State of Florida

Telecommunications Site Review
Upgrade Version

CityScape Consultants, Inc.
7050 W. Palmetto Park Road #15-652
Boca Raton, FL 33433
Tel: 877-438-2851 Fax: 877-220-4593

December 17, 2014

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

RE : **MetroPCS FL423 "Sable Pines Park"**
5005 NW 39th Avenue, Coconut Creek

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 for equipment upgrades submitted by MetroPCS ("Applicant"). The subject site and tower is owned by the City and is located at 5005 NW 39th Avenue in Coconut Creek, Florida, see *figure 1* and *Exhibit A*.

The tower previously maintained facilities for Nextel, however Nextel deactivated many of their network facilities, not only in Coconut Creek but nationwide. Clearwire had indicated interest at this site in the past, but implementation and installation for this carrier was deferred and agreement with the City was never finalized. Currently, T-Mobile/MetroPCS is the only carrier located on the subject tower. T-Mobile Wireless has been combining spectrum from their recent merger acquisition with MetroPCS while simultaneously adding new fourth generation (4G) services to existing facilities. The Applicant proposes to add spectrum from the acquired MetroPCS brand to include LTE and AWS technology for improvements in high-speed data.

There are two considerations for this modification and upgrade request. First, under the existing lease between MetroPCS and the City, the Applicant has the authority to make these changes with the written approval from the City and secondly, the changes must meet certain requirements of the City Ordinance, including structural compatibility and compliance with state and federal codes. The Applicant will be adding additional loading and equipment to the tower and ground compound, which will increase the monthly rent due the City for the increased tower loading.

The proposed modifications will occur at the one hundred fifteen (115) foot level of an existing one hundred twenty-five (125) foot monopole light stanchion communications tower, see *figure 2*. The Applicant proposes to replace three (3) existing antennas with three (3) new LTE AWS (Long Term Evolution and Advanced Wireless Service) type antennas and add three (3) new 3G (third generation) antennas and three (3) new 4G (fourth generation) antennas, for a total of nine (9) antennas. Additionally, the Applicant will add nine (9) new RRU's (remote radio units) along with two (2) junction boxes; see proposed final antenna configuration in *figure 3*.

Note in the existing antenna configuration in figure 3, the Applicant references Clearwire antennas that is not accurate as these were never installed on the tower and therefore will not need to be removed from the tower. The Applicant will add a single Hybrid fiber-optic cable to their existing six (6) current feed lines, all to be installed inside the light stanchion pole. The Applicant will add associated new electronic base station equipment within its existing leased ground compound, see *figure 4*.

The Applicant submitted a statement regarding compliance with all FCC rules and regulations pertaining to human exposure to RF (radio frequency) energy and interference signed by an agent of the Applicant. Furthermore, a previously submitted and acceptable compliance statement submitted by T-Mobile for the subject site is on file with the City and attached hereto as *figure 5*. The facility will operate in various frequency bands from 700 MHz and above, and while that is within range of the City's Public Safety communications, the Applicant will continue to take proper measures to eliminate any possible interference. The designs and plans for the proposed new facilities were developed according to accepted practices of RF propagation engineering and the persons completing all work are sufficiently qualified within their disciplines.

The Applicant submitted an updated Structural Analysis Report dated November 11, 2014, which demonstrates the existing tower and foundation is sufficient to support the existing equipment and proposed modifications. The new tower stress rating will be 43.9% out of a 105% allowable, see *figure 6.* The site has been designed and constructed by telecommunications site design professionals and the construction drawings submitted on behalf of the Applicant confirms their expertise in maximizing the use of telecommunications facilities.

CityScape confirms that all necessary requirements can be accommodated within the existing property limits and the application is qualified under the Middle Class Tax Relief and Job Creation Act of 2012. Therefore, CityScape recommends approval with the following conditions:

1. All feed lines shall be installed inside the monopole shaft; and,
2. All feed line ports shall be sealed to prevent access by birds and other wildlife.

Respectfully submitted**,**

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

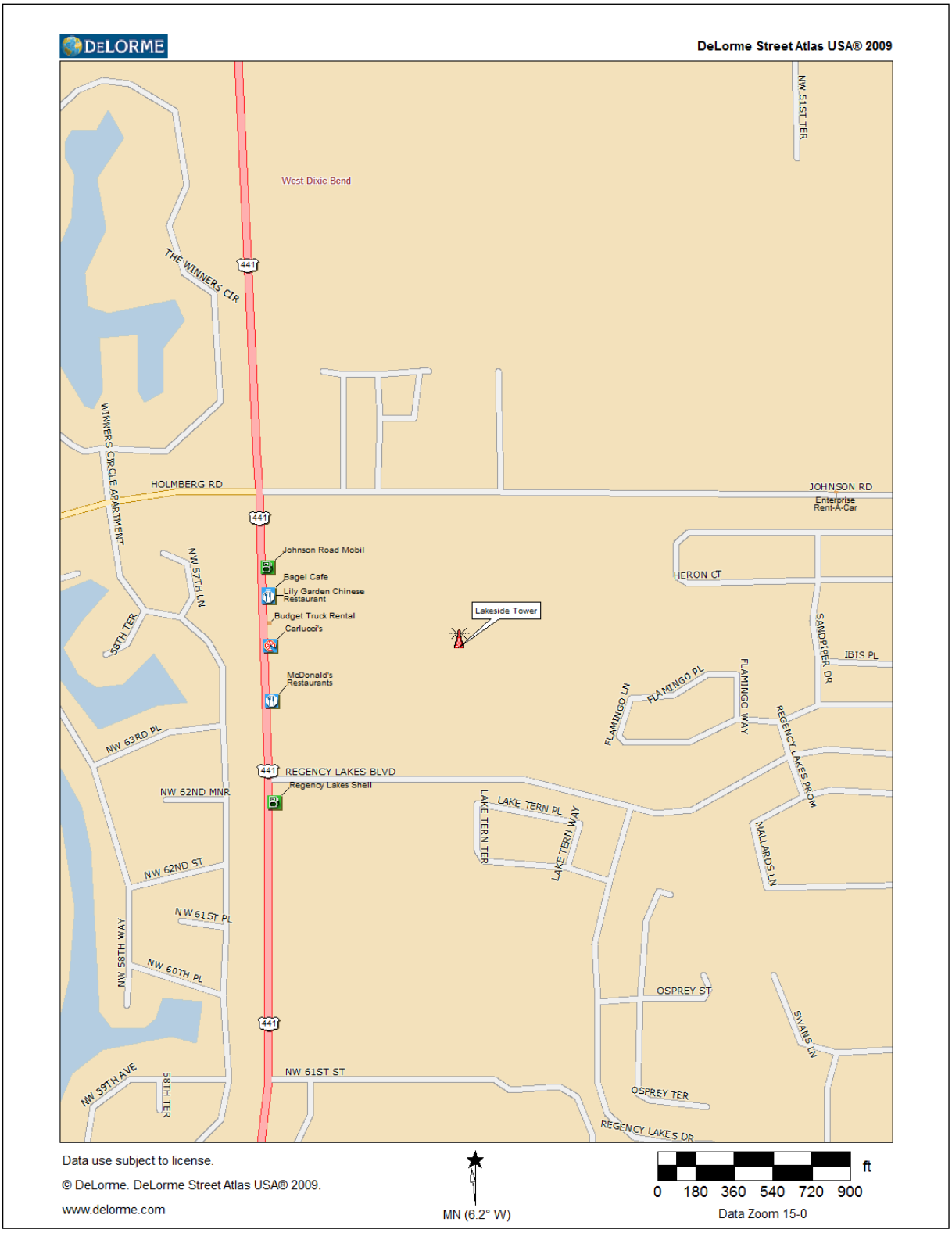

Figure 1. Site Location

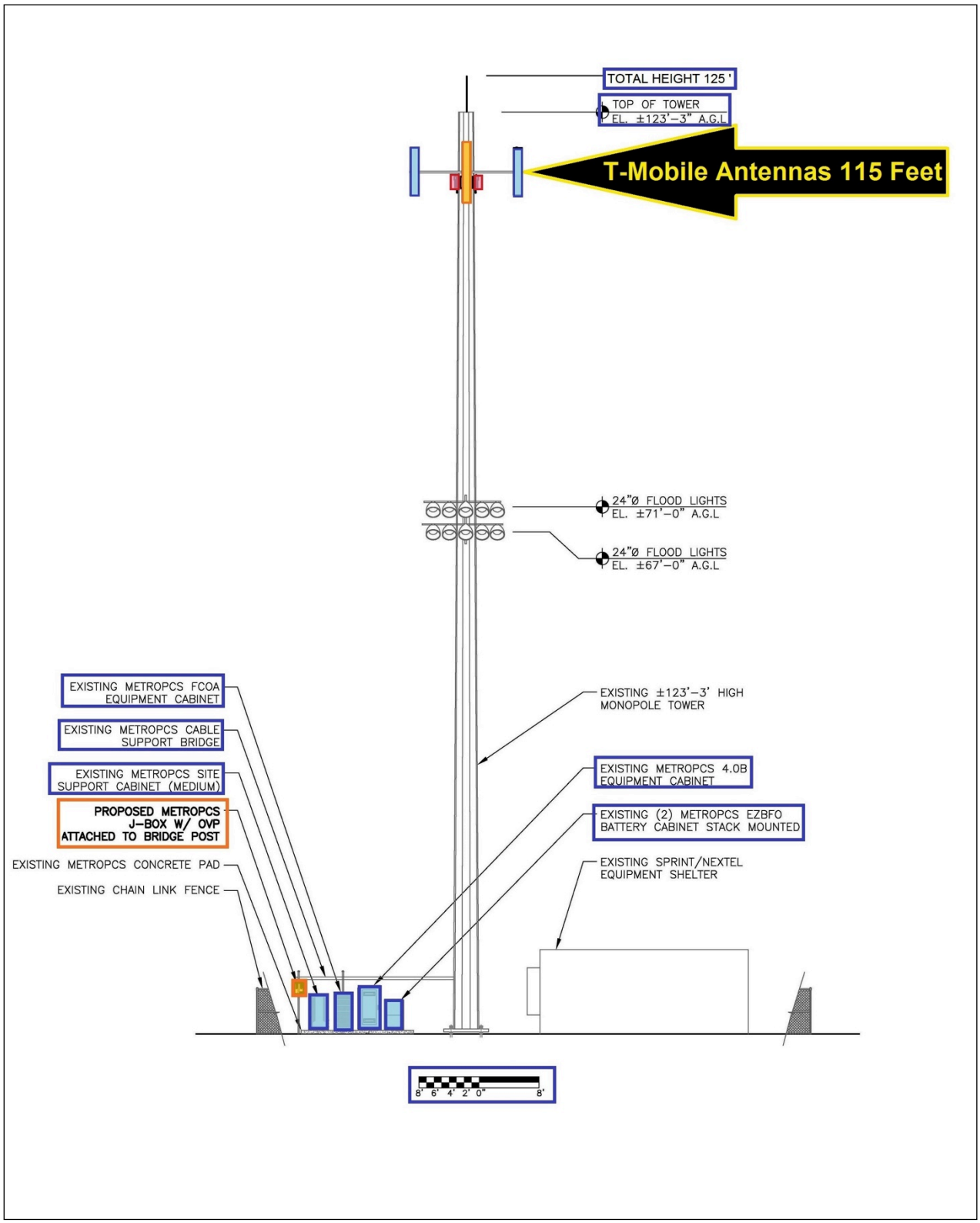

Figure 2. Tower Elevation

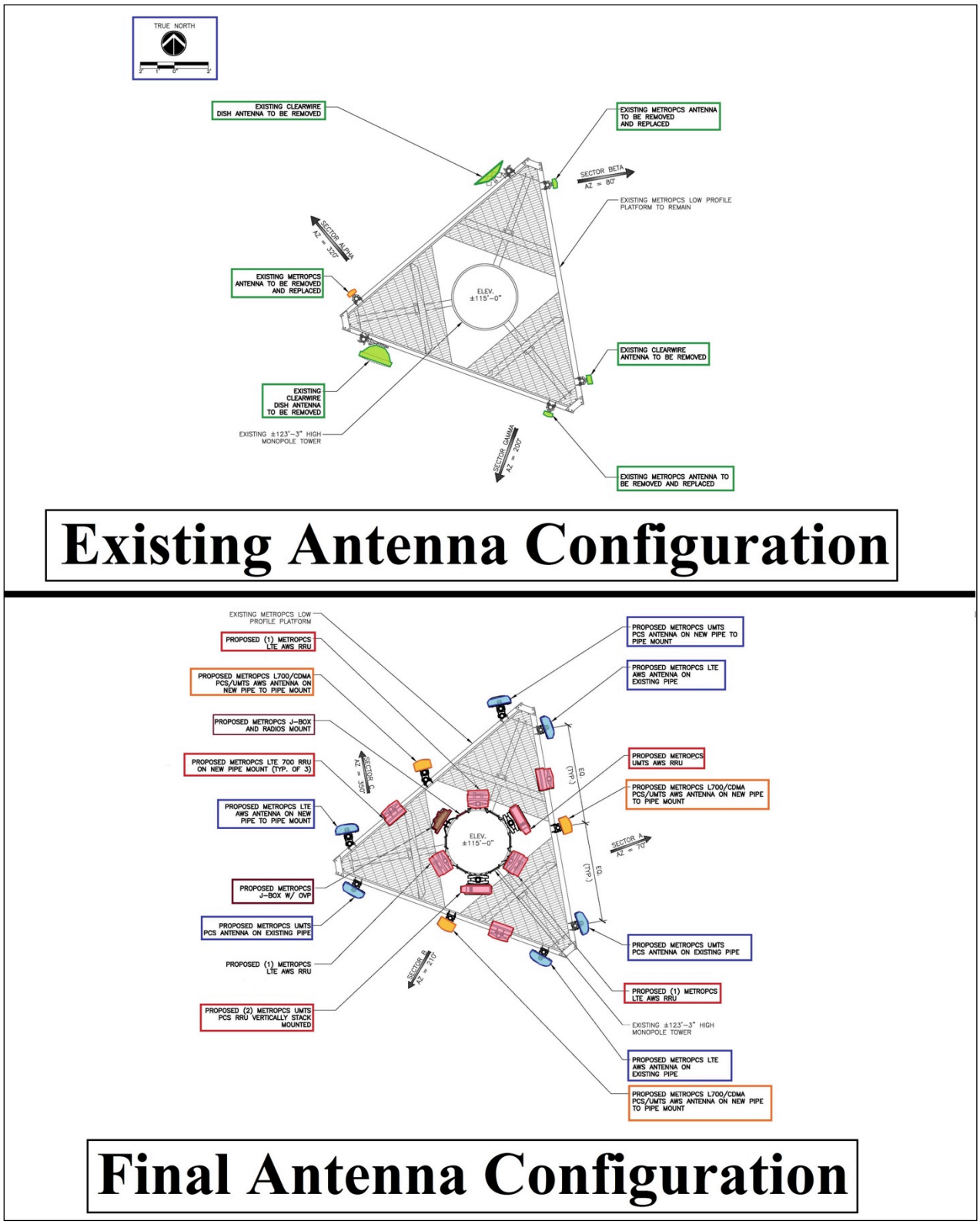

Figure 3. Antenna Configuration

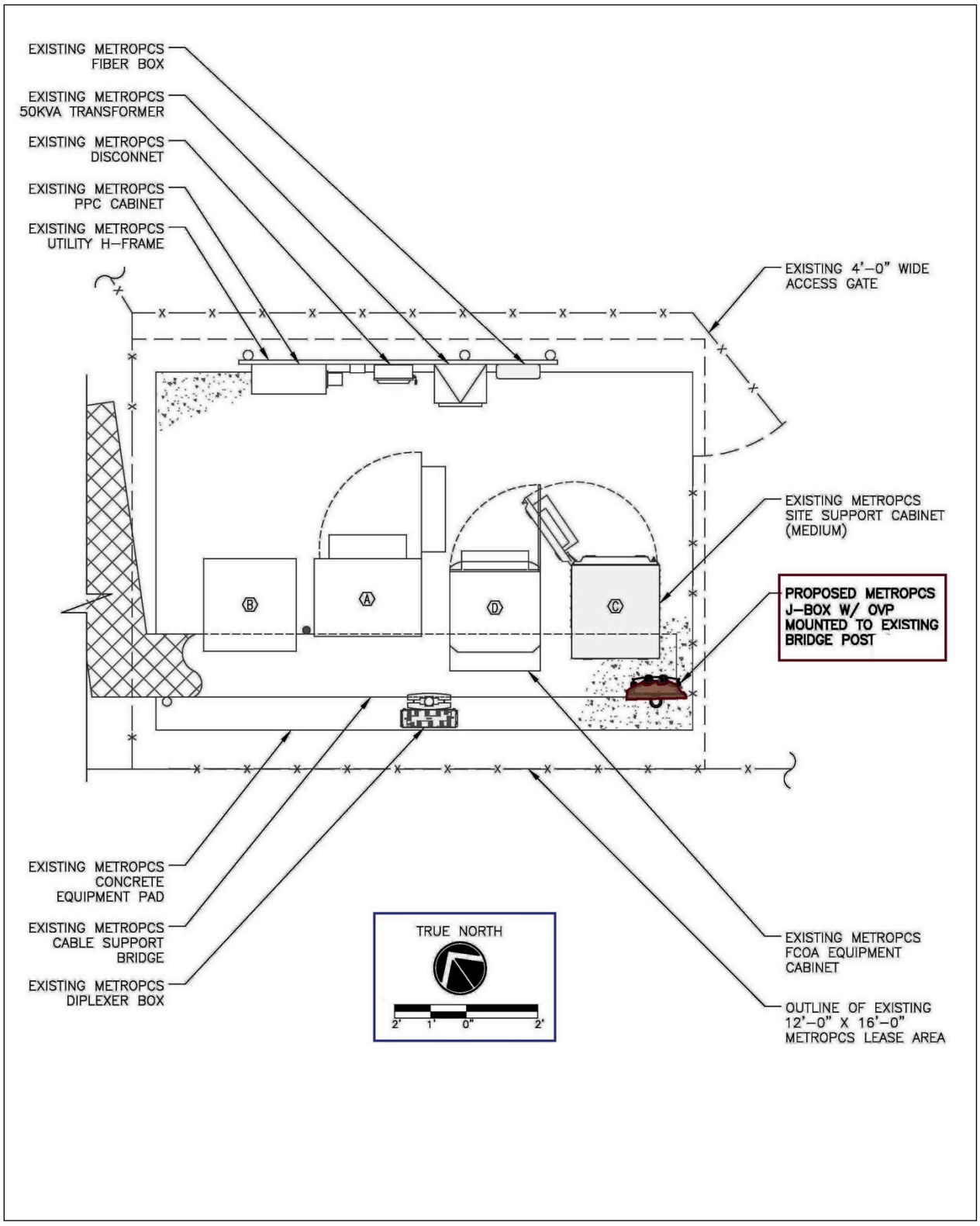

Figure 4. Ground Compound Cabinets

T-Mobile

T- Mobile USA, Inc.
8100 SW 10th St. Suite 1000
Plantation, Fl. 33324
Office: 954-693-7100 Fax: 954-693-7200

To: City of Coconut Creek

From: T-Mobile USA

Date: April 03, 2008

Re: Interference Letter

The intent of this letter is to confirm that the proposed T-Mobile USA telecommunication site (FB1251) will not in any way impede with reception and transmission of the City of Coconut Creek's public safety communication systems. This includes television stations, radio stations, or other two-way and cellular services to either residential or commercial establishments.

The proposed PCS communication facility has passed all relevant FCC interference requirements and is thus certified not to interfere with other electrical systems. The construction, placement or operation of the monopine or antennas will not create unacceptable interference with the City of Coconut Creek's Public Safety Communications Systems.

Sincerely,

Patrick Liautaud
RF Engineer
T-Mobile USA
(305) 401-9503

Figure 5. FCC Compliance Statement

T-Mobile

MORRISON HERSHFIELD

Mr. Denise Correa
T-Mobile
1300 Concord Terrace, Suite 200
Sunrise, FL 33323

Morrison Hershfield Corporation
1455 Lincoln Parkway, Suite 500
Atlanta, GA 30346
(770) 379-8500

Date: November 11, 2014

Subject: **Rigorous Structural Analysis Report**

Carrier: T-Mobile
Carrier Site ID: 6FB1427M
Carrier Site Name: SFL423 – 4_423 – Sabal Pines Park

Site Address: 5005 NW 39th Avenue, Coconut Creek, Broward County, FL 33073
Site Coordinates: Latitude: 26.29327 N, Longitude: 80.17705 W
Tower Description: 123.25 ft – Monopole Tower

Morrison Hershfield Project Number: MP0-174R10 / 7140041

Dear Ms. Correa,

Morrison Hershfield Corporation has carried out a structural analysis of the above referenced structure for the existing and proposed antenna and equipment noted in Table 2. This analysis has been performed in accordance with the 2010 Florida Building Code based upon an ultimate 3-second gust wind speed of 170 mph converted to a nominal 3-second gust wind speed of 132 mph per section 1609.3.1 as required for use in the TIA-222-G Standard per Exception #5 of Section 1609.1.1. Exposure Category C and Risk Category II were used in this analysis for Broward County. This analysis is subject to the assumptions noted.

Our analysis demonstrates that the existing tower and foundation **ARE in conformance (tower at 43.9% and foundation at 40.7%)** with the requirements of the above noted standards under the effects of loading described.

We at Morrison Hershfield Corporation appreciate the opportunity of providing our continuing professional services to you and T-Mobile. If you have any questions or need further assistance on this or any other projects please give us a call.

Sincerely,
Morrison Hershfield Corporation

The new tower stress will be 43.9% out of a maximum of 105% allowed

G. LANCE COOKE LICENSE No 68787 STATE OF FLORIDA PROFESSIONAL ENGINEER

G. Lance Cooke, P.E. (FL License No. 68787)
Senior Engineer

Certificate of Authorization # 8508

Morrison Hershfield

Figure 6. Structural Statement

Exhibit A. Subject Facility