

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of FOUNDATION FOR A BEAUTIFUL LIFE in support of its amendment of Application for Construction Permit [BNPL-20131114BFN] to operate a Low Power FM station on Channel 225 (92.9 MHz) in Cupertino, California from a new site.

It is proposed to mount a standard one-bay circularly polarized antenna at the top level of an existing 30-meter tower. The proposed effective radiated power is 9 watts. Exhibit B is a map upon which the proposed 60 dBu service contour for the proposed facility is plotted. It is important to note that the proposed location meets all of the Commission's spacing requirements to pertinent co-channel and adjacent-channel full-power, FM translator and LPFM stations, except in one instance. The proposed site is short-spaced to second-adjacent-channel station KRZZ(FM) in San Francisco, California. As a result, we request a waiver of the Commission's Rules with respect to KRZZ(FM) and the justification appears in Exhibit C. We have also determined that the proposed facility should not cause objectionable interference to the input signal of any existing translator station, based on the information contained in the FCC's CDBS database.

Employing the methods of OET Bulletin No. 65, and based on the elevation pattern of a standard 2-bay FM antenna, maximum power density two meters above ground of  $0.0048 \text{ mW/cm}^2$  is calculated to occur 26 meters from the base of the tower. Since this is only 0.2 percent of the  $0.2 \text{ mW/cm}^2$  reference for uncontrolled environments (areas with public access)

EXHIBIT A

surrounding a facility operating in the FM band, a grant of this proposal can be considered a minor environmental action with respect to human exposure to non-ionizing electromagnetic radiation. Further the station owner will take whatever precautionary steps are necessary to ensure that workers operating in the vicinity of the antenna are not exposed to RF energy in excess of the Commission's guideline values.

Due to the diminutive height of the proposed tower and its proximity to the nearest airport runways, the FAA has not been notified of this application. In addition, FCC registration of this structure is not required for the same reasons. This conclusion is supported by the Commission's TOWAIR program.

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



KYLE T. FISHER

May 14, 2015

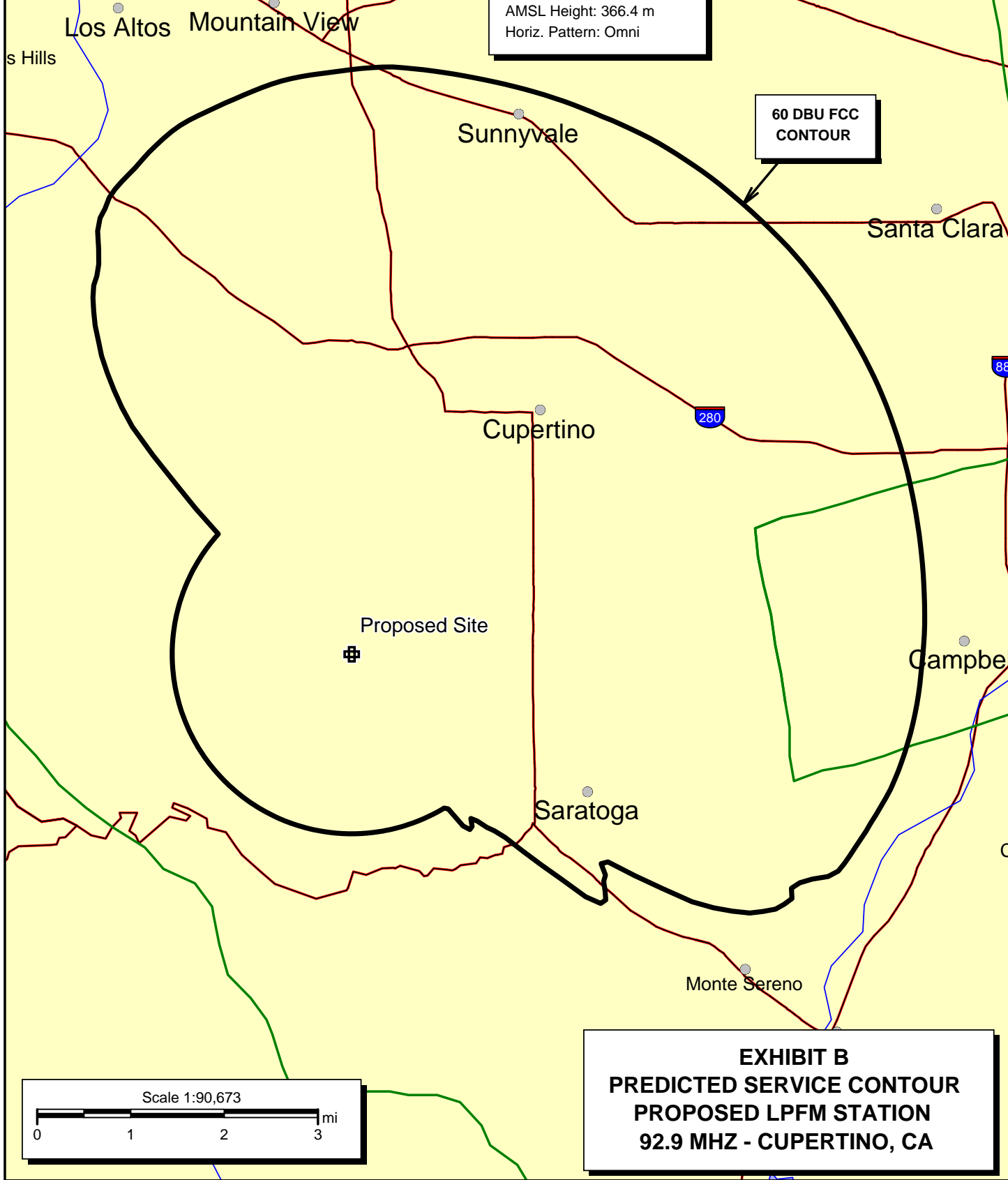
**CONTOUR POPULATION  
2010 U.S. CENSUS DATA  
311,164**

**Proposed Site**

Latitude: 37-17-06.80 N  
Longitude: 122-04-03.70 W  
ERP: 0.009 kW  
Channel: 225  
Frequency: 92.9 MHz  
AMSL Height: 366.4 m  
Horiz. Pattern: Omni



**60 DBU FCC  
CONTOUR**



**EXHIBIT B  
PREDICTED SERVICE CONTOUR  
PROPOSED LPFM STATION  
92.9 MHZ - CUPERTINO, CA**

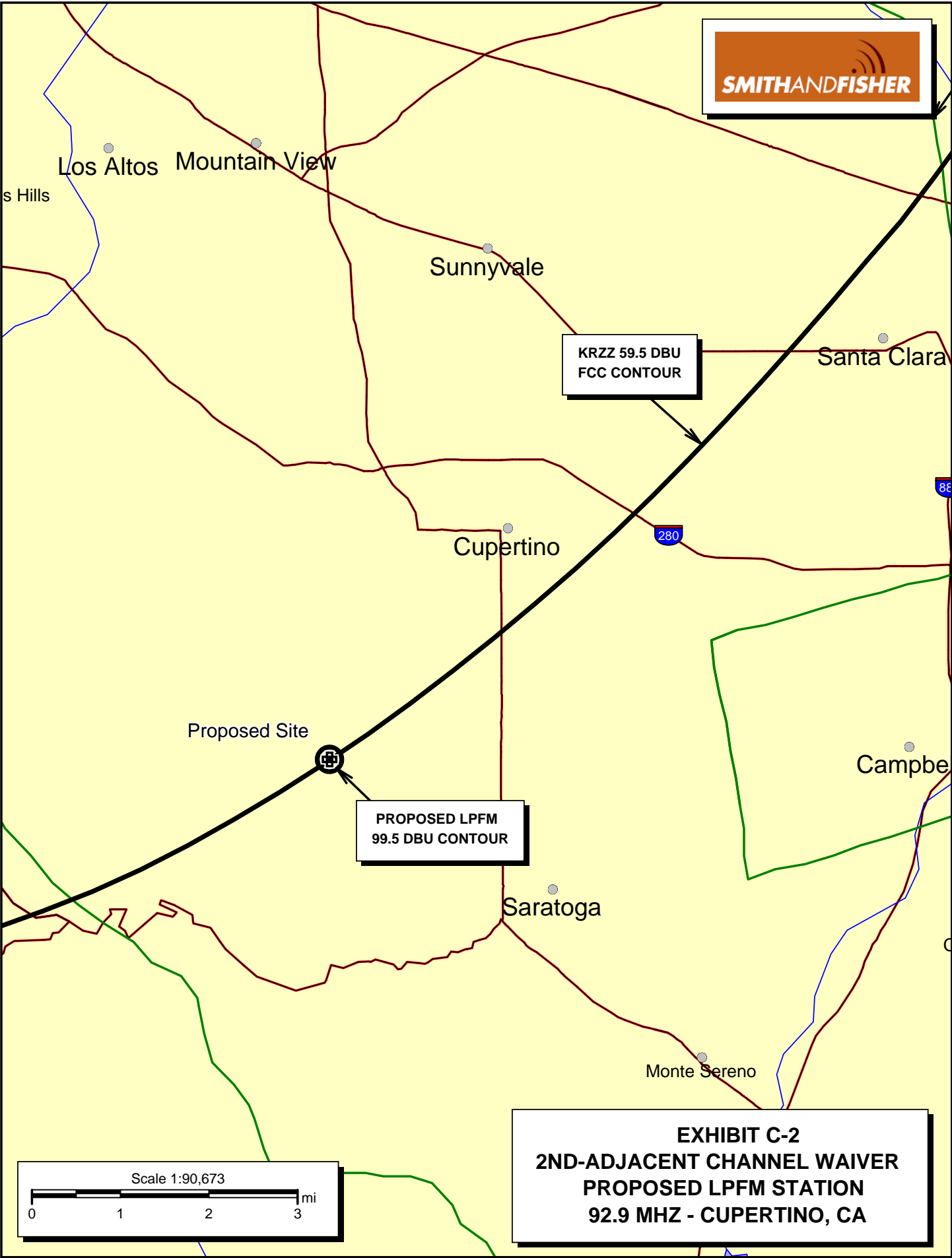
SECOND-ADJACENT-CHANNEL WAIVER REQUEST  
PROPOSED LPFM STATION  
CHANNEL 225 – CUPERTINO, CALIFORNIA  
[AMENDMENT TO BNPL-20131114BFN]

The newly proposed site is located 55.1 kilometers from that of KRZZ(FM), Channel 227B in San Francisco, California. Since the required spacing to this station is 67 kilometers, a waiver of the Commission's spacing rules with regard to this station is requested and believed to be justified for the reasons stated below.

Attached as Exhibit C-2 is a map upon which the proposed site is plotted. To that map, we have added the KRZZ 59.5 dBu service contour, which passes very close to the proposed site. Based on the FCC's 40 dB desired-to-undesired ratio that applies to second-adjacent-channel situations such as this, the proposed interference contour to KRZZ is the proposed 99.5 dBu contour. If one assumes a maximum effective radiated power of 9 watts in all depression angles for the LPFM antenna at the proposed height (96.4 meters above average terrain), the interference contour toward KRZZ would extend only 223 meters from the proposed antenna.

We have also conducted a population analysis, based on the 2010 U.S. Census database, for the interference contour (223 meters) that extends from the antenna and conclude that there are no people, dwellings or buildings within this arc. In support of this conclusion, Exhibit C-3 is a map on which the interference area is plotted.

As a result, a waiver of the FCC's 2<sup>nd</sup>-adjacent-channel spacing Rule with regard to KRZZ(FM) is respectfully requested and believed to be justified.



s Hills

Los Altos

Mountain View

Sunnyvale

Santa Clara

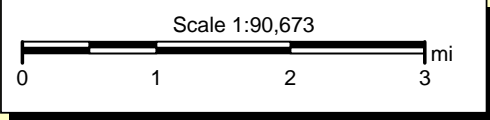
Cupertino

Proposed Site

Campbe

Saratoga

Monte Sereno




**EXHIBIT C-2**  
**2ND-ADJACENT CHANNEL WAIVER**  
**PROPOSED LPM STATION**  
**92.9 MHZ - CUPERTINO, CA**



# EXHIBIT C-3

AMENDMENT TO BNPL-20131114BFN  
CUPERTINO, CA

## Legend

 223-Meter Arc

Untitled Placemark



Coyote Ridge Trail

Vista Loop Trail

Bay View Trail

Google earth

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200 m