

JOB 113140
COMMUNITY OF LICENSE Syracuse, NY
APPLICANT Syracuse Community Radio, Inc.

VER 1

CONSOLIDATED ENGINEERING EXHIBIT

FCC Form 318 - Section VI - LPFM Engineering, Tech Box

ENGINEERING STATEMENT
PROPOSED NEW LPFM STATION AT SYRACUSE, NY
Syracuse Community Radio, Inc.

SUMMARY:

The applicant seeks a new LPFM station. This proposal is fully spaced to all co-channel and first-adjacent stations. It is short-spaced to one or more second-adjacent stations. Contour protection is provided by the D/U method, in compliance with 73.807(e)(1). See **Exhibit 11**. A waiver of second-adjacent spacing is hereby requested.

PERTINENT SPECIFICATIONS NOT INCLUDED IN SECTION VI - TECH BOX:

HAAT:	58 meters
ERP:	26 watts
DATA SOURCE:	V-Soft FMCommander with HAAT Method 0(zero); FCC 30- Second Terrain
SUPPORT STRUCTURE:	Tower

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INCORPORATED

Michael D. Brown

3740 S.W. Comus St.

Portland, Oregon 97219-7418

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EXHIBIT 11 INTERFERENCE

REFERENCE		DISPLAY DATES
43 00 25.0 N.	CLASS = L1 Int = L1	DATA 11-13-13
76 05 38.0 W.	Current Spacings to 2nd Adj.	SEARCH 11-13-13
----- Channel 223 - 92.5 MHz -----		

Call		Channel	Location		Azi	Dist	FCC	Margin
WSEN-FM	LIC	221B1	Baldwinsville	NY	314.1	27.64	45.5	-17.9
Specially Negotiated Short-Spaced Allocation with respect to Canada								
WXUR	LIC	224B1	Herkimer	NY	78.1	76.14	73.5	2.6
WBEE-FM	LIC	223B	Rochester	NY	280.0	114.22	111.5	2.7
Grandfathered at 50KW @ 152 Meters HAAT								
W222AH	LIC-D	222D	Cortland	NY	192.8	43.50	14.5	29.0
WKGB-FM	LIC	223A	Conklin	NY	168.7	101.22	66.5	34.7
W222AT	LIC	222D	Hamilton	NY	115.3	50.75	14.5	36.3
629635	APP	222D	Dryden	NY	194.8	55.37	14.5	40.9
1571154	APP	224D	Dryden	NY	194.8	55.37	14.5	40.9
W221CW	CP -D	221D	Groton	NY	210.3	49.75	7.5	42.3
W222BU	CP -D	222D	Rome	NY	67.9	59.71	14.5	45.2

Reference station has protected zone issue:
All separation margins include rounding

PROTECTED ZONES REPORT:

Protected zones report for NEW on channel 223L1 11-13-2013
Lat. 43 00 25.0 Lng. 76 05 38.0, ERP= 0.026 kw, HAAT= 57.9M

*** Station must coordinate with Canada. Distance to border = 90.3 km.

Closest AM Facility is WSKO, SYRACUSE, NY, L, DAN at 48.3° at a distance of 3.1 km
Facility is okay with respect to FCC monitoring stations.

Closest FCC Monitoring Station is 96.2 km= Canandaigua, NY
Facility is okay toward West Virginia Quiet Zone. Distance to center = 589.5 km
Facility is okay toward Table Mountain. Distance to Center = 2451.8 km, Azimuth = 272.4 Degrees True

CONTOUR PROTECTION TO 2ND-ADJACENT STATIONS:

Contour protection to 2nd-adjacent station WSEN-FM is provided using the ratio method. The F(50/50) contour of WSEN-FM is 66.7dBu at the proposed site. Using the appropriate U/D ratio of 40dB vs. WSEN-FM, the corresponding “worst-case” interfering contour of the proposed LPFM is

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106.7dBu and the Distance to Contour is 165 meters. As shown by the **Exhibit 11a** map, the nearest populated area is over 200 meters from the tower.

Therefore, there are no populated areas within the interference zone.

EXHIBIT 11a
106.7dBu F(50,10) Interfering Contour - vs WSEN-FM
Showing Lack of Populated Areas



Google earth

feet 1000
meters 300



No populated areas or major roads are located within this contour

EXHIBIT 14

ENVIRONMENTAL PROTECTION ACT / NIER ANALYSIS

The applicant proposes mounting a new antenna on a 117 meter registered tower. The proposed center of radiation is 80m AGL. A 1 bay SWR FMEC/1 antenna is anticipated. This antenna is the functional equivalent of the Jampro "Double-V" series. Calculations were made using FM Model for Windows, version 2.10, using the "Jampro "Double-V"" setting. FM Model predicted a peak exposure of $0.079\mu\text{W}/\text{cm}^2$, at 80.4 meters from the tower. This represents 0.04% of the Maximum Permissible Exposure (MPE) of $200\mu\text{W}/\text{cm}^2$ for uncontrolled environments. 47 CFR §1.1307(b)(3) exempts applicants from preparing an Environmental Assessment when the predicted exposure levels would be less than 5% of the FCC limits.

The applicant will ensure that public access to the tower is restricted by fencing, anti-climb devices, or other appropriate measures. The site will be posted with appropriate RF exposure warning signs. If tower climbing by authorized personnel becomes necessary, transmitter power will be reduced or operation will cease, as necessary, so as to not exceed the RF exposure limits.

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