

ENGINEERING STATEMENT

The engineering data contained herein have been prepared on behalf of GREATER PHILADELPHIA ASIAN CULTURE CENTER, INC. in support of its amendment of Application for Construction Permit [BNPL-20131114BMX] to operate a Low Power FM station on Channel 253 (98.5 MHz) in Philadelphia, Pennsylvania. Changes to site location and second adjacent channel waiver are proposed herein.

It is proposed to mount a standard two-bay circularly polarized antenna at the 30-meter level of a proposed pole. The proposed effective radiated power is 100 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 two instances. The proposed site is short-spaced to second-adjacent-channel stations WOGL(FM) in Philadelphia, Pennsylvania and WUSL(FM) in Philadelphia, Pennsylvania. As a result, we request a waiver of the Commission's Rules with respect to WOGL(FM) and WUSL(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 0.0018

EXHIBIT A

mW/cm<sup>2</sup> is calculated to occur 14 meters from the base of the building. Since this is only 0.9 percent of the 0.2 mW/cm<sup>2</sup> reference for uncontrolled environments (areas with public access) 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 existing building 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

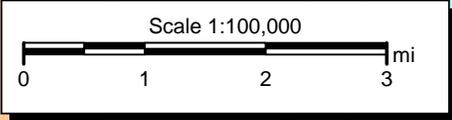
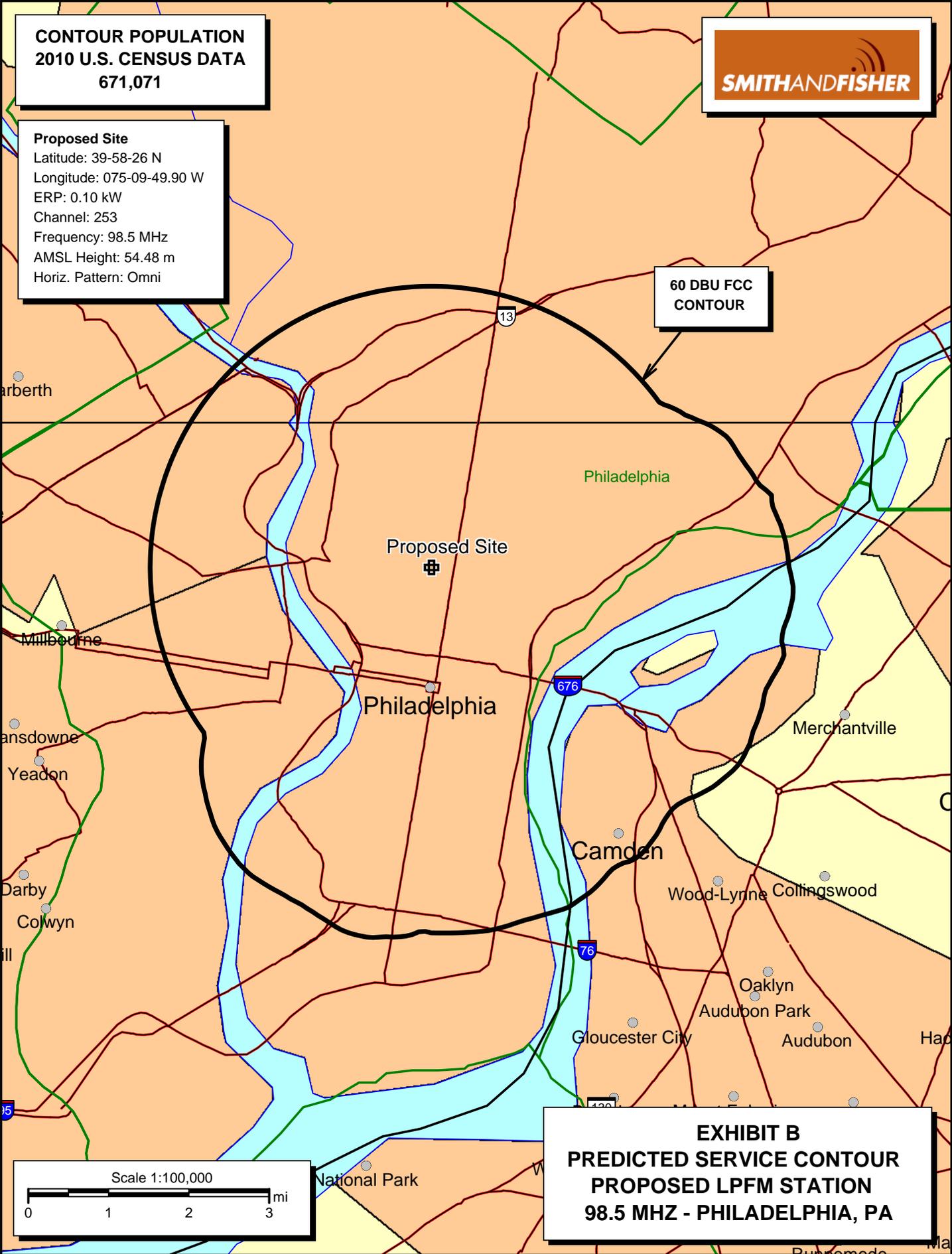
March 26, 2014

**CONTOUR POPULATION  
2010 U.S. CENSUS DATA  
671,071**



**Proposed Site**  
Latitude: 39-58-26 N  
Longitude: 075-09-49.90 W  
ERP: 0.10 kW  
Channel: 253  
Frequency: 98.5 MHz  
AMSL Height: 54.48 m  
Horiz. Pattern: Omni

**60 DBU FCC  
CONTOUR**



**EXHIBIT B  
PREDICTED SERVICE CONTOUR  
PROPOSED LPFM STATION  
98.5 MHZ - PHILADELPHIA, PA**

REQUEST FOR WAIVER OF FCC RULES WITH REGARD TO  
SECOND-ADJACENT-CHANNEL STATIONS WOGL AND WUSL  
PROPOSED LPFM STATION  
CHANNEL 253 – PHILADELPHIA, PENNSYLVANIA  
[AMENDMENT TO BNPL-20131114BMX]

The newly proposed LPFM site is located 9.7 kilometers from that of WOGL(FM), which operates on Channel 251B in Philadelphia, and 10.2 kilometers from the site of WUSL(FM), Channel 255B in Philadelphia. Since the required spacing to each of these stations is 67 kilometers, respectively, a waiver of the Commission's spacing rules with regard to these stations is requested and believed to be justified for the reasons stated below.

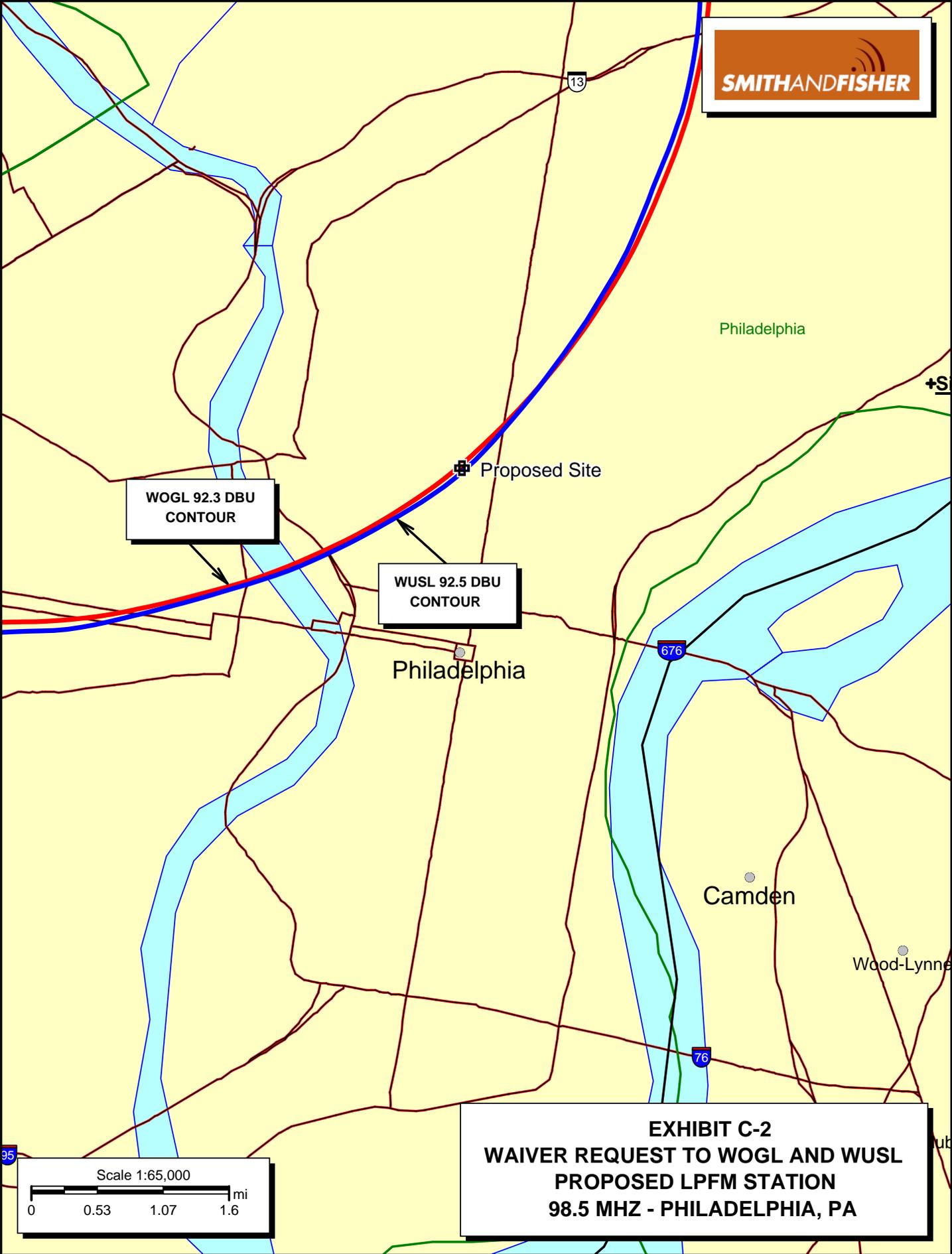
In Exhibit C-2, we have plotted the newly proposed LPFM site. As shown, the 92.3 dBu contour of WOGL passes close to the proposed site. Based on the 40 dB desired-to-undesired ratio applied to second-adjacent-channel situations such as this, we have determined that the proposed LPFM 132.3 dBu interference contour extends only 20 meters from the antenna, if one assumes an ERP of 100 watts at all elevation angles. We have conducted a population analysis within 20 meters of the newly proposed site and find it to be uninhabited, therefore operation of the proposed LPFM station does not cause any predicted interference to any receiver. A map, provided as Exhibit C-3, showing the area within 20 meters of the proposed site reveals that there are no dwellings or buildings within the area of concern.

In Exhibit C-2, we have also plotted the 92.5 dBu contour of WUSL, which also passes close to the proposed site. Based again on the 40 dB desired-to-undesired ratio applied to second-adjacent-channel situations such as this, we have determined that the proposed LPFM 132.5 dBu

EXHIBIT C-!

interference contour also extends only 20 meters from the antenna, if one assumes an ERP of 100 watts at all elevation angles. Again, it should be noted that there are no habitable dwellings located within 20 meters of the proposed site.

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



WOGL 92.3 DBU  
CONTOUR

WUSL 92.5 DBU  
CONTOUR

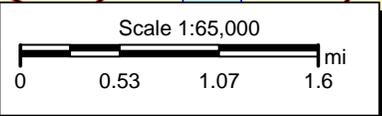
Proposed Site

Philadelphia

Philadelphia

Camden

Wood-Lynne



**EXHIBIT C-2**  
**WAIVER REQUEST TO WOGL AND WUSL**  
**PROPOSED LPFM STATION**  
**98.5 MHZ - PHILADELPHIA, PA**

# EXHIBIT C-3

Philadelphia, PA  
[AMENDMENT TO BNPL-20131114BMX]

## Legend

-  20 Meter Arc
-  Proposed Site

