



Advertise Date: Friday, July 16, 2021

**Lee County Board of County Commissioners
DIVISION OF PROCUREMENT MANAGEMENT**

Consultant Competitive Negotiation Act (CN) Request for Proposal

Solicitation No.:	CN210428MTN		
Solicitation Name:	Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening – Design Services & Owner’s Representative		
Open Date/Time:	Wednesday, August 18, 2021	Time:	2:30 PM
Location:	Lee County Procurement Management 2115 Second Street, 1 st Floor Fort Myers, FL 33901		
Procurement Contact:	Michael Nevarez	Procurement Analyst	
Phone:	(239) 533-8853	Email:	MNevarez @leegov.com
Requesting Dept.	Transportation		

Pre-Solicitation Meeting:

Type: No meeting scheduled at this time

All solicitation documents are available for download at
www.leegov.com/procurement

**Notice to Contractor / Vendor / Proposer(s)****REQUEST FOR PROPOSAL**
Consultant Competitive Negotiation Act (CN)

Lee County, Florida, is requesting proposals from qualified individuals/firms for

CN210428MTN Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening – Design Services and Owner’s Representative

Then and there to be publicly opened and read aloud for the purpose of selecting a vendor to furnish; all necessary labor, services, materials, equipment, tools, consumables, transportation, skills and incidentals required for Lee County, Florida, in conformance with proposal documents, which include technical specifications and/or a scope of work.

Those individuals/firms interested in being considered are instructed to submit, in accordance with specifications, their proposals, pertinent to this project prior to

2:30 PM Wednesday, August 18, 2021

to the office of the **Procurement Management Director, 2115 Second Street, 1st Floor, Fort Myers, Florida 33901.** The Request for Proposal shall be received in a sealed envelope, prior to the time scheduled to receive proposals, and shall be clearly marked with the solicitation name, solicitation number, Proposer name, and contact information as identified in these solicitation documents.

The solicitation documents are available from www.leegov.com/procurement. Documents obtained from sources other than www.leegov.com/procurement are cautioned that the solicitation package may be incomplete. The County’s official Proposer list, addendum(s) and information must be obtained from www.leegov.com/procurement. It is the Proposer’s responsibility to check for posted information. The County may not accept incomplete proposals.

No Pre-proposal Conference is scheduled at this time

It has been determined that the specifications and scope of work within this solicitation are adequate to describe the product or services being requested. A pre-proposal conference and site visit has not been scheduled for this solicitation. Questions regarding this Request for Proposal are to be directed, in writing, to the individual listed below using the email address listed below or faxed to (239) 485 8383 during normal working hours.

Mike Nevarez MNevarez@LeeGov.com

Sincerely,

A handwritten signature in blue ink that reads "Lindsay Cepero".

Lindsay Cepero, CPPO, CPPB
Procurement Manager

*WWW.LeeGov.Com/Procurement is the County’s official posting site

Terms and Conditions
Request for Proposal
Consultant Competitive Negotiation Act (CN)

1. DEFINITIONS

- 1.1. **Addendum/Addenda:** A written change, addition, alteration, correction or revision to a bid, proposal or contract agreement. Addendum/Addenda may be issued following a pre-bid/pre-proposal conference or as a result of a specification or work scope change to the solicitation.
- 1.2. **Approved Alternate:** Solicitation documents may make reference of specific manufacturer(s) or product(s). These references serve only as a recommendation and a guide to minimum quality and performance. The references are not intended to exclude approved alternatives of other manufacturer(s) or product(s).
- 1.3. **Bid/Proposal Package:** A bid/proposal is a document submitted by a vendor in response to some type of solicitation to be used as a basis for negotiations or for entering into a contract.
- 1.4. **Bidder/Responder/Proposer:** One who submits a response to a solicitation.
- 1.5. **County:** Refers to Lee County Board of County Commissioners.
- 1.6. **Due Date and Time/Opening:** Is defined as the date and time upon which a bid or proposal shall be submitted to the Lee County Procurement Management Division. Only bids or proposals received prior to the established date and time will be considered.
- 1.7. **Liquidated Damages:** Damages paid usually in the form of monetary payment, agreed by the parties to a contract which are due and payable as damages by the party who breaches all or part of the contract. May be applied on a daily basis for as long as the breach is in effect.
- 1.8. **Procurement Management:** shall mean the Director of Lee County's Procurement Management Department or designee.
- 1.9. **Responsible:** A vendor, business entity or individual who is fully capable to meet all of the requirements of the bid/proposal solicitation documents and subsequent contract. Must possess the full capability including financial and technical, to perform as contractually required. Must be able to fully document the ability to provide good faith performance.
- 1.10. **Responsive:** A vendor, business entity or individual who has submitted a bid or request for proposal that fully conforms in all material respects to the bid/proposal solicitation documents and all of its requirements, including all form and substance.
- 1.11. **Solicitation:** An invitation to bid, a request for proposal, invitation to negotiate or any document used to obtain bids or proposals for the purpose of entering into a contract.

2. ORDER OF PRECEDENCE

- 2.1. If a conflict exists between the "Terms and Conditions" the following order of precedents will apply:
 - 2.1.1. Florida State Law as applied to Municipal Purchasing in accordance with Title XIX, "Public Business", Chapter 287 "Procurement of Personal Property and Services."
 - 2.1.2. Lee County Procurement Management Department Ordinance 18-22
 - 2.1.3. Special Conditions and Supplemental Instructions
 - 2.1.4. Detailed Scope of Work
 - 2.1.5. These Terms and Conditions

3. RULES, REGULATIONS, LAWS, ORDINANCES AND LICENSES

- 3.1. It shall be the responsibility of the Proposer to assure compliance with all other federal, state, or county codes, rules, regulations or other requirements, as each may apply. Any involvement with the Lee County shall be in accordance with but not limited to:
 - 3.1.1. Lee County Procurement Policy Ordinance 18-22
 - 3.1.2. Florida State Statute 287.055: Consultant Competitive Negotiation Act (CCNA), (CN)
 - 3.1.3. Pursuant to FL § Section 119.071, Public Records, General exemptions from inspection or copying of public records, sealed bids or proposals received by the County. Pursuant to this, solicitation are exempt from public records request (s. 119.07(1) and s. 24(a), Art. I, of the Florida Constitution) until

such time as the agency provides notice of a decision or intended decision (pursuant to s. 119.071(2)) or within 30 days after bid or proposal opening, whichever is earlier.

- 3.1.4. Florida Statute 337.168 Confidentiality of official estimates, identities of potential bidders, and bid analysis and monitoring.
- 3.1.5. FL § Section 607.1501(1) states: A foreign corporation may not transact business in the State of Florida until it obtains a certificate of authority from the Department of State.
- 3.2. **Local Business Tax:** If applicable, provide with proposal.
- 3.3. **License(s):** Proposer should provide, at the time of the opening of the proposal, all necessary permits and/or licenses required for this product and/or service.
4. **RFP – PREPARATION OF PROPOSAL**
 - 4.1. Proposals must be sealed in an envelope, and the outside of the envelope must be affixed with the label included in the forms section.
 - 4.2. **Submission Format:**
 - 4.2.1. Required Forms: complete and return **all** required forms. If the form is not applicable, please return with “Not Applicable” or “N/A” in large letters across the form.
 - 4.2.2. Execution of Proposal: All documents must be properly signed by corporate authorized representative, and where applicable witnessed and corporate and/or notary seals affixed. All proposals shall be typed or printed in ink. The Proposer may not use erasable ink. All corrections made to the proposal shall be initialed.
 - 4.2.3. Should not contain links to other Web pages.
 - 4.3. **Preparation Cost:**
 - 4.3.1. The Proposer is solely responsible for any and all costs associated with responding to this solicitation. No reimbursement will be made for any costs associated with the preparation and submittal of any proposal, or for any travel and per diem costs that are incurred by any Proposer, as a result of this solicitation and subsequent evaluation process.
5. **RESPONSES RECEIVED LATE**
 - 5.1. It shall be the Proposer’s sole responsibility to deliver the proposal submission to the Lee County Procurement Management Division prior to or on the time and date stated.
 - 5.2. Any proposals received after the stated time and date will not be considered. The proposal shall not be opened at the public opening. Arrangements may be made for the unopened proposal to be returned at the Proposer’s request and expense.
 - 5.3. The Lee County Procurement Management Division shall not be responsible for delays caused by the method of delivery such as, but not limited to; Internet, United States Postal Service, overnight express mail service(s), or delays caused by any other occurrence.
6. **PROPOSER REQUIREMENTS (unless otherwise noted)**
 - 6.1. **Responsive and Responsible:** Only proposals received from responsive and responsible Proposers will be considered. The County reserves the right before recommending any award to inspect the facilities and organization; or to take any other necessary action, such as background checks, to determine ability to perform is satisfactory, and reserves the right to reject submission packages where evidence submitted or investigation and evaluation indicates an inability for the Proposer to perform.
 - 6.1.1. Additional sources may be utilized to determine credit worthiness and ability to perform.
 - 6.1.2. Any Proposer or sub-Proposer that will have access to County facilities or property may be required to be screened to a level that may include, but is not limited to fingerprints, statewide criminal. There may be fees associated with these procedures. These costs are the responsibility of the Proposer or sub-Proposer.
 - 6.1.3. Proposers are responsible for ensuring that any required background screening are conducted in accordance with Chapter 435. Proposers shall be aware, understand, and ensure compliance with the statutory requirements regarding background checks. FL Statutes Chapter 435 governs required background screenings for any employees, contractors, subcontractors, or agents of the Proposer who will have contact with any vulnerable person, as defined by statute, or who otherwise are

required to undergo a Level 1 or Level 2 background screening in accordance with Florida law. Such requirements shall flow down to sub-contractors/consultants of the prime Proposer and prime Proposer shall ensure compliance with Chapter 435 of such parties.

6.1.3.1. Documentation of such completed background screenings must be maintained for a period of no less than five (5) years and are subject to audit by Lee County at any time during such five (5) year period.

6.2. **Past Performance:** All vendors will be evaluated on their past performance and prior dealings with Lee County (i.e., failure to meet specifications, poor workmanship, late delivery, etc.) Poor or unacceptable past performance may result in Proposer disqualification.

7. PRE-SOLICITATION CONFERENCE

7.1. A pre-solicitation conference will be held in the location, date, and time specified on the cover of this solicitation. The cover will also note if the pre-solicitation conference is Non-Mandatory or Mandatory. All questions and answers are considered informal. All prospective Proposers are encouraged to obtain and review the solicitation documents prior to the pre-proposal so they may be prepared to discuss any questions or concerns they have concerning this project. All questions must be submitted formally in writing to the procurement staff noted on the first page of the solicitation document. A formal response will be provided in the form of an addendum (see “County Interpretation/Addendums” for additional information.) A site visit may follow the pre-proposal conference, if applicable.

7.2. **Non-Mandatory:** Pre-solicitation conferences are generally non-mandatory, but it is highly recommended that prospective Proposers participate.

7.3. **Mandatory:** Failure to attend a mandatory pre-solicitation conference will result in the proposal being considered **non-responsive**.

8. COUNTY INTERPRETATION/ADDENDUMS

8.1. Each Proposer shall examine the solicitation documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the solicitation shall be **submitted in writing prior to 5:00 PM at least eight (8) calendar days prior to the date when the submission is due.**

8.2. Response(s) will be in the form of an Addendum posted on www.leegov.com/procurement. It is solely the Proposer’s responsibility to check the website for information. No notifications will be sent directly to proposers by Lee County Procurement Management Division associated with this solicitation.

8.3. All Addenda shall become part of the Contract Documents.

8.4. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. Interpretation of the meaning of the plans, specifications or any other contract document, or for correction of any apparent ambiguity, inconsistency or error there in, shall be in writing. Issuance of a written addendum by the County’s Procurement Management Division is the only official method whereby interpretation, clarification or additional information can be given.

9. ADDITIONS, REVISIONS AND DELETIONS

9.1. Additions, revisions, or deletions to the Terms and Conditions, Specifications, Bid Schedule, or other document provided by Lee County Procurement Management Division that changes the intent of the solicitation will cause the solicitation to be non-responsive and the proposal will not be considered. The Procurement Management Director shall be the sole judge as to whether or not any addition, revision, or deletion changes the intent of the solicitation.

10. CONFIDENTIALITY

10.1. Proposers should be aware that all proposals provided are subject to public disclosure and will **not** be afforded confidentiality, unless provided by Chapter 119 Florida Statute.

10.2. If information is submitted with a proposal that is deemed “Confidential” the Proposer must stamp those pages of the proposal that are considered confidential. The Proposer must provide documentation as to validate why these documents should be declared confidential in accordance with Chapter 119, “Public Records,” exemptions.

- 10.3. Lee County **will not reveal engineering estimates or budget amounts for a project** unless required by grant funding or unless it is in the best interest of the County. According to Florida State Statute 337.168: A document or electronic file revealing the official cost estimate of the department of a project is confidential and exempt from the provisions of s. 119.07(1) until the contract for the project has been executed or until the project is no longer under active consideration.

11. CONFLICT OF INTEREST

- 11.1. All Proposers are hereby placed on formal notice that per Section 3 of Lee County Ordinance No. 92-22: The County is prohibited from solicitation of a professional services firm to perform project design and/or construction services if the firm has or had been retained to perform the project feasibility or study analysis.

And:

- 11.2. A professional services firm who has performed or participated in the project feasibility planning, study analysis, development of a program for future implementation or drafting of solicitation documents directly related to this County project, as the primary vendor/consulting team, cannot be selected or retained, as the primary consultant/vendor or named a member of the consulting/contracting team, to perform project design, engineering or construction services for subsequent phase(s) or scope of work for this project. Pursuant to FS. S287.057 (17) the firm will be deemed to have a prohibited conflict of interest that creates an unfair competitive advantage.
- 11.3. Should your proposal be found in violation of the above stated provisions; the County will consider this previous involvement in the project to be a conflict of interest, which will be cause for immediate disqualification of the proposal from consideration for this project.
- 11.4. **Business Relationship Disclosure Requirement:** The award hereunder is subject to the provisions of Chapter 112, Public Officers and Employees: General Provisions, Florida Statutes. All Proposers must disclose with their proposal the name of any officer, director or agent who is also an employee of the Lee County or any of its agencies. Further, all Proposers must disclose the name of any County employee who owns directly or indirectly, an interest of five percent (5%) or more in the Proposer's firm or any of its branches.

12. ANTI-LOBBYING CLAUSE (Cone of Silence)

- 12.1. Following Florida Statute Section 287.057(23), Upon the issuance of the solicitation, prospective Proposers or any agent, representative or person acting at the request of such Proposer shall not have any contact, communicate with or discuss any matter relating in any way to the solicitation with any Commissioner, Evaluation Review Committee, agent or employee of the County other than the Procurement Management Director or their designee. This prohibition begins with the issuance of any solicitation, and ends upon execution of the final contract or when the solicitation has been cancelled. **If it is determined that improper communications were conducted, the Proposer maybe declared non- responsible.**

13. DRUG FREE WORKPLACE

- 13.1. Lee County Board of County Commissioners encourages Drug Free Workplace programs.

14. FLORIDA CERTIFIED ENTERPRISES

- 14.1. The County encourages the use of Florida Certified Enterprises such as such as Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE) firms.
- 14.2. Bidder/Proposer is requested to indicate whether the Firm and/or any proposed sub-consultants are a Florida Certified Enterprise. Lee County encourages the utilization and participation of DBE, MBE, WBE, VBE or similar in procurements, and evaluation proceedings will be conducted within the established guidelines regarding equal employment opportunity and nondiscriminatory action based upon the grounds of race, color, sex or national origin. Interested Florida Certified Enterprises such as Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE) firms and similar are encouraged to submit.

15. ANTI-DISCRIMINATION/EQUAL EMPLOYMENT OPPORTUNITY

- 15.1. The Proposer agrees to comply, in accordance with Florida Statute 287.134, 504 of the Rehabilitation Act of 1973 as amended, the Americans with Disabilities Act of 1990 (ADA), the ADA Amendments Act of 2008 (ADAAA) that furnishing goods or services to the County hereunder, no person on the grounds of race, religion, color, age, sex, national origin, disability or marital status shall be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination.
- 15.2. The Proposer will not discriminate against any employee or applicant for employment because of race, religion, color, age, sex, national origin, disability or marital status. The Proposer will make affirmative efforts to ensure that applicants are employed and that employees are treated during employment without regard to their race, religion, color, age, sex, national origin, disability or marital status.
- 15.3. The Proposer will include the provisions of this section in every sub-contract under this contract to ensure its provisions will be binding upon each sub-contractor. The Proposer will take such actions in respect to any sub-contractor, as the contracting agency may direct, as a means of enforcing such provisions, including sanctions for non-compliance.
- 15.4. An entity or affiliate who has been placed on the State of Florida's Discriminatory Vendor List (This list may be viewed by going to the Department of Management Services website at <http://www.dms.myflorida.com>) may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not award or perform work as a vendor, supplier, sub-contractor, or consultant under contract with any public entity, and may not transact business with any public entity.

16. SUB-PROPOSER/CONSULTANT

- 16.1. The use of sub-Proposer/consultant under this solicitation is not allowed without prior written authorization from the County representative.

17. RFP - PROJECT GUIDELINES

- 17.1. The County has established the following Guidelines, Criteria, Goals, Objectives, Constraints, Schedule, Budget and or Requirements which shall service as a guide to the Proposer(s) in conforming the professional services and work to provide pursuant to this Agreement/Contract:
 - 17.1.1. No amount of work is guaranteed upon the execution of an agreement/contract.
 - 17.1.2. Hourly rates and all other negotiated expenses will remain in effect throughout the duration of the agreement/contract period; inclusive of any renewals unless otherwise specified herein.
 - 17.1.3. This contract does not entitle any firm to exclusive rights to County agreements/contracts. The County reserves the right to perform any and all available required work in-house or by any other means it so desires.
 - 17.1.4. In reference to vehicle travel, mileage and man-hours spent in travel time, is considered incidental to the work and not an extra compensable expense.
 - 17.1.5. Lee County reserves the right to add or delete, at any time, and or all tasks or services associated with this agreement.
 - 17.1.6. Any Single Large Project: The County, in its sole discretion, reserves the right to separately solicit any project that is outside the scope of this solicitation, whether through size, complexity or the dollar value.

18. RFP – EVALUATION

- 18.1. **Ranking Method:** Lee County uses the Dense Ranking (1223" ranking). In Dense Ranking, items that compare equal, receive the same ranking number, and the next item(s) receive the immediately following ranking number. Equivalently, each item's ranking number is 1 plus the number of items ranked above it that are distinct with respect to the ranking order. This ranking method is used for each individual committee member's scores. Thus if A ranks ahead of B and C (which compare equal) which are both ranked ahead of D, then A is ranked number 1("first"), B is ranked number 2 ("joint second"), C is also ranked number 2 ("joint second") and D is ranked number 3 ("third").
- 18.2. **Evaluation Meeting(s):**
 - 18.2.1. The first evaluation will rank Proposers based on the scores from the selection criteria point values.

- 18.2.2. Following the initial evaluation process, the short-listed proposer(s) may be required to provide an on-site interview/presentation.
- 18.2.3. Such subsequent evaluations are to be accomplished by simply ranking the Proposers based off the details provided through the on-site interview/presentation. Proposers will be ranked in sequential order with one (1) being the highest ranking. Proposers' rankings will then be totaled with the total lowest scores receiving final rank order starting with one (1) that shall indicate the highest technically evaluated and most qualified Proposer by the evaluation committee.
- 18.2.4. Proposed short-list and final selection meeting dates are posted on the Procurement Management web page: www.lee.gov/procurement (Projects, Award Pending.)

19. RFP – SELECTION PROCEDURE

- 19.1. The selection will be made in accordance with Lee County Procurement Policy and Chapter 287.055 FL § for Professional Services Contracts. Some or all of the responding Proposer(s) may be requested to provide interviews and/or presentations of their proposal, for the ranking process
- 19.2. Agreement/Contract fees will be negotiated in accordance with Section 287.055 FL §.
- 19.3. The recommendation to award, negotiated rates and agreement/contract(s) will be submitted to the Board of County Commissioners for approval.
- 19.4. If a satisfactory agreement/contract(s) cannot be negotiated, in a reasonable amount of time, the County, in its sole discretion, may terminate negotiations with the selected Proposer(s) and begin agreement/contract negotiations with the next finalist.
- 19.5. The Procurement Management Director reserves the right to exercise their discretion to:
 - 19.5.1. Make award(s) to one or multiple Proposers.
 - 19.5.2. Waive minor informalities in any response;
 - 19.5.3. Reject any and all proposals with or without cause;
 - 19.5.4. Accept the response that in its judgment will be in the best interest of Lee County.

20. RFP – TIEBREAKER

- 20.1. In the event of a tie, two or more proposers that have the same ranking, the following steps will be taken to determine the highest ranked proposer. This method shall be used for all (RFP) ties.
 - 20.1.1. Step 1: The proposer that has the highest number of 1st place rankings shall be deemed the first ranked proposer. In the event a tie still exists the proposer with the highest number of 2nd, place rankings shall be the first ranked proposer. Should a tie still remain the method used above will continue with each ranking level, 3rd, then 4th, then 5th, etc. rank, will be counted until the tie is broken.
 - 20.1.2. Step 2: At the conclusion of step 1, if all is equal, the proposer having a drug-free work place program, shall be deemed the first ranked proposer.
 - 20.1.3. Step 3: In the event the tie exists then the highest ranked proposer from the first evaluation committee meeting, in which point values were applied, will win the award. One being the highest.
 - 20.1.4. Step 4: At the conclusion of steps 1, 2, 3, if all are equal, the 1st place proposer shall be determined by the flip of a coin.
- 20.2. When the tiebreaker is determined the highest ranked Proposer shall be awarded the contract or receive the first opportunity to negotiate, as applicable.
- 20.3. If an award or negotiation is unsuccessful with the highest ranked Proposer, award or negotiations may commence with the next highest ranked Proposer.

21. RFP – EVALUATION/ SELECTION COMMITTEE

- 21.1. The selection shall be by a Selection Committee consisting of staff representatives from the appropriate County Departments as approved by the Procurement Management Director or designee unless otherwise mandated by law.
- 21.2. The Selection Committee will receive and review written proposals in response to this Request for Proposal (RFP). Responses will be evaluated against a set of criteria to determine those Proposers/Firms most qualified and suited for this project, resulting, where applicable, in a short-list of no fewer than the top ranked three (3) firms to be interviewed or provide presentations.

- 21.3. The County reserves the right, where allowable and applicable, to begin negotiations with the top ranked firm(s) without hosting interviews/presentations.

22. WITHDRAWAL OF PROPOSAL

- 22.1. No proposal may be withdrawn for a period of **180 calendar days** after the scheduled time for receiving proposals. A proposal may be withdrawn prior to the proposal opening date and time. Withdrawal requests must be made in writing to the Procurement Management Director, who will approve or disapprove the request.
- 22.2. A Proposer may withdraw a proposal any time prior to the opening of the solicitation.
- 22.3. After proposals are opened, but prior to award of the contract by the County Commission, the Procurement Management Director may allow the withdrawal of a proposal because of the mistake of the Proposer in the preparation of the proposal document. In such circumstance, the decision of the Procurement Management Director to allow the proposal withdrawal, although discretionary, shall be based upon a finding that the Proposer, by clear and convincing evidence, has met each of the following four tests:
- 22.3.1. The Proposer acted in good faith in submitting the proposal,
- 22.3.2. The mistake in proposal preparation that was of such magnitude that to enforce compliance by the Proposer would cause a severe hardship on the Proposer,
- 22.3.3. The mistake was not the result of gross negligence or willful inattention by the Proposer; and
- 22.3.4. The mistake was discovered and was communicated to the County prior to the County Commission having formally awarded the contract/agreement.

23. PROTEST RIGHTS

- 23.1. Any Bidder that has submitted a formal Response to Lee County, and who is adversely affected by an intended decision with respect to the Award, has the right to protest an intended decision posted by the County as part of the Solicitation process.
- 23.2. Notice of Intended Decision is posted on the Lee County Department of Procurement Management website (www.leegov.com/procurement). Bidders are solely responsible to check for information regarding the Solicitation.
- 23.3. Refer to the "Procurement Protest" section of the Lee County Procurement Ordinance 18-22 for a complete description of the protest process and associated requirements. The ordinance is posted on the Lee County website or may be obtained by contacting the Procurement Management Director.
- 23.4. In order to preserve the right to protest, a written **"Notice Of Intent To File A Protest" must be filed with the Lee County Procurement Management Director within seventy-two (72) hours of Posting of the Notice of Intended Decision.**
- 23.4.1. The notice shall clearly indicate all grounds being claimed for the protest.
- 23.4.2. The notice must be physically received by the Procurement Management Director within the required time frame described above. No additional time will be granted for mailing.
- 23.5. Following receipt of the Notice of Intent to File a Protest, a **"Protest Bond"** and **"Formal Written Protest"** must be filed **within ten (10) business days** of Posting of the Notice of Intended Decision.
- 23.6. **Failure to follow the protest procedures requirement within the time frames as prescribed herein and in the Lee County Procurement Ordinance 18-22 shall constitute a waiver of the right to protest and shall bar any resulting claims.**

24. AUTHORITY TO UTILIZE BY OTHER GOVERNMENT ENTITIES

- 24.1. This opportunity is also made available to any government entity. Pursuant to their own governing laws, and subject to the agreement of the vendor, other entities may be permitted to make purchases at the terms and conditions contained herein. Lee County Board of County Commissioners will not be financially responsible for the purchases of other entities from this solicitation.

25. CONTRACT ADMINISTRATION

- 25.1. **Designated Contact:**

- 25.1.1. The awarded Proposer shall appoint a person(s) to act as a primary contact for all County departments. This person or back-up shall be readily available during normal working hours by phone or in person, and shall be knowledgeable of the terms and procedures involved.
 - 25.1.2. Lee County requires that the awarded Proposer to provide the name of a contact person(s) and phone number(s) which will afford Lee County access 24 hours per day, 365 days per year, of this service in the event of major breakdowns or natural disasters.
 - 25.2. **RFP – Term:**
 - 25.2.1. Unless otherwise stated in the scope of work, specifications, or special conditions the default **contract term shall be one (1) year with three (3), one (1) year renewals for a total of four (4) years upon mutual written agreement of both parties.**
 - 25.2.2. The County reserves the right to renew this contract, or any portion thereof, and to negotiate pricing as a condition for each.
 - 25.2.3. The County’s performance and obligation to pay under this contract, and any applicable renewal options, is contingent upon annual appropriation of funds.
 - 25.3. **RFP – Basis of Award:**
 - 25.3.1. Award will be made to the most responsible and responsive Proposer based on the evaluation criteria.
 - 25.4. **Agreement/Contract:**
 - 25.4.1. The awarded Proposer will be required to execute an Agreement/Contract as a condition of award. A sample of this document may be viewed on-line at <http://www.leegov.com/procurement/forms>.
 - 25.5. **Records:**
 - 25.5.1. Retention: The Proposer shall maintain such financial records and other records as may be prescribed by Lee County or by applicable federal and state laws, rules and regulations. Unless otherwise stated in the specifications, the Proposer shall retain these records for a period of five years after final payment, or until they are audited by Lee County, whichever event occurs first.
 - 25.5.2. Right to Audit/Disclosure: These records shall be made available during the term of the contract as well as the retention period. These records shall be made readily available to County personnel with reasonable notice and other persons in accordance with the Florida General Records Schedule. Awarded Bidder/Proposer(s) are hereby informed of their requirement to comply with FL §119 specifically to:
 - 25.5.2.1. Keep and maintain public records required by the County to perform the service.
 - 25.5.2.2. Upon request from the County’s custodian of public records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided or as otherwise provided by law.
 - 25.5.2.3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the County.
 - 25.5.2.4. Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the contractor or keep and maintain public records required by the County to perform the service. If the contractor transfers all public records to the County upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the County’s custodian of public records, in a format that is compatible with the information technology systems of the County.
 - 25.5.3. Public Record: **IF THE VENDOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE**

VENDOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THE CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT 239-533-2221, 2115 SECOND STREET, FORT MYERS, FL 33901, Email at PRRCustodian@leegov.com or Visit <http://www.leegov.com/publicrecords>.

25.5.4. **Ownership:** It is understood and agreed that all documents, including detailed reports, plans, original tracings, specifications and all data prepared or obtained by the successful Proposer in connection with its services hereunder, include all documents bearing the professional seal of the successful Proposer, and shall be delivered to and become the property of Lee County, prior to final payment to the successful Proposer or the termination of the agreement. This includes any electronic versions, such as CAD or other computer aided drafting programs.

25.6. Termination:

25.6.1. Any agreement as a result of this solicitation may be terminated by either party giving **thirty (30) calendar days advance written notice**. The County reserves the right to accept or not accept a termination notice submitted by the Proposer, and no such termination notice submitted by the vendor shall become effective unless and until the vendor is notified in writing by the County of its acceptance.

25.6.2. The Procurement Management Director may immediately terminate any agreement as a result of this solicitation for emergency purposes, as defined by the Lee County Procurement Management Ordinance 18-22.

25.6.3. Any Proposer who has voluntarily withdrawn from a solicitation without the County's mutual consent during the contract period shall be barred from further County procurement for a **period of 180 days**. The vendor may apply to the Board for a waiver of this debarment. Such application for waiver of debarment must be coordinated with and processed by the Procurement Management Department.

25.6.4. The County reserves the right to terminate award or contract following any of the below for goods or services over \$1,000,000:

25.6.4.1. Contractor is found to have submitted a false certification as provided under FL § 287.135 (5);

25.6.4.2. Contractor has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List;

25.6.4.3. Contractor has engaged in business operations in Cuba or Syria;

25.6.4.4. Contractor has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel – beginning October 1, 2016.

26. WAIVER OF CLAIMS

26.1. Once this contract expires, or final payment has been requested and made, the awarded vendor shall have no more than **thirty (30) calendar days** to present or file any claims against the County concerning this contract. After that period, the County will consider the vendor to have waived any right to claims against the County concerning this agreement.

27. LEE COUNTY PAYMENT PROCEDURES

27.1. All vendors are requested to mail an original invoice to:

**Lee County Finance Department
Post Office Box 2238
Fort Myers, FL 33902-2238**

27.2. All invoices will be paid as directed by the Lee County payment procedure unless otherwise stated in the detailed specification portion of this project.

27.3. Lee County will not be liable for requests for payment deriving from aid, assistance, or help by any individual, vendor, Proposer, or bidder for the preparation of these specifications.

- 27.4. Lee County is generally a tax exempt entity subject to the provisions of the 1987 legislation regarding sales tax on services. Lee County will pay those taxes for which it is obligated, or it will provide a Certificate of Exemption furnished by the Department of Revenue. All Proposers should include in their proposal, all sales or use taxes, which they will pay when making purchases of material or sub-contractor's services.

28. INSURANCE (AS APPLICABLE)

- 28.1. Insurance shall be provided by the awarded Proposer. Upon request, a certificate of insurance (COI) complying with the attached guide shall be provided by the Proposer.

End of Terms and Conditions Section

INSURANCE REQUIREMENTS



<p style="text-align: center;">Lee County Insurance Requirements including Professional Liability</p>
--

Minimum Insurance Requirements: *Risk Management in no way represents that the insurance required is sufficient or adequate to protect the vendors' interest or liabilities. The following are the required minimums the vendor must maintain throughout the duration of this contract. The County reserves the right to request additional documentation regarding insurance provided*

- a. **Commercial General Liability** - Coverage shall apply to premises and/or operations, products and completed operations, independent contractors, contractual liability exposures with minimum limits of:

\$1,000,000 per occurrence
\$2,000,000 general aggregate
\$1,000,000 products and completed operations
\$1,000,000 personal and advertising injury

- b. **Business Auto Liability** - The following Automobile Liability will be required and coverage shall apply to all owned, hired and non-owned vehicles use with minimum limits of:

\$1,000,000 combined single limit (CSL)

- c. **Workers' Compensation** - Statutory benefits as defined by FS 440 encompassing all operations contemplated by this contract or agreement to apply to all owners, officers, and employees regardless of the number of employees. Workers Compensation exemptions may be accepted with written proof of the State of Florida's approval of such exemption. Employers' liability will have minimum limits of:

\$500,000 per accident
\$500,000 disease limit
\$500,000 disease – policy limit

- d. **Errors and Omissions** - Coverage shall include professional liability insurance, to cover claims arising out of negligent acts, errors or omissions of professional advice, privacy and network security insurance covering for losses arising from disclosure of confidential information, or other professional services.

\$1,000,000 per occurrence

**The required minimum limit of liability shown in a. and b. may be provided in the form of "Excess Insurance" or "Commercial Umbrella Policies." In which case, a "Following Form Endorsement" will be required on the "Excess Insurance Policy" or "Commercial Umbrella Policy."*

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Verification of Coverage:

1. Coverage shall be in place prior to the commencement of any work and throughout the duration of the contract. A certificate of insurance will be provided to the Risk Manager for review and approval. The certificate shall provide for the following:
 - a. The certificate holder shall read as follows:

Lee County Board of County Commissioners
P.O. Box 398
Fort Myers, Florida 33902
 - b. *"Lee County, a political subdivision and Charter County of the State of Florida, its agents, employees, and public officials"* will be named as an **"Additional Insured"** on the General Liability policy, including Products and Completed Operations coverage.

Special Requirements:

1. An appropriate **"Indemnification"** clause shall be made a provision of the contract.
2. It is the responsibility of the general contractor to insure that all subcontractors comply with all insurance requirements.

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End of Insurance Guide section

SPECIAL CONDITIONS

These are conditions that are in relation to this solicitation only and have not been included in the County's standard Terms and Conditions or the Scope of Work.

1. PROJECT TERM

- 1.1. The Agreement shall commence on the date agreed upon through negotiations and set forth in the subsequent and associated Agreement documents. The term of this Agreement is anticipated to be for a period of approximately ten (10) years from the commencement date of the Notice to Proceed. The Agreement is to remain in effect for one year following the final completion of construction work associated with this solicitation and Agreement package.

2. FDOT PREQUALIFICATION

- 2.1. Prime CONSULTANT shall be FDOT Prequalified with unlimited status in the Major Work Group listed below and shall have a sub-consultant team FDOT prequalified with Technical Prequalification (<250k) Only or Unlimited Status in all of the Minor Work Groups listed below at the time of proposal submission. Prime CONSULTANT prequalification in Minor Work Groups may be utilized in lieu of sub-consultant prequalification. Every Minor Work Group shall be represented between the Prime and sub-consultants. CONSULTANTS shall be prequalified at time of bid submission; applications pending FDOT approval shall not fulfill this requirement.

Major Work Group: PRIME ONLY

- Group 4.2.1 Major Bridge Design – Concrete

Minor Work Groups: PRIME or SUB

- Group 3.1 - Minor Highway Design
- Group 6.1 - Traffic Engineering Studies
- Group 7.1 – Signing, Pavement Marking and Channelization
- Group 7.2 – Lighting
- Group 7.3 – Signalization
- Group 8.1 – Control Surveying
- Group 8.2 – Design, Right of Way and Construction Surveying
- Group 8.4 – Right of Way Mapping
- Group 9.1 – Soil Exploration
- Group 9.2 – Geotechnical Classification Laboratory Testing
- Group 9.4.1 – Standard Foundation Studies

3. PROPOSER'S NOTICE

- 3.1. This shall serve as notice to all proposers that the Prime CONSULTANT and all associated sub-consultants awarded the contract associated with this solicitation are not eligible to participate or receive award as Prime or sub-consultant or CONTRACTOR to any future and separate Design-Build, CEI, Professional Services-Related, or Construction-Related contracts associated with this project.

End of Special Conditions

DETAILED SPECIFICATIONS

1. GENERAL SCOPE OF WORK

- 1.1. Lee County Board of County Commissioners (COUNTY) is seeking the services of a qualified design consultant (CONSULTANT) to prepare contract documents including plans, specifications, estimates, supporting engineering analysis, calculations and other technical documents for the replacement of the Cape Coral Bridge west bound span, and widening of the east bound span. At the County's sole discretion, the CONSULTANT may transition at approximately the 60 percent design phase into the role of an Owner's Representative in a Design-Build process and act as the COUNTY's Design Criteria Professional and prepare the Design Criteria Package and bidding documents for the solicitation and acquisition of a Design-Build firm.
- 1.2. The contract documents produced by the CONSULTANT 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 systems engineering process to ensure that all required project components are included in the develop of the contract documents and that the project can be built as designed and to specifications or to create a Design Criteria Package and provide services during a Design-Build as the Design Criteria Professional and Owner's Representative.
- 1.3. The CONSULTANT shall proceed with the design of the project from onset to approximately the 60 percent design phase. At that time, the COUNTY shall decide whether to proceed with the completion of design in general accordance with FDOT policy, procedures and requirements to support a standard Design-Bid-Build construction contract, or cease design and transfer the CONSULTANT into the role of Design Criteria Professional and Owner's Representative for a Design-Build project, including the creation of the Design Criteria Package and associated solicitation documents.
 - 1.3.1. The COUNTY shall provide the CONSULTANT with written notice, issued by the Lee County Department of Transportation Director, that the COUNTY has elected to continue with the design as a Design-Bid-Build approach or whether the CONSULTANT shall transition to the role of Design Criteria Professional and Owner's Representative for a Design-Build project approach.
 - 1.3.2. The CONSULTANT shall not exceed 60% design phase without such written notice provided by the COUNTY's Lee County Department of Transportation Director. Failure of the COUNTY to issue written notice does not alleviate the CONSULTANT from seeking such notification from the COUNTY prior to proceeding beyond the 60% design phase.
 - 1.3.3. The COUNTY reserves the right to provide notification of final design approach prior to the 60% design phase or at the point during the project that is deemed in the best interest of the COUNTY to elect the final design approach.
- 1.4. The attached "Exhibit A" is a draft scope of work which shall be negotiated and agreed upon prior to final award of the Agreement.

- 1.4.1. “Exhibit A” contains a draft scope of services for Engineer of Record and Owner’s Representative services. The CONSULTANT shall be required to negotiate a complete scope and fees for both options prior to final award of the Agreement.

2. BACKGROUND

2.1. Cape Coral Parkway Bridge is a principle arterial, four-lane bridge that provide east-west connectivity to Cape Coral Parkway and College Parkway across the Caloosahatchee River. The bridge has a posted speed limit of 45 mph and is the south most crossing of the Caloosahatchee River. The two-lane west bound span was constructed in 1963 and is scheduled for replacement. The two-lane east bound span was constructed in 1989 and is scheduled to be widened to accommodate multimodal traffic. Lee County Metropolitan Planning Organization’s Long-Range Transportation Plan (LRTP) has identified the reconstruction of the Cape Coral Parkway Bridge as 3rd on the list of ‘Roadway Needs’ for the 2045 LRTP. The proposed typical section for the reconstructed bridge is to have a six-lane section with three (3)-lanes headed in each direction, an on road bike lane and a sheltered pedestrian walkway in each direction. The COUNTY’s goals for this project include:

1. To construct a safe six-lane bridge facility.
2. Construct the proposed facility within the right-of-way identified for this project or to identify and acquire the minimum amount of additional right-of-way during the design and permitting process.
3. To include a sheltered pedestrian sidewalks on each bridge that tie into the pedestrian facilities on Cape Coral Parkway and College Parkway.
4. To minimize the life cycle cost of the facility without sacrificing design features or safety.
5. To design Lee County Utilities utility relocation plans.
6. To negotiate professional services to either design and permit full construction documents for the reconstruction of the Cape Coral Parkway Bridge as the Engineer of Record (EOR) or at approximately 60-percent plans to transition roles and become the COUNTY Owner’s Representative and serve as the project’s Design Criteria Professional for a Design-Build construction.

End of Detailed Specifications

SUBMITTAL REQUIREMENTS & EVALUATION CRITERIA

1. **SUBMITTAL REQUIREMENTS & EVALUATION CRITERIA**

- 1.1 Interested firms shall include the following information in their submittal responses to this solicitation. The following format and sequence should be followed in order to provide consistency in the firm's responses and to ensure each proposal receives full consideration. Use 8 ½ x 11 sheet pages only with minimum font size of 10 points and with tabs or section dividers to separate sections as defined below. More than one section is permitted on one page unless otherwise indicated below. Undesignated information shall be inserted at the rear of each package. Place page numbers at the bottom of every page, excluding dividers. Proposal documents should not contain links to other web pages; such links will not be reviewed for evaluation purposes.
- 1.2 Submittal package may not exceed **10 pages** printed single-sided; **page restriction excludes required forms found herein and dividers**. **PLEASE INCLUDE PAGE TABS/SECTION DIVIDERS** so that those evaluating your submittal can easily compare each section with others that are submitted. If any of the information provided by the Proposer is found to be, in the sole opinion of the Evaluation Committee and Procurement Management Director, substantially unreliable their proposal may be rejected.
- 1.3 Proposers shall submit one (1) original hard copy (clearly marked as such) and one (1) electronic version on a USB flash drive set(s) containing the proposal submittal in an unlocked PDF format. The County may request specific files be submitted in specialty format (IE: Provide a Project Timeline in Excel format.) Vendor shall accommodate such specialty requests as stated within the submittal requirements describe herein. Should files not be provided in the format or quantity as requested Vendor may be deemed Non-Responsive and therefore ineligible for award. In case of any discrepancies, the original will be considered by the County in evaluating the Proposal, and the electronic version is provided for the County's administrative convenience only. Limit the color and number of images to avoid unmanageable file sizes.

COVER PAGE: Introduction

- Project RFP Number & Name
- Firm's Name & Address
- Firm's Contact Person & Information (phone, fax and email address)
- How many years has Proposer been in business under present name?
- Under what other former names has your organization operated?

Cover Page: Introduction does NOT count towards page restriction requested herein.

TAB 1: Qualifications of Firm

- Provide a description of your firm, your firm's experience, and underlying philosophy in providing the services as described and requested herein. Description should include details such as: abilities, capacity, skill, strengths, number of years, location of office(s), as well as MBE, WBE, DBE, VBE or similar status, and recent, current, and/or projected workload, etc...

TAB 2: Company Relevant Experience & Reference

- Provide details of a maximum of three (3) projects similar in scope and size to that being requested through this solicitation that your firm has completed recently. Details for each project example provided should include:
 - Project Name
 - Project Address
 - Customer Name
 - Customer Contact Information
 - Point of contact Name, Phone, and Email

- Brief description of work provided.
 - Initial costs of work
 - Final costs of work
 - Number of change orders
 - Total completion time (From Notice to Proceed to Final Invoice payment)
- Provide a statement of understanding that your firm recognizes the County reserves the right to evaluate the proposing Firm on their past performance and prior dealings with Lee County (i.e., failure to meet specifications, poor workmanship, late delivery, etc.) as part of their experience criteria.

TAB 3: Firm's Knowledge of the Project and Plan of Approach

- Provide a detailed Plan of Approach that explains how your firm intends to comply with and meet the anticipated deliverables as detailed within this solicitation.
- Plan of approach shall provide for the following elements in detail:
 - Discuss in detail anticipated construction phasing of the project and potential problems that may hinder construction.
 - Explain how your Firm will ensure that four (4) lanes of traffic are maintained at all times during construction.
 - Describe in detail how your Firm will handle the potential transition from being in the role of the project Engineer of Record in a Design-Bid-Build process to the role of Owner's Representative and Design Criteria Professional in a Design-Build process at approximately the 60% design mark and complete the project Design Criteria Package.

TAB 4: Personnel

- Provide a detailed description of the firm's **specific** project management team, inclusive of sub-Consultants anticipated to be utilized, that will be assigned to the Lee County contract. Identify the roles and responsibilities of the primary team members as they pertain/apply to the Project Approach and include details that demonstrate individual's knowledge and understanding of the types of services to be performed as well as previous experience in similar or related work.
- Firm must identify staff member that will serve as Project Director that shall be authorized and responsible to act on behalf of the Consultant with respect to directing, coordinating and administering all aspects of the services to be provided and performed.
- Provide a statement acknowledging your firm's understanding that the project management team/key team members assigned to the Lee County contract, as described above, shall not be substituted without the expressed permission of Lee County.
- Provide resumes, licensure, and certifications of proposed **specific** project management team, inclusive of sub-Consultants anticipated to be utilized, to be assigned to the Lee County contract.
- *Resumes are not included within page restrictions, but should be limited to one (1) page per person.**
- *Firms are encouraged to submit valid copies of MBE, WBE, DBE, VBE or similar certifications for adequate committee consideration."*

TAB 5: Required Forms

- Forms 1- 8

2. SCORING CRITERIA & WEIGHT

CRITERIA / TAB	CRITERIA DESCRIPTION	MAX. POINTS AVAILABLE
1	QUALIFICATIONS OF FIRM	10
2	COMPANY RELEVANT EXPERIENCE & REFERENCE	15
3	FIRM'S KNOWLEDGE AND PLAN OF APPROACH	60
4	PERSONNEL	15
TOTAL POINTS		100
<i>*Additional details and documents found within submittal package, although not located within tabs as listed above, may be reviewed and considered by evaluation committee when scoring Proposers.</i>		

3. RFP SUBMISSION SCHEDULE

Submission Description	Date(s)	Time
Advertise Request for Proposal (RFP)	Friday, July 16, 2021	N/A
Pre-Proposal Meeting	N/A	N/A
Proposal Question Deadline	8 Calendar days prior to submission deadline	Prior to 5:00 PM
Submission Deadline	Wednesday, August 18, 2021	Prior to 2:30 PM
First Committee Meeting & Discussion	Thursday, September 9, 2021	8:30 AM
Notify Shortlist Selection via e-mail (If applicable)	Tuesday, September 14, 2021	N/A
Final Scoring/Selection Meeting (If applicable)	Monday, October 11, 2021	8:30 AM
Board Meeting	Tuesday, December 2, 2021	9:30 AM
Additional notes on Submission Schedule: <ul style="list-style-type: none"> <i>Submission Schedule is provided as a guideline only and is subject to change at the discretion of Lee County authorized personnel.</i> <i>Changes in closing date or other parameters may occur and will be posted to the Lee County Procurement website. It shall be the responsibility of Contractor to verify all dates through County website.</i> <i>Unless otherwise stated, location of all openings and meetings will take place at 2115 Second Street, 1st Floor, Fort Myers, FL 33901.</i> 		

End of Submittal Requirements & Evaluation Criteria Section

FORMS DESCRIPTION & INSTRUCTIONS

REQUEST FOR PROPOSAL CCNA

This table provides a brief list, description, and instructions regarding the standard requested forms that should be submitted with all bids or proposals. This is not intended to be an all-inclusive list of forms required for your submission, but rather a guide to assist in completion of the County's standard forms.

Form # **Title/Description**

1 Solicitation Response Form

All signatures must be by a corporate authorized representative, witnessed, and corporate and/or notary seal (if applicable.) The corporate or mailing address must match the company information as it is listed on the Florida Department of State Division of Corporations. Attach a copy of the web-page(s) from <http://www.sunbiz.org> as certification of this required information. Sample attached for your reference.

Verify that all addenda and tax identification number have been provided.

**** Business Relationship Disclosure Requirement***

Sections 112.313(3) and 112.313(7), F.S., prohibit certain business relationships on the part of public officers and employees, their spouses, and their children. If this **disclosure is applicable, the Bidder must request the form entitled "INTEREST IN COMPETITIVE BID FOR PUBLIC BUSINESS"** (Required by § 112.313(12)(b), F.S.) to be completed and **returned with the Solicitation Response**. **It is the Bidder's responsibility to request the form and disclose this relationship; failure to do so may result in being declared non-responsive.**

NOTICE: UNDER THE PROVISIONS OF § 112.317, F.S., A FAILURE TO MAKE ANY REQUIRED DISCLOSURE CONSTITUTES GROUNDS FOR, AND MAY BE PUNISHED BY, ONE OR MORE OF THE FOLLOWING: IMPEACHMENT, REMOVAL OR SUSPENSION FROM OFFICE OR EMPLOYMENT, DEMOTION, REDUCTION IN SALARY, REPRIMAND, OR A CIVIL PENALTY NOT TO EXCEED \$10,000.00.

2 Affidavit Certification Immigration Laws

Form is acknowledgement that the Proposer is in compliance in regard to Immigration Laws.

3 Reference Survey

Provide this form to reference respondents. This form **will be turned in with the proposal** package.

1. **Section 1:** Bidder/Proposer to complete with reference respondent's information prior to providing to them for their response. (This is **not** the Bidder/Proposer's information.)
2. **Section 2:** Enter the name of the Bidder/Proposer; provide the project information in which the reference respondent is to provide a response.
3. The reference respondent should complete "**Section 3.**"
4. **Section 4:** The reference respondent to print and sign name
5. **Three (3) Reference responses** are to be **returned with the proposal package**.
6. Failure to obtain reference surveys may make your company non-responsive.

4 Negligence or Breach of Contract Disclosure Form

The form may be used to disclose negligence or breach of contract litigation that your company may be a part of over the past ten years. You may need to duplicate this form to list all history. If the Proposer has more than 10 lawsuits, you may narrow them to litigation of the company or subsidiary submitting the solicitation response. Include, at a minimum, litigation for similar projects completed in the State of Florida. Final outcome should include in whose favor the litigation was settled and was a monetary amount awarded. The settlement amount may remain anonymous.

If you have **no litigation**, enter "**None**" in the first "**type of incident**" block of the form. Please do not write N/A on this form.

- 5 ***Affidavit Principal Place of Business***
Certifies Proposer's location information
- 6 ***Sub-Contractor/Consultant List*** (if applicable)
To be completed and returned when sub-contractor/consultants are to be utilized and are known at the time of the submission.
- 7 ***Public Entity Crimes Form***
Any person or affiliate as defined by statute who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid or a contract to provide any goods or services to the County; may not submit a bid on a contract with the County for the construction or repair of a public building or public work; may not submit bids or leases of real property to the County; may not be awarded or perform works as a contractor, supplier, subcontractor, or consultant under a contract with the County, and may not transact business with the County in excess of \$25,000.00 for a period of 36 months from the date of being placed on the convicted vendor list.
- 8 ***Minimum Qualification Requirements*** (RFP-CCNA) *(if applicable)*
Provide relevant project information.
States the minimum qualifications the Bidder/Proposer is required to meet in order to be considered for award or evaluation.
- * ***Proposal Label*** (Required)
Self-explanatory. Please affix to the outside of the sealed submission documents.
- * ***Include any licenses or certifications requested***
Local Business Tax Account (as applicable) issued by City and/or County entity. This is necessary for all Florida vendors.

It is the Proposer's responsibility to ensure the Solicitation Response is mailed or delivered in time to be received no later than the specified opening date and time. (If solicitation is not received prior to deadline it cannot be considered or accepted.)

Form 1 – Solicitation Response Form

**LEE COUNTY PROCUREMENT MANAGEMENT
SOLICITATION RESPONSE FORM**

Date Submitted: _____ Submission Deadline Date: 8/18/2021

SOLICITATION IDENTIFICATION: CN210428MTN

Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening –
SOLICITATION NAME: Design Services & Owner's Representative

COMPANY NAME: _____

NAME & TITLE: (TYPED OR PRINTED) _____

BUSINESS ADDRESS: (PHYSICAL) _____

CORPORATE OR MAILING ADDRESS: _____

☐ SAME AS PHYSICAL

ADDRESS MUST MATCH SUNBIZ.ORG _____

E-MAIL ADDRESS: _____

PHONE NUMBER: _____ FAX NUMBER: _____

NOTE REQUIREMENT: IT IS THE SOLE RESPONSIBILITY OF THE VENDOR TO CHECK LEE COUNTY PROCUREMENT MANAGEMENT WEB SITE FOR ANY ADDENDA ISSUED FOR THIS PROJECT. THE COUNTY WILL POST ADDENDA TO THIS WEB PAGE, BUT WILL NOT NOTIFY.

In submitting this proposal, Proposer makes all representations required by the instructions to Proposer and further warrants and represents that: Proposer has examined copies of all the solicitation documents and the following addenda:

No. _____	Dated: _____	No. _____	Dated: _____	No. _____	Dated: _____
No. _____	Dated: _____	No. _____	Dated: _____	No. _____	Dated: _____

Tax Payer Identification Number: _____

(1) Employer Identification Number -OR- (2) Social Security Number:

**** Lee County collects your social security number for tax reporting purposes only**

Please submit a copy of your registration from the website www.sunbiz.org establishing the Proposer/firm as authorized (including authorized representatives) to conduct business in the State of Florida, as provided by the *Florida Department of State, Division of Corporations*.

1 **Collusion Statement:** Lee County, Florida The undersigned, as Proposer, hereby declares that no person or other persons, other than the undersigned, are interested in this solicitation as Principal, and that this solicitation is submitted without collusion with others; and that we have carefully read and examined the specifications or scope of work, and with full knowledge of all conditions under which the services herein is contemplated must be furnished, hereby propose and agree to furnish this service according to the requirements set out in the solicitation documents, specifications or scope of work for said service for the prices as listed on the county provided price sheet or (CCNA) agree to negotiate prices in good faith if a contract is awarded.

2 **Scrutinized Companies Certification:**

Section 287.135, FL § , prohibits agencies from contracting with companies, for goods or services over \$1,000,000, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, FL § .

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. I understand that pursuant to section 287.135, FL § , the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Form#1 – Solicitation Form, Page 2

- 3 **Business Relationship Disclosure Requirement:** Sections 112.313(3) and 112.313(7), FL § , prohibit certain business relationships on the part of public officers and employees, their spouses, and their children. See Part III, Chapter 112, FL § and/or the brochure entitled "A Guide to the Sunshine Amendment and Code of Ethics for Public Officers, Candidates and Employees" for more details on these prohibitions. However, Section 112.313(12), FL § (1983), provides certain limited exemptions to the above-referenced prohibitions, including one where the business is awarded under a system of sealed, competitive bidding; the public official has exerted no influence on bid negotiations or specifications; and where disclosure is made, prior to or at the time of the submission of the bid, of the official's or his spouse's or child's interest and the nature of the intended business. The Commission on Ethics has promulgated this form for such disclosure, if and when applicable to a public officer or employee.
- If this disclosure is applicable request form “INTEREST IN COMPETITIVE BID FOR PUBLIC BUSINESS” (Required by 112.313(12)(b), Florida Statute (1983)) to be completed and returned with solicitation response. It is the Proposer’s responsibility to disclose this relationship, failure to do so could result in being declared non-responsive.**

☐ **Business Relationship Applicable (request form)**
☐ **Business Relationship NOT Applicable**

- 4 Disadvantaged, Minority, Women, Veterans Business Enterprise (DBE, MBE, WBE, VBE) Proposer? If yes, please attach a current certificate.

<input type="checkbox"/>	<input type="checkbox"/>
Yes	No

ALL PROPOSALS MUST BE EXECUTED BY AN AUTHORIZED AUTHORITY OF THE PROPOSER. WITNESSED AND SEALED (IF APPLICABLE)

Company Name (Name printed or typed)

Authorized Representative Name (printed or typed)

Authorized Representative’s Title (printed or typed)

Authorized Representative’s Signature

(Affix Corporate Seal, if applicable)

Witnessed/Attested by:

(Witness/Secretary name and title printed or typed)

Witness/Secretary Signature

Any blank spaces on the form(s), qualifying notes or exceptions, counter offers, lack of required submittals, or signatures, on County’s Form may result in the submission being declared non-responsive by the County.

Detail by Entity Name**Florida Profit Corporation**

Bill's Widget Corporation

Filing Information

Document Number 655555
 FBI/EIN Number 5111111111
 Date Filed 09/22/1980
 State FL
 Status ACTIVE
 Last Event AMENDED AND RESTATED ARTICLES
 Event Date Filed 07/25/2006
 Event Effective Date NONE

Principal Address

555 N Main Street
 Your Town, USA 99999

Changed 02/11/2012

**Verify either Principal or Mailing
 address is on Form 1**

Mailing Address

555 N Main Street
 MYour Town, USA 99999

Changed 02/11/2012

Registered Agent Name & Address

My Registered Agent
 111 Registration Road
 Registration, USA 99999

Name Changed: 12/14/2006

Address Changed: 12/14/2006

Officer/Director Detail**Name & Address****Title P**

President, First
 555 AVENUE
 Anytown, USA 99999

Title V

President, Second
 555 AVENUE
 Anytown, USA 99999

IMPORTANT:

For corporations, ALL documents must be signed by the president of the company or an authorized individual. For any individual other than the president, we will need one of the following to confirm their authority to sign:

1. a corporate resolution by the Board of Directors, or
2. an extract of minutes, or
3. an extract of Vote by the Board of Directors

If the company's articles of incorporation identify additional positions that have the power to bind the corporation, we will accept the articles of incorporation with verification from the president that a certain individual serves in that role (e.g., the president confirms that John Doe is the CEO, and the articles of incorporation provide that the CEO has the power to bind the company).

With respect to an LLC, the authority to bind a limited liability company is controlled by Florida statutes. Managers or managing members have inherent authority to bind an LLC.

If the president of a corporation or a manager/managing member of an LLC delegates their authority, such delegation must be sent to us on company letterhead with the President's or manager's/managing member's original, wet signature.

v01/03/2018



AFFIDAVIT CERTIFICATION IMMIGRATION LAWS

SOLICITATION NO.: CN210428MTN SOLICITATION NAME: Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening – Design Services & Owner’s Representative

LEE COUNTY WILL NOT INTENTIONALLY AWARD COUNTY CONTRACTS TO ANY CONTRACTOR WHO KNOWINGLY EMPLOYS UNAUTHORIZED ALIEN WORKERS, CONSTITUTING A VIOLATION OF THE EMPLOYMENT PROVISIONS CONTAINED IN 8 U.S.C. SECTION 1324 a(e) {SECTION 274A(e) OF THE IMMIGRATION AND NATIONALITY ACT (“INA”).

LEE COUNTY MAY CONSIDER THE EMPLOYMENT BY ANY CONTRACTOR OF UNAUTHORIZED ALIENS A VIOLATION OF SECTION 274A(e) OF THE INA. **SUCH VIOLATION BY THE RECIPIENT OF THE EMPLOYMENT PROVISIONS CONTAINED IN SECTION 274A(e) OF THE INA SHALL BE GROUNDS FOR UNILATERAL CANCELLATION OF THE CONTRACT BY LEE COUNTY.** PROPOSER ATTESTS THAT THEY ARE FULLY COMPLIANT WITH ALL APPLICABLE IMMIGRATION LAWS (SPECIFICALLY TO THE 1986 IMMIGRATION ACT AND SUBSEQUENT AMENDMENTS).

BY REGISTERING AS A VENDOR, SUBMITTING A RESPONSE TO A SOLICITATION, OR ENTERING INTO A CONTRACT, YOU ARE OBLIGATED TO COMPLY WITH THE PROVISIONS OF SECTION 448.095, FLA. STAT., "EMPLOYMENT ELIGIBILITY." FURTHER, BY YOUR REGISTRATION AS A VENDOR, RESPONSE TO A SOLICITATION, ENTERING INTO A CONTRACT, YOU AFFIRM AND REPRESENT THAT YOU ARE REGISTERED WITH THE E-VERIFY SYSTEM AND ARE USING SAME, AND WILL CONTINUE TO USE SAME AS REQUIRED BY SECTION 448.095, F.S. COMPLIANCE WITH SECTION 448.095 INCLUDES, BUT IS NOT LIMITED TO, UTILIZATION OF THE E-VERIFY SYSTEM TO VERIFY THE WORK AUTHORIZATION STATUS OF ALL NEWLY HIRED EMPLOYEES, AND REQUIRING ALL SUBCONTRACTORS TO PROVIDE AN AFFIDAVIT ATTESTING THAT THE SUBCONTRACTOR DOES NOT EMPLOY, CONTRACT WITH, OR SUBCONTRACT WITH, AN UNAUTHORIZED ALIEN. FAILURE TO COMPLY WILL LEAD TO TERMINATION AS A VENDOR, DISQUALIFYING YOU FOR AWARD OF A SOLICITATION, DENIAL OF ENTERING INTO A CONTRACT AND/OR, CANCELLATION OF AN ACTIVE CONTRACT, OR IF YOUR SUBCONTRACTOR KNOWINGLY VIOLATES THE STATUTE, THE SUBCONTRACT MUST BE TERMINATED IMMEDIATELY. ANY CHALLENGE TO TERMINATION UNDER THIS PROVISION MUST BE FILED NO LATER THAN 20 CALENDAR DAYS AFTER THE DATE OF TERMINATION. IF TERMINATED FOR A VIOLATION OF THE STATUTE BY THE VENDOR, THE VENDOR MAY NOT BE ALLOWED TO DO BUSINESS WITH THE COUNTY OR BE AWARDED A SOLICITATION OR CONTRACT FOR A PERIOD OF 1 YEAR AFTER THE DATE OF TERMINATION. ALL COSTS INCURRED TO INITIATE AND SUSTAIN THE AFOREMENTIONED PROGRAMS SHALL BE THE RESPONSIBILITY OF THE VENDOR.

Company Name: _____

Signature	Title	Date
-----------	-------	------

STATE OF _____
COUNTY OF _____

The foregoing instrument was signed and acknowledged before me, by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 20____, by _____ who has produced _____ as identification.
(Type of Identification and Number) (Print or Type Name)

Notary Public Signature

Printed Name of Notary Public

Notary Commission Number/Expiration

The signee of this Affidavit guarantee, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made. **LEE COUNTY RESERVES THE RIGHT TO REQUEST SUPPORTING DOCUMENTATION, AS EVIDENCE OF SERVICES PROVIDED, AT ANY TIME.**

Lee County Procurement Management Reference Survey

Reference surveys submitted can be a maximum of twelve (12) months old. If using a previous reference, Proposers must clearly identify the project name and number the reference is being submitted for.

Project Name & Number: _____

Section 1	Reference Respondent Information	Please return completed form to:	
FROM: _____ COMPANY: _____ PHONE #: _____ FAX #: _____ EMAIL: _____		Bidder/Proposer: _____ Due Date: _____ Total # Pages: 1 Phone #: _____ Fax #: _____ Bidder/Proposer E-Mail: _____	

Section 2	Enter Bidder/Proposer Information , if applicable Similar Performed Project (Bidder/Proposer to enter details of a project performed for above reference respondent)		
Proposer Name: _____			
Reference Project Name: _____		Project Address: _____	Project Cost: _____
Summarize Scope: _____		_____	_____

You as an individual or your company has been given as a reference on the project identified above. Please provide your responses in section 3 below.

Section 3		Indicate: "Yes" or "No"
1. Did this company have the proper resources and personnel by which to get the job done?		
2. Were any problems encountered with the company's work performance?		
3. Were any change orders or contract amendments issued, other than owner initiated?		
4. Was the job completed on time?		
5. Was the job completed within budget?		
6. On a scale of one to ten, ten being best, how would you rate the overall work performance, considering professionalism; final product; personnel; resources. Rate from 1 to 10. (10 being highest)		
7. If the opportunity were to present itself, would you rehire this company?		
8. Please provide any additional comments pertinent to this company and the work performed for you:		

Section 4 Please submit non-Lee County employees as references

Reference Name (Print) _____

Reference Signature _____



ALLEGED NEGLIGENCE OR BREACH OF CONTRACT DISCLOSURE FORM

Please fill in the form below. Provide each incident in regard to alleged negligence or breach of contract that has occurred over the past 10 years. Please compete in chronological order with the most recent incident on starting on page 1. Please do not modify this form (expansion of spacing allowed) or submit your own variation.

Company Name: _____

Type of Incident <i>Alleged Negligence or Breach of Contract</i>	Incident Date And Date Filed	Plaintiff <i>(Who took action against your company)</i>	Case Number	Court <i>County/State</i>	Project	Claim Reason <i>(initial circumstances)</i>	Final Outcome <i>(who prevailed)</i>

Make as many copies of this sheet as necessary in order to **provide a 10-year history** of the requested information. If there is no action pending or action taken in the last 10 years, complete the **company name** and write **"NONE"** in the first **"Type of Incident"** box of this page and return with your proposal package. This form should also include the primary partners listed in your proposal. Do not include litigation with your company as the plaintiff. Final outcome should include who prevailed and what method of settlement was made. If a monetary settlement was made the amount may remain anonymous.

Page Number: _____ Of _____ Total pages

Update the page number to reflect the current page and the total number of pages. Example: Page 3, of 5 total submitted pages of this form.

Proposals may be declared "non-responsive" due to omissions of "Negligence or Breach of Contract" on this disclosure form. Additionally, proposals may be declared "not responsible" due to past or pending lawsuits that are relevant to the subject procurement such that they call into question the ability of the proposer to assure good faith performance. This determination may be made by the Procurement Management Director, after consulting with the County Attorney.



AFFIDAVIT PRINCIPAL PLACE OF BUSINESS

Instructions: Please complete all information that is applicable to your firm

Company Name: _____

Printed name of authorized signer _____

Title _____

⇒

Authorized Signature _____

Date _____

The signee of this Affidavit guarantee, as evidenced by the sworn affidavit required herein, the truth and accuracy of this affidavit to interrogatories hereinafter made. **LEE COUNTY RESERVES THE RIGHT TO REQUEST SUPPORTING DOCUMENTATION, AS EVIDENCE OF SERVICES PROVIDED, AT ANY TIME.**

The foregoing instrument was signed and acknowledged before me, by means of ☐ physical presence or ☐ online notarization, this _____ day of _____ 20____, by _____ who has produced
(Print or Type Name)

_____ as identification.
(Type of Identification and Number)

Notary:

State of _____

County of _____

⇒

Notary Public Signature _____

Notary Commission Number and expiration _____

1. Principal place of business is located within the boundaries of: _____ Lee County
_____ Collier County
_____ Non-Local

Local Business Tax License # _____

2. Address of Principal Place of Business: _____

3. Number of years at this location _____ years

4. Have you provided goods or services to Lee County on a regular basis within the past 3 consecutive years

____ Yes* _____ No

*If yes, attach contractual history for past 3 consecutive years

5. Number of available employees for this contract _____

6. Does your company have a Drug Free Workplace Policy

____ Yes _____ No

Form 6-Sub-contractor/consultant List**SUB-CONTRACTOR/CONSULTANT LIST**

Sub-Contractor/Consultant Company Name	Area Of Work	Point Of Contact Or Project Supervisor	Contact Info Phone or Email	Qualified DBE, MBE, VBE or Similar

Please include sub-contractor/consultant name, area of work (i.e. mechanical, electrical, etc.) and a **valid** phone number, the dollar value or percentage that the sub-contractor/consultant will be performing. If sub-contractor/consultant qualified as a Florida Certified Business Enterprise such as MBE, WBE, DBE, VBE or similar please indicate such above and provide

Public Entity Crime Form

This form must be signed and sworn to in the presence of a notary public or other officer authorized to administer oaths

1. This sworn statement is submitted to _____
(Print name of the public entity)

by _____
(Print individual's name and title)

for _____
(Print name of entity submitting sworn statement)

whose business address is _____

(If applicable) its Federal Employer Identification Number (FEIN) is _____

(If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement: On the attached sheet.) Required as per IRS Form W-9.

2. I understand that a "public entity crime" as defined in Paragraph 287.133(1) (g), Florida Statutes, means a violation of state or federal law by a person with respect to and directly related to the transaction of business with any public entity, with an agency or political subdivision of any other state or with the United States, including but not limited to a contract for goods or services to be provided to any public entity or agency or political subdivision or any other public entity in the United States, and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or misrepresentation.

3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1) (b), Florida Statutes, means a conviction or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nolo contendere, or entry of a plea of guilty or nolo contendere.

4. I understand that "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime:
or:

2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in the management of the entity. The ownership by one person of shares constituting a controlling interest in another entity, or a pooling of equipment or income among persons when not fair market value under an agreement, shall be a facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida within the preceding 36 months shall be considered an affiliate.

5. I understand that a "person" as defined in Paragraph 287.133(1) (c), Florida Statutes, means any natural person or an entity organized under the laws of any state or of the United States with the legal power to enter a binding contract, make bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts business or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of the entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

_____ Neither the entity submitted this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity nor affiliate of the entity have been convicted with and convicted of a public entity crime subsequent to July 1, 1989.

Public Entity Crime Form

Page 2 of 2

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, member, or agents who are active in management of the entity, or an affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

_____ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, member, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearing and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES, FOR CATEGORY TWO OR ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

(Signature)

(Date)

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me, by means of ☐ physical presence or ☐ online notarization, this ____ day of _____ 20____, by _____ who has produced

(Print or Type Name)

_____ as identification.
(Type of Identification and Number)

Notary Public Signature

Printed Name of Notary Public

Notary Commission Number/Expiration

Form 8: Minimum Qualifications Requirements**MINIMUM QUALIFICATION REQUIREMENTS****FOR*****CN210428MTN Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening – Design Services & Owner’s Representative***

CONSULTANT must meet the minimum qualification requirements as specified in the following form to qualify for consideration of award. This form must be completed and returned with the proposal submittal along with any supporting documentation where requested and/or indicated herein.

The County reserves the right, in their sole judgment, to determine to its satisfaction whether the CONSULTANT has met the minimum qualification requirements as specified herein. The determination shall be based upon the examination of the Minimum Qualification Requirements form and associated supportive documentation (if any requested).

An affirmative determination shall be a prerequisite for award of the contract to the CONSULTANT. A negative determination shall result in disqualification of the proposal, in which event the COUNTY shall exclude the proposal from the evaluation or consideration process and therefore deeming the CONSULTANT ineligible for award.

CRITERIA 1 – FDOT PREQUALIFICATION (Major Work Group): Prime CONSULTANT must be prequalified with unlimited status in the following Major Work Group:

- Group 4.2.1 Major Bridge Design – Concrete

CRITERIA 2 – FDOT PREQUALIFICATION (Minor Work Group): Prime CONSULTANT or sub-consultants must be prequalified with Technical Prequalification (<250k) Only or Unlimited status in the following Minor Work Groups. Between Prime and Sub CONSULTANT, all minor work groups must be represented.

- Group 3.1 - Minor Highway Design
- Group 6.1 - Traffic Engineering Studies
- Group 7.1 – Signing, Pavement Marking and Channelization
- Group 7.2 – Lighting
- Group 7.3 – Signalization
- Group 8.1 – Control Surveying
- Group 8.2 – Design, Right of Way and Construction Surveying
- Group 8.4 – Right of Way Mapping
- Group 9.1 – Soil Exploration
- Group 9.2 – Geotechnical Classification Laboratory Testing
- Group 9.4.1 – Standard Foundation Studies

NOTE: Prime CONSULTANT prequalification in Minor Work Groups may be utilized in lieu of sub-consultant prequalification. Every Minor Work Group shall be represented between the Prime and sub-consultants. CONSULTANTS shall be prequalified at time of bid submission; applications pending FDOT approval shall not fulfill this requirement.

 Authorized Bidder/Proposer Signature

 Date:

 Authorized Bidder/Proposer Name (Print or Type)

**Cut along the outer border and affix this label to
your sealed solicitation envelope to identify it as
a “Sealed Submission/Proposal”.**

PROPOSAL DOCUMENTS • DO NOT OPEN	
SOLICITATION No.:	CN210428MTN
SOLICITATION TITLE:	Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening – Design Services & Owner’s Representative
DATE DUE:	Wednesday, August 18, 2021
TIME DUE:	Prior to: 2:30 PM
SUBMITTED BY:	_____ (Name of Company)
e-mail address	Telephone
DELIVER TO:	Lee County Procurement Management 2115 Second Street, 1 st Floor Fort Myers FL 33901



***Notice:** the Date Due/Submission Deadline Date/Opening Date as stated on this label and other forms contained herein may have been updated via issuance of Addenda against this project. It is the sole responsibility of the Contractor/Vendor to monitor the County project webpage for any updates to the Date Due/Submission Deadline Date/Opening Date via Addenda. This label nor other original forms may not be updated. Contractor/Vendor may strike through and update Date Due/Submission Deadline Date/Opening Date at their discretion to match any updates to this date that have been published via Addenda.

Submission received after the time and date of the Date Due/Submission Deadline Date/Opening Date will not be accepted at the sole discretion of the County.

PLEASE PRINT CLEARLY

July 14, 2021

EXHIBIT A



SCOPE OF SERVICES

FOR

**Cape Coral Bridge West Bound Span Replacement and East Bound Span Widening –
Design Services & Owner's Representative**

DISTRICT ONE

LEE COUNTY

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SCOPE OF SERVICES FOR CONSULTING ENGINEERING SERVICES

HIGHWAY AND BRIDGE/STRUCTURAL DESIGN

This Exhibit forms an integral part of the agreement between Lee County (hereinafter referred to as COUNTY) and _____ (hereinafter referred to as the CONSULTANT) relative to the transportation facility described as follows:

Financial Project ID: N/A

Federal Aid Project No.: N/A

County Section No.: 00000

Description: Replace the west wound span of the Cape Coral PARKWAY Bridge across the Caloosahatchee River and widen the bridge to accommodate six-lanes of traffic, bike and pedestrian facilities, Lee County.

Bridge No(s).: 124044 - College PKWY WB/Caloosahatchee River
124065 – College PKWY EB/Caloosahatchee River

Rail Road Crossing No: N/A

Context Classification: C-1 Natural and C-5 Urban Center

1 PURPOSE

The purpose of this Exhibit is to describe the scope of work and the responsibilities of the CONSULTANT and the COUNTY 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.

Major work mix includes: Group 4 Highway Design (Bridges).

Major work groups include:

Group 4.2.1 Major Bridge Design - Concrete;

Minor work groups include:

Group 3.1 Minor Highway Design;

Group 6.1 – Traffic Engineering Studies;

Group 7.1 – Signing, Pavement Marking and Channelization;

Group 7.2 – Lighting;

Group 7.3 Signalization;

Group 8.1 Control Surveying;

Group 8.2 – Design, Right of Way and Construction Surveying;

Group 8.4 – Right of Way Mapping;

Group 9.1 – Soil Exploration;

Group 9.2 Geotechnical Classification Laboratory Testing and

Group 9.4.1 Standard Foundation Studies.

Known alternative construction contracting methods include: Design-Bid-Build and Design-Build.

The general objective is for the CONSULTANT to either prepare a set of contract documents including plans, specifications, supporting engineering analysis, calculations, permits and other technical documents in accordance with COUNTY policy, procedures and requirements to support a standard Design-Bid-Build construction contract (or to transition to the COUNTY'S DESIGN CRITERIA PROFESSIONAL and OWNER'S REPRESENTATIVE for a DESIGN-BUILD at or about 60-percent (phase-2) plan production). The contract documents/(design criteria package) will be used by the contractor to build the project. The 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 Systems 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.

The Scope of Services establishes which items of work in the FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance (Florida Greenbook), and other pertinent manuals are specifically prescribed to accomplish the work included in this contract and indicates which items of work will be the responsibility of the CONSULTANT and/or the COUNTY.

The CONSULTANT shall be aware that as a project is developed, certain modifications and/or improvements to prior (planning) concepts may be required. The CONSULTANT shall incorporate these refinements into the design and consider such refinements to be an anticipated and integral part of the work. This shall not be a basis for any supplemental fee request(s).

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. In accordance with COUNTY procedures, the CONSULTANT shall set up a project contract file and maintain it throughout the design of the project.

The CONSULTANT is expected to know the laws and rules governing their professions and is expected to provide services in accordance with all governing statutes, 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 COUNTY standards and procedures, the duties and responsibilities assigned under the terms of this agreement. To the maximum extent possible, the CONSULTANT shall minimize the COUNTY's need to apply its own resources to assignments authorized by the COUNTY.

The COUNTY will provide contract administration, management services, and technical reviews of all work associated with the development and approval of the development and preparation of contract documents, including construction documents. The COUNTY's technical reviews are for high level conformance and are not meant to be comprehensive reviews. The CONSULTANT shall be fully responsible for all work performed and work products developed under this Scope of Services. The COUNTY may provide job specific information and/or functions as outlined in this Scope of Services.

2.1 Project Description

Additional details to be provided in negotiated final Scope of Services.

2.2 Project General (Activities 2, 3, 4, and 5)

Public Involvement

Other Agency Presentations/Meetings

Joint Project Agreements

Specification Package Preparation

Value Engineering

Risk Assessment Workshop

Typical Section

Pavement Design

Pavement Type Selection Report(s)

Cross Slope

Access Management Classification

Transit Route Features

2 PROJECT DESCRIPTION

Major Intersections/Interchange**Roadway Alternative Analysis**

Level of TTCP Plans: The CONSULTANT shall develop Temporary Traffic Control Plans (TTCP) for this project. The CONSULTANT shall schedule a meeting before Phase II to present the TTCP phasing with the District Construction Office. The consultant shall prepare Roll Plots 1"=100' to discuss the phasing in a workshop.

Traffic Management Plan**Temporary Lighting****Temporary Signals****Temporary Drainage****Design Variations/Exceptions****Back of Sidewalk Profiles****Selective Clearing and Grubbing**

2.3 N/A

2.4 Drainage (Activities 6a and 6b)

System Type: The CONSULTANT shall develop the (preliminary design) and final design of a stormwater management system including but not limited to open conveyance ditches and swales, closed storm sewer systems, cross drains, retention/detention ponds, exfiltration systems and floodplain compensation sites as required to satisfy the regulations and criteria of the COUNTY and permitting agencies. The stormwater management systems shall be accurately depicted in the contract documents to the extent required for successful implementation by the contractor.

2.5 Utilities Coordination (Activity 7)

The CONSULTANT is responsible to certify that all necessary arrangements for utility work on this project have been made and will not conflict with the physical construction schedule. The CONSULTANT shall coordinate transmittals to Utility Companies and meet production schedules.

The CONSULTANT shall ensure COUNTY and FDOT standards, policies, procedures, practices, and design criteria are followed concerning utility coordination.

The CONSULTANT may employ more than one individual or utility engineering consultant to provide utility coordination and engineering design expertise. The CONSULTANT shall identify a dedicated person responsible for managing all utility coordination activities. This person shall be contractually referred to as the Utility Coordination Manager and shall be identified in the CONSULTANT's proposal. The Utility Coordination Manager shall be required to satisfactorily demonstrate to the COUNTY Project Manager that they have the following knowledge, skills and expertise:

- A thorough knowledge of the COUNTY and FDOT plans production process and utility coordination process.
- A thorough knowledge of COUNTY and FDOT agreements, standards, policies and procedures.

The Utility Coordination Manager shall be responsible for managing all utility coordination, including the following:

- Assuring that Utility Coordination and accommodation is in accordance with the COUNTY, FDOT, FHWA, and AASHTO standards, policies, procedures, and design criteria.
- Assisting the Engineer of Record (EOR) in identifying all existing utilities and coordinating any new installations. Assisting the EOR with resolving utility conflicts, including new services (power, water, sewer, communications, etc.) serving COUNTY owned facilities.
- 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 matrices and changes to affected utility owners, and making sure this information is properly coordinated and documented.
- Identifying and coordinating the completion of any COUNTY or utility owner agreement that is required for reimbursement, or accommodation of the utility facilities associated with the project.
- Reviewing and certifying to the District Utilities Administrator that all Utility Work Schedules are correct and in accordance with the COUNTY's standards, policies, and procedures.
- Preparing, reviewing and processing all utility related reimbursable paper work inclusive of betterment and salvage determinations.

The CONSULTANT's utility coordination work shall be performed and

directed by the Utility Coordination Manager that was identified and approved by COUNTY's Project Manager. Any proposed change of the approved Utility Coordination Manager shall be subject to review and approval by COUNTY's Project Manager prior to any change being made in this contract.

2.6 Environmental Permits and Environmental Clearances (Activity 8)

2.7 Structures (Activities 9 – 18)

Bridge(s):

Type of Bridge Structure Work:

1. **BDR**
2. **Temporary Bridge**
3. **Short Span Concrete**
4. **Medium Span Concrete**
5. **Structural Steel**

2.8 Signing and Pavement Markings (Activities 19 & 20)

Master Signage Plan

The CONSULTANT shall be responsible for identifying proposed signs (overhead and multipost) along the corridor within the study limits. The CONSULTANT shall be responsible for preparing the master signage plan for the preferred alternative.

2.9 Signalization (Activities 21 & 22)

2.10 Lighting (Activities 23 & 24)

The CONSULTANT shall provide all professional services and complete all associated tasks necessary to prepare the lighting portion of the construction plans and documents for all work within the Project limits.

Services shall include, but are not limited to, lighting design analysis report, lighting plans for temporary and permanent facilities, lightning protection and grounding systems, layouts, typical sections, key sheet, quantities (including lighting quantities), lighting computations, service point details, tabulation of

pole data sheets, and any special detail sheets necessary.

The CONSULTANT shall also coordinate with the power utility company the design and costs of utility infrastructure as required for new power service points proposed for lighting facilities in the construction documents.

The CONSULTANT shall provide all professional services and complete all associated tasks necessary to prepare the lighting portion of the construction plans and documents for all work within the Project limits.

Services shall include, but are not limited to, lighting design analysis report, lighting plans for temporary and permanent facilities, lightning protection and grounding systems, layouts, typical sections, key sheet, quantities (including lighting quantities), lighting computations, service point details, tabulation of pole data sheets, and any special detail sheets necessary.

The CONSULTANT shall also coordinate with the power utility company the design and costs of utility infrastructure as required for new power service points proposed for lighting facilities in the construction documents.

2.11 Landscape (Activities 25 & 26)

Include coordination with existing and/or proposed underground utilities, including but not limited to, Street lighting, drainage, and Intelligent Transportation Systems (ITS). Landscape coordination with ITS shall include both underground conflicts and above ground impacts to existing and/or proposed ITS coverage. The CONSULTANT shall closely coordinate with the COUNTY's ITS units to ensure that all conflicts are identified, addressed and mitigated in the Contract Documents.

2.12 Survey (Activity 27)

2.13 Photogrammetry (Activity 28)

2.14 Mapping Activity (Activity 29)

2.15 Terrestrial Mobile LiDAR (Activity 30)

2.16 Architecture (Activity 31)

2.17 Noise Barriers (Activity 32)

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2.18 Intelligent Transportation Systems (Activities 33 & 34)

The Federal Highway Administration issued Rule 940 entitled Intelligent Transportation Systems (ITS) Architecture and Standards to ensure new projects conform to the National ITS Architecture and Standards as well as with regional ITS architecture developed to reflect the local needs, issues, problems, and objectives for implementation.

For all projects with ITS activities, the CONSULTANT shall follow the Rule 940 requirements and use a Systems Engineering approach for determining the requirements for the project. The CONSULTANT shall develop all necessary documents to support the Rule 940 requirements like Concept of Operations (ConOPS), Systems Engineering Management Plan (SEMP), Requirements Traceability Verification Matrix (RTVM) and others as deemed necessary by the COUNTY.

[Describe the hardware configuration analysis and design including system architecture, interfaces, communications, equipment, devices and computers.]

[If relevant, mention any prior reports done such as concept reports, etc.]

The ITS shall operate from the [NAME] TMC located at [LOCATION] using the SunGuide® (SunGuide®) Software, or if SunGuide® is not in use at [NAME] TMC, using the appropriate [NAME SOFTWARE PACKAGE].

Interchanges: [List all existing and proposed interchanges and ITS field device requirements for tie in to arterials or N/A].

Traffic Data Collection: [List all locations that will require data collection. Describe data to be collected at each location.]

Geographical Information System (GIS) Requirements: CONSULTANT shall include in the design the GIS data collection requirements and deliverables for integration with software and other COUNTYGIS based asset management applications like ITS FM software.

All design efforts shall be based on deploying “open architecture” subsystems while remaining fully compatible with previous designs (as applicable) and the FDOT ITS Specifications. All ITS field devices and support systems shall be designed and located outside of the clear zone, or behind protective barrier, within the right of way. This includes cabinets, poles, and support hardware. Utility conflicts shall be identified and resolved during the design phase. The location of design elements will be coordinated with the District Landscape Architect to optimize landscape opportunities. The design shall minimize theft and vandalism. The CONSULTANT shall include in the design vandal resistant mechanisms to minimize theft. The CONSULTANT shall provide additional redundant power and communications systems to minimize system downtime due to vandalism.

The CONSULTANT shall design the project subsystems such that they will be monitored and controlled from the FDOT's TMC facilities located at *[Location(s)]*. The CONSULTANT shall ensure that all ITS field devices and ancillary components comply with the FDOT's Approved Product List (APL) and are supported within the SunGuide® software or other specified software, unless otherwise approved by the COUNTY.

The CONSULTANT shall include in the design any required upgrade to the TMC central hardware, equipment racks, and equipment wiring as directed by the FDOT project manager, to make the subsystems fully operations from the TMC facilities.

For projects with existing ITS, the CONSULTANT shall include in the design any required upgrade to existing ITS equipment to meet the latest FDOT standards, NEC requirements or as directed by the FDOT project manager and to make the subsystems fully operational from the TMC facilities.

ITS coordination with Landscape Architecture shall include both underground conflicts and above ground impacts to existing and/or proposed Landscaping. The CONSULTANT shall closely coordinate with the Landscape Architect to ensure that all conflicts are identified, addressed and mitigated in the Contract Documents.

2.19 Geotechnical (Activity 35)

2.20 3D Modeling (Activity 36)

2.21 Project Schedule

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 meet the current COUNTY Production Date. The schedule shall be based upon the *[FILL IN DISTRICT SCHEDULE INFORMATION]*. The anticipated date for final approval of the Environmental Resource Permit and ACOE permit is [Month 00, 20XX]. The current production date is [Month 00, 20XX]. The schedule shall be accompanied by an anticipated payout and fiscal progress curve. For the purpose of scheduling, the CONSULTANT shall allow for a *[fill in blank]* week review time for each phase submittal, Environmental Document, and any other submittals as appropriate.

The schedule shall indicate, at a minimum, proposed dates for Public Hearing, LDCA, Phase I plans, Phase II plans, Phase III plans, Phase IV plans, and all other appropriate milestones and required submittals.

The schedule shall reflect project-specific input from each affected COUNTY discipline, including Permits, Utilities, and Right-of-Way. The CONSULTANT

shall be responsible for ensuring that such input is received and reviewed with the COUNTY Project Manager.

All fees and price proposals are to be based on the negotiated schedule of [XX] months for final construction contract documents. However, the contract deadline is [XX] months from the Notice to Proceed.

Periodically, throughout the life of the contract, the project schedule and payout and fiscal progress curves shall be reviewed and, with the approval of the COUNTY, adjusted as necessary to incorporate changes in the Scope of Services and progress to date.

The approved schedule and scheduled status report, along with progress and payout curves shall be submitted with the monthly progress report.

The schedule shall be submitted in Primavera P6 format.

When Phase II plans are complete and approved, if the project includes federal funds or involves interstate right of way, the CONSULTANT shall await COUNTY approval before proceeding to Phase III plans. If the project is state-funded the CONSULTANT can proceed to Phase IV plans as directed by the COUNTY.

2.22 Submittals

The CONSULTANT shall submit all deliverables to the COUNTY electronically in Portable Document Format (PDF), unless notified by the COUNTY's Project Manager. Design files shall be submitted at Phase I and beyond. For each submittal, the CONSULTANT shall include a Transmittal Memorandum that includes, at a minimum, the file name of each PDF file as well as the number of hardcopies (if any) as directed by the COUNTY's Project Manager.

A Google Earth ready KMZ file will be developed and submitted for all plan or roll plot submittals to the COUNTY. The file will have both existing and proposed information for each discipline.

Each CONSULTANT document submittal shall be accompanied by a completed Quality Control Checklist form indicating the document submittal items that have been checked and back-checked. At the request of the COUNTY, the CONSULTANT shall provide evidence of said quality control review.

2.23 Provisions for Work

The services performed by the CONSULTANT must comply with all applicable COUNTY and Florida COUNTY of Transportation (FDOT) manuals, procedure, policies, and guidelines. Specifically, the CONSULTANT shall

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comply with Florida COUNTY of Transportation (FDOT) Manual of Uniform Minimum Standards for Design, Construction and Maintenance (Florida Greenbook), Structures Manual and Computer Aided Design and Drafting Manual. COUNTY manuals and guidelines incorporate, by requirement or reference, all applicable federal and state laws, regulations, and Executive Orders. The CONSULTANT shall use the latest editions of the manuals, procedures, and guidelines to perform work for this project.

All work shall be prepared with English units (unless otherwise specified) in accordance with the latest editions of standards and requirements utilized by the COUNTY.

2.24 Services to be Performed by the COUNTY

When appropriate and/or available, the COUNTY will provide project data including:

1. All COUNTY agreements with Utility Agency Owner (UAO).
2. All certifications necessary for project letting.
3. All information that may come to the COUNTY pertaining to future improvements.
4. All future information that may come to the COUNTY during the term of the CONSULTANT's Agreement, which in the opinion of the COUNTY is necessary for the prosecution of the work.
5. Available traffic and planning data.
6. All approved utility relocations.
7. Project utility certification to the COUNTY.
8. Any necessary title searches.
9. Engineering standards review services.
10. All available information in the possession of the COUNTY pertaining to utility companies whose facilities may be affected by the proposed construction.
11. All future information that may come to the COUNTY pertaining to subdivision plans so that the CONSULTANT may take advantage of additional areas that can be utilized as part of the existing right of way.
12. Previously constructed Highway Beautification or Landscape Construction Plans.

13. Landscape Opportunity Plan(s).
14. Existing right of way maps.
15. Existing cross slope data for all RRR projects.
16. Existing pavement evaluation report for all RRR projects.
17. Design Reports.
18. Letters of authorization designating the CONSULTANT as an agent of the COUNTY in accordance with F.S. 337.274.
19. Phase reviews of plans and engineering documents.
20. Regarding Environmental Permitting Services: Approved Permit Document when available, and Approval of all contacts with environmental agencies.
21. General philosophies and guidelines of the COUNTY to be used in the fulfillment of this contract. Objectives, constraints, budgetary limitations, and time constraints will be completely defined by the Project Manager.
22. Appropriate signatures on application forms.
23. Participate in coordination efforts with Public Transit Office, Office of Environmental Management, Federal Transit Administration, environmental resource and regulatory agencies, the public and other stakeholders, as appropriate.
24. Crash data.
25. Traffic counts.
26. Right of way cost estimates.

3 PROJECT COMMON AND PROJECT GENERAL TASKS

Project Common Tasks

Project Common Tasks, as listed below, are work efforts that are applicable to many project activities, 4 (Roadway Analysis) through 36 (3D Modeling). These tasks are to be included in the project scope in each applicable activity when the described work is to be performed by the CONSULTANT.

Cost Estimates: The CONSULTANT is responsible for producing a construction cost estimate and reviewing and updating the cost estimate when scope changes occur and/or at milestones of the project. Once the quantities have been developed (beginning at 60% plans and no later than 90% plans). A Summary of Pay Items sheet shall be prepared with all required Plans submittals as required.

Technical Special Provisions: The CONSULTANT shall provide Technical Special Provisions for all items of work not covered by the 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 will be submitted for initial review at the time of the Phase III plans review submission to the COUNTY's Project Manager. 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.

Modified Special Provisions: The CONSULTANT shall provide Modified Special Provisions as required by the project. Modified Special Provisions are defined in the Specifications Handbook.

A Modified Special Provision shall not modify the first nine sections of the Standard Specifications and implemented modifications in any way.

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.

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.

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 typical Lee County Department of Transportation (LCDOT) plan preparation procedures, 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 Design 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 will 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 will 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.

Independent Peer Review: When directed by the COUNTY, a subconsultant may

perform Independent Peer Reviews.

Independent Peer Review and a Constructability/Bidability Review for design Phase Plans document submittals are required on this project. These separate reviews shall be completed by someone who has not worked on the plan component that is being reviewed. These could include, but are not limited to a separate office under the Prime's umbrella, a subconsultant that is qualified in the work group being reviewed, or a CEI. It does not include persons who have knowledge of the day to day design efforts. The Constructability/Bidability Review shall be performed by a person with experience working on COUNTY construction projects (CEI, Contractor, etc.).

The Independent Peer Review for design Phase Plans submittals shall ensure the plans meet the FDM, Standard Plans and FDOT CADD Manual. The Constructability/Bidability Review shall ensure the project can be constructed and paid for as designed. Constructability/Bidability Reviews should be conducted prior to the Phase III and Phase IV submittals, using the Phase Review Checklist (Guidance Document 1-1-A) from the Construction Project Administration Manual (CPAM) as a minimum guideline. The CONSULTANT shall submit this checklist, as well as the "marked-up" set of plans during this review, and review comments and comment responses from any previous Constructability/Bidability reviews. These items will be reviewed by District Design and District Construction.

Supervision: The CONSULTANT shall supervise all technical design activities.

Coordination: The CONSULTANT shall coordinate with all disciplines of the project to produce a final set of construction documents.

Project General Tasks

Project General Tasks, described in Sections 3.1 through 3.7 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 when included in the project scope.

3.1 Public Involvement

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 all Public Involvement documents (i.e., newsletters, property owner letters, advertisements, etc.) associated with the following tasks for review and approval at least **[number (XX)]** business days prior to printing and / or distribution.

3.1.1 Community Awareness Plan

Prepare a Community Awareness Plan (CAP) for review and approval by the COUNTY within 30 calendar days after receiving Notice to Proceed. The

3 PROJECT COMMON AND PROJECT GENERAL TASKS

objective of the plan is to notify local governments, affected property owners, tenants, and the public of the COUNTY'S proposed construction and the anticipated impact of that construction. The CAP shall address timeframes for each review and shall include tentative dates for each public involvement requirement for the project. The CAP will also document all public involvement activities conducted throughout the project's duration. In addition to the benefits of advance notification, the process should allow the COUNTY to resolve controversial issues during the design phase. This item shall be reviewed and updated periodically as directed by the COUNTY throughout the life of the project.

3.1.2 Notifications

In addition to public involvement data collection, the CONSULTANT shall assist the COUNTY or prepare notifications, flyers, and/or letters 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 *CONSULTANT* to ensure that they are addressed to the correct and current public officials.

3.1.3 Preparing Mailing Lists

At the beginning of the project, The CONSULTANT shall identify all impacted property owners and tenants (within a minimum of 300 feet 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.

3.1.4 Median Modification Letters

The CONSULTANT shall prepare a median modification letter to be sent to property owners along the corridor. In addition, the CONSULTANT shall prepare a sketch of each proposed median modification for inclusion in the letter. The letters will be sent on COUNTY letterhead by the *CONSULTANT*.

3.1.5 Driveway Modification Letters

The CONSULTANT shall prepare a driveway modification letter to be sent to property owners along the corridor. In addition, the CONSULTANT shall prepare a sketch of each proposed driveway modification for inclusion in the letter. The letters will be sent on COUNTY letterhead.

3.1.6 Newsletters

The CONSULTANT shall prepare newsletters for distribution to elected officials, public officials, property owners along the corridor and other interested parties. The letters will be sent by the CONSULTANT.

3.1.7 Renderings and Fly-Throughs

The CONSULTANT shall prepare renderings and fly-throughs for use in

3 PROJECT COMMON AND PROJECT GENERAL TASKS

public meetings (if required).

3.1.8 PowerPoint Presentations

The CONSULTANT shall prepare PowerPoint presentations for use in public meetings.

3.1.9 Public Meeting Preparations

The CONSULTANT shall prepare the necessary materials for use in public meetings.

The CONSULTANT will investigate potential meeting sites to advise the COUNTY on their suitability. The CONSULTANT will pay all costs for meeting site rents and insurance. No COUNTY meetings will be held on public school system properties.

3.1.10 Public Meeting Attendance and Follow-up

The CONSULTANT shall attend public meeting(s), assist with meeting setup and take down. The CONSULTANT shall also prepare a summary of the public meeting that includes all copies of all materials shown or provided at the public meeting. The summary shall also include a listing of all written comments made during or after the meeting and responses to those written comments.

The CONSULTANT will attend the meetings with an appropriate number of personnel to assist the COUNTY'S Project Manager.

It is estimated for this project there will be [XXX] Public meetings during the design.

3.1.11 Other Agency Meetings

In addition to scheduled public meetings the CONSULTANT may be required to participate in meetings with local governing authorities and/or Metropolitan Planning Organization (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 [XXX] meetings with local governing authorities and/or MPOs during the design.

3.1.12 Web Site

The CONSULTANT shall create and/or maintain a web site for the project.

3.2 Joint Project Agreements

When the Joint Project Agreement (JPA) deliverable is not prepared by the CONSULTANT, services may include all coordination, meetings, etc., required

3 PROJECT COMMON AND PROJECT GENERAL TASKS

to ensure compatibility, include JPA documents in the contract plans package and include the JPA documents in the digital delivery package.

3.3 Specifications Package Preparation

The CONSULTANT shall prepare and provide a specifications package. The specifications package shall address all items and areas of work and include any Mandatory Specifications, Modified Special Provisions, and Technical Special Provisions.

The CONSULTANT shall coordinate with the COUNTY on the submittal requirements, but at a minimum shall consist of (1) the complete specifications package, (2) a copy of the marked-up workbook used to prepare the package, and (3) a copy of the final project plans.

3.4 Contract Maintenance and Project Documentation

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.

3.5 Value Engineering (Multi-Discipline Team) Review

N/A

3.6 Prime Consultant Project Manager Meetings

Includes only the Prime Consultant Project Manager's time for attendance at Activity Technical Meetings and other meetings listed in the meeting summary for Task 3.6 on tab 3 Project General Task of the staff hour forms. Staff hours for other personnel attending Activity Technical Meetings are included in the meeting task for that specific Activity.

3.7 Plans Update

The effort needed for Plans Update services will vary from project to project, depending on size and complexity of the project, as well as the duration of time spent "on the shelf".

Specific services will be negotiated as necessary as a contract amendment.

3.8 Post Design Services

Post Design Services may include, but not limited to, meetings, construction assistance, plans revisions, shop drawing review, survey services, as-built drawings, and load ratings. Specific services will be negotiated at a later date as necessary as a contract amendment.

3 PROJECT COMMON AND PROJECT GENERAL TASKS

Post Design Services are not intended for instances of CONSULTANT errors and/or omissions.

3.9 Digital Delivery

N/A

3.10 Risk Assessment Workshop

N/A

3.11 Railroad, Transit and/or Airport Coordination

N/A

3.11.1 Aeronautical Evaluation

The Consultant shall be responsible for complying with the requirements of Title 14 of the Code of Federal Regulations (CFR) Part 77, if any portion of the project is within ten (10) nautical miles of the nearest point of the nearest runway of each airport/heliport described in 14 CFR Part 77.9(d). When appropriate the Consultant shall be responsible for determining whether it is necessary to file a notice of construction or alteration, related to the project structures, with the Federal Aviation Administration (FAA), including the utilize of the FAA Notice Criteria Tool. The results of inquiries to the Notice Criteria Tool and copies of any required filings of FAA Form 7460-1 shall be provide to the COUNTY. All filings of 7460-1 shall be done electronically at the FAA website.

When appropriate the Consultant shall obtain Determinations (aeronautical studies) from the FAA regarding the effect of project structures on the navigable airspace and provide copies to the COUNTY. The COUNTY shall be immediately notified of any Notice of Presumed Hazard which may require modifications to the project plans. The Consultant shall be responsible for designating who will be responsible for compliance with the “conditions” and deadlines of the Determinations.

3.12 Landscape and Existing Vegetation Coordination

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, ITS, and signage should be minimized. Coordination with the District Landscape Architect may be necessary as defined in 4.12. Additionally, coordination with the Florida Scenic Highways program should be included to ensure any requirements of the FSH program are met.

3.13 Other Project General Tasks

[Describe other project general tasks or N/A]

4 ROADWAY ANALYSIS

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

4.1 Typical Section Package

The CONSULTANT shall provide an approved Typical Section Package prior to the first plans submittal.

4.2 Pavement Type Selection Report

Pavement Type Selection Reports are required for every project one mile or greater in length where work includes a modification to the base materials. The Pavement Type Selection decision will again be reviewed by FDOT Design at the time the pavement is designed to warrant reconsideration. A letter to the Project Design File documenting the pavement type decision is required, even if no report is performed.

4.3 Pavement Design Package

The CONSULTANT shall provide an approved Pavement Design Package prior to the Phase II plans submittal date.

4.4 Cross-Slope Correction

N/A.

4.5 Horizontal/Vertical Master Design Files

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, 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.

Note: When the project includes a 3D Model deliverable, also include Activity 36 3D Modeling.

4.6 Access Management

The CONSULTANT shall incorporate access management standards for each project in coordination with COUNTY staff. The CONSULTANT shall review adopted access management standards and the existing access conditions

(interchange spacing, signalized intersection spacing, median opening spacing, and connection spacing). Median openings that will be closed, relocated, or substantially altered shall be shown on plan sheets and submitted with supporting documentation for review with the first plans submittal.

The COUNTY shall provide access management classification information and information derived from public hearings to be used by the CONSULTANT.

4.7 Roundabout Evaluation

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

The CONSULTANT shall perform a Roundabout Screening for assessment of potential site impacts such as utility adjustments or relocations, right of way takes, environmental mitigation, and access management.

The CONSULTANT shall perform a Roundabout b/c Evaluation comparing a roundabout with a traditional intersection (stop controlled or signal controlled). The b/c analysis considers safety benefits associated with reduced crashes, delay, life cycle costs including right of way, utilities, construction, operation, and maintenance.

The CONSULTANT shall perform a Geometric and Operation Analysis to establish the roundabout alignment, geometry and lane requirements. Roundabout geometric and operational analysis must be documented in a preliminary report including data collection, conceptual layout, crash analysis, traffic counts, traffic forecast, and future design and opening year analysis.

The CONSULTANT shall perform all efforts required for traffic data collection and required design elements for all the above steps accordingly, including crash reports, 24-hour machine counts, peak hour turning movement counts, existing geometrics, pedestrian and bicycle volumes, posted speed limits, delay counts, design vehicle, access management, transit operations and physical and right of way limitations.

4.8 Roundabout Final Design Analysis

The CONSULTANT shall finalize the design of the roundabout in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

The CONSULTANT shall perform a final roundabout operational analysis that recommends a functional geometric layout that is cost effective, safe and meets the needs of the community. A final roundabout design will be recommended for implementation, and all geometric and operational analysis will be documented in a final roundabout report.

4.9 Cross Section Design Files

4 ROADWAY ANALYSIS

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual.

Note: If the Cross Sections are prepared using a 3D model, use Task 36.5 instead of Task 4.9 for the Cross Section Design Files.

4.10 Temporary Traffic Control Plan (TTCP) Analysis

The CONSULTANT shall design a safe and effective TTCP 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 maintained at all times. 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 traffic signals, temporary highway lighting, detours, diversions, lane shifts, and the use of materials such as sheet piling in the analysis. The Traffic Control Plan 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, the CONSULTANT shall notify the COUNTY's Project Manager as soon as possible. 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 highways.

4.11 Master TTCP Design Files

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.

4.12 Selective Clearing and Grubbing

N/A

a. Selective Clearing and Grubbing of Existing Vegetation Field Assessment

N/A

b. Selective Clearing and Grubbing Site Inventory Analysis of Existing Vegetation and Cross-Discipline Coordination (OPTIONAL SERVICES)

N/A

c. Selective Clearing and Grubbing- Existing Vegetation Maintenance Report

N/A

4.13 Tree Disposition Plans

Consultant will prepare a Tree Disposition Plan outlining the requirements for the relocation and protection of trees located within the project boundaries.

4.14 Design Variations and Exceptions

If available, the COUNTY shall furnish the Variation/Exception Report. The CONSULTANT shall prepare the documentation necessary to gain COUNTY approval of all appropriate Design Variations and/or Design Exceptions before the first submittal.

4.15 Design Report

The CONSULTANT shall prepare all applicable report(s) as listed in the Project Description section of this scope. Reports are to be delivered as a signed and sealed pdf file.

4.16 Quantities

The CONSULTANT shall develop accurate quantities and the supporting documentation, including construction days when required.

4.17 Cost Estimate

4.18 Technical Special Provisions and Modified Special Provisions

4.19 Other Roadway Analyses

4.20 Field Reviews

4.21 Monitor Existing Structures

The CONSULTANT shall perform field observations to visually 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.

Optional Services (may be negotiated at a later date if needed): The CONSULTANT shall coordinate with and assist the geotechnical engineer and/or structural engineer to develop mitigation strategies (when applicable).

- 4.22 Technical Meetings
- 4.23 Quality Assurance/Quality Control
- 4.24 Independent Peer Review
- 4.25 Supervision
- 4.26 Coordination

5 ROADWAY PLANS

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.

- 5.1 Key Sheet
- 5.2 Summary of Pay Items Including Quantity Input
- 5.3 Typical Section Sheets
 - 5.3.1 Typical Sections**
 - 5.3.2 Typical Section Details**
- 5.4 General Notes/Pay Item Notes
- 5.5 Summary of Quantities Sheets
- 5.6 Project Layout
- 5.7 Plan/Profile Sheet
- 5.8 Profile Sheet
- 5.9 Plan Sheet
- 5.10 Special Profile
- 5.11 Back-of-Sidewalk Profile Sheet
- 5.12 Interchange Layout Sheet
- 5.13 Ramp Terminal Details (Plan View)
- 5.14 Intersection Layout Details
- 5.15 Special Details
- 5.16 Cross-Section Pattern Sheets
- 5.17 Roadway Soil Survey Sheets
- 5.18 Cross Sections
- 5.19 Temporary Traffic Control Plan Sheets
- 5.20 Temporary Traffic Control Cross Section Sheets

5 ROADWAY PLANS

- 5.21 Temporary Traffic Control Detail Sheets
- 5.22 Utility Adjustment Sheets
- 5.23 Selective Clearing and Grubbing Sheets
- 5.24 Tree Disposition Plan Sheets
- 5.25 Project Control Sheets
- 5.26 Environmental Detail Sheets

Preparation of detail sheets for potential environmental issues such as, underground fuel tanks and monitoring wells, septic tanks within the proposed right of way. All piping and pumps in association with the above referenced issues shall also be located and identified by the survey. The CONSULTANT shall relay to the COUNTY any findings of contaminated soil, monitoring wells, or any features (particularly springs or sinks) relating to contamination or hazardous material.

Coordination with Permits/Environmental staff and preparing Dredge & Fill Detail sheets where applicable.

- 5.27 Utility Verification Sheets (SUE Data)
- 5.28 Quality Assurance/Quality Control
- 5.29 Supervision

6a DRAINAGE ANALYSIS

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. All design work shall comply with the requirements of the appropriate regulatory agencies 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 will include the engineering analyses for any or all of the following:

6a.1 Drainage Map Hydrology

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.

6a.2 Base Clearance Calculations

Analyze, determine, and document high water elevations per basin which will 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 Report.

6a.3 Pond Siting Analysis and Report

Evaluate pond sites using a preliminary hydrologic analysis. Document the results and coordination for all the project's pond site analyses. The Drainage Manual provides specific documentation requirements.

6a.4 Design of Cross Drains

Analyze the hydraulic design and performance of cross drains. Check existing cross drains to determine if they are structurally sound and can be extended. Document the design as required. Determine and provide flood data as required.

6a.5 Design of Ditches

6 DRAINAGE ANALYSIS

Design roadway conveyance and outfall ditches. This task includes capacity calculations, longitudinal grade adjustments, flow changes, additional adjustments for ditch convergences, selection of suitable channel lining, design of side drain pipes, and documentation. (Design of linear stormwater management facilities in separate task.)

6a.6 Design of Stormwater Management Facility (Offsite or Infield Pond)

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, design the outlet control structure and buoyancy calculations for pond liners when necessary.

6a.7 Design of Stormwater Management Facility (Roadside Treatment Swales and Linear Ponds)

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.

6a.8 Design of Floodplain Compensation

Determine floodplain encroachments, coordinate with regulatory agencies, and develop proposed compensation area layout (shape, contours, slopes, volumes, etc.). Document the design following the requirements of the regulatory agency.

6a.9 Design of Storm Drains

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.

6a.10 Optional Culvert Material

N/A

6a.11 French Drain Systems

N/A

6a.11a Existing French Drain Systems

N/A

6a.12 Drainage Wells

N/A

6a.13 Drainage Design Documentation Report

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.

6a.14 Bridge Hydraulic Report

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

6a.15 Temporary Drainage Analysis

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

6a.16 Cost Estimate

Prepare cost estimates for the drainage components, except bridges and earthwork for stormwater management and flood compensation sites.

6a.17 Technical Special Provisions / Modified Special Provisions

6a.18 Hydroplaning Analysis

Perform a hydroplaning analysis to assist in the determination of the appropriate roadway geometry for all necessary locations (both typical sections and critical cross sections) as needed. See the FDOT Hydroplaning Guidance and FDOT FDM Chapters 210 and 211 for more information.

6a.19 Existing Permit Analysis

Data gathering including desktop analysis of local, state and federal Drainage permits.

6a.20 Other Drainage Analysis

Includes all efforts for a drainage task not covered by an existing defined task.

6a.21 Noise Barrier Evaluation

N/A

6 DRAINAGE ANALYSIS

6a.22 Field Reviews

6a.23 Technical Meetings

Meetings with COUNTY staff, regulatory agencies, local governments such as meetings with District Drainage Engineer, the Water Management District, FDEP, etc.

6a.24 Environmental Look-Around Meetings

Convene a meeting with COUNTY staff, regulatory agencies, local governments and other stakeholders to explore watershed wide stormwater needs and alternative permitting approaches.

6a.25 Quality Assurance/Quality Control

6a.26 Independent Peer Review

6a.27 Supervision

6a.28 Coordination

6b DRAINAGE PLANS

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.

- 6b.1 Drainage Map (Including Interchanges)
- 6b.2 Bridge Hydraulics Recommendation Sheets
- 6b.3 Summary of Drainage Structures
- 6b.4 Optional Pipe/Culvert Material
- 6b.5 Drainage Structure Sheet(s) (Per Structure)
- 6b.6 Miscellaneous Drainage Detail Sheets
- 6b.7 Lateral Ditch Plan/Profile
- 6b.8 Lateral Ditch Cross Sections
- 6b.9 Retention/Detention Pond Detail Sheet(s)
- 6b.10 Retention Pond Cross Sections
- 6b.11 Erosion Control Plan Sheet(s)
- 6b.12 SWPPP Sheet(s)
- 6b.13 Quality Assurance/Quality Control
- 6b.14 Supervision

7 UTILITIES

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. The CONSULTANT shall certify all utility negotiations have been completed and that arrangements have been made for utility work to be undertaken.

7.1 Utility Kickoff Meeting

Before any contact with the UAO(s), the CONSULTANT shall meet with the District Utility Office (DUO) to receive guidance, as may be required, to assure that all necessary coordination will be accomplished in accordance with COUNTY procedures. CONSULTANT shall bring a copy of the design project work schedule reflecting utility activities.

7.2 Identify Existing Utility Agency Owner(s)

The Consultant shall identify all utilities within and adjacent to the project limits that may be impacted by the project.

7.3 Make Utility Contacts

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 as required by the District. 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. Send UAO requests for reimbursement to FDOT for a legal opinion. Include the meeting schedule (if applicable) and the design schedule. Include typical meeting agenda. If scheduling a meeting, give 4 weeks advance 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 as required by the District.

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.

Not all projects will have all contacts as described above.

7.4 Exception Processing

The CONSULTANT shall be responsible for transmitting/coordinating the appropriate design reports including, but not limited to, the Resurfacing, Restoration and Rehabilitation (RRR) report, Preliminary Engineering Report, Project Scope and/or the Concept Report (if applicable) to each UAO to identify any condition that may require a Utility Exception. The CONSULTANT shall identify and communicate to the UAO any facilities in conflict with their location or project schedule. The CONSULTANT shall assist with the processing of design exceptions involving Utilities with the UAO and the COUNTY. Assist with processing per the UAM.

7.5 Preliminary Utility Meeting

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 Legal Office, 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.

7.6 Individual/Field Meetings

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.

7.7 Collect and Review Plans and Data from UAO(s)

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 DUO.

7.8 Subordination of Easements Coordination

The CONSULTANT, if requested by the COUNTY, shall transmit to and secure from the UAO the executed subordination agreements prepared by the appropriate COUNTY office. The CONSULTANT shall coordinate with the DUO the programming of the necessary work program funds to compensate the UAO.

7.9 Utility Design Meeting

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, temporary traffic control plans (TTCP) (construction phasing), review the current design schedule and letting date, evaluate the utility information collected, 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 Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict location identification and adjustments.

- 7.10 Review Utility Markups & Work Schedules and Processing of Schedules & Agreements

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, maintaining agency, for review and comment if required by the COUNTY. Distribute Executed Final Documents. Prepare Work Order for UAO(s).

- 7.11 Utility Coordination/Follow-up

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.

- 7.12 Utility Constructability Review

The CONSULTANT shall review utility schedules against construction contract time, and phasing for compatibility. Coordinate with and obtain written concurrence from the construction office. See Task 4.5 (Horizontal/Vertical Master Design File) and Task 4.9 (Cross Section Design Files) for utility conflict identification and adjustments.

7.13 Additional Utility Services

The CONSULTANT shall provide additional utility services. Additional services will be determined when the services are required and requested. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified.

7.14 Processing Utility Work by Highway Contractor (UWHC)

This includes coordination of utility design effort between the COUNTY and the UAO(s). The CONSULTANT shall conduct additional coordination meetings, prepare and process the agreements, review tabulation of quantities, perform UWHC constructability and bidability review, review pay items, cost estimates and Technical Special Provisions (TSP) or Modified Special Provision (MSP) prepared by the UAO. This does not include utility the utility design effort. This item is not usually included in the scope at the time of negotiation. It is normally added as a supplemental agreement when the need is identified. Effort for the EOR is not included in this task, see Roadway Analysis Task Group 4.

7.15 Contract Plans to UAO(s)

If requested by the COUNTY, the CONSULTANT shall transmit the contract plans as processed for letting to the UAO(s). Transmittals to UAO(s) may be by certified mail, return receipt requested.

7.16 Certification/Close-Out

This includes hours for transmitting utility files to the COUNTY and preparation of the Utility Certification Letter. The CONSULTANT shall certify to the appropriate COUNTY representative the following:

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 will be involved.

OR

Plans were sent to the Utility Companies/Agencies and no utility work is required.

7.17 Other Utilities

The CONSULTANT shall provide other utility services. This includes all

efforts for a utility task not covered by an existing defined task. Required work will be defined in the scope and negotiated on a case-by-case basis.

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8 ENVIRONMENTAL PERMITS and ENVIRONMENTAL CLEARANCES

The CONSULTANT shall notify the COUNTY Project Manager, 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 as identified in Section 2.4.

8.1 Preliminary Project Research

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. The research shall include but should not be limited to a review of the project's Alignment Study documents including the Environmental Document and Natural Resources Evaluation Report.

The CONSULTANT shall research any existing easements or other restrictions that may exist both within or adjacent to the proposed project boundary. Project research may include but should not be limited to review of available: federal, state, and local permit files and databases; and local government information including county and property appraiser data. The CONSULTANT shall determine if any Sovereign Submerged Lands easements need to be modified or acquired. Any applicable information will be shown on the plans as appropriate.

8.2 Field Work

8.2.1 Pond Site Alternatives:

The CONSULTANT shall review alternative pond sites as directed by the COUNTY and information shall be included in the Pond Siting Report.

8.2.2 Establish Wetland Jurisdictional Lines and Assessments:

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).
- 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 COUNTY permit application for the project.
- Set seasonal high-water levels in adjacent wetlands with biological indicators
- 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. Photo copies of aerials are not acceptable. When necessary, a wetland specific survey will be prepared by a registered surveyor and mapper. All surveyed jurisdictional boundaries are to be tied to the project's baseline of survey.
- 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 will 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.

8.2.3 Species Surveys:

The CONSULTANT shall conduct wildlife surveys as defined by rules or regulations of any permitting agency, or commenting agency that is processing a COUNTY permit.

8.3 Agency Verification of Wetland Data

The CONSULTANT shall be responsible for verification of wetland and other surface water data identified in Section 8.2 and coordinating regulatory agency field reviews, including finalization of assessments and jurisdictional determinations with applicable agencies.

8.4 Complete and Submit All Required Permit Applications

The CONSULTANT shall collect all of 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 in 8.4.1, 8.4.2, and 8.12 (Other Permits). 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 must be approved by the COUNTY prior to submittal to regulatory agencies.

The CONSULTANT will submit all permit applications, as directed by the COUNTY, and be responsible for payment of public noticing fees. The COUNTY will be responsible for SFWMD ERP permit review fees.

8.4.1 Complete and Submit all Required Wetland Permit Applications:

The CONSULTANT shall prepare, complete, and submit required wetland permit (i.e. ERP, Section 404) application packages to the appropriate regulatory agencies. This includes, but is not limited to, applications submitted to WMDs and/or DEP, and USACE. The application package may include but is not limited to attachments (i.e. 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. All responses and completed application packages must be approved by the District Permit Coordinator prior to submittal to the regulatory agencies. Geotechnical permitting should also be prepared, submitted, and obtained.

8.4.2 Complete and Submit all Required Species Permit Applications:

The CONSULTANT shall prepare, complete and submit required species permit applications to the appropriate agencies. This includes federal and state protected species permit application packages as required. The work includes completion of application package (i.e. project location map, aerials, affidavit of ownership, pictures, additional technical analysis, etc.), and cover letter with project description as well as completion of applicable forms. The CONSULTANT shall respond to agency RAIs, including necessary revisions to the application package. All responses and completed applications must be approved by the District Permit Coordinator prior to submittal to the regulatory agency.

8.5 Coordinate and Review Dredge and Fill Sketches

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

8.6 Prepare USCG Permit Application**8.7 Prepare Water Management District or Local Water Control District Right of Way Occupancy Permit Application**

The CONSULTANT shall be responsible for the preparation of the ROW Occupancy permit application in accordance with the regulatory agency requirements. The CONSULTANT shall be responsible for acquiring the ROW Occupancy permit.

8.8 Prepare Coastal Construction Control Line (CCCL) Permit Application

The CONSULTANT shall be responsible for the preparation of the CCCL permit application and acquire the final "Notice to Proceed" authorization from the Florida COUNTY of Environmental Protection (FDEP). Legal advertisements shall be published one time in a newspaper that meets the notification requirements of the FDEP.

8.9 Prepare USACE Section 408 Application to Alter a Civil Works Project

The CONSULTANT shall be responsible for the preparation of the Section 408 (33 USC 408) application and obtaining Section 408 permission.

8.10 Compensatory Mitigation Plan

If impacts cannot be avoided, the CONSULTANT shall prepare a mitigation plan to be included as a part of the application(s).

Prior to the development of mitigation alternatives, the CONSULTANT shall meet with the Project Manager and Environmental Permit Coordinator to determine the COUNTY's policies in proposing mitigation. The CONSULTANT shall develop a mitigation plan based upon the general guidelines provided by the COUNTY.

The CONSULTANT will be directed by the COUNTY to investigate the mitigation options that meet federal and state requirements in accordance with section 373.4137, F.S. Below are mitigation options:

- Purchase of mitigation credits from a mitigation bank
- Payment to DEP/WMD for mitigation services
- Monetary participation in offsite regional mitigation plans
- Creation/restoration of wetlands

In the event that physical creation or restoration is the only feasible alternative to offset wetland impacts, the CONSULTANT shall collect all of the data and information necessary to prepare mitigation plans acceptable to all permitting agencies and commenting agencies who are processing or reviewing a permit application for a COUNTY project.

Prior to selection of a final creation/restoration mitigation site, the CONSULTANT will provide the following services in the development of a mitigation plan:

- Preliminary jurisdictional determination for each proposed site
- Selection of alternative sites
- Coordination of alternative sites with the COUNTY/all environmental agencies
- Written narrative listing potential sites with justifications for both recommended and non-recommended sites.

8.11 Mitigation Coordination and Meetings

The CONSULTANT shall coordinate with COUNTY personnel prior to approaching any environmental permitting or commenting agencies. Once a mitigation plan has been reviewed and approved by the COUNTY, the CONSULTANT will be responsible for coordinating the proposed mitigation plan with the environmental agencies. The CONSULTANT will provide mitigation information needed to update the FDOT

Environmental Impact Inventory.**8.12 Other Environmental Permits****Environmental Clearances, Re-evaluations, and Technical Support****8.13 Technical Support to the COUNTY for Environmental Clearances and Re-evaluations (use when CONSULTANT provides technical support only)**

The CONSULTANT shall provide engineering and environmental support for the COUNTY to obtain environmental clearances for all changes to the project after the PD&E study was approved. These changes include but are not limited to pond and/or mitigation sites identified, land use or environmental changes, and major design changes.

8.13.1 NEPA or SEIR Re-evaluation: N/A**8.13.2 Archaeological and Historical Resources: N/A.**

8.13.3 Wetland Impact Analysis: The CONSULTANT shall provide necessary technical information to the COUNTY to analyze the impacts to wetlands and other surface waters due to changes in the project.

8.13.4 Essential Fish Habitat Impact Analysis: The CONSULTANT shall provide necessary technical information to the COUNTY to analyze the impacts to essential fish habitat due to changes in the project.

8.13.5 Protected Species and Habitat Impact Analysis: The CONSULTANT shall provide necessary technical information to the COUNTY to analyze the impacts to all protected species and habitat due to changes in the project. The CONSULTANT shall perform the necessary analysis to complete agency consultation in accordance with Section 7 or Section 10 of the Endangered Species Act.

8.14 Preparation of Environmental Clearances and Re-evaluations (use when CONSULTANT prepares all documents associated with a re-evaluation)

N/A

8.15 Contamination Impact Analysis

The CONSULTANT shall prepare Contamination Screening Evaluation for the project limits including stormwater ponds and floodplain compensation sites. The appropriate level of analysis and deliverable type will be approved by the COUNTY's Project Manager. The draft Level 1 Contamination Screening Evaluation document shall be submitted to the COUNTY's Project Manager for review and final approval. The CONSULTANT shall include an evaluation of any new contamination impacts due to changes to the project from the design concept, if applicable, and any new discharges or new potential contamination impacts not evaluated in any previously completed Contamination Screening Evaluation. The project impacts, conclusions and recommendations, figures, tables and appendices will

be provided in a Level I Contamination Screening Evaluation Report.

The CONSULTANT will provide Level II assessment services. If contamination is identified within the limits of construction, the CONSULTANT shall coordinate with the COUNTY to properly mark identified contamination areas in the plans and develop specifications as appropriate.

8.16 Asbestos Survey

The CONSULTANT will provide asbestos and metal based coatings survey services.

If asbestos or metal based coatings above threshold levels are found on the bridge(s), the CONSULTANT shall coordinate with the COUNTY to obtain plan notes, general notes, specifications, pay item notes, and Operation and Maintenance (O&M) plan for any asbestos to remain in place.

8.17 Technical Meetings

8.18 Quality Assurance/Quality Control

8.19 Supervision

8.20 Coordination

9 STRUCTURES - SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

The CONSULTANT shall analyze, design, and develop contract documents for all structures in accordance with applicable provisions as defined in Section 2.19, Provisions for Work. Individual tasks identified in Sections 9 through 18 are defined in the Staff Hour Estimation Handbook and within the provision defined in Section 2. 20, 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.

- 9.1 Key Sheet and Index of Drawings
- 9.2 Project Layout
- 9.3 General Notes and Bid Item Notes
- 9.4 Miscellaneous Common Details
- 9.5 Incorporate Report of Core Borings
- 9.6 Standard Plans- Bridges
- 9.7 Existing Bridge Plans
- 9.8 Assemble Plan Summary Boxes and Quantities
- 9.9 Cost Estimate
- 9.10 Technical Special Provisions and Modified Special Provisions
- 9.11 Field Reviews
- 9.12 Technical Meetings
- 9.13 Quality Assurance/Quality Control

9 STRUCTURES – SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

- 9.14 Independent Peer Review
- 9.15 Supervision
- 9.16 Coordination

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9 STRUCTURES – SUMMARY AND MISCELLANEOUS TASKS AND DRAWINGS

10 STRUCTURES - BRIDGE DEVELOPMENT REPORT

The Consultant shall prepare a Bridge Development Report (BDR). The BDR shall be submitted as part of the Phase I Roadway Submittal, General Requirements.

General Requirements

- 10.1 Bridge Geometry
- 10.2 Ship Impact Data Collection
- 10.3 Ship Impact Criteria

Superstructure Alternatives

- 10.4 Short-Span Concrete
- 10.5 Medium-Span Concrete
- 10.6 Long Span Concrete
- 10.7 Structural Steel

Foundation and Substructure Alternatives

- 10.8 Pier/Bent
- 10.9 Shallow Foundations / GRS Abutments
- 10.10 Deep Foundations

Movable Span

- 10.11 Data Collection and Design Criteria
- 10.12 Movable Span Geometrics and Clearances
- 10.13 Deck System Evaluation
- 10.14 Framing Plan Development
- 10.15 Main Girder Preliminary Design
- 10.16 Conceptual Span Balance/Counterweight
- 10.17 Support System Development
- 10.18 Drive Power Calculations

- 10.19 Drive System Development
- 10.20 Power and Control Development
- 10.21 Conceptual Pier Design
- 10.22 Foundation Analysis (FL PIER)
- 10.23 Tender Visibility Study

Other BDR Issues

- 10.24 Aesthetics
- 10.25 TTCP/Staged Construction Requirements
- 10.26 Constructability Requirements
- 10.27 Load Rating for Damaged/Widened Structures
- 10.28 Quantity and Cost Estimates
- 10.29 Quantity and Cost Estimates - Movable Span
- 10.30 Wall Type Justification

Report Preparation

- 10.31 Exhibits
- 10.32 Exhibits - Movable Span
- 10.33 Report Preparation
- 10.34 Report Preparation - Movable Span
- 10.35 BDR Submittal Package

Preliminary Plans

When ONLY Phase I plans are final deliverable, use Task Nos. as shown for applicable bridge types for project Activities 12 thru 16. Staff hours to be negotiated and scaled appropriately.

11 STRUCTURES - TEMPORARY BRIDGE

The CONSULTANT shall prepare plans for Temporary Bridge(s) at the location(s) specified in Section 2.5. The CONSULTANT shall contact FDOT Office of Maintenance to determine the type and availability of temporary before deciding on the temporary bridge type to be used.

General Layout Design and Plans

- 11.1 Overall Bridge Final Geometry
- 11.2 General Plan and Elevation
- 11.3 Miscellaneous Details

End Bent Design and Plans

- 11.4 End Bent Structural Design
- 11.5 End Bent Details

Intermediate Bent Design and Plans

- 11.6 Intermediate Bent Structural Design
- 11.7 Intermediate Bent Details

Miscellaneous Substructure Design and Plans

- 11.8 Foundation Layout

12 STRUCTURES - SHORT SPAN CONCRETE BRIDGE

The CONSULTANT shall prepare plans for Short Span Concrete Bridge(s) at the location(s) specified in Section 2.5.

General Layout Design and Plans

- 12.1 Overall Bridge Final Geometry
- 12.2 Expansion/Contraction Analysis
- 12.3 General Plan and Elevation
- 12.4 Construction Staging
- 12.5 Approach Slab Plan and Details
- 12.6 Miscellaneous Details

End Bent Design and Plans

- 12.7 End Bent Geometry
- 12.8 End Bent Structural Design
- 12.9 End Bent Plan and Elevation
- 12.10 End Bent Details

Intermediate Bent Design and Plans

- 12.11 Bent Geometry
- 12.12 Bent Stability Analysis
- 12.13 Bent Structural Design
- 12.14 Bent Plan and Elevation
- 12.15 Bent Details

Miscellaneous Substructure Design and Plans

- 12.16 Foundation Layout

Superstructure Design and Plans

- 12.17 Finish Grade Elevation Calculation

12.18 Finish Grade Elevations

Cast-In-Place Slab Bridges

12.19 Bridge Deck Design

12.20 Superstructure Plan

12.21 Superstructure Sections and Details

Prestressed Slab Unit Bridges

12.22 Prestressed Slab Unit Design

12.23 Prestressed Slab Unit Layout

12.24 Prestressed Slab Unit Details and Schedule

12.25 Deck Topping Reinforcing Layout

12.26 Superstructure Sections and Details

Reinforcing Bar Lists

12.27 Preparation of Reinforcing Bar List

Load Rating

12.28 Load Rating

13 STRUCTURES - MEDIUM SPAN CONCRETE BRIDGE

The CONSULTANT shall prepare plans for Medium Span Concrete Bridge(s) at the location(s) specified in Section 2.5.

General Layout Design and Plans

- 13.1 Overall Bridge Final Geometry
- 13.2 Expansion/Contraction Analysis
- 13.3 General Plan and Elevation
- 13.4 Construction Staging
- 13.5 Approach Slab Plan and Details
- 13.6 Miscellaneous Details

End Bent Design and Plans

- 13.7 End Bent Geometry
- 13.8 Wingwall Design and Geometry
- 13.9 End Bent Structural Design
- 13.10 End Bent Plan and Elevation
- 13.11 End Bent Details

Intermediate Bent Design and Plans

- 13.12 Bent Geometry
- 13.13 Bent Stability Analysis
- 13.14 Bent Structural Design
- 13.15 Bent Plan and Elevation
- 13.16 Bent Details

Pier Design and Plans

- 13.17 Pier Geometry
- 13.18 Pier Stability Analysis

13.19 Pier Structural Design

13.20 Pier Plan and Elevation

13.21 Pier Details

Miscellaneous Substructure Design and Plans

13.22 Foundation Layout

Superstructure Deck Design and Plans

13.23 Finish Grade Elevation (FGE) Calculation

13.24 Finish Grade Elevations

13.25 Bridge Deck Design

13.26 Bridge Deck Reinforcing and Concrete Quantities

13.27 Diaphragm Design

13.28 Superstructure Plan

13.29 Superstructure Section

13.30 Miscellaneous Superstructure Details

Reinforcing Bar Lists

13.31 Preparation of Reinforcing Bar List

Continuous Concrete Girder Design

13.32 Section Properties

13.33 Material Properties

13.34 Construction Sequence

13.35 Tendon Layouts

13.36 Live Load Analysis

13.37 Temperature Gradient

13.38 Time Dependent Analysis

13.39 Stress Summary

13.40 Ultimate Moments

13.41 Ultimate Shear

13.42 Construction Loading

13.43 Framing Plan

13.44 Girder Elevation, including Grouting Plan and Vent Locations

13.45 Girder Details

13.46 Erection Sequence

13.47 Splice Details

13.48 Girder Deflections and Camber

Simple Span Concrete Design

13.49 Prestressed Beam

13.50 Prestressed Beam Schedules

13.51 Framing Plan

Beam Stability

13.52 Beam/Girder Stability

Bearing

13.53 Bearing Pad and Bearing Plate Design

13.54 Bearing Pad and Bearing Plate Details

Load Rating

13.55 Load Ratings

14 STRUCTURES - STRUCTURAL STEEL BRIDGE

The CONSULTANT shall prepare plans for Structural Steel Bridge(s) at the location(s) specified in Section 2.5.

General Layout Design and Plans

- 14.1 Overall Bridge Final Geometry
- 14.2 Expansion/Contraction Analysis
- 14.3 General Plan and Elevation
- 14.4 Construction Staging
- 14.5 Approach Slab Plan and Details
- 14.6 Miscellaneous Details

End Bent Design and Plans

- 14.7 End Bent Geometry
- 14.8 Wingwall Design and Geometry
- 14.9 End Bent Structural Design
- 14.10 End Bent Plan and Elevation
- 14.11 End Bent Details

Intermediate Bent Design and Plans

- 14.12 Bent Geometry
- 14.13 Bent Stability Analysis
- 14.14 Bent Structural Design
- 14.15 Bent Plan and Elevation
- 14.16 Bent Details

Pier Design and Plans

- 14.17 Pier Geometry
- 14.18 Pier Stability Analysis

14.19 Pier Structural Design

14.20 Pier Plan and Elevation

14.21 Pier Details

Miscellaneous Substructure Design and Plans

14.22 Foundation Layout

Superstructure Deck Design and Plans

14.23 Finish Grade Elevation (FGE) Calculation

14.24 Finish Grade Elevations

14.25 Bridge Deck Design

14.26 Bridge Deck Reinforcing and Concrete Quantities

14.27 Superstructure Plan

14.28 Superstructure Section

14.29 Miscellaneous Bridge Deck Details

Reinforcing Bar Lists

14.30 Preparation of Reinforcing Bar List

Structural Steel Plate Girder Design

14.31 Unit Modeling

14.32 Section Design

14.33 Stiffener Design and Locations

14.34 Cross-frame Design

14.35 Connections

14.36 Bearing Assembly Design and Detailing (With Jacking Analysis)

14.37 Splice Design

14.38 Shear Stud Connectors

14.39 Deflection Analysis

- 14.40 Framing Plan
- 14.41 Girder Elevation
- 14.42 Structural Steel Details
- 14.43 Splice Details
- 14.44 Girder Deflections and Camber

Structural Steel Box Girder Design

- 14.45 Unit Modeling
- 14.46 Section Design
- 14.47 Stiffener Design and Locations
- 14.48 Interior Cross-Frame Design
- 14.49 Exterior Cross-Frame Design
- 14.50 Connections
- 14.51 Bearing Assembly Design and Detailing (with Jacking Analysis)
- 14.52 Splice Design
- 14.53 Shear Stud Connectors
- 14.54 Deflection Analysis
- 14.55 Framing Plan
- 14.56 Girder Elevation
- 14.57 Structural Steel Details
- 14.58 Splice Details
- 14.59 Girder Deflections and Camber

Erection Scheme

- 14.60 Erection Scheme Analysis
- 14.61 Erection Scheme

Load Rating

14.62 Load Rating

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15 STRUCTURES - SEGMENTAL CONCRETE BRIDGE

The CONSULTANT shall prepare plans for Segmental Concrete Bridge(s) at the location(s) specified in Section 2.5.

General Layout Design and Plans

- 15.1 Final Bridge Geometry
- 15.2 Casting Geometry Calculation
- 15.3 Finish Grade Geometry Calculation
- 15.4 Finish Grade Elevations
- 15.5 Construction Schedule
- 15.6 General Plan and Elevation
- 15.7 Approach Slab Plan and Details
- 15.8 Miscellaneous Details
- 15.9 Existing Bridge Plans

End Bent Design and Plans

- 15.10 End Bent Geometry
- 15.11 Wingwall Geometry and Design
- 15.12 End Bent Structural Design
- 15.13 End Bent Plan and Elevation
- 15.14 End Bent Details

Pier Design and Plans

- 15.15 Pier Geometry
- 15.16 Pier Stability Analysis
- 15.17 Pier Construction Loads
- 15.18 Pier Structural Design
- 15.19 Pier Plan and Elevation

15.20 Pier Details

Miscellaneous Substructure Design and Plans

15.21 Foundation Layout

Longitudinal Analysis

15.22 Section Properties

15.23 Material Properties

15.24 Superimposed Dead Loads

15.25 Construction Sequence

15.26 Tendon Layouts

15.27 Live Load Analysis

15.28 Temperature Gradient

15.29 Time Dependent Analysis

15.30 Stress Summary

15.31 Ultimate Moments

15.32 Ultimate Shear

15.33 Construction Loading

Transverse Analysis

15.34 Time Dependent Analysis

15.35 Live Load Analysis

15.36 Temperature Gradient

15.37 Stress Summary

15.38 Ultimate Moments

15.39 Construction Loading

Superstructure Design

15.40 Typical Segment

- 15.41 Pier Segment
- 15.42 Expansion Joint Segment
- 15.43 Blister Details
- 15.44 Deviator Blocks
- 15.45 Bearings
- 15.46 Expansion Joints
- 15.47 Special Analysis

Superstructure Plans

- 15.48 Typical Sections
- 15.49 Finish Grade Elevations
- 15.50 Segment Layout / Designations
- 15.51 Typical Segments
- 15.52 Variable Depth Segments
- 15.53 Pier Segments
- 15.54 Expansion Joint Segments
- 15.55 CIP Closure Joint Details
- 15.56 Casting Geometry
- 15.57 Integrated 3-D Drawings

Post-Tensioning Details

- 15.58 Bulkhead Details
- 15.59 Transverse Tendon Layout
- 15.60 Longitudinal Tendon Layout
- 15.61 Temporary Post-Tensioning
- 15.62 Quantities and Stressing Schedule
- 15.63 Future Post-Tensioning

15.64 Anchorage Blisters

15.65 Deviation Blocks

15.66 PT Grouting Plan Details

Miscellaneous Details

15.67 Erection Sequence and Details

15.68 Access Opening Details

15.69 Bearings

15.70 Expansion Joints

15.71 Vermin Screen Details

15.72 Railing Details

15.73 Lighting and Luminaries

15.74 Architectural Details

15.75 Special Systems

Reinforcing Bar Lists

15.76 Preparation of Reinforcing Bar Lists

Load Rating

15.77 Load Rating (LRFR)

16 STRUCTURES - MOVABLE SPAN

The CONSULTANT shall prepare plans for Movable Span Bridge(s) at the location(s) specified in Section 2.5.

Final Design Bascule Pier

- 16.1 Pier Deck
- 16.2 Leaf/Pier Clearance Diagrams
- 16.3 Load Shoe Columns
- 16.4 Trunnion Columns
- 16.5 Foundations
- 16.6 Footing
- 16.7 Seal
- 16.8 Back Wall (Approach Span Bearings) Closed Piers only
- 16.9 Bascule Pier Deck Elevations

Bascule Pier Dimensions - Detailing

- 16.10 Pier Plan Views
- 16.11 Pier Elevations Views
- 16.12 Pier Sections

Bascule Pier Reinforcing Details

- 16.13 Pier Reinforcing

Bascule Pier Miscellaneous Details

- 16.14 Pier Barrier Details
- 16.15 Stair Details
- 16.16 Handrail Details
- 16.17 Ladder and Hatch Details
- 16.18 Pier Equipment

16.19 Bascule Pier Notes and Summary of Quantities

16.20 Miscellaneous Details

Bascule Leaf Design

16.21 Deck Design

16.22 Sidewalk Design

16.23 Stringer Design

16.24 Typical Floorbeam Design

16.25 End Floorbeam Design

16.26 Deep Floorbeam Design

16.27 Sidewalk Bracket Design

16.28 Roadway Bracket Design

16.29 Main Girder Influence Lines

16.30 Main Girder Design

16.31 Trunnion Girder Design

16.32 Main Girder Camber Data

16.33 Leaf Lateral Bracing Design

16.34 Counterweight Design

16.35 Live Load Shoe Design

16.36 Barrier Design

16.37 Deck Elevations

16.38 Balance Calculations

Bascule Leaf Detailing

16.39 Bascule GP&E

16.40 Bascule Leaf Notes

16.41 Framing Plan

- 16.42 Flooring Plan and Details
- 16.43 Typical Section and Finish Grade Elevations
- 16.44 Girder Elevation
- 16.45 Girder Details
- 16.46 Camber Layout
- 16.47 Floor Beams
- 16.48 Counterweight Girder/Box
- 16.49 Trunnion Girder
- 16.50 Cylinder Girder
- 16.51 Lateral Bracing Details
- 16.52 Counterweight Bracing Details
- 16.53 Joint Details
- 16.54 Traffic Barrier Details
- 16.55 Pedestrian Rail and Support Details
- 16.56 Curb and Sidewalk Details
- 16.57 Barrier and Sidewalk Bracket Details
- 16.58 Counterweight Details
- 16.59 Stress Table or Influence Lines

Mechanical Design

- 16.60 Final Power Requirements
- 16.61 Trunnion Assembly
- 16.62 Span Locks
- 16.63 Sump Pumps

Mechanical Drive Design

- 16.64 Drive Shafts, Couplings, Keys, Bearings and Supports

16.65 Rack and Pinion, Bearings and Supports

16.66 Drive Train

16.67 Motor Brakes and Machinery Brakes

Hydraulic Drive Design

16.68 Hydraulic Drive

Machinery Detailing

16.69 Machinery Layout

16.70 Machinery Elevation

16.71 Machinery Section

16.72 Trunnion Assembly

16.73 Drive Details

16.74 Span Locks

Electrical Design

16.75 Load Analysis

16.76 Power Distribution

16.77 Drive Equipment

16.78 Bridge Controls

16.79 Grounding

16.80 Lightning and Surge Suppression

16.81 Pier Lighting

Electrical Detailing

16.82 Electrical Plan and Elevation

16.83 Electrical Symbols and Abbreviations

16.84 Single/Three Line Diagram

16.85 Panel Board and Light Fixture Schedules

16.86 Wire and Conduit Schedules and Diagrams

16.87 Control Desk/Panel Layout

16.88 Control Schematics

16.89 PLC Logic

16.90 Communication System

16.91 Navigation Lighting Details

16.92 Pedestrian Gate, Traffic Gate, and Barrier Details

16.93 Submarine Cable

16.94 Miscellaneous Details

Control House

16.95 Architectural Design

16.96 Architectural Details

16.97 Structural Design

16.98 Structural Details

16.99 HVAC/Plumbing Design

16.100 HVAC/Plumbing/Electrical Cables

Reinforcing Bar Lists

16.101 Preparation of Reinforcing Bar List

Load Rating

16.102 Load Rating

17 STRUCTURES - RETAINING WALLS

The CONSULTANT shall prepare plans for Retaining Wall(s) as specified in Section 2.5.

General Requirements

17.1 Key Sheet

17.2 Horizontal Wall Geometry

Permanent Proprietary Walls

17.3 Vertical Wall Geometry

17.4 Semi-Standard Drawings

17.5 Wall Plan and Elevations (Control Drawings)

17.6 Details

Temporary Proprietary Walls

17.7 Vertical Wall Geometry

17.8 Semi-Standard Drawings

17.9 Wall Plan and Elevations (Control Drawings)

17.10 Details

Cast-In-Place Retaining Walls

17.11 Design

17.12 Vertical Wall Geometry

17.13 General Notes

17.14 Wall Plan and Elevations (Control Drawings)

17.15 Sections and Details

17.16 Reinforcing Bar List

Other Retaining Walls and Bulkheads

17.17 Design

17.18 Vertical Wall Geometry

17.19 General Notes, Tables and Miscellaneous Details

17.20 Wall Plan and Elevations

17.21 Details

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18 STRUCTURES - MISCELLANEOUS

The CONSULTANT shall prepare plans for Miscellaneous Structure(s) as specified in Section 2.5.

Concrete Box Culverts

- 18.1 Concrete Box Culverts
- 18.2 Concrete Box Culverts Extensions
- 18.3 Concrete Box Culvert Data Table Plan Sheets
- 18.4 Concrete Box Culvert Special Details Plan Sheets

Strain Poles

- 18.5 Steel Strain Poles
- 18.6 Concrete Strain Poles
- 18.7 Strain Pole Data Table Plan Sheets
- 18.8 Strain Pole Special Details Plan Sheets

Mast Arms

- 18.9 Mast Arms
- 18.10 Mast Arms Data Table Plan Sheets
- 18.11 Mast Arms Special Details Plan Sheets

Overhead/Cantilever Sign Structure

- 18.12 Cantilever Sign Structures
- 18.13 Overhead Span Sign Structures
- 18.14 Special (Long Span) Overhead Sign Structures
- 18.15 Monotube Overhead Sign Structure
- 18.16 Bridge Mounted Signs (Attached to Superstructure)
- 18.17 Overhead/Cantilever Sign Structures Data Table Plan Sheets
- 18.18 Overhead/Cantilever Sign Structures Special Details Plan Sheets

High Mast Lighting

18.19 Non-Standard High Mast Lighting Structures

18.20 High Mast Lighting Special Details Plan Sheets

Noise Barrier Walls (Ground Mount)

18.21 Horizontal Wall Geometry

18.22 Vertical Wall Geometry

18.23 Summary of Quantities – Aesthetic Requirements

18.24 Control Drawings

18.25 Design of Noise Barrier Walls Covered by Standards

18.26 Design of Noise Barrier Walls not Covered by Standards

18.27 Aesthetic Details

Special Structures

18.28 Fender System

18.29 Fender System Access

18.30 Special Structures

18.31 Other Structures

18.32 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles

18.33 Condition Evaluation of Signal and Sign Structures, and High Mast Light Poles (No As built or Design Plans Available)

18.34 Analytical Evaluation of Signal and Sign Structures, and High Mast Light Poles

18.35 Ancillary Structures Report

19 SIGNING AND PAVEMENT MARKING ANALYSIS

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.

19.1 Traffic Data Analysis

The CONSULTANT shall review the approved preliminary engineering report, typical section package, traffic technical memorandum and proposed geometric design alignment to identify proposed sign placements and roadway markings. Perform queue analysis.

19.2 No Passing Zone Study

The CONSULTANT shall perform all effort required for field data collection, and investigation in accordance with the FDOT's Manual on Uniform Traffic Studies.

The CONSULTANT shall submit the signed and sealed report to the COUNTY for review and approval.

19.3 Reference and Master Design File

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

19.4 Multi-Post Sign Support Calculations

The CONSULTANT shall determine the appropriate column size from the COUNTY's Multi-Post Sign Program(s).

19.5 Sign Panel Design Analysis

Establish sign layout, letter size and series for non-standard signs.

19.6 Sign Lighting/Electrical Calculations

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

The CONSULTANT shall prepare a photometric analysis to be submitted as part of the Lighting Design Analysis Report. An analysis shall be provided for each new and/or modified sign panel which requires lighting.

The Consultant shall submit voltage drop calculations and load analysis for each new and/or modified sign panel which requires lighting.

- 19.7 Quantities
- 19.8 Cost Estimate
- 19.9 Technical Special Provisions and Modified Special Provisions
- 19.10 Other Signing and Pavement Marking Analysis
- 19.11 Field Reviews
- 19.12 Technical Meetings
- 19.13 Quality Assurance/Quality Control
- 19.14 Independent Peer Review
- 19.15 Supervision
- 19.16 Coordination

20 SIGNING AND PAVEMENT MARKING PLANS

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.

- 20.1 Key Sheet
- 20.2 Summary of Pay Items Including Quantity Input
- 20.3 Tabulation of Quantities
- 20.4 General Notes/Pay Item Notes
- 20.5 Project Layout
- 20.6 Plan Sheet
- 20.7 Typical Details
- 20.8 Guide Sign Work Sheet(s)
- 20.9 Traffic Monitoring Site
- 20.10 Cross Sections
- 20.11 Special Service Point Details
- 20.12 Special Details
- 20.13 Interim Standards
- 20.14 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT 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 design drawings, specifications and other services 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 may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

- 20.15 Supervision

21 SIGNALIZATION ANALYSIS

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

21.1 Traffic Data Collection

The CONSULTANT shall perform all effort required for traffic data collection, including crash reports, 24 hr. machine counts, 8 hr. turning movement counts, 7 day machine counts, and speed & delay studies.

21.2 Traffic Data Analysis

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

21.3 Signal Warrant Study

21.4 Systems Timings

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

21.5 Reference and Master Signalization Design File

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

21.6 Reference and Master Interconnect Communication Design File

The CONSULTANT shall prepare the Interconnect Communication Design file to include all necessary design elements and all associated reference files.

21.7 Overhead Street Name Sign Design

The CONSULTANT shall design Signal Mounted Overhead Street Name signs.

21.8 Pole Elevation Analysis

21.9 Traffic Signal Operation Report

21.10 Quantities

21.11 Cost Estimate

21.12 Technical Special Provisions and Modified Special Provisions

21 SIGNALIZATION ANALYSIS

21.13 Other Signalization Analysis

21.14 Field Reviews

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 as Compared with Current District Standards**
- **Interconnect Media**
- **Controller Timing Data**

21.15 Technical Meetings

21.16 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT 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 design drawings, specifications and other services 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 may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

21.17 Independent Peer Review

21.18 Supervision

21.19 Coordination

22 SIGNALIZATION PLANS

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:

- 22.1 Key Sheet
- 22.2 Summary of Pay Items Including Designer Interface Quantity Input
- 22.3 Tabulation of Quantities
- 22.4 General Notes/Pay Item Notes
- 22.5 Plan Sheet
- 22.6 Interconnect Plans
- 22.7 Traffic Monitoring Site
- 22.8 Guide Sign Worksheet
- 22.9 Special Details
- 22.10 Special Service Point Details
- 22.11 Mast Arm/Monotube Tabulation Sheet
- 22.12 Strain Pole Schedule
- 22.13 TTCP Signal (Temporary)
- 22.14 Temporary Detection Sheet
- 22.15 Utility Conflict Sheet
- 22.16 Interim Standards
- 22.17 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT 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 design drawings, specifications and other services 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

22 SIGNALIZATION PLANS

Quality Control Plan may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

22.18 Supervision

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23 LIGHTING ANALYSIS

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

23.1 Lighting Justification Report

The CONSULTANT shall prepare a Lighting Justification Report. The report shall be submitted under a separate cover with the Phase I plans submittal, titled Lighting Justification Report. The report shall provide analyses for mainlines, interchanges, and arterial roads and shall include all back-up data such that the report stands on its own. Back up data shall include current ADT's, general crash data average cost from the Florida Highway Safety Improvement Manual, crash details data from the last three years, and preliminary lighting calculations.

The report shall address warrants to determine if lighting warrants are met, and shall include a benefit-cost analysis to determine if lighting is justified. The report shall include calculations for the night-to-day crash ratio as well as a table summarizing the day-time and the night-time crashes. The report shall follow the procedures outlined in the FDOT Manual on Uniform Traffic Studies (MUTS) manual which utilize ADT, Three Year Crash Data, night/day crash ratio, percentage of night ADT, etc.

23.2 Lighting Design Analysis Report

The CONSULTANT shall prepare a Preliminary Lighting Design Analysis Report. The report shall be submitted under a separate cover with the Phase II plans submittal. The report shall provide analyses for each signalized intersection lighting design and each typical section of the mainline, typical section for the ramps (one and/or two lanes), interchanges, underdeck lighting, and arterial roads. Each lighting calculation shall be properly identified as to the area that it covers.

The report shall include the Lighting Design Criteria that will be used. For projects with corridor lighting, the report shall include the evaluation of at least three lighting design alternatives. The report shall provide a recommendation on the alternative to use. Each alternative shall be properly described; the alternatives shall consider different pole heights, lamp wattage, and arm lengths. Each alternative shall be provided with a cost estimate that includes initial cost in addition to operations and maintenance cost for one year.

The report shall also include the lighting calculations for each lighted sign.

After approval of the preliminary report, the CONSULTANT shall submit a revised report for each submittal. The Lighting Design Analysis Report shall include:

Voltage drop calculations**Load analysis calculations for each branch circuit**

23.3 Voltage Drop Calculations

The CONSULTANT shall submit voltage drop calculations showing the equation or equations 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 District.

The Voltage Drop Calculations shall be submitted as part of the Lighting Design Analysis Report.

23.4 FDEP Coordination and Report

23.5 Reference and Master Design Files

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

23.6 Temporary Lighting

The CONSULTANT shall provide temporary lighting requirements for all affected phases of construction to light roadways in areas where required. The temporary lighting shall be included with the Temporary Traffic Control Plans with proper notes, illumination and uniformity criteria and details.

23.7 Design Documentation

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

- **Phase submittal checklist.**
- **Structural calculations for special conventional pole concrete foundations.**
- **Correspondence with the power company concerning new electrical service.**

23.8 Quantities

23.9 Cost Estimate

23.10 Technical Special Provisions and Modified Special Provisions

23.11 Other Lighting Analysis

23.12 Field Reviews

23 LIGHTING ANALYSIS

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

23.13 Technical Meetings

23.14 Quality Assurance/Quality Control

23.15 Independent Peer Review

23.16 Supervision

23.17 Coordination

24 LIGHTING PLANS

The CONSULTANT shall prepare a set of Lighting Plans in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, and current design memorandums.

- 24.1 Key Sheet
- 24.2 Summary of Pay Item Sheet Including Designer Interface Quantity Input
- 24.3 Tabulation of Quantities
- 24.4 General Notes/Pay Item Notes
- 24.5 Pole Data, Legend & Criteria
- 24.6 Service Point Details
- 24.7 Project Layout
- 24.8 Plan Sheet
- 24.9 Special Details
- 24.10 Temporary Lighting Data and Details
- 24.11 Temporary Traffic Control Plan Sheets
- 24.12 Interim Standards
- 24.13 Quality Assurance/Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of traffic design drawings, specifications and other services furnished by the CONSULTANT 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 design drawings, specifications and other services 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 may be one utilized by the CONSULTANT as part of their normal operation or it may be one specifically designed for this project.

- 24.14 Supervision

25 LANDSCAPE ANALYSIS

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

25.1 Data Collection

All research required to collect data necessary to complete the initial design analysis. Includes identifying local ordinances and collection of other project data.

25.2 Site Inventory and Analysis for Proposed Landscape

Includes identification of opportunities and constraints for the proposed landscape project based on existing site conditions. Identify available planting areas for nursery landscape material. Summary of analysis, if required, is included in conceptual design. Roll plots may be required.

25.2a Selective Clearing and Grubbing Site Inventory

25.2b Inventory and Analysis

25.2c1 Vegetation Disposition Plan- Mainline

25.2c2 Vegetation Disposition Plan- Interchange

25.3 Planting Design

25.3a Conceptual Planting Design

Includes delineation of all proposed planting types, scheme development and preliminary costs and reports. The design shall be submitted with the Phase I plans.

25.3a1 Report Preparation

25.3a2 Mainline

25.3a3 Interchanges, Intersections, and Rest Areas

25.3a4 Toll Plazas

25.3b Final Planting Design

Includes identifying the species/type, size, location, spacing, and quality of all plants.

25.3b1 Master Design File Creation

25 LANDSCAPE ANALYSIS

25.3b2 Mainline**25.3b3 Interchanges, Intersections, and Rest Areas****25.3b4 Toll Plazas**

25.4 Irrigation Design

25.4a Conceptual Irrigation Design

Conceptual Design: Typically not done in master design file. Includes determination of water and power sources. Phase I design level.

25.4a1 Feasibility Report: Includes analysis of methods, materials and operation costs associated with proposed irrigation system design.

25.4a2 Mainline**25.4a3 Interchanges, Intersections, and Rest Areas****25.4a4 Toll Plazas**

25.4b Final Irrigation Design

Includes all work in master design files. Irrigation Design includes, but is not limited to, the locations and sizes of pumps, pump stations, mainlines, lateral lines, irrigation heads, valves, backflow and control devices.

25.4b1 Mainline**25.4b2 Interchanges, Intersections, and Rest Areas****25.4b3 Toll Plazas**

25.5 Hardscape Design

25.5a Conceptual Hardscape Design

N/A

25.5b Final Hardscape Design

N/A

25.6 Roll Plots

N/A

25.7 Cost Estimates

25.8 Technical Special Provisions and Modified Special Provisions Services 25.9 Inspection

N/A

25.10 Other Landscape Services

25.11 Outdoor Advertising

N/A

25.12 Field Reviews

25.13 Technical Meetings / Public Meetings

25.14 Quality Assurance/Quality Control

25.15 Independent Peer Review

25.16 Supervision

25.17 Project Coordination

25.18 Interdisciplinary Coordination

26 LANDSCAPE PLANS

The CONSULTANT shall prepare a set of Landscape Plans which includes the following.

- 26.1 Key Sheet
- 26.2 Tabulation of Quantities and Plant Schedule
- 26.3 General Notes
- 26.4 Tree and Vegetation Protection and Relocation Plans and Tree Disposition Plans
- 26.5 Planting Plans for Linear Roadway Projects
- 26.6 Planting Plans (Interchanges and Toll Plazas)
- 26.7 Planting Details and Notes
- 26.8 Irrigation Plans for Linear Roadway Project
- 26.9 Irrigation Plans for Interchange and Toll Plazas
- 26.10 Irrigation Details and Notes
- 26.11 Hardscape Plans
- 26.12 Hardscape Details and Notes
- 26.13 Landscape Maintenance Plan
- N/A
- 26.14 Quality Assurance/Quality Control
- 26.15 Supervision

27 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 responsible 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. The COUNTY may not accept field survey radial locations of section corners, platted subdivision lot and block corners, alignment control points, alignment control reference points and certified section corner references. The COUNTY may instead require that these points be surveyed by true line, traverse or parallel offset.

27.1 Horizontal Project Control (HPC)

Establish or recover HPC, for the purpose of establishing horizontal control on the Florida State Plane Coordinate System or datum approved by the COUNTY; may include primary or secondary control points. Includes analysis and processing of all field collected data, and preparation of forms.

27.2 Vertical Project Control (VPC)

Establish or recover VPC, for the purpose of establishing vertical control on datum approved by the COUNTY.; may include primary or secondary vertical control points. Includes analysis and processing of all field collected data, and preparation of forms.

27.3 Alignment and/or Existing Right of Way (R/W) Lines

Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying mainline, ramp, offset, or secondary alignments. Depict alignment and/or existing R/W lines (in required format) per existing R/W Maps, platted or dedicated rights of way.

27.4 Aerial Targets

Place, locate, and maintain required aerial targets and/or photo identifiable points. Includes analysis and processing of all field collected data, existing maps, and/or reports. Placement of the targets will be at the discretion of the aerial firm.

27.5 Reference Points

Reference Horizontal Project Control (HPC) points, project alignment, vertical control points, section, ¼ section, center of section corners and property corners as required.

27.6 Topography/Digital Terrain Model (DTM) (3D)

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of creating a DTM with sufficient density. Shoot all break lines, high and low points. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

27.7 Planimetric (2D)

Locate all above ground features and improvements. Deliver in appropriate electronic format. Effort includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

27.8 Roadway Cross Sections/Profiles

Perform cross sections or profiles. May include analysis and processing of all field-collected data for comparison with DTM.

27.9 Side Street Surveys

Refer to tasks of this document as applicable.

27.10 Underground Utilities

Designation includes 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

27.11 Outfall Survey

Locate all above ground features and improvements for the limits of the project by collecting the required data for the purpose of a DTM. Survey with sufficient density of shots. Shoot all break lines, high and low points. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

27.12 Drainage Survey

Locate underground data (XYZ, pipe size, type, condition and flow line) that relates to above ground data. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

27.13 Bridge Survey (Minor/Major)

Locate required above ground features and improvements for the limits of the bridge. Includes field edits, analysis and processing of all field collected data, existing maps, and/or reports.

27.14 Channel Survey

Locate all topographic features and improvements for the limits of the project by collecting the required data. Includes field edits, analysis and processing of all field collected data, maps, and/or reports.

27.15 Pond Site Survey

Refer to tasks of this document as applicable.

27.16 Mitigation Survey

Refer to tasks of this document as applicable.

27.17 Jurisdiction Line Survey

Perform field location (2-dimensional) of jurisdiction limits as defined by respective authorities, also includes field edits, analysis and processing of all field collected data, preparation of reports.

27.18 Geotechnical Support

Perform 3-dimensional (X,Y,Z) field location, or stakeout, of boring sites established by geotechnical engineer. Includes field edits, analysis and processing of all field collected data and/or reports.

27.19 Sectional/Grant Survey

Perform field location/placement of section corners, 1/4 section corners, and fractional corners where pertinent. Includes analysis and processing of all field-collected data and/or reports.

27.20 Subdivision Location

Survey all existing recorded subdivision/condominium boundaries, tracts, units, phases, blocks, street R/W lines, common areas. Includes analysis and processing of all field collected data and/or reports. If unrecorded subdivision is on file in the public records of the subject county, tie existing monumentation of the beginning and end of unrecorded subdivision.

27.21 Maintained R/W

Perform field location (2-dimensional) of maintained R/W limits as defined by respective authorities, if needed. Also includes field edits, analysis and

processing of all field collected data, preparation of reports.

27.22 Boundary Survey

Perform boundary survey as defined by COUNTY standards. Includes analysis and processing of all field-collected data, preparation of reports.

27.23 Water Boundary Survey

Perform Mean High Water, Ordinary High Water and Safe Upland Line surveys as required by COUNTY standards.

27.24 Right of Way Staking, Parcel / Right of Way Line

Perform field staking and calculations of existing/proposed R/W lines for on-site review purposes.

27.25 Right of Way Monumentation

Set R/W monumentation as depicted on final R/W maps for corridor and water retention areas.

27.26 Line Cutting

Perform all efforts required to clear vegetation from the line of sight.

27.27 Work Zone Safety

Provide work zone as required by COUNTY standards.

27.28 Vegetation Survey

Locate vegetation within the project limits.

27.29 Tree Survey

Locate individual trees or palms within the project limits.

27.30 Miscellaneous Surveys

Refer to tasks of this document, as applicable, to perform surveys not described herein. The percent for Supplemental will be determined at negotiations. This item can only be used if authorized in writing by the COUNTY.

27.31 Supplemental Surveys

Supplemental survey days and hours are to be approved in advance by COUNTY. Refer to tasks of this document, as applicable, to perform surveys not described herein.

27.32 Document Research

Perform research of documentation to support field and office efforts involving surveying and mapping.

27.33 Field Review

Perform verification of the field conditions as related to the collected survey data.

27.34 Technical Meetings

Attend meetings as required and negotiated by the COUNTY.

27.35 Quality Assurance/Quality Control (QA/QC)

Establish and implement a QA/QC plan. Also includes subconsultant review, response to comments and any resolution meetings if required, preparation of submittals for review, etc.

27.36 Supervision

Perform all activities required to supervise and coordinate project. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the COUNTY.

27.37 Coordination

Coordinate survey activities with other disciplines. These activities must be performed by the project supervisor, a Florida P.S.M. or their delegate as approved by the COUNTY.

28 PHOTOGRAMMETRY

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

In addition to the maps and photographic products, the CONSULTANT shall submit all computations to document the mapping. This will include documentation of all decisions reached from meetings, telephone conversations, and site visits.

28.1 Flight Preparation

Review record data, create target diagrams, and plan the mission.

28.2 Control Point Coordination

Determine photo identifiable control points, and mark contact prints.

28.3 Mobilization

Perform pre- and post-flight aircraft inspection; prepare the aircraft and camera for the mission.

28.4 Flight Operations

Operate the aircraft, aerial camera, and other instruments to obtain aerial photography.

28.5 Film Processing

Process, check, and annotate the aerial film.

28.6 Photo Products

Prepare contact prints, contact diapositives, and photo enlargements.

28.7 Scanning

Scan photographic images.

28.8 LiDAR

Includes data acquisition, post processing of LiDAR data to XYZ coordinates for "bare earth" classification.

28.9 Aerial Triangulation

Measure and adjust control within aerial images.

28.10 Surfaces

Includes collection of break lines and spot elevations.

28.11 Ortho Generation

Includes creation of final images.

28.12 Rectified Digital Imagery (Georeferenced)

Create the rectified digital image.

28.13 Mosaicking

Create the mosaic.

28.14 Sheet Clipping

Create plot files for sheets from the database.

28.15 Topographics (3D)

**Prepare topographic maps including surface and planimetrics.
(Photogrammetrist will not propose hours for Surfaces and Topographics.)**

28.16 Planimetrics (2D)

Prepare 2D planimetric map.

28.17 Drainage Basin

Includes preparing drainage basin maps in clipped "sheet" format.

28.18 CADD Edit

Perform final edit of graphics for delivery of required Microstation design files (.dgn), CADD, and Geopak files.

28.19 Data Merging

Merge photogrammetric files, field survey files, and data from other sources.

28.20 Miscellaneous

Other tasks not specifically addressed in this document.

28.21 Field Review

Perform on site review of maps.

28.22 Technical Meetings

Attend meetings as required.

28.23 Quality Assurance/Quality Control

Establish and implement a QA/QC plan.

28.24 Supervision

Supervise all photogrammetric activities. This task must be performed by the project supervisor, a Florida P.S.M.

28.25 Coordination

Coordinate with all elements of the project to produce a final photogrammetric product.

29 MAPPING

The CONSULTANT will be responsible for the preparation of control survey maps, right of way maps, maintenance maps, sketches, other miscellaneous survey maps, and legal descriptions as required for this project in accordance with all applicable COUNTY Manuals, Procedures, Handbooks, specific requirements, and Florida Statutes. All maps, surveys and legal descriptions will be prepared under the direction of a Florida Professional Surveyor and Mapper (PSM) to COUNTY size and format requirements utilizing COUNTY approved software, and will be designed to provide a high degree of uniformity and maximum readability. The CONSULTANT will submit maps, legal descriptions, quality assurance check prints, checklists, electronic media files and any other documents as required for this project to the COUNTY for review at stages of completion as negotiated.

Master CADD File

- 29.1 Alignment
- 29.2 Section and 1/4 Section Lines
- 29.3 Subdivisions / Property Lines
- 29.4 Existing Right of Way
- 29.5 Topography
- 29.6 Parent Tract Properties and Existing Easements
- 29.7 Proposed Right of Way Requirements

The ENGINEER OF RECORD (EOR) will provide the proposed requirements. The PSM is responsible for calculating the final geometry. Notification of Final Right of Way Requirements along with the purpose and duration of all easements will be specified in writing.

- 29.8 Limits of Construction

The limits of construction DGN file as provided by the EOR will be imported or referenced to the master CADD file. Additional labeling will be added as required. The PSM is required to advise the EOR of any noted discrepancies between the limits of construction line and the existing/proposed right of way lines, and for making adjustments as needed when a resolution is determined.

- 29.9 Jurisdictional/Agency Lines

These lines may include, but are not limited to, jurisdictional, wetland, water boundaries, and city/county limit lines.

Sheet Files

- 29.10 Control Survey Cover Sheet
- 29.11 Control Survey Key Sheet
- 29.12 Control Survey Detail Sheet
- 29.13 Right of Way Map Cover Sheet
- 29.14 Right of Way Map Key Sheet
- 29.15 Right of Way Map Detail Sheet
- 29.16 Maintenance Map Cover Sheet
- 29.17 Maintenance Map Key Sheet
- 29.18 Maintenance Map Detail Sheet
- 29.19 Reference Point Sheet

This sheet(s) will be included with the Control Survey Map, Right of Way Map and Maintenance Map.

- 29.20 Project Control Sheet

This sheet depicts the baseline, the benchmarks, the primary and secondary control points and their reference points including the type of material used for each point, their XYZ coordinates, scale factors and convergence angles. This sheet(s) may be included with the Control Survey Map, Right of Way Map and Maintenance Map.

- 29.21 Table of Ownerships Sheet

Miscellaneous Surveys and Sketches

- 29.22 Parcel Sketches
- 29.23 TIITF Sketches
- 29.24 Other Specific Purpose Survey(s)
- 29.25 Boundary Survey(s) Map
- 29.26 Right of Way Monumentation Map
- 29.27 Title Search Map
- 29.28 Title Search Report

29.29 Legal Descriptions

29.30 Final Map/Plans Comparison

The PSM will perform a comparison of the final right of way maps with the available construction plans to review the correctness of the type of parcel to be acquired and the stations/offsets to the required right of way. The PSM will coordinate with the EOR to resolve any conflicts or discrepancies and provide documentation of the review.

29.31 Field Reviews

29.32 Technical Meetings

29.33 Quality Assurance/Quality Control

29.34 Supervision

29.35 Coordination

29.36 Supplemental Mapping

This task is to cover efforts resulting from major design and/or development changes after 60% map development that affect the right of way requirements/parent tract property lines and may include any number of tasks. Request and approval to utilize the Supplemental Mapping hours will be in writing and approved by the COUNTY prior to any work being done under this task.

30 TERRESTRIAL MOBILE LiDAR

The CONSULTANT shall perform Terrestrial Mobile LiDAR tasks in accordance with all applicable statutes, manuals, guidelines, standards, handbooks, procedures, and current design memoranda.

In addition to the maps and LiDAR products, the CONSULTANT shall submit all computations and reports to support the mapping. This will include documentation of all decisions reached from meetings, telephone conversations, and site visits.

30.1 Terrestrial Mobile LiDAR Mission Planning

Research and prepare materials necessary for the successful execution of the Mobile LiDAR Mission. This includes but is not limited to route and safety planning, GPS /data acquisition scheduling, weather reports, and site terrain research.

30.2 Project Control Point Coordination

All efforts necessary to coordinate the proper placement of project ground control i.e. base stations, transformation control points, and validation points, supporting the Mobile LiDAR survey.

30.3 Terrestrial Mobile LiDAR Mobilization

Prepare the LiDAR sensor and vehicle for project data collection, and get specialized personnel and equipment on site.

30.4 Terrestrial Mobile LiDAR Mission

Perform site calibrations of LiDAR sensor and collect laser survey data, including any simultaneous base station GPS occupations and operation of any necessary safety equipment.

30.5 Terrestrial Mobile LiDAR Processing

Download and post process collected measurement data from Mobile LiDAR vehicle sensors, and any base stations occupied during mission. Analyze Mobile LiDAR measurement points and scan route overlaps. Separate any large point cloud data sets into manageable file sizes with corresponding indexes.

30.6 Terrestrial Mobile Photography Processing

Process, reference, and name digital photographic imagery files collected during Mobile LiDAR mission.

30.7 Transformation / Adjustment

Adjust LiDAR point cloud data to Project Control points. Create point cloud

30 TERRESTRIAL MOBILE LiDAR

data file(s) in approved digital format. Prepare required reports of precision and accuracy achieved. If this task is performed by separate firm, or is the final product to be delivered, include effort for Survey Report.

30.8 Classification / Editing

Identify and attribute (classify) point cloud data into requested groups. Classify or remove erroneous points.

30.9 Specific Surface Reporting

Prepare reports, data and/or graphics of specific surface details such as, but not limited to pavement rutting, bridge structure clearance to roadway surface.

30.10 Topographic (3D) Mapping

Produce three dimensional (3D) topographic survey map(s) from collected Mobile LiDAR data. This includes final preparation of Construction Information Management (CIM) deliverable, if applicable.

30.11 Topographic (2D) Planimetric Mapping

Produce two dimensional (2D) planimetric map(s) from collected Mobile LiDAR data.

30.12 CADD Edits

Perform final edit of graphics for delivery of required CADD files. This includes final presentation of CIM deliverable, if applicable.

30.13 Data Merging

Merge Mobile LiDAR survey and mapping files, with other field survey files, and data from other sources.

30.14 Miscellaneous

Other tasks not specifically addressed in this document.

30.15 Field Reviews

Perform on site review of maps.

30.16 Technical Meetings

Attend meetings as required.

30.17 Quality Assurance/ Quality Control

Establish and implement a QA/QC plan.

30.18 Supervision

Supervise all Terrestrial Mobile LiDAR activities. This task must be performed by the project supervisor, a Florida P.S.M.

30.19 Coordination

Coordinate with all elements of the project to produce a final product.

DRAFT

31 ARCHITECTURE DEVELOPMENT

N/A

DRAFT

32 NOISE BARRIERS IMPACT DESIGN ASSESSMENT IN THE DESIGN PHASE

N/A

DRAFT

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

The CONSULTANT shall analyze and document Intelligent Transportation System (ITS) Analysis Tasks in accordance with all applicable manuals, guidelines, standards, handbooks, procedures, existing ITS standard operating procedures, strategic plans, Florida's SEMP guidelines, National and regional ITS architectures, and current design memoranda.

ITS work includes the application of sensor, computer, electronics and communication technologies and management strategies, in an integrated manner, to improve the safety and efficiency of the surface transportation system. ITS includes, but is not limited to, Advanced Traffic Management Systems (ATMS), Advanced Traveler Information Systems (ATIS), Advanced Rural Transportation Systems (ARTS), Advanced Public Transportation Systems (APTS), Advanced Highway Systems (AHS), Commercial Vehicle Operation (CVO) and Electronic Toll Collection (ETC) Systems.

In instances where the CONSULTANT performs analysis or prepares the design packages for the deployment of ITS, the CONSULTANT will not be allowed to compete as a proposing firm, or participate as a subconsultant to a proposing firm during subsequent advertisements involving work performed under this contract.

33.1 ITS Analysis

The CONSULTANT shall review the approved preliminary engineering report, typical section package, traffic technical memorandum and proposed geometric design alignment to identify impacts to existing ITS components (if applicable) and proposed ITS field device placements. The CONSULTANT shall review all related District ITS plans and documentation for the project corridor to ensure all cited ITS elements are included in this project, and develop a Concept of Operations (ConOps), Project Systems Engineering Management Plan (PSEMP), RTVM, and other documents as necessary for conformance with Federal Highway Administration (FHWA) requirements. The CONSULTANT shall use applicable COUNTY requirements and guidelines, including, but not limited to, the FDM, Standard Plans, and Standard Specifications for Road and Bridge Construction in the design of ITS. The CONSULTANT design is expected to include the following attributes, facilities, infrastructure, ITS devices, systems, and associated work: [Insert project specifics (e.g. TMC facilities; communication system design; SunGuide software system installation or expansion; deployment of ITS device such as DMS, CCTV cameras, vehicle detection systems, etc.)]

CCTV camera system shall provide 100 percent coverage of all mainline lanes, entrance and exit ramps, interchanges (includes view of crossing arterials), blind spots (such as those caused due to existing and proposed bridges, existing and proposed signage, vegetation, and horizontal and vertical curvatures). Cameras shall be spaced to meet the Project requirements, guidance from the ConOps, and as approved by the COUNTY.

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

Vehicle detection devices shall be spaced as required to meet the Project requirements (speed, volume, and occupancy detection), guidance from the ConOps and as approved by the COUNTY.

Both expressway and arterial dynamic message signs (DMS) shall be located to meet the Project requirements, guidance from the ConOps, and as approved by the COUNTY. All FDOT FDM requirements shall be met for DMS locations. DMS locations shall be designed in conjunction with the Project's master signing design.

The CONSULTANT shall review the existing TMC Operations and develop additional incident management service requirements as necessary to support during the Construction Phase of the Project. The CONSULTANT shall coordinate with District's Traffic Operations ITS Office for additional information regarding existing Incident Management and TMC Operational Procedures (If desired by the District).

All ITS devices shall be compatible with the latest version of the National Transportation Communications for ITS Protocol (NTCIP) and compatible with SunGuide software platform.

The CONSULTANT shall design the project such that all ITS field devices and ancillary components comply with FDOT's Approved Product List (APL) and are supported within the SunGuide software or other software approved by the COUNTY.

Closed Circuit Television (CCTV) Camera Assembly

The CONSULTANT shall be responsible for the design and exact field locations for the camera assemblies. The camera subsystem shall provide overlapping coverage to overcome visual blockage. Camera assemblies may include a camera lowering device (CLD).

The camera subsystem shall be designed to provide additional benefits such as the monitoring of DMS operations and security surveillance of critical infrastructure elements. *A stand-alone DMS confirmation camera shall be designed and installed to support TMC operations to verify and confirm the posted DMS messages (if desired by the COUNTY).* The position, height, and design of each camera pole shall be finalized during the design phase of the project. Each site shall be designed for overall monitoring capability, as well as designed to provide safe and effective maintenance conditions.

The camera assembly deployment shall be designed to provide fields of view that give the required corridor coverage. The CONSULTANT shall determine the camera location by performing a videography study at each proposed camera site. The study shall include video at the proposed camera location and elevation with respect to the roadway elevation. The CONSULTANT shall identify the final number and locations of the camera assemblies based on the videography study.

The camera system design shall ensure that the video quality is not degraded due to wind or vibration. The CONSULTANT shall be responsible for the design of the poles and foundations to minimize the potential for vibration. The CONSULTANT shall prepare cross section plan sheets showing details of horizontal and vertical clearances of the proposed equipment with identified utilities.

The CONSULTANT shall be responsible for the design of the grounding and lightning protection system based on FDOT criteria

The CCTV camera assembly shall comply with the latest version of FDOT Standard Specifications for Road and Bridge Construction, Supplemental Specification 682.

Vehicle Detection Subsystem

The CONSULTANT shall select vehicle detection technology to meet the Project needs, ConOps requirements, and as approved by the COUNTY.

The CONSULTANT shall be responsible for the design of a non-intrusive vehicle detection subsystem for the roadway facilities. The detectors shall be positioned near other ITS field device infrastructure including the fiber-optic splice vaults when feasible to reduce cost. Final detection station locations shall be based on a number of location variables identified during the design phase.

The vehicle detection subsystem shall collect and process volume, speed and occupancy data on a lane-by-lane basis for the corridor mainlines, in both directions of travel. The data will be used by the TMC for functions including detecting incidents, determining travel times, estimating traffic conditions for dissemination to travelers, sharing information with other agencies, and data archiving for transportation planning and historical data analysis. The vehicle detection subsystem shall allow for connectivity to the TMC.

Vehicle detectors must meet the Project requirements under all environmental and traffic conditions expected for the corridors. The detection system shall produce accurate volume, speed and occupancy data for all corridor traffic operation conditions. The CONSULTANT design must limit the likelihood of occlusions, other blocking of vehicles and adjacent lanes detection that degrade the detection system performance below specified accuracy. Design the system so that signs, walls, guardrails, and other physical elements do not degrade detection performance.

The system shall allow remote configuration, calibration, monitoring, and diagnostic of real-time traffic activities from a remote location, such as the TMC, using the FDOT SunGuide central software and software provided by the detection system vendor.

The CONSULTANT shall determine the exact location of the field devices to meet the desired coverage and functional requirements of vehicle detectors. The detector and associated cabinet locations shall be identified by the

CONSULTANT. The CONSULTANT will coordinate and perform a detailed site survey with a factory trained and certified representative of the detection system manufacturer being proposed in their design. The site survey must confirm that the design does not exceed the operational capabilities of the proposed detection technology or device.

The CONSULTANT shall be responsible for the design of a vehicle detection system that allows travel times to be automatically calculated for roadway facilities. The travel time system may utilize a variety of vehicle detection systems, including loop, video, microwave, wireless magnetometer, and Automatic Vehicle Identification (AVI) systems. The system shall utilize the project communications backbone in order to collect and distribute travel time data to the TMCs.

When utilizing transponders, they will be read by AVI reader equipment placed at checkpoints along the roadway. As a transponder passes a checkpoint, its data shall be acquired by the AVI system. The AVI system shall automatically add the time, date, transponder reading antenna number, and the antenna location to the transponder identification code and store the data.

Systems that rely upon transponders shall utilize supplemental toll tag readers placed at appropriate existing device locations as applicable, as well as interchanges and at intermediate locations throughout the project as required to provide the required coverage to satisfy travel time measurement requirements. Using the designed communications, the transponder information shall be forwarded to the TMC for further processing.

The CONSULTANT shall coordinate all design efforts for use of SunPass AVI transponders with the Florida's Turnpike Enterprise (FTE) Tolls group.

The vehicle detection system utilized shall comply with the latest version of FDOT Standard Specifications for Road and Bridge Construction, Specification 660.

Dynamic Message Sign Subsystem

The CONSULTANT shall be responsible for the design of the DMS subsystem for the roadway facilities.

The position of each DMS shall be finalized during the design phase of the project. The CONSULTANT shall select DMS technology, type, and display to meet the Project requirements and ConOps requirements.

The CONSULTANT shall locate the DMS to satisfy the required sign functionality and to provide the required visibility of the signs. The project communications system shall enable full control of the DMS from the TMC facilities. All DMS hardware, software and related infrastructure components shall be fully compatible with SunGuide software. All DMS shall include a dedicated confirmation camera that allows for visual verification of the messages posted on the DMS by a TMC Operator (if desired by the District).

The CONSULTANT shall design support structures to accommodate the specified DMS to meet the design functional, operational, and maintenance requirements.

The DMS shall be designed in accordance with the latest version of FDOT Standard Specifications for Road and Bridge Construction, Supplemental Specification 700.

All Highway Signing, including Dynamic Message Signs, shall comply with the latest version of FDOT Standard Specifications for Road and Bridge Construction, Specification 700.

Roadway Weather Information Systems (RWIS)

The CONSULTANT shall develop Technical Special Provisions or Modified Special Provisions for RWIS based upon the unique needs of the project. The CONSULTANT shall ensure that, each RWIS site consists of a remote processing unit (RPU), communication hardware, and determine the site-specific components as required from below:

Fog/Smoke Detection sensor;

Classifying Precipitation;

Precipitation Occurrence Sensor;

Air Temperature/Relative Humidity Sensor;

Wind Speed and Direction Sensor;

RWIS Tower/Pole Structure, foundation, base, and cabinet with electrical service, and lightning protection & grounding assembly; and,

Communication hardware.

The RWIS subsystem shall include all hardware, software, and licenses to operate, including SQL database for the TMC and RWIS Central Hardware for TMC.

33.2 Communications

The CONSULTANT shall be responsible for the development of a communications plan to determine the optimal communications medium for the project corridor. The plan shall be developed prior to submittal of Phase I plans. The plan shall identify communications media alternatives and provide a cost estimate that includes initial, operations and maintenance cost for the life cycle of the communications network. The plan shall ensure that video, voice, and data will be communicated in real-time between center-to-field and center-to-center (C2C) nodes as applicable. The communications system design must utilize non-proprietary, open-architecture, standards-based, robust, scalable,

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

and proven technology. The communication plan analysis shall address communication and connections between field devices, communications and connections between field devices and the TMC, center-to-center communications between TMCs, and any other communication links or connections required to meet project goals. The plan must include bandwidth analysis and recommendations, needs assessment, and provide recommendations regarding minimum requirements, media, network devices, protocols, network topology, communication redundancy, future needs, spare capacity, and any communications or data sharing with other agencies.

After approval of the plan, the CONSULTANT shall submit a revised plan including a detailed design analysis for each submittal. The CONSULTANT's communications design shall include multiple redundant paths for each location, which allows for automatic switching of communications path onto a secondary path, if the primary path is impacted (if desired by the District).

The communications system components shall be in accordance with Sections 630, 633, and 635 of the latest FDOT Standard Specifications for Road and Bridge Construction (online edition).

33.3 Grounding and Lightning Protection

The CONSULTANT shall be responsible for a complete and reliable grounding and lightning protection design to provide personnel and equipment protection against faults, surge currents and lightning transients.

The grounding and lightning protection system shall be designed in accordance with the latest version of the FDOT Standard Specifications for Road and Bridge Construction, Specification 620.

33.4 Power Subsystem

The CONSULTANT shall be responsible for an electrical design in accordance with all NEC requirements. No solar power should be utilized as a power solution for the Project unless otherwise approved by the COUNTY. To enhance power reliability, the CONSULTANT shall design a power distribution and backup system consisting of, at a minimum, underground power conduits and conductors, transformers, generators, automatic transfer switches, UPS, and all associated equipment. The power backup system shall supply electrical power in event of commercial power supply failure for all system components. Power equipment shall be installed in areas to avoid wet locations. All connections and equipment shall be protected from moisture and water intrusion. The CONSULTANT shall ensure that vandal resistant mechanisms for all electrical infrastructure shall be included as part of the Design.

The CONSULTANT shall submit the power system design and voltage drop calculations for the power distribution system as part of phase II, III, and IV design submittals. The CONSULTANT shall conduct a short circuit and protection coordination study for the designed power system and document the study as part of the power system design report.

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

33.5 Voltage Drop Calculations

The electrical design shall address allowable voltage drops per the NEC. The CONSULTANT shall submit voltage drop calculations for any electrical circuit providing power to the ITS field devices beyond the electric utility service point. The calculations shall document the length of each circuit, its load, the size conductor or conductors used and their ohm resistance values and the required voltages from the service point to the respective ITS devices to maintain voltage drops with allowable limits. 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 District. Load analysis calculations shall be submitted. All voltage drop calculations shall allow for future expansion of ITS infrastructure, if identified in the Project ConOps.

33.6 Design Documentation

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

- Computation books for all applicable items on plans.
- Phase submittal checklist.
- Three-way quantity check list
- Structural calculations for all structures
- Voltage drop calculations.
- Load analysis calculations.

33.7 Existing ITS

The CONSULTANT shall research any required legacy system or system components that may be impacted by new work, such as: existing communications; existing types, numbers, locations, models, manufacturers, and age of ITS devices; as-built plans; existing operating software; existing center-to-field devices; and C2C communications and capabilities.

33.8 Queue Analysis

The CONSULTANT shall perform a queue analysis at high volume interchanges and high frequency conflict / crash locations to determine optimal placement of DMS using project forecasted traffic volumes. This analysis shall be performed prior to submittal of the Phase I plans. The Consultant shall perform other traffic engineering analysis as necessary to ensure that the DMS locations are selected based on optimum message delivery to the motorists.

33.9 Reference and Master ITS Design File

The CONSULTANT shall prepare the ITS design file to include all necessary design elements and the reference files for topo, R/W roadway, utilities files, etc. This effort includes the design and layout of proposed ITS devices, including

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

but not limited to: CCTV / Detection poles, DMS, detection devices, advanced traffic controllers, conduit, cabinet-related pull boxes, service points, fiber optic sizing, and communications hubs. All existing ITS infrastructure shall be referenced to the new ITS plan sheets (if applicable).

33.10 Reference and Master Communications Design File

The CONSULTANT shall prepare the communication design file to include all necessary design elements and all associated reference files as well as reference files of topo, R/W, roadway, utilities files, existing ITS communications infrastructure, etc. This effort includes design and layout of proposed communications conduit, cabinet, pull boxes, splice boxes, standard route markers, communications plan overview, fiber optic splicing, connections, communications hubs, etc.

33.11 Pole Elevation Analysis

The CONSULTANT shall evaluate pole elevation requirements and design pole heights to meet the Project requirements including field of view; elimination of occlusion; site access for maintenance vehicles and personnel; access to pole mounted equipment, such as CCTV cameras, traffic detectors, and cabinets; and probability of lightning strike.

33.12 Sign Panel Design Analysis

The CONSULTANT shall design all ITS signing in conjunction with the Roadway Master Signing. This includes any static sign panel that includes changeable message elements. Expressway and arterial full size DMS shall not be co-located with other static signs. [If desired by the District].

33.13 Quantities

The CONSULTANT shall include all work required to determine the quantities for all items, including ITS structures and devices, interconnect, and infrastructure (such as conduits, pull boxes, splice boxes, fusion splices, splice enclosures, etc.). This work effort shall include generating accurate quantities for computing the engineer's estimate as required by the District. Use digital submittal of plans as required by the COUNTY.

33.14 Cost Estimate

The CONSULTANT shall prepare an engineer's cost estimate for the project using historical data from the FDOT or from other Industry sources. The CONSULTANT shall also load the pay items and quantities into AASHTOWare Project Preconstruction for generating the Summary of Pay Items and the FDOT's in-house estimates.

33.15 Technical Special Provisions and Modified Special Provisions

The CONSULTANT shall develop Technical Special Provisions (TSP) and

33 INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS

Modified Special Provisions (MSP) for the specific items or conditions of the project that are not addressed in the FDOT's Standard Specifications, Supplemental Specifications and Special Provisions.

33.16 Other ITS Analyses

[Add detailed project needs for any other ITS-related analyses here]

33.17 Field Reviews

The CONSULTANT shall conduct a field review for the required phase submittals. The review shall identify necessary data for all elements of the project including, but not limited to, the following:

- **Existing ITS Field Devices as compared with the latest FDOT standards and District requirements**
- **Device Make, Model, Capabilities, Condition / Age, Existence of SunGuide Software Driver**
- **Condition of Structure(s), cabinets, and other above-ground infrastructure and devices**
- **Type of Detection as Compared with Current District Standards**
- **Underground Infrastructure**
- **Proximity of other utilities**
- **Traffic Operations**
- **Any other field reconnaissance as necessary to develop a complete ITS design package**

33.18 Technical Meetings

The CONSULTANT shall attend meetings as necessary support the project.

33.19 Quality Assurance / Quality Control

The CONSULTANT shall be responsible for the professional quality, technical accuracy and coordination of designs, drawings, specifications, and other services and work furnished by the CONSULTANT 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 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 may be one utilized by the CONSULTANT as part of their normal operation or may be one specifically designed for this project. The CONSULTANT shall utilize the District's quality control checklist. The responsible Professional Engineer that performed the Quality Control review shall sign a statement certifying that the review was conducted.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in their works.

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33.20 Supervision

The CONSULTANT shall provide all efforts required to supervise all technical design activities.

33.21 Coordination

The CONSULTANT shall coordinate with Survey, Geotech, Drainage, Structures, Lighting, Roadway Design, Utilities, municipalities, maintaining agencies and Traffic Operations to produce a final set of construction contract documents and to ensure that a high degree of accuracy for the design plans is achieved.

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34 INTELLIGENT TRANSPORTATION SYSTEMS PLANS

The CONSULTANT shall prepare a set of ITS Plans in accordance with the FDOT Design Manual that includes the following:

34.1 Key Sheet

The CONSULTANT shall prepare the key sheet in accordance with the latest format depicted in the FDOT Design Manual.

MUTCD

Standard Specs

Standard Plans

34.2 Summary of Pay Items Including Designer Interface Quantity Input

The CONSULTANT shall include quantity input into Designer Interface and create the CADD generated sheet.

34.3 Tabulation of Quantities

The CONSULTANT shall place pay item numbers, descriptions, quantities and grand totals on the tabulation sheet(s) and provide updating of the tabulation of quantities sheets during the design period.

34.4 General Notes / Pay Item Notes

The CONSULTANT shall include all pertinent general notes and pay item notes as deemed fit and as established by the District.

34.5 Project Layout

The CONSULTANT shall prepare plan sheet(s) with an overview of the entire project that include stations and offsets, project limits, intersection locations, devices, device identification using SunGuide nomenclature, and plan sheet coverage.

34.6 Typical and Special Details

The CONSULTANT shall prepare typical and / or special details for conditions in the project not addressed by the COUNTY's Standard Plans for Design, Construction, Maintenance, and Utility Operations on the State Highway System. The CONSULTANT shall prepare special details not addressed by FDOT Standard Plans, including block diagrams, hub cabinets, wiring diagrams, solar power service, and special mounting details.

34.7 Plan Sheet

34 INTELLIGENT TRANSPORTATION SYSTEM PLANS

The CONSULTANT shall prepare the ITS plan sheets utilizing the Design file to include all necessary information related to the project design elements and all associated reference files. The plan sheets shall include general and pay item notes and pay items. The plans shall depict the location of pull boxes, splice boxes, conduit runs and device locations with setbacks from the travel way. Devices shall be located by station and offset.

34.8 ITS Communications Plans

The CONSULTANT shall prepare plans for the communications network. These plans shall consist of block diagrams, splicing diagrams, port assignments, wiring diagrams, and all other information necessary to convey the design concept to the contractor. These plans shall be included in the ITS plan set and be prepared in a manner consistent with immediately adjacent ITS project installations (planned or installed).

The communication system shall be an open-architecture, non-proprietary, real-time, multimedia communications network. The communication system design must be compatible and completely interoperable with the existing systems.

[Discuss any needs or allowance for temporary communication connectivity options here].

The CONSULTANT's design shall include protecting and maintaining the existing ITS infrastructure. For locations where existing ITS infrastructure is impacted, the CONSULTANT's design shall include mitigation to minimize the downtime of existing system as per the District's requirements.

The CONSULTANT is responsible for the design of the communication infrastructure and its integration with the COUNTY's communication system. Additionally, the CONSULTANT shall determine the most cost effective, best performing, communication connectivity option. The communication system must allow command and control as well as data and video transmission between the field devices and the TMCs at **[insert location]**.

Conduit paths shall be selected to provide a continuous duct system on one side of the road unless otherwise requested by the FDOT. The various components of ITS deployment will be located on both sides of the freeway and therefore under pavement bore and lateral conduits will be necessary to access equipment locations.

The CONSULTANT shall produce fiber optic cable splicing diagrams to show the connectivity of the fiber optic cable from its termini at field devices to the TMC. The diagrams shall denote new and existing fiber routes, splices, and terminations involved in the work. The diagrams shall identify cables by size, tube color / number and stand colors / numbers. All cables shall be identified either by numbering system identified either by numbering system identified on the plans or by bounding devices. The diagrams shall denote the types of connectors in the patch panels.

34.9 Fiber Optic Splice Diagrams

The CONSULTANT shall produce fiber optic cable splicing diagrams to show the connectivity of the fiber optic cable from its termini at field devices to the TMC. The diagrams shall denote new and existing fiber routes, splices, and terminations involved in the work. The diagrams shall identify cables by size, tube color / number and stand colors / numbers. All cables shall be identified either by numbering system identified either by numbering system identified on the plans or by bounding devices. The diagrams shall denote the types of connectors in the patch panels.

34.10 Grounding and Lightning Protection Plans

The CONSULTANT shall include efforts to design a complete and reliable lightning protection design for each pole and associated devices, ITS device installation, as well as device cabinets and communications hubs, etc. if not already addressed in the FDOT's Standard Plans for Design, Construction, Maintenance and Utility Operations on the State Highway System.

34.11 Cross Sections

The CONSULTANT shall prepare cross sections for ITS devices.

34.12 Guide Sign Work Sheet(s)

The CONSULTANT shall prepare the guide sign work sheets to include all necessary information related to the design of the static and dynamic message signs in the project corridor.

34.13 Special Service Point Details

The CONSULTANT shall design any special service point and electrical distribution system beyond the electric utility company's service point. The plan shall depict with pay items, general and plan notes the locations of transformers, switches, disconnects, conduits, pull boxes and power conductors. The plans shall identify the location of underground and overhead service points with identifying pole and transformer numbers.

34.14 Strain Pole Schedule

The CONSULTANT shall incorporate the schedule detail chart for concrete or steel strain poles in the plan set.

34.15 Overhead / Cantilever Sign Structure

For overhead truss and cantilever mounted devices, the CONSULTANT shall evaluate pertinent data and information to develop the layout for locating and mounting devices to the horizontal element of the structure, and coordinate the

design of the structures with the roadway and structural engineers.

The CONSULTANT shall be responsible for determining the overhead/cantilever structure requirements for proper installation of the DMS, viewing angle and site distance requirement as per Chapter 2e – Guide Signs-Freeways and Expressways in the Manual on Uniform Traffic Control Devices (MUTCD) and Florida COUNTY of Transportation FDOT Design Manual (FDM) and all other applicable manuals and guidelines as per governing regulations.

34.16 Other Overhead Sign Structures (Long Span, Monotube, etc.)

For other overhead sign structures, the CONSULTANT shall evaluate pertinent data and information to develop layout for locating and mounting device to the horizontal element of the structure, and coordinate the design of the structures with the roadway and structural engineers.

The CONSULTANT shall be responsible for determining the requirements for other type of structures (long span, monotube, etc) used as part of the project for proper installation of the DMS, viewing angle and site distance requirement as per Chapter 2e – Guide Signs-Freeways and Expressways in the Manual on Uniform Traffic Control Devices (MUTCD) and Florida COUNTY of Transportation FDOT Design Manual (FDM) and all other applicable manuals and guidelines as per governing regulations.

34.17 Temporary Traffic Control Plans

The CONSULTANT shall prepare Temporary Traffic Control Plans (TTCP) to minimize impact to traffic during the construction of ITS field devices and associated communications infrastructure that will be deployed along the project corridor.

The TTCP shall strive to maintain and sustain center-to-field device connectivity and operability to the ITS field devices previously deployed along the project corridor. The TTCP effort shall consider and mitigate the impacts of the project's various construction phases so as to sustain center-to-field devices connectivity and operability, maintaining operational quality as a minimum at the level provided prior to construction start and minimizing down time as much as possible. The CONSULTANT shall develop the TTCP sheets for the project, providing temporary communications as necessary, notes, details, and direction applicable to the ITS elements and associated communications for inclusion in the TTCP.

The CONSULTANT shall review the existing TMC Operations and develop additional incident management service requirements as necessary to support during the Construction Phase of the Project. The CONSULTANT shall coordinate with District's Traffic Operations ITS Office for additional information regarding existing Incident Management and TMC Operational Procedures. **[If desired by the District]**

34.18 Interim Standards

The CONSULTANT shall adhere to all COUNTY's Interim Standards for ITS applications.

34.19 GIS Data and Asset Management Requirements

The CONSULTANT is responsible for providing Geographic Information System (GIS), spatial data, for the ITS components design. This information is required to integrate ITS components to the SunGuide software. A coordinate point compatible with the Florida State Plane System or FDOT's current coordinate plane system shall be collected for all ITS components part of the Project design. All GIS information provided shall be compatible with the FDOT's ITS FM asset management software.

The information shall be transferred to the as-built plans and submitted to the District in electronic format along with the as-built plans.

The Global Positioning System (GPS) unit shall be provided by the CONSULTANT and used to collect data with a minimum accuracy of three (3) meters when differentially corrected. The CONSULTANT shall collect spatial data points and physical address location for:

- **DMS location (mainline and arterial)**
- **Vehicle detection pole location**
- **CCTV camera pole location**
- **Ground mounted cabinets**
- **Fiber optic cable path (fiber backbone)**
- **Communications hubs**
- **Standard route markers**
- **Lateral fiber optic cable connections**
- **Lateral power cable connections**
- **Pull boxes (power and fiber)**
- **Splice boxes**
- **Power drops (service point and cable path)**

34.20 Quality Assurance / Quality Control

The CONSULTANT shall utilize the District's quality control checklist for traffic design drawings in addition to the QC effort described in section three.

34.21 Supervision

The CONSULTANT shall supervise all technical design activities.

35 GEOTECHNICAL

The CONSULTANT shall, for each project, be responsible for a complete geotechnical investigation. All work performed by the CONSULTANT shall be in accordance with COUNTY standards, or as otherwise directed by the COUNTY. The COUNTY will make interpretations and changes regarding geotechnical standards, policies and procedures and provide guidance to the CONSULTANT.

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 Geotechnical Engineer or representative 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.

35.1 Document Collection and Review

CONSULTANT will 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.

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.

Obtain pavement cores as directed in writing by the COUNTY.

If required by the COUNTY, a preliminary roadway exploration shall be performed before the Phase I plans submittal. The preliminary roadway exploration will 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.

CONSULTANT shall perform specialized field-testing as required by project

needs and as directed in writing by the COUNTY.

All laboratory testing and classification will be performed in accordance with applicable COUNTY standards, ASTM Standards or AASHTO Standards, unless otherwise specified in the Contract Documents.

35.2 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with COUNTY Geotechnical 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.

35.3 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

35.4 Muck Probing

Probe standing water and surficial muck in a detailed pattern sufficient for determining removal limits to be shown in the Plans.

35.5 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop Temporary Traffic Control Plan (TTCP). All work zone traffic control will be performed in accordance with the COUNTY's Standard Plans Index 102 series.

35.6 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

35.7 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of the COUNTY's Project Manager.

35.8 Groundwater Monitoring

Monitor groundwater, using piezometers.

35.9 LBR / Resilient Modulus Sampling

Collect appropriate samples for Limerock Bearing Ratio (LBR) testing. Deliver Resilient Modulus samples to the District Materials Office or the State Materials Office in Gainesville, as directed by the COUNTY.

35.10 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

35.11 Soil and Rock Classification - Roadway

Refine soil profiles recorded in the field, based on results of laboratory testing.

35.12 Design LBR

Determine design LBR values from the 90% and mean methods when LBR testing is required by the COUNTY.

35.13 Laboratory Data

Tabulate laboratory test results for inclusion in the geotechnical report, the report of tests sheet (Roadway Soil Survey Sheet), and for any necessary calculations and analyses.

35.14 Seasonal High-Water Table

Review the encountered ground water levels and estimate seasonal high ground water levels. Estimate seasonal low ground water levels, if requested.

35.15 Parameters for Water Retention Areas

Calculate parameters for water retention areas, exfiltration trenches, and/or swales.

35.16 Delineate Limits of Unsuitable Material

Delineate limits of unsuitable material(s) in both horizontal and vertical directions. Assist the Engineer of Record with detailing these limits on the cross-sections. If requested, prepare a plan view of the limits of unsuitable material.

35.17 Electronic Files for Cross-Sections

Create electronic files of boring data for cross-sections.

35.18 Embankment Settlement and Stability

Estimate the total magnitude and time rate of embankment settlements. Calculate the factor of safety against slope stability failure.

35.19 Monitor Existing Structures

Provide Roadway EOR guidance on the radius to review existing structures for monitoring.

Optional services (may be negotiated at a later date if needed): Identify existing structures in need of settlement, vibration and/or groundwater monitoring by the contractor during construction and coordinate with the EOR and structural engineer (when applicable) to develop mitigation strategies. When there is risk of damage to the structure or facility, provide recommendations in the geotechnical report addressing project specific needs and coordinate those locations with the EOR. See FDM Chapter 307 and Chapter 9 of the Soils and Foundations Handbook.

35.20 Stormwater Volume Recovery and/or Background Seepage Analysis

Perform stormwater volume recovery analysis as directed by the COUNTY.

35.21 Geotechnical Recommendations

Provide geotechnical recommendations regarding the proposed roadway construction project including the following: description of the site/alignment, design recommendations and discussion of any special considerations (i.e. removal of unsuitable material, consolidation of weak soils, estimated settlement time/amount, groundwater control, high groundwater conditions relative to pavement base, etc.) Evaluate and recommend types of geosynthetics and properties for various applications, as required.

35.22 Pavement Condition Survey and Pavement Evaluation Report

If a pavement evaluation is performed, submit the report in accordance with Section 3.2 of the Materials Manual: Flexible Pavement Coring and Evaluation. Enter all core information into the Pavement Coring and Reporting (PCR) system.

35.23 Preliminary Roadway Report

If a preliminary roadway investigation is performed, submit a preliminary roadway report before the Phase I plans submittal. The purpose of the preliminary roadway report will be to assist in setting road grades and locating potential problems.

- **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 will respond in writing to any changes and/or comments from the COUNTY and submit any responses and revised**

reports.

35.24 Final Report

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 will respond in writing to any changes and/or comments from the COUNTY and submit any responses and revised reports.**

35.25 Auger Boring Drafting

Draft auger borings as directed by the COUNTY.

35.26 SPT Boring Drafting

Draft SPT borings as directed by the COUNTY.

Structures

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 as directed in writing by the COUNTY.

CONSULTANT shall perform specialized field-testing as required by needs of project and as directed in writing by the COUNTY.

All laboratory testing and classification will 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:

35.27 Develop Detailed Boring Location Plan

Develop a detailed boring location plan. Meet with COUNTY Geotechnical 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.

35.28 Stake Borings/Utility Clearance

Stake borings and obtain utility clearance.

35.29 Coordinate and Develop TTCP for Field Investigation

Coordinate and develop TTCP plan. All work zone traffic control will be performed in accordance with the COUNTY's Standard Plans Index 102 series.

35.30 Drilling Access Permits

Obtain all State, County, City, and Water Management District permits for performing geotechnical borings, as needed.

35.31 Property Clearances

Notify property tenants in person of drilling and field activities, if applicable. Written notification to property owners/tenants is the responsibility of the COUNTY's Project Manager.

35.32 Collection of Corrosion Samples

Collect corrosion samples for determination of environmental classifications.

35.33 Coordination of Field Work

Coordinate all field work required to provide geotechnical data for the project.

35.34 Soil and Rock Classification - Structures

Soil profiles recorded in the field should be refined based on the results of laboratory testing.

35.35 Tabulation of Laboratory Data

Laboratory test results should be tabulated for inclusion in the geotechnical report and for the necessary calculations and analyses.

35.36 Estimate Design Groundwater Level for Structures

Review encountered groundwater levels, estimate seasonal high groundwater levels, and evaluate groundwater levels for structure design.

35.37 Selection of Foundation Alternatives (BDR)

Evaluation and selection of foundation alternative, including the following:

- GRS-IBS
- Spread footings
- Prestressed concrete piling - various sizes
- Steel H- piles
- Steel pipe piles
- Drilled shafts
- Foundation analyses shall be performed using approved COUNTY methods. Assist in selection of the most economical, feasible foundation alternative.

35.38 Detailed Analysis of Selected Foundation Alternate(s)

Detailed analysis and basis for the selected foundation alternative. Foundation analyses shall be performed using approved COUNTY methods and shall include:

- GRS-IBS (including the parameters identified in the Instructions for Developmental Design Standard D6025 to be provided by the Geotechnical Engineer)
- Spread footings (including soil bearing capacity, minimum footing width, and minimum embedment depth).
- For pile and drilled shaft foundations, provide graphs of ultimate axial soil resistance versus tip elevations. Calculate scour resistance and/or downdrag (negative skin friction), if applicable.
- CONSULTANT shall assist the Engineer of Record in preparing the Pile Data Table (including test pile lengths, scour resistance, downdrag, minimum tip elevation, etc.)
- Provide the design soil profile(s), which include the soil model/type of each layer and all soil-engineering properties required for the Engineer of Record to run the FBPIER computer program. Review lateral analysis of selected foundation for geotechnical compatibility.
- Estimated maximum driving resistance anticipated for pile foundations.
- Provide settlement analysis.

35.39 Bridge Construction and Testing Recommendations

Provide construction and testing recommendations including potential constructability problems.

35.40 Lateral Load Analysis (Optional)

Perform lateral load analyses as directed by the COUNTY.

35.41 Walls

Provide the design soil profile(s), which include the soil model/type of each layer and all soil engineering properties required by the Engineer of Record for conventional wall analyses and recommendations. Review wall design for geotechnical compatibility and constructability.

Evaluate the external stability of conventional retaining walls and retained earth wall systems. For retained earth wall systems, calculate and provide minimum soil reinforcement lengths versus wall heights, and soil parameters assumed in analysis. Estimate differential and total (long term and short term) settlements.

Provide wall construction recommendations.

35.42 Sheet Pile Wall Analysis (Optional)

Analyze sheet pile walls as directed by the COUNTY.

35.43 Design Soil Parameters for Signs, Signals, High Mast Lights, and Strain Poles and Geotechnical Recommendations

- **Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.**

35.44 Box Culvert Analysis

- **Provide the design soil profile(s) that include the soil model/type of each layer and all soil properties required by the Engineer of Record for foundation design. Review design for geotechnical compatibility and constructability.**
- **Provide lateral earth pressure coefficients.**
- **Provide box culvert construction and design recommendations.**
- **Estimate differential and total (long term and short term) settlements.**
- **Evaluate wingwall stability.**

35.45 Preliminary Report - BDR

The preliminary structures report shall contain the following discussions as appropriate for the assigned project:

- **Copies of U.S.G.S. and S.C.S. maps with project limits shown.**
- **Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.**
- **The results of all tasks discussed in all previous sections regarding data interpretation and analysis).**
- **Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.**
- **Any special provisions required for construction that are not addressed in the COUNTY's Standard specification.**
- **An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.**

35.46 Final Report - Bridge and Associated Walls

The final structures report shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis.
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the COUNTY's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

35.47 Final Reports - Signs, Signals, Box Culvert, Walls, and High Mast Lights

The final reports shall include the following:

- Copies of U.S.G.S. and S.C.S. maps with project limits shown.
- Summary of structure background data, S.C.S., U.S.G.S., geologic and potentiometric data.
- The results of all tasks discussed in all previous sections regarding data interpretation and analysis).
- Recommendations for foundation installation, or other site preparation soils-related construction considerations with plan sheets as necessary.
- Any special provisions required for construction that are not addressed in the COUNTY's Standard specification.
- An Appendix which includes SPT and CPT boring/sounding profiles, data from any specialized field tests, engineering analysis, notes/sample calculations, sheets showing ultimate bearing capacity curves versus elevation for piles and drilled shafts, a complete FHWA check list, pile driving records (if available), and any other pertinent information.

Final reports will incorporate comments from the COUNTY and contain any additional field or laboratory test results, recommended foundation alternatives along with design parameters and special provisions for the contract plans.

These reports will be submitted to the COUNTY for review prior to project completion. After review by the COUNTY, the reports will be submitted to the COUNTY in final form and will include the following:

- All original plan sheets (11" x 17")
- One set of all plan and specification documents, in electronic format, according to COUNTY requirements
- Two sets of record prints
- Six sets of any special provisions

- All reference and support documentation used in preparation of contract plans package

Additional final reports (up to four), aside from stated above, may be needed and requested for the COUNTY's Project Manager and other disciplines.

The final reports, special provisions, as well as record prints, will be signed and sealed by a Professional Engineer licensed in the State of Florida.

Draft the detailed boring/sounding standard sheet, including environmental classification, results of laboratory testing, and specialized construction requirements, for inclusion in final plans.

35.48 SPT Boring Drafting

Prepare a complete set of drawings to include all SPT borings, auger borings and other pertinent soils information in the plans. 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 Florida COUNTY of Transportation Soils and Foundations Handbook.

35.49 Other Geotechnical

Other geotechnical effort specifically required for the project as determined by the COUNTY, and included in the geotechnical upset limit.

35.50 Technical Special Provisions and Modified Special Provisions

35.51 Field Reviews

Identify and note surface soil and rock conditions, surface water conditions and locations, and preliminary utility conflicts. Observe and note nearby structures and foundation types.

35.52 Technical Meetings

35.53 Quality Assurance/Quality Control

35.54 Supervision

35.55 Coordination

36 3D MODELING

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

The CONSULTANT shall deliver all master design files, 3D surface design models, and all supporting digital files for the development of plans as required in the FDOT CADD Manual.

The CONSULTANT shall prepare a 3D model using the latest FDOT software in accordance with the FDOT CADD Manual. Includes all efforts required for developing files for 3D deliverables supporting automated machine guidance for design models. This includes importing survey data and creation of existing 3D surface features and models, and developing proposed corridor models with necessary detail of features to depict the proposed project in 3D to comply with the FDOT CADD Manual.

The CONSULTANT shall add detail to the corridor and design model for 3D design. Includes many elements that contribute to this including but not limited to slope transitions, typical section transitions, changes in pavement depth, berms, swales/ditches, and other feature transitions. Extra corridor structure leads to extra assemblies, extra targeting, etc.

The CONSULTANT shall create an accurate roadway design model which includes modeling the intersections.

The CONSULTANT shall submit .dgn files associated with the 3D Model and their respective components.

36.1 Phase I 3D Design Model

The CONSULTANT shall prepare, submit and present for approval by the COUNTY, Phase I 3D interactive model, comprised of, but not limited to: Existing features (pavement, shoulders, sidewalk, curb/gutter, utilities-if required per scope, drainage - if required per scope) and proposed corridor(s).

36.2 Phase II 3D Design Model

The CONSULTANT shall prepare, submit and present for approval by the COUNTY, Phase II 3D model, comprised of, but not limited to: Modification of the Phase I model to update the model to comply with changes based on the Phase I review comments and to include the addition of ponds, floodplain compensation sites, retaining walls, barrier walls, guardrail terminals, cross overs, gore areas, side street connections, roundabouts, and driveways.

[List optional services to be included, i.e. Curb Ramps, Closed Drainage Network, Bridge Modeling, Bridge Abutment, Overhead sign post/structures with foundation, Toll gantry

and overhead DMS structures with foundation, proposed utilities (pressure pipe/gravity), etc.].

36.3 Phase III 3D Design Model

The CONSULTANT shall prepare, submit and present for approval by the COUNTY, Phase III 3D model and deliverables files for review, comprised of, but not limited to: Modification of the Phase II model to update the model to comply with changes based on the Phase II review comments and to further refine areas of transition between templates, detailed grading areas, bridge approaches and end bents, median noses, shoulder transition areas, retaining walls, barrier walls and guardrail.

36.4 Final 3D Model Design

The CONSULTANT shall prepare for approval by COUNTY, the Phase IV 3D model, comprised of, but not limited to: Modification of the Phase III model to update the model to comply with changes based on the phase III review comments and to accurately generate, export and otherwise prepare the final 3D deliverable files as described in the FDOT CADD Manual.

36.5 Cross Section Design Files

The CONSULTANT shall establish and develop cross section design files in accordance with the FDOT CADD manual and FDOT Design Manual. Includes all 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, existing and proposed features, cross section refinement, placement of utilities and drainage, soil boxes, R/W lines, earthwork calculations, and other required labeling.

36.6 Template and Assembly Development (Optional)

The CONSULTANT shall prepare for approval by COUNTY, project specific templates/assemblies needed to develop the features required to deliver the 3D model.

36.7 Quality Assurance/Quality Control

36.8 Supervision

36.9 Coordination

37 PROJECT REQUIREMENTS

37.1 Liaison Office

The COUNTY and the CONSULTANT will designate a Liaison Office and a Project Manager 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.

37.2 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.

37.3 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 will 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.

37.4 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.

37.5 Professional Endorsement

The CONSULTANT shall have a Licensed Professional Engineer in the State of Florida sign and seal all reports, documents, Technical Special Provisions and Modified Special Provisions, and plans as required by COUNTY standards.

37.6 Computer Automation

The project will be developed utilizing Computer Aided Drafting and Design (CADD) systems. The COUNTY 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.

37.7 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.

37.8 Optional Services

At the COUNTY's option, the CONSULTANT may be requested to provide optional services. The fee for these services shall be negotiated, for a fair, competitive and reasonable cost, considering the scope and complexity of the project(s). Additional services may be authorized by Letter of Authorization or supplemental amendment. The additional services may include Construction Assistance, Review of Shop Drawings, Final Bridge Load Rating, update (Category II) bridge plans electronically (CADD) for the Final "As-Built" conditions, based on documents provided by the COUNTY (CADD Services Only) or other Services as required.

38 INVOICING LIMITS

Payment for the work accomplished shall be in accordance with Method of Compensation of this contract. Invoices shall be submitted to the COUNTY, in a format prescribed by the COUNTY. 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 actually occurred and the results are acceptable to the COUNTY

39 OWNER'S REPRESENTATIVE

- Where elected in writing by the COUNTY to transition the services provided herein and the project from the Design-Bid-Build approach to the Design-Build approach, the CONSULTANT shall transfer into the role of the Design Criteria Professional and Owner's Representative to provide the below detailed services.
 - The COUNTY shall provide the CONSULTANT with written notice, issued by the Lee County Department of Transportation Director, that the COUNTY has elected to continue with the design as a Design-Bid-Build approach or whether the CONSULTANT shall transition to the role of Design Criteria Professional and Owner's Representative for a Design-Build project approach.
 - The CONSULTANT shall not exceed 60% design phase without such written notice provided by the COUNTY's Lee County Department of Transportation Director. Failure of the COUNTY to issue written notice does not alleviate the CONSULTANT from seeking such notification from the COUNTY prior to proceeding beyond the 60% design phase.
 - The COUNTY reserves the right to provide notification of final design approach prior to the 60 percent design phase or at the point during the project that is deemed in the best interest of the COUNTY to elect the final design approach.

Under the election of a Design-Build approach, the CONSULTANT shall serve

39 OWNER'S REPRESENTATIVE

as the Design Criteria Professional and the Owner's Representative. As such the CONSULTANT shall be an extension of the COUNTY staff without any conflicts of interest. Serve to advise the COUNTY and act as the single point of contact for all members of the project team. Confirm what is permitted under statute and policy. Define how regulatory approvals intersect with delivery method selections. Explain the project delivery evaluation and selection options/procedures. Facilitate the project risk assessment and management strategy. Prepare market validation and comment on proposed delivery method and support budget development. Discuss stipend amounts for the non-selected shortlisted design-build teams.

The CONSULTANT shall during 'Pre-Award' define project objectives and priorities. The CONSULTANT shall also assist in determining the project goals, challenges and constraints. Manage the COUNTY's expectations. Develop a procurement plan, schedule and procedures. Discuss contract forms, terms and conditions and special provisions. Assist in the solicitation development. Attend completion process meetings, inquiries and addenda. Establish qualifications selection criteria and methodology. Provide support determination of shortlisting the most highly qualified submissions.

The CONSULTANT shall develop 'Design Criteria Package' documents and performance requirements. Gather data, provide cost validation and assist in the solicitation development. Establish selection criteria and methodology. Facilitate proprietary one-on-one meetings with shortlisted proposers for the Alternative Technical Concept (ATC) meeting and the Page Turn meeting. The CONSULTANT will conduct risk and opportunity assignment, incentive/award fee development and assist the COUNTY with review and scoring of all proposal documents submitted by the design-build teams. The CONSULTANT shall provide contract negotiation support to optimize opportunity for the COUNTY to select the best design-build team with the best proposal with the project budget.

The CONSULTANT shall during the 'Post-Award Support/Administration' engage in a formal Partnering Program development and implementation with design-build team, CEI team and COUNTY. The CONSULTANT shall develop and implement a project execution plan, conduct cost monitoring and facilitate project meetings and progress reviews. Provide 'OWNER's' review of all contract documents (Plans, specs., etc...) submitted by the design-build team. Provide Construction quality support if required. Assist in minimizing project disputes and provide proactive claims avoidance incentives. The CONSULTANT shall provide the COUNTY with project closeout support during project completion and assist with support incentive/award fee program as required.

70 LEE COUNTY UTILITY PLANS

- The CONSULTANT shall prepare utility relocation plans, specifications and engineering estimates at the direction of Lee County Utilities (LCU) for their infrastructure located within the project limits.

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