File Number BNPFT-20030312AMA

Liberty, North Carolina

Application for New FM Translator

On Channel 290

by

Triad Family Network, Inc.

Exhibit 1

Grid Preclusion Showing

March 2013

Timothy L. Warner, Inc.
Post Office Box 8045
Asheville, North Carolina 28814-8045
(828) 258-1238
twarner@tlwinc.net

Table of Contents

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 Triad Family Network, Inc., 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.

Timothy L. Warner, P.E.
Post Office Box 8045
Asheville, North Carolina 28801
(828) 258-1238
twarner@tlwinc.net
28 March 2013

Narrative

This Exhibit supports a long form Auction 83 construction permit application for an FM translator on Channel 290 in Liberty, North Carolina, file number BNPFT-20030312AMA. 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 Notice[1] of a window to file long form applications for further processing.

This application proposes a minor modification from the original short form application. Specifically, the frequency is changed to the lower first adjacent channel. The minor modification creates no conflicts with any other Auction 83 tech box proposals, as shown in the Allocations Exhibit.

Required Showings

This facility is located outside the Market Grid, but within the Raleigh-Durham (North Carolina) market. The Raleigh-Durham 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. This facility is located outside the Market Grid, but within the 39 kilometer buffer zone for the Greensboro-Winston-Salem-High Point (North Carolina) market. The Greensboro-Winston-Salem-High Point

[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.

market is listed as a Spectrum Available Market using a 30 minute grid in Appendix B of the Fourth Report and Order

This facility is in the Raleigh-Durham Appendix A Market. It is within the 39 kilometer buffer of the the Greensboro-Winston-Salem-High Point market grid. It is not within 39 kilometers of any other Appendix A Market. It is not within any out-of-grid Top 50 Spectrum Limited Market.

Because the proposed site is more than 39 kilometers from the Raleigh-Durham market grid, it is not possible for this facility to preclude LPFM opportunities within the Raleigh-Durham market grid.

The Greensboro-Winston-Salem-High Point 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 no protected points on channel 290, proposed in this application. There are protected points on the upper first and second adjacent channels, but no protected points on the lower first or second adjacent channels. No I.F. channel protection is required.

LPFM Grid Study Parameters and Overall Results

Greensboro, NC
Latitude 36-04-21
Longitude 079-47-32
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

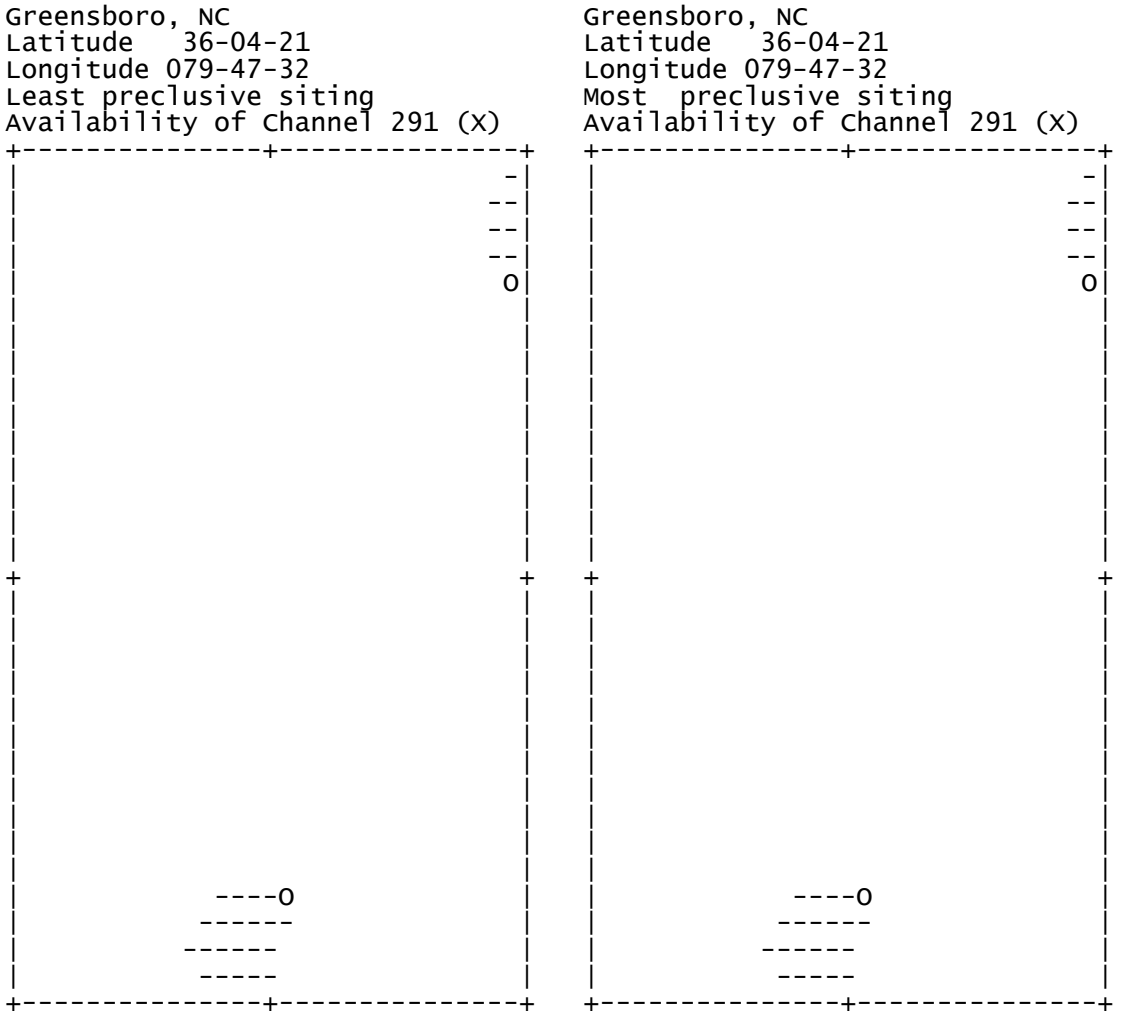
Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	0
201	0	221	0	241	21	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	91	263	0	283	2
204	0	224	0	244	0	264	0	284	75
205	0	225	0	245	0	265	0	285	170
206	0	226	0	246	0	266	0	286	148
207	0	227	0	247	0	267	0	287	1
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	10	269	0	289	0
210	0	230	0	250	0	270	0	290	0
211	0	231	0	251	0	271	0	291	30
212	0	232	0	252	0	272	0	292	81
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	8	294	0
215	0	235	0	255	0	275	0	295	24
216	0	236	0	256	0	276	0	296	0
217	0	237	0	257	0	277	0	297	0
218	0	238	0	258	0	278	0	298	0
219	0	239	0	259	0	279	0	299	0
								300	0

Total 661

Total allotments, least preclusive spacing: 22
Total allotments, most preclusive spacing: 19

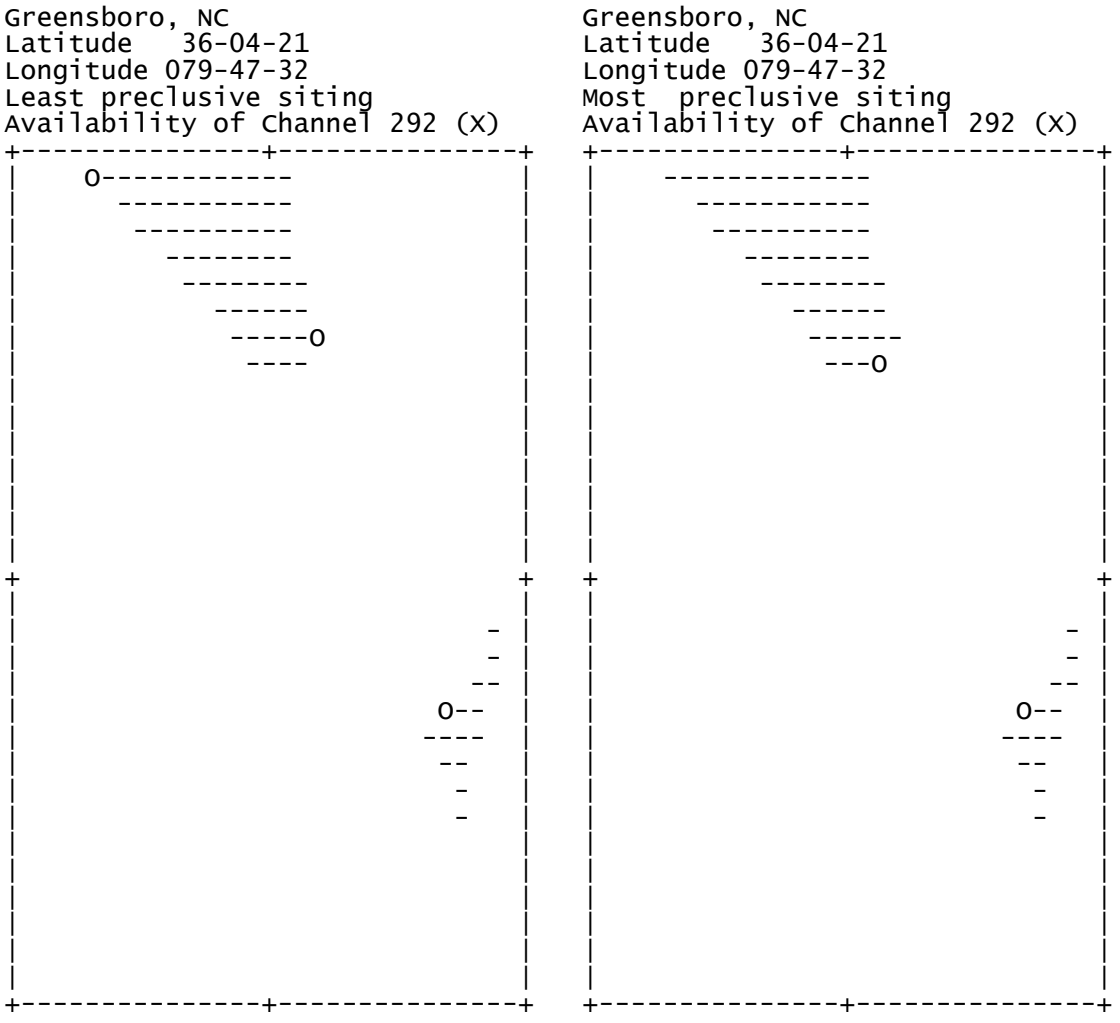
Note: Co-channel through second adjacent channel points shown highlighted above.

LPFM Grid Study Specific Channel Points



Point #027 at 36-15-21 079-32-32
Point #438 at 35-52-21 079-46-32

Point #438 at 35-52-21 079-46-32
Point #027 at 36-15-21 079-32-32



Point #135 at 35-59-21 079-36-32
Point #397 at 36-13-21 079-44-32
Point #837 at 36-19-21 079-58-32

Point #427 at 36-12-21 079-45-32
Point #135 at 35-59-21 079-36-32

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 118.9 meters. The corresponding distance to the 60 dBu F(50,50) contour is 6.787 kilometers, using the FM Curves utility on the Audio Division website. This translator falls in the smallest classification for separation requirements in 47 C.F.R. §73.807(d)(1). The

required separation for co-channel operation is 26 kilometers. For first adjacent channel, the separation is 15 kilometers. For second adjacent channel the requirement is 8 kilometers.

Preclusion Study Description

Figure 1 shows the relationship of the proposed facilities to the Raleigh-Durham and Greensboro markets. This facility as proposed in the short form filing is plotted with its Application ID, 634342. The proposed modified facilities are identified as 634342m. The proposed and tech box 60 dBu F(50,50) contour is shown as a solid colored line.

A solid purple line shows the 26.0 kilometer radius circle where the proposed translator facilities could preclude a co-channel LPFM opportunity. There are no co-channel protected channel/point LPFM licensing opportunities to protect.

A solid black line shows the 15.0 kilometer radius circle where the proposed translator facilities could preclude a first adjacent LPFM opportunity. The closest first adjacent channel protected channel/point LPFM licensing opportunities that were identified by the LPFM Grid Study program are plotted in black on Figure 1. The nearest protected channel points are plotted, along with additional points to establish the shape of the protected area. Each point is more than 15.0 kilometers from the proposed transmitter site.

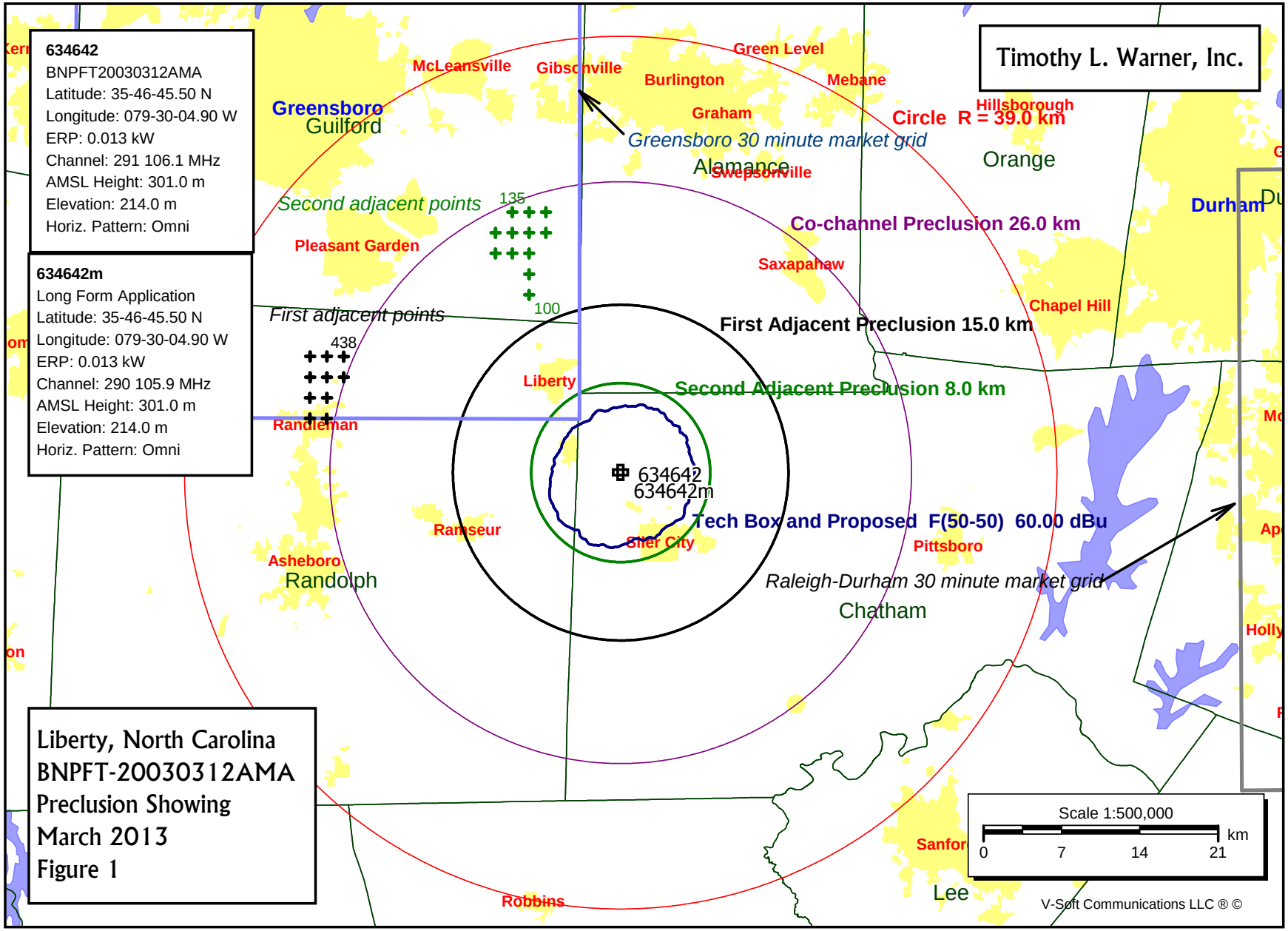
A solid green line shows the 8.0 kilometer radius circle where the proposed translator facilities could preclude a second adjacent LPFM opportunity. The closest second adjacent channel protected channel/point LPFM licensing opportunities that were identified by the LPFM Grid Study program are plotted in green on Figure 1. Each point is more than 8.0 kilometers from the proposed transmitter site.

Figure 1 shows that the proposed site exceeds the protection distances for all co-channel and adjacent channel protected channel/point combinations.

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 NED03 3 arc second terrain database.


634642
BNPFT20030312AMA
Latitude: 35-46-45.50 N
Longitude: 079-30-04.90 W
ERP: 0.013 kW
Channel: 291 106.1 MHz
AMSL Height: 301.0 m
Elevation: 214.0 m
Horiz. Pattern: Omni
634642m
Long Form Application
Latitude: 35-46-45.50 N
Longitude: 079-30-04.90 W
ERP: 0.013 kW
Channel: 290 105.9 MHz
AMSL Height: 301.0 m
Elevation: 214.0 m
Horiz. Pattern: Omni
Timothy L. Warner, Inc.
Circle R = 39.0 km
Greensboro 30 minute market grid
Second adjacent points
135
First adjacent points
438
100
Co-channel Preclusion 26.0 km
First Adjacent Preclusion 15.0 km
Second Adjacent Preclusion 8.0 km
Tech Box and Proposed F(50-50) 60.00 dBu
Raleigh-Durham 30 minute market grid
634642
634642m
Greensboro
Guilford
Alamance
Orange
Durham
Chatham
Randolph
Lee
McLeansville
Gibsonville
Green Level
Burlington
Mebane
Graham
Hillsborough
Swepsonville
Pleasant Garden
Saxapahaw
Chapel Hill
Liberty
Randleman
Ramseur
Siler City
Asheboro
Pittsboro
Robbins
Sanford
Scale 1:500,000
0 7 14 21 km
V-Soft Communications LLC ® ©
Liberty, North Carolina
BNPFT-20030312AMA
Preclusion Showing
March 2013
Figure 1