

**State of Florida**  
**Telecommunications Site Review**  
**Equipment Upgrade**



Consultants, Inc.

7050 West Palmetto Park Road

Boca Raton, FL 33433

Phone: 877-438-2851 • Fax: 877-220-4593

October 28, 2014

Mr. W. Scott Stoudenmire  
Deputy Director  
Department of Sustainable Development  
City of Coconut Creek  
4800 W. Copans Road  
Coconut Creek, FL 33063

**RE : T-Mobile #FB1007A**  
**Site Name "Tradewinds AT&T Tower"**

Dear Mr. Stoudenmire,

At your request on behalf of the City of Coconut Creek, Florida ("City"), CityScape Consultants, Inc. ("CityScape"), in its capacity as telecommunications consultant for the City, has considered the merits of an application submitted by T-Mobile Wireless ("Applicant") to replace and upgrade its transmit and receive equipment mounted on an existing one hundred ninety (190) foot lattice tower, see *figure 1*. The site is currently owned by Crown Castle International and site data reflects the location address as 4470 NW 39 Avenue (a.k.a. 3601 Vinkemulder Road) in Coconut Creek, Florida, and is better shown in *figure 2*.

The Applicant proposes to replace all existing antennas and antenna mounts, along with relocating existing RRU's (Remote Radio Units) and diplexers. Including moving and replacing the existing equipment, the applicant will add three (3) new RRU's and one (1) new junction box. The Applicant's final antenna configuration will consist of twelve (12) antennas, six (6) RRU's, six (6) diplexers, two (2) junction boxes, all mounted on a new antenna support platform approximately at the 185 foot level of the tower, as depicted in *figure 3*. The Applicant will maintain twelve (12) of the thirteen (13) existing 1.625 inch feed lines and will add two (2) new 1.6 inch lines, for a total of fourteen (14) feed lines. The Applicant will remove and make certain cabinet and electronic modifications within its existing ground compound space, see *figure 4*.

In February 2014, AT&T upgraded their installation which raised the tower stress to 103.2% out of a maximum of 105% allowed. The Applicant submitted an updated Structural Analysis Report dated August 27, 2014 which concluded the tower and foundation to be of sufficient capacity for the existing and proposed modifications. Although the tower is fully loaded and is at its maximum loading capacity, the proposed T-Mobile changes are minor and therefore the new tower stress rating will increase to 103.5%, see *figure 5*, which is acceptable as long as the installation is in accordance with the structural analysis. Any major future changes or additions will require tower modifications and upgrades.

---



Consultants, Inc.

**Telecommunications Site Review  
Equipment Upgrade**

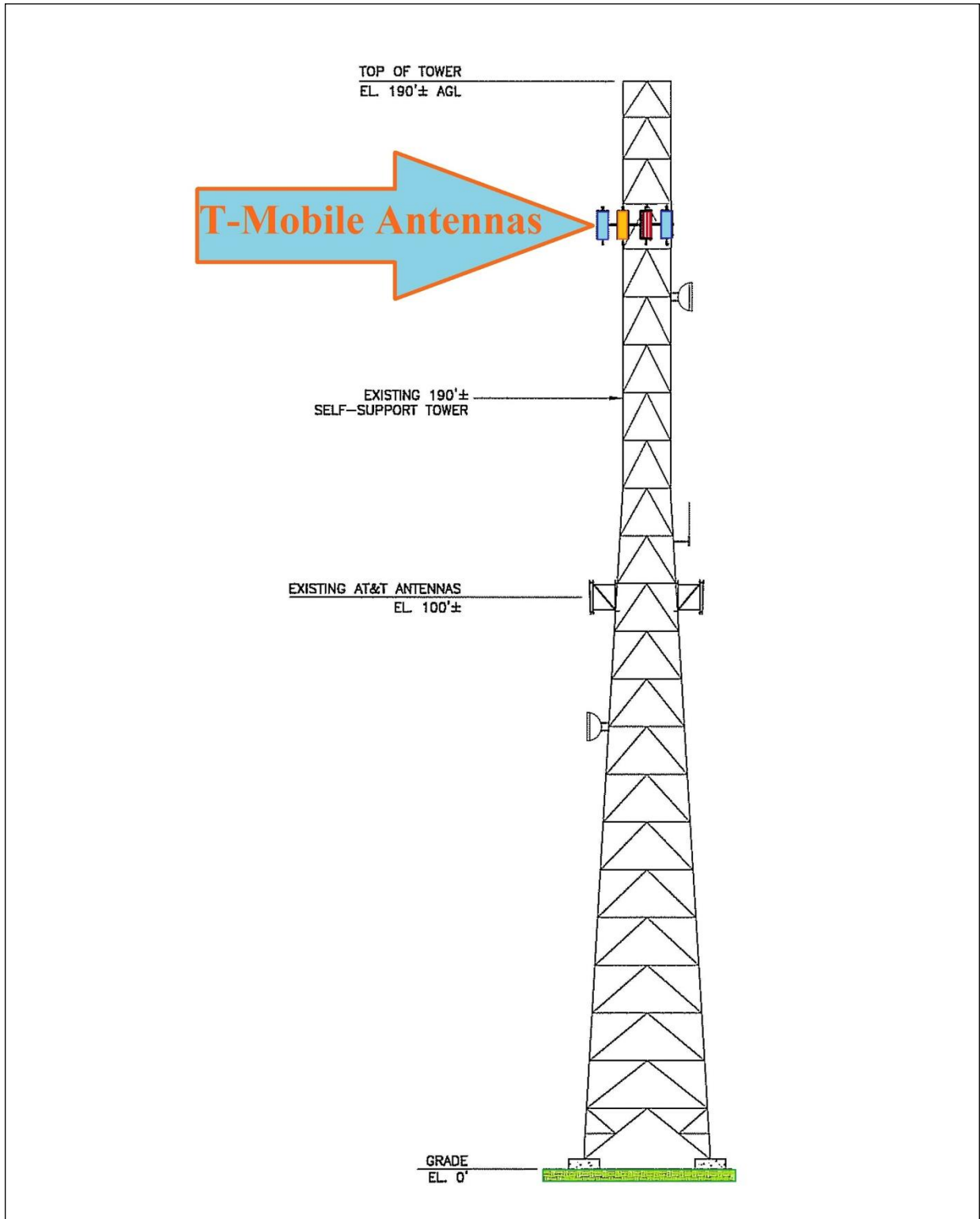
The Applicant has previously submitted an acceptable statement of compliance for the subject site, which verifies the applicant's accordance with all applicable FCC rules regarding human exposure and interference, see *figure 6*. CityScape confirms the application is qualified under the Middle Class Tax Relief and Job Creation Act of 2012 and therefore recommends approval with the following conditions:

1. All applicant feed lines shall be installed as stated in the Structural Analysis Report dated August 27, 2014.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "R. Edwards", is written over a light-colored rectangular background.

Richard L. Edwards  
FCC Licensed  
PCIA Certified  
CityScape Consultants, Inc.



**Figure 1. Tower Elevation**

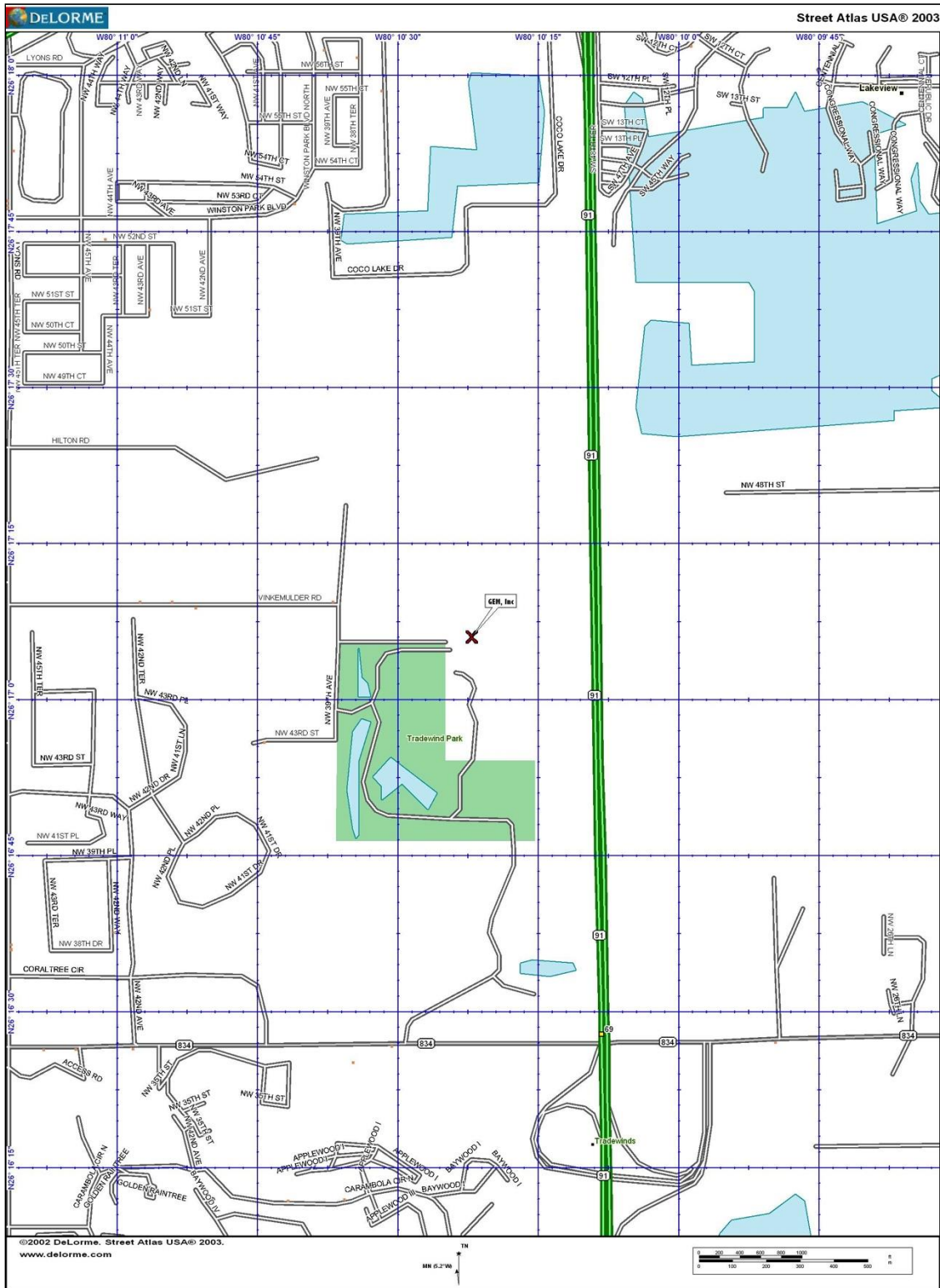
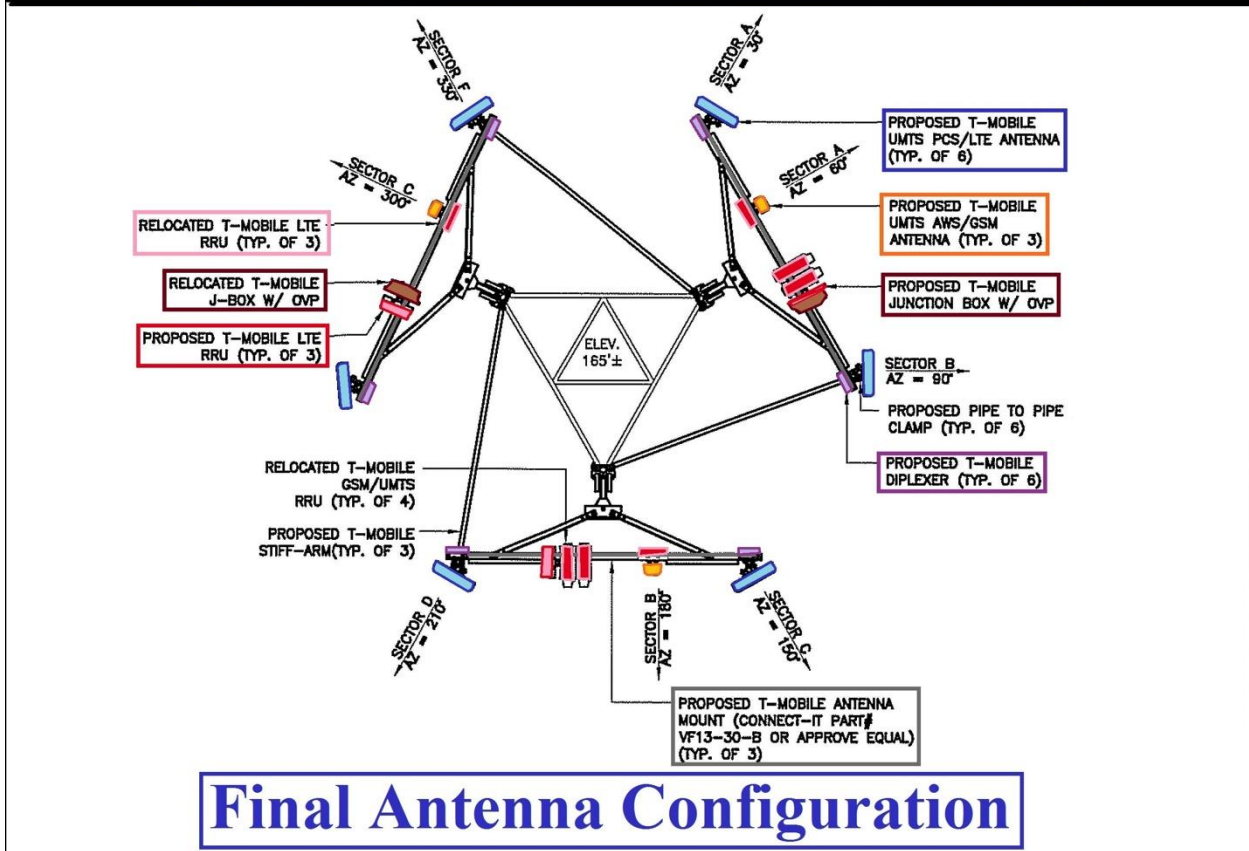
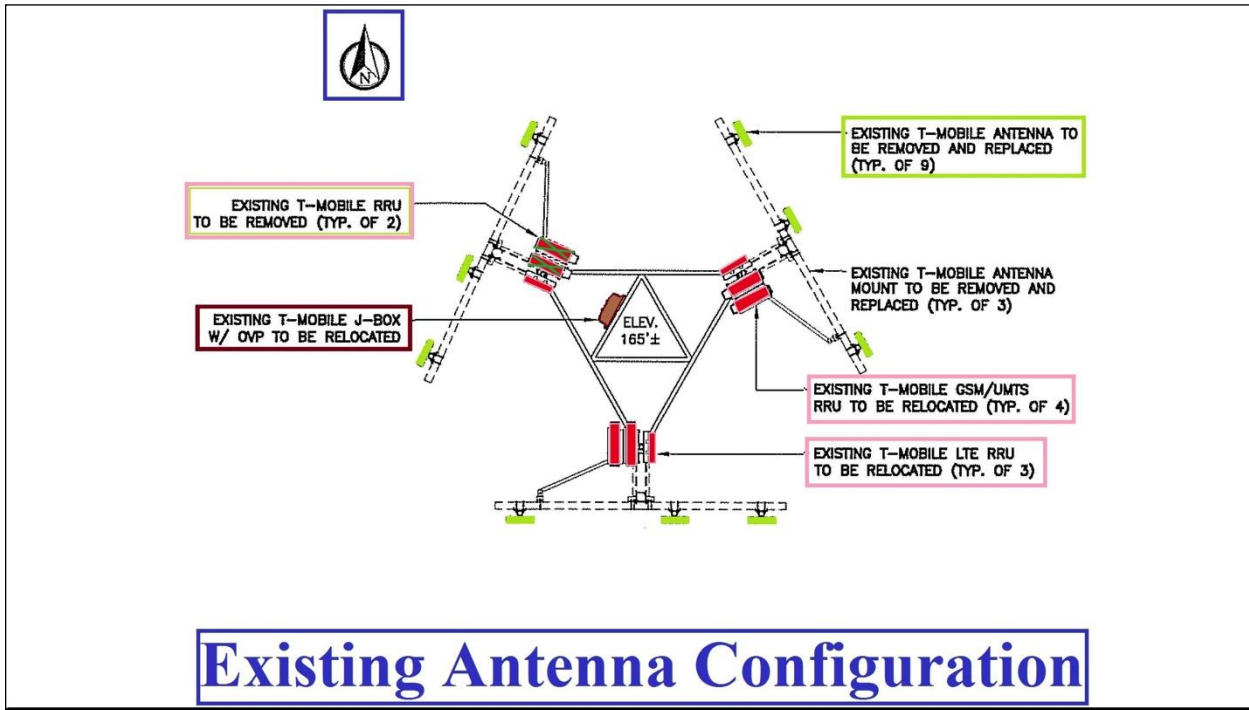
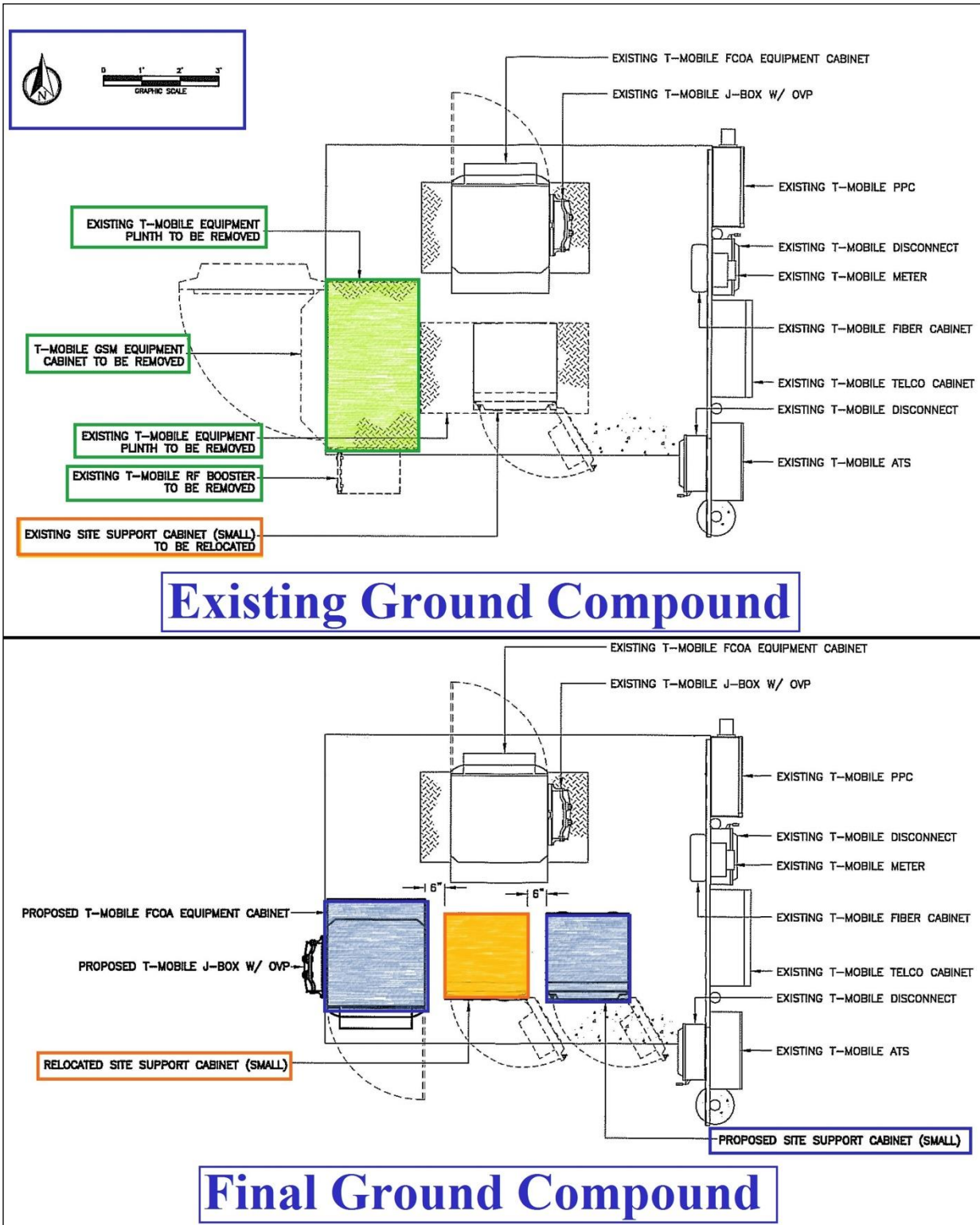


Figure 2. Site Location



**Figure 3. Antenna Configuration**





## Telecommunications Site Review Equipment Upgrade

Date: August 27<sup>th</sup>, 2014



Ryan Shaffer  
Crown Castle  
12725 Morris Road Extension, Suite 400  
Alpharetta, GA 30004  
(678) 366-1233

520 South Main Street, Suite 2531  
Akron, OH 44311  
(614) 859-1607  
dpalkovic@gpdgroup.com

**Subject:** Structural Analysis Report

**Carrier Designation:** T-Mobile Co-Locate  
Carrier Site Number: 6FB1007A  
Carrier Site Name: Tradewinds AT&T Tower

**Crown Castle Designation:** Crown Castle BU Number: 842800  
Crown Castle Site Name: FL01  
Crown Castle JDE Job Number: 266640  
Crown Castle Work Order Number: 917825  
Crown Castle Application Number: 218725, Rev. 8

**Engineering Firm Designation:** GPD Group Project Number: 2014777.842800.03

**Site Data:** 4470 Northwest 39<sup>th</sup> Avenue, Popano Beach, FL 33073, Broward County  
Latitude 26° 17' 7.11", Longitude -80° 10' 22.04"  
192.333 Foot - Modified Rohn Self-Support Tower

Dear Ryan Shaffer,

GPD Group is pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 686223, in accordance with application 218725, revision 8.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

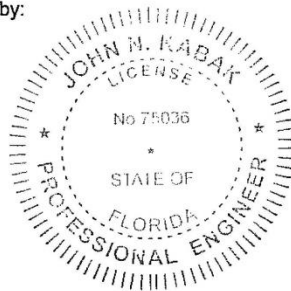
LC7: Existing + Reserved + Proposed Equipment Sufficient Capacity  
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2010 Florida Building Code based on an ultimate 3-second gust wind speed of 170 mph per Section 1620.2, as required by the Exception of Section 1601.1. Exposure Category C and Risk Category II were used in this analysis.

We at GPD Group appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Structural analysis prepared by: Steven Armstrong, E.I.

Respectfully submitted by:



John N. Kabak, P.E.  
Florida #: 75036

**New Tower  
StressRating  
is 103.5%**

**Figure 5. Structural Analysis**



T-Mobile USA, Inc.  
1300 Concord Terrace Suite 200  
Sunrise, Fl. 33323  
Office: 954-514-8081 Fax: 954-514-8021

To: City of Coconut Creek  
From: T-Mobile  
Date: November 19, 2012  
Re: Certification Letter for T-Mobile Site located at 4472 NW 39th Avenue. T-Mobile Site 6FB1007A. ✓

3601 VINKEMULDER ROAD

Dear Sir or Madam,

The intent of this letter is to certify that the proposed T-Mobile wireless communications site upgrades will not, in any way, interfere with reception and transmission of the City of Coconut Creek's public safety communication systems nor those of others, television stations, radio stations, and other two-way or cellular services to both residential and commercial establishments. Further, I certify that the replacement and/or the additional antennas both individually and cumulatively, and with any other facilities located on or immediately adjacent to the proposed facility comply with FCC standards relating to human exposure to RF energy.

T-Mobile is operating under the FCC and has met the rules and regulations part 22, section 22.902 regarding prior frequency coordination and notification: "...all applicants for regular authorization in Domestic Public Cellular Telecommunication Service or when permissive changes are made within an authorized Cellular Geographic Services Area within 75 miles of all base stations affected, and with other applicants with previously filed applications whose facility could affect or could be affected by the new proposal in terms of intersystem frequency interference or restricted ultimate system capacity.

The proposed upgrades to the communication facility have passed all relevant FCC interference requirements and are therefore certified not to interfere with other electrical systems. The construction, placement or operation of the antennas will not create interference with other radio services.

Sincerely,

Armand Greyvensteyn  
Sr. RF Manager  
T-Mobile

**Figure 6. Human Exposure and Interference Compliance**





**Exhibit A. Subject Facility**

---