

**ENGINEERING STATEMENT
APPLICATION FOR CONSTRUCTION PERMIT
AUXILIARY FACILITY
FM STATION WKYS
WASHINGTON D.C.
FACILITY ID 73200**

This engineering statement is prepared by Radio One Licenses, LLC, licensee of FM station WKYS, Washington, District of Columbia (Facility ID 73200). The instant application proposes an auxiliary facility located at the licensed transmitter site of WKYS.

Proposed facility:

The proposed antenna location is an existing tower bearing antenna structure registration number 1036610, which specifies geographical coordinates 38-56-24 north, 77-04-54 west using the NAD-27 datum. The proposed facility is a two-bay non-directional antenna producing 245 watts effective radiated power from a center of radiation 286 meters above mean sea level, 168 meters above ground level. Antenna center of radiation height above average terrain is 209 meters, determined by employing the FCC HAAT calculator with GLOBE terrain data and eight evenly spaced radials as shown in Figure 1. The 60 dBu coverage contour of the proposed auxiliary facility does not extend beyond the 60 dBu coverage contour of the licensed facility, as shown in Figure 2.

Environmental:


The proposed antenna will be side mounted on an existing tower in a manner that does not increase the overall height of the structure. Using the FCC FM model program, radiofrequency electromagnetic field power density from the proposed facility was determined to be .104 microwatts per square centimeter at two meters above ground level, as shown in Figure 3.

This is less than one percent of the FCC guideline value for uncontrolled general population exposure.

Using FM model, it has been determined that the combined power of the main licensed facility and the proposed auxiliary facility will result in radiofrequency electromagnetic power density of less than 9 microwatts per square centimeter at two meters above ground level. This is less than five percent of the FCC guideline value for uncontrolled general population exposure.

Certification:

The proposed auxiliary facility is a two bay antenna interleaved with the licensed three bay main antenna of WKYS (File BMLH-20080505ACH). Thus, the center of radiation height above ground of the proposed facility is identical to the licensed facility. The auxiliary antenna will be used for transmission of digital audio broadcast signals pursuant to FCC Rules Section 73.404. Radio One Licenses, LLC certifies that suitable filtering and isolation will be employed to prevent the creation of intermodulation products and spurious emissions exceeding FCC limits.



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Figure 1

Antenna Height Above Average Terrain Calculations -- Input

Latitude	38 56 24.0 North	
Longitude	77 4 54.0 West	(NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **286.0** meters

Number of Evenly Spaced Radials = 8 0° is referenced to True North

Results:

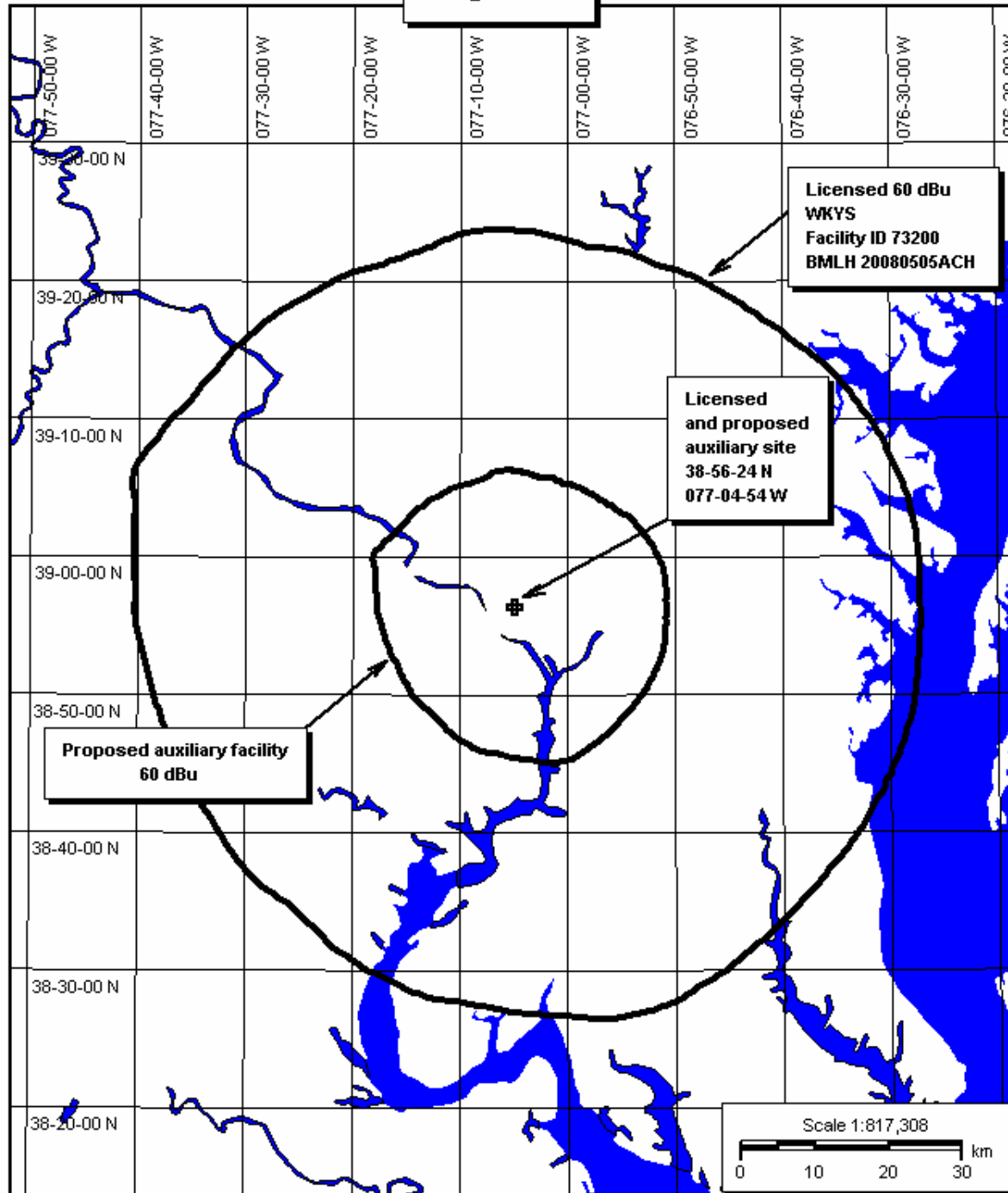
Calculated HAAT= 209. meters

(Antenna Height Above Average Terrain)
using 1 km GLOBE terrain data)

Antenna Radiation Center Heights Above Individual Radials:

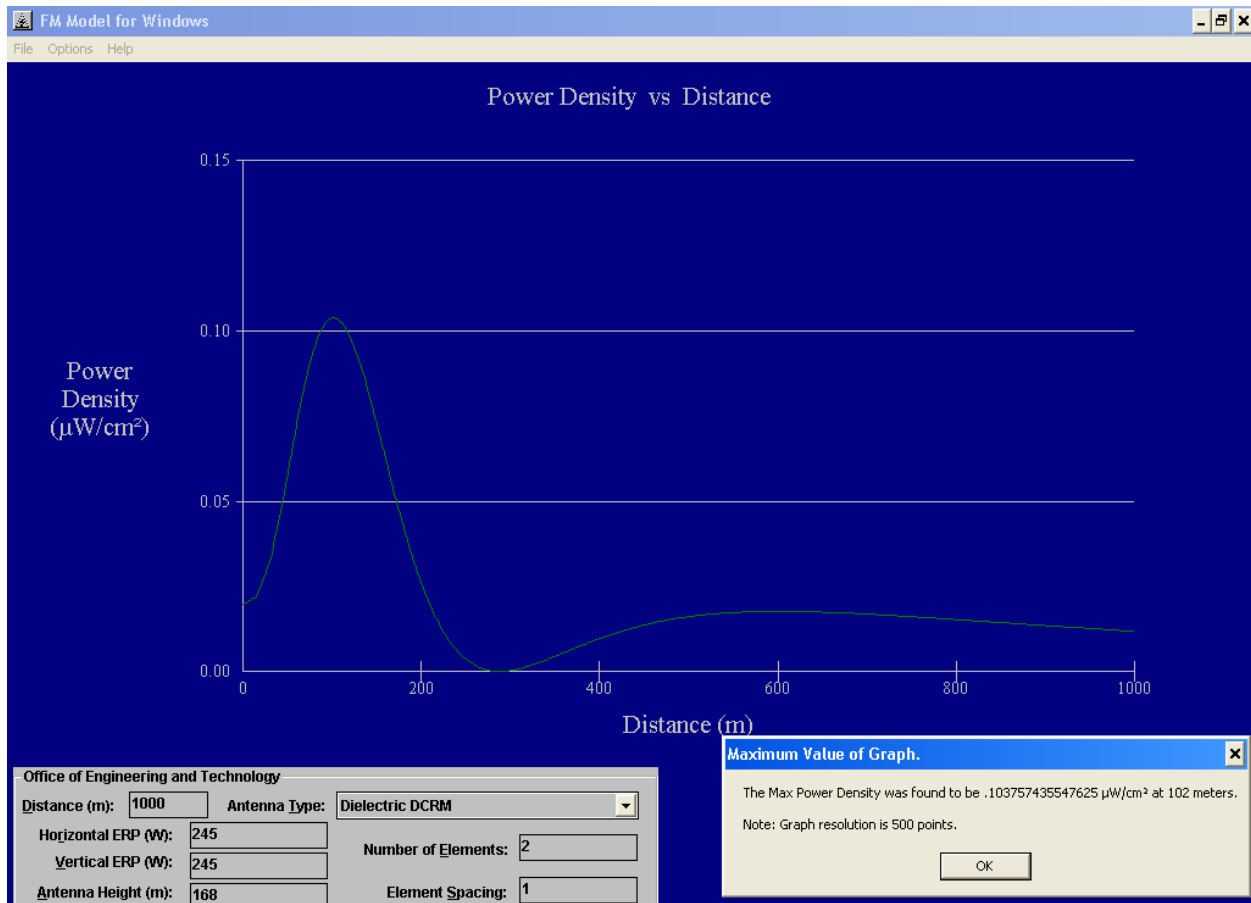
0.0°	187.2 meters
45.0°	196.2 meters
90.0°	243.1 meters
135.0°	247.3 meters
180.0°	229.7 meters
225.0°	184.7 meters
270.0°	193.3 meters
315.0°	189.5 meters

Figure 2



WKYS licensed and proposed auxiliary facility predicted coverage

Figure 3



Proposed auxiliary facility radiofrequency electromagnetic power density two meters above ground level