



CFB

CLYMER
FARNER
BARLEY

Project #EP2026.00178

Proposed Scope of Services MCU OAK RUN COLLECTION SYSTEM ODOR STUDY

January 19th, 2026

PREPARED FOR:

Kevin Atchley

Marion County Utilities

11800 US HIGHWAY 441

Belleview, FL 34420

352.307.6000

PREPARED BY:

Bruce Balsinde, P.E.

Clymer Farner Barley, Inc

7413 Alford Ave

Middleton, FL 34762

352.748.3126

CFB-Inc.com

January 19th, 2026

Via email to Kevin Atchley – kevin.atchley@marionfl.org

Kevin Atchley
11800 US Highway 441
Bellevue, FL 34420

RE: PROPOSAL FOR MCU OAK RUN COLLECTION SYSTEM ODOR STUDY

Dear Mr. Atchley:

Clymer Farner Barley, Inc. (CFB) is pleased to furnish this proposal for professional services. A proposed scope of services for work to be performed is provided below.

SCOPE OF SERVICES

This proposal is for the odor control study on the the MCU Oak Run Collection System Odor Study project (the Project):

1. CFB will sub-contract Odor and Corrosion Control Program development and implementation services with V&A Engineering (V&A).
2. CFB will participate in the Project Management conducted by V&A during Phase 1, including the review of reports tracking project progress and attendance of anticipated twice monthly meetings for an estimated 4 hours per month.
3. CFB will attend the Kickoff Workshop portion of the project. CFB anticipates attending the one-day kickoff meeting workshop, with additional site visits and field analysis being the responsibility of V&A.
4. CFB will review the Modeling Analysis and Technical Memorandum prepared by V&A for Phase 1.
5. CFB will participate in the Project Management conducted by V&A during Phase 2, including the review of reports tracking project progress and attendance of anticipated twice monthly meetings for an estimated 4 hours per month.
6. CFB will participate in the one-day Action Plan Development Workshop conducted by V&A to determine the short, medium, and long term action planning for reduction of odor issues.
7. CFB will review the Technical Memorandum prepared by V&A for Phase 2, and collaborate with V&A to come up with cost estimates for implementing the short and medium term action plans.
8. CFB will participate in the Project Management conducted by V&A during Phase 3, including review of reports tracking project progress and attendance of anticipated monthly meetings for an estimated 2 hours per month.

The fee for the engineering tasks is a lump sum amount of **\$16,060.00**. Please see attached proposal for the V&A Engineering scope of services. If this is acceptable, please complete the attached acceptance and



return it to our office. We will schedule the work upon receipt of the executed acceptance. This proposal is valid for sixty (60) days from the date of this proposal. Thank you for your time and consideration.

Sincerely,
CLYMER FARNER BARLEY, Inc.

Bruce Balsinde, P.E.

CFB FEE SUMMARY (MCU OAK RUN COLLECTION SYSTEM ODOR CONTROL)

DATE:		1/19/2026							
PROJECT:		MCU OAK RUN COLLECTION SYSTEM ODOR CONTROL							
CLIENT:		Kevin Atchley, Marion County Utilities							
TASK NO.	DESCRIPTION OF TASK	HOURS BY STAFF						TOTAL HOURS	TASK TOTAL
		SR PROFESSIONAL ENGINEER	PROJECT ENGINEER	STAFF CONSTRUCTION ENGINEER	CONSTRUCTION MANAGER II	SR INSPECTOR			
		\$245.00	\$170.00	\$160.00	\$185.00	\$150.00	-		
1	Phase 1: Project Management	16	0	0	0	0	16	\$ 3,920.00	
	Phase 1: Kickoff Workshop	4	4	0	0	0	8	\$ 1,660.00	
2	Phase 1: Modeling Analysis and Technical Memorandum Review	2	0	0	0	0	2	\$ 490.00	
3	Phase 2: Project Management	8	0	0	0	0	8	\$ 1,960.00	
4	Phase 2: Action Plan Development Workshop	4	4	0	0	0	8	\$ 1,660.00	
5	Phase 2: Technical Memorandum Review	2	0	0	0	0	2	\$ 490.00	
6	Phase 3: Project Management	24	0	0	0	0	24	\$ 5,880.00	
TOTAL		60	8	0	0	0	68	\$ 16,060.00	

V&A Project No. 25-0487

January 14, 2026

Mr. Bruce Balsinde, PE
Clymer, Farner, Barley, Inc.
7413 Alford Avenue.
Middleton, FL 34762

Subject: Marion County, Oak Run WWTP Collection System Odor and Corrosion Control Program Development & Implementation

Dear Mr. Balsinde:

Thank you for requesting a proposal for initial development of a Marion County Utilities (MCU) Oak Run WWTP Collection System Odor and Corrosion Control Program (OCCP) and technical support during implementation by MCU. As discussed during our December 4th meeting with MCU staff, the ultimate goal of this project is to upgrade MCU's existing Oak Run Collection System odor control program to further mitigate public odor complaints while also focusing on hydrogen sulfide (H₂S) induced corrosion mitigation. V&A will concurrently also develop a complimentary OCCP for the Oak Run WWTP, in conjunction with Ardurra and MCU, that would be implemented as part of the Oak Run WWTP expansion design and construction activities over the next couple years.

V&A anticipates the following three phases of the Collection System OCCP development and implementation:

- Phase 1: V&A will work with MCU staff to establish baseline H₂S, dissolved sulfide (DS), pH, turbulence and corrosion conditions in the collection system. V&A will also conduct sulfide modeling on the collection system Force Main (FM) network to establish anticipated DS levels and identify key hot spot FMs. V&A and the County will use the background information - including complaint history, additional baseline testing, and model output to identify current H₂S problem locations due to fugitive odorous emissions and/or severe corrosion. As part of the field data collection performance of existing odor control systems, both liquid and vapor phase, will be assessed. This phase is expected to take 2-4 months.
- Phase 2: V&A will work with MCU staff to develop short (< 6 months), medium (6 months – 2 years), and long range (2-5 years) action plans for reducing H₂S and DS levels and turbulence in the collection system along with preventing fugitive emissions of foul air from odor problem infrastructure (pump stations, manholes, ARVs). V&A expects to identify possible operational changes, immediate to long term, with MCU staff that would reduce DS generation, H₂S release, and infrastructure corrosion rates. V&A will develop, in collaboration with MCU staff, H₂S mitigation goals, based on both odor and corrosion objectives. This phase is expected to take 1-2 months.
- Phase 3: V&A will provide initial technical support to MCU staff for implementation of agreed upon action plans. Anticipated technical support includes organizing and evaluating trials of new treatment technologies, evaluating ongoing monitoring data (H₂S, DS, pH) and treatment records, technical specification development for procurement of treatment technologies, field visits to support implementation plans, quarterly reports documenting progress against action plans, and attending meetings with MCU staff and treatment technology vendors. This phase is expected to last one year.

Per your request, the following is our proposed scope of work and fee basis for the three phases of services:

Scope of Work

Task | Description

1. **Phase 1: Project Management:** Monitor and report project progress and changes, manage the quality of all work activities and project deliverables, and execute the project based on the defined scope, schedule, and budget. Submit monthly invoices and communicate project updates.

This task includes attending virtual and in-person progress meetings as needed for Phase 1. It is anticipated that meeting frequency will be at least twice monthly; so 4 hours per month of V&A staff time is allocated for meetings in the attached Resource Allocation Estimate.

2. **Phase 1: Background Review:** V&A will review available background information and previous reports as made available by MCU. This will include plan and profile drawings, engineering reports, hydraulic model, current odor control vendor reports and invoices, H₂S data collected by MCU, and odor complaint history for the Oak Run collection system. V&A will coordinate with MCU to identify potential odor hotspots in the collection system.
3. **Phase 1: Kickoff Workshop and Field Investigation:** V&A personnel will conduct a one-day kickoff workshop with MCU operations and prime consultant staff to discuss their relevant observations related to known collection system and WWTP odor issues including characterization of observed odors, odor observations under various weather conditions, observation of likely odor sources, and any other relevant observations.

This will be followed by four days of field visits with MCU operations staff to all pump stations (PS), FM discharge locations, existing liquid and vapor phase treatment equipment and the WWTP. During field visits V&A engineers will collect vapor phase grab sample data for H₂S, mercaptans, ammonia, and amines and liquid phase grab sample data for DS, pH, ORP, and temperature and train MCU staff to perform this testing (in order that MCU staff can collect much of the ongoing data needed for the OCCP). V&A engineers will deploy up to eight (8) Acrulog H₂S PPM monitors and eight (8) Acrulog Differential Pressure monitors at key collection system locations for a two week period. V&A will return for a single day at the end of the monitoring period to retrieve the monitors. As part of the field visit V&A engineers will evaluate corrosion of concrete and metal infrastructure and wastewater turbulence using the V&A VANDA Indexes shown on pages 8-10 of this proposal. V&A engineers will also evaluate operation and performance of all liquid and vapor phase odor treatment equipment in the collection system and at the WWTP.

4. **Phase 1: Modeling Analysis:** V&A will perform sulfide generation modeling of the force mains within the collection system. The results of this analysis will be used to evaluate the overall potential for odor emissions within the collection system and identify hot spot areas to be selected for further study. The model data will be presented in tabular and graphical format.
5. **Phase 1: Technical Memorandum:** V&A will summarize the results of the above tasks (2-4) in a Technical Memorandum (TM). V&A will compile and analyze all reported observations and continuous monitoring data, and present the results in figure, graph and tabular formats. Data will include that gathered by MCU staff for a minimum of two months after the week of Task 3. Key findings for each monitoring location will be discussed. V&A will respond to up to one (1) round of comments. V&A will provide all raw data and modeling results in electronic format for the Client's records

6. **Phase 2: Project Management:** Monitor and report project progress and changes, manage the quality of all work activities and project deliverables, and execute the project based on the defined scope, schedule, and budget. Submit monthly invoices and communicate project updates.

This task includes attending virtual and in-person progress meetings as needed for Phase 2. It is anticipated that meeting frequency will be at least twice monthly; so 4 hours per month of V&A staff time is allocated for meetings in the attached Resource Allocation Estimate.

7. **Phase 2: Technology Evaluation:** V&A will use the results of the field investigation, ongoing monitoring data and modeling analysis to evaluate the various treatment alternatives for the study area. A technology evaluation of liquid and vapor phase treatment technologies will be performed, including an analysis of odor control performance, footprint, operation and maintenance requirements, and life cycle costs. Technologies to be evaluated include liquid phase treatment (including pH adjustment, nitrate addition, iron salts/PRISC, oxygen injection, and oxidizers) and biological vapor phase treatment (including biotrickling filters, vendor supplied biofilters, and constructed organic media biofilters, carbon adsorption, and chemical scrubbing). A matrix will be developed to summarize the results of the technology evaluation.

8. **Phase 2: Operational Factors:** V&A will use the results of the field investigation site visits, pump station operational data, and collection system GIS information to evaluate possible operational changes that could be implemented to reduce DS generation and H₂S within head spaces of collection system infrastructure. A matrix will be developed to summarize the results of the operation factor evaluation.

9. **Phase 2: Action Plan Development Workshop:** V&A will conduct a one day workshop with MCU staff and prime consultant to review information from Tasks 7&8 and discuss/rank possible short, medium, and long term actions with goal of developing key actions for each time period that would build upon each other and reduce opportunity for H₂S release at the WWTP.

10. **Phase 2: Technical Memorandum:** V&A will summarize the results of the above tasks (7-9) in a Technical Memorandum (TM) and collaborate with prime consultants to provide cost estimates for implementing proposed short and medium term action plans. V&A will respond to up to one (1) round of comments.

11. **Phase 3: Project Management:** Monitor and report project progress and changes, manage the quality of all work activities and project deliverables, and execute the project based on the defined scope, schedule, and budget. Submit monthly invoices, communicate project updates, and issue quarterly reports summarizing progress against action plans.

This task includes attending virtual and in-person progress meetings as needed for Phase 3. It is anticipated that meeting frequency will be at least monthly; so 2 hours per month of V&A staff time is allocated for meetings in the attached Resource Allocation Estimate.

12. **Phase 3: OCCP Implementation Technical Services:** V&A will assist MCU staff in the implementation of the action plans and ongoing optimization of the Collection System OCCP. This may include monthly meetings with MCU and vendors to establish treatment goals, review operational parameters such as chemical dose rates and vapor phase airflows, review testing and maintenance program activity, and review performance data versus OCCP H₂S treatment goals for each control point (MLSSs, upstream PSs, MHs). Periodic site visits may be necessary to evaluate new odor complaints, consult with MCU staff on modifications to action plans, and coordinate collection system activities with the WWTP OCCP. Hours shown on attached Resource Allocation Estimate are for the first year of Collection System OCCP implementation support.

Assumptions

The following is a list of additional assumptions used to develop V&A's scope of work.

- V&A will submit monthly invoices in electronic format via email. Time spent submitting the invoice via a different method may incur additional charges.

Exclusions and Limitations

The following items, unless otherwise indicated, are not included in the scope of work:

- Traffic Control Plans and Permits
- Traffic Control Measures, including but not limited to sign boards, cones, and flaggers
- Project Specific Health and Safety Plan
- Encroachment Permits
- Permitting
- Notification
- Bonds
- Shutdown, Dewatering, and Cleaning of Structures
- Excavations
- Structure Access, including but not limited to ladders, scaffolding, and cranes
- Confined Space Entry
- Supplied Air

Schedule

V&A anticipates the following schedule for completion of the scope of work:

Task	Duration
Phase 1:	8-16 weeks
Phase 2:	6-8 weeks
Phase 3:	1 year

Fee Proposal

V&A proposes to complete the above tasks on a time and materials basis as follows, at a total cost not to exceed **\$211,624**, with terms of Net 15 days.

Phase	Cost
Phase 1:	\$ 106,773
Phase 2:	\$ 57,233
Phase 3:	\$ 47,618
TOTAL	\$ 211,624

This fee is valid for 90 days from the date of this proposal. The scope of work was developed as a result of our discussions and represents our mutual understanding.

Estimated costs for the above project scope are itemized in the attached Resource Allocation Estimate. These costs represent our best estimate at this time and may change subject to future developments during the project. It is possible that some of the estimated manpower requirements for specific task items may increase while others may not require the entire anticipated effort. This provides us a greater degree of confidence in the overall project estimate, rather than in any given particular task.

If unforeseen circumstances should arise which indicate that more time is required, V&A will provide a written estimate of additional required time and cost. V&A will not proceed with work beyond the not-to-exceed figure without written authorization from your office. Charges to this project will be made for actual time, travel, and materials spent on the project and will be charged as per the attached Resource Allocation Estimate and Fee Schedule. We request that you carefully review this proposal to ensure a full understanding of the scope of the work.

We are prepared to begin work on your project upon receiving written approval, a notice to proceed (NTP), or a purchase order from your office.

On behalf of our staff and myself, I would like to thank you for the opportunity to be of service to you, CFB, and Marion County Utilities. We look forward to working with you.

Sincerely,
V&A Consulting Engineers, Inc.



Vaughan Harshman, P.E.
Odor Control Practice Lead

Resource Allocation Estimate

JOB NO: 25-0487

1/14/2026

CLIENT: Clymer, Farnet, Barley

PROJECT NAME: Oak Run Collection System Odor and Corrosion Control Program

Task	Description	Principal-in-Charge	Senior Project Manager	Project Manager	Project Engineer	Associate Engineer	Project Admin.	Total Labor Hours	Subtotal Labor Cost	Subtotal ODC	Total Labor Cost and ODC by Task
1	Phase 1 Project Management	1	16		9	5	10	41	\$ 8,855.00		\$ 8,855.00
2	Phase 1 Background Review	1	24	5	16	16		62	\$ 15,099.00		\$ 15,099.00
3	Phase 1 KO Workshop & Field Investigation		80			54		134	\$ 33,434.00	\$ 17,601.00	\$ 51,035.00
4	Phase 1 Modeling Analysis		24	4	4	28		60	\$ 14,192.00		\$ 14,192.00
5	Phase 1 Tech Memo	1	12	20	8	36		77	\$ 17,592.00		\$ 17,592.00
6	Phase 2 Project Management		11	4		4	4	23	\$ 5,375.00		\$ 5,375.00
7	Phase 2 Technology Evaluation		17	8	10	20		55	\$ 12,985.00		\$ 12,985.00
8	Phase 2 Operational Factors		12	14	10	18		54	\$ 12,712.00		\$ 12,712.00
9	Phase 2 Action Plan Development Workshop		30					30	\$ 8,670.00	\$ 975.00	\$ 9,645.00
10	Phase 2 Tech Memo	1	18	10	14	28		71	\$ 16,516.00		\$ 16,516.00
11	Phase 3 Project Management		28	10	7		9	54	\$ 13,099.00		\$ 13,099.00
12	Phase 3 OCCP Implementation Tech Services		33	23	11	48		115	\$ 27,060.00	\$ 7,459.00	\$ 34,519.00
Subtotal Direct Labor Hours		4	305	98	89	257	23	776			
Hourly		\$ 324.00	\$ 289.00	\$ 259.00	\$ 218.00	\$ 191.00	\$ 99.00				
Subtotal Direct Labor Cost		\$ 1,296.00	\$ 88,145.00	\$ 25,382.00	\$ 19,402.00	\$ 49,087.00	\$ 2,277.00		\$ 185,589.00	\$ 26,035.00	\$ 211,624.00
Other Direct Costs		Unit Cost	Units	No. of Units				Subtotal ODC			
	Mileage	\$ 0.67	per mile	500						\$ 335.00	
	Hotel	\$ 200.00	per night	20						\$ 4,000.00	
	Per Diem for Full Day	\$ 75.00	per day	20						\$ 1,500.00	
	Per Diem for First/Last Day	\$ 50.00	per day	6						\$ 300.00	
	Car Rental	\$ 100.00	per day	8						\$ 800.00	
	Round Trip Airfare	\$ 600.00	per flight/perso	3						\$ 1,800.00	
	4G H2S Monitor	\$ 300.00	per week	23						\$ 6,900.00	
	4G Pressure Monitor	\$ 300.00	per week	19						\$ 5,700.00	
Subtotal Other Direct Costs										\$ 26,035.00	
GRAND TOTAL ESTIMATED COST										\$ 211,624.00	

VANDA Concrete Condition Index

V&A created the VANDA Concrete Condition Index to provide consistent reporting of corrosion damage based on objective criteria. Concrete condition is rated from Level 1 to Level 5 based upon field observations and measurements, with Level 1 indicating the best case and Level 5 indicating severe damage. The individual criteria are applied based on engineering judgment to arrive at the overall rating. The 2020 update to the VANDA Concrete Condition Index adds a fifth rating level, providing greater detail to assist in planning the rehabilitation or replacement of deteriorated assets.

Condition Rating	Description	Representative Photograph
Level 1	<p>Little or no damage to concrete</p> <p>Hardness..... hard surface</p> <p>Surface profile smooth, apparently intact</p> <p>Cracks hairline width, minimal frequency</p> <p>Spalling none</p> <p>Reinforcement not exposed or damaged</p>	
Level 2	<p>Minor surface damage</p> <p>Hardness..... soft surface layer to 1/8-inch depth</p> <p>Surface profile fine aggregate exposed</p> <p>Cracks hairline width, moderate frequency</p> <p>Spalling shallow spalling, minimal frequency</p> <p>Reinforcement not exposed or damaged</p>	
Level 3	<p>Moderate surface damage</p> <p>Hardness..... soft surface layer to 1/4-inch depth</p> <p>Surface profile large aggregate exposed or protruding</p> <p>Cracks up to 1/32-inch width, moderate frequency</p> <p>Spalling shallow spalling, minimal frequency</p> <p>Reinforcement exposed; minor damage, minimal frequency</p>	
Level 4	<p>Loss of concrete mortar and damage to reinforcement</p> <p>Hardness..... soft paste beyond 1/4-inch depth</p> <p>Surface profile large aggregate exposed, loose, or missing</p> <p>Cracks 1/8- to 1/4-inch width, moderate frequency</p> <p>Spalling deep spalling, moderate frequency</p> <p>Reinforcement exposed with damage, moderate frequency</p>	
Level 5	<p>Bulk loss of concrete and reinforcement</p> <p>Hardness..... soft paste beyond 1-inch depth</p> <p>Surface profile large aggregate exposed, loose, or missing</p> <p>Cracks over 1/2-inch width, or narrower and frequent</p> <p>Spalling deep spalling, high frequency</p> <p>Reinforcement consumed; loss of structural integrity</p>	

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VANDA Metal Condition Index

V&A created the VANDA Metal Condition Index to provide consistent reporting of corrosion damage based on objective criteria. Metal condition is rated from Level 1 to Level 5 based upon field observations and measurements, with Level 1 indicating the best case and Level 5 indicating severe damage. The individual criteria are applied based on engineering judgment to arrive at the overall rating. The 2020 update to the VANDA Metal Condition Index adds a fifth rating level, providing greater detail to assist in planning the rehabilitation or replacement of deteriorated assets.

Condition Rating	Description	Representative Photograph
Level 1	<p>Little or no corrosion</p> <ul style="list-style-type: none"> ▪ Wall thickness loss, generalnone ▪ Wall thickness loss, pitting.....none to minimal ▪ Extent (area) of corrosion.....may be widespread but superficial 	
Level 2	<p>Minor corrosion</p> <ul style="list-style-type: none"> ▪ Wall thickness loss, generalup to 20% ▪ Wall thickness loss, pitting.....up to 20% ▪ Extent (area) of corrosion.....localized 	
Level 3	<p>Moderate corrosion</p> <ul style="list-style-type: none"> ▪ Wall thickness loss, general20% to 40% ▪ Wall thickness loss, pitting.....20% to 60% ▪ Extent (area) of corrosion.....up to half of surface 	
Level 4	<p>Severe corrosion</p> <ul style="list-style-type: none"> ▪ Wall thickness loss, general40% to 60% ▪ Wall thickness loss, pitting.....60% to 100% (pinholes) ▪ Extent (area) of corrosion.....most of surface 	
Level 5	<p>Failure or imminent failure</p> <ul style="list-style-type: none"> ▪ Wall thickness loss, generalgreater than 60% ▪ Wall thickness loss, pitting.....100% (holes) ▪ Extent (area) of corrosion.....most or all of surface 	

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VANDA Wastewater Turbulence Index

V&A created the VANDA Wastewater Turbulence Index to provide consistent reporting of turbulence in wastewater systems based on objective criteria. Turbulence is a major factor in the release of hydrogen sulfide and other dissolved gases from wastewater to the surrounding atmosphere, but it is difficult to quantify for modeling, comparison, and condition assessment purposes. With the VANDA Wastewater Turbulence Index, turbulence is rated from Level 1 to Level 5 based on field observations, with Level 1 indicating the least turbulence and Level 5 indicating the highest level of turbulence. The individual criteria are applied based on engineering judgment to arrive at the overall rating.

Condition Rating	Description	Representative Photographs
Level 1	<p>Little or no water surface movement</p> <p>Splashing none Surface agitation smooth Waterfall height none Waterfall type..... none Mixing/Aeration none</p>	
Level 2	<p>Minor water surface movement</p> <p>Splashing minimal Surface agitation some ripples Waterfall height <1 foot Waterfall type..... weir, smooth transition of flow Mixing/Aeration sub-surface mixing, no air entrainment</p>	
Level 3	<p>Moderate surface agitation</p> <p>Splashing 1-2 inches above water surface Surface agitation ripples, some bubbles Waterfall height 1-3 feet Waterfall type..... weir, v-notch Mixing/Aeration sub-surface mixing, some air entrainment</p>	
Level 4	<p>Active surface agitation with splashing</p> <p>Splashing 2-6 inches above water surface Surface agitation full surface motion, bubble effervescence Waterfall height 3-5 feet Waterfall type..... open pipe, directly into receiving water surface Mixing/Aeration surface agitation, fine bubble diffusion</p>	
Level 5	<p>Fully agitated surface</p> <p>Splashing >6 inches above water surface Surface agitation full waves and/or aeration of surface Waterfall height >5 feet Waterfall type..... open pipe, hitting structure wall or floor Mixing/Aeration agitation w/ splashing, coarse bubble diffusion</p>	