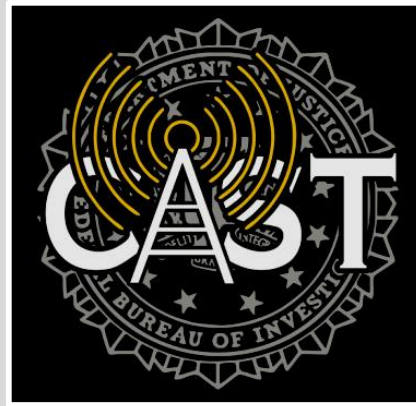


FBI CELLULAR ANALYSIS SURVEY TEAM



SA David Church
FBI Richmond
Telephone Number Analyzed

 (404) 935-1872

Date of Report: May 8, 2017

1. Background

The Federal Bureau of Investigation (FBI) Cellular Analysis Survey Team (CAST) was requested to analyze cell phone records for T-Mobile (404) 935-1872 (“subject cell phone”) for call activity surrounding April 30, 2015 at 10:16 p.m.

2. Methodology

An analysis was performed on the call detail records obtained for the subject cell phone. The call detail records showed calls made to and from the subject cell phone. Additionally, the records showed the cell tower and cell sector (“cell site”) serving the subject cell phone during those calls, and allowed the general location of the subject cell phone to be determined.

2.1 Cell Site Locations

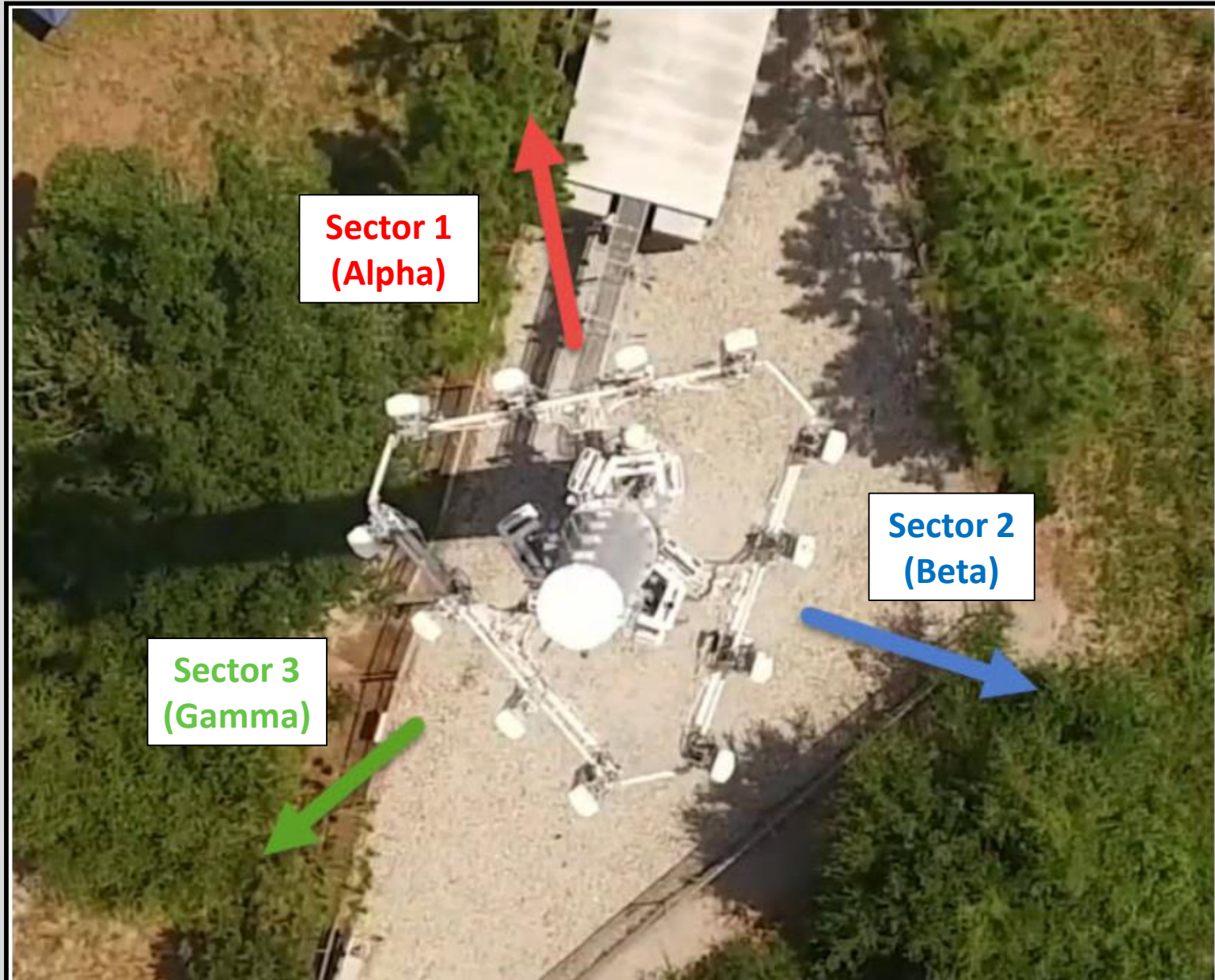
In order to map the cell sites associated with the subject cell phone, the call detail records and cell site locations were imported into Google Maps for visualization.

3. Conclusions

A historical cell site analysis was performed on the call detail records for the subject cell phone. The method detailed in Section 2 and 2.1 was used to produce the below historical cell site analysis maps.

Cellular Tower Example (3-sided)

Each Cell Site Orientation Can Vary

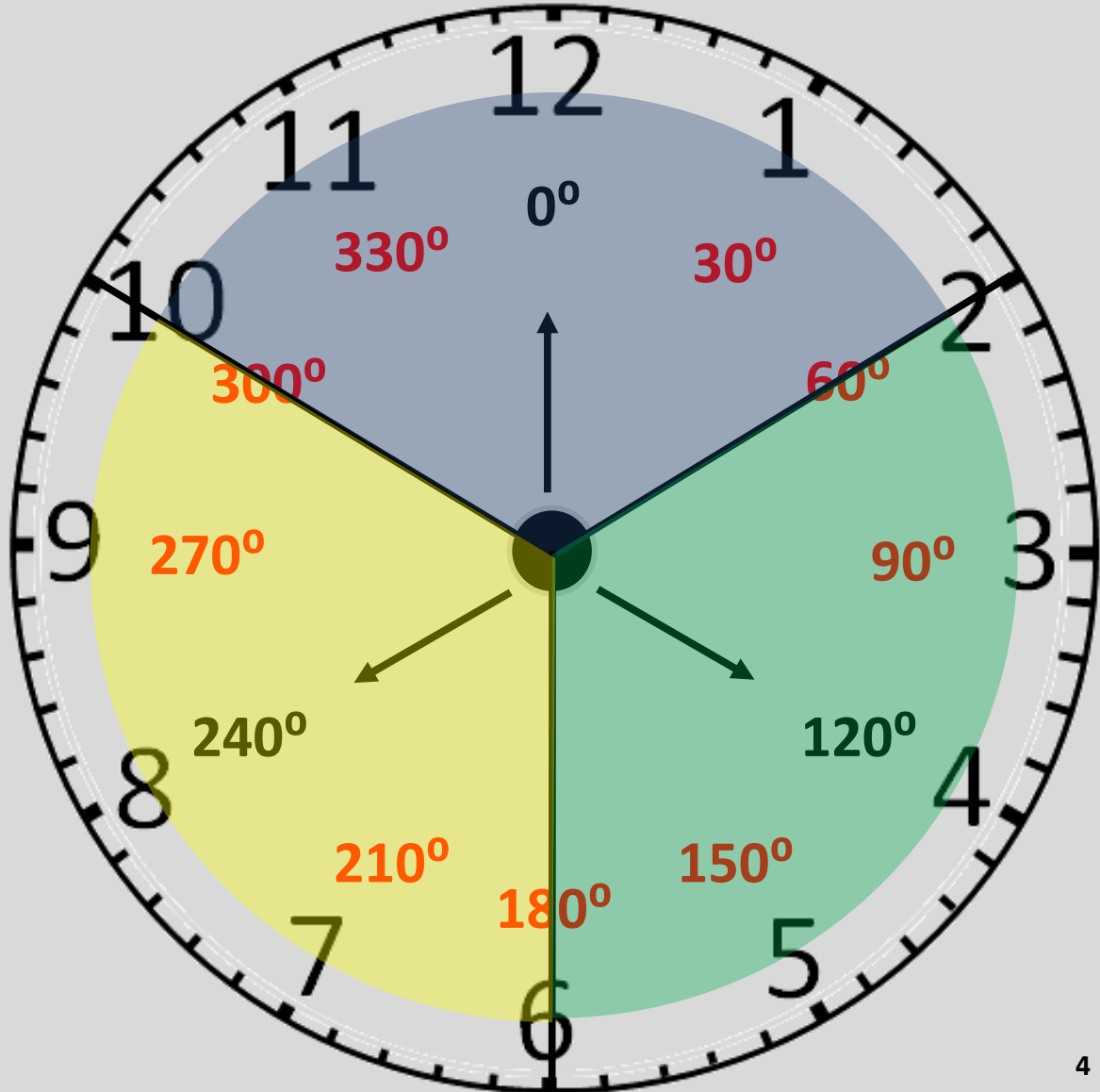


Sector Orientations

Example Only

Each Cell Site Orientation Can Vary

- Orientation (or direction) corresponds to times on a clock, with 12:00 o'clock being North
- Every hour on the clock is equal to 30 degrees
- If the orientation points at 0 degrees or 12:00 o'clock, the coverage can be approximated to be 60 degrees in either direction
- Likewise, for the remaining sectors



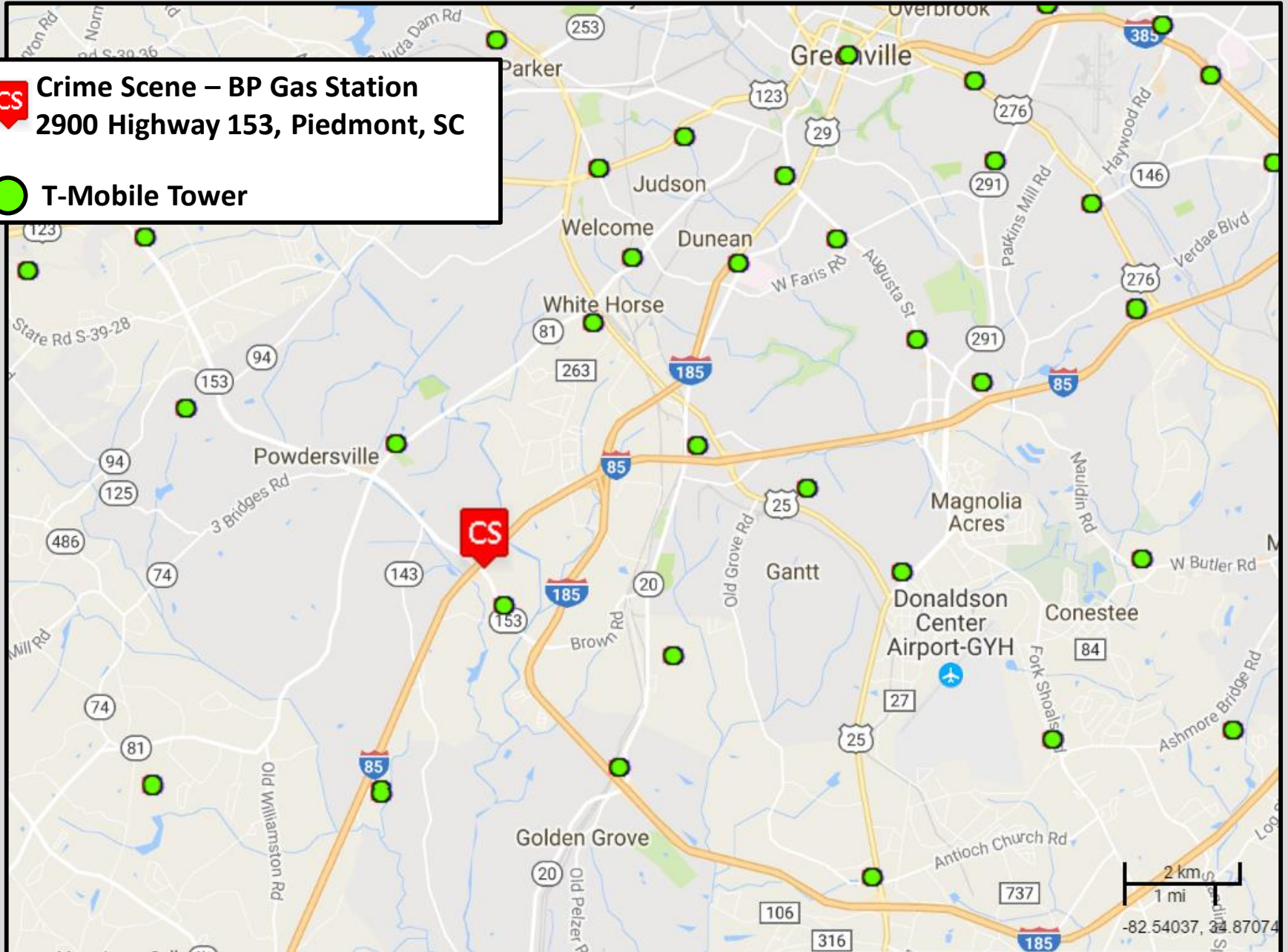
LEGEND



Crime Scene – BP Gas Station
2900 Highway 153, Piedmont, SC



T-Mobile Tower

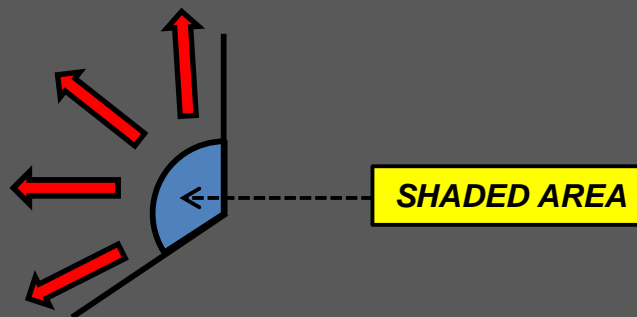


Sector Illustrations

Cell sectors are illustrated on the following maps using this symbol:

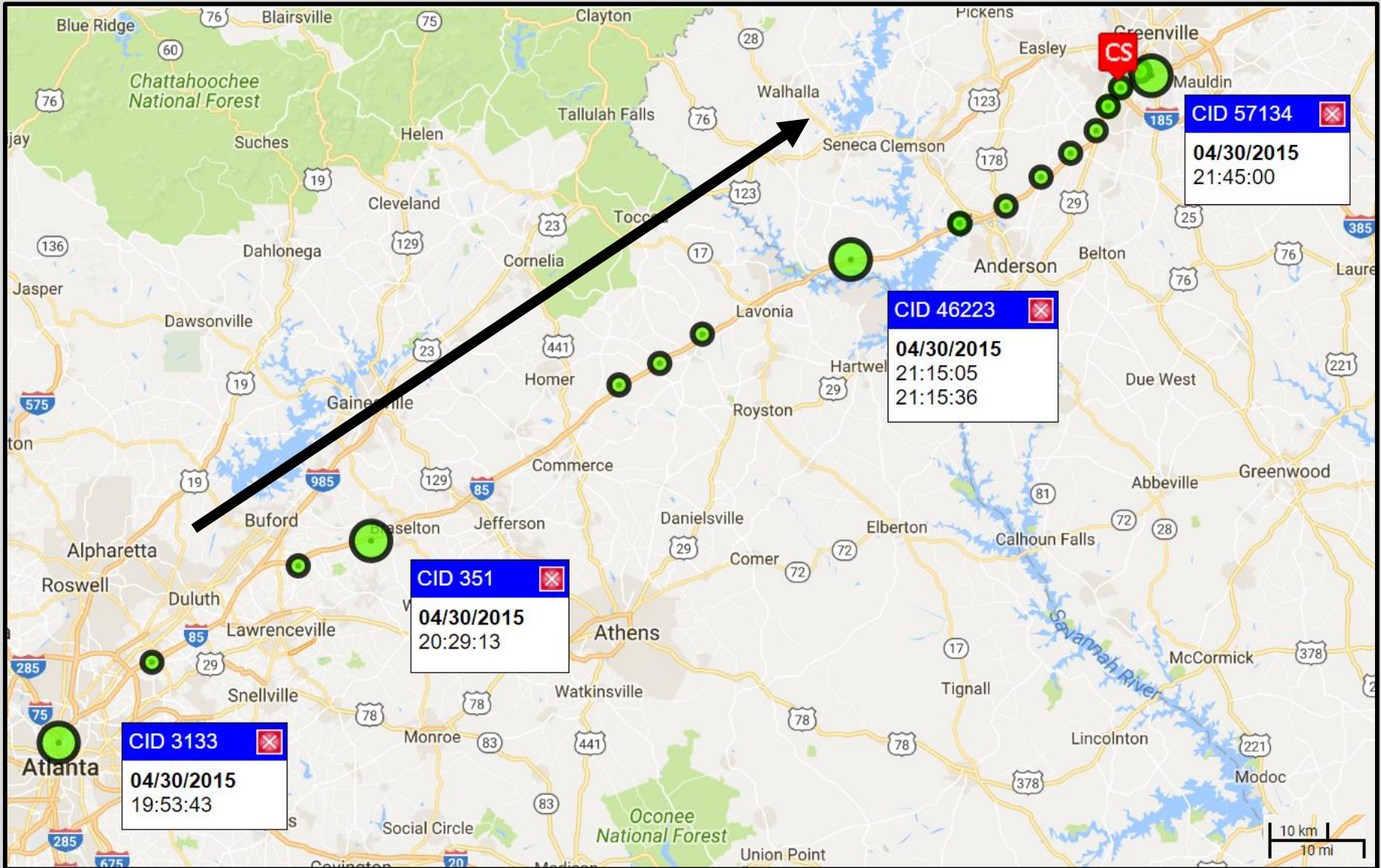


These illustrations demonstrate the direction the antennas on the cell towers are oriented. The shaded area in the illustration shows the primary direction the radio frequencies (RF) travel from the antennas (see below RED arrows). The shaded area does not depict the actual RF footprint or coverage area of the particular sector.



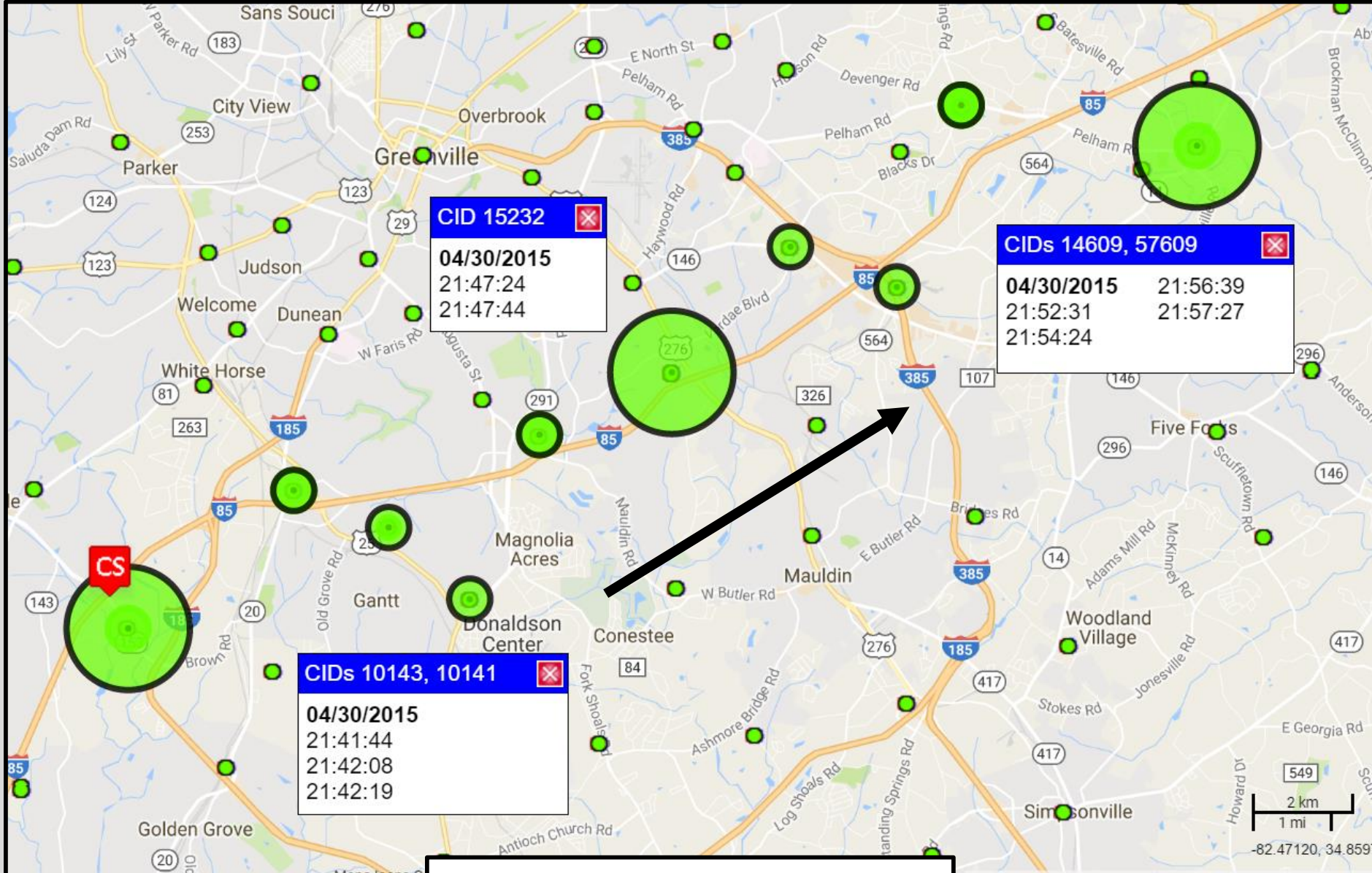
These symbols will illustrate the cell sites and sectors used during the time period of the analysis and the general area where the cellular telephones were located.

(404) 935-1872 traveled northeast from Atlanta to the area of the homicide location on April 30, 2015 between 7:53 p.m. and 9:45 p.m.



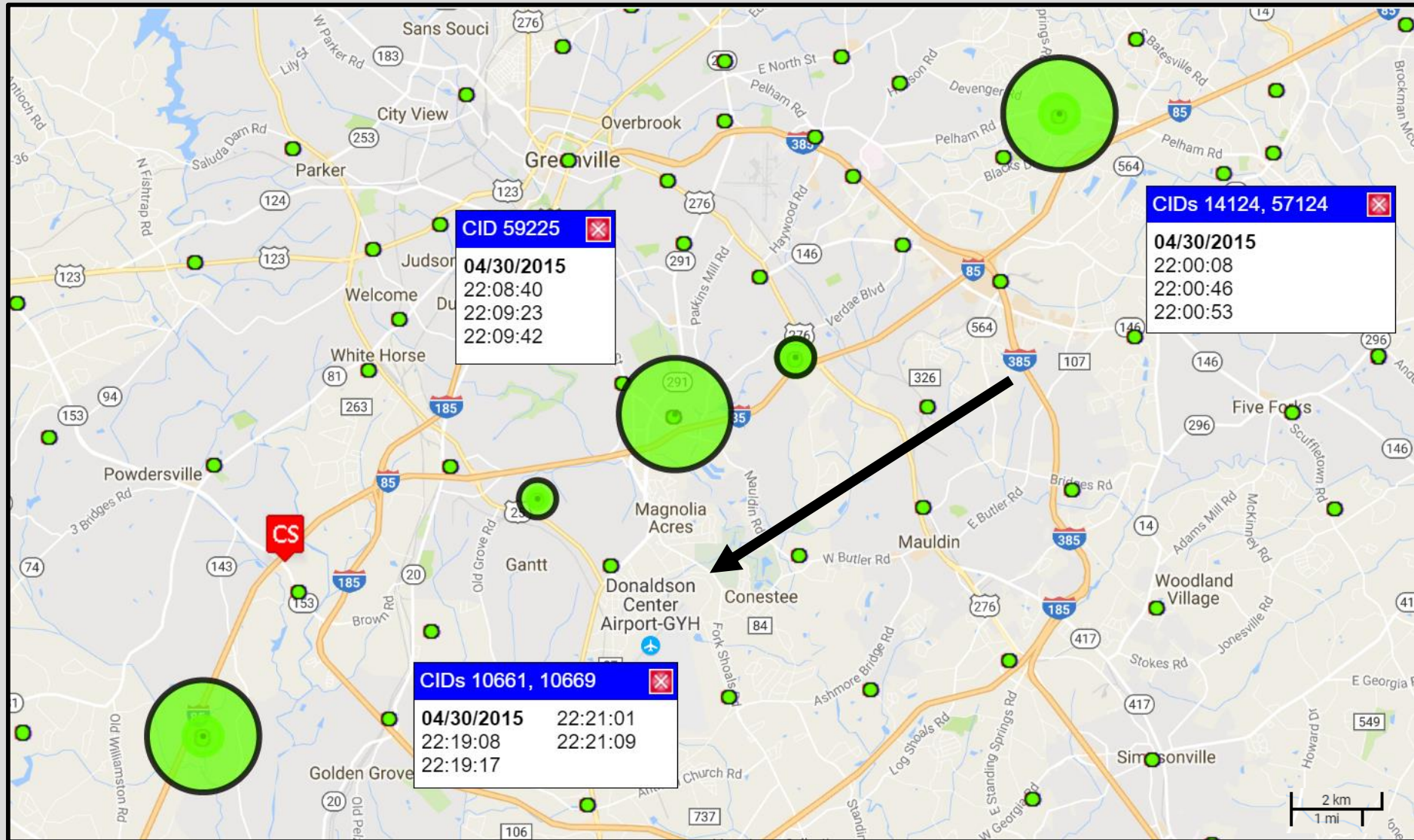
Arrow indicates direction of travel

On April 30, 2015, between 9:41 p.m. and 9:57 p.m., (404) 935-1872 traveled from the area near the homicide location in a northeast direction.



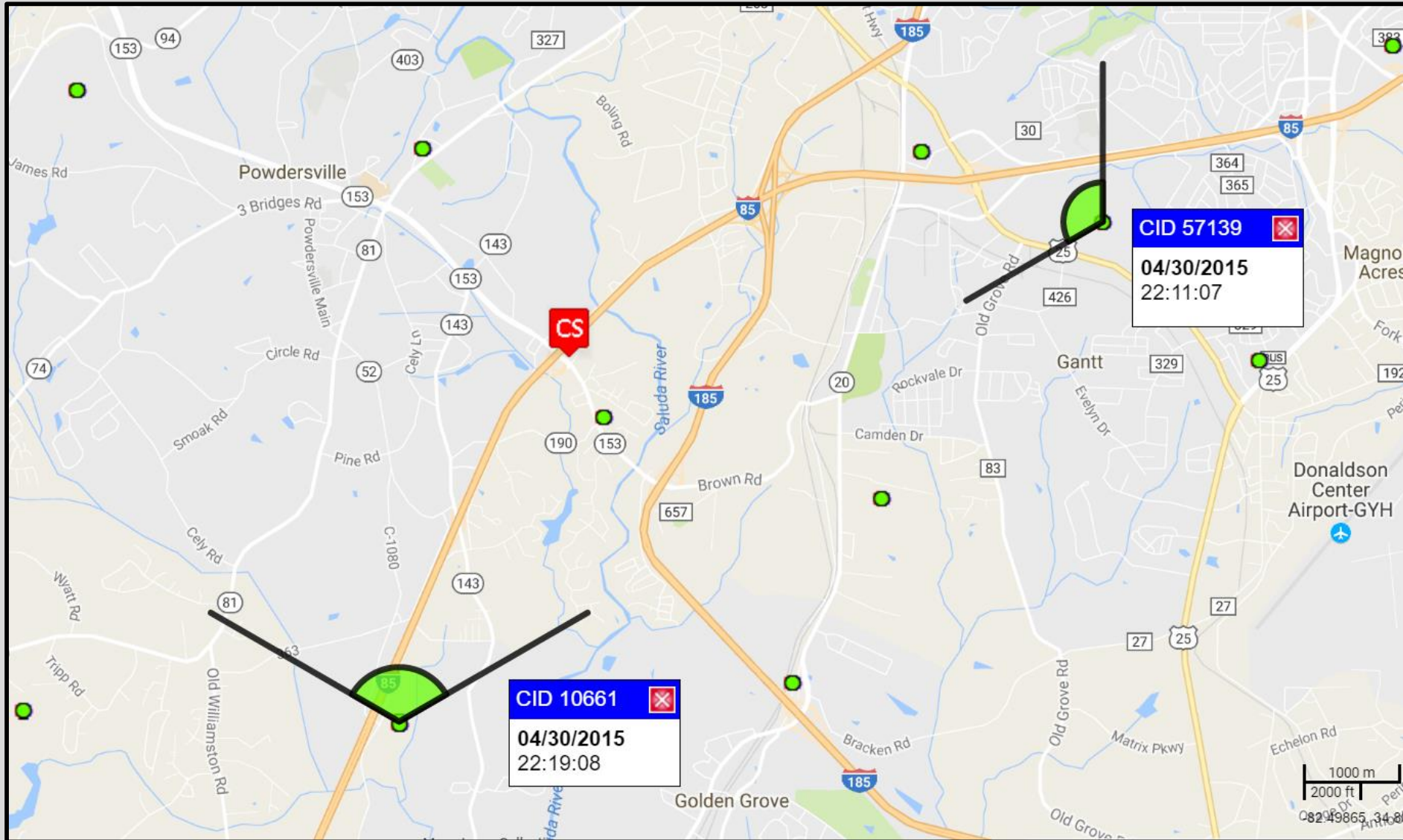
Arrow indicates direction of travel

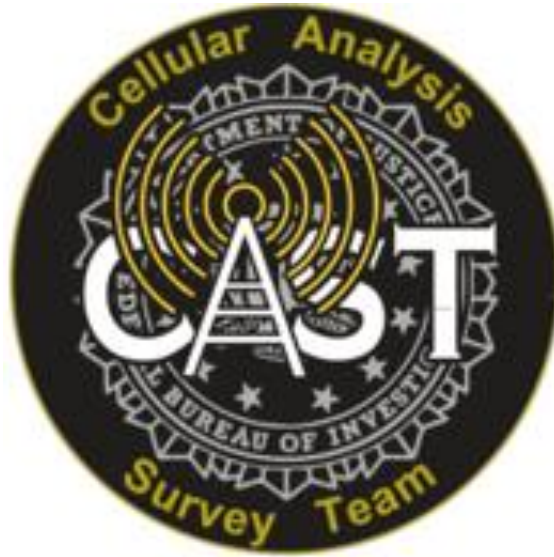
On April 30, 2015, between 10:00 p.m. and 10:21 p.m., (404) 935-1872 traveled back southeast to the area south of the homicide location.



Arrow indicates direction of travel

(404) 935-1872 used the below depicted towers and sectors on April 30, 2015, at 10:11 p.m. and 10:19 p.m. These two communications occur closest to the time of the homicide.





END OF REPORT