

**Exhibit 23.1**  
**Topographic Map**  
**of Existing Site**

**Existing Site**  
42°54'57" NL  
72°19'53" WL  
NAD 1927

**MUNN-REESE, INC.**  
Broadcast Engineering Consultants  
Coldwater, MI 49036  
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42°55'30"N  
72°20'49"W Map Extent 72°18'57"W  
42°54'24"N



Geographic Coordinate System (WGS84)

## Exhibit 23.2

### Vertical Plan of Antenna System

The site is located atop West Hill,  
the city of Keene, Cheshire County, New Hampshire.

#### Site Location (NAD 27)

NL: 42° 54' 57"

WL: 72° 19' 53"

Proposed Antenna  
COR: 432 meters AMSL  
HAAT: 169 meters

434.9 meters AMSL

32.6 meters AGL

30 meters

#### **NOTE: Existing Tower Construction**

Antenna Structure Registration No.

**1034136**

**(Pending Correction)**

Ground Elevation = 402.3 m AMSL  
Drawing is not to Scale

**MUNN-REESE, INC.**

Broadcast Engineering Consultants  
Coldwater, MI 49036

## EXHIBIT 23.3

### PROPOSED FM OPERATING SPECIFICATIONS

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**Applicant:** Saga Communications of New England, Inc.

**Call:** WSNI(FM)

**City of License:** Keene, NH

**Frequency:** 97.7 MHz    **Channel:** 249A    **ERP:** 2.15 kW    **HAAT:** 169 M

**Transmitter Location:** The site is located atop West Hill

**City:** Keene

**County:** Cheshire

**State:** New Hampshire

**Site Coordinates:** NL: 42° 54' 57"    /    WL: 72° 19' 53"

**Tower Registration Number:** 1034136 (Pending Correction)

**Proposed Operation:** Class A

**Effective Radiated Power:** 2.15 kW (H)    2.15 kW (V)

**Height of Antenna Radiation Center Above:**

	<u>Average Terrain</u>	<u>Mean Sea Level</u>	<u>Ground</u>
Horizontal	169 meters	432 meters	30 meters
Vertical	169 meters	432 meters	30 Meters

**Elevation of Tower Site :** 402.3 Meters AMSL


**Overall Height of Structure Above Ground :** 32.6 Meters AGL

**Overall Height of Structure Above Mean Sea Level:** 434.9 Meters AMSL

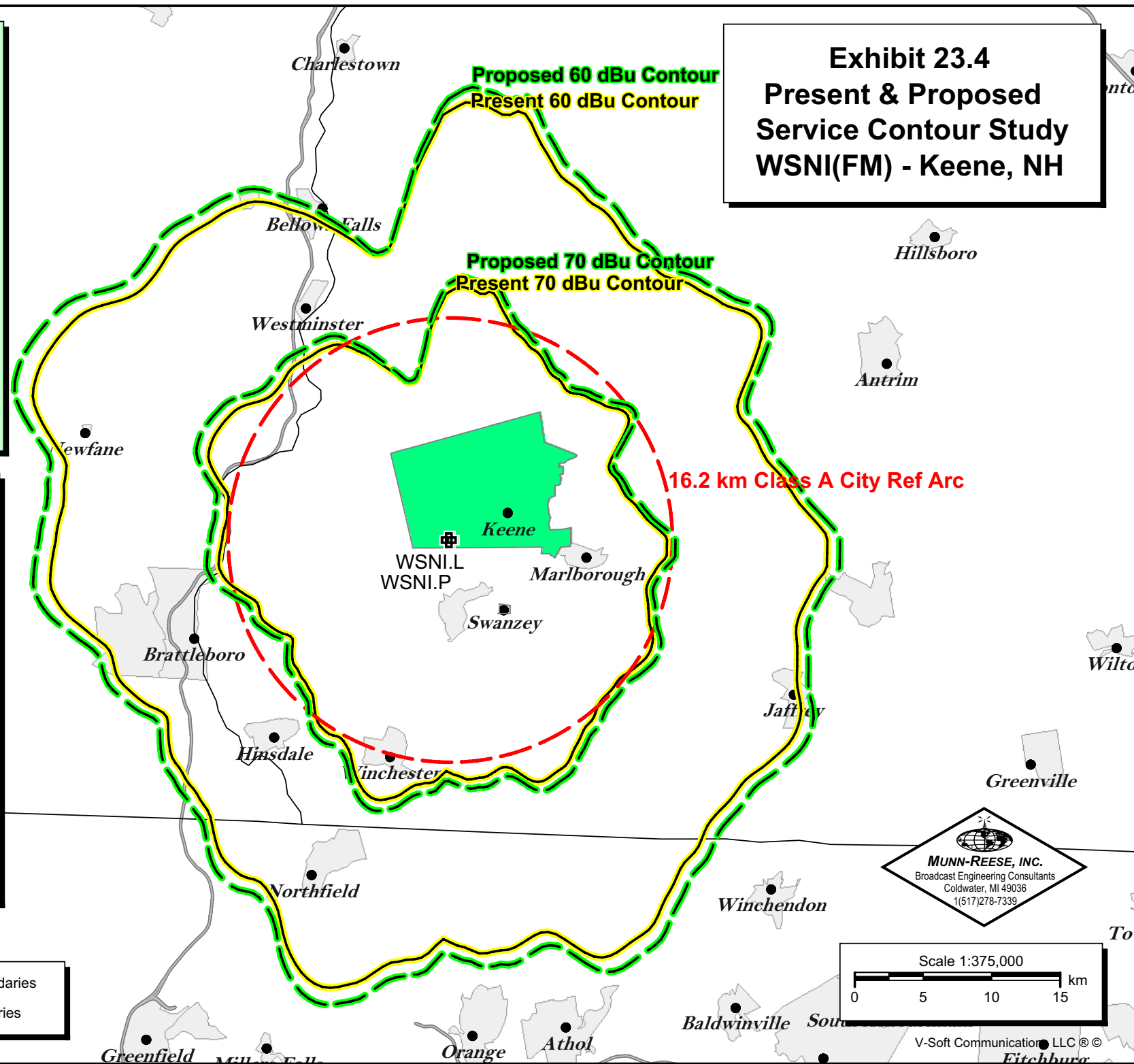


**60 dBu Contour**  
**Total Population: 101,036**  
**Total Area: 2663.81 sq. km**

**60 dBu Contour**  
**Total Population: 94,287**  
**Total Area: 2488.54 sq. km**

 Proposed Community Boundaries  
 Former Community Boundaries

**Exhibit 23.4**  
**Present & Proposed**  
**Service Contour Study**  
**WSNI(FM) - Keene, NH**



# Exhibit 23.5 - Copy of HAAT Calculation using the 1 km GLOBE Terrain Database as taken from FCC.gov



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**Audio Division**

(202)-418-2700

**Antenna Height Above Average Terrain (HAAT) / Contour Calculations**

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## Antenna Height Above Average Terrain Calculations -- Input

Latitude **42 54 57.0 North**  
Longitude **72 19 53.0 West** (NAD 27)

Height of antenna radiation center above mean sea level [RCAMSL] = **432.0** meters

Number of Evenly Spaced Radials = 8      0° is referenced to True North

## Results:

**Calculated HAAT= 169. meters**

(Antenna Height Above Average Terrain)  
using 1 km GLOBE terrain data)

## Antenna Radiation Center Heights Above Individual Radials:

0.0°	187.9 meters
45.0°	122.8 meters
90.0°	159.7 meters
135.0°	175.4 meters
180.0°	196.3 meters
225.0°	132.4 meters
270.0°	188.4 meters
315.0°	188.3 meters

**New Antenna Height Above Average Terrain (HAAT) calculation?**

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