

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

The WOOD-DT (ATSC 1.0 Host #1) full-power digital television broadcast facility (File Number BLCDT-20040625ABO) is licensed to operate on Channel 7 with an ERP of 30 kW using a nondirectional antenna mounted on a tower with Antenna Structure Registration Number (ASRN) 1236861 located in Middleville, MI. The WXMI-DT (ATSC 1.0 Host #2) full-power television facility (File Number BLCDT-20030117ABD) is licensed to operate on Channel 19 with an ERP of 725 kW using a directional antenna mounted on a tower with ASRN 1005702 located in Wayland, MI. The WWMT-DT (ATSC 1.0 Host #3) full-power television facility (File Number BLCDT-20090616AAV) is licensed to operate on Channel 8 with an ERP of 25 kW using a nondirectional antenna mounted on a tower with ASRN 1000688 located in Wayland, MI. The WXSP-CD (ATSC 1.0 Tenant and ATSC 3.0 Host) Class A digital television broadcast facility (File Number BLDTA-20100714AAG) is licensed to operate on Channel 15 with an ERP of 15 kW using a nondirectional antenna mounted on a tower with ASRN 1007106 located in Grand Rapids, MI. The WOLP-CD (ATSC 1.0 Tenant and ATSC 3.0 Host) Class A digital television broadcast facility (File Number 0000086899) is licensed to operate on Channel 35 with an ERP of 14.4 kW using a nondirectional antenna mounted on a tower with ASRN 1236861 located in Middleville, MI.

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:

- WXSP-CD and WOLP-CD ATSC 1.0 Tenants at WOOD-DT ATSC 1.0 Host
- WXSP-CD and WOLP-CD ATSC 1.0 Tenants at WXMI-DT ATSC 1.0 Host
- WXSP-CD and WOLP-CD ATSC 1.0 Tenants at WWMT-DT ATSC 1.0 Host
- WOOD/WXMI/WWMT ATSC 3.0 Tenants at WXSP-CD/WOLP-CD ATSC 3.0 Hosts

All five stations are assigned to the same DMA (Grand Rapids, MI).

Pursuant to section 73.3801(f)(6)(i) of FCC Rules, the following information is required for this type of application.

Stations serving as the ATSC 1.0 Hosts:

- ATSC1.0 Host #1: WOOD-DT (BLCDT-20040625ABO)
- ATSC1.0 Host #2: WXMI-DT (BLCDT-20030117ABD)
- ATSC1.0 Host #3: WWMT-DT (BLCDT-20090616AAV)

Technical Facilities of ATSC 1.0 Host #1 Station:

- Station: WOOD-DT
- Frequency: 177 MHz (Channel 7)
- ERP: 30 kW
- Antenna: Nondirectional
- Antenna Center Height: 279.0 m AGL
- Antenna Model: TW-7B7-R (S)
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 0.75°
- Coordinates: 42° 41' 14.7" N, 085° 30' 35.0" W
- ASRN: 1236861
- DMA: Grand Rapids, MI (all five stations)

Technical Facilities of ATSC 1.0 Host #2 Station:

- Station: WXMI-DT
- Frequency: 503 MHz (Channel 19)
- ERP: 725 kW
- Antenna: Directional
- Antenna Center Height: 290.2 m AGL
- Antenna Model: TFU-24DSB-M(C)
- Antenna Polarization: Horizontal

- Antenna Beam Tilt: 1.00°
- Coordinates: 42° 41' 15.0" N, 085° 31' 57.0" W
- ASRN: 1005702
- DMA: Grand Rapids, MI (all five stations)

Technical Facilities of ATSC 1.0 Host #3 Station:

- Station: WWMT-DT
- Frequency: 183 MHz (Channel 8)
- ERP: 25 kW
- Antenna: Nondirectional
- Antenna Center Height: 270.0 m AGL
- Antenna Model: TLS-V8-R S170
- Antenna Polarization: Horizontal
- Antenna Beam Tilt: 0.75°
- Coordinates: 42° 37' 56.0" N, 085° 32' 16.0" W
- ASRN: 1000688
- DMA: Grand Rapids, MI (all five stations)

Pursuant to section 73.3801(f)(6)(ii) of FCC Rules, the following information is also required for this type of application.

WXSP-CD ATSC 1.0 Tenant at WOOD-DT ATSC 1.0 Host

- Predicted population within the licensed WXSP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,083,743 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed WOOD-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 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 100% (See Exhibits 1-3).**

WXSP-CD ATSC 1.0 Tenant at WXMI-DT ATSC 1.0 Host

- Predicted population within the licensed WXSP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,083,743 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed WXMI-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).**

WXSP-CD ATSC 1.0 Tenant at WWMT-DT ATSC 1.0 Host

- Predicted population within the licensed WXSP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,083,743 persons (See Exhibit 1)** based on U.S. Census 2010 data.
- Predicted population within the licensed WWMT-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 6-7)**
- 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, 6, 7).**

WOLP-CD ATSC 1.0 Tenant at WOOD-DT ATSC 1.0 Host

- Predicted population within the licensed WOLP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,051,733 persons (See Exhibit 8)** based on U.S. Census 2010 data.
- Predicted population within the licensed WOOD-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 2 and 9).**
- 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 2, 8, 9).**

WOLP-CD ATSC 1.0 Tenant at WXMI-DT ATSC 1.0 Host

- Predicted population within the licensed WOLP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,051,733 persons (See Exhibit 8)** based on U.S. Census 2010 data.
- Predicted population within the licensed WXMI-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 and 10)**
- 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 4, 8, 10).**

WOLP-CD ATSC 1.0 Tenant at WWMT-DT ATSC 1.0 Host

- Predicted population within the licensed WOLP-CD (ATSC 1.0 Tenant) protected noise limited service contour served by the station's original ATSC 1.0 signal: **1,051,733 persons (See Exhibit 8)** based on U.S. Census 2010 data.

- Predicted population within the licensed WWMT-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 6 and 11).**
- 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 6, 8, 11).**

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 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, 5, 7, 9, 10 and 11 it can be seen that the WXSP-CD and WOLP-CD ATSC 1.0 "Tenant" stations will continue to completely encompass the Grand Rapids, MI community of license with the WOOD-DT F(50,90) 43.0 dBu "Host #1" station's principal community contour, the WXMI-DT F(50,90) 48.0 dBu "Host #2" station's principal community contour and the WWMT-DT F(50,90) 43.0 dBu "Host #3" station's principal community contour. Also pursuant to §73.3801(c) and §73.3801(d) of FCC Rules, the WXSP-CD, WOLP-CD, WOOD-DT, WXMI-DT and WWMT-DT stations are all assigned to the same DMA (Grand Rapids, MI).

Accordingly, as demonstrated above and in enclosed Exhibits 1-11, the proposed WXSP-CD and WOLP-CD "ATSC 1.0 Tenant" facilities operating with an ATSC 1.0 signal and sharing frequencies with the WOOD-DT, WXMI-DT and WWMT-DT "ATSC 1.0 Host" facilities (Coverage requirements for the ATSC 1.0 simulcast signal) and the proposed WOOD-DT, WXMI-DT and WWMT-DT "ATSC 3.0 Tenant" facilities operating with an ATSC 3.0 signal and sharing frequencies with the WXSP-CD and WOLP-CD "ATSC 3.0 Host" facilities (Coverage requirements for ATSC 3.0 signals) fully satisfy the FCC rules

pursuant to §73.3801 and this application 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

March 15, 2021

WXSP-CD

ATSC 1.0 Tenant
ATSC 3.0 Host
BLDTA-20100714AAG
Latitude: 43-00-59.30 N
Longitude: 085-44-24.20 W
ERP: 15.00 kW
Channel: 15
Frequency: 479.0 MHz
AGL Height: 105.0 m
AMSL Height: 343.0 m
Elevation: 238.0 m
Horiz. Pattern: Omni

Population Report

Station: WXSP-CD
Contour: F(50,90) 48.83 dBu
Population Database: 2010 US Census

Total Population: 1,083,743
Housing Units: 438,546
Total Area: 6,973.7 sq. km

F(50,90) 48.83 dBu

WXSP-CD

Grand Rapids
Wyoming

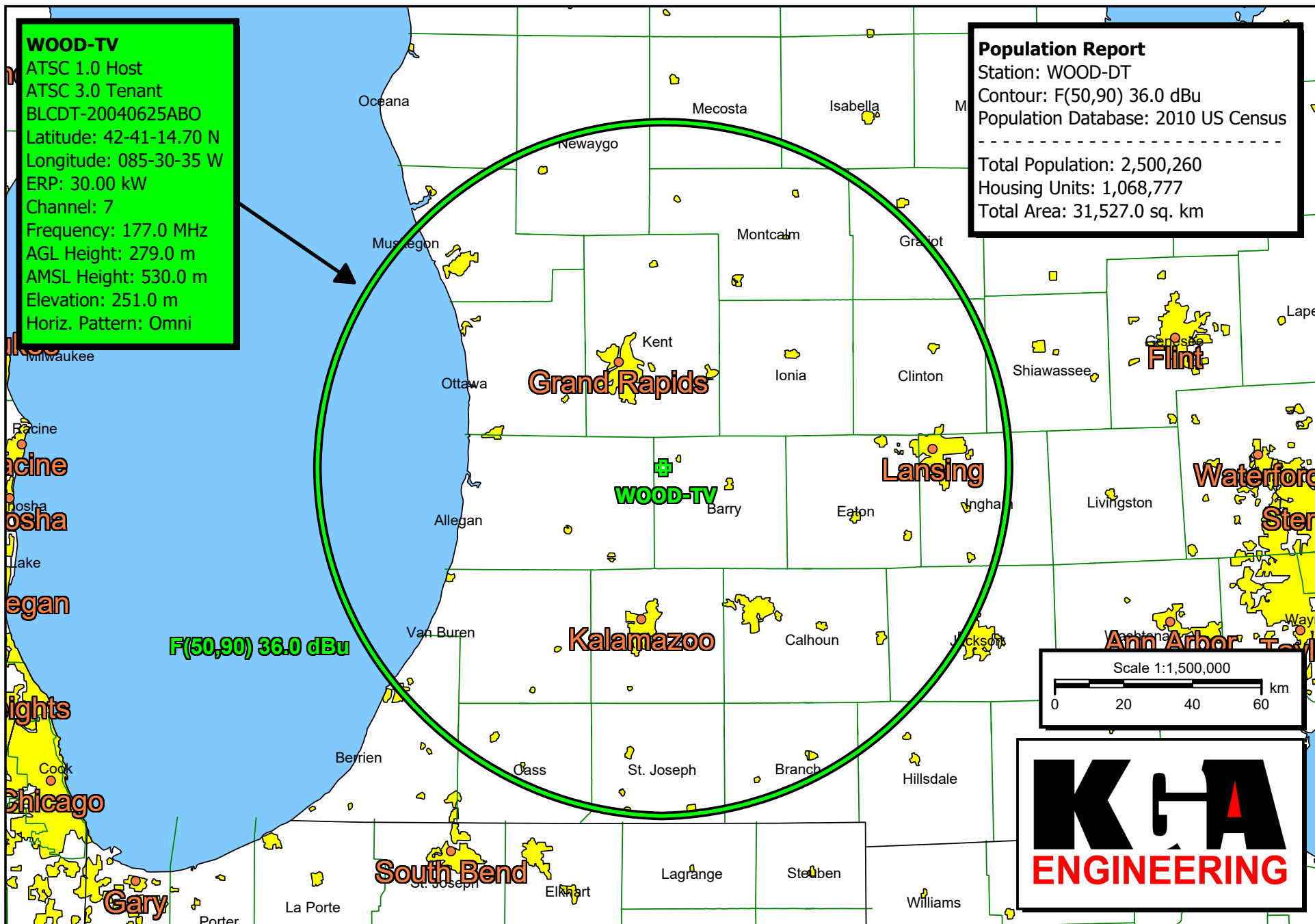
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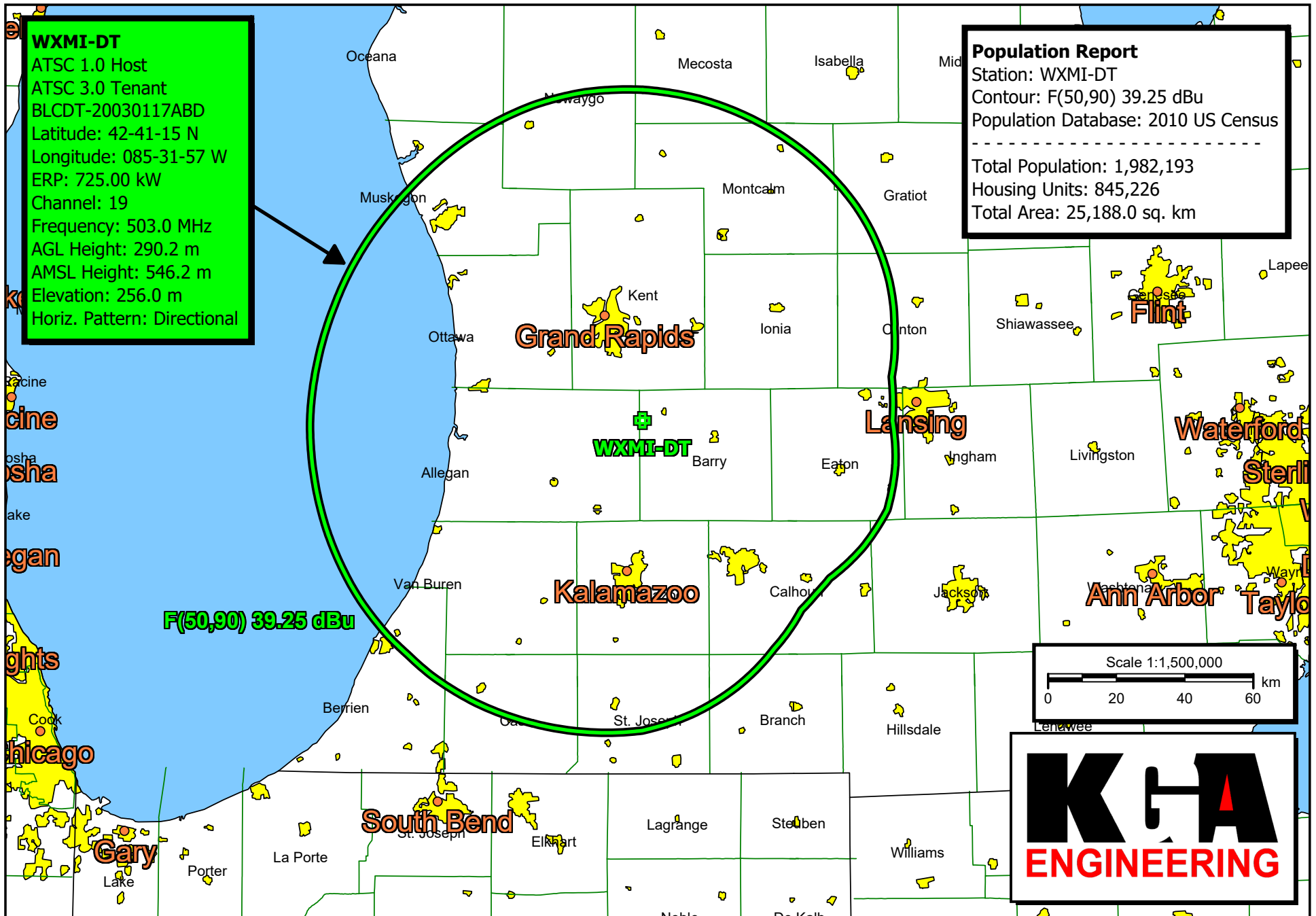
Population Within WXSP-CD Licensed Protected Noise Limited Service Contour

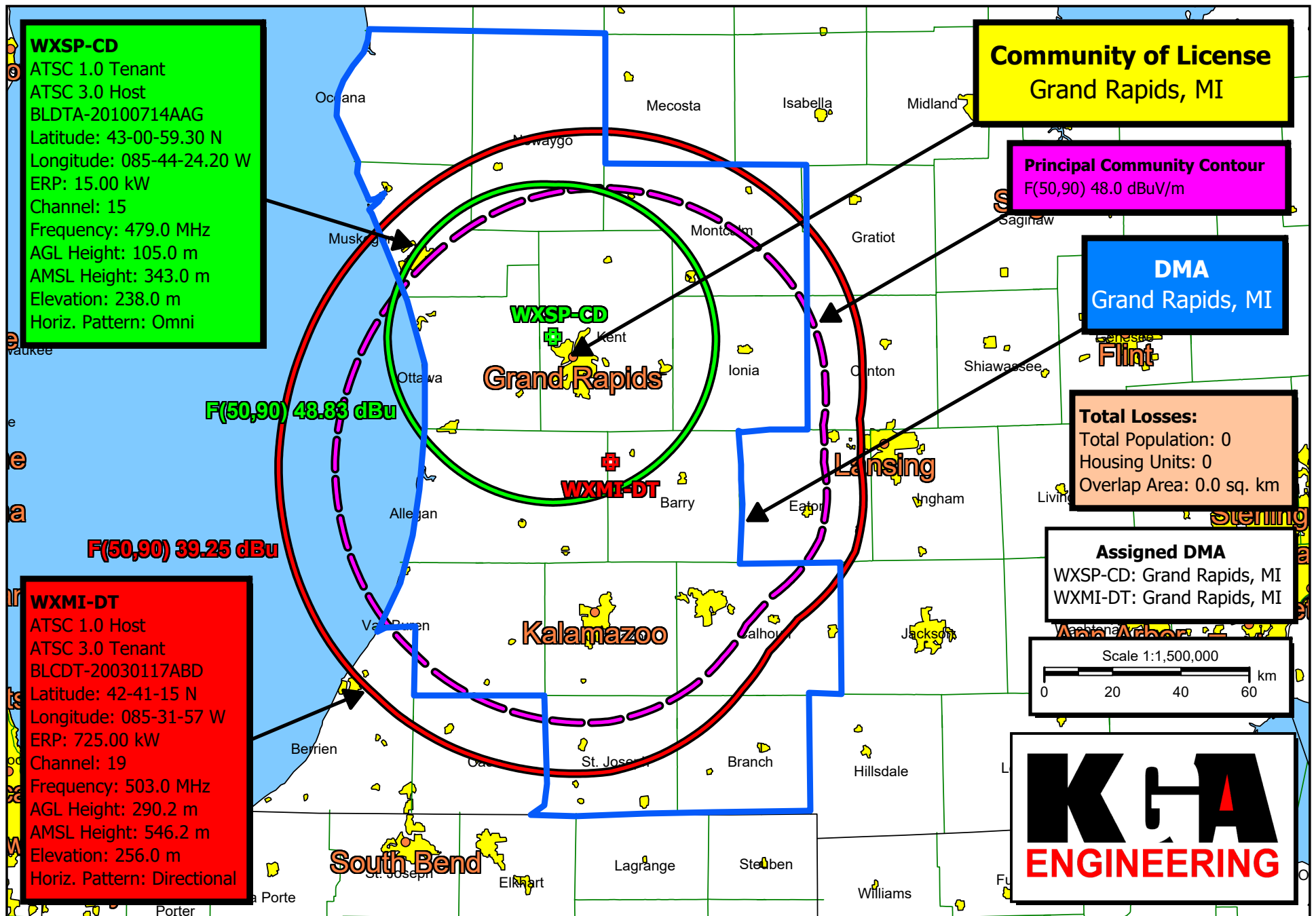
EXHIBIT 1



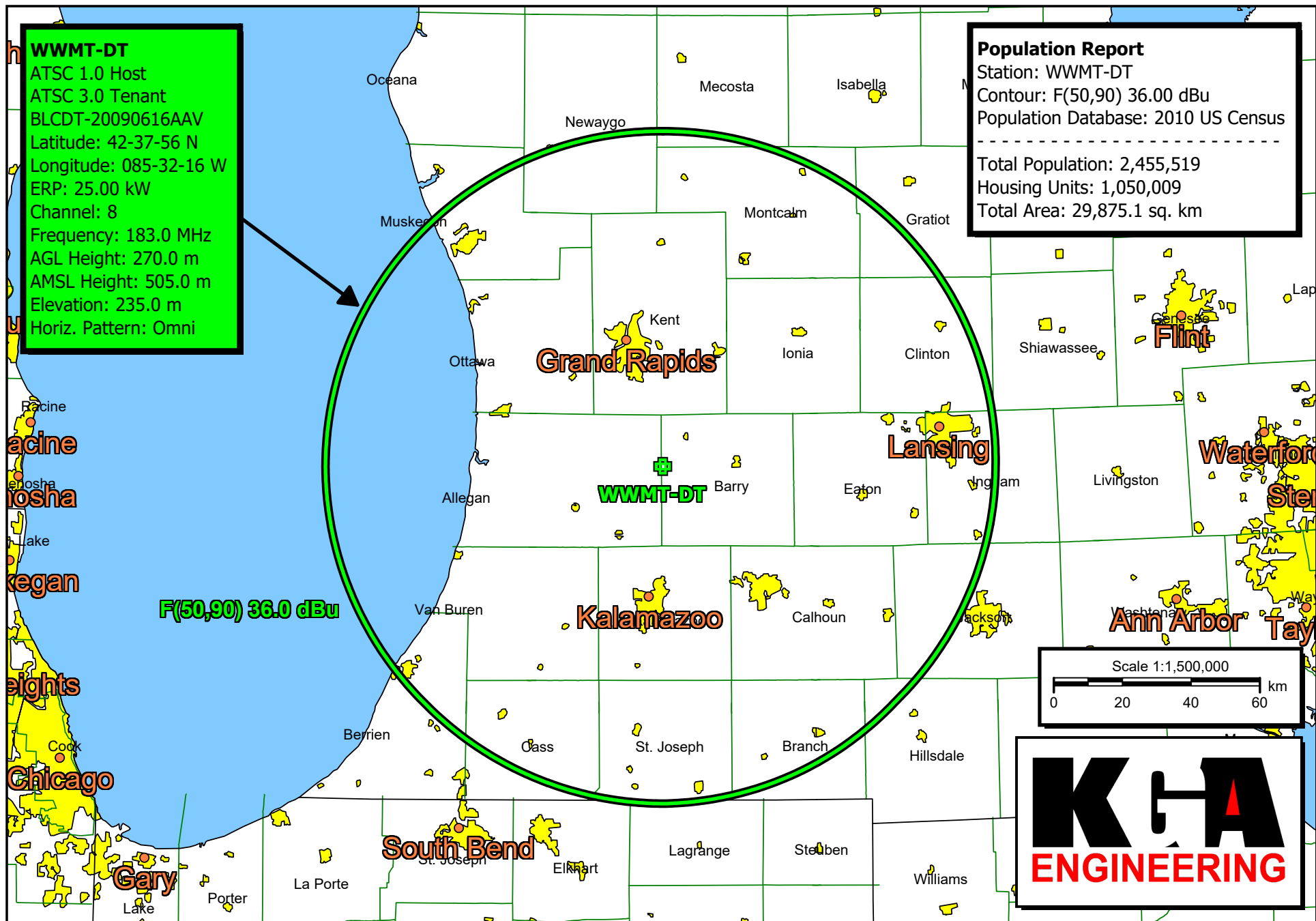
Population Within WOOD-DT Licensed Protected Noise Limited Service Contour

WXSP-CD Original ATSC 1.0 Population Loss at WOOD-DT (0% Loss)

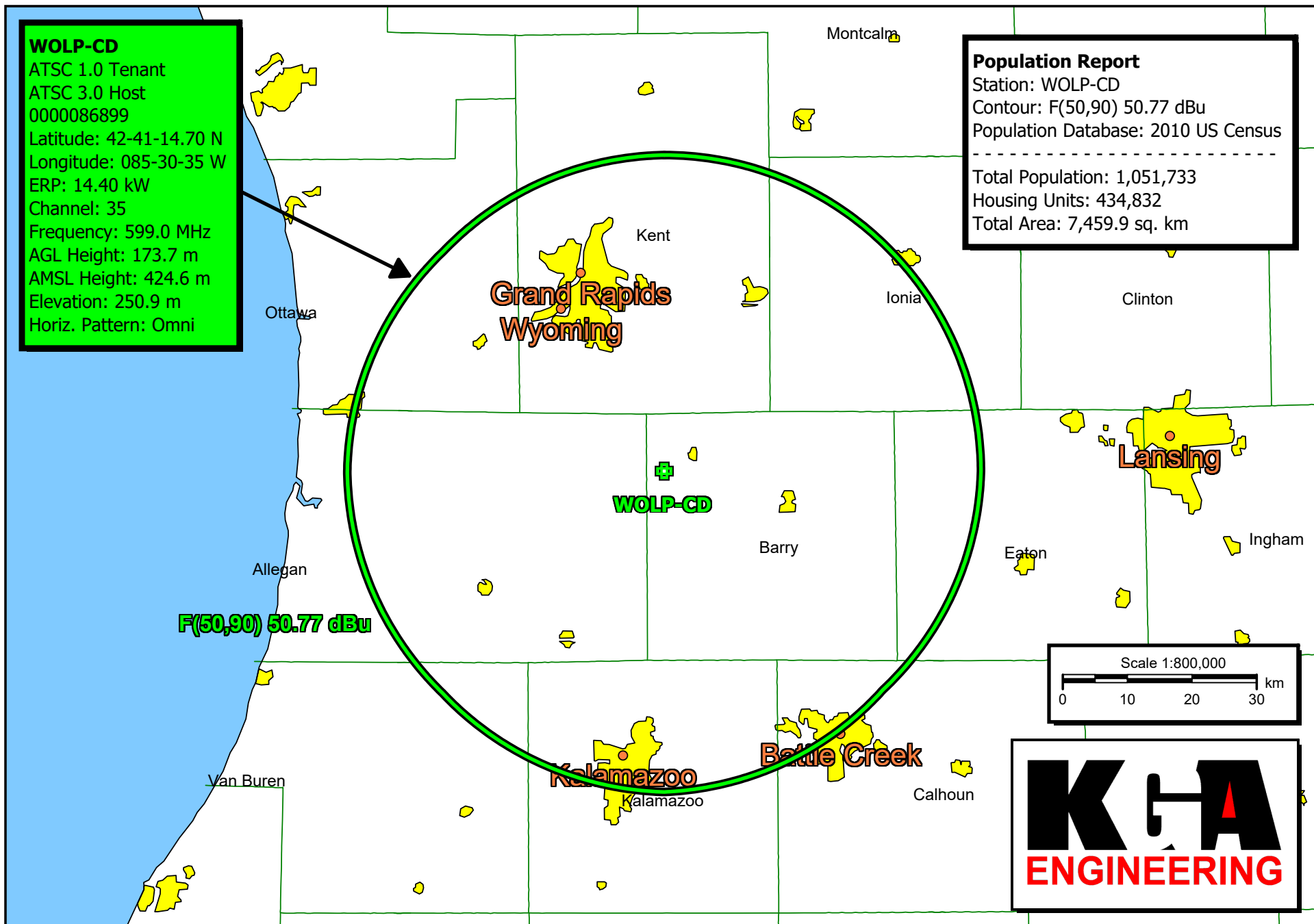




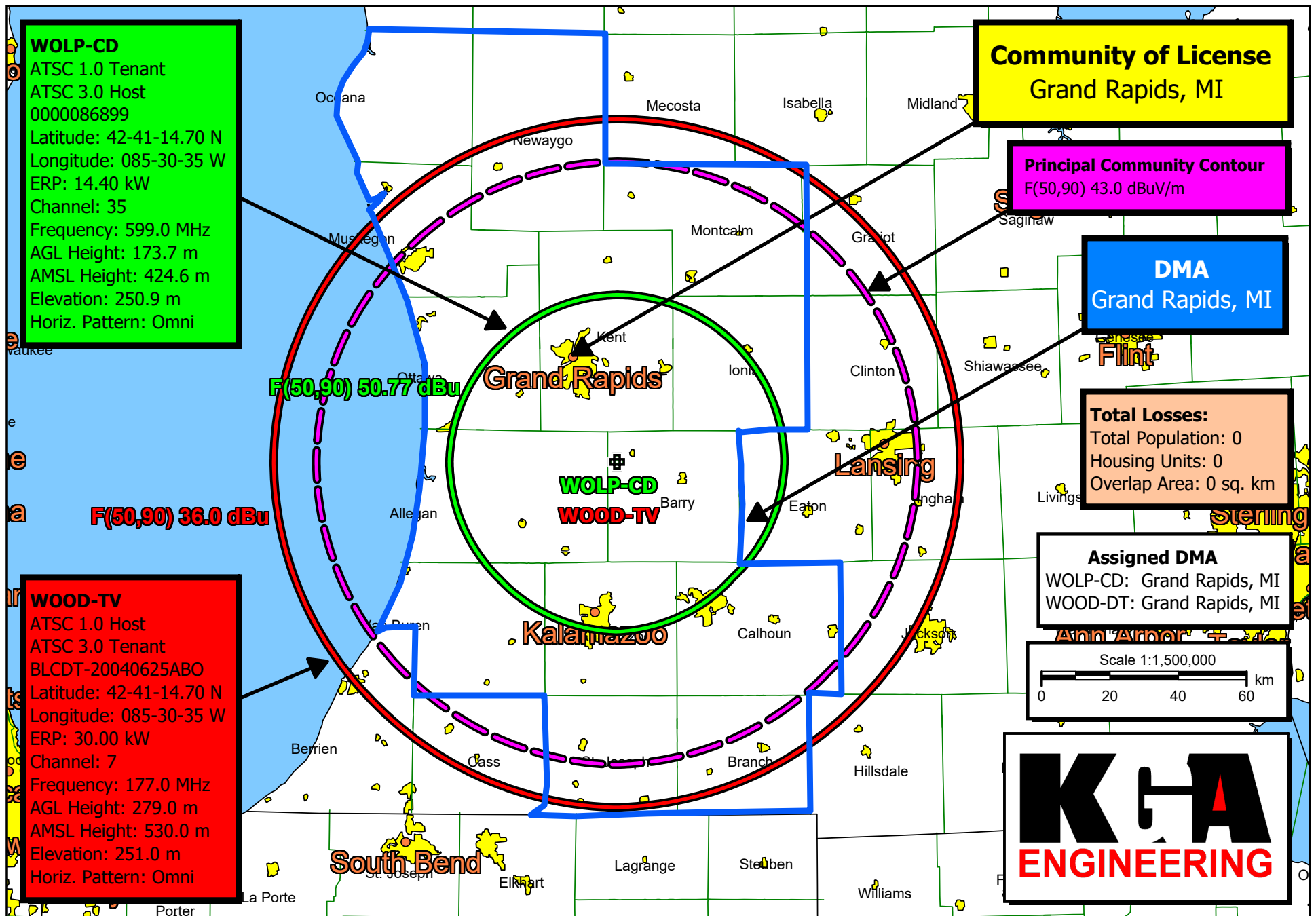
WXSP-CD Original ATSC 1.0 Population Loss at WXMI-DT (0% Loss)



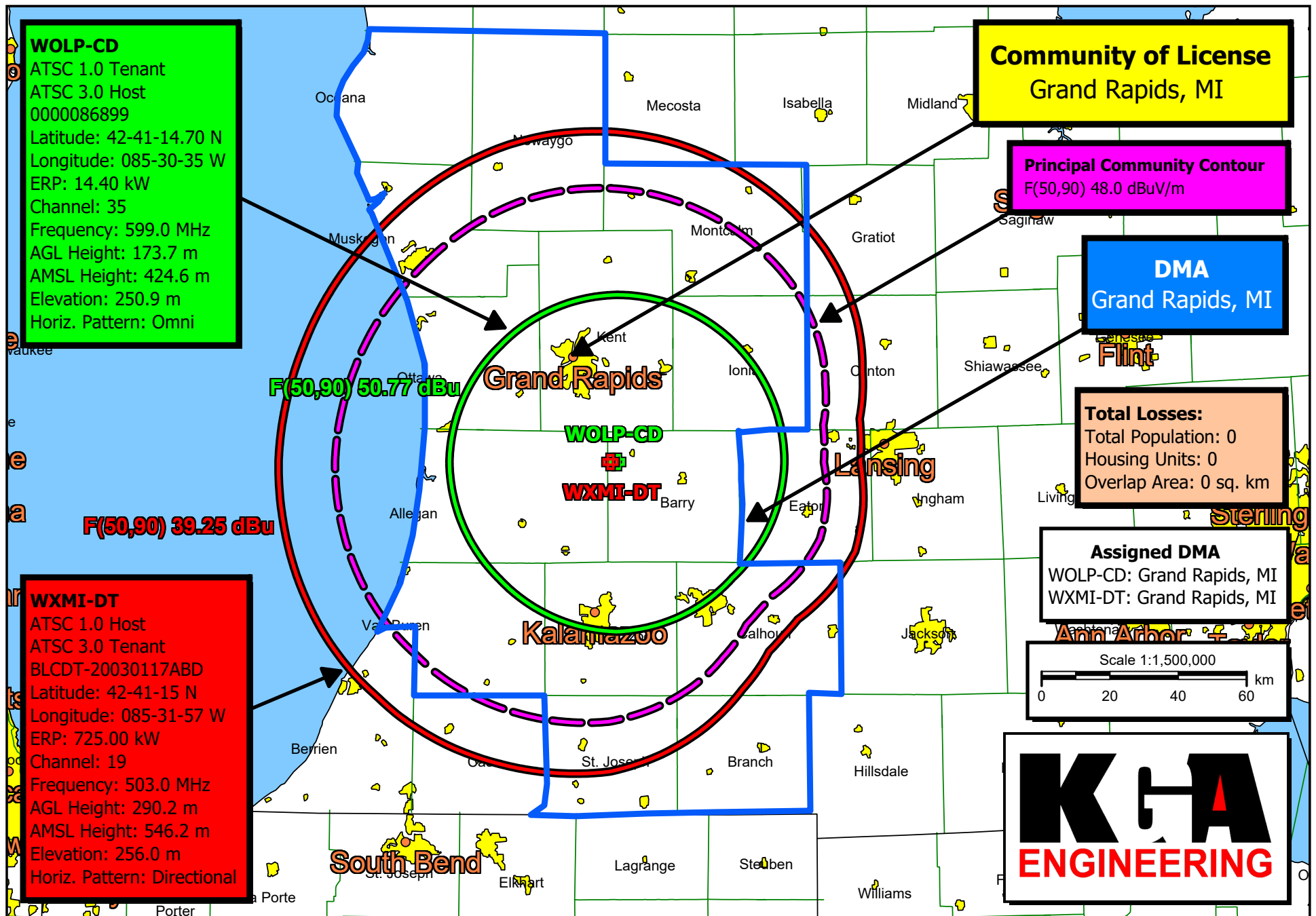
Population Within WWMT-DT Licensed Protected Noise limited Contour



Population Within WOLP-CD Licensed Protected Noise Limited Contour



WOLP-CD Original ATSC 1.0 Population Loss at WOOD-TV (0% Loss)



WOLP-CD Original ATSC 1.0 Population Loss at WXMI-DT (0% Loss)

