

FORM OF PAYMENT BOND - Bid# 24B-297 - Silver Spring Shores Odor Control Upgrades

BOND NUMBER \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS: That **Odyssey Manufacturing Company**, located at 1484 Massaro Blvd., Tampa, FL 33619, with a telephone number of \_\_\_\_\_, as Principal, hereinafter referred to as "FIRM", and \_\_\_\_\_, a \_\_\_\_\_ corporation, located at \_\_\_\_\_, with a telephone number of \_\_\_\_\_, hereinafter referred to as "SURETY", for good consideration, are held firmly bound unto MARION COUNTY, FLORIDA, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, located at 601 SE 25<sup>th</sup> Ave., Ocala, FL 34471, with a telephone number of (352) 671-8444, as Obligee, hereinafter referred to as "COUNTY", to indemnify and hold COUNTY harmless and in accordance with Section 336.44 and Section 255.05, Florida Statutes, as applicable, in the full and just sum of **\$993,380 (Nine Hundred Ninety-Three Thousand Three Hundred Eighty Dollars and Zero Cents)**, lawful money of the United States, for the payment whereof FIRM and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents to pay for labor, materials and equipment furnished for use in the performance of the CONTRACT, defined below.

WHEREAS, FIRM and COUNTY have entered into a written contract approved by the Marion County Board of County Commissioners on **November 19, 2024** for complete construction and delivery of the project identified as **Silver Spring Shores Odor Control Upgrades** (hereinafter referred to as the "PROJECT") in Marion County, Florida, in accordance with instructions to bidders, drawings and specifications, said contract is incorporated herein by reference made a part hereof and is hereinafter referred to as the "CONTRACT".

NOW THEREFORE, THE CONDITIONS OF THIS OBLIGATION (hereinafter referred to as this "BOND") is such that if the aforesaid FIRM shall, for value received:

- (1) Promptly pay all claimants supplying FIRM with labor, materials, and/or supplies used directly or indirectly by FIRM in the performance of the CONTRACT;
  - (2) Pay COUNTY any and all losses, damages, costs and attorney's fees, including appellate proceedings, that COUNTY sustains because of a default by FIRM under the CONTRACT; and,
  - (3) Perform the warranty of all work and materials under the CONTRACT for the time specified in the CONTRACT,
- then this BOND shall be null and void; otherwise it shall remain in full force and effect.

SURETY, for value received, hereby acknowledges that any changes, extensions of time, alterations or additions to the terms of the CONTRACT in no way affects SURETY's obligation under this BOND and SURETY waives notice for any such changes, extensions of time, alterations or additions.

Whenever FIRM shall be in default under the CONTRACT and COUNTY having performed COUNTY's obligation hereunder, SURETY may promptly remedy the default or shall promptly and at SURETY's expense:

- (1) Respond to claimants, if any, with a copy to COUNTY, within forty-five (45) days after receipt of claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed, and,
- (2) Pay or arrange for payment of any undisputed amounts.

If notice is given by COUNTY to FIRM or to SURETY, such notice is sufficient notice of claim.

SURETY's total obligation shall not exceed the amount of this BOND, and the amount of this BOND shall be credited for any payments made in good faith by SURETY.

Amounts owed by COUNTY to FIRM under the CONTRACT shall be used for the performance of the CONTRACT and to satisfy claims, if any, under the Performance Bond. By FIRM furnishing and COUNTY accepting this BOND, they agree that all funds earned by FIRM in performance of the CONTRACT are dedicated to satisfy obligations of FIRM and SURETY under this BOND, subject to COUNTY's priority to use the funds for completion of the PROJECT.

SURETY shall not be liable to COUNTY, claimants or others for obligations of FIRM that are unrelated to the CONTRACT. COUNTY shall not be liable for payment of any costs or expenses of any claimant under this BOND, and shall have under this BOND no obligations to make payments to, give notices on behalf of, or otherwise have obligations to claimants under this BOND.

This BOND shall be construed in all respects as a statutory bond. It is expressly understood the time provisions and statute of limitation under Section 255.05, Florida Statutes, shall apply to this BOND.

FIRM Signature \_\_\_\_\_ Date \_\_\_\_\_

Signed and Sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

By \_\_\_\_\_

[Attorney in Fact (Attach Power of Attorney)]

Surety Address \_\_\_\_\_

**SEND ALL BOND INQUIRIES TO:**  
Marion County Procurement Services  
c/o Marion County, a political subdivision of the State of Florida  
2631 SE Third St., Ocala, FL 34471  
352-671-8444 | [Procurement@MarionFL.org](mailto:Procurement@MarionFL.org)

\_\_\_\_\_

\_\_\_\_\_

Email \_\_\_\_\_

Phone Number \_\_\_\_\_

FORM OF PERFORMANCE BOND - Bid# 24B-297 - Silver Spring Shores Odor Control Upgrades

BOND NUMBER \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS: That **Odyssey Manufacturing Company**, located at 1484 Massaro Blvd., Tampa, FL 33619, with a telephone number of \_\_\_\_\_, as Principal, hereinafter referred to as "FIRM", and \_\_\_\_\_, a \_\_\_\_\_ corporation, located at \_\_\_\_\_, with a telephone number of \_\_\_\_\_, hereinafter referred to as "SURETY", for good consideration, are held firmly bound unto MARION COUNTY, FLORIDA, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, located at 601 SE 25<sup>th</sup> Ave., Ocala, FL 34471, with a telephone number of (352) 671-8444, as Obligee, hereinafter referred to as "COUNTY", to indemnify and hold COUNTY harmless and in accordance with Florida Statute §336.44 and §255.05, as applicable, in the full and just sum of **\$993,380 (Nine Hundred Ninety-Three Thousand Three Hundred Eighty Dollars and Zero Cents)**, lawful money of the United States, for the payment whereof FIRM and SURETY bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents to pay for labor, materials and equipment furnished for use in the performance of the CONTRACT, defined below.

WHEREAS, FIRM and COUNTY have entered into a written contract approved by the Marion County Board of County Commissioners on **November 19, 2024** for complete construction and delivery of the project identified as **Silver Spring Shores Odor Control Upgrades** (hereinafter referred to as the "PROJECT") in Marion County, Florida, in accordance with instructions to bidders, drawings and specifications, said contract is incorporated herein by reference made a part hereof and is hereinafter referred to as the "CONTRACT".

NOW THEREFORE, THE CONDITIONS OF THIS OBLIGATION (hereinafter referred to as this "BOND") is such that if the aforesaid FIRM shall, for value received:

- (1) Timely and faithfully perform the CONTRACT;
- (2) Pay COUNTY any and all losses, damages, costs and attorney's fees, including appellate proceedings that COUNTY sustains because of a default by FIRM under the CONTRACT; and,
- (3) Perform the guarantee or warranty of all work and materials under the CONTRACT for the time specified in the CONTRACT, then, this BOND shall be null and void; otherwise it shall remain in full force and effect.

SURETY, for value received, hereby acknowledges that any changes, extensions of time, alterations or additions to the terms of the CONTRACT in no way affects SURETY's obligation under this BOND and SURETY waives notice for any such changes, extensions of time, alterations or additions.

Whenever FIRM shall be in default under the CONTRACT and COUNTY having performed COUNTY's obligation hereunder, SURETY may promptly remedy the default or shall promptly and at SURETY's expense:

- (1) Complete the CONTRACT in accordance with its terms and conditions, and,
- (2) Obtain a bid or bids for completing the CONTRACT in accordance with its terms and conditions, and upon determination by SURETY of the lowest responsible bidder, or if COUNTY elects, upon determination by COUNTY and SURETY jointly of the lowest responsible bidder, arrange for a contract (a "CONTRACT OF COMPLETION") between such bidder and COUNTY, and make available as PROJECT progresses (even though there should be a default or a succession of defaults under the CONTRACT or a CONTRACT OF COMPLETION) sufficient funds to pay the cost of completion less the balance of the total bid price; but not exceeding, including other costs and damages for which the SURETY may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of total bid price" as used in this paragraph shall mean the total amount payable by COUNTY to FIRM under the CONTRACT, and any CHANGE ORDERS thereto, less the amount properly paid by COUNTY to FIRM.

No right of action shall accrue on this BOND to or for the use of any person or corporation other than COUNTY named herein, or the successors of COUNTY.

FIRM Signature \_\_\_\_\_ Date \_\_\_\_\_

Signed and Sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

By \_\_\_\_\_

[Attorney in Fact (Attach Power of Attorney)]

Surety Address \_\_\_\_\_

**SEND ALL BOND INQUIRIES TO:**  
Marion County Procurement Services  
c/o Marion Co, a political subdivision of the State of Florida  
2631 SE Third St., Ocala, FL 34471  
352-671-8444 | [Procurement@MarionFL.org](mailto:Procurement@MarionFL.org)

Email \_\_\_\_\_

Phone Number \_\_\_\_\_

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 25<sup>th</sup> Ave, Ocala, FL 34471 (hereinafter referred to as “COUNTY”) and **Odyssey Manufacturing Company**, located at 1484 Massaro Blvd., Tampa, FL 33619, possessing FEIN# 65-0846345 (hereinafter referred to as “FIRM”) under seal for the Silver Spring Shores Odor Control Upgrades, (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 #24B-297 - Silver Spring Shores Odor Control Upgrades, 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 the start date listed on the Notice to Proceed, when issued. Project shall reach substantial completion within 330 calendar days with an additional 30 calendar days to achieve final completion (“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 24B-297 Silver Spring Shores Odor Control Upgrades, more fully set forth on Exhibit A - Scope of Work hereto, as per the Contract Documents furnished by COUNTY and according to the timeframe as noted herein.

**Section 5 – Compensation.** COUNTY shall make payment of Nine Hundred Ninety-three Thousand Three Hundred Eighty Dollars and Zero Cents (\$993,380), (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.

DESCRIPTION	UNIT	COST
Furnish and install an odor control system for the WWTP, which will include the supply and installation of equipment listed in the Scope of Work Section 1.1 through 4.3 in its entirety.	LS	\$993,380.00

**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 25<sup>th</sup> Ave, Ocala, FL 34471**

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

**Email: [publicrelations@marionfl.org](mailto: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.
- b) 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.
- c) 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.
- d) FIRM shall maintain a copy of such affidavit for the duration of this Agreement and provide it to COUNTY upon request.
- e) 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.
- f) 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.
- g) 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.
- h) FIRM is liable for any additional costs incurred by COUNTY as a result of a termination under this subsection.
- i) Any such termination under this subsection is not a breach of this Agreement and may not be considered as such.
- j) 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.
- k) 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: Odyssey Manufacturing Company  
1484 Massaro Blvd., Tampa, FL 33619  
CONTACT PERSON: Patrick Allman | Phone: 813-685-0339

COUNTY: Marion County Utilities  
c/o Marion County, a political subdivision of the State of Florida  
601 SE 25<sup>th</sup> 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  
2631 SE 3rd St., Ocala, FL 34471

Alternatively, the parties may elect to receive said notices by e-mail. COUNTY hereby elects to receive all notices solely by email and designates its email address as [procurement@marionfl.org](mailto:procurement@marionfl.org). If FIRM agrees to accept all notices solely by e-mail and acknowledges and accepts the inherent risks that come with accepting notices solely by e-mail, FIRM may designate up to two (2) e-mail addresses: [pallman@odysseymanufacturing.com](mailto:pallman@odysseymanufacturing.com) and [admin@odysseymanufacturing.com](mailto:admin@odysseymanufacturing.com). Designation signifies FIRM's election to accept notices solely by e-mail.

IN WITNESS WHEREOF the Parties have entered into this Agreement, as approved by the Marion County Board of County Commissioners, on the date of the last signature below.

**ATTEST:**

**MARION COUNTY, A POLITICAL SUB-DIVISION OF THE STATE OF FLORIDA**

\_\_\_\_\_  
GREGORY C. HARRELL, DATE  
MARION COUNTY CLERK OF COURT

\_\_\_\_\_  
KATHY BRYANT DATE  
CHAIR

**FOR USE AND RELIANCE OF MARION COUNTY ONLY, APPROVED AS TO FORM AND LEGAL SUFFICIENCY**

**BCC APPROVED:** November 19, 2024  
24B-297 | Silver Spring Shores Odor Control Upgrades

\_\_\_\_\_  
MATTHEW G. MINTER, DATE  
MARION COUNTY ATTORNEY

**WITNESS:**

**ODYSSEY MANUFACTURING COMPANY**

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
BY: DATE

\_\_\_\_\_  
PRINTED NAME

\_\_\_\_\_  
PRINTED:

\_\_\_\_\_  
ITS: (TITLE)

**WITNESS:**

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
PRINTED NAME

installed system consists of fixed and hinged, custom fit, flat aluminum covers at the top of the basin walls.

## 1.2 PROCESS DESCRIPTION

- A. The biotrickling filter odor control system shall utilize a high surface area synthetic/inert media to provide an optimal site for growth of microorganisms (aka: biomass). This media has a high surface/high void area for optimal treatment in a small footprint. A blower conveys the odorous air from the odor source to the bottom plenum of the vessel where the air then passes upward through the vessel and media bed. As the odorous air travels upward, it contacts the biomass where non-pathogenic sulfur oxidizing bacteria that are immobilized on the synthetic media remove H<sub>2</sub>S and other odorous VOCs. The counter-current flow of air and water/nutrients enhance the mass transfer to the bacteria where the biological sulfide oxidation takes place and odorous compounds are converted to weak sulfuric acid and other soluble sulfates and are removed in the drain water. To maintain a healthy biological population, water and nutrients are conveyed from the nutrient feed panel to the spray header above the media bed via plant water pressure and/or a recycle pump. Neutralizing or oxidizing chemicals shall not be utilized to accomplish odor control within the biotrickling filter.
- B. The carbon filter works by removing odors through adsorption to the carbon media. To avoid fouling the carbon media with grease and water, a grease/moisture separator shall be installed on the ductwork from the digesters prior to the ventilation fan. The proposed carbon filter system will be designed to scrub only one basin at a time, and will run only when odor control is needed, which is immediately after the aeration blower is turned on in a digester that has just been decanted. Normally, all four dampers will be kept closed. Immediately after decanting a digester, the operator will open the two dampers on the digester that has just been decanted, and then turn on the carbon filter blower. He will then turn on the digester aeration blower. The carbon filter blower will only need to be on for about an hour or until all the odors have been stripped out of the newly decanted digester. After the carbon filter blower is turned off, the operator will close the two dampers opened at the beginning of the procedure. A special carbon filter media blend shall be provided that is designed to remove over 99% of the ammonia and volatile organic compounds (VOCs) stripped from the decanted digester. This media shall not remove H<sub>2</sub>S, since H<sub>2</sub>S is not generated in an aerobic digester that has been unaerated for a relatively short period of time.

## 1.3 EQUIPMENT SUPPLIER & CONTRACTOR QUALIFICATIONS

- A. The BTF supplier shall be experienced in the design, construction, and successful operation of biotrickling filter odor control systems for the removal of hydrogen sulfide gas and other odor producing compounds from air ventilated from wastewater treatment systems. The system shall be a **"HIBOCS-150"** biological odor control system manufactured and/or supplied by Heyward Florida Incorporated or Owner approved equal. Systems utilizing organic, lava rock, stone or PUF media will not be accepted. Vessels shall be fiberglass construction only. Systems using Polypropylene, HDPE, PVC, or PVC overlays will not be accepted.
- B. The carbon scrubber odor control system shall be a HICARB-250 system supplied by Heyward Florida Incorporated (H<sub>2</sub>S Control), or Owner approved equal.
- C. The digester cover manufacturer shall have a minimum of 10 years' experience in manufacturing aluminum covers. The digester cover manufacturer shall be ISO 9001 certified.

**TECHNICAL SPECIFICATION****MARION COUNTY SILVER SPRINGS SHORES WWTP ODOR CONTROL SYSTEM****PART 1 - GENERAL****1.1 SCOPE OF WORK**

- A. The Silver Springs Shores Wastewater Treatment Plant (WWTP) is located at 450 Emerald Road, Ocala, FL 34472. The scope of work for this project is to furnish and install an odor control system for the WWTP. This will include the supply and installation of the following equipment in addition to all of the ancillary work to make this equipment fully operational: (1) Biotrickling Filter (BTF) at the WWTP headworks; (2) Carbon Scrubber at the aerobic digesters; and (3) Extruded aluminum flat cover system over the two digester basins. All work shall be installed by a licensed General Contractor in the State of Florida and the Contractor shall provide a copy of their license with their Proposal. Additionally, the Contractor shall provide a list of any proposed subcontractors with their proposals including a copy of the subcontractor's licenses.
- B. The work specified shall include furnishing and testing of all equipment and materials necessary to provide the Owner with a completely operational BTF for removal of hydrogen sulfide (H<sub>2</sub>S) and other volatile organic compounds (VOC's) from the treated air. The Biotrickling Filter Odor Control System shall consist of a fiberglass biotrickling filter vessel, synthetic media and media support system, spray header pipe and nozzle(s), odorous air blower and process control system skid. All major system components, vessels, blower, controls and interconnecting duct between the biotrickling filter and blower shall be from the same supplier for single source responsibility. The Contractor shall reuse the existing fiberglass ducting and pick points currently installed at the headworks structure. These pick points appear to be the best locations for the suction of hydrogen sulfide from the headworks' head space. Although the cover system over the headworks' channels shall be retained, the Contractor shall seal the large openings and cracks in the cover system using aluminum sheet metal and rubber matting so that a vacuum can be established, and the desired level of odor control achieved. The BTF shall perform in accordance with the design basis. It shall be designed for continuous operation in a highly corrosive environment.
- C. The work specified shall include furnishing and testing of all equipment and materials necessary to provide a complete operational odor control system for the aerobic digesters at the WWTP. The odors will be evacuated periodically from two (2) aerobic digesters after every settle/decant cycle. The odor stream will contain volatile organic compounds (VOC's) and some ammonia formed during the settling and decanting period within the aerobic digesters when the aeration system is off. The carbon scrubber odor control system shall consist of a carbon scrubber vessel, internal structural media support members, FRP grating, carbon media, forced air fan/blower, VFD controller, air duct and supports, grease-moisture separator, air balancing dampers and any other equipment or accessories required to provide a complete and functioning odor control system. The system shall perform in accordance with the design basis. It shall be designed for intermittent manual operation in a moist environment.
- D. The work specified shall include all engineering, coordination, labor, materials and equipment, and services necessary for an incidental to, the complete and satisfactory installation of a substantially air-tight, aluminum cover structure over the two digester basins. The completed

The digester covers shall be as designed and manufactured by APEX Covers, Parsons, KS or Owner approved equal.

#### **1.4 WARRANTY**

- A. The Contractor shall provide a three (3) year “Full Replacement Warranty” for all equipment supplied hereunder that shall begin once the odor control system has been started and is meeting all performance requirements (“Substantial Completion”). This three-year warranty shall not apply to the carbon media in the carbon filter. Any warranties by the Equipment Supplier are in addition to and not in lieu of the Contractor’s three-year warranty.
- B. The synthetic/inert biological media and support grating in the BTF shall have a 10-year non-prorated full replacement warranty as provided by the Equipment Supplier from the date of Substantial Completion. The cost of removal and replacement of the media shall be by Owner.
- C. The Contractor shall warrant that it shall provide service support for the odor control systems for ten (10) years after installation.

#### **1.5 PROPOSAL/BID SUBMITTALS**

- A. Odor Control Equipment Supplier Identification and Cut Sheets (1.3D(a))
- B. Equipment Supplier List of Installations (1.3D(a))
- C. Contractor List of Installations (1.3E(a))
- D. Contractor’s Detailed Equipment Startup Plan (1.3E(b))
- E. Specify BTF Empty Bed Residence Time (2.3A)
- F. Contractor’s License and List of Subcontractors (1.1)

#### **1.6 AFTER AWARD SUBMITTALS**

- A. Detailed Equipment Vessel Drawings and Equipment Cut Sheets
- B. Detailed Equipment Layout Drawings with sufficient detail to review Contractor’s proposed plan to site and install the specified equipment herein and promote connection to existing facilities.
- C. Complete structural calculations showing the governing stresses in all members and connections along with detailed shop drawings for the digester covers. Drawings shall be signed and sealed by a registered Professional Engineer in the state of manufacture. Drawings shall include dimensional layouts with sizes; thicknesses; materials; connection details; fastener types and spacing’ and erection procedures.
- D. A letter of certification signed and sealed by a registered Professional Engineer in the state of manufacture confirming that the aluminum cover is in full compliance with the plans and specifications including any testing provisions included therein.
- E. O&M Manuals

## **PART 2 - PRODUCTS**

### **2.1 BTF VESSEL**

- A. The biotrickling filter shall be a cylindrically shaped fiberglass vessel with upflow air passage and countercurrent liquid flow. The biotrickling filter vessel shall include an engineered baffles to ensure no bypass of the air stream around any of the media beds.
- B. The vessel shall be constructed from UV resistant fiberglass reinforced plastic (FRP) composite materials suitable for an internal environment containing low grade sulfuric acid. The resin used shall be Viprel F701 isophthalic polyester as manufactured by AOC, or equal.
- C. The finished laminate shall be free from visual defects such as foreign inclusion, dry spots, air bubbles, pin holes, pimples, delamination, exposed reinforcement (glass fibers), and runoff. The exterior surface shall be smooth, with no sharp projections. Care shall be taken to fill voids and crevices in joints and fittings.
- D. The vessel shall include a structural media support system that supports the media bed under dry and wet conditions, fiberglass grating and plastic retaining mesh.
- E. The vessel shall include two (2) cover lifting lugs, four (4) vessel lifting lugs, and a minimum of four (4) anchor clips.
- F. The biotrickling filter media shall consist of high service area, non-plugging, non-degradable synthetic polyethylene balls. Systems utilizing organic media, lava rock, stone, glass or PUF foam media will not be accepted.
- G. The vessel shall include a 2" diameter Sch 80 PVC spray header with at least one nozzle that evenly distributes water and nutrients across the entire surface of the media bed.
- H. The vessel shall include two (2) 2" drain fittings, a 6" diameter plain end inlet, a 6" diameter plain end PVC outlet at the top, and two (2) ½" differential pressure sensing fittings; one fitting above the spray header and one in the plenum. The pressure sensing fittings and one of the drain fittings shall be provided with a threaded plug.
- I. The discharge pipe shall include a 1" air sampling fitting with an internal nipple and elbow that extends the inlet into the center of the discharge pipe. The contractor shall install 1" Schedule 80 PVC pipe from the air sampling fitting down to the side of the vessel within 5' of grade elevation including stainless steel floor mounted support.
- J. All materials of construction including miscellaneous hardware shall be resistant to attack by the corrosive compounds present in the air stream, as well as those present in the recirculating liquid, including biodegradation by-products. Nuts, bolts, and washers, lifting lugs, and anchor clips shall be 316 stainless steel. All exposed parts shall be suitable for direct sunlight.
- K. All components of the odor control system shall be installed in strict accordance with the supplier's instructions and under the guidance of supplier's field service representative.

### **2.2 BTF PROCESS CONTROL SKID**

- A. A process control system skid shall be provided to operate the exhaust fan, nutrient pump, actuator valve, recirculation pump, instrumentation, and all other system components. The Contractor is responsible for providing a 3ph/60hz/208-230/460V AC power feed and a suitable irrigation water source to the control skid.
- B. The skid shall be fabricated of non-corrosive materials such as polyethylene, fiberglass, aluminum or stainless steel. It shall house the Power Distribution Panel, the Water/Nutrient Feed System, the Water/Nutrient Timer Panel, a step-down transformer, the blower VFD with integral NEMA 4X enclosure and disconnect switch, the recirculation pump, and the nutrient storage tank all pre-piped and pre-wired at the factory. The nutrient tank shall be sized to provide a minimum of thirty (30) days of nutrient solution storage. The skid shall also include an integral sun and rain shield.
- C. The process control system control panels shall be rated NEMA 4X stainless steel or FRP with all 316 stainless steel mounting hardware as necessary. The Power Distribution Panel shall contain the main power disconnect switch, circuit breakers, power distribution terminal blocks, and blower run/fail dry contacts. The Water/Nutrient Feed System shall be mounted on the back panel of the skid and include the electronically actuated mechanical diaphragm nutrient feed pump, electric actuated water control valve, pressure reducing valve, manual flow control valve, flow meter, and pressure gauge. The Water/Nutrient Timer Panel shall contain the cycle timer, the water valve timer, the nutrient feed pump timer the recirc pump motor starter and overload.
- D. The components on the process control skid shall be connected using Asahi America Schedule 80 PVC piping and Type 21 ball valves, and all the components necessary for a complete packaged system for operational process control of the biotrickling filter system. Installation shall only require connection of 3-phase power to the Power Distribution Panel, and from the VFD to the blower. It shall also require field installation of a 1" water supply line to the inlet water connection on the skid, and a 1" line from the irrigation water outlet to the irrigation spray header connection on the biotrickling filter vessel.
- E. The water control system shall be capable of "Dual Mode" operation with the flexibility to operate in a constant liquid recirculation mode (uniform media bed pH) or intermittent freshwater mode (stratified media bed pH) to allow for wider operational control of site-specific odor streams.
- F. The system supplier shall provide a prefabricated Schedule 80 PVC overflow/sampling assembly that shall be installed downstream of one of the 2" drain fittings on the biotrickling filter vessel. Upstream of this assembly, the contractor shall install a schedule 80 PVC tee, and a 1.5" recirculation pump feed line shall be run to the recirc pump inlet connection on the process equipment skid for use during system acclimation and constant recirculation mode of operation. Downstream of this assembly a 1.5" drain line shall be routed to a drain for gravity drainage of the vessel during intermittent freshwater mode of operation. The drain shall include a P-trap to prevent escape of odorous air out of the drain line.
- G. The Contractor shall include all parts and components necessary for start-up, acclimation, and successful operation of the system. All these parts and components shall be left with the Owner.
- H. Spare Parts
- a. Nutrient pump rebuild kit

- I. The BTF odor control system shall utilize a potable water source for irrigation of the media bed. The Contractor shall be responsible for running a minimum 1” water supply line from an existing portable water supply on the plant site to the BTF.

**2.3 BTF PERFORMANCE REQUIREMENTS**

- A. The odor control system shall be designed for the following operating conditions and criteria:

<b>Specified Air Flowrate (CFM)</b>	<b>450</b>
Minimum BTF EBRT (Empty Bed Residence Time) at specified air flow flow rate *	20 seconds
H <sub>2</sub> S In, ppmv (maximum)	300
H <sub>2</sub> S In, ppmv (average)	100
Minimum BTF H <sub>2</sub> S Removal Efficiency (24 hr. avg.)	98%
Max. Pressure Loss Across BTF	2.0” w.c.

\* Contractor shall specify the EBRT with their Proposal

**2.4 BTF BLOWERS**

- A. Blower shall be corrosion resistant cast aluminum direct drive.
- B. All internal and external blower hardware shall be 316 stainless steel.
- A. Motor shall be high-efficiency, 1.15 service factor, 3phase/60hz 208-230/460V. Motor shall be stainless steel washdown/inverter duty induction type motors with sealed lubricated bearings mounted on a corrosion resistant aluminum or stainless-steel motor pedestal. No painted carbon steel bases shall be allowed.
- B. Blower impeller shall be dynamically balanced prior to assembly.
- C. Blower motor shall be controlled by a variable frequency drive located on the process equipment skid. PVC airflow dampers, provided by the odor control system supplier, shall be used to balance airflow when there is more than one drop pipe into the wet well.
- D. Fan inlet/outlet shall be provided with a flexible rubber boot or expansion joint with stainless steel band or attachment hardware. The fan shall be anchored to the concrete pad without the need for vibration isolators.

<b>Exhaust Fan Design Requirements</b>	<b>Value</b>
Air Flow Rate / cfm	450
Total Pressure Drop (Biotrickling Filter, Duct Work)/inches w.c.	6
Motor HP (stainless steel washdown/inverter duty induction type)	2

**2.7 CARBON FILTER MEDIA**

- A. The unit shall be provided with 250 cubic feet of carbon media. The media to be provided with the HICARB-250 unit shall be blended to provide complete removal of odors evacuated from the aerobic digesters after a settle and decant cycle. These odors may contain volatile organic compounds, ammonia and other compounds from the breakdown on biological solids under mildly anaerobic conditions.
- B. Media shall not require water addition for normal operations.
- C. Media shall be completely non-biological and not dependent on living organisms for odor removal.
- D. Media shall be able to reach the specified removal efficiency immediately after system startup.

**2.8 CARBON SYSTEM PANEL AND ACCESSORIES**

- A. A VFD shall be provided to operate the exhaust fan. Contractor shall furnish a 3ph/60hz/208-230/460V AC feed to power the system.
- B. The VFD shall include an integral NEMA 4X enclosure and disconnect switch for operational control of the carbon unit.
- C. A grease and moisture eliminator shall be provided and installed at the inlet of the blower. The eliminator shall be fabricated out of FRP and outfitted with access doors with 316SST hinges, quick release clamps and hardware.

**2.9 CARBON SYSTEM PERFORMANCE REQUIREMENTS**

- A. The odor control system shall demonstrate the following performance when operating under design flow conditions indicated in the specification.

Inlet	Outlet
1 – 10 ppb	undetectable at property line
Greater than 10 ppb	undetectable at property line

- B. The system shall achieve specified performance immediately upon start-up without chemicals or biological pretreatment. Systems requiring an acclimation period to achieve the specified performance shall not be accepted.

**PART 3 – DIGESTER COVERS**

**3.1 DESCRIPTION**

- A. The Digester Covers shall be manufactured by APEX Covers or Owner approved equal.



- B. The flat panel cover shall be a relatively flat structure. The flat panel cover shall consist of individual, interlocking panels made up of reinforced extruded aluminum planks assembled edge to edge with a tongue and groove detail. Individual planks making up a panel assembly shall be secured around their perimeter with specialized aluminum extrusions which allow the panels to be interlocked and sealed to each other. The panels shall be supported at the perimeter of the tank by the tank rim.
- C. Hinged panels shall be provided to allow access under the covers to various areas for maintenance. Owner and Contractor shall identify those areas needing access during the design phase of the project. Removable panels and hatches added to fixed panels are expressly prohibited as means of providing access under the cover.
- D. The maximum hinged panel weight shall not require more than 50 lbs. of force to open.
- E. Hinges used for hinged panels shall allow 180 degrees of rotation and shall not protrude above the walking surface of the flat cover by more than 1/4".
- F. Extrusions used for the walking surface that don't provide a continuous uninterrupted walking surface are considered to be a tripping safety hazard and are expressly prohibited.
- G. Aluminum support beams spanning portions of the tank, may be utilized to support the panels. The beams must be below the cover.
- H. The flat panel cover shall be designed as a reasonably watertight and airtight system under all design load & temperature conditions. All panel-to-panel and panel-to-beam connections shall utilize a system of solid silicone gaskets to ensure maximum sealing efficiency. Sealing forces on the gaskets shall be in the vertical axis to allow for panel alignment tolerances.
- I. The fixed panels shall be fastened to the support members, tank rim supports, support beams, etc. with stainless steel fasteners. Hinged panels shall be held closed by latches which are below the level of the cover walking surface. No tools shall be required to open latches and hinged panels.

### 3.2 MATERIALS

#### A. General

All materials furnished to meet the provisions of the Specification shall be new, previously unused, in first class condition, and shall comply with all the requirements of this specification.

#### B. Structural Members

All structural members - panel edge extrusions, support beams, extrusions, support beam bolting node plates, etc. - shall be suitable aluminum shapes or plates from 6063-T6, 6005-T5, 6005A-T6 or 6061-T6 aluminum alloy.

#### C. Panel Surfaces

All panel members shall be suitable aluminum shapes or plate from 6063-T6, 6005-T5, 6005A-T6 or 6061-T6 aluminum alloy.

Panel surfaces shall be fabricated from extruded aluminum plank with a minimum nominal thickness of 0.100" for the cover's walking surface. The surface shall provide a bi directional slip-resistant surface over the entire area of the extruded planks. The surface treads shall be spaced no wider than 3/4" apart on each plank and shall extend no less than 0.100" above the flat surface. The bottom of the cross texturing shall be at least 0.03" below the top of the primary treads.

Panel surfaces configured as described above shall be considered to be slip-resistant.

Alternative methods to provide a non-slip surface such as rolled deck plate, traction tape, textured paint, wire brushing, sandblasting, or other applied coatings, are expressly prohibited.

#### D. Finish

All panels and support members shall be mill finish aluminum without applied coatings, finishes, or surface treatments. Aluminum that is to be in contact with carbon steel or concrete shall be isolated using a silicone gasket.

#### E. Bolts

All bolts shall be 300 series stainless steel. Only stainless-steel fasteners shall be used to attach aluminum to carbon steel or concrete. All fasteners exposed to the elements or to high humidity shall be stainless steel. All bolts shall be removable and replaceable with common hand tools.

Anchor Bolts shall be 300 series stainless steel.

#### F. Sealants

Sealants shall remain flexible over a temperature range of - 80 to +300 degrees F (-62 to +149 degrees C) without tearing, cracking, or becoming brittle. Elongation, tensile strength, hardness, and adhesion shall not change significantly with aging or exposure to ozone or ultraviolet light. Sealants shall be held in place by the sealed components; sealant shall not rely upon adhesion to aluminum to be held in place or to seal. Sealant shall form a molded in-place gasket rather than a "filleted" bead of caulk.

#### G. Gaskets

All preformed gasket material shall be EPDM elastomer or equal unless another material is required for compatibility with stored materials.

#### H. Beam Slide Bearing Pads

Beam slide bearing pads shall be low friction bearing pads to minimize the horizontal forces transferred to the tank.

#### I. Louvers, Nozzles, and Vents

Louvers, nozzles, and vents shall be 6061-T6, 5052-H32, or 3003-H16 aluminum.

### 3.3 DESIGN

A. Allowable Stresses for Aluminum Structural Members and Panels

Aluminum structural members and connections shall be designed in accordance with the Aluminum Association's Specifications for Aluminum Structures.

B. Design Loads

1. The flat panel cover shall be designed in accordance with the latest edition of the Aluminum Design Manual, Specifications for Aluminum Structures, Allowable Stress Design, as published by the Aluminum Association, and designed for dead load plus live load conditions as required by the current version of the Florida Building Code.
2. The magnitude of the loads applied to the structure shall be determined in accordance with ASCE 7-16 except that in no case shall the panels be designed for an applied live load of less than 40 psf.
3. The load cases to be considered shall be those described below:
  - a. Dead Load - The dead load shall be defined as the weight of the structure and all material permanently attached to and supported by the structure.
  - b. Panel Live Load - The panel live load shall be defined as the weight uniformly distributed across the entire surface of a panel and shall be no less than 40 psf. No reductions are allowed for the panel live load.
  - c. Live Load - The live load shall be defined as the weight uniformly distributed across the entire surface as defined in ASCE 7-16, Chapter 4.
  - d. Snow Load -The ground snow load as defined in ASCE 7-16, Chapter 7. Structure shall be assumed to be unheated.
  - e. Wind Load - The wind load shall be applied in accordance with ASCE 7-16.
  - f. Seismic Zone -The seismic loading as defined in ASCE 7-16.
  - g. Panel Design Load - In addition to the above-mentioned loads, the panels shall be designed for a 250-pound load distributed over one square foot at any location. This load is to be taken separately and not simultaneously with other design loads.

C. Flat Panel Cover Accessories

1. Intake vents with bird screen shall be provided and mounted as shown on the Contractor's Submittal drawings.
2. Penetrations for air intakes, exhausts, and odor control piping shall be sized and located as shown on the Contractor's Submittal drawings.
3. Additional accessories not listed above shall be provided as necessary.

### 3.4 TESTING

- A. The cover manufacturer shall perform a prequalified shop air tightness test and certification for the cover components proposed. This test shall be performed in accordance with the

"Procedural Standards for Testing, Adjusting and Balancing of Environment System" as published by the National Environmental Balancing Bureau (NEBB) on cover components of not less than 80 square feet. Said test shall be conducted and witnessed by a NEBB certified technician. The method of testing, test apparatus and proposed contents of the test report shall be submitted to the Owner for approval. A report of the test shall be prepared by the certified technician and shall be sealed with the NEBB seal. The report shall include a description and illustration of the test components, a description and illustration of the test apparatus and a report of the results. The cover shall maintain an air intrusion leakage rate not to exceed 0.2 cfm per square foot at an applied negative pressure of 0.2 inches of water column for a 5-minute duration.

## **PART 4 - EXECUTION.**

### **4.1 EQUIPMENT INSTALLATION**

- A. The BTF odor control system for the headworks shall be installed at grade elevation immediately west of the WWTP Grit Removal System. A new concrete pad (minimum size shall be 15' x 13' x 8") shall be poured to accommodate the system and new ducting and stainless-steel supports will be installed to route odorous air to the system. The pad shall stick up 4" above the existing grade and shall be sloped (1/4" per foot) to drain rain. The pad shall be constructed of 4,000 psi concrete and shall have #5 rebar on 12" centers in the bottom 3". Owner shall approve final concrete pad location and ductwork path.
- B. The Contractor may reuse (and seal as required) the existing fiberglass ducting and pick points currently installed at the headworks structure. These pick points are understood to be the best locations for the suction of H<sub>2</sub>S from the headworks' headspace. The Contractor shall evaluate the existing pick points and ducting and determine whether to reuse them to meet the performance guarantees. Although the cover system over the headworks channels can be retained, the Contractor shall seal the large openings and cracks in the cover system using aluminum sheet metal and rubber matting so that a vacuum can be established, and the desired level of odor control achieved. The Contractor shall tie the odor control system to the existing ductwork using FRP ductwork and not PVC ductwork.
- C. The carbon filter odor control system shall be placed on a new concrete pad (minimum size shall be 16' x 20' x 8") south of the digester basins, and east of the Electrical Building. Power will be run to the new odor control system from the nearby electrical building. Owner shall approve final concrete pad location and ductwork path. The Contractor shall run FRP ductwork from the basins to its odor control equipment. Each digester pick point shall include an FRP air flow control damper.
- D. The Contractor shall furnish and install an extruded aluminum flat cover system over both digester basins. This type of cover system is non-corrosive and designed to be a non-skid walking surface. These covers will allow a vacuum to be pulled on the basins so the odorous air could be scrubbed by the carbon filter system. Odorous air will be pulled from beneath the covers at two points on the east side of each basin and fresh air will enter two gravity air vents on the west side of each basin. In addition, each cover system includes a 6' x 6' double door hinged hatch over each floating decanter, one 3' x 3' hinged hatch near each telescopic sludge valve, one 4' hinged hatch for tank entry, and five 3' x 3' hinged hatches down the length of each digester for process observation, and to provide light and additional ventilation during tank maintenance events. The entire cover system is designed to be easily removable. The openings for the aeration piping and

telescopic valves will be sealed.

- E. The South Digester air piping shall be modified to match the North Digester air piping, which will allow the cover system to fit properly. The Contractor shall furnish and install (or relocate) about 150-ft of aluminum handrail so that fall protection will be provided around the entire periphery of the aerobic digester tank structure.
- F. The Contractor shall furnish and install the FRP air duct and stainless-steel supports along the east wall of the digester tank structure connecting the carbon filter odor control system to two odorous air pick points per digester, each with an airtight airflow control damper.
- G. The Contractor shall provide electrical power and water to its odor control equipment from existing facilities on the WWTP site. All electrical work shall be constructed IAW the National Electrical Code (NEC). All potable water plumbing shall be installed by a licensed plumbing contractor.
- H. Only one digester can be removed from service at a time, leaving one digester always available for plant operations. The existing digester equipment shall not require removal or modification.

#### 4.2 ODOR CONTROL SERVICES

- A. The Contractor shall provide the services of a qualified odor control service technician for the startup and testing (the "Technician"). The Technician shall adequately supervise the installation and testing of all equipment furnished under this contract and instruct operating personnel in its proper maintenance and operation. The Contractor shall provide the Technician for the following milestones or period and the Technician shall provide a written report of each site visit (this may be an e-mail) summarizing the status of the odor control system:
  - a. One visit for a pre-startup mechanical and electrical checkout (after installation).
  - b. Two visits for start-up and training.
  - c. Three visits per week for the first 30 days during the acclimation period.
  - d. One visit for performance testing.
  - e. Weekly visits during the first month following performance testing.
  - f. Quarterly visits during the first year to ensure proper operation.
  - g. Emergency 24-hour call back response and 5 business days for on-site visit if needed during the first year.
- B. The biotrickling filter system with other associated equipment such as the blower, piping and controls shall be field-tested by a trained Technician.
- C. Contractor shall supply all nutrients required for startup and testing and provide a 3-month supply after acceptance by Owner. Owner shall be responsible for providing 20 – 25 gallons of seed sludge during startup.
- D. The startup and testing shall meet the performance guarantees described under performance requirements listed herein. All equipment shall show evidence of mechanical soundness, no evidence of liquid or gas leaks, no undue vibration and generally be structurally rigid when being tested.
- E. The Technician performing the system startup and field test shall furnish the Owner a written report certifying that the unit is operating according to the Specification.