



ST. TAMMANY PARISH

MICHAEL B. COOPER
PARISH PRESIDENT

September 24, 2026

Please find the following addendum to the below-mentioned BID.

Addendum No.: 1

Bid#: 26-41-2

Project Name: French Branch Pond Expansion

Bid Due Date: Thursday, October 1, 2026

ATTACHMENTS:

1. Addendum No. 1 (Continued)

End of Addendum # 1



Addendum No. 1
French Branch Pond Expansion
Parish Project No. EN23000124

Date: September 23, 2026



A mandatory pre-bid meeting for the French Branch Pond Expansion Project was held on September 16, 2026. Ms. Laura Gatlin, St. Tammany Parish Project Manager, introduced the project and led the meeting. Representatives of Duplantis Design Group, PC, the Engineer of Record, participated in the meeting and responded to questions regarding the project. Additional questions were submitted through the St. Tammany Parish Department of Procurement. The deadline for submitting questions was 2:00 p.m. on September 22, 2026.

This Addendum includes revisions to the plans and specifications, responses to questions received during the bidding period, and the geotechnical report.

Bidders shall acknowledge receipt of this Addendum on the Louisiana Uniform Public Work Bid Form. In the event of a conflict between this Addendum and the original bidding documents, this Addendum shall govern. All other terms and conditions of the bidding documents shall remain unchanged.

Changes to Bid Documents:

1. Note B shall be added to Project Specification "SECTION 011000 – SUMMARY", 1.4 ACCESS, and shall read as follows:

The Contractor is required to provide a road damage / maintenance bond in the amount of \$150,000 for the cost of any repairs to the service road. The Contractor shall photo and video document the condition of the service road and report any existing deficiencies prior to construction per the Work Plan requirements. The Contractor shall be responsible for the cost of repairs to the road that are, in the sole judgement of St. Tammany Parish, necessitated and occasioned by the Contractor's use in connection with this project. St. Tammany Parish will make this determination in consideration of the existing condition of the road.
2. The Preferred Sequence of Construction, Phase 10, shall be revised to the following with respect to the reference to geogrid.

"Embankment Side Slope Stabilization — Furnish and install Erosion Control Matting (Tenax Multimat 100, or approved substitute), place topsoil, and apply seed and mulch on the embankment side slopes in accordance with the Plans and Specifications."
3. Project Specification SECTION 321500 – AGGREGATE SURFACING, paragraph 2.3.A and 2.3.B for the permanent stone access road shall be revised to state the required stone type and size for the permanent stone access road, Item #321540.10. Reference the attached revised specification section.

4. Plan Sheet C-4.3 has been revised to remove reference of Plastic Soil Blanket.

Questions / Responses:

1. **Please specify gradation of 12" stone access road. Can 610 Calcium Sulfate be utilized?**

610 Calcium Sulfate is not permitted. Aggregate for the permanent stone access roads shall consist of 2" to 3" diameter durable crushed limestone or clean recycled Portland cement concrete.

2. **Please specify the total number of vehicles to be removed from the site.**

A specific vehicle count is not available. The Owner's limited observation suggests no more than four (4) vehicles. This is an approximation only, is not a representation of the actual quantity, and does not relieve the Bidder of its responsibility to visit the site and satisfy itself as to the quantity, location, and condition of such items. Removal of abandoned vehicles and any other existing debris, obstructions, or miscellaneous items within the limits of construction is included in the Work of Section 024000 – Demolition and Structure Moving at no direct pay.

3. **Is the onsite soil suitable for use as a plastic soil blanket?**

Bidders are referred to the Geotechnical Engineering Report prepared by Stratum Engineering, LLC, dated August 4, 2025, included with this Addendum. It is the Bidder's responsibility to review the report and determine the suitability of on-site materials for use as a plastic soil blanket.

4. **Is the onsite soil suitable for use as structural fill?**

Bidders are referred to the Geotechnical Engineering Report prepared by Stratum Engineering, LLC, dated August 4, 2025, included with this Addendum. It is the Bidder's responsibility to review the report and determine the suitability of on-site materials for use as structural fill.

5. **Is a geotechnical report available for review?**

Yes. The geotechnical report is provided with this addendum for the Bidder's information.

6. **Does the 12' maintenance road consist of only earthen fill?**

Yes. The 12' maintenance access road shown on the Plans is an earthen section.

7. **On page 2 of the Preferred Sequence of Construction, Phase 10 there is mention of geogrid. Please clarify if geogrid is required. If so, please provide additional information.**

See Changes to Bid Documents Section above within this Addendum.

8. **Will there be an additional bond for the service road?**

Yes. The Contractor is required to provide a road damage / maintenance bond in the amount of \$150,000 for the cost of any repairs to the service road as stated in this Addendum in Section "Changes to Bid Documents" #1.

9. **Specification section 011000, paragraph 1.4 A states "The site may be accessed via South I-10 Service Road. To facilitate entry, the Contractor is required to construct two (2) permanent accesses along South I-10 Service Road, located on a currently vacant land parcel. Any damage to existing features outside the designated construction limits must be restored to a condition equal to or better than existing conditions as determined by the Owner." Will the contractor**

be responsible for any damage to the South I-10 Service Road due to the number of trucks that will be required to travel on it as required by this project?

The Contractor is required to provide a road damage / maintenance bond in the amount of \$150,000 for the cost of any repairs to the service road as stated in this Addendum in Section "Changes to Bid Documents" #1.

10. Will the Contractor be allowed to chip the existing trees onsite and then remove the chips from the work site and dispose of?

Yes. Chipping of cleared trees and vegetative material onsite is permitted as a means and method of the Contractor, provided the resulting chips are removed from the Project site and disposed of in a lawful manner. Chips shall not be spread, stockpiled, or otherwise left onsite following construction unless otherwise directed by the Owner or Engineer. Per the Project Specifications Section 311100 – Clearing and Grubbing, cleared materials shall become the Contractor's property and shall be removed from the Project site and disposed of in a lawful manner.

11. Does the Owner or Engineer anticipate allowing the Contractor to work on the weekends?

Weekend work may be allowed with prior approval from the Parish and will be considered on a case by case basis. Bidders should not assume that weekend work will be routinely approved when preparing their bid or developing their proposed schedule. No extension of Contract Time or additional compensation will be granted on the basis of a request for weekend work being denied.

12. Is a separate office trailer required for the Owner or Engineer?

No. A separate field office trailer for the Owner or Engineer is not required. The Contractor may provide its own field office and temporary facilities for its own use. Locations for any Contractor-furnished temporary facilities and staging areas shall be proposed in the Contractor's Work Plan and approved by the Engineer.

13. Is the Contractor responsible for any wetlands or mitigation of any wetlands?

No. Wetland permitting and any required wetland mitigation associated with this project are the responsibility of the Owner and are not included in the Contractor's scope of Work. The Contractor shall, however, be responsible for performing the Work in compliance with all applicable permit conditions.

14. Is a Parish building permit required?

Yes. A Parish building permit is required for a temporary office trailer on site. It shall be handled through the Parish's permitting department.

Attachments:

- Pre-Bid Meeting 9/16/2026 Sign-In Sheet
- Geotechnical Report – Stratum Engineering SE No. G25-063 dated August 4, 2025
- Revised DDG Technical Specifications Section 011000 and 321500
- Revised DDG Technical Specifications Appendix "Preferred Sequence of Construction"
- Revised DDG Plan Sheet C-4.3

21454 Koop Dr., Building B., 3rd Floor Conference Room		Mandatory Pre-Bid Sign-In Sheet		Wednesday, September 16, 2026		2:00 PM	
French Branch Pond Expansion - Bid No. 26-41-2							
	Name	Company	Email	Phone	Time In	Time Out	
1	Devin Power	Command Construction	devnp@commandindustries.com	985-231-9696	1:50	2:29	
2	LAYTON FUGARINO	BARRIERE CONSTRUCTION	layton.fugarino@barriere.com	985-507-2368	1:50	2:30	
3	Jennifer Foster	FIVE-S Group	jennifer@fsgrp.com	601-497-2540	1:50	2:30	
4	Bradley Cieslinski	RNGD Construction LLC	bcieslinski@rngd.com	985-778-3484	1:52	2:24	
5	Carley King	Precision Site Prep	Carley.King@precision-spp.com	985-515-7114	1:53	2:24	
6	Jimmy Oulman Jr.	Jim-Tay-S	jimmy@jimtay5contracting.com	985-515-9032	1:54	2:25	
7	LARRY CAZAUX	Beverly Const. Inc. LLC	LARRY@Beverlyinc.com	985-264-8725	1:55	2:27	
8	LONNIE REYNOLDS	DURRHEAN CONST. LLC	lcreynolds@durrhean.com	504-737-3205	1:56	2:27	
9	Jevin Huvall	Stone Construction	jevin.huvall@brown-industrial.com	337-371-1996	1:56	2:27	
10	Quinn Thibodeaux	The Lemoine Company	quinn.thibodeaux@lemoine.com	504-427-3739	1:56	2:27	
11	Nathan Baylot	Baker Pile Driving	Nathan@bakerpiledriving.com	601-630-7746	1:56	2:27	
12	Rick Lord	mj Civil Construction	rick@mj-civil.com	615-364-5579	1:50	2:28	
13	Jac-Jac Robichaux	Dean Equipment INC	JohnRobichaux@deandigi.com	985-778-5803	1:50	2:28	
14	Mike Smith	Ceres Environmental	Mike.Smith@ceresops.com	985-233-0904	2:00	2:28	

	Name	Company	Email	Phone	Time In	Time Out
15	Seth Moss	Tunst Group	smoss@tunstgroup.com	337-578-0519	1:50	2:30 ^{2:30}
16	Stephen Price	Richard Price Contracting	Stephen@richardpricecontracting.com	225-268-9855	1:50	2:30
17	Brian Garrett	L. King Company	brian.garrett@lkingcompany.com	225-630-1182	1:45	2:30
18	Sawyer Evans	Bottomland Tree Service	Sawyer@bottomlandtreeservice.com	985-634-5417	1:45	2:30
19	Ray Gray	LOG Enterprises	ray@logconstructionla.com	985-630-8908	1:45	2:30
20	Mary Brown	McMarr Construction	mary@mcmarconstruction.com	985-624-9010	1:45	2:30
21	David Muller	M+J Civil Construction	david@mj-civil.com	504-952-5584	1:45	2:31
22	John Chee	John Chee Enterprises Limited	John@JCEnterprises	601-347-7822	1:48	2:33
23	Jesse Allen Jr.	Rain For Rent	jhallen@rainforrent.com	228-282-3332	1:48	2:30
24	John Salomon	Ottwell Services	john@ottwellservices.com	504-491-9618	1:49	2:30
25	Nick Flucke	McDonald Const	nrflucke@gmail.com	504-512-0674	1:50	2:30
26	Connor D'Amico	Bustin' Grass Hydroseeding	connordamico1@gmail.com	225-315-2099	1:50	2:30
27	Tim Nagain	Byron E. Talbot	tnagain@byronetaltbot.com	985-447-5764	1:50	2:30
28	Dylan Ordway	LA Contracting	bidding@la-cont.com	985-446-2212	1:50	2:30
29	Brian Dunn	BK Construction Company LLC	bdunn@bkconst.com	985-626-1866	1:50	2:30
30	Austin Knowen	BK Construction Company LLC	austin@bkconst.com	985-626-1866	1:50	2:30

	Name	Company	Email	Phone	Time In	Time Out
31	Mike Delatte	Del-con LLC	mike.d@del-con.com	225-264-0597	2:00	2:25
32	Mitchell W. Black	Besco Construction, LLC	mitche@bescoconstruct.com	985-351-8325	2:00	2:26
33	MITCHELL ROTH	CYCLE CONSTRUCTION	ESTIMATING@CYCLECONSTRUCTION.com	504-467-1444	1:50	2:20
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August 4, 2025

Duplantis Design Group, PC
16675 E. Brewster Road, Suite 150
Covington, Louisiana 70433
Phone: (985) 249-6180

Attn: Mr. Chris Russo, P.E.

Re: Geotechnical Engineering Report
Proposed French Branch Pond Expansion
Slidell, Louisiana
SE Project No. G25-063

Dear Chris:

Stratum Engineering, LLC (SE) is pleased to submit our Geotechnical Engineering Report for the above referenced project. The report includes the results of the field and laboratory testing as well as provision of design parameters for construction of the pond expansion.

We appreciate the opportunity to perform this geotechnical study and look forward to continued participation during the design and construction phases of this project. If you have any questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,
STRATUM ENGINEERING, LLC

William "Dean" McInnis, P.E.
Vice President

WDM/TYM

Tony Y. Maroun, P.E.
Principal

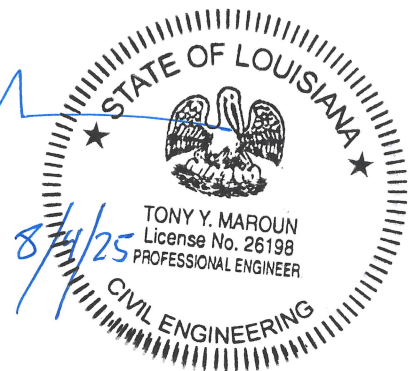


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APPENDIX II	Design Plans prepared by Duplantis Design Group, PC
APPENDIX III	Slope Stability Analysis Plates

PROJECT INFORMATION

Project Authorization

Stratum Engineering, LLC (SE) has completed a geotechnical exploration for the proposed French Branch Pond Expansion to be constructed in Slidell, Louisiana. The exploration was accomplished in general accordance with SE Proposal No. G23-163, dated September 8, 2023.

Project Description

Preliminary design plans for the expansion include constructing new ponds on either side of the French Branch Canal with concrete weir structures provided to control water flow into the ponds. The ponds will be excavated to a maximum bottom elevation of approximately +8 feet. Taking into consideration the existing surface elevations which range from +15 to +18 feet, the pond will be 7 to 10 feet deep. The pond embankments will be graded on a 3H:1V side slope. Consideration will also be given to utilizing the excavated material as borrow fill for other Parish projects or for sale as borrow material to other entities.

Site Description and Location

The site encompasses about 47 acres of wooded property situated just north of the existing Tenet Pond and W-15 Canal which are located near the intersection of Interstate 10 and Gause Boulevard (US Highway 190) in Slidell. Most of the property is currently designated as wetlands with the exception of some limited areas along the perimeters and adjacent to the French Branch Canal which bisects the site in a northwest to southeast direction.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site, evaluate the suitability of the material for future projects, and provide design parameters for construction of the pond expansion. A total of five (5) borings were drilled to a depth of 20 feet at accessible locations around the perimeter of the planned pond and weir areas. In addition, three (3) shallow borings were advanced to a depth of approximately 8 feet in the wetland areas.

This report outlines the testing procedures, presents available project information, describes the site and subsurface conditions, and provides results of analyses and recommendations regarding the following:

- Stability analysis of a typical pond cross section;
- Site preparation, including subgrade preparation and fill compaction requirements;
- Factors influencing construction and performance of the proposed improvements.

The scope of geotechnical services did not include an environmental assessment for determining the presence or absence of wetlands; or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes.

SUBSURFACE CONDITIONS

Field Exploration

The field exploration, which was performed to evaluate the engineering characteristics of the subsurface materials within the pond areas, included a reconnaissance of the project site, drilling soil borings and recovering undisturbed and representative disturbed soil samples. Level of groundwater encountered in the test borings was also measured and recorded.

A total of five (5) borings were drilled to a depth of 20 feet below the existing ground surface at accessible locations around the pond perimeters and three (3) borings were advanced to a depth of 8 feet within the pond area. The boring depths are in reference to the existing ground surface at the time of the field exploration. The borings were located in the field by a Stratum Engineering representative at accessible locations as shown on the boring location plan included in Appendix I.

Drilling and Sampling Procedures

The perimeter borings were drilled with an All-Terrain Vehicle (ATV) mounted drill rig while the pond area borings were advanced utilizing hand augering equipment. Auger rotary drilling techniques were used to advance the deeper borings. Samples were generally obtained continuously from the ground surface to a depth of ten feet and at maximum five foot intervals thereafter. Drilling and sampling techniques were accomplished in general accordance with ASTM Standards.

Undisturbed samples of cohesive soils were generally obtained in general accordance with the procedures for “Thin-Walled Tube Geotechnical Sampling of Soils” (ASTM D1587). These samples were extruded in the field with a hydraulic ram and were wrapped in aluminum foil prior to placement in a plastic wrapping to preserve moisture. The samples were transported to the laboratory in containers to prevent disturbance.

The samples were identified according to the project number, boring number and depth; and placed in polyethylene plastic wrapping to protect against moisture loss. All of the samples recovered from the field exploration were identified and evaluated by experienced geotechnical personnel upon arrival at the laboratory.

Laboratory Testing Program

In addition to the field exploration, a supplemental laboratory testing program was conducted to evaluate additional pertinent engineering characteristics of the subsurface materials obtained from the site. The laboratory testing program included visual classification and water content tests on all of the soil samples. In addition, selected samples were subjected to unconfined compression testing, percent passing the #200 sieve and Atterberg Limits determination. Additional estimates of unconfined compressive strength were made using a hand penetrometer.

The laboratory testing program was conducted in general accordance with applicable ASTM Standard Procedures. The results of these tests can be found on the accompanying boring logs included in Appendix I of this report.

Subsurface Conditions

Based on the borings, approximately 10 to 12 inches of sandy silty topsoil with organics covered the surface. The topsoil was underlain by either medium dense to dense silty sand or stiff to very stiff sandy lean clay to a depth of 2 to 6 feet and followed by a layer of firm to very stiff lean clay to a depth of about 6 to 10 feet. The lean clay transitioned to firm to very stiff fat clay which persisted to a depth of at least 20 feet, the maximum depth explored.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in Appendix I should be reviewed for specific information at the boring locations. These records include soil descriptions, stratification, penetration resistances, and locations of the samples and laboratory test data. The stratification shown on the boring logs represents the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples, which were not altered by laboratory testing, will be retained for 60 days from the date of this report and then will be discarded.

Groundwater Information

Groundwater was encountered in a few borings at a depth of 15 to 20 feet during drilling and was later measured between 13 to 18 feet upon completion of the drilling operations. However, it should be noted that the groundwater level will fluctuate with seasonal variations in rainfall or extended periods of drought and surface runoff. Perched water may be encountered between the interface of the granular soils and any underlying natural low permeability cohesive soils. Therefore, it is recommended that the actual groundwater level at the site be determined by the contractor at the time of the construction activities.

EVALUATION AND RECOMMENDATIONS

We understand that the Parish is considering an expansion of the pond system along the French Branch Canal to enhance drainage quality and provide additional stormwater storage capacity in the Slidell area. Based on the design of other detention ponds recently constructed across the Parish, the pond side embankments will be graded with a 3H:1V slope. Considerations will likely be given to utilizing the pond material as fill for various uses including grading the pond embankments and raising them to design grades. The stability of the pond embankment was also examined for short and long term conditions. Details related to the slope stability analyses as well as other pertinent design parameters are presented in subsequent sections of the report.

Slope Stability Analysis

Slope stability analysis involves the determination of the most likely sliding surface by comparing the developed shear stresses with the weight forces associated with the sliding soil. The method involves the determination of the factor of safety along the surface where the soil mass may slide. For the slope stability analysis, the failing or sliding surface is typically assumed to be circular. The analysis also includes the determination of a particular circle (i.e., critical circle) that has the least factor of safety against sliding. This critical circle is determined by computing the ratio of the developed shear stresses (resisting forces) to the gravitational forces associated with the sliding soil (driving forces). This ratio is termed the “factor of safety”. In general, the minimum factor of safety required is 1.3.

In order to assess the global stability of the pond embankment, a series of analyses were conducted employing the Slide2 computer program. First a model was developed based on the cross sections provided to us by Duplantis Design Group, PC. The average subsurface soil parameters were then obtained from a strength profile based on the borings which were fairly consistent across the site. The following table depicts the average values for the subsurface soil parameters that were used in the analyses, based on the field data and laboratory test results:

Material	Depth	Moist Unit Weight	Saturated Unit Weight	Total Cohesion	Total Friction Angle	Effective Cohesion	Effective Friction Angle
Silty Sand	0 ft to 2 ft	122 psf	127 psf	0 psf	32°	0 psf	32°
Sandy Lean Clay	2 ft to 6 ft	134 psf	139 psf	2,470 psf	0°	0 psf	23°
Fat Clay	6 ft to 8 ft	133 psf	138 psf	3,500 psf	0°	0 psf	23°
Fat Clay	8 ft to 17 ft	127 psf	132 psf	810 psf	0°	0 psf	22°
Fat Clay	17 ft to 20 ft	127 psf	132 psf	3,250 psf	0°	0 psf	23°

Two (2) cases of stability were evaluated, including the following:

Case 1 (Short Term – Total Strength):

Stability of the pond side slope utilizing in situ conditions with total strength parameters for the subsurface soils with the groundwater elevation even with the pond bottom at +8 feet.

Case 2 (Long Term – Effective Strength):

Stability of the pond side slope using in situ conditions with reduced effective strength parameters typically associated with the wetting and drying cycle of pond embankments with the groundwater elevation even with the pond bottom at +8 feet.

A uniform surcharge load of 200 pounds per square foot (psf) was also considered along the top of the pond embankment to account for periodic maintenance and construction equipment.

The Slide2 program incorporated the Bishop Method to evaluate the circular failure surface with the lowest factor of safety against slope instability for each case. A summary of the calculated factors of safety for the various models is presented in the following table:

CASE	CALCULATED FACTOR OF SAFETY
Short Term	4.36
Long Term	1.61

As noted in the table, the side slope of the pond embankment appears to incorporate a factor of safety greater than 1.3 for the cases evaluated in this study which is typically considered acceptable for short and long term conditions. Considering the results of our analysis, the pond embankment side slope in question appears to incorporate an adequate factor of safety against global stability. Graphical presentations of the results are included in Appendix III for reference.

Erosion Protection

Erosion protection and/or reinforcement of the embankment slope should be considered to reduce the chance of localized erosion and long term slope stability failures. Various slope stabilization measures are available. However, armament of the excavation embankments using vegetation and/or a geotextile such as Tenax Multimat 100, or equivalent, is likely the most feasible option. The Tenax Multimat is a three dimensional geomat that is filled with topsoil and seeded. The planting process allows the roots of the grass to firmly anchor themselves to both the three dimensional structure and the underlying soil, together forming permanent protection. However, since the ultimate design will depend on several factors associated with the specific technique and/or product utilized, the final erosion protection design should be coordinated and

optimized with the manufacturer or supplier's design team in conjunction with the Geotechnical Engineer.

On-Site Material

We understand that consideration will be given to utilizing the material excavated from the pond expansion as fill for other Parish projects or to market for sale as borrow material to other entities. Consequently, the borings completed around the proposed pond perimeter and within the pond area were utilized to evaluate the material's suitability for various applications.

In general, the selection of borrow areas typically depends on the type of materials encountered, quantity of the materials available and the haul distance to the project site where it will be used. Typically, a broad range of materials can be used for constructing levees including lean and fat clays. Other materials such as sandy clays or clayey sands can be used as structural fill for structures and/or roadway bed embankments.

Clay soils are generally the preferred types of soil to construct levees and berms since they exhibit low permeability characteristics and have high resistance to erosion in their compacted state. Clays with organic content of 9 percent or less are generally suitable for construction of levees and berms. The clays should have a plasticity index greater than 10 and contain less than 35 percent sand, by dry weight.

On the other hand, sands including silty and clayey sands as well as sandy clays are suitable for construction of roadway embankments. They can also be used as structural fill to raise sites to design grade. The structural fill should have a liquid limit less than 40 percent and a plasticity index between 10 and 20. Furthermore, silts are not recommended for use as fill unless they are mixed with clays to produce a mixture meeting the above properties.

Based on the results of the borings completed at the site, the pond area is covered with around 10 to 12 inches of silty topsoil with organics which is not suitable for use and should be removed. The sandy material encountered below the topsoil and extending to about 2 to 6 feet in most of the borings is generally considered suitable for use as structural fill.

However, the amount of sandy material suitable for use as structural fill was inconsistent and was underlain by moderate plasticity lean and fat clays extending to a depth of at least 20 feet. This material is more suitable for use to construct berms or levees, but may be utilized for roadways or pavement areas if treated with lime to lower their plasticity index. Based on our experience with this clay, about 3 to 4 percent, by weight, will likely be required to improve the index properties of the material. Furthermore, it is recommended that bulk samples of the material be obtained and tested to ensure they meet the fill requirements for their intended use.

Weir Structures

We understand that weirs, consisting of a concrete covered earthen embankments, will be constructed between the French Branch Canal and new pond expansions to control the water flow into the ponds. The weirs top elevation will be at about +10 feet with the bottom of the pond established at an elevation of +8 feet. Based on the soil condition encountered at borings B-1 and B-2, medium dense to dense silty sand was encountered in the upper 2 feet and was followed by very stiff sandy lean clay or lean clay with sand to around 6 feet. The borings were terminated in firm to very stiff fat clay at 20 feet. Based on the soils encountered near the surface, a Modulus of Subgrade Reaction (k) on the order of 125 pci can be utilized for design of the weir structures.

CONSTRUCTION CONSIDERATIONS

It is recommended that SE be retained to provide observation and testing of construction related activities for this project. SE cannot accept any responsibility for any conditions which deviate from those described in this report if not engaged to also provide construction observation and testing for this project.

Excavations

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its "Construction Standards for Excavations, 29 CFR, Part 1926, Subpart P". This document was issued to better ensure the safety of workmen entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavation or footing excavation, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely followed, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope or bench the sides of the excavations as required to maintain stability of both the excavation sides and bottom. The contractor's "responsible person", as defined in 29 CFR, Part 1926, should evaluate the soil exposed in the excavations as part of the contractor's safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. SE does not assume responsibility for construction site safety or the contractor's or other parties' compliance with local, state, and federal safety or other regulations.

REPORT LIMITATIONS

The recommendations submitted in this report are based on project information furnished by Duplantis Design Group, PC and the subsurface information obtained by SE. If there are any revisions to the plans for this project, or if deviations from the subsurface conditions noted in this report are encountered during construction, SE should be notified immediately to determine if changes in the recommendations are required. If SE is not notified of such changes, SE will not be responsible for the impact of those changes on the project.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

This report has been prepared for the exclusive use of Duplantis Design Group, PC for specific application to the proposed French Branch Pond Expansion to be constructed in Slidell, Louisiana.

APPENDIX I





STRATUM
ENGINEERING, LLC

LOG OF BORING B-1
PROPOSED FRENCH BRANCH POND EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: AUGER ROTARY

LOCATION: WEIR AREA

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Sandy Silty Topsoil with organics			2.00			15			
			Medium dense tannish brown Silty Sand									
			Very stiff tannish gray Lean Clay with sand			3.50			18			
5					2.53	3.25		112	20	42	29	79
			Stiff to very stiff tannish gray Fat Clay			2.25			24			
10					1.59	2.00		105	24			
						2.50			30			
15												
20						3.00			31			
			Boring Terminated at 20 Feet									
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 20 Feet
DATE: 6/11/2025

GROUNDWATER: Measured at 18 Feet Upon Completion of Drilling



LOG OF BORING B-2
PROPOSED FRENCH BRANCH POND EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: AUGER ROTARY

LOCATION: WEIR AREA

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" Sandy Silty Topsoil with organics			4.50			11			
			Dense tannish brown Silty Sand									
			Very stiff tannish gray Sandy Lean Clay		2.47	3.25		115	17	45	31	67
5						4.25			18			
			Firm to stiff tannish gray Fat Clay		0.80	1.25		99	27			
			- very stiff at 8'			3.50			18			
10												
					0.82	1.50		100	27			
15												
			- very stiff at 18'			3.25			41			
20			Boring Terminated at 20 Feet									
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 20 Feet
DATE: 6/11/2025

GROUNDWATER: Dry Upon Completion of Drilling



LOG OF BORING B-3
PROPOSED FRENCH BRANCH POND EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: AUGER ROTARY

LOCATION: POND PERIMETER

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" Sandy Silty Topsoil with organics			2.75			17			
			Stiff to very stiff tannish gray Lean Clay with sand			2.50			17			
5					1.87	3.00		113	19			
						3.00			17			
10					2.76	4.00		113	18	41	28	71
			Stiff to very stiff tannish gray Fat Clay	▼		1.50			27			
15				▼								
20					1.76	2.75		83	41			
			Boring Terminated at 20 Feet									
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 20 Feet
DATE: 6/11/2025

GROUNDWATER: Measured at 13 Feet Upon Completion of Drilling



LOG OF BORING B-4
PROPOSED FRENCH BRANCH POND EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: AUGER ROTARY

LOCATION: POND PERIMETER

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Sandy Silty Topsoil with organics			4.25			17			
			Very stiff tannish gray Sandy Lean Clay									
			Stiff to very stiff tannish gray Fat Clay		2.41	3.25		107	21			
5			- with sand from 2' to 10'			2.25			36			
					1.65	2.25		103	24	54	40	82
						2.75			23			
10												
15			- becomes firm to stiff at 13'		0.80	1.75		94	29			
20						1.50			42			
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 20 Feet
DATE: 6/11/2025

GROUNDWATER: Measured at 18 Feet Upon Completion of Drilling



STRATUM
ENGINEERING, LLC

LOG OF BORING B-5
PROPOSED FRENCH BRANCH POND EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: AUGER ROTARY

LOCATION: POND PERIMETER

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Sandy Silty Topsoil with organics			2.50			16			
			Medium dense tannish brown Silty Clayey Sand									
			Very stiff tannish gray Lean Clay with sand			3.00			17			
5					2.30	3.50		107	17	33	18	75
						3.75			16			
10			- firm to stiff at 8'		0.72	1.00		103	17			
15			Stiff to very stiff tannish gray Fat Clay			2.25			17			
20					1.70	3.75		100	21			
			Boring Terminated at 20 Feet									
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 20 Feet
DATE: 6/11/2025

GROUNDWATER: Dry Upon Completion of Drilling



STRATUM
ENGINEERING, LLC

LOG OF BORING B-6
PROPOSED FRENCH BRANCH EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: HAND AUGER

LOCATION: POND AREA

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" Sandy Silty Topsoil with organics						17	27	11	60
			Tannish brown Sandy Lean Clay						18			
			Tannish gray Lean Clay with sand						19	44	31	
5									21			
			Boring Terminated at 8 Feet									
10												
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 8 Feet
DATE: 6/9/2025

GROUNDWATER: Dry Upon Completion of Drilling



LOG OF BORING B-7
PROPOSED FRENCH BRANCH EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: HAND AUGER

LOCATION: POND AREA

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			12" Sandy Silty Topsoil with organics						15			
			Tannish gray Sandy Lean Clay						17	42	29	70
5			Tannish gray Lean Clay with sand						20			
									21	39	24	
10			Boring Terminated at 8 Feet									
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 8 Feet

GROUNDWATER: Dry Upon Completion of Drilling

DATE: 6/9/2025



STRATUM
ENGINEERING, LLC

LOG OF BORING B-8
PROPOSED FRENCH BRANCH EXPANSION
SLIDELL, LOUISIANA

TYPE OF BORING: HAND AUGER

LOCATION: POND AREA

PROJECT NO.: G25-063

DEPTH, FT.	SOIL TYPE	SAMPLES	DESCRIPTION	N-BLOWS/FT.	UNCONFINED COMPRESSIVE STRENGTH tsf	HAND PENTROMETER tsf	TORVANE tsf	UNIT DRY WEIGHT pcf	MOISTURE CONTENT %	LIQUID LIMIT	PLASTICITY INDEX	% PASSING #200 SIEVE
			10" Sandy Silty Topsoil with organics						18			
			Tannish gray Sandy Lean Clay						21			
5									19	38	25	65
									21			
10			Boring Terminated at 8 Feet									
15												
20												
25												
30												
35												
40												
45												
50												

DEPTH OF BORING: 8 Feet

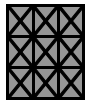
GROUNDWATER: Dry Upon Completion of Drilling

DATE: 6/9/2025

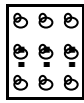


KEY TO TERMS AND SYMBOLS USED ON LOGS

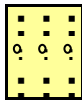
SOIL TYPE



ROCK



GRAVEL



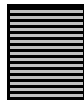
SAND



SILT

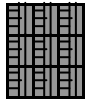


CLAY

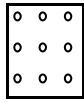


PEAT

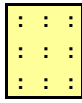
MODIFIERS



STONE



GRAVELY



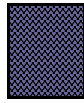
SANDY



SILTY

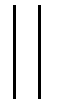


CLAYEY

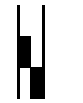


FILL

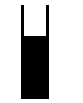
SAMPLER TYPE



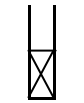
NO
SAMPLE



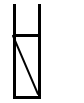
AUGER
SAMPLE



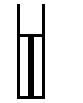
SHELBY
TUBE



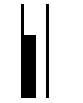
SPLIT
SPOON



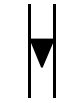
NO
RECOVERY



ROCK
CORE



2" SHELBY
TUBE



TXDOT
CONE

UNIFIED SOIL CLASSIFICATION SYSTEM - ASTM D 2487 (1980)

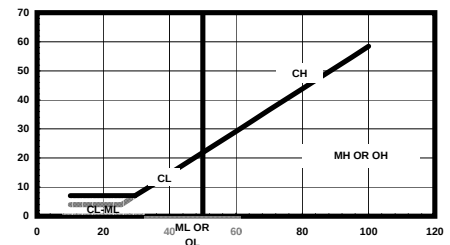
MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS LESS THAN 50% PASSING NO. 4 SIEVE	GRAVEL & GRAVELLY SOILS	CLEAN GRAVEL	GW	WELL GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		(LITTLE OR NO FINES	GP	POORLY GRADED GRAVEL, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	50% PASSING NO. 4 SIEVE	W/ APPRECIABLE FINES	GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN 50% PASSING NO. 4 SIEVE	CLEAN SANDS	SW	WELL GRADED SAND, GRAVELY SAND (LITTLE FINES)
		LITTLE FINES	SP	POORLY GRADED SANDS, GRAVELY SAND (L.FINES)
	50% PASSING NO. 200 SIEVE	SANDS WITH APPREA. FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS,SAND-CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% PASSING NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS & VERY FINE SANDS,ROCK FLOUR SILTY OR CLAYEY FINE SANDS OR CLAYEY SILT W/ LOW PI
			CL	INORGANIC CLAY OF LOW TO MEDIUM PI LEAN CLAY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PI
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY FAT CLAYS
			OH	ORGANIC CLAYS OF MED TO HIGH PI, ORGANIC SILT
	HIGHLY ORGANIC SOIL		PT	PEAT AND OTHER HIGHLY ORGANIC SOILS
	UNCLASSIFIED FILL MATERIALS			ARTIFICIALLY DEPOSITED AND OTHER UNCLASSIFIED SOILS AND MAN-MADE SOIL MIXTURES

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	SHEAR STRENGTH IN TONS/FT ²
VERY SOFT	0. TO 0.125
SOFT	0.125 TO 0.25
FIRM	0.25 TO 0.5
STIFF	0.5 TO 1.0
VERY STIFF	1.0 TO 2.0
HARD	> 2.0 OR 2.0+

RELATIVE DENSITY - GRANULAR SOILS

CONSISTENCY	N-VALUE (BLOWS/FOOT)
VERY LOOSE	0-4
LOOSE	4-9
MEDIUM DENSE	10-29
DENSE	30-49
VERY DENSE	> 50 OR 50+



ABBREVIATIONS

HP - HAND PENETROMETER

TV - TORVANE

MV - MINIATURE VANE

UC - UNCONFINED COMPRESSION TEST

UU - UNCONSOLIDATED UNDRAINED TRIAXIAL

CU - CONSOLIDATED UNDRAINED

NOTE: PLOT INDICATES SHEAR STRENGTH AS OBTAINED BY ABOVE TESTS

CLASSIFICATION OF GRANULAR SOILS

U.S. STANDARD SIEVE SIZE(S)

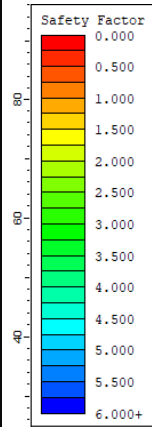
BOUL- -DERS	COBBLES	GRAVEL		SAND			SILT	CLAY
		COARSE	FINE	COARSE	MEDIUM	FINE		
152	76.2	19.1	4.76	2.0	0.42	0.075		0.002

GRAIN SIZE IN MM

— DELAYED GROUNDWATER LVL
— LEVEL GROUNDWATER ENCOUNTERED

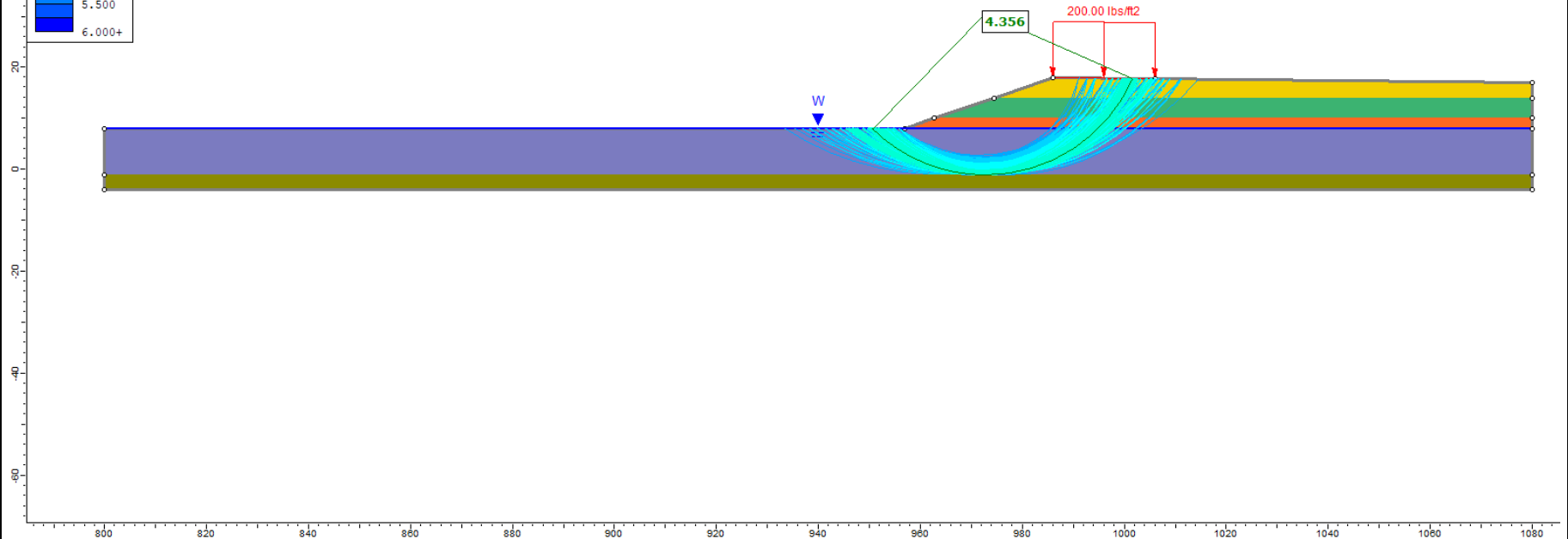
APPENDIX II

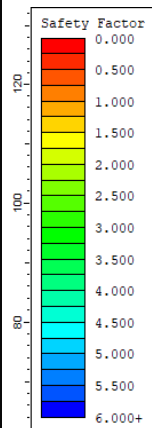
APPENDIX III



Method Name	Min FS
Bishop simplified	4.356

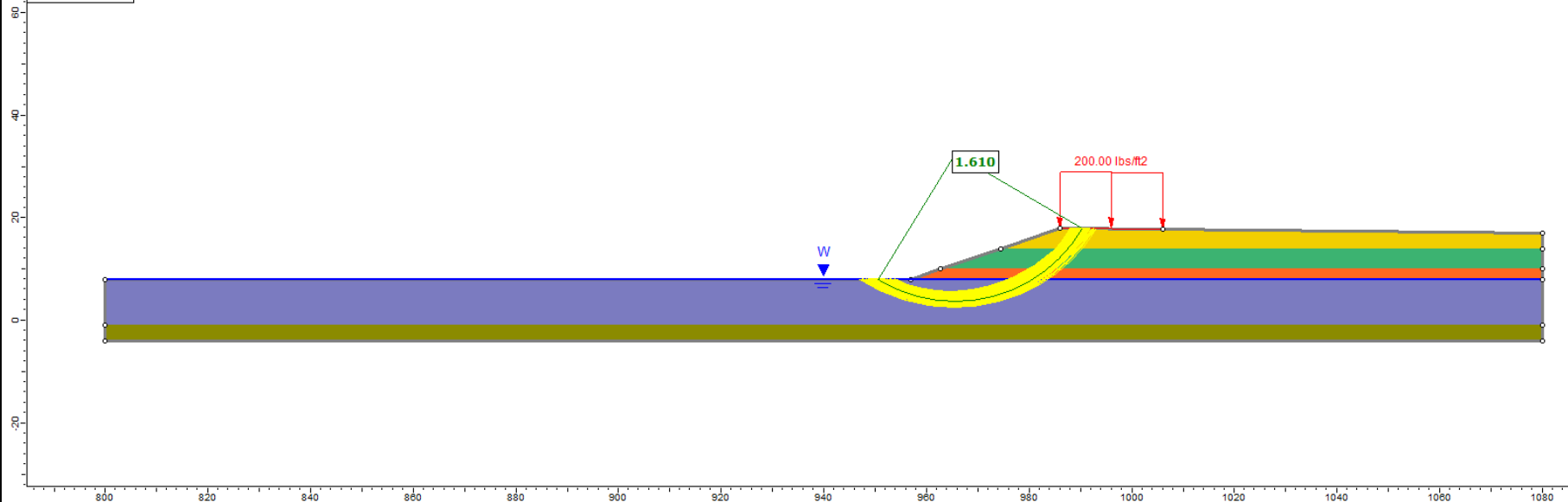
Material Name	Color	Unit Weight (lbs/ft ³)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Hu Type	Hu
Silty Sand		122	Mohr-Coulomb	0	32	Water Surface	Custom	1
Sandy Lean Clay		134	Mohr-Coulomb	2470	0	Water Surface	Custom	1
Fat Clay 1		133	Mohr-Coulomb	3500	0	Water Surface	Custom	1
Fat Clay 2		127	Mohr-Coulomb	810	0	Water Surface	Custom	1
Fat Clay 3		127	Mohr-Coulomb	3250	0	Water Surface	Custom	1





Method Name	Min FS
Bishop simplified	1.610

Material Name	Color	Unit Weight (lbs/ft ³)	Strength Type	Cohesion (psf)	Phi (deg)	Water Surface	Hu Type	Hu
Silty Sand	Yellow	122	Mohr-Coulomb	0	32	Water Surface	Custom	1
Sandy Lean Clay	Green	134	Mohr-Coulomb	50	23	Water Surface	Custom	1
Fat Clay 1	Orange	133	Mohr-Coulomb	50	23	Water Surface	Custom	1
Fat Clay 2	Purple	127	Mohr-Coulomb	50	22	Water Surface	Custom	1
Fat Clay 3	Brown	127	Mohr-Coulomb	50	23	Water Surface	Custom	1



PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Access
4. Contractor's use of site and premises.
5. Work restrictions.
6. Pre-Construction Conference
7. Work Plan
8. Lay Down Yard
9. Mobilization and Demobilization

1.2 PROJECT INFORMATION

A. Project Identification: French Branch Pond Expansion

1. Project Location: The proposed pond is located in Slidell, LA just East of I-10 where it meets I-12. Approximate coordinates for the project are 30°17'47"N and 89°44'39"W.

B. Owner: St. Tammany Parish. 21415 Koop Drive, Mandeville, LA 70471

1. Owner's Representative: Ms. Laura Gatlin
 - a. Telephone: (985)-898-2552
 - b. Email: lcbeach@stpgov.org

C. Engineer: Duplantis Design Group, P.C.

1. Engineer's Representative: Christopher Russo, P.E.
 - a. Telephone: (985)-249-6180
 - b. Email: crusso@ddgpc.com

D. Engineer's Consultants: Engineer has retained the following design professionals, who have prepared designated portions of the Contract Documents:

1. Survey Consultant: Duplantis Design Group, PC.
 - a. Representative: Dennis L. Gowin, P.L.S.
 - i. Telephone: (985)-249-6180
 - ii. Email: dgowin@ddgpc.com
2. Geotechnical Consultant: Stratum Engineering, LLC.
 - a. Representative: Dean McInnis, P.E.
 - i. Telephone: (985)-643-1160
 - ii. Email: dmcinnis@stratumengr.com

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and shall provide the Owner with a 47.77 Acre Pond and associated inlet and outlet concrete and subsurface drainage structures. The Work includes, but is not limited to, the following:
 - 1. Required mobilization and construction layout for the proposed features.
 - 2. Sediment and erosion control, including but not limited to mulching, vegetation, silt fencing, and permanent slope protection matting.
 - 3. Any and all dewatering activities to facilitate construction & management of sediment during excavation and grading activities.
 - 4. Grading activities, including but not limited to the excavation and removal of material for the construction of the proposed pond and hauling it offsite to dispose of in a lawful manner.
 - 5. Construction of stone access road.
 - 6. Construction of structural concrete weir and headwall(s).
 - 7. Installation drainage structures as specified in the Plans.
 - 8. And other Work indicated in the Contract Documents.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.4 ACCESS

- A. The site may be accessed via South I-10 Service Road. To facilitate entry, the Contractor is required to construct two (2) permanent accesses along South I-10 Service Road, located on a currently vacant land parcel. Any damage to existing features outside the designated construction limits must be restored to a condition equal to or better than existing conditions as determined by the Owner.
- B. The Contractor is required to provide a road damage / maintenance bond in the amount of \$150,000 for the cost of any repairs to the service road. The Contractor shall photo and video document the condition of the service road and report any existing deficiencies prior to construction per the Work Plan requirements. The Contractor shall be responsible for the cost of repairs to the road that are, in the sole judgement of St. Tammany Parish, necessitated and occasioned by the Contractor's use in connection with this project. St. Tammany Parish will make this determination in consideration of the existing condition of the road.

1.5 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Limits on Use of Site: Limit use of Project site to within the limits of construction as indicated on the Plans. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.
 - a. Schedule deliveries to minimize use of driveways and entrances by

- construction operations.
- b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.6 WORK RESTRICTIONS

- A. Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets, Work on public streets, rights of way, and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit Work to between 7 a.m. to 7 p.m., Monday through Friday, unless otherwise indicated. Work hours may be modified to meet Project requirements if approved by Owner and authorities having jurisdiction.
 - 1. Weekend Hours: No Work is to occur during the weekend unless approved by the Owner or Engineer.
- C. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Engineer and Owner not less than two days in advance of proposed disruptive operations.
 - 2. Obtain Owner's written permission before proceeding with disruptive operations.
 - 3. Dust Control is required throughout the entire project timeline. Contractor is responsible for watering the site during construction to minimize dust. At a minimum, the Contractor shall apply water to the site once daily to mitigate dust generation. The Engineer reserves the right to require increased frequency of dust suppression based on site conditions, weather, or observed dust levels.

1.7 PRE-CONSTRUCTION CONFERENCE

- A. Contractor shall coordinate with the Engineer prior to construction to conduct a Pre-Construction Conference. Time and location to be determined.
- B. Contractor shall present all supervisory personnel and project managers at the Pre-Construction Conference.
- C. Work Plan should be submitted and approved by the Engineer prior to the pre-construction conference.
- D. Specific things of note:
 - 1. Surveys will be used as the basis for payment for material quantities per the respective specification payment section. Volumes (Excavated material) shall be measured in cubic yards (CY), areas shall be measured in square yards (SY), lengths shall be measured in linear feet (LF).
 - 2. Section 024000 1.5A.1.b. There are multiple abandoned vehicles onsite that shall be removed and disposed of in a lawful manner at no direct pay.

1.8 WORK PLAN

- A. The Contractor shall develop a written Work Plan which accounts for all of the construction activities required by the Contract Documents. The Work Plan shall include activities required by the Contract Documents. The Work Plan shall include a list of the individual construction tasks to be completed and the estimated dates for beginning and completing tasks. It shall also include all other items which are

applicable to completing the Work such as, but not limited to, the following:

1. Hurricane and Severe Storm Plan.
 2. Site-specific Health and Safety Plan.
 3. The delivery method and source(s) of all construction materials (company or producer name, mailing and physical address, phone number, and name of contact person).
 - a. Contractor to submit markup of map delineating the haul route to and from the site.
 - b. Contractor to submit Google Earth KMZ file of proposed dump site with vicinity map showing the proximity to the project site.
 4. The personnel, material, Subcontractors, fabricators, suppliers, types of equipment, and equipment staging areas the Contractor proposes to use for construction.
 5. Shop drawings, test results, and sample submittals.
 6. Plan for layout and stakeout.
 7. Dust Control Plan as stated in Dust Control Technical Specification Section 015639.
 8. All supplemental items specified in the General Conditions.
 9. High-Definition (HD) video shall be conducted along the service road adjacent to the limits of construction of the project site and clearly show the entire width of the roadway and the condition of pavement signage, and any other facilities within the right-of-way. Video shall be provided to the Engineer prior to construction in a viewable format.
 10. Construction schedule and plan execution for clearing and grubbing, site grading, material to be hauled offsite dump location, limits of laydown area on an 8.5"x11" PDF clearly marking the limits and location of planned on-site stockpile area for temporary topsoil stockpile. The schedule shall contain updated progress tracking and should be revised with each pay application submittal. The schedule must be submitted in a digital PDF format that is clearly legible and readable. Pay applications shall not be approved if not accompanied by the updated schedule.
 11. Any information submittals required in the respective specification.
- B. The Work Plan shall be submitted to the Engineer prior to the Pre-Construction Conference. The Engineer shall review the Work Plan and have the Contractor make necessary revisions prior to acceptance of the plan. No payment for mobilization will be made until the Work Plan has been accepted by the Engineer.

1.9 LAY DOWN YARD

- A. The Contractor shall designate a proposed lay-down yard area for material and equipment storage. This area must be reviewed and approved by both the Engineer and Parish prior to the start of construction activities.
- B. The Contractor shall repair and restore the lay-down yard area to equal to or better than existing condition upon completion of the project.

1.10 MOBILIZATION

- A. Consists of preparatory Work and operations, including those necessary for movement of personnel, equipment, supplies, and incidentals to the project site; the establishment of offices, buildings and other facilities necessary for Work on the project; the cost of bonds and any required insurance; and other Pre-Construction expenses necessary for start of the Work, excluding the cost of construction materials.

PART 2 -PRODUCTS (Not Used)**PART 3 -EXECUTION (Not Used)****PART 4 - MEASUREMENT AND PAYMENT****4.1 MEASUREMENT**

- A. Bid item No. 017113, Mobilization/Demobilization, shall be the sole item within this section subject to measurement and payment. Measurement shall be on a Lump Sum basis.

4.2 PAYMENT

- A. Bid Item No. 017113, Mobilization/Demobilization, shall be made at the Contract Lump Sum unit price. Partial payments shall be made in accordance with the schedule contained in the table below.
- B. No payment for Mobilization shall be made until the Work Plan has been accepted by the Engineer.

Mobilization Payment Schedule	
Percent of Total Contract Amount Earned	Allowable Percent of the Lump Sum Price for Mobilization
1 st Partial Estimate	25
10	50
25	75
50	100

END OF SECTION 011000

SECTION 321500 – AGGREGATE SURFACING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Permanent crushed stone access roads for construction access to the North Pond and South Pond, as shown on the Plans.

B. Related Requirements:

1. Section 311100 "Clearing and Grubbing."
2. Section 312300 "Excavation and Fill."

1.2 SCOPE

- #### A.
- Furnish all labor, materials, equipment, and incidentals necessary to construct permanent stone access roads as indicated on the Plans.

PART 2 - PRODUCTS

2.1 GEOTEXTILE FABRIC

- #### A.
- Geotextile shall consist of a minimum of 85 percent by weight polyolefins, polyesters, or polyamides; resistant to chemical degradation, rot, and mildew.
- #### B.
- Minimum fabric class: Class D.
- #### C.
- Fabric shall be free of tears, punctures, or defects.
- #### D.
- Each roll shall be labeled with manufacturer name, product designation, lot/batch number, and date of manufacture.

2.2 CULVERT PIPE (IF REQUIRED)

- #### A.
- Reinforced concrete pipe (RCP) may be required beneath stone access roads where shown or directed.
- #### B.
- Pipe size, class, and installation details shall be approved by the Engineer prior to installation.

2.3 CRUSHED STONE AGGREGATE

- #### A.
- Crushed stone aggregate shall consist of durable crushed limestone or clean recycled Portland cement concrete, free of steel, wood, soil, trash and other deleterious materials.

- B. Aggregate shall be 2"-3" in diameter and shall conform to the Permanent Stone Construction Entrance / Exit detail in the Plans.

PART 3 - EXECUTION

3.1 SUBGRADE PREPARATION

- A. Following clearing, proofroll exposed subgrade beneath stone access roads using low-ground-pressure equipment (10–15 psi).
- B. Vibratory compaction shall not be used during proofrolling.
- C. Excavate soft, yielding, or unsuitable areas to firm subgrade and backfill with approved structural fill.
- D. Perform clearing, proofrolling, and installation during dry weather conditions only.

3.2 GEOTEXTILE FABRIC INSTALLATION

- A. Grade subgrade to required lines and slopes prior to fabric placement.
- B. Remove debris, vegetation, and deleterious materials.
- C. Place fabric smooth and taut without wrinkles or folds.
- D. Overlap adjacent sheets a minimum of 18 inches.
- E. Anchor fabric per manufacturer recommendations.
- F. Protect fabric from UV exposure prior to placement.

3.3 CRUSHED STONE PLACEMENT

- A. Place crushed stone directly over prepared geotextile fabric.
- B. Place stone in 6- to 8-inch loose lifts.
- C. Shape and compact to lines and grades shown on the Plans.
- D. Maintain access roads in usable condition throughout construction.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

- A. Bid Item 321540.10, Stone Access Road, shall be measured on a Lump Sum basis.

4.2 PAYMENT

- A. Payment shall be made at the Contract Lump Sum price and shall include all labor, materials, equipment, geotextile fabric, and incidental items including culverts if required.

END OF SECTION 321500

APPENDIX

PREFERRED SEQUENCE OF CONSTRUCTION

Stormwater Detention Pond

1.0 PURPOSE

This Appendix presents the preferred sequence of construction for the stormwater detention pond. The phasing outlined herein is intended to provide the Contractor with a recommended order of operations to facilitate efficient construction while maintaining compliance with erosion and sediment control requirements and the project Stormwater Pollution Prevention Plan (SWPPP).

This sequence is advisory in nature and does not dictate the Contractor's means, methods, techniques, or procedures of construction. The Contractor shall remain solely responsible for the means and methods of construction and for the safety of all operations. The Contractor may propose alternative sequencing for the Engineer's review, provided that such alternatives achieve equivalent results and maintain compliance with the Contract Documents, applicable permits, and regulatory requirements.

2.0 PREFERRED SEQUENCE OF CONSTRUCTION

The following table presents the preferred sequence of construction activities. The Contractor is encouraged to review this sequence and incorporate it into the project schedule as appropriate.

Phase	Activity	Notes
1	Mobilization and Project Initiation	Establish site access, staging areas, material storage, and temporary facilities as needed. Submit proposed haul routes to the Engineer for review and approval prior to commencement of hauling operations.
2	Pre-Construction Topographic Survey	Collect baseline topographic data to establish existing conditions and verify design grades prior to earthwork operations.
3	Initial Erosion and Sediment Control Installation	Install perimeter and internal erosion and sediment control measures in accordance with the approved Stormwater Pollution Prevention Plan (SWPPP) prior to any land disturbance.

Phase	Activity	Notes
4	Dust Control, Street Sweeping, and Haul Route Compliance	Implement dust control measures and establish street sweeping operations on haul routes and adjacent public roadways prior to land disturbance. The Contractor shall utilize only approved haul routes and shall maintain roadways free of tracked material throughout construction. Dust suppression shall be applied at a minimum of once daily, or more frequently as directed by the Engineer.
5	Site Preparation and Clearing	Clear and grub the project limits. Remove vegetation, debris, and unsuitable materials from the pond footprint and embankment areas.
6	Mass Grading and Earthwork	Excavate the detention pond basin and construct the embankment to the lines and grades indicated in the Plans. Compact fill materials in accordance with the Specifications.
7	Concrete Inlet Weir Construction (2 Locations)	Form, reinforce, and pour the two (2) concrete inlet weirs at the locations indicated in the Plans. Allow adequate curing time prior to exposure to flow.
8	Concrete Headwall Construction and Outfall Pipe Installation (2 Locations)	Construct the two (2) concrete headwalls at the outfall pipe locations as indicated in the Plans. Install outfall piping and ensure proper bedding and connections.
9	Rip-Rap Placement	Place rip-rap at the locations and to the extents indicated in the Plans. Ensure proper stone gradation, thickness, and underlying filter fabric as specified.
10	Embankment Side Slope Stabilization	Furnish and Install Erosion Control Matting (Tenax Multimat 100, or approved substitute), place topsoil, and apply seed

Phase	Activity	Notes
		and mulch on the embankment side slopes in accordance with the Plans and Specifications.
11	Final Grading and Site Stabilization	Complete final grading, establish permanent vegetation on all disturbed areas, and install permanent erosion control measures. Ensure all areas are stabilized prior to removal of temporary erosion controls.
12	Post-Construction Topographic Survey and Demobilization	Collect as-built topographic survey data. Remove temporary facilities, restore staging areas, and demobilize from the site.

3.0 GENERAL NOTES

- A. Erosion and sediment control measures shall be maintained throughout the duration of construction and shall not be removed until permanent stabilization has been achieved, as determined by the Engineer.
- B. The Contractor shall coordinate with the Engineer prior to commencing concrete placement activities for the inlet weirs and outfall headwalls. The Contractor shall submit concrete mix designs, formwork plans, and curing procedures as required by the Specifications.
- C. Topographic survey data shall be collected by a licensed Professional Land Surveyor and submitted to the Engineer for review at the pre-construction and post-construction stages as identified above.
- D. The phasing sequence presented above may be adjusted by the Contractor with prior approval from the Engineer, provided that the intent of the erosion and sediment control plan and the overall project objectives are maintained.
- E. All work shall be performed in accordance with the Plans, Specifications, and applicable federal, state, and local regulations.
- F. The Contractor shall implement dust control measures throughout the duration of construction. At a minimum, the Contractor shall apply water to actively disturbed areas once daily to mitigate dust generation. The Engineer reserves the right to require increased frequency of dust suppression based on site conditions, weather, or observed dust levels.
- G. The Contractor shall perform street sweeping on all haul routes and adjacent public roadways as necessary to prevent the accumulation of tracked soil, mud, or debris. Street sweeping shall be performed at the end of each working day at a minimum, or more frequently as conditions warrant or as directed by the Engineer.
- H. The Contractor shall submit proposed haul routes to the Engineer for review and approval prior to commencing hauling operations. The Contractor shall confine hauling activities to the approved routes and shall not deviate without prior written approval from the Engineer. Any

damage to public roadways resulting from the Contractor's hauling operations shall be repaired at the Contractor's expense.



FRENCH BRANCH POND EXPANSION
SLIDELL, LA
ST. TAMMANY PARISH GOVERNMENT

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PROJECT NO. 23-1245A

ISSUE FOR BID
8/5/2026

DATE 9/23/2026 REVISION 1 BY CMR/KPB
9/23/2026 - SOIL REQUIREMENTS - CMR

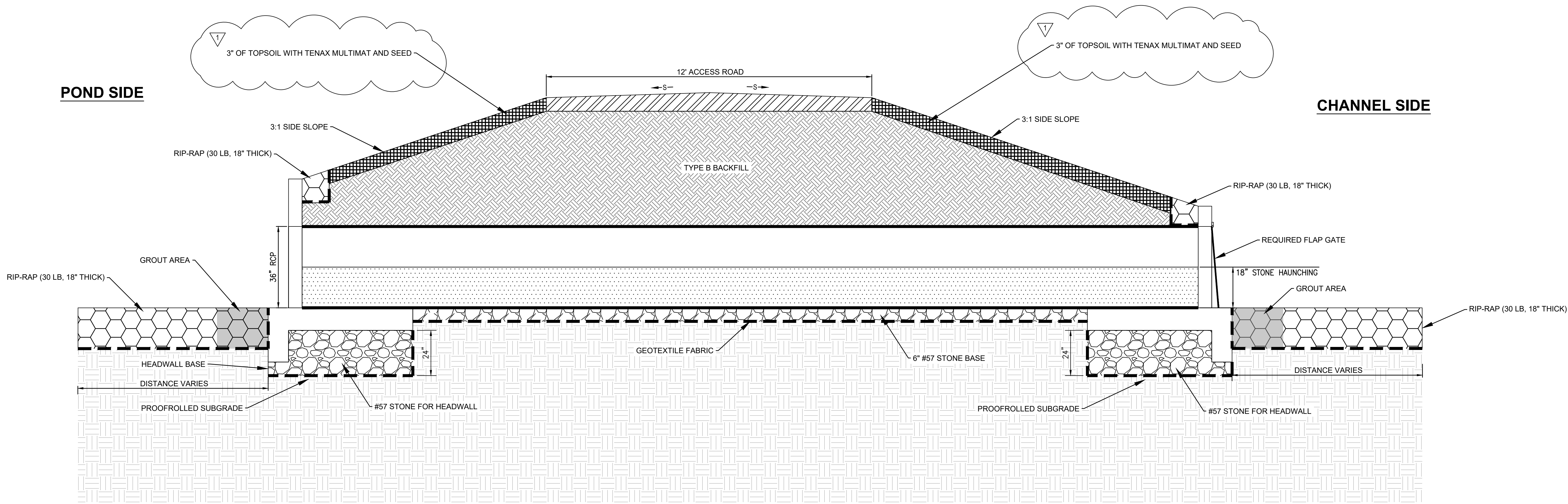
CHECKED BY CMR
DRAWN BY KPB

SHEET

4.3

LEGEND

- RIP RAP
- PROOFROLLED SUBGRADE
- TENAX MULTIMAT AND SEED
- ACCESS ROAD
- STONE HAUNCHING
- #57 STONE
- RIP RAP GROUT
- TYPE B BACKFILL
- GEOTEXTILE FABRIC



TYPICAL HEADWALL
SECTION "A"
N.T.S.

CONSTRUCTION DETAILS

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