

Minor Modification W291BV Facility ID No. 141400

This exhibit is for minor modification of translator W291BV Facility ID No. 141400. It specifies a change in, antenna location and elevation, antenna make and model, and operating power.

Antenna Location

The proposed antenna is to be mounted on an existing tower identified by registration number 1012090 at 204 meters above ground. Below as **Figure 1** is an overlap and spacing study, which considered the proposed directional antenna pattern given in **Figure 2**, showing no prohibited contour overlap except that this proposal is within the protected contour of **second** adjacent station WMJI(FM) which is 2,100 meters from the proposed location; and **second** adjacent channel station WHLK(FM) which is co-located with this proposal.

73.1204 Compliance

We will demonstrate that a lack of population and/or other factors allow this proposal to be compliant with 74.1204. The process commonly called "Living Way", allows for the use of D/U Analysis, also known as "signal strength ratio methodology" to be utilized to demonstrate compliance. In this instant case the facility to be protected is on a second or third adjacent channel and is to be afforded protection from signals 40 dB stronger than the protected facility presents in the location of the proposed translator antenna location.

Concerning WMJI(FM); In **Figure 3** a map showing the predicted 112 dBu signal contour of the protected facility at the proposed translator antenna location is given. This proposal can only cause predicted interference to the protected facility by having a signal exceeding 152 dBu in a habitable/populated area. Utilizing the line of sight equation shown in **Figure 4** it has been determined that a 152 dBu signal developed by 200 watts, as proposed, emitted by an antenna mounted at the proposed 204 meters above ground, will not reach ground level. With examination of the images in **Figure 5** it can be determined that no habitable space extends above this height within the confines of this contour. Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Concerning WHLK; This proposal is co-located on the same tower, thus the 11.5 kw WHLK signal will always exceed that of the proposed translator.

Thus the provisions of the rules section concerning prohibited overlap will not apply as it has been demonstrated that no actual interference will occur due to a lack of population and other factors as applied in this instant proposal.

Fill-in and Minor Modification Status

This proposal is to serve as a fill-in translator for station WAKS(FM), Facility ID 49952, Akron, OH. The map of **Figure 6** demonstrates that the proposed 60 dBu contour is contained within that of the WAKS(FM) 60 dBu contour, and that the proposed 60 dBu contour overlaps that of the licensed facility.

International Compliance

The proposed 34 dBu F(50,10) interfering contour as shown in **Figure 6** extends north of the US-Canada border within Lake Erie, and exceeds the 60 km distance limit specified in 47 CFR § 74.1235(d)(3), but it clears all Canadian soil by at least 3.8 kilometers; therefore, the proposed operation would have no impact on any present or future Canadian FM broadcast facilities. The closest point of Canadian land to the contour is Pelee Island, Ontario.

It is understood that in the context of similar applications, Industry Canada has stated that no objection will be made as long as the 34dBu interfering contour falls entirely over water. Applicant asks that a formal notification be sent to Canada by the Commission. Applicant respectfully requests a waiver of the maximum 34dBu distance limit of 47 CFR §74.1235(d)(3), which would serve the public interest by permitting this proposed fill-in FM translator to operate at the proposed site with the maximum effective radiated power of .200kw.

RF Radiation Statement

The proposed facilities were evaluated in terms of potential radio frequency radiation exposure at ground level in accordance with OET Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radio frequency Radiation."

The proposed antenna system is a composite **ERI 100A-2F-DA two (2) element, full-wave spaced**; antenna mounted 204 meters above ground. As this element type is not modeled in any current computer program, for purposes of this analysis the FM Model program has been set to calculate values for a "worst case" type of antenna element array, "Ring Stub", operated with an effective radiated power of 0.200 Kilowatts in the Horizontal and Vertical plane. At 2 meters above the surface, at 50 meters from the base of the tower, this proposal will contribute worst case, 0.2 microwatts per square centimeter, or 0.02 percent of the allowable ANSI limit for controlled exposure, and 0.1 percent of the allowable limit for uncontrolled exposure. This figure is less than 0.10% of the applicable FCC exposure limit at all locations extending out from the base of the tower. Section 1.1307(b)(3) excludes applications when the calculated level is predicted to be less than 5% of the applicable exposure limit. It is therefore believed that this proposal is in compliance with OET Bulletin Number 65 as required by the Federal Communications Commission.

Further, the applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The site itself is restricted from public access. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

Figure 1. Overlap and Spacing Study

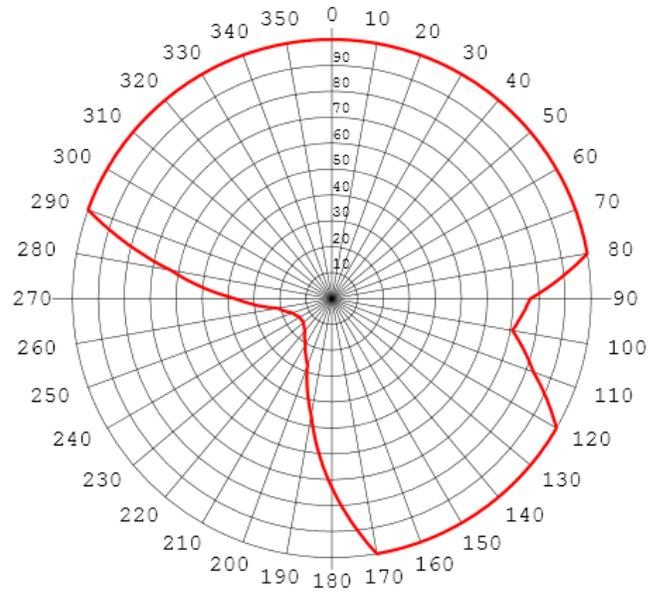
W291BV 204 m AGL At 1012090 DA 200w

REFERENCE CH# 291D - 106.1 MHz, Pwr= 0.2 kw DA, HAAT= 262.5 M, COR= 525 M DISPLAY DATES
 41 22 44.8 N. Average Protected F(50-50)= 20.04 km DATA 09-10-18
 81 43 11.5 W. Standard Directional SEARCH 09-10-18

CH CITY	CALL	TYPE STATE	ANT	AZI <--	DIST FILE #	LAT LNG	PWR(kw) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
289B	WMJI	LIC_CN OH	75.3	2.09	41 23 02.0	16.000	6.1	71.1	-24.1*<	-70.8*<	
Cleveland Grandfathered at 27kw @ 274M Haat or Equivalent											
293B	WHLK	LIC_CN OH	0.0	0.00	41 22 45.0	11.500	5.3	65.1	-27.3*<	-66.9*<	
Cleveland BLH19911002KE											
291D	W291BV	LIC_CN OH	69.7	20.30	41 26 32.0	0.040	186	---Reference---			
Solon BLFT20170912AAD Educational Media Foundati											
291B	WVNO-FM	LIC_CN OH	228.0	101.69	40 45 50.0	40.000	136.3	66.0	-41.7*<	1.2	
Mansfield BLH19911030KB Johnny Applesed Broadcast											
291A	WBBG	LIC_CN OH	98.7	81.17	41 15 52.0	3.000	79.2	26.2	-15.0*<	0.4<	
Niles BLH19880708KD											
238B	WFHM-FM	LIC_CN OH	69.7	20.37	41 26 32.0	31.000	78.7	25.9	14.5R	5.9M	
Cleveland BMLH20020812ABY Salem Media Of Massachuset											
290B	WDMK	LIC_DCN MI	315.2	172.46	42 28 16.0	20.000	76.3	64.6	74.7	62.9	
Detroit BLH19840619CK Radio One Of Detroit, Llc											
SPECIAL NEGOTIATED SHORT-SPACED ALLOCATION.											
292B	R29991	DEL ON	343.5	177.38	42 54 31.0	50.000	78.0	65.0	77.5	66.7	
Sarnia 163.1 Special negotiated short spaced allotment											
292B	CHKS-FM	USE_CN ON	341.7	174.60	42 52 09.0	50.000	74.9	62.0	77.9	66.9	
Sarnia 161.2											
6/17/2011: Data missing from database, entered 6/17/2011. Special negotiated short spaced allotment limited to 50kw ERP and 136.5 m HAAT along 298.5 degree azimuth toward Saginaw, MI 292B1, 26kw ERP and 128.5m HAAT along 236.5 degree azimuth toward Detroit, MI 290B, and 25kw and 128.5m HAAT along 222 degree azimuth toward Detroit, MI 294B(O) Accepted by Commission 980804											
290B	WDX-FM	LIC_CN PA	124.0	173.45	40 29 38.0	15.500	74.8	63.6	78.9	68.5	
Pittsburgh 305.1 BLH20080108AAF Citicasters Licenses, Inc.											
237A	WLKR-FM	LIC_CN OH	262.3	79.25	41 16 49.0	3.300	78.7	25.9	9.5R	69.8M	
Norwalk 81.7 BMLH20000615AFD Elyria-Iorain Broadcasting											
288A	AL3320	VAC ON	341.5	119.71	42 24 00.0	6.000	2.7	38.0	95.2	79.9	
Chatham 161.2											
294B	WDTW-FM	LIC_CN MI	314.4	152.52	42 19 55.0	61.000	6.4	67.6	124.7	83.1	
Detroit 133.5 BMLH19890804KA											
Grandfathered at 61kw @ 155M HAAT											
294D	W294CK	LIC_CN OH	228.0	101.69	40 45 50.0	0.250	1.1	16.7	93.5	84.8	
Mansfield 47.4 BLFT20180809AAK Gsm Media Corporation											
291A	WCOP	APP_NCX PA	87.1	189.97	41 26 30.5	3.500	85.8	29.7	85.6	101.8	
Farmington Township 268.7 BPEH20180510AAS Family Life Ministries, In											
291A	WCOP	LIC_NC PA	87.1	189.85	41 26 31.0	3.200	84.6	29.2	86.6	102.2	
Farmington Township 268.6 BLED20120705AAH Family Life Ministries, In											
292A	WCDK	LIC_CN OH	149.2	145.23	40 15 14.0	2.700	40.6	26.7	88.3	94.0	
Cadiz 329.8 BLH19910107KC											
Proposed to Canada as 81 on 900720-Accepted by Canada on 900905											
237A	WKLM	LIC_CN OH	186.1	99.76	40 29 09.0	3.000	78.7	25.9	9.5R	90.3M	
Millersburg 6.0 BLH19960611KB Wklm Radio, Inc.											
292A	WCTL	CP_CN PA	61.4	155.85	42 02 15.8	0.860	44.8	29.6	90.8	96.2	
Erie 242.5 BPH20170221ACH Inspiration Time, Inc.											
288A	WGOJ	LIC_ZEN OH	61.4	113.46	41 51 42.0	6.000	1.7	18.9	91.5	93.5	
Conneaut 242.2 BLH19930913KC Bible Broadcasting, Inc.											
Accepted by Canada on 911015-Specially negotiated, short-spaced channel Ltd to 7.2Kw ERP/100m Haat on 294 degrees azimuth towards Chatham, Ontario and 21.7Kw ERP/100m Haat on 357 degrees azimuth towards Kitchener, Ontario.											

 Terrain database is NGDC 30 SEC , R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
 Contour distances are on direct line to and from reference station. Reference zone= East Zone, Co to 3rd adjacer
 All separation margins (if shown) include rounding.

Figure 2. Antenna Pattern



Azi	Rel	dBk	kW	dB	Azi	Rel	dBk	kW	dB
0	1.000	-6.99	0.200	0.00	180	0.729	-9.74	0.106	-2.75
10	1.000	-6.99	0.200	0.00	190	0.456	-13.81	0.042	-6.82
20	1.000	-6.99	0.200	0.00	200	0.273	-18.27	0.015	-11.28
30	1.000	-6.99	0.200	0.00	210	0.204	-20.80	0.008	-13.81
40	1.000	-6.99	0.200	0.00	220	0.161	-22.85	0.005	-15.86
50	1.000	-6.99	0.200	0.00	230	0.142	-23.94	0.004	-16.95
60	1.000	-6.99	0.200	0.00	240	0.143	-23.88	0.004	-16.89
70	1.000	-6.99	0.200	0.00	250	0.161	-22.85	0.005	-15.86
80	1.000	-6.99	0.200	0.00	260	0.212	-20.46	0.009	-13.47
90	0.765	-9.32	0.117	-2.33	270	0.372	-15.58	0.028	-8.59
100	0.707	-10.00	0.100	-3.01	280	0.631	-10.99	0.080	-4.00
110	0.827	-8.64	0.137	-1.65	290	1.000	-6.99	0.200	0.00
120	1.000	-6.99	0.200	0.00	300	1.000	-6.99	0.200	0.00
130	1.000	-6.99	0.200	0.00	310	1.000	-6.99	0.200	0.00
140	1.000	-6.99	0.200	0.00	320	1.000	-6.99	0.200	0.00
150	1.000	-6.99	0.200	0.00	330	1.000	-6.99	0.200	0.00
160	1.000	-6.99	0.200	0.00	340	1.000	-6.99	0.200	0.00
170	1.000	-6.99	0.200	0.00	350	1.000	-6.99	0.200	0.00

Rotation Angle = 0

Figure 3. Contour Map

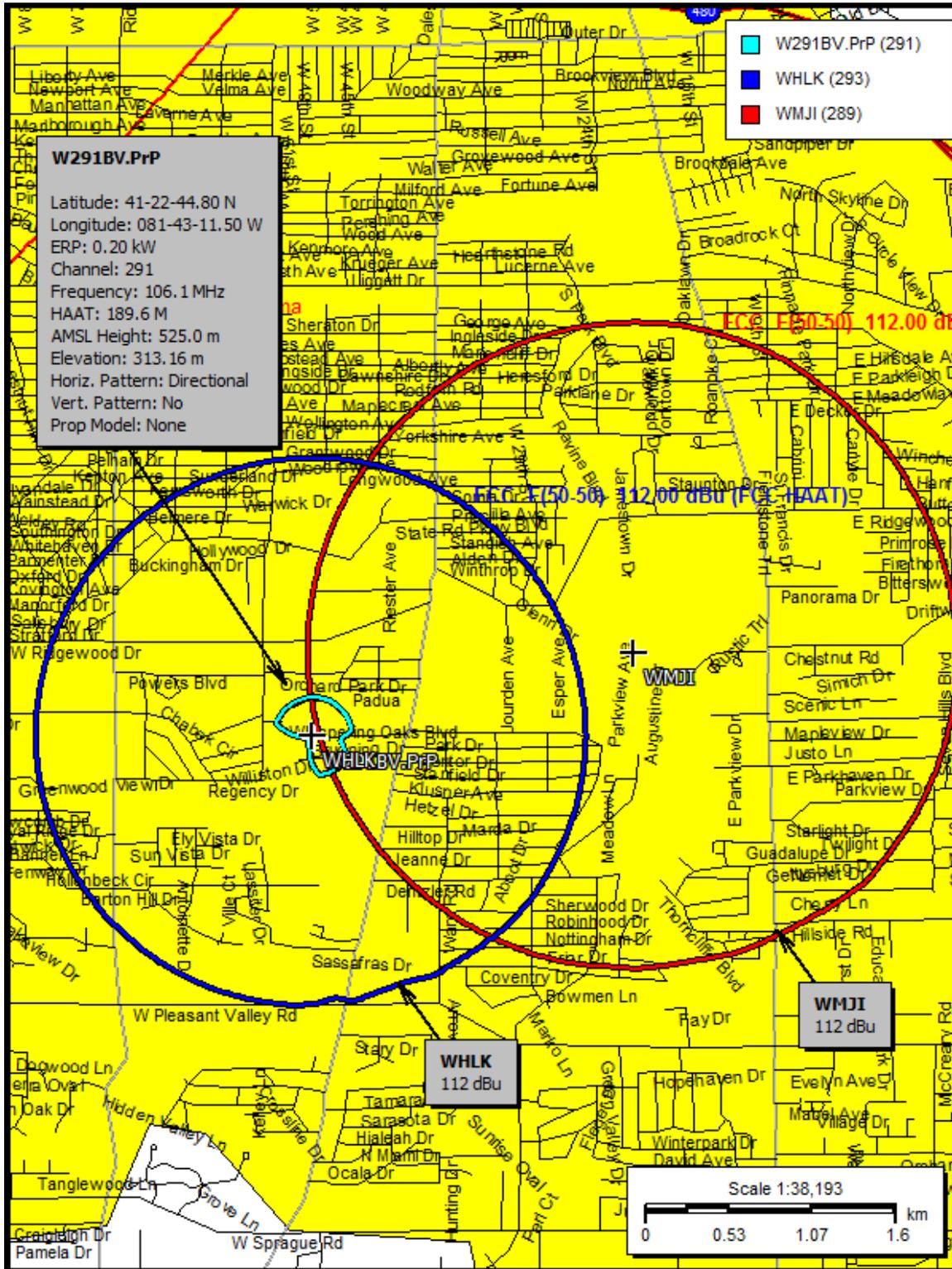


Figure 4. Signal Level at Distance

ERP	0.2	kw	
Calculated IX contour	154	dbu	
			Distance to interfering contour meters (hypot)
Relative Field	Downward ERP		
1	0.2000		1.9793

Figure 5. Image of Proposed Support Tower



Figure 6. Map of 60 and 34 dBu Contours

