

**WLAY(AM)  
1450 kHz  
Muscle Shoals, AL  
#60611**

**APPLICATION FOR ENGINEERING STA EXTENSION**

**Purpose:**

The WLAY construction permit (BP-20200814ARH) is nearing completion and the license to cover is expected to be filed in the near future. However, an extension and modification of the current STA is requested at the CP site with a power of 400 Watts until the form 302 can be filed.

**Technical data and exhibits for requested STA:**

WLAY  
1450 kHz  
Facility #650611  
0.40 kW Unlimited  
Efficiency = 242.855 mV/m/km/kW  
Tower = 31 m overall/ 30.5 meter radiator - 53.1°  
90 31.4 meter buried ground radials.

**Site: N 37-40-38 W 87-43-15 (NAD 27)**

The following exhibits are provided:

- E1 Vertical sketch
- E2 STA 0.5 mV/m Day contour is contained within the licensed WLAY 0.5 mV/m
- E3 Tower Air

**RF determination:**

The 0.40 kW facility's RF exposure will not exceed FCC requirements with the use of a 3 meter fence around the tower.

# Anderson Associates

Broadcast Engineering Consultants

## AM FENCE DISTANCE TABLES

TABLE 1. Predicted Distances for Compliance with FCC Limits: 0.1-0.2 Wavelength

Frequency (kHz)	Transmitter Power (kW)			
	50	10	5	1
Predicted Distance for Compliance with FCC Limits (meters)				
535-740	13	7	6	3
750-940	12	7	5	3
950-1140	11	6	5	3
1150-1340	10	6	5	3
1350-1540	10	6	5	3
1550-1705	10	6	5	3

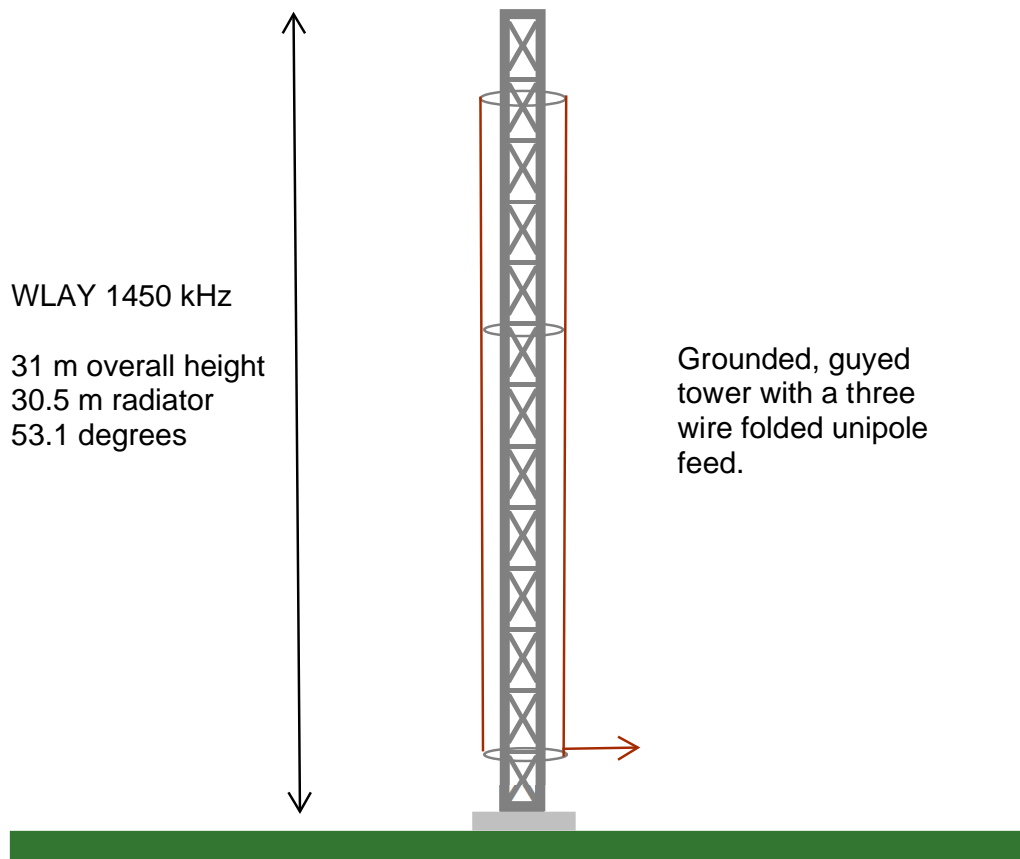
If any additional technical information is required please contact the undersigned.



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# E1 VERTICAL SKETCH



WLAY 1450 kHz ground system of ninety (90) 31.4 meter buried copper radials. Efficiency = 242.855 mV/m/km/kW.

**WLAY**

Freq: 1450 kHz  
Class: C  
Latitude: 34-45-23 N  
Longitude: 087-41-08 W  
Power: 1 kW  
RMS: 372.8 mV/m @1km  
# Towers: 1  
# Augs: 0

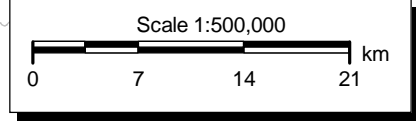
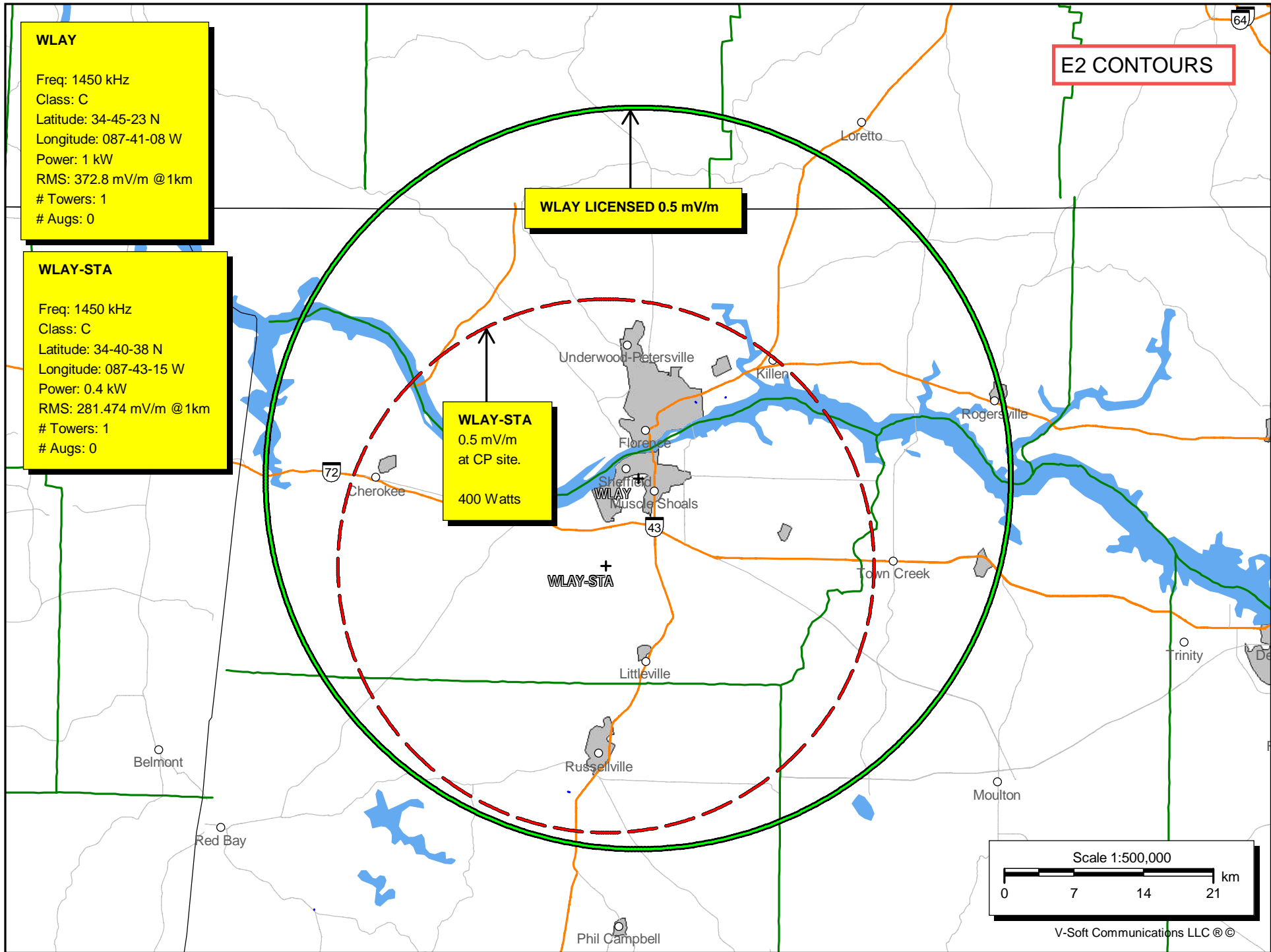
**WLAY-STA**

Freq: 1450 kHz  
Class: C  
Latitude: 34-40-38 N  
Longitude: 087-43-15 W  
Power: 0.4 kW  
RMS: 281.474 mV/m @1km  
# Towers: 1  
# Augs: 0

**E2 CONTOURS**

**WLAY LICENSED 0.5 mV/m**

**WLAY-STA**  
0.5 mV/m  
at CP site.  
400 Watts



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## E3 TOWAIR Determination Results

### \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

#### DETERMINATION Results

Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.

#### Your Specifications

##### NAD83 Coordinates

Latitude	34-40-38.7 north
Longitude	084-43-15.3 west

##### Measurements (Meters)

Overall Structure Height (AGL)	31
Support Structure Height (AGL)	0
Site Elevation (AMSL)	256

##### Structure Type

GTOWER - Guyed Structure Used for Communication Purposes