

ENGINEERING STATEMENT PREPARED BY RYAN WILHOUR OF THE FIRM  
KESSLER AND GEHMAN ASSOCIATES, INC., TELECOMMUNICATIONS  
CONSULTING ENGINEERS IN CONNECTION WITH A MINOR MODIFICATION  
APPLICATION TO OPERATE THE SCHOOL BOARD OF MIAMI-DADE COUNTY,  
FLORIDA (“SBMDC”) STATION W202BO ON CHANNEL 263 IN PLACE OF CHANNEL  
210 AS LICENSED IN FCC FILE NUMBER BLFT-19931223TD

The firm Kessler and Gehman Associates, Inc. has been retained by SBMDC to prepare an engineering statement and minor modification for W202BO. Specifically it is hereby requested to broadcast on channel 263 in place of channel 210 as licensed. No other changes are proposed.

### DISCUSSION

SBMDC has a licensed facility (FCC File No.: BLFT-19931223TD) to operate W202BO on channel 210. Upon the Commission’s grant of WKWR(FM) (FCC file number BMPED-20050711ABB), W202BO and WKWR(FM) have become mutually exclusive. W202BO is a secondary service, and it is the responsibility of SBMDC to resolve the interference conflict. Pursuant to 74.1233(a)(1) a first, second, third, or intermediate frequency channel change is permitted in a minor modification application. The instant application proposed to use channel 263 in place of 210 which is an intermediate frequency channel change and thus is considered a minor modification application.

### **Allocation Analysis**

The instant channel change application will not cause interference to any other full service FM broadcast or FM translator station. The only station that warrants consideration is WCTH(FM), Plantation Key, channel 262. Exhibit E1 illustrates a wide margin between the W202BO interfering contour and the WCTH(FM) construction permit and licensed facility protected contour..

The applicant accepts full responsibility for the elimination of any objectionable interference including that caused by intermodulation to facilities in existence or authorized prior to the grant of this minor modification

### **ENVIRONMENTAL IMPACT / RFR HAZARD ANALYSIS**

An analysis has been made of the human exposure to RFR using the calculation methodology described in OET Bulletin 65, Edition, 97-01. Exhibit E2 is a RFR study demonstrating compliance within 5% of the most restrictive permissible exposure at any location 2 meters above the ground (See Methodology). Exhibit E2 calculations were made using a frequency of 100.4 MHz, which is the lower edge of the proposed channel. To account for ground reflections, a coefficient of 1.6 was included in the calculations.

Pursuant to OET Bulletin 65 concerning multiple-user transmitter sites only those licensees whose transmitters produce power density levels greater than 5.0% of the exposure limit are considered significant contributors to RFR. Since the proposed operation is well within 5% of the most permissible exposure at any location 2 meters above the ground, it is not

considered a significant contributor to RFR exposure. Thus, contributions to exposure from other RF sources in the vicinity of W202BO were not taken into account. The instant proposal complies with the FCC limits for human exposure to RF radiation and thus is excluded from further environmental processing.

The applicant will cooperate with any other users of the tower by reducing the power to the antenna or if necessary completely cutting it off in order to protect maintenance workers on the tower.

**CERTIFICATION**

I, Ryan Wilhour, am an associate of Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and have been working in the field of radio and television broadcast consulting since 1996. I am a graduate of the University of Florida with a Bachelor of Science degree in electrical engineering. The foregoing statement and the report regarding the aforementioned engineering work are true and correct to the best of my knowledge. Executed on March 3, 2006.



Ryan Wilhour

A handwritten signature in blue ink that reads 'Ryan Wilhour'. The signature is written in a cursive, flowing style.

Consulting Engineer

**Kessler and Gehman Associates, Inc.**

■ F(50,10) 54 dBu Interfering Contour  
■ F(50,50) 60 dBu Protected Contour

**W202BO**  
BLFT19931223TD  
Latitude: 24-34-58 N  
Longitude: 081-46-00 W  
ERP: 0.237 kW  
Channel: 263  
Frequency: 100.5 MHz  
AMSL Height: 45.0 m  
Elevation: 0.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**WCTH**  
BLH4446  
Latitude: 24-57-30 N  
Longitude: 080-34-30 W  
ERP: 100.00 kW  
Channel: 262  
Frequency: 100.3 MHz  
AMSL Height: 137.0 m  
Elevation: 1.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**WCTH.C**  
BPH20050214AGP  
Latitude: 24-57-34 N  
Longitude: 080-34-30 W  
ERP: 100.00 kW  
Channel: 262  
Frequency: 100.3 MHz  
AMSL Height: 141.0 m  
Elevation: 1.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

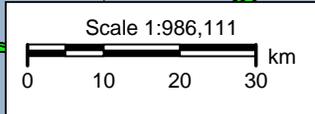
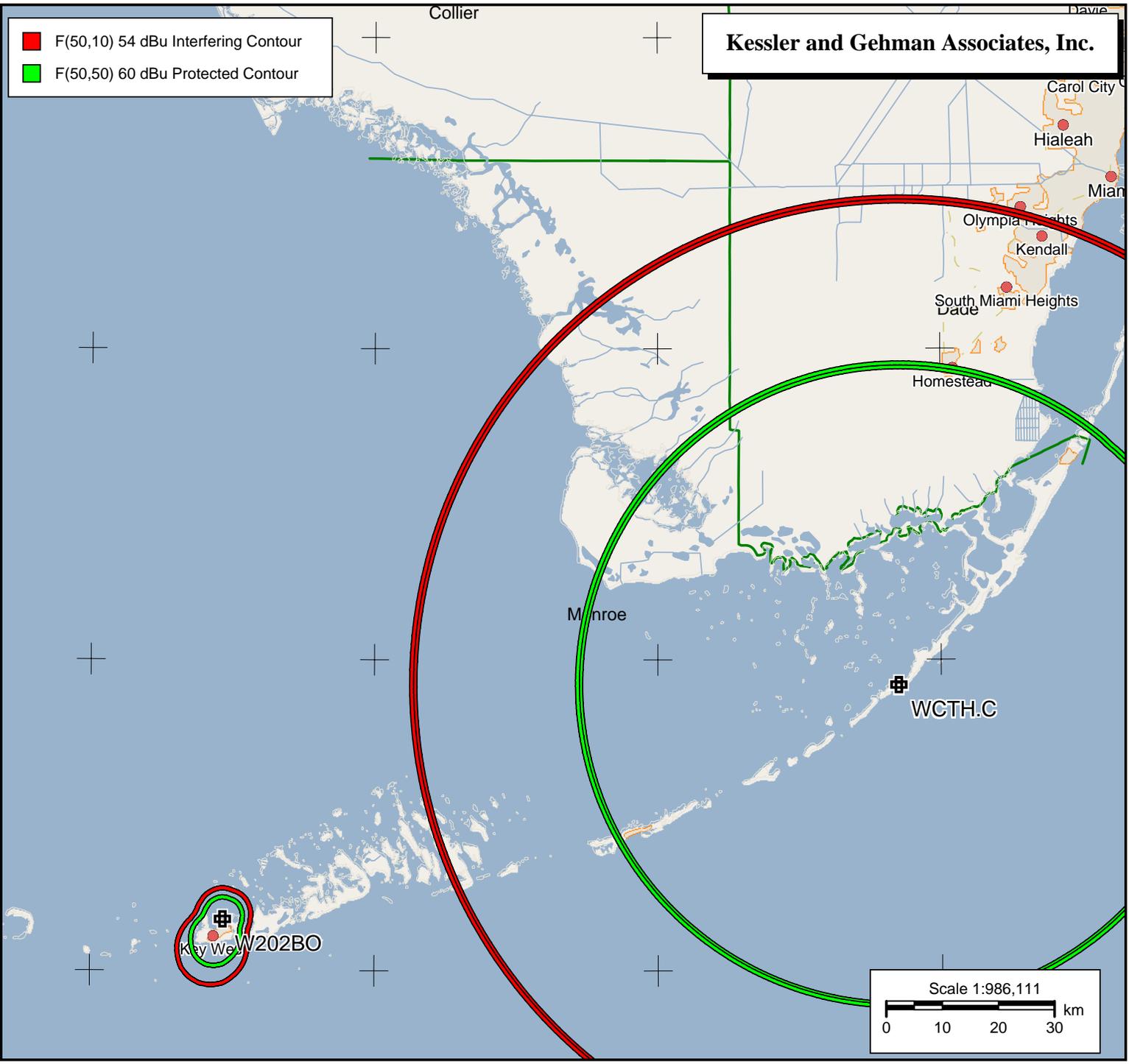
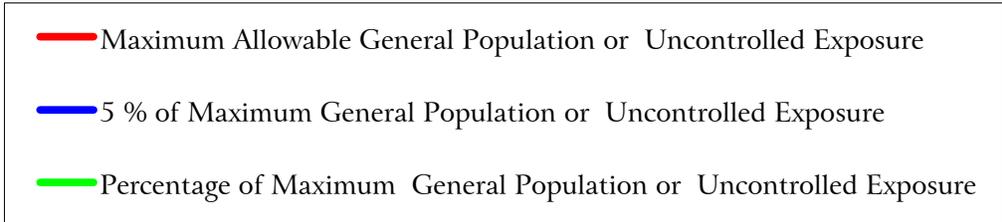
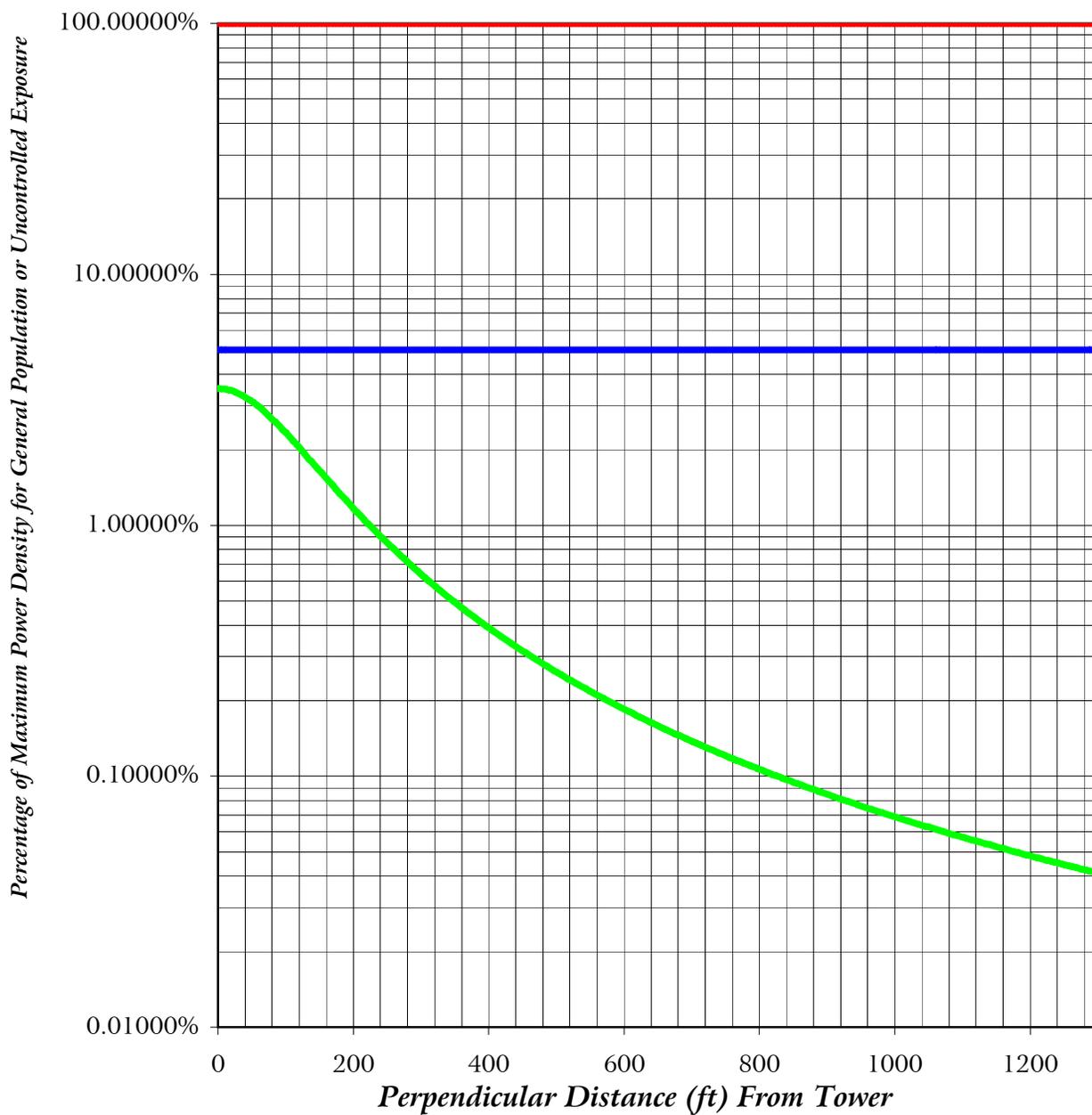


Exhibit E1

# FAR FIELD EXPOSURE TO RF EMISSIONS



**KESSLER & GEHMAN**

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EXHIBIT E2

METHODOLOGY AND EXPLANATION OF  
ENVIRONMENTAL IMPACT / RADIO FREQUENCY RADIATION  
HAZARD ANALYSIS

A theoretical analysis has been conducted of the human exposure to radio frequency radiation (“RFR”) using the calculation methodology described in *OET Bulletin 65, Edition 97-01*. The RFR analysis is conducted pursuant to the following methodology:

Terrain<sup>1</sup> extraction is compiled from the proposed tower site to radial lengths of 0.25 miles in 0.001 mile increments for 360 radials. The power density is calculated for each terrain point at 6 feet above ground level using the elevation and azimuth pattern of the proposed broadcast antenna. The power density calculations are conducted using the lower edge of the proposed channel frequency. To account for ground reflections, a coefficient of 1.6 was included in the calculation.

The resulting cylindrical polar analysis is then summarized into a coordinate plane graph using the following methodology:

Starting from the origin the maximum calculated RFR value is determined among the 360 degree radials for each 0.001 mile increment, the value is then converted into a percentage of the maximum allowable general population or uncontrolled exposure and plotted as a function of perpendicular distance from the tower.

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<sup>1</sup> Terrain extraction is based upon a 3 arc second point spacing terrain database.