



May 2, 2024

City of Foley  
Environmental Department  
23030 Wolf Bay Drive  
Foley, AL 36535

Attention: Leslie Gahagan, Sustainability & Natural Resources Director

Subject: Proposal for Michigan Ave Regional Stormwater Detention Pond Improvements Project

Mrs. Gahagan,

The City of Foley recently completed and adopted the Beulah Heights Stormwater Management Plan and desires to address one of the top priorities identified in the plan, the modification and improvement of the Michigan Ave Regional Stormwater Detention Pond. The proposed improvements to the existing pond include maintenance and improvements to restore functionality and improve capacity. Additionally, the City of Foley is seeking to study and implement more proactive and environmentally friendly solutions that would improve sustainability and increase the community's resilience to flooding while minimizing impacts to the environment.

Thompson Engineering, Inc. is pleased to provide the following proposal to provide engineering services needed for the Michigan Avenue Detention Pond project. The proposal herein addresses the services to be provided by our Team and the proposed fee required to complete the scope of work.

### **Project Understanding**

According to the Beulah Heights Stormwater Management Plan, the existing pond on Michigan Ave serves as a regional stormwater attenuation facility that was designed to store a 50-yr storm and attenuate a 100-yr storm without overtopping. It's our understanding that the existing stormwater detention pond no longer functions as it was initially designed, and improvements are desired by the City of Foley to increase the storage capacity and/or improve discharge efficiency. Deferred maintenance needs to be performed on the pond to remove sediment accumulation and modifications to the volume and/or outfall are needed to increase the pond's ability to attenuate large storm events. Pond improvements will also need to incorporate future projects proposed to route additional runoff to the pond.

The City of Foley has also indicated concerns with the state of existing drainage infrastructure connected to the detention pond and requests investigations to assess it's condition and additional repairs needed. Specifically, a condition assessment of the drainage network along Michigan Ave (pond inflow) and E Michigan Ave to Doc McDuffie Rd (pond outflow) is requested.

## Scope of Work

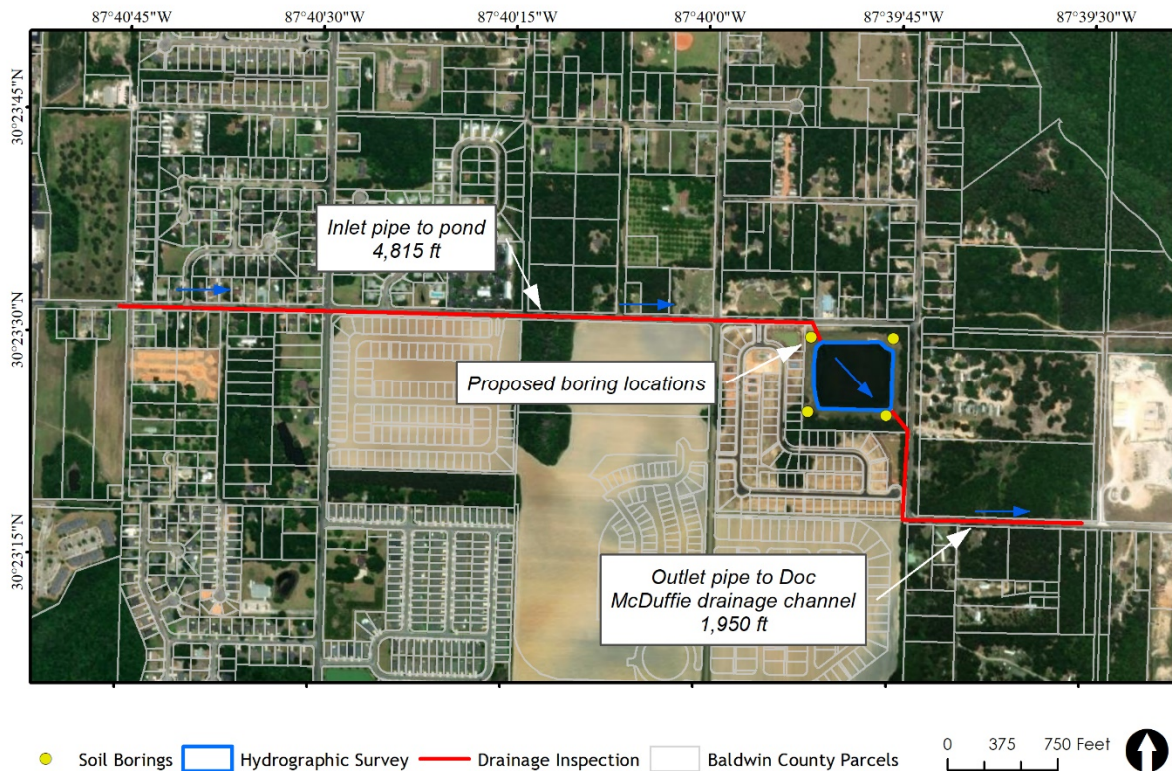
The following tasks define the scope of work for this project:

### Task 1 – Drainage Inspection

Drainage infrastructure will be inspected via video and will be subcontracted to a qualified contractor. Video inspection of the closed drainage system extending from the pond outfall to the Doc McDuffie Rd open channel transition (approximately 1,950 ft) will be completed to assess current infrastructure conditions. This segment is anticipated to require pumping and cleanout to facilitate a proper video inspection. Additionally, the portion of the system along Michigan Ave (approximately 4,815 ft) will also be inspected to assess its current condition. Inspection findings will be utilized to assess repairs that are needed to be completed in conjunction with pond improvements.

### Task 2 – Survey and Geotechnical Investigations

The survey scope includes a property boundary delineation for the stormwater pond and adjacent properties, a bathymetric survey of the pond bottom, and a topographic survey of the Doc McDuffie Rd north riser outlet (at open channel transition). A tree survey will also be performed around the pond to identify protected trees. Survey control will reference Alabama State Plane coordinates and elevations will reference the North American Vertical Datum of 1988 (NAVD88).



*Figure 1 Survey, video inspection, and geotechnical investigation overview.*

The geotechnical scope will include field reconnaissance and activities limited to 4 Standard Penetration Tests (SPT) borings along the pond embankment to a depth of 25-ft. SPT samples will be taken at depths of 10'-11.5', 13.5'-15', 18.5'-20', and 23.5' to 25', while a Shelby tube will be taken at a depth of 15'-17' in each borehole to obtain a sample for permeability testing. Groundwater depth for all boreholes will be

recorded when encountered. Undisturbed Shelby tube samples will be taken in accordance with ASTM D-1587. Boreholes will be grouted to grade upon completion of the sampling. Permeability tests will establish infiltration rates to inform drainage potential and needed measures to ensure adequate drainage. Additional limited laboratory testing of recovered soil samples including gradation distribution and Atterburg limit testing may be completed following sample evaluation by the Geotechnical Engineer. A geotechnical report to summarize soil characterizations and excavation/dewatering recommendations will be provided. Figure 1 provides an overview of the survey, video inspection, and geotechnical investigations required for this project.

### **Task 3 –Improvements Analysis & Conceptual Design**

This task includes the evaluation and design of detention pond improvements. Measures to increase storage capacity will be evaluated in an appropriate pond routing model, while modified storage capacity/outlet structure parameters will be transferred to the parent, Stormwater Management Plan (SMP) 2D PCSWMM model for the Beulah Heights area. Potential measures that will be assessed include excavation/dredging to increase storage capacity, expansion of the pond area (shifting slopes outward and/or steepening slopes), and improved outlet structures/outlet structure modification. Improvements will be analyzed holistically within the drainage system to understand hydraulic performance and identify downstream deficiencies. Potential outlet structure modifications from the 2023 Beulah Heights SMP include the following options:

- Option 1 – Lower existing pond outfall pipe.
- Option 2 – Maintain existing pond outfall pipe and install additional, smaller pipe at a lower elevation.
- Option 3 – Assess the feasibility of an automated outlet structure (AOS) to maximize capacity of the existing pond.

The AOS technology included in Option 3 is a patented intelligent flood control device that monitors rainfall and pond depth to determine optimal water release, providing more efficient stormwater storage and improved water quality. The AOS has been shown to reduce detention pond volume by as much as 40%, which may be a desirable benefit for this project. This option includes the potential installation of automated flow control at both the pond outlet and upstream of the Doc McDuffie bubble-up structure and features a National Weather Service (NWS)-spec tipping bucket rain gage, depth sensor, power, control, and communication components. In design, the feasibility of an AOS will be assessed against increased storage and traditional outlet works modifications. If this system is considered advantageous for design, specific tasks required for implementation will be completed as follows:

- hydrodynamic model development to replicate a proposed AOS at the pond outlet and upstream of the bubble-up structure;
- development of an AOS model from the PCSWMM model to be uploaded to the AOS microcontroller to support inflow hydrograph generation;
- development of AOS rating curves for incorporation into the PCSWMM model; and
- development of a supplemental AOS report.

Low Impact Development (LID) will be considered throughout the design process by maximizing attenuation, storage, and infiltration capacity of the pond where allowable. Additional measures to be considered include a sediment forebay to capture sediment inflows, improving effluent water quality, and

increasing storage longevity. Downstream trash and debris management will also be considered in the design of outlet structure and downstream stormwater system improvements. Hydraulic analysis for pond improvement measures will include future build-out assumptions and drainage improvements detailed in the Beulah Heights SMP (2023). Specific projects to be incorporated into the analysis include Priority Projects 1.2, 1.3, 1.4, and 1.6.

#### **Task 4 – Final Design & Permitting**

Selected improvements from Task 3 will be designed in accordance with City of Foley and other jurisdictional standards to prepare construction plans, specifications and permitting needed to implement the project. A final design alternative will be selected based on its ability to meet design objectives, feasibility of implementation, and the City's final budget for such. For a final design selection that includes excavation/pond expansion, plans will include sediment removal and dewatering details.

Thompson Engineering will prepare the necessary documentation to obtain the ADEM Construction Stormwater permit. The documents will include a Construction Best Management Practices Plan (CBMPP) as a component of the ADEM Notice of Intent (NOI). All fees associated with the submission of the NOI shall be paid by the City through ADEM's permit portal.

#### **Task 5 – Construction Administration Services**

Thompson will perform construction bidding services to assist the City in:

- Contract document preparation for bid packages to facilitate project letting; and
- Bidding process assistance and contractor selection.

Thompson will perform construction engineering and inspection services as follows:

- Assist the City in hosting a pre-construction conference with the contractor, sub-contractors and any other required parties.
- Perform routine field monitoring and inspections, as defined in the single project agreement general terms and conditions.
- Qualified Credentialed Inspector (QCI) and Qualified Credentialed Professional (QCP) inspections will be performed as required by the ADEM permit. At a minimum, one monthly QCI inspection will be performed with additional inspections being performed for each qualifying rainfall event of  $\frac{3}{4}$ " rainfall. With the construction schedule estimated to be 3 months, Thompson Engineering estimates a total of 6 QCI/QCP inspections for this project.
- Certify monthly pay estimates for work completed by the contractor and assist the City in holding a final inspection.
- Prepare and provide final estimate and close-out documentation to the City including "As-Built" plans.

### Assumptions/Exclusions

- Drainage video inspection services will be provided on a time and materials basis with an estimated inspection duration of 6 days.
- Permits in addition to ADEM NPDES are not required. If required, they will be considered additional services.
- Construction Administration Services time and material estimate is based on a construction period of 90 days.

### Summary of Cost & Professional Services Fees

Professional fees for performance of the scope of services described above are based on either a lump sum or time and materials basis as summarized below. Services not listed in the Scope of Work will be performed on a Time and Material basis in accordance with our Standard Fee Schedule. Additional services will not be undertaken without prior written approval by the Client. The corresponding break down of fees for the services described herein are as follows:

Professional Services	Fee
Task 1 – Drainage Inspection*	\$42,300.00
Task 2 – Survey and Geotechnical Investigations^	\$29,000.00
Task 3 – Improvements Analysis & Conceptual Design^	\$24,900.00
Task 4 – Final Design & Permitting^	\$33,500.00
Task 5 – Construction Administration Services*	\$30,900.00
<b>Total Fee</b>	<b>\$160,600.00</b>

^Lump sum \*Time and materials

Our scope of services and associated compensation will remain valid for a period of 60 days from the date of this proposal.

### Schedule

Provided the scope and fee are acceptable, authorization for the work may be initiated by receipt of the executed Terms and Conditions. Thompson will be able to begin work within 3 weeks of receiving a written authorization to proceed. The final design is expected to be completed approximately 20 weeks from authorization to proceed.

## Closure

This proposal has been prepared with the expressed understanding that the selection of our firm to perform these professional services is based upon the qualifications, experience, and reputation of the staff of Thompson Engineering, and not solely upon the cost of the services proposed. We trust that the fees and scope of services outlined herein are acceptable and within your budgetary requirements and we look forward to the commencement of the work.

Please feel free to contact us with any questions you may have.

Respectfully submitted,

**THOMPSON ENGINEERING, INC.**



Charles Weber, P.E.  
Senior Project Manager / Team Leader - Baldwin



Marshall W. Hayden, P.E.  
Group Leader – Hydraulics and Hydrology





# Single Project Agreement General Terms and Conditions

This Agreement is made by and between Thompson Engineering, Inc. (hereinafter Thompson Engineering) and the undersigned Client (“referred to herein as the “Client”). In consideration of the mutual covenants to be performed by the parties pursuant to this Agreement, each party hereby represents, warrants and agrees as follows:

## 1. Scope of Work

**Thompson Engineering** shall perform such services as are described in this contract and as described in **Exhibit A** (the “Work”).

## 2. Invoices

The Client shall pay **Thompson Engineering** for the Work performed under this Agreement a sum to be calculated as described on Exhibit A or, if no such description is provided or any portion of the Work is not specifically provided for in said description, at the rates shown on **Thompson Engineering’s** standard fee schedules which are in effect as of the time of execution hereof, or as may be otherwise specifically described herein. **Thompson Engineering** will submit invoices to Client no more than monthly and a final bill upon completion of the Work. Invoice will show charges for different personnel and expense classifications. A more detailed separation of charges and back-up data will be provided at Client’s request. Payment is due upon presentation of invoice and is past due thirty (30) days from invoice date. Client shall pay a finance charge of one and one-half percent (1 ½ %) per month, or the maximum rate allowed by law, on past due accounts.

In the event this agreement is terminated before the completion of all services, unless **Thompson Engineering** is responsible for such termination, Client agrees to release **Thompson Engineering** from all liability for services performed. In the event all or any portion of the services by **Thompson Engineering** are suspended, abandoned, or otherwise terminated, Client shall pay **Thompson Engineering** all fees and charges for services provided prior to termination. If **Thompson Engineering’s** services are suspended and restarted, **Thompson Engineering** will be entitled to additional compensation for extra services pursuant to the provisions of paragraph 2 of this agreement.

Client agrees that if it requests services not specified in the scope of services described in this agreement, Client will pay for all such additional services as extra services, in accordance with **Thompson Engineering’s** usual and customary billing rates. If any staking or monuments are damaged, removed or destroyed by anyone other than **Thompson Engineering**, the entire cost of new staking or monumentation shall be paid for by Client as extra services in accordance with section 2.

If **Thompson Engineering** personnel are called or subpoenaed for depositions, examinations, or court appearances in any dispute arising out of any project on which Work was performed, **Thompson Engineering** shall be reimbursed on a time and material basis in accordance with **Thompson**

**Engineering's** then current, standard billing rates for such matters, including all out-of-pocket costs incurred in connection with such matters.

### **3. Right of Entry**

The Client will provide for right of entry of **Thompson Engineering** personnel and all necessary equipment, in order to complete the Work.

While **Thompson Engineering** will take all reasonable precautions to minimize any damage to Client's property, it is understood by the Client that in the normal course of Work some damage may occur, the correction of which shall not be **Thompson Engineering's** responsibility.

### **4. Utilities**

In the execution of its Work, **Thompson Engineering** will take all reasonable precautions to avoid damage or injury to subterranean structures or utilities. The Client agrees to hold **Thompson Engineering** harmless for any damages to subterranean structures or utilities which are not called to **Thompson Engineering's** attention and correctly shown on the plans furnished by the Client.

If field services (i.e. survey, geotechnical) services are included in the scope of work, **Thompson Engineering** is not responsible for any determination or location of any underground conditions not visible and obvious by inspection of the premises, including, but not limited to, soils, geological conditions, physical devices and facilities, pipelines or buried cables unless specifically included in writing in this agreement, and shall not be responsible for any liability that may arise out of the making of or failure to make such determination or location of any subsurface condition. Client acknowledges that the services performed pursuant to this agreement are based upon field and other conditions existing at the time these services were performed. Client further acknowledges that field and other conditions may change at any time, and clarification, adjustments, modifications and other changes may be necessary to reflect changed field or other conditions. Such clarifications, adjustments, modifications and other changes, shall be paid for by Client as extra services in accordance with section 2

### **5. Samples**

**Thompson Engineering** will retain all samples for thirty (30) days. Further storage or transfer of samples can be made at Client's expense upon written request.

### **6. Ownership of Documents**

All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by **Thompson Engineering**, as instruments of service, shall remain the property of **Thompson Engineering**. Client agrees that all reports and other work furnished to the Client or his agents, which are not paid for, will be returned upon demand and will not be used by the Client for any purpose whatsoever.

**Thompson Engineering** will retain all pertinent records relating to the services performed for a period of five (5) years following submission of the report, during which period the records will be made available to the Client at all reasonable times.

All documents are for the exclusive use and benefit of the Client only. Others who use the documents do so at their own peril. **Thompson Engineering** consents that its information and reports may be furnished to and used by others participating in the financing and/or development of the project (and for reports



involving real property transactions, other parties of the transaction), but only in the same manner and extent as if such others were the addressee and the Client. The terms, conditions, and limitations of liability contained in the Agreement shall apply to others to whom Client furnishes such information and reports. No one other than the Client is authorized to rely, in any way, on any information or reports issued pursuant to this Agreement. Client further agrees that final plats, specifications, drawings, reports or other documents are for the exclusive use of Client and may be used by Client only for the project described in this agreement. Such final plats, specifications, drawings, reports or other documents may not be changed or used on a different project without written consent of **Thompson Engineering**.

## 7. Disputes

In the event that a dispute should arise relating to the obligations of the parties under this Agreement, the prevailing party shall be entitled to recover all reasonable costs incurred in connection with such dispute, including staff time, court costs, attorney's fees and other related expenses.

## 8. Professional Responsibility / Standard of Care

**Thompson Engineering** represents that the Work shall be performed in a manner consistent with that level of care and skill ordinarily exercised by other professionals under similar circumstances at the time services are performed. No other representation to the Client, expressed or implied, and no warranty or guarantee is included or intended hereunder, or in any work performed under this Agreement.

Client recognizes that subsurface conditions may vary from those encountered at the location where borings, surveys, or explorations are made by **Thompson Engineering** and that the data interpretations and recommendations of **Thompson Engineering's** personnel are based solely on the information available to them. **Thompson Engineering** will be responsible for those data interpretations, and recommendations, but shall not be responsible for the interpretation by others of the information developed.

## 9. Limitation of Liability

- A. This Agreement shall exclude all losses of all types including but not limited to property damage, bodily injury, third party liability or any other claim, cost or expense directly or indirectly arising out of, resulting from, or relating to mold, mildew, fungus, spores or other microorganisms of any type, nature, or description or any by-product thereof including but not limited to any substance whose presence poses an actual or potential threat to human health.
- B. For claims not excluded by Paragraph A, the Client agrees to limit **Thompson Engineering's** liability to the Client for any and all claims, losses, costs, or damages whatsoever on any project arising from this Agreement and/or performance of the work by **Thompson Engineering**, such that the total aggregate liability of **Thompson Engineering** to the Client shall not exceed \$50,000 or **Thompson Engineering's** total fee for the services rendered on the project, whichever is less. The Client further agrees to require of any contractor and subcontractors an identical limitation of liability to **Thompson Engineering**, which liability may arise on account of **Thompson Engineering's** performance of services or its acts, errors and omissions.

As used in this article 9, the term **Thompson Engineering** shall mean to include any parent, subsidiary or affiliated companies of **Thompson Engineering** and any directors, officers and employees of any of the same.

## 10. Insurance

**Thompson Engineering** represents and warrants that it and its agents, staff and consultants employed by it is and are protected by worker's compensation insurance and that it has such coverage under public liability and property damage insurance policies which **Thompson Engineering** deems to be adequate. Certificates for all such policies of insurance shall be provided to Client upon request in writing. **Thompson Engineering** shall not be responsible for any loss, damage or liability arising from any acts by Client, its agents, staff or other consultants employed by Client.

## 11. Indemnification

The Client shall indemnify and hold **Thompson Engineering** harmless from and against any and all losses, claims (including third party claims), damages, judgments, fees, fines, penalties and other amounts (including, without limitation, any with respect to sickness, bodily injury, wrongful death and property damage), including attorneys fees and court costs, arising directly or indirectly out of or alleged to have arisen out of the performance of Work under this Agreement or any breach by Client of its obligations hereunder, which indemnity shall not be limited by reason of the existence or nonexistence of any insurance.

As used in this paragraph, the term **Thompson Engineering** shall mean to include any parent, subsidiary or affiliated companies of **Thompson Engineering** and any directors, officers and employees of any of the same.

## 12. Assigns

Neither the Client nor **Thompson Engineering** may delegate, assign sublet or transfer his duties or interest in this Agreement without the written consent of the other party.

## 13. Sampling or Test Location

Client may be charged additional fees for costs associated with surveying of the site for the accurate horizontal and vertical locations of any tests. Field tests or boring locations described in **Thompson Engineering's** report or shown on sketches will be based upon information furnished by others or estimates made in the field by **Thompson Engineering's** representatives. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated. If the Client specifies a test or boring location, **Thompson Engineering** reserves the right to deviate a reasonable distance from the location specified. **Thompson Engineering** reserves the right to terminate its obligation to perform any Work if site conditions prevent drilling at or near the designated boring locations and these conditions were not revealed to **Thompson Engineering** prior to agreeing to perform the Work. If, in order to complete the borings to their designated depths, a re-drilling is necessitated by encountering impenetrable subsurface objects, this will be charged to Client at the appropriate rates contained in **Thompson Engineering's** standard fee schedule.

## 14. Right to Stop Work

Stopping the construction work is an extreme action which should be taken only by the Client after giving serious consideration to the effects of such an order. Under no circumstances will **Thompson Engineering** take the initiative in issuing this order. **Thompson Engineering** will only provide data and recommendations.

## **15. Omitted**

## **16. Omitted**

## **17. Safety**

Should **Thompson Engineering** provide observations or monitoring services at the job site during construction, Client agrees that, in accordance with the generally accepted construction practice, the contractor will be solely and completely responsible for working conditions on the job site, including the safety of all persons and property during the performance of the work, and for compliance with OSHA regulations. These requirements will apply continuously and will not be limited to normal working hours. Any monitoring of the contractor's procedures conducted by **Thompson Engineering** does not include review of the adequacy of the contractor's safety measures in, on, adjacent to, or near the construction site.

## **18. Hazardous Substances**

Client agrees to advise **Thompson Engineering**, prior to beginning work, of any hazardous substance on or near the site. In the event that test samples obtained during our work contain substances hazardous to health, safety or the environment, these samples remain the property of the Client. Likewise, any equipment contaminated as a result of the Work which cannot be reasonably decontaminated shall become the property and responsibility of the Client. Client agrees to pay transportation costs for samples and equipment and the fair market value of contaminated equipment.

## **19. Reuse of Documents and Electronic Media**

Any and all documents and electronic media including Drawings, CADD files and Specifications prepared or furnished by Thompson Engineering (and Thompson Engineering's independent professional associates and consultants) pursuant to this Agreement are instruments of service of the Project and Thompson Engineering shall retain an ownership and property interest therein whether or not the Project is completed. Information contained in signed or sealed drawings should be deemed to be correct and superior to electronic information. Client may make and retain copies for information and reference in connection with use and occupancy of the Project by Client and others; however, such documents are not intended or represented to be suitable for reuse by Client or others on extensions of the Project or on any other project. Any reuse without written authorization or adaptation by Thompson Engineering for the specific purpose intended will be at Client's sole risk and without liability or legal exposure to Thompson Engineering, or to Thompson Engineering's subsidiaries, holding company, independent professional associates or consultants, and Client shall indemnify and hold harmless Thompson Engineering and Thompson Engineering's subsidiaries, holding company, independent professional associates and consultants from any and all claims (third party or otherwise), damages, losses and expenses, including attorney's fees, arising out of or resulting therefrom.

## **20. Governing Law**

This agreement shall be governed by the laws of the State of Alabama and the United States.

## **21. Force Majeure**

**Thompson Engineering** shall not be responsible for delays caused by factors beyond Thompson Engineering's reasonable control, including but not limited to delays because of strikes, lockouts, work slowdowns or stoppages, government ordered industry shutdowns, power or server outages, acts of nature, widespread infectious disease outbreaks (including, but not limited to epidemics and

pandemics), failure of any government or other regulatory authority to act in a timely manner, failure of the Client to furnish timely information or approve or disapprove of Thompson Engineering’s services or work product, or delays caused by faulty performance by the Client’s or by contractors of any level (“Force Majeure”), and Thompson Engineering shall be entitled to additional time and/or an equitable increase to the contract fee resulting in such events of Force Majeure. When such delays beyond Thompson Engineering’s reasonable control occur, the Client agrees that Thompson Engineering shall not be responsible for damages, nor shall Thompson Engineering be deemed in default of this Agreement.

## 22. Entire Agreement

This Agreement represents the entire agreement between Client and **Thompson Engineering** and supersedes all prior negotiations, representations and agreements, either oral or written. No modification to the terms hereof shall be made unless agreed to in writing by both parties.


## 23. Severability

In the event any provision, or any portion of any provisions of this Agreement is held invalid, the other provisions of this Agreement and the remaining portion of said provision, shall not be affected thereby and shall continue in full force and effect.

**Proposal No:** 24-4110-0043 Michigan Ave Regional Stormwater Detention Pond

**Terms:** Estimated Fee: \$160,600.00

**Approved and Authorized by:**

<p>_____ (Client)</p> <p>By: _____</p> <p>As Its: _____</p> <p>Date: _____</p> <p>Address: _____ _____ _____</p>	<p style="text-align: center;"><b>Thompson Engineering, Inc.</b></p> <p>By: <u>Charles Weber</u> </p> <p>As Its: <u>Senior Project Manager – Baldwin Team</u></p> <p>Date: <u>May 2, 2024</u></p> <p>Address: <u>4830 Main Street, Suite G-212</u> <u>Orange Beach, AL 36561</u></p>
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Please return executed copy of these terms and conditions to the attention of:

Charles Weber  
cweber@thompsonengineering.com  
(251) 378-6190 office  
(251) 752-2073 cell

**EXHIBIT A**  
**DETAILED DESCRIPTION OF SCOPE OF SERVICES AND ASSOCIATED FEES AND COSTS**

(See proposal letter dated May 2, 2024 for detailed scope and fee)