

COMPREHENSIVE TECHNICAL EXHIBIT

DISCUSSION

Applicant proposes modification of FM Translator W276AQ, FCC ID #46437 for improved coverage of the city of license, with an increase in ERP and adjustment of the directional antenna pattern. The facility will continue to operate as a "fill-in" for WPLJ-HD3, New York, NY, FCC ID #73887.

Contour Overlap Requirements

A study of all relevant co-channel, 1st, 2nd, and 3rd adjacent channels and I.F. relationships reveals the absence of any conflict (see **Figure 1** below), with the exception of 2nd adjacent WKTU, FCC ID #6595, Lake Success, NY and WNEW-FM, FCC ID #25442, New York, NY for which 2nd adjacent waivers are being requested (see discussion). The close relationship with FM Translator W276BV, FCC ID #158099. Greenwich, CT and full-service WPRB, FCC ID #53567, Princeton, NJ is explored in **Figures 8 & 9**, showing the absence of any contour overlap. (**NOTE: Terrain database is GLOBE 30 sec**)

FM Translator W276AQ Minor Modification

Bridgelight, LLC											
REFERENCE		CH# 276D - 103.1 MHz, Pwr= 0.099 kW DA, HAAT= 134.5 M, COR= 161 M								DISPLAY DATES	
40 51 15.4 N.		Average Protected F(50-50)= 11.8 km								DATA 04-21-23	
73 58 58.5 W.		Standard Directional								SEARCH 04-21-23	
CH	CALL	TYPE	ANT	AZI.	DIST	LAT.	Pwr(kw)	INT(km)	PRO(km)	*IN*	*OUT*
CITY			STATE	<--	FILE #	LNG.	HAAT(M)	COR(M)	LICENSEE	(Overlap in km)	
278B	WKTU	LIC	CN	181.1	11.76	40 44 54.40	6.000	4.5	64.3	-4.7*	-54.0*
Lake Success			NY	1.1	BLH20030604ACH	73 59 08.50	415	429	Ihm Licenses, LLC		
274B	WNEW-FM	LIC	CN	181.1	11.77	40 44 54.30	6.000	4.5	64.3	-4.7*	-54.0*
New York			NY	1.1	BLH19940204KH	73 59 08.50	415	429	Audacy License, LLC		
276D	W276AQ!	LIC	DCN	0.0	0.00	40 51 15.40	0.035		---	Reference---	
Fort Lee			NJ	0.0	BLFT20161212AAR	73 58 58.50		159	Bridgelight, LLC		
276D	W276BV	CP	DCN	69.1	18.11	40 54 44.40	0.090	21.5	1.7	-7.0*	-25.5*
New Rochelle			NY	249.2	BPFT20180612AAX	73 46 53.50		162	Sun Signals LLC		
OF NOTE											
This Construction Permit expired 1/8/23 and has been cancelled											
276A	WBZO	LIC	NCN	99.8	65.79	40 45 03.40	1.550	71.2	23.0	-17.3*	1.3
Bay Shore			NY	280.3	BLH20141218AFF	73 12 47.40	141	156	Connoisseur Media Licenses		
276A	WJGK	LIC	ZCN	349.3	70.09	41 28 25.30	6.000	68.3	15.8	-10.3	8.5
Newburgh			NY	169.2	BLH19971219KE	74 08 20.50	85	236	Sunrise Broadcasting Corpo		
277B	WPRB	LIC	CN	223.3	86.95	40 16 58.40	14.000	71.0	60.5	3.9	0.5
Princeton			NJ	42.8	BLH20070221AAV	74 41 09.60	222	257	Princeton Broadcasting Ser		
276D	W276BV	LIC	CN	50.2	34.35	41 03 06.30	0.002	6.7	2.2	17.4	0.6
Greenwich			CT	230.4	BLFT20071009AAI	73 40 05.40	-11	55	Sun Signals LLC		
276D	W276DY	LIC	DCN	60.7	43.93	41 02 49.00	0.150	8.6	2.6	24.2	7.0
Stamford			CT	241.0	0000157766	73 31 34.00		105	Sacred Heart University, I		
279B1	WNNJ	LIC	NCN	299.6	75.47	41 11 12.30	2.300	2.9	45.1	60.4	29.3
Newton			NJ	119.1	BMLH20020611ABA	74 46 02.50	272	514	Ihm Licenses, LLC		
276D	W276DG	LIC	DCN	276.4	99.47	40 56 53.30	0.250	11.8	2.9	75.7	49.3
Stroudsburg			PA	95.6	0000117650	75 09 36.60		434	Southern Belle, LLC		
275B	WMGK	LIC	CN	229.9	139.50	40 02 21.40	8.900	73.8	63.1	53.2	50.0

Philadelphia	PA	49.1	BMLH20001030AAV	75	14	11.60	350	416	Beasley Media Group Licens		
275B WDRC-FM Hartford	LIC ZEN CT	50.1 230.8	123.57 BLH20140929AGJ	41 72	33 50	44.40 38.40	19.540 247	60.3 345	51.5 53.6	50.1 Red Wolf Broadcasting Corp	
273D W273EB Westport	LIC DHN CT	45.7 226.1	61.85 0000203276	41 73	14 27	29.30 11.40	0.250	0.0 193	0.8 51.8	59.8 Sun Signals LLC	
277D W277DP Bridgeport	LIC VN CT	61.2 241.7	75.58 0000127407	41 73	10 11	44.30 28.40	0.250	10.1 24	7.1 54.2	54.5 Radio Cumbre Broadcasting,	
279D W279CI Danbury	LIC DCN CT	37.7 218.1	73.24 BLFT20150805ABJ	41 73	22 26	27.30 45.40	0.250	0.5 296	7.2 61.8	64.1 The Berkshire Broadcasting	
275D W275DE/W2 Quinns Corner	CP CN PA	309.4 128.9	87.78 0000162682	41 74	21 47	10.30 43.50	0.045	6.5 266	4.6 69.2	65.3	
277D W277DH Quinns Corner	LIC DCN PA	309.4 128.9	87.78 BLFT20170612AAF	41 74	21 47	10.30 43.50	0.055	6.3 266	4.4 69.4	65.5	
277A WQQQ Sharon	LIC NCN CT	16.0 196.3	123.22 0000164539	41 73	55 34	08.30 20.40	1.500 186	38.3 445	25.3 72.7	78.7 wamc, Inc.	
276A WILK-FM Avoca	LIC CN PA	289.2 108.0	157.17 BLH20040413AAT	41 75	18 45	20.30 36.70	6.000 22	68.3 397	15.8 76.7	100.5 Audacy License, LLC	
275A NEW Narrowsburg	CP ZCN NY	309.3 128.5	128.39 0000158745	41 75	34 10	45.30 40.60	2.100 127	36.6 499	24.4 79.6	84.5 Bold Gold Media Group, L.P	
273A WHVC Rhinebeck	LIC CN NY	359.7 179.7	109.70 BLED20180820AAJ	41 73	50 59	27.70 24.20	1.350 214	2.0 306	24.5 95.6	80.9 Redeemer Broadcasting, Inc	
279D W279AJ Highland	LIC CN NY	359.0 179.0	93.98 BLFT20130226AAC	41 74	41 00	58.30 10.50	0.010 260	0.2 375	8.6 81.7	83.8 walker Broadcasting Compan	
277A WPLF Shelter Island	CP NCN NY	84.0 265.1	137.99 0000189771	40 72	58 20	19.30 52.20	5.000 108	43.9 114	28.5 82.2	91.9 Educational Media Foundati	
273D W273AO Whiting	LIC DVN NJ	198.7 18.5	105.57 BLFT20050322AEJ	39 74	57 22	15.40 50.50	0.040 42	0.4 72	5.1 92.9	99.7 wysr Broadcasting	
273D W273DM Hawley	LIC CN PA	302.5 121.7	116.72 0000152505	41 75	24 09	43.00 50.00	0.250	1.1 581	16.5 103.4	99.3 Bold Gold Media Group, L.P	
276A WGY-FM Albany	LIC CN NY	7.1 187.3	202.78 BLH20090903AAY	42 73	39 40	50.30 40.40	5.600 103	91.2 233	31.7 99.7	127.5 Ihm Licenses, LLC	

Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

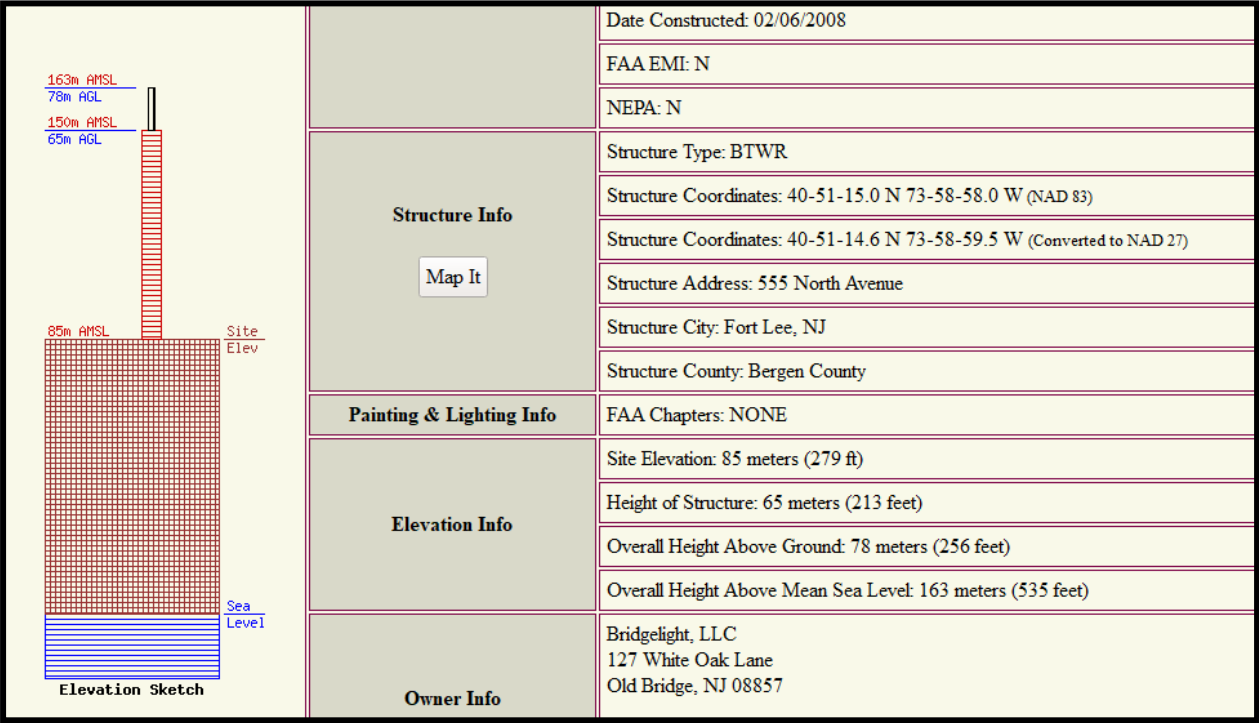
2nd adjacent waivers requested

Figure 1

Waiver Request of Section 74.1204 and Showing of Compliance

The proposed FM translator is located within the protected 60 dBu F(50,50) contour of 2nd adjacent channel WKTU, FCC ID #6595, Lake Success, NY and WNEW-FM, FCC ID #25442, New York, NY (see **Figure 1**). The predicted F(50,50) field strength of WKTU at the proposed translator location is 87.3 dBu (free space equation). Using the Undesired-to-Desired method for calculating proposed interference, the proposed interfering contour with respect to the WKTU is 127.3 dBu (87.3 + 40) (free space method employed). This interfering signal would, in the worst case, extend 30 meters from the proposed antenna. The proposed FM translator is also located within the protected 60 dBu F(50,50) contour of 2nd adjacent channel WNEW-FM, FCC ID #25442, New York, NY (see figure 1). The predicted F(50,50) field strength of WNEW-FM at the proposed translator location is also 87.3 dBu (free space equation), and this interfering signal would, in the worst case extend 30 meters from the proposed antenna.

The proposed antenna will be attached to an existing 13 meter communications tower (ASR # 1261660) which is mounted atop a 65 meter building (see **Figures 2, 3 & 4**). Applicant proposes attaching a two bay FM, ½ wave spaced antenna at the 11 meter (above roof line) level resulting in a CORAGL of 76 meters (see diagram, **Figure 5**).



ASR 1261660

Figure 2



Figure 3

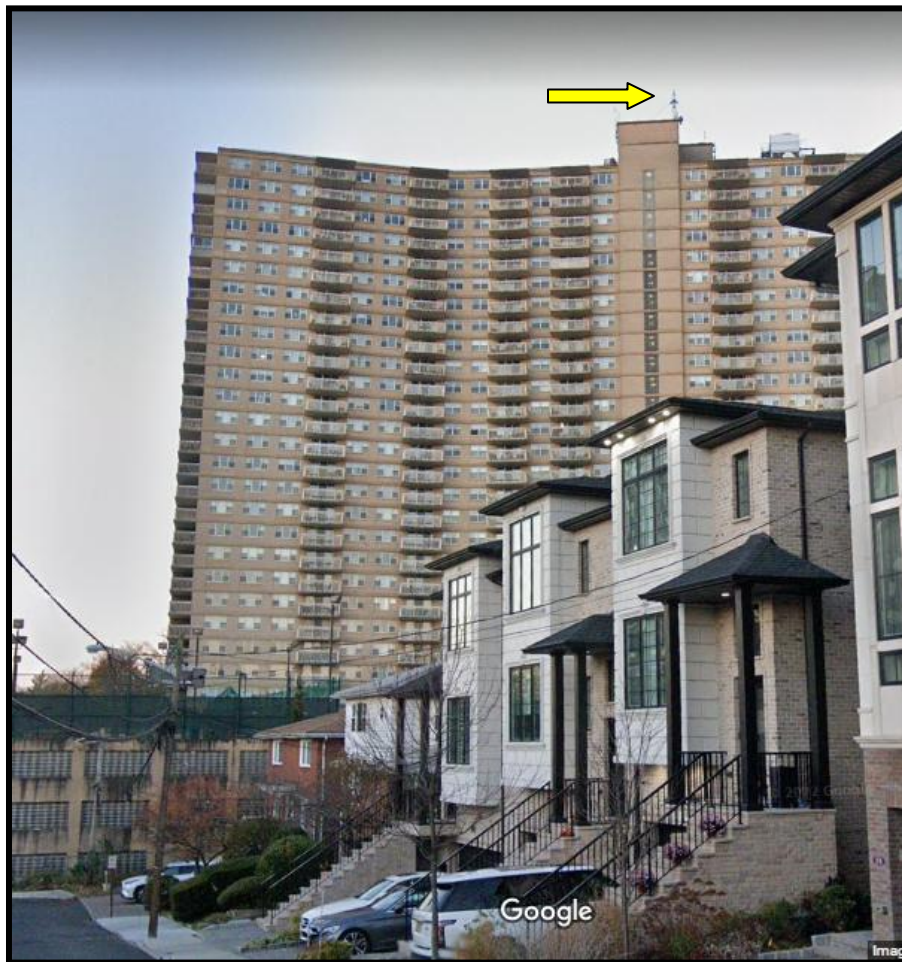


FIGURE 4

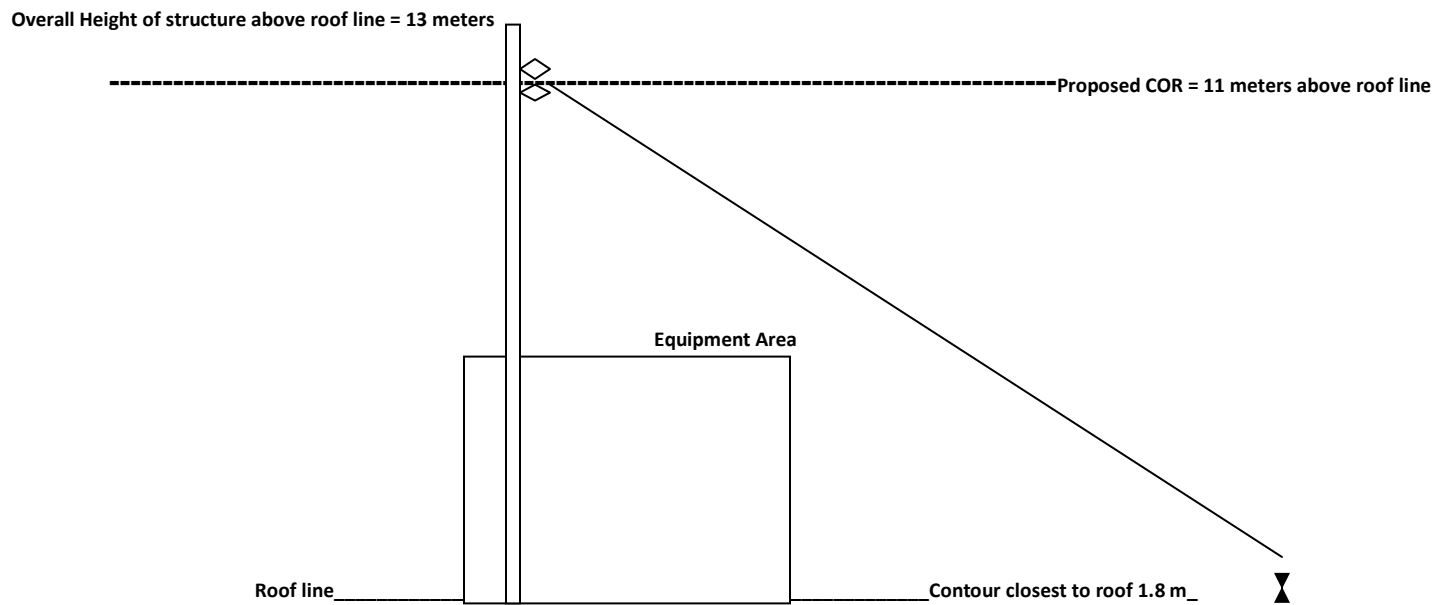


Figure 5

(Not to scale)

At 99 watts, the maximum distance to the 127 dB interfering contour is 30 meters at 0 degrees. The closest point to the roof line of the 127 dB contour of the proposed antenna based on the Vertical Radiation Pattern is 1.8 meters (see tabulation, **Figure 6**) on the 30 degree radial. The existing tower is mounted on the side of the elevator mechanical room. The room is an uninhabited area with elevator, electrical and communications equipment stored inside. As can be seen in the aerial photograph (**Figure 7**), the only other appurtenances on the roof are HVAC, venting, electrical and mechanical enclosures. There are no adjoining structures within 30 meters. The interfering contour area will be entirely unpopulated. Since no population inhabits the interference area, the applicant respectfully requests waiver of the FM translator contour overlap requirements with respect to 2nd adjacent stations WKTU and WNEW-FM, as permitted in CFR Section 74.1204.

Freespace Interference Study based on Vertical Radiation Pattern

AAT 2 bay half-wave iv-cp

INT Contour = 127 dB

ERP = 99 watts

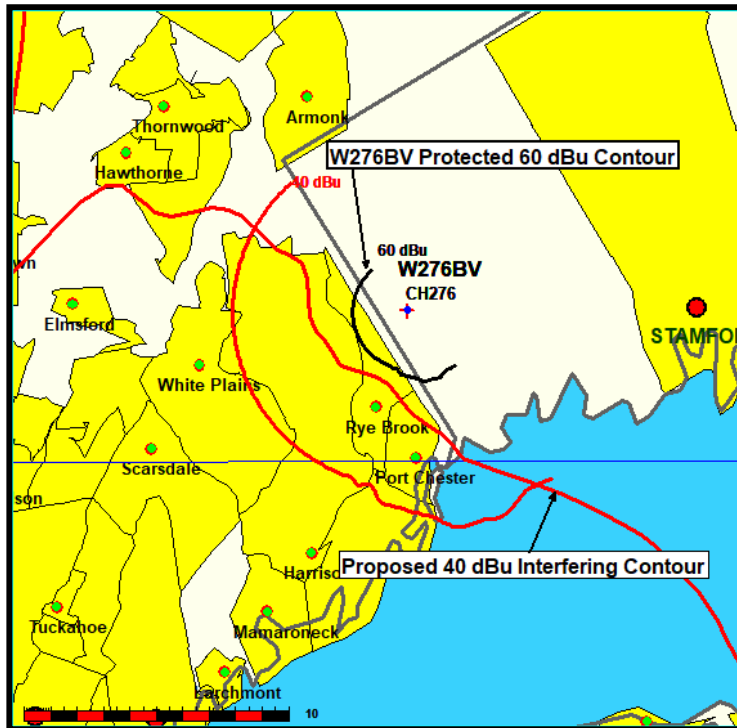
COR Above roof Level =
11meters

Depression Angle (from COR)	Antenna Relative Field	ERP (watts)	D (from FCC)		Vertical Clearance of Interfering Contour above roof line (m)
			Dist to F(50,10) Interfering Contour from Antenna (m)	Horiz Dist of Interfering Contour from Tower (m)	
5	0.987	96.4	29.6	29.5	8.0
10	0.949	89.2	28.4	28.0	6.1
15	0.888	78.1	26.6	25.7	4.1
20	0.808	64.6	24.2	22.7	2.7
25	0.715	50.6	21.4	19.4	2.0
30	0.614	37.3	18.4	15.9	1.8
35	0.511	25.9	15.3	12.5	2.2
40	0.41	16.6	12.3	9.4	3.1
45	0.317	9.9	9.5	6.7	4.3
50	0.234	5.4	7	4.5	5.6
55	0.164	2.7	4.9	2.8	7.0
60	0.107	1.1	3.2	1.6	8.2
65	0.064	0.4	1.9	0.8	9.3
70	0.034	0.1	1	0.3	10.1
75	0.015	0	0.4	0.1	10.6
80	0.005	0	0.1	0.0	10.9
85	0.001	0	0	0.0	11.0
90	0.0001	0	0	0.0	11.0
					1.8

Figure 6

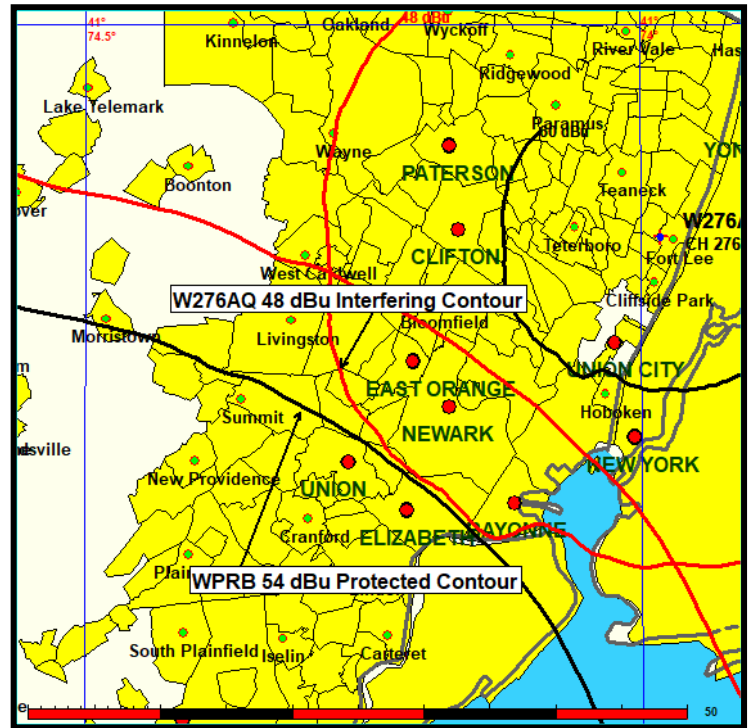


Figure 7



Proposed vs W276BV

Figure 8



Proposed vs WPRB

Figure 9

“Fill-in” Qualification

Figure 10 demonstrates that the 54 dBu contour of the proposed facility is entirely enclosed within the 54 dBu contour of Primary station WPLJ.

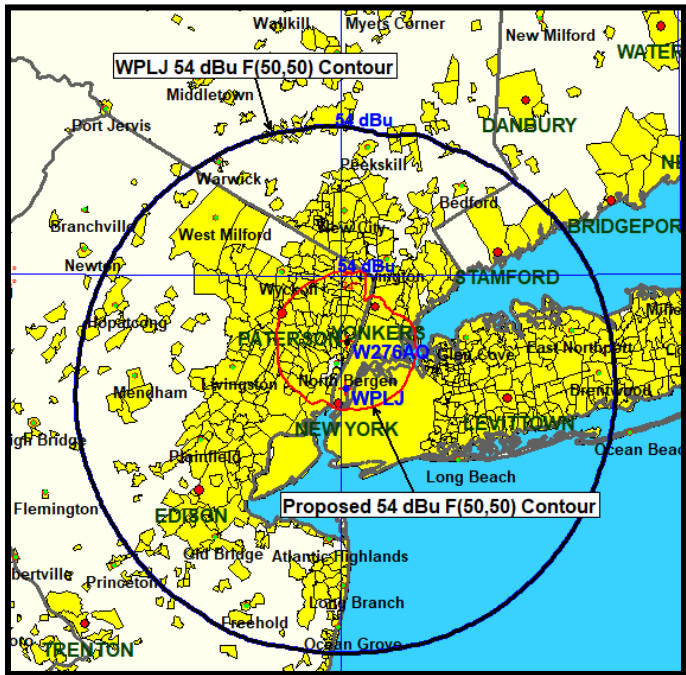


Figure 10

Minor Modification Qualification

Figure 11 demonstrates the overlapping 60 dBu contours.

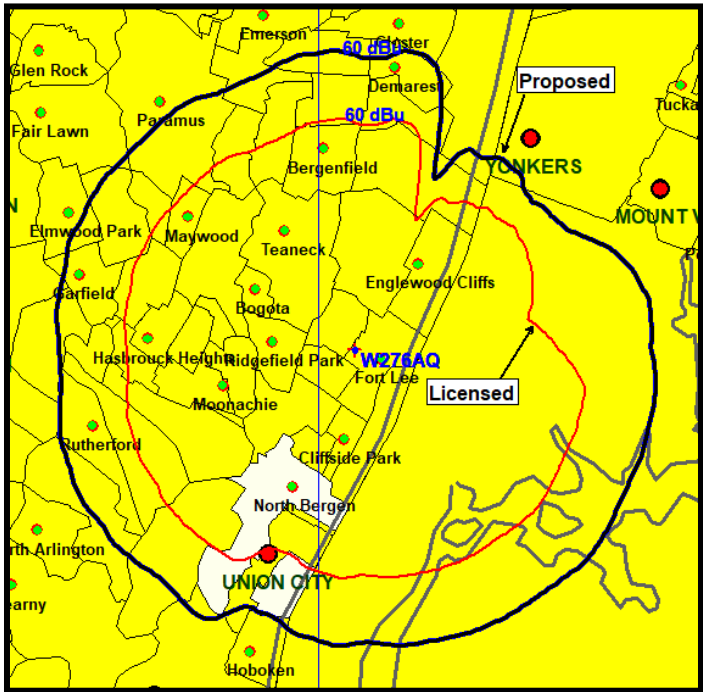


Figure 11

Environmental Compliance

The proposal specifies an antenna to be mounted on an existing structure with equipment housed in an existing equipment storage area. The specified ERP is less than 100 watts and is therefore categorically excluded from environmental processing.