

TECHNICAL EXHIBIT
APPLICATION FOR
FM CONSTRUCTION PERMIT
STATION KQMG-FM (FACILITY ID 42080)
INDEPENDENCE, IOWA

SEPTEMBER 1, 2005

CH 237A 1.75 KW-ND (H&V) 186 M

TECHNICAL EXHIBIT
APPLICATION FOR
FM CONSTRUCTION PERMIT
STATION KQMG-FM (FACILITY ID 42080)
INDEPENDENCE, IOWA
CH 237A 1.75 KW-ND (H&V) 186 M

Table of Contents

Technical Narrative

Figure 1	Map of Site
Figure 2	Sketch of Antenna
Figure 3	Antenna Pattern
Figure 4	Coverage Contours
Figure 5	Separation Study

TECHNICAL EXHIBIT
APPLICATION FOR
FM CONSTRUCTION PERMIT
STATION KQMG-FM (FACILITY ID 42080)
INDEPENDENCE, IOWA
CH 237A 1.75 KW-ND (H&V) 186 M

Technical Narrative

This Technical Exhibit supports an application for a minor change to FM station KQMG-FM on channel 237A (95.3 MHz) at Independence, Iowa (FCC Facility ID 42080).

According to the Federal Communication Commission (FCC) database, station KQMG-FM is currently authorized to operate on channel 237A at Independence, Iowa (BLH-19950605KB). It uses a non-directional (ND) antenna system with an effective radiated power (ERP) of 2.9 kilowatts (kW), horizontal and vertical polarization (H&V). The antenna height above average terrain (HAAT) is 125 meters. The antenna center of radiation is located 125 meters above ground level (AGL), and 418 meters above mean sea level (AMSL). The site coordinates are: North Latitude 42-28-32, West Longitude 91-52-26 (NAD-27). The FCC antenna structure registration number for the supporting tower is 1053693.

Station KQMG-FM proposes to move transmitter site, increase antenna height, and reduce the ERP. It is proposed to relocate to a site in Quasqueton, Iowa (see Figure 1). The proposed site coordinates are 42-23-55, 91-45-32 (NAD-27). It is proposed to mount a 3-bay FM antenna on a new tower having an overall height of 213.4 meters AGL (see Figure 2). The FAA is being notified of the proposed structure. The antenna center of radiation will be 208.8 meters AGL, and 480.1 meters AMSL. The proposed antenna HAAT will be 186 meters. Since the proposed antenna HAAT (186 m) will exceed the Class A maximum (100 m) the ERP will be reduced to 1.75 kW (H&V) for equivalent Class A facilities (ie, 1.75 kW,

186 m). There are no other proposed changes to the KQMG-FM operation, including no change in frequency and city of license.

It is believed that the proposed KQMG-FM transmitter site is sufficiently separated from the Canada border, Mexico border, FCC monitoring stations, National Radio Quiet Zone (VA-WV), Table Mountain Quiet Zone (CO), and radio astronomy sites to not warrant coordination concerns.

There are no known AM, FM or TV/DTV stations within 5 kilometers (3.1 miles) of the proposed KQMG-FM site. The applicant recognizes its responsibility to correct prohibited electromagnetic problems that its proposed operation may cause.

Figure 4 is a map showing the predicted 3.16 mV/m (70 dBu) and 1 mV/m (60 dBu) contours. The map shows the Independence, Iowa limits. As shown, the predicted 3.16 mV/m (70 dBu) contour encompasses the Independence limits. The estimated population (2000 US Census) within the predicted 1 mV/m (60 dBu) contour is 32,147 people and the land area within the 1 mV/m contour is 2,424 square kilometers.

Figure 5 is a separation study for channel 237A at the proposed KQMG-FM site. As shown, there are no “short-spacings”.

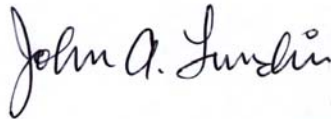
Radiofrequency Electromagnetic Field Exposure

The proposed KQMG-FM facility was evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The KQMG-FM antenna is an ERI 3-bay full-wave spaced system. The FM antenna center of radiation is located 208.8 meters above ground level (see Figure 2). Power density calculations have been made using the relative field values as shown on the attached vertical pattern for a 3-bay antenna (Figure 3). The combined ERP of 3.5 kW (1.75 kW horizontal polarization and 1.75 kW vertical polarization) have been used in the calculations. The maximum calculated power density at a point 2 meters above ground level is approximately 0.0007 mW/cm², or less than 1% of the FCC's recommended limit of 0.2 mW/cm² for FM

channels, applicable to general population/"uncontrolled" exposure areas. The calculated power density is less than 1% of the FCC's limit for a "controlled" environment.

Access to the transmission system will be restricted and appropriately marked with warning signs. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RF protective clothing and/or RF exposure monitors or scheduling work when the stations are at reduced power or shut down.

If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

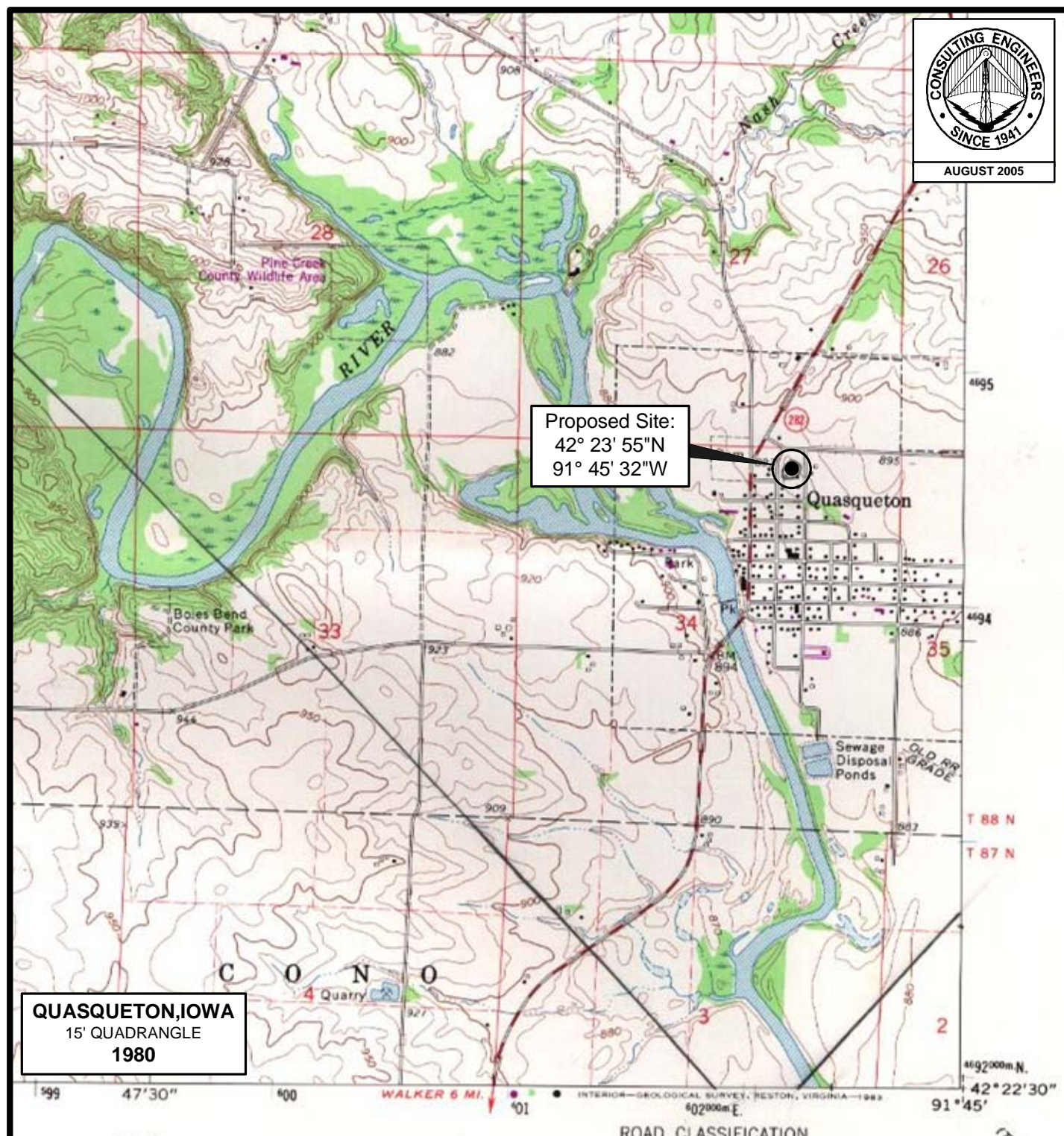


John A. Lundin

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237
(941) 329-6000 voice
(941) 329-6030 fax
john@DLR.com e-mail

September 1, 2005

Figure 1

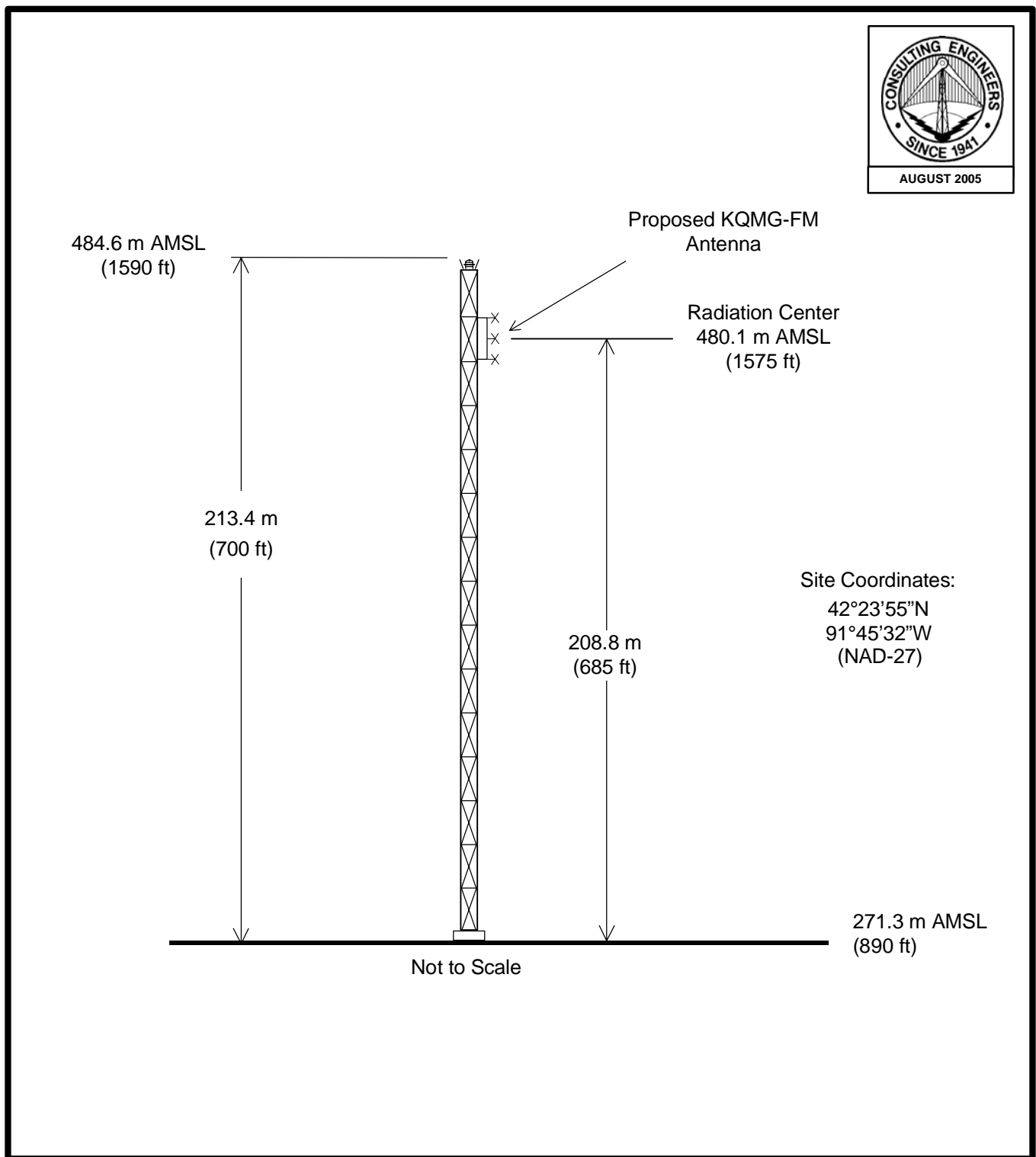


PROPOSED TRANSMITTER SITE

STATION KQMG-FM
INDEPENDENCE, IOWA
CH 237A 1.75 KW-ND 186 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION KQMG-FM
INDEPENDENCE, IOWA
CH 237A 1.75 KW 186 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 3

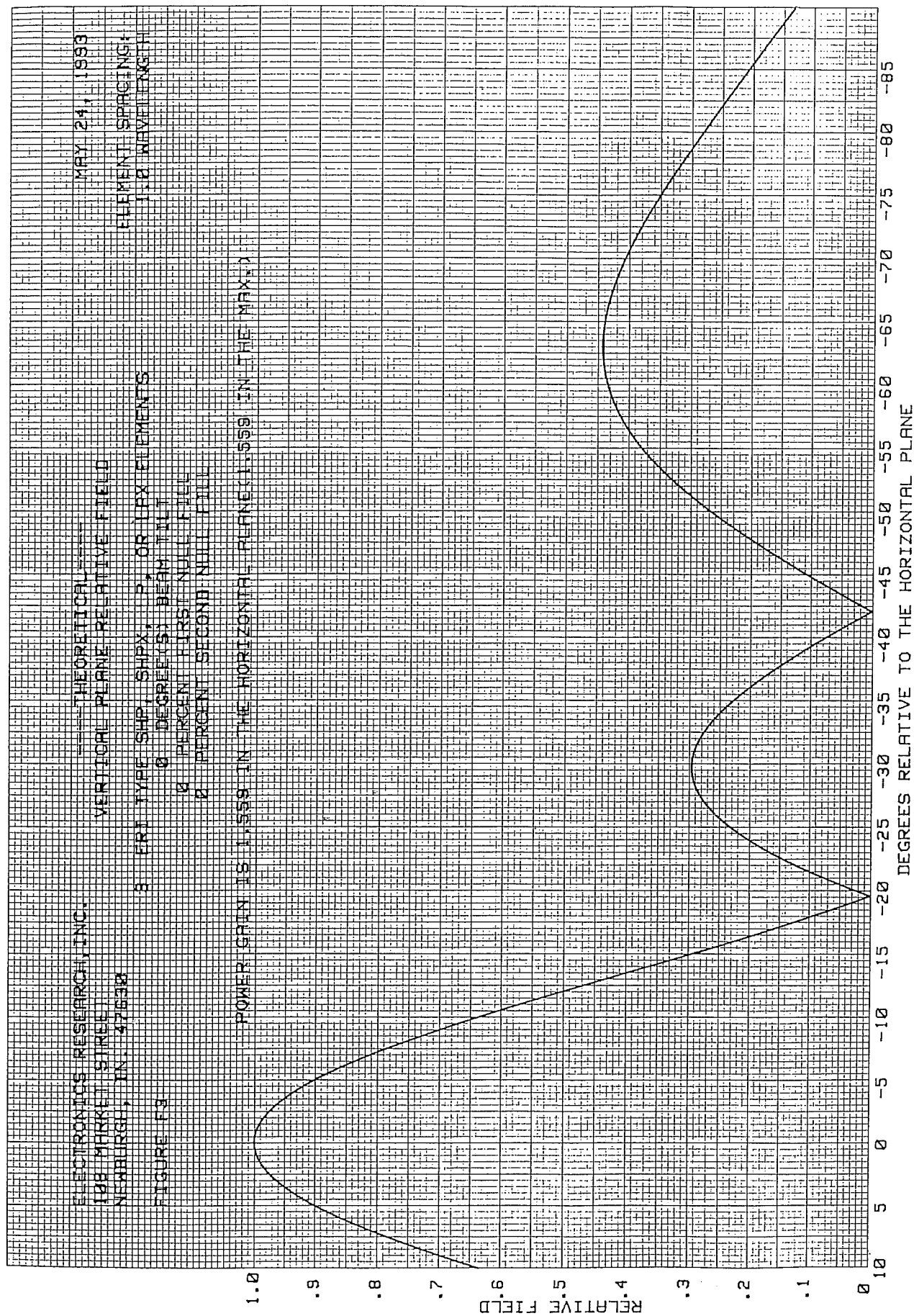
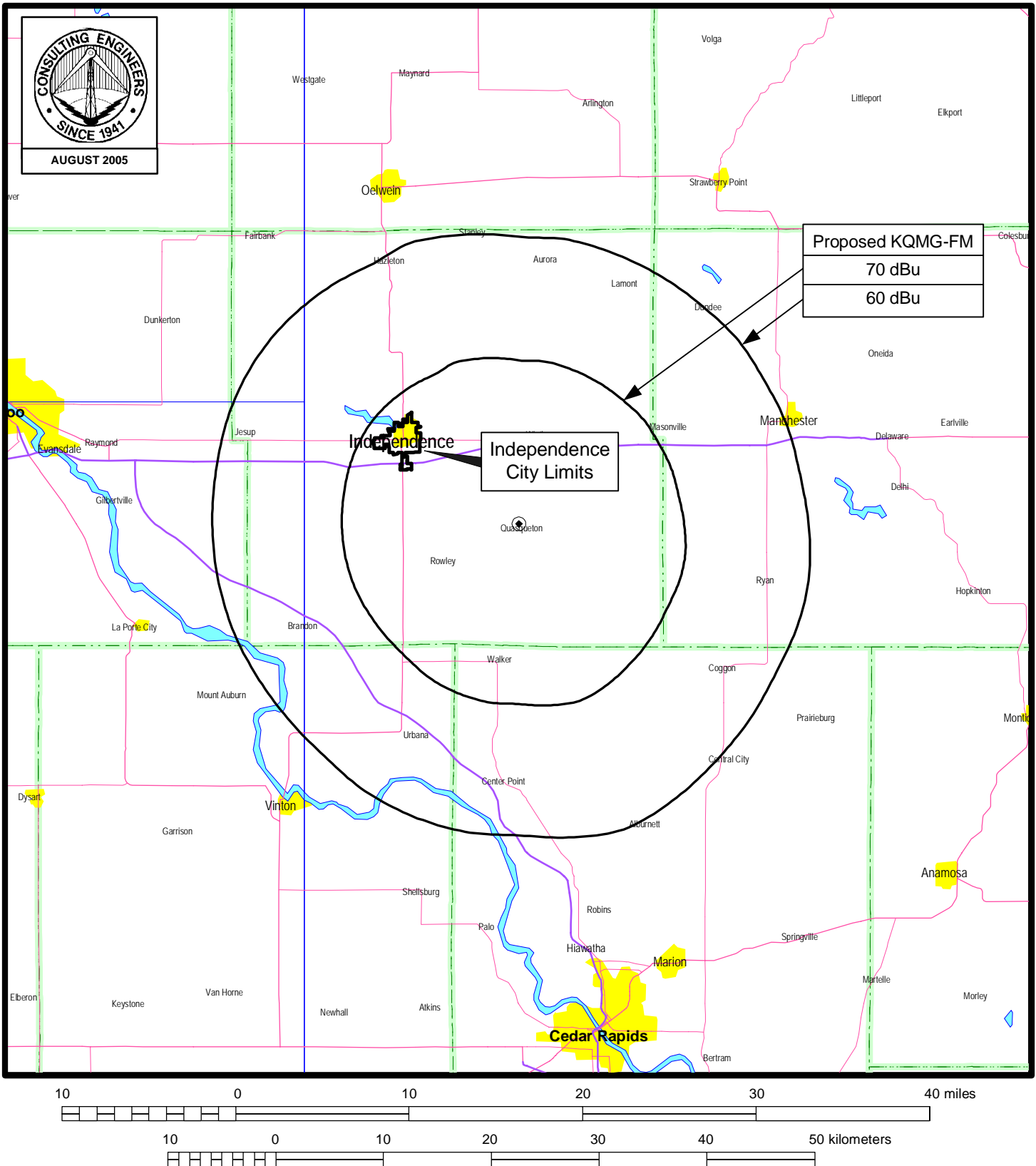


Figure 4



PREDICTED COVERAGE CONTOURS

STATION KQMG-FM
INDEPENDENCE, IOWA
CH 237A 1.75 KW-ND 186 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

FIGURE 5

CDBS FM SEPARATION STUDY

Job Title: Proposed KQMG-FM, Independence, IA
Channel: 237A

Separation Buffer: 65 km
Coordinates: 42-23-55 091-45-32

Call FID	City St	File Status	File Num.	Channel Freq-MHz	ERP-kW HAAT-m	DA ID	Latitude Longitude	73. 215	Bear. (deg.)	Dist. (km)	FCC Req. (km)
KMCH 64125	MANCHESTER IA	LIC C	BLH- 19911227KB	234A 94.7	6.0 100	ND	42-31-42 091-22-53	N	64.9	34.23	31.0 Close
KCZE 41098	NEW HAMPTON IA	LIC C	BLH- 19921203KC	236A 95.1	5.5 103	ND	43-02-46 092-18-09	N	328.5	84.60	72.0 Close
KMAQ-FM 39857	MAQUOKETA IA	LIC C	BLH- 19990316KC	236A 95.1	6.0 100	ND	42-05-26 090-37-43	N	109.8	99.36	72.0 Clear
KQMG-FM 42080	INDEPENDENC IA	LIC C	BLH- 19950605KB	237A 95.3	2.9 125	ND	42-28-32 091-52-26	N	312.2	12.75	
KIFG-FM 52020	IOWA FALLS IA	LIC C	BLH- 19950511KD	237A 95.3	6.0 59	ND	42-30-49 093-12-57	N	276.6	120.53	115.0 Close
KAGE-FM 33277	WINONA MN	LIC C	BLH- 19920715KA	237C3 95.3	11.0 151	ND	44-02-31 091-40-47	Y	2.0	182.68	142.0 Clear
KOKX-FM 70573	KEOKUK IA	LIC C	BLH- 19990412KB	237C1 95.3	100.0 245	ND	40-24-01 091-35-09	N	176.2	222.41	200.0 Clear
KZAT-FM 14846	BELLE PLAIN IA	LIC C	BLH- 19970605KA	238A 95.5	4.4 117	ND	41-56-35 092-23-51	N	226.3	73.11	72.0 Close
	ASBURY IA	VAC C	RM- 8924	238A 95.5			42-30-18 090-40-46	N	82.0	89.58	72.0 Clear
NEW 162475	ANAMOSA IA	CP C	BNPH- 20050103AEJ	239A 95.7	6.0 100	ND	42-08-19 091-27-38	N	139.6	37.95	31.0 Close
	ANAMOSA IA	VAC C	RM- 8924	239A 95.7			42-05-40 091-21-18	N	135.4	47.46	31.0 Clear

END OF CHANNEL 237A SEPARATION STUDY