

NCE FM STATION WVUD(FM) CH 217B1 6.1 kW DA 52 M HAAT
UNIVERSITY OF DELAWARE
FACILITY ID 69439 NEWARK, DELAWARE
ENGINEERING NARRATIVE AND RF RADIATION ENVIRONMENTAL ANALYSIS
SEPTEMBER 2021

The University of Delaware is the licensee of WVUD(FM), CH 217B1 at Newark, Delaware. This application proposes continued Class B1 operation with the addition of circular polarization and a modified DA pattern. The maximum ERP is being reduced from 6.8 kW to 6.1 kW. The site will remain on University campus property 0.37 kilometers from the licensed site.

The applicant proposes herein to locate its single layer panel, circularly polarized, FM antenna on the proposed 68.6 meter self-supporting tower which has an FAA Determination of No Hazard under FAA file number 2021-AEA-7251-OE. The tower will be registered in the FCC ASR system. The antenna RC will be 59.1 meters AGL. The tower will be constructed on land that is part of a parking lot where infrastructure is existing.

Utilizing the FCC FM Model online calculator for an EPA type 1 antenna with 6,100 watts ERP H & V with the above described antenna on CH 217 gives a maximum calculated power density of 75.2 microwatts per centimeter squared which is 37.6 percent of the 200 microwatts public exposure guideline. Based on this analysis it is believed that the proposed facility follows OET-65 Public Exposure Guidelines. The applicant will reduce power or cease transmission as required to meet FCC OET-65 worker Guidelines.

Four allocation study maps are attached demonstrating that the proposed facility minor mod is fully compliant with 73.509 contour protections. Figure 1 attached depicts the co-channel allocation while Figure – 1 expanded depicts clearance with co-ch station WRTQ. Figure 2 attached depicts the adjacent channel allocation while Figure – 2 expanded depicts clearance with 1st adj CH station WBJC.

It is note that TV CH 6 stations are not addressed as the FCC terminated analog CH 6 operation on July 13, 2021.

Figure 3, attached, depicts the licensed and proposed 60 dBu contours and the Newark community boundary. The proposed 60 dBu fully encompasses the community boundary.

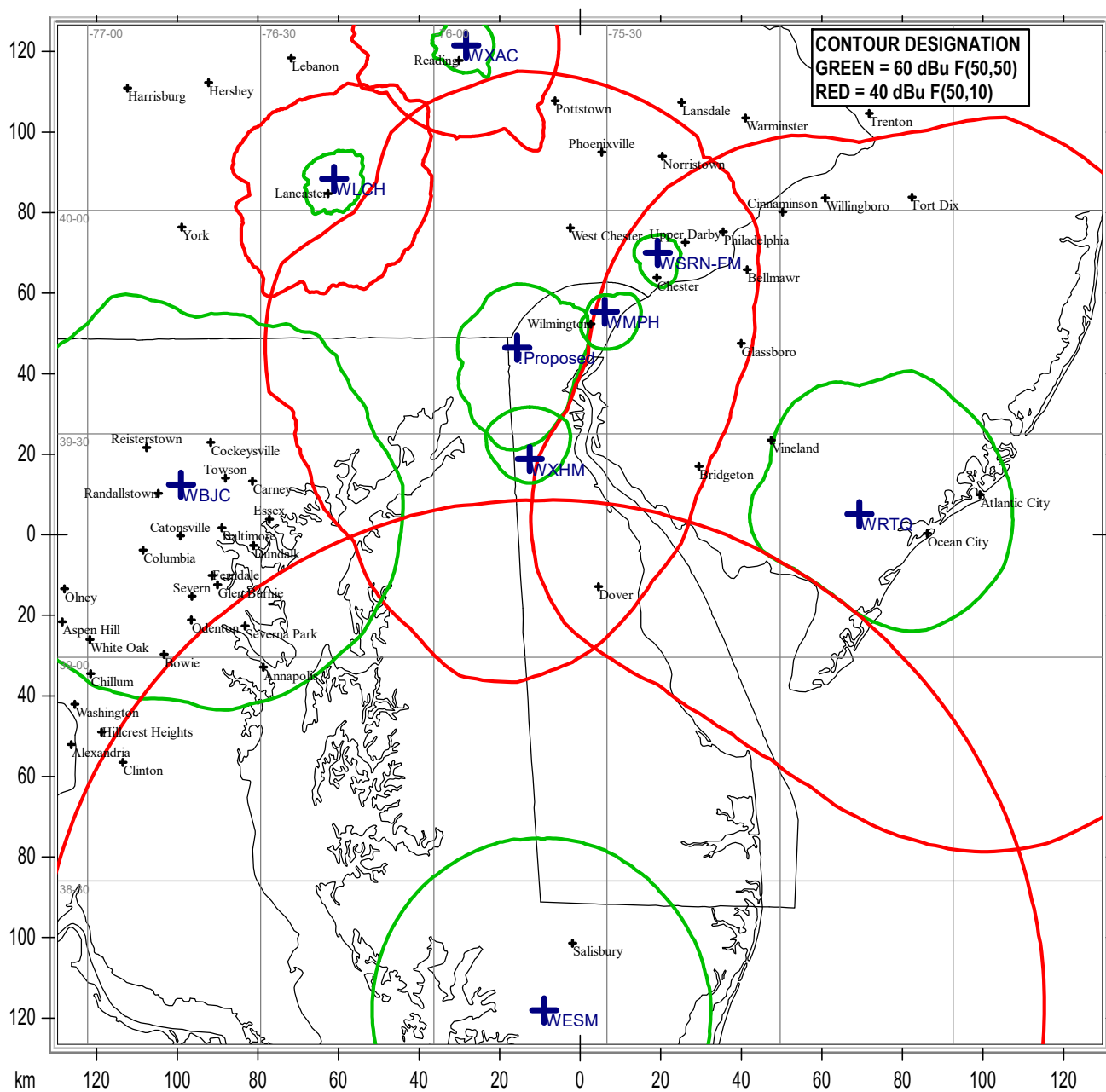
The foregoing was prepared on behalf of the University of Delaware by Clarence M. Beverage of Communications Technologies, Inc., Medford, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



By _____

Clarence M. Beverage
for Communications Technologies, Inc.
Medford, New Jersey
September 30, 2021

WVUD PROPOSED 6.1 kW DA @ 52 M HAAT NEWARK, DELAWARE



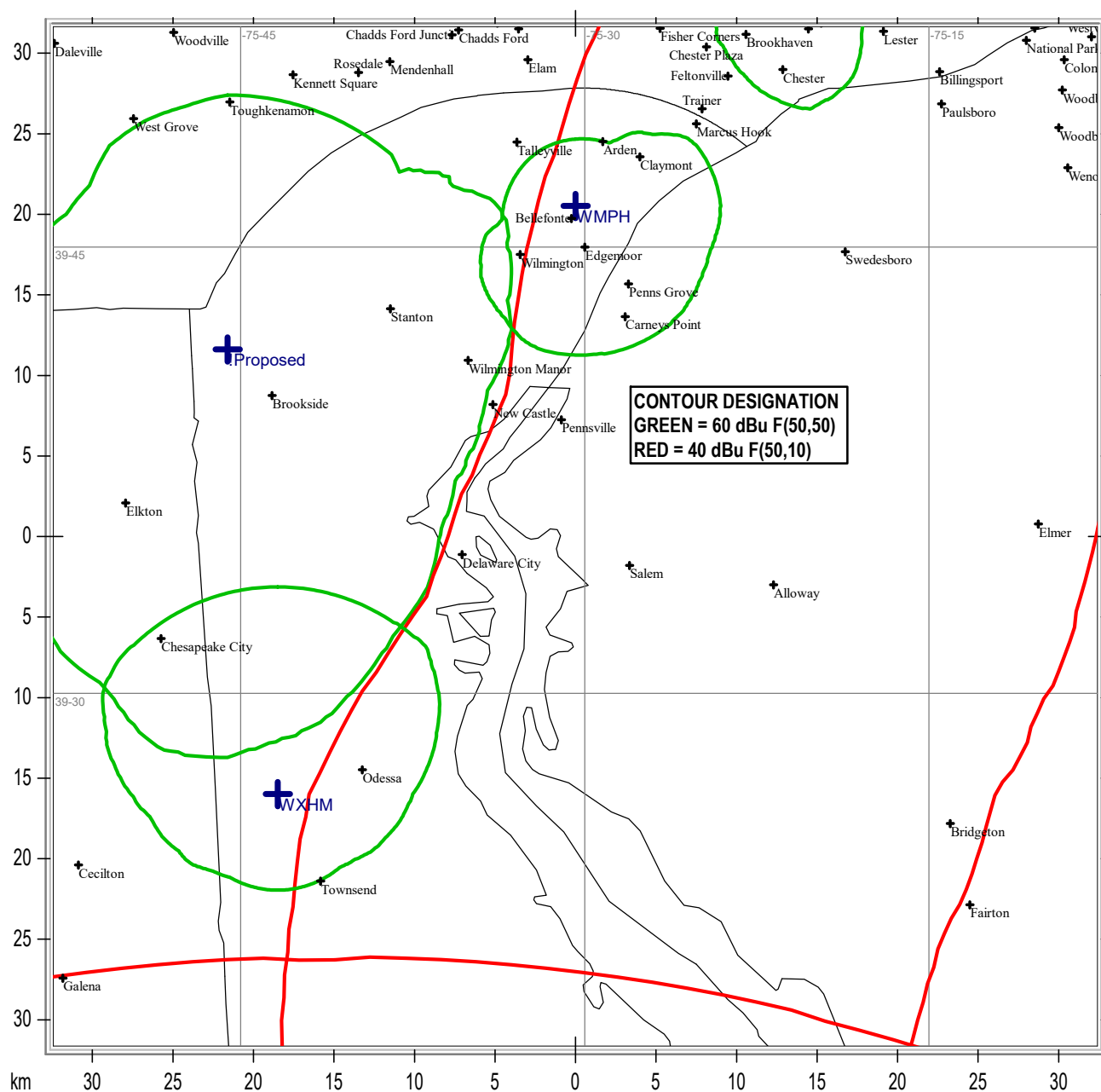
Communications Technologies, Inc. Medford, New Jersey

State Borders Lat/Lon Grid

Map Scale: 1:1600000 1 cm = 16.00 km V|H Size: 253.10 x 259.33 km

Figure 1

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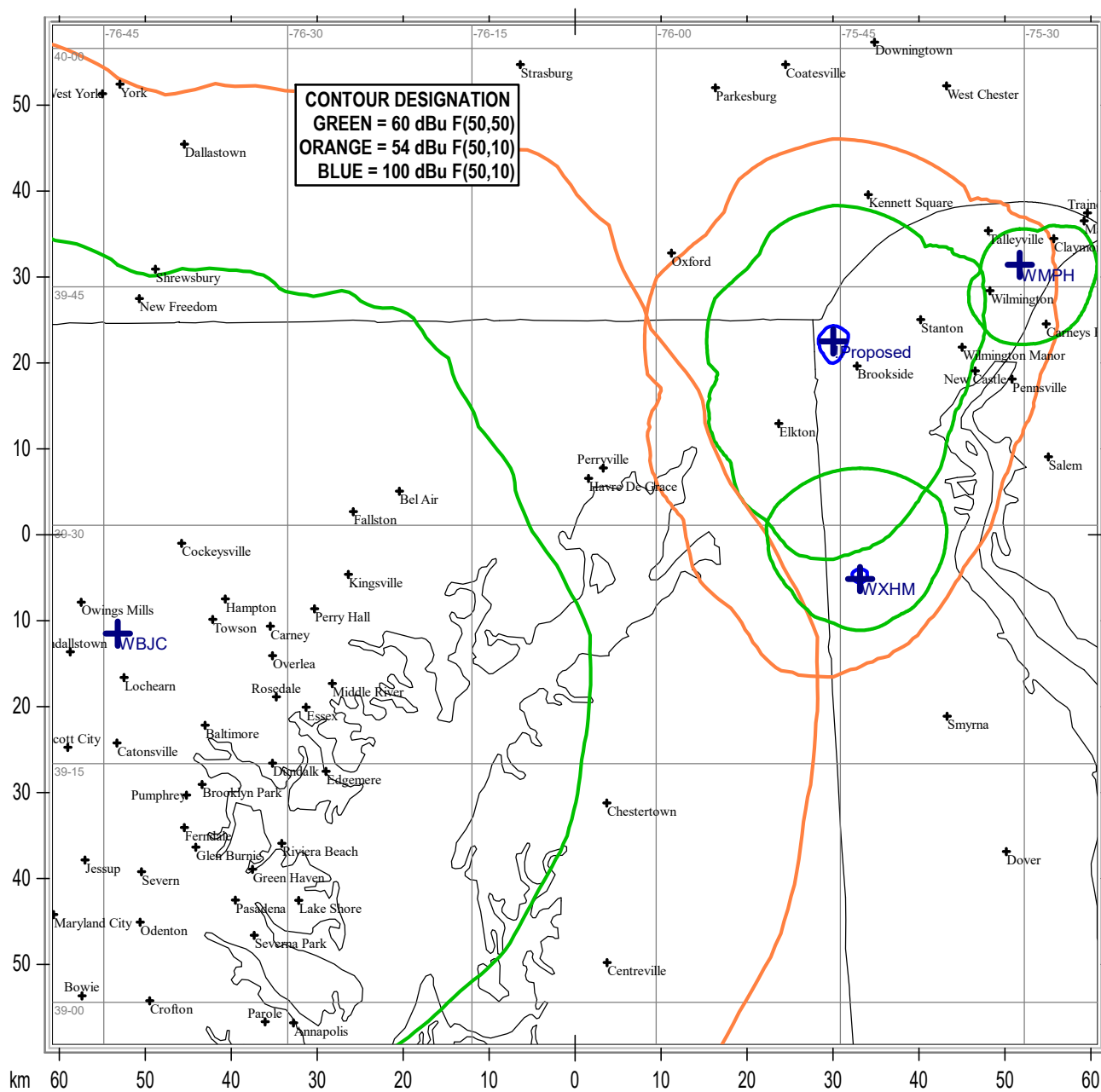
Communications Technologies, Inc. Medford, New Jersey

State Borders Lat/Lon Grid

Map Scale: 1:400000 1 cm = 4.00 km V/H Size: 63.27 x 64.83 km

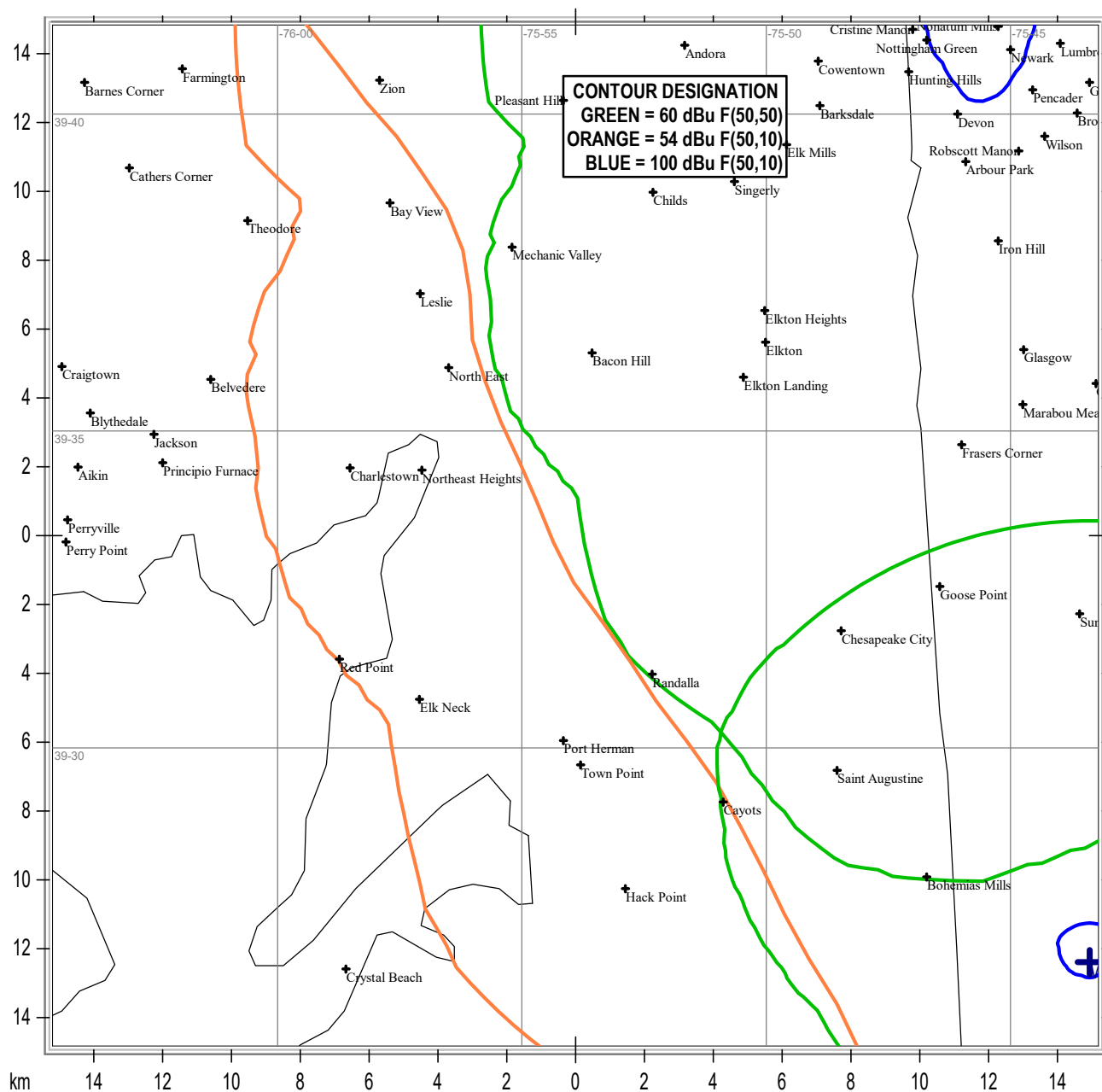
Figure 1 - EXPANDED

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State Borders Lat/Lon Grid

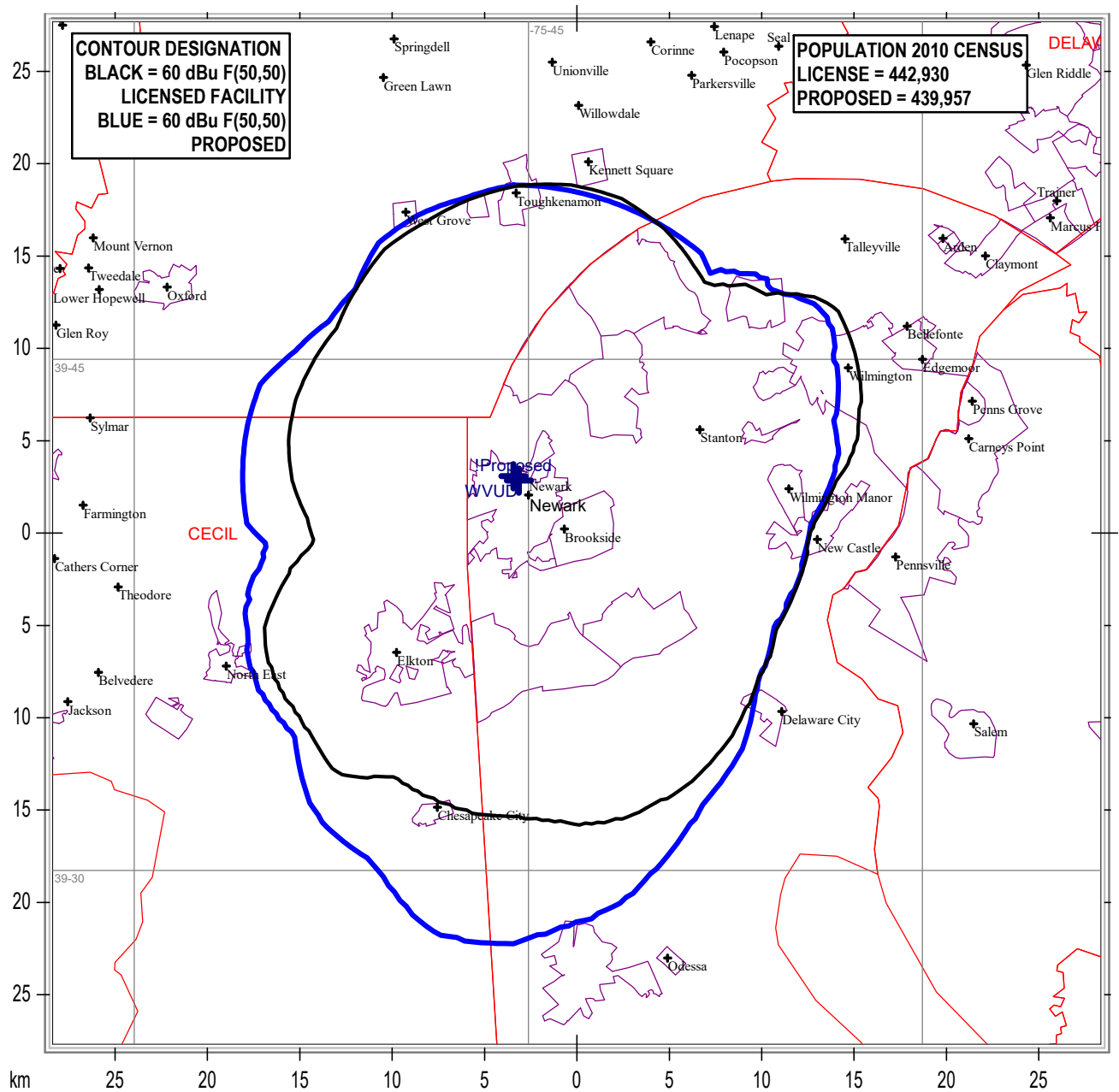
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State Borders Lat/Lon Grid

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County Borders City Borders Lat/Lon Grid