

 State Borders
 Lat/Lon Grid

EXHIBIT 12 – TECHNICAL NARRATIVE

**BIRACH BROADCASTING CORPORATION
LITTLE ROCK, AR**

**NEW AM FILL-IN TRANSLATOR
CHANNEL 260
BNPFT – 20181031AAM
FACILITY ID – 202938**

Applicant Birach Broadcasting Corporation is submitting this minor change of a CP application to build a AM fill-in translator. This translator is for KTUV 1440 Khz., FACILITY ID 34988, LITTLE ROCK, AR.

TRANSLATOR SPECIFICATIONS

NAD(27): 34 – 46 – 07 N, 92 – 21 – 08 W

Site Elevation – 164 meters

RCAGL – 60 meters H and V

ERP – 99 watts H and V

ANTENNA – NIC BKG77 non-directional 2 bay full wave spacing

CHANNEL – 260 (99.9 MHZ)

Translator site is located such that this application will comply with FCC rule 74.1201(g).

The 60 db contour of the proposed translator must be completely inside the greater of 25 miles from AM transmitter site or the 2 mV/m contour of the AM station. In this case, the 60 db contour is completely inside the 25 mile distance contour of the AM transmitter site as shown in Exhibit 10.

Exhibit 10 – AM Fill-in compliance

Exhibit 12 – This narrative, TOWAIR, and aerial photo

Exhibit 13 – Overlap study, interference to KDIS and KDJE

Exhibit 17 – Environmental RFE

KUAR ch 206:

For the purposes of I.F. Separation, 53/54 channels difference, translators are considered as a Class C1 facility. This application is 54 channels from KUAR.

73.207(b)(1) Table A – Minimum I.F. Separation Class C1 to Class A is 22 km.

The distance between KUAR and this proposed translator is 16.4 km. Therefore per 74.1204(g) if the translator's ERP is less than 100 watts, then the proposed translator would not be subject to I.F. separation requirements. The ERP of the proposed translator is 99 watts.

Applicant is requesting a wavier for second adjacent channel interference for stations KDJE and KDIS.

KDJE ch 262:

At the proposed translator site KDJE F(50,50) = 94.7 db

Translator interfering contour F(50,10) = 134.7 db (Distance to contour is 13 meters)

KDIS ch 258:

At the proposed translator site KDIS F(50,50) = 81.5 db

Translator interfering contour F(50,10) = 121.5 db (Distance to contour is 59 meters). This contour closest encounter to the ground is at 60 degrees, 15 meters from tower, and 32 meters AGL.

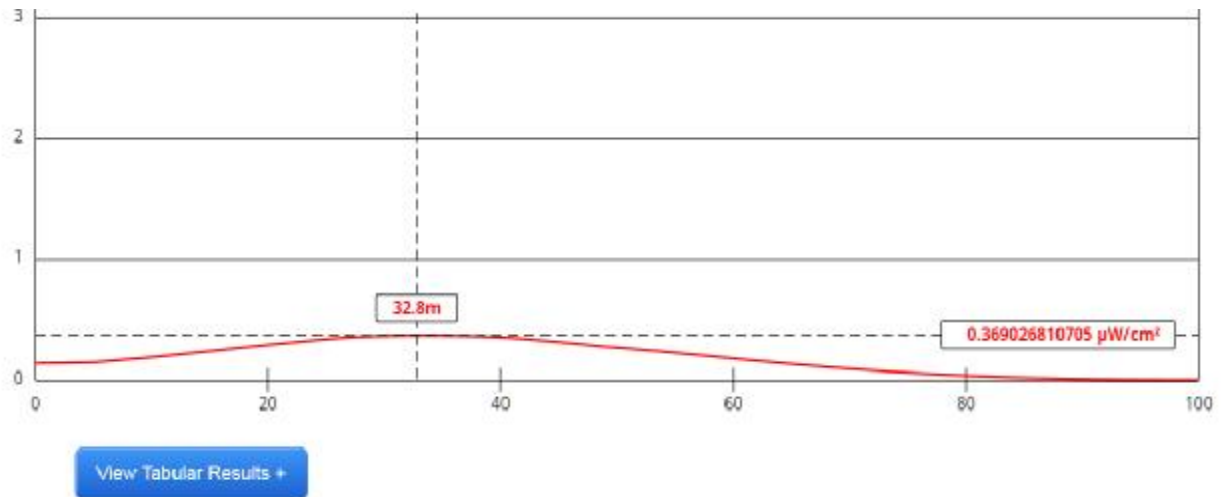
Angle of Depression	Antenna REL (mv)	ERP watts	Distance to interfering Contour from antenna (m)	Horizl Distance of F(50,10) from tower (m)	Vert Distance	CLEARANCE
0	1	99.0	59	59.0	0.0	58.0
5	0.959	91.0	57	56.4	4.9	53.1
10	0.843	70.4	51	50.0	8.8	49.2
15	0.666	43.9	40	38.9	10.4	47.6
20	0.45	20.0	28	25.9	9.4	48.6
25	0.22	4.8	13	11.8	5.5	52.5
30	0	0.0	0	0.0	0.0	58.0
35	0.192	3.6	11	9.3	6.5	51.5
40	0.342	11.6	20	15.5	13.0	45.0
45	0.446	19.7	26	18.6	18.6	39.4
50	0.503	25.0	31	19.7	23.5	34.5
55	0.519	26.7	31	17.6	25.1	32.9
60	0.502	24.9	30	14.8	25.6	32.4
65	0.46	20.9	28	11.9	25.5	32.5
70	0.401	15.9	24	8.1	22.2	35.8
75	0.331	10.8	20	5.1	18.9	39.1
80	0.256	6.5	15	2.6	14.9	43.1
85	0.178	3.1	10	0.8	9.5	48.5
90	0.1	1.0	6	0.0	5.9	52.1

Both interfering contours will not reach ground level or reach a 2 meter AGL ground-plane. There are no tall buildings or other facilities that are populated by people, which would be impacted by either contour.

The distance to interfering contours were calculated using FCC graph program. This application protects all full power stations, construction permits, allotments and applications.

Applicant will construct 60 meter tower for placement of the facilities transmission antenna and will not have a significant impact on the environment.

EXHIBIT 17 – FM MODEL:



Channel Selection	Channel 260 (99.9 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	60	Distance (m)	100
ERP-H (W)	99	ERP-V (W)	99
Num of Elements	2	Element Spacing (λ)	1
Num of Points	500	Apply	

Antenna is a NICOM BKG 77 – 2 bay or similar.

$S = 0.37 \mu\text{W}/\text{cm}^2$ which is 0.19 % of the $200 \mu\text{W}/\text{cm}^2$ maximum allowable for uncontrolled public access. This is the only RF source on this structure.

Applicant will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radio frequency electromagnetic fields in excess of FCC guidelines. Applicant will restrict access to the site and include appropriate signage.

Exhibit 12

Aerial of proposed site - K260DT

Legend



PROP K260DT

PROP K260DT

Ave

Florida Ave

N Bryant St

Geneagles Ln

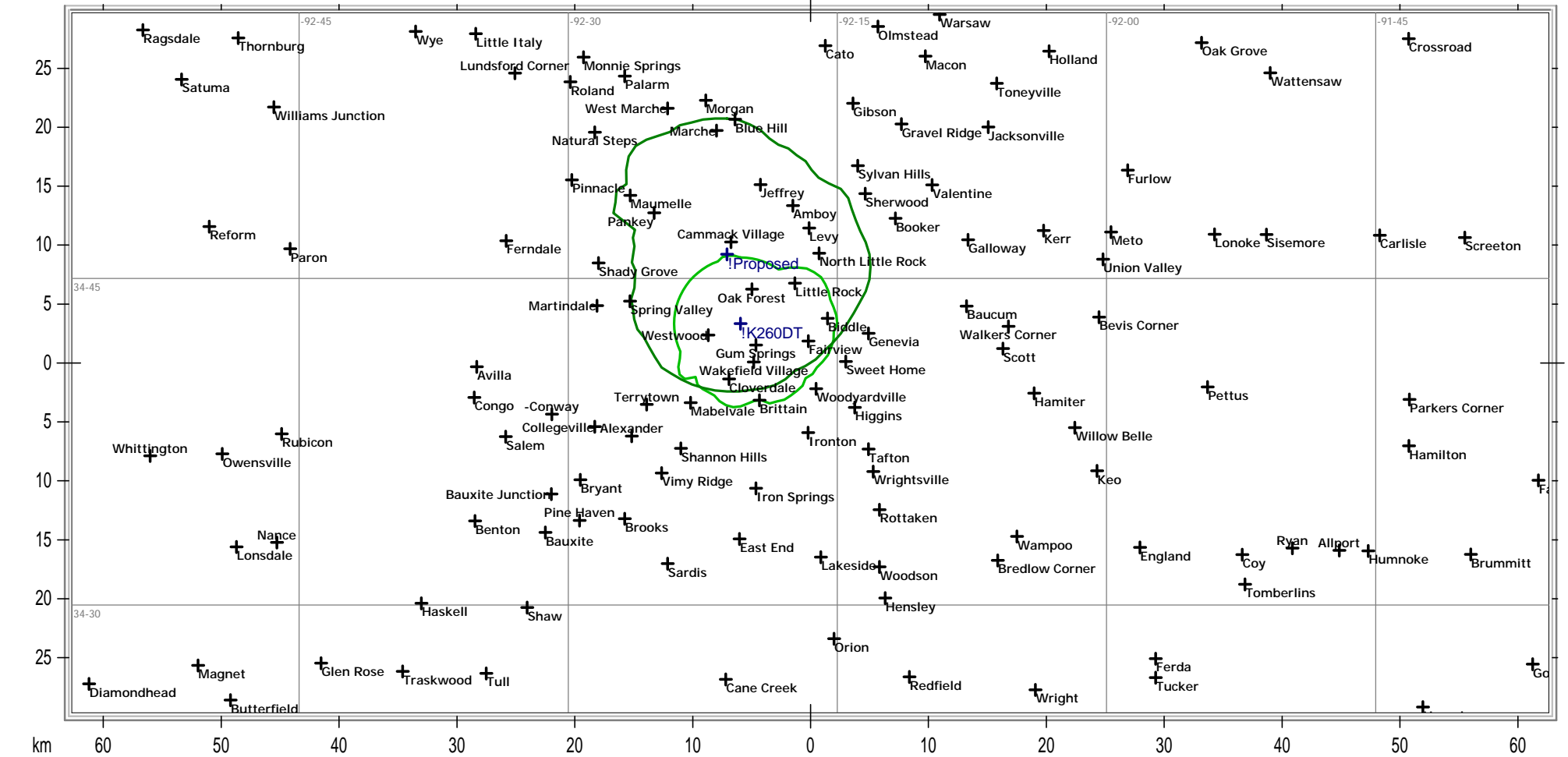
Coolidge St

Google Earth

© 2018 Google

100 m





**EXHIBIT 13
OVERLAP REQUIREMENTS
K260DT PROPOSED**

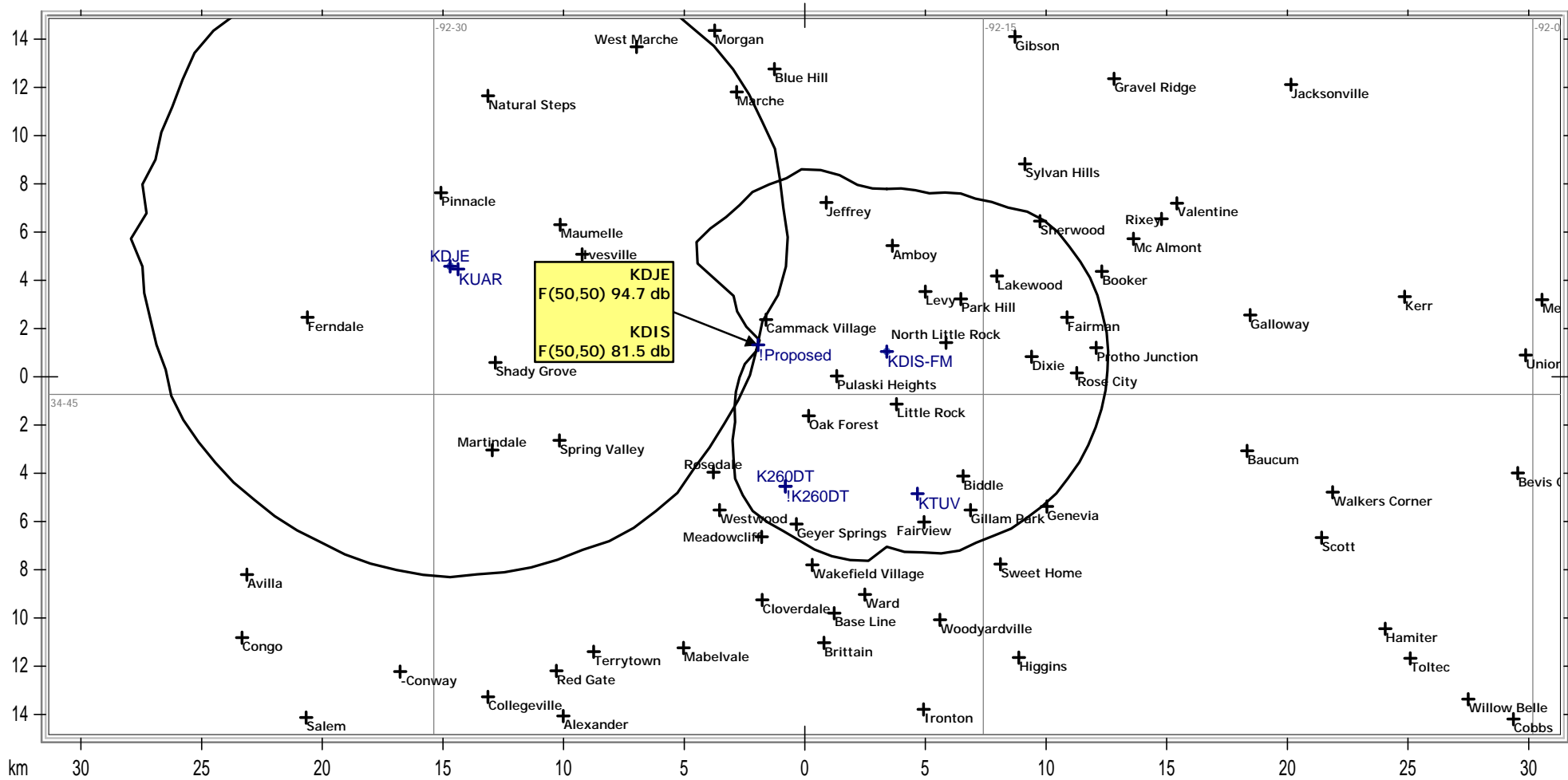
Callsign	State	City	Freq	Channel	ERP_w	Class	Status	Distance_km	Sep	Clr
K260DT	AR	LITTLE ROCK	99.9	260	99	D	CP	6	0	-75.20 dB
KDJE	AR	JACKSONVILLE	100.3	262	83000	C1	LIC	13.22	0	-35.90 dB
KDIS-FM	AR	LITTLE ROCK	99.5	258	6000	A	LIC	5.37	0	-26.03 dB
KUAR	AR	LITTLE ROCK	89.1	206	63000	C1	LIC	12.87	22	-9.1
KWCK-FM	AR	SEARCY	99.9	260	50000	C2	LIC	83.84	0	2.66 dB
KGPQ	AR	MONTICELLO	99.9	260	25000	C3	LIC	125.35	0	15.91 dB
KCON	AR	ATKINS	99.3	257	4100	A	LIC	71.52	0	19.15 dB
K257GP	AR	BENTON	99.3	257	58	D	LIC	32.99	0	19.54 dB
KWPS-FM	AR	CADDO VALLEY	99.7	259	980	A	LIC	87.09	0	23.02 dB
KPBA	AR	PINE BLUFF	99.3	257	6000	A	LIC	70.04	0	26.29 dB
KTCS-FM	AR	FORT SMITH	99.9	260	100000	C	LIC	215.38	0	26.74 dB
WMC-FM	TN	MEMPHIS	99.7	259	290000	C	LIC	229.58	0	33.02 dB
K261EA	AR	MARIANNA	100.1	261	250	D	LIC	131.67	0	34.90 dB
KZHE	AR	STAMPS	100.5	263	50000	C2	LIC	166.63	0	35.34 dB
KBOD	MO	GAINESVILLE	99.7	259	50000	C2	LIC	202.68	0	38.49 dB

DETERMINATION Results	
Structure does not require registration. There are no airports within 8 kilometers (5 miles) of the coordinates you provided.	
Your Specifications	
NAD83 Coordinates	
Latitude	34-46-07.0 north
Longitude	092-21-09.0 west
Measurements (Meters)	
Overall Structure Height (AGL)	60
Support Structure Height (AGL)	60
Site Elevation (AMSL)	164
Structure Type	
LTOWER - Lattice Tower	

[Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

F(50,50) VALUES AT PROPOSED TRANSLATOR SITE



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