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## Preclusion Showing for Auction 83

### Application BNPFT-20030313BHL

#### **Narrative**

This Exhibit provides a preclusion analysis to an Auction 83 construction permit application for an FM translator on Channel 290 in Edison, NJ with file number BNPFT 20030313BHL. 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<sup>1</sup> of a window to amend tech box proposals for further processing.

This application proposes no other modifications to the proposed transmitter facility filed in the original short form application.

#### **Required Showings**

The proposed transmitter facility is listed as inside the Market Grid of the Middlesex-Somerset-Union market. (See Figure 1.) The Middlesex-Somerset-Union market is listed as Spectrum Limited Market #41 in Appendix A of the Fourth Report and Order.<sup>2</sup> The required showing is identified as Test B, in Attachment B to the DA 13-427 Public Notice.

The proposed transmitter facility is located within 39km of four adjacent Spectrum Limited Market grids (shown in Figure 1): Market#1--New York, Market#53--Monmouth-Ocean, Market#117--Morristown, NJ, and Market#146-Trenton, NJ

All market protected channel/point combinations were generated using the Commission's updated LPFM grid tool. Per Public Notice DA 13-427, Test B, only co-channel and adjacent channels were protected; no protection is required on other channels to auction 83 participants; no I.F. channel protection is required; FM translators were protected; and all existing CPs and applications were protected.

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<sup>1</sup> *Public Notice Media Bureau Announces FM Translator Auction 83 Filing Window and Filing Procedures*, DA13-427, released February 26, 2013. (Auction 83 Preclusion Showings)

<sup>2</sup> *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.

In Figures 2-7, a portion of the printout from the LPFM grid tool is provided for each market. The preliminary section confirms the parameters studied and provides a summary of the channels. For Market #41, there are no protected points on channel 290. Similarly there are no protected points on first adjacent channels 289 or 291.

Similar output data are shown for each market in Figure 3 through Figure 6. Of the markets overlapped by the 39 km radius, one has preclusions in the channels of interest. Trenton, Market #146, has been found to have 10 protected points on adjacent channel 289 (shown in Figure 6). The most preclusive siting occurs at grid location Point #805 at 40-27-01N, 074-54-36W (shown in Figure 7).

The distance between each preclusion point and the proposed translator site was calculated using the Distance tool provided by the FCC website. This was found to be 44.7 km. Next, the required spacing between the LPFM channel-point combination and the proposed translator site was computed. To determine the required spacing, the FM Curves tool of the FCC website was first used to compute the distance from the proposed translator location to the 60 dBu contour. Then FCC Rule 73.807(d)(1) was examined to determine the required spacing for co-channel and adjacent channels. The distance from the proposed translator location to the proposed translator 60-dBu contour is a maximum of 6.5 km. According to FCC Rule 73.807 (d) (1), if the distance to the translator 60-dBu contour is less than 7.3km, then the required minimum spacing is 15 km for adjacent channels. The distance to the preclusion point from the proposed transmitter site is a minimum of 29.7 km greater than the required spacing. The preclusion point is also plotted in Figure 1.

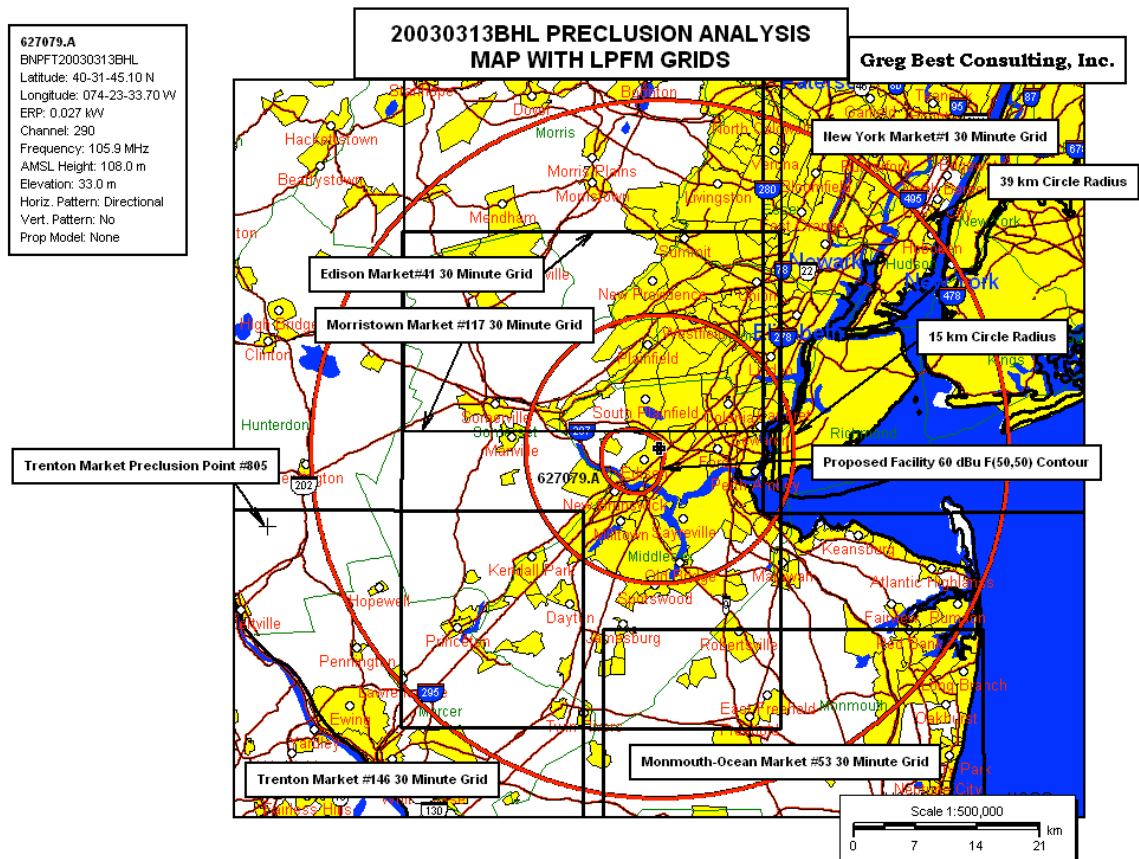


Figure 1: CH290 Edison, NJ Proposed Facility.

**Figure 2: LPFM Grid Tool Output: EDISON, NJ (Market #41)**

EDISON, NJ (Market #41)  
Latitude 40-29-54  
Longitude 074-29-02  
Grid Size 31 x 31  
Micro FM 100 Watts at 30m HAAT  
Co-Channel and 1st Adjacent Protected  
2nd Adjacent Channel Not 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 Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	2	260	0	280	174
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	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	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	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	24	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
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	493
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Total	693								

**Figure 3: LPFM Grid Tool Output: Market #117 Morristown**

EDISON, NJ (Market #117 Morristown)  
Latitude 40-47-48  
Longitude 074-28-55  
Grid Size 31 x 31  
Micro FM 100 Watts at 30m HAAT  
Co-Channel and 1st Adjacent Protected  
2nd Adjacent Channel Not 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 Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	140	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	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	0	287	0
208	0	228	0	248	132	268	0	288	0
209	0	229	0	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	82	252	0	272	13	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
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	482
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Total	849								

**Figure 4: LPFM Grid Tool Output: Market #1, New York**

EDISON, NJ (Market #1, New York)  
Latitude 40-42-51  
Longitude 074-00-23  
Grid Size 31 x 31  
Micro FM 100 Watts at 30m HAAT  
Co-Channel and 1st Adjacent Protected  
2nd Adjacent Channel Not 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 Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	81	260	0	280	0
201	0	221	0	241	0	261	0	281	0
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	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	0	287	0
208	0	228	0	248	0	268	0	288	61
209	0	229	0	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	59	252	0	272	118	292	0
213	0	233	0	253	0	273	0	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
216	0	236	71	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	30
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Total	420								

**Figure 5: LPFM Grid Tool Output: Market #53, Monmouth-Ocean**

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EDISON, NJ (Market #53, Monmouth-Ocean)
Latitude 40-05-52
Longitude 074-13-05
Grid Size 31 x 31
Micro FM 100 Watts at 30m HAAT
Co-Channel and 1st Adjacent Protected
2nd Adjacent Channel Not 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 Not Protected
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Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	11	280	192
201	0	221	0	241	0	261	0	281	113
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	4	283	0
204	0	224	0	244	0	264	94	284	107
205	0	225	0	245	0	265	4	285	0
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	153	248	0	268	0	288	3
209	0	229	38	249	15	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	71	292	0
213	0	233	0	253	0	273	16	293	0
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
216	0	236	7	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	38
								300	114
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Total	980								

**Figure 6: LPFM Grid Tool Output: Market #146, Trenton**

EDISON, NJ (Market #146, Trenton)  
Latitude 40-13-01  
Longitude 074-44-36  
Grid Size 31 x 31  
Micro FM 100 Watts at 30m HAAT  
Co-Channel and 1st Adjacent Protected  
2nd Adjacent Channel Not 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 Not Protected

Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail	Chan	Avail
200	0	220	0	240	0	260	0	280	32
201	0	221	0	241	0	261	0	281	9
202	0	222	0	242	0	262	0	282	0
203	0	223	0	243	0	263	0	283	0
204	0	224	0	244	0	264	0	284	0
205	0	225	154	245	2	265	0	285	4
206	0	226	0	246	0	266	0	286	0
207	0	227	0	247	0	267	0	287	0
208	0	228	0	248	0	268	0	288	0
209	0	229	0	249	0	269	0	289	10
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	0	253	28	273	0	293	124
214	0	234	0	254	0	274	0	294	0
215	0	235	0	255	0	275	0	295	0
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
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Total	363								



EDISON, NJ (Market #146, Trenton) Grid Preclusion Points

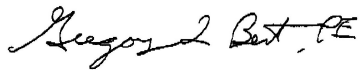
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### ***Conclusion***

The proposed translator site has been evaluated according to the methodology prescribed in FCC Public Notice DA 13-427 and FCC rules. It was determined that the proposed facility has met all requirements and does not preclude proposed potential LPFM site locations.

### ***Certification***

I hereby certify that I am a licensed professional engineer and the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained herein are believed to be true and correct based on my personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, reading "Gregory A. Best, P.E." with a stylized flourish at the end.