



Lake Park Marina
105 Lake Shore Drive
Lake Park, FL 33403

View looking East
from 302 Lake
Shore Drive

PS8

Community
JAN 19 2016
Development



Lake Park Marina
105 Lake Shore Drive
Lake Park, FL 33403

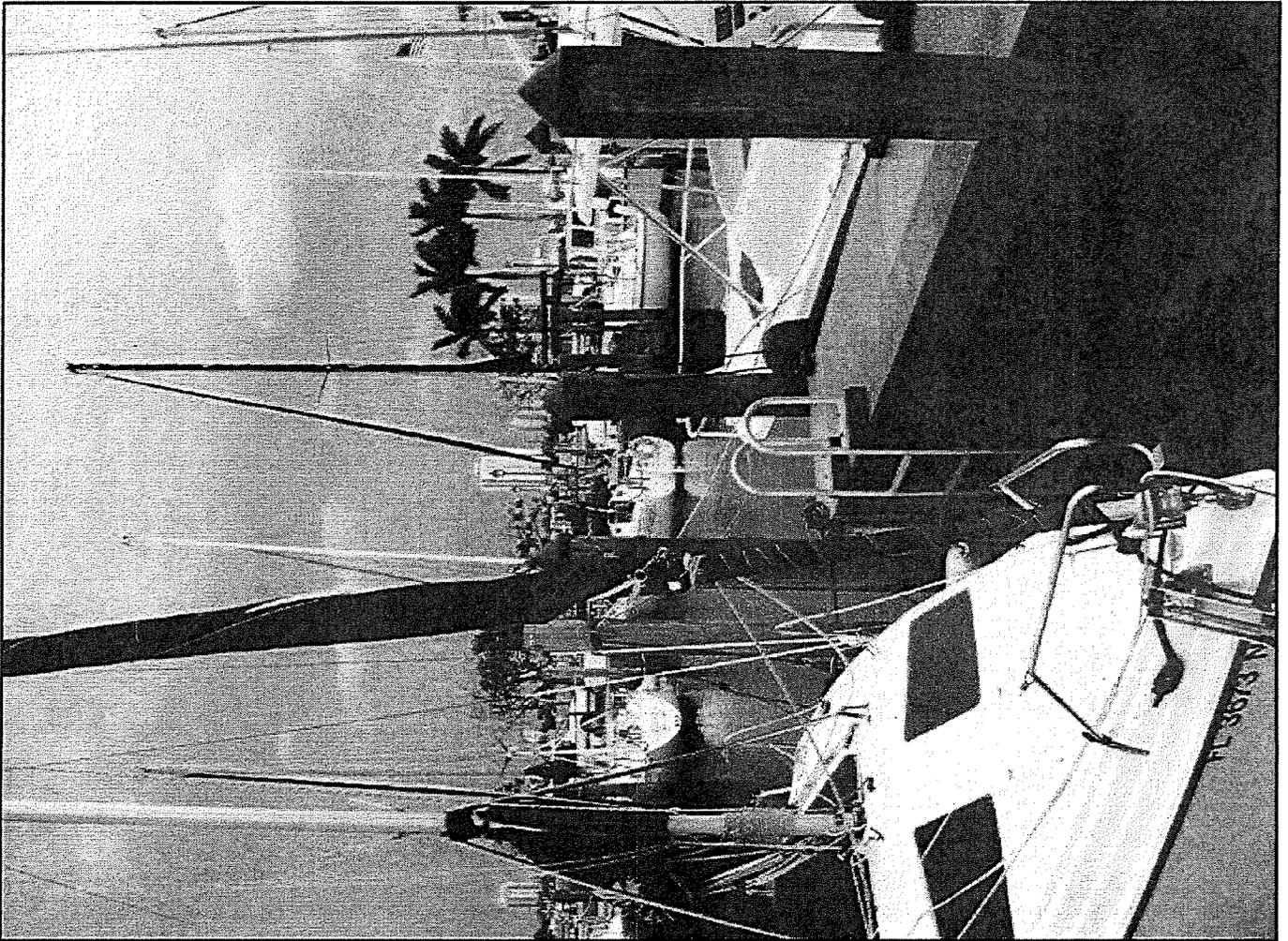
View looking
From west-side
marina walkway

PS9

DEVELOPMENT

JAN 19 2016

COMMUNITY



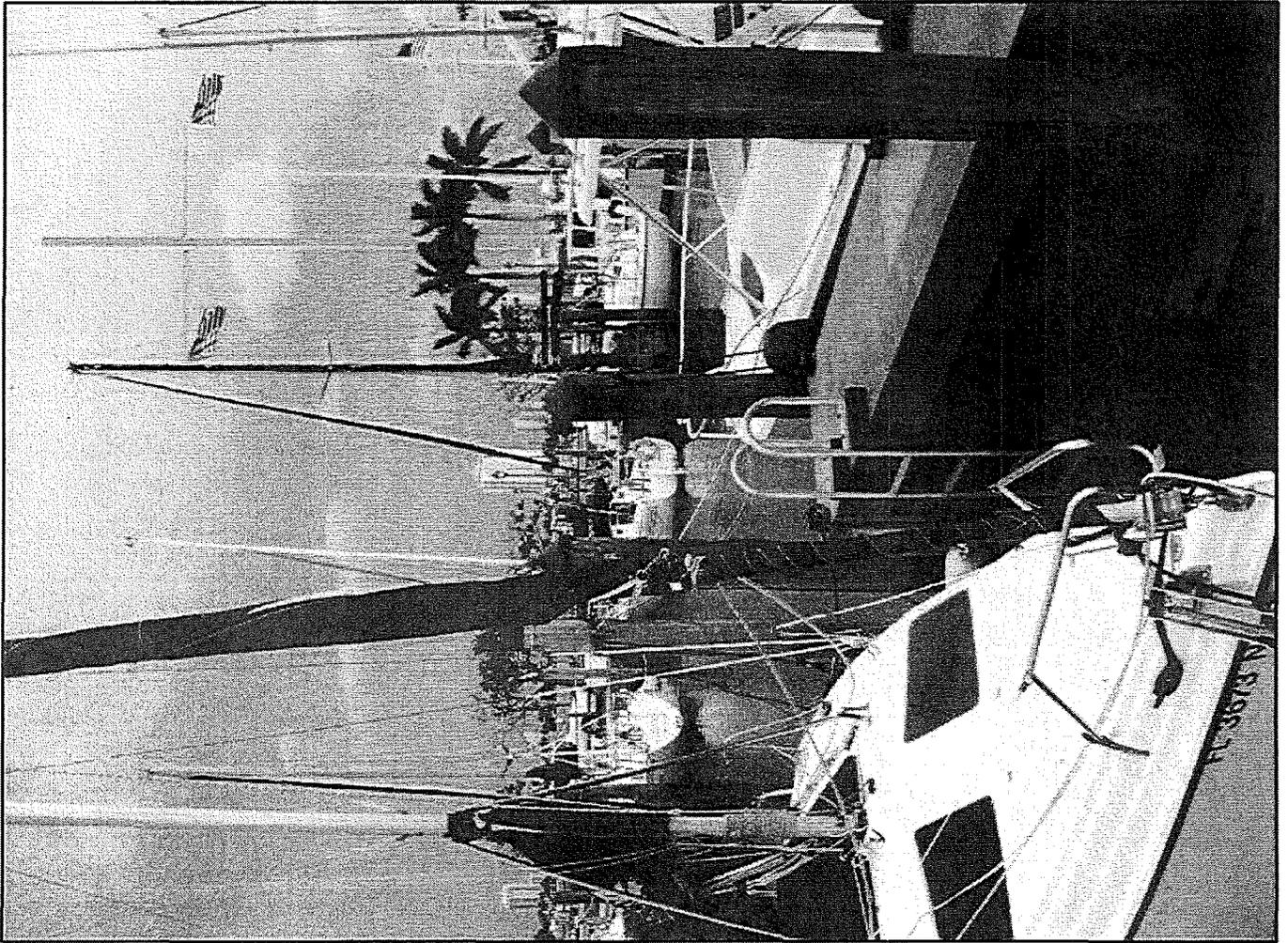


Lake Park Marina
105 Lake Shore Drive
Lake Park, FL 33403

View looking
From west-side
marina walkway

PS10

COMMUNITY
JAN 19 2016



Lake Park Competitive Analysis



Reg Number	Tower Owner	Distance	Height	Tower Type	Carriers	Address	Comments
Unregistered	Nextel Corp South	1.37 mi	150'	Unipole	unknown	640 Old Dixie Highway, Lake Park FL	Decommissioned per Lake Park Attorney
1020782	SpectraSite Communications, LLC. through American Towers, LLC	1.46 miles	482	Self-Support Tower	1 or 2	1115 Old Dixie Hwy (302758) W. Palm Beach, FL	Provides strong indoor coverage levels for approximately one mile at which point service levels start to become inadequate
unregistered	Crown Castle	0.82 mile	125'	Monopole	1	535 Park Avenue, Lake Park, FL 33403	This non stealth unregistered monopole is .8 miles West of the Marina and the site will not adequately solve low signal areas

Community

JAN 19 2016

Community

Lake Park Competitive Analysis

Rooftop	T-Mobile	1.04 miles		Roof top antennas	1	2001 Broadway, Riviera Beach FL	This rooftop antenna installation works well for approximately three quarters of a mile but the signal strength has dropped off significantly by E/W 28th ST
Rooftop	T-Mobile	1.56 miles		Roof top antennas	1	125 Ocean Ave, Palm Beach Shores FL	This rooftop facility provides good levels to the vicinity but levels across the water to the west are too weak for reliable service.

Community
 JAN 19 2016
 Developments

RG Towers Reply to Conditions of Approval

- (1) Site Plan, Compound Plan, Notes Plan, Elevations Plans, Wood Fence Details Plan, Trench Details Plan, referenced as Sheets C-1 through C-7; and Electrical Plans referenced as Sheets E-1 through E-6; Landscaping Plan references as Sheet L-1; and Irrigation Plan referenced as Sheet IR-1; All prepared by Michael Phillips, Registered Engineer and Jason Rinard, Landscape Architect, of Caltrop Telecom, signed and sealed November 18, 2015 and received by the Department of Community Development on November 25, 2015.

REPLY: Acknowledged – sheets T-1, C-1, C-2 , L1 and IR-1 have been revised 1/14 and are being submitted at this time.

- (2) The Insurance liability limits in the Lease Option Agreement fall within the Town's minimum requirements. The requirement of a waiver of subrogation is also a well-reasoned inclusion. They will be required to send a technician to exact repairs from time to time. This technician will have to be on Lake Park property in order to complete his/her appointed repairs on the Tower. The Town needs to be certain that the tenant maintains an active workers' compensation policy in case their technicians should injure themselves in the course of those repairs while on Lake Park property. We do not see any language in the insurance section of the agreement referring to a workers' compensation. Therefore, we would recommend adding a requirement for evidence of workers' compensation insurance, also to include a waiver of subrogation.

REPLY: RG Towers feels like the existing insurance provisions from the ground lease meet the requirements and waiver of subrogation is already in section 11b. of the ground lease

- (3) Renderings identifying the future ground space needs for future collocators should be identified prior to Town Commission review.

REPLY: A Phase II has been identified on the Site Plan which shows the potential location for future collocators, all subject to additional Town review of approval.

- (4) Applicant shall upgrade the proposed landscape to incorporate material that exists within the surrounding area. The proposed materials should include:

Community
JAN 19 2016
Development

- a. Under-planting material to include seagrape and saw palmetto and/or other existing material types that blend planting beds north of the proposed lease area.
- b. Planting design shall take into account the existing bed lines and incorporate into an overall design which compliments the park.
- c. Canopy palm trees top include Royal Palms, clusters of Coconut Palms or Gumbo Limbo; Materials to be a size that exceeds code and matches the existing size, spacing and height.
- d. Design to be reviewed and approved by Town Staff.

REPLY: The landscape plan has been revised according to Planning and Zoning request, the Plan now includes Gumbo Limbo trees.

- (5) Applicant shall modify the fence details to incorporate decorative elements that soften the fence aesthetics.

REPLY: The fence will be completely screened from the Cocoplum hedge, decorative features are not required and will not match an adjacent existing wood fence around dumpster enclosure.

- (6) The Applicant modify the plans to utilize its approved leased area for the required landscaping and be responsible for its maintenance and that these revised plans are submitted to the Town prior to Town Commission consideration. Separate irrigation meters will also be required.

REPLY: The lease area will not be modified; the proposed plan complies with Exhibit "B" from the Lease. The applicant will utilize a separate meter if feasible. Otherwise, the applicant will pay the Town for usage pursuant to Section 7(d) of the Lease.

- (7) A Letter of Credit (LOC) is required for the construction and restoration of the site. The applicant must submit a LOC prior to the issuance of any development permit. The LOC requires Town Attorney review and approval. Cost estimates for construction and restoration should accompany the LOC since the amount on the LOC will need to be 110% of these values.

REPLY: A Letter of Credit for 110% of the value will be provided at issuance of building permit

- (8) If the Tower is approved with flag that require lighting, a Photometric Plan must be submitted prior to the issuance of any development permit.

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Development

REPLY: If the Town chooses an American Flag design the American Flag will be lit at night. If the town chooses to proceed without an American flag or to just install nautical flags no lighting will be necessary.

- (9) Cost Recovery. All fees and costs, including legal fees incurred by the Town in reviewing the Application and billed to the Owner shall be paid to the Town within 10 days of receipt of an invoice from the Town. Failure by an Owner or an Applicant to reimburse the Town within the 10 day time period may result in the suspension of any further review of plans or building activities, and may result in the revocation of the approved Development Order.

REPLY: The applicant will comply with the Town's Cost Recovery Regulations as outlined in the Town Code. RG Towers requests that the town provide applicant of accounting to date as well as send physical invoices going forward.

COMMUNITY
JAN 19 2016
DEVELOPMENT



LAKE PARK MARINA

105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

SFL13

NEW SITE BUILD

REV	DATE	DESCRIPTION
A	12/18/14	PRELIMINARY
0	1/23/15	FOR PERMIT
1	7/14/15	REVISED
2	9/28/15	REVISED
3	11/18/15	REVISED
4	1/14/16	REVISED

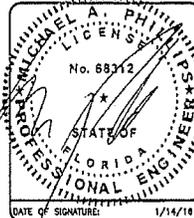
PROJECT NO.:	14-1004.01
DRAWN BY:	CHECKED BY:
F. PARRADO	H. ABBEY

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3400 LAKESSIDE DRIVE
SUITE 501
WINDHURST, FL 33517
CERTIFICATE OF AUTHORIZATION 20114

RG
TOWERS, LLC.
2141 ALTERNATE A1/A, SOUTH
SUITE 440
JUPITER, FL 33477



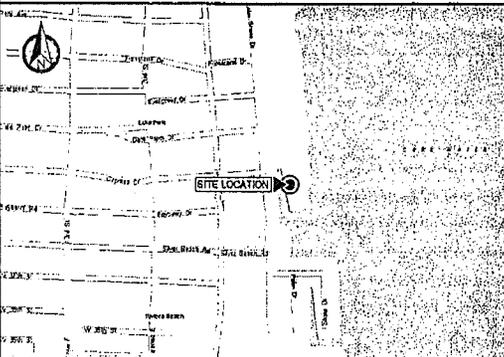
LAKE PARK MARINA

SFL13
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

SHEET NAME
TITLE SHEET

SHEET NUMBER
T1

LOCAL MAP



PROPERTY SUMMARY

FOLIO
38-43-42-21-00-004-0010

PROPERTY OWNER
TOWN OF LAKE PARK
535 PARK AVENUE
WEST PALM BEACH, FL 33403

LATITUDE
28.794194°N

LONGITUDE
80.052242°W

ZONING JURISDICTION
CITY OF LAKE PARK

PROJECT DESCRIPTION

1. THE WIRELESS COMMUNICATIONS FACILITY IS NOT INTENDED FOR HUMAN OCCUPANCY.
2. THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. THE SCOPE OF WORK CONSISTS OF:
 - INSTALLATION OF NEW TELECOMMUNICATIONS TOWER
 - INSTALLATION OF NEW FENCED COMPOUND

INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION	REV. NO.
T1	TITLE SHEET	4
T2	NOTES	0
C1	SITE PLAN	4
C2	COMPOUND PLAN	3
C3	ELEVATION	2
C4	WOOD FENCE DETAILS	1
C5	TRENCH DETAIL	2
C6	SIGNAGE DETAILS	1
C7	COMPOUND DETAIL	1
E1	ELECTRICAL NOTES	0
E2	GROUNDING NOTES	0
E3	UTILITY ROUTING SITE PLAN	1
E4	ONE-LINE DIAGRAM	0
E5	GROUNDING PLAN AND NOTES	2
E6	ELECTRICAL DETAILS	1
L1	LANDSCAPING PLAN	1
IRI	IRRIGATION PLAN	0

VICINITY MAP



DESIGN CRITERIA

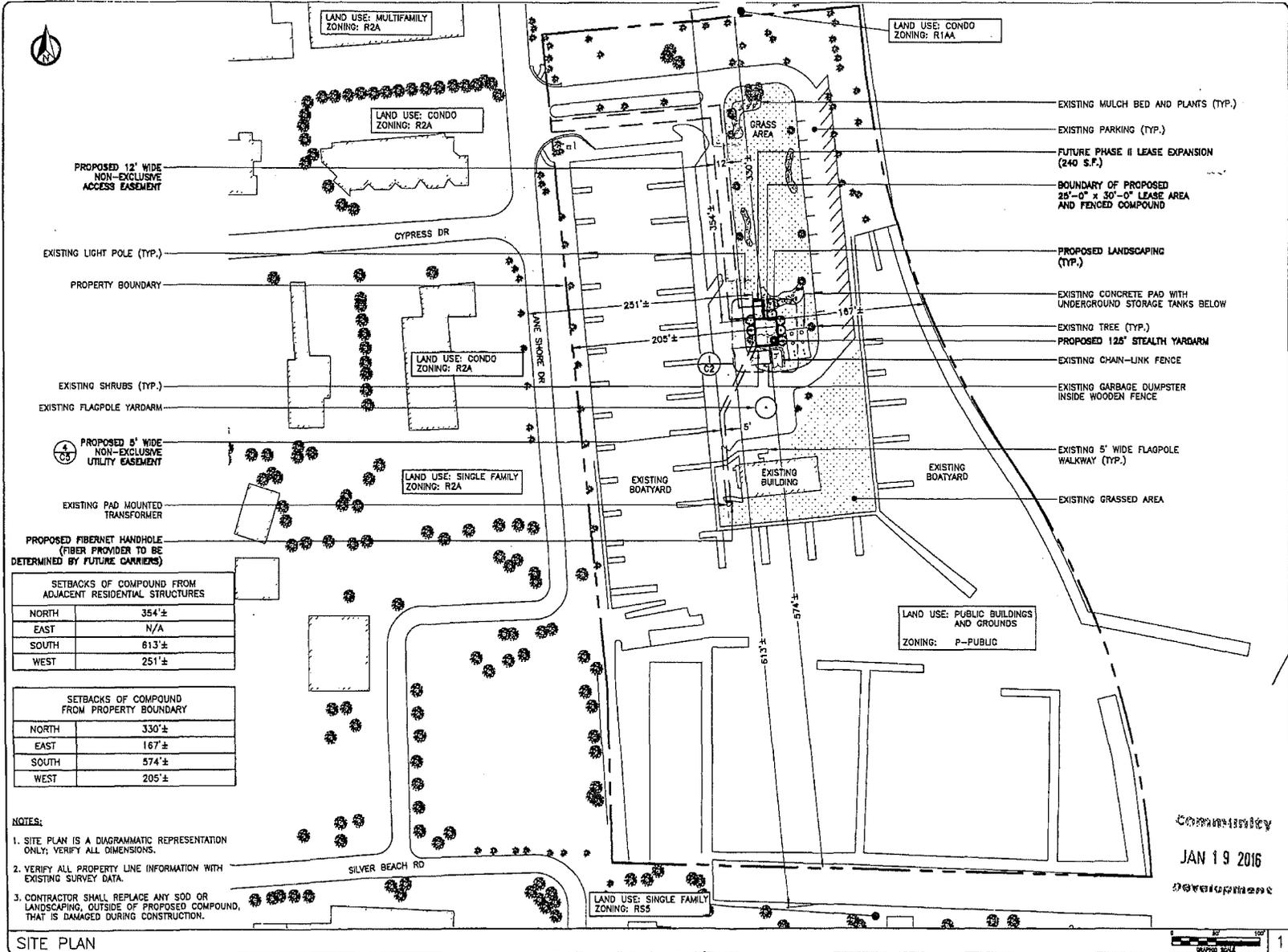
DESIGN WIND SPEED: 169 MPH (ULTIMATE, 3-SECOND GUST)
131 MPH (NOMINAL, 3-SECOND GUST)

EXPOSURE: C
RISK CATEGORY: II
OPEN STRUCTURE

CODE COMPLIANCE

- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
1. 2010 FLORIDA BUILDING CODE WITH 2012 SUPPLEMENT.
 2. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE, 2008 EDITION.
 3. ITA-222-G WITH ADDENDUM 1 APPLICABLE STANDARDS.
 4. LIFE SAFETY CODE NFPA-101-2009.
 5. 2010 FLORIDA FIRE PREVENTION CODE.
 6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-05 AND 341-05.
 7. UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS.
 8. LOCAL JURISDICTIONAL REQUIREMENTS.
 9. CITY/COUNTY ORDINANCES.

CONSTRUCTION
JAN 19 2016



REV	DATE	DESCRIPTION
A	12/18/14	PRELIMINARY
B	1/27/18	FOR PERMIT
1	7/14/18	REVISED
2	9/28/18	REVISED
3	11/18/18	REVISED
4	1/14/18	REVISED

PROJECT NO.: 14-1004.01
 DRAWN BY: F. PARRADO
 CHECKED BY: W. ABBEY

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CALTROP Telecom
 3400 LAKESIDE DRIVE
 SUITE 215
 WINDY HILL, FL 33037
 CERTIFICATE OF AUTHORIZATION 29214

RG TOWERS, LLC.
 2141 ALTERNATE A1A, SOUTH
 SUITE 440
 JUPITER, FL 33477

PROFESSIONAL ENGINEER
 STATE OF FLORIDA
 No. 68912
 DATE OF SIGNATURE: 1/14/18

LAKE PARK MARINA
 SFL13
 108 LAKE SHORE DRIVE
 LAKE PARK, FL 33403
 SHEET NAME
 SITE PLAN
 SHEET NUMBER
 C1

SETBACKS OF COMPOUND FROM ADJACENT RESIDENTIAL STRUCTURES

NORTH	354'±
EAST	N/A
SOUTH	613'±
WEST	251'±

SETBACKS OF COMPOUND FROM PROPERTY BOUNDARY

NORTH	330'±
EAST	167'±
SOUTH	574'±
WEST	205'±

- NOTES:
- SITE PLAN IS A DIAGRAMMATIC REPRESENTATION ONLY; VERIFY ALL DIMENSIONS.
 - VERIFY ALL PROPERTY LINE INFORMATION WITH EXISTING SURVEY DATA.
 - CONTRACTOR SHALL REPLACE ANY SOD OR LANDSCAPING, OUTSIDE OF PROPOSED COMPOUND, THAT IS DAMAGED DURING CONSTRUCTION.

COMMUNITY
 JAN 19 2016
 DEVELOPER



SITE PLAN

FOR 24"x36" DRAWINGS
GRAPHIC SCALE: 1/4" = 1'-0"
FOR 11"x17" DRAWINGS
GRAPHIC SCALE: 1/8" = 1'-0"

LANDSCAPE MATERIALS LIST

QTY	KEY	BOTANICAL NAME	COMMON NAME	SPECIFICATIONS	NOTE
2	BS	Bursera simaruba	Durbin Lemon	DBL, min. 12 Cal. 8" Sp., 2" caliper	Y
3	CE	Cassipouira stricta 'Serena'	Star Bulbwood	DBL, min. 12 Cal. 8" Sp., 2" caliper	Y
40	CI	Chrysobalanus icaco	Cocoplum	min 7 gallon 30" H @ 2" c.c.	Y
500		Peperomia rotundifolia	Argentine Baby Dot	18"	
10000		Poa annua	Poa Annua Lawn	Cultiv.	

LANDSCAPE REQUIREMENTS

As per Town of Lake Park, Communication Facility Landscape Code (Section 71-48)

The maximum height of planted trees along any perimeter buffer along a public way shall be 20 ft or less, unless, on the lot, with a max. of 12 trees on any one street frontage. Buffer trees and adjacent shrub growth shall contain (1) tree for each 40 ft.

A hedge to screen the area from public view shall be contained 30' or taller.

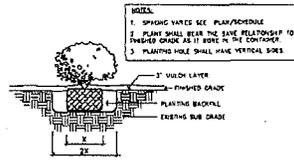
Plants shall have a minimum of 8" girth trunk at planting. All non-permanent plants planted shall be marked in group three.

Trees shall have a minimum of 12 in. 1" sp. @ 2" taper. Minimum of planting 75% of areas that be native species.

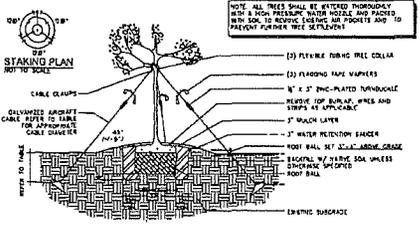
Adjacent to a wall:
East - 30' x 20' x 1.5 x (2) trees required, and provided.
West - 30' x 20' x 1.5 x (2) trees required, and provided.
East - 30' x 20' x 1.5 x (2) trees required, and provided.
West - 30' x 20' x 1.5 x (2) trees required, and provided.

GENERAL LANDSCAPE NOTES

- All landscape material shall be to the no. 1 grade or better, as specified in grades and standards for nursery plants, per the Florida Department of Agriculture and Consumer Services, and shall conform to current American Association of Nurserymen standards for Nursery Stock. Landscapes material shall be planted according to Florida Nursery Practices.
- All shrubs shall be a minimum of 30" high at the time of planting and spaced no greater than 24" on center. Shrubs shall not adversely impact existing tree root systems and shall be fully adjusted if necessary.
- All required plants shall be a minimum of 8" girth trunk at time of planting and at required trees shall be a minimum of 12 in. and 8" caliper at time of planting. Adjust tree locations, accessories to avoid utilities, obstructions, etc. see materials list for exact specifications.
- All required trees shall be located a minimum of 8 feet from impervious surfaces, all shrubs 2 feet.
- An automatic underground irrigation system shall be installed to maintain the landscape area in a healthy manner and provide 100% coverage.
- The contractor shall be located a minimum of 8 feet from impervious surfaces, all shrubs 2 feet.
- The contractor shall be responsible for the clean-up of premises and removal of all debris and surplus materials and rubbish.
- Verify the locations of existing lines, trees, and shrubs. Remove any obstructions such as rocks, branches, building materials or unacceptable trees prior to planting. See trees, and shrubs, where encountered.
- Contractor shall become acquainted with the related grading, site grading, and site preparation, water, sewer, and electrical supply to include any obstructions and verify a locate fee is paid.
- The tree location of all existing structures, utility lines, and poles may not be as indicated on drawings. The contractor shall determine the location of these items, and shall conduct the work in a manner to prevent interruption or damage to existing systems which must remain operational. The contractor shall be responsible for any damage to existing structures and utility services which must remain operational and shall be responsible for the replacement if damaged by him.
- Contractor shall not Sunbath State One Call at least 48 hours prior to digging. (1-800-437-4770)
- Overrides on plan take precedence over materials list. Overrides on materials list are provided as a courtesy only.



SHRUB/ GROUND COVER PLANTING DETAIL
NOT TO SCALE



TYPICAL TREE PLANTING AT GRADE
NOT TO SCALE

DUCKBILL EARTH ANCHOR TABLE

TREE CALIPER	MODEL NUMBER	RATED CAPACITY	MINIMUM DEPTH OF INSTALLATION
UP TO 3"	40-016	800 LBS. EA.	30"
UP TO 4"	88-018	1,100 LBS. EA.	30"
UP TO 6"	88-025	2,000 LBS. EA.	42"
UP TO 8"	104-025	3,000 LBS. EA.	60"

NOTE: RATED FOR WINDS UP TO 80 MPH

REV	DATE	DESCRIPTION
1	01-06-16	PER COMMENTS

PROJECT NO: 14-1004.01
DRAWN BY: JC
CHECKED BY: JER

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CALTROP Telecom

3400 LAKEWOOD DRIVE
SUITE 323
MIRAMONTE, FL 33077

CERTIFICATE OF AUTHORIZATION 20214

RG TOWERS, LLC.

2141 ALTERNATE AIA, SOUTH
SUITE 442
JUPITER, FL 33477

JASON E. BARNARD, R.L.A.
REG. NO. FL 1A 0001608
LANDSCAPE ARCHITECT

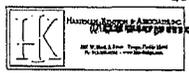
THIS PLAN IS NOT VALID UNLESS SIGNED, DATED & RAISED SEAL AFFIXED

DATE OF SIGNATURE: 01-14-16

LAKE PARK MARINA
SFL13
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

SHEET NAME
LANDSCAPING PLAN
SHEET NUMBER
L1

Community
JAN 19 2016



CALL US TODAY
800-432-4770

It's the Level
1-800-432-4770

EXHIBIT "C"

Marina Director recommendations and visuals

Nadia DiTommaso

From: Jonathan Luscomb
Sent: Friday, January 22, 2016 1:22 PM
To: John D'Agostino; Nadia DiTommaso; Bambi Turner; Karen Mahnk; Blake Rane; Vivian Mendez
Subject: Flag Pole
Attachments: new-york-yacht-club-1-blog-size.jpg; flaget2.jpg; 181919367_0f692ffad3_z.jpg; Charle_W_Morgan.jpg

Hi:

To follow up on our discussion this morning about the flag pole thing, I've attached some snapshots of different applications and a piece on flag etiquette. <http://www.usps.org/national/fecom/faq/flag/gaffpole.html>

In moving ahead with any design input, I think it is important to get the placement of the yard arm and the gaff correct in order for it to work aesthetically as a true depiction.

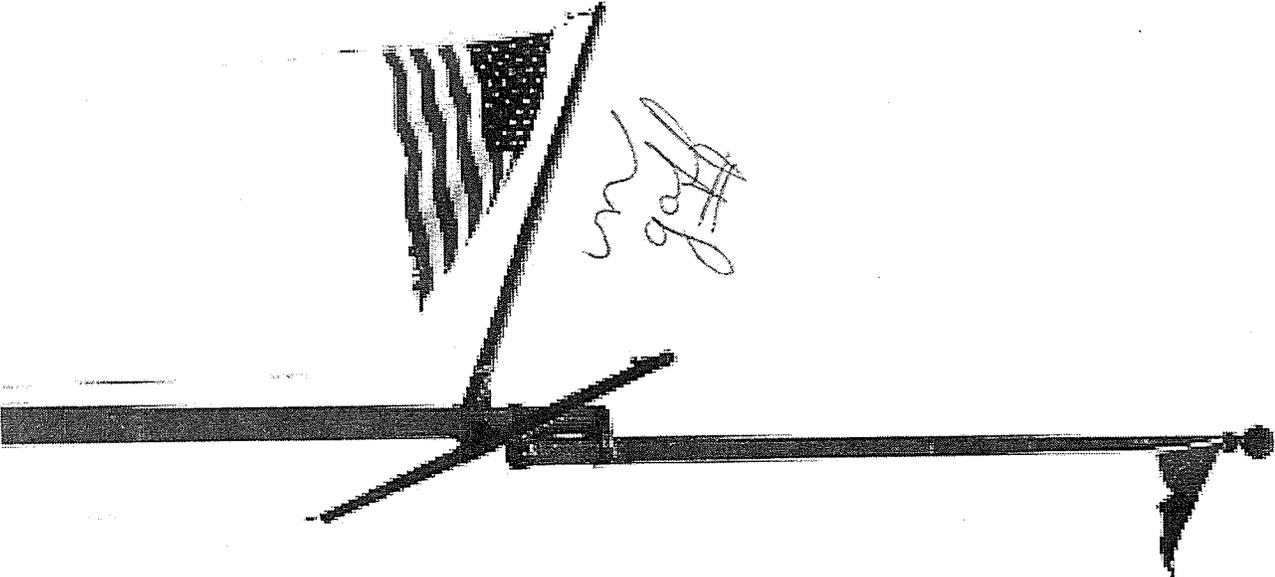
I say this because the renderings in the Palm Beach Post article look terrible and don't really look like a ship's mast. My vision is to copy the New York Yacht Club at Harbor Court, Newport RI.

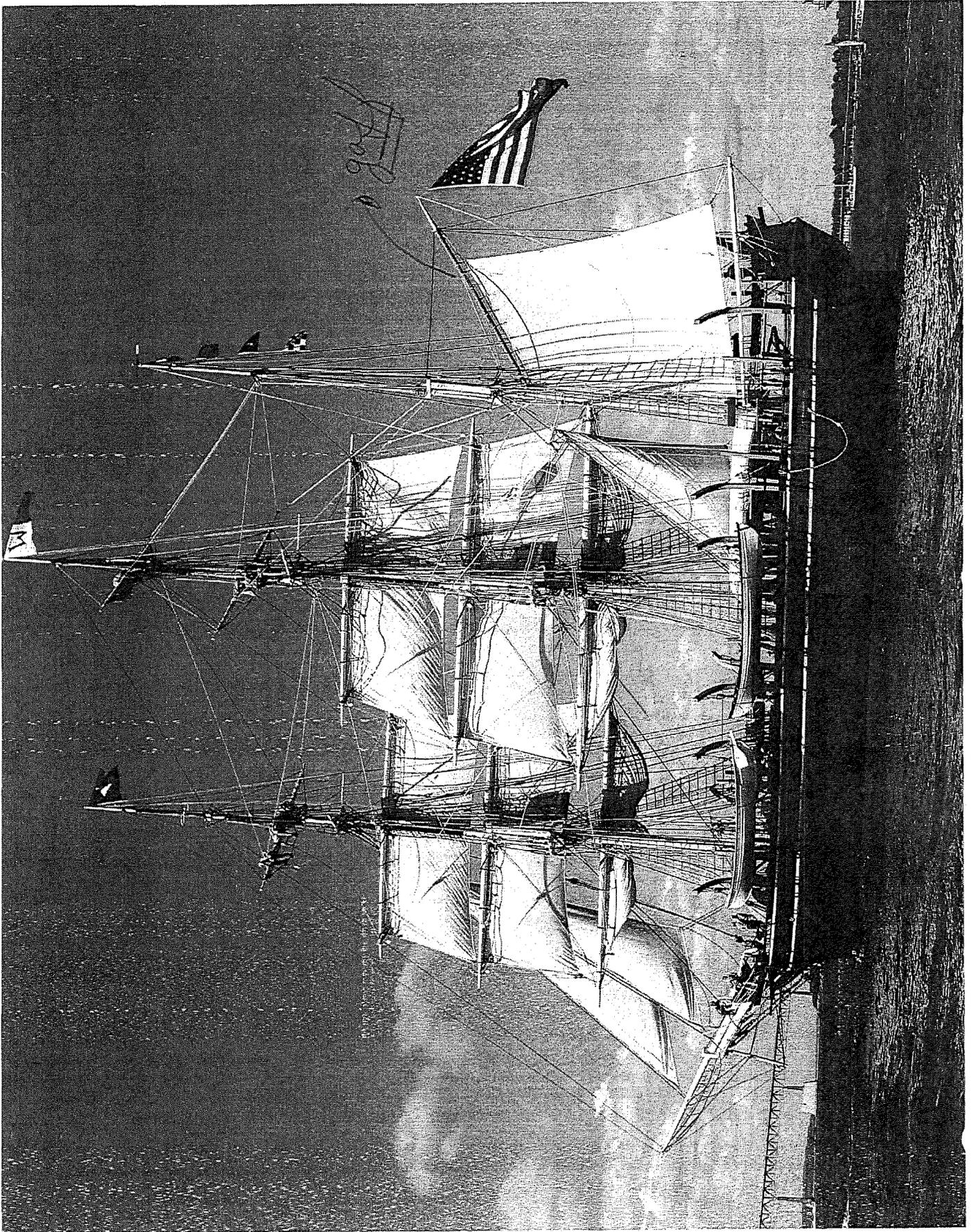
I also believe we should consider developing a Lake Park Marina Burgee which can be flown from the top of the mast.

Jon Luscomb

Jonathan Luscomb
Marina Director
Lake Park Harbor Marina
(561) 881-3353







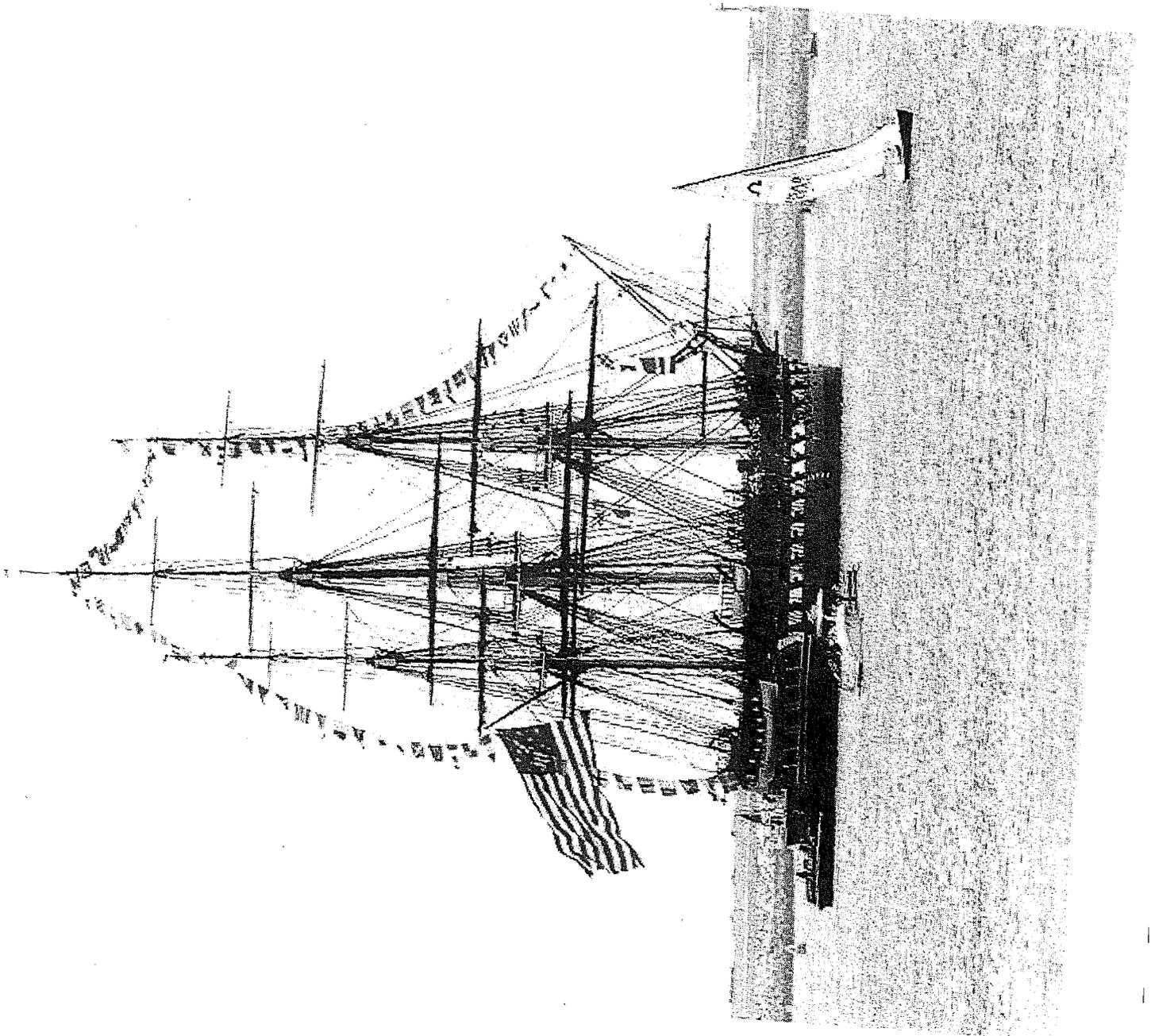


EXHIBIT "D"

Documents that were presented with the
January 4, 2016 P&Z agenda packet.



Original Application

**TOWN OF LAKE PARK
COMMUNITY DEVELOPMENT DEPARTMENT**

APPLICATION FOR SITE PLAN REVIEW OR AMENDMENT

****For Planned Unit Development (PUD) applications, please refer to Section 78-77 of the
Town Code of Ordinances for additional requirements****

Project Name: RGT Lake Park

Project Address: 105 Lake Shore Drive

Property Owner: Town of Lake Park

APPLICANT INFORMATION:

Applicant Name: RG Towers LLC

Applicant Address: 2141 Alt A1A S. Ste 440 Jupiter FL 33477

Phone: 561-748-0302 Fax: 561-748-0303 E-Mail: hvaldez@rgpartners.com

SITE INFORMATION:

General Location: Lake Park Marina

Address: 105 Lake Shore Dr.

Zoning District: P-Public Future Land Use: _____ Acreage: _____

Property Control Number (PCN): 36-43-42-21-00-004-0010

ADJACENT PROPERTY:

DIRECTION	ZONING	BUSINESS NAME	USE
North	RIAA	Lake Harbour Towers	0400- Condo
East	NA	Water	NA
South	RS5	Various Owners	0100 Single Family
West	R2A	Harbour View Condo	0400- Condo

JUSTIFICATION:

Information concerning all requests (attach additional sheets if needed)

1. Please explain the nature of the request:

RG Towers requests approval for 125' Stealth tower to meet growing demand of indoor, outdoor & in car coverage.

2. What will be the impact of the proposed change to the surrounding area?

A stealth yardarm type tower will blend nicely with the surrounding area

3. How does the proposed Project comply with the Town of Lake Park's zoning requirements?

No variances are requested.

LEGAL DESCRIPTION:

The subject property is located approximately 12 mile(s) from the intersection of Lake Shore Dr & Cypress on the north, east, south, west side of the Lake Shore Dr (street/road).

Legal Description:

21-42-43- PT OF GOV LT 4 E OF LAKE SHORE DR & W OF TOWN BULK HEAD LINE LYG BETWEEN ELY EXTENSION OF N LINE OF LT 17

I hereby certify that I am the owner(s) of record of the above described property or that I/we have written permission from the owner(s) of record to request this action.

88
OWNER/APPLICANT Signature

2/10/15
Date



PLEASE DO NOT DETACH FROM APPLICATION.

SIGNATURE REQUIRED BELOW.

Please be advised that Section 51-6 of the *Town of Lake Park Code of Ordinances* provides for the Town to be reimbursed, in addition to any application or administrative fees, for any supplementary fees and costs the Town incurs in processing development review requests.

These costs may include, but are not limited to, advertising and public notice costs, legal fees, consultant fees, additional Staff time, cost of reports and studies, NPDES stormwater review and inspection costs, and any additional costs associated with the building permit and the development review process.

For further information and questions, please contact the Community Development Department at 561-881-3318.

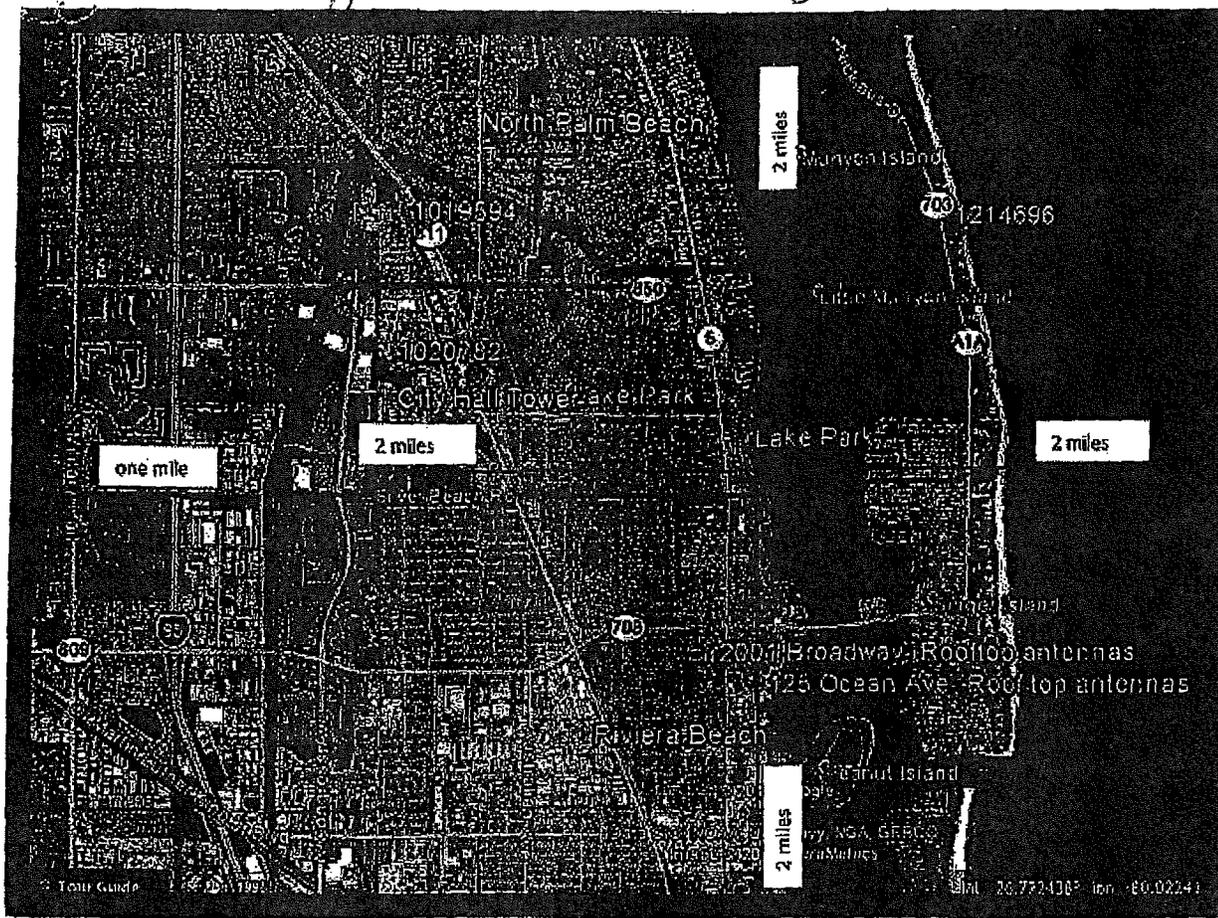
I, <u>Scott Richard</u> , have read and understand the regulations above regarding cost recovery.	
<u>[Signature]</u> Property Owner Signature Leaseholder / Applicant	<u>2/10/15</u> Date

5. A description of the maintenance plan for the proposed structure and respective compound facilities is required.

RG Towers, LLC contracts with a national tower maintenance company for the upkeep of our tower locations.

Routine Scope of Work performed

- Mow around all compounds & apply herbicides where necessary
 - Mow site's parking areas, around utilities & apply herbicides
 - Blow leaves out of compounds on each visit of the year (if necessary)
 - Apply pre-emergence and contact herbicide in all SOW areas.
 - Spray around compound
 - Take full before & after photo documentation of all scope of work areas
-



Reg Number	Tower Owner	Distance	Height	Tower Type	Carriers	Address	Comments
1019594	SpectraSite Communications, LLC. through American Towers, LLC	2.03 miles	60.9'	Monopole	4	9190 Old Dixie Hwy Lake Park, FL	
1020782	SpectraSite Communications, LLC. through American Towers, LLC	1.46 miles	482	Self-Support Tower	1 or 2	1115 Old Dixie Hwy (302758) W. Palm Beach, FL	provides strong indoor coverage levels for approximately one mile at which point service levels start to become inadequate
1214696	PALM BEACH, COUNTY OF	1.52 miles	269'	Roof top antennas	?	5420 North Singer Island Singer Island, FL	

unregistered	Crown Castle	0.82 mile	125'	Monopole	1	535 Park Avenue, Lake Park, FL 33403	Tower is unregistered. Crown site number 811572 Per town adopted budget for 2014-2015 revenue is 17,080.00
Rooftop	T-Mobile	1.04 miles		Roof top antennas	1	2001 Broadway, Riviera Beach FL	This rooftop antenna installation works well for approximately three quarters of a mile but the signal strength has dropped off significantly by E/W 28th ST
Rooftop	T-Mobile	1.56 miles		Roof top antennas	1	125 Ocean Ave, Palm Beach Shores FL	This rooftop facility provides good levels to the vicinity but levels across the water to the west are too weak for reliable service.

The Town of Lake Park jurisdiction is outlined in green.

ASR Registration Search

Registration Search Results

Displayed Results

 = Pending Application(s)

Specified Search

Latitude='26-47-39.3 N', Longitude='80-3-7.8 W', Radius=3.2 Kilometers

Registration Number	Status	File Number	Owner Name	Latitude/Longitude	Structure City/State	Overall Height Above Ground (AGL)
1 1019594	Constructed	A0604891	SpectraSite Communications, LLC. through American Towers, LLC.	26-48-40.0N 080-04-45.1W	LAKE PARK, FL	60.9
2 1020782	Constructed	A0738117	SpectraSite Communications, LLC. through American Towers, LLC.	26-47-59.7N 080-04-31.7W	W. PALM BEACH, FL	152.1
3 1214696	Constructed	A0612054	PALM BEACH, COUNTY OF	26-48-33.3N 080-02-06.6W	Singer Island, FL	86.5

6WP1273D – Lake Park Marina Coverage Objective Clarification

09/22/15

Department: T-Mobile Engineering & Operations – Miami Market

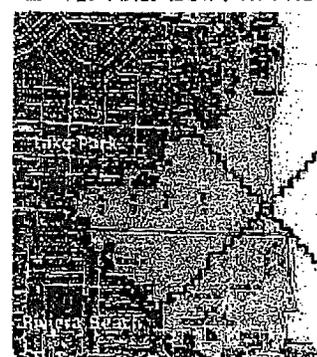
Last Updated: 09/22/15

T-Mobile Coverage Map – Before and After including city boundaries



As shown in the propagation plots cell coverage from the proposed tower is predicted to provide substantial improvements in Lake Park in addition to areas of Riviera Beach. In Lake Park from Palmetto Drive in the north to Silver Beach Rd in the south and from 6th St in the west to the intracoastal waterway in the east would expect significant increases in signal levels. Likewise in Riviera Beach from Silver Beach Rd in the north to E 27th in the south and from 5th St in the west to across the intracoastal waterway in the east will have improved service levels.

Along with improving general service levels the addition of this new tower would improve the reliability of E911 calls in the areas directly surrounding the Lake Park Marina. Currently users attempting emergency calls at the Marina (especially indoors) may experience situations of difficulties in sending, receiving and maintaining calls. While there are no examples of E911 call failures in the area surrounding the Marina, the significant improvements in signal levels offer a more robust service environment with built in redundancy due to the additional serving towers in the event of outages.



6WP1273D – Lake Park Marina

RF Engineering Review

Department: T-Mobile Engineering & Operations – Miami Market

Last Updated: 06/24/15

Absence of health and interference impacts

In response to requirements specified in the Telecommunications Act of 1996, the Federal Communications Commission (FCC) adopted a set of new Radio Frequency (RF) exposure guidelines. Originally based on the ANSI/IEEE C95.1-1002 standards, the new guidelines were modified based on a large number of comments from industry, government agencies including the EPA, FDA, NIOSH and OSHA and the public. Radio Frequency transmitting facilities, such as the proposed structure at Lake Park Marina are required to undergo routine evaluation for RF compliance whenever an application is submitted to the FCC. Failure to comply with exposure guidelines could lead to the eventual rejection of an application. The FCC Office of Engineering & Technology (OET) bulletin #56 states, "The FCC's policies with respect to environmental RF fields are designed to ensure that FCC-regulated transmitters do not expose the public or workers to levels of RF radiation that are considered by expert organizations to be potentially harmful." Although the technical aspects of evaluating compliance for cellular providers is beyond the scope of this submission the FCC publishes a number of studies and bulletins available to the public. Along with OET #56 (Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields) and OET#65 (Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields) less technical information is available with for example "Fact Sheet(s)" on New National Wireless Tower Siting Policies which can be found at the FCC website. (attached as part of this submission as well)

Specifically addressing the absence of health concerns from fact sheet #2:

17. Have any studies been conducted on potential health hazards of locating an antenna structures close to residential communities?

Answer: Many governmental agencies, scientists, engineers and professional associations have conducted studies of exposure levels due to RF emissions from cellular transmitter facilities. These levels have been found to be typically thousands of times below the levels considered to be safe by expert entities such as the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and the National Council on Radiation Protection and Measurements (NCRP), as reflected in the Commission's rules governing RF emissions.

RF Engineering Review

Letter of non-interference with radio services and public safety communications

This letter responds to request for information about the proposed T-Mobile antenna facility at the FPL Palm Beach Storage Facility and its potential interference with communication facilities located nearby, as well as the FCC rules governing the human exposure to radio frequency energy (OET 65 guidelines). T-Mobile shall comply with all FCC rules regarding interference to other radio services and with all FCC rules regarding human exposure to radio frequency energy. T-Mobile shall comply with all building and jurisdiction codes as applicable to the facility.

All installations including radio transceiver, antennas, coax and ancillary equipment will conform to FCC guidelines regarding registration and final determination for compliance with all applicable FAA rules and regulations.

T-Mobile radio signals are transmitted on exclusively assigned channels within the E and F band in the PCS spectrum and the D, E, F1 and F2 in the AWS spectrum and A Band in 700MHz. The Federal Communication Commission (FCC) has allocated these frequencies exclusively for use by cellular service providers. Each cellular service provider is assigned specific frequencies (channels) on which to transmit and receive radio signals.

Cellular transmitters must be type-accepted by the FCC to ensure compliance with technical standards that limit the frequencies, output power, radio frequency emissions, spurious radio noise and other technical parameters. Cellular licensees like T-Mobile are required to use type-accepted equipment. The assignment of frequencies and FCC rules keep cellular radio signals from interfering with or being interfered with by other radio transmissions and provide guidelines outlining the limits for permissible human RF exposure. In the event of a complaint of interference or other concerns about cellular antenna facilities, the FCC has a resolution process to determine the source of interference and whether a facility is in compliance with FCC rules.

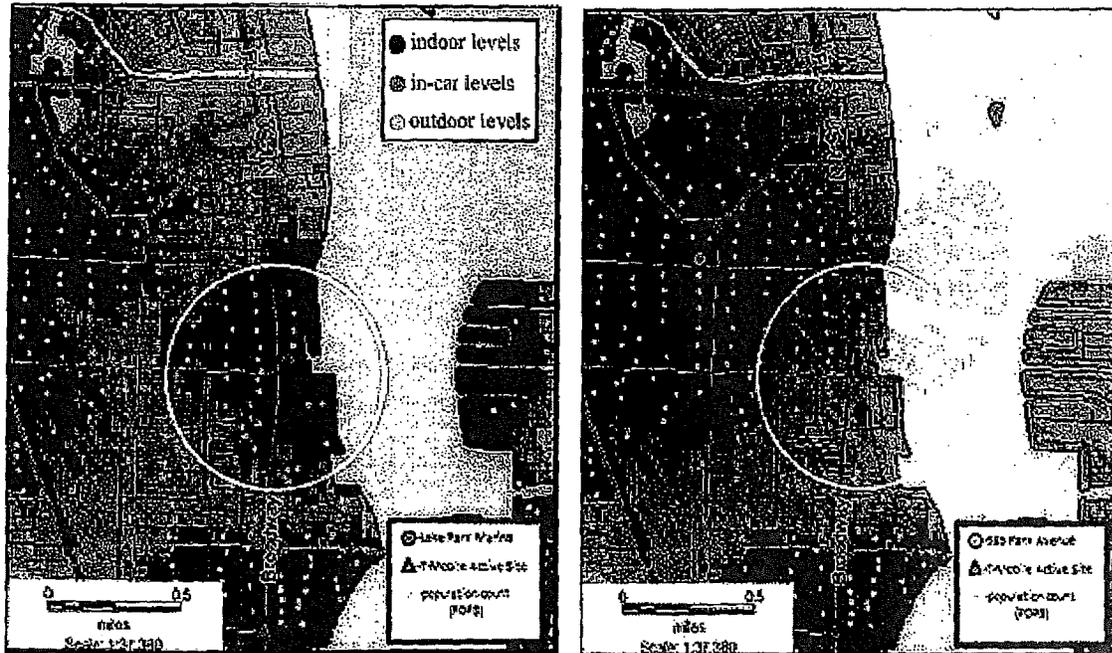
In the event of interference or other known issues with the transmission facility contact with the T-Mobile Network Operations Center (NOC) can be established 24 hours a day, 7 days a week 365/366 days per year at the following numbers: (877) 611-5868 (DAY), (877) 611-5868 (NIGHT)

Name Patrick Keane

Title T-Mobile RF Engineer

Signature 

T-Mobile Coverage Map – Alternate Candidate – Propagation



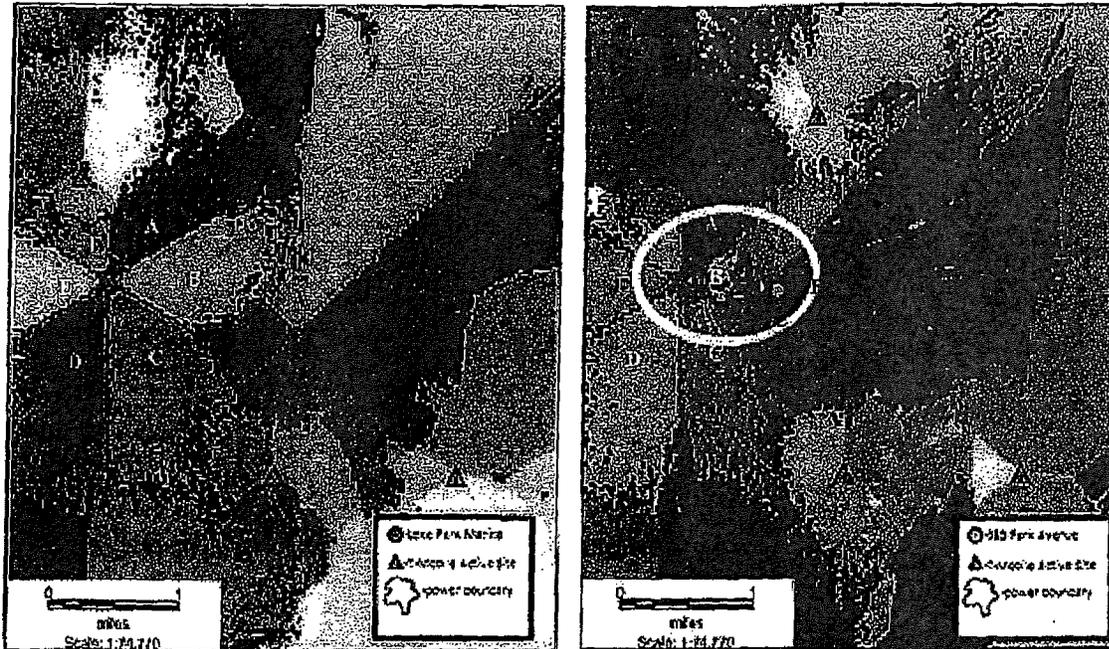
As demonstrated in previous submissions the area in question currently has marginal service levels which are inadequate to support the current technologies and capacity constraints. As part of T-Mobile's ongoing network deployment, new facilities are required to "fill in" areas of concern. And while the signals and levels are for the most part adequate for voice and simple data services definite compromises in coverage can be noted in areas surrounding the proposed tower.

There are currently three facilities which serve the general area where the new tower is proposed. Approximately one and a half miles to the northwest is a self-support tower located at 1115 Old Dixie Hwy in Lake Park which provides strong indoor coverage levels for approximately one mile at which point indoor service levels start to become inadequate. Almost one mile directly to the south at 2001 Broadway in Riviera Beach a rooftop antenna installation covers well for approximately three quarters of a mile but the signal strength has dropped off significantly by E/W 28th St. Finally to the south-east at 125 Ocean Ave in Palm Beach Shores another rooftop facility provides good levels in the vicinity but levels across the water to the west are too weak for reliable service. None of the existing infrastructure can provide the necessary service levels and resources required for next generation services due mostly to their distance from the area in question.

The new proposed tower at Lake Park Marina is primarily dedicated to an area in Riviera Beach from E/W 34th St in the north to Martin Luther King Jr Blvd in the south and from Old Dixie Hwy in the west towards Palm Beach Shores in the east.

Comprehensive efforts were made to utilize available structures or towers within the area of concern. There were no viable alternatives identified during the search of the general area. A monopole tower located at 535 Park Avenue is located approximately .8 mi from the proposed location but due to T-Mobile's network requirements cannot be used to solve the low signal areas. As shown in the above propagation plots the area of concern (white circle) is better served by the proposed tower at Lake Park Marina. The plot on the left shows the coverage footprint of the proposed tower, while the plot on the right shows predicted coverage from the monopole at 535 Park Avenue. The dark green areas indicate high quality signal levels as can be seen from the above graphics signal improvements from the 535 Park Ave tower would not make significant improvements to the area of concern. Additionally, this monopole tower is located in an already good service area and would act as an interfering element in the network. More details are presented in the next section in regards to the concept of "site spacing" and interference.

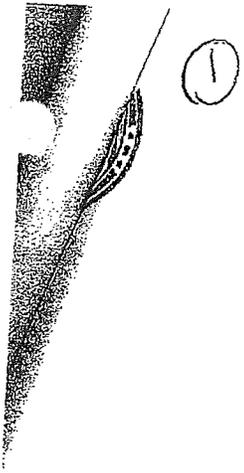
T-Mobile Coverage Map – Alternate Candidate – Power Boundaries



An important concept in cellular network design is "site spacing" or the inter-facility distance between towers/structures. In this part of the T-Mobile network idealized site spacing is approximately 1.25 to 1.5 miles. This means that all the towers need to be nearly equal in their distance from each other in order to maintain a "balanced" network load and service area. In the above boundary plots, the theoretical coverage array for each individual antenna is shown by the colored polygons. In the plot on the left the proposed Lake Park Marina coverage boundaries are shown as A/B/C/D. Each colored polygon represents the coverage pattern for individual "sectors". The "A" sector points north and like the "B" sector shows that the coverage pattern extends north for what appears to be a longer distance than the "C" or "D" sectors. This can be explained by the fact that radio energy travels further on water bodies. (The Intracoastal Waterway in this case) Of note, the "D" sector has a relatively well defined border with the polygons to the west. (the polygons labeled B/C in white)

In the plot on the right side the predictions from the 535 Park Avenue tower are shown. As can be seen from the highlighted area (white oval) there is no clear border between the neighboring facilities. While this situation can be somewhat mitigated, the redundant radio energy and lack of dominant serving sectors will always act as a compromising element in this local part of the network.

In conclusion the tower located at 535 Park Avenue cannot be utilized for the network development for T-Mobile due to it's proximity to an existing T-Mobile facility and the lack of adequate spacing between sites.



April 23, 1996

FEDERAL COMMUNICATIONS COMMISSION

FACT SHEET

Information provided by the Wireless Telecommunications Bureau

NEW NATIONAL WIRELESS TOWER SITING POLICIES

The Telecommunications Act of 1996 contains important provisions concerning the placement of towers and other facilities for use in providing personal wireless services. Most state and local communities have worked closely with cellular and other wireless service providers on such placement plans, but this new law establishes new responsibilities for communities and for the Federal Communications Commission (FCC). The rapid expansion in the wireless industry makes these issues even more important.

This fact sheet is intended to explain the new provisions and to help state and local governments as they deal with the complex issues of facilities siting in their local communities. At the end of this fact sheet, you will find names of contacts for additional information about this area and other issues before the FCC.

Section 704 of the Telecommunications Act of 1996 (the "1996 Act") governs federal, state and local government oversight of siting of "personal wireless service" facilities. The 1996 Act establishes a comprehensive framework for the exercise of jurisdiction by state and local zoning authorities over the construction, modification and placement of facilities such as towers for cellular, personal communications service (PCS), and specialized mobile radio (SMR) transmitters:

- The new law preserves local zoning authority, but clarifies when the exercise of local zoning authority may be preempted by the FCC.
- Section 704 prohibits any action that would discriminate between different providers of personal wireless services, such as cellular, wide-area SMR and broadband PCS. It also prohibits any action that would ban altogether the construction, modification or placement of these kinds of facilities in a particular area.
- The law also specifies procedures which must be followed for acting on a request to place these kinds of facilities, and provides for review in the courts or the FCC of any decision by a zoning authority that is inconsistent with Section 704.

SUMMARY OF SECTION 704 OF THE TELECOMMUNICATIONS ACT OF 1996

The following is a summary of key provisions. The text of Section 704 is reproduced in its entirety as an attachment to this summary.

1. Local Zoning Authority Preserved

Section 704(a) of the 1996 Act amends Section 332(c) of the Communications Act ("Mobile Services") by adding a new paragraph (7). It preserves the authority of state and local governments over decisions regarding the placement, construction, and modification of personal wireless service facilities, except as provided in the new paragraph (7).

2. Exceptions

a. States and Localities May Not Take Discriminatory or Prohibiting Actions

Section 704(a) of the 1996 Act states that the regulation of the placement, construction, and modification of personal wireless service facilities by any State or local government or instrumentality thereof shall not unreasonably discriminate among providers of functionally equivalent services and shall not prohibit or have the effect of prohibiting the provision of personal wireless services. 47 U.S.C. §332(c)(7)(B)(i).

Review: Any person that is adversely affected by a state or local government's action or failure to act that is inconsistent with Section 332(c)(7) may seek expedited review in the courts. 47 U.S.C. §332(c)(7)(B)(v).

b. Procedures for Ruling on Requests to Place, Construct or Modify Personal Wireless Service Facilities

Section 704(a) also requires a State or local government to act upon a request for authorization to place, construct, or modify personal wireless service facilities within a reasonable time. Any decision to deny a request must be made in writing and be supported by substantial evidence contained in a written record. 47 U.S.C. §332(c)(7)(B)(ii), (iii).

c. Regulations Based On Environmental Effects of RF Emissions Preempted

Section 704(a) of the 1996 Act expressly preempts state and local government regulation of the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the FCC's regulations concerning such emissions. 47 U.S.C. §332(c)(7)(B)(iv).

Review: Parties may seek relief from the FCC if they are adversely affected by a state or local government's final action or failure to act that is inconsistent with this provision. 47 U.S.C. § 332(c)(7)(B)(v).

3. Federal Guidelines Concerning RF Emissions



FEDERAL COMMUNICATIONS COMMISSION
WIRELESS TELECOMMUNICATIONS BUREAU
2025 M Street, N.W., Washington, DC 20554

FACT SHEET #2

SEPTEMBER 17, 1996

NATIONAL WIRELESS FACILITIES SITING POLICIES

The Telecommunications Act of 1996 (the 1996 Act) contains important provisions concerning the placement of antenna structures and other facilities for use in providing personal wireless services. State and local governments have already been working closely with wireless service providers to place such facilities within their localities. The new law establishes a framework for the exercise of jurisdiction by state and local zoning authorities over the construction, modification and placement of facilities for personal wireless services.

The new law also directs the Commission to offer assistance to state and local governments in resolving wireless facilities siting issues. In that capacity, the Commission has formed a Wireless Facilities Siting Task Force to serve as a focal point for collection and dissemination of information relating to the efforts of state and local governments, as well as providers of personal wireless services, to address facilities siting concerns. The Task Force believes it can serve as a valuable information resource for state and local governments and for the industry as they carry out the responsibilities assigned them under the new law. Proper implementation of the new law will ultimately benefit the American public by preserving local zoning and land use authority, while at the same time, promoting the broad availability of these exciting new technologies.

On April 23, 1996, the Wireless Telecommunications Bureau issued **Fact Sheet #1** to inform the public about the provisions of Section 704 of the 1996 Act, and to assist state and local governments as they deal with the complex issues of personal wireless facilities siting in their local communities. **Fact Sheet #1** summarized key provisions of Section 704, reprinted the complete text of Section 704 of the 1996 Act, provided technical information concerning personal wireless services, and, finally, answered frequently asked questions.

This **Fact Sheet #2** consists of four parts :

- PART I is a new compilation of frequently asked questions and answers;
- PART II summarizes the Commission's radiofrequency (RF) emission rules governing personal wireless services, adopted August 1, 1996, and sets forth the

Register, issued on March 29, 1996. For more information on the use of federal property to site wireless antenna facilities, please contact James Herbert, Office of Property Acquisition and Realty Services, Public Building Service, General Services Administration, at (202) 501-0376, or write to GSA at 18th & F Streets, NW, Washington, DC 20405.

Section 704 also mandated the Commission to provide technical support to states in order to encourage them to make property, rights-of-way and easements under their jurisdiction available for the placement of new spectrum-based telecommunications services. For more information on how the Commission can be of assistance to the state and local governments in this area, please contact Steve Markendorff, Chief of the Broadband Branch, Commercial Wireless Division, Wireless Telecommunications Bureau, at (202) 418-0620, or fax (202) 418-1412, or email "smarkend@fcc.gov."

RADIOFREQUENCY (RF) EMISSIONS

16. *Does Section 704 preempt state and local governments from basing regulation of the placement, construction or modification of personal wireless facilities directly or indirectly on the environmental effects of RF emissions?*

Answer: Yes. Section 704 states that "No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions."

17. *Have any studies been conducted on potential health hazards of locating an antenna structures close to residential communities?*

Answer: Many governmental agencies, scientists, engineers and professional associations have conducted studies of exposure levels due to RF emissions from cellular transmitter facilities. These levels have been found to be typically thousands of times below the levels considered to be safe by expert entities such as the Institute of Electrical and Electronics Engineers, Inc. (IEEE), and the National Council on Radiation Protection and Measurements (NCRP), as reflected in the Commission's rules governing RF emissions.

18. *Has the Commission adopted new guidelines for evaluating RF exposures?*

Answer: Yes. In light of revised guidelines developed by the Institute of Electrical and Electronics Engineers, Inc. and adopted by the American National Standards Institute in 1992 (ANSI/IEEE C95.1-1992), the Commission initiated a proceeding in 1993 to determine whether the Commission should adopt these guidelines to replace the 1982 ANSI guidelines. Section 704 of the 1996 Act required the Commission to complete this rulemaking proceeding (ET Docket 93-62) and have in place revised RF exposure guidelines by August 7, 1996. The Commission adopted a *Report and Order*, FCC 96-326, on August 1, 1996, which revised the guidelines that



**Department of Planning,
Zoning & Building**

2300 North Jog Road
West Palm Beach, FL 33411-2741
(561) 233-5000

Planning Division 233-5300
Zoning Division 233-5200
Building Division 233-5100
Code Enforcement 233-5500
Contractors Certification 233-5525
Administration Office 233-5005
Executive Office 233-5228
www.pbcgov.com/pzb

**Palm Beach County
Board of County
Commissioners**

Shelley Vana, Mayor
Mary Lou Berger, Vice Mayor
Hal R. Valeche
Paulette Burdick
Steven L. Abrams
Melissa McKinlay
Priscilla A. Taylor

County Administrator

Robert Weisman

February 25, 2014

Dina Bazzill
Environmental Corporation of America
1375 Union Hill Industrial Court, Suite A
Alpharetta, GA 30004

**RE: Historical and Archaeological Resource Review for:
SFL13 (Lake Park Marina)
105 Lake Shore Dr., Lake Park, Palm Beach County, Florida
ECA Project #: R0400**

This correspondence is in reply to your request for a review of the above referenced property in regard to the identification of any cultural resources (historical and archaeological resources) located on or within 500 feet of this property. Please note that this property is in the Town of Lake Park and thus not within Palm Beach County's jurisdiction.

Staff's review of the County's survey of historic/architecturally significant structures, and of properties designated for inclusion in the National Register of Historic Places (NRHP), has identified no historic or architecturally significant resources on or within 500 feet of the above referenced property.

Staff review of the County's map of known archaeological sites has identified no known archaeological resources located on or within 500 feet of the above referenced property.

Lastly, should skeletal remains be encountered during construction, per Florida Statue 872, construction must stop around the remains and the local sheriff and medical examiner contacted.

Should you have any questions or comments, please contact me at (561) 233-5331.

Sincerely,

Christian Davenport MA, RPA
Palm Beach County Archeologist

"An Equal Opportunity
Affirmative Action Employer"

cc: Nadia DiTommaso, Community Development Director, Town of Lake Park

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ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

Community February 13, 2015

FEB 20 2015

Development

Town of Lake Park
535 Park Avenue
Lake Park, FL 33403

Subject: Section 106 Review
TCNS ID #122807
Proposed 125-Foot Overall Height Stealth Yardarm Telecommunications Structure
SFL13 (Lake Park Marina)
105 Lake Shore Drive
Lake Park, Palm Beach County, Florida
ECA Project #: R0400

To Whom It May Concern:

RG Towers, LLC is proposing to construct a 125-foot overall height stealth yardarm telecommunications structure located at 105 Lake Shore Drive, Lake Park, Palm Beach County, Florida. In accordance with the Federal Communications Commission regulation at 47 C.F.R. 1.1307(a)(4), we are providing notice to you and seeking any comments that you may have regarding the effect of the proposed action described above on **Historic Properties** in your community. A map is included for your reference. Based on your level of interest in the proposed project, you may wish to become a consulting party. *This notice is not intended to supplant any local zoning or permitting requirements, but is necessary before we can request review of the proposed action by the State Historic Preservation Office.*

We welcome any comments that you may have regarding any **Historic Properties** that could be potentially affected by the proposed action. Please direct your comments to Dina Bazzill, Environmental Corporation of America, 1375 Union Hill Industrial Court, Suite A, Alpharetta, Georgia 30004, 770-667-2040 x111. Because we would like to submit their project to the SHPO for review as soon as possible, we request that you provide any documents that you may have within 30 days. Thank you for your cooperation.

Sincerely,
Environmental Corporation of America

Karen Sauler
Karen Sauler
Project Manager

Eric Johnson
Eric Johnson
Senior Project Manager



UNIVERSAL ENGINEERING SCIENCES

Continuity
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REPORT OF A LIMITED GEOTECHNICAL EXPLORATION

Lake Park Marina Tower
105 Lake Shore Drive
Lake Park, Broward County, Florida

UES Project No. 0930.1500032.0000
UES Report No. 1255351

August 7, 2015

PREPARED FOR

RG Towers, LLC
2141 Alternate A1A, Suite 440
Jupiter, FL 33477

PREPARED BY

Universal Engineering Sciences, Inc.
5561 Florida Mining Boulevard South
Jacksonville, FL 32257
(904) 296-0757

CONSULTANTS:

Geotechnical Engineering ▪ Environmental Engineering ▪ Construction Materials Testing
Threshold Inspection ▪ Private Provider Inspection ▪ Geophysical Studies

OFFICES: Daytona Beach, FL ▪ Fort Myers, FL ▪ Fort Pierce, FL ▪ Gainesville, FL ▪ Jacksonville, FL ▪ Leesburg, FL ▪ Miami, FL ▪ Norcross, GA ▪ Ocala, FL
Orlando, FL ▪ Palm Coast, FL ▪ Panama City, FL ▪ Pensacola, FL ▪ Rockledge, FL ▪ Sarasota, FL ▪ St. Augustine, FL ▪ Tampa, FL ▪ West Palm Beach, FL



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Consultants In: Geotechnical Engineering • Environmental Engineering • Construction Materials Testing •
Threshold Inspection • Private Provider Inspection • Geophysical Studies

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- Miami, FL
- Norcross, GA
- Ocala, FL
- Orlando, FL
- Palm Coast, FL
- Panama City, FL
- Pensacola, FL
- Rockledge, FL
- Sarasota, FL
- St. Augustine, FL
- Tampa, FL
- West Palm Beach, FL

August 7, 2015

RG Towers, LLC
2141 Alternate A1A, Suite 440
Jupiter, FL 33477

Attention: Mr. Scott Richards

Subject: Report of a Limited Geotechnical Exploration
Lake Park Marina Tower
105 Lake Shore Drive
Lake Park, Broward County, Florida
UES Project No. 0930.1500032.0000 and Report No. 1255351

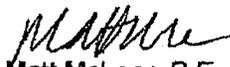
Dear Mr. Richards:

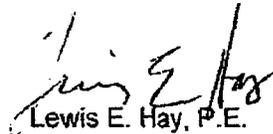
Universal Engineering Sciences (UES) has completed a limited geotechnical exploration for the Lake Park Marina Tower site in Lake Park, Broward County, Florida. Our services were provided in general accordance with your request and our quote of February 26, 2015. Authorization to proceed with our services was provided by Mr. Eric Johnson of Environmental Corporation of America on July 20, 2015. This report briefly describes our understanding of the proposed construction, documents the field exploration and testing performed, presents the data obtained, and provides our geotechnical engineering evaluation of the site and subsurface conditions with respect to the proposed construction.

We appreciate the opportunity to be of service as your geotechnical consultant on this phase of the project and look forward to a continued relationship. If you have any questions, or if we may be of any further service, please contact us.

Very truly yours,

UNIVERSAL ENGINEERING SCIENCES


Matt McLeer, P.E.
Senior Geotechnical Engineer
Registered, Florida No. 65027


Lewis E. Hay, P.E.
Senior Geotechnical Engineer
Registered, Florida No. 48098

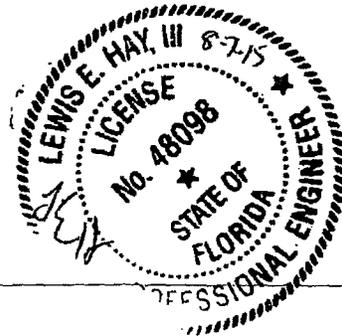


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APPENDIX A

BORING LOCATION PLAN
BORING LOGS
KEY TO BORING LOGS
FIELD EXPLORATION PROCEDURES

APPENDIX B

IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT
CONSTRAINTS AND RESTRICTIONS



1.0 SCOPE OF WORK

UES was engaged to provide geotechnical engineering consulting services for the Lake Park Marina Tower site at 105 Lake Shore Drive in Lake Park, Broward County, Florida. This report briefly discusses our understanding of the project, describes our exploratory procedures and presents our findings, conclusions and recommendations.

The primary objective of this study was to perform a geotechnical exploration within the area of the proposed construction and to assess the findings as they relate to the geotechnical aspects of the planned site development. The authorized geotechnical engineering services included a site reconnaissance, a soil test boring and sampling program, in-situ testing, engineering evaluation of the field data, and the preparation of this report.

The services were performed substantially in accordance with your request of February 26, 2015 and in general accordance with industry standards.

As authorized, the completed geotechnical report was to include:

- A description of the site, fieldwork, laboratory testing and general soil conditions encountered, including a Boring Location Plan and an individual Boring Record; and
- Foundation system recommendations for the proposed tower, including geotechnical design parameters to assist with the design of drilled shaft foundations.

The assessment of the presence of wetlands, floodplains or water classified as State Waters of Florida and the potential for karst activity was beyond the scope of this study. Additionally, the assessment of site environmental conditions, including the detection of pollutants in the soil, rock or groundwater, at the site was also beyond the scope of this geotechnical study. If desired, UES can provide these services.

2.0 PROJECT INFORMATION

2.1 Site Location and Description

The proposed tower site is located at 105 Lake Shore Drive in Lake Park, Broward County, Florida. The proposed lease area is in a grassed area north of an existing building. The site topography is relatively level and no standing surface water was observed on the site at the time of our exploration. The surface soils consisted of brown fine sands with some roots.

2.2 Project Description

Project information was provided by Mr. Eric Johnson of Environmental Corporation of America during recent phone conversations and e-mails. We have been provided a Set of Plans prepared by Caltrop Telecom (including Sheets C-1, C-1 and C-3) dated January 8, 2015. We



were also provided a FAA 1A Letter dated February 26, 2014 prepared by Caltrop Telecom. The proposed communication tower will consist of a stealth yardarm structure supported by a single drilled shaft foundation designed to resist the shear and overturning moments. We understand that the tower will be approximately 125 feet in height. A light weight support structure may be constructed near the base of the tower. We understand that the coordinates of the proposed tower are 26.794194° N and 80.052242° W. The ground surface elevation at the tower location is 2 feet, NAVD 88.

We have assumed that less than a foot of fill will be required to establish the desired site grades. If actual fill heights exceed two feet, the recommendations in this report may require re-evaluation.

3.0 FIELD EXPLORATION

3.1 SPT Boring

To explore the subsurface conditions in the proposed tower construction area, we drilled one (1) Standard Penetration Test (SPT) boring (B1) to a depth of 60 feet at the center of the proposed tower location. The field services were performed on August 3, 2015. The SPT boring was drilled in general accordance with ASTM D 1586. Upon completion, the borehole was grouted. The boring location was established in the field by our drill crew using taped measurements from existing features shown on the site plan furnished to us. The ground surface elevation at the boring location was provided by the project surveyor. A description of the field drilling and sampling procedure is included in Appendix A of this report. Split-spoon soil samples recovered during performance of the boring were visually classified in the field by the driller. Representative portions of the samples were returned to our office and examined by a geotechnical engineer to verify the field classifications. The samples were visually classified in general accordance with ASTM D-2488 (Unified Soil Classification System.)

4.0 GENERAL SUBSURFACE CONDITIONS

4.1 General Soil Profile

The subsurface conditions outlined below highlight the major subsurface stratifications encountered during our geotechnical exploration of the site. When reviewing the Boring Log and the subsurface conditions outlined below, it should be understood that the subsurface conditions will vary away from the boring location.

Beneath a thin grass root zone, the SPT boring encountered brown to light brown fine sand (SP) with some roots and shell fragments to a depth of 4 feet. Boring was advanced with a hand auger in this zone to avoid damaging underground utilities and standard penetration testing was not performed. Medium dense to very loose light brown to brown and grey to light grey fine sand (SP) was then penetrated to a depth of 32 feet. The standard penetration test values in this layer ranged from 4 to 12 blows per foot. Medium dense light brown to brown and grey fine sand



(SP) with some shell fragments was next encountered to a depth of 53 feet. The standard penetration test value in this layer ranged from 13 to 27 blows per foot. Very dense light grey cemented sand (SP) then extended to the boring termination depth of 60 feet. The standard penetration test values in this lower zone ranged from 56 blows per foot to 50 blows = 2 inches.

4.2 Groundwater Level

The groundwater level was encountered at a depth of approximately 4.0 feet below the ground surface at the boring location at the time of drilling. The depth to the groundwater is noted on the Boring Log in Appendix A. It should be anticipated that the groundwater level will fluctuate due to seasonal climatic variations, surface water runoff patterns, construction operations, ditches, and other interrelated factors. For the purpose of our evaluation, we have assumed the groundwater level will temporarily rise to existing ground surface during heavy, prolonged rainfall events.

5.0 DESIGN RECOMMENDATIONS

5.1 General

Our geotechnical engineering evaluation of the site and subsurface conditions at the property with respect to the planned tower construction are based on (1) our site observations, (2) the field data obtained, and (3) our understanding of the project information as presented in this report. Should the location of the proposed tower be changed or the fill heights in the area of the support structure exceed two feet, please contact us so that we can review our recommendations. The discovery of any site or subsurface conditions during construction which deviate from the data obtained during this geotechnical exploration should also be reported to us for our evaluation.

Based on the project information provided, it is anticipated that the proposed tower will be supported on a single drilled shaft foundation. The design of the foundation should include a lateral load and an axial load capacity analysis. Should the loading information become available, we would be pleased to provide our professional services to perform these analyses.

5.2 Drilled Shaft Foundation Design Recommendations

5.2.1 Soil Parameters

Laboratory analysis to determine actual soil shear strength properties was beyond the authorized scope of services. Based on our experience with similar soils and construction, we have provided estimates of geotechnical design parameters to aide in drilled shaft foundation design as presented in the table below. Our estimates are based on the analysis of an 84-inch diameter drilled shaft using the computer program FB-Deep 2.03. The total settlement of the shaft was limited to 0.5 inches or approximately 0.595 percent of the shaft diameter. By limiting



the amount of settlement, the allowable end bearing values may appear somewhat lower than otherwise anticipated.

DESIGN PARAMETERS										
Depth (ft)		Unified Soil Classification	Effective Unit Effective Weight (pcf)	Friction Angle (degree)	Unconfined Compressive Strength (ksf)	Earth Pressure Coefficients			Allowable Skin Friction ¹ (ksf)	Allowable End Bearing ¹ (ksf)
From	To					Active K _a	Passive K _p	At-Rest K _o		
0.0	4.0	SP	55	30	0	0.33	3.00	0.50	—	—
4.0	6.0	SP	55	31	0	0.32	3.12	0.48	0.13	—
6.0	12.0	SP	55	29	0	0.35	2.88	0.52	0.08	—
12.0	17.0	SP	50	29	0	0.35	2.88	0.52	0.12	1.0
17.0	24.0	SP	50	30	0	0.33	3.00	0.50	0.15	1.2
24.0	28.0	SP	50	31	0	0.32	3.12	0.48	0.28	1.7
28.0	32.0	SP	60	30	0	0.33	3.00	0.50	0.30	1.9
32.0	37.0	SP	60	33	0	0.29	3.39	0.46	0.62	2.2
37.0	42.0	SP	60	33	0	0.29	3.39	0.46	0.66	2.8
42.0	47.0	SP	55	31	0	0.32	3.12	0.48	0.59	3.5
47.0	53.0	SP	60	33	0	0.29	3.39	0.46	—	—
53.0	57.0	SP	60	35	0	0.27	3.69	0.43	—	—
57.0	60.0	SP	60	35	0	0.27	3.69	0.43	—	—

¹Note: A safety factor of 2 for skin friction has been applied to the allowable values presented in the table above. A safety factor of approximately 5 has been applied to the allowable end bearing values. We recommend that skin friction in the upper 5 feet be ignored for design purposes.

The design parameters presented above are based upon the analysis of an 84-inch diameter drilled shaft. Design parameters will change slightly for different shaft diameters and should be confirmed when the design is more advanced.

5.2.2 Drilled Shaft Construction Recommendations

The installation of the drilled shaft foundation should be in accordance with FDOT Specification 455-23 (Drilled Shaft Foundations). Based on the unconsolidated nature of the soils existing at the site, the drilled shaft should be installed using the "wet" construction method utilizing either a polymer or bentonite slurry to stabilize the shaft excavation. A temporary surface casing is recommended to help stabilize the upper loose sandy soils.

The successful construction of a drilled shaft with a continuous cross section from top to bottom is critical for the support a monopole tower founded on a single drilled shaft foundation. Prevention of the formation of a "mud cake" on the sidewalls of the shaft resulting from the use of stabilizing slurry is of particular concern due to the detrimental impact on shaft skin friction. The drilled shaft should therefore be installed by an experienced contractor that can demonstrate numerous successful shaft installations in similar soil conditions. In addition, the installation of



the shaft should be observed and documented by a qualified engineer or senior engineering technician from this office.

We recommend that seven (one per foot of shaft diameter), full length, minimum 1.5-inch diameter steel access tubes be equally spaced around the outside perimeter of the drilled shaft rebar cage. The tubes should be capped on both ends and filled with water prior to concrete placement. These tubes will facilitate cross-hole sonic logging (CSL) or other drilled shaft testing techniques in the event it becomes necessary to verify the continuity and integrity of the drilled shaft concrete.

The concrete used to construct the shaft should have a minimum 28 day compressive strength of 4000 psi and a slump of at least 6 inches at the time of placement. The concrete should be placed as soon as possible once the shaft excavation is completed. The concrete should be placed by either pumping or using the tremmie method.

5.3 Support Structure

A small, one-story, lightly loaded support structure near the base of the tower could be supported on a shallow foundation system. Shallow footings for the support structure could be designed with an allowable soil bearing capacity of 2,000 psf and a minimum footing width of 16 inches. A small structure could also be supported by a monolithic slab foundation. The turned down edges of the slab should have a minimum width of 12 inches. The foundation should be embedded a minimum depth of 12 inches below the finished exterior grade. The bearing level soils, after compaction, should exhibit densities equivalent to at least 95 percent of the Modified Proctor maximum dry density (ASTM D 1557) to a depth of at least one foot below the foundation bearing level.

6.0 REPORT LIMITATIONS

Our geotechnical exploration has been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. Universal Engineering (UES) is not responsible for any independent conclusions, interpretation, opinions or recommendations made by others based on the data contained in this report. This report does not reflect any variations which may occur away from the soil boring. The discovery of any site or subsurface condition during construction which deviates from the data obtained during this geotechnical exploration should be reported to us for our evaluation. Also, in the event of any change to the location of the tower, please contact us so that we can review our recommendations.

During the early stages of most construction projects, geotechnical issues not addressed in this report may arise. Because of the natural limitations inherent in working with the subsurface, it is not possible for a geotechnical engineer to predict and address all possible problems. A Geotechnical Business Council publication, "Important Information About This Geotechnical Engineering Report" appears in Appendix B, and will help explain the nature of geotechnical issues.

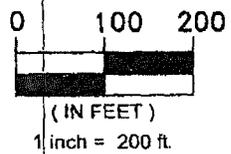
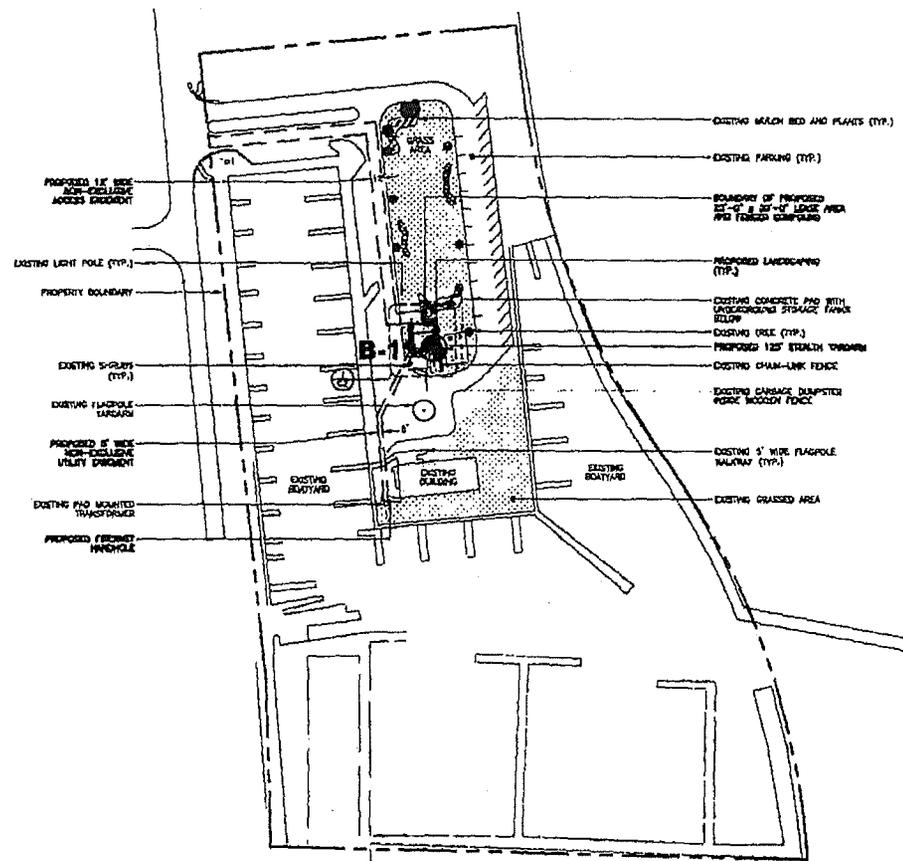
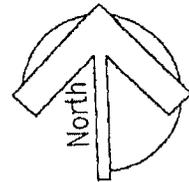


Further, we present documents in Appendix B: Constraints and Restrictions, to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.



APPENDIX A

**BORING LOCATION PLAN
BORING LOG
KEY TO BORING LOGS
FIELD EXPLORATION PROCEDURES**



LEGEND

SPT BORING LOCATIONS



GEOTECHNICAL EXPLORATION
LAKE PARK MARINA TOWER
105 LAKE SHORE DRIVE
PENSACOLA, FLORIDA

BORING LOCATION PLAN

REVISED BY: TW	DATE: 8/6/15	CHECKED BY: LEH	DATE: 8/6/15
SCALE: 1"=100'	PROJECT NO: 0930.1500032.0000	REPORT NO:	PAGE NO: FIGURE 1



UNIVERSAL ENGINEERING SCIENCES BORING LOG

REPORT NO: <u>125 5351</u>
PAGE: <u>A-1</u>

PROJECT: GEOTECHNICAL EXPLORATION
LAKE PARK MARINA TOWER
FLORIDA

BORING DESIGNATION: **B-1**
SECTION: TOWNSHIP:

SHEET: **1 of 2**
RANGE:

CLIENT: ENVIRONMENTAL CORPORATION OF AMERICA

G.S. ELEVATION (ft):

DATE STARTED: 8/3/15

LOCATION: SEE BORING LOCATION PLAN

WATER TABLE (ft): 4

DATE FINISHED: 8/3/15

REMARKS: Grouted borehole upon completion

DATE OF READING: 8/03/2015

DRILLED BY: JR/WC

EST. W.S.W.T (ft):

TYPE OF SAMPLING: ASTM D-1586

DEPTH (FT.)	SAMPLING	BLOWS PER 6" INCREMENT	N (BLOWS/ FT.)	W.T	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT./ DAY)	ORG. CONT. (%)
									LL	PI		
0	X	Hand Auger	-			Brown fine SAND (SP) w/ some roots						
	X	Hand Auger	-			Light brown fine SAND (SP) w/ some shell fragments						
5	X	8-8-4-4	12			Medium Dense light brown fine SAND (SP) w/ some shell fragments						
	X	2-2-2-2	4			Very Loose to Loose light brown fine SAND (SP) w/ some shell fragments						
10	X	2-2-3-3	5			Loose to Very Loose brown to grey fine SAND (SP)						
15	X	2-2-2-2	4									
20	X	2-3-4-4	7									
25	X	3-4-5-7	9			Loose light grey fine SAND (SP) w/ some cemented zones						
30	X	3-4-4-6	8			Loose light brown fine SAND (SP) w/ some shell fragments						

BORING LOG 0830.1500032.0000 - LAKE PARK MARINA TOWER.GPJ UNENGBSC.GDT 8/5/15



UNIVERSAL ENGINEERING SCIENCES BORING LOG

REPORT NO.:	
PAGE:	A-2

PROJECT: GEOTECHNICAL EXPLORATION
LAKE PARK MARINA TOWER
FLORIDA

BORING DESIGNATION: **B-1**
SECTION: TOWNSHIP:

SHEET: **2 of 2**
RANGE:

DEPTH (FT)	SAMPLE	BLOWS PER 6" INCREMENT	N (BLOWS/ FT)	W.T	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT / DAY)	ORG. CONT. (%)
									LL	PI		
30						Loose light brown fine SAND (SP) w/ some shell fragments						
35	X	8-11-16-18	27			Medium Dense light brown to brown and grey fine SAND (SP) w/ some shell fragments						
40	X	8-9-11-9	20									
45	X	3-5-8-6	13									
50	X	9-10-10-8	20									
55	X	50=2"	50=2"				Very Dense light grey cemented SAND (SP)					
60	X	24-30-26-26	56									

BORING LOG 0990-1500032 0300 - LAKE PARK MARINA TOWER.GPJ UNENEGSC.GDT 8/5/15



KEY TO BORING LOGS

SYMBOLS	
SYMBOL	DESCRIPTION
N	No. of blows of a 140-lb weight falling 30 inches required to drive standard spoon 1 foot.
WOR	Weight of Drill Rods
WOH	Weight of Drill Rods and Hammer
% REC	Percent Core Recovery from Rock Core Drilling
RQD	Rock Quality Designation
EOB	End Of Boring
BT	Boring Terminated
-200	Fines Content or % Passing No. 200 Sieve
MC	Moisture Content
LL	Liquid Limit
PI	Plasticity Index
K	Coefficient of Permeability
O.C.	Organic Content
☒	Estimated seasonal high groundwater level
☒	Measured groundwater level at time of drilling

RELATIVE DENSITY (sand-silt)	
Very Loose	- Less Than 4 Blows/Ft.
Loose	- 4 to 10 Blows/Ft.
Medium	- 11 to 30 Blows/Ft.
Dense	- 31 to 50 Blows/Ft.
Very Dense	- More Than 50 Blows/Ft.

CONSISTENCY (clay)	
Very Soft	- Less than 2 Blows/Ft.
Soft	- 2 to 4 Blows/Ft.
Medium	- 5 to 8 Blows/Ft.
Stiff	- 9 to 15 Blows/Ft.
Very Stiff	- 16 to 30 Blows/Ft.
Hard	- More Than 30 Blows/Ft.

RELATIVE HARDNESS (Limestone)	
Soft	- 100 Blows for more than 2"
Hard	- 100 Blows for less than 2"

UNIFIED CLASSIFICATION SYSTEM			
MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve*	GRAVELS 50% or more of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS	GW Well-graded gravels and gravel-sand mixtures, little or no fines
		GRAVELS WITH FINES	GP Well-graded gravels and gravel-sand mixtures, little or no fines
	SANDS More than 50% of coarse fraction passes No. 4 sieve	CLEAN SANDS	GM Silty gravels, gravel-sand-silt mixtures
			GC Clayey gravels, gravel-sand-clay mixtures
		SANDS WITH FINES	SW** Well-graded sands and gravelly sands, little or no fines
			SP** Well-graded sands and gravelly sands, little or no fines
FINE-GRAINED SOILS 50% or more passes No. 200 sieve*	SILTS AND CLAYS Liquid limit 50% or less	SM** Silty sands, sand-silt mixtures	
		SC** Clayey sands, sand-clay mixtures	
		ML Inorganic silts, very fine sands, rock flour, silty or clayey fine sands	
	SILTS AND CLAYS Liquid limit greater than 50%	CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL Organic silts and organic silty clays of low plasticity	
		MH Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts	
		CH Organic clays of high plasticity, fat clays	
		OH Organic clays of medium to high plasticity	
PT Peat, muck and other highly organic soils			

* Based on the material passing the 3-in. (75 mm) sieve.
** Use dual symbol (such as, SP-SM and SP-SC) for soil with more than 5% but less than 12% passing through No. 200 sieve.

MODIFIERS
These modifiers provide our estimate of the amount of minor constituents (SILT or CLAY sized particles) in the soil sample.
Trace - 5% or less
With SILT or with CLAY - 6% to 11%
SILTY or CLAYEY - 12% to 30%
Very SILTY or Very CLAYEY - 31% to 50%
These modifiers provide our estimate of the amount of organic components in the soil sample.
Trace - 1% to 2%
Few - 3% to 4%
Some - 5% to 8%
Many - Greater than 8%
These modifiers provide our estimate of the amount of other components (Shell, Gravel, Etc.) in the soil sample
Trace - 5% or less
Few - 6% to 12%
Some - 13% to 30%
Many - 31% to 50%

FIELD EXPLORATION PROCEDURES

Standard Penetration Test Boring

The penetration boring was made in general accordance with the latest revision of ASTM D 1586, "Penetration Test and Split-Barrel Sampling of Soils". The boring was advanced by rotary drilling techniques using a circulating bentonite fluid for borehole flushing and stability. At 2 ½ to 5 foot intervals, the drilling tools were removed from the borehole and a split-barrel sampler inserted to the borehole bottom and driven 18 inches into the soil using a 140 pound hammer falling on the average 30 inches per hammer blow. The number of blows for the final 12 inches of penetration is termed the "penetration resistance, blow count, or N-value". This value is an index to several in-place geotechnical properties of the material tested, such as relative density and Young's Modulus.

After driving the sampler 18 inches (or less if in hard rock-like material), the sampler was retrieved from the borehole and representative samples of the material within the split-barrel were placed in glass jars and sealed. After completing the drilling operations, the samples for each boring were transported to our laboratory where they were examined by our engineer in order to verify the driller's field classification.

APPENDIX B

**IMPORTANT INFORMATION ABOUT THIS
GEOTECHNICAL ENGINEERING REPORT**

CONSTRAINTS AND RESTRICTIONS

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared solely for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study.* Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



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CONSTRAINTS AND RESTRICTIONS

WARRANTY

Universal Engineering Sciences has prepared this report for our client for his exclusive use, in accordance with generally accepted soil and foundation engineering practices, and makes no other warranty either expressed or implied as to the professional advice provided in the report.

UNANTICIPATED SOIL CONDITIONS

The analysis and recommendations submitted in this report are based upon the data obtained from soil borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings.

The nature and extent of variations between borings may not become known until excavation begins. If variations appear, we may have to re-evaluate our recommendations after performing on-site observations and noting the characteristics of any variations.

CHANGED CONDITIONS

We recommend that the specifications for the project require that the contractor immediately notify Universal Engineering Sciences, as well as the owner, when subsurface conditions are encountered that are different from those present in this report.

No claim by the contractor for any conditions differing from those anticipated in the plans, specifications, and those found in this report, should be allowed unless the contractor notifies the owner and Universal Engineering Sciences of such changed conditions. Further, we recommend that all foundation work and site improvements be observed by a representative of Universal Engineering Sciences to monitor field conditions and changes, to verify design assumptions and to evaluate and recommend any appropriate modifications to this report.

MISINTERPRETATION OF SOIL ENGINEERING REPORT

Universal Engineering Sciences is responsible for the conclusions and opinions contained within this report based upon the data relating only to the specific project and location discussed herein. If the conclusions or recommendations based upon the data presented are made by others, those conclusions or recommendations are not the responsibility of Universal Engineering Sciences.

CHANGED STRUCTURE OR LOCATION

This report was prepared in order to aid in the evaluation of this project and to assist the architect or engineer in the design of this project. If any changes in the design or location of the structure as outlined in this report are planned, or if any structures are included or added that are not discussed in the report, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions modified or approved by Universal Engineering Sciences.

USE OF REPORT BY BIDDERS

Bidders who are examining the report prior to submission of a bid are cautioned that this report was prepared as an aid to the designers of the project and it may affect actual construction operations.

Bidders are urged to make their own soil borings, test pits, test caissons or other investigations to determine those conditions that may affect construction operations. Universal Engineering Sciences cannot be responsible for any interpretations made from this report or the attached boring logs with regard to their adequacy in reflecting subsurface conditions which will affect construction operations.

STRATA CHANGES

Strata changes are indicated by a definite line on the boring logs which accompany this report. However, the actual change in the ground may be more gradual. Where changes occur between soil samples, the location of the change must necessarily be estimated using all available information and may not be shown at the exact depth.

OBSERVATIONS DURING DRILLING

Attempts are made to detect and/or identify occurrences during drilling and sampling, such as: water level, boulders, zones of lost circulation, relative ease or resistance to drilling progress, unusual sample recovery, variation of driving resistance, obstructions, etc.; however, lack of mention does not preclude their presence.

WATER LEVELS

Water level readings have been made in the drill holes during drilling and they indicate normally occurring conditions. Water levels may not have been stabilized at the last reading. This data has been reviewed and interpretations made in this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, temperature, tides, and other factors not evident at the time measurements were made and reported. Since the probability of such variations is anticipated, design drawings and specifications should accommodate such possibilities and construction planning should be based upon such assumptions of variations.

LOCATION OF BURIED OBJECTS

All users of this report are cautioned that there was no requirement for Universal Engineering Sciences to attempt to locate any man-made buried objects during the course of this exploration and that no attempt was made by Universal Engineering Sciences to locate any such buried objects. Universal Engineering Sciences cannot be responsible for any buried man-made objects which are subsequently encountered during construction that are not discussed within the text of this report.

TIME

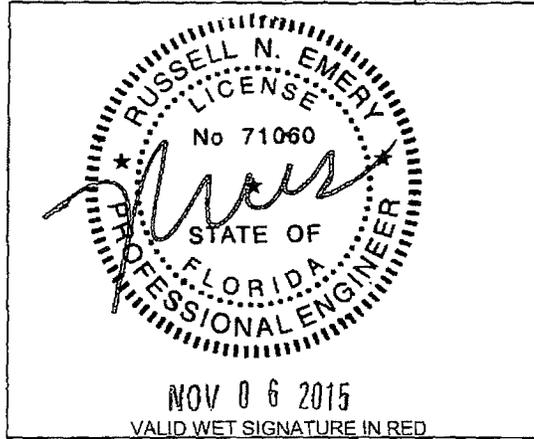
This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.



Sandy
Layton
St. George

STRUCTURAL CALCULATIONS
for
LAKE PARK MARINA TOP SECTION (SITE # SFL13)
at
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403
for
RG PARTNERS
&
STEALTH® CONCEALMENT SOLUTIONS (RG15-00151W-05R0)

~~CONFIDENTIAL~~
NOV 20 2015
~~CONFIDENTIAL~~



BY: RUSSEL N. EMERY, P.E.
PROJECT ENGINEER

FL Firm License Number: COA 26626

PROJECT #: U0142-575-151

DATE: February 6, 2015

NOTE:
The calculations presented in this package are intended for a single use at the location indicated above, for the client listed above. These calculations shall not be reproduced, reused, "card filed", sold to a third party, or altered in any way without the written authorization of Vector Structural Engineering, LLC and STEALTH® Concealment Solutions.



JOB NO.: U0142-575-151
DATE: 02/06/15

DESIGNED: SRM
CHECKED: TPH

PROJECT: LAKE PARK MARINA

Design Criteria:

Code: Structural design is based on the Florida Building Code, 2010 Edition (2009 IBC) w/ Amendments

Wind: Basic wind speed = 169 mph (3-second gust) per the ASCE 7-10 standard
Risk category / Structure class: II
Wind exposure: D
Topographic category: 1
Crest height: 0 ft

Ice: None per the TIA-222-G standard

General Notes:

- 1 The contractor shall verify dimensions, conditions and elevations before starting work. The engineer shall be notified immediately if any discrepancies are found.
- 2 The typical notes and details shall apply in all cases unless specifically detailed elsewhere. Where no detail is shown, the construction shall be as shown for other similar work and as required by the building code.
- 3 These calculations are limited to the structural members shown in these calculations only. The connection of the members shown in these calculations to the existing structure shall be by others.
- 4 The contractor shall be responsible for compliance with local construction safety orders. Approval of shop drawings by the architect or structural engineer shall not be construed as accepting this responsibility.
- 5 All structural framing members shall be adequately shored and braced during erection and until full lateral and vertical support is provided by adjoining members.

Structural Steel:

- 1 All structural steel code checks based on the AISC-LRFD, 3rd Edition per the TIA-222-G standard
 - 2 All steel pipe to be per ASTM A53 GR. B (35 KSI), U.N.O.
 - 3 All other structural steel shapes & plates shall be per ASTM A36, U.N.O.
 - 4 All bolts for steel-to-steel connections shall be per ASTM A325N, U.N.O.
 - 5 All bolted connections shall be tightened per the "turn-of-nut" method as defined by AISC.
 - 6 All welding shall be performed by certified welders in accordance with the latest edition of the American Welding Society (AWS) D1.1
 - 7 All steel surfaces shall be galvanized in accordance with ASTM A123 and ASTM A153 standards, thoroughly coated with a rust inhibitive red oxide primer, or otherwise protected as noted on the structural drawings.
-



JOB NO.: U0142-575-151
 DATE: 02/06/15

DESIGNED: SRM
 CHECKED: TPH

PROJECT: LAKE PARK MARINA

User Forces

Ice Thickness[in]:	0.00
Ice Density [pcf]:	56
Cylinder Shape:	18-Sided
Shape Factor:	0.65 (supercritical)
	1.20 (subcritical)

Elev. @ Top of Base Pole [ft]:	89.0
Elev. @ Bottom of Base Pole [ft]:	1.0

(Refer to CF Values in Table 2-7, TIA-222-G)
 (Applies for CaAc w/ Ice per Table 2-7)

Cylinder	Length [ft]	Diameter [in]		Plates	Weight [lb]		CaAc [ft ²]	
		No Ice	w/ Ice		No Ice	w/ Ice	No Ice	w/ Ice
				Top Plate	250	250	11.2	20.7
1	12.0	34	34.00					
				Bulkhead	350	350	22.4	41.4
2	12.0	34	34.00					
				Bulkhead	350	350	22.4	41.4
3	12.0	34	34.00					
				Bottom Plate	250	250	11.2	20.7
					0	0	0.0	0.0
					0	0	0.0	0.0
					0	0	0.0	0.0
					0	0	0.0	0.0

tnxTower Vector Engineering 9138 S State St. Suite 101 Sandy, UT 84070 Phone: (801) 990-1775 FAX: (801) 990-1776	Lake Park Marina - Top Section	
	Project	Date
	Client	Designed by
	U0142-575-152	12:55:34 02/05/15
	STEALTH® Concealment Solutions	smontgomery

Tower Input Data

There is a pole section.
 This tower is designed using the TIA-222-G standard.
 The following design criteria apply:
 Tower is located in Palm Beach County, Florida.
 ASCE 7-10 Wind Data is used.
 Basic wind speed of 169 mph.
 Risk Category II.
 Exposure Category D.
 Topographic Category 1.
 Crest Height 0.00 ft.
 Deflections calculated using a wind speed of 60 mph.
 A non-linear (P-delta) analysis was used.
 Pressures are calculated at each section.
 Stress ratio used in pole design is 1.
 Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Pole Section Geometry

Section	Elevation	Section Length	Pole Size	Pole Grade	Socket Length
	ft	ft			ft
L1	125.00-89.00	36.00	P12x.375 13th	A500-42 (42 ksi)	

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft ²	in					in	in
L1 125.00-89.00				0	0	1.08		

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement	Total Number		C _A A _A	Weight
				ft			ft ² /ft	plf
AVA7-50 (1-5/8 LOW DENSE FOAM)	C	No	Inside Pole	95.00 - 89.00	8	No Ice	0.00	0.72
AVA7-50 (1-5/8 LOW DENSE FOAM)	C	No	Inside Pole	107.00 - 89.00	8	No Ice	0.00	0.72
AVA7-50 (1-5/8 LOW DENSE FOAM)	C	No	Inside Pole	119.00 - 89.00	8	No Ice	0.00	0.72

tnxTower

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Lake Park Marina - Top Section

Project

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$$G_H = 1.100$$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L1 125.00-89.00	107.13	1.45	101	38.250	A	0.000	0.000	0.000	0.00	0.000	0.000
					B	0.000	0.000		0.00	0.000	0.000
					C	0.000	0.000		0.00	0.000	0.000

Tower Pressure - Service

$$G_H = 1.100$$

Section Elevation	z	K _Z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L1 125.00-89.00	107.13	1.45	11	38.250	A	0.000	0.000	0.000	0.00	0.000	0.000
					B	0.000	0.000		0.00	0.000	0.000
					C	0.000	0.000		0.00	0.000	0.000

Tower Forces - No Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
L1 125.00-89.00	311.04	1797.59	A	0	0.6	101	1	1	0.000	0.00	0.00	C
			B	0	0.6		1	1	0.000			
			C	0	0.6		1	1	0.000			
Sum Weight:	311.04	1797.59						OTM	0.00 lb-ft	0.00		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C _F	q _z	D _F	D _R	A _E	F	w	Ctrl. Face
ft	lb	lb				psf			ft ²	lb	plf	
L1 125.00-89.00	311.04	1797.59	A	0	0.6	101	1	1	0.000	0.00	0.00	C
			B	0	0.6		1	1	0.000			
			C	0	0.6		1	1	0.000			
Sum Weight:	311.04	1797.59						OTM	0.00 lb-ft	0.00		

Tower Forces - No Ice - Wind 90 To Face

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	Project	Date
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Force Totals

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M _x lb-ft	Sum of Overturning Moments, M _z lb-ft	Sum of Torques lb-ft
Leg Weight	1797.59					
Bracing Weight	0.00					
Total Member Self-Weight	1797.59			0.00	0.00	
Total Weight	4508.63			0.00	0.00	
Wind 0 deg - No Ice		0.00	-7451.49	-135736.48	0.00	0.00
Wind 90 deg - No Ice		7451.49	0.00	0.00	-135736.48	0.00
Wind 180 deg - No Ice		0.00	7451.49	135736.48	0.00	0.00
Total Weight	4508.63			0.00	0.00	
Wind 0 deg - Service		0.00	-840.36	-15308.09	0.00	0.00
Wind 90 deg - Service		840.36	0.00	0.00	-15308.09	0.00
Wind 180 deg - Service		0.00	840.36	15308.09	0.00	0.00

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 90 deg - No Ice
5	0.9 Dead+1.0 Wind 90 deg - No Ice
6	1.2 Dead+1.0 Wind 180 deg - No Ice
7	0.9 Dead+1.0 Wind 180 deg - No Ice
8	Dead+Wind 0 deg - Service
9	Dead+Wind 90 deg - Service
10	Dead+Wind 180 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
L1	125 - 89	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-5393.29	-137623.19	0.00
			Max. Mx	4	-5393.29	-137623.19	0.00
			Max. My	2	-5393.29	0.00	137623.19
			Max. Vy	4	7463.76	-137623.19	0.00
			Max. Vx	2	-7463.76	0.00	137623.19

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
Pole	Max. Vert	4	5410.36	-7451.40	0.00
	Max. H _x	10	4508.63	0.00	-840.32

inx lower

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Project

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Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	9	0.00000001	0.00006341
3	Yes	9	0.00000001	0.00004977
4	Yes	9	0.00000001	0.00006341
5	Yes	9	0.00000001	0.00004977
6	Yes	9	0.00000001	0.00006341
7	Yes	9	0.00000001	0.00004977
8	Yes	8	0.00000001	0.00000001
9	Yes	8	0.00000001	0.00000001
10	Yes	8	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	125 - 89	1.194	8	0.2152	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
125.00	Top Plate	8	1.194	0.2152	0.0000	Inf
119.00	(4) Generic Panel 100# (enclosed)	8	0.995	0.1794	0.0000	Inf
113.00	Bulkhead	8	0.796	0.1435	0.0000	Inf
107.00	(4) Generic Panel 100# (enclosed)	8	0.597	0.1076	0.0000	Inf
101.00	Bulkhead	8	0.398	0.0717	0.0000	Inf
95.00	(4) Generic Panel 100# (enclosed)	8	0.199	0.0359	0.0000	Inf
89.00	Bottom Plate	0	0.000	0.0000	0.0000	Inf

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	125 - 89	10.612	2	1.9137	0.0000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
125.00	Top Plate	2	10.612	1.9137	0.0000	Inf

WLF TOWER

Lake Park Marina - Top Section

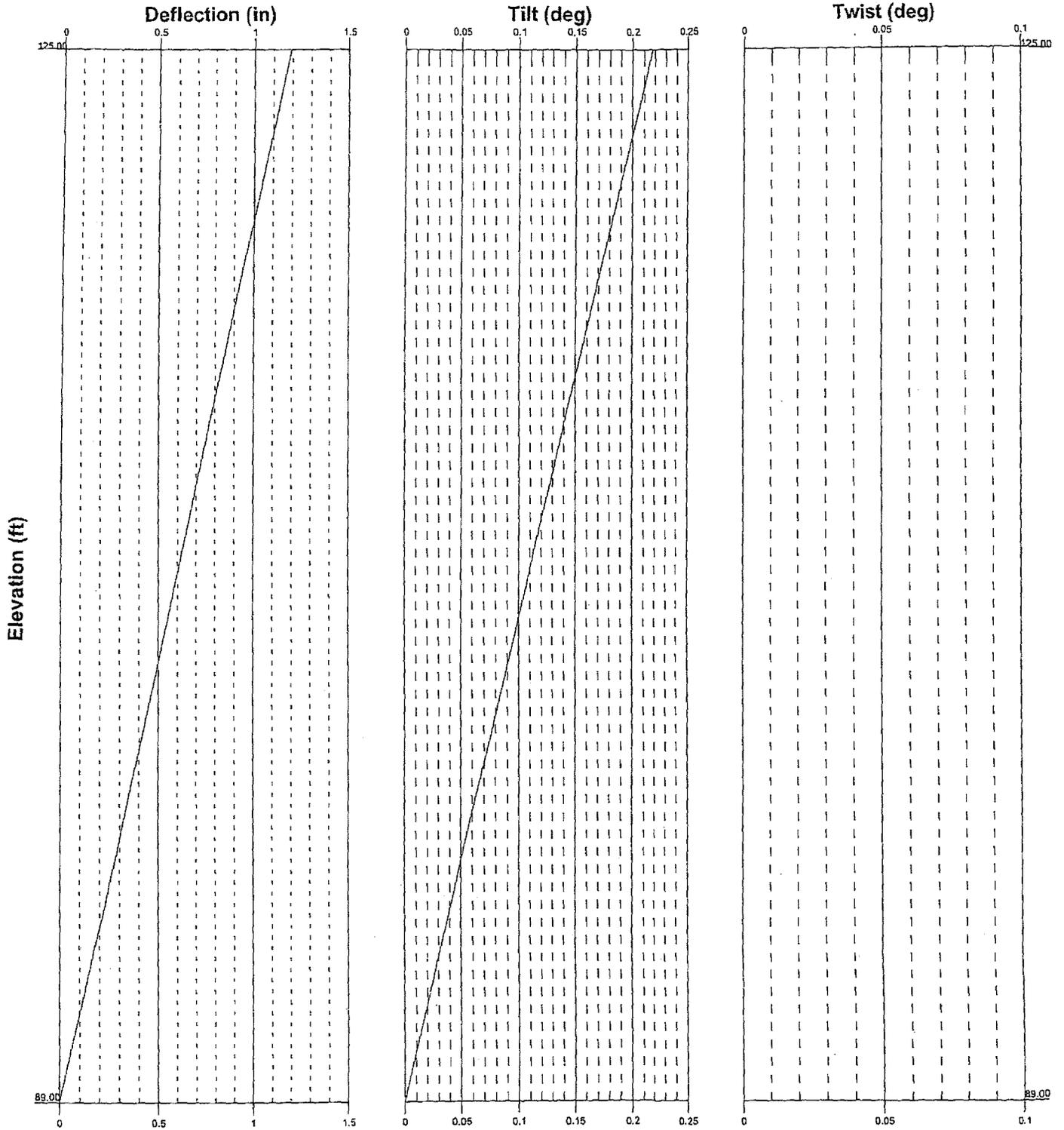
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Project	U0142-575-152	Date	12:55:34 02/05/15
Client	STEALTH® Concealment Solutions	Designed by	smontgomery

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	@P _{allow} lb	% Capacity	Pass Fail	
L1	125 - 89	Pole	P12x.375 13th	1	-5096.05	513596.00	82.5	Pass	
							Summary		
							Pole (L1)	82.5	Pass
							RATING =	82.5	Pass

Program Version 6.1.3.1 - 7/25/2013 File:N:/2015 Projects/U0142 Stealth/U0142-575-151 Lake Park Marina (FL, Top Section & Base Pole, Vector CAD)/ENG/Top Section/Tower/Lake Park Marina -Top Section.eri



 Vector Engineering 9138 S State St. Suite 101 Sandy, UT 84070 Phone: (801) 990-1775 FAX: (801) 990-1776 www.vectorse.com		Job: Lake Park Marina - Top Section	
		Project: U0142-575-152	
Client: STEALTH® Concealment Solutions	Drawn by: smontgomery	App'd:	
Code: TIA-222-G	Date: 02/05/15	Scale: 1	
Path:		Dwg No.:	

PROJECT: LAKE PARK MARINA TOP SECTION

Gusset Calculation

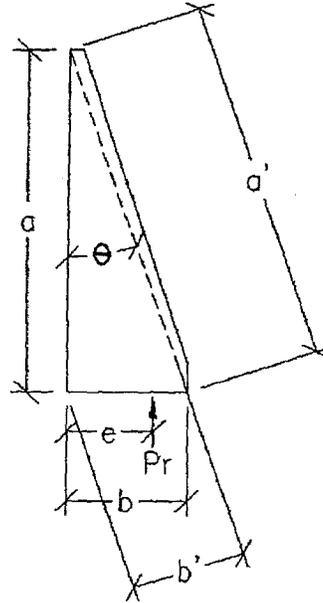
Analysis Type (ASD or LRFD)	LRFD
Pipe F_y (ksi)	42
Pipe F_u (ksi)	58

Pipe Outer Diameter (in)	12.75
Pipe Thickness (in)	0.375
Moment @ Splice M (kip-ft)	137.6
Axial @ Splice P (kips)	5.4
Shear @ Splice V (kips)	7.5

	LRFD ϕ	ASD Ω
Flexure:	0.9	1.67
Shear:	1	1.5

Gusset Loading

Bolt Circle Diameter BC (in)	15.75
Number of Gussets, n	12
P_r / Gusset (kips)	35.4
e (in):	1.6
M_u (Yielding) (kip-in):	56.1
M_u (Buckling) (kip-in):	16.8
N (kips):	34.2
V (kips):	9.7



Gusset Properties

Gusset Plate F_y (ksi)	36
Gusset Thickness t (in):	0.50
Gusset Height a (in):	9.00
Gusset Width b (in):	2.375

HSS Punching Shear Check (K1-3) = Okay

Flexural Yielding Check

Plate Z (in ³):	10.125
M_n (Yielding) kip-in:	364.5
Check:	17.1% Okay

Shear Yielding Check

Angle θ (deg.):	14.8
b' (in):	2.3
V_n (kips):	24.8
Shear Yielding Check:	38.9% Okay

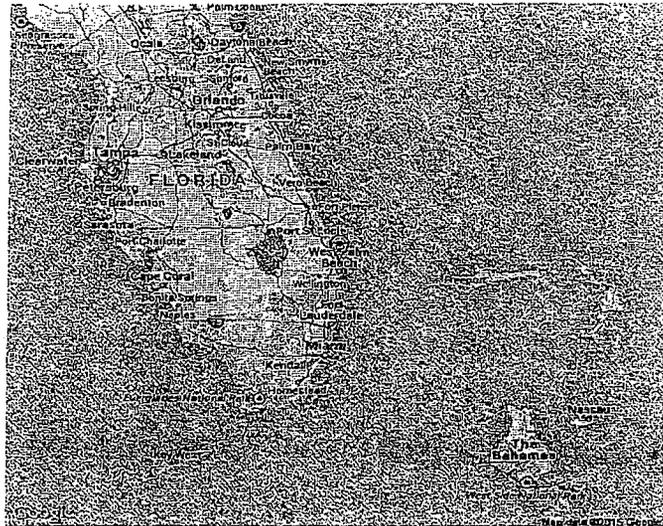
Search Results

Latitude: 26.7948
Longitude: -80.0524

**ASCE 7-10 Wind Speeds
(3-sec peak gust MPH*):**

**Risk Category I: 155
Risk Category II: 169
Risk Category III-IV: 180
MRI** 10 Year: 89
MRI** 25 Year: 112
MRI** 50 Year: 127
MRI** 100 Year: 138**

**ASCE 7-05: 144
ASCE 7-93: 104**



*MPH(Miles per hour)

**MRI Mean Recurrence Interval (years)

Users should consult with local building officials
to determine if there are community-specific wind speed
requirements that govern.

WIND SPEED WEB SITE DISCLAIMER:

While the information presented on this web site is believed to be correct, ATC assumes no responsibility or liability for its accuracy. The material presented in the wind speed report should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability and applicability by engineers or other licensed professionals. ATC does not intend that the use of this information replace the sound judgment of such competent professionals, having experience and knowledge in the field of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the results of the wind speed report provided by this web site. Users of the information from this web site assume all liability arising from such use. Use of the output of this web site does not imply approval by the governing building code bodies responsible for building code approval and interpretation for the building site(s) described by latitude/longitude location in the wind speed report.

DESIGN NOTES:

STRUCTURAL DESIGN IS BASED ON THE FLORIDA BUILDING CODE, 2010 EDITION (2009 IBC) W/ AMENDMENTS & THE TIA-222-G STANDARD

SITE LOCATION:
PALM BEACH COUNTY, FL

DESIGN LOADS:
WIND:
BASIC WIND SPEED: 169 MPH (3-SEC GUST) PER ASCE 7-10
RISK CATEGORY / STRUCTURE CLASS: II
EXPOSURE: D
TOPOGRAPHIC CATEGORY: I
CREST HEIGHT: 0 FT

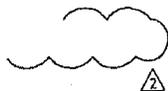
ICE: NONE

ESTIMATED WEIGHT:
9.4 k (POLE SHAFT AND BASE PLATE ONLY)

REACTIONS:

SHEAR, $V = 28.6$ k (1.0 WIND)
AXIAL, $P = 20.9$ k (1.2 DEAD)
MOMENT, $M = 1,855$ k-ft (1.0 WIND)

THE REACTIONS V & M LISTED ABOVE SHALL BE CONSIDERED TO ACT IN ANY HORIZONTAL DIRECTION.



GENERAL

1. THE TYPICAL NOTES SHALL APPLY FOR ALL CASES UNLESS OTHERWISE SPECIFICALLY DETAILED WITHIN THE DRAWINGS. SOME NOTES MAY NOT BE APPLICABLE IN PART OR IN WHOLE FOR EVERY PROJECT.
2. ANY ITEMS REFERENCED AS BEING ON "HOLD" ARE TO BE INCLUDED IN THE WORK AS SHOWN. HOWEVER, CONSTRUCTION OR FABRICATION IS NOT TO BEGIN UNTIL THE "HOLD" REFERENCE IS REMOVED.
3. DIMENSIONS CONTAINED WITHIN MUST BE FIELD VERIFIED AND CUSTOMER APPROVED PRIOR TO FABRICATION OF MATERIALS.
4. THE MODIFICATIONS DEPICTED IN THESE DRAWINGS ARE INTENDED TO PROVIDE STRUCTURAL SUPPORT FOR THE ADDITION OF THE ANTENNA SCREENING SYSTEMS OUTLINED WITHIN. THE EXISTING STRUCTURE OR BUILDING SHALL BE ANALYZED AND RETROFITTED AS REQUIRED, BY OTHERS, TO WITHSTAND THE LOADS IMPOSED BY THE NEW STEALTH® ENCLOSURE SHOWN ON THE DRAWINGS.
5. ANTENNA CONCEALMENT PRODUCTS SHALL BE INSTALLED BY A CONTRACTOR EXPERIENCED IN SIMILAR WORK. CARE SHALL BE TAKEN IN THE INSTALLATION OF ANY AND ALL MEMBERS IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND PROCEDURES. ALL APPLICABLE OSHA SAFETY GUIDELINES ARE TO BE FOLLOWED. STEALTH® IS NOT PROVIDING FIELD INSTALLATION SUPERVISION.
6. THESE DRAWINGS INDICATE THE MAJOR OPERATIONS TO BE PERFORMED, BUT DO NOT SHOW EVERY FIELD CONDITION THAT MAY BE ENCOUNTERED. THEREFORE, PRIOR TO BEGINNING OF WORK THE CONTRACTOR SHOULD SURVEY THE JOB SITE THOROUGHLY TO MINIMIZE FIELD PROBLEMS.
7. PROTECTION OF EXISTING STRUCTURES DURING THE COURSE OF THE CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
8. THE STRUCTURAL INTEGRITY OF THIS STRUCTURE IS DESIGNED TO BE ATTAINED IN ITS COMPLETED STATE. WHILE UNDER CONSTRUCTION ANY TEMPORARY BRACING OR SHORING WHICH MAY BE REQUIRED TO MAINTAIN STABILITY PRIOR TO COMPLETION SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
9. THE PLANS AND DETAILS WITHIN DO NOT INCLUDE DETAILS OR DESIGN FOR DRAINAGE FROM OR WATERPROOFING OF EXTERIOR OR INTERIOR SURFACES OF THE EXISTING BUILDING OR STRUCTURE. THESE DETAILS MUST BE COMPLETED BY OTHERS.

COAX NOTE:

ROUTING THE LARGE QUANTITY OF COAX CABLES THROUGH THE CONCEALMENT BULKHEADS IS POSSIBLE (WHEN LAID OUT ON PAPER), BUT WILL BE VERY DIFFICULT IN REAL WORLD FIELD CONDITIONS. WHILE THE CABLES MAY PHYSICALLY FIT THROUGH THE BASE FLANGE ON TOP OF THE MONOPOLE AND THE SUBSEQUENT STEEL BULKHEADS ABOVE, ROUTING THEM PAST THE ANTENNAS IS UNPREDICTABLE, DEPENDING ON THE ANTENNA MOUNTING HARDWARE EMPLOYED, COAX CONNECTOR TYPE(S) USED, COAX ROUTING, AND RELATIVE AZIMUTH DIRECTIONS OF THE ANTENNAS IN THE POLE. STEALTH® CAN NOT GUARANTEE THAT ALL OF THE COAX CAN BE ROUTED WITHOUT INTERFERENCE TO SOME OR ALL ANTENNAS. IT IS HIGHLY RECOMMENDED THAT THE INSTALLER MOCK UP THE COAX RUNS WITHIN THE CONCEALMENT AND DEVELOP A COAX ROUTING PLAN PRIOR TO INSTALLATION.

MATERIAL NOTES:

1. 18-SIDED MONOPOLE STEEL SHALL CONFORM w/ ASTM A572 GR. 55, U.S.A.
2. ALL STEEL PIPE TO BE PER ASTM A500 GR. B 42 KSI, U.S.A.
3. BASE PLATE STEEL SHALL CONFORM w/ ASTM A572, GR. 50, U.S.A.
4. REINFORCED ACCESS PORT STEEL SHALL CONFORM w/ ASTM A572 GR. 55, U.S.A.
5. ALL OTHER STRUCTURAL STEEL SHAPES & PLATES SHALL CONFORM TO ASTM A36, U.S.A.
6. ALL BOLTS FOR THE STEEL-TO-STEEL CONNECTIONS SHALL CONFORM w/ ASTM A325N, U.S.A.
7. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH THE LATEST VERSION OF THE AMERICAN WELDING SOCIETY (AWS) D1.1. ALL WELDING SHALL BE PERFORMED IN A SHOP APPROVED BY THE BUILDING
8. ALL STEEL SURFACES SHALL BE GALVANIZED IN ACCORDANCE w/ ASTM A153 AND ASTM A123 STANDARDS.
9. ALL BOLTED CONNECTIONS SHALL BE TIGHTENED PER THE "TURN-OF-NUT" METHOD AS DEFINED BY AISC.

STEALTHSKIN PANELS

1. FASTENER HOLES IN STEALTHSKIN® FOAM COMPOSITE PANELS ARE NOT FACTORY DRILLED AND MUST BE DRILLED IN THE FIELD.
2. PANEL FASTENERS TO BE SPACED 12" O.C. MAX. AND LOCATED 4" MAX. HORIZONTALLY FROM EACH EDGE AT TOP AND BOTTOM OF PANEL, MAINTAIN 1/4" MIN. EDGE DISTANCE FROM ALL EDGES. 4" WIDE PANELS REQUIRE (4) FASTENERS TOP AND BOTTOM. 5" WIDE PANELS REQUIRE (4) FASTENERS TOP AND BOTTOM. CORNER PANELS REQUIRE (3) FASTENERS TOP AND BOTTOM PER SIDE.
3. WHEN FASTENER BOLT HEAD OR NUT BEARS DIRECTLY ON SURFACE OF STEALTHSKIN® PANEL, TIGHTEN PANEL BOLTS ONLY 1/2 TURN PAST SNUG. APPLY THREAD LOCK COMPOUND TO THE THREADS OF METAL BOLTS. USE THIN BEAD OF EPOXY TO LOCK THE NUTS OF FRP BOLTS AND STEALTH® STAINLESS STEEL PANEL BOLTS. USE WASHER OR FLANGED HEAD BOLT, OR FASTENER WITH LARGE BEARING SURFACE.
4. PANELS WILL EXPAND AND CONTRACT DUE TO TEMPERATURE. WHEN INSTALLING PANELS IN COLD TEMPERATURES, EVENLY SPACE PANELS ALONG LENGTH OF SCREEN WALL WITH EQUAL GAPS BETWEEN PANELS TO ALLOW FOR EXPANSION DURING WARM TEMPERATURES.
5. ADJACENT FLAT PANELS ARE JOINED BY A VERTICAL FOAM SPLINE THAT IS INSERTED INTO GROOVES CUT INTO THE SIDE OF EACH PANEL. DO NOT LIFT PANELS BY GROOVES. PANELS MUST BE LIFTED WITH FORCE DIRECTED ONTO PANEL SURFACE.
6. ADJACENT RADIUS PANELS ARE JOINED BY A VERTICAL H-CHANNEL. INSERT PANELS INTO EACH SIDE OF H-CHANNEL.
7. RADIUS PANELS MUST BE EVENLY SPACED ALONG RADIUS SUPPORT. CONTRACTOR TO MEASURE LENGTH OF RADIUS SUPPORT AND DIVIDE BY THE NUMBER OF RADIUS PANELS TO DETERMINE PROPER SPACING. H-CHANNEL CONNECTORS ARE USED TO COVER THE GAP BETWEEN PANELS AND TO ALLOW FOR PANEL EXPANSION AND CONTRACTION.
8. SURFACES OF PANELS SHALL BE COATED WITH SUITABLE PAINT FOR UV PROTECTION. TOP EDGE OF PANEL MUST BE COVERED TO PREVENT WATER TRAVEL BETWEEN PANELS. USE SHERWIN WILLIAMS "COROTHANE II" OR PPE APPROVED EQUIVALENT.
9. EXPOSED TOP AND SIDE FOAM EDGES OF PANELS MUST BE COVERED OR COATED FOR UV PROTECTION. STEALTH® WILL PROVIDE PANEL EDGE CAPS TO BE FIELD APPLIED FOR THIS PURPOSE FOR MOST APPLICATIONS. PANEL EDGE CAPS TO BE SECURED WITH TEK SCREW INSTALLED @ 18" MAXIMUM SPACING ON THE INSIDE FACE OF THE PANEL.

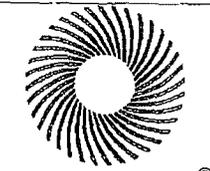
SPECIAL INSPECTIONS & STRUCTURAL OBSERVATION:

1. STEEL FABRICATION SHALL BE DONE ON THE PREMISES OF A FABRICATOR REGISTERED AND APPROVED AS REQUIRED BY THE IBC TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION.
2. NO FIELD WELDING SHALL BE PERMITTED.
3. THE FOLLOWING SPECIAL INSPECTIONS (WHERE APPLICABLE) SHALL BE REQUIRED PER CHAPTER 17 OF THE IBC.
 - PERIODIC SPECIAL INSPECTION OF HIGH-STRENGTH BOLTING
 - CONTINUOUS SPECIAL INSPECTION OF ANCHOR BOLTS PRIOR TO AND DURING CONCRETE PLACEMENT
4. NO STRUCTURAL OBSERVATION IS REQUIRED.

DISCLAIMERS:

1. ALL STRUCTURAL COMPONENTS TO BE CONNECTED TOGETHER SHALL BE COMPLETELY FIT UP ON THE GROUND OR OTHERWISE VERIFIED FOR COMPATIBILITY PRIOR TO LIFTING ANY COMPONENT INTO PLACE. REPAIRS REQUIRED DUE TO FIT-UP OR CONNECTION COMPATIBILITY PROBLEMS AFTER PARTIAL ERECTION ARE THE FINANCIAL RESPONSIBILITY OF THE CONTRACTOR.

2. ALTHOUGH RARE, EXCESSIVE DEFLECTION SEVERE ENOUGH TO CAUSE DAMAGE CAN OCCASIONALLY OCCUR IN SLIM LINE OR MONOPOLE STRUCTURES AT LOW WIND SPEEDS. BECAUSE THE PHENOMENON IS INFLUENCED BY MANY INTERACTING VARIABLES, MOVEMENT AND OSCILLATIONS ARE GENERALLY UNPREDICTABLE. THE TOWER OWNER MUST PERIODICALLY OBSERVE THE STRUCTURE FOR EXCESSIVE DEFLECTION AND ANY RESULTING STRUCTURAL DAMAGE OR BOLT LOOSENING. IN THE EVENT OF EXCESSIVE MOVEMENT, VECTOR STRUCTURAL ENGINEERS MUST BE NOTIFIED IMMEDIATELY. MODIFICATIONS TO THE STRUCTURE MAY BE REQUIRED AT THE OWNER'S EXPENSE. THE CHANGES MAY ALTER THE AESTHETIC APPEARANCE OF THE STRUCTURE.



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NOTES & SPECIFICATIONS

RG PARTNERS
SITE: SFL13; LAKE PARK MARINA BASE POLE
BASE POLE
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

JOB # : RG1500151W-0390
DRAWN: KAN-YSE
DESIGNED: SRY-YSE
REVISED: KAN-YSE

N1
11/2/15

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9136 S STATE STREET, SUITE 101
SANDY, UT 84070
P: (801) 930-1775 F: (801) 930-1770

VECTOR PROJECT: U0142-575-151
ROGER T. ALWORTH, P.E.
FL LICENSE: 57864
FL CERTIFICATE OF AUTHORIZATION: 26626



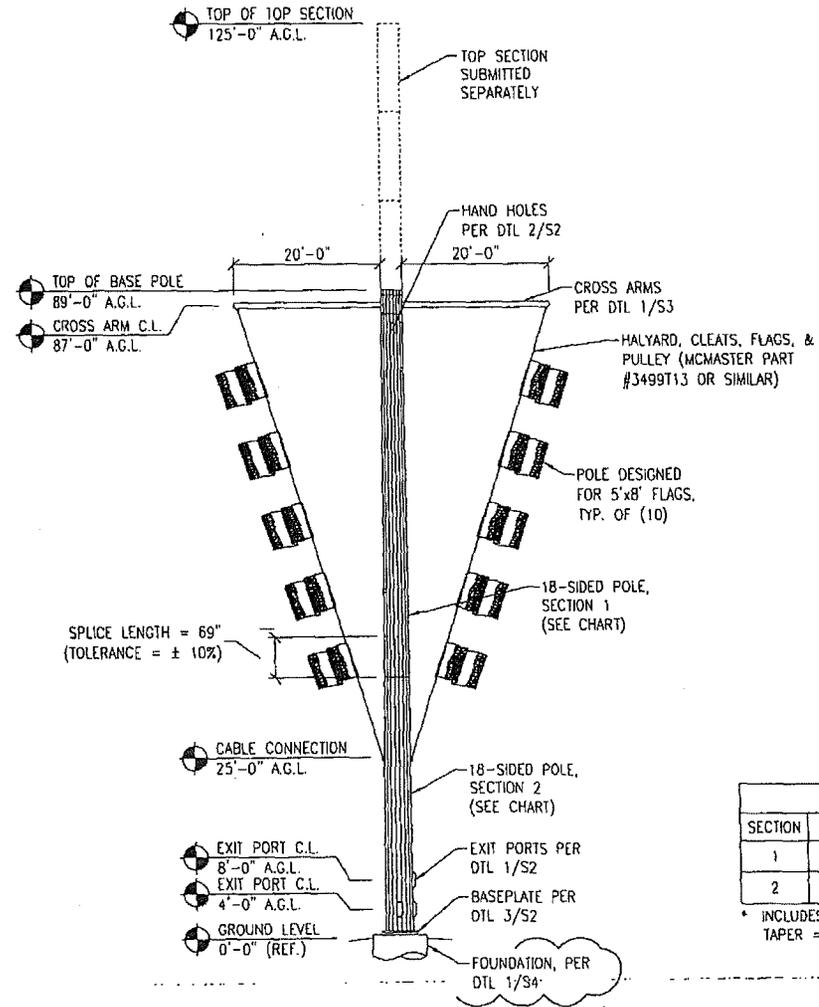
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DECIMALS X = 1/16" ANCHORS X = 0.01"
TOLERANCES



MONOPOLE SECTION CHART					
SECTION	LENGTH	TOP Ø	BOTTOM Ø	THICKNESS	WEIGHT
1	53'-0"	34.00"	41.42"	7/32"	5.0 K
2	40'-9"	40.18"	45.88"	1/4"	6.2 K*

* INCLUDES BASEPLATE & PORT WEIGHT
TAPER = 0.14 IN/FT

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VECTOR PROJECT: U0142-575-151
ROGER T. ALWORTH, P.E.
FL LICENSE: 57864
FL CERTIFICATE OF AUTHORIZATION: 28626

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ELEVATION

1

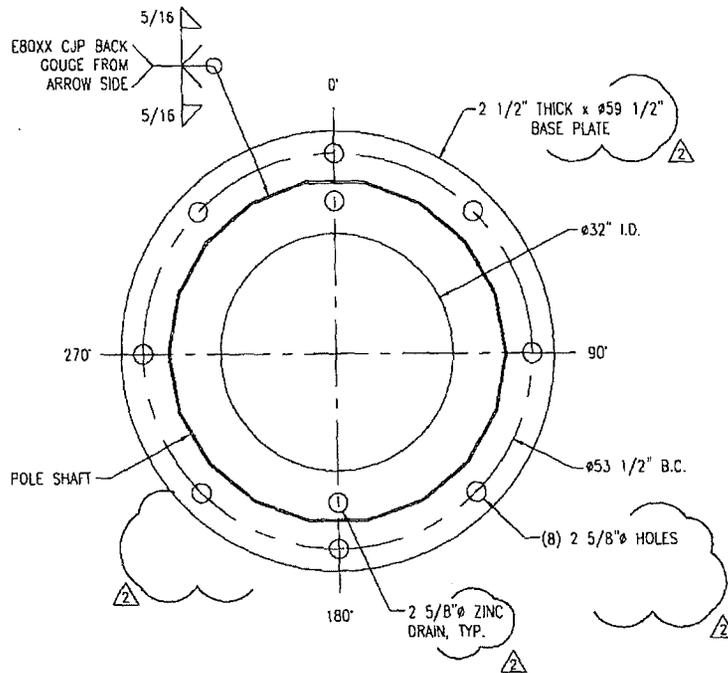
ELEVATIONS

RG PARTNERS
SITE: SF13; LAKE PARK MARINA BASE POLE
BASE POLE
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

JOB #: RG15-00151V-0560
DRAWN: BND-VSE
DESIGNED: SEM-VSE
REVISED: KON-VSE

S1
11/2/15

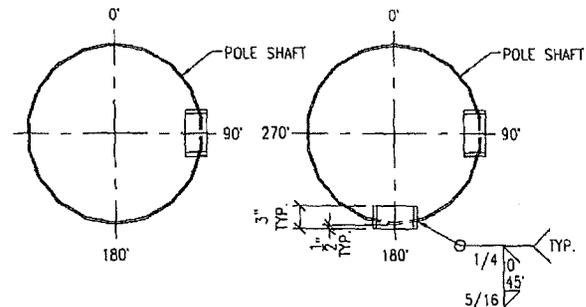
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BASEPLATE

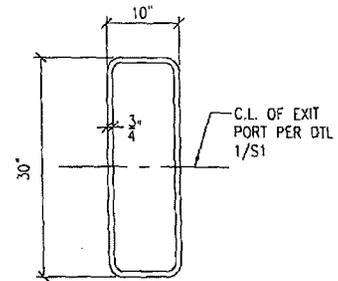
NTA

3



**SECTION VIEW
@ 8'-0" A.G.L.**

**SECTION VIEW
@ 4'-0" A.G.L.**

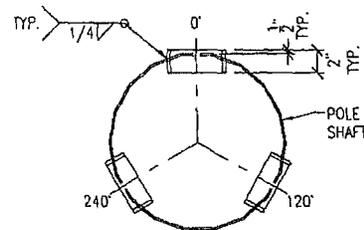


ELEVATION VIEW

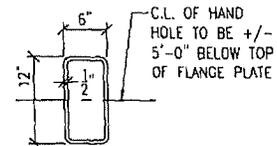
EXIT PORTS

NT.S.

1



SECTION VIEW



ELEVATION VIEW

HAND HOLES

NT.S.

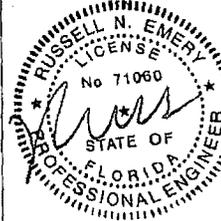
2



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OTHERWISE DIMENSIONS SHOWN ARE IN INCHES
12/16/2015
SHEET NO. 2 OF 2

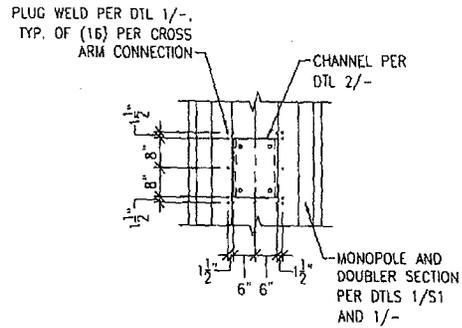
DETAILS

RG PARTNERS
SITE: SELL3; LAKE PARK MARINA BASE POLE
BASE POLE
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

JOB #: RG13-0015W-0380
DRAWN: RAD/YSE
DESIGNED: RAD/YSE
REVISED: KOK/YSE
S2
11/2/15

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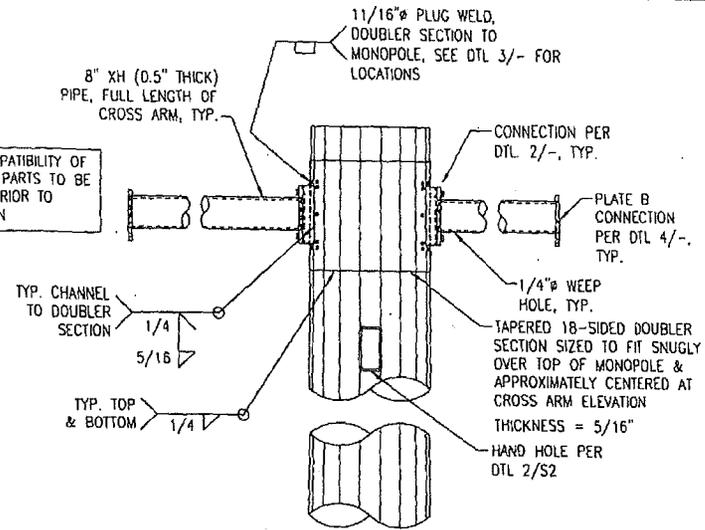
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SANDY, UT 84070
P: (801) 990-1775 F: (801) 990-1776
VECTOR PROJECT: U0142-575-151
ROGER T. ALMORIM, P.E.
FL LICENSE#: 57664
FL CERTIFICATE OF AUTHORIZATION: 26626



PLUG WELDS

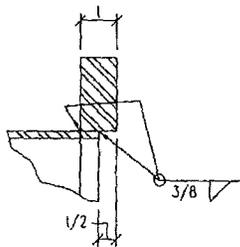
NTS 3

NOTE: COMPATIBILITY OF PULLEY & PARTS TO BE VERIFIED PRIOR TO FABRICATION

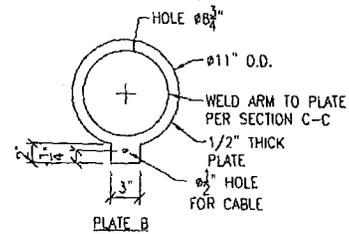


CROSS ARMS

NTS 1

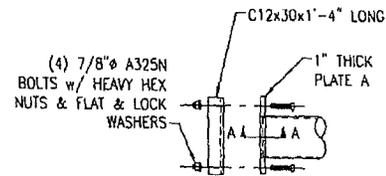


SECTION C-C

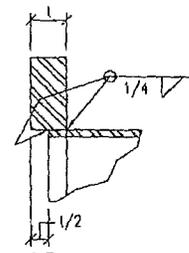


TAB PLATE B

NTS 4



EXPLODED ELEVATION VIEW



SECTION A-A

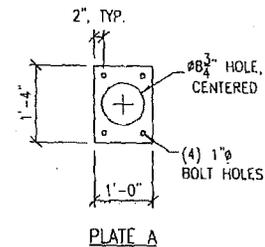


PLATE A

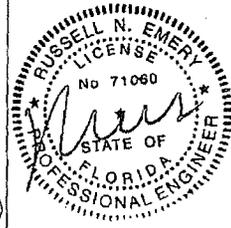
NTS 2



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DESCRIPTION	SCALE
PLATE A	1" = 0"
EXPLODED VIEW	1" = 0"

DETAILS

RG PARTNERS
SITE: SFL13; LAKE PARK MARINA BASE POLE
BASE POLE
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

JOB #: RCL15015107-0260
DRAWN: RAD-VSE
DESIGNED: SRM-VSE
REVISED: KOH-VSE

S3

11/2/15

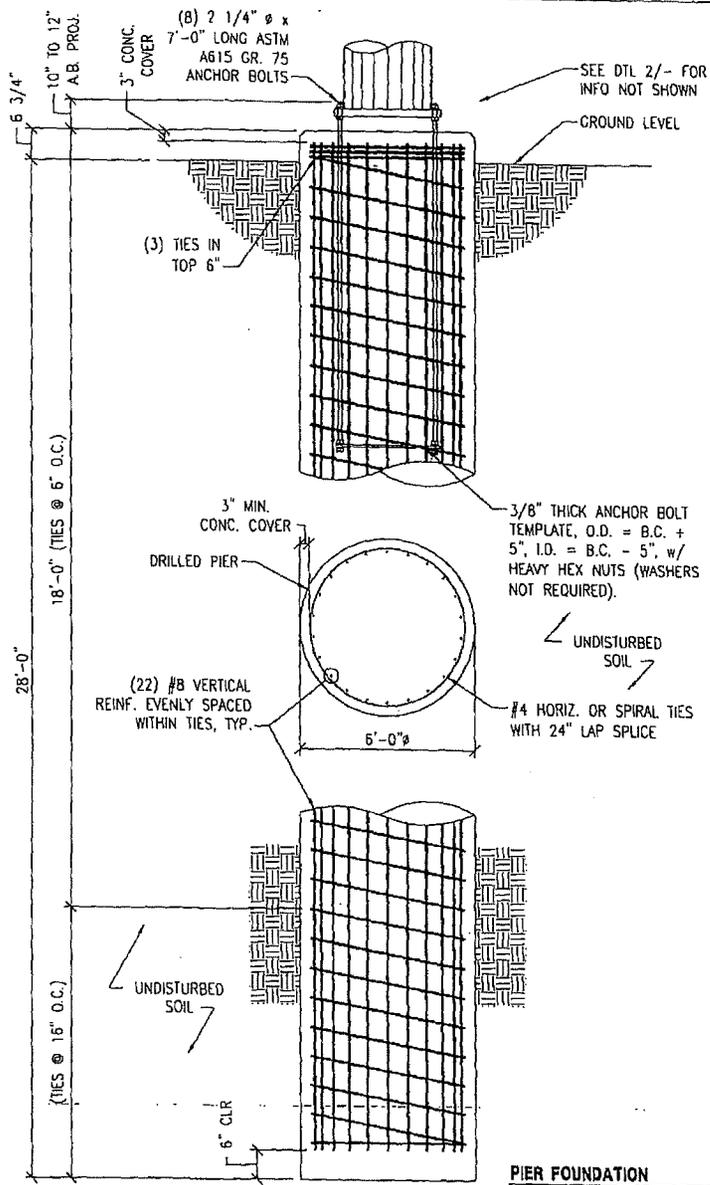
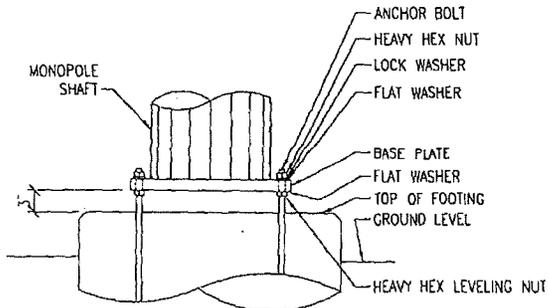
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P: (801) 930-1775 F: (801) 930-1776

VECTOR PROJECT: U0142-575-151
ROGER T. ALWORTH, P.E.
FL LICENSE: 57854
FL CERTIFICATE OF AUTHORIZATION: 26626

FOUNDATION NOTES:

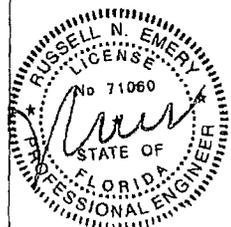
- FOUNDATION DESIGN IS BASED ON THE FOLLOWING GEOTECHNICAL REPORT:
 UNIVERSAL ENGINEERING SCIENCES
 REPORT: 1255351
 DATE: AUGUST 7, 2015
- ALL CONCRETE SHALL USE TYPE II PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. CONCRETE SHALL BE AIR ENTRAINED (6 ± 1.5%). CONCRETE SHALL HAVE A MAXIMUM WATER/CEMENT RATIO OF 0.50. CONCRETE SHALL HAVE A MINIMUM SLUMP OF 6" (PER GEOTECH). ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-11. FOUNDATION INSTALLATION SHALL BE IN ACCORDANCE WITH ACI 336, "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF DRILLED PIERS," LATEST EDITION.
- REINFORCING STEEL SHALL CONFORM WITH THE REQUIREMENTS OF ASTM A-615, GRADE 60. ALL REINFORCING DETAILS SHALL CONFORM TO "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315, LATEST EDITION, UNLESS DETAILED OTHERWISE ON THIS DRAWING.
- INSTALLATION OF DRILLED PIERS MUST BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER FIRM. GEOTECHNICAL ENGINEER TO PROVIDE A NOTICE OF INSPECTION FOR THE BUILDING INSPECTOR FOR REVIEW AND RECORD PURPOSES.



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 DIMENSIONS: ANGULAR 2 x 0.5°
 DECIMALS: 1/16" 1/32" 1/64" 1/128" 1/256" 1/512" 1/1024"

PIER FOUNDATION

RG PARTNERS
SITE: SFL13; LAKE PARK MARINA BASE POLE
BASE POLE
105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

JOB # : RG15001SALW-05AD
DRAWN : BAD-USE
DESIGNED : SRM-USE
REVISED : KCM-USE

S4
11/2/15

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 SANDI, UT 84070
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 VECTOR PROJECT: UD142-575-151
 ROGER T. ALWORTH, P.E.
 FL LICENSE: 97854
 FL CERTIFICATE OF AUTHORIZATION: 25626

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PROPOSED 125' T-MOBILE
STEALTH YARDARM

REV	DATE	DESCRIPTION
0	12/22/14	FOR REVIEW

PROJECT NO.: 110-441-01
 DRAWN BY: W. CORTEZ
 CHECKED BY: M. ABBEY

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 Telecom
 3400 LAKEVIEW DRIVE
 SUITE 200
 MIAMI, FL 33017
 CERTIFICATE OF AUTHORIZATION 23114

T-Mobile
 stick together
 1300 CHESTNUT TERRACE
 SUITE 200
 MIAMI, FL 33133

LAKE PARK MARINA
 WP1273D
 100 LAKE SHORE DRIVE
 LAKE PARK, FL 33403
 SHEET NAME
 PROPOSED STREETSCAPE
 FACING NORTH
 SHEET NUMBER
 PS4



LAKE PARK MARINA

105 LAKE SHORE DRIVE
LAKE PARK, FL 33403

SFL13

NEW SITE BUILD

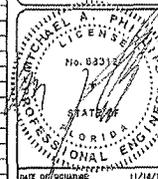
REV	DATE	DESCRIPTION
1	12/18/11	PRELIMINARY
2	11/22/12	FOR PERMIT
3	7/11/13	RE-ISSUE
4	9/28/13	RE-ISSUE
5	11/18/13	REVISED

PROJECT NO.	14-1004 BY
DRAWN BY	CHECKED BY
P. PARSONS	M. ARNOLD

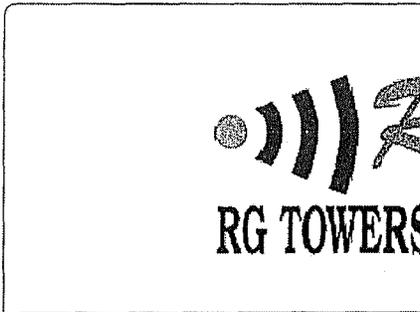
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100 W. GULF COAST AVENUE
SUITE 1100
WEST PALM BEACH, FL 33411
TELEPHONE: 561-833-1111



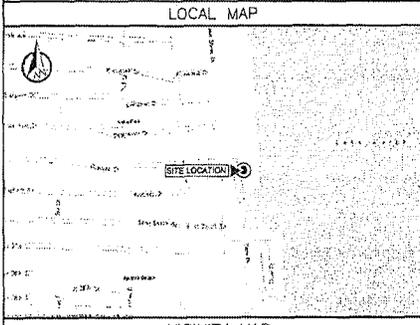
DATE OF OCCUPANCY	11/14/13
LAKE PARK MARINA	
SFL13	
105 LAKE SHORE DRIVE LAKE PARK, FL 33403	
SHEET NAME	
TITLE SHEET	
SHEET NUMBER	
1	



PROPERTY SUMMARY
EGLSO
38-43-42-21-00-004-0010
PROPERTY CORNER
TOWN OF LAKE PARK
230 PARK AVENUE
WEST PALM BEACH, FL 33403
LATITUDE
28.794194°N
LONGITUDE
80.052242°W
ZONING JURISDICTION
CITY OF LAKE PARK

PROJECT DESCRIPTION
1. THE WIRELESS COMMUNICATIONS FACILITY IS NOT INTENDED FOR HUMAN OCCUPANCY.
2. THIS FACILITY DOES NOT REQUIRE POTABLE WATER AND WILL NOT PRODUCE ANY SEWAGE.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. THE SCOPE OF WORK CONSISTS OF: <ul style="list-style-type: none"> • INSTALLATION OF NEW TELECOMMUNICATIONS TOWER • INSTALLATION OF NEW FENCED COMPOUND

INDEX OF DRAWINGS		
SHT. NO.	DESCRIPTION	REV. NO.
T1	TITLE SHEET	3
T2	NOTES	0
C1	SITE PLAN	3
C2	COMPOUND PLAN	2
C3	ELEVATION	2
C4	WOOD FENCE DETAILS	1
C5	TRENCH DETAIL	2
C6	SIGNAGE DETAILS	1
C7	COMPOUND DETAIL	1
E1	ELECTRICAL NOTES	0
E2	GROUNDING NOTES	0
E3	UTILITY ROUTING SITE PLAN	1
E4	ONE-LINE DIAGRAM	0
E5	GROUNDING PLAN AND NOTES	2
E6	ELECTRICAL DETAILS	1
L1	LANDSCAPING PLAN	0
IR1	IRRIGATION PLAN	0

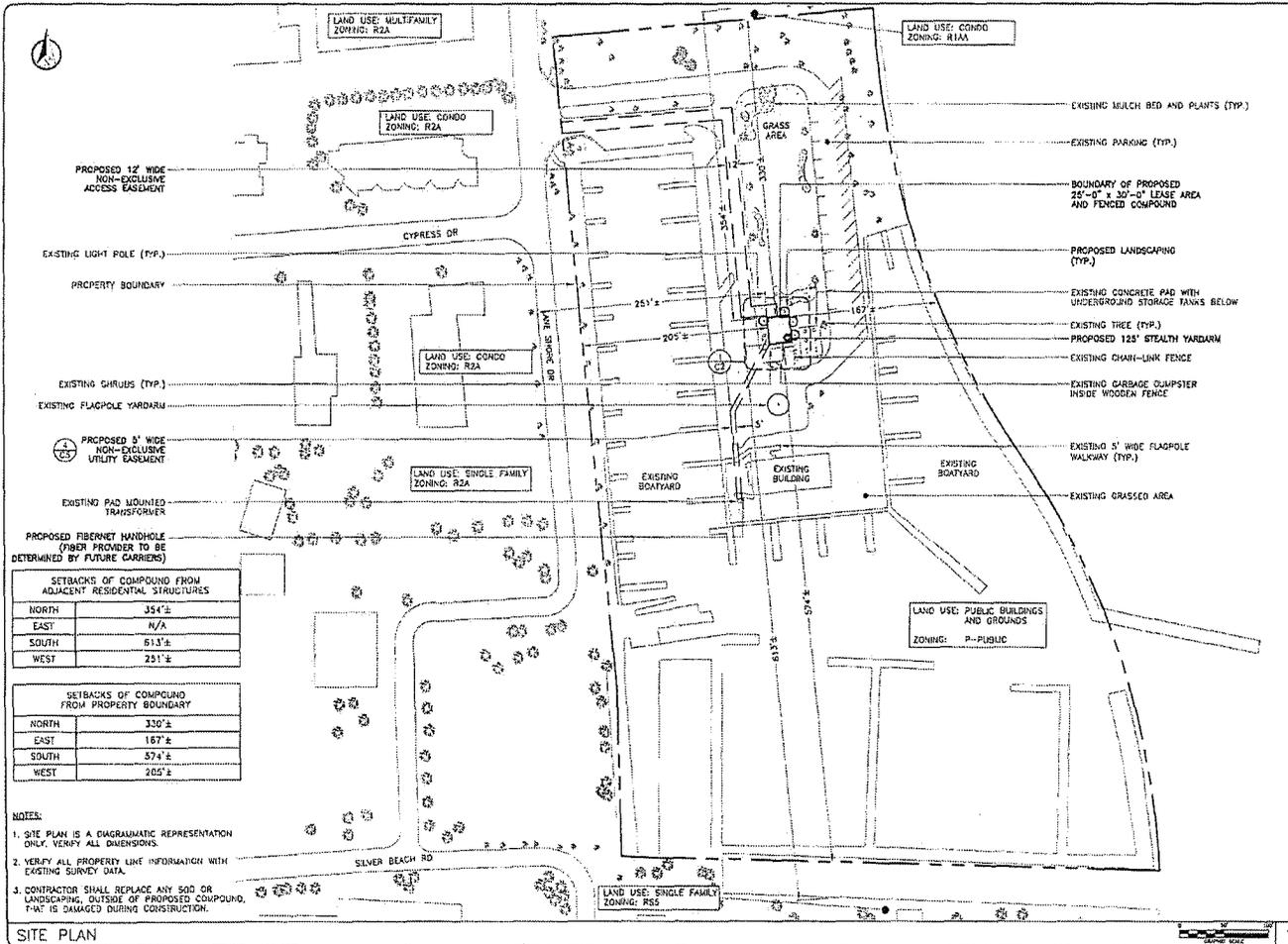


DESIGN CRITERIA
DESIGN WIND SPEED: 189 MPH (ULTIMATE, 3-SECOND GUST) 131 MPH (NORMAL, 3-SECOND GUST)
EXPOSURE: C
RISK CATEGORY: II
OPEN STRUCTURE

CODE COMPLIANCE
ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL COVERING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.
1. 2010 FLORIDA BUILDING CODE WITH 2012 SUPPLEMENT.
2. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE, 2008 EDITION.
3. 30A-222-0 WITH ADDENDUM 1 APPLICABLE STANDARDS.
4. LIFE SAFETY CODE NFPA-101-2009.
5. 2010 FLORIDA FIRE PREVENTION CODE.
6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) 360-05 AND 341-05.
7. UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS
8. LOCAL JURISDICTIONAL REQUIREMENTS.
9. CITY/COUNTY ORDINANCES.

INDEX OF DRAWINGS		
SHT. NO.	DESCRIPTION	REV. NO.
T1	TITLE SHEET	3
T2	NOTES	0
C1	SITE PLAN	3
C2	COMPOUND PLAN	2
C3	ELEVATION	2
C4	WOOD FENCE DETAILS	1
C5	TRENCH DETAIL	2
C6	SIGNAGE DETAILS	1
C7	COMPOUND DETAIL	1
E1	ELECTRICAL NOTES	0
E2	GROUNDING NOTES	0
E3	UTILITY ROUTING SITE PLAN	1
E4	ONE-LINE DIAGRAM	0
E5	GROUNDING PLAN AND NOTES	2
E6	ELECTRICAL DETAILS	1
L1	LANDSCAPING PLAN	0
IR1	IRRIGATION PLAN	0

revised
see Exhibit 911



SETBACKS OF COMPOUND FROM ADJACENT RESIDENTIAL STRUCTURES

NORTH	354' ±
EAST	N/A
SOUTH	613' ±
WEST	251' ±

SETBACKS OF COMPOUND FROM PROPERTY BOUNDARY

NORTH	330' ±
EAST	167' ±
SOUTH	574' ±
WEST	205' ±

- NOTES:
1. SITE PLAN IS A DIAGRAMATIC REPRESENTATION ONLY. VERIFY ALL DIMENSIONS.
 2. VERIFY ALL PROPERTY LINE INFORMATION WITH EXISTING SURVEY DATA.
 3. CONTRACTOR SHALL REPLACE ANY SOIL OR LANDSCAPING OUTSIDE OF PROPOSED COMPOUND, THAT IS DAMAGED DURING CONSTRUCTION.

SITE PLAN

REV.	DATE	DESCRIPTION
1	12/27/14	PRELIMINARY
2	1/27/15	FOR PERMIT
3	7/21/15	REVISED
4	8/24/15	REVISED
5	11/25/15	REVISED

PROJECT NO: 14-10040
 DRAWN BY: F. PARKS
 CHECKED BY: W. ARNEY

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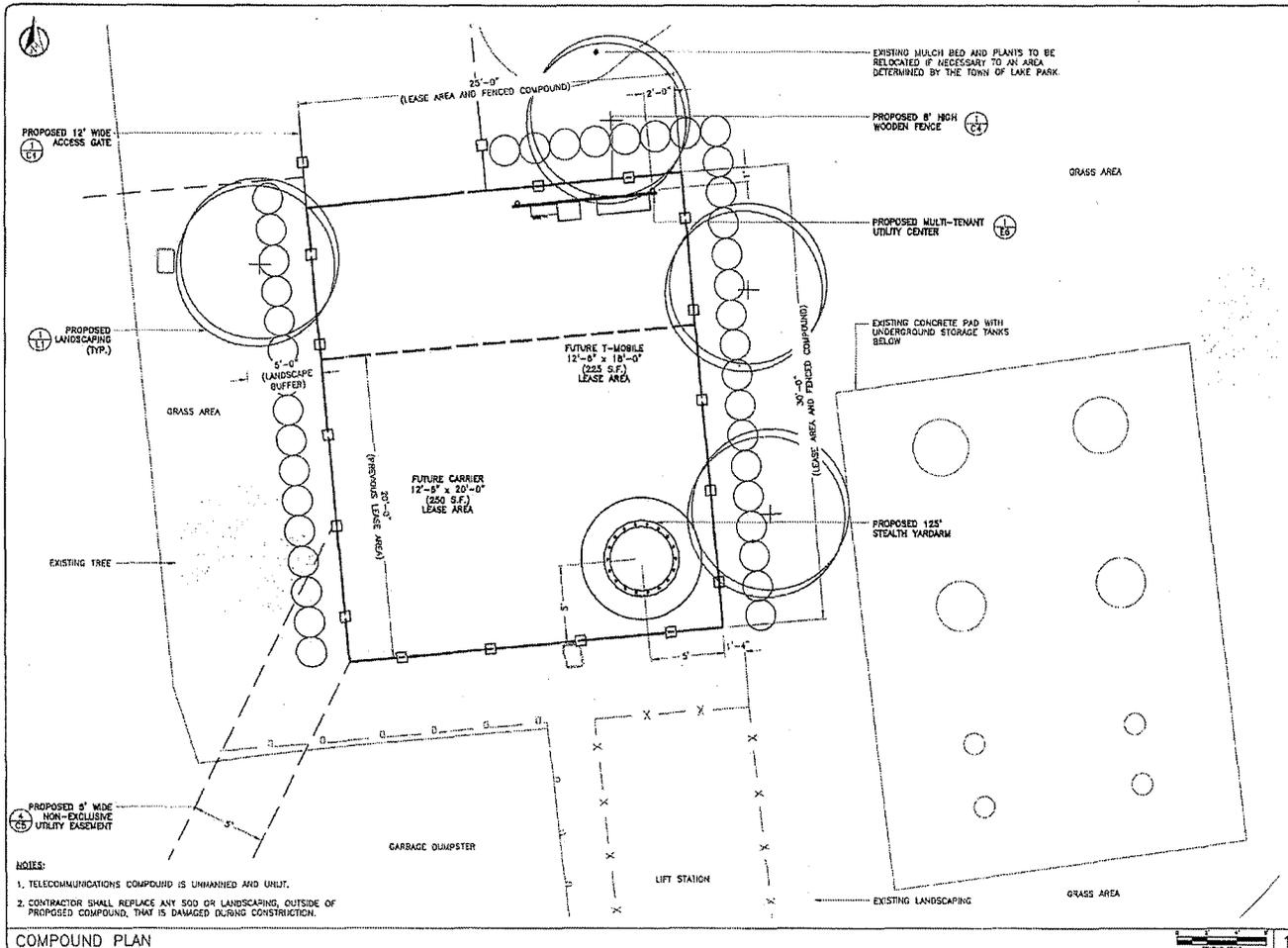
CALTRIP Telecom
 3903 LAKE SHORE DRIVE
 SUITE 100
 LAKE PARK, FL 33403
 888.666.1111

RG TOWERS, LLC.
 3115 W. HENRIE AVE. SUITE 100
 LAKE PARK, FL 33403

MICHAEL A. PHILLIPS
 LICENSE No. 68912
 STATE OF FLORIDA
 PROFESSIONAL ENGINEER
 DATE OF SIGNATURE: 11/19/15

LAKE PARK MARINA
 SFL13
 100 LAKE SHORE DRIVE
 LAKE PARK, FL 33403
 SHEET NAME
 SITE PLAN
 SHEET NUMBER
 C/1

revised see Exhibit B



- NOTES:
1. TELECOMMUNICATIONS COMPOUND IS UNMANNED AND UNLIT.
 2. CONTRACTOR SHALL REPLACE ANY SOIL OR LANDSCAPING, OUTSIDE OF PROPOSED COMPOUND, THAT IS DAMAGED DURING CONSTRUCTION.

COMPOUND PLAN

REV	DATE	DESCRIPTION
A	12/18/14	PRELIMINARY
B	11/27/15	FOR PERMIT
1	12/16/15	REVISED
2	11/18/15	REVISED

PROJECT NO.: 14-1024.01
 DRAWN BY: F. PARMADO
 CHECKED BY: M. ARREY

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 1102 WILMINGTON DRIVE
 SUITE 200
 WILMINGTON, NC 28407
 CORPORATION OF AUTHORIZATION #0014

RG TOWERS, LLC.
 2143 ALEXANDER AVE SOUTH
 SUITE 100
 GAITHERSBURG, MD 20878

MICHAEL A. PHILLIPS
 LICENSED PROFESSIONAL ENGINEER
 No 68312
 STATE OF NORTH CAROLINA
 DATE OF EXPIRATION: 11/16/15

LAKE PARK MARINA
 SFL13
 153 LAKE SHORE DRIVE
 LAKE PARK, FL 33403

SHEET NAME: COMPOUND PLAN
 SHEET NUMBER: C2

revised
see Exhibit B

TOP OF PROPOSED STEALTH YARDARM
EL. 125' ± AGL

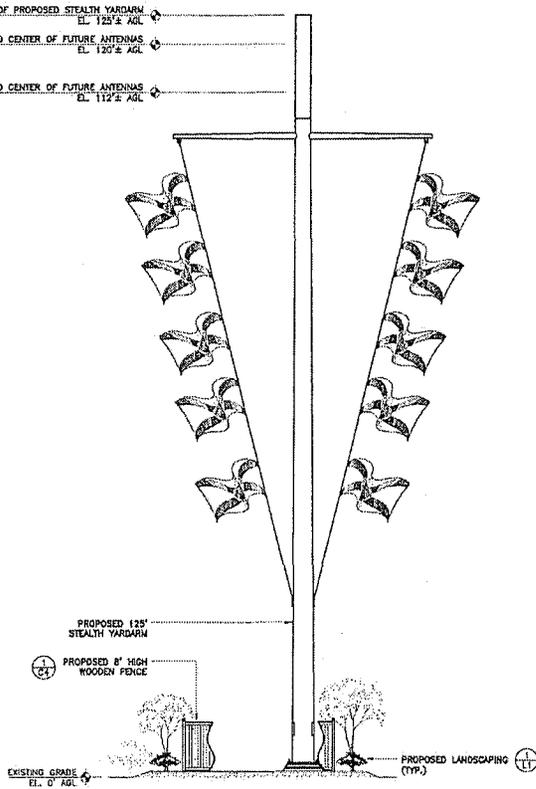
RAD CENTER OF FUTURE ANTENNAS
EL. 130' ± AGL

RAD CENTER OF FUTURE ANTENNAS
EL. 132' ± AGL

PROPOSED 125'
STEALTH YARDARM

PROPOSED 8' HIGH
WOODEN FENCE

EXISTING GRADE
EL. 0' AGL



NOTES:

1. TOWER SHALL BE PAINTED WHITE WITH COLOR/FINISH APPROVED BY TOWN OF LAKE PARK.
2. FLAG TYPE AND QUANTITY TO BE DETERMINED BY THE TOWN OF LAKE PARK.
3. TOWER LIGHTING SHALL BE DETERMINED WHEN FLAG TYPE IS DETERMINED.
4. FLAG SHALL BE MAINTAINED BY RG TOWERS, LLC

ELEVATION

REV	DATE	DESCRIPTION
A	12/16/14	PRELIMINARY
B	11/23/15	FOR REVIEW
C	12/11/15	REVISED
D	11/18/15	REVISED

PROJECT NO.: 14-1004-01

DRAWN BY: F. PARSONS

CHECKED BY: W. ARNEY

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3402 LAKEVIEW DRIVE
SUITE 202
LAKE PARK, FL 33403
CORPORATE ST. ADMINISTRATION 23914

RG TOWERS, LLC.

3141 ALBANY RD. SUITE 100
LAKE PARK, FL 33403

Professional Engineer Seal for Michael A. Phillips, No. 68312, State of Florida, Professional Engineering, dated 11/18/15.

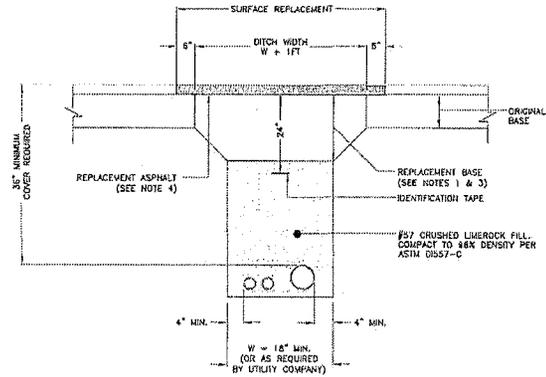
LAKE PARK MARINA
SFL13
100 LAKE SHORE DRIVE
LAKE PARK, FL 33403

SHEET NAME
ELEVATION

SHEET NUMBER
C.3



1. REPLACEMENT BASE MATERIAL OVER DITCH SHALL BE TWICE THE THICKNESS OF THE ORIGINAL BASE OR 12" MINIMUM, WHICHEVER IS GREATER.
2. ASPHALT CONCRETE PAVEMENT JOINTS SHALL BE MECHANICALLY SAWED AND BUTT-JOINTED.
3. BASE MATERIAL (PER ROADWAY PRODUCTION DESIGN STANDARDS) SHALL BE PLACED IN 6" MAX LAYERS AND EACH LAYER THOROUGHLY ROLLED OR TAMPED TO 98% DENSITY PER ASTM D1557-C.
4. REPLACEMENT ASPHALT MATERIAL SHALL MATCH EXISTING ASPHALT THICKNESS OR 1.5" MINIMUM, WHICHEVER IS GREATER.



TRENCH NOTES

1 TRENCH DETAIL

NTS 2

(NOT USED)

3 (NOT USED)

REV	DATE	DESCRIPTION
A	07/19/16	PRELIMINARY
B	12/23/15	FOR PERMIT
1	7/14/15	REVISED
2	11/19/15	REVISED

PROJECT NO: 14-104(D)

DESIGNED BY: W. MINY

CHECKED BY:

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3400 LINDSEY DRIVE
SUITE 215
WILMINGTON, NC 28407
DEPARTMENT OF TRANSPORTATION 22214

RG TOWERS, LLC

2111 ALSTON ROAD, SUITE 102
DALLAS, TX 75247

PROFESSIONAL ENGINEER

STATE OF FLORIDA

NO. 68315

DATE OF SIGNATURE: 11/18/16

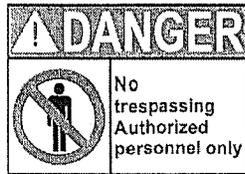
LAKE PARK MARINA

SFL13

100 LAKE SHORE DRIVE
LAKE PARK, FL 32903

SHEET NAME
TRENCH DETAIL

SHEET NUMBER
C5



NO TRESPASSING SIGN

NTS

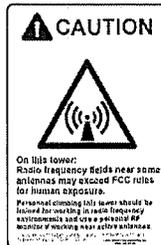
1



FCC REGISTRATION SIGN

NTS

2



RF WARNING SIGN

NTS

3

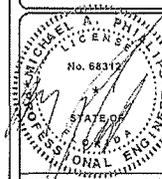
SIGNAGE NOTES

1. SIGNS SHALL BE MADE OF UV-RESISTANCE SOLID PLASTIC W/ 1/8" DRILLED HOLES 1/8" FROM EACH CORNER TO HANG SIGNS.
2. SIGNS SHALL BE INSTALLED AS FOLLOWS:
 - 2.1. GATE: FCC TOWER REGISTRATION NUMBER
 - 2.2. NO TRESPASSING
 - 2.3. RF WARNING
- 2.4. A "NO TRESPASSING" SIGN SHALL BE INSTALLED IN THE CENTER OF EACH SIDE OF THE COMPOUND THAT DOES NOT HAVE A GATE, AND SPACED NO MORE THAN 40' APART.
- 2.5. SIGNS SHALL BE INSTALLED ON POLE IN FRONT OF SHRUBS AT A HEIGHT TO MATCH EXISTING POST SIGN.
- 2.6. IF SIGNS ARE OBSTRUCTED BY LANDSCAPING, THE SIGNS SHALL BE INSTALLED ON POLE.

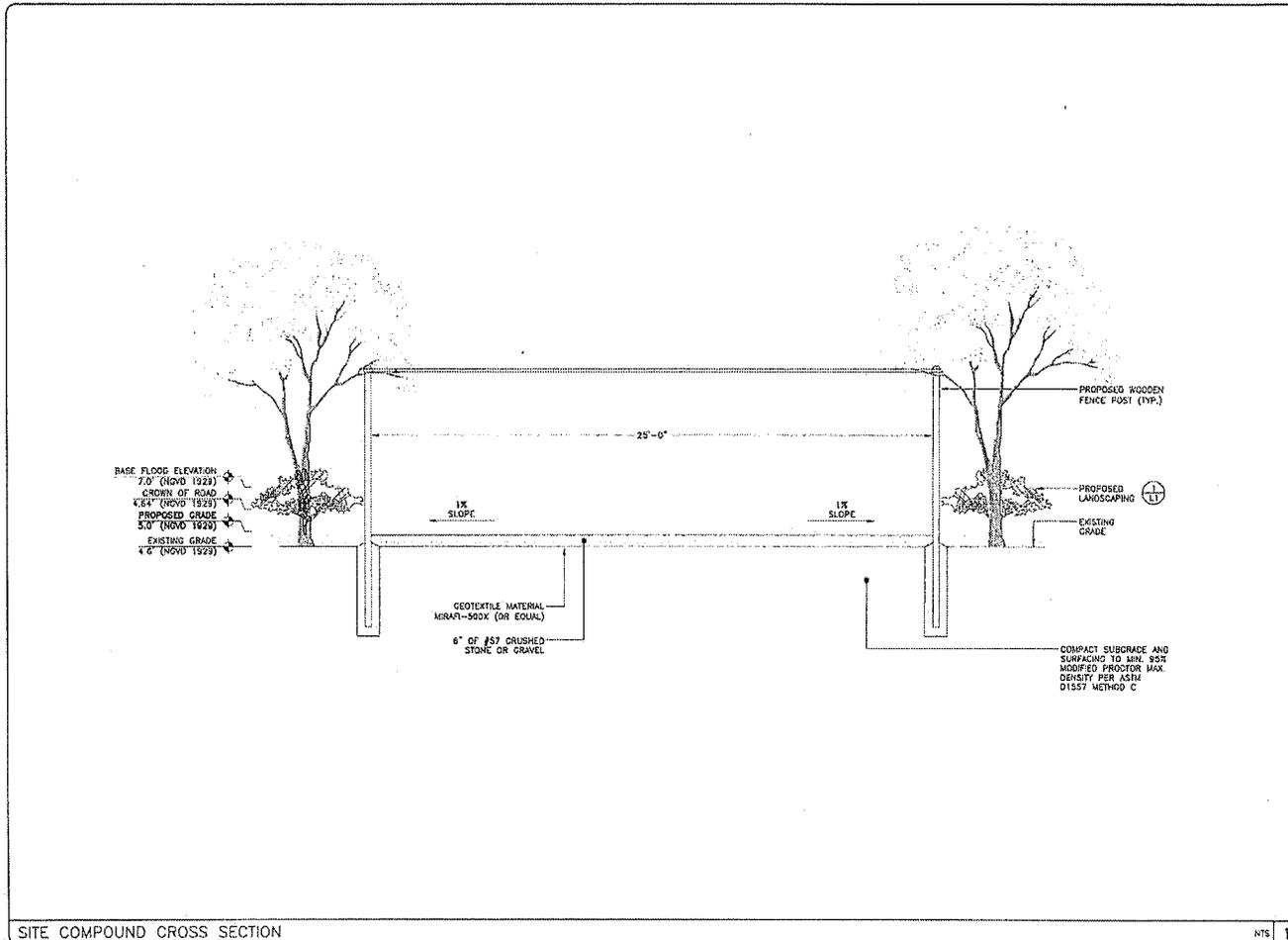
REV	DATE	DESCRIPTION
A	02/14/14	PRELIMINARY
B	1/23/15	FOR PERMIT
C	01/15/15	REVISED

PROJECT NO: 14-1004-01
 DRAWN BY: F. PARKS
 CHECKED BY: M. ARNEY

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LAKE PARK MARINA
 SFL13
 100 LAKE SHORE DRIVE
 LAKE PARK, FL 33403
 SHEET NAME: SIGNAGE DETAILS
 SHEET NUMBER: C6



SITE COMPOUND CROSS SECTION

NTS 1

REV	DATE	DESCRIPTION
A	12/28/14	PRELIMINARY
B	11/23/15	FOR PERMIT
1	7/11/15	REVISED
2	11/18/15	REVISED

PROJECT NO: 14-1004-D1
 DRAWN BY: T. FARASO
 CHECKED BY: M. ARNEY

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 2000 LINDSEY DRIVE
 SUITE 201
 MIAMI, FL 33137
 LICENSE NO. 1200000123314

RG RO TOWERS, LLC.
 2141 ALBERTA AVE. SUITE 201
 MIAMI, FL 33137

Professional Engineer Seal for Michael A. Philbin, License No. 88312, State of Florida, dated 11/19/15.

LAKE PARK MARINA
 SFL13
 160 LAKE SHORE DRIVE
 LAKE PARK, FL 33653
 SHEET NAME: COMPOUND DETAIL
 SHEET NUMBER: C7

ELECTRICAL NOTES

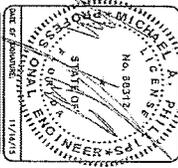
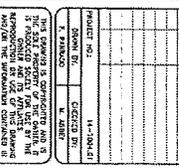
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- A - GENERAL
 - A1. ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) ADOPTED BY LOCAL JURISDICTION AND APPLICABLE LOCAL CODES.
 - A2. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
 - A3. ALL ELECTRICAL EQUIPMENT AND ACCESSORIES SHALL BE UL APPROVED OR LISTED.
 - A4. ALL POWER WIRING SHALL BE STRANDED COPPER, TYPE THHN/THWN, AND 90 DEGREE C RATED.
 - A5. GROUNDING ELECTRICAL CONDUITORS SHALL BE SAE, THE COATED COPPER AND EQUIPMENT GROUNDING CONDUCTORS SHALL BE OIL RESISTANT, UNLESS OTHERWISE NOTED.
 - A6. ALL POWER WIRING SHALL BE INSTALLED IN GALVANIZED RIBBON STEEL CONDUIT, PVC, OR FIBERGLASS LUMINOUS CONDUIT, AS INDICATED.
 - A7. CONDUIT SHALL OBTAIN ALL PERMITS, PAY PERMIT FEES, AND SCHEDULE INSPECTIONS.
 - A8. CONDUIT SHALL APPLY FOR ELECTRICAL SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS, SERVICE CONNECTIONS, AND WIRE SIZES WITH THE LOCAL POWER COMPANY.
 - A9. SERVICE RACKING WITH ELECTRICAL EQUIPMENT SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS AND PREPARE THIS PROJECTIONS AS FINALLY DETERMINED.
 - A10. PROVIDE ALL LUMINAIRES AND WIRING, INCLUDING ALL WIRE GUARDING, AND ALL ITEMS NECESSARY TO COMPLETING AND PRESERVING THIS PROJECT AS FINALLY DETERMINED.
 - A11. WHERE LONG POWER CABLE RUNS ARE REQUIRED, CONDUIT SHALL CALCULATE THE VOLTAGE DROP AND SIZE WIRING AND CONDUIT ACCORDINGLY.
 - A12. WHERE NECESSARY, IS REQUIRED FOR ELECTRICAL SERVICE, TRANSFORMER SECONDARY SHALL BE PROVIDED PER N.E.C. ARTICLE 250-46.
 - A13. REFER TO SPEC SPECIFIC DWGS FOR ELEVATIONS.
 - A14. ALL ELECTRICAL DEVICES EXPOSED TO WEATHER SHALL BE OF RAINPROOF CONSTRUCTION AND SHALL REQUIRE WATER TIGHT CONDUIT RUNS.
 - A15. CONDUIT SHALL, FOR CABLES AT NEARLY ALL LENGTHS AS REQUIRED BY ELECTRICAL UNIT FOR CONNECTION TO CONDUIT RUNS.
 - A16. ALL UNDERGROUND SERVICE ENTRANCE SERVICE CABLES SHALL BE TYPE FIBER OPTIC USE CONDUIT SHALL BE USED FOR ALL UNDERGROUND SERVICE CABLES FOR THE FOLLOWING REASONS:
 - B - POWER CABLE AND SERVICE
 - B1. CONDUIT SHALL BE PROTECTED FROM PUNCTURE AND DAMAGE TO THE FIBER OPTIC CONDUIT FROM BURIAL, ROADWAY SYSTEMS, AND OTHER UNDESIRABLE CONDITIONS.
 - B2. A CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE N.E.C.
 - B3. A CONDUIT SHALL EXTEND A MINIMUM OF 10 FEET FROM CONDUIT TO PERMIT TERMINATION BY OTHERS.
 - B4. CONDUIT SHALL SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS, FLOORS AND ROOFS TO PREVENT MOISTURE PENETRATION OR VERMIN INFESTATION.
 - B5. CONDUIT SHALL BE SUPPORTED BY BRACKETS (ROOF TOP OR SLAB) SHALL BE INSTALLED IN RIBBON CONDUIT SUPPORTED ON SLEEVES.
 - B6. ALL VERTICAL RUNS OF POWER CABLE EXCEEDING 40 FEET IN LENGTH SHALL BE SUPPORTED PER N.E.C. ARTICLE 300 AND SHALL BE SUPPORTED BY BRACKETS.
 - B7. CONDUIT SHALL BE SUPPORTED BY BRACKETS.
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 - B99. CONDUIT SHALL BE SUPPORTED BY BRACKETS.
 - B100. CONDUIT SHALL BE SUPPORTED BY BRACKETS.

- C - R/C (CROSS) AND LOW VOLTAGE CABLE
 - C1. R/C CABLES AND LOW VOLTAGE CABLES SHALL BE 1/4" OR 3/8" OR 1/2" OR 5/8" OR 3/4" OR 1" OR 1 1/4" OR 1 1/2" OR 1 3/4" OR 2" OR 2 1/2" OR 3" OR 3 1/2" OR 4" OR 4 1/2" OR 5" OR 5 1/2" OR 6" OR 6 1/2" OR 7" OR 7 1/2" OR 8" OR 8 1/2" OR 9" OR 9 1/2" OR 10" OR 10 1/2" OR 11" OR 11 1/2" OR 12" OR 12 1/2" OR 13" OR 13 1/2" OR 14" OR 14 1/2" OR 15" OR 15 1/2" OR 16" OR 16 1/2" OR 17" OR 17 1/2" OR 18" OR 18 1/2" OR 19" OR 19 1/2" OR 20" OR 20 1/2" OR 21" OR 21 1/2" OR 22" OR 22 1/2" OR 23" OR 23 1/2" OR 24" OR 24 1/2" OR 25" OR 25 1/2" OR 26" OR 26 1/2" OR 27" OR 27 1/2" OR 28" OR 28 1/2" OR 29" OR 29 1/2" OR 30" OR 30 1/2" OR 31" OR 31 1/2" OR 32" OR 32 1/2" OR 33" OR 33 1/2" OR 34" OR 34 1/2" OR 35" OR 35 1/2" OR 36" OR 36 1/2" OR 37" OR 37 1/2" OR 38" OR 38 1/2" OR 39" OR 39 1/2" OR 40" OR 40 1/2" OR 41" OR 41 1/2" OR 42" OR 42 1/2" OR 43" OR 43 1/2" OR 44" OR 44 1/2" OR 45" OR 45 1/2" OR 46" OR 46 1/2" OR 47" OR 47 1/2" OR 48" OR 48 1/2" OR 49" OR 49 1/2" OR 50" OR 50 1/2" OR 51" OR 51 1/2" 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- A - GENERAL
- A1. INSTALLATION OF GROUNDING ELECTRODE SYSTEM SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE AND WITH ALL BUILDING CODES OF APPLICABLE LOCAL JURISDICTION.
 - A2. GROUNDING CONDUCTORS SHALL BE #2 AWG BARE COPPER BARE COPPER BARE COPPER BARE COPPER BARE COPPER UNLESS OTHERWISE NOTED AND SHALL BE NOTED IN A CONFORMING MANNER.
 - A3. GROUNDING CONDUCTORS SHALL BE KEPT AS SHORT AND DIRECT AS POSSIBLE WITH MINIMUM BEND RADIUS OF 12 INCHES.
 - A4. ALL BELOW GRADE CONNECTIONS SHALL BE COVERED THE CONDUIT AND ALL CONNECTIONS TO EQUIPMENT AND GROUND BARS SHALL BE 2-INCH BARE COPPER CONPRESSION CONDUITS UNLESS OTHERWISE NOTED.
 - A5. CONTRACTOR SHALL VERIFY THAT ALL GROUNDING SYSTEM PER SPECIFICATIONS AND INTERCONNECT WITH SYSTEMS TO ANY EXISTING ELECTRICAL SYSTEMS.
 - A6. GROUNDING CONDUCTORS SHALL BE BOUND TO CABLE SUPPORTS, ANTENNA BRACKETS, AND ANY SUPPORT FRAME OR RACKS USING CONCRETE OR METALLIC CONNECTIONS.
 - A7. CONTRACTOR SHALL PROVIDE LOCK WASHERS FOR ALL NON-METALLIC CONNECTIONS FOR GROUND CONDUCTORS, STRUCKS STEEL CONNECTIONS SHALL BE USED FOR ALL METALLIC CONNECTIONS.
 - A8. GROUNDING CONDUCTORS EMBEDDED IN CONCRETE OR REINFORCING WALLS AND FLOORS SHALL BE COVERED IN PRO CONDUIT NO OF DRAWINGS. CONTRACTOR SHALL SEAL AROUND ALL CONDUIT PENETRATIONS TO PREVENT MOISTURE PENETRATION AND VERIFY PROTECTION.
 - A9. CONTRACTOR SHALL BOND PER GROUNDING SYSTEM VIA THE MASTER GROUND BAR TO ALL METAL OBJECTS WITHIN 12 FEET OF ELECTRICAL SYSTEMS.
 - A10. BONDING UNLESS SPECIFICALLY NOTED OTHERWISE.
 - A11. CONTRACTOR SHALL VERIFY EXIST CONDUIT ROUTING FOR GROUNDING CONDUCTORS WHERE APPLICABLE.
 - A12. GROUNDING LEAD IS REQUIRED ONLY FOR BBS SUPPORTED ON STEEL FROM AN ADDITIONAL GROUND LEAD IS REQUIRED IF CABLE TYPE IS USED.
 - A13. CONNECTIONS TO GSI SHALL BE MAINTAINED IN THE FOLLOWING THREE GROUPS:
 - * SHUNT PROTECTORS (GROUND CABLE GROUP WITH ITSELF CONDUCTIVE AND POWER PROTECTA GROUP)
 - * SHUNT PROTECTORS (GROUND CABLE GROUP WITH ITSELF CONDUCTIVE AND POWER PROTECTA GROUP)
 - * NON-SHUNT OBJECTS (FOR GROUND IN BBS)
 - A14. COATING OR TACKING OF ANY GROUNDING CONNECTIONS IS NOT ACCEPTABLE.
 - A15. ALL GROUND BARS SHALL BE INSTALLED WITH STAND OFF INSULATORS.
- B - PROVISIONS
- B1. SURFACES: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED TO ENSURE PROPER CONTACT. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED TO ENSURE PROPER CONTACT. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED TO ENSURE PROPER CONTACT. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED TO ENSURE PROPER CONTACT.
 - B2. GROUNDING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B3. MATERIALS: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B4. INSULATION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B5. CONNECTIONS: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B6. TESTING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B7. LABELING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B8. PROTECTION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B9. IDENTIFICATION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B10. RECORDING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B11. MAINTENANCE: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B12. INSPECTION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B13. CLEANING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B14. STORAGE: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B15. HANDLING: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B16. TRANSPORT: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B17. INSTALLATION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B18. OPERATION: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B19. MAINTENANCE: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).
 - B20. REMOVAL: ALL GROUNDING BARS SHALL BE ELECTROLYTICALLY PURE AND A NON-CORRODING METAL (COPPER SHALL BE PREFERRED).

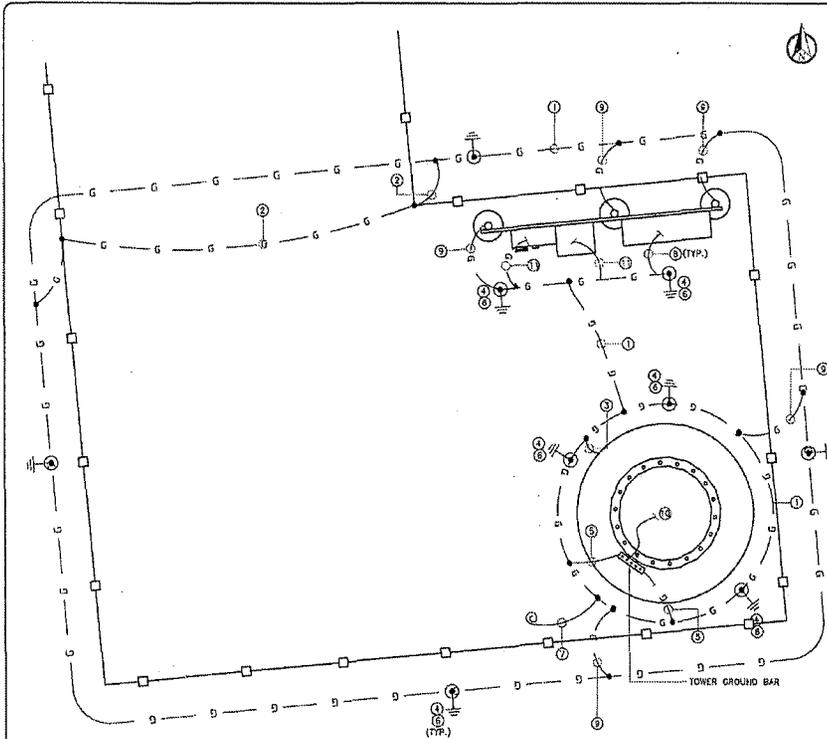
- D - LAID BUILDS AND CD-LOCATES
- D1. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF GROUNDING RODS UNIFORMLY SPACED AROUND THE EQUIPMENT FOUNDATION AND AROUND THE PERIMETER OF THE LOWER PORTION OF THE GROUND RODS SHALL BE #2 AWG COPPER BARE COPPER UNLESS OTHERWISE NOTED AND SHALL BE NOTED IN A CONFORMING MANNER.
 - D2. GROUNDING RODS SHALL BE BOUND TO GROUND RINGS AND INTERCONNECTING CONDUCTORS AT EQUAL INTERVALS OF APPROXIMATELY 10 FEET.
 - D3. WAREHOUSE BARS SHALL BE BOUND TO GROUND RINGS ON INTERCONNECTING CONDUCTORS WITH GROUNDING CONDUCTORS BOUND TO UNIDIRECTIONALLY OPPOSED SUPPORT POSTS.
 - D4. GROUND BARS SHALL BE BOUND TO GROUND RING WITH SINGLE GROUNDING CONDUCTOR.
 - D5. BARS TO ANTENNA MASTS, FENCE POSTS, WAREHOUSE BARS, TOWER STEEL, (UNLESS PROHIBITED BY TOWER MANUFACTURER) AND OTHER BARS SHALL BE BOUND TO GROUND RING WITH SINGLE GROUNDING CONDUCTOR.
 - D6. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D7. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D8. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D9. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D10. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D11. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D12. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D13. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D14. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D15. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D16. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D17. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D18. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D19. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.
 - D20. GROUNDING CONDUCTORS ALONG A TRANSMISSION FROM ABOVE TO BELOW SHALL BE INSULATED FROM DIRECT CONTACT BY THE GROUNDING CONDUCTOR. THE CONDUCTOR SHALL BE BOUND TO GROUND RINGS AND 12 INCHES BELOW GRADE LEVEL.

			
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LAKE PARK MARINA SFL13

GROUNDING NOTES

Sheet Number E2



NOTES:

1. CONTRACTOR SHALL INSPECT AND TEST GROUNDING SYSTEM WITH A BIDDLE-MEGGER TESTER UTILIZING THE FALL OF POTENTIAL METHOD AND CONTACT CONSTRUCTION MANAGER IF RESISTANCE EXCEEDS 5 OHMS AND SHALL FIELD MODIFY GROUNDING SYSTEM AS NECESSARY TO ACHIEVE COMPLIANCE. TEST RESULTS AND CONCLUSIONS SHALL BE RECORDED FOR PROJECT CLOSE-OUT DOCUMENTATION.
2. CONTRACTOR SHALL PROVIDE PRE-CAST CONCRETE INSPECTION WELL WITH CAST IRON TRAFFIC RATED UD WHEN WELL WILL BE IN AN AREA WHERE THEY CAN BE DAMAGED.

TYPICAL SITE GROUNDING DIAGRAM

1. PROVIDE A #2 AWG SOLID BARE TANNED COPPER GROUND RING AROUND THE TOWER, AND COMPOUND AS SHOWN. ALL EXTERIOR GROUNDING CONDUCTORS SHALL BE BURIED A MINIMUM OF 18" BELOW GRADE. THE GROUND RING SHALL BE INSTALLED 1'-0" AWAY FROM FOUNDATIONS (MINIMUM UNLESS SHOWN OTHERWISE ON DRAWINGS). WHERE REQUIRED DUE TO SOIL CONDITIONS AND THE PRESENCE OF ROCK, THE ROUTING OF THE GROUND RING MAY BE ADJUSTED. ALL BONDS TO THE BURIED GROUND RING SHALL BE WITH EXOTHERMIC WELDS.
2. BOND GATE POST TO BURIED GROUND RING. EXOTHERMICALLY WELD A #2 AWG SOLID BARE TANNED COPPER CONDUCTOR TO THE GATE POST AT 12" ABOVE GRADE AND CONNECT TO THE BURIED GROUND RING. PROVIDE CONDUCTOR LENGTH AS REQUIRED TO MAKE CONNECTION. BOND OPPOSITE SIDES OF FENCE AND FENCE POST TO FENCE GATE AS SHOWN USING A WELDING CABLE GROUNDING STRAP.
3. BOND REBAR IN CONCRETE FOR PAD TO THE BURIED GROUND RING. EXOTHERMICALLY WELD A #2 AWG SOLID BARE TANNED COPPER CONDUCTOR TO THE REBAR (AT THE END OF THE REBAR) AND CONNECT THE BURIED GROUND RING.
4. PROVIDE A 6" DIAMETER PVC INSPECTION SLEEVE WITH REMOVABLE COVER WHERE SHOWN FOR ALL PRIMARY CONNECTIONS TO BURIED GROUND RING. SEE GROUND ROD INSPECTION WELL DETAIL, FOR TYPICAL GROUND RING INSPECTION SLEEVE. NOTE: INSPECTION SLEEVE CAN BE USED AS A TEST WELL FOR GROUND WATER LEVEL INSPECTION AND GROUND RESISTANCE TESTING.
5. INSTALL GROUNDING CONDUCTOR(S) FROM THE BURIED GROUND RING FOR CONNECTION TO THE GROUND BAR AT BOTTOM OF TOWER. VERIFY EXACT LOCATION OF GROUNDING BAR AND PROPER CONDUCTOR LENGTH. EXOTHERMICALLY WELD (2) #2 AWG SOLID BARE TANNED COPPER GROUNDING CONDUCTOR (LENGTH AS REQUIRED) TO THE GROUND BAR. GROUNDING CONDUCTORS MUST BE HELD AWAY FROM TOWER BY USING STAND-OFFS OR ROUTING THE CONDUCTORS IN FLEXIBLE PVC CONDUIT. COORDINATE LOCATION WITH CONSTRUCTION MANAGER. SEE TOWER GROUNDING.
6. INSTALL 1/2" x 10'-0" LONG COPPERCLAD STEEL GROUND RODS. SPACING BETWEEN RODS NOT TO EXCEED 20'-0" (NON-LINEAR). TYPICAL FOR ALL GROUND RODS SHOWN, UNLESS NOTED OTHERWISE. SEE GROUND ROD DETAIL. GROUND ROD MAY BE INSTALLED WITH A MAXIMUM VARIATION OF 30° FROM VERTICAL. IF ROCK IS ENCOUNTERED AND CONTRACTOR SHALL BE PREPARED TO CORE DRILL TO INSTALL GROUND RODS AND BACKFILL WITH GROUND ENHANCEMENT MATERIAL.
7. COIL (1) 10'-0" SECTION OF #2 AWG SOLID WIRE ADJACENT TO FUTURE T-MOBILE EQUIPMENT.
8. BOND EQUIPMENT TO BURIED GROUND RING.
9. BOND CABLE BRIDGE/H-FRAME POSTS TO BURIED GROUND RING (TYP.) EXOTHERMICALLY WELD A #2 AWG SOLID BARE TANNED COPPER CONDUCTOR TO THE POST AT 12" ABOVE GRADE AND CONNECT TO THE BURIED GROUND RING. PROVIDE CONDUCTOR LENGTH AS REQUIRED TO MAKE CONNECTION.
10. INSTALL GROUNDING CONDUCTOR(S) FROM THE GROUND BAR AT BOTTOM OF TOWER TO TOWER MOUNTED UPPER GROUND BARS. VERIFY EXACT LOCATION OF GROUNDING BARS AND PROPER CONDUCTOR LENGTH. EXOTHERMICALLY WELD (2) #2 AWG SOLID BARE TANNED COPPER GROUNDING CONDUCTORS (LENGTH AS REQUIRED) TO THE GROUND BARS.
11. PROVIDE GROUND CONDUCTOR IN PVC CONDUIT. REFER TO ONE LINE DIAGRAM FOR WIRE AND CONDUIT SIZE.
12. SYSTEM GROUND RESISTANCE SHALL NOT EXCEED 5 OHMS. A THREE POINT SYSTEM RESISTANCE TEST SHALL BE PERFORMED BY THE CONTRACTOR.
 - A. PERFORM THREE TESTS AT EACH SITE.
 - B. CONTRACTOR SHALL PROVIDE A WRITTEN REPORT CONSISTING OF THE FOLLOWING: SITE NAME, ADDRESS AND IDENTIFICATION NUMBER, DESCRIPTION OF SITE SOIL AND MOISTURE CONDITION, DESCRIPTION OF WEATHER, MODEL NUMBER OF TESTING EQUIPMENT, DATE OF LAST CALIBRATION, SITE SKETCH SHOWING LOCATION OF TEST PROBES, AND ALL FIELD DATA COLLECTED (READINGS, RANGE, TEST, MILLIAMPS, ETC.).
 - C. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES PERFORMING SYSTEM RESISTANCE TESTS OR IF MEASUREMENTS ARE ABOVE 5 OHMS. THE CONSTRUCTION MANAGER SHALL PROVIDE INSTRUCTIONS TO THE CONTRACTOR TO INSTALL ADDITIONAL GROUNDING MEASURES TO MEET THE 5 OHM REQUIREMENT.

NTS 1 GROUNDING KEY NOTES

REV	DATE	DESCRIPTION
A	12/15/15	PRELIMINARY
D	1/27/16	FOR PERMIT
1	7/14/16	REVISED
2	11/19/15	REVISED

PROJECT NO.	14-1004-01
DRAWN BY	CHEYED BR
CHECKED BY	M. ASBEY

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RG TOWERS, LLC
 2001 ARDENWAY AVE. SUITE 400
 WILMINGTON, DE 19807
 TEL: 302.438.2227

PHILADELPHIA REGISTERED PROFESSIONAL ENGINEER
 No. 68312
 STATE OF DELAWARE
 DATE OF EXPIRATION: 11/18/15

LAKE PARK MARINA
 SFL13
 105 LAKE SHORE DRIVE
 LAKE PARK, FL 33403
 SHEET NAME
 GROUNDING PLAN AND NOTES
 SHEET NUMBER
 E5

IN THE CIRCUIT COURT OF THE FIFTEENTH JUDICIAL CIRCUIT
IN AND FOR PALM BEACH COUNTY, FLORIDA

RG TOWERS, LLC,

Petitioner,

vs.

TOWN OF LAKE PARK,

Respondent.

Case No. _____

APPENDIX TO RG TOWER'S
PETITION FOR WRIT OF CERTIORARI

EXHIBIT J



DESCRIPTION: Site Plan Application for a proposed 125-foot Stealth “Yard Arm”
Telecommunications Tower at the Lake Park Harbor Marina

REQUEST: In 2014, upon the recommendation of the then Town Manager, the Commission entered into a “Site with Lease Option Agreement” (“Lease”) with T-Mobile. The Lease enabled T-Mobile to perform such studies and analysis as it determined necessary and at its option to submit an application to construct a telecommunications tower (“Tower”) at the Lake Park Harbor Marina (“Marina”). Attached to the Lease was an exhibit which showed the proposed location, facilities, and landscaping to be associated with the site. T-Mobile assigned the Lease to RG Towers LLC (“Applicant”). The Applicant has exercised the option and submitted an application for a site plan (the Application). The area to be leased for a communications tower and associated equipment is legally described in the Lease (“Site”). The Site is generally located within the area of the Marina, adjacent to the existing dock space and office building. The Tower is referred to as a “stealth” tower because antennae or microwave dishes are not installed outside of the monopole structure. The Site measures 25 feet by 30 feet (750 square feet). The future land use designation of the Site is “Public Buildings and Grounds/Recreation and Open Space” and its zoning district is “Public.”

PLANNING & ZONING BOARD (BOARD) ACTION: The BOARD initially considered the Application on January 4, 2016, but continued its hearing to February 1, 2016. The BOARD requested that the Applicant provide the following additional information:

- (1) Additional view sheds of the proposed tower looking from the surrounding residential structures with a distance measurement (in feet) and the actual heights of the surrounding buildings. Namely, the 301 Lake Shore Drive building; 220 Lake Shore Drive building; and 302 Lake Shore Drive building.
→ The Applicant submitted a revised visual analysis addressing this comment which is part of this agenda item packet.
- (2) Collocation efforts. Documented outreach efforts and analysis for all the towers located within the 1-1.5 mile range from the proposed location, as well as all surrounding structures, as to why a collocation is not feasible. → The Applicant submitted a revised competitive analysis partially addressing this comment which is part of this agenda item packet. The Applicant’s Engineer states that the co-location on structures located within 1-1.5+ miles is not possible..
- (3) Written responses to the conditions of approval and justifications as to why the Applicant is unwilling and unable to meet those conditions proposed by staff. → The Applicant responded to Staff’s recommended conditions. Assuming the Commission votes to approve the Application, Staff included its recommended conditions as part of this report.
- (4) Written statement that the Applicant would be willing to take down the flags at night; or compensate the Town (manpower) for doing so; if in fact flags requiring lighting are recommended. → While the Applicant did not submit a statement in writing, Ms. Holly Valdez and Mr. Josh Long, representatives for RG Towers, confirmed that they are willing to adhere to either scenario, depending on the Town’s desire.

PLANNING & ZONING BOARD MEETING (February 1, 2016):

Upon the conclusion of the Board discussion, Vice-Chair Schneider (who is a professional Planner) stated he is not able to support the Tower Application. Vice Chairman Schneider stated that he was of the opinion, that the Application is not consistent with Town's Goal Statement 3.4.1 of the Future Land Use Element of the Comprehensive Plan which states the Town should ensure that the historic small Town character of Lake Park is maintained while fostering development and redevelopment that is compatible with and improves existing neighborhoods and commercial areas. He also explained that the application is not consistent with Policy 5.1 which states that the Town shall protect, preserve, maintain and improve its core residential neighborhoods and historic resources and protect these areas from physical degradation and the intrusion of incompatible uses. Vice-Chair Schneider continued that, based on the testimony of citizens who live in the area and who are familiar with the area's character, the Tower does not meet Town Code Section 74-65(6)(e), *Aesthetics*, as it does not blend into the natural setting and surrounding buildings; and although considered a stealth tower, the proposed Tower is too wide at the base and too tall to blend in to the low scale Marina and the surrounding residential neighborhood. The scale does not allow the Tower to realistically hide amongst the sailboat masts or a flag pole. Vice-Chair Schneider stated that his reading of the Lease Agreement indicates that it does not guarantee site plan approval.

P&Z BOARD RECOMMENDATION: Board Member Schneider recommended that the Commission deny the Tower application, and made the motion to do so. His motion was seconded by Board Member Lynch and approved 3-0, with Chairwoman Thomas (who was employed for many years as a professional Planner) also voting for the motion.

BACKGROUND INFORMATION

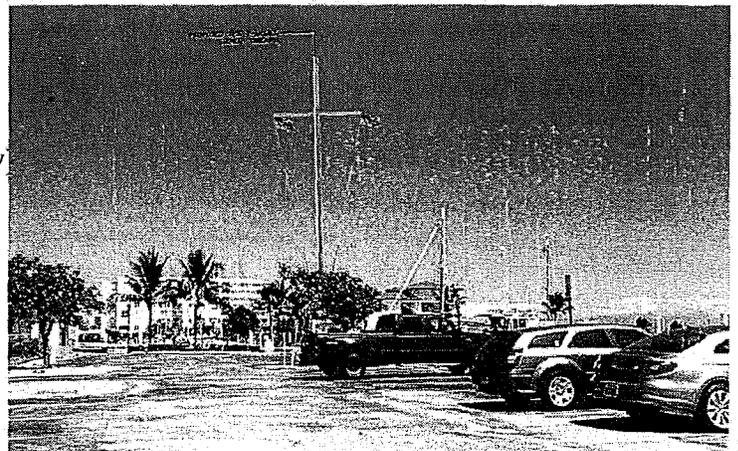
Applicant(s): RG Towers LLC
Owner: Town of Lake Park (See backup for Lease Option Agreement and First Amendment Documents)
Address: 105 Lake Shore Drive
Lot Size: 10.1675 acres
Existing Zoning: Public
Existing Land Use: Public Buildings and Grounds/Recreation and Open Space

Adjacent Zoning

North: Residential-1AA (Condominiums)
South: Residential Single-Family (Riviera Beach)
East: Intracoastal Waterway
West: Residential-2A (Condominium and Single-Family)

Adjacent Land Use

North: Condo Density
South: Low Density Residential (Riviera Beach)
East: Intracoastal Waterway
West: Commercial/Residential



CONSISTENCY WITH THE COMPREHENSIVE PLAN

The Future Land Use designation for the Lake Park Harbor Marina is Public Buildings and Grounds/Recreation and Open Space:

“Public Buildings and Grounds – Lands and structures that are owned, leased, or operated by a government entity such as libraries, police stations, fire stations, post offices, government administration buildings, and areas used for associated storage of vehicles and equipment, with a maximum F.A.R. of 3.0. Also, lands and structures owned or operated by a private entity and used for a public purpose such as a privately held by publicly regulated utility. Public schools are a permitted use within this land use designation.

Recreation and Open Space – Areas devoted to leisure time and outdoor recreational needs. The Recreation Overlay indicates areas that have been identified for potential future use as recreation and open space...”

Telecommunication towers are used to provide wireless or cellular telecommunication service for the general public. Cellular or wireless telecommunication carriers are privately owned entities, but are not regulated by the Florida Public Service Commission as are public utilities such as BellSouth and FPL. However, Staff believes that cellular or wireless telecommunications carriers serve a public purpose by providing the public with telecommunications and internet communication services similar to those provided by BellSouth (telephone) and FPL (internet through fiber optic). The Tower is proposed to be located within Parcel 2 of the Parcels which comprise the Marina. Parcel 2, unlike some of the other Parcels, does not contain a deed restriction limiting its use to public boat ramp purposes.

The Staff is of the opinion that the application is not consistent with the Town's Goal Statement 3.4.1 of the Future Land Use Element of the Comprehensive Plan. This Goal states the Town should ensure that the historic small Town character of Lake Park is maintained while fostering development and redevelopment that is compatible with and improves existing neighborhoods and commercial areas. Staff is also of the opinion that the application is not consistent with Policy 5.1 which states that the Town shall protect, preserve, maintain and improve its core residential neighborhoods and historic resources and protect these areas from physical degradation and the intrusion of incompatible uses. Finally Staff is of the opinion that a 125 foot monopole with an extensive base, even though designed as a yard arm with the idea of “blending in” to the nautical environment of the Marina, is inconsistent with the character of the Marina area and is not compatible with the surrounding residential land uses.

CONSISTENCY WITH THE TOWN'S LAND DEVELOPMENT REGULATIONS FOR TELECOMMUNICATIONS TOWERS

Article III of Chapter 74 addresses Wireless Telecommunications Towers and Antennae. Section 74-61 explains the purpose of Article III as being intended to accomplish the following: (1) Protect residential districts from potential adverse impacts of towers and antennae; (2) Encourage the location of towers in **non-residential** areas and to locate them, to the extent possible, in areas where the adverse impact on the community is minimal; (3) Minimize the total number of towers throughout the community; (4) Strongly encourage the collocation on new and existing towers as a primary option rather than construction of additional single-use towers; (5) Encourage users of towers and antennae to configure them in a way that minimizes the adverse visual impact of the towers and antennae through careful design, siting, landscape screening, and **stealth technology**; (6) Facilitate the ability of the providers of telecommunications services to provide such services to the community through an efficient and timely application process; (7) Consider the public health and safety of telecommunications towers; (8) Avoid

potential damage to adjacent properties from tower failure through careful siting of tower structures. In order to accomplish these purposes, Section 74-61 (b) states:

"In furtherance of these goals, the Town shall give due consideration to the Town's comprehensive plan, zoning map, existing land uses, and environmentally sensitive areas in approving sites for the location of towers and antennae. The Town's small geographic size and compact, planned physical layout are unique among South Florida municipalities. The size and layout of the Town result in the close proximity of differing types of land uses which has the potential to create land use conflicts. In order to protect the unique nature of the Town and avoid land use conflicts, the Town has enacted an article which takes that nature into account in determining separation distances, setback distances and permitting procedures for wireless telecommunication towers and antennae."

The review criteria used, pursuant to the Town Code, includes the following:

(1) **Permitted uses (Code Section 74-63)** → Telecommunications facilities located on property owned, leased, or otherwise controlled by the Town provided that a license or lease authorizing a telecommunications facility has been approved by the Town Commission and that the requirements for indemnification and insurance have been met.

The Town entered into a Lease which is a requirement of Code Section 74-63(a)(1). In doing so, it also required Insurance and Subrogation and Indemnification. In reviewing this site plan application, the Town's insurance broker and consultant, Gehring Group determined: *"The insurance liability limits in the agreement fall within the Town's minimum requirements. The requirement of a waiver of subrogation is also a well-reasoned inclusion. They will be required to send a technician to exact repairs from time to time. This technician will have to be on Lake Park property in order to complete his/her appointed repairs on the Tower. The Town needs to be certain that the tenant maintains an active workers' compensation policy in case their technicians should injure themselves in the course of those repairs while on Lake Park property. We do not see any language in the insurance section of the agreement referring to a workers' compensation. Therefore, we would recommend adding a requirement for evidence of workers' compensation insurance, also to include a waiver of subrogation."* This additional requirement is being proposed as a condition of approval.

(2) **Health Impacts** → Certain Town residents and members of the public have submitted a substantial amount of information related to the health impacts of cell towers. They submitted these for the Town Commission's consideration. The Applicant previously submitted documentation, which is also part of this agenda packet, highlighting to staff that the Telecommunications Act of 1996 pre-empts the Town from using this as a basis of denial.

(3) **Additional (future) ground space/equipment area** → The Lease provides land for a 125 foot tower. The Lease permits up to four co-locators. However, at present only two cellular providers are accounted for in the 750 square feet of ground space. Assuming the use of the tower is expanded to provide for 4 co-locators, additional ground space will be needed to support the facilities associated with the additional co-locators. Staff initially recommended that the Applicant provide details regarding the additional ground space which may be required for each additional co-locator to ensure there is sufficient room to expand on the site without impacting the retention area. The Applicant initially resisted this request, stating that it would not provide these details until it proposes to include up to an additional two co-locators at the Site. However, the Applicant has now submitted revised Sheets C-1 and C-2 showing the expansion of the Site to accommodate up to two additional co-locators.

Given the Staff recommendation of denial because of the aesthetics and compatibility concerns with the open space/park and residential character of the area, the addition of two more co-locators would increase the footprint and thus increase the incompatible use on the Site.

- (4) Visual Impacts/Aesthetics →** The antennas for cellular providers are generally attached to the monopole. The proposed Tower is a monopole with a "yard arm". This design was believed to be a means of having the 125 foot monopole be an appropriate design because it would "fit in" with the nautical theme of a Marina. While the Yard Arm might provide some "mitigation", the visual impact created by a 125 foot yard arm still creates visual impacts for the surrounding area, including the nearby residential units. The Applicant has submitted graphics and photographs showing the line of sight/view sheds/view corridors in each direction (east/west/north/south) with additional details from the original submittal which have been made part this agenda packet. The Town's former Marina Director, Mr. Jonathan Luscomb, provided some written comments regarding the aesthetics of the Yard Arm Tower. These comments are included in a proposed condition of approval. Mr. Luscomb recommends a different design, and a better placement of the Yard Arm and the gaff so as to replicate certain structures similar to the New York Yacht Club at the Harbor Court, Newport, Rhode Island. Additionally, he recommended consideration of a Lake Park Marina Burgee at the top of the mast. **Should the Commission choose to approve the application, Staff recommends that Mr. Luscomb's recommendations be included as staff's recommended condition of approval (#7).**

Despite the Yard Arm features of the Tower, Staff has concluded that the proposed Tower is out of character with the natural park-like setting of the Marina, and that the Tower is incompatible with the park, open space and residential character of this specific Marina area of the Town. The base of the proposed tower is extremely wide and gives the appearance of an industrial structure. Moreover, the height of the Tower is such that it is out of character and incompatible with the low scale features of the Marina itself and the buildings of the surrounding residential neighborhood since it is a large, unarticulated pole with a massive base. Furthermore, the scale of the monopole is not a reasonable comparison to the masts of the sailboats in the Marina. While sailboat masts are attached to yachts and smaller sailing vessels, the Tower is simply a large, unarticulated pole with a massive base.

- (5) Landscaping/Irrigation/Fencing surrounding proposed ground space →** The Town's consulting Landscape Architect has determined that the landscape and irrigation plans submitted by the Applicant meet the Town's *minimum* requirements. Nevertheless, because of the proximity of the tower to residential units and the Marina, the Landscape Architect had recommended that the Applicant add additional plantings in an attempt to make the Tower more compatible with the surrounding residential and public park, opens space, and Marina) areas. Staff originally recommended a condition requiring the Applicant to submit revised plans to show additional plantings. At its January 4, 2016, the P&Z Board agreed with Staff and recommended that the Applicant modify the trees to include fuller, taller trees in an attempt to meet the recommended changes per the Town's consulting Landscape Architect. In response to this request, the Applicant has provided some Gumbo Limbo trees which were deemed acceptable by the P&Z Board pursuant to the Town's consulting Landscape Architect's recommendations.

The Applicant's plans show an eight foot wood fence surrounding the Site. However, to improve the aesthetics of the Site, Staff recommends the Applicant revise its plans to show an eight foot decorative fence made out of a different material with added decorative features. If the Commission is inclined to approve the Application, then Staff recommends that a condition be included to require that prior to the issuance of any Town permits, the Applicant submit revised plans to show a decorative fence instead of the plain 8-foot wood fence.

The Applicant is required to screen the equipment area associated with the Tower from public view (i.e. from an Urban Comfort level identified by a 6-foot tall person standing alongside the area at street level). The Applicant's plans show the perimeter landscaping outside of the leased area. Although the Applicant insists that landscaping outside of the leased area was verbally approved by the previous Town Manager, the Town Attorney has opined that the Town Manager did not have the authority to approve the location of the landscaping outside of the leased area. Rather, the landscaping associated with the Tower is subject to site plan review and the approval of the Commission. The Town Attorney notes that the Lease does not provide the Applicant with any legally authorized use of property other than the "leased area" as legally described and incorporated into the Lease. Consequently, **if the Commission is inclined to approve the application, Staff recommends a condition requiring that prior to the issuance of any Town permits, the Applicant revise its site and landscaping plans to show the perimeter landscaping within the leased area.**

Finally, the Lease provides that utilities are to be provided at the Tenant's expense, and that the Tenant shall, whenever practicable, install separate meters for utilities used on the Premises. **If approved, Staff recommends a condition which requires that prior to the issuance of any Town permits, the Applicant provide for a separate meter from Seacoast Utilities.**

(6) Tower Maintenance and Access → In an attempt to ensure necessary access, a 12 foot non-exclusive access easement and a 5 foot non-exclusive utility easement are shown on the plans submitted by the Applicant. When repair work is needed for the Tower, the existing parking areas at the Marina will be utilized since these are public parking spaces therefore a parking issue is not presented. To ensure the Town is covered liability-wise, the Town Code also requires a security fund from which the Town can deduct fines and penalties for any future noncompliance with any of the Town Codes, or should the Town need to remove any equipment, antenna or tower due to abandonment. The amount for the tower as set by Code is \$25,000. **If the Commission is inclined to approve the Application, Staff recommends the inclusion of a condition which requires that prior to the issuance of any Town permits, the Applicant provide a Letter of Credit in the amount of \$25,000. The Letter of Credit shall be subject to the review and approval of the Town Attorney.**

(7) Setbacks for Towers → The Town Code Section 74-65(8) requires a minimum setback of 137.5 feet from the Site's property lines (i.e. 110% of 125 feet). The applicant's plans meet these setbacks by providing 330 feet to the north; 167 feet to the east; 574 feet to the south; and 205 feet to the west, and are shown in the plans by sheet C-1.

(8) Height [Code Section 74-65(7)] → A tower with a height between 120 – 150 feet is identified in the Town Code as having a potential for more than three users. *The Application is within these standards, as the Applicant has proposed a 125 foot tower with up to four users.*

(9) Lighting → The Applicant's Tower design includes Yard Arms that can accommodate flags. The Commission should address whether or not flags should be flown from the Yard Arms. If so, then appropriate lighting and flag protocol must be employed. **If the Commission is inclined to approve the Application, Staff recommends a condition which provides that prior to the issuance of any Town permits, the Applicant shall submit a photometric plan showing the lighting to be provided for the flags. The condition should also provide that the Applicant shall be perpetually responsible for the maintenance of the lighting and flags.**

(10) **Signage** → Given the nature of the equipment area, warning signs must be placed at ground level surrounding the equipment area of the Site. The warning signs the Applicant proposes to provide are shown on plan sheet C-6.

(11) **Revenue** → The Lease provides that the Town is to receive \$2,950 monthly, plus a 50% revenue split for co-locators and an annual 3% escalator. Thus, the Town would be expected to annually receive a base of \$35,400. If there are co-locators, the Lease provides that the Town would receive 50% of the amount of rent collected from each co-locator. The revenue received from co-locators would increase 3% per year.

(12) **Availability of Other Existing Tower locations/Collocations Efforts** → The Applicant has submitted a study from an Engineer which reviews existing tower locations in the general vicinity of its proposed Tower together with cellular service "coverage maps." This information has been included with this agenda packet.

SITE PLAN CRITERIA

Since the Town is a master planned community, which has been substantially built out in accordance with the master plan, the Town Code does not include specific site plan criteria to be used in evaluating the development of individual parcels within the original Kelsey City Plat. However, to ensure that the public's health, safety and general welfare is adequately addressed, Staff has evaluated the Application based upon some general site planning principals.

- (1) Is the proposed development compatible with the established or proposed character of the area
The residential buildings to the north are approximately 90 feet tall (based on their 8 stories and assuming approximately 11 feet per story). The buildings to the west are approximately 25 feet tall (2 stories). The Tower is a 125 foot monopole. The diameter of a monopole does not, in any way resemble a building, nor is it in keeping with the form of the residential condominiums in the general vicinity of the Site. Moreover, the Tower's inclusion of a yard arm contributes very little to "fitting in" with the Marina. The character of the surrounding area is predominately multi-family residential, a Marina, with a public park recreation and open space usage. Staff has concluded that the Application is not consistent with the Town's Goal Statement 3.4.1 of the Future Land Use Element of the Comprehensive Plan. This Goal states that the Town should ensure that the historic small Town character of Lake Park is maintained while fostering development and redevelopment that is compatible with and improves existing neighborhoods and commercial areas; and also Policy 5.1 which states that the Town shall protect, preserve, maintain and improve its core residential neighborhoods and historic resources and protect these areas from physical degradation and the intrusion of incompatible uses. Staff is of the opinion that a monopole cellular tower with an extensive base, even with the inclusion of a yard arm, is not consistent with this Goal of the Comprehensive Plan.
- (2) The proposed development would not be a deterrent to the improvement or development of adjacent property in accord with existing regulations → *The erection of a Tower upon the Site would be detrimental to the Town's mixed-use initiative to the extent its presence would discourage the redevelopment of properties along Federal Highway. The Tower may also be a deterrent to the Town's continuing efforts to increase occupancy at the Marina. The Tower is generally not compatible with the adjacent uses of residential, Marina, public park and open space.*

- (3) The proposed development does not negatively impact adjacent natural systems or public facilities, such as parks → *The Tower will remove open space in the vicinity of the Marina and replace it with 125-foot monopole with an extensive base, along with signage that identifies the area as being potentially dangerous. Such a use is inconsistent with the current recreational/park, open space and residential character of the immediate area.*

****See APPLICANT documentation tab in this agenda packet for their updated Propagation Analysis****

APPLICANT ENGINEERING FEASIBILITY REPORT

Lake Park Competitive Analysis



Reg Number	Tower Owner	Distance	Height	Tower Type	Carriers	Address	Comments
Unregistered	Nextel Corp South	1.37 mi	150'	Unipole	unknown	640 Old Dixie Highway, Lake Park FL	Decommissioned per Lake Park Attorney
1020782	SpectraSite Communications, LLC through American Towers, LLC	1.46 miles	482	Self-Support Tower	1 or 2	1115 Old Dixie Hwy (302756) W. Palm Beach, FL	Provides strong indoor coverage levels for approximately one mile at which point service levels start to become inadequate
unregistered	Crown Castle	0.82 mile	125'	Monopole	1	535 Park Avenue, Lake Park, FL 33403	This non stealth unregistered monopole is .8 miles West of the Marina and the site will not adequately solve low signal areas

Lake Park Competitive Analysis

Rooftop	T-Mobile	1.04 miles		Roof top antennas	1	2001 Broadway, Riviera Beach FL	This rooftop antenna installation works well for approximately three quarters of a mile but the signal strength has dropped off significantly by E/W 28th ST
Rooftop	T-Mobile	1.56 miles		Roof top antennas	1	125 Ocean Ave, Palm Beach Shores FL	This rooftop facility provides good levels to the vicinity but levels across the water to the west are too weak for reliable service.

NOTICING

Per the Town Code and Statutory requirements, the item was advertised for the Planning & Zoning Board meeting of January 4, 2016 meeting in the Palm Beach Post on December 24, 2015 and certified letters were mailed to all property owners within 300 feet on December 22, 2015. Subsequently, the Special Call Town Commission Meeting was advertised in the Palm Beach Post on March 11, 2016 and certified letters were mailed to all property owners within 300 feet on March 11, 2016. Copies of advertisements and notices are enclosed with this agenda item

STAFF RECOMMENDATION

According to Town Code Section 74-64(d), the denial of a tower application must be supported by written evidence. This report, if relied upon by the Town Commission, would meet the requirement of the Code. In sum, Staff has determined that the application is not consistent with the Town's Comprehensive Plan and, on balance does not meet Article III of Chapter 64 of the Code. **Staff recommends the Town Commission DENY the application.**

IF THE TOWN COMMISSION recommends APPROVAL, Staff recommends that the following conditions:

- (1) Site Plan, Compound Plan, Notes Plan, Elevations Plans, Wood Fence Details Plan, Trench Details Plan, referenced as Sheets C-1 through C-7; and Electrical Plans referenced as Sheets E-1 through E-6; Landscaping Plan references as Sheet L-1; and Irrigation Plan referenced as Sheet IR-1; ALL prepared by Michael Phillips, Registered Engineer and Jason Rinard, Landscape Architect, of Caltrop Telecom, signed and sealed November 18, 2015 (January 14, 2016 C-1, C-2, L-1 and IR-1) and received by the Department of Community Development on November 25, 2015 (January 19, 2016 for C-1, C-2, L-1 and IR-1).
- (2) Insurance liability limits. Prior to the issuance of any Town permits and since the tower will require technicians to be on Lake Park property in order to complete his/her appointed repairs on the Tower, the

Town needs to be certain that the tenant maintains an active workers' compensation policy in case their technicians should injure themselves in the course of those repairs while on Lake Park property. Workers' compensation insurance, including a waiver of subrogation should be included on the insurance certificate.

- (3) Prior to the issuance of any Town permits, the Applicant shall submit revised plans to show a decorative fence instead of the plain 8-foot wood fence.
- (4) Prior to the issuance of any Town permits, the Applicant revise its site and landscaping plans to show the perimeter landscaping within the leased area and provide for a separate meter from Seacoast Utilities.
- (5) Prior to the issuance of any Town permits, the Applicant shall provide a Letter of Credit in the amount of \$25,000. The Letter of Credit shall be subject to the review and approval of the Town Attorney. Cost estimates for construction and restoration should accompany the LOC since the amount on the LOC will need to be 110% of these values.
- (6) Prior to the issuance of any Town permits, the Applicant shall submit a photometric plan showing the lighting to be provided for the flags. The Applicant shall be perpetually responsible for the maintenance of the lighting and flags.

Pursuant to
the former
Marina
Director
comment
ation.

(7) Prior to the issuance of any Town Permit, the design of the yard arm shall be modified so as to position the yard arm and gaff correctly, similar to the New York Yacht Club at the Harbor Court, Newport, Rhode Island. The Lake Park Burgee should be flown from the top of the mast and the Tower owner shall be responsible for its perpetual maintenance and replacement.

- (8) **Cost Recovery.** All fees and costs, including legal fees incurred by the Town in reviewing the Application and billed to the Owner shall be paid to the Town within 10 days of receipt of an invoice from the Town. Failure by an Owner or an Applicant to reimburse the Town within the 10 day time period may result in the suspension of any further review of plans or building activities, and may result in the revocation of the approved Development Order.

IN THE CIRCUIT COURT OF THE FIFTEENTH JUDICIAL CIRCUIT
IN AND FOR PALM BEACH COUNTY, FLORIDA

RG TOWERS, LLC,

Petitioner,

vs.

TOWN OF LAKE PARK,

Respondent.

Case No. _____

APPENDIX TO RG TOWER'S
PETITION FOR WRIT OF CERTIORARI

EXHIBIT K

Sec. 2-2. - Quasijudicial hearings.

- (a) Legislative intent. It is the intent of the town to provide a fair and efficient process to hear and consider matters in a quasijudicial context to afford all parties due process of law in accordance with the standards proscribed by the Florida Supreme Court in *Brevard County v. Snyder*. These procedures shall be followed by the town's planning and zoning board and the town commission, where applicable, in regard to quasijudicial hearings.
- (b) Definitions. For purposes of this section, the following definitions shall apply unless the context clearly indicates or requires a different meaning:

Affected person means a person or persons, natural or corporate, who is the owner of the subject property or who owns property within 300 feet of the subject property as in the records of the county property appraiser, or who resides in or operates a business within 300 feet of the subject property.

Board means the planning and zoning board of the town.

Party, party intervener or parties means the petitioners, the town and any affected person who may be represented by counsel or other authorized representative and who has filed a notice requesting to be heard at the proceeding.

Petitioner or applicant means the person or authorized agent who has submitted an application which is quasijudicial in nature.

Quasijudicial in nature means the application of a general rule or policy to specific individuals, interests or activities.

Quasijudicial proceeding means the hearing held by a board or the town commission to adjudicate private rights with respect to a particular person or property after a hearing which comports with due process requirements, and makes findings of fact and conclusions of law on the issue.

Site specific means an individual piece of real estate which can be clearly defined by street address, legal description or similar means at a single identifiable location.

Town or town commission means the town commission of the Town of Lake Park.

- (c) Notice of hearing. The town shall publish such notices of the hearing as are required by this Code or state law.
- (d) Procedure to be followed for quasijudicial hearings.
 - (1) Where applicable, hearings regarding the following quasijudicial matters, regardless of whether the final determination is made by the town commission or one of its appointed boards, shall be in accordance with the procedures herein:
 - a. Site specific rezonings that are not comprehensive in nature;
 - b. Special exceptions;
 - c. Site plans;
 - d. Variances;
 - e. Administrative appeals.
 - (2) The parties to quasijudicial proceedings shall include the town staff, the petitioner, and any party intervener. To be a party intervener, a notice shall be filed with the department of community development at least ten days prior to the date of the hearing. The petitioner, the town staff, and any party intervener shall be given the opportunity to present evidence, bring forth witnesses and ask questions of, or cross examine any other party or party intervener's witnesses. The town commission or board shall have the authority to refuse to hear any testimony of a witness of a party or party intervener or member of the public that is irrelevant, cumulative or repetitive. If there is disagreement among the commission or board as to the relevance or repetitiveness of any testimony, the town commission or board shall be polled and

the majority shall prevail in such rulings. The members of the board or the town commission shall assign such weight and credibility to the testimony of any witness as it deems appropriate. All witnesses of a party or party intervener shall be sworn. Members of the public shall not be required to be sworn as witnesses.

- (3) Prior to any presentation by staff, party or party intervener, the members of the quasijudicial board or town commission shall disclose any ex parte communications. The members of the quasijudicial board or town commission shall disclose:
 - a. The subject of the communication;
 - b. The identity of the person, group, or entity with whom the communication took place;
 - c. Written communications received and which shall be made part of the record;
 - d. Investigations or site visits of a site which is the subject of the quasi judicial hearing completed by the member; and
 - e. Receipt of any expert opinions regarding the pending quasijudicial action.
- (4) The quasijudicial board or town commission may determine the order of presentation in order to expedite the proceeding. Unless otherwise determined by the town commission or board, the following shall be the order of the proceedings:
 - a. The chairperson or mayor shall call the proceeding to order and announce the matter to be heard at the hearing. A majority of the town commission or board members must be continuously present during the proceeding; however, the absence of a board member or member of the town commission at any time during a proceeding shall not preclude the board member or member of the town commission from taking part in the vote on the matter before the town commission or board.
 - b. The members of the quasijudicial board or town commission shall disclose any ex parte communications as provided in subsection (d)(3) of this section.
 - c. The town staff's report and/or presentation should not exceed 15 minutes. The staff may request that some portion of its 15 minutes be reserved for rebuttal or closing argument, following public comments, but prior to the board or town commission's deliberation. The staff's report may include, but is not limited to a description of the request of the petitioner; background materials or reports related to the petition; an analysis which includes the petition's consistency with the town's comprehensive plan, and how the petition does or does not meet the requirements of the town code and the staffs recommendations for approval, approval with condition, continuance or postponement, or denial of the petition. Following the staff's presentation, the petitioner, or any intervener may ask questions of the staff. The questioning party shall not be permitted to make any arguments or statements, but shall only ask questions that are directly related to the testimony presented by the staff or contained in the staff report.
 - d. The petitioner or a representative of the petitioner may make a presentation. If the petitioner chooses to make a presentation, it should include a description of the nature of the petition or any corrections to the staff's presentation of the nature of the petition, and a response to the staff's presentation, including objections to any conditions of approval recommended by the staff. This presentation should not exceed 15 minutes. A petitioner may request that some portion of its 15 minutes be reserved for rebuttal or closing arguments, following public comments, but prior to the commission's or board's deliberation. Additionally, petitioners may submit any relevant written materials which contribute to the explanation of the petitioner's application for incorporation into the record. The petitioner shall have provided these materials to the town at least seven business days in advance of the hearing. At the discretion of the commission or board, materials submitted less than seven business days, or on the day/evening of the hearing, may be good cause for a continuance. In addition, the petitioner may introduce any exhibits and

witnesses. Following the petitioner's presentation, the staff, or any intervener may ask questions of the petitioner's witnesses.

- e. Any party intervener may make a presentation. It should include any response or objections to the staff report and/or the petitioner's application. A party intervener's presentation should not exceed 15 minutes. An intervening party may request that some portion of its 15 minutes be reserved for rebuttal or closing argument, following public comment, but prior to the board or town commission's deliberation. Additionally, interveners may submit any relevant written materials which contribute to the explanation of the intervening party's position for incorporation into the record. The intervening party shall have provided these materials to the town at least seven business days in advance of the hearing. At the discretion of the town commission or board, materials submitted less than seven business days, or on the day/evening of the hearing, may be good cause for a continuance. The intervening parties may introduce any exhibits or witnesses. Following the presentation of any party intervener, the staff or the representative of the petitioner may ask questions of the intervening party's witnesses.
 - f. Following the presentations of the staff, petitioner, and intervener, the town commission or board shall address questions about the petition to these parties.
 - g. Members of the public shall make their presentation. Unless waived by the town commission or board, presentations by members of the public are limited to three minutes per person.
 - h. If desired, and sufficient time has been reserved, any of the parties may make closing arguments or offer rebuttal testimony. Any rebuttal testimony that is presented shall not be repetitive or cumulative and shall be limited to directly responding to matters raised by members of the public or another party. No questions shall be permitted at this time.
 - i. Following the presentation of closing arguments or any rebuttal testimony, if any, the mayor or chairperson shall announce that the town commission or board is beginning its deliberation. During deliberation, the mayor or chairperson shall take comments only from the members of the commission or board and shall do so in a sequential order. No further testimony shall be taken and the members of the town commission or board should not ask further questions of parties or persons who have presented testimony or comments. Rather, each of the members of the town commission or board may comment on the evidence that was presented at the proceeding and indicate their position, if they choose, with respect to the application before the board or town commission.
 - j. After each of the members of the town commission or board has made their comments, the chairperson or mayor shall call for a motion. Once a motion has been made and seconded, the mayor or chairperson may invite discussion from the members of the board or town commission; however, the discussion shall be limited to the contents of the motion. The members of the board or town commission may invite comments from the town manager or the board or town commission's attorney regarding the contents of the motion. At the conclusion of the board or town commission's discussion, the mayor or chairperson shall call the vote or request that the town commission or board be polled.
- (5) All evidence relied upon by reasonably prudent persons in the conduct of their business shall be admissible, whether or not such evidence would be admissible in a court of law. The town commission or board shall consider only that evidence which is presented to the town commission or board at the hearing, or which is specifically incorporated into the record at the hearing as the basis for its decision.
 - (6) Hearsay evidence may be used for the purpose of supplementing or explaining other evidence, but it shall not be sufficient by itself to support a finding of fact.
 - (7) Documentary evidence may be presented in the form of a copy of the original, if available. Upon request, parties and party interveners shall be given an opportunity to compare the copy with the original.

- (8) Statements of counsel shall be considered as legal argument and shall not be considered competent, substantial evidence, unless counsel is sworn as a witness to offer testimony as to facts or to express opinions about a subject for which the witness might qualify as an expert witness. Counsel for the parties shall not be subject to cross examination unless they present factual information or offer testimony as an expert witness.
- (e) Preparation of resolution/order. The town commission or board's attorney shall prepare the final order or resolution of the town commission or board which shall reflect the decision of the town commission or board. The resolution or order shall include, but not be limited to, the findings of fact and conclusions of law as are necessary, and any conditions, requirements or limitations on the approval of the petition. The appeal of any decision of the town commission or quasijudicial board shall be taken within 30 days of the written decision of the town commission or board.
- (f) Continuances. If, in the opinion of the town commission or board, there is good cause shown for a continuance, the town commission or board may continue the hearing to a time certain at the request of the staff, the petitioner, or a party intervener. Good cause may include, but is not limited to, instances where the testimony or documentary evidence presented at the hearing would require additional time to allow additional data or information by a party or party intervener to be produced, or due to the absence or illness of a material witness. The dates to which the proceeding shall be continued shall be announced at the proceeding or presented on the board or town commission's agenda. Such continuances shall be within the sole discretion of the town commission or board. In its sole discretion, the board or town commission may require the party requesting the continuance to readvertise the hearing.
- (g) Maintenance of evidence. The official transcript of a proceeding shall be preserved by tape recording or other device by the town clerk's office. Nothing precludes any party from providing a court reporter to transcribe the proceeding. The office of the town clerk shall retain all of the evidence and documents presented at the proceeding, except for large scale exhibits which shall be retained by the town manager or a designee, all of which become part of the public records of the proceeding.
- (h) Rehearings. The town commission or board may reconsider its decision at any time before an appeal has been taken or before its decision becomes a final order by lapse of time without appeal.
- (i) Appeals. The final determination of the town commission or board is subject to judicial review in a court of competent jurisdiction within 30 days of the town commission or board's rendition of its written final order.

(Ord. No. 26-2002, § 2, 9-18-2002; Code 1978, § 2-2)

Sec. 55-63. - Powers and duties; variances.

The planning and zoning board shall have the following powers and duties:

- (1) Act in an advisory capacity to the town commission on the following matters:
 - a. The planning and zoning board shall review the town comprehensive plan as required by section 55-3.
 - b. The planning and zoning board shall perform any duties which lawfully may be assigned to it by the town commission.
 - c. The planning and zoning board shall perform any other duties which may be assigned to it under this Code.
 - d. The planning and zoning board is hereby designated as the governmental entity to act as the "Local Planning Agency" in accordance with F.S. ch. 163.
 - e. The planning and zoning board shall obtain and maintain information on population, property values, the land economy, land use and other information necessary to assess the amount, direction and type of development to be expected in the town.