

**ENGINEERING STATEMENT
APPLICATION FCC 349
Prepared For Polnet Communications, Ltd
W276BM FM Tinley Park, Illinois
Facility ID 140663 103.1 FM .100 kW
FCC Form 349-Instant Application**

- 1) Statement-Nature Of Proposal
- 2) Exhibit 1- Co Channel WPNA 103.1 40 dBu (50,10) Overlap W276BM 60 dBu
- 3) Exhibit 2 – Proposed W276BM License Vs. Proposed 60 dBu Contour Overlap
- 4) Exhibit 3 – Proposed W276BM 60 dBu and WNVR 2.0 mV/m Overlap(Primary Station)
- 5) Exhibit 4 – Proposed W276BM 40 dBu(50,10) and Co Channel WZSR 60 dBu Contours
- 6) Exhibit 5 – Proposed W276BM 40 dBu(50,10) and Co Channel WYKT 60 dBu Contours
- 7) Exhibit 6 – Proposed W276BM 40 dBu(50,10) and Co Channel WLJE 60 dBu Contours
- 8) Exhibit 7 – Proposed W276BM 40 dbu(50,10) and Co Channel WLPN 60 dBu Contour
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- 11) Exhibit 9 - Proposed IRTE 3P Custom Directional Pattern

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Statement - Nature Of Proposal**

Polnet Communications, Ltd. ("Polnet") is the licensee of Translator Station W276BM, 103.1 FM, Tinley Park, Illinois (Facility Id 140663) W276BM is a licensed Class D FM station with authority to operate .100 kW with a directional facility(0000119784). WRDZ AM 1300-La Grange, Illinois is the Primary station(BL-19920803AD). Facility ID #28309

Polnet herein proposes a change to W276BM, 103.1 to 105.5 MHz. This instant application proposes to utilize a different antenna as the current License(0000119784). Polnet herin requests a modification to construction permit(0000197678)(W236DW) once this instant application is granted. Polnet is requesting a change to a IRTE 3P Custom directional pattern and move it approximately 10.75 miles(17.3Km) North to an elevation of 450 feet(131.35 Meters). Polnet Requests operation at .100 kW power ERP.

The change is due to displacement after the grant of WPNA FM 103.1(0000164962)(Facility ID:74177) to 6 Kw ERP and an antenna location change. The result of incoming interference to W276BM 103.1 Tinley Park(0000119784) requires a frequency move. Polnet requests moving to the Frequency of 105.5 MHz and a elevation of 430 feet(131.35 Meters) and a power of .100 kW utilizing a IRTE 3p Custom Directional pattern.

Incoming co-channel interference from WPNA-FM (Ch. 276A, Highland Park, IL) is causing significant reception difficulties. In support of demonstrating interference on Channel 276, Exhibit 1 depicts the 60 dBu protected contour of the authorized W276BM facility, and the 40 dBu F(50,10) interfering contour from WPNA-FM. As shown, the WPNA-FM interfering contour completely encompasses the 60 dBu contour of the authorized W276BM License.

This instant application W276BM(0000119784) Also requests a city of License change from Tinley Park Illinois to Justice, Illinois.

In granting this Instant application and minor modification Polnet is requesting that the Primary station will be WNVR AM 1030 Vernon Hills (BL-20090410AWM)(Facility ID:52910). With a grant of this instant application W276BM 105.5 mHz 60 dBu would be inside the 2.0 mV/m contour of WNVR AM 1030 Veron Hills(BL-20090410AWM).

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W276BM Proposed Move

Coordinates: NAD 83

41-42-31.0 N

87-47-02.0 W

Elevation:

AGL: 430' (131.06 Meters)

G-AMSL: 587.27' (179m)

RC-AMSL: 1017.27' (310.06m)

HAAT: 391.89' (119.44m)

Directional Antenna
IRTE 3P Custom Directional

Power:

100 Watts ERP

**ENGINEERING EXHIBIT
APPLICATION FCC 349**

Prepared For Polnet Communications, Ltd.

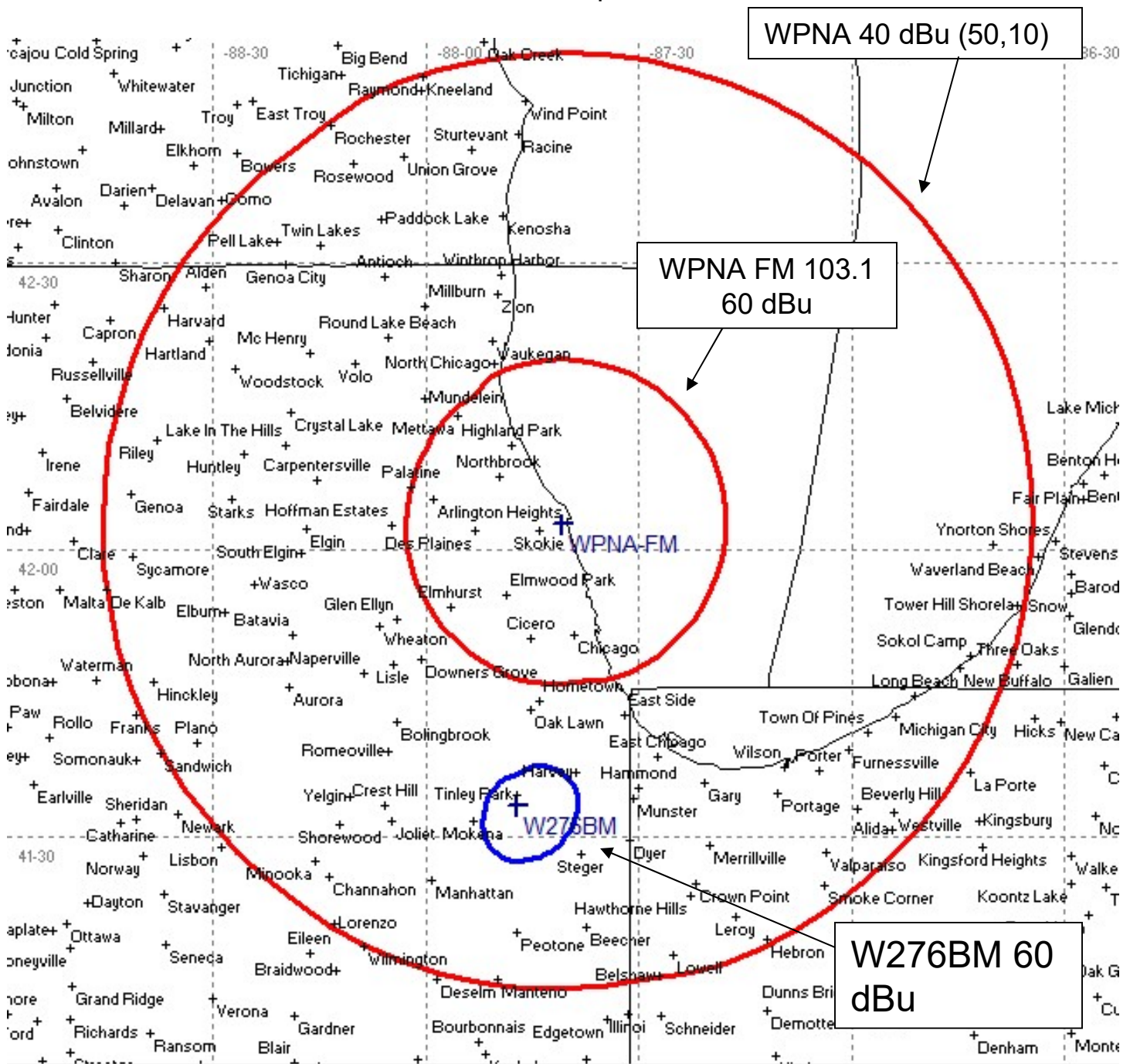
W276BM FM Tinley Park, Illinois

Facility ID 140663 103.1 FM .100 kW

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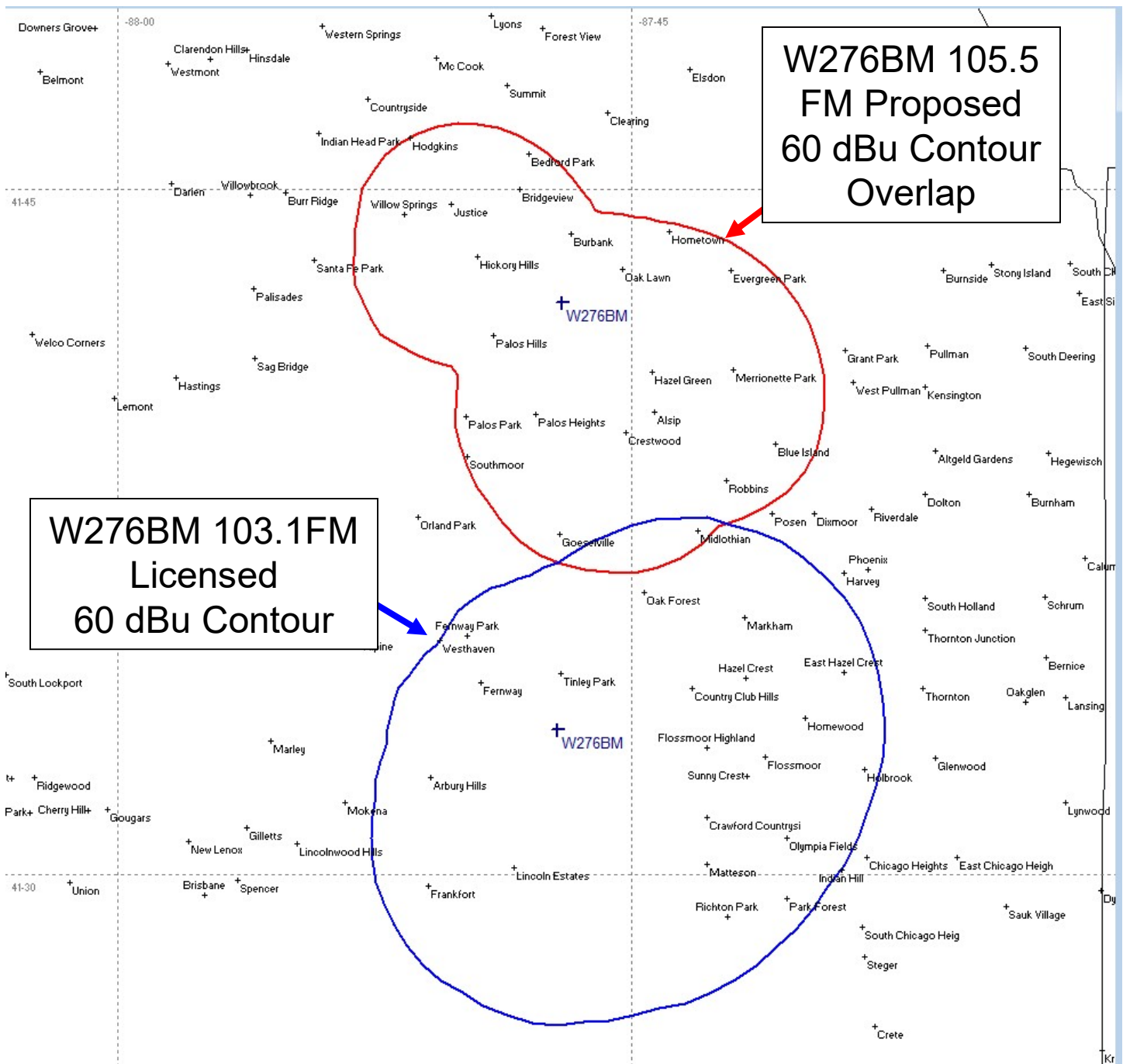
Exhibit 1

**Co Channel WPNA 103.1 40 DBu (50,10) W276BM FM 103.1 60 Dbu
Overlap**



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Exhibit 2**

Proposed 60 dBu Overlaps FM 103.1 - License Vs. Proposed FM 105.5

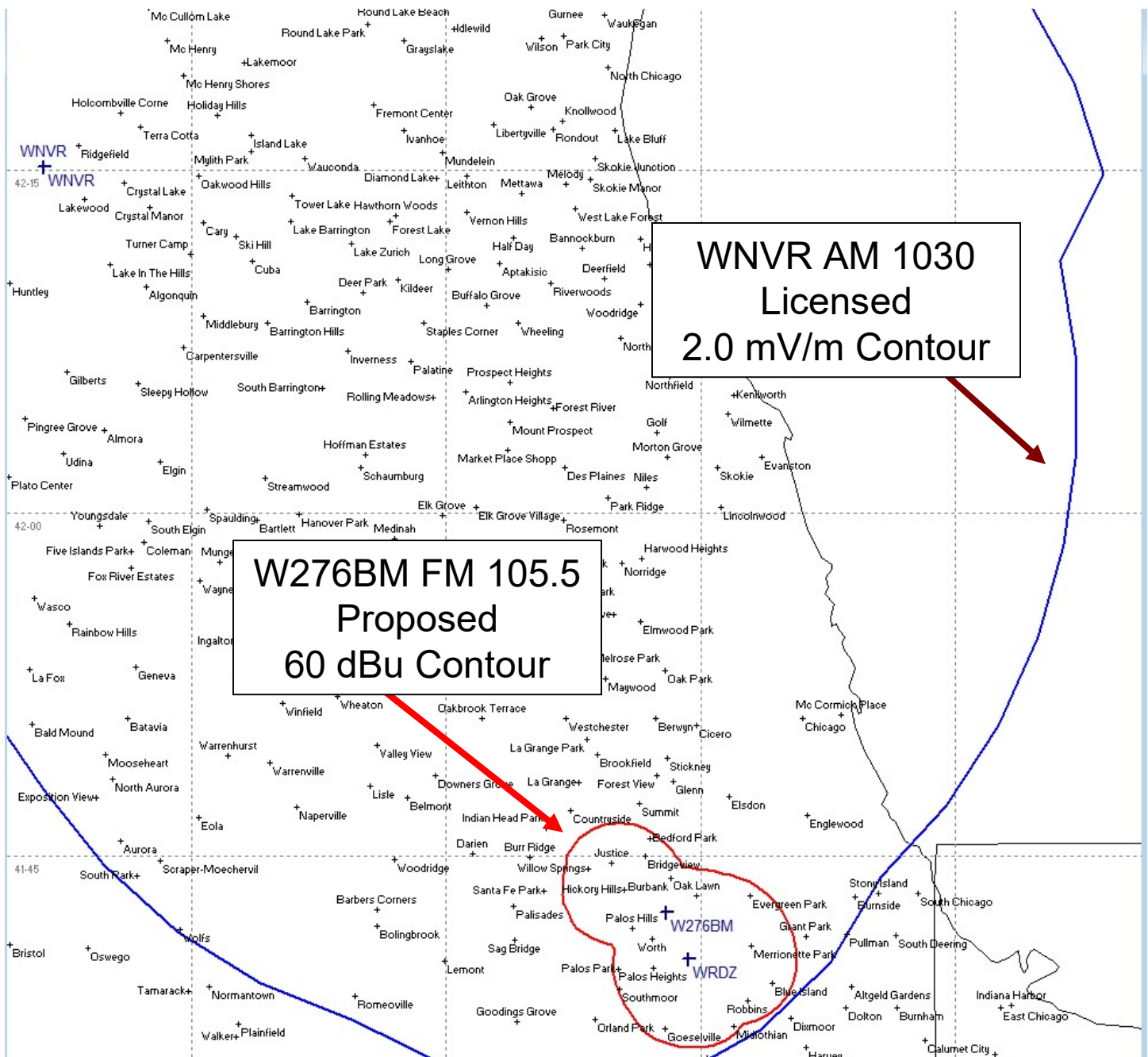


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APPLICATION FCC 349**

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**W276BM(FM) Tinley Park, Illinois
Facility ID 140663 103.1 FM .100 kW
FCC Form 349-Instant Application
Exhibit 3**

**Proposed 60 DBU W276BM FM 105.5 - 2.0 mV/m WNVR AM 1030,
Vernon Hills Overlap(Primary Station)**



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W276BM FM Tinley Park, Illinois

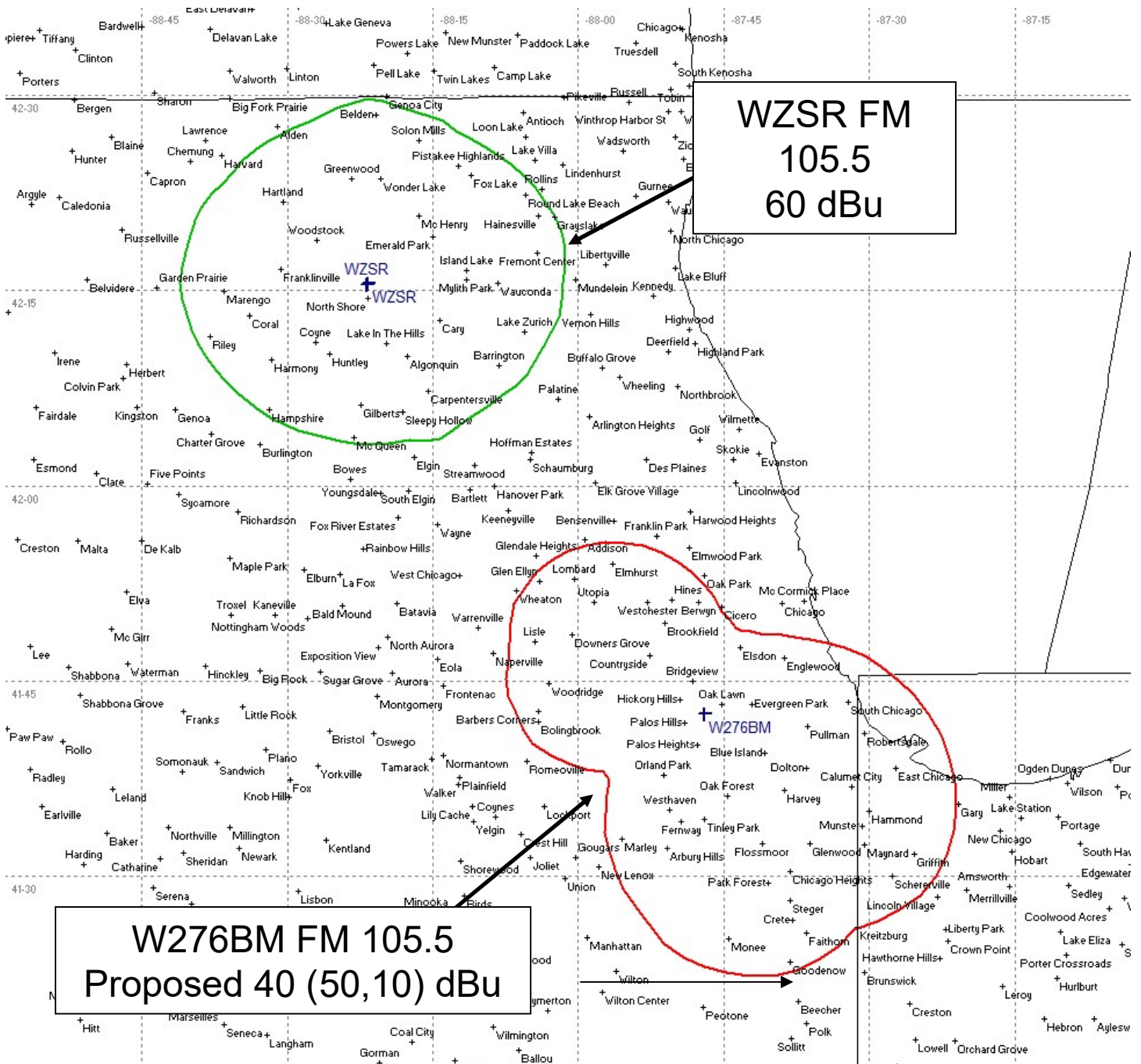
Facility ID 140663 103.1 FM .100 kW

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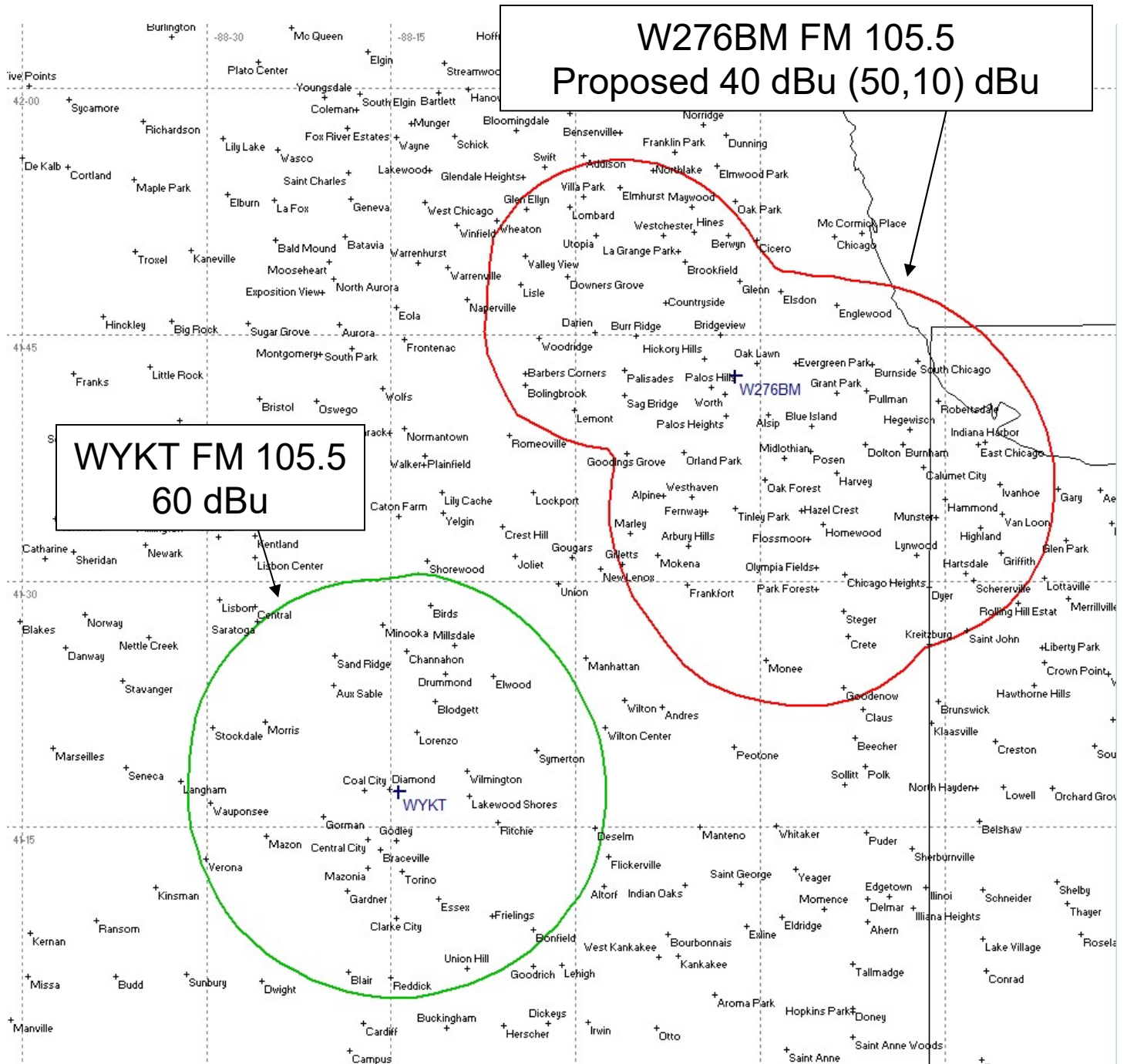
Exhibit 4

Co Channel Study

Proposed W276BM 40 50,10 Contours Co Channel WZSR 105.5 60 dBu



Proposed Co Channel Study
Proposed W276BM 40 dBu (50,10) Contours Co Channel WYKT 60 dBu



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W276BM FM Tinley Park, Illinois

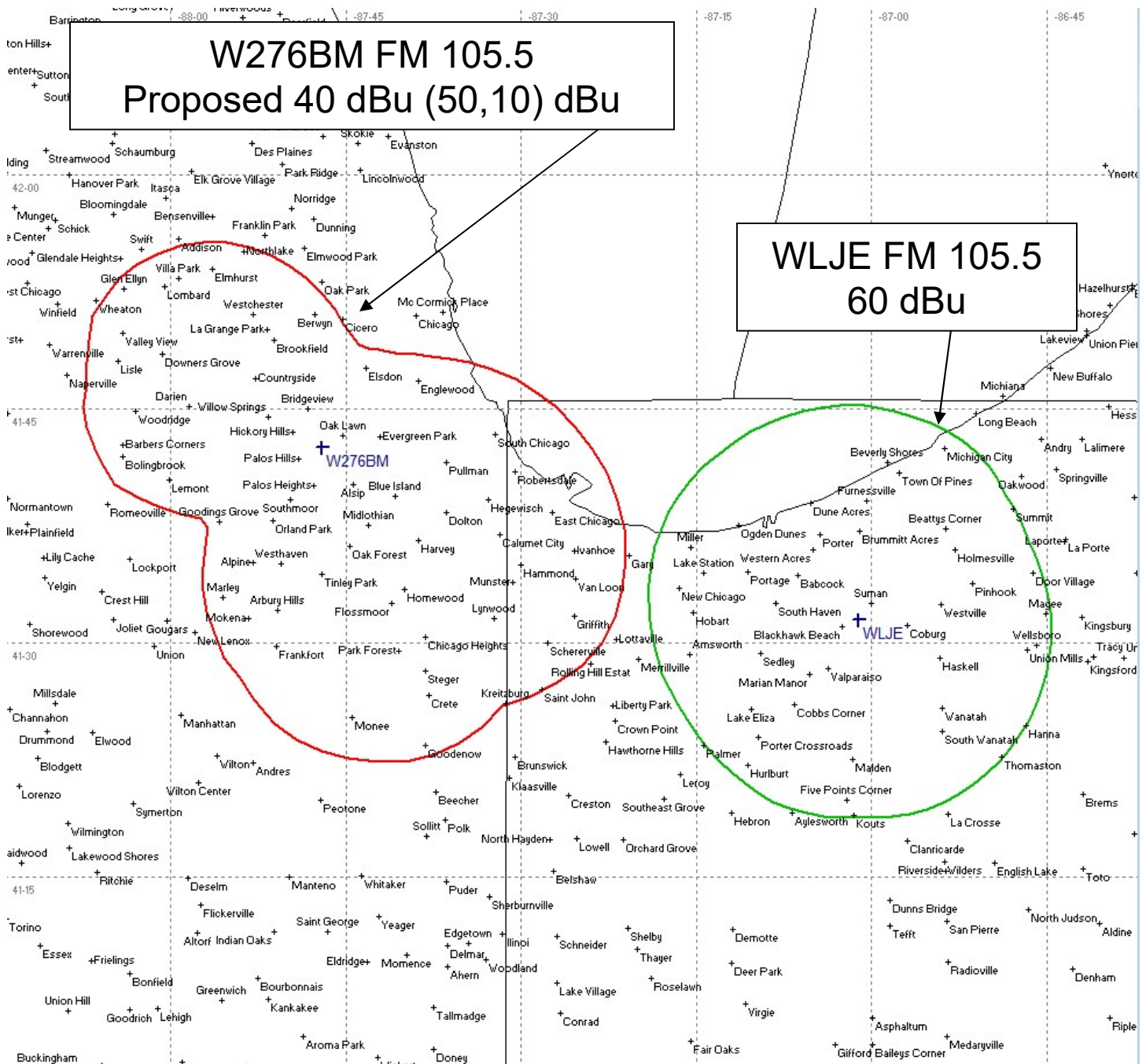
Facility ID 140663 103.1 FM .100 kW

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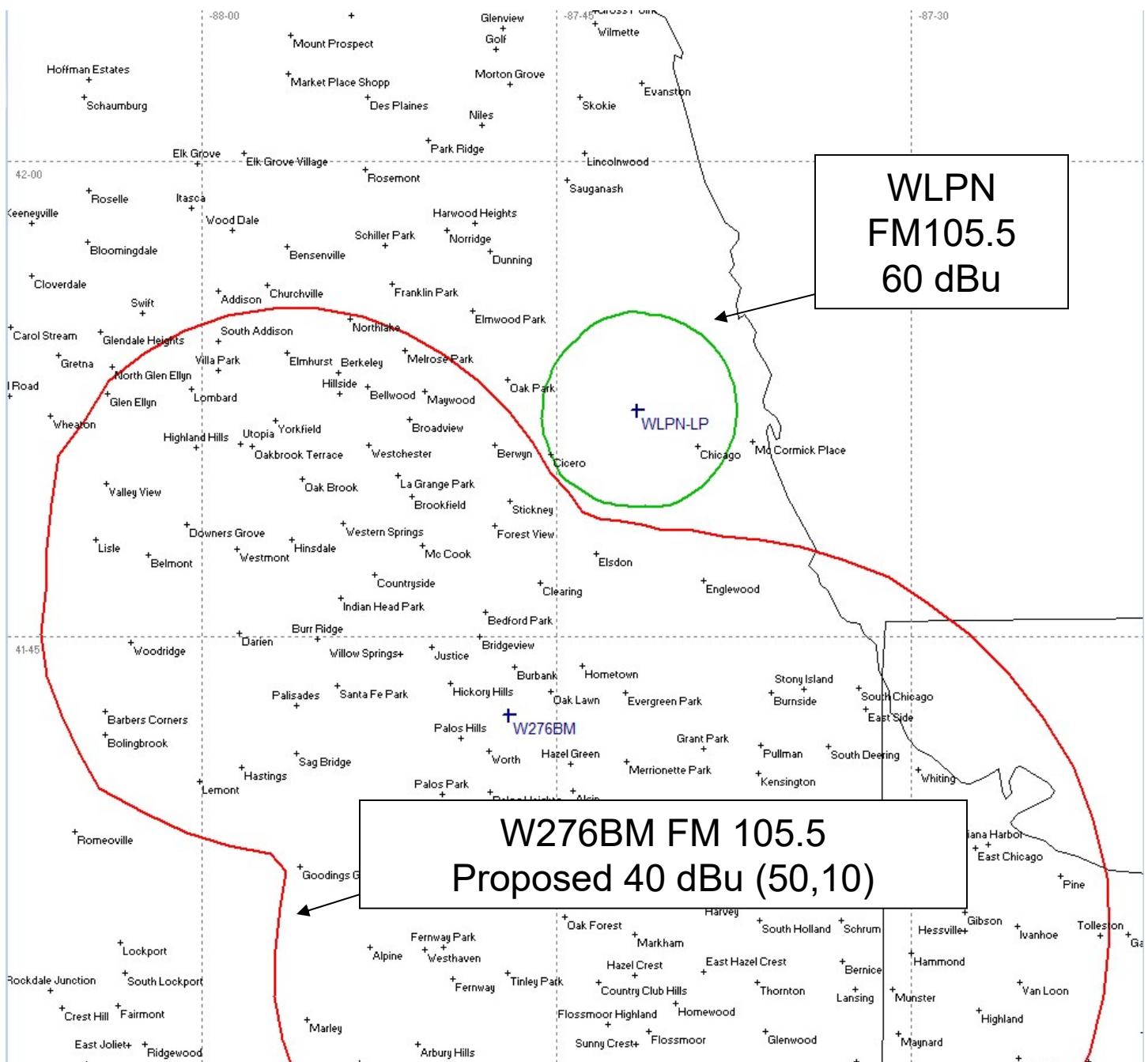
Exhibit 6

Proposed Co Channel Study

Proposed W276BM 40 dBu (50,10) Contours Co Channel WLJE 60 dBu

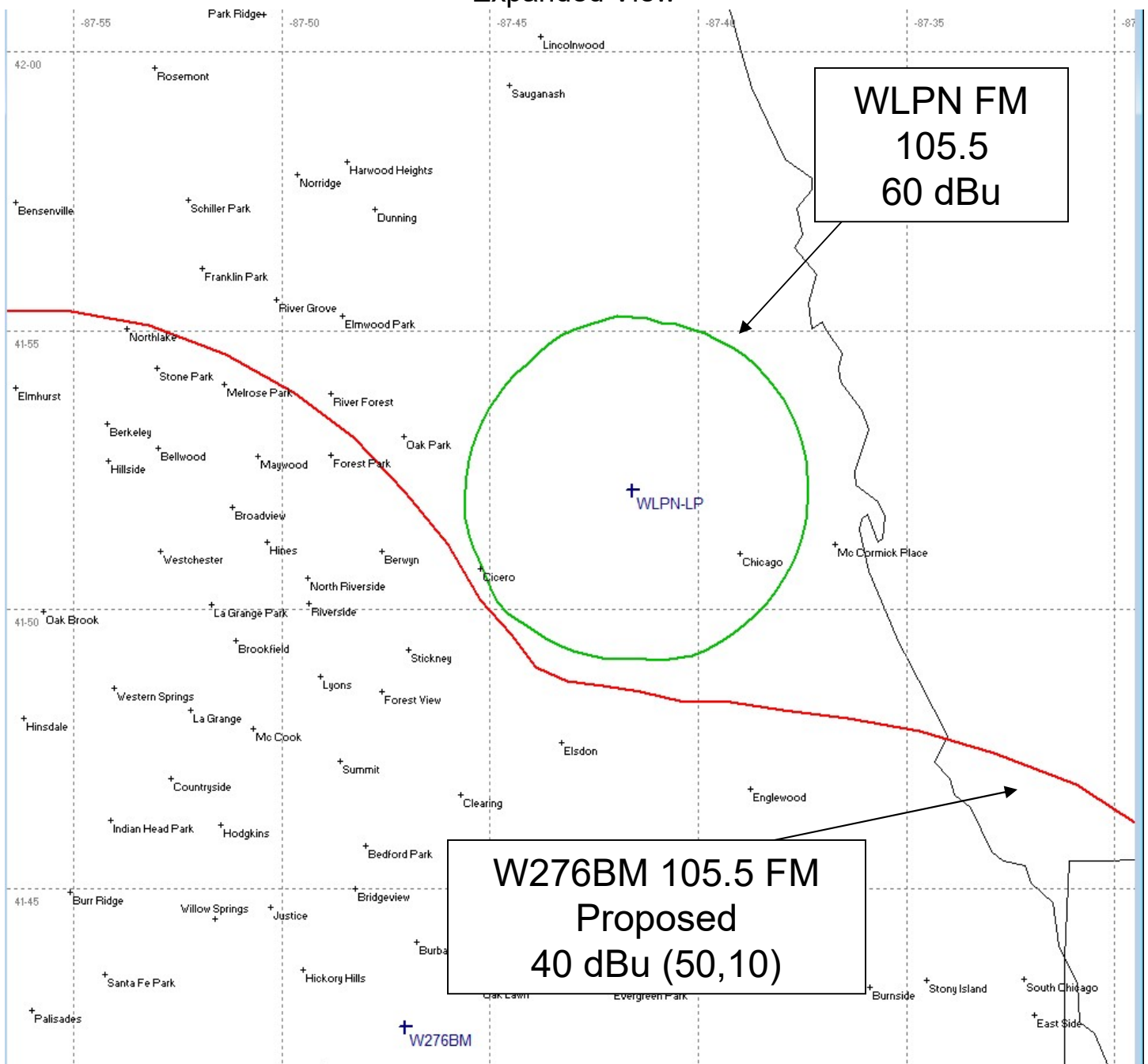


Proposed Co Channel Study
Proposed W276BM 40 dBu (50,10) Contours Co Channel WLPN 60 dBu

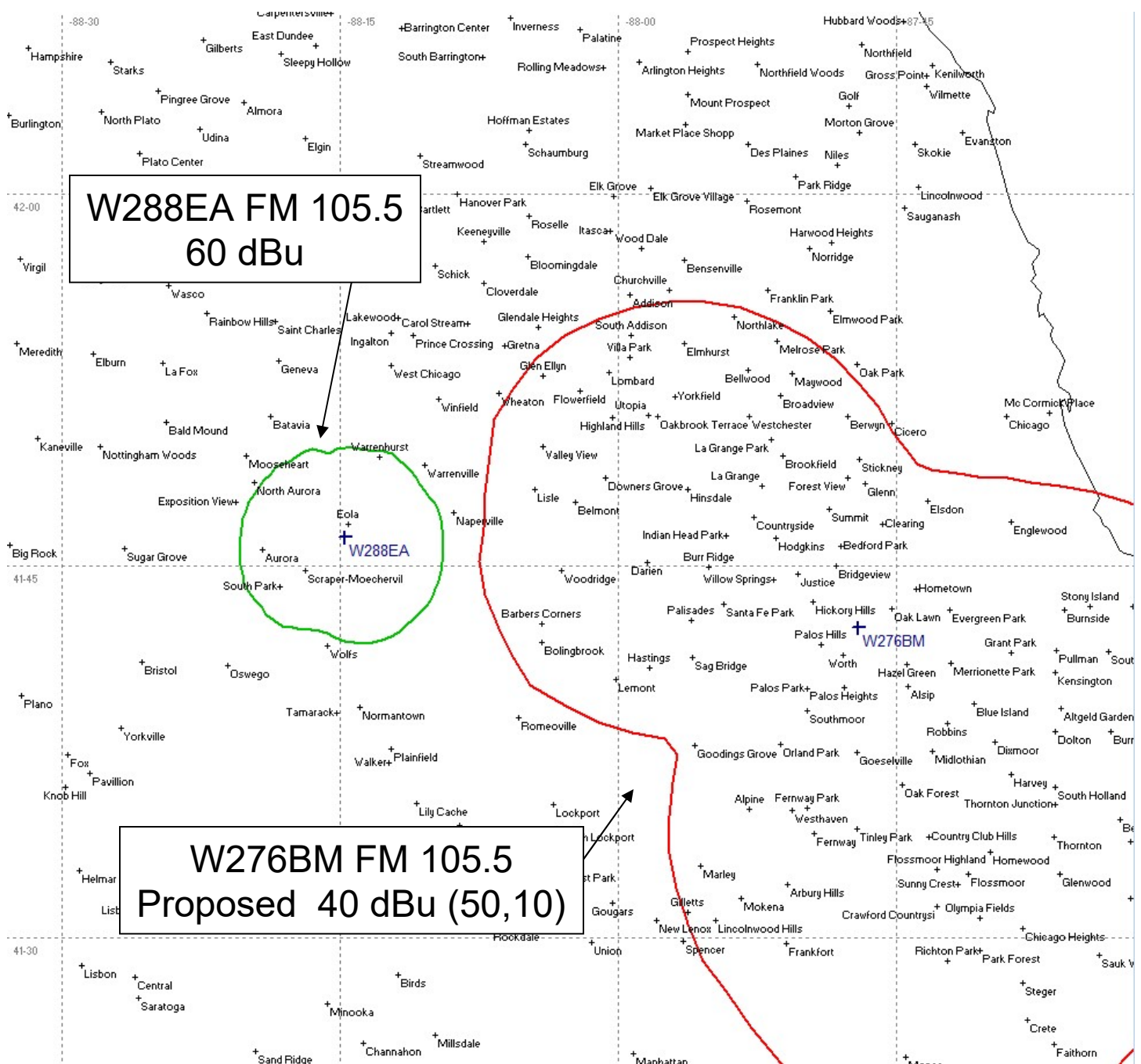


**ENGINEERING EXHIBIT
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Exhibit 7B**

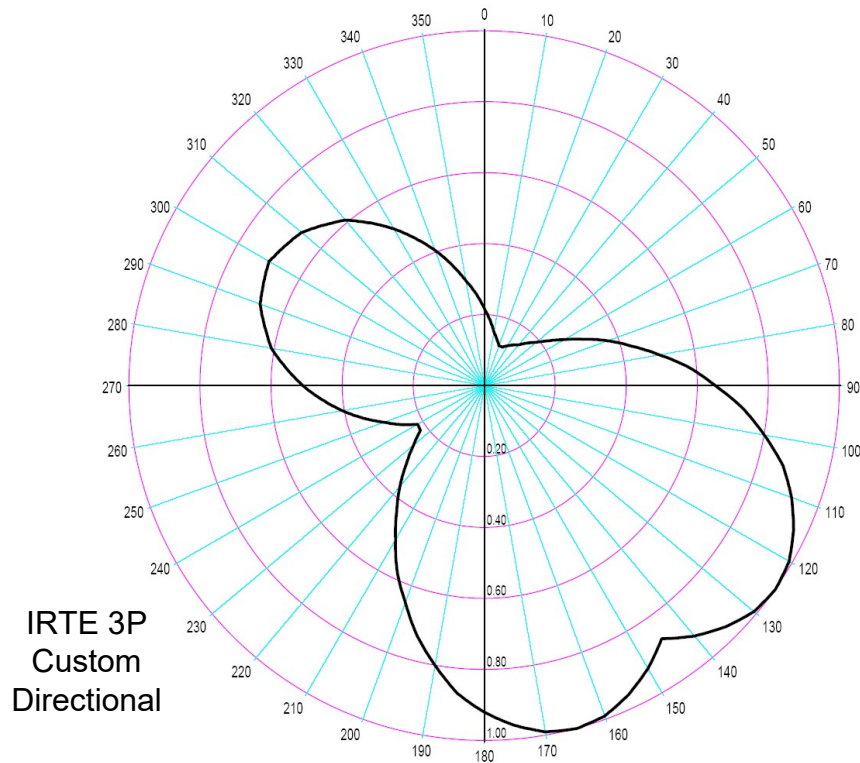
**Proposed Co Channel Study
Proposed W276BM 40 dBu (50,10) Contours Co Channel WLPN 60 dBu
Expanded View**



Proposed Co Channel Study
Proposed W276BM 40 dBu (50,10) Contours Co Channel W288EA 60 dBu



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Exhibit 9
Proposed IRTE 3P Custom Antenna Pattern
Circular Polarization



| Azim | Rel.FS | ERP [W] | dBk | Azim | Rel.FS | ERP [W] | dBk | Azim | Rel.FS | ERP [W] | dBk | Azim | Rel.FS | ERP [W] | dBk |
|------|--------|---------|---------|-------|--------|---------|---------|-------|--------|---------|---------|-------|--------|---------|---------|
| 0.0 | 0.217 | 4.710 | -23.269 | 90.0 | 0.650 | 42.264 | -13.740 | 180.0 | 0.920 | 84.669 | -10.723 | 270.0 | 0.511 | 26.121 | -15.830 |
| 5.0 | 0.185 | 3.424 | -24.655 | 95.0 | 0.730 | 53.308 | -12.732 | 185.0 | 0.870 | 75.716 | -11.208 | 275.0 | 0.560 | 31.371 | -15.035 |
| 10.0 | 0.154 | 2.372 | -26.248 | 100.0 | 0.800 | 64.022 | -11.937 | 190.0 | 0.800 | 64.022 | -11.937 | 280.0 | 0.609 | 37.101 | -14.306 |
| 15.0 | 0.136 | 1.850 | -27.328 | 105.0 | 0.870 | 75.716 | -11.208 | 195.0 | 0.730 | 53.308 | -12.732 | 285.0 | 0.640 | 40.974 | -13.875 |
| 20.0 | 0.120 | 1.440 | -28.415 | 110.0 | 0.920 | 84.669 | -10.723 | 200.0 | 0.650 | 42.264 | -13.740 | 290.0 | 0.672 | 45.174 | -13.451 |
| 25.0 | 0.120 | 1.440 | -28.415 | 115.0 | 0.960 | 92.191 | -10.353 | 205.0 | 0.580 | 33.651 | -14.730 | 295.0 | 0.686 | 47.075 | -13.272 |
| 30.0 | 0.130 | 1.691 | -27.720 | 120.0 | 0.990 | 98.043 | -10.086 | 210.0 | 0.500 | 25.008 | -16.019 | 300.0 | 0.700 | 49.017 | -13.097 |
| 35.0 | 0.140 | 1.961 | -27.076 | 125.0 | 1.000 | 100.034 | -9.999 | 215.0 | 0.430 | 18.496 | -17.329 | 305.0 | 0.686 | 47.075 | -13.272 |
| 40.0 | 0.150 | 2.251 | -26.477 | 130.0 | 0.990 | 98.043 | -10.086 | 220.0 | 0.370 | 13.695 | -18.635 | 310.0 | 0.672 | 45.174 | -13.451 |
| 45.0 | 0.170 | 2.891 | -25.390 | 135.0 | 0.960 | 92.191 | -10.353 | 225.0 | 0.310 | 9.613 | -20.171 | 315.0 | 0.640 | 40.974 | -13.875 |
| 50.0 | 0.190 | 3.611 | -24.423 | 140.0 | 0.920 | 84.669 | -10.723 | 230.0 | 0.260 | 6.762 | -21.699 | 320.0 | 0.609 | 37.101 | -14.306 |
| 55.0 | 0.220 | 4.842 | -23.150 | 145.0 | 0.870 | 75.716 | -11.208 | 235.0 | 0.220 | 4.842 | -23.150 | 325.0 | 0.560 | 31.371 | -15.035 |
| 60.0 | 0.260 | 6.762 | -21.699 | 150.0 | 0.920 | 84.669 | -10.723 | 240.0 | 0.217 | 4.710 | -23.269 | 330.0 | 0.511 | 26.121 | -15.830 |
| 65.0 | 0.310 | 9.613 | -20.171 | 155.0 | 0.960 | 92.191 | -10.353 | 245.0 | 0.259 | 6.710 | -21.733 | 335.0 | 0.458 | 20.983 | -16.781 |
| 70.0 | 0.370 | 13.695 | -18.635 | 160.0 | 0.990 | 98.043 | -10.086 | 250.0 | 0.301 | 9.063 | -20.427 | 340.0 | 0.406 | 16.489 | -17.828 |
| 75.0 | 0.430 | 18.496 | -17.329 | 165.0 | 1.000 | 100.034 | -9.999 | 255.0 | 0.353 | 12.465 | -19.043 | 345.0 | 0.353 | 12.465 | -19.043 |
| 80.0 | 0.500 | 25.008 | -16.019 | 170.0 | 0.990 | 98.043 | -10.086 | 260.0 | 0.406 | 16.489 | -17.828 | 350.0 | 0.301 | 9.063 | -20.427 |
| 85.0 | 0.580 | 33.651 | -14.730 | 175.0 | 0.960 | 92.191 | -10.353 | 265.0 | 0.458 | 20.983 | -16.781 | 355.0 | 0.259 | 6.710 | -21.733 |