

**MINOR CHANGE APPLICATION**  
**RADIO POWER, INC.**  
**W284BQ FM TRANSLATOR STATION**  
**CH 230D - 93.9 MHZ - 0.25 KW**  
**DETROIT, MICHIGAN**  
**March 2011**

**EXHIBIT B**

The proposed operation of W284BQ on Channel 230, with an effective radiated power of 0.25 kilowatt at 6.1 meters above ground, will not cause interference to any existing, applied for, or proposed facility, as noted on Exhibit B1. However, the proposed W284BQ site is inside the 60 dBu contour of the permitted second adjacent station W230BI, Channel 232D, Detroit, Michigan.<sup>1</sup> Due to the relationship between W284BQ and W230BI on Channel 232, a 40 dB ratio of the protected and interfering contours applies.

Since the two facilities are virtually co-located, the signal level of the permitted W230BI on Channel 232 is above 100 dB at the proposed tower site for W284BQ. We have applied the 40 dB ratio to the contour of W230BI, based on the relevant protected contour at the site. A map showing the relative contour of W230BI at the proposed W284BQ site is attached as Exhibit B2. The signal of W230BI at the proposed W284BQ site is 100.0 dBu (50/50) or higher. As such, the interfering contour of the W284BQ proposed translator would need to be above 140.0 dBu (50/10) to cause interference to W230BI. The 140.0 dBu contour of the proposed W284BQ translator extends 0.010 kilometer (32 feet) or less from the translator antenna. As the W284BQ

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1) An application to license W230BI on Channel 232 has been submitted to the Commission (BLFT-20110323ABI).

antenna is to be located on private property, this contour never reaches any populated area.<sup>2</sup> As such, W230BI will not receive interference from the proposed translator.

Also, as noted on Exhibit B1, there is theoretical interference delivered to the Canadian station CKLW, Channel 230CI, Windsor, Ontario. However, Exhibit B4 demonstrates that the 34 dBu contour does not cross the Canadian border. Canadian concurrence is requested.

Based on the foregoing, it is believed that the proposed W284BQ facility is in compliance with §74.1204(d) of the Commission's rules. If a waiver of the rule is needed, one is respectfully requested.

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2) A satellite photo (Google Earth), Exhibit B4 of the site verifies the area is restricted from public access (Exhibit B3).

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**EXHIBIT B1**

**Interference Review for W284BQ, Detroit, Michigan**  
**Using Proposed Site as Reference**

REFERENCE CH# 230D - 93.9 MHz, Pwr= 0.25 kW DA, HAAT= 9.1 M, COR= 207.6 M DISPLAY DATES  
 42 26 52.0 N. Average Protected F(50-50)= 7.1 km DATA 03-15-11  
 83 10 23.0 W. Standard Directional SEARCH 03-15-11

CH CITY	CALL	TYPE STATE	ANT STATE	AZI. <---	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
232D Detroit	W230BI	CP	DV MI	0.0 180.0	0.0 BLFT20110323ABI	42 26 53.0 83 10 23.0	0.099 278	0.1 476	6.4 Radio Power Inc.	-7.2*	-7.5*
230C1 Windsor	CKLW	OPE	?CN ON	154.1 334.2	34.2	42 10 15.0 82 59 29.0	100.000 200	161.8 383	77.4	-130.6*<	-56.6*<
284D Detroit	W284BQ	LIC	DC MI	0.0 180.0	0.0 BLFT20101227ABN	42 26 53.0 83 10 23.0	0.250 283	3.6 481	3.6 Radio Power Inc.	10.0R	-10.0M
228D Riverview	641526	APP	C MI	184.8 4.8	31.8 BNPFT20030317EBC	42 09 44.0 83 12 20.0	0.019 100	0.3 278	6.8 Educational Media Foundati	27.9	24.8
232B Chatham	AL8509«		ON	93.4 274.1	81.6	42 24 00.0 82 11 00.0	50.000 150	6.1 328	65.0	54.0R	27.6M
229D New Baltimore	637945	APP	C MI	49.8 230.1	46.6 BNPFT20030317HRL	42 43 02.9 82 44 15.3	0.019 92	9.6 278	6.8 Radio Assist Ministry, Inc	29.9	29.7
232D Holly	W232BH	LIC	C MI	310.2 129.9	40.7 BLFT20070625ABO	42 40 59.0 83 33 11.0	0.007 121	0.2 426	6.2 Educational Media Foundati	35.3	33.9
231B Jackson	WVIC	LIC	CN MI	267.6 86.6	123.1 BLH19830711AJ	42 23 32.0 84 40 00.0	40.000 168	78.0 457	65.4 Midwest Communications, In	39.3	46.1
228A Howell	WHMI-FM	LIC	CN MI	291.1 110.6	67.4 BLH19980911KF	42 39 47.0 83 56 23.0	5.200 108	2.5 388	25.3 The Livingston Radio Compa	59.6	41.5
229A Frankenmuth	WRCL	LIC	CX MI	342.2 162.0	100.2 BLH20110114AAU	43 18 19.4 83 33 05.4	3.500 133	40.0 355	26.2 Townsquare Media Of Flint,	54.9	66.5

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  
 adjacent.

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 protected contour.

< = Station meets FCC minimum distance spacing for its class.

< = Contour Overlap

\* See Exhibit B for details

# GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS

## W284BQ Detroit MI - Proposed

Latitude: 42-26-52 N / Longitude: 083-10-23 W  
ERP: 0.25 kW / Channel: 230 / 93.9 MHz  
AMSL Height: 207.6 m  
Horiz. Pattern: Directional

## W230BI.C Detroit MI - BPFT20101001ABK

Latitude: 42-26-53 N / Longitude: 083-10-23 W  
ERP: 0.099 kW / Channel: 232 / 94.3 MHz  
AMSL Height: 476.0 m  
Horiz. Pattern: Directional

W230BI.C

W284BQ

42-27-00 N

42-26-45 N

**EXHIBIT B2**  
**MINOR CHANGE APPLICATION**  
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■ W284BQ Proposed - 140 dBu - FCC 50/10  
■ W230BI C.P. - 100 dBu - FCC 50/50

Scale 1:7,500

0 0.1 0.2 0.3 km

V-Soft Communications LLC ©



BROADCAST TECHNICAL CONSULTANTS

Horiz. Pattern: Directional

W284BQ Proposed - 34 dBu - FCC 50/10

Scale 1:500,000

К

**EXHIBIT B4  
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**EXHIBIT B5**

North Latitude: 42° 26' 52" - Tabulated Protected and Interfering Contour Data  
West Longitude: 83° 10' 23" - W284BQ FM Translator Station, Detroit, Michigan

HAAT and Distance to Contour - NGDC 30 second terrain database												
Azi.	AV EL	HAAT	ERP kW	dBk	Field	140-F1	100-F1	94-F1	60-F5	54-F5	48-F1	34-F1
000	214.0	-6.4	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
010	204.5	3.1	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
020	196.9	10.7	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
030	194.8	12.8	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
040	191.9	15.7	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
050	190.3	17.3	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
060	190.0	17.6	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
070	190.9	16.7	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
080	190.9	16.7	0.0500	-13.01	0.447	0.00	0.50	0.99	4.71	6.70	9.58	22.39
090	191.6	16.0	0.0272	-15.65	0.330	0.00	0.37	0.73	4.03	5.75	8.17	19.01
100	192.2	15.4	0.0144	-18.42	0.240	0.00	0.27	0.53	3.45	4.88	6.93	15.70
110	192.4	15.2	0.0121	-19.17	0.220	0.00	0.24	0.49	3.31	4.66	6.63	14.86
120	193.0	14.6	0.0100	-20.00	0.200	0.00	0.22	0.44	3.15	4.43	6.33	14.16
130	193.5	14.1	0.0080	-20.96	0.179	0.00	0.20	0.40	2.98	4.20	5.98	13.42
140	192.4	15.2	0.0080	-20.96	0.179	0.00	0.20	0.40	2.98	4.20	5.98	13.42
150	191.4	16.2	0.0080	-20.96	0.179	0.00	0.20	0.40	2.98	4.20	5.98	13.42
160	190.0	17.6	0.0080	-20.96	0.179	0.00	0.20	0.40	2.98	4.20	5.98	13.42
170	188.4	19.2	0.0080	-20.96	0.179	0.00	0.20	0.40	2.98	4.20	5.98	13.42
180	188.1	19.5	0.0150	-18.24	0.245	0.00	0.27	0.54	3.48	4.93	7.00	15.91
190	188.7	18.9	0.0200	-16.98	0.283	0.00	0.31	0.63	3.74	5.32	7.52	17.39
200	188.7	18.9	0.0289	-15.39	0.340	0.00	0.38	0.75	4.09	5.84	8.30	19.33
210	189.5	18.1	0.0702	-11.54	0.530	0.01	0.59	1.17	5.15	7.29	10.43	24.45
220	189.2	18.4	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
230	189.9	17.7	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
240	190.8	16.8	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
250	192.4	15.2	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
260	195.2	12.4	0.2500	-6.02	1.000	0.01	1.11	1.61	7.09	10.15	14.15	35.59
270	198.9	8.7	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
280	202.4	5.2	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
290	209.5	-1.9	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
300	216.9	-9.3	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
310	218.5	-10.9	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
320	224.1	-16.5	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
330	223.6	-16.0	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
340	224.2	-16.6	0.0751	-11.24	0.548	0.01	0.61	1.21	5.24	7.41	10.60	24.88
350	222.6	-15.0	0.0876	-10.57	0.592	0.01	0.66	1.31	5.45	7.72	11.00	25.90

AMSL= 207.6 M