

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION
FOR CONSTRUCTION PERMIT
TO OPERATE ON POST-AUCTION ASSIGNED CHANNEL
WSKC-CD, ATLANTA, GEORGIA
CHANNEL 14 12.3 KW MAX DA 404.7 M AMSL

JULY 2017

This engineering statement has been prepared on behalf of KM LPTV of Atlanta, L.L.C. (“KM Comm”), licensee of Class A TV station WSKC-CD, Atlanta, Georgia and in support of its application for construction permit for operation on post-auction assigned TV channel.

At present station WSKC-CA, Facility ID Number 35090, operates on Channel 22 (518-524 MHz) with 15 kW effective radiated power (ERP), 404.7 meters antenna height above mean sea level and a directional TV antenna. It is proposed to operate on the Commission post-auction assigned TV Channel 14 (470-476 MHz) with 12.3 kW ERP and 404.7 meters antenna height above mean sea level using a directional antenna.

WSKC-CD proposal is a minor change application since the 51 dBu contour of the proposed Channel 14 operation would be wholly inside the similar 51 dBu contour of the licensed operation on Channel 22 as shown on the attached map (Figure 1).

The following information provides pertinent data for the proposed WSKC-CD operation.

Name of the licensee:	KM LPTV of Atlanta, L.L.C.
Station Location:	GA-Atlanta
Channel:	14 (470-476 MHz)
Hours of Operation:	Unlimited
Transmitter:	Type Accepted
Antenna Type:	PSI, Model PSILP8CUS-14-CP, Elliptically Polarized

Antenna Coordinates (NAD83) ¹ :	North Latitude:	33 deg 58 min 38.3 sec
	West Longitude:	84 deg 09 min 23.3 sec
Maximum effective radiated power (Average):		12.3 kW (H) 10.9 dBk 3.7 kW (V) 5.68 dBk
Elevation of the site above mean sea level:		324.3 meters
Overall height of the tower above ground:		88.7 meters
Height of radiation center above ground (meters):		80.4 meters
Height of radiation center above mean sea level (meters):		404.7 meters
Antenna Structure Registration Number:		1020086

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed Class A TV operation in accordance with 47 C.F.R. Section 73.1307.

The proposed WSKC-CD facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

WSKC-CD would be operating from an existing tower which is registered (ASR No. 1020086) by the Commission and no changes are proposed to require a modification in the registration.

¹ The Commission's letter "Important Channel Assignment Information" dated February 8, 2017 lists the NAD83 geographic coordinates as N 33° 58' 38.37", W 84° 09' 22.7". The geographic coordinates as listed on the ASR 1020086 are specified.

ENVIRONMENTAL PROTECTION ACT

Since WSKC-CD will be using an existing tower, (ASR No. 1020086), for its proposed Class A digital TV operation on Channel 14 the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 12.3 kW and a radiation center of 80.4 meters above ground level, the proposed Channel 14 TV operation would have less than 6 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.25 in the downward direction.

The Commission's guidelines for Channel 14 are $1,567 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $313 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the WSKC-CD operation would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, WSKC-CD will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.

LPTV MOUNTING BRACKET
41-00131 (2) PLACES

223.20
[567cm]

TOWER LEG OR VERTICAL
MAST WITH A DIAMETER OF
1½" TO 4"

1-5/8 EIA INPUT

WSKC SPECIFICATIONS	
LENGTH:	18.6 FT [5.67m]
RATING:	5 kW
H-POL GAIN:	26.57 (14.24 dB)
V-POL GAIN:	7.94 (9.0 dB)
WEIGHT:	119 LB [53.98 Kg]
WINDAREA:	23 FT ² [2.14 m ²]
TIA-222-F (NO ICE)	

A	B.K.SCHILLING	3/28/17	CHANGED V-POL BY 30%
REV.	MADE BY CHECKED BY	DATE	CHANGE

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SIZE

A

PROPAGATION SYSTEMS, INC.

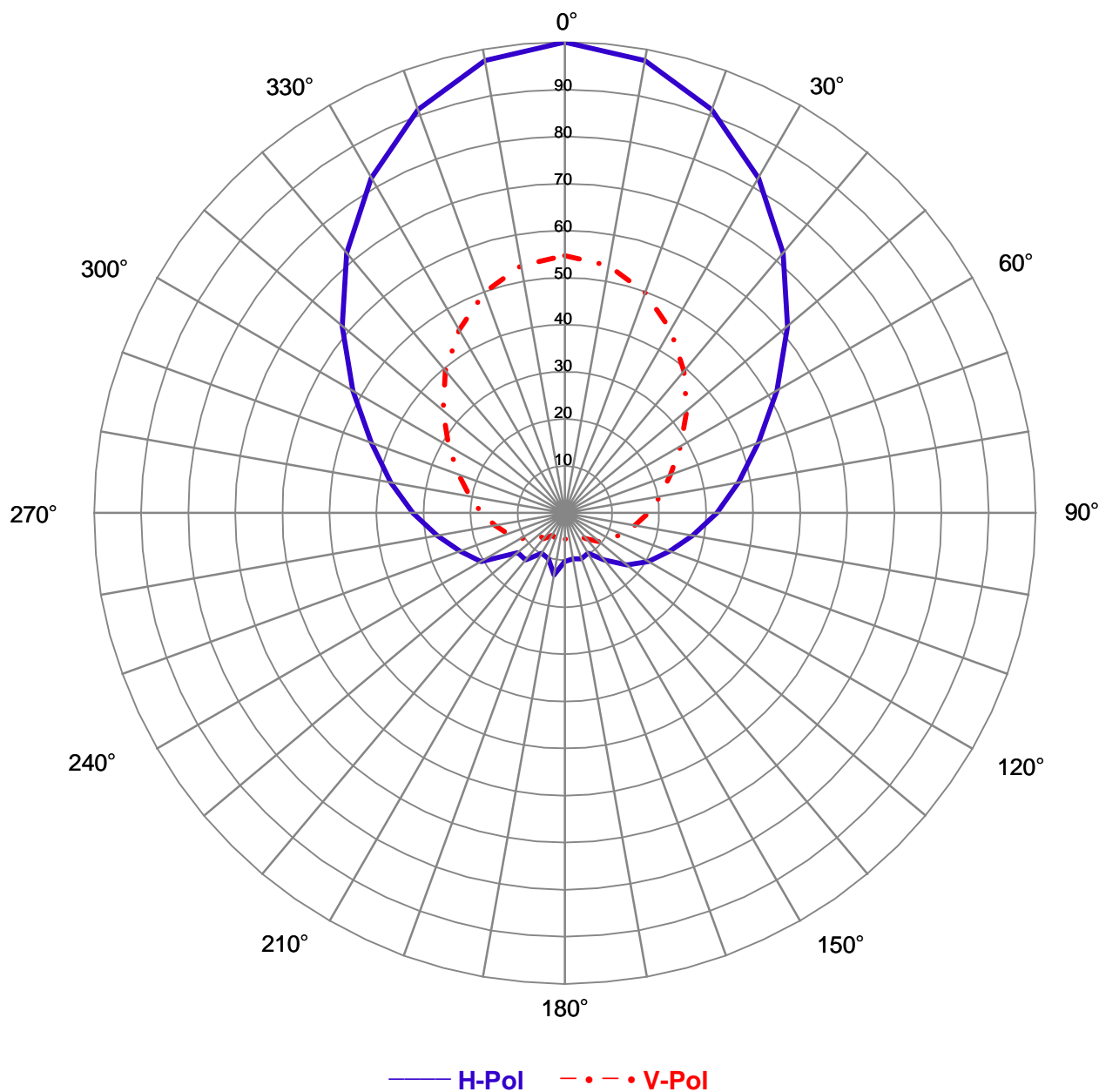
Ebensburg, Pennsylvania USA 814-472-5540

ANTENNA PRELIMINARY ELEVATION AND SPECIFICATIONS

MODEL:	PSILP8CUS-14-CP	DRAWN BY:	B.K.SCHILLING	DATE:	3/13/17
CHANNEL/ FREQUENCY:	CH-14	APPROVED BY:		DATE:	
SCALE:		DRAWING NO:	PR2164-A	REV.	A



Relative Field Azimuth Plane Pattern



Pattern Type:	Relative Field	Type:	8-Bay Custom Slot
Antenna Model:	PSILP8CUS-14-CP	Channel:	14
Polarization:	Elliptical	Station:	WSKC
Gain (h-pol):	26.57 (14.24 dB)	Location:	Atlanta, GA
Gain (v-pol):	7.94 (9.0 dB)	Date:	3/30/2017

Relative Field Tabulation

Antenna: PSILP8CUS-14-CP

Gain: 26.57 (14.24 dB)

Station: WSKC

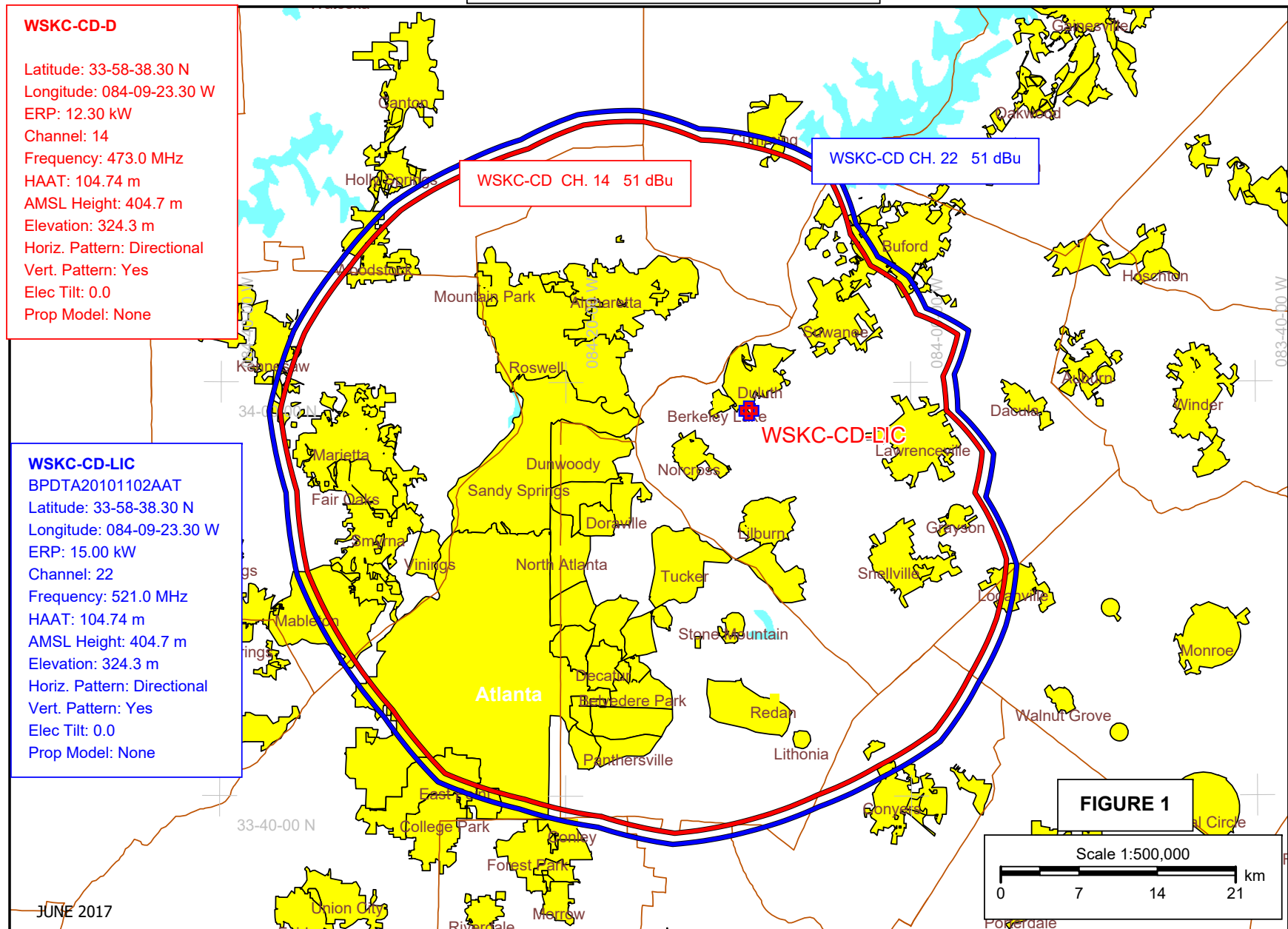
Channel: 14

Horizontal Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	1.000	26.57	14.24
10	0.976	25.31	14.03
20	0.912	22.10	13.44
30	0.822	17.95	12.54
40	0.721	13.81	11.40
50	0.617	10.11	10.05
60	0.520	7.18	8.56
70	0.438	5.10	7.07
80	0.375	3.74	5.72
90	0.323	2.77	4.43
100	0.276	2.02	3.06
110	0.237	1.49	1.74
120	0.205	1.12	0.48
130	0.172	0.79	-1.05
140	0.130	0.45	-3.48
150	0.099	0.26	-5.84
160	0.103	0.28	-5.50
170	0.099	0.26	-5.84
180	0.103	0.28	-5.50
190	0.133	0.47	-3.28
200	0.103	0.28	-5.50
210	0.099	0.26	-5.84
220	0.130	0.45	-3.48
230	0.130	0.45	-3.48
240	0.205	1.12	0.48
250	0.237	1.49	1.74
260	0.276	2.02	3.06
270	0.323	2.77	4.43
280	0.375	3.74	5.72
290	0.438	5.10	7.07
300	0.520	7.18	8.56
310	0.617	10.11	10.05
320	0.721	13.81	11.40
330	0.822	17.95	12.54
340	0.912	22.10	13.44
350	0.976	25.31	14.03

Vertical Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	0.547	7.94	9.00
10	0.534	7.56	8.79
20	0.499	6.61	8.20
30	0.449	5.37	7.30
40	0.394	4.13	6.16
50	0.337	3.02	4.80
60	0.284	2.15	3.32
70	0.239	1.52	1.83
80	0.205	1.12	0.48
90	0.177	0.83	-0.82
100	0.151	0.60	-2.18
110	0.130	0.45	-3.51
120	0.112	0.33	-4.77
130	0.094	0.23	-6.29
140	0.071	0.13	-8.72
150	0.054	0.08	-11.09
160	0.056	0.08	-10.74
170	0.054	0.08	-11.09
180	0.056	0.08	-10.74
190	0.073	0.14	-8.52
200	0.056	0.08	-10.74
210	0.054	0.08	-11.09
220	0.071	0.13	-8.72
230	0.071	0.13	-8.72
240	0.112	0.33	-4.77
250	0.130	0.45	-3.51
260	0.151	0.60	-2.18
270	0.177	0.83	-0.82
280	0.205	1.12	0.48
290	0.239	1.52	1.83
300	0.284	2.15	3.32
310	0.337	3.02	4.80
320	0.394	4.13	6.16
330	0.449	5.37	7.30
340	0.499	6.61	8.20
350	0.534	7.56	8.79



COMPUTED NOISE LIMITED CONTOURS FOR WSKC-CD FOR ITS OPERATION ON CHANNEL 14 AND CURRENTLY LICENSED CHANNEL 22