

**Goldman Engineering Management  
Auburn, CA**

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KOIT (FM)

APPLICATION FOR NEW ON-CHANNEL BOOSTER

This technical statement and attached exhibits have been prepared on behalf of Bonneville International Corporation, Licensee of station KOIT (FM), Channel 243B, San Francisco, CA, Facility identifier 6380 for an on-channel FM booster to cover the community of Pittsburg, CA which is terrain blocked to the primary KOIT signal.

FACILITIES REQUESTED

The requested facility will operate within the 54dBu non-Grandfathered contour of KOIT. The non-grandfathered KOIT facility would operate with 4.1kW if it were not grandfathered. A map showing the coverage of this booster in relationship to the KOIT signal is shown in Exhibit A. The antenna proposed is a Jampro dual element, single level log-periodic antenna rotated 45 degrees from vertical to achieve slant H+V polarization. The Azimuth Pattern is attached as Exhibit C.

TECHNICAL SPECIFICATIONS

Booster Location:	Pittsburg, CA
ASR	ASR 1057624 (Exhibit D)
Geographic Coordinates (NAD83):	38°01'16.5"N, 121° 59' 16.1" W
Channel:	243 (96.5 MHz)
Effective Radiated Power:	320 W (H+V)
Antenna Type, Pattern:	Jampro JAVA 1-1 (2) (Exhibit C)
Antenna Orientation:	128° True
Site Height AMSL	170m
Tower OAGL	58m
Antenna Height :	
Above ground:	31m
Above mean sea level:	201m

As shown in Exhibit A the 54dBu contour of the booster will fall inside the 54dBu contour of KOIT (FM) (243B) and is thus compliant with 74.1232(f). As shown in Exhibit B, the proposed booster will provide interference protection to all first adjacent channel stations because the first adjacent interfering contours are within the KOIT interfering contours. KOIT not short-spaced to any first adjacent stations. The proposed booster is 23.7km spaced to IF related KLVS (297B), 54 channels removed), there is no IF issue from this location.

#### ENVIRONMENTAL CONSIDERATIONS

The Booster will be attached at the 31m height on an existing 60m tower. Because there will be no modifications to this tower it is exempt from environmental processing under CFR Section 1.1306.

The proposed KOIT booster antenna was evaluated for RF energy at ground level. The closest antenna type for analysis is a EPA Type 2 antenna. As such, the estimated RF at 2m AGL is expected to be  $7.0\mu\text{W}/\text{cm}^2$ , or less than 3.5% of the maximum allowable  $200\mu\text{W}/\text{cm}^2$  NIER. Since this is under 5% of the maximum allowable NIER, it is believed that this facility is exempt from further environmental assessment under 47CFR 1.1306 and 1.1307.

The applicant agrees to reduce power or cease operations when it becomes necessary if workers are near the antenna in order to ensure that they will not be exposed to levels of radio frequency electromagnetic radiation that exceed FCC guidelines.

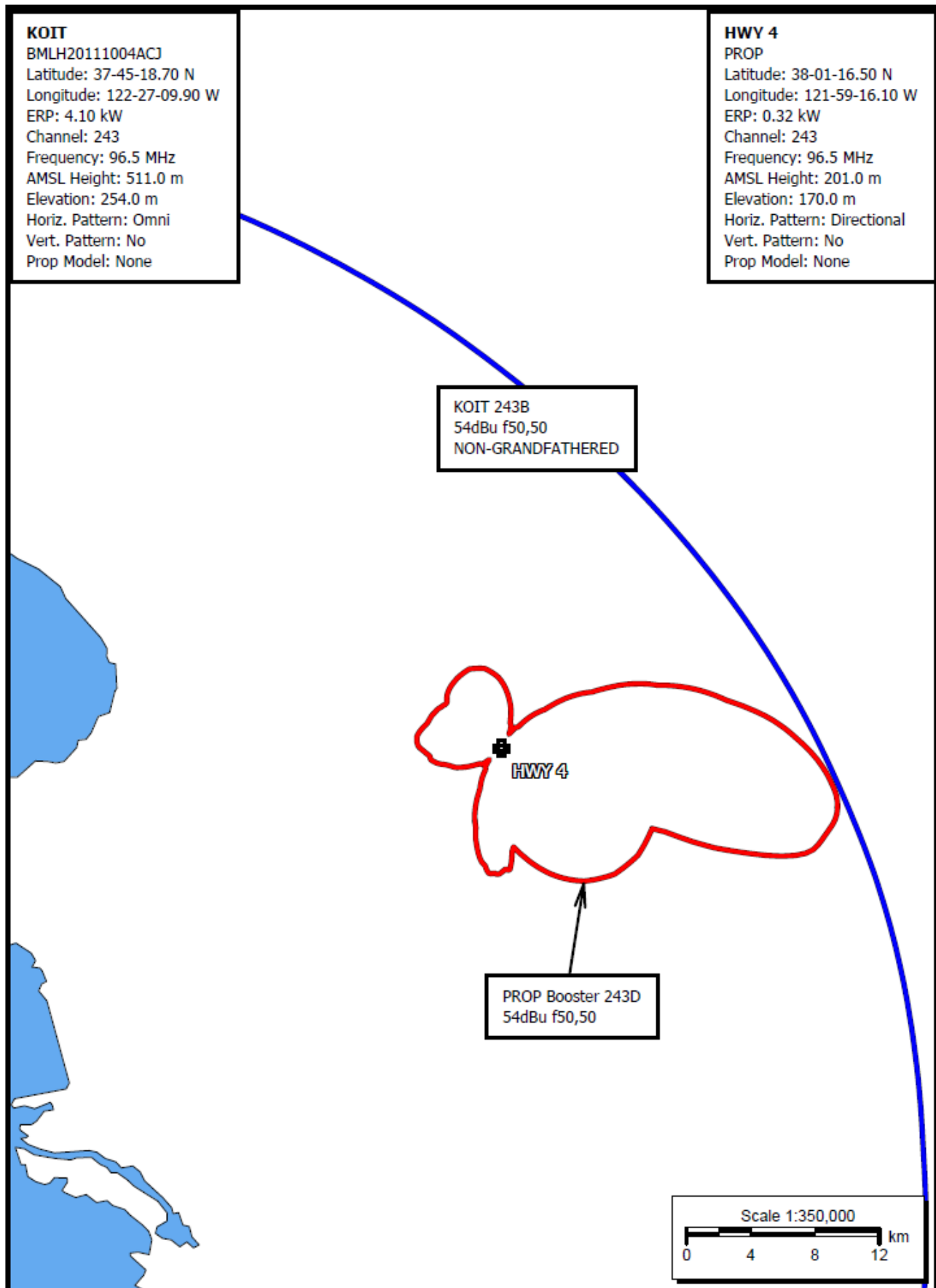
#### CERTIFICATION

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direct supervision, and that they are true and correct to the best of his knowledge and belief.

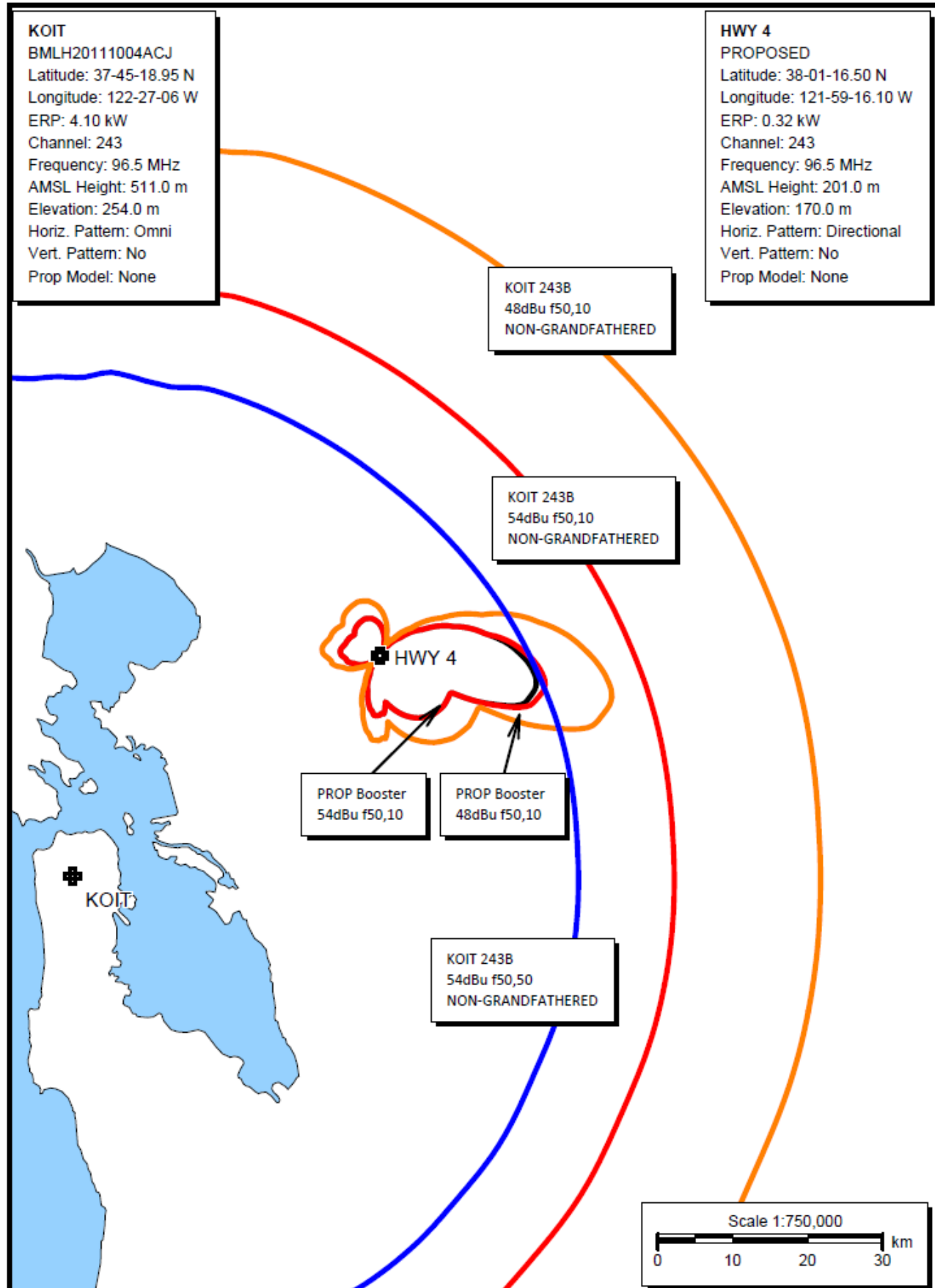


Bertram S. Goldman  
Goldman Engineering Management

Proposed KOIT Pittsburg, CA Booster (320w)



# KOIT Proposed "Pittsburg" First Adjacent Interfering Contours



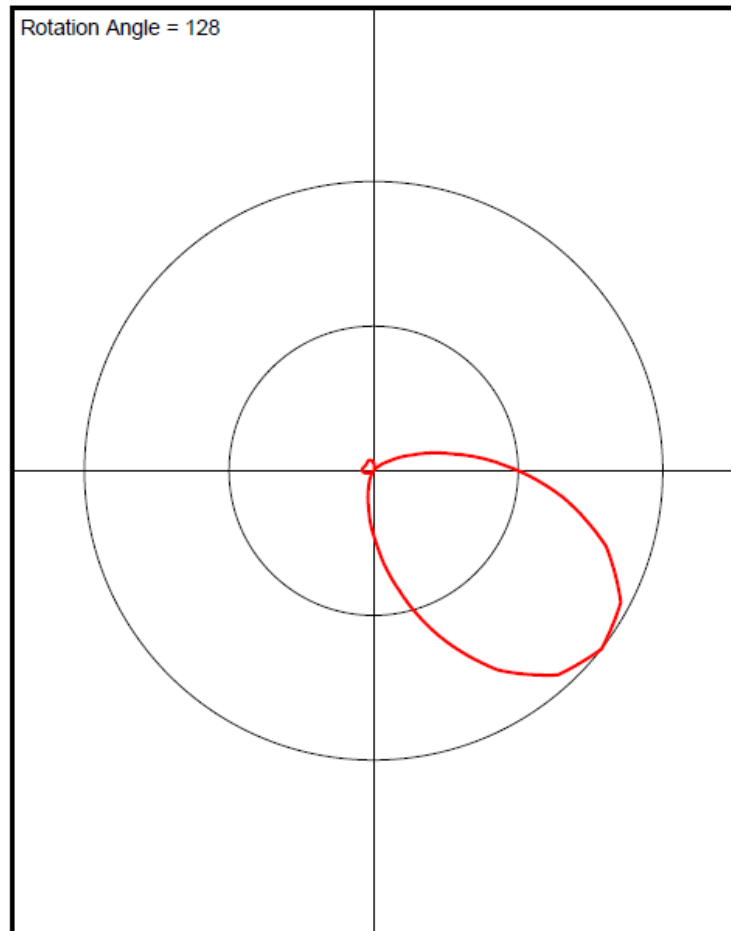
# EXHIBIT C- Antenna Pattern

Hwy 4 Antenna Pattern

Post-Rotation Antenna Pattern....

Azimuth (deg)	Relative Field
0.0	0.0268
5.0	0.0213
10.0	0.016
15.0	0.011
20.0	0.0072
25.0	0.0052
30.0	0.0048
35.0	0.0068
40.0	0.0108
45.0	0.0178
50.0	0.03
55.0	0.05
60.0	0.0786
65.0	0.1201
70.0	0.1718
75.0	0.2388
80.0	0.3152
85.0	0.4057
90.0	0.5002
95.0	0.6007
100.0	0.6978
105.0	0.7898
110.0	0.8696
115.0	0.9311
120.0	0.9744
125.0	0.9904
130.0	0.99
135.0	0.965
140.0	0.9224
145.0	0.8534
150.0	0.7738
155.0	0.6783
160.0	0.581
165.0	0.481
170.0	0.3864
175.0	0.2999
180.0	0.2232
185.0	0.1612
190.0	0.1094
195.0	0.0729
200.0	0.0444
205.0	0.0279
210.0	0.0158
215.0	0.0103
220.0	0.0064
225.0	0.0049
230.0	0.0054
235.0	0.0089
240.0	0.0132
245.0	0.0187
250.0	0.0242
255.0	0.0297
260.0	0.0342
265.0	0.0372
270.0	0.0392
275.0	0.0397
280.0	0.0394
285.0	0.0379
290.0	0.0364
295.0	0.0349
300.0	0.0338
305.0	0.0333
310.0	0.0334
315.0	0.0344

Rotation Angle = 128



320.0	0.0356
325.0	0.0371
330.0	0.0384
335.0	0.0394
340.0	0.0394
345.0	0.0379
350.0	0.0354
355.0	0.0314
128.0	1.0

## EXHIBIT D- ASR REGISTRATION

### Registration 1057624

 [Map Registration](#)

#### Registration Detail

Reg Number	1057624	Status	Constructed
File Number	A0816921	Constructed	08/20/2001
EMI	No	Dismantled	
NEPA	No		

#### Antenna Structure

Structure Type L TOWER - Lattice Tower

##### Location (in NAD83 Coordinates)

Lat/Long	38-01-16.5 N 121-59-16.1 W	Address	4709 Evora Road (#8628)
City, State	Shore Acres , CA		
Zip	94565	County	CONTRA COSTA
Center of AM Array		Position of Tower in Array	

##### Heights (meters)

Elevation of Site Above Mean Sea Level	Overall Height Above Ground (AGL)
170.4	57.6
Overall Height Above Mean Sea Level	Overall Height Above Ground w/o Appurtenances
228.0	56.4

##### Painting and Lighting Specifications

None

##### FAA Notification

FAA Study	2012-AWP-4473-OE	FAA Issue Date	07/24/2012
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##### Owner & Contact Information

FRN	0011498342	Owner Entity Type	Limited Liability Company
Assignor FRN	0005885231	Assignor ID	L00008376

##### Owner

American Towers, LLC.  
Attention To: Regulatory Compliance FAA FCC  
10 Presidential Way  
Woburn , MA 01801

P: (678)564-3236  
F:  
E: faa-fcc@americantower.com

##### Contact

Attention To: FAA FCC  
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Woburn , MA 01801

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##### Last Action Status

Status	Constructed	Received	01/15/2013
Purpose	Change Owner	Entered	01/15/2013
Mode	Interactive		

##### Related Applications

01/15/2013      A0816921 - Change Owner (OC)