

Prepared By: Mark Liebel

941-809-6410  
Duncan Seawall Dock & Boat Lift, LLC  
1714 Independence Blvd.  
Sarasota, FL 34234



Scale:  
1" = 10'

Date:  
8/1/24

Prepared For: 636 Dream Island Road  
Longboat Key, FL 34228



9/6/2024, 6:20:12 PM

PB24-1000

Tate Taylor



9/10/2024, 1:13:59 PM

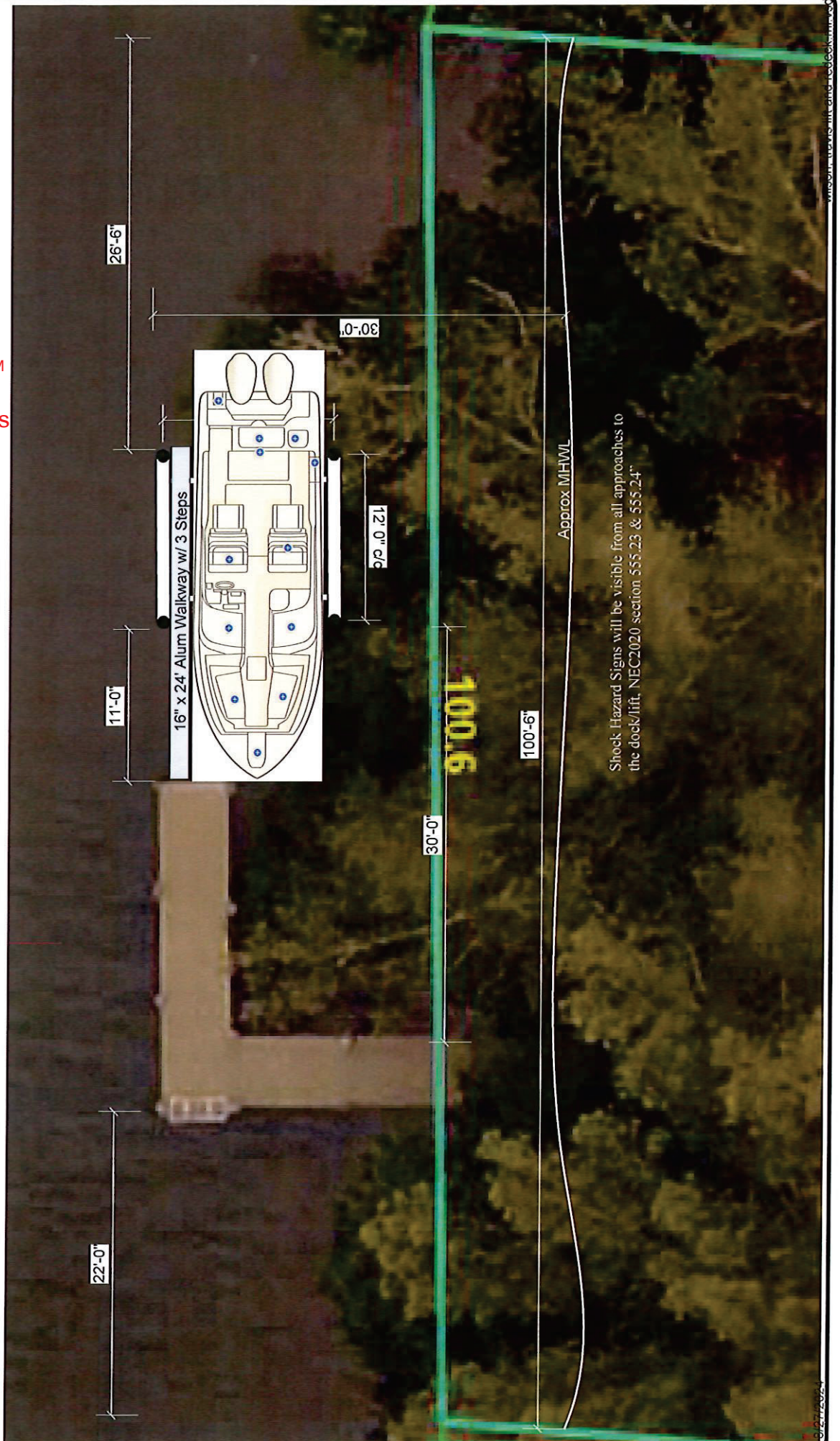
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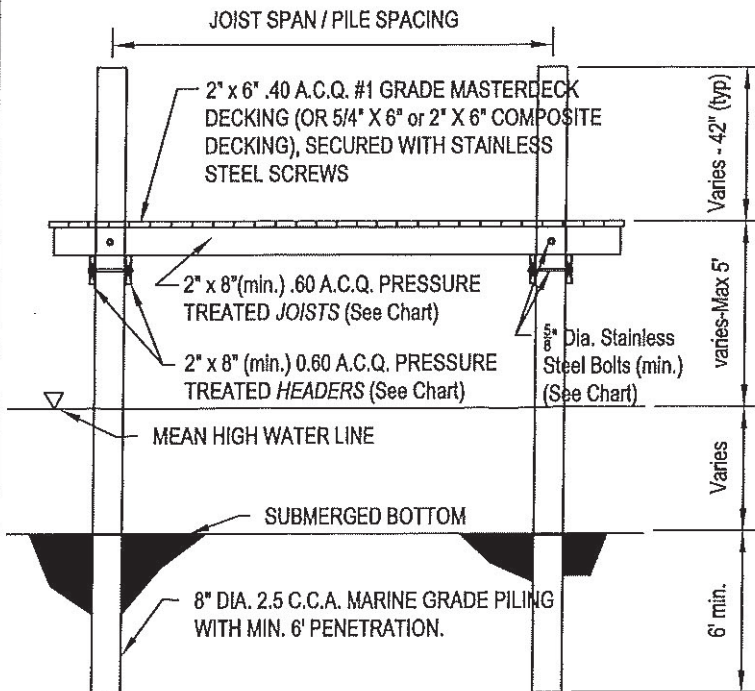
Jonathan Pettus

**Scope of Work:**

- Install 14,000-lb capacity boat lift.
- Lift will be <5.0' above dock.
- Remove framing and decking on dock.
- Install new framing and decking on dock.

Canal Width is 103'.  
103 x 30% = 30.9'



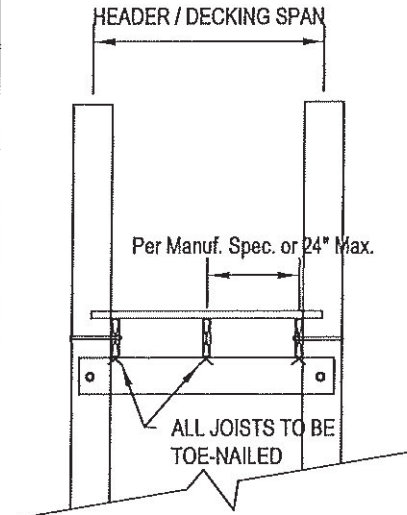


## LONGITUDINAL DOCK CROSS SECTION

| HEADER SPAN<br>(Feet) | JOIST SPAN<br>(Feet) | HEADER SIZE<br>(Nominal Inches) | JOIST SIZE<br>(Nominal Inches) | BOLT SIZE<br>(Qty, Inches) |
|-----------------------|----------------------|---------------------------------|--------------------------------|----------------------------|
| <6                    | 10                   | 2x8                             | 2x8                            | 1-5/8                      |
| 8                     | 10                   | 2x8                             | 2x8                            | 2-5/8                      |
| 10                    | 10                   | 2x10                            | 2x8                            | 2-5/8                      |
| 12                    | 10                   | 2x12                            | 2x10                           | 2-5/8                      |
| <6                    | 12                   | 2x8                             | 2x8                            | 1-5/8                      |
| 7                     | 12                   | 2x8                             | 2x8                            | 2-5/8                      |
| 9                     | 12                   | 2x10                            | 2x8                            | 2-5/8                      |
| 11                    | 12                   | 2x12                            | 2x10                           | 2-3/4                      |

### GENERAL NOTES:

- IN LIEU OF SPECIFIC CODE REQUIREMENTS, RESIDENTIAL DOCK HAS BEEN DESIGNED FOR THE FOLLOWING MINIMAL CONDITIONS:  
 LIVE LOAD: 40 PSF  
 DEAD LOAD: 10 PSF  
 HURRICANE  
 UPLIFT: 30 PSF  
 DEFLECTION  
 LIMITS: L/360 (LIVE LOAD)
- ALL DIMENSIONAL LUMBER SHALL BE MINIMUM NO. 2 SOUTHERN YELLOW PINE.
- DESIGN MEETS MINIMUM REQUIREMENTS OF THE 2023 8th Edition FLORIDA BUILDING CODE. WIND SPEED 170 MPH EXP. D.



## TRANSVERSE DOCK CROSS SECTION

TYPICAL CROSS SECTIONS FOR  
RESIDENTIAL DOCKS

DUNCAN SEAWALL  
1714 INDEPENDENCE BLVD, SRQ 34234

SHEET #  
1 OF 1

# GOLDEN ENGINEERED 4 POST, 2 MOTOR SEA DRIVE BOAT LIFTS

## STRUCTURAL ENGINEERING REVIEW

THIS CONSTRUCTION HAS BEEN DESIGNED AS A MAIN WIND FORCE RESISTING SYSTEM WITH CALCULATED GRAVITY AND WIND LOADS IN COMPLIANCE WITH THE FLORIDA BUILDING CODE, 8TH EDITION, 2023, ADM 2020, AND ASCE/SEI 7-22. MAXIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES TO WITHSTAND THE WIND LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 180 MPH, EXPOSURE 'D', RISK CATEGORY I. J.L. SANDERS, P.E. HAS NO CONTROL OF THE MANUFACTURING, PERFORMANCE, OR INSTALLATION OF THIS PRODUCT. THESE GENERAL SPECIFICATIONS WERE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES BASED ON DATA PROVIDED BY THE MANUFACTURER. THIS STRUCTURAL REVIEW IS LIMITED TO THE PRIMARY FRAMING AND CONNECTIONS AND IS NOT INTENDED TO COVER MECHANICAL AND ELECTRICAL COMPONENTS. THESE SPECIFICATIONS ARE BASED ON STRUCTURAL CALCULATIONS TITLED 4 POST SEA DRIVE LIFT, WHICH CONTAIN ADDITIONAL DESIGN REQUIREMENTS AND CRITERIA AND ARE AVAILABLE UPON REQUEST. THE BOAT LIFTS DEPICTED IN THESE SPECIFICATIONS AND RELATED CALCULATIONS WERE ENGINEERED AS MANUFACTURED PRODUCT FOR NON-SITE SPECIFIC USE AND NOT INTENDED TO COVER SITE SPECIFIC CONDITIONS.

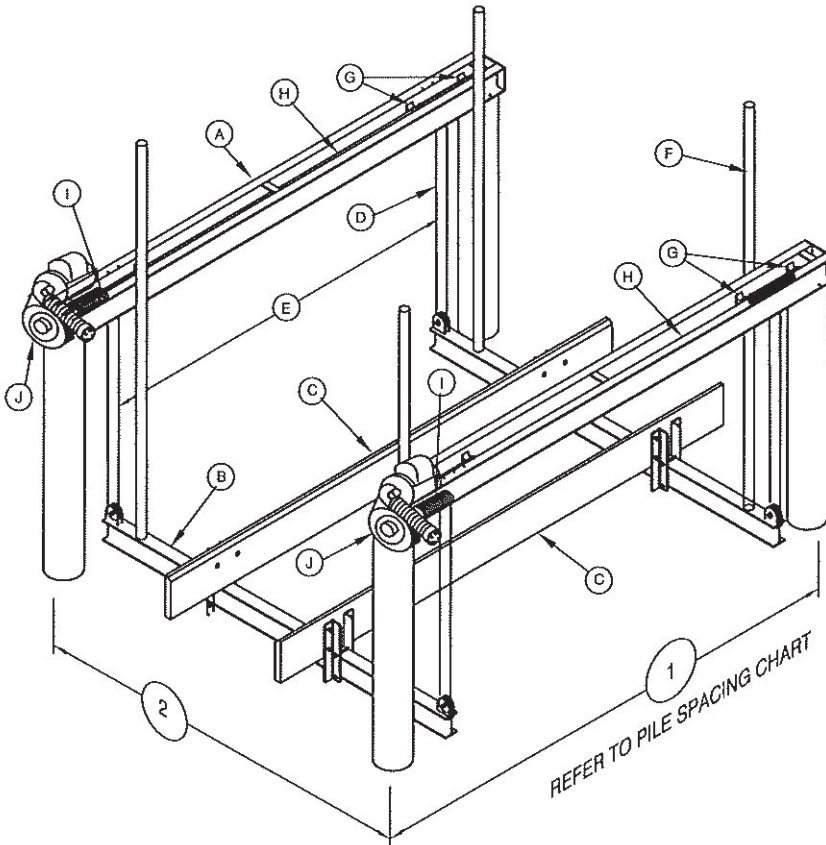
THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J.L. SANDERS, P.E. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.



Digitally signed by J.L. Sanders  
Date: 2024.01.02 16:14:02  
-05'00'

J.L. Sanders, P.E.  
2515 Grafts Road NW  
Marietta, GA 30056  
Phone: 239-671-1578

J.L. SANDERS, P.E. Date:  
Reg. Florida No. 66361



**PILE SPACING CHART**  
The boat center of gravity needs to be set in the center of the top beam

| Lift Capacity | 1" Dimension | 2" Dimension | Recommended Pile Diameters |
|---------------|--------------|--------------|----------------------------|
| Lb.           | Ft.          | Ft.          | In.                        |
| 5,000         | 11           | 10           | 8                          |
| 7,500         |              | 12           |                            |
| 10,000        |              |              |                            |
| 12,000        | 12           | 12.5         | 10                         |
| 14,000        |              |              |                            |
| 16,000        |              | 14           |                            |
| 20,000        | 14           |              |                            |
| 24,000        |              | 16           |                            |
| 28,000        | 16           |              | 12                         |

STAINLESS STEEL PILING MOUNT BRACKET- RECOMMENDED ATTACHMENT BASED ON BRACKET CONFIGURATION. VERIFY ADEQUACY BASED ON ACTUAL SITE CONDITIONS:  
4-3/8" STAINLESS STEEL LAG SCREWS USED TO CONNECT THE BRACKETS TO THE PILING AND  
2-3/8" STAINLESS STEEL CARRIAGE BOLTS USED TO CONNECT THE BRACKETS TO THE LIFT CHANNELS



NOTE: THIS STRUCTURE HAS BEEN DESIGNED FOR LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 180 MPH, EXPOSURE 'D', RISK CATEGORY I, CALCULATED PER FLORIDA BUILDING CODE 8TH EDITION, 2023, ASCE/SEI 7-22 AND ADM-2020. BOATS SHALL NOT BE STORED ON LIFTS DURING HIGH WIND EVENTS.

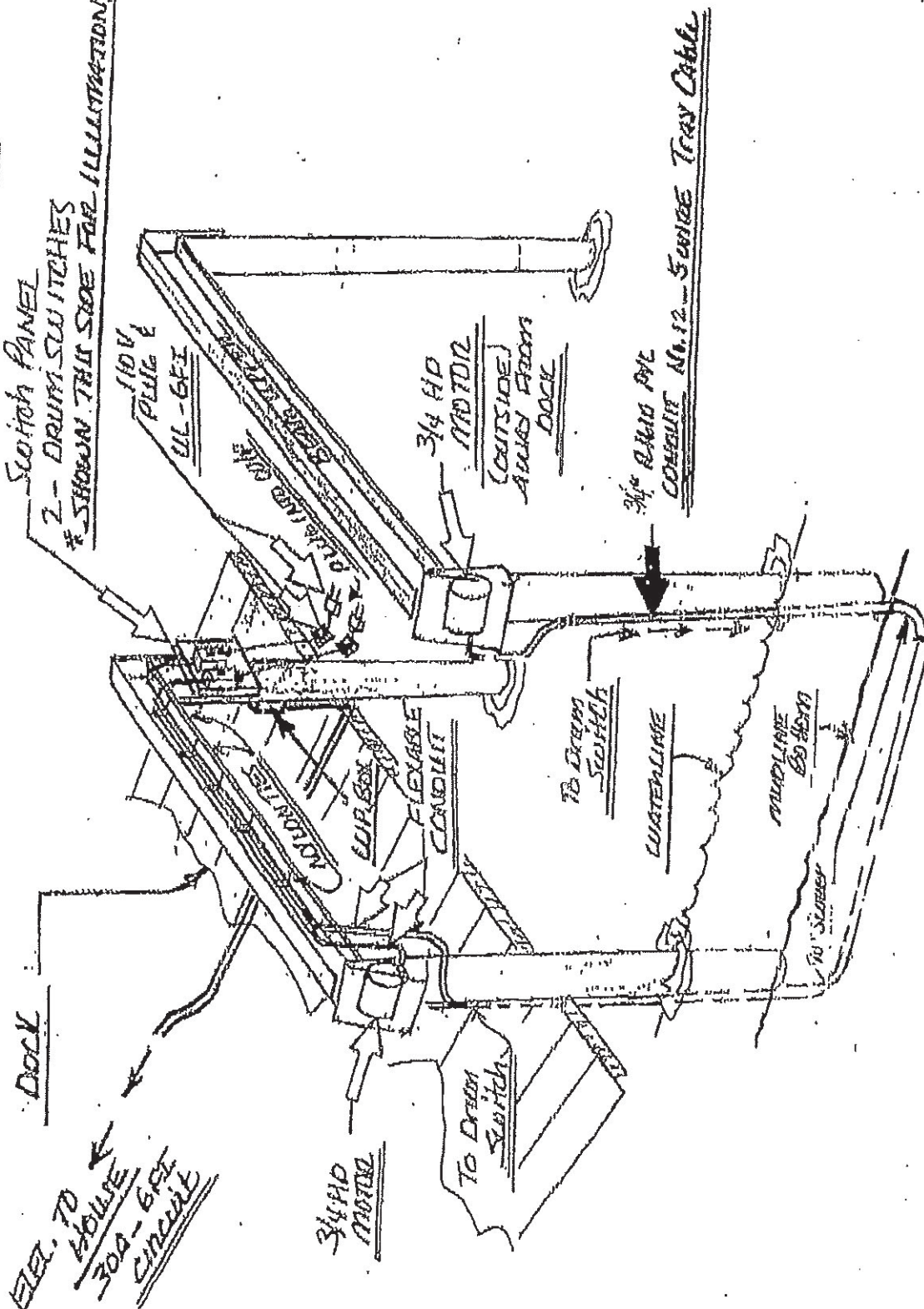
IN GENERAL, PILING PENETRATION TO BE A MINIMUM OF 10" INTO THE SAND BOTTOM OR 6" INTO THE ROCK STRATA. SUB-SURFACE CONDITIONS CAN VARY GREATLY, THE CONTRACTOR SHALL VERIFY ALL PILE CAPACITIES. ALL PILING TO BE 2.5 C.C.A. PRESSURE TREATED WOOD. ALL STRUCTURAL MEMBERS TO BE 6061-T6 ALUMINUM.

## SUMMARY OF DESIGN FEATURES

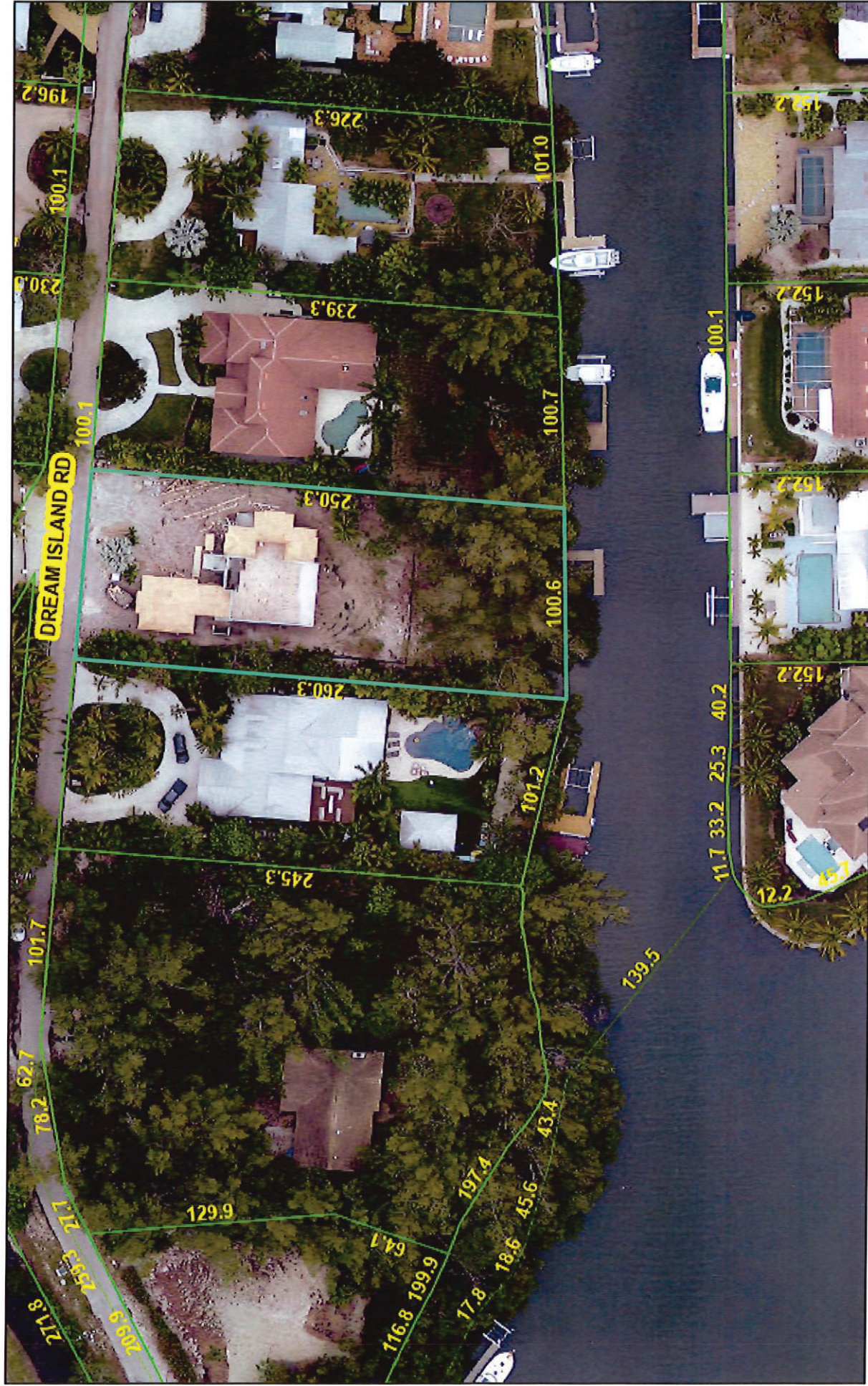
|               | (A)                                       | (B)                                  | (C)                             | (D)                               | (E)             | (F)                   | (G)                                 | (H)                               | (I)                                             | (J)                                  |                              |                                  |        |         |
|---------------|-------------------------------------------|--------------------------------------|---------------------------------|-----------------------------------|-----------------|-----------------------|-------------------------------------|-----------------------------------|-------------------------------------------------|--------------------------------------|------------------------------|----------------------------------|--------|---------|
| LIFT CAPACITY | TOP BEAM CHANNEL<br>2 EACH                | CRADLE I-BEAM<br>2 EACH              | BUNK<br>BOARDS<br>(PT)          | CABLE SIZE                        | CABLE<br>SPREAD | GUIDE<br>POST<br>HGTH | BRGS                                | DRIVE<br>SHAFT                    | WINDER<br>DIA                                   | MOTOR<br>HP<br>VOLTAGE               | INCHES<br>OF LIFT<br>PER MIN | RECOM<br>PILING<br>SIZES         |        |         |
| Lbs           | INCHES                                    | INCHES                               |                                 | INCHES                            | IN              |                       |                                     |                                   |                                                 |                                      |                              |                                  |        |         |
| 5,000#        | 4 H x .15<br>2 W x .23<br>141" OAL        | 6 H x .19<br>4 W x .29<br>120" LGTH  | 2x8x144 ROUGH<br>SAWN CARPETED  | 4 - 5/16"<br>x15' ST ST<br>1 PART | 107.75          | 80"                   | 10 - 2" H.D. EXTRUDED 6061-T6 ALUM. | 1-15/16" DIA.<br>SCH 40 GALV PIPE | 3-1/2" DIA<br>SCH 80 ALUM PIPE W/ CABLE GROOVES | 2 - 3/4 HP<br>120V/20A<br>240V/10A   | 39.70"                       | 8" DIA                           |        |         |
| 7,500#        | 5 H x .15<br>2.25 W x .26<br>x 153" OAL   | 6 H x .19<br>4 W x .29<br>144" LGTH  |                                 |                                   | 120.75          |                       |                                     |                                   |                                                 | 2 - 1 HP<br>120V/28A<br>240V/14A     |                              |                                  |        |         |
| 10,000#       | 6 H x .17<br>2.5 W x .29<br>x 153" OAL    | 8 H x .23<br>5 W x .35<br>150" LGTH  |                                 |                                   |                 |                       |                                     |                                   |                                                 | 2 - 3/4 HP<br>120V/20A<br>240V/10A   |                              |                                  |        |         |
| 12,000#       | 7 H x .17<br>2.75 W x .29<br>x 153" OAL   | 8 H x .25<br>5 W x .41<br>150" LGTH  |                                 | 4 - 5/16"<br>x30' ST ST<br>2 PART | 116.75          |                       |                                     |                                   |                                                 |                                      | 19.85"                       |                                  |        |         |
| 14,000#       | 7 H x .17<br>2.75 W x .29<br>x 153" OAL   | 8 H x .25<br>5 W x .41<br>150" LGTH  | 3x10x192 ROUGH<br>SAWN CARPETED |                                   |                 | 120"                  |                                     | 1-15/16" DIA.<br>SCH 80 GALV PIPE |                                                 |                                      |                              | 2 - 1 HP<br>120V/28A<br>240V/14A |        | 10" DIA |
| 16,000#       | 8 H x .19<br>3 W x .35<br>x 153" OAL      | 10 H x .25<br>6 W x .41<br>168" LGTH |                                 | 4 - 5/16"<br>x45' ST ST<br>3 PART | 127.75          |                       |                                     |                                   |                                                 |                                      |                              |                                  |        |         |
| 20,000#       | 8 H x .25<br>3.75 W x .41<br>x 177" OAL   | 10 H x .25<br>6 W x .41<br>192" LGTH |                                 |                                   | 151.75          |                       |                                     |                                   |                                                 |                                      |                              |                                  | 13.20" |         |
| 24,000#       | 8 H x .25<br>3.75 W x .41<br>x 201" OAL   | 10 H x .29<br>6 W x .50<br>192" LGTH |                                 |                                   |                 |                       |                                     |                                   |                                                 |                                      |                              |                                  |        |         |
| 28,000#       | 10 H x .526<br>2.88 W x .437<br>x 206 OAL | 12 H x .29<br>7 W x .47<br>192" LGTH |                                 | 4 - 5/16"<br>x60' ST ST<br>4 PART | 150.3125        |                       |                                     |                                   |                                                 | 2 - 1-1/2 HP<br>120V/30A<br>240V/15A | 8.57"                        | 12" DIA                          |        |         |

\* Note: Panel is on Dock Side

Switch Panel  
2 - Drum Switches  
\* Shown This Side For Illustration Purpose



# Letter ANSI A Landscape



8/23/2024



This map has been compiled from the most authentic information available. The Manatee County Property Appraiser's Office makes every effort to produce and publish the most current and accurate information possible. The determinations made during compilation are for maintenance of the tax roll only and do not represent legal determinations. This map may include data and features that are owned and maintained by other government agencies and therefore may not be consistent with the information shown on this map.

Parcel Search

Parcel Lines

Parcel Dimensions

2024

Red: Band\_1  
Green: Band\_2  
Blue: Band\_3

1:984

0 0.01 0.01 0.02 0.02 mi  
0 0.01 0.01 0.02 0.04 km

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