

AGREEMENT BETWEEN COUNTY AND FIRM

This Agreement Between County and Firm, (this “Agreement”) made and entered into by and between Marion County, a political subdivision of the State of Florida, located at 601 SE 25th Ave, Ocala, FL 34471 (hereinafter referred to as “COUNTY”) and **University of Florida, Herbert Wertheim College of Engineering**, located at 207 Grinter Hall, Gainesville, FL 32611, possessing FEIN# 59-6002052 (hereinafter referred to as “FIRM”) under seal for the Evaluation of Leachate Treatment Options for Marion County Baseline Landfill, (hereinafter referred to as the “Project”), and COUNTY and FIRM hereby agreeing as follows:

WITNESSETH:

In consideration of the mutual covenants and promises contained herein, COUNTY and FIRM (singularly referred to as “Party”, collectively “Parties”) hereto agree as follows:

Section 1 – The Contract Documents. The Contract Documents are defined as this Agreement, the Specifications, the Drawings, all Purchase Orders, Change Orders and Field Orders issued hereafter, any other amendments hereto executed by the Parties hereafter, together with the following (if any):

Marion County Bid #26C-082 - Evaluation of Leachate Treatment Options for Marion County Baseline Landfill, the Offer, Project Bid Scope and or Specifications, Plans and Drawings, any/all Addenda as issued in support of this Bid, Recorded Bonds as required, Certificate of Insurance and Notice to Proceed.

Should any conflict arise between the contract documents and the Agreement, the terms of the Agreement shall govern.

Section 2 – Entire Agreement. The Contract Documents form the agreement between Parties for the Project and the FIRM acknowledges receipt of a copy of each and every Contract Document. The Contract Documents represent the entire and integrated agreement between the Parties and supersede prior negotiations, representations or agreements, either written or oral. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than COUNTY and FIRM.

Section 3 – Term. This Agreement shall commence upon Board Approval and will be valid through May 05, 2027 (“Term”). **TIME IS OF THE ESSENCE.** All limitations of time set forth in the Contract Documents are of the essence. Work may be presumed abandoned after ninety (90) days if FIRM terminates the Work without just cause or without proper notification to COUNTY, including the reason for termination, or fails to perform Work without just cause for ninety (90) consecutive days. All Work, defined herein, will proceed in a timely manner without delays.

Section 4 – Scope of Services. FIRM shall complete the Work for Project 26C-082, Evaluation of Leachate Treatment Options for Marion County Baseline Landfill, more fully set forth on Exhibit A hereto, as per the Contract Documents furnished by COUNTY and according to the timeframe as noted herein.

Section 5 – Compensation. COUNTY shall make payment Per Exhibit A - Proposal for a total sum not to exceed One Hundred Twenty-Six Thousand Dollars (\$126,000.00), (the “Agreement Price”), to FIRM under COUNTY’s established procedure, upon completion of the Work. There shall be no provisions for pricing adjustments. FIRM agrees that if payment is made by COUNTY procurement card (p-card), charges will not be processed until goods or services are shipped, or are received by COUNTY, and in acceptable condition.

Section 6 – Assignment. FIRM may not subcontract all or any part of this Agreement without written approval by COUNTY.

Section 7 – Laws, Permits, and Regulations. Prior to the performance of any Work hereunder, FIRM shall obtain and pay for all licenses and permits, as required to perform the Work. FIRM shall at all times comply with all appropriate laws, regulations, and ordinances applicable to the Work provided under this Agreement.

Section 8 – Amendments. This Agreement may only be amended by mutual written agreement of both Parties.

Section 9 – Books and Records. FIRM shall keep records of all transactions, including documentation accurately reflecting the time expended by FIRM and its personnel. COUNTY shall have a right to request records from FIRM, and for those records to be made available within a reasonable timeframe depending on method of acquisition.

Section 10 – Public Records Compliance

A. IF FIRM HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT COUNTY'S CUSTODIAN OF PUBLIC RECORDS AT:

Public Relations | 601 SE 25th Ave, Ocala, FL 34471

Phone: 352-438-2300 | Fax: 352-438-2309

Email: publicrelations@marionfl.org

B. FIRM shall comply with public records laws, specifically:

- Keep and maintain public records required by COUNTY to perform the Work;
- Upon request from COUNTY's custodian of public records, provide 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 in Chapter 119, Florida Statutes, or as otherwise provided by law;
- 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 Term and following completion of this Agreement if FIRM does not transfer the records to COUNTY; and,
- Upon completion of this Agreement, transfer, at no cost, to COUNTY, all public records in possession of FIRM or keep and maintain public records required by COUNTY to perform the Work. If FIRM transfers all public records to COUNTY upon completion of this Agreement, FIRM shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If FIRM keeps and maintains public records upon the completion of this Agreement, FIRM shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to COUNTY, upon request from COUNTY's custodian of public records, in a format that is compatible with the information technology systems of COUNTY.

C. If FIRM fails to provide the public records to COUNTY within a reasonable time, FIRM may be subject to penalties under Section 119.10 Florida Statutes and may be subject to unilateral cancellation of this Agreement by COUNTY. This section shall survive the termination of the Agreement.

Section 11 – Indemnification. FIRM shall indemnify and hold harmless COUNTY, its officers, employees, and agents from all suits, claims, or actions of every name and description brought against COUNTY for liabilities, damages, losses, and costs, including but not limited to reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of FIRM and other persons employed or utilized by FIRM in the performance of this Agreement. This Section shall not be construed in any way to alter COUNTY's waiver of sovereign immunity or the limits established in Section 768.28, Florida Statutes. This section shall survive the termination of the Agreement.

Section 12 – Insurance. As applicable, during the period of Work, insurance policies shall be with a company or companies authorized to do business in the State of Florida. COUNTY shall be notified if any policy limit has eroded to one half its annual aggregate. FIRM shall provide, within the timeframe noted in the Award Letter, a Certificate of Insurance, issued by a company authorized to do business in the State of Florida and with an A.M. Best Company rating of at least A-. Self-Insured companies that cannot be rated, will also be considered. All policies must include all requirements listed below, reference the project number and show Marion County as additional insured. The Certificate should also provide for 30-day cancellation notice to the Procurement Director's address, set forth herein.

WORKERS COMPENSATION AND EMPLOYER'S LIABILITY

Coverage to apply for all employees at STATUTORY Limits in compliance with applicable state and federal laws.

- Employer's Liability limits for not less than \$100,000 each accident \$500,000 disease policy limit and \$100,000 disease each employee must be included.
- The FIRM, and its insurance carrier, waives all subrogation rights against Marion County, a political subdivision of the State of Florida, its officials, employees and volunteers for all losses or damages

which occur during the contract and for any events occurring during the contract period, whether the suit is brought during the contract period or not.

- The County requires all policies to be endorsed with WC00 03 13 Waiver of our Right to Recover from others or equivalent.

COMMERCIAL GENERAL LIABILITY

Coverage must be afforded under a Commercial General Liability policy with limits not less than

- \$1,000,000 each occurrence for Bodily Injury, Property Damage and Personal and Advertising Injury
- \$2,000,000 each occurrence for Products and Completed Operations

BUSINESS AUTOMOBILE LIABILITY

Coverage must be afforded including coverage for all Owned vehicles, Hired and Non-Owned vehicles for Bodily Injury and Property Damage of not less than \$500,000 combined single limit each accident.

- In the event the FIRM does not own vehicles, the FIRM shall maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Section 13 – Independent Contractor. In the performance of this Agreement, FIRM will be acting in the capacity of an “Independent Contractor” and not as an agent, employee, partner, joint venture, or associate of COUNTY. FIRM shall be solely responsible for the means, methods, techniques, sequences, and procedures utilized by FIRM in the full performance of this Agreement.

Section 14 – Default/Termination. In the event FIRM fails to comply with any of the provisions of this Agreement, COUNTY may terminate this Agreement for cause by first notifying FIRM in writing, specifying the nature of the default and providing FIRM with a reasonable period of time in which to rectify such default. In the event the default is not cured within the time period given, COUNTY thereafter may terminate this Agreement for cause upon written notice to FIRM without prejudice to COUNTY. In the event of termination of this Agreement for cause, COUNTY will then be responsible to compensate FIRM only for those services timely and satisfactorily performed pursuant to this Agreement up to the date of termination. COUNTY may terminate this Agreement without cause providing at least thirty (30) days written notice to FIRM. In the event of termination of this Agreement without cause, COUNTY will compensate FIRM for all services timely and satisfactorily performed pursuant to this Agreement up to and including the date of termination. Notwithstanding any other provision of this Agreement, this Agreement may be terminated if for any reason there are not sufficient appropriated and available monies for the purpose of maintaining COUNTY or other public entity obligations under this Agreement. COUNTY shall have no further obligation to FIRM, other than to pay for services rendered prior to termination.

Section 15 – Damage to Property. FIRM shall be responsible for all material, equipment and supplies sold and delivered to COUNTY under this Agreement and until final inspection of the Work and acceptance thereof by COUNTY. In the event any such material, equipment and supplies are lost, stolen, damaged or destroyed, or COUNTY property, buildings, or equipment is damaged during delivery or unloading, or in the course of the WORK prior to final inspection and acceptance, FIRM shall replace the same or be returned to original state without additional cost to COUNTY, as applicable.

Section 16 – Termination for Loss of Funding/Cancellation for Unappropriated Funds. The obligation of COUNTY for payment to FIRM is limited to the availability of funds appropriated in a current fiscal period, and continuation of this Agreement into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

Section 17 – Use of Other Contracts. COUNTY reserves the right to utilize any COUNTY contract, State of Florida contract, city or county governmental agencies, school board, community college/state university system, or cooperative bid agreement. COUNTY reserves the right to separately bid any single order or to purchase any item on this Agreement if it is in the best interest of COUNTY.

Section 18 – Employee Eligibility Verification. COUNTY hereby affirms it is duly registered, uses, and adheres to the practices of the E-Verify system, including those outlined in the clauses below.

Beginning January 1, 2021, Section 448.095, F.S., requires FIRM to register and use the E-Verify system to verify the work authorization status of all newly hired employees and prohibits FIRM from entering into this Agreement unless it is in compliance therewith. Information provided by FIRM is subject to review for the most current version of the State or Federal policies at the time of the award of this Agreement.

By previously signing the ITB Acknowledgment and Addenda Certification Form, and this Contract, FIRM has agreed to perform in accordance with the requirements of this subsection and agrees:

- a) It is registered and uses the E-Verify system to verify work authorization status of all newly hired employees.
- a) COUNTY shall immediately terminate FIRM if COUNTY has a good faith belief that FIRM has knowingly violated Section 448.09(1), F.S., that is, that FIRM knowingly employed, hired, recruited, or referred either for itself or on behalf of another, private or public employment within the State an alien who is not duly authorized to work by the immigration laws or the Attorney General of the United States.
- b) If FIRM enters into a contract with a subcontractor, FIRM shall obtain from the subcontractor an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien.
- c) FIRM shall maintain a copy of such affidavit for the duration of this Agreement and provide it to COUNTY upon request.
- d) FIRM shall immediately terminate the subcontractor if FIRM has a good faith belief that the subcontractor has knowingly violated Section 448.09(1), F.S., as set forth above.
- e) If COUNTY has a good faith belief that FIRM's subcontractor has knowingly violated Section 448.095, F.S., but that FIRM has otherwise complied, COUNTY shall promptly order FIRM to terminate the subcontractor. FIRM agrees that upon such an order, FIRM shall immediately terminate the subcontractor. FIRM agrees that if it should fail to comply with such an order, COUNTY shall immediately terminate FIRM.
- f) If COUNTY terminates this Agreement with FIRM, FIRM may not be awarded a public Agreement for at least one (1) year after the date of termination.
- g) FIRM is liable for any additional costs incurred by COUNTY as a result of a termination under this subsection.
- h) Any such termination under this subsection is not a breach of this Agreement and may not be considered as such.
- i) FIRM shall maintain records of its registration, use, and compliance with the provisions of the E-Verify system, including the registration and use by its subcontractors, and to make such records available to COUNTY or other authorized governmental entity.
- j) To comply with the terms of this Employment Eligibility Verification provision is made an express condition of this Agreement and COUNTY may treat a failure to comply as a material breach of this Contract.

Section 19 – Force Majeure. Neither FIRM nor COUNTY shall be considered to be in default in the performance of its obligations under this Agreement, except obligations to make payments with respect to amounts already accrued, to the extent that performance of any such obligations is prevented or delayed by any cause, existing or future, which is beyond the reasonable control and not a result of the fault or negligence of, the affected Party (a "Force Majeure Event"). If a Party is prevented or delayed in the performance of any such obligations by a Force Majeure Event, such Party shall immediately provide notice to the other Party of the circumstances preventing or delaying performance and the expected duration thereof. Such notice shall be confirmed in writing as soon as reasonably possible. The Party so affected by a Force Majeure Event shall endeavor, to the extent reasonable, to remove the obstacles which prevent performance and shall resume performance of its obligations as soon as reasonably practicable. A Force Majeure Event shall include, but not be limited to acts of civil or military authority (including courts or regulatory agencies), acts of God, war, riot, or insurrection, inability to obtain required permits or licenses, hurricanes and severe floods, pandemics and epidemics.

Section 20 – Counterparts. Original signatures transmitted and received via facsimile or other electronic transmission of a scanned document, (e.g., PDF or similar format) are true and valid signatures for all purposes hereunder and shall bind the Parties to the same extent as that of an original signature. Any such facsimile or electronic mail transmission shall constitute the final agreement of the Parties and conclusive proof of such agreement. Any such electronic counterpart shall be of sufficient quality to be legible either electronically or when printed as hardcopy. COUNTY shall determine legibility and acceptability for public record purposes. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original and all of which shall constitute the same instrument.

Section 21 – FIRM Conduct: These Guidelines govern FIRM while doing work on COUNTY property, as well as its employees, agents, consultants, and others on COUNTY property in connection with FIRM's work or at FIRM's express or implied invitation.

- **Courtesy and Respect:** COUNTY is a diverse government institution and it is critical that FIRM and its employees conduct themselves in a manner that is lawful, courteous, businesslike, and respectful of all staff, guests, or visitors.
- **Language and Behavior:** FIRM and its employees cannot engage in behavior that is rude, threatening, or offensive. Use of profane or insulting language is prohibited. Harassment of any type, including sexual harassment is strictly prohibited. Abusive, derogatory, obscene or improper language, gestures, remarks, whistling, cat calls or other disrespectful behavior cannot be tolerated. Roughhousing, fighting, fisticuffs, physical threats, destruction of property, vandalism, littering, or physical abuse of anyone on COUNTY property is not permitted under any circumstance.
- **No Weapons, Alcohol, or Drugs:** The use, possession, distribution, or sale of any weapon, alcohol, illegal drug, or controlled dangerous substance by FIRM or its employees is prohibited. Offenders will be removed from COUNTY property and/or reported to law enforcement.
- **Smoking:** FIRM and its employees are not permitted to smoke in or near any COUNTY buildings.
- **Fraternization:** FIRM and its employees may not fraternize or socialize with COUNTY staff.
- **Appearance:** FIRM and its employees are required to wear appropriate work wear, hard hats and safety footwear, as the case may be, while on the job. Articles of clothing must be neat and tidy in appearance, and cannot display offensive or inappropriate language, symbols or graphics. COUNTY has the right to decide if such clothing is inappropriate.

FIRM is responsible for its employees, agents, consultants and guests. If prohibited conduct does occur, FIRM will take all necessary steps to stop and prevent any future occurrence. Any breach of these conditions will result in the removal of the person responsible from COUNTY property and prohibited actions could result in the immediate termination of any or all of FIRM's contracts with COUNTY.

Section 22 – Authority to Obligate. Each person signing this Agreement on behalf of either Party individually warrants that he or she has full legal power to execute this Agreement on behalf of the Party for whom he or she is signing, and bind and obligate such Party with respect to all provisions contained in this Agreement.

Section 23 – Law, Venue, Waiver of Jury Trial, Attorney's Fees. This Agreement and all the Contract Documents shall be construed according to the laws of Florida and shall not be construed more strictly against one party than against the other because it may have been drafted by one of the parties. In the event of any legal proceeding arising from or related to this Agreement; (1) venue for state or federal legal proceedings shall be in Marion County, Florida, (2) for civil proceedings, the parties consent to trial by the court and waive right to jury trial, (3) the prevailing party shall be entitled to recover all of its costs, including attorney fees. This section shall survive the termination of the Agreement.

Section 24 – Scrutinized Companies, pursuant to Section 287.135, F.S.

A. Certification.

1. If this Agreement is for One Million Dollars or more, FIRM certifies that at the time it submitted its bid or proposal for this Agreement or before entering into this Agreement or renewing same, FIRM was not then and is not now:
 - a. On the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, F.S., or
 - b. Engaged in business operations in Cuba or Syria.
2. If this Agreement is for any amount, FIRM certifies that at the time it submitted its bid or proposal for this Agreement or before entering into this Agreement or renewing same, FIRM was not then and is not now:
 - a. On the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, F.S. or
 - b. Engaged in a boycott of Israel.

B. Termination, Threshold Amount. COUNTY may, entirely at its option, terminate this Agreement if it is for One Million Dollars and FIRM meets any of the following criteria.

1. Was entered into or renewed on or after July 1, 2011, through June 30, 2012, and FIRM is found to meet any of the following prohibitions:
 - a. Submitted a false certification as provided under Section 287.135(5), F.S., or
 - b. Been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, F.S.
2. Was entered into or renewed on or after July 1, 2012, through September 30, 2016, and FIRM is found to meet any of the following prohibitions:

- a. Submitted a false certification as provided under Section 287.135(5), F.S.;
 - b. Been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, F.S.; or
 - c. Been engaged in business operations in Cuba or Syria.
3. Was entered into or renewed on or after October 1, 2016, through June 30, 2018, and FIRM is found to meet any of the following conditions:
 - a. Submitted a false certification as provided under Section 287.135(5), F.S.;
 - b. Been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, F.S.;
 - c. Been engaged in business operations in Cuba or Syria; or
 - d. Been placed on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, F.S. or is engaged in a boycott of Israel.
 4. Was entered into or renewed on or after July 1, 2018, and FIRM is found to meet any of the following prohibitions:
 - a. Submitted a false certification as provided under Section 287.135(5), F.S.;
 - b. Been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473, F.S.; or
 - c. Been engaged in business operations in Cuba or Syria.
- C. Termination, Any Amount. COUNTY may, entirely at its option, terminate this Agreement if it is for any amount and meets any of the following criteria.
1. Was entered into or renewed on or after July 1, 2018, and
 2. FIRM is found to have been placed on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, F.S. or is engaged in a boycott of Israel.
- D. Comply; Inoperative. The Parties agree to comply with Section 287.135, F.S., as it may change from time to time during the Term. The contracting prohibitions in this Section become inoperative on the date that Federal law ceases to authorize the State of Florida to adopt and enforce such contracting prohibitions.

Section 25 – Sovereign Immunity. Nothing in the Agreement shall be deemed to waive the sovereign immunity protections provided COUNTY pursuant to Florida law. Notwithstanding anything stated to the contrary in the Agreement, any obligation of COUNTY to indemnify FIRM, if provided, is limited and shall not exceed the limits set forth in Section 768.28, Florida Statutes. This Section shall survive the termination of the Agreement. This section shall survive the termination of the Agreement.

Section 26 – On-Going Compliance. The Parties acknowledge that the Agreement may contain provisions prescribed by laws, statutes, and regulations that can change during the Term of the Agreement. The Parties understand and agree that the Agreement is intended to reflect and require the Parties’ compliance with all laws at all times. The Parties expressly and specifically agree to perform the Agreement in full compliance with the governing laws, statutes, and regulations, as same may change from time to time.

Section 27 – Exhibits/Attachments. The following attachments are hereby incorporated into this Agreement as part hereof as though fully set forth herein: **EXHIBIT A - Work for the project.**

Section 28 – Notices. The Agreement provides for Notices and all other communications to be in writing and sent by certified mail return receipt requested or by hand delivery. FIRM’s and COUNTY’s representatives and addresses for notice purposes are:

FIRM: University of Florida, Herbert Wertheim College of Engineering
 207 Grinter Hall, Gainesville, FL 32611
 CONTACT PERSON: Caleb S. Ewing | Phone: 352-294-2077

COUNTY: Marion County Solid Waste
 c/o Marion County, a political subdivision of the State of Florida
 601 SE 25th Ave, Ocala, FL 34471

A copy of all notices to COUNTY hereunder shall also be sent to:

Procurement Services Director
 Marion County Procurement Services Department

Research Proposal: Evaluation of Leachate Treatment Options for the Marion County Baseline Landfill

Prepared for: Marion County Board of County Commissioners
Prepared by: University of Florida, Herbert Wertheim College of Engineering,
Sustainable Materials Management Research Laboratory
Date: February 25, 2026

1. Background and Purpose

Marion County is planning improvements to its solid waste management infrastructure and is interested in identifying practical, cost-effective technologies to treat landfill leachate, manage odors, and reduce overall cost per gallon of leachate managed. This proposal describes a 12-month University of Florida research support effort with a primary focus on evaluating and comparing candidate leachate treatment and volume-reduction approaches (Task 1), including the potential for combining multiple technologies into an integrated treatment train.

In addition, the project includes research-informed technical support for regulatory and agency interactions (Task 2) and flexible, County-prioritized tasks for other solid waste management needs as time allows (Task 3), such as innovative and cost-saving landfilling and recycling technologies and related topics (e.g., yard waste and used tire management).

2. Project Objectives

- Screen and compare candidate leachate treatment and volume-reduction approaches for effectiveness, odor management, and life-cycle cost.
- Consider technologies incorporating current best management practices for treating contaminants of concern as well as emerging technologies for anticipated future regulations (e.g., PFAS/PFOA) with the goal of lowering cost and regulatory compliance.
- Develop a recommended treatment train (one or more technologies in series/parallel) tailored to Marion County leachate characteristics, operational constraints, and regulatory requirements.
- Evaluate management options for residuals/concentrate and identify feasible handling and disposal pathways.
- Assess whether treatment capacity could be sized/operated to accept third-party leachate as a potential revenue stream, subject to technical, permitting, and business constraints.
- Provide support for questions and issues that arise with regulatory agencies related to leachate and landfill operations during the project period.

- Apply remaining student effort, at the County's direction, to evaluate other priority solid waste management topics on an as-needed basis (e.g., innovative landfilling and recycling technologies, yard waste, and used tire management).

3. Scope of Work

Task 1 Leachate Treatment Evaluation

The University will support Marion County in evaluating leachate treatment and volume-reduction approaches suitable for the Marion County landfill. Activities may include: (i) compiling and reviewing existing leachate data; (ii) targeted sampling/analysis as needed to capture variability; (iii) establishing performance criteria and constraints (odor control, footprint, staffing, power, consumables); (iv) screening candidate approaches and developing integrated treatment-train concepts, including membrane technologies (evaluated generically as a class of separation processes), evaporation/volume-reduction approaches, and phyto-utilization concepts where feasible; (v) evaluating practical options for managing residuals/concentrate (including streams produced by membrane technologies) and identifying feasible handling/disposal pathways; and (vi) preparing order-of-magnitude cost comparisons and an implementation roadmap (pilot-to-full-scale decision points and next steps).

Deliverables

- Work plan and sampling/monitoring plan (including performance criteria and decision framework).
- Interim memorandum summarizing leachate treatment screening, treatment-train concepts, and recommended pilot candidates (if applicable).
- Technical memorandum summarizing innovative/cost-saving landfill and recycling technologies screened and their applicability to Marion County.
- Regulatory/agency technical support memoranda or calculations, as needed, documenting technical responses and recommendations.
- Final report and presentation summarizing findings, cost and performance comparisons, and recommended path forward.
- Executive summary document and public presentation for Board discussions.

Task 2 Regulatory and Agency Technical Support

The University will provide technical assistance as issues arise with regulatory agencies (e.g., FDEP and others as applicable). Support may include interpreting monitoring data, providing technical memos or calculations, supporting responses to agency questions, and helping the County evaluate technical implications of proposed permit conditions or operational changes. This task is intended to provide timely, research-informed support while maintaining the County's decision authority and consultant-of-record responsibilities.

Deliverables

- Regulatory/agency technical support memoranda, calculations, and/or draft response language as needed documenting technical analyses and recommendations.

Task 3 Other As-Needed Services

Following completion of the core leachate study activities in Task 1, and as requested by the County during the project period, the University will provide additional research consistent with the intent of this agreement. Because this project budget supports a fixed level of graduate and undergraduate student effort (with faculty supervision), the specific work items under this task will be prioritized by the County and completed on an as-needed basis as time allows. Examples of potential support under this task may include: (i) exploration and technical screening of innovative and cost-saving landfill and recycling technologies/practices (including operational improvements and diversion/recovery concepts); (ii) evaluation of options related to yard waste management and beneficial use pathways; (iii) evaluation of options related to used tire handling/processing and associated materials management strategies; (iv) participation in coordination meetings; (v) review of vendor/consultant submittals; and (vi) support in developing scopes for follow-on pilot or implementation projects. The University will document work performed under this task through brief technical memoranda, emails, and/or meeting summaries as appropriate.

Deliverables

- As-needed technical memoranda and/or summaries supporting County-prioritized services

5. Schedule

Work is anticipated to begin in May 2026 and continue for a 12-month period.

6. Budget

Total budget: \$126,000 for a 12-month project period. This budget is intended to support twelve months of graduate student research time (including the student's stipend and tuition waiver), some undergraduate student support time, and the time of Steven Laux, P.E., and Timothy Townsend, Ph.D., P.E. to supervise and guide the students. The budget also includes travel (e.g., site visits and meetings) and laboratory supplies/analytical costs needed to support the project tasks.

Disclosure: The University of Florida and Dr. Timothy Townsend have intellectual property and licensing interests related to leachate treatment. This project will evaluate existing commercially available treatment technologies, including the UF-licensed technologies. The research will be conducted and reported objectively using consistent technical and economic criteria.