

EXHIBIT 13
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OVERLAP REQUIREMENTS

Living Bread Radio, Inc.
Canton, OH

Figure 13.0 is an allocation study showing the interfering contours for the proposed W288CN facilities in relation to the protected contours for all FM broadcast and FM translator stations operating on channels 230 through 236 which require protection consideration. As shown in this figure, the proposed W288CN operating facilities provide the contour protection required by Section 74.1204(a) of the FCC Rules to all other stations requiring protection consideration except second adjacent channel stations WHBC-FM - Canton, Ohio, which operates on Channel 231B, and WQMX(FM) - Medina, Ohio, which operates on Channel 235B. As is documented below in more detail, however, the proposed W288CN facilities are not likely to result in any actual interference to WHBC-FM or WQMX. Thus, based on this lack of interference, Section 74.1204(d) of the FCC Rules permits the attached application to be granted in spite of this prohibited contour overlap.

Section 74.1204(a) of the FCC Rules prohibits any overlap between the proposed W288CN 94 dBu contour and the 54 dBu protected contours for both WHBC-FM and WQMX. Compliance with this requirement, however, is obviously not possible from this site, since the proposed site is located within the 54 dBu protected contours for both WHBC-FM and WQMX.

Figure 13.1 is a map exhibit depicting the predicted 94 dBu contour for the proposed W288CN facilities. As shown in this figure, the proposed 94dBu contour extends 1500 meters from the proposed site. This figure also shows that there are buildings and public highways located within this distance of the proposed site. As a result, it was nec-

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essary to undertake a more detailed analysis to document that there is no population that is predicted to receive interference within this area of prohibited overlap.

As part of this detailed analysis, it was determined that the predicted WHBC-FM signal strength at the proposed site is 88.9 dBu, while the predicted WQMX signal strength at the proposed site is 70.5 dBu.¹ Based on the 40 dB undesired to desired (“U/D”) signal strength ratio specified for second adjacent channel stations in Section 74.1204(a)(3) of the FCC Rules, a signal level exceeding 128.9 dBu would be required to cause predicted interference to WHBC-FM and a signal level exceeding 110.5 dBu would be required to cause predicted interference to WQMX. The vertical radiation pattern data for the proposed three bay 0.75 wavelength spaced antenna was utilized in conjunction with free space propagation prediction techniques to calculate the distance to the 110.5 dBu contour² for the proposed facilities at depression angles ranging from 0° down through 90°. The results of these calculations are tabulated in Table 13.2 and depicted in Figure 13.2, which shows a side view of the predicted 110.5 dBu contour for this proposed antenna system. As shown in this figure, the predicted 110.5 dBu contour for these proposed operating facilities never reaches ground level, with its closest approach being 23.7 meters (78 feet) at a depression angle of 40°. Since, as shown in Figure 13.1, there are no tall buildings or other publicly accessible tall structures located near the proposed site, it is obvious that there is no population within the area where this overlap would result in interference being predicted to either WHBC-FM or WQMX.

¹These signal strength calculations were made using the F(50,50) curves from Section 73.333 of the FCC Rules and terrain data extracted from the NGDC 30 second terrain database.

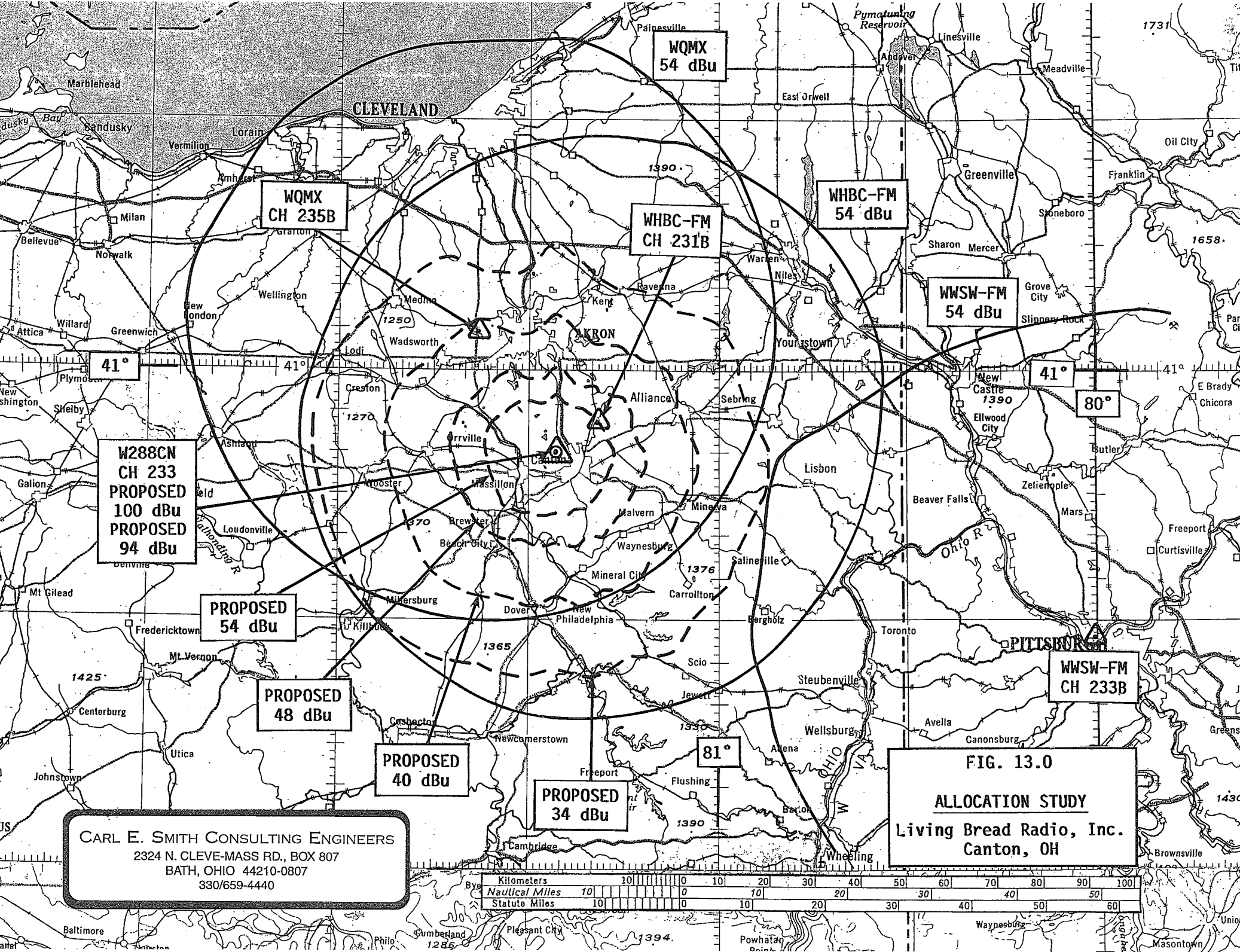
²The area where the predicted signal strength exceeds 128.9 dBu will be totally contained within the area where the predicted signal strength exceeds 110.5 dBu.

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Thus, pursuant to Section 74.1204(d) of the FCC Rules, the attached application can be granted in spite of this prohibited contour overlap, due to the total lack of population within the area of predicted interference. If it is deemed to be necessary, a waiver of Section 74.1204(a) of the FCC Rules is respectfully requested with regard to this situation.

Table 13.3 is an FM spacing study which demonstrates that the proposed facilities will comply with the intermediate frequency separation requirements outlined in Section 73.207 of the FCC Rules with regard to all existing or proposed stations operating on FM Channels 286 and 287.

The proposed transmitter site lies within 320 kilometers of the common border between the United States and Canada. At its farthest point, the proposed 34 dBu contour will extend 54.2 kilometers from the proposed site and at no point does it cross the Canadian border. Since this distance is less than 60 kilometers and the proposed facilities will operate at a power level that is less than 250 watts, the proposed facilities will fully comply with Section 4.3 of the Working Arrangement for Allotment and Assignment of FM Broadcasting Channels 201-300 Under the Canadian-U.S.A FM Broadcasting Agreement of 1947.



WQMX
54 dBu

WQMX
CH 235B

WHBC-FM
CH 231B

WHBC-FM
54 dBu

WWSW-FM
54 dBu

W288CN
CH 233
PROPOSED
100 dBu
PROPOSED
94 dBu

PROPOSED
54 dBu

PROPOSED
48 dBu

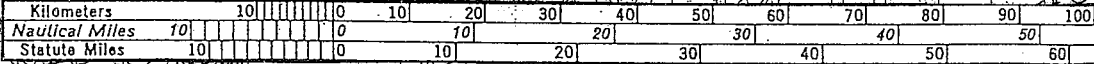
PROPOSED
40 dBu

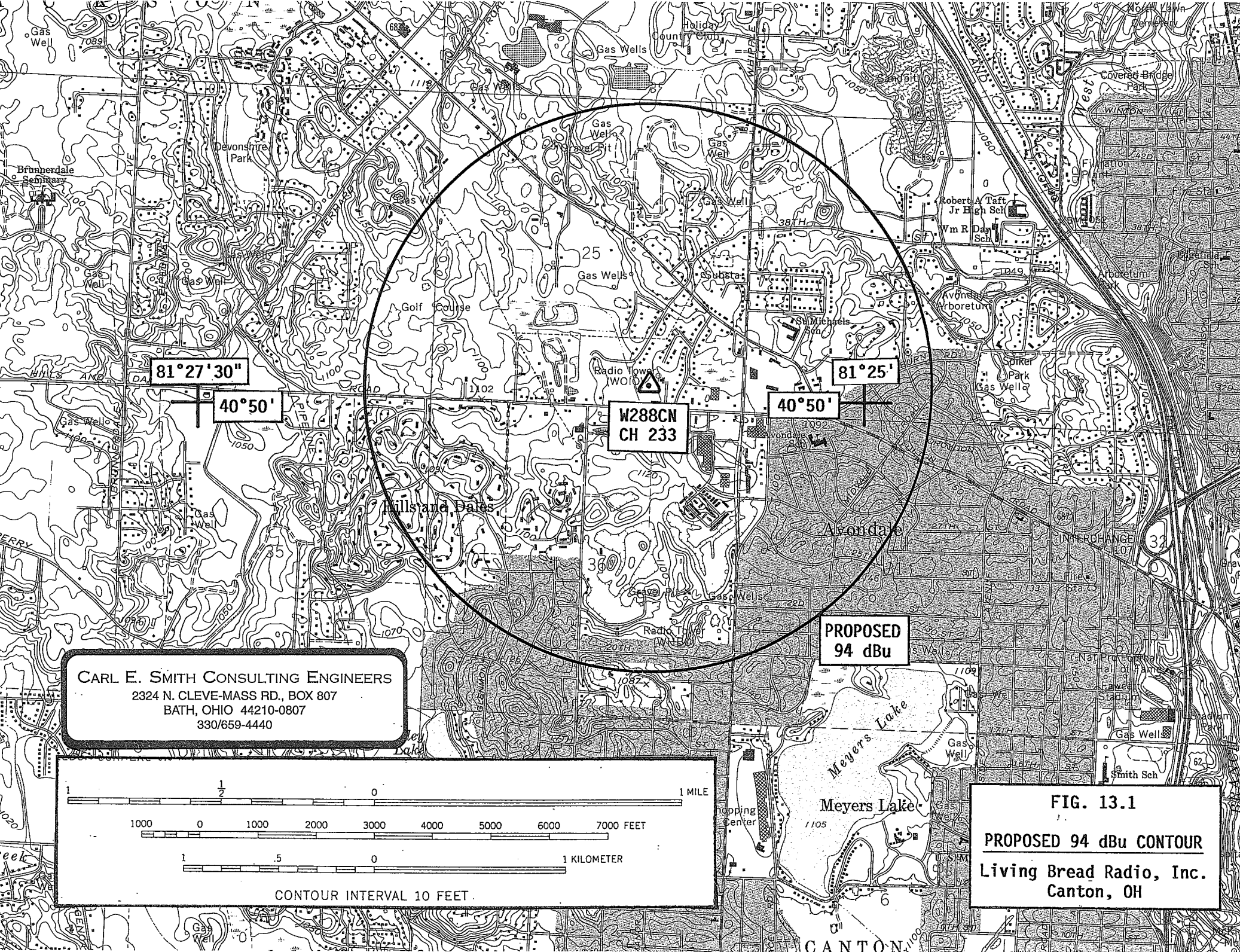
PROPOSED
34 dBu

WWSW-FM
CH 233B

FIG. 13.0
ALLOCATION STUDY
Living Bread Radio, Inc.
Canton, OH

CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS RD., BOX 807
BATH, OHIO 44210-0807
330/659-4440





81°27'30"

40°50'

81°25'

40°50'

W288CN
CH 233

PROPOSED
94 dBu

CARL E. SMITH CONSULTING ENGINEERS
2324 N. CLEVE-MASS RD., BOX 807
BATH, OHIO 44210-0807
330/659-4440

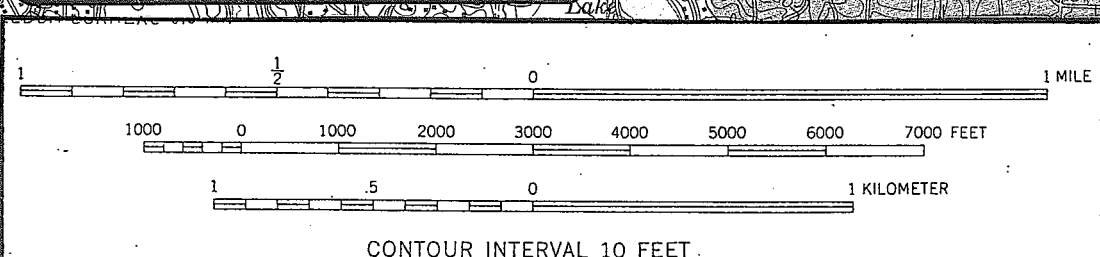


FIG. 13.1
PROPOSED 94 dBU CONTOUR
Living Bread Radio, Inc.
Canton, OH

TABLE 13.2

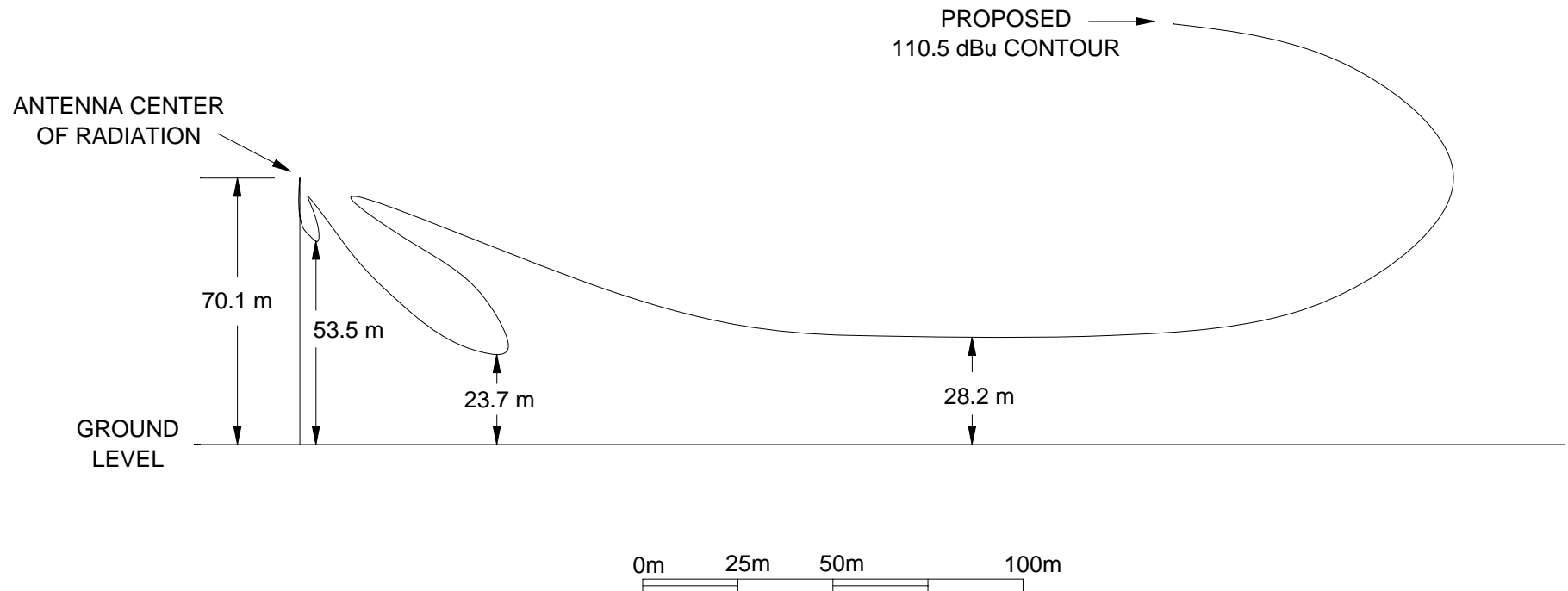
PROPOSED 110.5 DBU CONTOUR

Living Bread Radio, Inc.
Canton, OH

<u>Depression Angle (Degrees)</u>	<u>Relative Field</u>	<u>ERP (dBk)</u>	<u>110.5 dBu Contour* (Meters)</u>
0	1.000	-6.78	303.4
5	0.939	-7.32	285.1
10	0.769	-9.06	233.3
15	0.529	-12.30	160.7
20	0.279	-17.87	84.6
25	0.054	-32.13	16.4
30	0.116	-25.49	35.2
35	0.208	-20.42	63.1
40	0.234	-19.39	71.0
45	0.209	-20.37	63.5
50	0.157	-22.86	47.6
55	0.088	-27.89	26.7
60	0.027	-38.15	8.2
65	0.018	-41.67	5.5
70	0.047	-33.34	14.3
75	0.057	-31.66	17.3
80	0.051	-32.63	15.5
85	0.045	-33.71	13.7
90	0.033	-36.41	10.0

Horizontal ERP = 210 Watts = -6.78dBk

* - Contour distance calculated using free space calculation techniques.



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FIG. 13.2
PROPOSED 110.5 dBu CONTOUR
LIVING BREAD RADIO, INC.
CANTON, OH

TABLE 13.3

FM ALLOCATION STUDY - CHANNEL 233A (94.5 MHz) - CANTON, OH

 LIVING BREAD RADIO, INC.
 CANTON, OH

STUDY COORDINATES: 40/50/03 81/24/49

STATION	LOCATION	CHANNEL	CLASS	SPACING (km)	REQUIRED SPACING* (km)	NOTES
WQXK	SALEM, OH	236	B	49.37	15.0	
WYHT	MANSFIELD, OH	237	B	95.30	15.0	

* Required Spacing Per Section 73.207 of The FCC Rules

Notes:

- | | |
|--------------------------------------|----------------------------------|
| 1 - Applied For Under Section 73.215 | 7 - Pending Application |
| 2 - Construction Permit | 8 - Petition For Reconsideration |
| 3 - Channel Deletion Proposed | 9 - Proposed Rulemaking |
| 4 - Move From This Channel Ordered | 10 - Rulemaking Petition |
| 5 - Move to This Channel Ordered | 11 - Short-Spaced |
| 6 - One Step Reference Site | 12 - Vacant Allotment |