

File Number BNPFT-20030317LWZ

Hickory, North Carolina

Application for a new FM Translator

On Channel 263

by

Conner Media Corporation

Exhibit 1

Grid Preclusion Showing

July 2013

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Declaration

I declare, under penalty of perjury, that I am a technical consultant to broadcasting and other communications systems, that I have over twenty-five years of experience in the engineering of broadcast and other communications systems, that I am familiar with the Federal Communications Commission's Rules found in the Code of Federal Regulations Title 47, that I am a Professional Engineer registered in North Carolina, that I have prepared or supervised the preparation of the attached Exhibit 1, Grid Preclusion Showing, for Conner Media Corporation, and that all of the facts therein, except for facts of which the Federal Communications Commission may take official notice, are true to the best of my knowledge and belief.



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Narrative

This Exhibit supports an amendment to an Auction 83 construction permit application for a new FM translator on Channel 263 in Hickory, North Carolina, file number BNPFT-20030317LWZ. The tech box proposal (short form application) was filed in a filing window for Auction 83. This Exhibit provides a preclusion showing required in a Public Notice¹ of a window to file long form applications for further processing.

This application proposes a minor modification from the original short form application. Specifically, a new site is proposed, power is increased, a directional antenna pattern is proposed, elevation is increased, a new primary station is selected, and fill-in status is proposed. The minor modification creates no conflicts with any other Auction 83 tech box proposals, as will be shown in the Allocations Exhibit.

Required Showings

This facility is located outside the Market Grid of the Charlotte (North Carolina) Market, and beyond 39 kilometers of the Charlotte Grid. The Charlotte market is listed as a Spectrum Available Market using a 30 minute grid in Appendix B of the Fourth Report and Order.² The required showing is identified as Test C, in Attachment B to the Singleton Window PN.

¹ *Public Notice Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures*, DA 13-283, released February 26, 2013. (Singleton PN)

² *In the Matter of Creation of a Low Power Radio Service, Amendment of Service and Eligibility Rules for FM Broadcast Translator Stations, Fourth Report and Order and Third Order on Reconsideration*, FCC 12-19, released March 19, 2012.

This facility is in not with 39 kilometers of any other Appendix A Market. It is not within any out-of-grid Top 50 Spectrum Limited Market.

Charlotte Market Study

The Charlotte market protected channel/point combinations were generated using the Commissions LPFM grid tool. A portion of the printout from the LPFM grid tool follows. The preliminary section confirms the parameters studied and provides a summary of the channels. There are protected points on channel 263, proposed in this application. There are protected points on lower first adjacent channel 262. There are no protected points on upper first and second adjacent channels 264 and 265 or on lower second adjacent channel 261. No I.F. channel protection is required.

Charlotte LPFM Grid Study Parameters and Overall Results

Charlotte, NC
 Latitude 35-12-26
 Longitude 080-49-45
 Grid Size 31 x 31
 Micro FM 100 Watts at 30m HAAT
 Co-Channel and 1st Adjacent Protected
 2nd Adjacent Channel Protected
 3rd Adjacent Channel Not Protected
 I.F. Not Protected
 TV Channel 6 Protected
 CP Records Protected
 APP Records Protected
 FM Translators Protected
 TV Channel 6 Translators/LP Protected
 Auc83 FX App Records Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	2	222	1	242	0	262	60	282	0
203	0	223	0	243	0	263	96	283	0
204	0	224	0	244	0	264	0	284	0
205	0	225	0	245	0	265	0	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	75	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	18	249	0	269	0	289	0
210	0	230	0	250	0	270	0	290	0
211	0	231	0	251	0	271	0	291	0
212	0	232	0	252	0	272	0	292	0
213	0	233	47	253	99	273	0	293	0
214	0	234	0	254	131	274	0	294	0
215	0	235	0	255	139	275	0	295	0
216	0	236	0	256	13	276	0	296	15
217	0	237	0	257	0	277	0	297	149
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
									300
									0

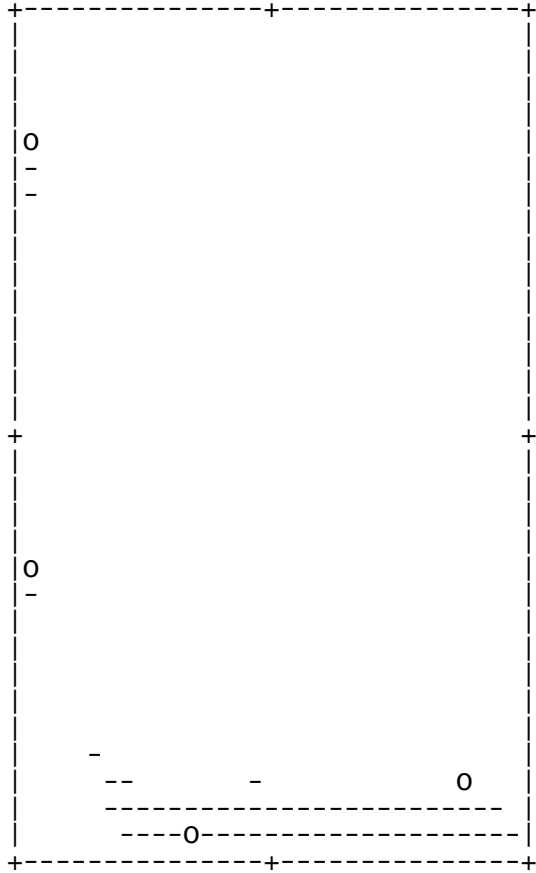
Total		845							

Total allotments, least preclusive spacing: 23
 Total allotments, most preclusive spacing: 16

Note: Co-channel through second adjacent channel points shown highlighted above.

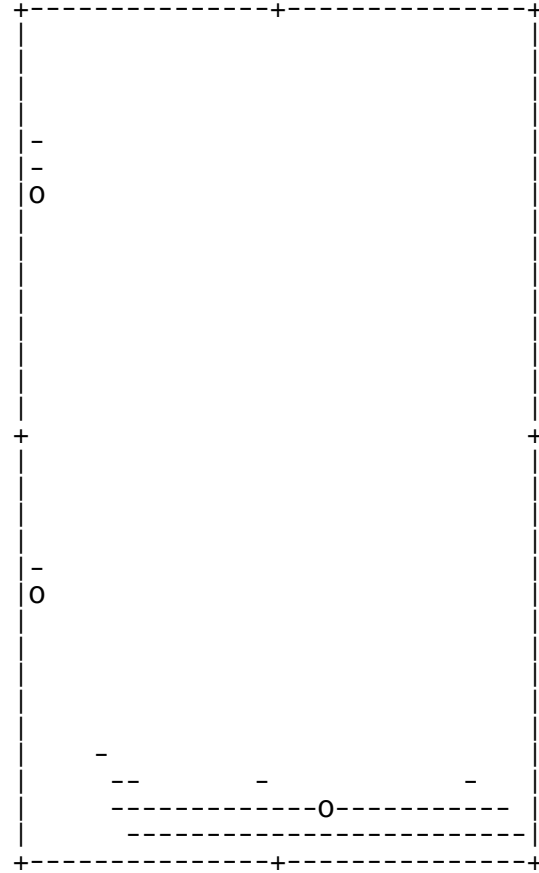
Charlotte LPFM Grid Study Specific Channel Points

Charlotte, NC
 Latitude 35-12-26
 Longitude 080-49-45
 Least preclusive siting
 Availability of Channel 262 (X)



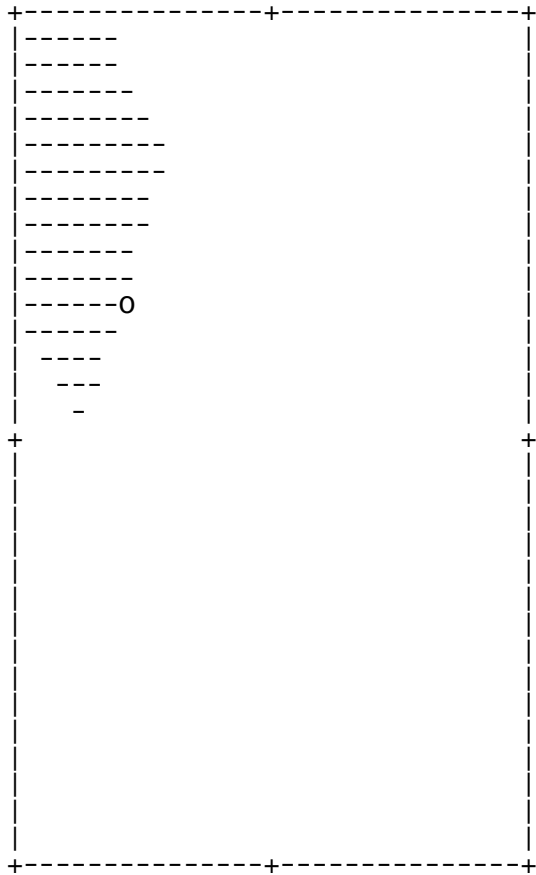
Point #941 at 35-07-26 081-04-45
 Point #621 at 34-57-26 080-54-45
 Point #096 at 34-59-26 080-37-45
 Point #957 at 35-23-26 081-04-45

Charlotte, NC
 Latitude 35-12-26
 Longitude 080-49-45
 Most preclusive siting
 Availability of Channel 262 (X)



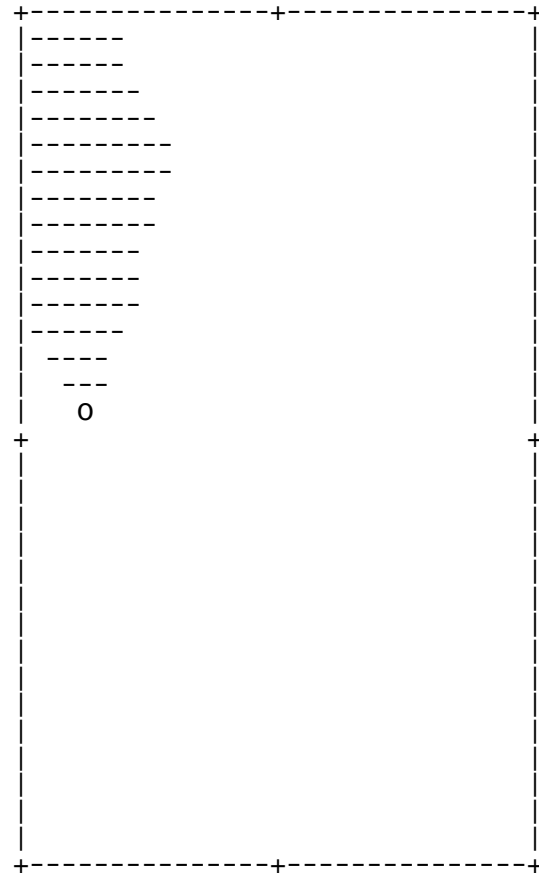
Point #955 at 35-21-26 081-04-45
 Point #374 at 34-58-26 080-46-45
 Point #940 at 35-06-26 081-04-45

Charlotte, NC
 Latitude 35-12-26
 Longitude 080-49-45
 Least preclusive siting
 Availability of channel 263 (x)



Point #765 at 35-17-26 080-58-45

Charlotte, NC
 Latitude 35-12-26
 Longitude 080-49-45
 Most preclusive siting
 Availability of channel 263 (x)



Point #854 at 35-13-26 081-01-45

Translator Height Above Average Terrain and Distance to Contour

The proposed translator facilities Height Above Average Terrain for the 12 radials used for translators is 79.0 meters. The corresponding distance to the 60 dBu F(50,50) contour is 11.504 kilometers, using the FM Curves utility on the Audio Division website. This translator falls in the middle classification for separation requirements in 47 C.F.R. §73.807(d)(1). The required separation for co-channel operation is 32 kilometers. The required separation for first

adjacent channels is 21 kilometers, and the required separation distance for second adjacent channels is 14 kilometers.

Preclusion Study Description

Figure 1 shows the relationship of the proposed facilities to the Charlotte market grid. This facility as proposed in the short form filing is plotted with its Application ID, 651420.A. The Tech Box 60 dBu F(50,50) contour (dashed blue line) is shown. The proposed modified facilities are identified as 651420m. The proposed 60 dBu F(50,50) contour is shown as a solid red line.

A magenta line shows a 39 kilometer radius circle where the largest class translator can cause co-channel preclusion. A black line shows the 32 kilometer radius circle where the proposed translator facilities could preclude a co-channel LPFM opportunity. A blue line shows the 21 kilometer first adjacent preclusion circle. A red line shows the 14 kilometer second adjacent preclusion circle. Since none of the preclusion circles reach the market grid boundary, the proposed facility will not preclude the identified points. The proposed facility does not preclude any identified points in the Charlotte market.

Source of Data

Transmitter location, effective radiated power, directional antenna pattern, and elevation data are extracted from the Commission's CDBS. All contours for existing and proposed facilities are calculated using height above average terrain calculated at one degree horizontal increments.

The contours were evaluated using terrain extracted from the V-Soft Communications NED 03 terrain database. The NED 03 database is derived from the USGS National Elevation Data 30 meter terrain database.

