

APPLICATION FOR CONSTRUCTION PERMIT

NEW - COSHOCTON, OHIO
BNPFT-20180126ADC
FACILITY ID: 202840
102.7 MHz / 250 W ERP ND

COSHOCTON BROADCASTING CO.

MAY, 2018

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05.02.2018

APPLICATION FOR CONSTRUCTION PERMIT

The following engineering statement and attached exhibits have been prepared for **Coshocton Broadcasting Co.** ("Coshocton"), applicant for a new FM translator station to serve Coshocton, Ohio, and are in support of their application for construction permit.¹ This application is being filed as the initial long-form application for the short-form engineering proposal assigned FCC File No. BNPFT-20180126ADC. This short-form engineering was filed during the Auction 100 window, and has been determined by the Commission to be a singleton.

The proposed facility would operate on FM channel 274 with a maximum effective radiated power of 250 Watts utilizing a non-directional antenna at a center of radiation of 402.5 meters above mean sea level. This elevation corresponds to a center of radiation of 77.0 meters above ground level. No change in the technical parameters specified under the short-form tech-box is proposed under this long form application.

The primary facility for the proposed transmitter is AM broadcast station WTNS at Coshocton, Ohio.² Exhibit E-1 provides a comparison between the proposed 60 dBu service contour for the translator, the WTNS 2 mV/m daytime service contour, and a twenty-five mile radius centered on the WTNS transmitter site. As this map demonstrates, the translator 60 dBu service contour would be wholly contained within both of the WTNS constructs.

The proposed facility complies with the provisions of Section 74.1204 of the Commission's Rules. Due to the channel of operation, Section 74.1205 is not applicable. Exhibit E-2 is a tabular

¹ The Facility ID for the proposed translator at Coshocton, Ohio is 202840.

² The Facility ID for WTNS at Coshocton, Ohio is 13981.

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interference study for the proposed facility. This study demonstrates that the Section 74.1204 contour overlap provisions would be met to all relevant authorizations and applications. This tabular interference study is graphically depicted in the contour map that is Exhibit E-3.

The proposed facility would not constitute a significant environmental impact, and is exempt from environmental processing. The translator antenna would utilize a structure that is registered with the Commission. The addition of the translator antenna to this structure would not increase the existing environmental impact already present from the tower.

Additionally, the proposed facility would not constitute a radiofrequency radiation hazard to persons at the site. The Commission's online *FM Model* utility returns a calculated maximum power density of $0.817 \mu\text{W}/\text{cm}^2$ at a distance of 77 meters from the tower. This value complies with the uncontrolled environment of the Commission's safety standard. The Nicom BKG77/1 model antenna is considered a "type-2" antenna, and was analyzed as such. The antenna is a single bay, and is nominally considered a non-directional antenna.

Coshocton certifies that it will coordinate with all other users of the site to ensure that workers and other personnel are not exposed to levels of radiofrequency radiation in excess of the applicable safety standards. Coordination activities will include, but are not necessarily limited to, a reduction in transmitter power or cessation of operation.

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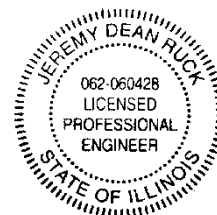
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The preceding statement and attached exhibits have been prepared by me, or under my direction, and are true and accurate to the best of my belief and knowledge.



Above signature is digitized copy of actual signature
License Expires November 30, 2019

Jeremy D. Ruck, PE
May 3, 2018

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1777386.A

BNPFT20180126ADC

Latitude: 40-16-30 N

Longitude: 081-49-38 W

ERP: 0.25 kW

Channel: 274

Frequency: 102.7 MHz

AMSL Height: 402.5 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

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- Proposed Translator 60 dBu Service Contour
- WTNS 2 mV/m Daytime Groundwave Contour
- WTNS 25 mile Site Radius

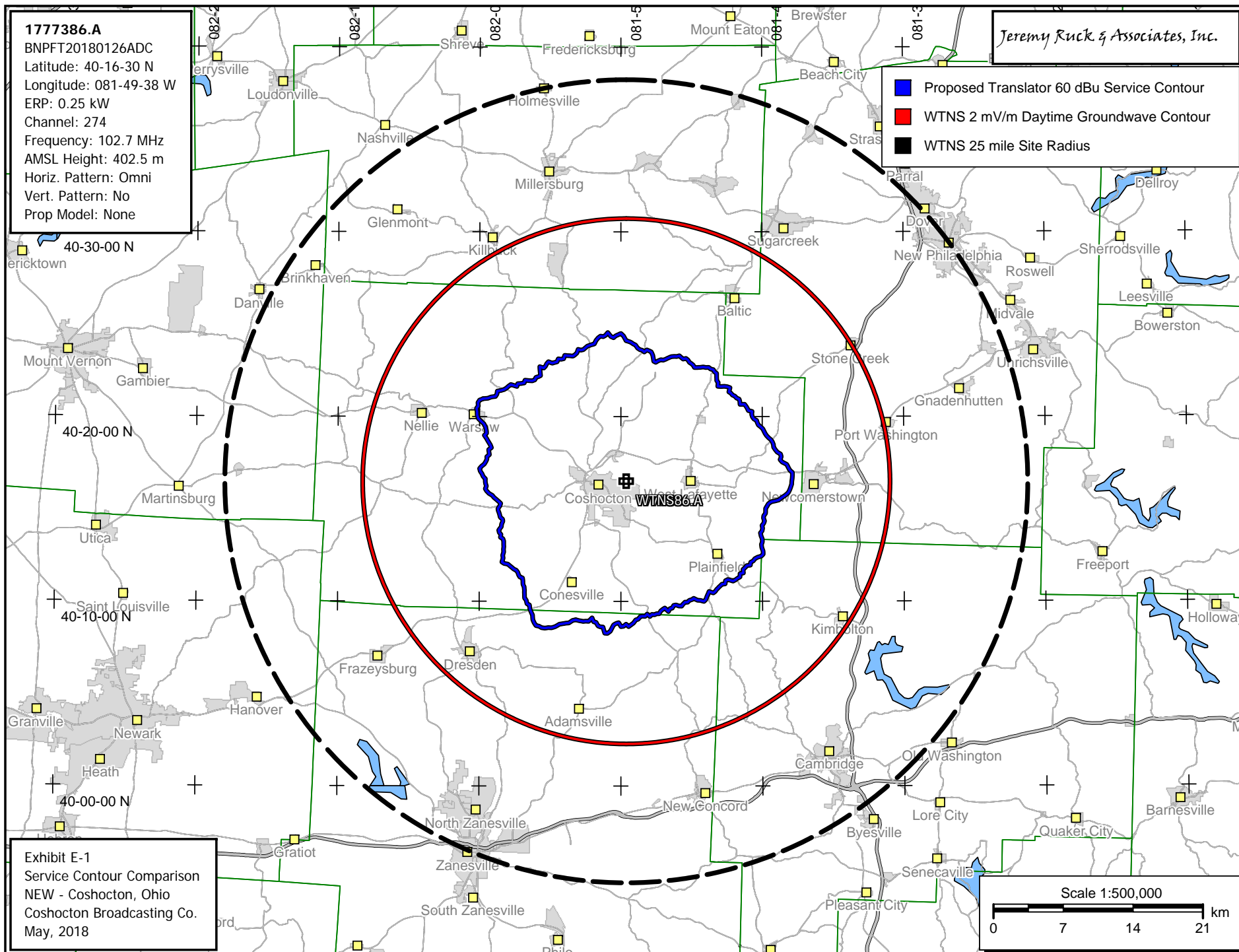


Exhibit E-1
Service Contour Comparison
NEW - Coshocton, Ohio
Coshocton Broadcasting Co.
May, 2018

Scale 1:500,000
0 7 14 21 km

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Consulting Engineers - Canton, Illinois

Exhibit E-2 - Tabular Interference Study

REFERENCE
40 16 30.0 N.
81 49 38.0 W.

CH# 274D - 102.7 MHz, Pwr= 0.25 kW, HAAT= 131.0 M, COR= 402.5 M
Average Protected F(50-50)= 14.7 km
Omni-directional

DISPLAY DATES
DATA 05-03-18
SEARCH 05-03-18

CH CITY	CALL	TYPE STATE	ANT AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
274D 1777386 Coshocton		APP _C_ OH	0.0 0.0	0.00 BNPFT20180126ADC	40 16 30.0 81 49 38.0	0.250		---Reference---		
274B WCPZ Sandusky		LIC ZEN OH	331.3 150.8	134.17 BLH20150522AGB	41 19 51.3 82 35 56.9	50.000 135	129.5 339	55.7	-9.6	14.4 Bas Broadcasting, Inc.
274D W274AN Jefferson		LIC _C_ OH	350.8 170.8	56.91 BLFT20061011AAQ	40 46 49.0 81 56 06.0	0.013 71	18.3 392	4.7	25.4	1.4 Mansfield Christian School
273B1 WWCD Baltimore		LIC _CX OH	234.5 53.9	95.84 BLH20091005AAO	39 46 14.8 82 44 25.3	15.000 130	60.8 403	47.1	19.6	22.3 Southeastern Ohio Broadcas
272D W272EE Zanesville		CP DC_ OH	199.3 19.2	40.82 BNPFT20180314ABK	39 55 41.8 81 59 07.5	0.250	1.1 405	14.6	23.3	23.3 Southeastern Ohio Broadcas
277D W277BV Zanesville		LIC _C_ OH	205.6 25.5	41.36 BLFT20091026AAH	39 56 21.5 82 02 12.9	0.019 90	0.3 350	6.8	24.2	32.9 Spirit Communications, Inc
275D W275CT Somerset		CP DC_ OH	207.6 27.3	62.40 BNPFT20180316ABP	39 46 37.0 82 09 54.5	0.250	11.1 423	7.8	34.3	26.1 Wloh Radio Company
221A WBIK Pleasant City		LIC _CX OH	139.7 319.8	36.14 BLH20011101ABJ	40 01 37.0 81 33 09.0	6.000 52	23.5 334	15.8	9.5R	26.6M Avc Communications, Inc.
273L1 WNPA-LP Canton		LIC _C_ OH	36.8 217.1	67.09 BLL20170117ABZ	40 45 26.3 81 21 00.0	0.067 37	368		43.0	38.4 Neopa
271D W271AO Mount Vernon		LIC _C_ OH	281.3 100.9	55.36 BLFT20101222ABJ	40 22 14.8 82 28 05.4	0.055 38	0.5 378	6.4	38.9	47.2 Spirit Communications, Inc
275B WYFM Sharon		LIC NCX PA	48.6 229.4	132.65 BLH20030702AAA	41 03 26.0 80 38 22.0	33.000 184	75.6 508	63.7	43.0	39.1 Cumulus Licensing LIc
220A WKCO Gambier		LIC _H_ OH	283.0 102.6	49.55 BMLD20060202ADC	40 22 25.0 82 23 45.0	0.265 58	23.5 379	15.8	9.5R	40.1M Kenyon College
276A WVKO-FM Johnstown		LIC _C_ OH	266.1 85.6	70.84 BLH20070606AAJ	40 13 44.0 82 39 35.8	1.600 135	2.1 483	25.4	54.2	43.8 Tsj Radio, LIc
273B WDV Pittsburgh		LIC _CN PA	80.4 261.6	155.03 BMLH19900323KB	40 29 38.0 80 01 09.0	55.000 250	91.5 553	75.8	47.0	45.4 Capstar Tx, LIc, As Debtor

Terrain database is FCC 30 meter , 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.
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.
« = Station meets FCC minimum distance spacing for its class.
Reference station has protected zone issue: Canada- AM tower

1777386.A

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Latitude: 40-16-30 N

Longitude: 081-49-38 W

ERP: 0.25 kW

Channel: 274

Frequency: 102.7 MHz

AMSL Height: 402.5 m

Horiz. Pattern: Omni

Vert. Pattern: No

Prop Model: None

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- 60 dBu F(50,50) Service Contour
- 57 dBu F(50,50) Service Contour
- 54 dBu F(50,50) Service Contour
- 34 dBu F(50,10) Interference Contour
- 40 dBu F(50,10) Interference Contour
- 48 dBu F(50,10) Interference Contour
- 51 dBu F(50,10) Interference Contour
- 54 dBu F(50,10) Interference Contour
- 100 dBu F(50,10) Interference Contour
- IF Spacing Limit

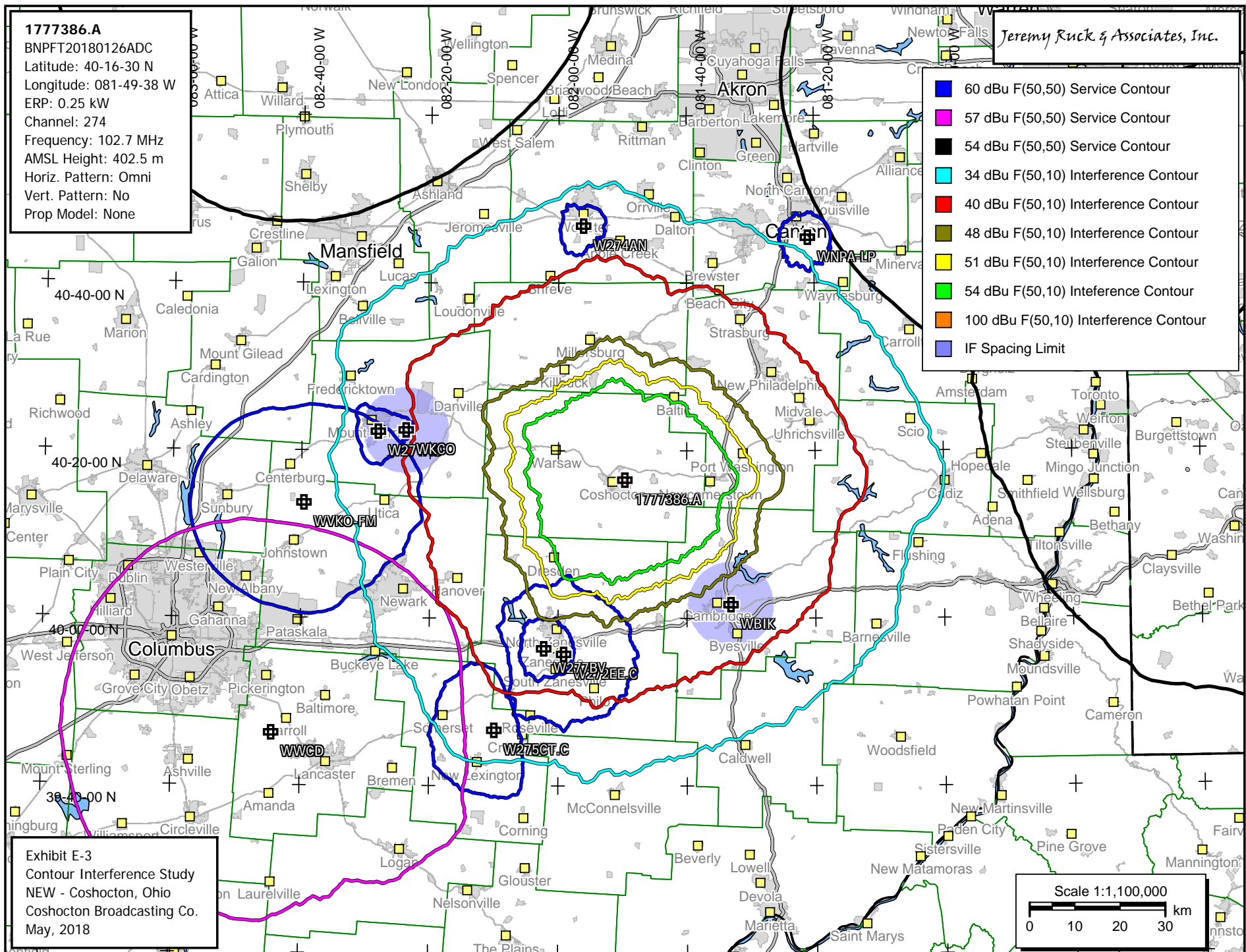


Exhibit E-3
Contour Interference Study
NEW - Coshocton, Ohio
Coshocton Broadcasting Co.
May, 2018

Scale 1:1,100,000
0 10 20 30 km