

**ENGINEERING TECHNICAL STATEMENT**  
**COMPLIANCE WITH §73.3801 OF FCC RULES**  
***SIMULCASTING DURING ATSC 3.0 TRANSITION***

The **WXIN-DT** (ATSC 1.0 Host #1) full-power digital television broadcast facility (File Number 0000093989) is licensed to operate on Channel 22 with an ERP of 1,000 kW using a directional antenna mounted on a tower with Antenna Structure Registration Number (ASRN) 1030684 located in Indianapolis, IN. The **WRTV-DT** (ATSC 1.0 Host #2) full-power television facility (File Number BLCDT-20090623ACJ) is licensed to operate on Channel 25 with an ERP of 1,000 kW using a nondirectional antenna mounted on a tower with ASRN 1029312 located in Indianapolis, IN. The **WTTK-DT** (ATSC 1.0 Tenant and ATSC 3.0 Host) full-power television facility (File Number 0000093987) is licensed to operate on Channel 15 with an ERP of 450 kW using a nondirectional antenna mounted on a tower with ASRN 1030684 (co-located with WXIN) located in Indianapolis, IN.

The aforementioned stations plan to partner in a simulcasting arrangement for purposes of airing ATSC 1.0 and ATSC 3.0 programming streams as follows:

- WTTK-DT ATSC 1.0 Tenant at WXIN-DT ATSC 1.0 Host
- WTTK-DT ATSC 1.0 Tenant at WRTV-DT ATSC 1.0 Host
- WXIN & WRTV ATSC 3.0 Tenants at WTTK-DT ATSC 3.0 Host

All three stations are assigned to the same DMA (Indianapolis, IN).

Pursuant to section 73.3801(f)(6)(i) of FCC Rules, the following information is required for these types of applications.

**Stations serving as the ATSC 1.0 Hosts:**

- ATSC1.0 Host #1: WXIN-DT (0000093989)
- ATSC1.0 Host #2: WRTV-DT (BLCDT-20090623ACJ)

**Technical Facilities of ATSC 1.0 Host #1 Station:**

- Station: WXIN-DT
- Frequency: 521 MHz (Channel 22)
- ERP: 1,000 kW
- Antenna: Directional
- Antenna Center Height: 306.0 m AGL
- Antenna Model: TUM20-O4-12/48H-1-R-T
- Antenna Polarization: Elliptical
- Antenna Beam Tilt: 0.50°
- Coordinates: 39° 53' 20.0" N, 086° 12' 07.0" W
- ASRN: 1030684
- DMA: Indianapolis, IN (all stations)

**Technical Facilities of ATSC 1.0 Host #2 Station:**

- Station: WRTV-DT
- Frequency: 539 MHz (Channel 25)
- ERP: 1,000 kW
- Antenna: Nondirectional
- Antenna Center Height: 296.0 m AGL
- Antenna Model: TFU-30-GTH-R 04
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 0.70°
- Coordinates: 39° 53' 56.6" N, 086° 12' 03.7" W
- ASRN: 1029312
- DMA: Indianapolis, IN (all stations)

Pursuant to section 73.3801(f)(6)(ii) of FCC Rules, the following information is also required for these types of applications.

**WTTK-DT ATSC 1.0 Tenant at WXIN-DT ATSC 1.0 Host**

- Predicted population within the licensed WTTK-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,831,157 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed WXIN-DT (ATSC 1.0 Host) protected noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **26,917 Persons (See Exhibits 2-3)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 99.1% (See Exhibits 1-3).**

**WTTK-DT ATSC 1.0 Tenant at WRTV-DT ATSC 1.0 Host**

- Predicted population within the licensed WTTK-DT (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **2,831,157 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed WRTV-DT (ATSC 1.0 Host) protected noise limited service contour served by the station's original ATSC 1.0 signal that will lose the station's ATSC 1.0 service as a result of the simulcasting arrangement, including identifying areas of service loss by providing a contour overlap map: **0 Persons (See Exhibits 4-5)**
- Will the ATSC 1.0 simulcast signal aired on the host station serve at least 95% of station's original ATSC 1.0 population? **Yes, it will serve 100% (See Exhibits 1, 4, 5).**

Pursuant to §73.3801(c) of FCC Rules, full power broadcasters that elect temporarily to relocate their ATSC 1.0 signal to the facilities of a host station(s) for purposes of deploying ATSC 3.0 service must continue to cover the station's entire community of license with the ATSC 1.0 simulcast signal and must be assigned to the same Designated Market Area

(DMA) as the originating station. Referring to Exhibits 3 and 5 it can be seen that the WTTK-DT ATSC 1.0 “Tenant” station will continue to completely encompass the Indianapolis, IN community of license with the WXIN-DT F(50,90) 48.0 dBu “Host #1” station’s principal community contour and the WRTV-DT F(50,90) 48.0 dBu “Host #2” station’s principal community contour. Also pursuant to §73.3801(c) and §73.3801(d) of FCC Rules, the WTTK-DT, WXIN-DT and WRTV-DT stations are all assigned to the same DMA (Indianapolis, IN).

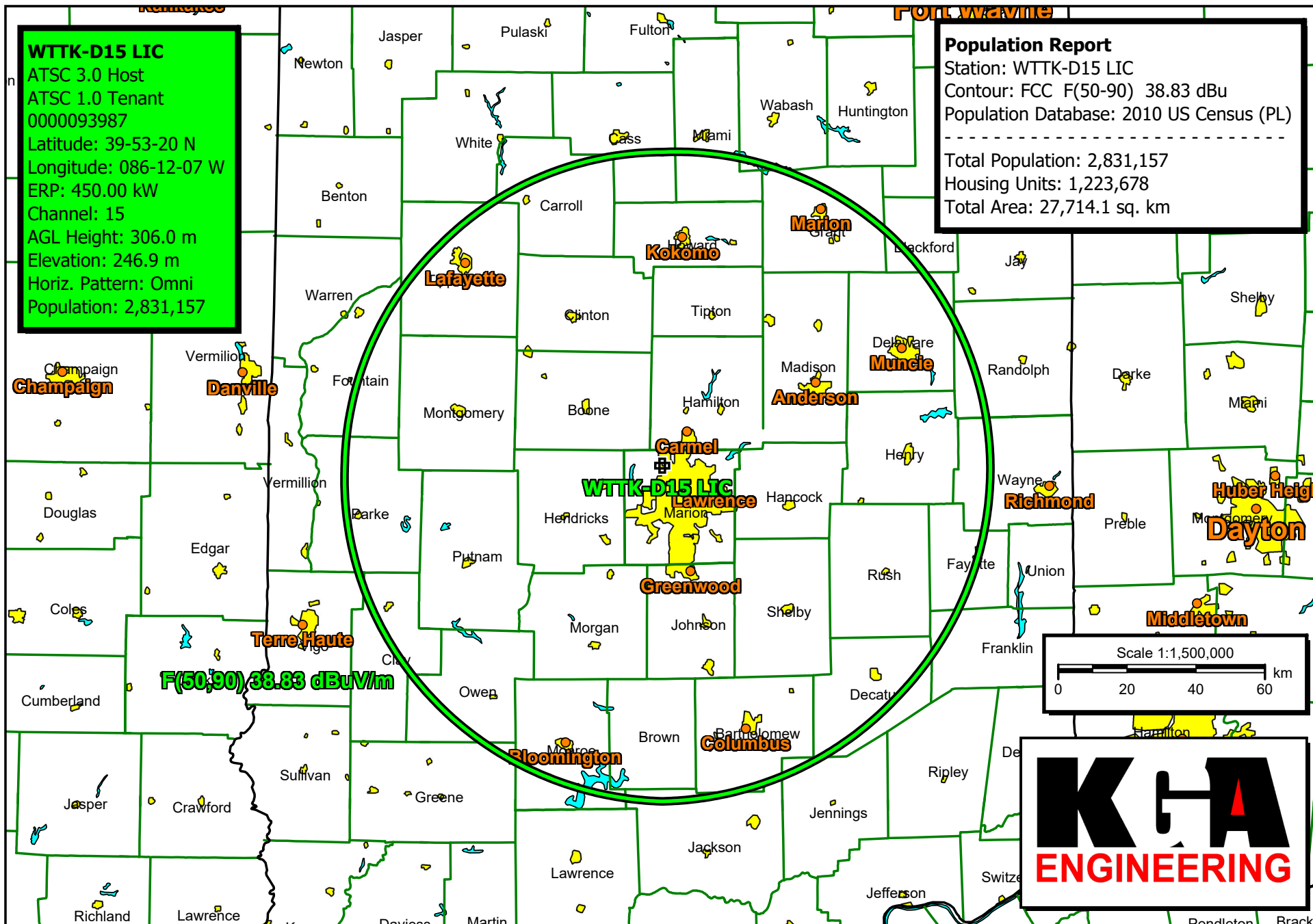
Accordingly, as demonstrated above and in enclosed Exhibits 1-5, the proposed WTTK-DT “ATSC 1.0 Tenant” facility operating with an ATSC 1.0 signal and sharing frequencies with the WXIN-DT and WRTV-DT “ATSC 1.0 Host” facilities (Coverage requirements for the ATSC 1.0 simulcast signal) and the proposed WXIN-DT and WRTV-DT “ATSC 3.0 Tenant” facilities operating with an ATSC 3.0 signal and sharing frequencies with the WTTK-DT “ATSC 3.0 Host” facility (Coverage requirements for ATSC 3.0 signals) fully satisfy the FCC rules pursuant to §73.3801 and these applications should therefore be granted with expedited processing in accordance with the streamlined 1-step process specified in the rules.

### **CERTIFICATION**

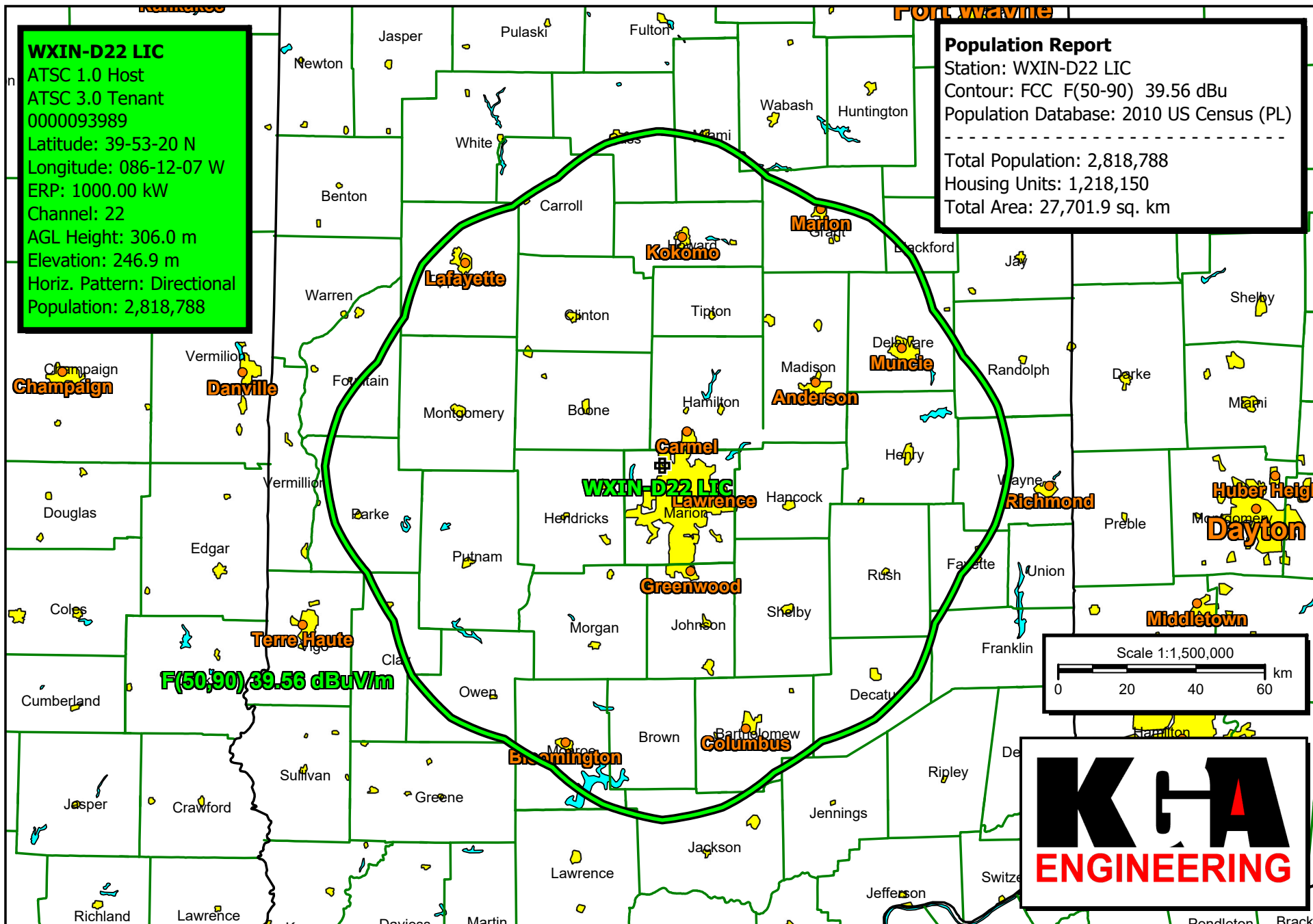
This technical statement was prepared by William T. Godfrey, Jr., Engineering Associate with the firm Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida, and has been working with the firm in the field of radio and television broadcast consulting since 1998. Mr. Godfrey was a graduate from the University of North Florida and a Distinguished Military Graduate from the University of Florida. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

  
WILLIAM T. GODFREY, JR., CBT  
Kessler and Gehman Associates, Inc.  
Consulting Engineers

July 13, 2021



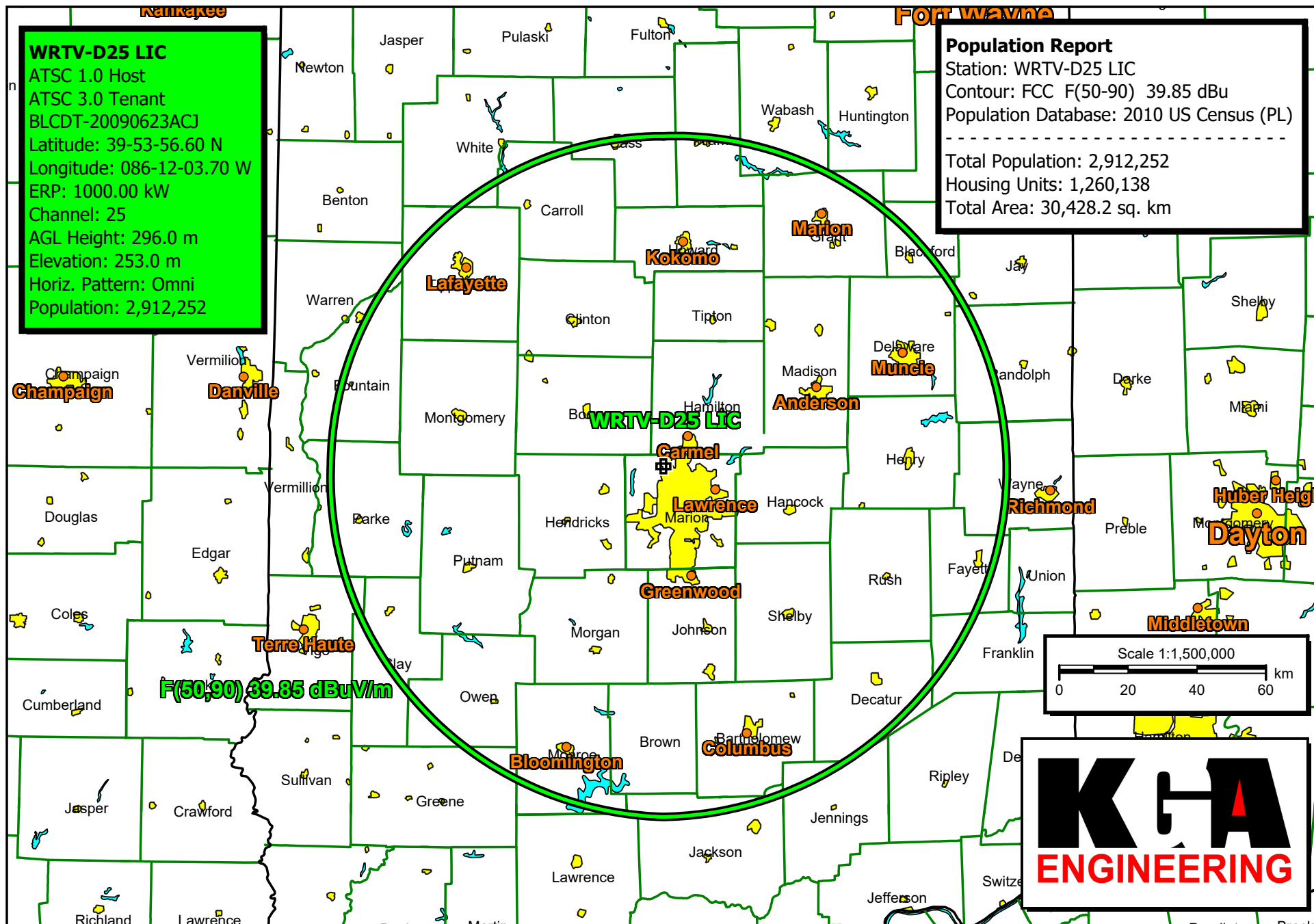
Population Within WTTK-D15 Licensed Protected Noise Limited Service Contour



Population Within WXIN-D22 Licensed Protected Noise Limited Service Contour

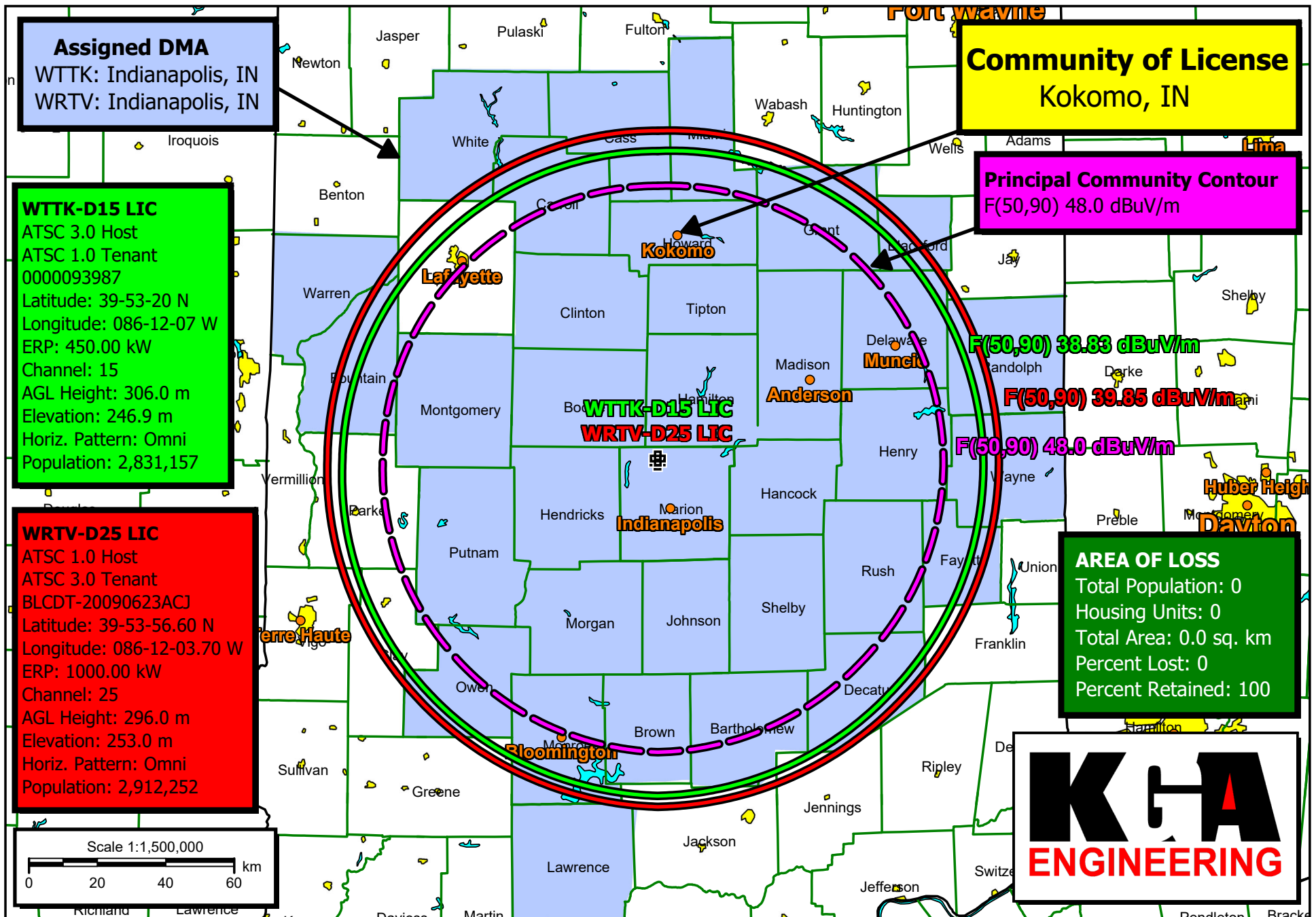






Population Within WRTV-D25 Licensed Protected Noise Limited Service Contour





ATSC 1.0 Host: WRTV-D25 / ATSC 1.0 Tenant: WTTK-D15 (ATSC 3.0 Host)