

GREAT PLAINS CHRISTIAN
GARDEN CITY APPLICATION AMENDMENT

This application is being filed to lower the proposed new station RF Output to an effective radiated power of 4,000 watts. The antenna height above ground level, antenna height above sea level and the antenna height above average terrain were also corrected. The effective radiated power reduction was necessary to protect the channel #206 KSRP construction permit in Dodge City, Kansas. The distance and RF power levels between this application and the KSRP CP would normally be in compliance, but the terrain advantage to the south increases both station contour distances. The 4kw ERP will be in compliance. No other changes are proposed. The 4kw spacing study showed the requested new station is now clear of all licensed and proposed stations. The Spacing Study and the Local Parameters are attached to the application.



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12-10-2021

Project: GARDENC

Site Coordinates: 37-59-35 North 100-54-04 West

NGDC 30-Second Database is used in Continental US

DEM-30 Database is used in AK, HI, and PR.

F(50,50) Contours

Azm (deg)	HAAT (mtrs)	70 dBu (km)	60 dBu (km)	Radial (mtrs)
0	89	13.7	24.3	872
45	80	13.0	23.1	881
90	86	13.4	23.9	875
135	101	14.6	25.9	860
180	86	13.4	23.9	875
225	73	12.4	22.2	888
270	82	13.1	23.4	879
315	72	12.4	22.1	889

Data in (feet) meters

Overall Height Above Average Terrain: (276) 84 *

Site Elevation AMSL: (2,848) 868

Antenna Height Above Ground Level: (305) 93

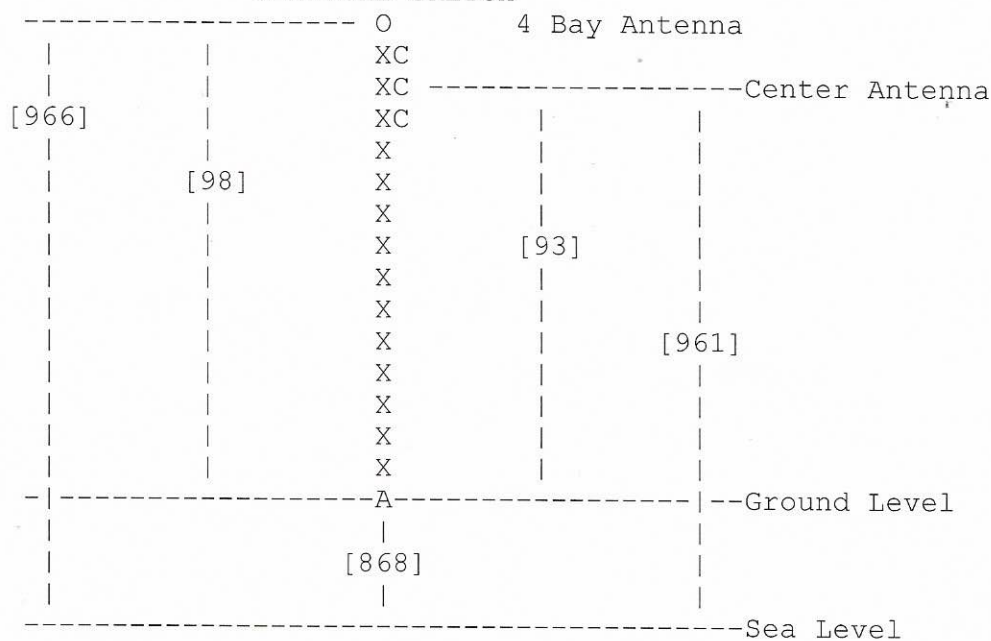
Antenna Center Above Sea Level: (3,153) 961

Overall Ground Average Terrain AMSL: (2,877) 877

Effective Radiated Power: 4.0000 kW *

TV/FM Channel: 205

VERTICAL SKETCH



FM Study for: GARDEN CITY

FCC Database Date: 12/2/2021

37-59-35

Location: GARDEN CITY, KS

Channel Class: A

100-54-04

Contours calculated on direct line using 73.509(a)

[*] by Distance indicates directional antenna used in calculation.

[*] by HAAT indicates calculated as missing in database.

Call City, State

Chan Class Freq kW Latitude Dist. Required

Status Proponent

File Number HAAT Longitude Azm. Clear (km)

>>>>>>> Study For Channel 205 88.9 MHz <<<<<<<<

JETMORE, KS	202 C1	88.3	100.+	37-43-48	80.0	75	
APP Fac. No. 768166	-20000167188	122		100-03-16	111.1	+5.0	CLOSE
F(50,10) 100 dBu =	7 km, GARDEN	F(50,50)	60 dBu =	24 KM	+49 km*		
GARDEN F(50,10) 100 dBu =	2 km,	F(50,50)	60 dBu =	57 KM	+21 km*		
KJLJ SCOTT CITY, KS	203 C3	88.5	25	38-32-55	61.9	42	
LIC Fac. No. 174179	BLED -20101227ABD	89		100-57-38	355.2	+19.9	CLEAR
KJLJ F(50,10) 100 dBu =	4 km, GARDEN	F(50,50)	60 dBu =	24 KM	+34 km		
GARDEN F(50,10) 100 dBu =	2 km, KJLJ	F(50,50)	60 dBu =	40 KM	+19 km		
KNGM GUYMON, OK	205 C3	88.9	25	36-40-25	154.9	142	
LIC Fac. No. 174174	BLED -20100513ALR	98		101-28-12	199.2	+12.9	CLOSE
KNGM F(50,10) 40 dBu =	115 km, GARDEN	F(50,50)	60 dBu =	24 KM	+16 km		
GARDEN F(50,10) 40 dBu =	77 km, KNGM	F(50,50)	60 dBu =	40 KM	+37 km		
GARDEN CITY, KS	205 C3	88.9	9.0	37-59-35	0.0	142	
APP Fac. No. 763819	-20000165738	89		100-54-04	0.0	-142.0	SHORT
F(50,10) 40 dBu =	92 km, GARDEN	F(50,50)	60 dBu =	24 KM	-115 km		
GARDEN F(50,10) 40 dBu =	77 km,	F(50,50)	60 dBu =	30 KM	-107 km		
KPRD HAYS, KS	205 C1	88.9	83	38-46-16	207.8	200	
LIC Fac. No. 66273	BLED -19940902KF	194		98-44-18	64.8	+7.8	CLOSE
KPRD F(50,10) 40 dBu =	155 km, GARDEN	F(50,50)	60 dBu =	24 KM	+30 km		
GARDEN F(50,10) 40 dBu =	77 km, KPRD	F(50,50)	60 dBu =	60 KM	+70 km		
COLBY, KS	205 C2	88.9	25.0	39-21-04	151.3	166	
APP Fac. No. 767241	-20000167254	131		101-03-15	355.0	-14.7	SHORT
F(50,10) 40 dBu =	118 km, GARDEN	F(50,50)	60 dBu =	24 KM	+9 km		
GARDEN F(50,10) 40 dBu =	77 km,	F(50,50)	60 dBu =	43 KM	+31 km		
KSRP DODGE CITY, KS	206 A	89.1	1	37-43-17	88.5	72	
LIC Fac. No. 176783	BLED -20160802ACB	0		99-57-22	109.6	+16.5	CLEAR
KSRP F(50,10) 54 dBu =	27 km, GARDEN	F(50,50)	60 dBu =	24 KM	+37 km		
GARDEN F(50,10) 54 dBu =	36 km, KSRP	F(50,50)	60 dBu =	19 KM	+34 km		
KSRP DODGE CITY, KS	206 C3	89.1	12.0	37-47-56	66.9	89	
CP Fac. No. 176783	-20000158773	67		100-10-51	108.6	-22.1	SHORT
KSRP F(50,10) 54 dBu =	32 km, GARDEN	F(50,50)	60 dBu =	24 KM	+11 km		
GARDEN F(50,10) 54 dBu =	36 km, KSRP	F(50,50)	60 dBu =	21 KM	+10 km		

Garden City New Station & KSRP CP Contour Calculations

Garden City #205

<u>Bearing</u> <u>Degrees</u>	<u>Haat</u> <u>meters</u>	<u>60 dBu</u> <u>F(50-50)</u>	<u>54 dBu</u> <u>F(50-10)</u>
90	86	23.9	36.4
95	88	24.2	36.8
100	89	24.3	37.0
105	90	24.5	37.3
110	93	24.9	37.9
115	96	25.3	38.6
120	104	26.2	40.2
125	109	26.8	41.0
130	106	26.5	40.5
135	101	25.9	39.6
140	97	25.4	38.8

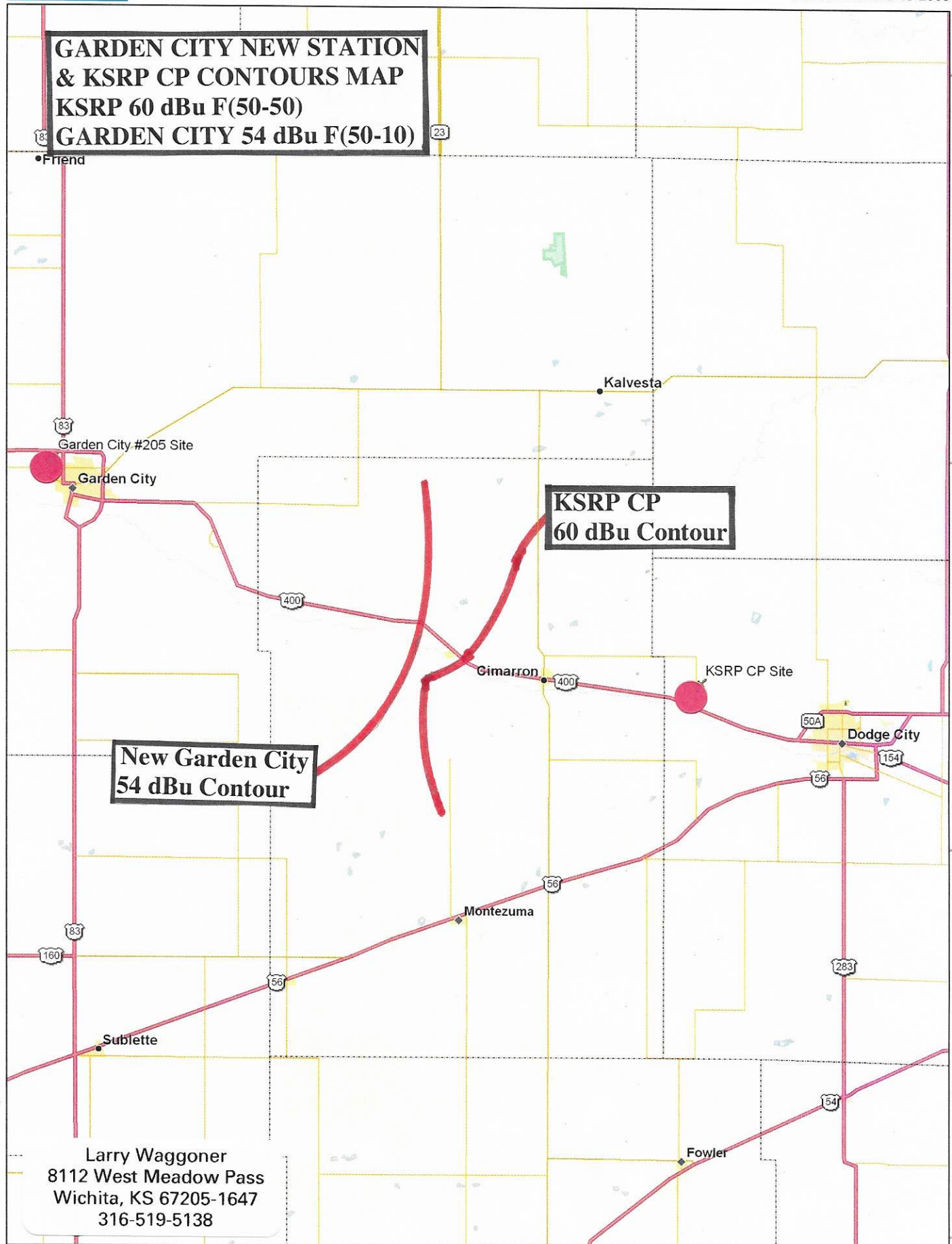
KSRP #206

255	67	27.5	43.3
260	68	27.7	43.6
265	67	27.5	43.3
270	63	26.8	42.2
275	51	24.3	37.8
280	42	22.1	33.8
285	39	21.4	32.4
290	38	21.1	32.0
295	39	21.4	32.4
300	39	21.4	32.4
305	41	21.9	33.4
310	43	22.4	34.3

GARDEN CITY NEW STATION & KSRP CP CONTOURS MAP

KSRP 60 dBu F(50-50)

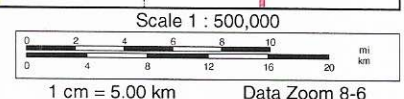
GARDEN CITY 54 dBu F(50-10)



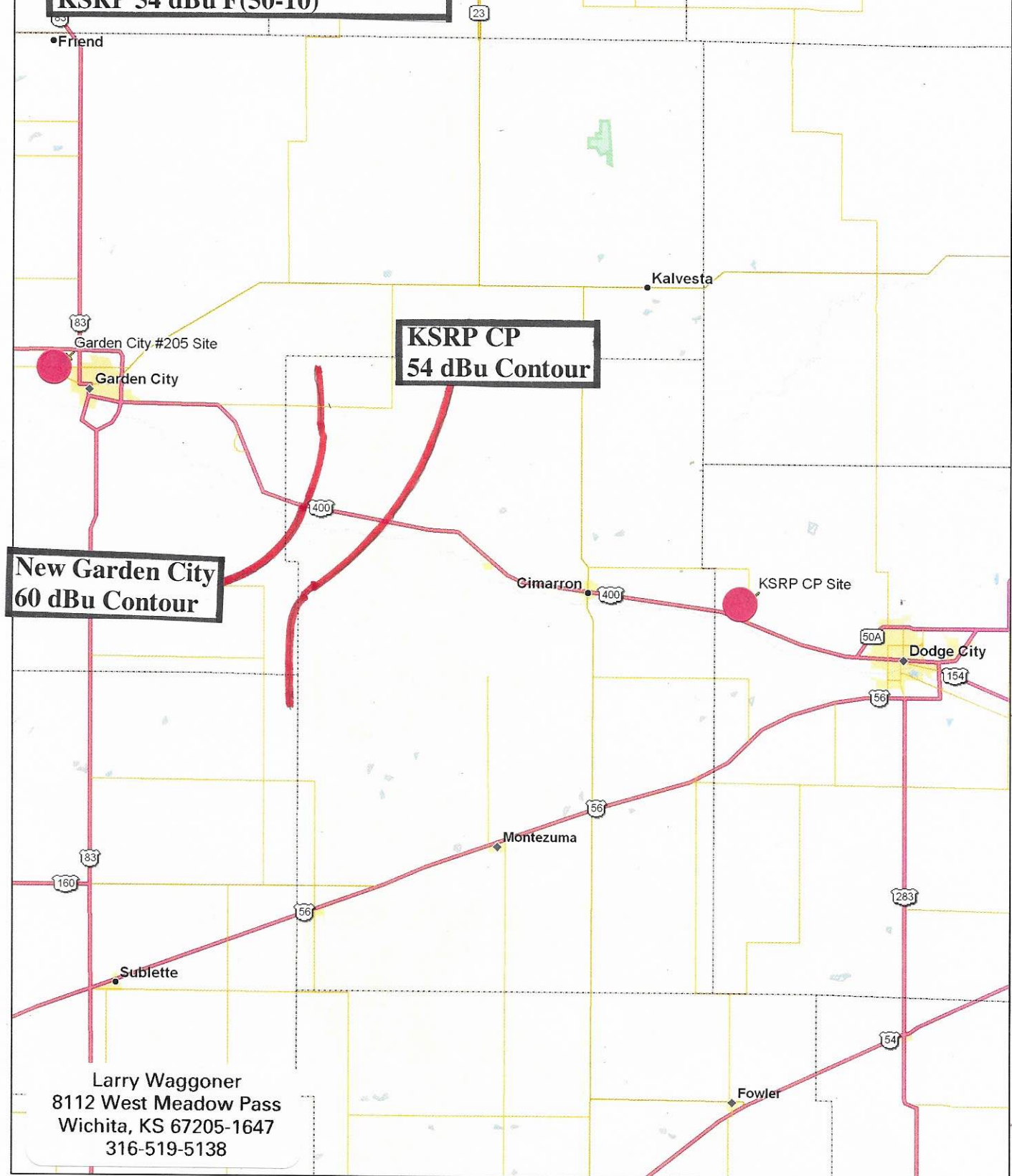
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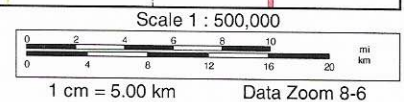
**GARDEN CITY NEW STATION
& KSRP CP CONTOURS MAP
GARDEN CITY 60 dBu F(50-50)
KSRP 54 dBu F(50-10)**



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GREAT PLAINS CHRISTIAN RADIO
TECHNICAL CERTIFICATION REQUIREMENTS

Great Plains Christian Radio's non-commercial new station application continues to be in full compliance with the Commission's Technical Certification requirements. The requirements listed in Part 73.203, Availability of Channels, Part 73.207 Minimum Distance Station Separation, Part 73.213 Grandfathered Stations and Part 73.315 Station Location are necessary only for commercial stations. This non-commercial FM band application is in compliance with Part 73.508, dealing with 1st, 2nd and 3rd adjacent channel and co-channel contour overlap. It is also in compliance with Part 73.515. The 60 dBu or 1.0 mv/m new station contour will cover the required area of Garden City, Kansas.