

MINOR CHANGE APPLICATION
FAMILY WORSHIP CENTER CHURCH, INC.
W214BG FM TRANSLATOR STATION
CH 214D - 90.7 MHZ - 0.038 KW - ND
WAYCROSS, GEORGIA
July 2015

EXHIBIT C

Interference Study for W214BG
Using Proposed Site as Reference

The proposed W214BG, operating with an effective radiated power of 0.038 kilowatt at 83.8 meters (274.9 feet) above ground level, will not cause interference to any existing, applied for or proposed facility. As noted on Exhibit C1, the proposed W214BG is within the predicted 60 dBu contour of third adjacent station WXVS, Channel 211C1, Waycross, Georgia.

Due to the relationship between the proposed W214BG and WXVS, a 40 db ratio of the protected and interfering contours applies. We have, therefore, calculated the WXVS level of signal at the proposed W214BG site at 77.4 dBu, FCC 50/50. The corresponding interfering contour for W214BG is 117.4 dBu (50/10). At its greatest distance, the interfering contour (117.4 dBu, FCC 50/10) of W214BG extends 58.2 meters (191 feet) from the proposed W214BG antenna, as indicated on Exhibits C2 and C3. While the interference contour does reach ground level, as indicated in Exhibit C3, the interference does not extend out from the base of the tower more than 30.0 meters (98.5 feet). Exhibit C4 is a Google Earth Pro depiction of the tower site and surrounding area which demonstrates the interference contour would not extend out to any publicly accessed area and is wholly contained within the tower property. As such, WXVS will not receive interference from the proposed translator.

Based on the foregoing, it is believed that the proposed W214BG is in compliance with §74.1204(d) of the Commission's rules. If a waiver of the rule is needed to address WXVS, one is respectfully requested.

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EXHIBIT C1

Interference Study for W214BG
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REFERENCE		CH# 214D - 90.7 MHz, Pwr= 0.038 kW, HAAT= 56.0 M, COR= 92.9 M								DISPLAY DATES	
31 11 51.2 N.		Average Protected F(50-50)= 6.1 km								DATA 07-20-15	
82 19 33.5 W.		Omni-directional								SEARCH 07-20-15	
CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
211C1 Waycross	WXVS	LIC	DEX GA	276.5 96.4	23.67 BMLE20080131AJH	31 13 17.0 82 34 24.0	79.000 280	6.1 329	55.1 Georgia Public Telecommuni	11.9	-31.8*
214D Waycross	W214BG!	LIC	C GA	292.7 112.7	3.42 BLFT20000706AGB	31 12 34.0 82 21 33.0	0.055 52	21.9 91	6.5 Family Worship Center Chur	-23.9	-20.9
214C3 Brunswick	WAYR-FM	LIC	DCX GA	90.1 270.5	79.34 BLED20031104AAN	31 11 39.0 81 29 30.0	14.000 100	70.7 103	22.4 Good Tidings Trust, Inc	1.6	34.1
213A Jesup	WTLT	LIC	CX GA	39.6 219.8	57.73 BLED20020305AAO	31 35 49.0 81 56 14.0	6.000 52	30.0 78	20.4 Resurrection House Ministr	21.1	27.9
213C2 Nashville	WGCN	LIC	DEX GA	267.7 87.2	99.83 BMLE20140124AGT	31 09 26.0 83 22 28.0	50.000 89	65.1 150	40.4 Educational Media Foundati	29.5	51.1
217A Folkston	WATY	LIC	C GA	140.8 320.9	46.27 BLED20000428ABP	30 52 29.0 82 01 10.0	0.600 98	1.6 116	15.3 The Foundation For Public	38.8	30.4
213C2 Nashville	WGCN	CP	DEX GA	268.6 88.1	98.94 BPED20141002AAR	31 10 18.0 83 21 57.0	4.500 252	60.3 324	40.7 Educational Media Foundati	33.2	50.8
06 3E Pelham	WABW-TV	LI	HY GA	268.1 87.2	169.33 BLEDT20090612ACC	31 08 05.0 84 06 16.0	10.500 379	0.4 462	68.4	133.5R	35.8M
217C3 Folkston	WATY	CP	CX GA	126.6 306.9	69.99 BMPED20150422AAI	30 49 16.0 81 44 14.0	3.800 151	2.8 155	31.0 The Foundation For Public	61.0	38.6
215C2 Jacksonville	WKTZ-FM	CP	CX FL	144.4 324.8	125.66 BPED20150114AAR	30 16 34.1 81 33 51.4	41.000 166	78.1 170	52.8 Educational Media Foundati	41.6	64.5
215C2 Jacksonville	WKTZ-FM	LIC	CN FL	144.4 324.7	125.68 BLED19870715KA	30 16 36.0 81 33 47.0	50.000 141	77.7 148	51.8 Educational Media Foundati	42.1	65.5
06 2E Wrens	WCES-TV	LI	HN GA	0.9 181.0	229.24 BLEDT20090612ACF	33 15 33.0 82 17 09.0	7.900 429	0.4 544	68.4	133.5R	95.7M
06+T Phenix City, Etc.	W06BH	LI	DHN AL	299.5 118.0	292.50 BLTVL19931124IB	32 27 48.0 85 02 27.0	0.060 188	0.4 265	68.4	133.5R	159.0M

Terrain database is FCC NGDC 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.
Reference station has protected zone issue: AM tower

W214BG - Waycross, GA - Proposed

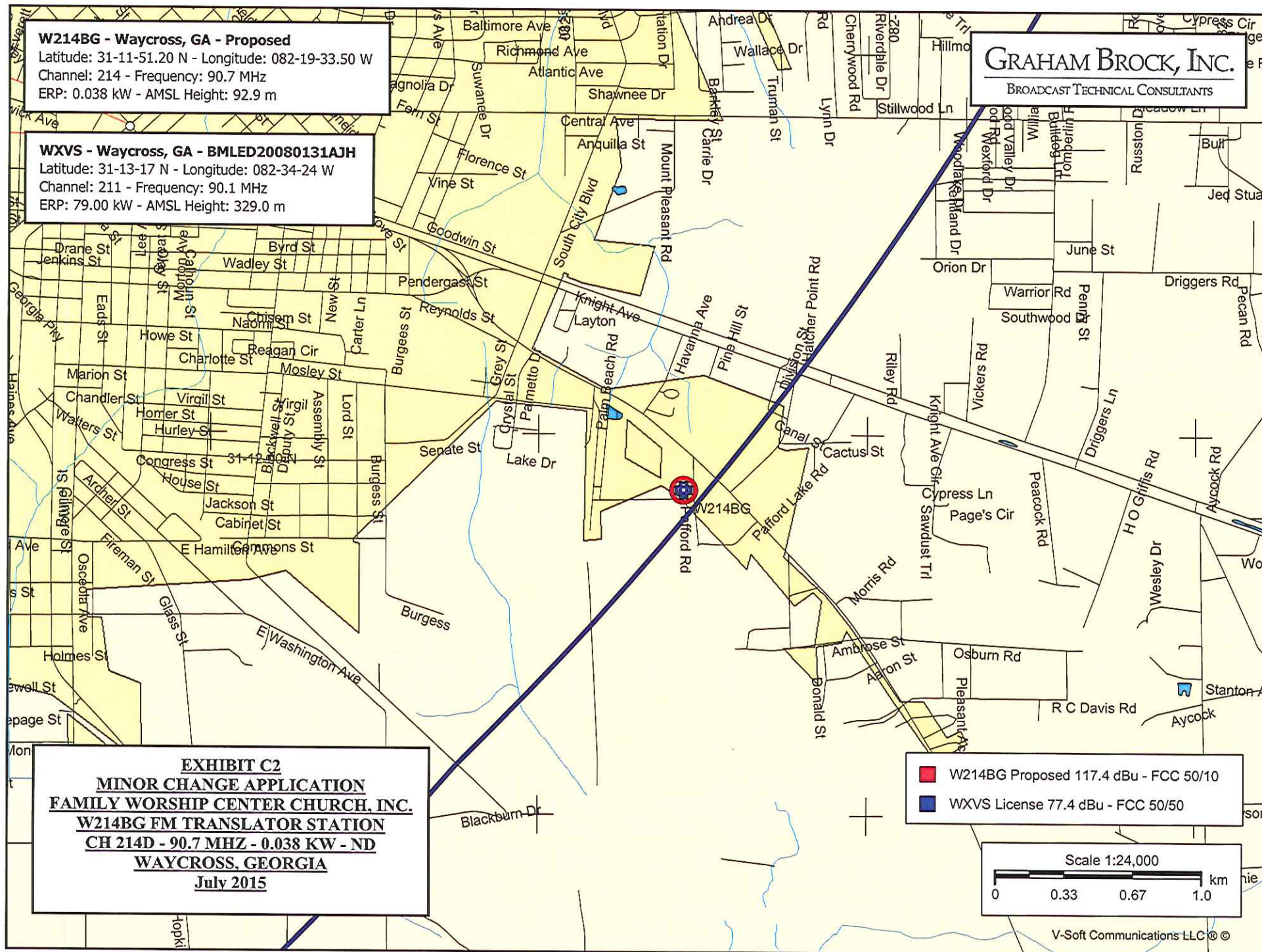
Latitude: 31-11-51.20 N - Longitude: 082-19-33.50 W
Channel: 214 - Frequency: 90.7 MHz
ERP: 0.038 kW - AMSL Height: 92.9 m

WXVS - Waycross, GA - BMLED20080131AJH

Latitude: 31-13-17 N - Longitude: 082-34-24 W
Channel: 211 - Frequency: 90.1 MHz
ERP: 79.00 kW - AMSL Height: 329.0 m

GRAHAM BROCK, INC.

BROADCAST TECHNICAL CONSULTANTS



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EXHIBIT C3

Interference to:	WXVS	CALL:	W214BG	Bext TFC2K - 1 Bay	
Contour at tower:	77.4 dBu - FCC 50/50	POWER (Watts):	38	Azimuth:	Worst Case
Interference Ratio:	40 db	ANTENNA AGL (m):	* 50.3	Relative field:	1.000
		Desired Contour (dBu - FCC 50/10)	117.4	ERP (Watts) at Azimuth:	38
		* - Height Above Occupied Space			

DEPRESSION ANGLE	ANTENNA RELATIVE FIELD FROM MFG	ERP (WATTS)	d8k	DISTANCE TO INTERFERING CONTOUR (m)	HORIZONTAL DISTANCE FROM TOWER (m)	VERTICAL DISTANCE FROM GROUND (m)
0	1.000	38.0	-14.20	58.2	58.2	50.3
5	1.000	38.0	-14.20	58.2	58.0	45.2
10	1.000	38.0	-14.20	58.2	57.3	40.2
15	1.000	38.0	-14.20	58.2	56.2	35.2
20	1.000	38.0	-14.20	58.2	54.7	30.4
25	1.000	38.0	-14.20	58.2	52.7	25.7
30	1.000	38.0	-14.20	58.2	50.4	21.2
35	1.000	38.0	-14.20	58.2	47.7	16.9
40	1.000	38.0	-14.20	58.2	44.6	12.9
45	1.000	38.0	-14.20	58.2	41.2	9.1
50	1.000	38.0	-14.20	58.2	37.4	5.7
55	1.000	38.0	-14.20	58.2	33.4	2.6
60	1.000	38.0	-14.20	58.2	29.1	-0.1
65	1.000	38.0	-14.20	58.2	24.6	-2.4
70	1.000	38.0	-14.20	58.2	19.9	-4.4
75	1.000	38.0	-14.20	58.2	15.1	-5.9
80	1.000	38.0	-14.20	58.2	10.1	-7.0
85	1.000	38.0	-14.20	58.2	5.1	-7.7
90	1.000	38.0	-14.20	58.2	0.0	-7.9

WORST CASE HEIGHT AGL (m) -7.9



30.0 Meters From Tower Base

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EXHIBIT C5

North Latitude: 31° 11' 51.2" - Tabulated Protected and Interfering Contours
West Longitude: 73° 19' 33.5" - W214BG FM Translator, Waycross, Georgia

HAAT and Distance to Contour,
FCC, FM 2-10 Mi, 51 pts Method - FCC 30 SEC

Azi.	AV EL	HAAT	ERP kW	dBk	Field	117.4-F1	100-F1	60-F5	54-F1	40-F1
000	41.4	51.5	0.0380	-14.20	1.000	0.06	0.43	5.81	8.24	19.30
010	37.4	55.5	0.0380	-14.20	1.000	0.06	0.43	6.02	8.59	20.10
020	32.8	60.1	0.0380	-14.20	1.000	0.06	0.43	6.26	8.96	20.93
030	30.0	62.9	0.0380	-14.20	1.000	0.06	0.43	6.39	9.15	21.36
040	24.7	68.2	0.0380	-14.20	1.000	0.06	0.43	6.64	9.50	22.19
050	23.1	69.8	0.0380	-14.20	1.000	0.06	0.43	6.72	9.62	22.46
060	21.5	71.4	0.0380	-14.20	1.000	0.06	0.43	6.79	9.72	22.70
070	18.5	74.4	0.0380	-14.20	1.000	0.06	0.43	6.93	9.90	23.17
080	16.3	76.6	0.0380	-14.20	1.000	0.06	0.43	7.03	10.04	23.51
090	21.5	71.4	0.0380	-14.20	1.000	0.06	0.43	6.79	9.72	22.70
100	27.8	65.1	0.0380	-14.20	1.000	0.06	0.43	6.49	9.30	21.72
110	33.0	59.9	0.0380	-14.20	1.000	0.06	0.43	6.25	8.94	20.90
120	34.2	58.7	0.0380	-14.20	1.000	0.06	0.43	6.19	8.85	20.69
130	38.2	54.7	0.0380	-14.20	1.000	0.06	0.43	5.98	8.52	19.96
140	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
150	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
160	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
170	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
180	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
190	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
200	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
210	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
220	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
230	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.59
240	40.2	52.7	0.0380	-14.20	1.000	0.06	0.43	5.88	8.34	19.54
250	44.3	48.6	0.0380	-14.20	1.000	0.06	0.43	5.64	7.96	18.65
260	48.0	44.9	0.0380	-14.20	1.000	0.06	0.43	5.42	7.61	17.77
270	49.3	43.6	0.0380	-14.20	1.000	0.06	0.43	5.33	7.47	17.42
280	49.7	43.2	0.0380	-14.20	1.000	0.06	0.43	5.31	7.45	17.34
290	48.4	44.5	0.0380	-14.20	1.000	0.06	0.43	5.39	7.56	17.66
300	45.3	47.6	0.0380	-14.20	1.000	0.06	0.43	5.58	7.86	18.41
310	45.3	47.6	0.0380	-14.20	1.000	0.06	0.43	5.58	7.86	18.41
320	40.3	52.6	0.0380	-14.20	1.000	0.06	0.43	5.87	8.34	19.53
330	39.3	53.6	0.0380	-14.20	1.000	0.06	0.43	5.93	8.43	19.74
340	40.0	52.9	0.0380	-14.20	1.000	0.06	0.43	5.89	8.36	19.58
350	43.9	49.0	0.0380	-14.20	1.000	0.06	0.43	5.67	7.99	18.73

AMSL= 92.9