



**TOWN OF LAKE PARK  
PLANNING & ZONING BOARD  
MEETING AGENDA  
JANUARY 4, 2016  
7:00 p.m.  
535 PARK AVENUE  
LAKE PARK, FLORIDA**

**PLEASE TAKE NOTICE AND BE ADVISED:** If any interested person desires to appeal any decision of the Planning & Zoning Board with respect to any matter considered at the Meeting, such interested person will need a record of the proceedings, and for such purpose, may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. *Persons with disabilities requiring accommodations in order to participate in the Meeting should contact the Town Clerk's Office by calling (561) 881-3311 at least 48 hours in advance to request accommodations.*

**CALL TO ORDER**

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

Judith Thomas, Chair	<input type="checkbox"/>
Martin Schneider	<input type="checkbox"/>
Michele Dubois	<input type="checkbox"/>
Anne Lynch, Alternate	<input type="checkbox"/>
Vacancy	<input type="checkbox"/>
Vacancy	<input type="checkbox"/>

**APPOINTMENT OF VICE-CHAIR**

**APPROVAL OF AGENDA**

**APPROVAL OF MINUTES**

- "Special Call" Planning & Zoning Board Meeting Minutes of November 23, 2015

**PUBLIC COMMENTS**

Any person wishing to speak on an agenda item is asked to complete a Public Comment Card located in the rear of the Commission Chambers, and provide it to the Recording Secretary. Cards must be submitted before the agenda item is discussed.

## **ORDER OF BUSINESS**

The normal order of business for Hearings on agenda items is as follows:

- Staff presentation
- Applicant presentation (when applicable)
- Board Member questions of Staff and Applicant
- Public Comments – 3 minute limit per speaker
- Rebuttal or closing arguments for quasi-judicial items
- Motion on floor
- Vote of Board

## **NEW BUSINESS**

- A. **A SITE PLAN APPLICATION FOR A PROPOSED 125-FOOT STEALTH “YARD ARM” TELECOMMUNICATIONS TOWER AT THE LAKE PARK HARBOR MARINA. *APPLICANT: RG TOWERS, LLC***

## **COMMUNITY DEVELOPMENT DIRECTOR COMMENTS**

## **ADJOURNMENT**

**THE NEXT REGULARLY SCHEDULED PLANNING & ZONING BOARD MEETING IS MONDAY, FEBRUARY 1, 2016 AT 7:00 P.M.**



**TOWN OF LAKE PARK  
 PLANNING & ZONING BOARD  
 "SPECIAL CALL"  
 MEETING MINUTES  
 NOVEMBER 23, 2015**

**CALL TO ORDER**

The Special Call Planning & Zoning Board Meeting was called to order by Vice-Chair Von Unruh at 6:00 p.m.

**PLEDGE OF ALLEGIANCE**

**ROLL CALL**

Judith Thomas, Chair	Excused
Erich Von Unruh, Vice-Chair	Present
Martin Schneider	Present
Michele Dubois	Present
Ludie Francois	Present
Anne Lynch, Alternate	Present

Also in attendance were Thomas J. Baird, Town Attorney; Nadia DiTommaso, Community Development Director; Scott Schultz, Town Planner, and Kimberly Rowley, Board Secretary.

**APPROVAL OF AGENDA**

*The Community Development Director requested that Item "B" be heard first, since the Applicant for Item "A" was not yet present.*

Vice-Chair Von Unruh requested a motion for the approval of the Agenda as amended. Board Member Schneider Lynch made the motion, and it was seconded by Board Member Francois. The vote was as follows:

	<b>Aye</b>	<b>Nay</b>
Erich Von Unruh	X	
Martin Schneider	X	
Michele Dubois	X	
Ludie Francois	X	
Anne Lynch	X	

**The Motion carried 5-0, and the Agenda was approved as amended.**

**APPROVAL OF MINUTES**

Vice-Chair Von Unruh asked for a motion for the approval of the October 5, 2015, Planning & Zoning Board Meeting Minutes as submitted. Board Member Schneider made a motion for approval, and it was seconded by Board Member Lynch. The vote was as follows:

	<b>Aye</b>	<b>Nay</b>
Erich Von Unruh	X	
Martin Schneider	X	
Michele Dubois	X	
Ludic Francois	X	
Anne Lynch	X	

**The Motion carried 5-0, and the Minutes of the October 5, 2015, Planning & Zoning Board Meeting were approved as submitted.**

**PUBLIC COMMENTS**

Vice-Chair Von Unruh reviewed the Public Comments procedure.

**ORDER OF BUSINESS**

Vice-Chair Von Unruh outlined the Order of Business.

**NEW BUSINESS**

- B. REZONING OF TWENTY-ONE (21) PARCELS ON THE EAST SIDE OF 10<sup>TH</sup> STREET BETWEEN NORTHERN DRIVE AND SILVER BEACH ROAD FROM RESIDENTIAL-2 TO COMMERCIAL-1. (TOWN INITIATED REQUEST).**

**STAFF PRESENTATION**

Nadia DiTommaso, Community Development Director, addressed the Board Members and explained that this is a Town initiated Application for the rezoning of twenty-one (21) parcels on the east side of 10<sup>th</sup> Street between Northern Drive and Silver Beach Road from Residential-2 to Commercial-1. Ms. DiTommaso stated this is a simple, housekeeping item and reviewed the history. In 2009, the Town underwent its evaluation and appraisal report of the Comprehensive Plan, and several sections (elements) of the Plan were modified, including the Future Land Use Element which identifies the various land use designations for parcels throughout the Town. The land use designations set a vision for the future development of these parcels, and at that time the vision for the subject (21) parcels translated into a commercial land use designation. Staff realized after initiating a GIS mapping project in recent months, that the zoning district designation had not been officially changed for the (21) subject parcels. Ms. DiTommaso stated the reason the zoning district designation needs to change is because the zoning district provides for the permitted uses and additional land development regulations for the parcels, and consequently, since the land use

designation changed to commercial in 2009, the zoning needs to change to Commercial-1 (C-1), so it will be consistent with the land use designation in place. This means that properties currently built as multi-family residential can only be significantly redeveloped as commercial, which would provide for a larger footprint for commercial redevelopment and potentially increase parcel values. Since some of the parcels lie adjacent to single-family residential, the C-1 Zoning designation is the most appropriate, since the more intense commercial uses in the District can only be approved by Special Exception. Ms. DiTommaso stated though the vision was set in 2009, Staff is now taking the step to formalize it with a zoning district designation which is consistent with the 10<sup>th</sup> Street corridor and the future Commercial land use designation on these parcels. Ms. DiTommaso stated that phone calls received by the Community Development Department on this item were positive.

### **STAFF RECOMMENDATION**

Ms. DiTommaso stated that Staff is recommending Approval of the rezoning of twenty-one (21) platted parcels, as legally described within the Staff Report, from a Residential-2 to Commercial-1 Zoning District designation.

### **PUBLIC COMMENTS**

There were no public comments.

### **BOARD DISCUSSION**

Board Member Schneider asked how the affected property owners were notified for this item. Ms. DiTommaso responded there were 2 sections of properties: 1) the properties north of Park Avenue, which are more than 10 contiguous acres and therefore were not required to receive individual notice; and 2) the properties located south of Park Avenue, which since the area is less than 10 contiguous acres, were required to receive individual notice per Florida Statute. Ms. DiTommaso stated that all of the impacted properties were advertised in the Palm Beach Post. Board Member Schneider expressed concern that the large property owners did not receive notice. Board Member Schneider questioned the noticing back in 2009 and asked if there was any opposition at that time. Ms. DiTommaso responded she was not certain, but that since the 2009 changes were part of an EAR Amendment, notification of property owners would have been a requirement. Board Member Schneider stated the apartments, townhouses, single-family homes and the day care center would all now become non-conforming. Ms. DiTommaso confirmed as correct, and stated that since the land use is already in place, there is existing non-conformity. Board Member Schneider asked that since there are (3) major day care centers in the subject area, if Staff has considered the possibility of adding day care as a special exception use in the C-1 Zoning District. Ms. DiTommaso stated there are several uses which will need to be tweaked in the C-1, and that Staff is currently undergoing a Code overhaul project and will consider the changes at that point. She stated there are certain uses that are existing that should be considered in the C-1 whether they are permitted or by special exception. Board Member Schneider asked if Staff received any feedback from single-family homeowners or landlords who are opposed. Board Member Schneider suggested Staff research the possibility of adding day care centers as a special exception use.

Vice-Chair Von Unruh asked the Community Development Director if consideration is being given to making 10<sup>th</sup> Street mixed-use rather than commercial. Ms. DiTommaso responded that 10<sup>th</sup> Street is not part of the mixed-use discussion at this time, but it could be an option in the future. Vice-Chair Von Unruh asked for clarification of the Florida Statute noticing procedure/requirement for this rezoning item and expressed concern that all of the property owners did not receive notification of the rezoning and the implications. Board Member Schneider suggested a courtesy notice be provided to the property owners north of Park Avenue, and Board Member Lynch agreed with his suggestion. Ms. DiTommaso stated a courtesy notice would be provided to the property owners prior to the Item going before the Town Commission.

Board Member Lynch asked the practical impact on homeowners with this change. Ms. DiTommaso responded that if significant redevelopment were to occur in the future, it could only be commercial.

Board Member Schneider asked for clarification of the northern boundary line.

**PLANNING & ZONING BOARD RECOMMENDATION**

Upon conclusion of the Board discussion, Vice-Chair Von Unruh asked for a motion from the Board. Board Member Schneider made the motion for approval of the Rezoning of twenty-one (21) parcels to include: a courtesy mailing notification to the affected property owners located north of Park Avenue, and also that Staff research including day care as a Special Exception Use within the C-1 District. The motion was seconded by Board Member Lynch, and the vote was as follows:

	Aye	Nay
Erich Von Unruh	X	
Martin Schneider	X	
Michele Dubois	X	
Ludie Francois	X	
Anne Lynch	X	

The vote was 5-0 and the Town initiated Rezoning Application was approved.

- A. A SITE PLAN APPLICATION FOR AN OFFICE WAREHOUSE TO BE LOCATED ON A VACANT LOT ON THE WEST SIDE OF 10<sup>TH</sup> COURT, TWO PARCELS NORTH OF NORTHERN DRIVE. APPLICANT: AHRENS COMPANIES FOR R&K 10<sup>TH</sup> COURT, LLC, PROPERTY OWNER.**

**STAFF PRESENTATION**

Scott Schultz, Town Planner, addressed the P&Z Board and stated this is a Site Plan Application for an office warehouse to be located on a .3221 acre vacant lot on the west side of 10<sup>th</sup> Court, two parcels north of Northern Drive. Mr. Schultz explained that the Applicant, Ahrens Companies, is proposing to develop a 3,430 square foot office warehouse on behalf of property owner R&K 10<sup>th</sup> Court, LLC. The Site has a "Commercial/Light Industrial" Future Land Use Designation and a C-4 Zoning Designation, which allows "office/warehouse" as a permitted use. Mr. Schultz stated that the Site Plan has been reviewed by the Town's Consulting Engineer and Landscape Architect, as well as the Community Development Department and Public Works Department, and based upon the review, Staff finds the Site Plan meets the Land Development Regulations of the Town Code and Site Plan details, as follows:

**Building Site:** The site is located on the west side of 10<sup>th</sup> Court and is the second parcel just north of Northern Drive.

**Site Access:** The Site has one street access and is proposing one entrance and exit via a driveway to be located on the parcel's east side that fronts 10<sup>th</sup> Court.

**Traffic:** The Applicant received a letter from Palm Beach County's Traffic Division confirming that there is adequate capacity on the roadways to serve the project.

**Landscaping:** The Site Plan meets the Town's Landscaping Code Regulations per the Town's consulting landscape architect review and pursuant to Administrative Waivers of Section 78-325(c). Administrative Landscape Waivers are allowed for lots smaller than 1 acre and allow for a 20% reduction to the minimum width of a landscape buffer. This reduction is applied to the buffers on this parcel along the north, south and west sides of the property, which results in a new landscape buffer width of 6.4' on the north and west, and along the south the buffer varies from 6.7' to 10.7'.

**Drainage:** The Town's Engineer has reviewed the Applicant's Paving, Grading and Drainage plans and has determined that it meets the engineering requirements for drainage.

**Parking:** The Applicant is proposing 8 parking stalls inclusive of 1 ADA space, which exceeds the minimum number of required parking spaces. *Per Town Code Section 78-145(h)*, 7 spaces are required for this development.

**Signage:** The Applicant is proposing one wall sign to be located on the west (front) elevation above the warehouse entry door that will be visible from 10<sup>th</sup> Court and will be subject to the Town's permitting requirements.

**Photometric Plan:** Meets the minimum requirements of Town Code Section 54-34 through Section 54-36.

**Zoning:** An Office/Warehouse use is a permitted use within the C-4 Zoning District in which the Site is located.

**Water/Sewer:** The Applicant has not submitted Seacoast Utility Authority's (SUA) determination of compliance, however, it is the Town's understanding that Seacoast's review is ongoing and that the Applicant has responded to some of their preliminary comments which did not warrant any significant changes to the plans. Final Seacoast approval will be required prior to the issuance of any building permits for development.

**Design:** The proposed Elevations meet the Town's minimum Architectural Guidelines in Sections 78-330 through Section 78-337, some of which were met at a bare minimum by the Applicant as follows:

- canopies or porticos
- overhangs proportional in size to mass of building
- arcades
- pedestrian amenities
- peaked roofs with minimum 12 inch overhangs
- ornamental and structural architectural details
- and architectural treatments on all four façade elevations, including:
  - articulation of facades
  - window and door treatments
  - uniform design

**Fire:** Palm Beach County Fire-Rescue is currently in the process of performing a preliminary site plan review and will be reviewing the plans in greater detail as part of the building permit review process.

**PBSO:** PBSO is currently in the process of performing a preliminary site plan review.

### **STAFF RECOMMENDATION**

Staff is recommending approval of the Site Plan for a 3,430 square foot office/warehouse located along the west side of 10<sup>th</sup> Court, subject to Conditions 1-18, as identified within the Staff Report.

Mr. Schultz stated the Applicant and the property owner are present.

### **PUBLIC COMMENTS**

There were no public comments.



## **APPLICANT PRESENTATION**

Richard Ahrens of the Ahrens Companies addressed the Board and stated that Richard Kauff, the property owner is present. Mr. Ahrens showed a Power Point presentation of the site plan design and layout and pointed out the specifics of the proposed development. Mr. Ahrens stated that one office/warehouse space will be utilized by Mr. Kauff, and the other office/warehouse space will be for an auto wrap-around business which is owned by Mr. Kauff's nephew.

## **BOARD DISCUSSION**

Board Member Francois asked for an explanation of business type which will occupy the building. Mr. Schultz stated there will be two (2) offices and two (2) warehouses. R&K 10<sup>th</sup> Court, LLC will have an office in the building, as well as a tenant to be determined.

Board Member Schneider stated he likes the architecture and the general layout of the project, but he has questions regarding the parking area and the light pole. He asked what will be the use of the paved area in front of the warehouse since it is not a parking space. Mr. Ahrens responded the paved area will be used to accommodate larger vehicle into the space. Board Member Schneider expressed concern with the guide wires that come down on an angle from the pole which will make it difficult to back out of the south parking space. Mr. Ahrens responded that Board Member Schneider's concern had been addressed with a Representative of Florida Power and Light Representative and FPL did not have an issue with it and provided a confirmation letter. Mr. Ahrens stated the power pole has a transformer on it and it would be very costly to move. Board Member Schneider inquired about the parking at the vacant lot and what is it being used for. Mr. Ahrens responded that it is being temporarily utilized by Mr. Kauff's brother for his trailer business.

Board Member Dubois asked about the vinyl auto wrap business. Mr. Ahrens stated that the auto wraps will be done on-site.

Board Member Lynch asked if jobs will be created by the auto wrap business and if they will advertise this location. Mr. Ahrens was uncertain.

Vice-Chair Von Unruh asked Mr. Ahrens if they have any problems with Staff's Conditions 1-18. Mr. Ahrens responded that the Conditions are standard and they have no problem with the Conditions.

Mr. Ahrens stated that Scott Schultz did a great job with his presentation.

## **PLANNING & ZONING BOARD RECOMMENDATION**

Upon conclusion of the Board discussion, Vice-Chair Von Unruh asked for a motion from the Board. Board Member Schneider made a motion for the approval of the Site Plan Application, with Staff's Conditions 1-18. The motion was seconded by Board Member Lynch, and the vote was as follows:

	Aye	Nay
Erich Von Unruh	X	
Martin Schneider	X	
Michele Dubois	X	
Ludie Francois	X	
Anne Lynch	X	

The vote was 5-0, and the Site Plan Application for an Office Warehouse to be located on a vacant lot on the west side of 10<sup>th</sup> Court was unanimously approved with Conditions 1-18.

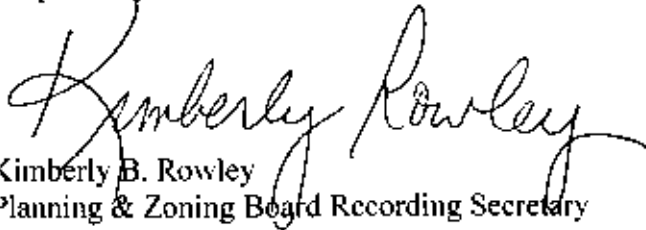
**COMMUNITY DEVELOPMENT DIRECTOR COMMENTS**

Ms. DiTommaso announced the 2nd Mixed-Use Community Workshop is going to be held on Wednesday, December 9<sup>th</sup> at 6:00 p.m. in the Town Commission Chambers, and she wished everyone a Happy Thanksgiving.

**ADJOURNMENT**

There being no further business before the Board, the Meeting was adjourned by Vice-Chair Von Unruh at 6:40 p.m.

Respectfully Submitted,



Kimberly B. Rowley  
 Planning & Zoning Board Recording Secretary

**PLANNING & ZONING BOARD APPROVAL:**

\_\_\_\_\_  
 Judith Thomas, Chair  
 Town of Lake Park Planning & Zoning Board

DATE:  
 \_\_\_\_\_

## **STAFF REPORT**



STAFF REPORT

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

**REQUEST:** RG Towers LLC (the "Applicant") is proposing a 125-foot stealth telecommunications tower at the Lake Park Harbor Marina (the "Site"). The zoning designation for the Marina is Public and the Future Land Use designation is Public Buildings and Grounds/Recreation and Open Space. In 2014, an original Site with Lease Option Agreement was entered into between T-Mobile LLC and the Town, with a first amendment which assigned the ground lease to RG Towers LLC (See Exhibit "A" for Lease Option Agreement and Amendment Documents). This Site with Lease Option Agreement provided authorization via Resolution for the construction of a telecommunications tower at the Lake Park Harbor Marina and required an annual payment of \$2,950 which allow the Applicant to bring its proposal through site plan approval. Staff received the site plan application in 2015, pursuant to the Site with Lease Option Agreement. The existing contracted ground space measures 25 feet by 30 feet (750 square feet) and the Town has received the Applicant's annual payment of \$2,950.

**BACKGROUND INFORMATION**

Applicant(s): RG Towers LLC  
Owner: Town of Lake Park (See Exhibit "A" for Lease Option Agreement and Amendment Documents)  
Address: 105 Lake Shore Drive  
Lot Size:

Existing Zoning: Public  
Existing Land Use: Public Buildings and Grounds with a Recreational Lands Overlay

**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. Combined these designations are defined as the following in the Future Land Use Element of the Comprehensive Plan:

*“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. Areas within the Recreational Overlay may be utilized in accordance with the underlying land use designation until they are acquired for recreation and open space use.”*

Telecommunication towers serve the general public and in such have been classified as public utilities and satisfy the requirement of the land use which aims to serve a public purpose. The Marina area upon which the tower is being proposed is actually within Parcel 2 of the original Marina Deed documents and it does not include any deed restrictions. Conversely however, the Applicant is proposing a 125 foot stealth tower within a Marina area that is used for recreation and open space however, the intent of the Lease Option Agreement as approved, was to allow this type of tower at this location.

Furthermore, the Town’s Comprehensive Plan’s Future Land Use Element lists the Town Goal Statement in Section 3.4 with a [criteria to ensure that the Town fosters development and redevelopment that is compatible with and improves existing neighborhoods and commercial areas](#) → While a stealth tower with a yard arm design may visually “fit in” with the character of the Marina, this type of use can arguably also be a deterrent to the redevelopment of the area given its electromagnetic radiation component (even if it meets Federal Communications Commission requirements).

## **CONSISTENCY WITH THE TOWN’S APPLICATION AND LAND DEVELOPMENT REQUIREMENTS FOR TELECOMMUNICATIONS TOWERS**

Town Code Section 74-61(b) states the following:

*“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, include the following:

**(1) Permitted uses** → 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.

This proposal is a permitted use.

**The Town entered into a Lease as required by this provision. In doing so, it also required Insurance and Subrogation and Indemnification. In reviewing this site plan application, the Town's insurance carrier, Gerhing Group has also determined the following: "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** → Throughout the review process, staff questioned the health impacts a telecommunications tower may have on the community from a standpoint that **public health and safety is a concern (in other words, the amount of power generated and frequencies and the effect on individuals within the publicly utilized Marina area which is also surrounded by residential development)**. The Applicant responded in that the setback requirements are being adhered to per the code requirements and that there is currently no substantial evidence that telecommunications towers have an adverse impact on health and safety and therefore, the Town cannot use as a basis for denial.

**(3) Additional (future) ground space/equipment area** → The Site with Lease Option agreement stipulates a 125 foot tower with up to four collocators. Once the tower is built for 4 collocators, the Town will have very limited authority to deny any reasonable request for additional ground space to support the additional collocators. Therefore, staff requested the Applicant to provide details on the additional ground space which may be required for the future collocators. The Applicant responded in saying that the intent of the Site Lease with Option Agreement which was originally approved by the Town Commission on September 17, 2014 was intended to be for a 125 foot tower and the overall tower height will not change. The Applicant went on reminding staff that when the Agreement was entered into, the Town was adamant about receiving a 50% split for collocators and that a 125 foot tower was selected to maximize the collocators from a revenue stream potential and to satisfy Section 74-65(19) of the Town Code which aims to lessen the proliferation of towers by encouraging applicants to submit a single tower application with multiple providers on a single site and that these types of applications should be given priority in the review process. Consequently, the Applicant concluded in stating that it is too premature to address future ground space requirements and that any

additional ground space would need to be reviewed by the Town in the future. **Staff is recommending a condition of approval that addresses the additional future ground space which would be a requirement of the tower if this application for a 125 foot tower is approved.**

(4) **Visual Impacts** → Since the tower being proposed is a stealth tower, all antennas will be internalized and there would not be any significant visual impacts. The Applicant's application (pursuant to staff's request) includes visuals depicting the line of sight/view sheds/view corridors looking east/west/north/south. The Site with Least Option Agreement presented a stealth tower design with yard arms as a design that blends in with the character of the Marina area. The Applicant continues to propose a stealth "yard arm" design.

(5) **Landscaping/Irrigation/Fencing surrounding proposed ground space** → The Town's consulting Landscape Architect reviewed the landscape and irrigation plans surrounding the ground space. While the plans meet the Town's minimum requirements, the Landscape Architect is **proposing upgraded plantings that blend well into the surroundings and this has been included as a condition of approval with a detailed description on the types of plantings being proposed.** Additionally, while staff acknowledges that the plans meet the fencing requirements which will serve to screen and secure the equipment area with a proposed 8-foot wooden fence, **staff is proposing an additional condition of approval requesting decorative fence features to soften the fence line.** The location of the perimeter landscaping is outside the leased area. Staff addressed this with the Applicant however, the Applicant still claims that this was agreed upon (verbally) with the previous Town Manager however, it was not put in writing. This does not constitute a binding agreement. Consequently, since the landscaping is a requirement of the ground space, **staff is proposing through a condition of approval that the Applicant 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 if the Planning & Zoning Board agree.** Furthermore, the Site with Lease Option also 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. **Staff is conditioning the requirement for separate meters this as well.**

(6) **Tower Maintenance and Access** → A 12 foot non-exclusive access easement and a 5 foot non-exclusive utility easement are shown on the plans. The existing parking areas will be utilized. Additionally, the Town requires a security fund from which the Town can deduct fines and penalties for any future noncompliance, or should the Town need to remove any equipment, antenna or tower due to abandonment. The amount for each tower as set by Code is \$25,000. Since a stealth design is proposed, exterior antennae arrays are not applicable therefore, additional amounts do not apply. **A Letter of Credit has been conditioned and will be required prior to the issuance of any development permits for the Tower, and will be subject to the approval of the Town Attorney.**

(7) **Setbacks for Towers** → The Town Code requires a minimum 110% (125 feet x 110% = 137.5 feet) distance to all property lines and the plans, an enclosed herein, provide this requirement.

(8) **Aesthetics** → The Town Code addresses the following:

→ To minimize adverse visual impacts, the antenna has been selected based upon the following priority: **1. Stealth**; 2. Panel; 3. Whip; and 4. Dish. If the first priority is not selected, the applicant

shall demonstrate in a manner acceptable to the town, why each higher priority cannot be used for a particular application. **The Applicant is proposing a stealth design.**

→ Towers shall either maintain a galvanized steel finish or, subject to any applicable standards of the FAA, be painted a color so as to reduce visual obtrusiveness. **The Applicant is proposing a steel stealth pole which will be painted white to blend with the surroundings.**

→ The facilities must comply with all applicable landscaping requirements of this Code. The town may require landscaping in excess of those requirements in order to enhance compatibility with adjacent uses or zoning districts. **Staff is proposing a condition of approval pursuant to the Landscape Architect's recommendation for upgraded plantings that better incorporate with the surrounding Marina area.**

(9) **Height** → 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 Site Lease with Option Agreement agrees to a 125 foot tower with four users.**

(10) **Lighting** → The Applicant is not currently proposing any lighting. However, since the stealth design includes yardarms that can accommodate flags, pursuant to the Site with Lease Option Agreement, The Applicant is looking for direction by the Planning and Zoning Board and the Town Commission on their desired flags and based on this determination, will incorporate the required lighting. **A photometric plan has been conditioned prior to the issuance of any development permit should flags requiring lighting (for example, our National flag) be incorporated. The Applicant would be responsible for the maintenance of flags if installed.**

(11) **Signage** → Signage is not being proposed on the stealth tower. The only signage requirement is on the ground level surrounding the equipment area whereby a warning sign is required and is being proposed.

(12) **Revenue** → The Site with Lease Option set the Town's revenue stream at \$2,950 annually a 50% revenue split for collocators and an annual 3% escalator. For year one, this translates to approximately \$35,400 plus a 50% split for collocators as they are incorporated and a 3% increase per year, for every year thereafter. These amounts have already been contracted per the Agreement.

(13) **Availability of Other Existing Tower locations/Collocations Efforts** → While the Applicant has indicated that the Town previously provided its town property locations and the negotiations led into the selection of the Marina for adequate coverage purposes, The Applicant did submit an Engineer Study reviewing existing tower locations in the area; coverage maps; and outreach for possibly collocating on a neighboring condo building, which was denied. The Applicant's Engineer responses commence on page 8 of this report.



## GENERAL REVIEW CRITERIA FOR ALL SITE PLAN APPLICATIONS – FOR P&Z BOARD CONSIDERATION

While the Town of Lake Park's Code sets out certain land development requirements for various development applications, as well as application requirements for telecommunications, it does not explicitly list more specific site plan review criteria for ALL types of applications, similar to other Codes throughout Palm Beach County. This is likely due to the fact that Lake Park was a planned community since the 1920's therefore, our Code is structured somewhat differently. Nonetheless, more detailed site plan criteria typically includes (just to name a few):

- (1) The proposed development is compatible and/or consistent with the established or proposed character of a neighborhood or area → ***While staff has not physically measured all of the neighboring building heights, staff has determined based on the number of stories in the surrounding area that the residential buildings to the north are in the 100 foot height range given their 8 story configuration and the buildings to the west are in the 30 foot height range given their 2 story configuration. While a 125 foot monopole with a minimal diameter may not necessarily be visually incompatible, the character of the area is residential; public; recreational and open space in nature, therefore a stealth tower (even with a yard arm design) can be construed as being incompatible and should be considered.***
- (2) The proposed development does not adversely affect property values in adjacent areas → ***This criteria is very difficult to determine since a comparison of property values is site specific and can only effectively be determined pre and post (which requires approval first) construction for a valid analysis.***
- (3) The proposed development would not be a deterrent to the improvement or development of adjacent property in accord with existing regulations → ***Given the Town's mixed-use initiative along the Federal Highway corridor and the fact that the Marina has increased in occupancy, as well as the fact that many of the neighboring structures are residential, a stealth telecommunications tower may be a deterrent to future development efforts.***
- (4) The proposed development does not negatively impact adjacent natural systems or public facilities, such as parks → ***While the proposed location will not have a negative impact to storm water retention, or required drainage calculations per the Town's consulting Engineer review, it will remove a centralized green space at the Marina (a public area with a recreation and open space intent).***

Even though the Town entered into a Lease Option Agreement with the Applicant in 2014, this Lease Option Agreement was a completely different component of the approval process and does not automatically grant site plan approval which is a process that serves to identify site specific review elements. The Applicant has met the basic application requirements however, since the Town Code does not specifically elaborate on additional site plan criteria for this application, staff is unable to render a recommendation of approval or denial at this point given the many discussion points relevant to other municipal code criteria (as listed above) that will need to ensure throughout the public hearing process.

# APPLICANT ENGINEERING FEASIBILITY REPORT – NEIGHBORING TOWERS AND LOCATION DETERMINATIONS



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

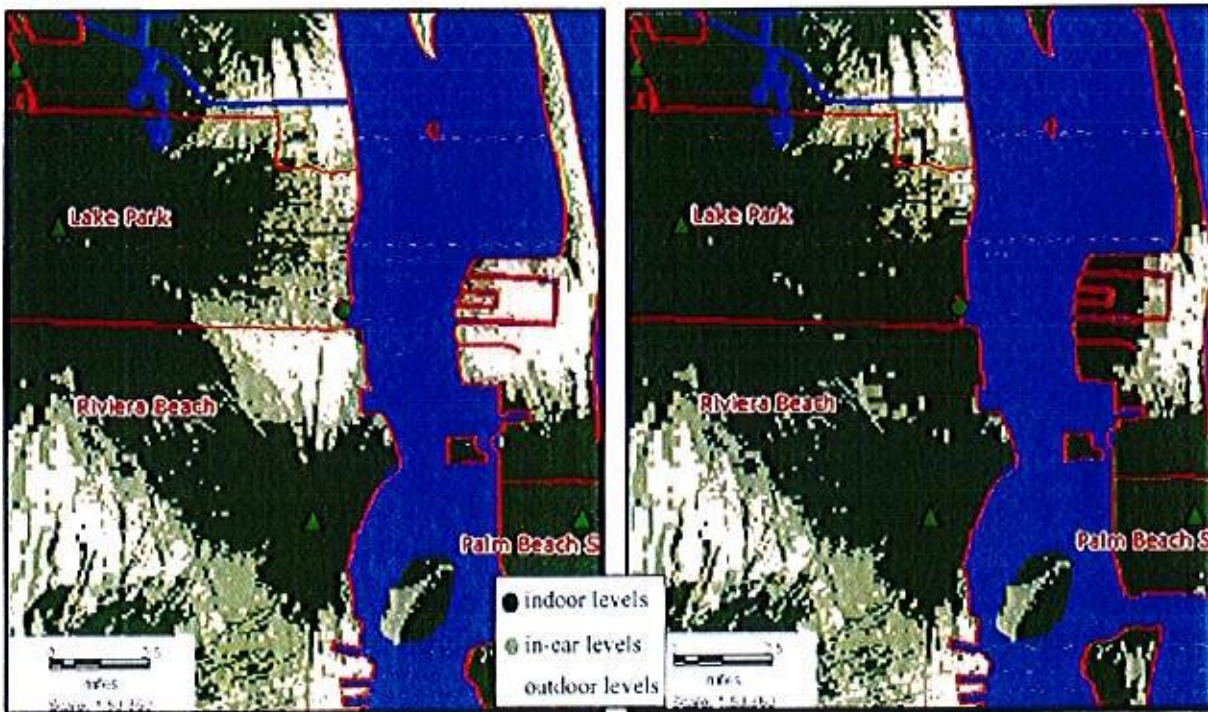
Registration Number	Status	File Number	Owner Name	Latitude/Longitude	Structure City/State	Overall Height Above Ground (AGL.)
1 1019594	Constructed	A0604891	SpectraSite Communications, LLC. through American Towers, LLC.	26-48-40.0N 080-04-45.1W	LAKE PARK, FL	60.9
2 1020782	Constructed	A0738117	SpectraSite 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

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 6<sup>th</sup> 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 27<sup>th</sup> in the south and from 5<sup>th</sup> 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)

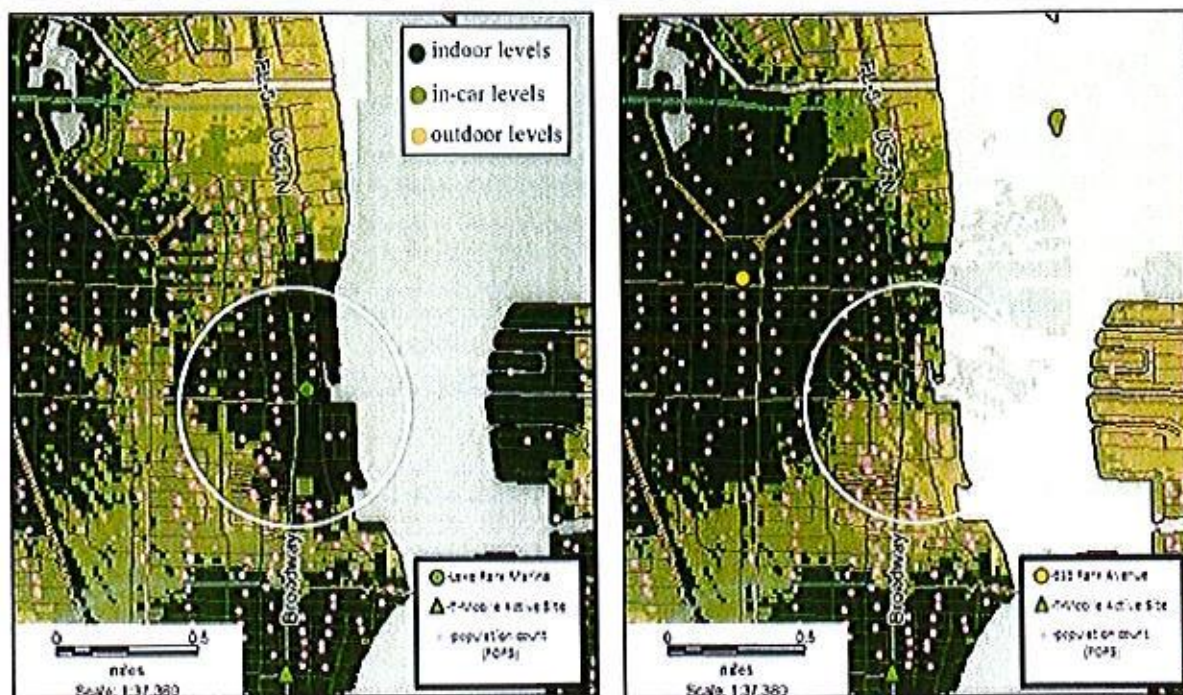
Name Patrick Keane

Title T-Mobile RF Engineer



Signature

## T-Mobile Coverage Map – Alternate Candidate – Propagation



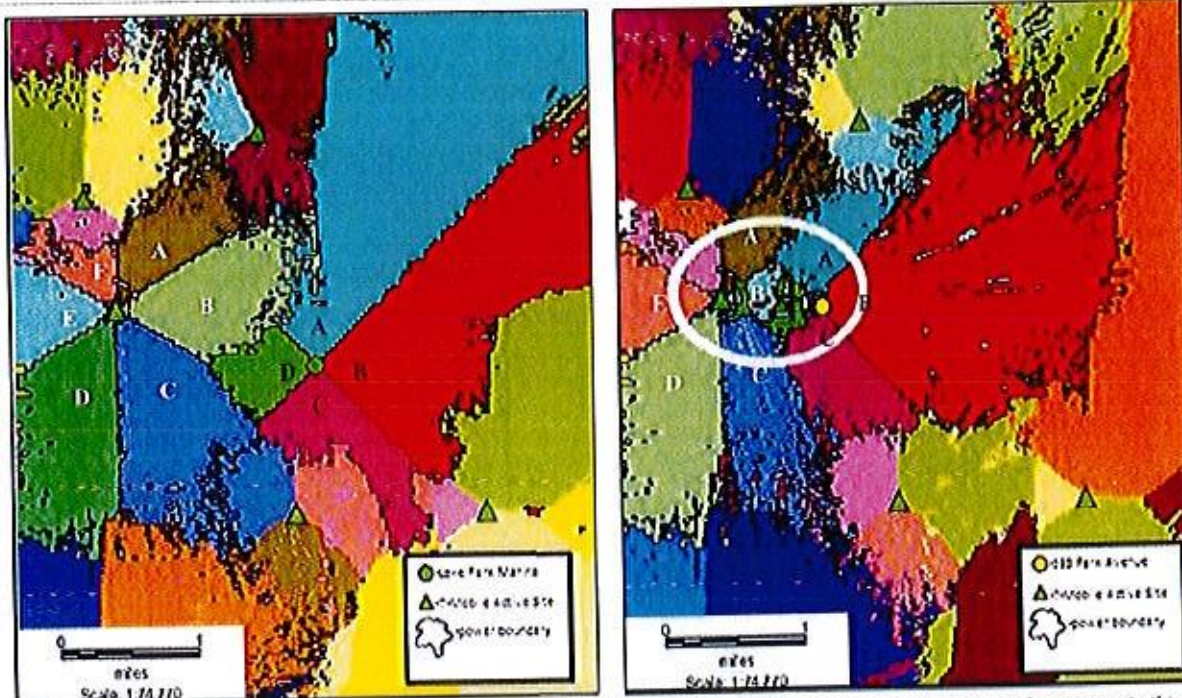
As demonstrated in previous submissions the area in question currently has marginal service levels which are inadequate to support the current technologies and capacity constraints. As part of T-Mobile's ongoing network deployment, new facilities are required to "fill in" areas of concern. And while 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 28<sup>th</sup> 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 34<sup>th</sup> 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 its proximity to an existing T-Mobile facility and the lack of adequate spacing between sites

(12a.)

Holly Valdez

From: Adam Morris [amorris@rgpartners.com]  
Sent: Wednesday, February 05, 2014 8:13 AM  
To: hvaldez@rgpartners.com  
Subject: FW: 6WP1273 -Lake Harbor Towers

back up for Owner reject

Best regards,

Adam Morris  
239-229-1130

CONFIDENTIALITY NOTICE

The information contained in this message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately via email and delete the original; thank you.

-----Original Message-----

From: Webster Hart [mailto:web@eauclairrelaw.com]  
Sent: Saturday, February 01, 2014 1:19 PM  
To: Adam Morris  
Subject: RE: 6WP1273 -Lake Harbor Towers

Mr. Morris, This will confirm our conversation of 1/31/14. At the present time, Lake Harbour Condominium Assn, Inc. is not interested in re-opening negotiations with T-Mobile. We are very concerned about maintaining the integrity of our roof system and it is our goal to minimize roof encroachments.

Webster Hart, President Lake Harbour Towers Condo Assn Inc.

From: Adam Morris [amorris@rgpartners.com]  
Sent: Friday, January 31, 2014 11:16 AM  
To: Webster Hart  
Subject: 6WP1273 -Lake Harbor Towers

Mr. Hart,

Please confirm per our conversation this morning that the Association is not willing to re-open negotiations with T-Mobile as they do not want a cellular rooftop installation.

Thank you for your time.

Best regards,

Adam Morris  
239-229-1130



## **STAFF RECOMMENDATION**

***\*\*The item was advertised 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\*\****

According to Town Code Section 74-64(d), any denial of a tower application must be supported by substantial evidence and a written record of this evidence. This report lists the application requirements that have been met by the Applicant however, it also discusses some additional site plan review criteria that are common in other municipal codes and that can be considered for discussion by the Board. Consequently, Staff is **unable to render a recommendation of Approval or Denial at this time however, recommends the following conditions, should a recommendation of approval be granted:**

- (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.
- (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.
- (3) Renderings identifying the future ground space needs for future collocators should be identified prior to Town Commission review.
- (4) Applicant shall upgrade the proposed landscape to incorporate material that exists within the surrounding area. The proposed materials should include:
  - (a) Under-planting material to include seagrass 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 to 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.

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

November 18, 2015

VIA ELECTRONIC MAIL: [jlittle@gunster.com](mailto:jlittle@gunster.com)

John M. Little, III  
Gunster  
777 South Flagler Drive, Suite 500 East  
West Palm Beach, FL 33401

Re: Lake Park/RG Towers

Dear Mr. Little:

I am responding to your email correspondence of November 16, 2015, I reviewed the Site Lease with Option Agreement (Lease Option) and discussed the issues you raised with Nadia. Based on your email there appear to be two issues:

1. Landscaping

RG Towers contends that the Town agreed that the landscaping which is required to buffer the tower facilities from surrounding properties would be placed outside the leased area on the Town's property. The leased area is described in Exhibits to the Lease Option. Exhibit A legally describes the area subject to the Lease Option, Exhibit B is a drawing showing the placement of the facilities and the landscaping to buffer these facilities. Exhibit B indicates that landscaping to the north and east are within the leased premises. However, it shows that the landscaping to the west will be located on the Town's "Grass Area" between the leased premises and a large existing tree.

2. Utilities

With respect to utilities the Lease Option 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.

I recognize that the former Town Manager may have made statements which your client believe represented an "agreement" with the Town regarding these two issues. However, even assuming these were verbal "promises" of the Town, they appear to contradict the written terms of the Lease Option. Section 18 of the Lease Option provides that any amendments to the Lease Option shall be in writing. Therefore, it appears the community development staff's position is accurate.

Very truly yours,

JONES, FOSTER, JOHNSTON & STUBBS, P.A.

By   
Thomas J. Baird

Cc: Nadia DiTommaso, Community Development Director

# Lease Option Agreement

## RESOLUTION NO. 10-04-14

**A RESOLUTION OF THE TOWN COMMISSION OF THE TOWN OF LAKE PARK, FLORIDA AUTHORIZING AND DIRECTING THE MAYOR TO EXECUTE A LEASE AND OPTION AGREEMENT WITH T-MOBILE USA, INC. FOR THE CONSTRUCTION OF A COMMUNICATIONS TOWER AT THE LAKE PARK HARBOR MARINA; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the Town of Lake Park ("Town") is a municipal corporation of the State of Florida with such power and authority as has been conferred upon it by the Florida Constitution and Chapter 166, Florida Statutes; and

**WHEREAS**, pursuant to its proprietary functions and authority, the Town owns and operates a marine facility known as the Lake Park Harbor Marina (the Marina); and

**WHEREAS**, T-Mobile USA, Inc. (T-Mobile) has negotiated with the Town Manager a proposal to site, and perhaps construct a "stealth" cellular communications tower at the Marina; and

**WHEREAS**, the Town Manager has negotiated the terms of a Lease and Option Agreement with T-Mobile's responsibilities pertaining to the siting and possible construction of a cellular communications tower at the Marina; and

**WHEREAS**, the Town Manager has recommended to the Town Commission that it enter into a Lease and Option Agreement with T-Mobile for the siting and construction of a cellular communications tower at the Marina.

**NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COMMISSION OF THE TOWN OF LAKE PARK:**

**Section 1.** The foregoing recitals are incorporated herein.

**Section 2.** The Mayor is hereby authorized and directed to execute the Lease and Option Agreement with T-Mobile. A copy of the Lease and Option Agreement is attached hereto and incorporated herein as Exhibit "A".

**Section 3.** This Resolution shall be effective upon adoption.

The foregoing Resolution was offered by Commissioner O'Rourke who moved its adoption. The motion was seconded by Commissioner Rapoza and upon being put to a roll call vote, the vote was as follows:

	AYE	NAY
MAYOR JAMES DUBOIS	<u>  /  </u>	<u>  </u>
VICE-MAYOR KIMBERLY GLAS-CASTRO	<u>  /  </u>	<u>  </u>
COMMISSIONER ERIN FLAHERTY	<u>  /  </u>	<u>  </u>
COMMISSIONER MICHAEL O'ROURKE	<u>  /  </u>	<u>  </u>
COMMISSIONER KATHLEEN RAPOZA	<u>  /  </u>	<u>  </u>

The Town Commission thereupon declared the foregoing Resolution NO. 10-04-14 duly passed and adopted this 2 day of April, 2014.

TOWN OF LAKE PARK, FLORIDA

BY: James Dubois  
JAMES DUBOIS  
MAYOR

ATTEST:

Vivian Mendez  
VIVIAN MENDEZ  
TOWN CLERK



Approved as to form and legal sufficiency:

BY: Thomas J. Baird  
THOMAS J. BAIRD  
TOWN ATTORNEY  
Matthew T. Ramenda  
Acting Town Attorney

## SITE LEASE WITH OPTION

THIS SITE LEASE WITH OPTION (this "Lease") is by and between The Town of Lake Park, a municipal corporation of the State of Florida ("Landlord") and T-Mobile South LLC, a Delaware limited liability company ("Tenant").

### 1. Option to Lease.

(a) In consideration of the payment of two thousand nine hundred and fifty and no/100 dollars (\$2950.00) (the "Option Fee") by Tenant to Landlord, Landlord hereby grants to Tenant an option to lease a portion of the real property described in the attached Exhibit A (the "Property"), on the terms and conditions set forth herein (the "Option"). The Option shall be for an initial term of twelve (12) months, commencing on the Effective Date (as defined below) (the "Option Period"). The Option Period may be extended by Tenant for an additional twelve (12) months upon written notice to Landlord and payment of the sum of two thousand nine hundred and fifty and no/100 dollars (\$2950.00) ("Additional Option Fee") at any time prior to the end of the Option Period.

(b) During the Option Period and any extension thereof, and during the Initial Term and any Renewal Term (as those terms are defined below) of this Lease, and upon advance notice to Landlord, Landlord expressly grants to Tenant a right of access to the Property to perform any surveys, soil tests, and other engineering procedures or environmental investigations ("Tests") on the Property deemed necessary or appropriate by Tenant to evaluate the suitability of the Property for the uses contemplated under this Lease. During the Option Period and any extension thereof, and during the Initial Term or any Renewal Term of this Lease, Landlord agrees that it will not interfere with Tenant's efforts to secure other licenses and permits or authorizations that relate to other property. During the Option Period and any extension thereof, Tenant may exercise the Option by so notifying Landlord in writing, at Landlord's address in accordance with Section 12 hereof.

(c) If Tenant exercises the Option, then Landlord hereby leases to Tenant that portion of the Property sufficient for placement of the Antenna Facilities (as defined below), together with all necessary space and easements for access and utilities, as generally described and depicted in the attached Exhibit B (collectively referred to hereinafter as the "Premises"). The Premises, located at 105 Lake Shore Drive, Lake Park, Florida 33403, comprises approximately 500 square feet.

2. Term. Upon exercise of the Option, the initial term of this Lease shall be five (5) years commencing on the date of exercise of the Option (the "Commencement Date"), and terminating at midnight on the last day of the initial term (the "Initial Term").

3. Renewal. Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms (each a "Renewal Term") on the same terms and conditions as set forth herein. This Lease shall automatically renew for each successive Renewal Term unless Tenant notifies Landlord, in writing, of Tenant's intention not to renew this Lease, at least thirty (30) days prior to the expiration of the Initial Term or any Renewal Term. If Tenant shall remain in possession of the Premises at the expiration of this Lease or any Renewal Term without a

written agreement, such tenancy shall be deemed a month-to-month tenancy under the same terms and conditions of this Lease.

#### 4. Rent.

(a) From and after the Commencement Date, Tenant shall pay Landlord or designee, as rent, two thousand nine hundred and fifty and no/100 dollars (\$2950.00) per month ("Rent"). The first payment of Rent shall be due within twenty (20) days following the Commencement Date and shall be prorated based on the days remaining in the month following the Commencement Date, and thereafter Rent will be payable monthly in advance by the fifth day of each month to Landlord at the address specified in Section 12 below. If this Lease is terminated for any reason (other than a default by Tenant) at a time other than on the last day of a month, Rent shall be prorated as of the date of termination and all prepaid Rent shall be immediately refunded to Tenant. Landlord, its successors, assigns and/or designee, if any, will submit to Tenant any documents required by Tenant in connection with the payment of Rent, including, without limitation, an IRS Form W-9.

(b) During the Initial Term and any Renewal Terms, monthly Rent shall be adjusted annually on each anniversary of the Commencement Date to an amount equal to one hundred three percent (103%) of the monthly Rent in effect immediately prior to the adjustment date.

(c) Co-location- In the event that T-Mobile or its assignee enters into an agreement with any co-locators who will use any of the related facilities outlined in Section 5 below, T-Mobile will share with the Town 50% of the fees or rent paid to T-Mobile by the co-locator. T-Mobile agrees to provide the Town with an annual accounting of all revenues produced from any agreement with a co-locator.

5. Permitted Use. The Premises may be used by Tenant for the transmission and reception of radio communication signals and for the construction, installation, operation, maintenance, repair, removal or replacement of related facilities, including, without limitation, tower and base, antennas, microwave dishes, equipment shelters and/or cabinets and related activities.

6. Interference. Tenant shall not use the Premises in any way which interferes with the use of the Property by Landlord or lessees or licensees of Landlord with rights in the Property prior in time to Tenant's (subject to Tenant's rights under this Lease, including, without limitation, non-interference). Similarly, Landlord shall not use, and shall exercise its best efforts to prevent its lessees, licensees, employees, invitees or agents to use, any portion of the Property in any way which interferes with the operations of Tenant. Adding other communication facilities on the tower is not, in and of itself, considered interference. Such interference shall be deemed a material breach by the interfering party, who shall, upon written notice from the other, be responsible for terminating said interference. In the event any such interference does not cease promptly, the parties acknowledge that continuing interference may cause irreparable injury and, therefore, the injured party shall have the right, in addition to any other rights that it may have at law or in equity, to bring a court action to enjoin such interference or to terminate this Lease immediately upon written notice.

## 7. Improvements; Utilities; Access.

(a) Tenant shall have the right, at its expense, to erect and maintain on the Premises improvements, personal property and facilities necessary to operate its communications system, including, without limitation, radio transmitting and receiving antennas, microwave dishes, tower and base, equipment shelters and/or cabinets and related cables and utility lines and a location based system, as such location based system may be required by any county, state or federal agency/department, including, without limitation, additional antenna(s), coaxial cable, base units and other associated equipment (collectively, the "Antenna Facilities"). Tenant shall have the right to alter, replace, expand, enhance and upgrade the Antenna Facilities at any time during the term of this Lease. Tenant shall cause all construction to occur lien-free and in compliance with all applicable laws and ordinances. Landlord acknowledges that it shall neither interfere with any aspects of construction nor attempt to direct construction personnel as to the location of or method of installation of the Antenna Facilities and the Easements (as defined below). The Antenna Facilities shall remain the exclusive property of Tenant and shall not be considered fixtures. Tenant shall have the right to remove the Antenna Facilities at any time during and upon the expiration or termination of this Lease.

(b) Tenant, at its expense, may use any and all appropriate means of restricting access to the Antenna Facilities, including, without limitation, the construction of a fence; such fence installation may only be constructed after obtaining the appropriate fencing permit from the Town's Building Department.

(c) Tenant shall, at Tenant's expense, keep and maintain the Antenna Facilities now or hereafter located on the Property in commercially reasonable condition and repair during the term of this Lease, normal wear and tear and casualty excepted. Upon termination or expiration of this Lease, the Premises shall be returned to Landlord in good, usable condition, normal wear and tear and casualty excepted.

(d) Tenant shall have the right to install utilities, at Tenant's expense, and to improve the present utilities on the Property (including, but not limited to, the installation of optical fiber facilities and emergency power generators). Landlord agrees to use reasonable efforts in assisting Tenant to acquire necessary utility service. Tenant shall, wherever practicable, install separate meters for utilities used on the Property by Tenant. In the event separate meters are not installed, Tenant shall pay the periodic charges for all utilities attributable to Tenant's use, at the rate charged by the servicing utility. Landlord shall diligently correct any variation, interruption or failure of utility service.

(e) As partial consideration for Rent paid under this Lease, Landlord hereby grants Tenant easements on, under and across the Property for ingress, egress, utilities and access (including access for the purposes described in Section 1) to the Premises adequate to install and maintain utilities, including, but not limited to, the installation of power and telephone service cable and optical fiber facilities, and to service the Premises and the Antenna Facilities at all times during the Initial Term of this Lease and any Renewal Term (collectively, the "Easements").

The Easement granted pursuant to the terms of this Agreement to T-Mobile and any future assignee is granted only for the duration of this Agreement. The Easement shall terminate when



this Agreement terminates. T-Mobile and any future assignee shall be responsible for any and all costs and attorney's fees associated with the termination of the Easement.

In addition, any subordinate easements required by any other governmental or private entity shall also terminate when this Agreement terminates. T-Mobile and any future assignee shall be responsible for any and all costs and attorney's fees associated with the termination of any of the aforementioned subordinate easements.

T-Mobile and any future assignee shall indemnify the Town for any and all costs and/or attorney's fees the Town incurs in order to terminate the Easement and/or any subordinate easements.

(f) Tenant shall have 24-hours-a-day, 7-days-a-week access to the Premises at all times during the Initial Term of this Lease and any Renewal Term, at no charge to Tenant.

(g) Landlord shall maintain and repair all access roadways from the nearest public roadway to the Premises in a manner sufficient to allow vehicular and pedestrian access at all times, at its sole expense, except for any damage to such roadways caused by Tenant.

#### 8. Termination.

Except as otherwise provided herein, this Lease may be terminated, without any penalty or further liability as follows:

(a) upon thirty (30) days' written notice by Landlord if Tenant fails to cure a default for payment of amounts due under this Lease within such thirty (30) day period;

(b) immediately upon written notice by Tenant if Tenant notifies Landlord of any unacceptable results of any Tests prior to Tenant's installation of the Antenna Facilities on the Premises, or if Tenant does not obtain, maintain, or otherwise forfeits or cancels any license (including, without limitation, an FCC license), permit or any governmental approval necessary to the installation and/or operation of the Antenna Facilities or Tenant's business;

(c) upon thirty (30) days' written notice by Tenant if Tenant determines that the Property or the Antenna Facilities are inappropriate or unnecessary for Tenant's operations for economic or technological reasons;

(d) immediately upon written notice by Tenant if the Premises or the Antenna Facilities are destroyed or damaged so as in Tenant's reasonable judgment to substantially and adversely affect the effective use of the Antenna Facilities. In such event, all rights and obligations of the parties shall cease as of the date of the damage or destruction, and Tenant shall be entitled to the reimbursement of any Rent prepaid by Tenant. If Tenant elects to continue this Lease, then all Rent shall abate until the Premises and/or the Antenna Facilities are restored to the condition existing immediately prior to such damage or destruction; or

(e) at the time title to the Property transfers to a condemning authority pursuant to a taking of all or a portion of the Property sufficient in Tenant's determination to render the Premises unsuitable for Tenant's use. Landlord and Tenant shall each be entitled to pursue their own separate awards with respect to such taking. Sale of all or part of the Property to a

purchaser with the power of eminent domain in the face of the exercise of the power shall be treated as a taking by condemnation.

9. **Default and Right to Cure.** Notwithstanding anything contained herein to the contrary and without waiving any other rights granted to it at law or in equity, each party shall have the right, but not the obligation, to terminate this Lease on written notice pursuant to Section 12 hereof, to take effect immediately, if the other party fails to perform any covenant or commits a material breach of this Lease and fails to diligently pursue a cure thereof to its completion after thirty (30) days' written notice specifying such failure of performance or default.

10. **Taxes.** Tenant shall pay any personal property tax, real property tax or any other tax or fee which is directly attributable to the presence or installation of Tenant's Antenna Facilities, only for so long as this Lease remains in effect. If Landlord receives notice of any personal property or real property tax assessment against Landlord, which may affect Tenant and is directly attributable to Tenant's installation, Landlord shall provide timely notice of the assessment to Tenant sufficient to allow Tenant to consent to or challenge such assessment, whether in a Court, administrative proceeding, or other venue, on behalf of Landlord and/or Tenant. Further, Landlord shall provide to Tenant any and all documentation associated with the assessment and shall execute any and all documents reasonably necessary to effectuate the intent of this Section 10.

#### 11. Insurance and Subrogation and Indemnification.

(a) Tenant will maintain Commercial General Liability Insurance in amounts of One Million and no/100 Dollars (\$1,000,000.00) per occurrence and Two Million and no/100 Dollars (\$2,000,000.00) aggregate. Tenant may satisfy this requirement by obtaining the appropriate endorsement to any master policy of liability insurance Tenant may maintain.

(b) Landlord and Tenant hereby mutually release each other (and their successors or assigns) from liability and waive all right of recovery against the other for any loss or damage covered by their respective first party property insurance policies for all perils insured thereunder. In the event of such insured loss, neither party's insurance company shall have a subrogated claim against the other.

(c) Subject to the property insurance waivers set forth in subsection 11(b), Landlord and Tenant each agree to indemnify and hold harmless the other party from and against any and all claims, damages, costs and expenses, including reasonable attorney fees, to the extent caused by or arising out of the negligent acts or omissions or willful misconduct in the operations or activities on the Property by the indemnifying party or the employees, agents, contractors, licensees, tenants and/or subtenants of the indemnifying party, or a breach of any obligation of the indemnifying party under this Lease. The indemnifying party's obligations under this section are contingent upon its receiving prompt written notice of any event giving rise to an obligation to indemnify the other party and the indemnified party's granting it the right to control the defense and settlement of the same. This indemnification by the Landlord is, in no way intended to, and does not waive the Landlord's entitlement to sovereign immunity and the limitations of liability pursuant to § 768.28, Fla. Stat.

(d) Notwithstanding anything to the contrary in this Lease, the parties hereby confirm that the provisions of this Section 11 shall survive the expiration or termination of this Lease.

(e) Tenant shall not be responsible to Landlord, or any third-party, for any claims, costs or damages (including, fines and penalties) attributable to any pre-existing violations of applicable codes, statutes or other regulations governing the Property.

12. Notices. All notices, requests, demands and other communications shall be in writing and are effective three (3) days after deposit in the U.S. mail, certified and postage paid, or upon receipt if personally delivered or sent by next-business-day delivery via a nationally recognized overnight courier to the addresses set forth below. Landlord or Tenant may from time to time designate any other address for this purpose by providing written notice to the other party.

**If to Tenant:**

T-Mobile USA, Inc.  
12920 SE 38th Street  
Bellevue, WA 98006

Attn: Lease Compliance/Site #6WP1273D

**If to Landlord:**

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

Attn: Town Manager

**Send Rent payments to:**

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

Attn: Finance Department

13. Quiet Enjoyment, Title and Authority. As of the Effective Date and at all times during the Initial Term and any Renewal Terms of this Lease, Landlord covenants and warrants to Tenant that (i) Landlord has full right, power and authority to execute and perform this Lease; (ii) Landlord has good and unencumbered fee title to the Property free and clear of any liens or mortgages, except those heretofore disclosed in writing to Tenant and which will not interfere with Tenant's rights to or use of the Premises; (iii) execution and performance of this Lease will not violate any laws, ordinances, covenants, or the provisions of any mortgage, lease, or other agreement binding on Landlord; and (iv) Tenant's quiet enjoyment of the Premises or any part thereof shall not be disturbed as long as Tenant is not in default beyond any applicable grace or cure period.

14. Environmental Laws. Landlord represents that it has no knowledge of any substance, chemical or waste (collectively, "Hazardous Substance") on the Property that is identified as hazardous, toxic or dangerous in any applicable federal, state or local law or regulation. Landlord and Tenant shall not introduce or use any Hazardous Substance on the Property in violation of any applicable law. Landlord shall be responsible for, and shall promptly conduct any investigation and remediation as required by any applicable environmental laws, all spills or other releases of any Hazardous Substance not caused solely by Tenant, that have occurred or which may occur on the Property. Each party agrees to defend, indemnify and hold harmless the other from and against any and all administrative and judicial actions and rulings, claims, causes of action, demands and liability (collectively, "Claims") including, but not limited to, damages, costs, expenses, assessments, penalties, fines, losses, judgments and reasonable attorney fees that the indemnitee may suffer or incur due to the existence of any Hazardous Substances on the Property or the migration of any Hazardous Substance to other properties or the release of any Hazardous Substance into the environment (collectively, "Actions"), that relate to or arise from the indemnitor's activities on the Property. Landlord agrees to defend, indemnify and hold Tenant harmless from Claims resulting from Actions on the Property not caused by Landlord or Tenant prior to and during the Initial Term and any Renewal Term. The indemnifications in this section specifically include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any governmental authority. This indemnification by the Landlord is, in no way intended to, and does not waive the Landlord's entitlement to sovereign immunity and the limitations of liability pursuant to § 768.28, Fla. Stat. This Section 14 shall survive the termination or expiration of this Lease.

15. Assignment and Subleasing.

(a) Tenant shall have the right to assign or otherwise transfer this Lease and the Easements (as defined above) granted herein upon written notice to Landlord. Upon such assignment, Tenant shall be relieved of all liabilities and obligations hereunder and Landlord shall look solely to the assignee for performance under this Lease and all obligations hereunder. Tenant may sublease the Premises, upon written notice to Landlord and Landlord's written approval, such approval shall not be unreasonably withheld.

(b) Landlord shall have the right to assign or otherwise transfer this Lease and the Easements granted herein, upon written notice to Tenant except for the following; any assignment or transfer of this Lease which is separate and distinct from a transfer of Landlord's entire right, title and interest in the Property, shall require the prior written consent of Tenant which may be withheld in Tenant's sole discretion. Upon Tenant's receipt of (i) an executed deed or assignment and (ii) an IRS Form W-9 from assignee, and subject to Tenant's consent, if required, Landlord shall be relieved of all liabilities and obligations hereunder and Tenant shall look solely to the assignee for performance under this Lease and all obligations hereunder.

(c) Additionally, notwithstanding anything to the contrary above, Landlord or Tenant may, upon notice to the other, grant a security interest in this Lease (and as regards the Tenant, in the Antenna Facilities), and may collaterally assign this Lease (and as regards the Tenant, in the Antenna Facilities) to any mortgagees or holders of security interests, including their successors or assigns (collectively "Secured Parties"). In such event, Landlord or Tenant, as the case may

be, shall execute such consent to leasehold financing as may reasonably be required by Secured Parties.

16. Successors and Assigns. This Lease and the Easements granted herein shall run with the land, and shall be binding upon and inure to the benefit of the parties, their respective successors, personal representatives and assigns.

17. Waiver of Landlord's Lien. Landlord hereby waives any and all lien rights it may have, statutory or otherwise, concerning the Antenna Facilities or any portion thereof, which shall be deemed personal property for the purposes of this Lease, whether or not the same is deemed real or personal property under applicable laws, and Landlord gives Tenant and Secured Parties the right to remove all or any portion of the same from time to time, whether before or after a default under this Lease, in Tenant's and/or Secured Party's sole discretion and without Landlord's consent.

18. Miscellaneous.

(a) The prevailing party in any litigation arising hereunder shall be entitled to reimbursement from the other party of its reasonable attorneys' fees and court costs, including appeals, if any.

(b) This Lease constitutes the entire agreement and understanding of the parties, and supersedes all offers, negotiations and other agreements with respect to the subject matter and property covered by this Lease. Any amendments to this Lease must be in writing and executed by both parties.

(c) Landlord agrees to cooperate with Tenant in executing any documents necessary to protect Tenant's rights in or use of the Premises. A Memorandum of Lease in substantially the form attached hereto as Exhibit C may be recorded in place of this Lease by Tenant.

(d) In the event the Property is encumbered by a mortgage or deed of trust, Landlord agrees, upon request of Tenant, to obtain and furnish to Tenant a non-disturbance and attornment agreement for each such mortgage or deed of trust, in a form reasonably acceptable to Tenant at tenants sole expense.

(e) Tenant may obtain title insurance on its interest in the Premises. Landlord agrees to execute such documents as the title company may require in connection therewith at Tenant's sole expense.

(f) This Lease shall be governed by the laws of the State of Florida. In the event of any litigation venue shall lie in the 15th Judicial Circuit Court, in and for Palm Beach County, or if a federal claim in the United States District Court, Southern District of Florida.

(g) If any term of this Lease is found to be void or invalid, the remaining terms of this Lease shall continue in full force and effect. Any questions of particular interpretation shall not be interpreted against the drafter, but rather in accordance with the fair meaning thereof. No provision of this Lease will be deemed waived by either party unless expressly waived in writing by the waiving party. No waiver shall be implied by delay or any other act or omission of either

party. No waiver by either party of any provision of this Lease shall be deemed a waiver of such provision with respect to any subsequent matter relating to such provision.

(h) The persons who have executed this Lease represent and warrant that they are duly authorized to execute this Lease in their individual or representative capacities as indicated.


(i) This Lease may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute a single instrument.

(j) All Exhibits referred to herein and any Addenda are incorporated herein for all purposes. The parties understand and acknowledge that Exhibits A and B may be attached to this Lease and the Memorandum of Lease, in preliminary form. Accordingly, the parties agree that upon the preparation of final, more complete exhibits, Exhibits A and/or B, as the case may be, may be replaced by Tenant with such final, more complete exhibit(s).


(k) If either party is represented by any broker or any other leasing agent, such party is responsible for all commission fee or other payment to such agent, and agrees to indemnify and hold the other party harmless from all claims by such broker or anyone claiming through such broker.

The effective date of this Lease is the date of execution by the last party to sign (the "Effective Date").

LANDLORD: Town of Lake Park, a municipal corporation of the State of Florida.

By:   
Printed Name: James DuBois  
Title: Mayor  
Date: June 4, 2014

TENANT: T-Mobile South, a Delaware limited liability company

By:   
Printed Name: Bentley C Alexander  
Title: Regional Vice President  
Date: 9/17/14

WITNESSES:

Landlord, Town of Lake Park, a municipal corporation of the State of Florida

Dale S. Sugarman

Print Name: DALE S. SUGARMAN

Janet R. Miller

Print Name: Janet R. Miller

WITNESSES:

Tenant, T-Mobile South, a Delaware limited liability company

Alma R. Gomez

Print Name: Alma R. Gomez

Kimberly Dixon

Print Name: Kimberly Dixon

EXHIBIT A

Legal Description

The Property is legally described as follows:

21-42-43, PT OF GOV LT 4 EOF LAKE SHORE DR & W OF TOWN  
BULK HEAD LINE LYG BETWEEN ELY EXTENSION OF N LINE OF LT  
17 BLK 115 KELSEY CITY & ELY EXTENSION OF N LINE OF SILVER  
BEACH RD & TR OF SOVEREIGNTY LAND IN TIF DEED NO 22899  
& NO 24018



**EXHIBIT B**

**The location of the Premises within the Property (together with access and utilities) is more particularly described and depicted as follows:**

**[Enter Premises description here or on attachment(s).]**



EXHIBIT C

Memorandum of Lease

MEMORANDUM OF LEASE

Assessor's Parcel Number: 36434221000040010

Between The Town of Lake Park ("Landlord") and T-Mobile South LLC ("Tenant")

A Site Lease with Option (the "Lease") by and between The Town of Lake Park, a municipal corporation of the state of Florida ("Landlord") and T-Mobile South LLC, a Delaware limited liability company ("Tenant") was made regarding a portion of the following property:

See Attached Exhibit "A" incorporated herein for all purposes

The Option is for a term of twelve (12) months after the Effective Date of the Lease (as defined under the Lease), with up to one additional twelve (12) month renewal ("Optional Period").

The Lease is for a term of five (5) years and will commence on the date as set forth in the Lease (the "Commencement Date"). Tenant shall have the right to extend this Lease for five (5) additional and successive five-year terms.

IN WITNESS WHEREOF, the parties hereto have respectively executed this memorandum effective as of the date of the last party to sign.

LANDLORD: Town of Lake Park, a municipal corporation of the State of Florida.


By: 

Printed Name: James DuBois

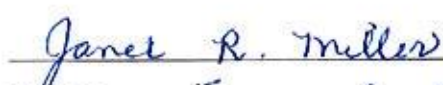
Title: Mayor

Date: June 4, 2014

WITNESSES:



Print Name: DALE S. SOGERMAN



Print Name: Janet R. Miller

TENANT: T-Mobile South, a Delaware limited liability company.

By: Bentley Alexander

Printed Name: Bentley Alexander

Title: VP, Engineering

Date: 9/17/14

WITNESSES:

Alma R. Gomez  
Print Name: Alma R. Gomez

Kimberly D. Smith  
Print Name: Kimberly D. Smith

[Notary block for Landlord]

[Landlord Notary block for a Corporation, Partnership, or Limited Liability Company]

STATE OF Florida )

) ss.

COUNTY OF Palm Beach

This instrument was acknowledged before me on June 4, 2014 by James Dubois, [title] Mayor of the Town of Lake Park a Municipality [type of entity], on behalf of said the Town of Lake Park [name of entity].

Dated: June 4, 2014

Notary Public

Vivian Mendez  
Print Name Vivian Mendez

My commission expires



(Use this space for notary stamp/seal)

[Notary block for Tenant]

STATE OF Texas )

) ss.

COUNTY OF Collin )

I certify that I know or have satisfactory evidence that Bentley Alexander is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the V.P. Engineering of T-Mobile South LLC, a Delaware LLC, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: 9-17-14

Notary Public Keisha McMillon

Print Name Keisha McMillon

My commission expires 9-20-17

(Use this space for notary stamp/seal)



Memorandum of Lease Exhibit A

Legal Description

The Property is legally described as follows:

ADDENDUM TO SITE LEASE WITH OPTION

[Additional Terms]

In the event of conflict or inconsistency between the terms of this Addendum and this Lease, the terms of the Addendum shall govern and control. All capitalized terms shall have the same meaning as in this Lease.

NONE.

LANDLORD: Town of Lake Park, a municipal corporation of the State of Florida.

By: James DuBois

Printed Name: James DuBois

Title: Mayor

Date: June 4, 2014

TENANT: T-Mobile South, a Delaware limited liability company.

By: Bentley C Alexander

Printed Name: Bentley Alexander

Title: VP, Engineering

Date: 9/17/14

WITNESSES: Town of Lake Park, a municipal corporation of the State of Florida

Dale S. Sugarman

Print Name: DALE S. SUGERMAN

Janet R. Miller

Print Name: Janet R. Miller

WITNESSES: T-Mobile South, a Delaware limited liability company

Alma R. Gamez

Print Name: Alma R. Gamez

\_\_\_\_\_  
Print Name: \_\_\_\_\_



# Amendment to Lease Option Agreement

## RESOLUTION NO. 08-03-15

**A RESOLUTION OF THE TOWN COMMISSION OF THE TOWN OF LAKE PARK, FLORIDA AUTHORIZING AND DIRECTING THE MAYOR TO EXECUTE A FIRST AMENDMENT TO THE LEASE AND OPTION AGREEMENT WITH T-MOBILE USA, INC. FOR THE CONSTRUCTION OF A COMMUNICATIONS TOWER AT THE LAKE PARK HARBOR MARINA; AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS,** The Town entered into a "Site Lease With Option" (Lease) with T-Mobile, LLC, whereby T-Mobile LLC is permitted, at its option to lease certain real property described and attached to Exhibit A of the Lease (the Property) at the Town 's Marina for the development of facilities necessary to operate its communications system; and

**WHEREAS,** pursuant to paragraph 15 of the Lease, T-Mobile, LLC has assigned the ground lease to R G Towers, LLC; and

**WHEREAS,** pursuant to the terms of the Lease, the Tenant of the Property is permitted to co-locate other communication facilities on the Property; and

**WHEREAS,** Tenant, after inspection of the Property has requested an amendment to the Lease so that additional ground space can be made available to it in anticipation of co-locating additional communication facilities on the Property.

**NOW THEREFORE** the Landlord and Tenant have agreed to amend the Lease, as follows:

**Section 1.** The recitals are incorporated herein.

**Section 2.** A new Exhibit A, a copy of which is attached hereto and incorporated herein, containing the legal description of the Property is hereby substituted for the Exhibit A attached to the original Lease. All references in the Lease to Exhibit A shall now mean and refer to the new Exhibit A attached hereto.

**Section 3.** A new Exhibit B, a copy of which is attached hereto and incorporated herein which is the site plan depicting that portion of the Property where the Antenna Facilities together with all necessary ground space and easements for access thereto and utilities is hereby substituted for Exhibit B to the original.

**Section 4.** All provisions of the Lease not amended herein shall remain in effect.

**Section 5.** This Resolution shall be effective upon adoption.

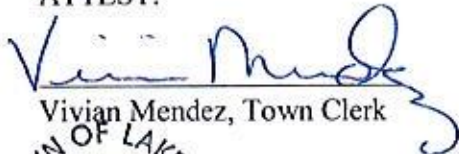
IN WHEREOF, the Parties hereto have set their hands and affixed their respective seals the day and year first above written.

**LANDLORD:**

Town of Lake Park, Florida

By:   
Name: James DuBois  
Title: Mayor

ATTEST:

  
Vivian Mendez, Town Clerk




APPROVED AS TO FORM  
AND LEGAL SUFFICIENCY


By:   
Thomas J. Baird, Town Attorney


**TENANT:**

R G Towers, LLC,

WITNESS

  
Name: Erin Entekin

  
Name: Holly Valdez

By:   
Title: CEO

The foregoing Resolution was offered by Commissioner Rapoza, who moved its adoption. The motion was seconded by Vice-Mayor Glas-Castro and upon being put to a roll call vote, the vote was as follows:

	AYE	NAY
MAYOR JAMES DUBOIS	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VICE-MAYOR KIMBERLY GLAS-CASTRO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COMMISSIONER ERIN FLAHERTY	<input checked="" type="checkbox"/>	<input type="checkbox"/>
COMMISSIONER MICHAEL O'ROURKE	<input type="checkbox"/>	<input checked="" type="checkbox"/>
COMMISSIONER KATHLEEN RAPOZA	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Town Commission thereupon declared the foregoing Resolution NO. 08-03-15 duly passed and adopted this 4 day of March, 2015.

TOWN OF LAKE PARK, FLORIDA

BY:   
JAMES DUBOIS  
MAYOR

ATTEST:

  
VIVIAN MENDEZ  
TOWN CLERK



Approved as to form and legal sufficiency:

BY:   
THOMAS J. BAIRD  
TOWN ATTORNEY

## Exhibit A

PARENT TRACT (PER SHORT LEGAL DESCRIPTION, PALM BEACH COUNTY  
PROPERTY APPRAISERS)

21-42-43, PT OF GOV LT 4 EOF LAKE SHORE DR & W OF TOWN BULK HEAD LINE  
LYG BETWEEN ELY EXTENSION OF N LINE OF LT 17 BLK 115 KELSEY CITY &  
ELY EXTENSION OF N LINE OF SILVER BEACH RD & TR OF SOVEREIGNTY LAND  
IN TIF DEED NO 22899 & NO 24018

PROPOSED 12.5'X16' T-MOBILE LEASE AREA (AS REQUESTED BY CLIENT)

A PARCEL OF LAND LYING WITHIN PLAT OF BULKHEAD LINE, PLAT BOOK 27,  
PAGE 1, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA BEING  
MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCE AT THE NORTHEAST CORNER OF THE TOWN OF LAKE PARK  
TRACT ALSO BEING THE SOUTHEAST CORNER OF THE BANKERS LIFE &  
CASUALTY CO. TRACT AS SHOWN ON SAID PLAT OF BULKHEAD LINE, THENCE  
S85°22'45"W, ALONG THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT  
AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A  
DISTANCE OF 121.55 FEET; THENCE S04°37'15"E, DEPARTING THE NORTH LINE  
OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS  
LIFE & CASUALTY CO. TRACT, A DISTANCE OF 329.07 FEET; THENCE  
S04°50'27"E, A DISTANCE OF 5.00 FEET TO THE POINT OF BEGINNING; THENCE  
CONTINUE S04°50'27"E, A DISTANCE OF 16.00 FEET; THENCE S85°09'33"W, A  
DISTANCE OF 12.50 FEET; THENCE N04°50'27"W, A DISTANCE OF 16.00 FEET;  
THENCE N85°09'33"E, A DISTANCE OF 12.50 FEET TO THE POINT OF  
BEGINNING.  
SAID PROPOSED 12.5'X16' T-MOBILE LEASE AREA CONTAINING 200 SQUARE  
FEET.

PROPOSED 25'X30' RG TOWERS, LLC LEASE AREA (AS REQUESTED BY CLIENT)

A PARCEL OF LAND LYING WITHIN PLAT OF BULKHEAD LINE, PLAT BOOK 27,  
PAGE 1, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA BEING  
MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCE AT THE NORTHEAST CORNER OF THE TOWN OF LAKE PARK  
TRACT ALSO BEING THE SOUTHEAST CORNER OF THE BANKERS LIFE &  
CASUALTY CO. TRACT AS SHOWN ON SAID PLAT OF BULKHEAD LINE, THENCE  
S85°22'45"W, ALONG THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT  
AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A  
DISTANCE OF 121.55 FEET; THENCE S04°37'15"E, DEPARTING THE NORTH LINE  
OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS  
LIFE & CASUALTY CO. TRACT, A DISTANCE OF 329.07 FEET TO THE POINT OF  
BEGINNING; THENCE S04°50'27"E, A DISTANCE OF 30.00 FEET; THENCE  
S85°09'33"W, A DISTANCE OF 25.00 FEET; THENCE N04°50'27"W, A DISTANCE OF

## Exhibit A

30.00 FEET; THENCE N85°09'33"E, A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING.

SAID PROPOSED 25'X30' RG TOWERS, LLC LEASE AREA CONTAINING 750 SQUARE FEET.

PROPOSED 12' WIDE NON-EXCLUSIVE T-MOBILE ACCESS EASEMENT (AS REQUESTED BY CLIENT)

A STRIP OF LAND LYING WITHIN PLAT OF BULKHEAD LINE, PLAT BOOK 27, PAGE 1, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF THE TOWN OF LAKE PARK TRACT ALSO BEING THE SOUTHEAST CORNER OF THE BANKERS LIFE & CASUALTY CO. TRACT AS SHOWN ON SAID PLAT OF BULKHEAD LINE, THENCE S85°22'45"W, ALONG THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A DISTANCE OF 121.55 FEET; THENCE S04°37'15"E, DEPARTING THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A DISTANCE OF 329.07 FEET; THENCE S04°50'27"E, A DISTANCE OF 30.00 FEET; THENCE S85°09'33"W, A DISTANCE OF 25.00 FEET; THENCE N04°50'27"W, A DISTANCE OF 30.00 FEET TO THE POINT OF BEGINNING; THENCE CONTINUE N04°50'27"W, A DISTANCE OF 2.02 FEET; THENCE S85°09'33"W, A DISTANCE OF 27.99 FEET; THENCE N05°17'04"W, A DISTANCE OF 220.87 FEET; THENCE S85°35'16"W, A DISTANCE OF 176.07 FEET TO THE EAST RIGHT-OF-WAY LINE OF LAKE SHORE DRIVE (A 60' RIGHT-OF-WAY BY PLAT); THENCE N05°11'15"W, ALONG SAID EAST RIGHT-OF-WAY LINE, A DISTANCE OF 12.00 FEET; THENCE N85°35'16"E, DEPARTING SAID EAST RIGHT-OF-WAY LINE, A DISTANCE 188.05 FEET; THENCE S05°17'04"E, A DISTANCE OF 220.78 FEET; THENCE N85°09'33"E, A DISTANCE OF 28.08 FEET; THENCE S04°50'27"E, A DISTANCE OF 14.02 FEET; THENCE S85°09'33"W, A DISTANCE OF 12.00 FEET TO THE POINT OF BEGINNING.

SAID PROPOSED 12' WIDE NON-EXCLUSIVE T-MOBILE ACCESS EASEMENT CONTAINING 5,267 SQUARE FEET, MORE OR LESS.

PROPOSED 5' WIDE NON-EXCLUSIVE T-MOBILE UTILITY EASEMENT (AS REQUESTED BY CLIENT)

A STRIP OF LAND LYING WITHIN PLAT OF BULKHEAD LINE, PLAT BOOK 27, PAGE 1, OF THE PUBLIC RECORDS OF PALM BEACH COUNTY, FLORIDA BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

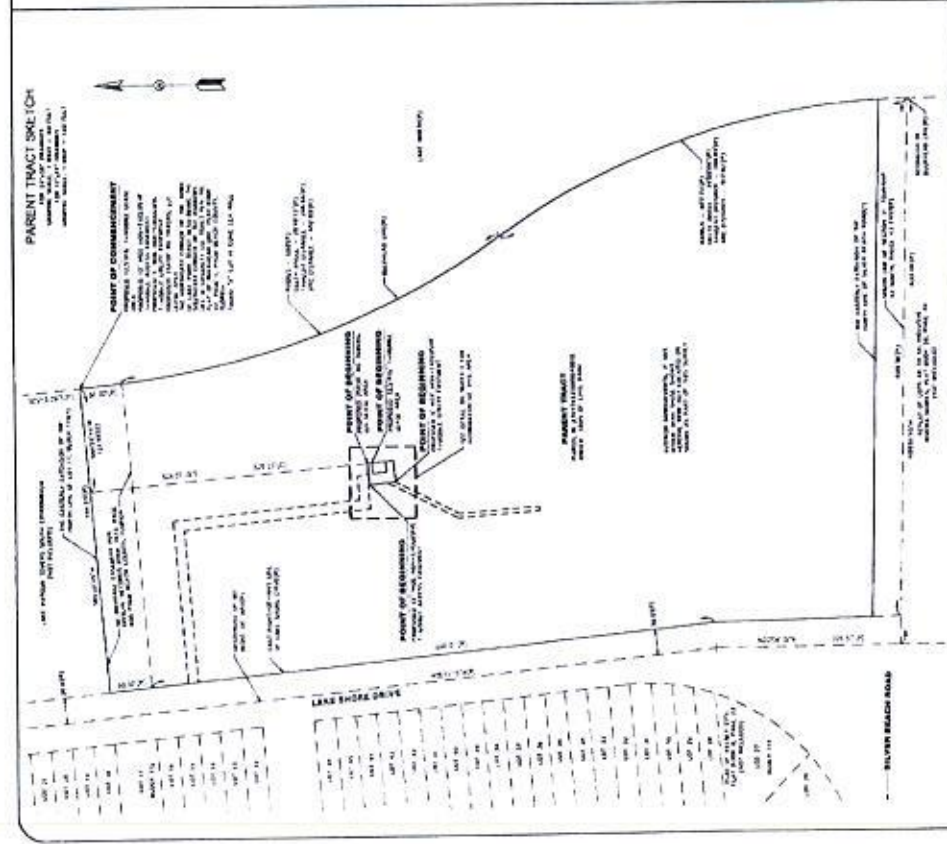
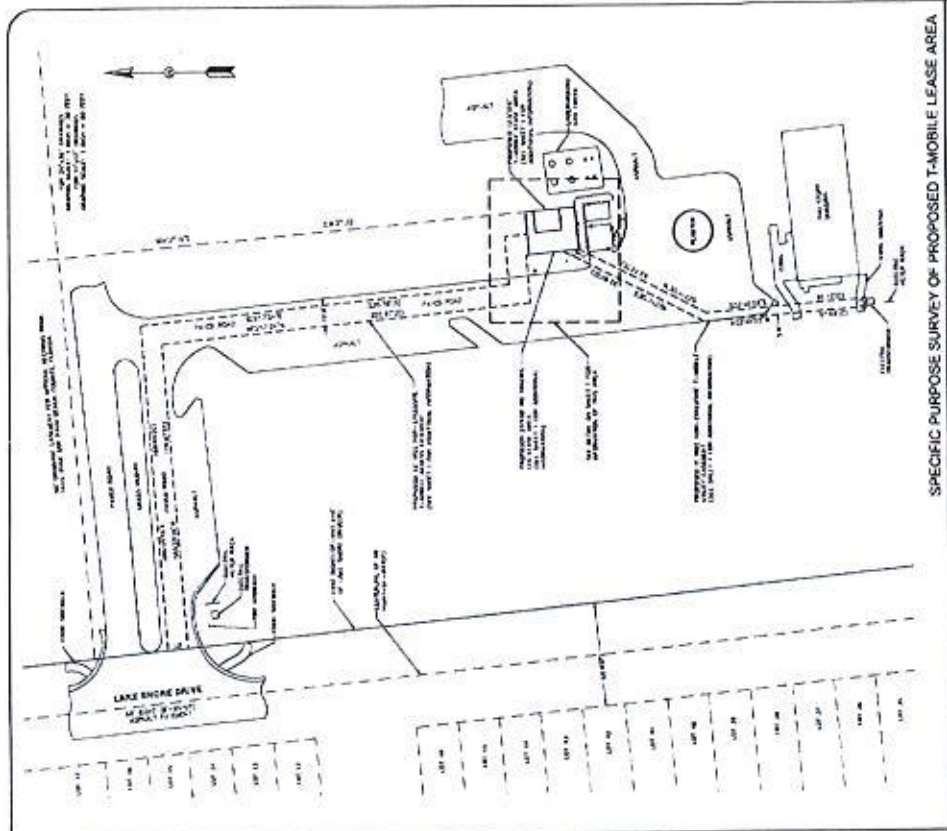
COMMENCE AT THE NORTHEAST CORNER OF THE TOWN OF LAKE PARK TRACT ALSO BEING THE SOUTHEAST CORNER OF THE BANKERS LIFE & CASUALTY CO. TRACT AS SHOWN ON SAID PLAT OF BULKHEAD LINE, THENCE S85°22'45"W, ALONG THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A

## Exhibit A

DISTANCE OF 121.55 FEET; THENCE S04°37'15"E, DEPARTING THE NORTH LINE OF SAID TOWN OF LAKE PARK TRACT AND THE SOUTH LINE OF SAID BANKERS LIFE & CASUALTY CO. TRACT, A DISTANCE OF 329.07 FEET; THENCE S04°50'27"E, A DISTANCE OF 30.00 FEET; THENCE S85°09'33"W, A DISTANCE OF 25.00 FEET TO THE POINT OF BEGINNING; THENCE S27°11'58"W, A DISTANCE OF 83.42 FEET; THENCE S03°45'02"E, A DISTANCE OF 96.13 FEET; THENCE S84°21'43"W, A DISTANCE OF 5.00 FEET; THENCE N03°45'02"W, A DISTANCE OF 97.68 FEET; THENCE N27°11'58"E, A DISTANCE OF 92.80 FEET; THENCE S04°50'27"E, A DISTANCE OF 9.42 FEET TO THE POINT OF BEGINNING. SAID PROPOSED 5' WIDE NON-EXCLUSIVE T-MOBILE UTILITY EASEMENT CONTAINING 925 SQUARE FEET, MORE OR LESS.



# Exhibit B



**SPECIFIC PURPOSE SURVEY OF PROPOSED T-MOBILE LEASE AREA**

PREPARED FOR: LAKESHORE MARINA  
 FIELD DATE: 03-27-2014  
 DRAWING DATE: 03-27-2014  
 CHECK DATE: 03-27-2014  
 PROJECT NUMBER: 140779.02  
 SHEET 1 OF 2

**THIS SURVEY IS NOT VALID OR COMPLETE WITHOUT SHEETS 1 & 2 BEING BOUND TOGETHER. SEE SHEET ONE FOR SURVEYORS SIGNATURE AND SEAL, SURVEYORS NOTES, DESCRIPTIONS, DETAIL OF LEASE COMPOUND AREA, LINE TABLE, LEGEND, AND VICINITY MAP.**

**T-Mobile**  
 stick together  
 1300 CONCORD FORECAST SUITE 200  
 SUWANEE, FL 33220

**CALTRIP**  
 1300 RIVERCHASE BLVD  
 SUWANEE, FL 33220  
 (407) 544-0880  
 FLORIDA LICENSE NUMBER 1760

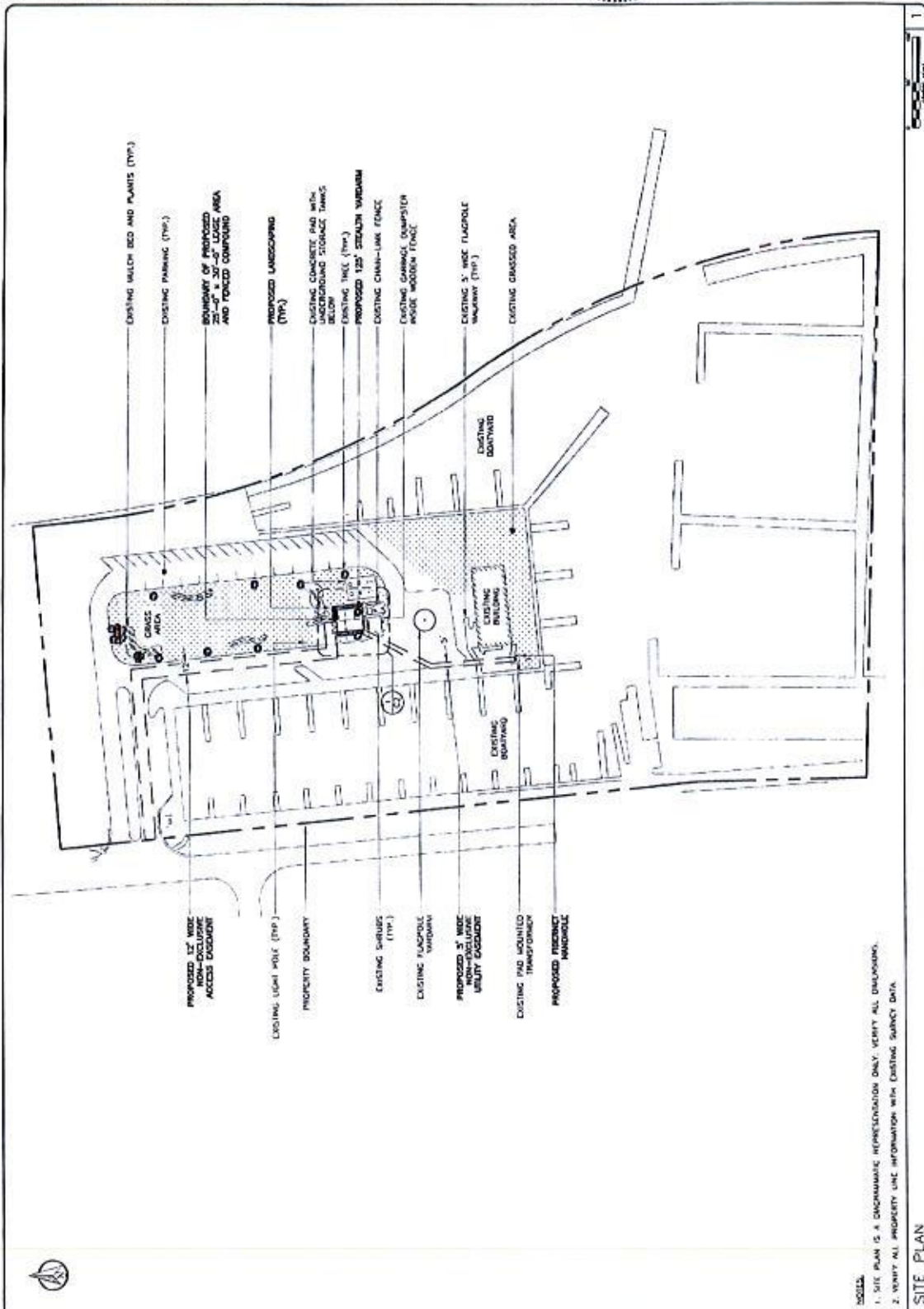


# Exhibit B

<b>REV. DATE</b> DESCRIPTION	
A	12/20/21
B	1/17/24
C	1/17/24
D	1/17/24
E	1/17/24
F	1/17/24
G	1/17/24
H	1/17/24
I	1/17/24
J	1/17/24
K	1/17/24
L	1/17/24
M	1/17/24
N	1/17/24
<b>PROJECT NO.</b> 14-1881-01	
<b>DRAWN BY</b> J. MARINO	<b>CHECKED BY</b> M. ARNEY

<p><b>CALTRIP</b> <b>Telecom</b> 300 W. CENTRAL BLVD. SUITE 200 AUSTIN, TX 78701 OFFICE OF INTELLIGENCE 2014</p>	<p><b>RC TOWERS, LLC</b> 7700 N. HAYWARD BL. SUITE 100 AUSTIN, TX 78757</p>	<p><b>PHILLIPS &amp; SPENCER ENGINEERS &amp; ARCHITECTS, P.C.</b> No. 00312 STATE OF TEXAS <b>PROFESSIONAL ENGINEER</b> MICHAEL A. PHILLIPS DATE: 11/11/21</p>	<p><b>LAKE PARK MARINA</b></p> <p>SFL13 183 LAKE PARK BLVD. LAKE PARK, TX 75840</p> <p>SHEET NAME</p>
<p><b>SITE PLAN</b></p>			<p>SHEET NUMBER C1</p>



EXISTING MULCH BED AND PLANTS (TYP.)

EXISTING PARKING (TYP.)

BOUNDARY OF PROPOSED 20' x 40' x 20' LAGE AREA AND FENCED COMPOUND

PROPOSED LANDSCAPING (TYP.)

EXISTING CONCRETE PAD WITH MASONRY RETAINING WALLS BELOW

EXISTING TREE (TYP.)

PROPOSED 12' STEEL TUBULAR

EXISTING CHAIN-LINK FENCE

EXISTING GARAGE (CONCRETE) ASSESS MASONRY FENCE

EXISTING 5' WIDE FLAGPOLE WALKWAY (TYP.)

EXISTING GRASSED AREA

PROPOSED 12' WIDE NON-EXCLUSIVE ACCESS EGRESS

EXISTING LIGHT POLE (TYP.)

PROPERTY BOUNDARY

EXISTING SHRUBS (TYP.)

EXISTING FLAGPOLE WALKWAY

PROPOSED 5' WIDE NON-EXCLUSIVE ACCESS UTILITY EGRESS

EXISTING PAD MOUNTED TRANSFORMER

PROPOSED FIREHYDRANT MANHOLE

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

EXISTING DRIVEWAY

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EXISTING DRIVEWAY

EXISTING DRIVEWAY

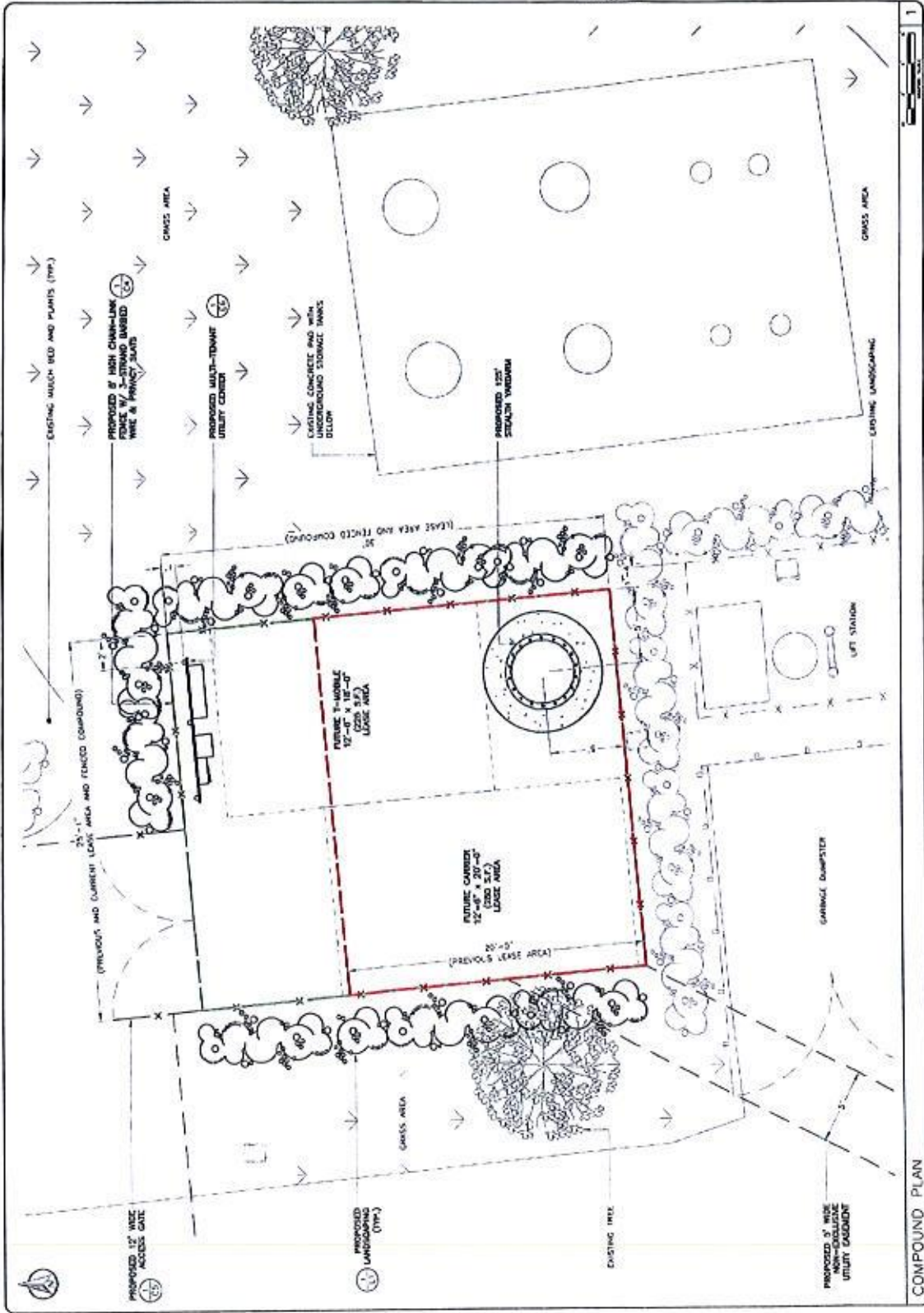
EXISTING DRIVEWAY

**NOTES:**  
1. SITE PLAN IS A GRAPHIC REPRESENTATION ONLY. VERIFY ALL DIMENSIONS.  
2. VERIFY ALL PROPERTY LINE INFORMATION WITH EXISTING SURVEY DATA.

**SITE PLAN**

# Exhibit B

DATE: 12/17/13	REVISIONS:
BY: [Signature]	DESCRIPTION:
BY: [Signature]	DATE:
BY: [Signature]	DATE:
BY: [Signature]	DATE:
PROJECT NO. 14-1804-01	CHECKED BY: [Signature]
DRAWN BY: [Signature]	DATE: 11/14/13
THIS DRAWING IS COPYRIGHTED AND IS THE PROPERTY OF CALTRIP, INC. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF CALTRIP, INC.	
LAKE PARK MARINA SF113 100 AVE. WIDE WING LAKE PARK, FL 32002 SHEET NAME COMPOUND PLAN SHEET NUMBER C2	



COMPOUND PLAN 1

# Exhibit B

REV.	DATE	DESCRIPTION
1	12/27/14	PROPOSED 120' STEALTH TOWER
2	1/27/15	FOR PERMIT
PROJECT NO. 14-1004-01		CHECKED BY M. ASHBY
DRAWN BY J. WOODRUFF		DATE 11/13/14

THIS DRAWING IS CONSIDERED VALID IN THE SOLE PROPERTY OF THE OWNER. IT IS TO BE USED ONLY FOR THE PROJECT AND IN ACCORDANCE WITH THE SPECIFICATIONS AND CONDITIONS OF THE CONTRACT. ANY MODIFICATION WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER IS PROHIBITED.

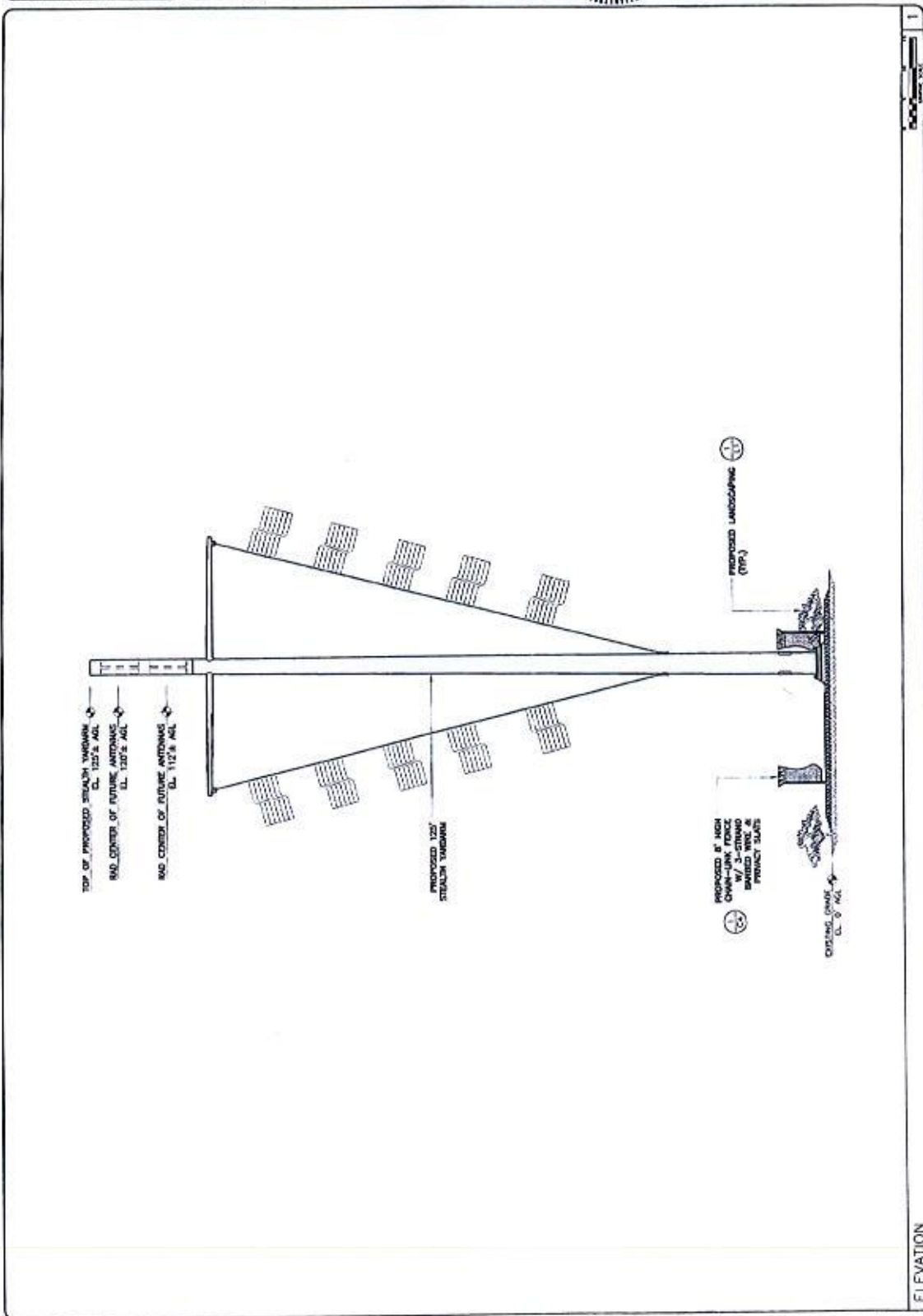
**CALTRIP Telecom**  
4400 JEFFERSON BLVD  
SUITE 100  
DENVER, CO 80202  
COMMERCIAL ENGINEERING DIVISION

**RG TOWERS, LLC**  
111 ALABAMA AVE, SUITE 100  
ANN ARBOR, MI 48106

**Professional Engineer Seal:**  
MICHAEL A. PHILLIPS  
No. 68312  
STATE OF MICHIGAN  
PROFESSIONAL ENGINEER  
DATE OF EXPIRATION 07/31/15

**LAKE PARK MARINA**  
SFL13  
105 LAKE PARK DRIVE  
LAKE PARK, MI 49647  
SHEET NAME

**ELEVATION**  
SHEET NUMBER  
C-3





**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: RG T 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	RIA	Lake Harbour Towers	0400- Condo
East	NA	Water	NA
South	R55	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 1.2 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.

S B  
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 Risher</u> , have read and understand the regulations above regarding cost recovery.	
<u>S Risher</u> Property Owner Signature Leasholder / 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

Surrounding Towers / Feasibility Report - Engineer Review



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

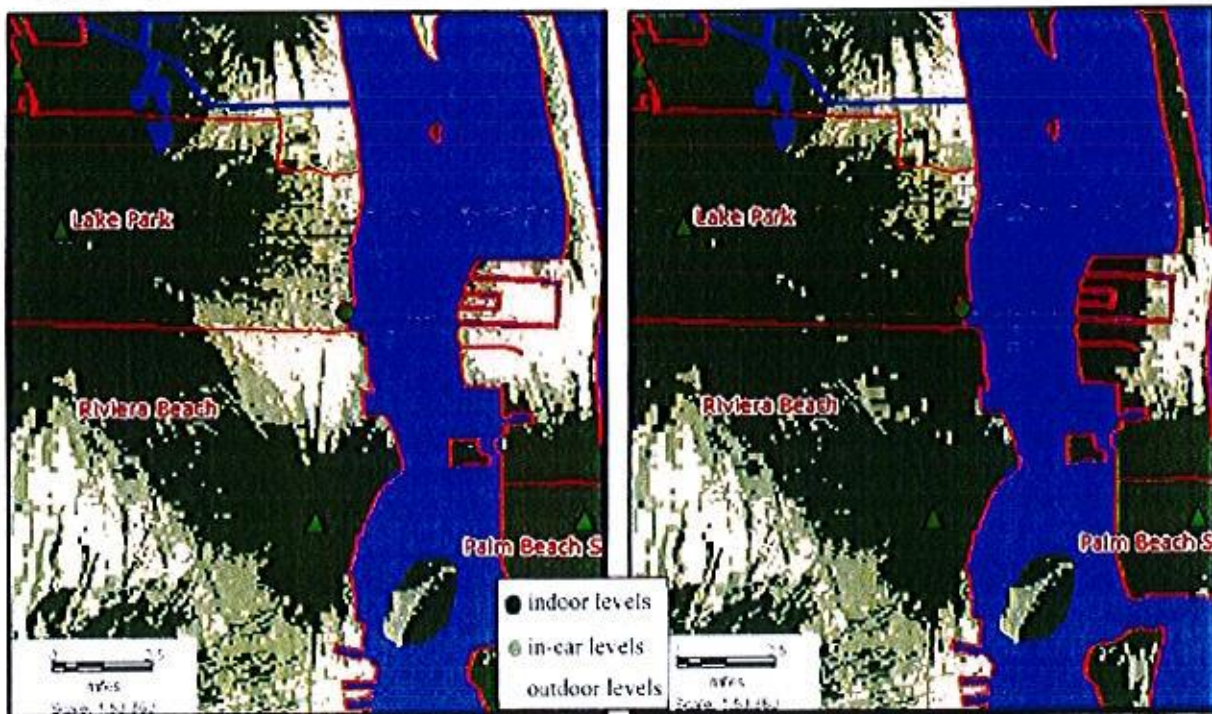
0-11084

# 6WP1273D – Lake Park Marina Coverage Objective Clarification

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 6<sup>th</sup> 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 27<sup>th</sup> in the south and from 5<sup>th</sup> 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)

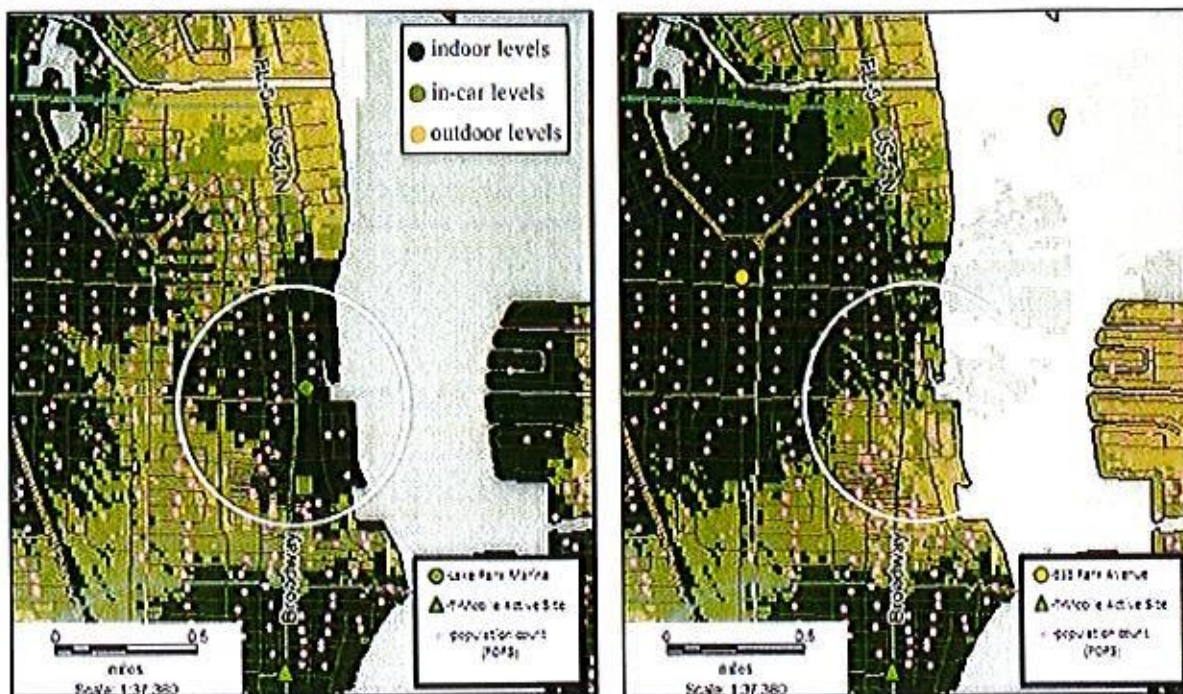
Name Patrick Keane

Title T-Mobile RF Engineer



Signature

## T-Mobile Coverage Map – Alternate Candidate – Propagation



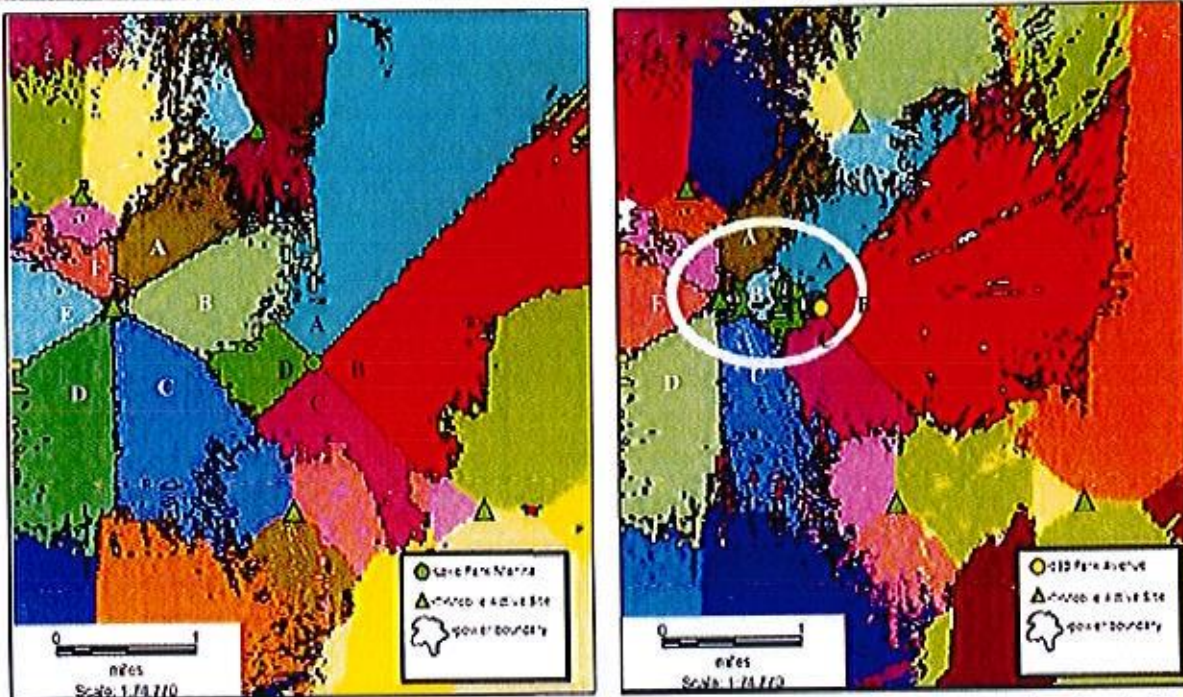
As demonstrated in previous submissions the area in question currently has marginal service levels which are inadequate to support the current technologies and capacity constraints. As part of T-Mobile's ongoing network deployment, new facilities are required to "fill in" areas of concern. And while 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 28<sup>th</sup> 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 34<sup>th</sup> 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 its 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

"An Equal Opportunity  
Affirmative Action Employer"

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

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

T:\Planning\Archaeology\County Departments\Planning\Land Use Amendments and Development Review\ECA\Lake Park Marina.doc



# ENVIRONMENTAL CORPORATION OF AMERICA

ENVIRONMENTAL | GEOTECHNICAL | WETLANDS | ECOLOGY | CULTURAL RESOURCES

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

Community February 13, 2015

FEB 20 2015

Environmental

**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

Community  
NOV 20 2015  
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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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- Panama City, FL
- Panama City, FL
- Panama City, 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:

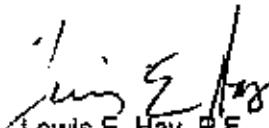
Universal Engineering Sciences (UES) has completed a limited geotechnical exploration for the Lake Park Marina Tower site in Lake Park, Broward County, Florida. Our services were provided in general accordance with your request and our quote of February 26, 2015. Authorization to proceed with our services 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 <sup>1</sup> (ksf)	Allowable End Bearing <sup>1</sup> (ksf)
From	To					Active Ka	Passive Kp	At-Rest Ko		
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	--	--

<sup>1</sup>Note: 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.

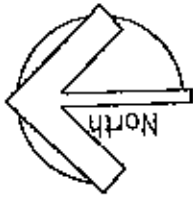


Further, we present documents in Appendix B: Constraints and Restrictions, to bring to your attention the potential concerns and the basic limitations of a typical geotechnical report.

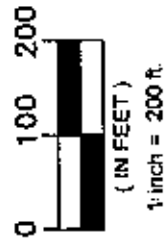
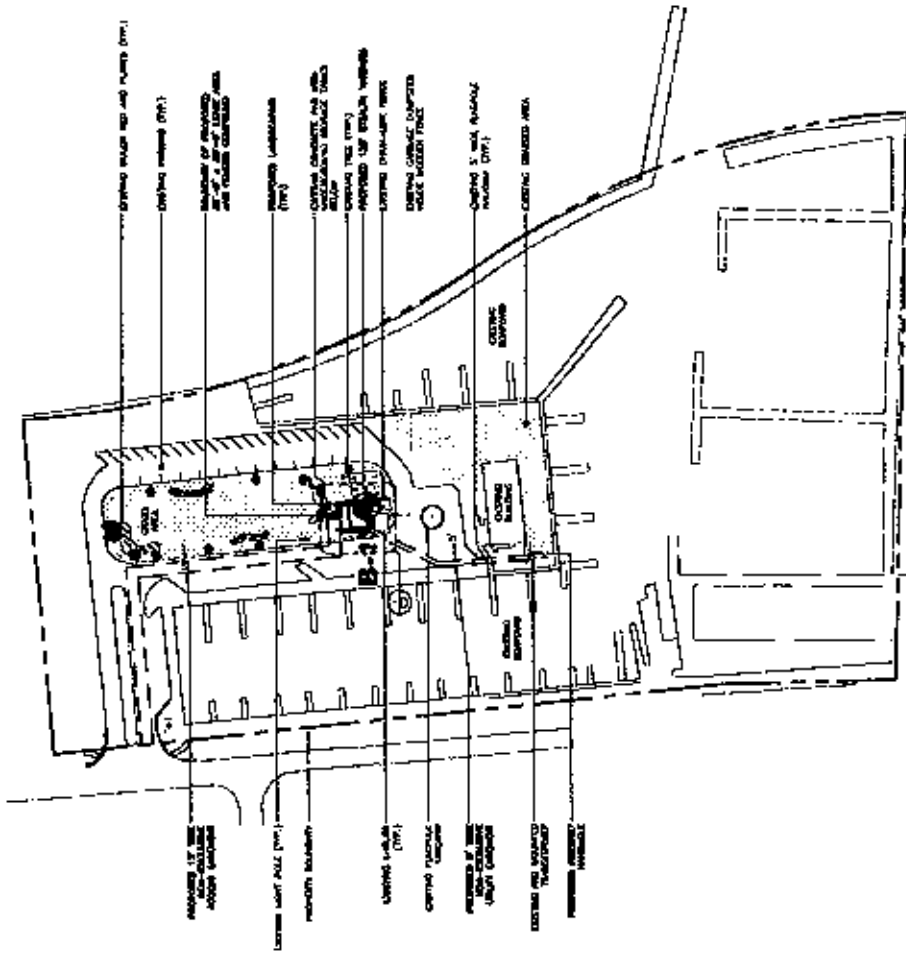


**APPENDIX A**

**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**

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



**UNIVERSAL**  
**ENGINEERING SCIENCES**



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO. 0930 1500032 0000

REPORT NO. 125 5351

PAGE: A-1

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 & WT (ft):

TYPE OF SAMPLING: ASTM D-1585

DEPTH (FT.)	SAMPLING	BLOWS PER 5' INCREMENT	N (BLOWS/FT)	W T	SYMBOL	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT / DAY)	ORG. CONT (%)
									LL	PI		
0						Brown fine SAND (SP) w/ some roots						
	Hand Auger		-									
	Hand Auger		-			Light brown fine SAND (SP) w/ some shell fragments						
5		8-8-4-4	12			Medium Dense light brown fine SAND (SP) w/ some shell fragments						
		2-2-2-2	4			Very Loose to Loose light brown fine SAND (SP) w/ some shell fragments						
		2-2-3-3	5			Loose to Very Loose brown to grey fine SAND (SP)						
10												
		2-2-2-2	4									
15												
		2-3-4-4	7									
20												
		3-4-5-7	9			Loose light grey fine SAND (SP) w/ some cemented zones						
25												
		3-4-4-6	8			Loose light brown fine SAND (SP) w/ some shell fragments						
30												

BORING LOG 0930 1500032 0000 - LAKE PARK MARINA TOWER GPJ UNIVERSAL EGS 8/3/15



# UNIVERSAL ENGINEERING SCIENCES BORING LOG

PROJECT NO. 0930 1500032 0000

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)	S A M P L E	BLOWS PER 8" INCREMENT	N (BLOWS/ FT)	W.T	S Y M B O L	DESCRIPTION	-200 (%)	MC (%)	ATTERBERG LIMITS		K (FT/ DAY)	ORG. CONT (%)
									LL	PI		
30						Loose light brown fine SAND (SP) w/ some shell fragments						
35		8-11-18-18	27			Medium Dense light brown to brown and grey fine SAND (SP) w/ some shell fragments						
40		8-9-11-9	20									
45		3-5-8-6	13									
50		9-10-10-8	20									
55		50=2"	50=2"			Very Dense light grey cemented SAND (SP)						
60		24-30-26-28	58									

BORING LOG 0930 1500032 0000 LAKE PARK MARINA TOWER GPJ UNIVERSAL ENGINEERING SCIENCES





**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-fill)

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	
<b>COARSE-GRAINED SOILS</b> More than 50% retained on No. 200 sieve*	<b>GRAVELS</b> 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
			GM	Silty gravels, gravel-sand-fill mixtures
		SANDS	CLEAN SANDS	SW**
	SP**			Well-graded sands and gravelly sands, little or no fines
	SANDS WITH FINES	SM**	Silty sands, sand-fill mixtures	
		SC**	Clayey sands, sand-clay mixtures	
	<b>FINE-GRAINED SOILS</b> 50% or more passes No. 200 sieve*	<b>SILTS AND CLAYS</b> Liquid limit 50% or less	ML	ML
CL				Inorganic clays of low to medium plasticity, generally clayey, sandy clays, silty clays, lean clays
OL				Organic silts and organic silty clays of low plasticity
<b>SILTS AND CLAYS</b> Liquid limit greater than 50%			MH	MH
		CH		Organic clays of high plasticity, fat clays
		OH	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

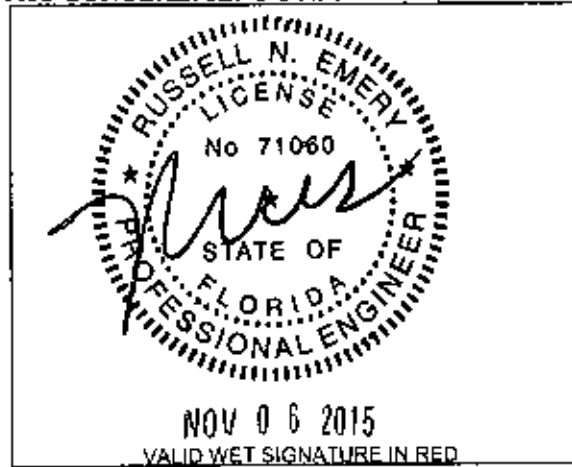
This report reflects the soil conditions at the time of investigation. If the report is not used in a reasonable amount of time, significant changes to the site may occur and additional reviews may be required.



UTAH OFFICES  
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)

~~COMMENTS~~  
NOV 20 2015  
~~CONSTRUCTION~~



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 <sup>2</sup> ]	
		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

<b>Job</b>	Lake Park Marina - Top Section	<b>Page</b>	1 of 9
<b>Project</b>	U0142-575-152	<b>Date</b>	12:55:34 02/05/15
<b>Client</b>	STEALTH® Concealment Solutions	<b>Designed by</b>	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 I.

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 $A_r$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft <sup>2</sup>	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	$C_d A_d$	Weight
				ft		ft <sup>2</sup> /ft	plf
AVA7-50 (1-5/8 LOW DENSI. FOAM)	C	No	Inside Pole	95.00 - 89.00	8	No Ice	0.00
AVA7-50 (1-5/8 LOW DENSI. FOAM)	C	No	Inside Pole	107.00 - 89.00	8	No Ice	0.00
AVA7-50 (1-5/8 LOW DENSI. FOAM)	C	No	Inside Pole	119.00 - 89.00	8	No Ice	0.00

<b>Job</b>	Lake Park Marina - Top Section
<b>Project</b>	U0142-575-152
<b>Client</b>	STEALTH® Concealment Solutions

<b>Page</b>	3 of 9
<b>Date</b>	12:55:34 02/05/15
<b>Designed by</b>	smontgomery

$G_H = 1.100$

Section Elevation	z	K <sub>z</sub>	q <sub>s</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>UG</sub>	Leg %	C <sub>d</sub> A <sub>1</sub> In Face	C <sub>d</sub> A <sub>1</sub> Out Face
ft	ft		psf	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
L1 125.00-89.00	107.13	1.45	101	38.250	A B C	0.000 0.000 0.000	0.000 0.000 0.000	0.000	0.00 0.00 0.00	0.000 0.000 0.000	0.000 0.000 0.000

**Tower Pressure - Service**

$G_H = 1.100$

Section Elevation	z	K <sub>z</sub>	q <sub>s</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>UG</sub>	Leg %	C <sub>d</sub> A <sub>1</sub> In Face	C <sub>d</sub> A <sub>1</sub> Out Face
ft	ft		psf	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
L1 125.00-89.00	107.13	1.45	11	38.250	A B C	0.000 0.000 0.000	0.000 0.000 0.000	0.000	0.00 0.00 0.00	0.000 0.000 0.000	0.000 0.000 0.000

**Tower Forces - No Ice - Wind Normal To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>s</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
L1 125.00-89.00	311.04	1797.59	A B C	0 0 0	0.6 0.6 0.6	101	1 1 1	1 1 1	0.000 0.000 0.000	0.00	0.00	C
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 <sub>F</sub>	q <sub>s</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
L1 125.00-89.00	311.04	1797.59	A B C	0 0 0	0.6 0.6 0.6	101	1 1 1	1 1 1	0.000 0.000 0.000	0.00	0.00	C
Sum Weight:	311.04	1797.59						OTM	0.00 lb-ft	0.00		

**Tower Forces - No Ice - Wind 90 To Face**

<b>tnxTower</b>  <b>Vector Engineering</b> 9138 S Stone St. Suite 101 Sandy, UT 84070 Phone: (801) 990-1773 FAX: (801) 990-1776	<b>Job</b> Lake Park Marina - Top Section	<b>Page</b> 5 of 9
	<b>Project</b> U0142-575-152	<b>Date</b> 12:55:34 02/05/15
	<b>Client</b> STEALTH® Concealment Solutions	<b>Designed by</b> smontgomery

### Force Totals

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Overturning Moments, M <sub>x</sub> lb-ft	Sum of Overturning Moments, M <sub>z</sub> 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

Camb 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 <sub>x</sub>	10	4508.63	0.00	-840.32

<b>tnxTower</b>  <b>Vector Engineering</b> 9138 S State St. Suite 101 Sandy, UT 84070 Phone: (801) 990-1775 FAX: (801) 990-1776	<b>Job</b> Lake Park Marina - Top Section	<b>Page</b> 7 of 9
	<b>Project</b> U0142-575-152	<b>Date</b> 12:55:34 02/05/15
	<b>Client</b> STEALTH® Concealment Solutions	<b>Designed by</b> smontgomery

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

**tnxTower**

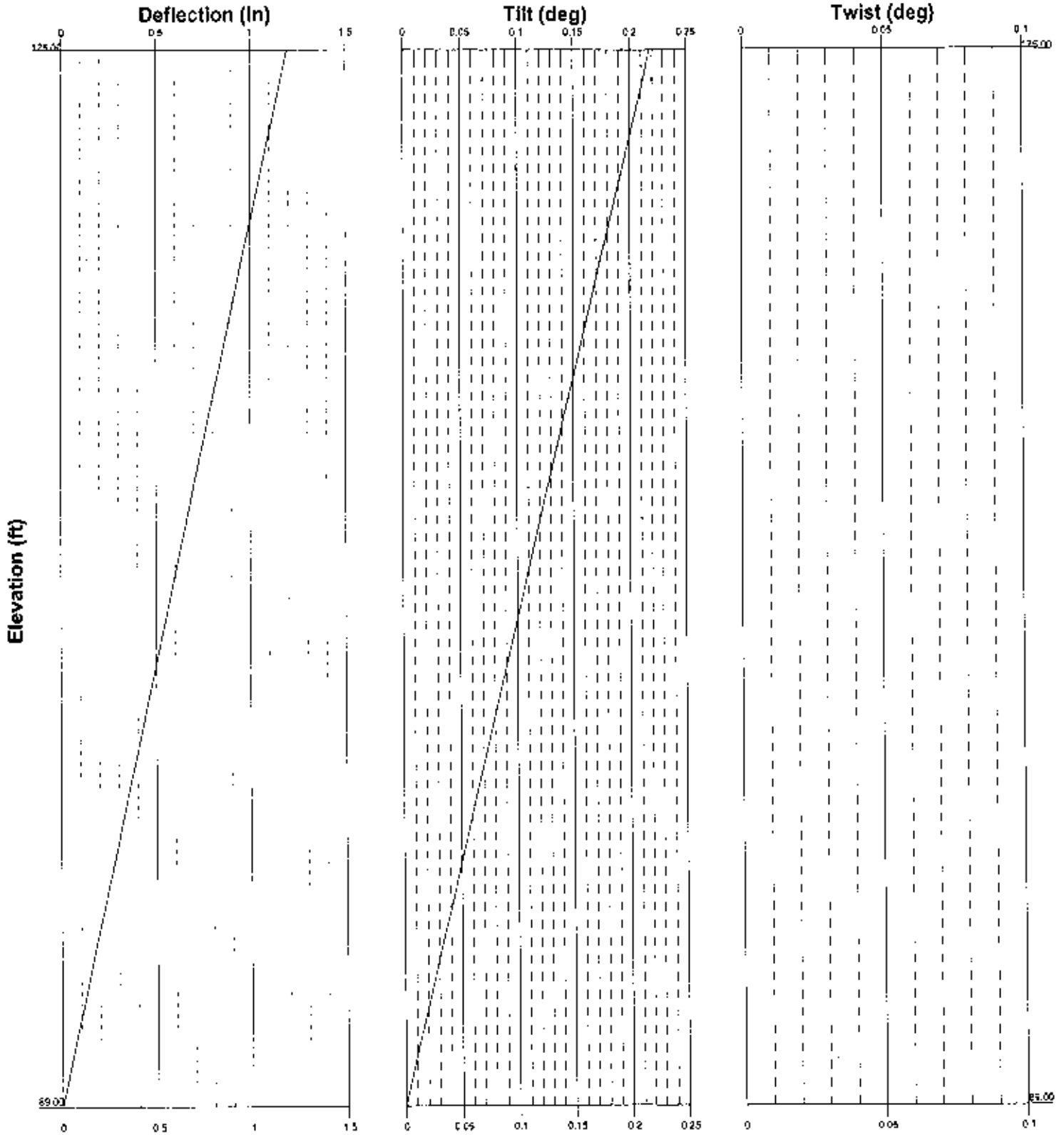
**Vector Engineering**  
 9138 S State St. Suite 101  
 Sandy, UT 84070  
 Phone: (801) 990-1775  
 FAX: (801) 990-1776


<b>Job</b>	Lake Park Marina - Top Section	<b>Page</b>	9 of 9
<b>Project</b>	U0142-575-152	<b>Date</b>	12:55:34 02/05/15
<b>Client</b>	STEALTH® Concealment Solutions	<b>Designed by</b>	smontgomery

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail	
L1	125 - 89	Pole	P12x.375 130h	1	-5096.05	513506.00	82.5	Pass	
							Summary		
							Pole (L1)	82.5	Pass
							<b>RATING =</b>	<b>82.5</b>	<b>Pass</b>

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



 <b>Vector Engineering</b> 9138 S State St. Suite 101 Sandy, UT 84070 Phone: (801) 990-1775 FAX: (801) 990-1776 www.vectorse.com	<b>Lake Park Marina - Top Section</b>	
	Project: <b>U0142-575-152</b>	Drawn by: <b>smartgamer</b>
	Client: <b>STEALTH® Concealment Solutions</b>	Date: <b>02/05/15</b>
	Code: <b>TIA-222-G</b>	Scale: <b>A</b>
	Path:	Drawn:



PROJECT: LAKE PARK MARINA TOP SECTION

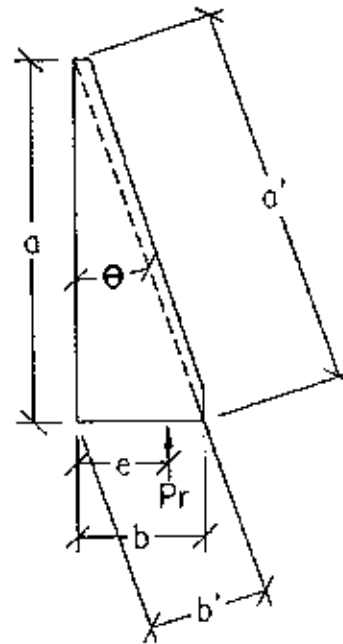
**Gusset Calculation**

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 $\phi$	ASD $\Omega$
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 <sup>3</sup> ):	10.125
$M_u$ (Yielding) kip-in:	364.5
Check:	17.1% Okay

**Shear Yielding Check**

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

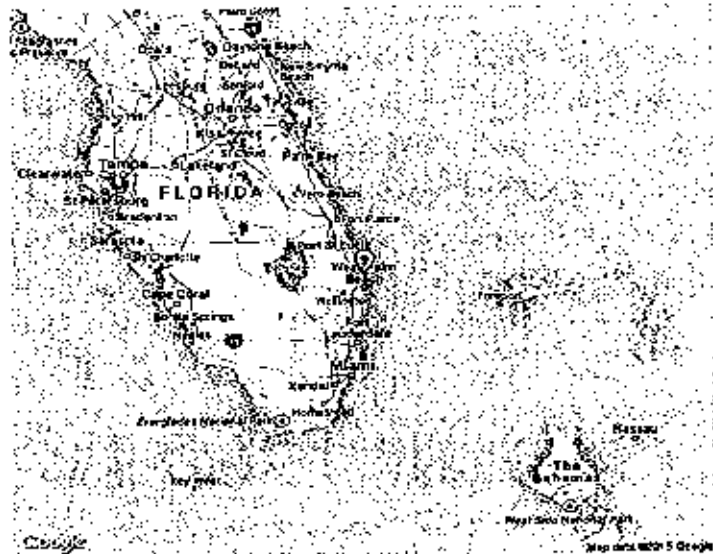
## Search Results

Latitude: 26.7948  
Longitude: -80.0524

**ASCE 7-10 Wind Speeds  
(3-sec peak gust MPH<sup>A</sup>):**

**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**



<sup>A</sup>MPH(Miles per Hour)

<sup>\*\*</sup>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.

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## FINAL ENGINEERING

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

STEALTH JOB #: RG15-00151W-05R0

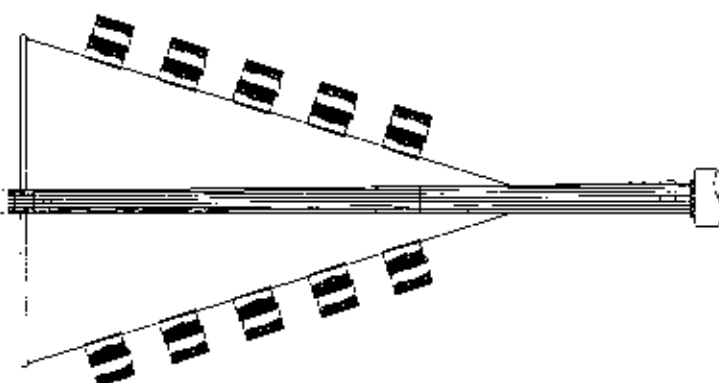
### DRAWING INDEX

T1	TITLE SHEET
N1-N2	NOTES & SPECIFICATIONS
S1	ELEVATIONS
S2-S3	DETAILS
S4	FOUNDATION



T1 10/20/15 2

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LAKE PARK, FL 33403  
P: (803) 998-1725 F: (803) 800-1776

VECTOR PROJECT 00147-575-111  
REGISTERED PROFESSIONAL ENGINEER  
FL LICENSE NO. 11060

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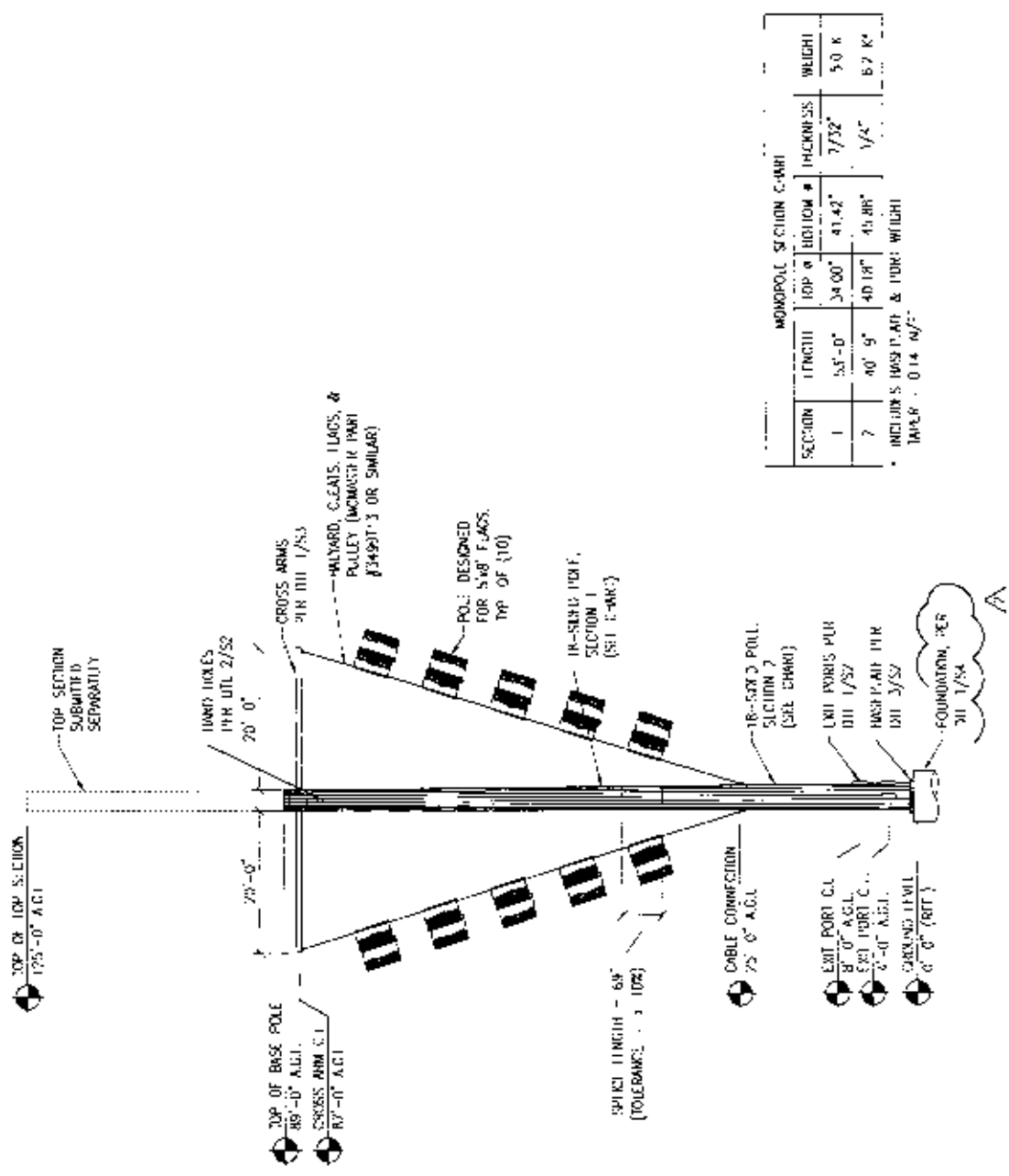
REGISTERED PROFESSIONAL ENGINEER  
IN THE STATE OF FLORIDA  
LICENSE NO. 710660  
RUSSELL N. EMERY  
10000 W. 10TH AVENUE  
DENVER, CO 80202

**RG PARTNERS**  
BASE POLE  
105 LAKE SHORE DRIVE  
LAKE PARK, FL 33403

ELEVATIONS

DATE: 11/27/15  
DRAWN BY: J. W. WOOD  
CHECKED BY: J. W. WOOD  
SCALE: AS SHOWN

11/27/15  
2



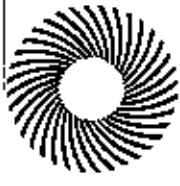
SECTION	LENGTH	TOP @	BOTTOM @	THICKNESS	WEIGHT
1	5.5'-0"	34.00'	41.42'	7/32"	5.0 K
2	40'-9"	40.18'	49.88'	1/2"	6.7 K

INCLUDES BASE PLATE & TOP WEIGHT  
TAPER: 0.14 60/2

ELEVATION  
1



VECTOR  
10000 W. 10TH AVENUE  
DENVER, CO 80202  
P. (800) 998-1175 F. (303) 998-1726  
SECTION PROJECT 06142-375-15  
RUSSELL N. EMERY, P.E.  
11.13.15 (REV) 11/27/15  
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DATE: 08/13/2013  
DRAWN BY: J. B. BROWN  
CHECKED BY: J. B. BROWN  
SCALE: AS SHOWN

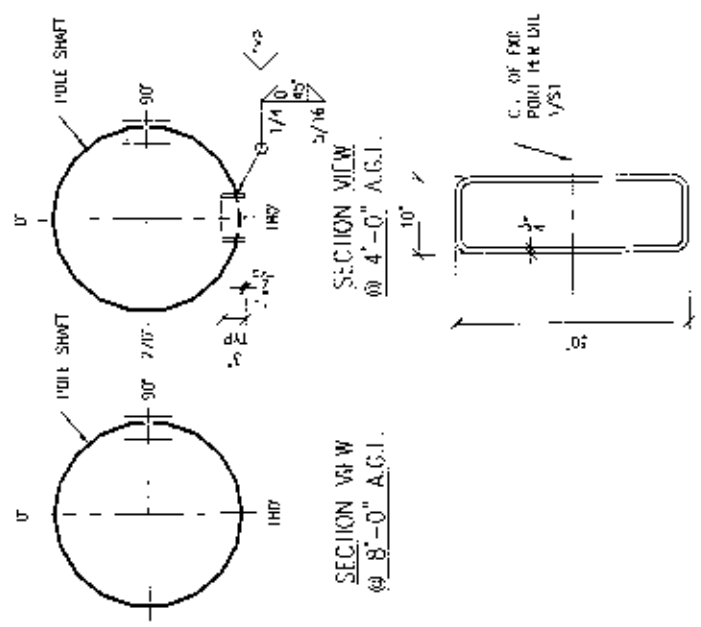
**RG PARTNERS**  
BASE POLE  
105 LAKE SHORE DRIVE  
LAKE PARK, FL 33403

SITE: SR 13, LAKE PARK MARINA BASE POLE  
PROJECT NO: 102715  
REV: 02

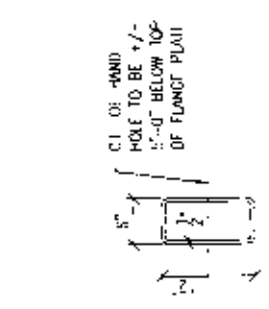
DATE: 08/13/2013  
DRAWN BY: J. B. BROWN  
CHECKED BY: J. B. BROWN  
SCALE: AS SHOWN

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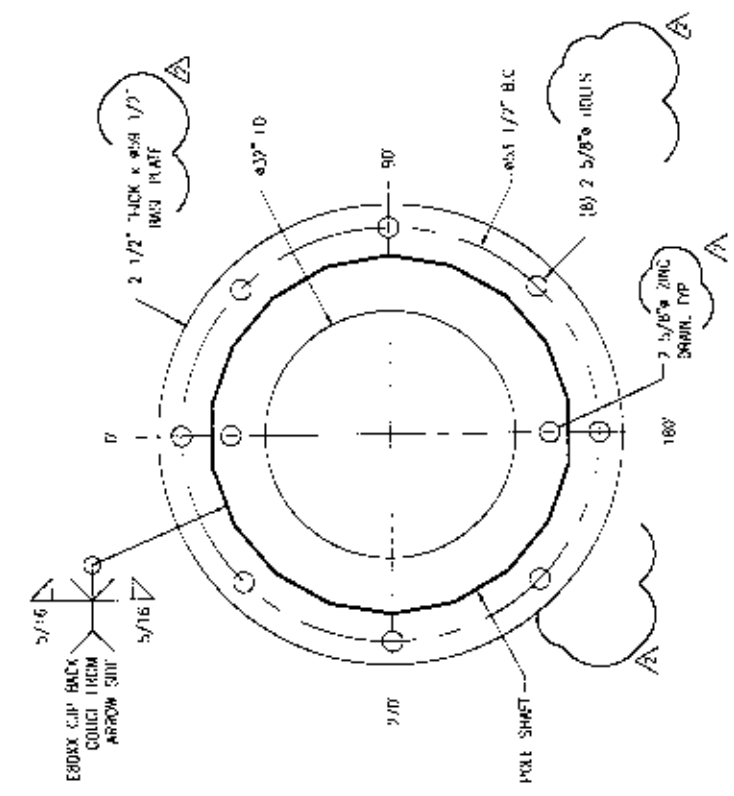
**DETAILS**



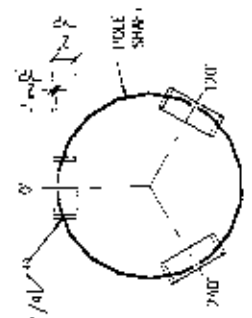
**EXIT PORTS**



**HAND HOLES**



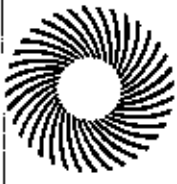
**BASPLATE**



**SECTION VIEW**

**VECTOR**  
CORPORATION  
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TAMPA, FL 33606  
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STATUTES FLORIDA, WHICH RELATES TO  
STEALTH CONCEPTS INCORPORATED, INC.

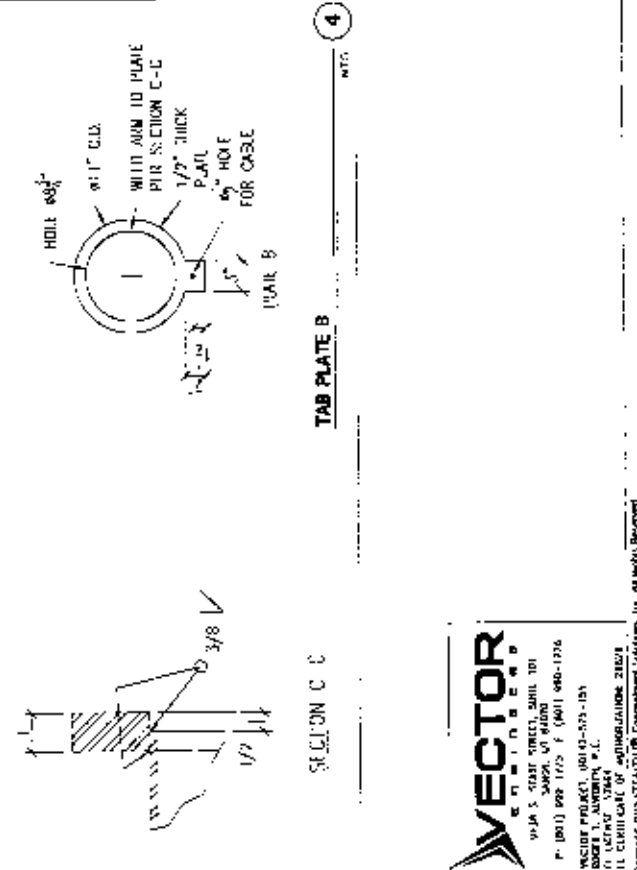
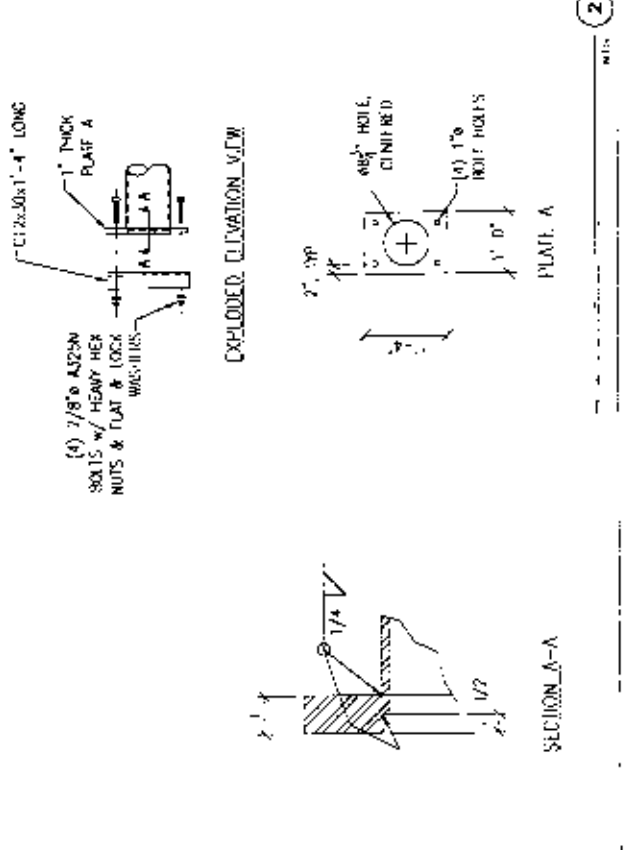
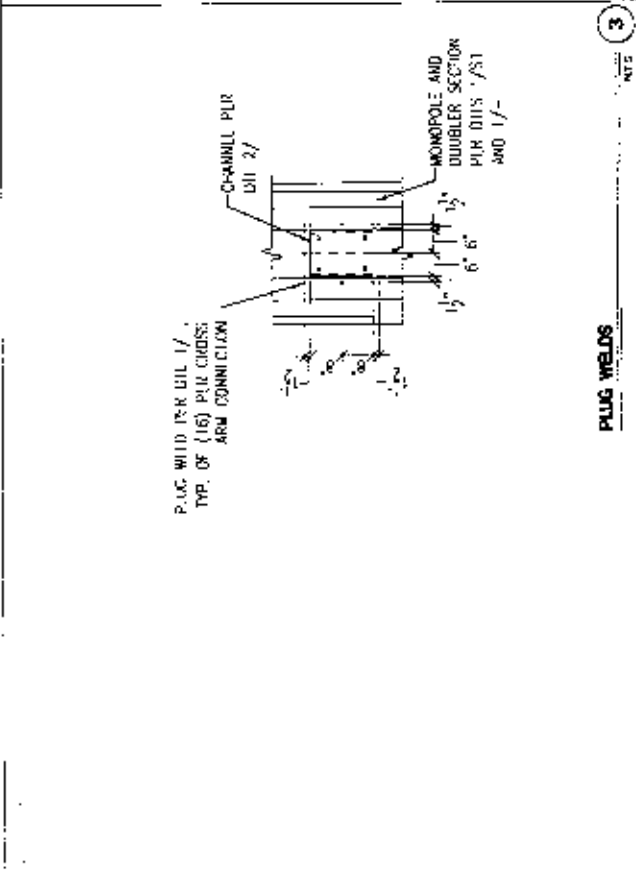
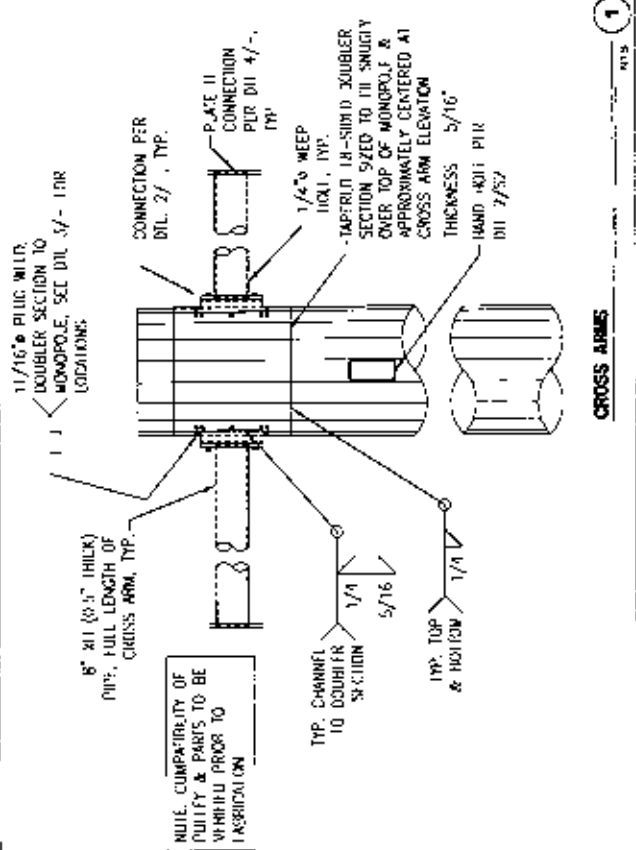


DESIGNED BY: [Signature]  
DATE: 11/17/17  
REVISIONS: [None]  
DRAWN BY: [None]

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

DATE: 11/17/17  
SCALE: AS SHOWN  
PROJECT NO: 1700246-000000  
SHEET NO: 2

SEE SFL13-01 FOR REFERENCE



**VECTOR**  
CORPORATION  
914 S. GOLF COURSE, SUITE 101  
MESA, AZ 85204  
P: (801) 992-1175 F: (801) 960-1276  
VECTOR PROJECT: 06010-023-101  
SHEET NUMBER: 2  
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# LAKE PARK MARINA

105 LAKE SHORE DRIVE  
LAKE PARK, FL 33403

SFL13

NEW SITE BUILD

LOCAL MAP	PROPERTY SUMMARY	INDEX OF DRAWINGS																																																																																																																																																																																																										
<p>LOCAL MAP</p>	<p><b>PROJECT SUMMARY</b></p> <p>LAKE PARK MARINA 105 LAKE SHORE DRIVE LAKE PARK, FL 33403</p> <p><b>OWNER:</b> RG TOWERS, LLC <b>ADDRESS:</b> 105 LAKE SHORE DRIVE, LAKE PARK, FL 33403</p> <p><b>PROJECT NO.:</b> SFL13 <b>DATE:</b> 08/11/2011</p>	<p><b>INDEX OF DRAWINGS</b></p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>1</td><td>GENERAL NOTES</td></tr> <tr><td>2</td><td>FOUNDATION PLAN</td></tr> <tr><td>3</td><td>CONCRETE FLOOR PLAN</td></tr> <tr><td>4</td><td>MECHANICAL PLAN</td></tr> <tr><td>5</td><td>ELECTRICAL PLAN</td></tr> <tr><td>6</td><td>PLUMBING PLAN</td></tr> <tr><td>7</td><td>PAVING PLAN</td></tr> <tr><td>8</td><td>LANDSCAPE PLAN</td></tr> <tr><td>9</td><td>UTILITY PLAN</td></tr> <tr><td>10</td><td>SECTIONAL ELEVATIONS</td></tr> <tr><td>11</td><td>EXTERIOR FINISHES</td></tr> <tr><td>12</td><td>INTERIOR FINISHES</td></tr> <tr><td>13</td><td>MECHANICAL EQUIPMENT</td></tr> <tr><td>14</td><td>ELECTRICAL 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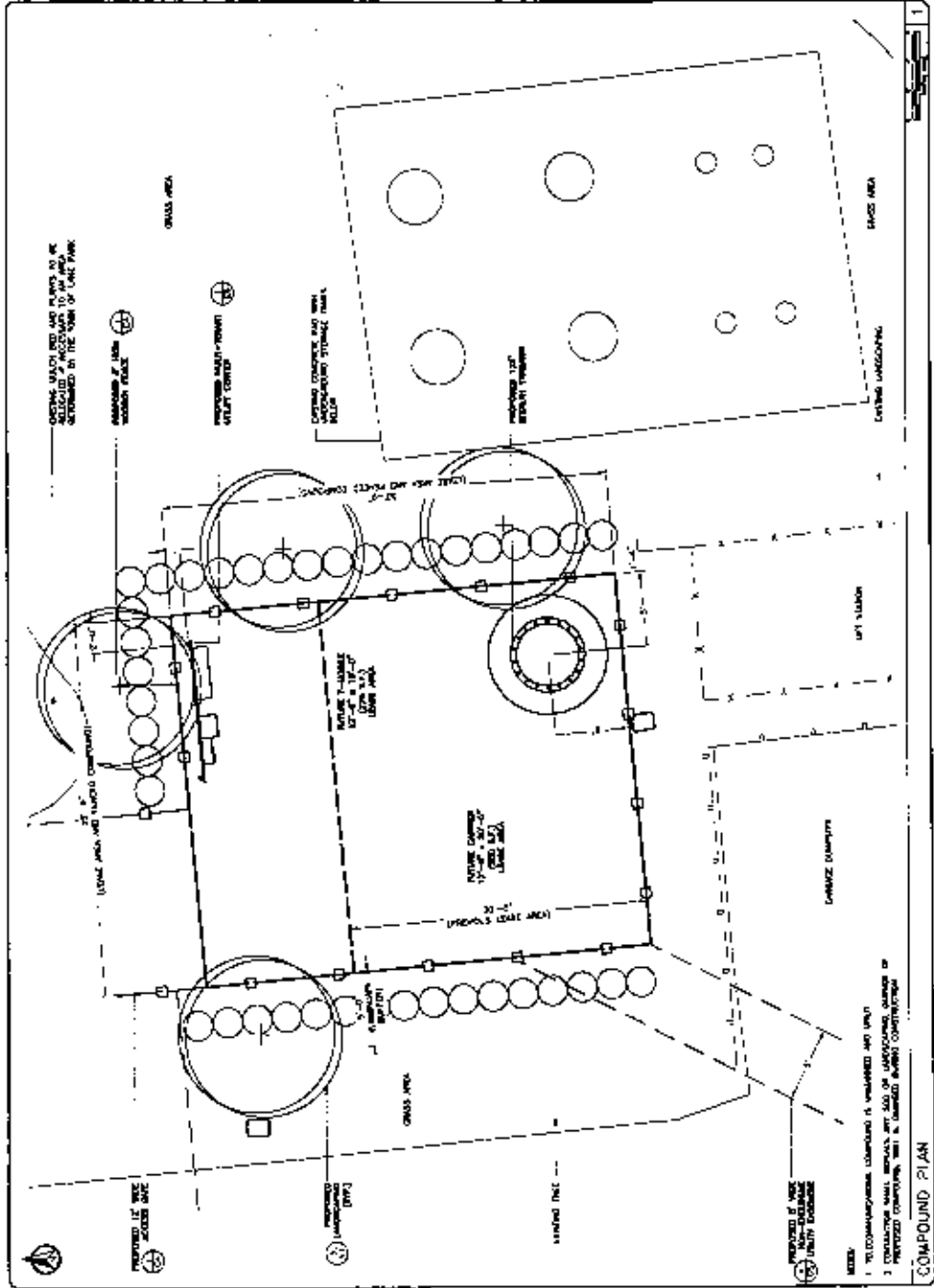
<p><b>PALTRAP Telephone</b></p> <p>105 LAKE SHORE DRIVE LAKE PARK, FL 33403</p>	<p><b>RG TOWERS, LLC</b></p> <p>105 LAKE SHORE DRIVE LAKE PARK, FL 33403</p>	<p>Professional Engineer Seal</p>	<p><b>LAKE PARK MARINA</b></p> <p>SFL13</p> <p>105 LAKE SHORE DRIVE LAKE PARK, FL 33403</p>	<p><b>TITLE SHEET</b></p> <p>11</p>
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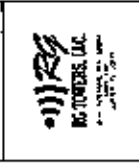
<b>PROJ. NO.</b> <b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>	<b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>	<b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>	<b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>	<b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>	<b>DATE</b> <b>SCALE</b> <b>DESIGNED BY</b> <b>CHECKED BY</b> <b>APPROVED BY</b> <b>PROJECT NO.</b>
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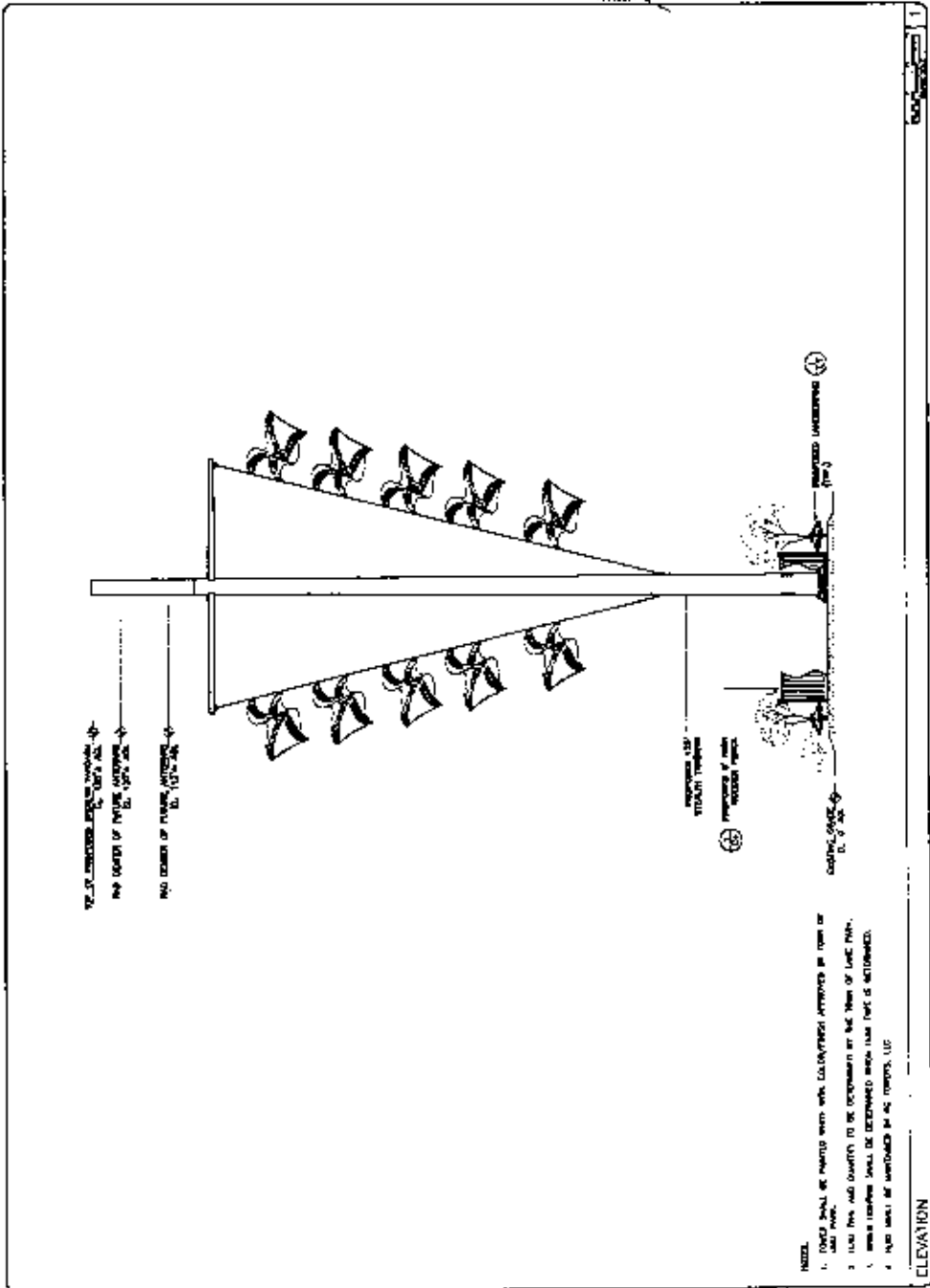
**COMPOUND PLAN**

DATE	12/15/11
PROJECT	LAKE PARK
CLIENT	LAKE PARK
DESIGNED BY	LAKE PARK
CHECKED BY	LAKE PARK
APPROVED BY	LAKE PARK

THE ABOVE INFORMATION IS TO BE USED ONLY FOR THE PROJECT AND NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.



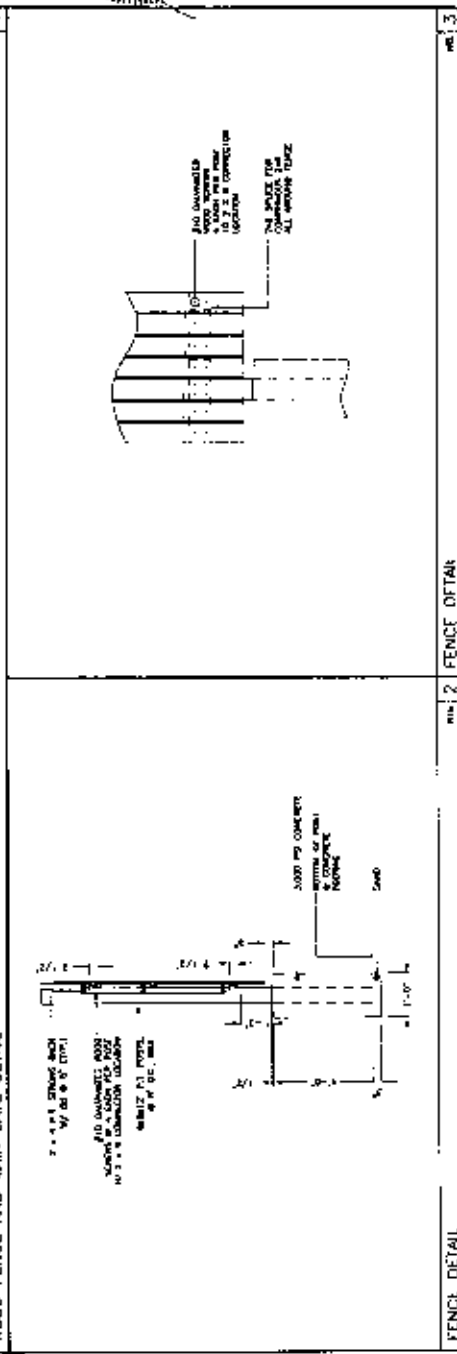
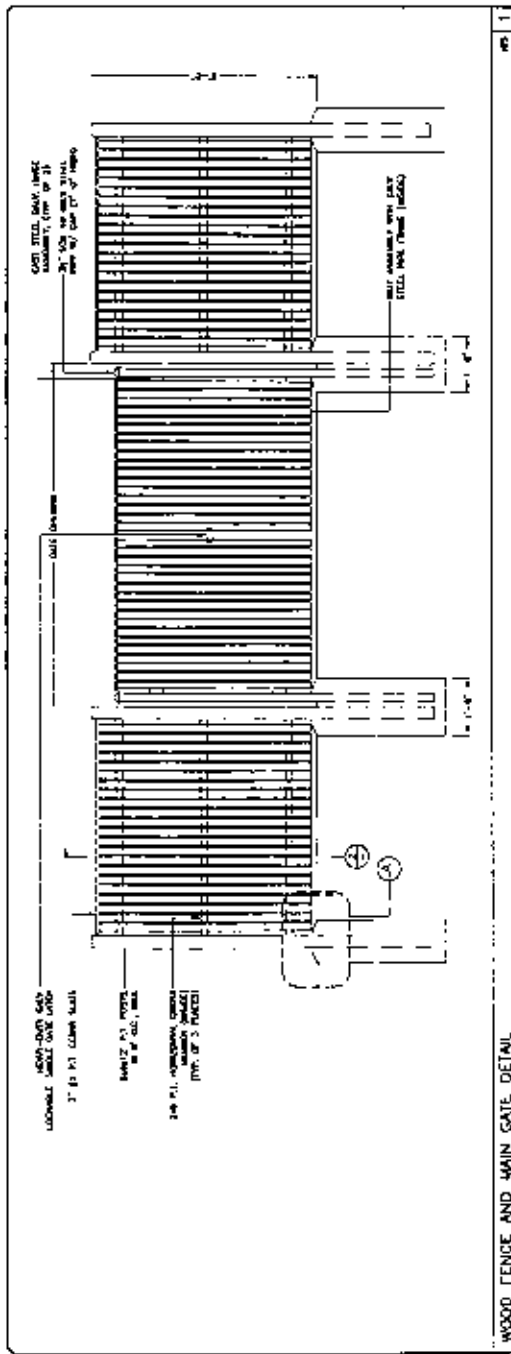
LAKE PARK 4400074
SFL-13
ELEVATION
POST NUMBER C.3



- NOTES:
1. THIS SHALL BE INSTALLED WITH THE FOLLOWING APPROVED BY THE STATE OF FLORIDA.
  2. THIS SHALL BE INSTALLED TO THE REQUIREMENTS OF THE STATE OF FLORIDA.
  3. THIS SHALL BE INSTALLED TO THE REQUIREMENTS OF THE STATE OF FLORIDA.
  4. THIS SHALL BE INSTALLED TO THE REQUIREMENTS OF THE STATE OF FLORIDA.

ELEVATION

CONTRACTOR J. J. ... ... ...	PROJECT NO. ... ...	DATE ...	DRAWN BY ...	CHECKED BY ...	SCALE ...
<b>TELECOM</b> ... ...			<b>ROTHBERG, LLC</b> ... ...		
<b>LAKE PARK MARINA</b> ... ...			<b>WOOD FENCE DETAILS</b> ... ...		
SHEET NO. ...			TOTAL SHEETS ...		
PROJECT LOCATION ...			SHEET TITLE ...		



FENCE DETAIL

FENCE DETAIL

C-4

NO.	REV.	DESCRIPTION
1	1	ISSUED
2	1	REVISED
3	1	REVISED

DATE	10/10/50
BY	W. J. ...
CHECKED BY	...
APPROVED BY	...

FOR THE RECORD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES LOCATED WITHIN THE TRENCH. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES LOCATED WITHIN THE TRENCH.

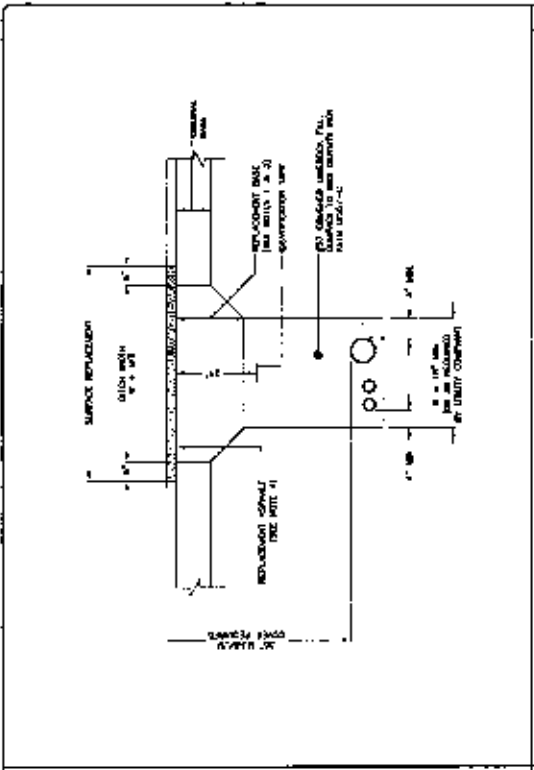
**CALTRON**  
Telecommunications  
1000 ...  
...

**W. J. ...**  
...  
...



LAKE PARK  
MARINA  
SFL 13  
...

FRENCH DETAIL  
...









**FRENCH NOTES**

1. REFLECTOR AND SURFACE SPACER SHALL BE MADE OF POLYETHYLENE OF THE ORIGINAL SIZE OR 12" WIDER. REFLECTOR IS 1/2" THICK.
2. SURFACE REFLECTOR SHALL BE INSTALLED AT 12" INTERVALS ALONG THE TRENCH.
3. SURFACE REFLECTOR SHALL BE INSTALLED AT 12" INTERVALS ALONG THE TRENCH.
4. SURFACE REFLECTOR SHALL BE INSTALLED AT 12" INTERVALS ALONG THE TRENCH.
5. SURFACE REFLECTOR SHALL BE INSTALLED AT 12" INTERVALS ALONG THE TRENCH.

**1 TRENCH DETAIL**

**3 (NOT USED)**

NO.	REV.	DESCRIPTION
1	1	ISSUED
2	1	REVISED
3	1	REVISED

			<p>NO TRESPASSING SIGN</p> <p>no. 1</p>	<p>FCC REGISTRATION SIGN</p> <p>no. 2</p>	<p>DATE: 11/15/11</p> <p>DESCRIPTION: 2x4x8 Sign</p> <p>QUANTITY: 100</p> <p>ORDER NO: 11-000001</p> <p>ORDER DATE: 11/15/11</p> <p>ORDER TIME: 10:00 AM</p> <p>ORDER BY: J. J. JONES</p> <p>ORDER FROM: J. J. JONES</p> <p>ORDER TO: J. J. JONES</p> <p>ORDER FROM: J. J. JONES</p> <p>ORDER TO: J. J. JONES</p> <p>ORDER FROM: J. J. JONES</p> <p>ORDER TO: J. J. JONES</p>	 <p>THE CALTRIP GROUP COMMUNICATIONS</p>	 <p>JG THOMPSON, LLC 1111 W. 10th St., Suite 100 Tulsa, Oklahoma 74106</p>	 <p>Professional Engineer No. 12345 State of Oklahoma</p>	<p>LAKE PARK HARRIS</p> <p>2FL13 1000 W. 10th St., Suite 100 Tulsa, Oklahoma 74106</p>	<p>SIGNAGE DETAILS</p> <p>PRINT NAME: E.B.</p>
<p>NO TRESPASSING SIGN</p> <p>no. 1</p>	<p>FCC REGISTRATION SIGN</p> <p>no. 2</p>	<p>RF WARNING SIGN</p> <p>no. 3</p>	<p>SIGNAGE NOTES</p> <p>1. Signs shall be made of 1/8" minimum thick plastic w/ 1/8" drilled holes at 4" max spacing to 1/4" max edge.</p> <p>2. Signs shall be installed in following:</p> <p>2.1. 10' min. height.</p> <p>2.2. 10' min. width.</p> <p>2.3. 10' min. depth.</p> <p>2.4. 10' min. thickness.</p> <p>3. Signs shall be installed in front of fence or barrier of a sign to which it applies.</p> <p>4. Signs shall be installed in front of fence or barrier of a sign to which it applies.</p> <p>5. Signs shall be installed in front of fence or barrier of a sign to which it applies.</p>	<p>RF WARNING SIGN</p> <p>no. 3</p>	<p>LAKE PARK HARRIS</p> <p>2FL13 1000 W. 10th St., Suite 100 Tulsa, Oklahoma 74106</p>	<p>SIGNAGE DETAILS</p> <p>PRINT NAME: E.B.</p>				

NO.	REV.	DATE	BY	CHKD.
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

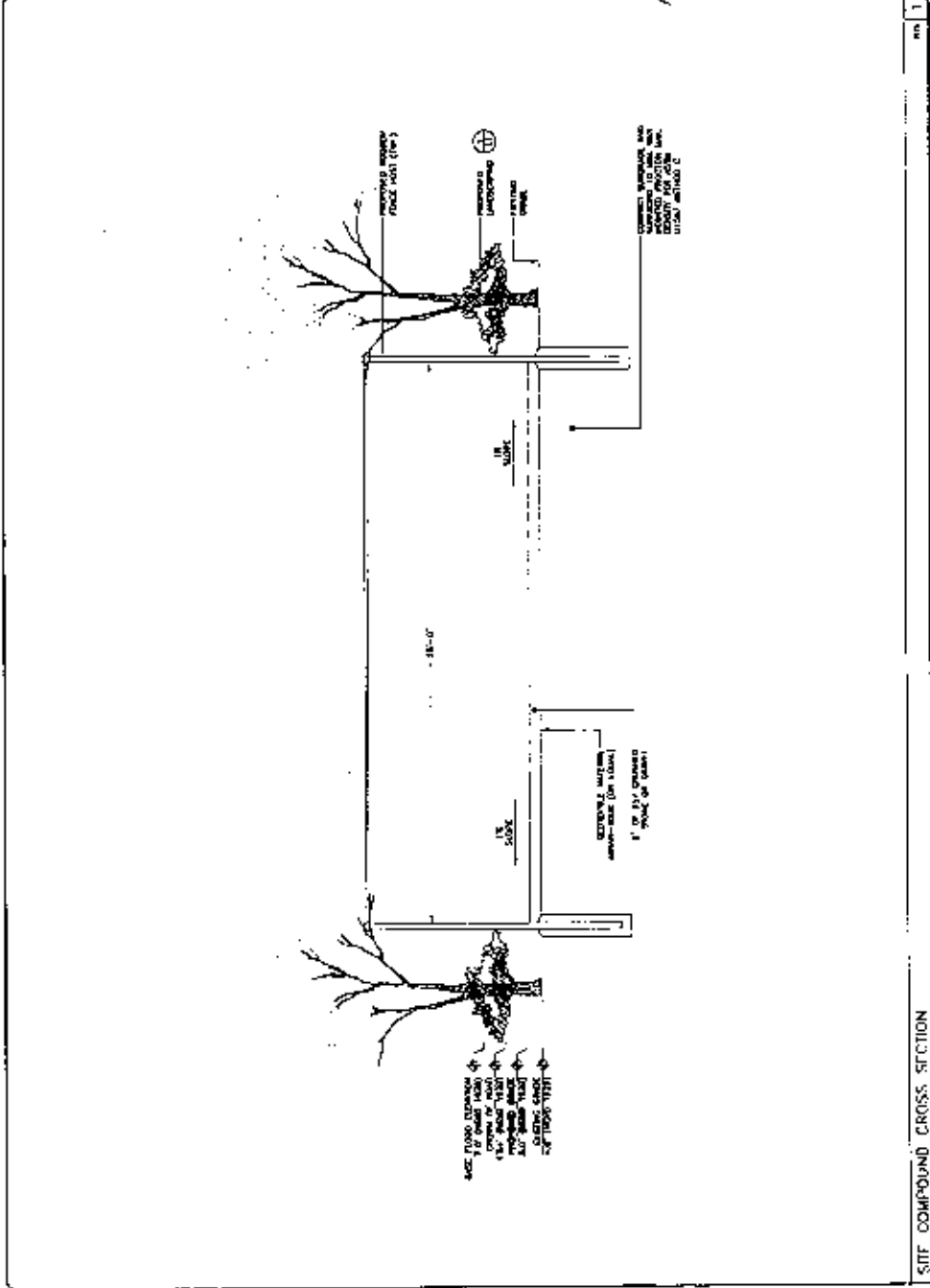
FOR ALL WORK, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES AND AGENCIES OF THE STATE OF CALIFORNIA.



**WJRG**  
**WORLDWIDE ENGINEERING, INC.**  
 11111 WILSON BLVD., SUITE 100  
 SAN DIEGO, CA 92161  
 (619) 591-1111



LAKE PARK  
 MARINA  
 SHEET  
 1 OF 1  
 COMPOUND  
 DETAIL  
 C7



SITF COMPOUND CROSS SECTION







NO. 1	DATE	REVISION
1	11/15/20	ISSUED FOR PERMITS
2	11/15/20	ISSUED FOR PERMITS
3	11/15/20	ISSUED FOR PERMITS
4	11/15/20	ISSUED FOR PERMITS
5	11/15/20	ISSUED FOR PERMITS
6	11/15/20	ISSUED FOR PERMITS
7	11/15/20	ISSUED FOR PERMITS
8	11/15/20	ISSUED FOR PERMITS
9	11/15/20	ISSUED FOR PERMITS
10	11/15/20	ISSUED FOR PERMITS

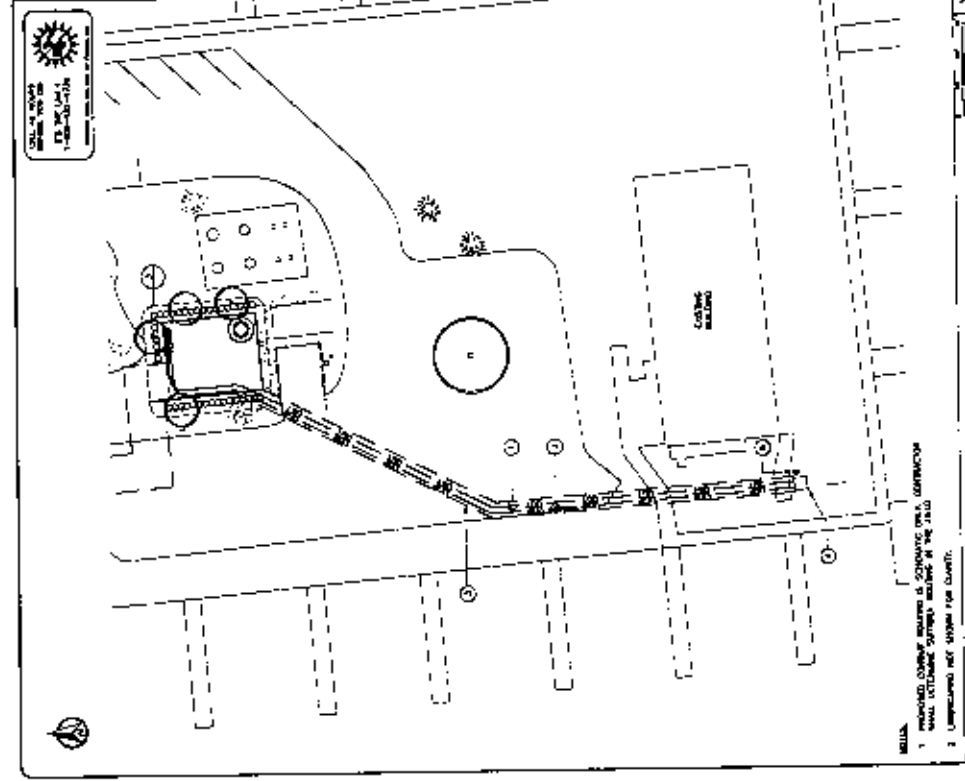
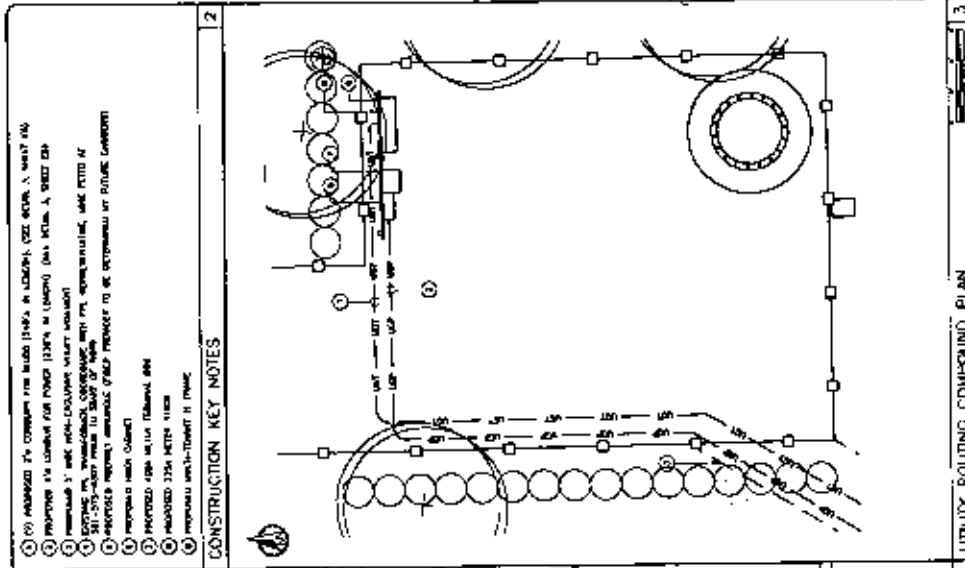
**CALL DROP**  
TELECOM

**DR TOWERS, LLC**  
DESIGN BUILDERS, LLC  
1000 W. WINDYBROOK BLVD.  
SUITE 100  
MESA, AZ 85202  
PH: 480.970.1234  
WWW.DRTOWERS.COM

**ENGINEER**  
A. J. GILBERT  
REGISTERED PROFESSIONAL ENGINEER  
NO. 48517  
STATE OF ARIZONA  
1000 W. WINDYBROOK BLVD., SUITE 100  
MESA, AZ 85202  
PH: 480.970.1234  
WWW.DRTOWERS.COM

**LAKE PARK MARINA**  
SFL13  
1000 W. WINDYBROOK BLVD., SUITE 100  
MESA, AZ 85202  
PH: 480.970.1234  
WWW.DRTOWERS.COM

**UTILITY ROUTING SITE PLAN**  
E3



- CONSTRUCTION KEY NOTES**
1. ALL MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  2. ALL VALVES TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  3. ALL PIPE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  4. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  5. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  6. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  7. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  8. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  9. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.
  10. ALL UTILITY ROUTING TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF MESA, AZ, PERMITS.

UTILITY ROUTING COMPOUND PLAN

UTILITY ROUTING SITE PLAN

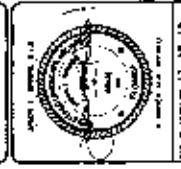






NO.	DATE	BY	REVISION
1	11/11/11	J. J. J.	ISSUED FOR CONSTRUCTION
2	11/11/11	J. J. J.	REVISED PER COMMENTS
3	11/11/11	J. J. J.	REVISED PER COMMENTS
4	11/11/11	J. J. J.	REVISED PER COMMENTS
5	11/11/11	J. J. J.	REVISED PER COMMENTS
6	11/11/11	J. J. J.	REVISED PER COMMENTS
7	11/11/11	J. J. J.	REVISED PER COMMENTS
8	11/11/11	J. J. J.	REVISED PER COMMENTS
9	11/11/11	J. J. J.	REVISED PER COMMENTS
10	11/11/11	J. J. J.	REVISED PER COMMENTS

PROJECT NO. 11-11-11  
 SHEET NO. 11-11-11  
 DATE: 11/11/11  
 DRAWN BY: J. J. J.  
 CHECKED BY: J. J. J.  
 APPROVED BY: J. J. J.



LANDSCAPE ARCHITECT  
 11-11-11  
 11-11-11

