

ENGINEERING EXHIBIT

Application for Construction Permit Digital Low Power Television Station

prepared for

Comcorp of Indiana License Corp.
New LPTV Evansville, IN
Ch. 39 (Digital) 1.1 kW

Comcorp of Indiana License Corp. (“*Comcorp*”) herein proposes to construct a new digital Low Power Television (“LPTV”) station on Channel 39 to serve Evansville, IN and other nearby communities. The proposed site is located more than 121 kilometers (75 miles) from the reference coordinates of the cities listed in Appendix A of DA 09-1487.¹

The proposed facility will operate on Channel 39 using a “stringent” out of channel emission mask. The effective radiated power is 1.1 kW utilizing a nondirectional antenna. **Figure 1** depicts the proposed translator’s 51 dB μ coverage contour. The proposed digital LPTV facility will employ a new antenna system to be side-mounted on an existing tower structure, associated with Antenna Structure Registration number 1030890. No change to the overall structure height is proposed.

Interference studies per OET Bulletin 69² show that the proposal complies with the Commission’s interference protection requirements toward all digital television, television

¹“*Commencement of Rural, First-come, First-served digital licensing for Low Power Television and TV Translators Beginning August 25, 2009 and Commencement of Nationwide, First-come, First-served Digital Licensing for Low Power Television and TV Translator Services Beginning January 25, 2010,*” Public Notice, DA 09-1487, Released June 29, 2009.

²FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 (“OET-69”). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A cell size of 1 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission’s implementation of OET-69 show excellent correlation.

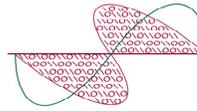
translator, LPTV, and Class A stations. The results, summarized in **Table 1**, show that any new interference does not exceed the Commission's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations) to any facility.

The nearest FCC monitoring station is 514 km distant at Powder Springs, GA. This exceeds the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database. The site location is beyond the border areas requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and considering the worst-case 100 percent antenna relative field in downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $0.50 \mu\text{W}/\text{cm}^2$, which is 0.12 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent. When the antenna's elevation pattern is considered, the calculated RF density will be even lower.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.



This exhibit is limited to the evaluation of exposure to RF electromagnetic field. Any other necessary environmental review will be or has been provided by the tower structure owner or applicant.

Certification

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.

A handwritten signature in blue ink, appearing to read "Joseph M. Davis". The signature is fluid and cursive.

Joseph M. Davis, P.E.
August 26, 2010

Chesapeake RF Consultants, LLC
PO Box 1088
Yorktown, VA 23692
703-650-9600

List of Attachments

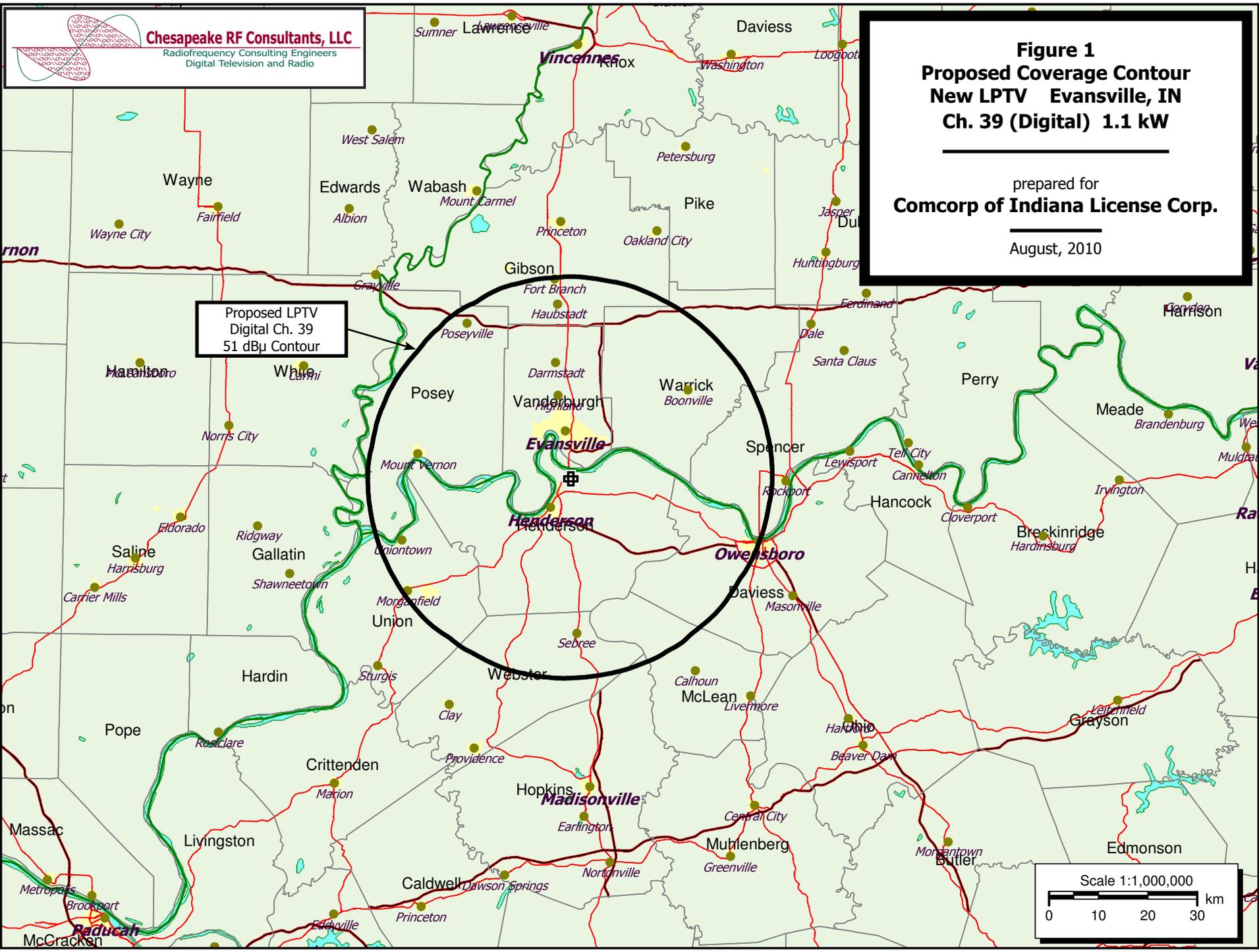
Figure 1	Proposed Coverage Contour
Table 1	Interference Analysis Results Summary
Form 346	Saved Version of Engineering Sections from FCC Form at Time of Upload

This material was entered August 26, 2010 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's account number and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.

Figure 1
Proposed Coverage Contour
New LPTV Evansville, IN
Ch. 39 (Digital) 1.1 kW

prepared for
Comcorp of Indiana License Corp.

August, 2010



Proposed LPTV
 Digital Ch. 39
 51 dBu Contour

Scale 1:1,000,000
 0 10 20 30 km

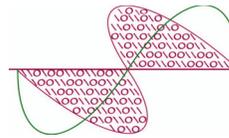
Table 1

Interference Analysis Results Summary

prepared for

Comcorp of Indiana License Corp.

New (LD) Ch. 39 Evansville, IN



Chesapeake RF Consultants, LLC

Radiofrequency Consulting Engineers
Digital Television and Radio

NEW-LD	USERRECORD-01	EVANSVILLE	IN US
Channel 39	ERP 1.1 kW	HAAT 283. m	RCAMSL 00400 m
STRINGENT MASK			
Latitude	037-53-17	Longitude	0087-32-37
Nondirectional antenna			

Ch.	Call	City/State	Dist (km)	Status	Application Ref. No.	---Population (2000 Census)---	
						Baseline	New Interference
25	K65GP	CARBONDALE IL	131.5	APP	BPTTL-20020806ABD	---	none
32	WKMF-LP	SULLIVAN IN	137.4	LIC	BLTTL-20060905AAC	---	none
38	W38BK	EVANSVILLE IN	7.9	LIC	BLTT-19920723IP	120,824	27 (0.02%)
38	WKMJ-TV	LOUISVILLE KY	158.9	LIC	BLEDT-20030410AAK	---	none
38	W54AE	PADUCAH KY	136.2	CP	BDISDTT-20060331AZG	---	none
39	WBCF-LD	FLORENCE AL	343.1	CP	BDCCDTL-20061017ABF	---	none
39	W54BU	HUNTSVILLE AL	356.8	APP	BPTTL-20020819ABS	---	none
39	NEW	JONESBORO AR	364.0	APP	BNPDTL-20100519AAL	---	none
39	W39BH	CHAMPAIGN IL	254.0	APP	BDISDTL-20100505AGJ	---	none
39	W39BH	CHAMPAIGN IL	254.0	LIC	BLTTL-19920420IM	---	none
39	WAOE	PEORIA IL	350.1	CP	BPCDT-20080620AFR	---	none
39	WAOE	PEORIA IL	350.1	LIC	BLCDDT-20070801EOU	---	none
39	WKOI-TV	RICHMOND IN	310.2	CP	BPCDT-20080618ATM	---	none
39	WKOI-TV	RICHMOND IN	310.2	LIC	BLCDDT-20050920ABV	---	none
39	WFXW	TERRE HAUTE IN	151.1	LIC	BLCDDT-20090618AAW	670,202	624 (0.09%)
39	NEW	WOLCOTT IN	322.6	APP	BNPDTL-20100112ADZ	---	none
39	W39CZ-D	BOWLING GREEN KY	132.1	CP	BNPDTL-20090825BHX	---	none
39	W39CJ	ELIZABETHTOWN KY	151.2	LIC	BLTT-20010713AAG	---	none
39	WLEX-TV	LEXINGTON KY	276.5	CP MOD	BMPCDDT-20050728AOP	---	none
39	K39CP	POPLAR BLUFF MO	283.9	LIC	BLTT-19930329IE	---	none
39	KETC	ST. LOUIS MO	258.0	LIC	BLEDT-20020816AAQ	---	none
39	KETC	ST. LOUIS MO	258.0	CP MOD	BMPEDDT-20080617AEP	---	none
39	WYHB-CA	CHATTANOOGA TN	360.0	LIC	BLTTL-19980824JC	---	none
39	W39CX-D	COOKEVILLE TN	276.2	CP	BNPDTL-20090825ATV	---	none
39	WJKT	JACKSON TN	271.4	LIC	BLCDDT-20050323AER	---	none
39	WJTD-LD	JACKSON TN	271.0	CP	BDCCDTL-20070515AAN	---	none
40	NEW	EVANSVILLE IN	20.5	APP	BNPDTL-20100806ABY	385,617	5,943 (1.54%)
40	WHAN-LD	SALEM IN	149.7	CP	BDCCDTL-20061003AAP	---	none
40	WKUW-LP	BOLWING GREEN KY	135.5	CP	BDISDTL-20090908AET	---	none
41	WYYW-LP	EVANSVILLE IN	26.4	LIC	BLTTL-20090528AMH	---	none
43	WKAG-CA	HOPKINSVILLE KY	107.0	LIC	BLTTL-19841012IB	---	none

SECTION III - ENGINEERING DATA (Digital)												
TECHNICAL SPECIFICATIONS												
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.												
TECH BOX												
1.	Channel Number: 39											
2.	Translator Input Channel No. :											
3.	Primary station proposed to be rebroadcast:											
	Facility Identifier	Call Sign	City	State	Channel							
4.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 37 Minutes 53 Seconds 17 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 87 Minutes 32 Seconds 37 <input checked="" type="radio"/> West <input type="radio"/> East											
5.	Antenna Structure Registration Number: 1030890 <input type="checkbox"/> Not Applicable [Exhibit 10] <input type="checkbox"/> Notification filed with FAA											
6.	Antenna Location Site Elevation Above Mean Sea Level:										125.9 meters	
7.	Overall Tower Height Above Ground Level:										309.7 meters	
8.	Height of Radiation Center Above Ground Level:										274 meters	
9.	Maximum Effective Radiated Power (ERP):										1.1 kW	
10.	Transmitter Output Power:										0.32 kW	
11.	a. Transmitting Antenna: Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://licensing.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search. <input checked="" type="radio"/> Nondirectional <input type="radio"/> Directional "Off-the-shelf" <input type="radio"/> Directional composite Manufacturer ERI Model AL80 b. Electrical Beam Tilt: 1.75 degrees <input type="checkbox"/> Not Applicable											
	c. Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf") Rotation (Degrees): <input type="checkbox"/> No Rotation											
	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
	0		10		20		30		40		50	
	60		70		80		90		100		110	
	120		130		140		150		160		170	
	180		190		200		210		220		230	
	240		250		260		270		280		290	
	300		310		320		330		340		350	
	Additional Azimuths											

[Relative Field Polar Plot](#)

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.	
12.	Out-of-channel Emission Mask: <input type="radio"/> Simple <input checked="" type="radio"/> Stringent
CERTIFICATION	
13.	Interference : The proposed facility complies with all of the following applicable rule sections. 47.C.F.R Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030. <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 11]
14.	Environmental Protection Act. The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance, an Exhibit is required. <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12] By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.

15. **Channels 52-59.** If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:

The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

16. **Channels 60-69.** If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:

Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.

Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreements(s) with 700 MHz public safety regional planning committee(s) and state administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.

Pursuant to Section 74.786(e), the applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.

PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.

SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 8/26/2010	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC PO BOX 1088			
City YORKTOWN	State or Country (if foreign address) VA		Zip Code 23692 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM		