

DELAWDER COMMUNICATIONS, INC.

P.O. Box 1095
Ashburn, Virginia 20146-1095
(703) 299-9222

ENGINEERING REPORT

K223CW, Houston, TX, Channel 223D FM Translator Application

ENGINEERING STATEMENT

All required protections are met by contour non-overlap pursuant to Section 74.1204, with the exception of protection to KROI, Seabrook, TX 221C1 and KKBQ, Pasadena, TX 225C. KROI and KKBQ are protected, as discussed below.

PROTECTION TO KROI AND WSSX

KROI 221C1 (52.5 kilometers at 166 degrees True from translator site) and KKBQ 225C (24.4 kilometers at 214 degrees True from translator site) are second adjacent-channel stations to the proposed channel 223 translator facility. The 60 dBu F50,50 service contour of both KROI and KKBQ extend well beyond the 223D transmitter site. Using the well-established *Living Way Ministries* Methodology, no actual interference to any population is predicted to exist to KROI or KKBQ.

Note that a rule waiver of Section 74.1204 for this second and third adjacent-channel protection using the well-established *Living Way Ministries* Methodology is respectfully requested if such a rule waiver is deemed necessary for protection to any station.

The F50,50 signal strength from KROI at the proposed 223D transmitter site is greater than 68 dBu (the “desired” signal of KROI). The F50,50 signal strength from WSSX at the proposed 223D transmitter site is greater than 90 dBu (the “desired” signal of KKBQ). The second/third adjacent-channel protection is an undesired-to-desired (“U/D”) dB signal strength ratio of 40:1. Therefore, predicted interference to KROI or KKBQ is a 223D signal of greater than or equal to 108 dBu.

The 108 dBu signal based on a free space field determination is predicted to extend out to 154 meters from the proposed 223D transmitter antenna. The attached aerial photo shows that: (a) the antenna will be mounted at the very western point of the roof-top of the Wells Fargo Building; and (b) the 108 dBu Free Space Loss (“FSL”) contour (representing the possible interference area) does not extend over any tall building. (The building located about 100 meters away in the west direction is less than 100 meters tall and the depression angle is more than 50 degrees downward to the smaller building from the proposed translator antenna. The relative field of the Scala

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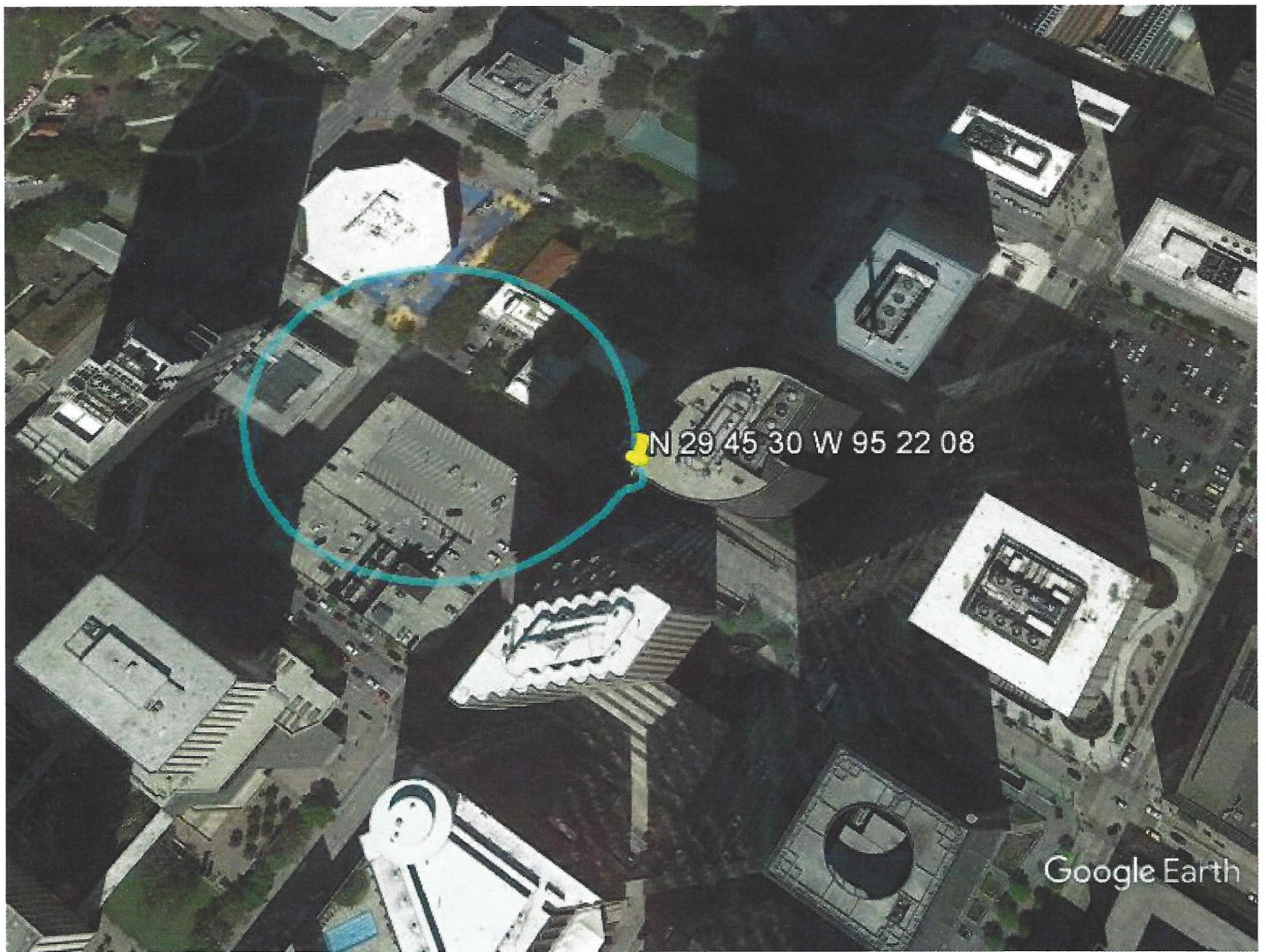
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CL-FM antenna at 50 degrees is 0.25. The actual 108 dBu signal will, therefore, not reach this smaller building.)

Since the relative field value in the antenna null is 0.05 or less, the 108 dBu FSL signal will not more than 8 meters at any area around the antenna mount that is part of the rooftop; and there are no access to the general public within 8 meters of the antenna mount.

Therefore, pursuant to Section 74.1204(d) of the FCC Rules, KROI and KKBQ are adequately protected by the proposed facility.



Google Earth

feet
meters 100 600



108 dBu Free Space Loss Contour is shown.