

Attachment I

South Bay Correctional Facility – Sprint 1900 MHz

CellAntenna 442 Form Submission

Currently Operation Under STA 1109-Ex-ST-2013 - WH9XDX

Justification

-The purpose of the FCC License Application

The possession and use of contraband mobile telephones inside of correctional facilities (state, county & federal) is a global problem. In all countries except the US, Canada, UK and Australia the predominant interdiction solution is RF jamming. In the US, where jamming is illegal alternative mobile phone interdiction solutions are being developed.

One of these interdiction solutions uses mobile phone base station technology to:

- detect mobile phones in use inside of correctional facilities
- capture the unique serial numbers of the detected mobile phone
- database the detection information
- produce a vetted list of detected mobile phones
- submit the vetted list to the appropriate carriers for service disconnect

The aforementioned interdiction solution is “service” based using a portable system controller that connects to a permanently installed low power distributed antenna system (DAS). To predictably manage the RF signals inside of the designated coverage area the DAS is installed only inside of buildings. Typically, inmate housing units. This design Best Practice ensures that the interdiction system’s RF signal do not radiate outside of the correctional facility and effect the performance of the carrier’s macro network or detect mobile phones in use in the surrounding neighborhood.

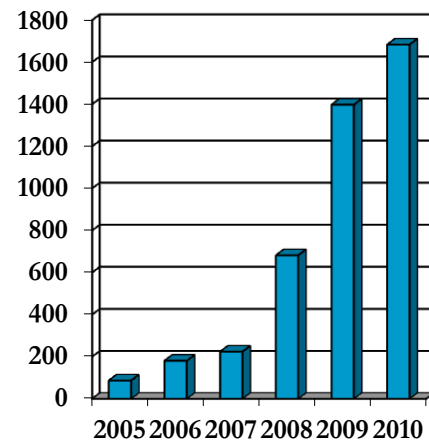
The purpose of the STA is to enable the interdiction system controller (wireless base station) to transmit RF signals using SPRINT 1900 MHz spectrum to detect contraband mobile phones in use only inside of the DAS coverage area. With a live system running testing will be conducted:

- Following a test plan SPRINT will verify that the interdiction system RF signals using SPRINT’s 1900 MHz spectrum do not effect in any way the performance of SPRINT’s macro network in the area
- Testing will also be conducted to determine the RF signal levels of the interdiction system outside of the correctional facility. Any RF signals generated by the interdiction system controller using SPRINT’s 1900 MHz spectrum cannot exceed -110dBm

This STA is sought, and will serve the public interest for the following reasons:

- The possession and use of mobile phones inside of correctional facilities is illegal in 28 states
- In 2010 the Contraband Cell Phone Act was signed into law which made the use and possession of mobile phones in Federal correctional facilities illegal.
- There have been many well documented cases in the past 5 years where inmates inside of correctional facilities have orchestrated murders of witnesses (Baltimore), attempted murders of correctional officers (Texas), intimidated judges (Texas), prison riots (California and gang activity. Not to mention other criminal activities.

Corrections departments at all levels (county, state & federal) have invested time and money to improve security in an attempt to thwart the smuggling of cellular handsets and SIM cards into correctional facilities. Consequently, residential housing unit shakedowns and personal searches have become more frequent (labor intensive for the corrections officers and sometimes confrontational). In addition, specially trained dogs have been used that sniff out the lithium batteries installed in most cell phones. The harsh reality is that all of these initiatives and others have not significantly reduced the number of contraband mobile phones in use today by offenders. Quite the contrary as the graphics from Tennessee and California will show:



-The requested start date and duration of the STA

- Start Date: January 10, 2014
- Duration: The process that SPRINT has developed for mobile phone interdiction solutions that rebroadcast SPRINT's wireless spectrum is to conduct all testing under the authority of an STA.
- Once testing has been completed and SPRINT has certified the system compliant in terms of not impacting the performance of their macro network and RF signals generated by the interdiction do not radiate outside of the correctional facility above a specified level a Spectrum Lease Agreement may be signed.

The duration of the STA will be based on how long the new testing process takes. Based on this 6 months is the duration the CellAntenna is requesting

Technical Information

-Tower Height (AGL) – No tower will be used in this project. A distributed antenna system (DAS) has been installed in 8 buildings. Each in-building DAS use 5 low power antennas.

Panel Antenna (6" x 6")

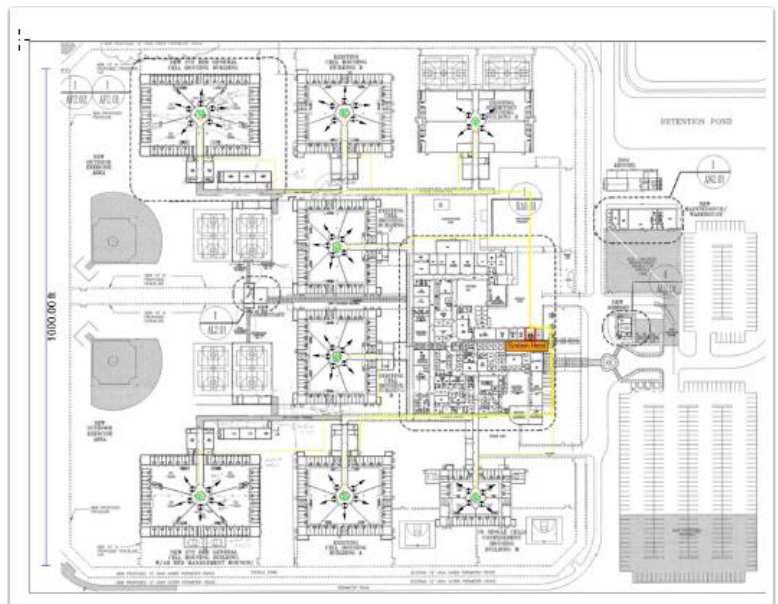


Omni Antenna (7" diameter)



- Directional and panel antennas ceiling mounted and wall mounted typically 3 meters high
- 8 Buildings

Antenna Design



-Max ERP (cellular) or EIRP (PCS) - ERP =.04W & EIRP =.04W

-Antenna Height (HAAT) – 3 meters from floor of the building

-Requested frequency – One set frequency is required by the system being tested. The 1932.70 MHz frequency will be the only system beaconing frequency

Attachment II

South Bay Correctional Facility - Site CellAntenna STA 601 Form Submission

State of Florida – South Bay Correctional Facility
600 U.S. Highway 27 South
South Bay, Florida 33493-2233



A 26°39'33.49"N 80°43'15.30"W
B 26°39'33.10"N 80°43'3.72"W
C 26°39'22.34"N 80°43'4.09"W
D 26°39'22.71"N 80°43'14.95"W