

**EXHIBIT A**

**ENGINEERING STATEMENT**

The engineering data contained herein have been prepared on behalf of MAUNA KEA BROADCASTING, licensee of digital television station KLEI-DT, Channel 25 in Kailua-Kona, Hawaii, in support of its Application for Construction Permit to operate from a new site with a different antenna and increased effective radiated power.

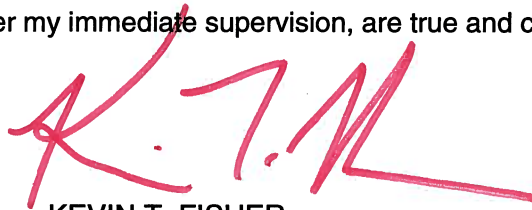
It is proposed to mount a standard omnidirectional antenna at the 33.5-meter level of an existing 152-meter communications tower located adjacent to the presently licensed KLEI-DT site. Exhibit B provides an elevation pattern for the proposed antenna. Proposed operating parameters are provided in Exhibit C. Exhibit D is a map upon which the predicted service contours are plotted. As shown, the city of license is completely contained within the proposed 48 dBu service contour. An interference study is included in Exhibit E, and it is important to note that the study utilized a cell size of 1.0 kilometer and an increment spacing of 1.0 kilometer. A power density calculation is provided in Exhibit F.

It is not expected that the proposed facility would cause objectionable interference to any other broadcast or non-broadcast station authorized to operate at or near the new KLEI-DT site. However, if such should occur, the owner of this station recognizes its obligation to take whatever corrective actions are necessary.

Since no change in overall height or location of the existing tower is proposed herein, the FAA has not been notified of this application. The FCC issued Antenna Structure Registration Number 1009950 to this tower.

EXHIBIT A

I declare under penalty of perjury that the foregoing statements and the attached exhibits, which were prepared by me or under my immediate supervision, are true and correct to the best of my knowledge and belief.

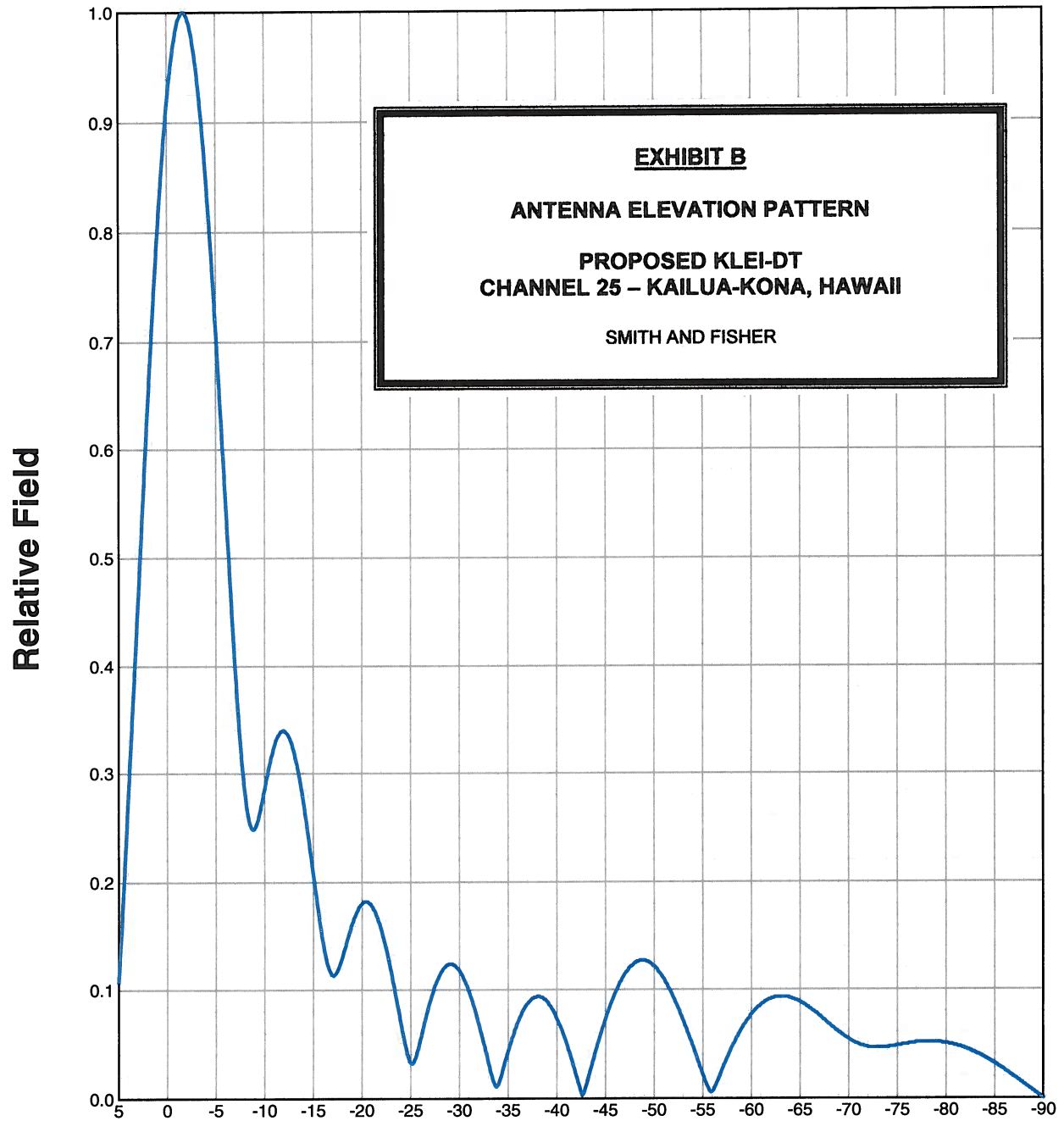
A handwritten signature in red ink, appearing to read 'K. T. Fisher', is written over the text of the declaration.

KEVIN T. FISHER

September 28, 2011

## ELEVATION PATTERN

|              |         |      |               |            |
|--------------|---------|------|---------------|------------|
| Type:        | AL8     |      | Channel:      |            |
| Directivity: | Numeric | dBd  | Location:     |            |
| Main Lobe:   | 8.68    | 9.39 | Beam Tilt:    | -1.75      |
| Horizontal:  | 7.30    | 8.63 | Polarization: | Horizontal |



Preliminary, subject to final design and review.

**EXHIBIT C**

**PROPOSED OPERATING PARAMETERS**

**PROPOSED KLEI-DT  
CHANNEL 25 – KAILUA-KONA, HAWAII**

|   |                           |
|---|---------------------------|
| Transmitter Power Output:               | 0.5 kW                    |
| Transmission Line Efficiency:           | 78.7%                     |
| Antenna Power Gain – Main Lobe:         | 14.06                     |
| Effective Radiated Power – Main Lobe:   | 5.5 kW                    |
| Transmitter Make and Model:             | Type-accepted             |
| Transmission Line Make and Model:       | ERI LDF5-50A              |
| Size and Type:                          | 7/8" foam heliax          |
| Length:                                 | 125 feet                  |
| Antenna:                                |                           |
| Make and Model:                         | ERI AL-8                  |
| Orientation:                            | omnidirectional           |
| Beam Tilt:                              | 1.75 degrees              |
| Radiation Center Above Ground:          | 30.5 meters               |
| Radiation Center Above Mean Sea Level:  | 1636 meters               |
| Radiation Center Above Average Terrain: | 825 meters                |
| Tower:                                  |                           |
| Coordinates (NAD27):                    | 19-43-15 N<br>155-55-16 W |
| FCC ASRN:                               | 1009950                   |
| Site Elevation AMSL:                    | 1605 meters               |
| Overall Height AGL:                     | 152 meters                |

**CONTOUR POPULATION**

**48 DBU : 61,407**

**41 DBU : 63,961**

**SMITHANDFISHER**



**EXHIBIT D**  
**PREDICTED SERVICE CONTOURS**  
**PROPOSED KLEI-DT**  
**CH. 25 - KAILUA-KONA, HAWAII**

Scale 1:1,100,000

0 10 20 30 km

EXHIBIT E-1

INTERFERENCE STUDY

PROPOSED KLEI-DT  
CHANNEL 25 – KAILUA-KONA, HAWAII

The instant proposal specifies an ERP of 5.5 kW (omnidirectional) at 825 meters above average terrain, which we have determined to be allowable under the FCC's interference standard with respect to various DTV and Class A LPTV facilities.

In evaluating the interference effect of this proposal, we have relied upon the V-Soft Communications "Probe III" computer program, which mimics the FCC's program. In conducting our studies, we employed a cell size of 1.0 kilometer and an increment spacing of 1.0 kilometer along each radial. In addition, we utilized the 2000 U.S. Census. The study's summary, which appears in Exhibit E-2, concludes that the proposed KLEI-DT facility would not cause significant (more than 0.5%) interference to the service population of any full-power digital television facility.

In addition, the same Longley-Rice interference study also reveals that the proposed KLEI-DT facility does not cause interference within the protected 74 dBu contour of any potentially affected Class A low power television station.

Therefore, this proposal meets the FCC's *de minimis* interference standards for digital television station operations.

EXHIBIT E-2

INTERFERENCE SUMMARY

PROPOSED KLEI-DT  
CHANNEL 25 – KAILUA-KONA, HAWAII

| <u>Call Sign</u>              | <u>Status</u> | <u>City, State</u> | <u>Ch.</u> | <u>Longley-Rice<br/>Service<br/>Population</u> | <u>Unmasked<br/>Interference From<br/>Proposed Facility</u> | <u>%</u> | . |
|-------------------------------|---------------|--------------------|------------|--|---|----------|---|
| KGMV-DT<br>BLC DT-20070202ABM | Lic.          | Wailuku, HI        | 24         | 132,611  | 319   | 0.2      |   |

EXHIBIT F

POWER DENSITY CALCULATION  
PROPOSED KLEI-DT  
CHANNEL 25 – KAILUA-KONA, HAWAII

Since the FCC considers the possible biological effects of RF transmissions in its environmental determinations, we have studied the matter with respect to this Kailua-Kona facility. Employing the methods set forth in *OET Bulletin No. 65* and considering a main-lobe effective radiated power of 5.5 kW, an antenna radiation center 33.5 meters above ground, and the vertical pattern of the 8-bay antenna, maximum power density two meters above ground of  $0.0017 \text{ mw/cm}^2$  is calculated to occur 28 meters from the base of the tower. Since this is only 0.5 percent of the  $0.36 \text{ mw/cm}^2$  reference for uncontrolled environments (areas with public access) surrounding a facility operating on Channel 25 (536-542 MHz), this proposal may be excluded from consideration with respect to public exposure to nonionizing electromagnetic radiation.

Further, the station owner will take whatever precautionary steps are necessary, such as reducing power or leaving the air temporarily, to ensure that workers operating in the vicinity of the antenna are not exposed to excessive nonionizing radiation.