

**Exhibit 13-B**  
**Section 74.1204**  
**Contour Protection to KMXV**

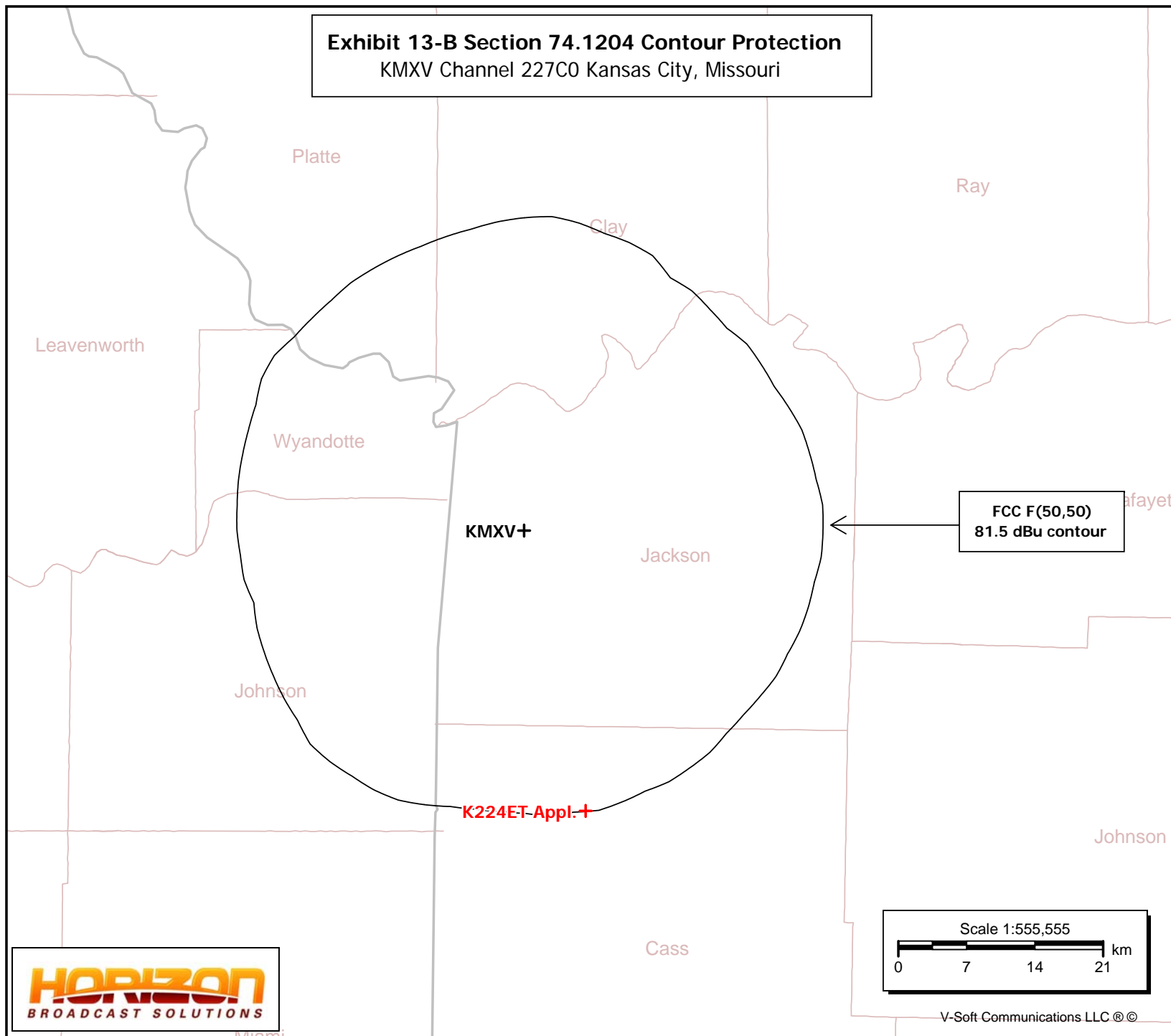
This comprehensive exhibit has been prepared to demonstrate that the K224ET modification will not cause prohibited interference to third adjacent full power FM station KMXV, Channel 227C0, Kansas City, Missouri. The KMXV F(50,50) protected contour at the K224ET application site is 81.5 dBu. Therefore the K224ET F(50,10) interfering contour with respect to KMXV is the 121.5 dBu contour. Using the FCC's FM propagation curves program (see attached) the 121.5 dBu contour was calculated to extend 93 meters from the antenna. The proposed K224ET transmit antenna would be mounted 214 meters above ground level. The interfering contour will not reach the ground. There are no high rise buildings in the area. Therefore it is believed the proposed K224ET is in compliance with Section 74.1204 contour protection rules with respect to KMXV.

**K224ET Appl.**

Peculiar, MO  
Latitude: 38-45-26 N  
Longitude: 094-26-02 W  
ERP: 0.25 kW  
HAAT: 226.04 m  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 524.0 m  
Elevation: 310.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**KMXV**

Kansas City, MO  
BLH19870318KG  
Latitude: 39-00-57 N  
Longitude: 094-30-24 W  
ERP: 100.00 kW  
HAAT: 325.0 m  
Channel: 227  
Frequency: 93.3 MHz  
AMSL Height: 599.0 m  
Elevation: 273.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**Exhibit 13-B Section 74.1204 Contour Protection**  
KMXV Channel 227C0 Kansas City, Missouri

Select Contour Type:	<div>F(50,50) Service Contour -- FM and NTSC (analog) TV F(50,10) Interfering Contour F(50,90) Digital TV Service Contour</div>
Select Channel Range: (not TV Virtual Channel)	<div>FM Radio or TV Transmit Channels 2-6 TV Transmit Channels 7-13 TV Transmit Channels 14-69</div>
Find This:	<div>Field Strength, given a Distance (in km) Distance, Given a Field Strength (in dBu) FM ERP, given Distance and Field Strength [F(50,50) Service Contour]</div>
<div><input type="text" value="0.250"/> ERP (kW)</div>	<div><input type="text"/> Distance (km)</div>
<div><input type="text" value="216"/> HAAT (meters)</div>	<div><input type="text" value="121.5"/> Field (dBu)</div>
<div>Find Result Clear Form</div>	
Results:	
<div>Calculated Distance = <b>0.093 km</b> Free Space equation used to compute distance.</div>	

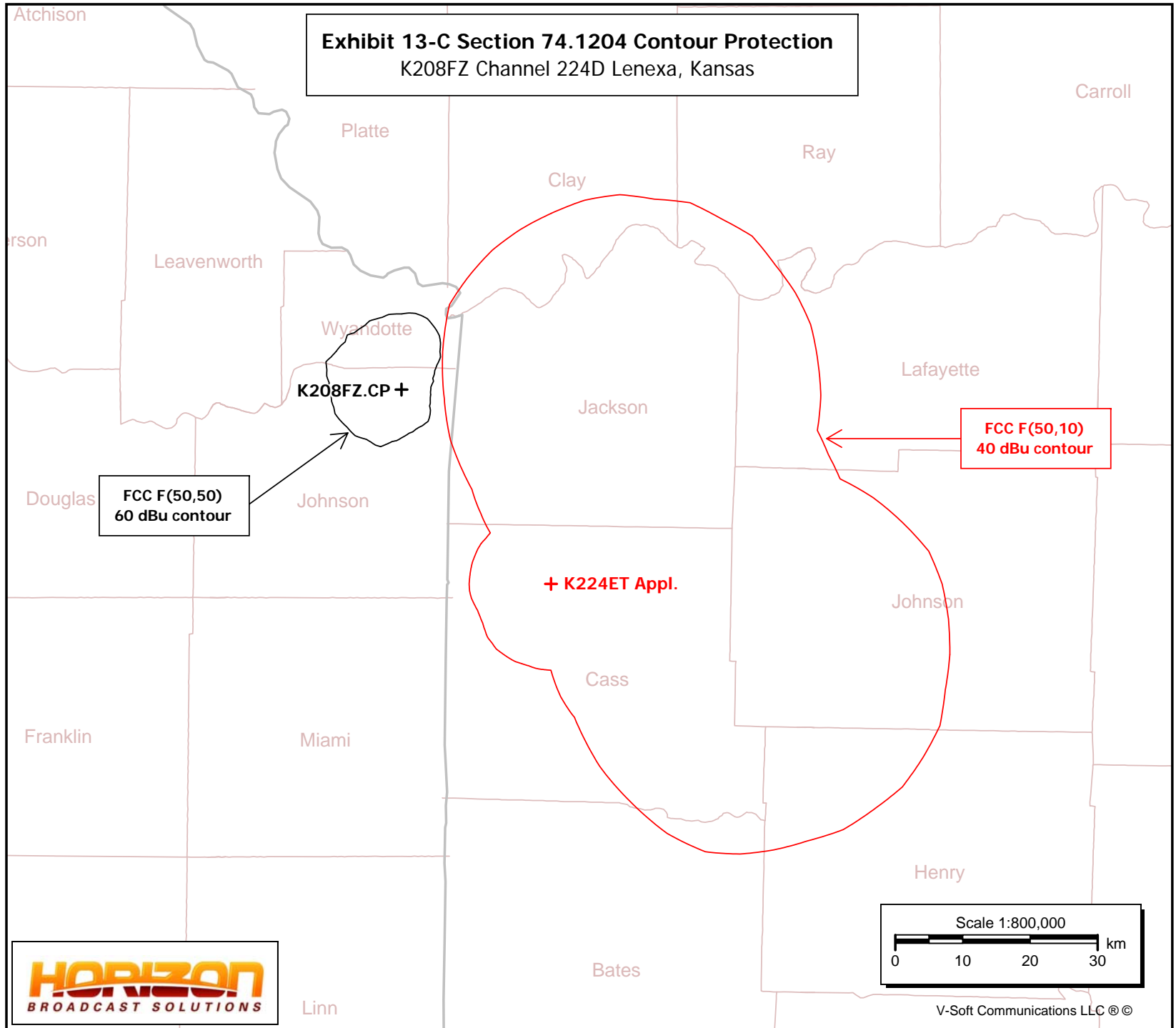
This function uses the FCC's CURVES program to make calculations of the F(50,50) FM and NTSC (analog) TV service curves, the F(50,10) interfering signal curves, and the F(50,90) digital TV service curves. Printable copies of these propagation curves are available at [FM and TV Propagation Curves Graphs \(/media/radio/fm-and-tv-propagation-curves-graphs\)](https://www.fcc.gov/media/radio/fm-and-tv-propagation-curves-graphs).

**K224ET Appl.**

Peculiar, MO  
Latitude: 38-45-26 N  
Longitude: 094-26-02 W  
ERP: 0.25 kW  
HAAT: 226.04 m  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 524.0 m  
Elevation: 310.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**K208FZ.CP**

Lenexa, KS  
BMPFT20160729AKO  
Latitude: 39-00-58 N  
Longitude: 094-41-23 W  
ERP: 0.099 kW  
HAAT: 0.0 m  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 392.0 m  
Elevation: 312.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**Exhibit 13-C Section 74.1204 Contour Protection**  
K208FZ Channel 224D Lenexa, Kansas**HORIZON**  
BROADCAST SOLUTIONS

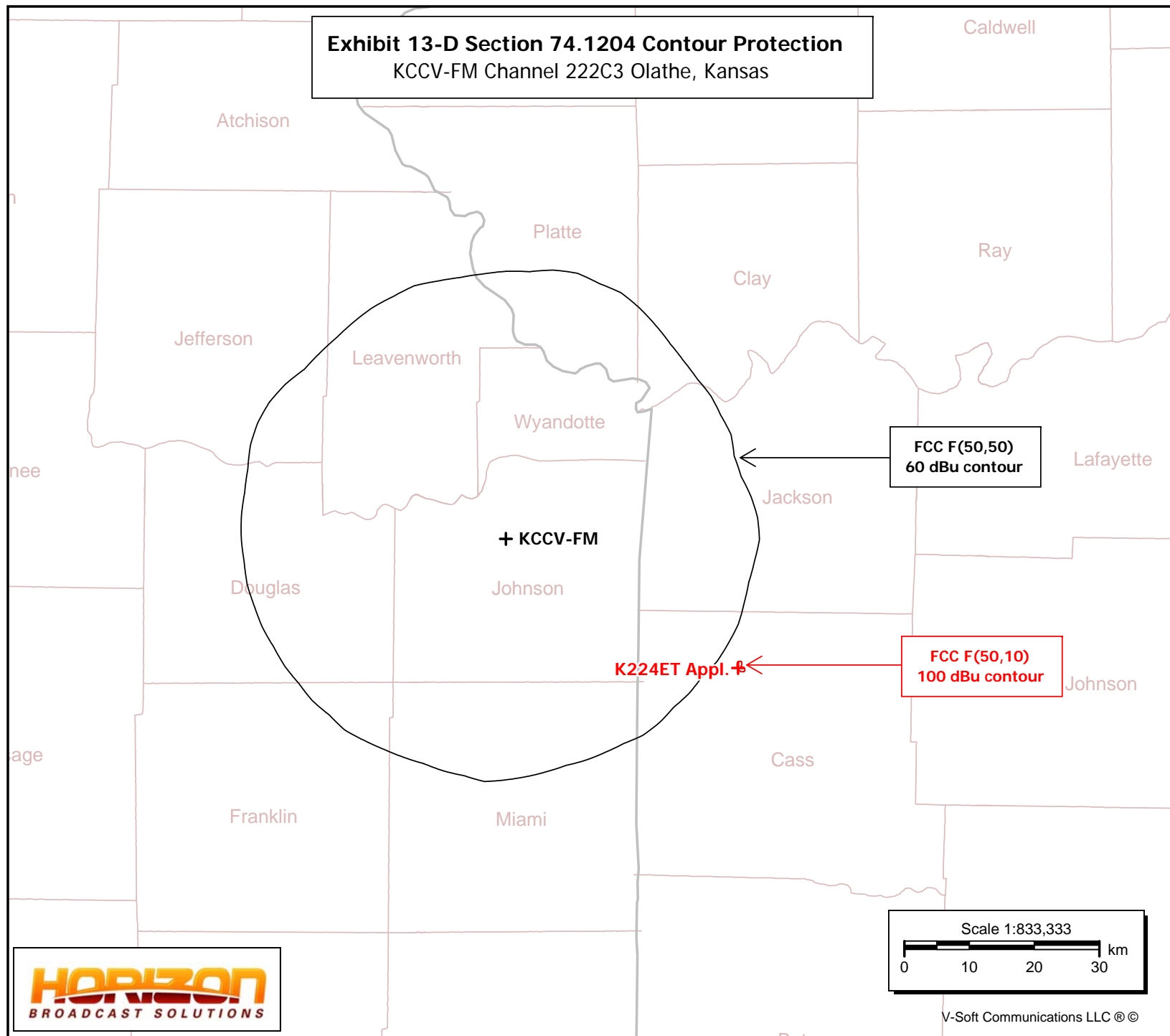
Scale 1:800,000  
0 10 20 30 km

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**K224ET Appl.**  
Peculiar, MO  
Latitude: 38-45-26 N  
Longitude: 094-26-02 W  
ERP: 0.25 kW  
HAAT: 229.04 m  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 527.0 m  
Elevation: 310.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**KCCV-FM**  
BLH19951113KA  
Latitude: 38-56-10 N  
Longitude: 094-50-41 W  
ERP: 8.30 kW  
HAAT: 172.0 m  
Channel: 222  
Frequency: 92.3 MHz  
AMSL Height: 465.0 m  
Elevation: 320.0 m  
Horiz. Pattern: Omni  
Vert. Pattern: No  
Prop Model: None

**Exhibit 13-D Section 74.1204 Contour Protection**  
KCCV-FM Channel 222C3 Olathe, Kansas



**K224ET Appl.**

Peculiar, MO  
Latitude: 38-45-26 N  
Longitude: 094-26-02 W  
ERP: 0.25 kW  
HAAT: 226.04 m  
Channel: 224  
Frequency: 92.7 MHz  
AMSL Height: 524.0 m  
Elevation: 310.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**K225CI**

Kansas City, MO  
BLFT20160928AGV  
Latitude: 39-09-41 N  
Longitude: 094-28-04 W  
ERP: 0.16 kW  
HAAT: 0.0 m  
Channel: 225  
Frequency: 92.9 MHz  
AMSL Height: 376.0 m  
Elevation: 277.0 m  
Horiz. Pattern: Directional  
Vert. Pattern: No  
Prop Model: None

**Exhibit 13-E Section 74.1204 Contour Protection**  
K225CI Channel 225D Kansas City, Missouri