



DEPARTMENT OF PURCHASING AND CONTRACTS

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**AMENDMENT NO. 1**  
**TO**  
**CONTRACT No. 18-R00015/PH**  
**FOR**  
**AIRPORT WASTEWATER TREATMENT PLANT EXPANSION**

The following changes, additions and/or deletions are hereby made a part of the Contract Documents for the **CONTRACT No.18-R00015/PH – AIRPORT WASTEWATER TREATMENT PLANT EXPANSION**, as fully and completely as if the same were fully set forth therein:

1. Addition of Phase Three (3) – Post Design Services as per the attached Scope of Service and Fee Schedules.
2. All other terms and conditions shall remain the same.

**ADD: PHASE THREE (3) – POST DESIGN SERVICES**


ITEM NO.	DESCRIPTION	TOTAL
1	Post Design Services for the Airport WWTP Expansion Project	\$1,658,449.00

CARDNO, INC.

  
Authorized Signature

17 APRIL 2020  
Date

BOARD OF COUNTY COMMISSIONERS  
HERNANDO COUNTY

  
John Mitten, Chairman  
Hernando County Board of County Commissioner  
Hernando County Florida

5-12-2020  
Date

## Airport WRF Phase 3 Improvements Amendment No. 1

### Post Design Services

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#### SCOPE OF WORK

Cardno Inc. (ENGINEER) will provide services during construction as described below. These services are intended to assist the Hernando County (OWNER) in construction administration, monitoring the performance of the construction's CONTRACTOR, verifying that the CONTRACTOR's work is in conformance with the contract documents, and coordinating with independent testing agencies and interpreting test results to provide construction quality assurance as required by the contract documents while complying with County permit requirements and assist the County in responding to events that occur during construction.

The ENGINEER will provide all construction management, full-time resident project representative (RPR), and administrative and inspection services for the duration of the project.

The following describes the tasks to be completed.

#### **TASK 1 - Project Management.**

This task includes general project management, administration, coordination, invoicing, quality control, planning and preparation of weekly and monthly progress reports. Reports will be sent electronically to those identified by the OWNER. This task may include necessary coordination with the Florida Department of Environmental Protection (FDEP).

#### **TASK 2 - General Administration of Construction Contract and Respond to RFIs.**

Consult with OWNER and act as OWNER's representative. All of OWNER's instructions to CONTRACTOR will be issued through ENGINEER, which shall have authority to act on behalf of OWNER in dealings with CONTRACTOR to the extent provided in this Agreement and the General Conditions except as otherwise provided in writing. General Administration shall include the following.

1. **Schedules.** Receive, review, and determine the acceptability of any and all schedules that CONTRACTOR is required to submit to ENGINEER, including the Progress Schedule, Schedule of Submittals, and Schedule of Values.
2. **Baselines and Benchmarks.** As appropriate, establish baselines and benchmarks for locating the Work which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed.
3. **Defective Work.** Recommend to OWNER that CONTRACTOR's Work be rejected while it is in progress if, on the basis of ENGINEER's observations, ENGINEER believes that such Work will not produce a completed Project that conforms generally to the Contract Documents or that it will threaten the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.
4. **Clarifications, Interpretations and Field Orders.** Issue necessary clarifications and interpretations of the Contract Documents as appropriate for the orderly completion of CONTRACTOR's work. Responses will be prepared to CONTRACTOR's requests for additional information (RFIs). Such clarifications and interpretations will be consistent with the intent of the Contract Documents. ENGINEER may issue Field Orders authorizing minor variations in the Work from the requirements of the Contract Documents.

5. **Change Orders and Work Change Directives.** Review change order and work change directives requests by the CONTRACTOR and recommend action to OWNER, as appropriate, and prepare Change Orders and Work Change Directives as required.
6. **Inspections and Tests.** Require such special inspections or tests of CONTRACTOR's work as deemed reasonably necessary, and receive and review all certificates of inspections, tests, and approvals required by Laws and Regulations or the Contract Documents and will be for the purpose of determining that the results certified indicate compliance with the Contract Documents. ENGINEER's review of such certificates will not constitute an independent evaluation that the content or procedures of such inspections, tests, or approvals comply with the requirements of the Contract Documents. ENGINEER shall be entitled to rely on the results of such tests.
7. **Resolution of Disagreements between OWNER and CONTRACTOR.** Render formal written decisions on all duly submitted issues relating to the acceptability of CONTRACTOR's work or the interpretation of the requirements of the Contract Documents pertaining to the execution, performance, or progress of CONTRACTOR's Work; review each duly submitted Claim by OWNER or CONTRACTOR, and in writing either deny such Claim in whole or in part, approve such Claim, or decline to resolve such Claim if ENGINEER in its discretion concludes that to do so would be inappropriate. In rendering such decisions, ENGINEER shall be fair and not show partiality to OWNER or CONTRACTOR and shall not be liable in connection with any decision rendered in good faith in such capacity.
8. **Pre-Construction Conference and Construction progress meetings.** Arrange and schedule of progress meetings and other job conferences as required and notify those expected to attend in advance. Attend meetings, and maintain copies of minutes thereof. Facilitate and attend weekly construction progress meetings throughout the construction schedule or until OWNER deems meeting frequency can be modified.
9. **Applications for Payment.** Based on ENGINEER's observations as an experienced and qualified design professional and on review of Applications for Payment and accompanying supporting documentation, ENGINEER shall:
  - a. **Determine the amounts for CONTRACTOR payments.** Such recommendations of payment will be in writing and will constitute ENGINEER's representation to OWNER, based on such observations and review, that, to the best of ENGINEER's knowledge, information and belief, CONTRACTOR's Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any other qualifications stated in the recommendation), and the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe CONTRACTOR's Work. In the case of unit price work, ENGINEER's recommendations of payment will include final determinations of quantities and classifications of CONTRACTOR's Work (subject to any subsequent adjustments allowed by the Contract Documents).
  - b. **Recommend payments.** By recommending any payment, ENGINEER shall not thereby be deemed to have represented that observations made by ENGINEER to check the quality or quantity of CONTRACTOR's Work as it is performed and furnished have been exhaustive, extended to every aspect of CONTRACTOR's Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to

ENGINEER in this Agreement and the Contract Documents. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment including final payment will impose on ENGINEER responsibility to supervise, direct, or control CONTRACTOR's Work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or CONTRACTOR's compliance with Laws and Regulations applicable to CONTRACTOR's furnishing and performing the Work. It will also not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any portion of the Work in progress, materials, or equipment has passed to OWNER free and clear of any liens, claims, security interests, or encumbrances, or that there may not be other matters at issue between OWNER and CONTRACTOR that might affect the amount that should be paid.

### **TASK 3 – Approve Shop Drawings and Samples**

Review and approve or take other appropriate action in respect to Shop Drawings and Samples and other data which CONTRACTOR is required to submit, but only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such reviews and approvals or other action will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto. ENGINEER shall meet any CONTRACTOR's submittal schedule that ENGINEER has accepted. Shop drawings review will include an initial review and a subsequent review if necessary. Review beyond two submittals per shop drawing shall be compensated by the CONTRACTOR directly as outlined in the Contract Documents.

### **TASK 4 – Review of Substitutes of Base Bid and “Or-Equal.”**

Evaluate and determine the acceptability of substitute or “or-equal” materials and equipment proposed by CONTRACTOR as outlined in the Contract Documents. Substitutes and “or-equal” evaluations will be completed on a case-by-case basis only after authorization by OWNER. This task will be performed based on a written agreement between the CONTRACTOR and the ENGINEER defining the required scope and budget in accordance with the Contract Documents.

### **TASK 5 – Resident Project Representative.**

ENGINEER shall provide the following services of RPR at the Site to provide more continuous observations of such work on a full-time basis.

1. Records.
  - a. Maintain orderly files for correspondence, reports of job conferences, Shop Drawings and samples submissions, reproductions of original Contract Documents including all Addenda, change orders, field orders, additional Drawings issued subsequent to the execution of the Contract, ENGINEER's clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
  - b. Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions, list of visiting officials and representatives of manufacturers, fabricators, suppliers and distributors, daily activities, decisions,

observations in general and specific observations in more detail as the case of observing test procedures.

- c. Record names, addresses and telephone numbers of all Contractors, Subcontractors and major suppliers of materials and equipment visiting the site.

2. Reports.

- a. Furnish OWNER periodic reports as required of progress of the Work and CONTRACTOR's compliance with the approved progress schedule and schedule of Shop Drawing submissions, as required.

- b. Report immediately to OWNER upon the occurrence of any accident.

3. Payment Requisitions: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to Engineer, noting their relation to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

4. Certificates, Maintenance and Operation Manuals: If applicable, during the course of the Work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed; and deliver this material to Engineer for his review and forwarding to Owner prior to final acceptance of the Work.

5. Completion of Work:

- a. Before Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- b. Conduct final inspection in the company of Engineer, Owner and Contractor and prepare a final list of items to be completed or corrected.
- c. Verify that all items on final list have been completed or corrected and make recommendations to Engineer concerning acceptance.

## **TASK 6 – Visits to Site and Observation of Construction**

ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction, as ENGINEER deems necessary to observe as an experienced and qualified design professional the progress and quality of CONTRACTOR's executed Work. Such visits and observations by ENGINEER, and the Resident Project Representative, if any, are not intended to be exhaustive or to extend to every aspect of CONTRACTOR's Work in progress or to involve detailed inspections of CONTRACTOR's Work in progress beyond the responsibilities specifically assigned to ENGINEER in this Agreement and the Contract Documents, but rather are to be limited to spot checking, selective sampling, and similar methods of general observation of the Work based on ENGINEER's exercise of professional judgment. Based on information obtained during such visits and observations, ENGINEER will determine in general if the Work is proceeding in accordance with the Contract Documents, and ENGINEER shall keep OWNER informed of the progress of the Work.

The purpose of ENGINEER's visits to, and representation by the Resident Project Representative, will be to enable ENGINEER to better carry out the duties and responsibilities assigned to and undertaken by ENGINEER during the Construction Phase, and, in addition, by the exercise of ENGINEER's efforts as an experienced and qualified design professional, to provide for OWNER a greater degree of confidence that the completed Work will conform in general to the Contract Documents and that CONTRACTOR has implemented and maintained the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. ENGINEER shall not, during such visits or as a result of such observations of CONTRACTOR's Work in progress, supervise, direct, or have control over CONTRACTOR's Work, nor shall ENGINEER have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by CONTRACTOR, for security or safety on the Site, for safety precautions and programs incident to CONTRACTOR's Work, nor for any failure of CONTRACTOR to comply with Laws and Regulations applicable to CONTRACTOR's furnishing and performing the Work. Accordingly, ENGINEER neither guarantees the performance of any CONTRACTOR nor assumes responsibility for any CONTRACTOR's failure to furnish and perform the Work in accordance with the Contract Documents.

### **TASK 7 – Project Startup, Testing and Operator Training.**

ENGINEER will perform the following services.

1. **SCADA system check-out and start-up.** The ENGINEER will work with plant personnel to document system failure, record SSI (SCADA System Integrator) notification, arrival and repair times and SSI repair actions.
2. **Integrated System Field Test.** At least 90 days prior to each facility's system startup, CONTRACTOR will submit a system start-up and system testing program. ENGINEER will review and comment. The plan will address the following.
  - a. The plan shall be a comprehensive report that includes detailed activities and coordination required to implement the requirements of this specification. The CONTRACTOR report shall include at a minimum preliminary matters, system start-up and System Testing for both the wastewater process equipment and the electrical equipment.
  - b. The report shall include a detailed schedule for the sequence of all operations that the CONTRACTOR will perform for the System Testing specified herein.
  - c. CONTRACTOR shall identify the OWNER's activities required for the system start-up and system testing. Schedule a meeting with OWNER and ENGINEER to review draft start-up plan at least 60 days prior to initiating start-up activities. Revise draft plan to incorporate comments from OWNER and ENGINEER and re-issue start-up plan at least 30 days prior to initiating start-up activities.

At least 45 days prior to initiating the system testing period, the CONTRACTOR shall provide a treatment process seeding plan for the ENGINEER to review in preparation for the system testing. The Operational Availability Demonstration shall not begin until the continuous 48 hour integrated system test has been successfully completed and OWNER and ENGINEER agree that the Operation Availability Demonstration can begin.

### 3. Operational Availability Demonstration (OAD).

As part of the OAD the ENGINEER will provide Biological Nutrient Removal (BNR) process specific training for the OWNER's operators to include:

1. Two (2) days of workshop training including PowerPoint presentations and real time software demonstrations of control simulator examples to obtain insight on various scenarios and best operational practices.

### 4. Operational Insights, Documentation and Training.

ENGINEER shall provide the following services.

1. Generation of a simple operational protocol to be implemented over a 3-month period by plant staff to include operation at various scenarios. For example, varying parameter such as:
  - a. Solids Residence Time (SRT)
  - b. Dissolved Oxygen (DO) setpoints
  - c. Ammonia-nitrogen setpoints
  - d. Return activated sludge (RAS) recycle ratios
2. ENGINEER shall analyze the online and influent/effluent plant data provided in electronic form by the OWNER during this period and compare them with the data used during the design phase and identify any issues that need to be addressed. If ENGINEER proposes and OWNER agrees for additional laboratory analysis of influent wastewater and plant effluent daily composite samples the cost will be the responsibility of the OWNER. **Any additional field sampling that may be needed would occur jointly by ENGINEER and OWNER staff and it is not included in this scope.**
3. ENGINEER shall use previously calibrated models and any new available measurements provided by the OWNER in electronic form to obtain insight on any operational performance during the startup of the innovative 6-stage step-feed BNR treatment processes. **This task does not include any process analysis by the ENGINEER of the existing oxidation ditch process and its future secondary anoxic basin. Any additional calibration efforts to close modeling gaps are not included in this scope.**
4. Any performance and operational insights identified will be documented in a technical memorandum which will include among others the summary of the full scale results and previously calibrated during the design based process model software predictions. The technical memorandum will be concise and in the order of 10 pages including tables and figures.
5. ENGINEER shall make up to four (4) visits during this period, to discuss the full scale results, compare them to the model predicted results. **Any additional model calibration efforts are not included in this scope.**

6. Based on any insights obtained from the efforts defined above, ENGINEER shall provide direction to plant staff for any identified modifications that may have to be done to the sensors settings and control approach.
7. Based on the above efforts, ENGINEER shall provide one (1) day of training of control simulator results to obtain insight on various scenarios and operational practices.

### **TASK 8 – Substantial Completion**

After notice from CONTRACTOR that CONTRACTOR considers the entire Work ready for its intended use, in company with OWNER, the Agency's representative, and CONTRACTOR, conduct a pre-final inspection to determine if the Work is substantially complete. If after considering any objections of OWNER, ENGINEER considers the Work substantially complete, ENGINEER shall deliver a certificate of Substantial Completion to OWNER, Agency, and CONTRACTOR.

Before ENGINEER issues a Certificate of Substantial Completion, RPR will submit to ENGINEER and CONTRACTOR a list of observed items requiring completion or correction.

Conduct final inspection in the company of ENGINEER, OWNER and CONTRACTOR, RPR will prepare a final list of items to be completed or corrected.

RPR will verify that all items on final list have been completed or corrected and make recommendations to Engineer concerning acceptance.

### **TASK 9 – Project Closeout/Record Drawings**

1. **CONTRACTOR's Completion Documents.** Receive, review, and transmit to OWNER maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance required by the Contract Documents, certificates of inspection, tests and approvals, Shop Drawings, Samples and other data and the annotated record documents which are to be assembled by CONTRACTOR in accordance with the Contract Documents to obtain final payment.
2. **Record Drawings.** Prepare and furnish to OWNER a set of reproducible Project Record Drawings showing appropriate record information based on "as-built" information from CONTRACTOR and Project documentation received from RPR.
3. **Final Notice of Acceptability of the Work.** In company with OWNER's and Agency's representative, conduct a final review of the Work to determine if the completed Work of CONTRACTOR is acceptable so that ENGINEER may recommend, in writing, final payment to CONTRACTOR. Accompanying the recommendation for final payment, ENGINEER shall also provide a notice that the Work is acceptable to the best of ENGINEER's knowledge, information, and belief and based on the extent of the services provided by ENGINEER under this Agreement.

### **Disclaimers**

**Duration of Construction Phase.** The Construction Phase will commence with the execution of the first construction Contract for the Project or any part thereof. ENGINEER shall be entitled to an equitable increase in compensation if Construction-Phase services are required beyond 45 days after the original date for final completion of the Work as set forth in the construction Contract. The 45 days are to allow for transfer of outstanding files to the OWNER, completion of FDEP certification, and completion and



submittal of Record Drawings. The Construction Phase will terminate upon submittal of these listed documents.

**Limitation of Responsibilities.** ENGINEER shall not be responsible for the acts or omissions of any CONTRACTOR, or of any sub-CONTRACTORS, suppliers, or other individuals or entities performing or furnishing any of the Work. ENGINEER shall not be responsible for the failure of any CONTRACTOR to perform or furnish the Work in accordance with the Contract Documents.

Except upon written instructions of ENGINEER, Resident Project Representative:

1. Shall not authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
2. Shall not undertake any of the responsibilities of CONTRACTOR, Subcontractors or CONTRACTOR's superintendent, or expedite the Work.
3. Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
4. Shall not advise on or issue directions as to safety precautions and programs in connection with the Work.
5. Shall not participate in specialized field or laboratory tests.