percentage of Total Project Value
Environmental Services	541620	\$ 46,056.57	2.14 %
			%
			%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**CBE Firm/Supplier Authorized Representative**

**Signature:** Guillermo Guzman **Title:** Vice President **Date:** 06/15/2021

**Bidder/Offoror Authorized Representative**

**Signature:** R. J. Behar **Title:** President **Date:** 06/15/2021

<sup>1</sup> Visit [Census.gov](http://Census.gov) and select [NAICS](#) to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

<sup>2</sup> To be provided only when the solicitation requires that bidder/offoror include a dollar amount in its bid/offer.

*In the event the bidder/offoror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*

**Rev.: June 2018**

**Compliance Form No. 004**



## LETTER OF INTENT

### BETWEEN BIDDER/OFFEROR AND COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

Solicitation No.: PNC2120376P1

Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive

Bidder/Offeror Name: R. J. Behar & Company, Inc.

Address: 6861 SW 196th Avenue, Suite 302 City: Pembroke Pines State: FL Zip: 33332

Authorized Representative: Robert J. Behar, P.E. Phone: 954-680-7771

CBE Firm/Supplier Name: Smith Engineering Consultants, Inc.

Address: 2161 Palm Beach Lakes Blvd., Suite 312 City: West Palm Beach State: FL Zip: 33409

Authorized Representative: Larry M. Smith, P.E./President Phone: 561-616-3911x202

- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

### Work to be performed by CBE Firm

Description	NAICS <sup>1</sup>	CBE Contract Amount <sup>2</sup>	CBE Percentage of Total Project Value
Electrical Engineering Services	541330	\$ 61,686.95	2.87 %
			%
			%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

#### CBE Firm/Supplier Authorized Representative

Signature: [Signature] Title: President Date: 6/15/21

#### Bidder/Offeror Authorized Representative

Signature: [Signature] Title: President Date: 6/15/2021

<sup>1</sup> Visit [Census.gov](http://Census.gov) and select NAICS to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

<sup>2</sup> To be provided only when the solicitation requires that bidder/offeror include a dollar amount in its bid/offer.

*In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*





**LETTER OF INTENT**  
BETWEEN BIDDER/OFFEROR AND  
COUNTY BUSINESS ENTERPRISE (CBE) FIRM/SUPPLIER

This form is to be completed and signed for each CBE firm. If the PRIME is a CBE firm, please indicate the percentage performing with your own forces.

**Solicitation No.:** PNC2120376P1

**Project Title:** Consulting Services for Pine Island Road from Griffin Road to Nova Drive

**Bidder/Offeror Name:** R. J. Behar & Company, Inc.

**Address:** 6861 SW 196th Avenue, Suite 302 **City:** Pembroke Pines **State:** FL **Zip:** 33332

**Authorized Representative:** Robert J. Behar, P.E. **Phone:** 954-680-7771

**CBE Firm/Supplier Name:** HSQ Group Inc.

**Address:** 4577 Nob Hill Road, Suite 205 **City:** Sunrise **State:** FL **Zip:** 33351

**Authorized Representative:** Nour Shehadeh **Phone:** 561-392-0221

- A. This is a letter of intent between the bidder/offeror on this project and a CBE firm for the CBE to perform work on this project.
- B. By signing below, the bidder/offeror is committing to utilize the above-named CBE to perform the work described below.
- C. By signing below, the above-named CBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and CBE affirm that if the CBE subcontracts any of the work described below, it may only subcontract that work to another CBE.

**Work to be performed by CBE Firm**

Description	NAICS <sup>1</sup>	CBE Contract Amount <sup>2</sup>	CBE Percentage of Total Project Value
Surveying, Major Highway Design, Utility Coordination		\$ 327,566.26	15.24 %
			%
			%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**CBE Firm/Supplier Authorized Representative**

**Signature:** [Signature] **Title:** Vice President **Date:** 06/16/2021

**Bidder/Offeror Authorized Representative**

**Signature:** [Signature] **Title:** President **Date:** 06/16/2021

<sup>1</sup> Visit [Census.gov](http://Census.gov) and select [NAICS](#) to search and identify the correct codes. Match type of work with NAICS code as closely as possible.

<sup>2</sup> To be provided only when the solicitation requires that bidder/offeror include a dollar amount in its bid/offer.

*In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*

**Exhibit F**  
**Schedule of Subconsultant**

Project No: PNC2120376P1  
Project Title: Consulting Services for Pine Island Road from Griffin Road to Nova Drive  
Facility Name: Pine Island Road

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No.	Firm Name	Discipline
1.	AREHNA ENGINEERING INC.	Geotechnical Engineering
2.	CRAVEN, THOMPSON & ASSOCIATES, INC.	Landscape Architecture
3.	CYRIACKS ENVIRONMENTAL CONSULTING SERVICES INC.	Environmental Engineering
4.	HSQ GROUP, NC.	Survey and Roadway Engineering
5.	INFRAMAP CORP.	Subsurface Utility Explorations
6.	JANUS RESEARCH, INC.	Archaeological and Historical Resources Consulting
7.	MASUEN CONSULTING, LLC	Irrigation Design
8.	SMITH ENGINEERING CONSULTANTS, INC.	Roadway Lighting Engineering