

TRADITION COMMUNITY DEVELOPMENT DISTRICT NOS. 1-11

PORT ST. LUCIE LAKE BANKS COMMITTEE MEETING May 17, 2023 10:00 A.M.

Special District Services, Inc. The Oaks Center 2501A Burns Road Palm Beach Gardens, FL 33410

www.traditioncdd1.org www.southerngrovecdd1.org

561.630.4922 Telephone 877.SDS.4922 Toll Free 561.630.4923 Facsimile

AGENDA

TRADITION COMMUNITY DEVELOPMENT DISTRICT NOS. 1-11 Tradition Management Offices – Conference Room 10807 SW Tradition Square Port St. Lucie, Florida 34987 LAKE BANKS COMMITTEE MEETING May 17th, 2023 10:00 a.m.

A.	Call to Order								
B.	Proof of PublicationPage 1								
C.	Establish Quorum								
D.	New Business								
	1. Approval of April 17, 2023, Committee Meeting MinutesPa	ige 2							
	2. Stormwater System OverviewPa	ige 4							
	3. EW Consultants Memo: Lake Banks VegetationPa	ige 31							
	4. CDD Turnover ChecklistPa	age 33							
	5. Lake A-12 Bank Stabilization Value Engineering ReportPa	ige 35							
	5. Lake Bank Inspection ProposalPa	age 43							
	6. Lessons Learned Portofino ShoresPa	age 54							
	7. SFWMD Compliance Criteria LetterPa	ige 56							
	8. Tradition CDD Master System Lakes and Wetlands MapsPa	ıge 59							
	9. Lake Repair Geotech RecommendationPa	age 61							
	10. Tradition Lake Turnover Summary 2023 04 25	age 70							
	11. TR1 Solitude - Lake Maintenance – AgreementPa	age 74							
E.	Comments from the Public								

F. Adjourn

Treasure Coast Newspapers

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Text of Ad: 05/02/2023

TRADITION COMMUNITY DEVELOPMENT DISTRICT NOS. 1-11 LAKE BANKS COMMITTEE MEETING

NOTICE IS HEREBY GIVEN that the Tradition Community Development District Nos. 1-11 Lake Banks Committee ("Committee") will conduct a committee meeting for the purpose of reviewing and discussing the Districts' lake banks. The meeting will be held at 10:00 a.m. at Special District Services, Inc., Tradition Management Offices located at 10807 SW Tradition Square, Port St. Lucie, Florida 34987 on May 17, 2023.

The meeting is open to the public and will be conducted in accordance with the provisions of Florida law for community development districts. The meeting may be continued to a date, time and place to be specified on the record. A copy of the agenda for the meeting may be obtained from the District Manager's office located at 2501A Burns Road, Palm Beach Gardens, Florida 33410.

One or more members may participate by telephone; therefore, a speaker telephone may be present at the meeting location so that one or more members may attend the meeting and be fully informed of the discussions taking place.

Any person requiring special accommodations at the meeting because of a disability or physical impairment should contact the District Office at 772-345-5119 and/or toll free at 1-877-737-4922 at least five calendar days prior to the meeting. If you are hearing or speech impaired, please contact the Florida Relay Service at 1-800-955-8770, who can aid you in contacting the District Office.

Each person who decides to appeal any action taken at the meeting is advised that they will need a record of the proceedings and that accordingly, the person may need to ensure that a verbatim record of the proceeding is made, including the testimony and evidence upon which such appeal is to be based.

Meetings may be cancelled from time to time without advertised notice.

TRADITION COMMUNITY DEVELOPMENT DISTRICT NOS. 1-11

www.traditioncdd1.org

PUBLISH: ST. LUCIE NEWS TRIBUNE 05/08/23 TCN5688923

TRADITION COMMUNITY DEVELOPMENT DISTRICT NOS. 1-11 LAKE BANKS COMMITTEE MEETING Tradition Town Hall 10799 SW Civic Lane Port St. Lucie, Florida 34987 April 19th, 2023 11:00 a.m.

A. CALL TO ORDER

District Manager, Frank Sakuma called the April 19, 2023, Tradition Lake Banks Committee Meeting to order at 1:10 p.m. in the Tradition Town Hall located at 10799 SW Civic Lane, Port St. Lucie, Florida 34987.

B. PROOF OF PUBLICATION

Proof of publication was presented that notice of the April 19, 2023, Tradition Lake Banks Committee Meeting had been published in *The St. Lucie News-Tribune* on April 12, 2023, as legally required.

C. ESTABLISH QUORUMS

The following Committee Members were in attendance:

Antonio Balestrieri with Mattamy Homes

Tradition CDD #4 : Joe Sargent

Tradition CDD #4: Chris King

Tradition CDD #5: Cathy Powers

Tradition CDD #5: Dave Lasher

Tradition CDD #5: Joe Pinto

Staff members in attendance were: District Manager: B. Frank Sakuma, Jr., and Assistant District Manager: Jessica Wargo with Special District Services, Inc.

Also present – (See sign in sheet)

D. NEW BUSINESS

1. Election of Officers: Chair and Vice-Chair

Dr. Powers was nominated to serve as Chairperson. There were no other nominations. Dr. Powers was appointed Chairperson by unanimous vote.

Ms. King was nominated to serve as Vice Chairperson. There were no other nominations. Ms. King was appointed as Vice Chairperson by unanimous vote.

2. Determine Purpose and Scope of Lake Committee and Next Steps

Dr. Powers presented a handout with a draft outline of the committee's mission, goals, and purpose.

Mission Statement: To determine the best course of action to improve the conditions of the lake banks, meet the needs of the community while considering SFWMD and the Tradition licenses and development orders.

Purpose: Address aquatic vegetation and lake banks.

Plan of action:

- Determine existing conditions.
- Review current contracts.
- Have District Engineer come back with a recommendation for inspecting the lake banks. (Inspectors vs Volunteers)

Key complaints:

- Mr. Lasher Biggest issue: What they look like, visually appealing?
- Lake Tradition (Western Bank) Kelly Cranford will provide a report to the Committee with her recommendations.
- Ms. King Submerged versus dry bank. Spike rush because it grows so far out on lake banks. For example some lakes in Heritage Oaks have spike rush 35'out from the shore.

Action items:

• Ms. Cranford to provide checklist for "turnover"; also to provide list of lakes which did not meet CDD compliance and any corrective action which may be necessary.

Note: Next meeting date - May 17th/Tradition Management Offices conference room at 10:00a.m.

E. ADJORNMENT

There being no further business to come before the Committee, the Chairperson adjourned the meeting at 1:46pm.

Chairperson/Vice-Chairperson

Tradition CDD Stormwater System





Tradition CDD Stormwater System



INTRODUCTION

Our stormwater management system covers 2860 acres of mixed use development and includes

- 404 acres of surface water in 62 lakes
- 2.3 miles of canals
- 5 operable water control structures
- 38 fixed water control structures
- 77 piped lake interconnections
- 68 acres of wetlands / conservation

The system provides water quality treatment, storm attenuation, and irrigation supply.





Tradition CDD Stormwater System



WHAT TO EXPECT WHEN IT RAINS

DRIVEWAY

STREET

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Rainy Season CHECKLIST

Recognize that flood control is a shared responsibility.

Know the agency responsible for managing nearby canals.

Understand YOUR neighborhood drainage limitations. Every neighborhood drains differently.

If you are part of a homeowners association, identify the HOA representative authorized to operate any water control structures.

Check for any structure, storm drain or canal blockages – remove debris and/or report any issues.

Be aware that extreme rain can overwhelm drainage systems and result in temporary flooding.

What to expect when it RAINS

CANAL

POND

SWALE O

normal and expected after rain. Collecting excess water in local lakes, ponds, swales and streets keeps it away from your home.

STORM DRAIN



Tradition CDD Stormwater System



WHAT TO EXPECT WHEN IT RAINS

What can SLOW the FLOW?

Intensity of rainfall. If the ground is already saturated and community lakes and canals are high from previous rains, water will take longer to recede.

Extent of rainfall. If other neighborhoods are experiencing heavy rains, local and regional canals may not be able to accept all inflows at once.

Poorly maintained facilities. Clogged or damaged facilities can prevent neighborhood water from draining properly. Also, some low-lying neighborhoods are prone to flooding.

How excess rainwater DRAINS



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Tradition CDD Stormwater System



HOW IS THE SYSTEM OPERATED?

Rainy season (June through October):

- Keep water levels in lakes at or slightly above control elevation
- In advance of a predicted heavy rainfall, will begin to lower water levels in lakes closest to Peacock Canal (north end)
- Based on the water elevation in the Peacock Canal and in each lake, operable structures are opened to lower water levels in the entire system without overloading downstream lakes.
- Once the rainfall has passed, operable structures are closed in the reverse order (southern first working our way north)

Dry season (November through May):

- Keep water levels in lakes above control elevation when possible
- · Lakes are interconnected and part of our irrigation supply



Tradition CDD Stormwater System



HOW IS THE SYSTEM OPERATED?

What is a control elevation? The lowest elevation at which water can be released through the control structure. Often a bleeder as small as 3-inches in width or diameter.

How is the control elevation established?

- Wetland protection elevations,
- Consistency with water use permits,
- Consistency with water tables and surrounding projects,
- Maximum of six feet below natural ground.







Tradition CDD Stormwater System



WHO IS RESPONSIBLE FOR MAINTENANCE?

CDD:

- Lakes below control elevation and control structures (after they are completed and accepted by CDD)
- Pipes connecting lakes (after being accepted by CDD)
- Canals (after being accepted by CDD)

HOA:

- Lake banks above control elevation
- Roadway drainage (may be responsibility of City if they have accepted roadway)



Tradition CDD Stormwater System



WHAT SHOULD I EXPECT WHEN IT RAINS?

Moderate Rain (4 to 6 inches in 24 hour period):

- Standing water in yards, swales, and ditches
- Standing water in roadways, but one car width of roadway should be passable, typically near center of road

Heavy Rain (7 to 10 inches in 72 hour period):

- Roads, swales, ditches, and yards are flooded
- Buildings should stay dry
- Stay home!

Torrential Rain (10 to 20 inches in 72 hour period):

- Some houses and businesses will flood. Prepare for the worst case.
- Stay off the roads. Evacuate if advised by Emergency Management to do so. 11



Tradition CDD Stormwater System



Flood Factor:

Surface waters cannot receive new water if they are full or flow is blocked





Tradition CDD Stormwater System

WHAT SHOULD I EXPECT WHEN IT RAINS?

Flood Factor:

Water cannot soak into the ground if the water table is high – results in ponding and standing water







Tradition CDD Stormwater System



SOUTH FLORIDA ECOSYSTEM

Kissimmee-Okeechobee-Everglades Ecosystem





Tradition CDD Stormwater System

SOUTH FLORIDA ECOSYSTEM

Florida is basically flat and has a subtropical climate with "extremes" - fluctuating between being very wet and very dry





Tradition CDD Stormwater System



SOUTH FLORIDA ECOSYSTEM

The Central and Southern Florida (C&SF) Flood Control Project:

Authorized by the U.S. Congress in 1948, began the next year and continued for over 20 years



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Tradition CDD Stormwater System



SOUTH FLORIDA ECOSYSTEM

Central & Southern Florida Project

- River Channelization
- Herbert Hoover Dike
- Water Conservation Areas
- Protective Levees
 - Everglades Agricultural Area
 - Lower East Coast
- Drainage Network
 - Salinity Structures



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Tradition CDD Stormwater System





sfwmd.gov





Stormwater System



SOUTH FLORIDA DRAINAGE





Tradition CDD Stormwater System

SOUTH FLORIDA DRAINAGE





Tradition CDD Stormwater System



SOUTH FLORIDA DRAINAGE





Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM

Swale

Inlets & pip Ditches Dry retention/detention areas Wet retention/detention areas (lakes) Wetlands / conservation areas Outfall structures





Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM

Studies in Florida have determined that the first 1" of runoff (rain) generally carries 90% of the pollution.



Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM

What kind of pollution are we talking about?

Sediment

Excessive Nutrients

Heavy metals

Petroleum hydrocarbons

Coliform bacteria



Tradition CDD Stormwater System



WHY DO WE NEED SO MANY LAKES?

- We live in a former citrus grove sod farm and are surrounded by swamp land. Prior drainage relied on pumps to move water. Now we rely on gravity.
- Lakes provide water quality treatment
- Lakes provide flood protection
- Lakes aid with water conservation
- Lakes help with environmental preservation
- They are required by Florida Statues



Tradition CDD Stormwater System



Littoral Zones

Serve as nutrient sinks to assist in the absorption of nutrient and chemical pollution control



Tradition CDD



TRADITION STORMWATER SYSTEM





Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM

Seasonal Pond Fluctuations

Normal Seasonal Water Table Fluctuations



Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM





Tradition CDD Stormwater System

TRADITION STORMWATER SYSTEM



EW Consultants, Inc. Natural Resource Management, Wetland, and Environmental Permitting Services



MEMORANDUM

TO: Frank Sakuma

FROM: Ed Weinberg Edward R. Digitally signed by Weinberg Date: 2022.10.12 16:35:53 -04'00'

DATE: October 12, 2022

RE: Tradition CDD No. 1 - Lake Bank Vegetation

This memorandum is being provided to clarify the regulatory status, requirements, and prohibitions regarding native vegetation on the lake banks in Tradition CDD No.1. As you know, the stormwater management lakes are subject to the criteria and conditions of the South Florida Water Management District (SFWMD) permit(s) that authorized their construction and operation.

During 2019, there was a concerted effort undertaken to clarify and address the SFWMD permit conditions and criteria regarding the stormwater lakes, which culminated in clear written direction from SFWMD as follows:

"Special Condition 10 of the approved Environmental Resource Permit requires that lake side slopes be nurtured or planted from two feet below to one foot above control elevation to insure vegetative growth. Removal of emergent vegetation occurring within the stormwater management lakes is contrary to the approved permit; therefore, spraying of herbicides should be discontinued immediately."

Although the primary focus of recent discussions has been specific to "spikerush" (as observed, *Eliocharis interstincta* and/or *Eleocharis cellulosa*), these requirements apply to all native species of emergent vegetation occurring within the stormwater lakes.

EW Consultants, Inc. Natural Resource Management, Wetland, and Environmental Permitting Services

Clearly, what cannot be done is herbicide treatment of native emergent vegetation between one foot above and two feet below the lake control elevation. The lake control elevation is a permitted elevation above which water is discharged from the lake system. From a practical standpoint, it is a "contour line" around each lake at its permitted control elevation. Typically, water elevations in the lakes are near or below the "control elevation" with the exception of periods immediately after major storm/rainfall events.

The term "nurtured" from the SFWMD permit condition essentially means that no activity should be undertaken which would kill or physically uproot/remove native species of vegetation between the elevation contours at one foot above and two feet below the control elevation contour. It is important to note that applying the "design" lake side slope of 4:1 (horizontal:vertical) means that one foot of water elevation difference represents four feet of lake bank width on the ground.

Given these criteria, in an area approximately 12 feet in width, eight feet of which are below the control elevation contour and four feet of which are above the control elevation, there can be no herbicide treatment or uprooting of native emergent vegetation. Exceptions can be made for species deemed "nuisance native" such as cattails (*Typha* spp.).

Nurturing vegetation in these areas does allow for activities that do not result in killing or physical removal of native emergent plants. Specifically, this allows for mowing and/or weed whacking to lower and control the height of the vegetation above the substrate, provided such activity does not result in killing the vegetation. In general, the emergent plants in the area subject to the nurturing requirement grow from below ground tubers, and are thus tolerant of this type of activity.

TRADITION / SOUTHERN GROVE COMMUNITY DEVELOPMENT DISTRICT FACILITY ACCEPTANCE CHECKLIST

Project Name:

Work Authorization Numbers:

Please provide the checked items listed below.

Documentation

Letter from owner requesting facility operation and maintenance responsibility be accepted by the District. Request should include a detailed description of the facilities to be turned over to the District.

- □ Paid inspection fee(s).
- □ Paid Restoration Deposit or Restoration fee. (Applicable only for lakes where vertical construction adjacent to lake banks is notcomplete.)
- □ Paid Maintenance Surety in the amount equal to 15% of the cost of the improvements to be turned over to the District. Surety may be in the form of cash deposit, performance bond, or bank escrow agreement. Surety will be held by the District for 24 months from date of acceptance of facility by the District. At that time, facilities are to be re-conveyed or assigned to the City of Port St. Lucie with a surety meeting the City's requirements. (Applicable only for community infrastructure roadways.)

Copy of acceptance letter from SFWMD or ACOE for the Engineer's Certification of Completion. For wetlands, SFWMD or ACOE letter should also indicate monitoring required by the permit has been completed. Request for turn over to District shall be within one year of SFWMD or ACOE final acceptance.

- □ Certification signed and sealed by the Engineer or Design Professional of Record stating that the wetland contributing drainage area and control structure have been designed and constructed to result in a healthy wetland hydro-period for the type of wetland. Typical healthy designs for herbaceous mashes will result in saturated soils up to the ground surface between 5 and 12.5% of the growing season. Saturated duration and depth increases for other types of wetlands.
- □ Current Ecological Condition Report on wetland conditions and documentation of related permit requirements being met. If the area is not covered by a federal or state permit, areas shall have at least 80% cover by appropriate wetland species where the wet season water depth is less than one foot and 70% where the wet season water depth is two feet or more. The areas are to have less than 5% cover of Category I and II invasive exotic and nuisance plant species as defined by the Florida Exotic Pest Council's most recent list. (Wetlands and Conservation Areas only)
- □ Certification signed and sealed by the Engineer or Design Professional of Record stating that the project has facility to be turned over has been constructed, inspected, and found to be in substantial accordance with the approved construction plans, agency permits, and meets the City of PortSt.

Lucie standards. (A copy of the certification submitted to other agencies for this purpose is acceptable.)

□ Signed and sealed record drawings including size, location, material type, and elevation of any pipe entering lakes owned or to be owned by the District; details of all water control structures; cross sections showing slopes do not exceed authorized slopes; verification that lake depth is within authorized range of depths. For underground improvements, all crossings with other utilities shall be detailed with inverts, diameters, and vertical clearance. Roadways shall include vertical separation to above ground utilities crossing the right-of-way or easement. Survey shall include easements, parcel lines, existing utilities and non-movable above ground improvements. Surveys shall be based on minimum horizontal control Third Order, Class 2 and tied to a minimum of one permanent reference monument (PRM) that is tied to one section corner or one-quarter section corner, whichever is closest. State plane coordinates shall be physically shown on the drawing next to the PRM used. As- builts will not be accepted unless the verbiage "proposed" and "to be constructed" have been revised to read "as-built" or "record". Record drawings shall be provide in both pdf and dwg format.

Recorded plat or easement dedicated to the District. The size of the easement shall be adequate for the continued maintenance or replacement of the facility to be turned over and include access from a public roadway.

Bill of Sale with Schedule 1 listing a detailed breakdown of facility components and their cost.

12-month Warranty of facility to be transferred with Schedule 1 listing a detailed breakdown of facility components.

Executed Affidavit of Payment and Release of Lien from all contractors indicating all subcontractors, suppliers, and consultants have been paid for any and all work associated with the improvements to be transferred.

Executed assumption and indemnity agreement indemnifying the District from all claims related to defects known or unknown with respect to the construction of the facilities to be turned over.

- □ Copy of applicable field density reports, inspection reports, hydrostatic pressure/leakage test, meter communication report, and trace wire conductivity report signed by the Engineer or Design Professional of Record.
- Passing field inspection by District Staff. Lake banks shall be fully sodded without evidence of erosion, shoaling, and potential erosive conditions. Lakes shall be reasonably free of aquatic vegetation which could impede stormwater flows. Structures and pipes shall be free from cracks or other indications of sub-standard materials or workmanship. Any components found to be unacceptable will need to be corrected to the District Engineer's satisfaction prior to action by the District Board.

Once the above items have been provided, the District Board will consider the Turn Over request. After District Board approval, the District will execute the SFWMD transfer document and similar documents required by other entities.


August 12, 2019

VIA: Email to BSakuma@SDSInc.org

Mr. B. Frank Sakuma, Jr. District Manager Special District Services, Inc. Tradition Management Offices 10807 SW Tradition Square Port St. Lucie, Florida 34987

RE: Value Engineering Report Repairs to Lake A-12 Banks

We have prepared the following analysis of various alternatives for erosion repair of approximately 1100 If on the south and west banks of Lake A-12.

Based on an evaluation of long-term costs, the ARCADIS design may not be the most economical solution in the long run. Sod over a stabilized surface (geo-fabric, coconut liner, etc.) and geo-web appear to be more economical options.

The provided survey did not extend below the water surface which was at elevation 22.20 ft NGVD at the time of the survey. The pond bottom was designed at elevation 11.0 ft NGVD. We recommend soundings of the lake bottom be collected to determine the vertical extent of the erosion prior to bidding the project.

The project can then be bid with the ARCADIS bid drawings, supplemental survey, and list of Bid Alternatives including the geo-fabric and geo-grid options.

Since the erosion is within the roots of existing trees and within 12 feet of the sidewalk, we recommend this project move forward with construction scheduled for the upcoming dry season.

Should you have any questions, please do not hesitate to contact me at (772)464-3537 ext. 222 or via email at KCranford@CT-Eng.com .

Sincerely,

CULPEPPER & TERPENING, INC.

Kelly Cranford, P.E., Env.SP Senior Project Engineer

TRADITION LAKE A-12 EROSION REPAIRS VALUE ENGINEERING REPORT

ORIGINAL DESIGN SUMMARY

This lake was completed in 2007 as one of the first phases of Tradition. The project area includes several outfalls from the adjacent roadways and a piped connection to Lake A-6. The top of bank elevation was designed at 27.00 ft NGVD and the pond bottom at 11.00 ft NGVD.



CURRENT CONDITION

The south and southwestern lake banks have eroded to within 12 feet of the existing concrete sidewalk and within the roots of trees along the lake. A vertical drop between one to two feet is present along much of this portion of the bank.









(Photos taken on August 13, 2019)

EVALUATED ALTERNATIVES

In 2018, ARCADIS prepared an erosion repair plan for portions of the south and western banks of Lake A-12. Depending on the severity of the bank erosion, ARCADIS proposed either:

- 1. Bringing in fill to restore the original design slope to above the lake control elevation, compacting and sodding; or
- 2. Bringing in fill to restore the original design slope above the lake control elevation, compacting, installing a non-woven geotextile geo-web from the top of bank to two feet below the lake control elevations, sodding above the lake control elevation, and installing rip-rap on the slope to a depth of two feet below the control elevation.

ARCADIS prepared a bid set of plans for this repair proposal which includes 700 linear feet of Type 1 repair and 400 linear feet of Type 2 repair.

As the CDD Engineer, Culpepper and Terpening was asked to evaluate the proposed design and verify that it was the most economical remedy for the erosion issue. We evaluated the following alternative solutions for their long-term cost over a 20-year period.

<u>No Action</u>: The lake banks would be allowed to continue to erode and eventually stabilize. This alternative would most likely result in the loss of the trees along this portion of the lake and portions of the concrete trail. The resulting lake configuration may not be incompliance with Tradition's master surface water management permit if the lake storage volume is reduced by the banks sloughing off into the lake bottom. This option would not meet the CDD's aesthetics for the community. Costs associated with this option were not evaluated since it is not a viable alternative for the CDD.

<u>Restore to Original Design:</u> The lake banks would be restored to the original design, as proposed in ARCADIS' Type 1 repair option. This option has the lowest initial cost, but has an expected useful life of five years. The CDD budget would need to include the probability of repeating this repair every five years.



<u>Restore to Original Design with Geo-fabric or Coconut Liner Under Sod:</u> This option has a slightly higher initial cost and an estimated useful life of ten years. The fabric, liner, or turf reinforcement mat provides a surface for the sod to root into and improves its ability to stay in place.

<u>Restore to Original Design Slopes with Geo-web Under Sod:</u> This alternative is similar to ARCADIS' Type 2 repair option without the rip-rap below the control elevation. The geoweb system is a series of polymer cells, approximately 6 inches deep, which confines the filled material and increases the slope stability under erosive conditions. The estimated useful life is 15 years.



<u>Restore to Original Design Slopes and stabilize with Rip-Rap:</u> This alternative would place rip-rap rubble from the top of bank to two feet below the control elevation. The estimated useful life is 25 years. This option can be installed with just the rubble or rubble interplanted with native grasses. The revetment protects the shoreline from erosion and waves. Maintenance on the rocks alone is primarily vegetation control for the weeds and vines.

<u>Restore to Original Design Slopes and stabilize with Geotubes:</u> This alternative would place geotubes, filled with sloughed off soil from the lake bank, near the control elevation. The estimated useful life is 10 years. This option can also be installed with just sod or interplanted with native grasses.



(Photo from Landshore Enterprises, LLC)

Restore to Original Top of Bank Location and Install Living Shoreline: This alternative would restore the top of bank to its original horizontal location and place rip-rap rubble or other type of stabilization from the two feet above to two feet below the control elevation. The littoral area would be planted with native vegetation. The estimated useful life is 20 years. Maintenance is primarily exotic removal. This is the only alternative which also provides increased water quality treatment.



Photo from FEMA BioEngineered Shoreline Stabilization

<u>Restore to Original Top of Bank Location and Install Bulkhead:</u> This alternative would place fill to restore the top of bank to its original horizontal location, provide a grass slope for 10 to 12 feet, and install bulk head from two feet above the control elevation. The estimated useful life is 25 years. This option could be used on the areas of the lake with the most severe erosion.



The cost comparison shown on the following page assumes only one treatment option is used for the entire project.

		ILIZATION - COST COI	MPARISION
		ost per 1,000.00 lf	
2	Restore to original design	Late and	
	Initial Cost	\$129,000	
	Annual O&M	\$28,000	
	Cost over 20 years	\$647,000	
	Restore to original design with geofa	bric or coconut liner un	nder sod
	Initial Cost	\$180,000	
	Annual O&M	\$20,000	
	Cost over 20 years	\$552,000	
í.	Restore to original design with geow	eb under sod	w/ plantings instead of sod
	Initial Cost	\$197,000	\$267,000
	Annual O&M	\$15,000	\$26,000
	Cost over 20 years	\$475,000	\$755,000
	Restore to original slopes with rip-ra	p protection	w/ plantings instead of sod
	Initial Cost	\$232,000	\$313,000
	Annual O&M	\$26,000	\$29,000
	Cost over 20 years	\$711,000	\$853,000
	Restore to original slopes with geotu	be protection	w/ plantings instead of sod
	Initial Cost	\$195,000	\$267,000
	Annual O&M	\$22,000	\$35,000
	Cost over 20 years	\$594,000	\$924,000
	Living Shoreline		
	Initial Cost	\$213,000	
	Annual O&M	\$105,000	
	Cost over 20 years	\$2,206,000	
	Bulkhead		
	Initial Cost	\$578,259	
	Annual O&M	\$19,133	
	Cost over 20 years	\$941,552	

2019 estimates - for comparison only. Actual project costs are dependent on final design.

RECOMMENDATION

The survey used for the ARCADIS design did not go below 22.2 feet NGVD, or the existing water elevation at the time of the survey. The erosion could extend several feet below this elevation resulting in more fill needed to restore the design slopes of the lake. We recommend that soundings be taken of the lake bottom and the resulting survey be used to supplement the ARCADIS bid set.

After the additional survey data is collected, requests bids on the ARCADIS plan set with the addition of Type 1B (original design with geo-fabric or coconut line) and Type 2B (geoweb without rip-rap at base of webbing). The plans do not need to be revised, we can include a description of the Bid Alternatives in the text of the Invitation to Bid.



Lake Bank Inspection Proposal: Tradition CDD Managed Lakes From: Kelly Cranford, PE – CDD Engineer April 25, 2023

Tradition CDD currently manages 67 lakes with 55.7 miles of lake and canal banks. Current criteria is no steeper than 4:1 side slopes; a step at the edge of water (EOW) of no more than 12 inches; and a step eight feet from EOW of no more than 27 inches. Steps do not typically appear until the lakes have been through several wet-dry seasons.

As requested by the Lake Bank Committee at its April 19, 2023 meeting, below are options for the bank inspections.

- This type of inspection is made visual by an experienced inspector walking and/or driving the lake banks and noting where the banks and steps appear to exceed CDD criteria. In areas where the slope / steps appear to exceed criteria, the inspector will use a template and measuring device to confirm compliance or non-compliance. Deliverable is a spreadsheet with highlighted map showing areas of deficiencies. (See Example 1). \$50,250 and will take 12 weeks to complete.
- 2. This type of inspection is by traditional survey and will result in plotted cross-sections taken every 100 feet, which are then checked manually for compliance with CDD slope and step criteria. Deliverable is plotted cross-sections with highlighted areas of deficiencies along with a plan view of the lakes highlight with deficient areas. \$167,400 and will take 11 weeks to collect data and another 8 weeks to produce the deliverables (19 weeks total).
- 3. This type of inspection is performed by a drone with lidar survey capabilities. Between 2 and 4 tradition survey cross-sections would be performed on lakes which indicate slope or step deficiencies. Deficiencies are noted through a "heat map" by setting the software parameters to look for areas which do not comply with input criteria. Deliverables are cross-section and plan view map with "hot" areas shown. (See Example 2) \$97,000 and will take a total of 11 weeks to complete.

Each type of inspection can be phased over several years, split into neighborhoods or specific lake inspections.

Vitalia Phase 3 I						
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Tolerance		3.6:1	12"	27"	21.36	6/4/2016
Lake # 2						
IMG 0481	1	4-1	12"	20"		
	2	4-1	8"	18"		
IMG 0482	3	31/2-1	12"	25"	100 LF	
	4	4-1	12"	24"		
IMG 0487	5	4-1	0"	20"		
IMG 0484	6	4-1	0"	19"		
IMG 0488	7	4-1	0"	12"		
IMG 0483	8	4-1	0"	29"	100 LF	
IMG 0485	9	5-1	0"	18"		
IMG 0486	10	5-1	0"	21"		
200 LF						
Section 5.0.8.a. \$	640/LF=\$8	00.00				
\$8000.00<\$10,00	00 therefor	e \$10,000.	00 is utilized			
Section 5.0.8.b 1	0% of 10,0	00.00=\$1,0	00.00			
\$1,000.00<\$7,50				d		

Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Tolerance		3.6:1	12"	27"	21.1	4/11/2016
Lake # 4						
IMG 3392	1	4-1	0"	23"		
IMG 8216	2	4-1	15"	34"	150 LF	
IMG 5517	3	5-1	6"	26"		
IMG 5772	4	5-1	4'	26"		
	5	4-1	4"	19"		
IMG 9664	6	5-1	6'	20"		
	7	5-1	6"	24"		
	8	5-1	0"	13"		
IMG 0602	9	5-1	0"	20"		
	10	5-1	4"	24"		
	11	5-1	4"	19"		
IMG 2215	12	5-1	6	25"		
	13	5-1	3"	25"		
150 LF						
Section 5.0.8.a. \$	640/LF=\$60	00.00				
\$6000.00<\$10,00	00 therefore	e \$10,000.0	00 is utilized			
Section 5.0.8.b. 1	0% of 10,0	00.00=\$1,	000.00			
\$1,000.00<\$7,50				d		

Vitalia Phase 3 L	₋ake inspe	CUONS				
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Tolerance		3.6:1	12"	27"	21.1	4/11/2016
Lake # 5						
IMG 9047	1	5-1	0'	14"		
	2	5-1	4"	20"		
IMG 9048	3	5-1	6"	26"		
	4	5-1	6"	29"		
	5	5-1	6"	30"		
IMG 9049	6	5-1	6"	54"		
IMG 9040	7	5-1	6"	30"		
IMG 9041	8	4-1	4"	48"		
	9	<u>3.5-1</u>	14"	37"		
IMG 9042	10	5-1	0"	38"	975 LF	
	11	5-1	0"	27"		
IMG 9043	12	5-1	0"	35"		
	13	5-1	0"	34"		
IMG 9044	14	5-1	0"	38"		
	15	5-1	0"	38"	730 LF	
IMG 9045	16	5-1	0"	22"		
1705 LF						
Section 5.0.8.a. \$	540/I F=\$68	3 200 00				
\$68,200.00>\$10,) NN is utiliz	red		
φοο,200.00- φτο,		μο ψου,200				
Section 5.0.8.b. 1						
\$6,820.00<\$7,50	0.00 theref	ore \$7,500	.00 is utilize	ed		

Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Tolerance		3.6:1	12"	27"	21.1	4/11/2016
Lake # 6						
	1	5-1	8"	33"	150 LF	
IMG 9055	2	5-1	12"	23"		
	3	5-1	6"	31"	150 LF	
IMG 9056	4	5-1	6"	33"	150 LF	
	5	5-1	6"	17"		
IMG 9057	6	5-1	6"	29"		
IMG9058	7	5-1	6"	31"		
IMG 9059 LOT 733	8	5-1	6"	48"		
IMG 9060 & 9061	9	5-1	6"	28"	500 LF	
	10	5-1	0"	24"		
IMG 9062	11	5-1	0"	21"		
IMG 9064	12	5-1	0"	27"		
	13	5-1	0"	31"		
IMG 9065	14	5-1	6"	28"	150 LF	
	15	5-1	6"	28"	150 LF	
IMG 9066	16	5-1	6"	21"		
IMG 9053	17	5-1	6"	21"		
IMG 9051	18	5-1	6"	24"		
1250 LF						
Section 5.0.8.a. \$	640/LF=\$50	0.000.00				
\$50,000.00>\$10,			0.00 is utiliz	ed		
0 11 5 6 6 1						
Section 5.0.8.b. 1 \$5,000.00<\$7,50						

Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Lake	Section	Slope	Drop	Depth @ 8'	Water elevation	Date
Tolerance		3.6:1	12"	27"	21.1	4/12/2016
Lake # 7						
IMG 1424 & 9868	1	5-1	0	19"		
IMG 8136	2	5-1	6"	42"	150 LF	
IMG 1685	3	5-1	6"	17"		
IMG 6820	4	5-1	0	41"		
IMG 4466	5	5-1	0	42"		
_	6	5-1	0	45"	550 LF	
IMG 4062	7	4-1	0	24"		
IMG 5415	8	4-1	0	25"		
	9	4-1	0	25"		
	10	4-1	0	26"		
IMG 1169	11	4-1	0	23"		
	12	5-1	0	37"		
IMG 5295	13	5-1	0	30"	450 LF	
	14	5-1	0	23"		
IMG 6113	15	5-1	12"	24"		
	16	5-1	12"	36"	200 LF	
	17	5-1	12"	24"		
	18	5-1	12"	31"	200 LF	
1MG 8194	19	5-1	12"	60"+	150 LF	Needs to be worked before being accepted
	10		12			
1550 LF; exc			ction 19			
Section 5.0.8.a.		•				
\$62,000.00>\$10,	000 therefo	ore \$62,000	0.00 is utilize	ed		
Section 5.0.8.b.	10% of 62.0	000.00=\$6.	200.00			
\$6,200.00<\$7,50				d		
· · · · · · · · · · · · · · · · · · ·		. ,- ,-				





CARNAHAN PROCTOR & CROS 604 COURTLAND STREET SUITE 101 PHONE : (407) 960-5980 ORLANDO, FLORIDA 32804 CERTIFICATE OF AUTHORIZATION # 2936

CIVIL ENGINEERING GEOMATICS CONSTRUCTION SERVICES

LEGEND

POND INCLUDED IN TURNOVER

LOTS WITH FINISHED HOMES

PHASE 4 BOUNDARY

= = = STORM WATER MANAGEMENT EASEM

STORMWATER ITEMS

*LENGTH OF LAKE TRACT WHICH COULD BE POTENTIALLY DAMAGED BY ONGOING AND FUTURE HOME CONSTRUCTION ACTIVITIES

WMT IB AKATI WMTI AKA Lakez

ArcodisInspection: maintenance Required

GRAPHIC SCALE had a t (IN FEET) 1 inch - 150 fL



Vitalia Tradition **Residential Parcel Tradition Phase 4** Units 1-5 & Phase 5

Tradition CDD In settin

CDD Pond Turnover Exhibit

Exhibit 1

120409.01

GENERAL NOTES:

- 1. THE LAST DATE OF DATA ACQUISITION WAS 6-24-22.
- 2. THE SPECIFIC PURPOSE OF THIS SURVEY IS TO PERFORM A LAKE BANK SURVEY OF THE THREE (3) EXISTING DETENTION PONDS.
- 3. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
- 4. THE FEATURES SHOWN HEREON ARE REFERENCED TO THE FLORIDA STATE PLAN COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN VERTICAL DATUM OF 1983(2011 ADJUSTMENT), AS ESTABLISHED USING FLORIDA DEPARTMENT OF TRANSPORTATION FPRN.
- 5. ALL DISTANCES SHOWN HEREON ARE IN U.S. SURVEY FEET. 6. AERIAL IMAGERY SHOWN HEREON WAS OBTAINED FROM DOT AND IS SHOWN FOR INFORMATION PURPOSES. THE IMAGERY WAS ACQUIRED IN 2021.
- UNDERGROUND IMPROVEMENTS, IF ANY, WERE NOT LOCATED EXCEPT AS SHOWN.
 INTERIOR IMPROVEMENTS, IF ANY WERE NOT LOCATED EXCEPT AS SHOWN.
- 9. SYMBOLS SHOWN HEREON ARE NOT TO SCALE.
- 10. THE FEATURES SHOWN HEREON WERE ACQUIRED USING RTK GPS AND TRIGONOMETRIC METHODS AND WERE VERIFIED THROUGH A REDUNDANCY OF MEASUREMENTS FOR AN EXPECTED HORIZONTAL ACCURACY OF 0.10'.

SPECIFIC PURPOSE SURVEY

LAKE BANKS







LOCATION MAP (INTENDED DISPLAY SCALE: 1"=300')

	INDEX TO SHEETS
SHEET NO.	DESCRIPTION
1	COVER
2	LAKE #1 – LAKE BANK
3	LAKE #2 – LAKE BANK
4	LAKE #3 – LAKE BANK



	DATE	BY	– R E V I S I O N S –
DESIGN	•	•	
CALCS	•	•	
DRAW	•	•	
DETAIL	•	•	
CHECK	•	•	
APPROV	•		

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SHEET 2 of 4



	ESIGNED TT	06-24-22
		00-24-22
	CALCS. RC	2 10-28-22
· D	DRAWN RC	2 10-28-22
· Di	ETAILED RC	2 10-28-22
· CI	HECKED RC	2 10-28-22
• AP	PROVED RC	2 10-28-22
•	CI	CHECKED RO



SLOPES GREATER THAN 1 : 3.6 (RISE:RUN)

LAKE BANK SURVEY - LAKE #2







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<u>}.</u>	CULPEPPER &
	TERPENING INC 2980 SOUTH 25th STREET • FORT PIERCE, FLORIDA 34981 PHONE 772-464-3537 • FAX 772-464-9497 • www.ct-eng.com STATE OF FLORIDA BOARD OF PROFESSIONAL ENGINEERS AUTHORIZATION NO. 4286

– R E V I S I O N S –	BY	DATE		BY	DATE		DATE: 10-28-22
	•	•	DESIGNED	тт	06-24-22		HORIZ. SCALE: 1"=40'
	•	•	CALCS.	RC	10-28-22		VERT. SCALE: N/A
	•	·	DRAWN		10-28-22		JOB No. 22-076
	· ·		DETAILED		10-28-22	LAKE BANK SURVEY – LAKE #3	JOB No. 22-076
	•		CHECKED		10-28-22		SHEET 4 of 4
	•		APPROVED	RC	10-28-22		
							53

LEGEND



SLOPES GREATER THAN 1 : 3.6 (RISE:RUN)





Lessons Learned – Portofino Shores CDD

Prepared by Kelly Cranford, PE for Tradition Lake Bank Committee

April 25, 2023

C&T is also the CDD Engineer for Portofino Shores CDD in northern St. Lucie County, which is also having issues with their bank stabilization. Like Tradition CDD, they also use their lakes as an irrigation source and have fluctuating water levels.

In 2011, Portofino Shores installed rip rap in some locations of the main lake, particularly at the outfall pipes. Residents were not thrilled with the look but the erosion issue was solved.



The remainder of the banks were stabilized with geotubes (to restore the bank slope) topped with sod. As shown in the photos below, the sod did not hold and by 2013 the tubes were partially exposed in some areas.





CONSULTING ENGINEERS | LAND SURVEYORS

The photo below was taken in 2022. It shows the side slope generally being held, but fairly large step at the normal water edge of water (control elevation).



On January 29, 2023 they received bids for repairs to a 720 lf section of bank for 3 different repair options.

- 1. Option 1 (GeoMat)
 - a. Sea & Shoreline: \$136,204
 - b. Landshore Enterprises: no bid
 - c. SOLitude: no bid
- 2. Option 2 (Geotube)
 - a. Sea & Shoreline: \$135,940
 - b. Landshore Enterprises: \$100,378
 - c. SOLitude: \$88,895
- 3. Option 3 (Littoral Plantings)
 - a. Sea & Shoreline: \$121,675
 - b. Landshore Enterprises: no bid
 - c. SOLitude: no bid

Lessons learned include

- Sod does not hold within the zone of water fluctuation.
- Once the geotubes are exposed, they get broken open by fish, reptiles, birds, floating debris, and/or expose to sun (not sure of cause but they split open when exposed).
- These geotubes were installed 20 years ago. Estimated useful life (need for replacement) is 20 years.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT



July 30, 2019

Delivered via email

Mr. Ed Weinberg EW Consultants, Inc. 1000 SE Monterey Commons Blvd, Ste. 208 Stuart, FL 34996

Subject: Tradition Maintenance of Lake Side Slopes Environmental Resource Permit No. 56-01569-P St. Lucie County, S4, 5, 8-10, 15-17/T37S/R39E

Dear Mr. Weinberg:

We are in receipt of your April 4, 2019 inquiry regarding confirmation of post-permit compliance of the existing storm water management lakes, which are operated and maintained in perpetuity by Tradition CDD. The approved permit and construction plans require lake side slopes be no steeper than 4:1 (horizontal: vertical) to a depth of two feet below the control elevation.

As of the date of this letter, the District finds the certified water management lakes to be in compliance with the permit; however, an inspection of the entire system has not been performed. Lake side slopes greater than 3.5:1 with steps less than 8" are in compliance; conversely, slopes outside of these tolerances are not in compliance and timely corrective actions must be taken.

The District acknowledges that lake side slope steps may develop over time from normal operation of the system; therefore, the CDD is responsible to inspect the stormwater management lakes and perform maintenance if the slopes are determined to be out of the permitted specifications.

Special Condition 10 of the approved Environmental Resource Permit requires that lake side slopes be nurtured or planted from two feet below to one foot above control elevation to insure vegetative growth. Removal of emergent vegetation occurring within the stormwater management lakes is contrary to the approved permit; therefore, spraying of herbicides should be discontinued immediately.

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • 1-800-432-2045 • www.sfwmd.gov

Tradition CDD Permit No. 56-01569-P Page 2

If you have any questions or require additional assistance, please contact me at (863) 462-5260, ext. 3016 or via e-mail at <u>gpriest@sfwmd.gov</u>.

Sincerely,

Gary R. Priest, P.E. Section Leader Environmental Resource Bureau

Enclosures: Location Map

c: Frank Sakuma, Tradition CDD Manager (via Email) Jerry Krbec (via Email)

This document is filed in the ePermitting system under Application Number 010613-10





EXIST. SWM AREAS - OPERATED BY CDD EXIST. SWM AREAS - PRIVATE OPER. PERMITTED SWM AREAS - UNDER CONST. CONCEPTUAL SWM AREAS Structure Weirl From Basin CS A01 A01 W27-32* 24.23 ft CS A01 MAS22 24.20 ft CS A01 A02 W27-32* 24.00 ft CS A0345 A09** 22.40 ft CS A06A 25.90 ft CS A06 A12** 24.46 ft CS A07 W31 25.90 ft CS A07 W22-24 25.88 ft 22.10 ft CS A11A13 BCANAL CS EAST MAS 11-12 OUT2** 22.53 ft CS EAST MAS IRR 21.92 ft CS EAST A15 21.80 ft BCANAL 20.30 ft WEIR RISER A CS MAS14 MAS14** 22.97 ft CS MAS14 MAS36 22.58 ft CS BUL22 WEST 23.32 ft 25.49 ft CS MAS22 MAS23 CS MAS23 MAS14 MAS14 23.52 ft CS MAS29 22.50 ft CS MAS30 23.00 ft 27.69 ft CS MAS31 MAS32 CS MAS32 A01 25.36 ft CS MAS34 MAS35 25.15 ft TRAMAS35 CS MAS35 OUT 24.00 ft CS W1 23.20 ft W22-24 22.60 ft CS W22 A0345 CS W31 MH 23.40 ft CS W48 MH 23.50 ft TRA WG-2 CS TRA WG2 MAS32 28.28 ft BCANAL CS B CANAL4* 19.62 ft BCANAL W BPOND BLEEDER / WQ* 20.30 ft BCANAL W BCANAL RISER A-B BCANAL W BCANAL RISER A-W 20.31 ft CS MXD1 25.00 ft CS MXD1 CA21* 26.09 ft 24.70 ft CS MXD2 26.60 ft CS MXD3

LEGEND

BASIN DIVIDES

FLOW DIRECTION

* internal basin structure

CS MXD4

Basin Data							
Basin	Total Area	Lake Area at Control	Control Elevation	Conservaion Area	Pre-Dev. Seasonal High		
A01	112.7 acres	17.8 acres	23.90 ft NAVD	WC (Created)	24.20 ft NAVD		
\0345	91.4 acres	26.9 acres	22.10 ft NAVD	W13	23.20 ft NAVD		
A06	85.7 acres	13.2 acres	22.00 ft NAVD	W18	24.00 ft NAVD		
A07	7.7 acres	1.3 acres	23.70 ft NAVD	W19	23.30 ft NAVD		
EAST	688.8 acres	112.8 acres	21.50 ft NAVD	W20	24.75 ft NAVD		
11-13	37.9 acres	3.7 acres	21.00 ft NAVD	W21	24.75 ft NAVD		
CANAL	272.0 acres	48.9 acres	18.70 ft NAVD	W24	23.30 ft NAVD		
IAS14	283.4 acres	47.6 acres	21.90 ft NAVD	W24A	23.10 ft NAVD		
IAS22	82.9 acres	18.6 acres	23.20 ft NAVD	W27	23.10 ft NAVD		
IAS23	39.6 acres	14.9 acres	23.00 ft NAVD	W28	23.20 ft NAVD		
IAS29	58.7 acres	7.2 acres	20.30 ft NAVD	W29	23.33 ft NAVD		
IAS30	58.0 acres	13.8 acres	20.70 ft NAVD	W30	23.80 ft NAVD		
IAS31	22.9 acres	2.4 acres	26.70 ft NAVD	W31	23.30 ft NAVD		
IAS32	96.5 acres	9.4 acres	24.90 ft NAVD	W32	23.50 ft NAVD		
IAS34	123.9 acres	14.5 acres	24.20 ft NAVD	W48	23.50 ft NAVD		
AMAS35	283.1 acres	51.1 acres	23.20 ft NAVD	CT75	24.20 ft NAVD		
W1	10.4 acres		23.20 ft NAVD	CT76	25.00 ft NAVD		
/22-24	22.9 acres		21.90 ft NAVD	CT77	25.50 ft NAVD		
W31	7.5 acres		23.00 ft NAVD	CT80	26.80 ft NAVD		
W48	5.1 acres		22.90 ft NAVD	CT81	27.10 ft NAVD		
A WG-2	31.1 acres	4.3 acres	27.50 ft NAVD				
MXD1	68.2 acres	14.3 acres	24.00 ft NAVD				
MXD2	159.7 acres	23.6 acres	22.50 ft NAVD				
MXD3	180.2 acres	25.4 acres	21.80 ft NAVD				
MXD4	21.3 acres	2.8 acres	22.00 ft NAVD				

BY DATE •

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BASIN CONTROL STRUCTURE

CLOSED-CONDUIT FLOW --- SUB-BASIN DIVIDES ABCDE BASIN NAMES

ABCDE SUB-BASIN NAMES



	1		Operated Control					
	Water Quality			:	Storm Recovery			
	Weir Inv.	Rise	Span	Bleeder Inv.	Туре	Rise	Span	Status
	24.23 ft NAVD	20.9 inches	60.0 inches	22.15 ft NAVD	rectangular	5.3 inches	2.0 inches	certified
	24.20 ft NAVD	21.6 inches	58.0 inches	23.90 ft NAVD	rectangular	3.5 inches	2.0 inches	certified
	24.00 ft NAVD	28.1 inches	70.0 inches	23.27 ft NAVD	rectangular	8.3 inches	2.0 inches	certified
	22.40 ft NAVD	open	33.0 inches	22.10 ft NAVD	rectangular	3.0 inches	33.0 inches	certified
	25.90 ft NAVD	Horizontal	36 in x 54 in	22.50 ft NAVD	rectangular	39.6 inches	54.0 inches	certified
	24.46 ft NAVD	25.4 inches	34.9 inches	22.48 ft NAVD	rectangular	2.0 inches	24.0 inches	certified
	25.90 ft NAVD	Horizontal	78 i n x 36 in	23.70 ft NAVD	irregular		28.3 inches	certified
	25.88 ft NAVD	Horizontal	26.4 in x 63 in	23.60 ft NAVD	irregular		25.3 inches	certified
	22.10 ft NAVD	46.2 inches	49.0 inches	21.00 ft NAVD	rectangular	3.0 inches	2.0 inches	certified
**	22.53 ft NAVD	21.5 inches	28.0 inches	21.49 ft NAVD	rectangular	4.0 inches	72.0 inches	certified
	21.92 ft NAVD	Horizontal	75 in x 40 in	21.50 ft NAVD	circular	3.0 inches	3.0 inches	certified
	21.80 ft NAVD	86.4 inches	38.0 inches	21.53 ft NAVD	rectangular	3.2 inches	3.0 inches	certified
	20.30 ft NAVD	38.0 inches	95.4 inches	18.70 ft NAVD	rectangular	6.6 inches	95.4 inches	certified
	22.97 ft NAVD	17.4 inches	60.0 inches	21.87 ft NAVD	rectangular	6.0 inches	36.0 inches	certified
	22.58 ft NAVD	open	75.0 inches	22.00 ft NAVD	rectangular	3.0 inches	75.0 inches	certified
	23.32 ft NAVD	Horizontal	24 in x 37 in					certified
	25.49 ft NAVD	Horizontal	36 i n x 54 in	23.18 ft NAVD	rectangular	6.0 inches	36.0 inches	certified
	23.52 ft NAVD	15.0 inches	36.0 inches	23.00 ft NAVD	circular	3.0 inches	3.0 inches	certified
	22.50 ft NAVD	14.4 inches	60.0 inches	20.30 ft NAVD	rectangular	26.4 inches	2.0 inches	certified
	23.00 ft NAVD	7.8 inches	33.0 inches	20.70 ft NAVD	rectangular	27.6 inches	2.0 inches	certified
	27.69 ft NAVD	open	6.0 inches	26.69 ft NAVD	rectangular	2.0 inches	12.0 inches	certified
	25.36 ft NAVD	open	24.6 inches	24.81 ft NAVD	rectangular	1.8 inches	36.0 inches	certified
	25.15 ft NAVD	open	18.0 inches	24.15 ft NAVD	rectangular	4.0 inches	8.0 inches	
	24.00 ft NAVD	open	12.0 inches	23.25 ft NAVD	rectangular	5.0 inches	30.0 inches	constructed
	23.20 ft NAVD	open	12.0 inches	none				certified
	22.60 ft NAVD	19.2 inches	24.0 inches	21.90 ft NAVD	rectangular	8.4 inches	6.0 inches	certified
	23.40 ft NAVD	Horizontal	37.2 in x 29.4 in	23.00 ft NAVD	rectangular	4.8 inches	6.0 inches	certified
	23.50 ft NAVD	Horizontal	37.2 in x 29.4 in	22.90 ft NAVD	rectangular	7.8 inches	6.0 inches	certified
	28.28 ft NAVD	open	6.0 inches	27.50 ft NAVD	circular	3.9 inches	3.9 inches	constructed
	19.62 ft NAVD	open	12.0 inches	18.70 ft NAVD	circular	3.0 inches	3.0 inches	certified
*	20.30 ft NAVD	open	120.0 inches	18.70 ft NAVD	circular	3.0 inches	3.0 inches	certified
				18.70 ft NAVD	rectangular	6.6 inches	95.4 inches	certified
	20.31 ft NAVD	38.0 inches	95.4 inches					certified
	25.00 ft NAVD	12.0 inches	18.0 inches	24.00 ft NAVD	rectangular	4.0 inches	5.0 inches	constructed
	26.09 ft NAVD	Horizontal	36 in x 48 in	25.56 ft NAVD	rectangular	open	6.0 inches	constructed
	24.70 ft NAVD	Horizontal	172 i n x 64 in	22.50 ft NAVD	rectangular	4.0 inches	6.0 inches	certified
	26.60 ft NAVD	Horizontal	2.6 in x 96.24 in	21.80 ft NAVD	rectangular	5.0 inches	13.0 inches	certified
	23.20 ft NAVD	25.7 inches	24.0 inches	22.00 ft NAVD	rectangular	4.0 inches	12.0 inches	certified

	BY	DATE		DATE: 12/19/2022
DESIGNED			TRADITION CDD	HORIZ. SCALE: $1'' = 800'$
CALCS.				VERT. SCALE: N/A
DRAWN				JOB No. 19-085
DETAILED			STORMWATER MASTER PLAN	19-003
CHECKED	kec		SIORMWAIER MASIER FLAN	SHEET $C1 of C2$
APPROVED		12/19/2022		





UPLAND CONSERVATION TRACTS

WETLAND TRACTS

ACCEPTED BY CDD FOR O&M



DRI DESIGNATION	ACREAGE	WETLAND	ACREAGE	ACOE PERMIT	MAINTENANCE ENTITY
CA-5	5.27 ac	W-1	3.93 ac	SAJ-2001-03272	Tradition CDD
		W-6	0.00 ac	SAJ-2001-03272 Rev 2	Tradition CDD
CA-23	22.98 ac	W-22	3.76 ac	SAJ-2001-03272	Tradition CDD
CA-23		W-22A	0.24 ac	SAJ-2001-03272	Tradition CDD
CA-23		W-23	1.64 ac	SAJ-2001-03272 Rev 2	Tradition CDD
CA-23		W-24	1.21 ac	SAJ-2001-03272	Tradition CDD
CA-23		W-24A	0.69 ac	SAJ-2001-03272	Tradition CDD
CA-24	29.90 ac	W-27	0.71 ac	SAJ-2001-03272	Tradition CDD
CA-24		W-28	0.16 ac	SAJ-2001-03272	Tradition CDD
CA-24		W-29	1.76 ac	SAJ-2001-03272	Tradition CDD
CA-24		W-30	1.46 ac	SAJ-2001-03272	Tradition CDD
CA-25	15.74 ac	W-31	5.75 ac	SAJ-2001-03272	Tradition CDD
CA-24		W-32	10.27 ac	SAJ-2001-03272	Tradition CDD
CA-14	7.08 ac	W-35	5.66 ac		Mattamy
CA-15	2.13 ac	W-40	1.56 ac	SAJ-2001-03272 Rev 2	Mattamy
CA-25		W-48	3.23 ac	SAJ-2001-03272 Rev 2	Tradition CDD
CA-6	2.67 ac	W-73			Vitalia HOA
		W-TP-1		SAJ-2004-02484	Lake Park HOA
		W-TP-2		SAJ-2004-02484	Lake Park HOA
CA-18	3.84 ac	W-TP-3		SAJ-2004-02484	Tradition CDD
CA-16	7.67 ac	W-TP-4	5.91 ac	SAJ-2004-02484	Lake Park HOA
CA-19	9.51 ac	W-TP-6	0.01 40	SAJ-2004-02484	Tradition CDD
CA-17		W-TP-7		SAJ-2004-02484	Tradition CDD
CA-17	11.64 ac	W-TP-8		SAJ-2004-02484	Tradition CDD
CA-20	21.41 ac	W-TP-12		SAJ-2004-02484	Tradition CDD
CA-20		W-TP-12A		SAJ-2004-02484	Tradition CDD
CA-20		W-TP-13		SAJ-2004-02484	Tradition CDD
CA-20		W-TP-14		SAJ-2004-02484	Tradition CDD
CA-7	11.76 ac	W-WG-18/33		SAJ-2005-04030	Taylor Morrison
CA-8	6.13 ac	W-WG-19		SAJ-2005-04030	Taylor Morrison
CA-13	0.92 ac	W-WG-21		SAJ-2005-04030	City of PSL
	0.02 00	WC-1	1.28 ac	SAJ-2001-03272	Tradition CDD
CA-26	10.00 ac	WC-3	10.00 ac	SAJ-2001-03272 Rev 2	Estates at Tradition
CA-1	2.31 ac		10.00 40		Heritage Oaks HOA
CA-2	1.09 ac				Heritage Oaks HOA
CA-3	6.53 ac				Vitalia HOA
CA-4	4.76 ac				Vitalia HOA
CA-9	3.89 ac				BD2 Holdings
CA-10	2.16 ac				City of PSL
CA-11	4.92 ac				City of PSL
CA-12	0.92 ac				City of PSL
CA-21	1.92 ac				
CA-22	7.92 ac				Victoria Parc / Tradition HOA
CA-27	40.34 ac				Mattamy

AR STE ME						
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	BY	DATE				
SIGNED						
ALCS.						
RAWN						

TRADITION	CDD
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WETLAND MAP

DATE: 12/19/2022 HORIZ. SCALE: 1" = 800 VERT. SCALE: N/A JOB No. 19-085 SHEET C2 of C2

Kelly Cranford

From:	Zrallack, Dan <dzrallack@ardaman.com></dzrallack@ardaman.com>
Sent:	Tuesday, August 13, 2019 12:27 PM
То:	Kelly Cranford
Cc:	Stef Matthes
Subject:	RE: Tradition Lake Bank Repair Options
Categories:	Email Manager: Sent to Laserfiche

Saturated sandy/silty-sandy soils at 4:1 are generally happy until they get beat up by waves. These are large lakes and wave action is obviously the culprit. I suspect the S-SW slopes are worse than others due to our prevailing NW winds. Littoral plantings with something like <u>Shoresox</u> would be perfect but obviously plantings have cost, need maintenance and may be a safety issue. Gabion baskets would work but not sure about the aesthetics and would need to compare costs.

Rip rap would work but probably not the look they want. Could consider No. 4 stone sized crushed concrete. Need something to dissipate the wave energy that won't float or erode as easy as sand/silty sand. Basically what Arcadis planned but without the geoweb. Sod won't grow well on No. 4 stone, so will need to spec some topsoil on top of the rock above the high water mark.

I would see if they are open to doing this in phases. Try a section that is bad and see if it works before proceeding with the entire area. That approach alone is a more economical option.

There are probably other options that may be cheaper than the geoweb if you want to present a few options for them to consider. Maybe present them with pros and cons for three different approaches and approx. costs for a test section of say 100 linear feet?



Dan J. Zrallack, P.E. Branch Manager

Ardaman & Associates, Inc. 561-687-8200 (WPB office) 772-878-0072 (PSL office) 772-216-7388 (cell phone) dzrallack@ardaman.com www.ardaman.com

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From: Kelly Cranford [mailto:kcranford@ct-eng.com]
Sent: Tuesday, August 13, 2019 11:41 AM
To: Zrallack, Dan <DZrallack@ardaman.com>
Cc: Stef Matthes <smatthes@ct-eng.com>
Subject: Tradition Lake Bank Repair Options

A CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hi Dan – We're having erosion issues with one of the original lakes at Tradition. It was the typical design with 4:1 side slopes to 2 feet below control and then 2:1. Fine sand/ fine silty sand is what the original geotech report indicated. There are several outfalls into the lake from adjacent basins and roadway drainage, but none of those are visible.

Below are pictures of the area from this morning and Arcadis' plan for making the repairs. We were asked to come up with more economical options. It appears that the lake bank did not hold the 2:1 slopes over the past couple of decades. Do you have an ideas? We thought about geotubes or a retaining wall but they both need to be set on something stable.

South bank of lake facing east





West bank facing north





Arcadis proposed sections and typical repair section is below. Where the erosion is not as severe, their plan is to fill and compact to a 4:1 slope and sod. I'm not positive the soils will hold a 4:1 based on the existing cross-sections.



SCALE 1" = 5'



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Kelly Cranford, P.E., Env. SP Sr. Project Manager <u>Culpepper and Terpening, Inc.</u> 2980 South 25th Street

Fort Pierce, FL 34981 Telephone 772.464.3537 Ext 222 Facsimile 772.464.9497 772.332.9520

Cell



CONSULTING ENGINEERS | LAND SURVEYORS

Summary of Lake Acceptance Conditions

Kelly Cranford 04/25/2023

Lake Name	Date Accepted by CDD	Conditions
Vitalia (fka Season's)		
Lake L11-12A	November 2013	None.
Lake L11-12B	November 2013	None.
Lake L11-12C	November 2013	None.
Lake L11-12D	November 2013 November 2019 (exp)	CDD to be additional insured for pedestrian bridge. Insurance to be renewed annually. WA 5-8-0814-R
Lake L11-12E	November 2013	None.
Lake L24A	September 2017	None.
Lake L24B	September 2017	Fee paid for step greater than 27 inches at 8 ft past EOW.
Lake L24C	September 2017	Fee paid for slope greater than criteria and step greater than 27 inches at 8 ft past EOW.
Lake L24D	September 2017	Fee paid for step greater than 27 inches at 8 ft past EOW.
Lake L24E	September 2017	Fee paid for step greater than 27 inches at 8 ft past EOW.
Lake L36A	November 2019	Fee paid for slope not meeting criteria. 150 LF.
Lake L36B	November 2019	Fee paid for slope not meeting criteria. 700 LF.
Lake L36C	November 2019	Fee paid for slope not meeting criteria. 210 LF.
Lake L36D	November 2019	Fee paid for slope not meeting criteria. 160 LF.
Heritage Oaks		
Lake L29A	August 2009	None.
Lake L29B	August 2009	None.
Lake L30A	August 2009	None.
Lake L30B	August 2009	None. Fountain installation authorized Oct. 2020 WA 19-143-113
Lake L30C	August 2009	None. Fountain installation authorized Oct. 2020 WA 19-143-113
Lake LCB4A	August 2009	None.
Lake LCB4B	August 2009	None.


CONSULTING ENGINEERS | LAND SURVEYORS

Lake Name	Date Accepted by CDD	Conditions			
Other Areas					
Lake IRR	November 2017	Fee paid for slopes steeper criteria 2014 inspection showed 3800 lf not meeting slope criteria Fee \$64k			
Lake L8A	November 2017	Fee paid for step greater than 12" @ EOW 2015			
Lake L8B	November 2017	Fee paid for slope not meeting criteria. 2015: 500 If not meeting slope critera (\$20k)			
Lake L8C	November 2017	Fee paid for slope not meeting criteria.			
Lake LA9	November 2017	Fee paid for slopes steeper criteria and step greater than 12 inches at EOW			
Lake LA11-13	November 2017	Fee paid for slopes steeper criteria and step greater than 27" eight feet past EOW.			
Lake LA12	November 2017	Fee paid for slopes steeper criteria and step greater than 12 inches at EOW			
Lake L14	November 2017	Fee paid for step greater than 12 inches at EOW and step greater than 27" eight feet past EOW.			
Lake LA15		Fee paid for step greater than 12 inches at EOW			
Lake L31A	January 2014	Allowed planting of oak trees within WMT			
Lake L32B	November 2017 (eastern portion)	None.			
Lake L36C	December 2107	None.			
Peacock Canal – east of Fairgreen	July 2018	None.			
Peacock Canal – Fairgreen to Esplanade	July 2018	None.			
Peacock Canal – Western Grove	May 2022	None.			
Bcanal	November 2017	Fee paid for step greater than 12 inches at EOW and step greater than 27" eight feet past EOW.			
Bpond	November 2017	Fee paid for slope not meeting criteria.			



CONSULTING ENGINEERS | LAND SURVEYORS

Lake Name	Date Accepted by CDD	Conditions			
The Lakes					
Lake LA1	November 2017	Fee paid for slopes steeper criteria and step greater than 12 inches at EOW and greater than 27" eight feet past EOW.			
Lake LA2	November 2017	Fee paid for slopes steeper criteria and step greater than 12 inches at EOW			
Lake LA0345	November 2017	Fee paid for slopes steeper criteria and for step greater than 12 inches at EOW			
Lake LA06	November 2017	Fee paid for slopes steeper criteria and step greater than 27" eight feet past EOW.			
Lake LA07	November 2017	Fee paid for slopes steeper criteria and step greater than 27" eight feet past EOW.			
The Estates					
Lake L14A	November 2017	Fee paid for step greater than 12" @ EOW and greater than 27" past 8 ft from EOW. 2014 slopes 150 lf (fee \$7,500)			
Lake L14B	November 2017	Fee paid for step greater than 12" @ EOW.			
Lake L22A	November 2017	None.			
Lake L22B	November 2017	Fee paid for slope greater than criteria and step at EOW greater than 12". 2014 inspection slopes need to be regraded, 530 lf (\$21,200)			
Lake L22C	September 2020	None.			
Lake L22D	November 2017	Fee paid for slope greater than criteria.			
Lake L23	September 2020	None.			



CONSULTING ENGINEERS LAND SURVEYORS							
Lake Name	Date Accepted by CDD	Conditions					
Townpark / Lakepark							
Lake M-1A	October 2020	None.					
Lake M-1B	October 2020	None.					
Lake M-2A	October 2020	None.					
Lake M-2B	October 2020	None.					
Lake M-3A	October 2020	None.					
Lake M-3B	October 2020	None.					
Lake M-4	October 2020	None.					
Lake M-5	October 2020	None.					
Lake M-6	October 2020	None.					
Lake M-7	September 2015	No slope deviations noted in 2011.					
Lake M-8	October 2020	None. Slopes acceptable per 11/30/2011 Arcadis letter.					
Lake M-9	September 2015						
Lake M-10	September 2015	No deviations noted in 2011. Culvert maintenance fee paid for easement not meeting width criteria north of lot 27.					
Lake M-11	September 2015	Slopes acceptable per 11/30/2011 Arcadis letter.					
Lake M-12	September 2015	No slope deviations noted in 2011.					
Lake M-13	September 2015	Restoration fee paid for 150 lf not meeting slope criteria. Culvert maintenance fee paid for easement not meeting width criteria between lots 9/10.					
Lake M-14	September 2015	No slope deviations noted in 2011.					
Lake M-15	September 2015	Slopes acceptable per 11/30/2011 Arcadis letter.					

Services Contract

This Contract entered into this <u>18th</u> day of <u>November</u>, 2022, is between Solitude Lake Management LLC ("Independent Contractor"), and Tradition Community Development District No. 1 ("District").

I. Duties of Independent Contractor: The Independent Contractor shall furnish the equipment and perform the labor necessary for aquatic, wetland and conservation area maintenance as described in ITB #2022-03, and more fully described in attached Exhibit A, in the Tradition Community Development District Nos. 1-10 in Port St. Lucie.

II. Term; Entire Agreement: This Contract will be for a period of 36 months, commencing on the date entered into and ending on November 30, 2025, unless terminated in writing by either party in accordance with the termination provisions of Section V hereof. This Contract may renewed annually for up to two (2) years, but may not extend beyond November 30, 2027. This Contract constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior oral or written agreements between the parties. Changes, including changes in price and cost, are ineffective unless properly authorized, signed, and delivered in writing by both parties as an addendum to this Contract.

III. Compensation: District agrees to pay Independent Contractor as compensation for the performance of the duties of the Independent Contractor under this Contract. The compensation shall be up to \$304,696.00 per year in accordance with the terms described in Exhibit A. Invoices for services will be payable within the time limits and other requirements set forth in the Florida Local Government Prompt Payment Act, Part VII of chapter 218, Florida Statutes.

IV. Basic Understanding of the Parties: The parties acknowledge and agree that the District is a local government with a specialized single purpose of providing infrastructure. All of the work of the District is subject to public records, government-in-the-sunshine and related requirements. The parties understand that because the District is a local government certain requirements and limitations apply that would not apply to a private entity. The services provided by the Independent Contractor under this Contract are rendered to the District as an independent contractor and nothing in this Contract shall create an employer/employee, partnership, joint venture, or principal/agent relationship between the parties. Independent Contractor shall not be deemed to be an agent of the District within the meaning or scope of Florida Statute §768.28(9) and shall not be deemed exempt from responsibility or liability for claims or damages resulting from the Independent Contractor's actions or failure to act under the terms and provisions of this Contract.

V. Termination: This Contract may be terminated with or without cause at any time by either party upon thirty (30) days prior written notice, delivered by first class U.S. mail or electronic mail transmission to the address of the other party as set forth in the signature blocks below, in which event all unaccrued rights, duties and obligations of the parties hereto shall terminate forthwith.

VI. Other Related Provisions and Requirements:

- (a) <u>Work Standard</u>. Work shall be performed professionally in accordance with generally accepted standards of the trade or business.
- (b) Insurance. Independent Contractor shall provide certificate(s) of the following contractually required insurance coverages and policies to be maintained in full force and effect by the Independent Contractor in the coverage amounts set forth above, throughout the term of this Contract, and including any extensions thereof. All such policies and certificates shall also contain a waiver of subrogation in favor of the District and the District Manager and shall also name the District and the District Manager, including affiliates, officers, employees, agents and volunteers, as additional insureds under such insurance policies on a primary and non-contributory coverage basis, under the following required coverages: (1) commercial general liability insurance with minimum coverage limits applicable to bodily injury (and property damage) in the coverage limit of at least \$1,000,000 per person and \$2,000,000 per occurrence together with an excess umbrella liability policy in the coverage limits of at least \$5,000,000, excess over required underlying coverages. Such insurance policies shall also provide an endorsement deleting any policy coverage exclusion relating to the "insured's work" or similar exclusion purporting to exclude bodily injury or property damage arising out of the work or services to be performed by Independent Contractor hereunder; (2) auto liability insurance coverage (minimum coverage amount of \$1,000,000 Any Auto; Symbol 1), together with an excess umbrella liability policy in the coverage limit of at least \$5,000,000, excess over required underlying coverage; (3) workers compensation and employers' liability insurance coverage for all employees and subcontractors of the Independent Contractor as follows: (i) coverage A workers compensation statutory benefits; (ii) Employers' Liability (Coverage B) - \$500,000 coverage limit for each accident.
- (c) <u>Reimbursement for Negligent Property Damage</u>. In addition to the insurance requirements of this Agreement, Independent Contractor shall reimburse the District for damages by Independent Contractor to any and all personal and/or real property due to negligence of the Independent Contractor.
- (d) <u>Time of the Essence</u>. The Independent Contractor recognizes that time is of the essence due to the specialized single purpose of the District.
- (e) <u>Disputes; Interpretation; Opportunity to Consult Counsel; Venue</u>. Any controversies arising under this Contract that cannot be resolved by the parties shall be subject either to mediation and if mediation fails then legal action may be instituted and any prevailing party shall be entitled to be reimbursed for all court costs and reasonable attorneys' fees incident to such legal action. All interpretations of this Contract shall be governed by the laws of the State of

Florida. Each party has had ample opportunity to seek the advice of legal counsel prior to entering this Contract, which shall not be construed against the party responsible for drafting the instrument. In the event it is necessary for either party to initiate legal action regarding this Contract, venue shall be in the Nineteenth Judicial Circuit, in and for St. Lucie County, Florida, for claims under state law, and in the Southern District of Florida for claims justiciable in federal court.

- (f) <u>Alternate Services if Breach</u>. If the Independent Contractor ceases work or otherwise breaches this Contract the District has the authority without penalty direct or indirect to contract for the relevant services to be performed by other independent contractors given the nature and specialized single purpose of the District that infrastructure be constructed, acquired and maintained timely at sustained levels of quality over the long term.
- Indemnification. In addition to the insurance requirements of subsection (b) (g) above, Independent Contractor also agrees forever to indemnify, defend and hold harmless the District, Special District Services, Inc., and their respective officers, employees, and agents of and from all losses, liabilities, damages, claims, actions, legal proceedings, settlements, judgments, recoveries, costs, and expenses because of or resulting from loss of, or damage to, property, or injury to or deaths of persons in any way arising out of or in connection with the performance of this Contract and attributable to the negligence or other wrongful conduct of the Independent Contractor or its employees, agents, or subcontractors, including but not limited to any loss or action resulting from the failure of the Independent Contractor to comply with the its obligations under this Contract. The Independent Contractor shall also cause the above indemnification obligations to be confirmed, by insurance policy endorsement, as liabilities and obligations of the Independent Contractor which are covered as insured obligations under the insurance coverage requirements set forth in subsection (b) above.
- (h) <u>Severability.</u> The terms of this Contract shall be severable such that, if any term is determined to be illegal, invalid, or unenforceable, such holding shall not affect the viability of any of the other provisions of the Contract, unless the severing of such item would defeat the purpose of this Contract.
- (i) <u>Waiver</u>. No delay or failure on the part of any party in exercising any right, power, or privilege under this Contract shall impair any such right, power, or privilege or be construed as a waiver or acquiescence; nor shall any single or partial exercise of any right, power, or privilege preclude any other or further exercise thereof or the exercise of any other right, power, or privilege. No waiver shall be valid against any party unless made in writing and signed by the party against whom enforcement of the waiver is sought and then only to the extent expressly specified in such writing.

- (j) Sovereign Immunity. Notwithstanding any other term, condition or provision of this Contract to the contrary, the District, and also including the District Manager, and its employees, who are agreed to be acting as statutory agents of the District, pursuant to Florida Statute §768.28(9) and who intends to avail themselves, whether individually or collectively, of the benefits of Section 768.28, Florida Statutes, and of other statutes and common law governing sovereign immunity. In no event will the District's liability exceed the monetary limits set forth in Section 768.28, Florida Statutes. Nothing in this Contract (1) is intended to inure to the benefit of any third party, other than, and with the specific exception of the District Manager, and its employees, all of whom are confirmed to be statutory agents of the District and who are specifically and affirmatively intended as beneficiaries of this Agreement and of the sovereign immunity provisions of Florida Statute Section 768.28(9), for the purpose of allowing any claim that would otherwise be barred under the doctrine of sovereign immunity or by operation of law or (2) shall be construed as consent by an agency or political subdivision of the State of Florida, or by its District Manager, to be sued by third parties in any manner arising out of any contract, and including any claim or cause of action for damages to the extent that such matters are included within the sovereign immunity provisions of §768.28, Florida Statutes and, specifically including, but not limited to §768.28(9), Florida Statutes.
- (k) <u>Execution; Successors and Assigns</u>. This Contract may be executed in counterparts (including by facsimile or other electronic imaging), any one of which shall be deemed an original and all of which collectively shall be deemed a single instrument. This Contract shall be binding upon and inure to the benefit of the parties and their respective officers, directors, agents, employees, administrators, trustees, executors, receivers, successors, assignees and legal representatives, whether or not a signatory to this Contract.
- (1) <u>Verification of Employment Status</u>. The Independent Contractor shall bear full responsibility for verifying the employment status, under the Immigration Reform and Control Act of 1986, of all persons the Independent Contractor employs in the performance of this Contract. In furtherance of this requirement, the Independent Contractor shall (1) register with and use the United States Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Independent Contractor during the term of this Contract, and (2) if the Independent Contractor enters into an agreement with a subcontractor during the term of this Contract or an affidavit stating that the subcontractor does no employ, contract with, or subcontract with an "unauthorized alien," as that term is defined in Section 448.095(1)(k), Florida Statutes, and (ii) maintain a copy of such affidavit for the duration of this Contract.
- (m) <u>Public Records.</u> The Independent Contractor shall allow public access to all documents, papers, letters, or other material subject to the provisions of

Florida's Public Records Law, Chapter 119, Florida Statutes, and made or received by the Independent Contractor in conjunction with this Contract. The Independent Contractor acknowledges that the designated public records custodian for the District is Special District Services, Inc.

PUBLIC RECORDS NOTICE: IF THE INDEPENDENT CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS FOR THE DISTRICT, SPECIAL DISTRICT SERVICES, INC., AT 772-345-5119, 10807 SW TRADITION SQUARE, PORT ST. LUCIE, FLORIDA 34987.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

Tradition Community Development District No. 1

c/o Special District Services, Inc. 10807 SW Tradition Square Port St. Lucie, FL 34987 Phone: (772) 453-0975 bsakuma@sdsinc.org

*By: <u>B. Frank Sakuma, Yr.</u>

Title: District Manager

Date: 11/18/2022

* As approved by the Tradition Community Development District No. 1 at their publicly noticed meeting of 11/2/2022.

Solitude Lake Management LLC

1320 Brookwood Drive, Suite H Little Rock, AR 72202 Tel: (888) 480-5253 Fax: (888) 358-0088 todd.barhydt@solitudelake.com

By: Trina L. Duncan

Title: Business Manager

Date: 11/18/2022

EXHIBIT A

SCOPE OF SERVICES

Tradition Aquatic, Wetland, and Conservation Area Management Services

A. General:

Tradition Community Development District (CDD) is responsible for managing invasive and nuisance vegetation and maintaining lakes, canals, wetlands, conservation areas, perimeter fencing, and other assets within the CDD stormwater management system. The designated facilities are to be maintained to provide the designed flood protection, water quality, and public use consistent with federal, state, and local approvals. This work will include herbicidal and mechanical control and removal within the designated areas. Access for maintaining the assets be by both boat and land.

The objectives of the contracted work are to provide nuisance and invasive exotic control in a manner consistent with industry standards and the existing federal and state permits. This includes removal of any Florida Invasive Species Council (FISC) Category I or II invasive vegetation, exception of Bermuda and Bahia grasses, within the designated areas as well as vegetation deemed problematic for flood control. Occasionally, the CDD may request the Contractor to assist in cleanup efforts following manmade or natural disasters, fish kills, downed vegetation, illegal dumping, or similar incident.

The Contractor shall furnish all supervision, management and labor personnel, equipment, and materials as necessary to treatment 100% of the project area and achieve 95% kill rate of nuisance plants within 30 days of treatment. Additional sites and/or work will be added to the scope during the term of the agreement.

Prior to commencing work, Contractor shall furnish a plan for accomplishing the working including a list of chemicals, equipment, and personnel (with applicable licenses) to the CDD for approval. The list of chemicals shall include all pesticides and adjuvants intended for use along with the manufacturer labels and Safety Data Sheets.

Some of the adjacent property is covered by an active grazing lease. Movement of heavy equipment through the adjacent site and relocation or temporary removal of existing agricultural fences will need to be coordinated with the lease holder.

The goods and/or services listed in this bid are for the purposes of price comparison and are not intended to be all inclusive. The CDD may add goods and/or services at any time during the term of this Agreement at a cost to be agreed upon by the Contractor and CDD.

B. Initial Site Conditions

Prior to submitting a bid, bidders shall personally examine all sites and fully acquaint themselves with all existing conditions. The bidder shall determine, by site investigation, any work not specifically called for, but necessary, to satisfactorily meet the level of service described herein. Failure of the bidder to acquaint itself with any applicable conditions shall not relieve the Contractor, once awarded, from any of its responsibilities to perform under the contract documents, nor shall it be considered for the basis for any claim for additional compensation.

Location maps of existing CDD maintenance areas and anticipated additions are included in Appendix A. Acreages for each area are included in the bid form.

Copies of the latest federal and state permits are included in Appendix B and C. These are provided for reference regarding maintenance requirements. The listed mitigation and construction activities will be completed prior to the CDD assuming operation and maintenance responsibility and including those areas within this Contract.

C. Open Water, Canal, Ditch Maintenance

- The work will consist of furnishing all labor, supervision, equipment, tools, materials, services and all other necessary incidentals required to perform completed aquatic vegetation maintenance of lakes, ponds, ditches, and canals. 100% of the treatment area should be covered during each cycle and a kill rate of 95% or greater for targets and shall be achieved within 30 days of treatment.
- 2. See Appendix A for map of currently maintained lakes. Initial maintenance area includes 65 lakes totaling 364.2 acres and 203,411 linear feet. Other lakes shown in blue are anticipated to be accepted by the CDD in FY 22/23 and added to this contract scope.
- See Appendix A for map of currently maintained canals. Initial quarterly maintenance of Peacock Canal totals 47.4 acres and 50,376 linear feet. Monthly maintenance of the Borrow Canal (Lake BCanal) totals 38.2 acres and 2,590 linear feet of bank.
- 4. An Aquatic Specialist will visit the site and inspect the lakes a minimum of 5 times per month. The Peacock Canal will be visited on a quarterly basis. The Borrow Canal (Lake BCanal) will be visited on a monthly basis.
 - a. Any growth of undesirable aquatic weeds and vegetation found in the lake(s) with each inspection shall be treated and controlled through the application of aquatic herbicides and aquatic surfactants as required to control the specific varieties of aquatic weeds and vegetation found in the lake(s) and canal(s)at the time of application.
 - b. Invasive and unwanted submersed and floating vegetation will be treated and controlled preventatively and curatively each spring and early summer through the use of systemic herbicides at the rate appropriate for control of the target species. Application rates will be designed to allow for

selective control of unwanted species while allowing for desirable species of submersed and emergent wetland plants to prosper.

- c. Any growth of cattails, phragmites, or other unwanted shoreline vegetation found within the lake areas shall be treated and controlled through the application of aquatic herbicides and aquatic surfactants as required for control of the plants present at time of application.
- d. Any growth of unwanted plants or weeds growing in areas where stone has been installed for bank stabilization and erosion control shall be treated and controlled through the application of aquatic herbicides and aquatic surfactants as required to control the unwanted growth present at the time of application.
- e. Littoral areas will be inspected and treated on an as-needed basis to maintain compliance with governing agencies for the management of all nuisance and exotic species.
- f. Maintenance of future littoral plantings may necessitate an increased service level at an additional cost.
- g. All species will be killed in place with an approved herbicide.
- h. Any algae found in the lake(s) with each inspection shall be treated and controlled through the application of algaecides, aquatic herbicides, and aquatic surfactants as needed for control of the algae present at the time of service.
- i. For lakes and canal adjacent to preserve areas, upland buffer vegetation will be selectively treated as required to limit any growth of unwanted vegetation and to maintain the beneficial native aquatic and upland vegetation found within the buffer areas along the edge of the lake. This service is provided in order to maintain the lake buffers in a natural, yet desirable appearance. Buffer vegetation height and density will be encouraged to help prevent nuisance geese and other wildlife from utilizing the lake, as well as providing the necessary erosion control and reduction of nutrients necessary for the overall health and sustainability of the lake.
- j. Trash and light debris will be removed from the lake(s) with each service and disposed of off-site. Any large item or debris that is not easily and reasonably removable by one person during the routine visit will be removed with the CDD's approval for an additional fee. Routine trash and debris removal services are for the lake areas only, and do not include any trash or debris removal from the surrounding terrestrial (dry land) areas.
- 5. A visual inspection of the lake(s) will be performed during each visit to the site. The inspections shall include the following:
 - a. Water levels
 - b. Water clarity or quality
 - c. Turbidity
 - d. Beneficial Aquatic Vegetation
 - e. Nuisance, Invasive, or Exotic Aquatic Vegetation
 - f. Algae

- g. Physical components such as above ground pipes, inlet and outlet structures, trash racks, emergency spillways, and dams
- h. Erosion
- i. Issues with shoreline and bank stabilization measures such as rip rap stone, bulkheads, retaining walls, etc.
- j. Forebays and inflowing or outflowing swales, ditches, and stream channels
- k. Vegetated buffers
- I. Sedimentation
- m. Nuisance animal activity
- n. Fish habitat
- o. Trash and debris
- 6. The Contractor shall perform maintenance to control all invasive and nuisance species identified by the CDD. Nuisance vegetation includes, but is not limited to, water lettuce, water hyacinth, torpedo grass, primrose, cattail, and hydrilla. The CDD will specify where submerged vegetation requires treatment.
- 7. If there is visual evidence of an algal bloom in one of the maintenance areas, the Contractor shall immediately notify the CDD and note in the report what type of treatment was applied. The CDD, at its discretion, may have the water tested for algal species and cyanotoxins. Depending upon the nature and the characteristic of the bloom, the CDD may authorize raking of algae mat.
- 8. A five-foot buffer shall be kept around weirs, outfalls, inlets, pipes, drains, and other structures, with the overall goal of preventing any vegetation, including desirable plants, or debris from potentially clogging these structures. Where practicable, the Contractor may transplant desirable plants within this buffer to an appropriate location within the same site. This item shall be billed as hourly work with prior approval from the CDD.
- 9. At the beginning of each cycle, the Contractor shall remove all litter within the work areas. Removal and disposal of such items shall be the responsibility of the Contractor.
- 10. Weirs, outfalls, inlets, pipes, drains, and other structures will be inspected and freed of debris during each service visit. This does not include the removal of sediment build up in these structures. The Contractor shall notify the CDD's authorized representative of any sedimentation in structures.
- 11. The Contractor shall document any bank erosion along the canals or lakes and notify the CDD when observed.
- 12. The Contractor is responsible for protecting non-targeted species. The Contractor shall be responsible for replacement of damages to non-targeted species caused by work activities.

- 13. The Contractor shall be responsible for protecting the environment and the public from pesticide misuse. The Contractor shall be solely responsible for all fines, damages, or clean up associated with pesticide misuse. Pesticide misuse may result in termination of this contract.
- 13. Any issues or deficiencies that are observed during this visual monitoring will be documented by our staff in the field notes of the service order completed at the time the issue was first observed and reported to the Customer in writing as part of that month's service report.
- 14. Customers will be notified immediately if there are any deficiencies observed that appear in the judgment of our staff to be posing an immediate risk or otherwise jeopardizing the integrity of the lake(s) structures.
- 15. The scope of these services is limited to what can be reasonably observed at the surface of the water and above the ground around the water that makes up the physical structure of the lake(s). These routine inspection services are not intended to replace any requirement or need for a more comprehensive engineered inspection, or any other type of inspection that would require expertise or equipment to survey the condition of the physical components of the lake(s) underground, underwater, or inside any of the associated structures.
- D. Wetland, Upland, Swales, Detention Areas, and Natural Area

Maintenance

- 1. The work will consist of furnishing all labor, supervision, equipment, tools, materials, services, and all other necessary incidentals required to maintain nuisance and invasive vegetation from CDD designated wetland and upland areas.
- 2. The Contractor shall perform maintenance to control all targeted invasive and undesirable plants to below 5% of any 100 square foot section of assigned area, and shall achieve these levels of control, or greater, at the end of each treatment cycle, unless otherwise approved by the CDD. Reference the latest version of the FISC List of Invasive Plant Species for a complete list of invasive plants. The CDD reserves the right to list additional plants as undesirable.
- 3. An Aquatic Specialist will visit the site and inspect the wetlands and preserve areas a minimum of 5 times per month. See Appendix A for map of currently maintained wetlands and conservation areas. Wetlands, including CA-21 and W410, are anticipated to be accepted by the CDD in FY 22/23 and added to this contract scope.
- 4. The Contractor has full responsibility for accurately treating/maintaining all required areas within the sites. Areas not treated/maintained as a result of faulty equipment, inclement weather, or missed applications will require corrective treatment/maintenance at the Contractor's expense.

- 5. Unless otherwise directed by CDD staff all vegetative material can be left in place. Precautions shall be taken with plants such as pepper trees, melaleuca & schefflera to prevent the seed source from propagating any further.
- 6. The CDD reserves the right to establish supervision to laborer ratios when authorizing invasive plant control.

E. CHEMICAL USE

- 1. Pesticide applications shall be made in compliance with the product label.
- 2. Pesticide use shall be in conformance with all local, state, and federal rules and regulations.
- 3. The Contractor shall own or have direct access to the appropriate equipment for pesticide applications on both terrestrial and aquatic sites. The equipment utilized shall be in good working order and well maintained.
- 4. All pesticide application shall be carried out in a manner consistent with Environmental Protection Agency (EPA) and Special Local Need 24(c) (SLN) pesticide labels. Crews shall have access to all appropriate labels and Safety Data sheets (SDS) while transporting, mixing, or applying pesticides. The Contractor shall comply with all pertinent regulations set forth by Florida Department of Agriculture and Consumer Services (FDACS). The Contractor must be able to provide sufficient pesticides and adjuvants necessary to complete all contracted obligations within project boundaries. Pesticides must be safely and securely stored by the Contractor at all times.
- 5. Contractor shall monitor and record wind speed and direction when preparing to or applying pesticides. The Contractor shall follow the most restrictive wind law or policy when there are conflicting thresholds between laws/policies. Pesticide application shall not occur when wind speeds are greater than 10 miles per hour (mph) without CDD approval. The Contractor shall take all precautions to mitigate pesticide drift.
- 6. The Contractor shall monitor dissolved oxygen (DO) when required by the product label and shall follow all label instructions related to DO. The Contractor shall not apply pesticides if DO is below three parts per million (3 PPM), unless approved by CDD staff and allowed by the pesticide label. h) The Contractor shall post the use of pesticide when required by the label and/or when required by the CDD.
- 7. If the CDD suspects the Contractor is misusing pesticides, the CDD shall request FDACS Bureau of Licensing and Enforcement to investigate. j) The Contractor shall notify the CDD immediately if a fish kill occurs at any of the maintained areas under this contract. The Contractor shall notify the CDD of the site location, number of fish killed, any pesticide products utilized in the

past 14 days, dissolved oxygen content of the water column at every foot of depth, and any other pertinent observations. The Contractor shall also document pre-clean up and post-clean up conditions of the site through photographs. Within twenty-four hours of the initial report to the CDD, the Contractor shall be responsible for cleaning up the fish kill. It is the Contractor's responsibility to coordinate with the appropriate transfer station and meet mandated requirements for disposal. Fish kill clean up shall be billed utilizing the hourly work rates plus associated disposal costs as determined by load tickets.

- 8. The CDD reserves the right to restrict or prohibit use of any chemical, pesticide, or application method(s) during the term of this contract. Should the prohibition of a chemical, pesticide, or application method result in a cost increase for the Contractor, the Contractor shall notify the CDD in writing of the projected cost increase along with a justification for the amount which will then be evaluated for approval by the CDD and incorporated in the contract as an amendment if agreed to by the parties.
- 9. The following chemical(s), pesticide(s), and application method(s) are currently prohibited for use on CDD owned property: glyphosate. The following chemical(s), pesticides, and application method(s) are prohibited on CDD aquatic sites: copper. For all maintenance areas under the scope of this contract, glyphosate use is prohibited and the use of copper on aquatic sites is prohibited.

F. EQUIPMENT

- 1. Equipment shall not be left onsite unless arranged in advance with the CDD's appointed representative.
- 2. The CDD is not responsible for equipment or pesticides stored on CDD property.
- 3. In the event of anticipated severe weather all equipment must be removed from CDD property.
- 4. The Contractor shall clean equipment of all plant material prior to arrival at the worksite. If equipment arrives at the site and is not properly sanitized it shall be denied access. If sites have a variety of infestations the Contractor may be required to clean equipment prior to continuing work. A general reference can be found at:

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5374537.pdf

5. The Contractor is expected to maintain site access control and to close and lock the gates to reduce the potential for unauthorized access.

6. The Contractor shall be responsible for repairing any ruts caused by their equipment and trucks at no additional costs to the CDD.

G. QUANTITIES & HOURLY WORK

- 1. The quantities listed on the bid form were calculated from aerial photos or asbuilts and are presumed to be accurate. The CDD reserves the right to increase, decrease, and/or modify the maintenance services and units for each site during the term of this agreement. The CDD does not guarantee a minimum or maximum volume of work to be assigned during the period specified.
- 2. Additional work may be required on an hourly basis as determined by the CDD. The hourly labor rate shall include all equipment normally utilized in the maintenance of stormwater facilities. For hourly work, the Contractor shall submit a proposal including labor, by work type, materials, and specialty equipment costs. Specialty equipment shall include any equipment that is not routinely utilized for the maintenance of these sites.
- 3. The CDD may request mechanical removal of floating vegetation. This service shall be billed at the Hourly Work (Machine Operator) rate.
- 4. Billable hours shall only include hours worked on the worksite and shall not include travel time.

H. MANAGEMENT & CONTRACTOR EMPLOYEES

- 1. The Contractor is expected to have the necessary experts on staff to be able to properly manage the designated areas. The Contractor is required to schedule all maintenance activities to meet the prescribed level of service described herein.
- 2. A written management plan for the work proposed is required to be submitted with the bid. The management plan should include at a minimum, how the Contractor intends to inspect for quality of maintenance work, as well as the predominant equipment, and chemicals that are intended to be used under the contract.
- 3. The employees of the Contractor and its subcontractors shall be properly uniformed with identification of the Contractor's name. The Contractor's employees shall be, courteous, sober, and competent to perform assigned work. The CDD shall require the Contractor to remove any employee it deems careless, incompetent, insubordinate, or otherwise objectionable and whose continued service involvement is not in the best interest of the CDD.
- 4. The Contractor's employees shall be experienced in the work assigned. The Contractor shall also maintain project management staff with experience in managing natural areas, aquatic vegetation maintenance, plant diseases, available remedies, pesticide applications, protected species identification and associated mitigation measures.

- 5. When performing work in CDD areas, the Contractor shall have at minimum four (4) licensed applicators (or more when required by pertinent laws, rules, and regulations) holding a valid Page 13 of 33 RFB2022-3447 Nuisance Vegetation Management pesticide applicator license issued by FDACS in the appropriate categories (e.g. Aquatics, Natural Areas, Rights of Way). Contractor must provide notification to CDD when the number of applicators falls below the minimum required by the contract.
- I. MEETINGS, SITE INSPECTIONS, & COMMUNICATIONS
 - 1. The Contractor shall designate the appropriate staff to attend meetings that are scheduled by the CDD. There shall be no additional charge for attendance at these meetings.
 - 2. The Contractor shall provide a Project Manager to conduct on-site inspections with the CDD's representative. These on-site inspections shall take place on a quarterly basis. More frequent on-site inspection may be required by the CDD to verify satisfactory completion of contract requirements.
 - 3. The Contractor shall respond to any telephone call or correspondence from the CDD within two (2) business days.

J. REPORT SHEETS AND WORK SCHEDULING

- 1. The Contractor shall complete the "maintenance report sheets" provided by the CDD on a monthly basis. Maintenance report sheets are found in Exhibit B. The report shall be signed and submitted monthly to the CDD's appointed representative for review and approval. The monthly invoices will not be processed until all required monthly reports are approved by the CDD. In addition, the Contractor shall track all chemical usage throughout the year using an acceptable form, report, or fill sheet to be agreed upon by the CDD.
- 2. A monthly schedule shall be submitted to the CDD one (1) week prior to the start of each month and shall be e-mailed to the appropriate CDD staff. The schedule shall include service locations, dates, and cycle number with a short description of the work being performed. Changes to the schedule shall be communicated to the CDD immediately as they occur.
- 3. The work scheduled for each location shall be completed within one visit for the specified cycle. If necessary one consecutive day visit may follow. The bidder shall provide in the bid the estimated number of on-site man-hours per week the Contractor will be providing to satisfactorily perform the requirements of this contract.

K. TRAFFIC CONTROL

1. The Contractor shall be responsible for traffic control during operations performed by the Contractor's personnel and/or Subcontractors. The Contractor shall furnish, erect, and maintain all necessary traffic control and safety devices.

Traffic control shall be in conformance with the Federal Highway Administration, Manual on Uniform Traffic Control Devices, latest edition and the Florida Department of Transportation Roadway and Traffic Design Standards, latest edition. The foregoing requirements are to be considered as minimum and the Contractor's compliance shall in no way relieve the Contractor of final responsibility for providing adequate traffic control devices for the protection of its employees and the public throughout the work areas. Cost associated with maintenance of traffic shall be included in all pay items.

2. The Contractor shall not be permitted to isolate residences or places of business

L. MISCELLANEOUS

- 1. The Contractor shall remain abreast of alternative and emerging technologies and make recommendations for implementation where appropriate.
- The Contractor shall perform visual inspections of vegetation for disease and/or pest infestation during each maintenance cycle. The Contractor shall immediately notify the CDD should a disease or pest infestation be found. Should the CDD desire to treat for disease or pest infestation, the Contractor shall provide a proposal for the additional work.
- It shall be the Contractor's responsibility to notify the CDD of any maintenance problems or additional maintenance needs, such as fallen trees or broken fences. Failure to properly notify the CDD constitutes inaction as described in this contract.
- 4. The Contractor shall have designated points of contact for communication with the CDD during normal business hours as well as for off hours emergencies. The email address and cell phone number for designated points of contacts shall be shared upon contract award and updated as needed.
- 5. The CDD may request additional work under the scope of this contract to be agreed upon by both parties. The Contractor shall provide a quote for additional services within 10 business days of receiving the request by the CDD
- 6. All work shall be performed Monday through Saturday from sunrise to sunset unless agreed upon by the CDD.
- 7. The Contactor is responsible for following the Underground Facility Damage Prevention and Safety Act, Chapter 556, Florida Statutes for all digging/excavation performed by the Contractor and or Subcontractors.

			Lake and Canal	Tradition CDD	nance Bid Tab			
				Acres of Water		LF of Lake		
Item #	DRI	Description	Status	Surface	Unit Price	Bank	Unit Price	A
A-1	Tradition	LA1	Maintained by CDD	14.13 ac		7,704 lf	0.57	\$4,3
A-2	Tradition	LA2	Maintained by CDD	3.82 ac		2,624 lf	0.57	\$1,4
A-3	Tradition	LA06	Maintained by CDD	14.97 ac		9,603 lf	0.57	\$5,4
A-4	Tradition	LA07	Maintained by CDD	1.20 ac		1,175 lf	0.57	\$6
A-5	Tradition	LA11/13	Maintained by CDD	3.72 ac		2,966 lf	0.57	\$1,6
A-6	Tradition	LA12	Maintained by CDD	29.79 ac		7,350 lf	0.57	\$4,1
A-7	Tradition	LA14	Maintained by CDD	5.81 ac		4,264 lf	0.57	\$2,4
A-8	Tradition	LA14A	Maintained by CDD	13.65 ac		5,258 lf	0.57	\$2,9
A-9 A-10	Tradition Tradition	LA14B LA15	Maintained by CDD Maintained by CDD	2.71 ac 3.72 ac		1,909 lf 625 lf	0.57	<u>\$1,0</u> \$3
A-10 A-11	Tradition	LCB4A	Maintained by CDD Maintained by CDD	2.33 ac		2,059 lf	0.57	ې (\$1,
A-12	Tradition	LCB4B	Maintained by CDD	2.33 ac		1.670 lf	0.57	بر م ارد \$9
A-12 A-13	Tradition		deMaintained by CDD	0.44 ac		585 lf	0.57	<u> </u>
A-14	Tradition	Bcanal	Maintained by CDD	38.15 ac		2,590 lf	0.57	φ. \$1,4
A-15	Tradition	Bpond	Maintained by CDD	3.10 ac		330 lf	0.57	بر پر 1,4 \$1
A-16	Tradition	IRR	Maintained by CDD	4.80 ac		2,697 lf	0.57	<u>پ</u> \$1,9
A-17	Tradition	LA0345	Maintained by CDD	16.94 ac		17,243 lf	0.57	\$9,8
A-18	Tradition	L11-12A	Maintained by CDD	6.73 ac		3,893 lf	0.57	\$2,2
A-19	Tradition	L11-12B	Maintained by CDD	2.59 ac		2,267 lf	0.57	\$1,2
A-20	Tradition	L11-12C	Maintained by CDD	8.28 ac		4,391 lf	0.57	\$2,5
A-21	Tradition	L11-12D	Maintained by CDD	24.35 ac		10,694 lf	0.57	\$6,0
A-22	Tradition	L11-12E	Maintained by CDD	2.98 ac		2,230 lf	0.57	\$1,2
A-23	Tradition	L8A	Maintained by CDD	11.91 ac		5,925 lf	0.57	\$3,3
A-24	Tradition	L8B	Maintained by CDD	2.94 ac		1,618 lf	0.57	\$9
A-25	Tradition	L8C	Maintained by CDD	1.25 ac		1,530 lf	0.57	\$8
A-26	Tradition	LA9	Maintained by CDD	8.62 ac		1,100 lf	0.57	\$6
A-27	Tradition	L22A	Maintained by CDD	1.30 ac		1,412 lf	0.57	\$8
A-28	Tradition	L22B	Maintained by CDD	5.12 ac		3,734 lf	0.57	\$2,1
A-29 A-30	Tradition Tradition	L22C L22D	Maintained by CDD Maintained by CDD	2.14 ac 10.00 ac		1,200 lf 1,997 lf	0.57	\$6
A-30 A-31	Tradition	L22D	Maintained by CDD	15.78 ac		1,997 II 1.664 If	0.57	<u>\$1,1</u> \$9
A-31 A-32	Tradition	L23	Maintained by CDD	2.80 ac		6,338 lf	0.57	هد \$3,6
A-33	Tradition	L24B	Maintained by CDD	4.41 ac		4,450 lf	0.57	\$3,0 \$2,5
A-34	Tradition	L24C	Maintained by CDD	3.32 ac		1,520 lf	0.57	<u>ψ2,</u> \$8
A-35	Tradition	L24D	Maintained by CDD	4.32 ac		2,054 lf	0.57	\$1,1
A-36	Tradition	L24E	Maintained by CDD	4.66 ac		2,561 lf	0.57	\$1,4
A-37	Tradition	L29A	Maintained by CDD	4.66 ac		2,489 lf	0.57	\$1,4
A-38	Tradition	L29B	Maintained by CDD	2.35 ac		3,005 lf	0.57	\$1,7
A-39	Tradition	L30A	Maintained by CDD	7.62 ac		2,084 lf	0.57	\$1, ⁻
A-40	Tradition	L30B	Maintained by CDD	2.79 ac		1,566 lf	0.57	\$2,0
A-41	Tradition	L30C	Maintained by CDD	2.79 ac		2,900 lf	0.57	\$1,6
A-42	Tradition	L31	Maintained by CDD	2.47 ac		1,731 lf	0.57	\$9
A-44	Tradition	L32B	Maintained by CDD	3.86 ac		1,256 lf	0.57	\$7
A-45	Tradition	L32C	Maintained by CDD	0.80 ac		2,333 lf	0.57	\$1,3
A-64 A-65	Tradition	L36A L36B	Maintained by CDD Maintained by CDD	2.88 ac 3.69 ac		1,906 lf	0.57	\$1,0
A-65 A-66	Tradition Tradition	L36C	Maintained by CDD Maintained by CDD	3.69 ac 4.46 ac		1,922 lf 2,803 lf	0.57	\$1,0
A-66 A-67	Tradition	L36D	Maintained by CDD Maintained by CDD	4.46 ac 1.47 ac		2,803 lf 2,254 lf	0.57	\$1,5
A-67 A-68	Tradition	M-1A	Maintained by CDD Maintained by CDD	4.34 ac		2,254 II 2,906 lf	0.57	<u>\$1,2</u> \$1,6
A-69	Tradition	M-18	Maintained by CDD	7.42 ac		2,500 lf	0.57	<u>\$1,0</u> \$1,4
A-03 A-70	Tradition	M-1B M-2A	Maintained by CDD	1.97 ac		2,051 lf	0.57	، ۱ پر \$1,1
A-71	Tradition	M-2B	Maintained by CDD	4.01 ac		2,467 lf	0.57	<u>پر پر</u> \$1,4
A-72	Tradition	M-3A	Maintained by CDD	5.98 ac		1,220 lf	0.57	\$6
A-73	Tradition	M-3B	Maintained by CDD	2.53 ac		2,435 lf	0.57	بر \$1,3
A-74	Tradition	M-4	Maintained by CDD	7.08 ac		2,198 lf	0.57	\$1,2
A-75	Tradition	M-5	Maintained by CDD	4.22 ac		1,489 lf	0.57	\$8
A-76	Tradition	M-6	Maintained by CDD	5.28 ac		3,752 lf	0.57	\$2,7
A-77	Tradition	M-7	Maintained by CDD	7.36 ac		2,734 lf	0.57	\$1,5
A-78	Tradition	M-8	Maintained by CDD	2.95 ac		2,762 lf	0.57	\$1,
A-79	Tradition	M-9	Maintained by CDD	3.36 ac		5,128 lf	0.57	\$2,9
A-80	Tradition	M-10	Maintained by CDD	4.17 ac		1,516 lf	0.57	\$8
A-81	Tradition	M-11	Maintained by CDD	7.06 ac		3,081 lf	0.57	\$1,7
A-82	Tradition	M-12	Maintained by CDD	3.54 ac		2,642 lf	0.57	\$1,5
A-83	Tradition	M-13	Maintained by CDD	3.87 ac		4,976 lf	0.57	\$2,8
A-84	Tradition	M-14	Maintained by CDD	1.23 ac		1,768 lf	0.57	\$1,0
A-85	Tradition	M-15	Maintained by CDD	1.26 ac		2,897 lf	0.57	\$1,6
A-148	Both	Peacock	Maintained by CDD	47.40 ac		50,376 lf	0.50	\$25,1

Bid For...

	Tradition CDD Wetland Annual Maintenance Bid Tab								
ltem #	DRI	Description	Status	Acres of Wetland	Unit Price	Conservation Area (excluding wetland)	Unit Price	Amount	
B-1	Tradition	W-1	Maintained by CDD	3.93 ac	1.039	4.03 ac		\$8,270.00	
B-4	Tradition	W-22	Maintained by CDD	3.76 ac	1.039	19.22 ac	1.000	\$23,876.00	
B-5	Tradition	W-22A	Maintained by CDD	0.24 ac	1.039	TOILE GO	1.000	\$249.00	
B-6	Tradition	W-23	Maintained by CDD	1.64 ac	1.039			\$1,704.00	
B-7	Tradition	W-24	Maintained by CDD	1.21 ac	1.039			\$1,257.00	
B-8	Tradition	W-24A	Maintained by CDD	0.69 ac	1.039			\$717.00	
B-9	Tradition	W-27	Maintained by CDD	0.71 ac	1.039	29.19 ac	1.039	\$31,066.00	
B-10	Tradition	W-28	Maintained by CDD	0.16 ac	1.039			\$166.00	
B-11	Tradition	W-29	Maintained by CDD	1.76 ac	1.039			\$1,829.00	
B-12	Tradition	W-30	Maintained by CDD	1.46 ac	1.039			\$1,517.00	
B-13	Tradition	W-31	Maintained by CDD	5.75 ac	1.039	9.99 ac	1.039	\$16,354.00	
B-14	Tradition	W-32	Maintained by CDD	10.27 ac	1.039			\$10,671.00	
B-16	Tradition	W-40	Maintained by CDD	1.56 ac	1.039	0.57 ac	1.039	\$2,213.00	
B-17	Tradition	W-48	Maintained by CDD	3.34 ac	1.039			\$3,470.00	
B-19	Tradition	W-TP-3	Maintained by CDD	0.00 ac	1.039	3.84 ac	1.039	\$3,990.00	
B-20	Tradition	W-TP-4	Maintained by CDD	5.91 ac	1.039	1.76 ac	1.039	\$7,969.00	
B-21	Tradition	W-TP-6	Maintained by CDD	0.00 ac	1.039	9.51 ac	1.039	\$9,881.00	
B-22	Tradition	W-TP-7	Maintained by CDD	0.00 ac	1.039			\$00.00	
B-23	Tradition	W-TP-8	Maintained by CDD	0.00 ac	1.039	11.64 ac	1.039	\$12,094.00	
B-24	Tradition	W-TP-12	Maintained by CDD	0.00 ac	1.039	21.41 ac	1.039	\$22,245.00	
B-25	Tradition	W-TP-12A	Maintained by CDD	0.00 ac	1.039			\$00.00	
B-33	Tradition	WC-1	Maintained by CDD	1.28 ac	1.039			\$1,330.00	

We, the undersigned, agree to furnish and deliver the above titled item in accordance with the specifications and Scope of Work issued for same, and subject to all terms, conditions, and requirements provided therein, and in the various proposal documents, for the following price: \$304,696.00 / Year (figures)

Three Hundred FourThousand, Sixty Hundred Ninety Six Dollars

(written)

Contractor's Project Manager: (Print or Type Name) <u>Todd-Barhaydt</u> Todd Barhydt

Telephone #: (888) 480-5253 Email: (888) -258-0088 todd.barhydt@solitudelake.com

Bid OF (Company): Solitude Lake Management, LLC

ADDRESS: 1320 Brookwood Drive, Suite H, Little Rock, AR 72202

SIGNED: Signed

TITLE: President and CEO

DATE: 10/4/22

