### Mangrove Restoration & Mitigation, Pruning Plan\_\_\_\_\_4925 Topsail, Nokomis FL

Plan for revisits for Photographic assessment, on site evaluation and mitigation & Pruning as allowed int Permit #Mangrove Permit No. 21-154631-RR.

Oversight: Staci Tippins, Sarasota County DEP Notifications of Report visits to be made, Files emailed for follow up site visits and reports.

Visit Date Arborist: 9/19/2022 AD

Report Written: Amber Delehanty

The mangrove shoreline is divided by a dock, installed under permit #15 141606 00 RW.

Mangroves to the North of the dock are primarily red mangrove with white mangroves bordering the landward edge (Figure 2). The mangroves in this area were trimmed to a height of approximately 4 feet as determined by Simply Trees (EXHIBIT 18-19). Vines (mostly lpomea sp.) cover approximately 40% of the mangroves in this area (EXHIBIT 5). The vine cover is limiting light penetration to the understory areas of the mangroves, which over time can have negative effects on the health of the mangroves and their ability for new sapling growth & interior scaffolding branch growth. The South side of the dock is a mix of 55% white mangrove, 5% black mangrove, and 40% red mangrove (visual estimate). Most mangroves have been trimmed to a height of 5.3 feet or less as determined by Simply Trees (EXHIBIT 11-15). The exception is three white mangroves and two black mangroves that exceed 20 feet in height. These mangroves have been side trimmed only. Vines are covering approximately 30% of the mangroves in this area (EXHIBIT 9-10). Despite the severe trimming and excessive vine cover, all mangroves North and South of the dock are showing signs of recovery and new growth. (See recovery & remediation plan attached Figure 9).

Pruning Plan moving forward: Mangroves shall NOT be pruned for at least 1 calendar year. Observation and photographic visitation on a quarterly basis.

Removal of Invasive species, flush cut close to grade level or pulling from substrate if able, removed quarterly throughout Mangrove hedge. Photographic evidence of species removed.

See images below: Exhibit A-F \_\_\_\_\_

Annual visitation for evaluation and maintenance work will be assessed. (EXHIBIT# 8, 9) V.

The Restoration and Monitoring Plan will have visitation every 12 months for assessment of restoration progress. Evaluation will be made at that time for the health and pruning prospectus of work.

A Report will be submitted upon the annual revisit for the County approval. In addition, the annual Anniversary report for submission will need to be followed up. Please find attached original documentation, followed by the new photographic evidence and observational findings of the prior work to date.

- Photographic stations can be renewed based on EXHIBIT #1, see below.
- Observational record and restoration plan regarding planting (EXHIBIT #1).
- Restoration plantings will be based on observed retention of said information.
- Annual photographic assessment for growth evaluation, per permitting approved.

Observational Assessment: 10/25/21

On October 25th, 2021 the Simply Trees team removed Invasive vines, Brazilian Pepper and other plants as identified in the permit defined.

Landward invasives also reduced as well.

See Exhibits # A-F.

(Photographic evaluation from established points in the permit.)

Planting the Red Mangroves as well as White Mangroves is to occur: November 19th, 2021. Arborists on site:

Amber Delehanty ISA Certified Arborist #FL-9514A ISA Tree Risk Assessment Qualified Certified Treecare Safety Professional Professional Mangrove Trimmer #PMT 2020-089

Ed Bingle ISA Certified Arborist #FL-5585AT ISA Tree Risk Assessment Qualified Certified Tree Care Safety Professional #2106 Professional Mangrove Trimmer #PMT 2020-092



#### EXHIBIT Before images:



EXHIBIT #4





EXHIBIT # 5

EXHIBIT #6





EXHIBIT #8





## AFTER PHOTOS: EXHIBIT #A





EXHIBIT #C



EXHIBIT #D





### EXHIBIT # E

EXHIBIT #F



Revisit 2022 Ed Bingle Jr, Certified Arborist

### SITE VISIT: 9/19/2022 Amber Delehanty

Assessment: Invasive vines are present and need removal as soon as possible. As are overgrowing the upper canopy of the mangroves. Multiple invasive species present. Recommendations to remove invasive plants as able. Refrain from pruning Mangroves for 6-8 months until after Revisit.

Images below:

## EXHIBIT 1



EXHIBIT 2

EXHIBIT 3





EXHIBIT 4







### EXHIBIT 6





EXHIBIT 8



EXHIBIT 9

EXHIBIT 7



EXHIBIT 10





### EXHIBIT #13











# Exhibit #17



EXHIBIT #18

EXHIBIT #19





