

APPLICATION FOR CONSTRUCTION PERMIT

FOR

ADELMAN BROADCASTING, INC.

LICENSEE OF

KRAJ, CH 265B1, JOHANNESBURG, CA

THIS IS A \$73.215 APPLICATION

APRIL 2007

**BY:
BEEM CO.
ARCADIA, CA
(626) 446-3468**

ENGINEERING STATEMENT OF JOEL T. SAXBERG

Joel T. Saxberg of Arcadia, California prepared this engineering report for Adelman Broadcasting, Inc., licensee of FM station KRAJ, CH 265B1, Johannesburg, California. Adelman proposes to change the transmitting antenna, height and location at El Paso Peaks. The proposed move is 3" south and 1" west or approximately 315' at 195° from the present KRAJ location.

MULTI-USER TOWER - A 115' tower with 4' lightning rods is proposed as the supporting structure for three FM antennas. KRAJ, CH 265B1 would have its center of radiation at 32m AGL, KLOA-FM, CH 285B1 would have its center of radiation at 25.9m AGL and KFRJ, CH 216B would have its center at 19m AGL.

CALL	ERP	ANTENNA
KRAJ	1.48kW	ERI LPX-3C-HW
KLOA-FM	1.52kW	ERI LPX-3C-HW
KFRJ	5.5kW	Shively 6813-4-HW

RADIOFREQUENCY ELECTROMAGNETIC FIELDS - Around the base of the proposed tower, the terrain is either flat or slopes downward, with one exception. There is a driveway that runs by the base of the tower up to the fenced transmitter compound. Access up the driveway to the transmitter building fence is accessible to the general public. Beyond the end of the driveway the terrain slopes downward. RF levels beyond this point rapidly decrease due to the increased distance from the tower and downward sloping terrain. Detailed calculations were conducted up the sloping driveway and the highest combined power density level was shown at 0.0707 mW/cm², which is 35% of the maximum permissible level for the general public. To simplify calculations, a flat, reference plane two meters above the driveway elevation at 15 meters from the tower was established. Power density calculations from the base to the fifteen-meter distance used this as the reference plane. From 15 to 20m

a second 2-meter flat reference plane was used, which used the height at the highest end of the driveway. The power density values are conservative since at all locations, except at two points, the antennas are higher above the ground level plane than used in calculations. The driveway slope was exaggerated to provide a "worst case" scenario. Both KRAJ and KLOA are shown to be categorically excluded as contributors to the power density as both antennas produce less than 5% of the maximum permissible FCC Guideline level for the General Public.

**RF CALCULATIONS AROUND TOWER BASE
FOR
KRAJ, KLOA, AND KFRJ**

Dist. m	Slant D. m	KRAJ S	Slant D. m	KLOA S	Slant D. m	KFRJ S	Total S
0	23.5	0.0005	17.2	0.0008	10.5	0.0000	0.0013
1	23.3	0.0005	17.2	0.0016	10.5	0.0000	0.0021
2	23.4	0.0007	17.3	0.0021	10.7	0.0002	0.0030
3	23.5	0.0015	17.5	0.0032	10.9	0.0011	0.0058
4	23.6	0.0018	17.7	0.0038	11.2	0.0044	0.0100
5	23.8	0.0021	17.9	0.0052	11.6	0.0106	0.0179
6	24.1	0.0025	18.2	0.0058	12.1	0.0243	0.0326
7	24.3	0.0028	18.6	0.0065	12.6	0.0345	0.0438
8	24.6	0.0032	19.0	0.0062	13.2	0.0501	0.0595
9	25.0	0.0036	19.4	0.0063	13.8	0.0582	0.0681
10	25.4	0.0035	19.9	0.0060	14.5	0.0612	0.0707*
11	25.8	0.0034	20.4	0.0053	15.2	0.0587	0.0674
12	26.2	0.0035	21.0	0.0051	15.9	0.0507	0.0593
13	26.7	0.0033	21.6	0.0042	16.7	0.0373	0.0448
14	27.2	0.0032	22.2	0.0029	17.5	0.0258	0.0319
15	27.7	0.0029	22.8	0.0019	18.3	0.0144	0.0192
16	26.9	0.0025	22.1	0.0003	18.2	0.0012	0.0040
17	27.5	0.0022	22.9	0.0000	19.1	0.0100	0.0122
18	28.1	0.0015	23.6	0.0003	19.9	0.0172	0.0190
19	28.8	0.0012	24.4	0.0006	20.9	0.0257	0.0275
20	29.4	0.0007	25.2	0.0016	21.8	0.0356	0.0379

* = Highest combined Power Density value = 35% of MPE level for the General Public

§73.215 APPLICATION - KRAJ is short spaced to one allocation, KRTH, CH 266B, Los Angeles. A contour protection map, attached, shows that the proposed operation of KRAJ provides the necessary contour protection to KRTH. Interference is neither given or received.

ENGINEERING CERTIFICATION

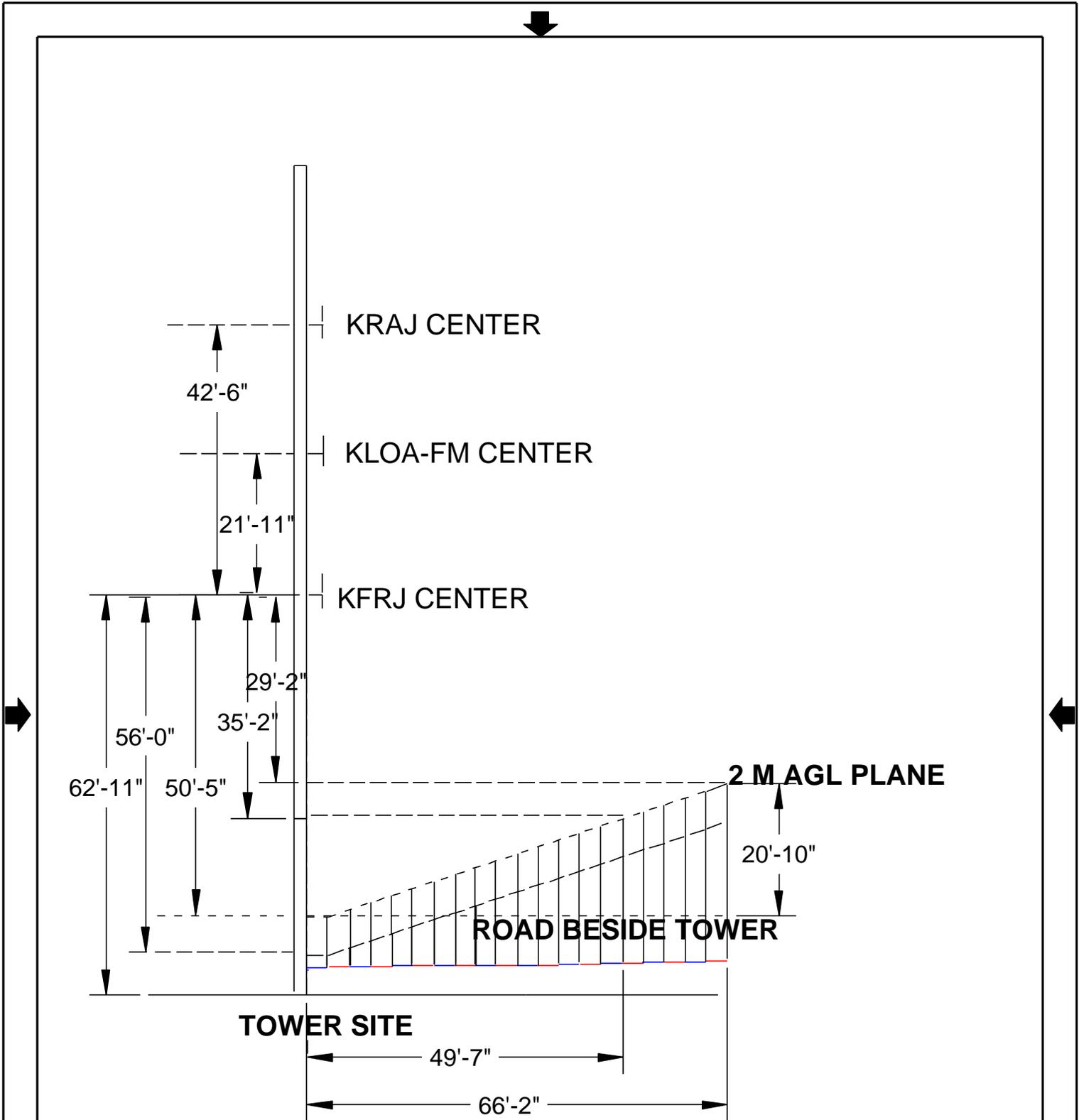
JOEL T. SAXBERG deposes and says:

- 1. That he is President of Broadcast Engineering and Equipment Maintenance Company, "BEEM CO.", radio engineering consultants. BEEM CO. maintains offices at: 2322 S. Second Avenue, Arcadia, CA 91006. Telephone (626) 446-3468**
- 2. That he was graduated from California State University at Los Angeles, February 1966, with a Bachelor of Science degree in Electronic Engineering. He received a MS degree in Electronic Engineering Technology in August 1996.**
- 3. That he has submitted many applications to the Federal Communications Commission for broadcast and auxiliary broadcast construction permits and licenses.**
- 4. That his experience in broadcast engineering is a matter of record and he has spent over forty years working in the field of radio engineering.**
- 5. That the attached report was prepared by him or under his direction and supervision. That he believes the facts stated therein to be both true and accurate. Statements that are based on information supplied by others are also believed to be true and accurate.**
- 6. That he has performed field work on AM and FM broadcast transmitting systems throughout this country and continues to provide technical consulting services on a daily basis to broadcasters.**
- 7. That he declares under penalty of perjury the foregoing is true and correct.**

Executed on April 18, 2007

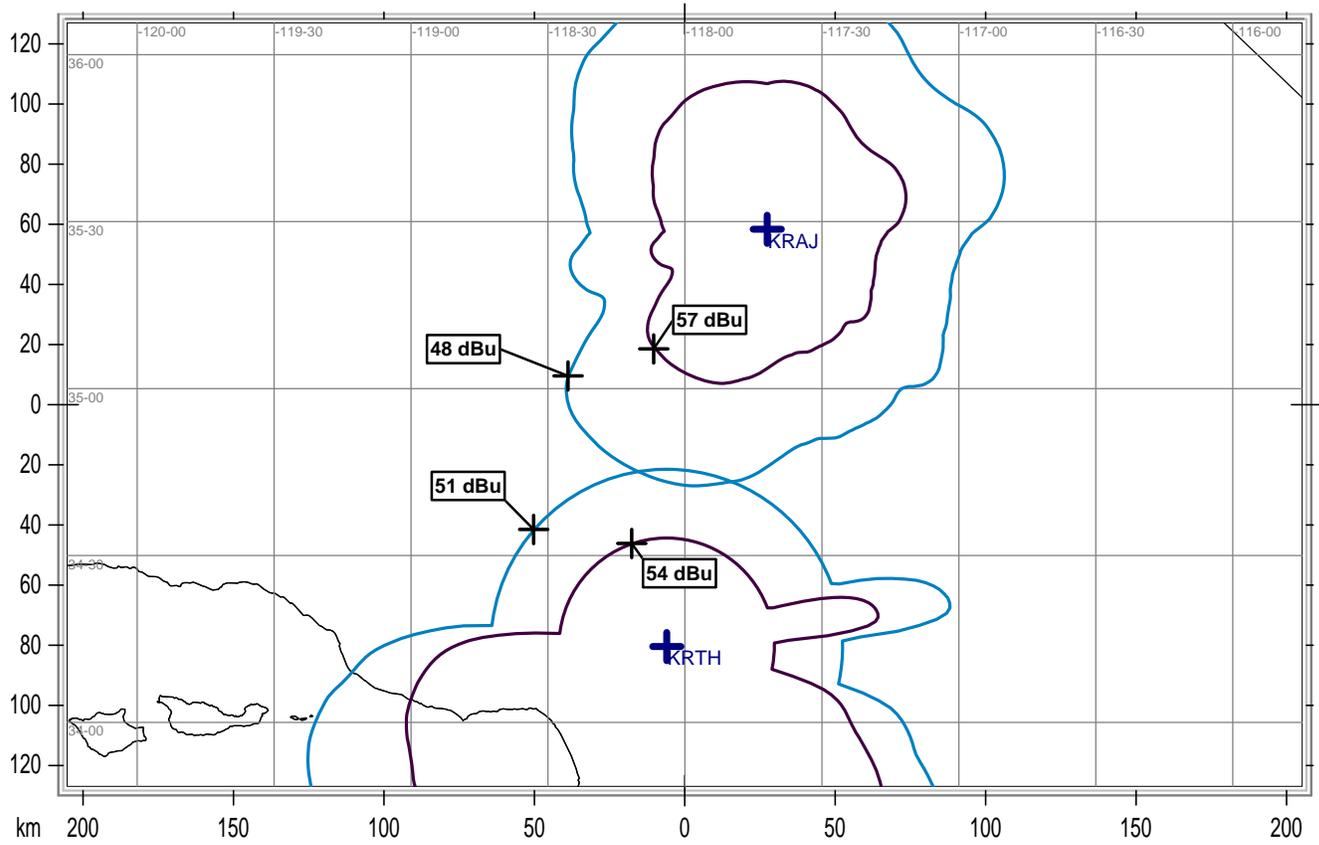


Joel T. Saxberg



RIDGECREST TOWER			
DRAWN Name			
CHECKED Name			
ENGINEER Name			
APPROVED Name	<table border="1"> <tr> <td>SIZE A</td> <td>DWG NUMBER 5 0000-0000</td> </tr> </table>	SIZE A	DWG NUMBER 5 0000-0000
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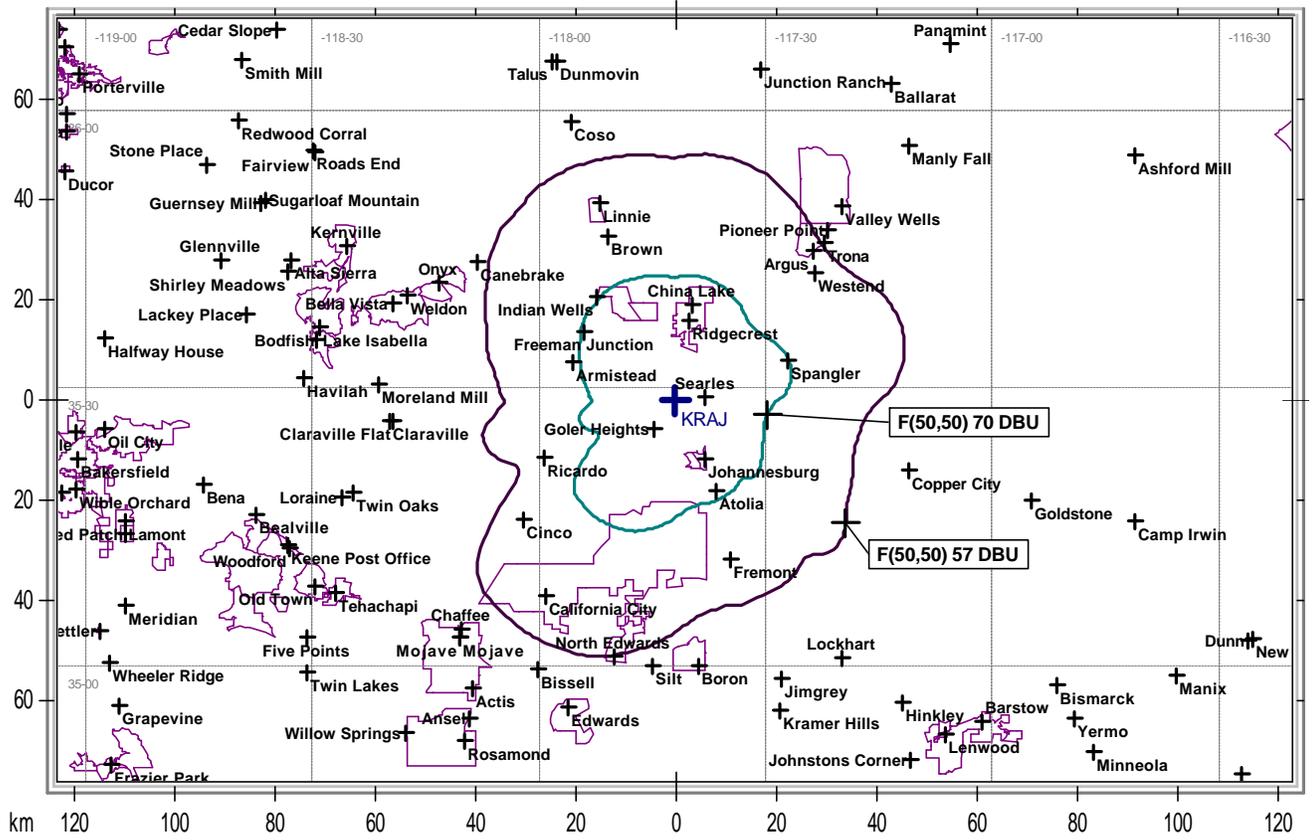
KRTH @ 50 KW, 150 M HAAT MAX. CLASS B



ADELMAN BROADCASTING, INC.

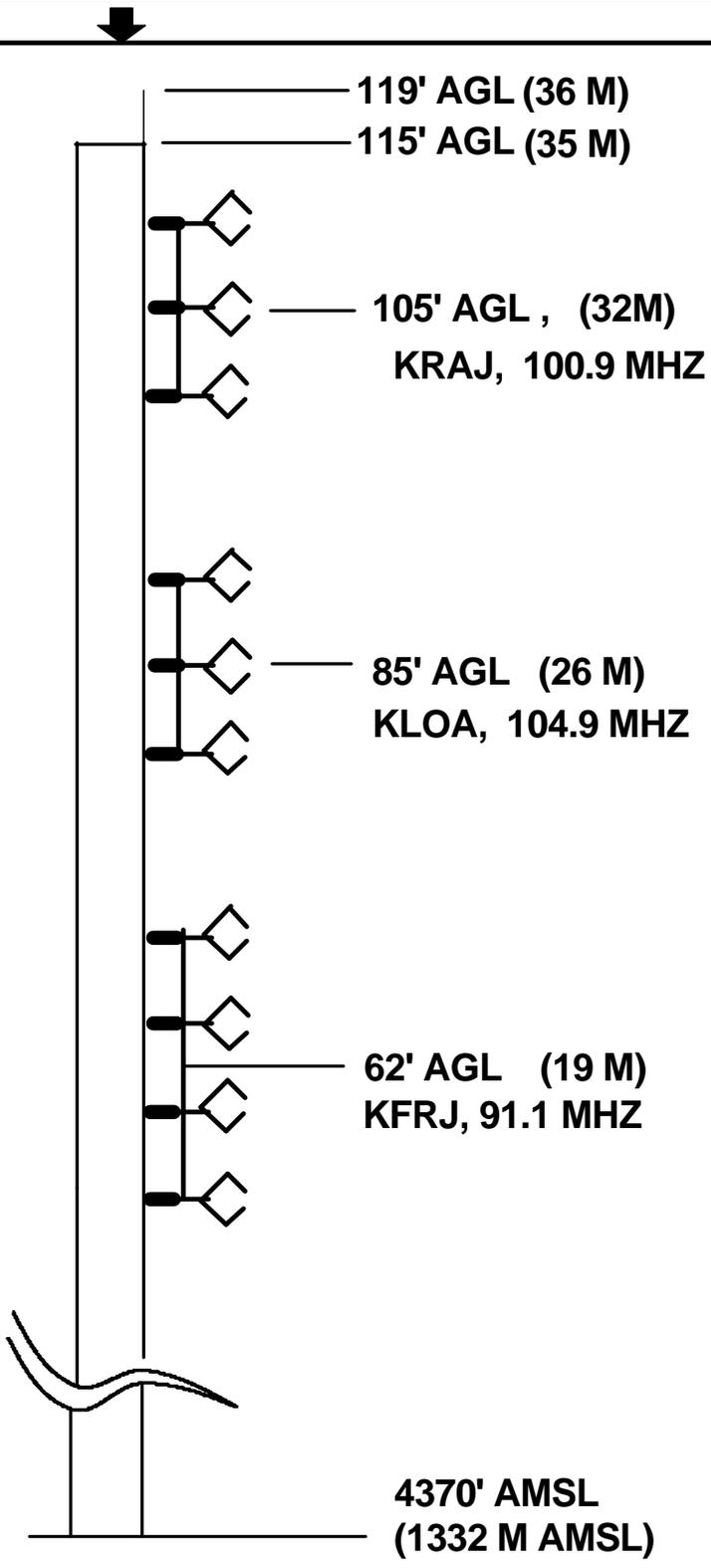
State Borders Lat/Lon Grid

57 AND 70 DBU CONTOURS SHOWN



ADELMAN BROADCASTING, INC.

State Borders
 City Borders
 Lat/Lon Grid



LAYOUT, KRAJ, KLOA & KRFJ

DRAWN Name		
CHECKED Name		
ENGINEER Name		
APPROVED Name	SIZE A	DWG NUMBER 0000-0000
SCALE 3/32"=1'	REV -	SHEET 1 OF 1

