

TECHNICAL NARRATIVE

August 30, 2022

This Technical Statement was prepared on behalf of QXZ MediaWorks LLC ("QXZ"). QXZ was the winning bidder for MM-FM1150-A, Channel 235A, Richland Springs, Texas in FCC FM Broadcast Auction 109 which was completed on August 12, 2021. QXZ was granted LMS construction permit 0000158484 for Channel 285A, Facility ID No. 762373, Richland Springs and assigned the call sign KQXZ. QXZ herein is filing a construction permit modification application to specify operation at Adamsville, Texas from a new transmit location. The proposal is described in its entirety for the convenience of the FCC staff but the actual requests are made by the application itself. Please refer to the comprehensive Section 307(b) exhibit for more details about the proposed city of license change.

The proposed KQXZ Channel 285A reference site coordinates are located at 31° 17' 19" North Latitude and 98° 16' 01" West Longitude (NAD 83) and the site is fully spaced to all full power FM facilities. The proposed KQXZ Channel 285A application site coordinates are located at 31° 15' 20.3" North Latitude and 98° 10' 30" West Longitude (NAD 83). The proposed application site is an existing tower 101.1 meters in overall height and is registered with FCC Antenna Structure Registration number 1254561. This modification is also compliant with all the requirements of 47CFR §73.207 and 47CFR §73.315 with three exceptions. The application site is short-spaced to co-channel full power FM station KBHT, Channel 285A, Bellmead, Texas and first adjacent full power FM station KHSB-FM, Channel 284A, Kingsland, Texas. QXZ requests processing under Section 73.215 contour protection with respect to KBHT and KHSB-FM.

The proposed Channel 285A facility will operate with 4.2 kW ERP non-directional at 95 meters above ground level and 77.88 meters HAAT. The FCC F(50,50) 70 dBu contour easily covers 100 percent of Adamsville.

The KQXZ application site is not located within 320 kilometers of the border with Mexico. Therefore, Mexican concurrence is not required.

Exhibits demonstrate the proposed KQXZ Channel 285A facility is in compliance with the Commission's radio frequency emission limits.

KQXZ Reference Site Channel Study

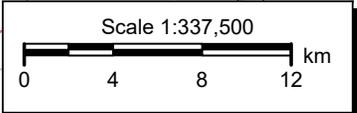
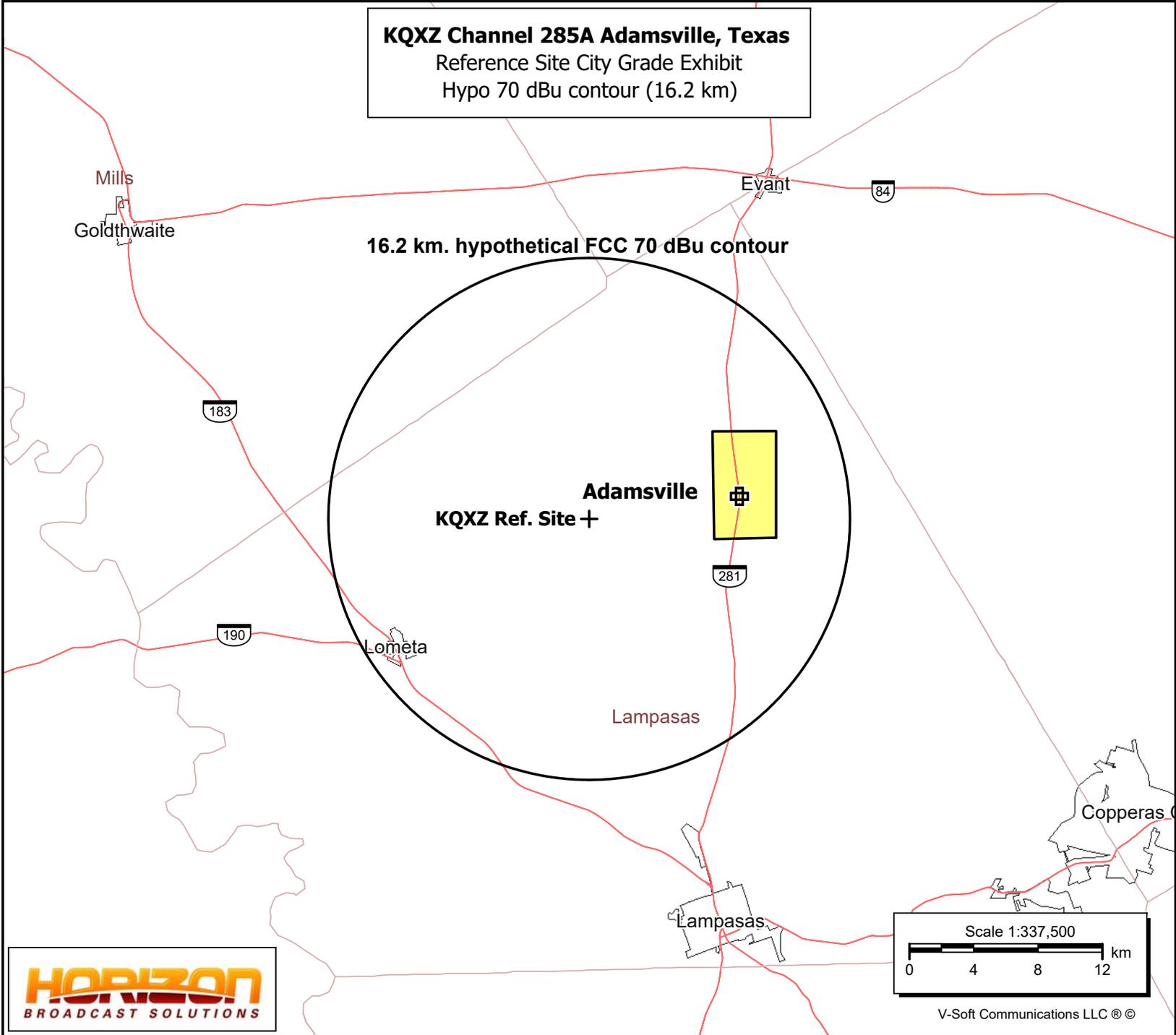
REFERENCE								DISPLAY DATES	
31 17 19.0 N.		CLASS = A Int = AA						DATA	08-29-22
98 16 01.0 W.		Current Spacings to 3rd Adj.						SEARCH	08-29-22
----- Channel 285 - 104.9 MHz -----									
Call	Channel	Location		Azi	Dist	FCC	Margin		
Lat.	Lng.	Ant	Power		HAAT				

NEW/KQXZ	CP -N 285A	Richland Springs	TX	268.4	64.5	114.5	-50.0		
31 16 14.0	98 56 37.6	NCN	0.100 kW		36 M				
	Qxz Mediaworks LLC		0000158484						
AL15266	ALO 284A	Kingsland	TX	196.1	71.7	71.5	0.15		
30 40 03.7	98 28 30.1		0.000 kW		100 M				
KBHT	LIC-Z 285A	Bellmead	TX	75.7	115.0	114.5	0.54		
31 32 15.6	97 05 33.0	ZCN	6.000 kW		100 M				
	M&m Broadcasters, Ltd.		BLH20130813AAM						
KHSB-FM	LIC-Z 284A	Kingsland	TX	179.7	72.0	71.5	0.54		
30 38 19.7	98 15 45.5	ZCN	1.050 kW		242 M				
	Munbilla Broadcasting Prop		0000193000						
KQMJ	LIC 284A	Blanket	TX	319.8	76.8	71.5	5.3		
31 48 55.5	98 47 34.2	CN	5.100 kW		109 M				
			BLH20140811AAA						
KTXF-FM	LIC-Z 285A	Bee Cave	TX	163.1	120.4	114.5	5.9		
30 14 57.5	97 54 06.2	ZCN	3.200 kW		136 M				
	Genuine Austin Radio, L.P.		BLH20100415AAE						
KHTL-LP/K	CP 284L1	Killeen	TX	113.1	61.9	55.5	6.4		
31 04 09.0	97 40 10.0	CY	0.092 kW		31 M				
	Killeen Seventh Day Advent		0000189449						
KVBM-LP	LIC 284L1	Killeen	TX	107.9	62.9	55.5	7.4		
31 06 47.6	97 38 22.0	CN	0.018 kW		68 M				
	Killeen Seventh Day Advent		BLL20060710ABK						
KUSJ	LIC 288C2	Harker Heights	TX	118.9	69.3	54.5	14.8		
30 59 09.7	97 37 52.0	CN	33.000 kW		183 M				
	Townsquare Media Killeen-T		BLH19990323KB						
KRYH-LP	LIC 284L1	Temple	TX	103.6	88.5	55.5	33.0		
31 05 56.6	97 21 54.0	CN	0.032 kW		52 M				
	Power-Up Radio, Inc.		BLL20040213ACX						
KEAN-FM	LIC 286C1	Abilene	TX	311.6	166.7	132.5	34.3		
32 16 35.5	99 35 39.3	CN	100.000 kW		270 M				
	Townsquare License, LLC		BLH20010730ABR						
KEAN-FM	ALO 286C1	Abilene	TX	311.5	166.8	132.5	34.3		
32 16 35.5	99 35 40.3		0.000 kW		299 M				
	Townsquare License, LLC								
KUSJ	ALO 288C2	Harker Heights	TX	115.2	92.1	54.5	37.6		
30 55 58.7	97 23 41.0		0.000 kW		150 M				
	Townsquare Media Killeen-T								

Call	Channel	Location		Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power		HAAT		
KMIL	LIC-N 286C3	Cameron		TX 111.8	127.3	88.5	38.8
30 51 30.7	97 01 48.0	NCN	15.000 kW		100 M		
	Centex Broadcasting, LLC		BLH20070208AIB				
K231DF	LIC-D 231D	Killeen		TX 113.3	53.2	9.5	43.7
31 05 54.6	97 45 16.1	DCN	0.250 kW	0 M			
	Martin Broadcasting, Inc.		0000160067				
KSZX	STA 288C3	Santa Anna		TX 293.5	98.3	41.5	56.8
31 38 15.5	99 13 05.1	CN	12.000 kW		12 M		
			0000193689				
KSZX	LIC-N 288C3	Santa Anna		TX 293.5	98.3	41.5	56.8
31 38 15.5	99 13 05.1	NCN	12.000 kW		12 M		
			BLH20160919AAH				

KQXZ Ref. Site
Adamsville, TX
Latitude: 31-17-19 N
Longitude: 098-16-01 W
Channel: 285
Frequency: 104.9 MHz

KQXZ Channel 285A Adamsville, Texas
Reference Site City Grade Exhibit
Hypo 70 dBu contour (16.2 km)



V-Soft Communications LLC ©

KQXZ Application Site Channel Study

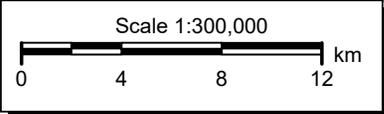
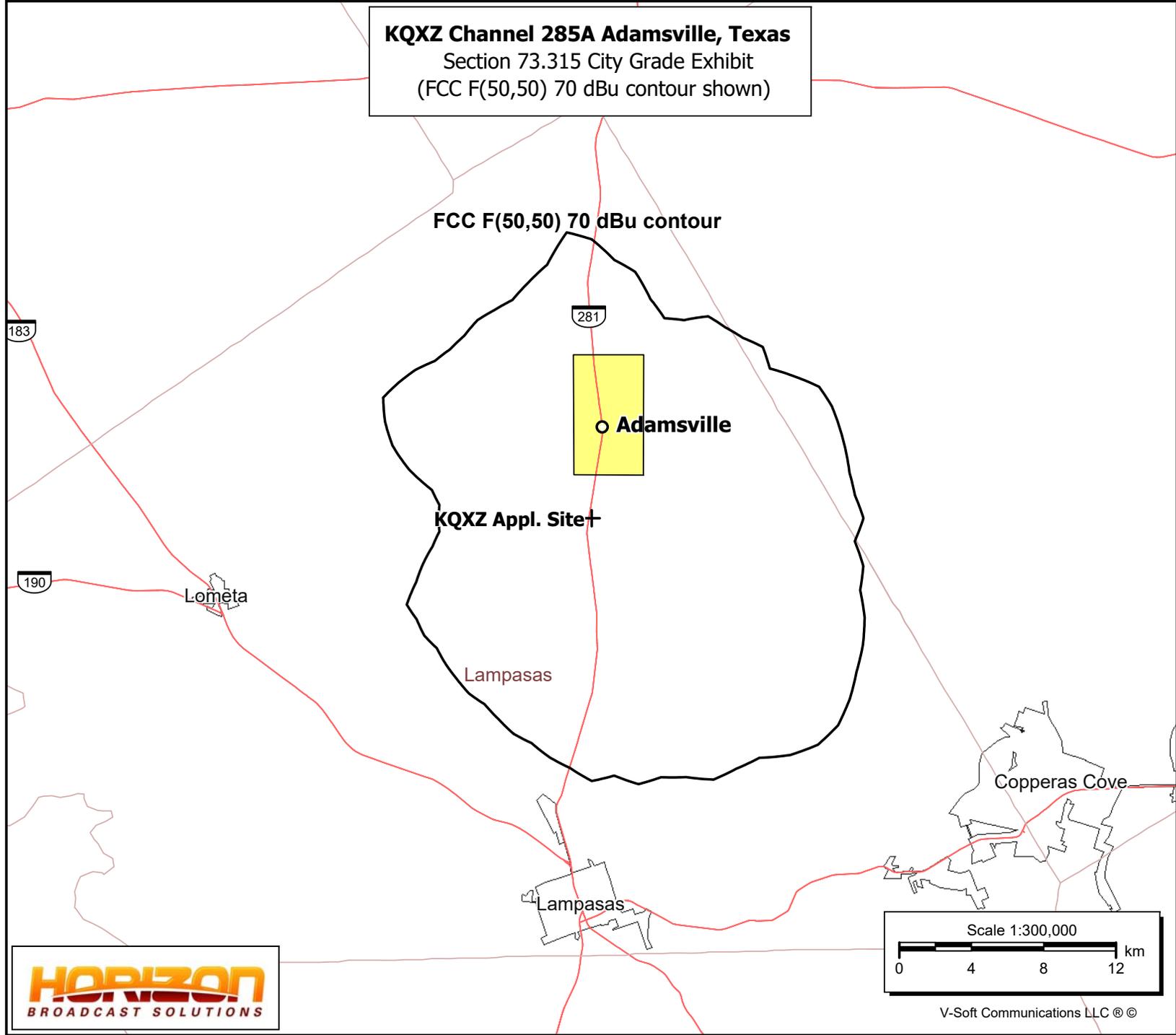
REFERENCE						DISPLAY DATES		
31 15 20.3 N.				CLASS = A	Int = AA		DATA	08-29-22
98 10 30.0 W.				Current Spacings to 3rd Adj.			SEARCH	08-29-22
----- Channel 285 - 104.9 MHz -----								
Call	Channel	Location		Azi	Dist	FCC	Margin	
Lat.	Lng.	Ant	Power		HAAT			

NEW/KQXZ	CP -N 285A	Richland Springs		TX 271.5	73.2	114.5	-41.3	
31 16 14.0	98 56 37.6	NCN	0.100 kW		36 M			
	Qxz Mediaworks LLC		0000158484					
KBHT	LIC-Z 285A	Bellmead		TX 72.7	107.6	114.5	-6.9	
31 32 15.6	97 05 33.0	ZCN	6.000 kW		100 M			
	M&m Broadcasters, Ltd.		BLH20130813AAM					
Note: Adopt Section 73.215 contour protection with respect to KBHT								
KHTL-LP/K	CP 284L1	Killeen		TX 113.2	52.4	55.5	-3.1	
31 04 09.0	97 40 10.0	CY	0.092 kW		31 M			
	Killeen Seventh Day Advent		0000189449					
KHSB-FM	LIC-Z 284A	Kingsland		TX 187.0	68.9	71.5	-2.6	
30 38 19.7	98 15 45.5	ZCN	1.050 kW		242 M			
	Munbilla Broadcasting Prop		0000193000					
Note: Adopt Section 73.215 contour protection with respect to KSHB-FM								
KVBM-LP	LIC 284L1	Killeen		TX 107.1	53.4	55.5	-2.1	
31 06 47.6	97 38 22.0	CN	0.018 kW		68 M			
	Killeen Seventh Day Advent		BLL20060710ABK					
AL15266	ALO 284A	Kingsland		TX 203.7	71.2	71.5	-0.29	
30 40 03.7	98 28 30.1		0.000 kW		100 M			
KTXX-FM	LIC-Z 285A	Bee Cave		TX 166.8	114.6	114.5	0.09	
30 14 57.5	97 54 06.2	ZCN	3.200 kW		136 M			
	Genuine Austin Radio, L.P.		BLH20100415AAE					
KUSJ	LIC 288C2	Harker Heights		TX 119.9	59.9	54.5	5.4	
30 59 09.7	97 37 52.0	CN	33.000 kW		183 M			
	Townsquare Media Killeen-T		BLH19990323KB					
KQMJ	LIC 284A	Blanket		TX 316.9	85.4	71.5	13.9	
31 48 55.5	98 47 34.2	CN	5.100 kW		109 M			
			BLH20140811AAA					
KRYH-LP	LIC 284L1	Temple		TX 102.5	79.1	55.5	23.6	
31 05 56.6	97 21 54.0	CN	0.032 kW		52 M			
	Power-Up Radio, Inc.		BLL20040213ACX					
KUSJ	ALO 288C2	Harker Heights		TX 115.6	82.6	54.5	28.1	
30 55 58.7	97 23 41.0		0.000 kW		150 M			
	Townsquare Media Killeen-T							
KMIL	LIC-N 286C3	Cameron		TX 111.7	117.8	88.5	29.3	
30 51 30.7	97 01 48.0	NCN	15.000 kW		100 M			
	Centex Broadcasting, LLC		BLH20070208AIB					
K231DF	LIC-D 231D	Killeen		TX 113.5	43.7	9.5	34.2	
31 05 54.6	97 45 16.1	DCN	0.250 kW	0 M				
	Martin Broadcasting, Inc.		0000160067					

Call	Channel	Location		Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power		HAAT		
KEAN-FM	LIC	286C1	Abilene				
32 16 35.5	99 35 39.3	CN	100.000 kW	TX 310.6	175.8	132.5	43.3
Townsquare License, LLC			BLH20010730ABR		270 M		
KEAN-FM	ALO	286C1	Abilene				
32 16 35.5	99 35 40.3		0.000 kW	TX 310.6	175.8	132.5	43.3
Townsquare License, LLC					299 M		
KLQB	ALO	282C2	Taylor				
30 31 18.7	97 26 41.0		0.000 kW	TX 139.3	107.2	54.5	52.7
Univision Radio Stations G					150 M		

KQXZ Channel 285A Adamsville, Texas
Section 73.315 City Grade Exhibit
(FCC F(50,50) 70 dBu contour shown)

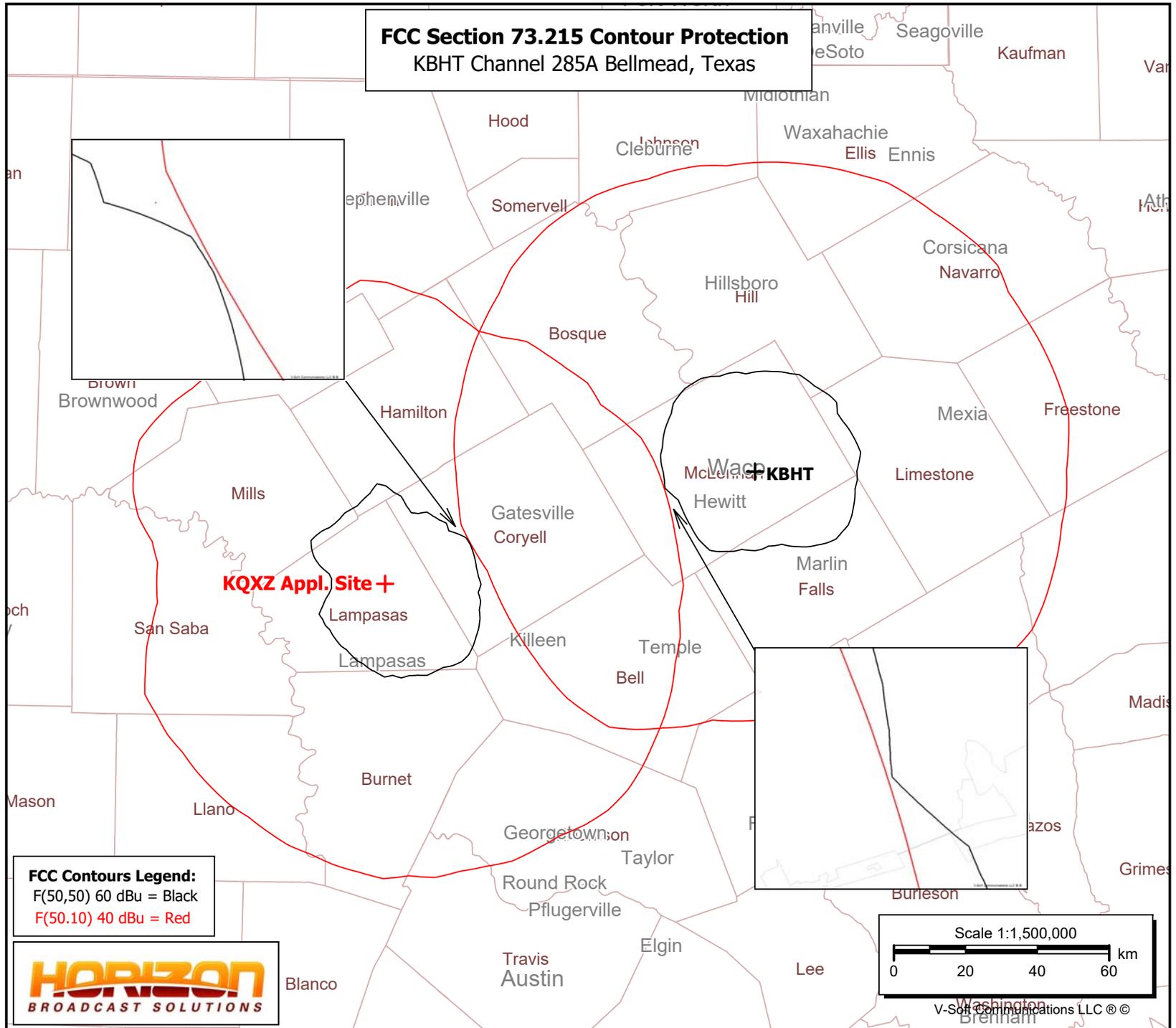
KQXZ Appl. Site
Adamsville, TX
0000158484
Latitude: 31-15-20.30 N
Longitude: 098-10-30 W
ERP: 4.90 kW
HAAT: 77.88
Channel: 285
Frequency: 104.9 MHz
AMSL Height: 439.7 m
Elevation: 344.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC



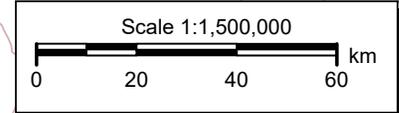
KQXZ Appl. Site
 Adamsville, TX
 0000158484
 Latitude: 31-15-20.30 N
 Longitude: 098-10-30 W
 ERP: 4.90 kW
 HAAT: 77.88
 Channel: 285
 Frequency: 104.9 MHz
 AMSL Height: 439.7 m
 Elevation: 344.7 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: FCC Model
 Loc. Variability: 50.0%
 Time Variability: 50.0%
 HAAT Mthd: FCC

KBHT
 Bellmead, TX
 BLH20130813AAM
 Latitude: 31-32-15.60 N
 Longitude: 097-05-33 W
 ERP: 6.00 kW
 HAAT: 100.0
 Channel: 285
 Frequency: 104.9 MHz
 AMSL Height: 238.0 m
 Elevation: 117.0 m
 Horiz. Pattern: Directional
 Vert. Pattern: No
 Prop Model: FCC Model
 Loc. Variability: 50.0%
 Time Variability: 50.0%
 HAAT Mthd: FCC

FCC Section 73.215 Contour Protection
 KBHT Channel 285A Bellmead, Texas



FCC Contours Legend:
 F(50,50) 60 dBu = Black
 F(50,10) 40 dBu = Red



KQXZ Appl. Site

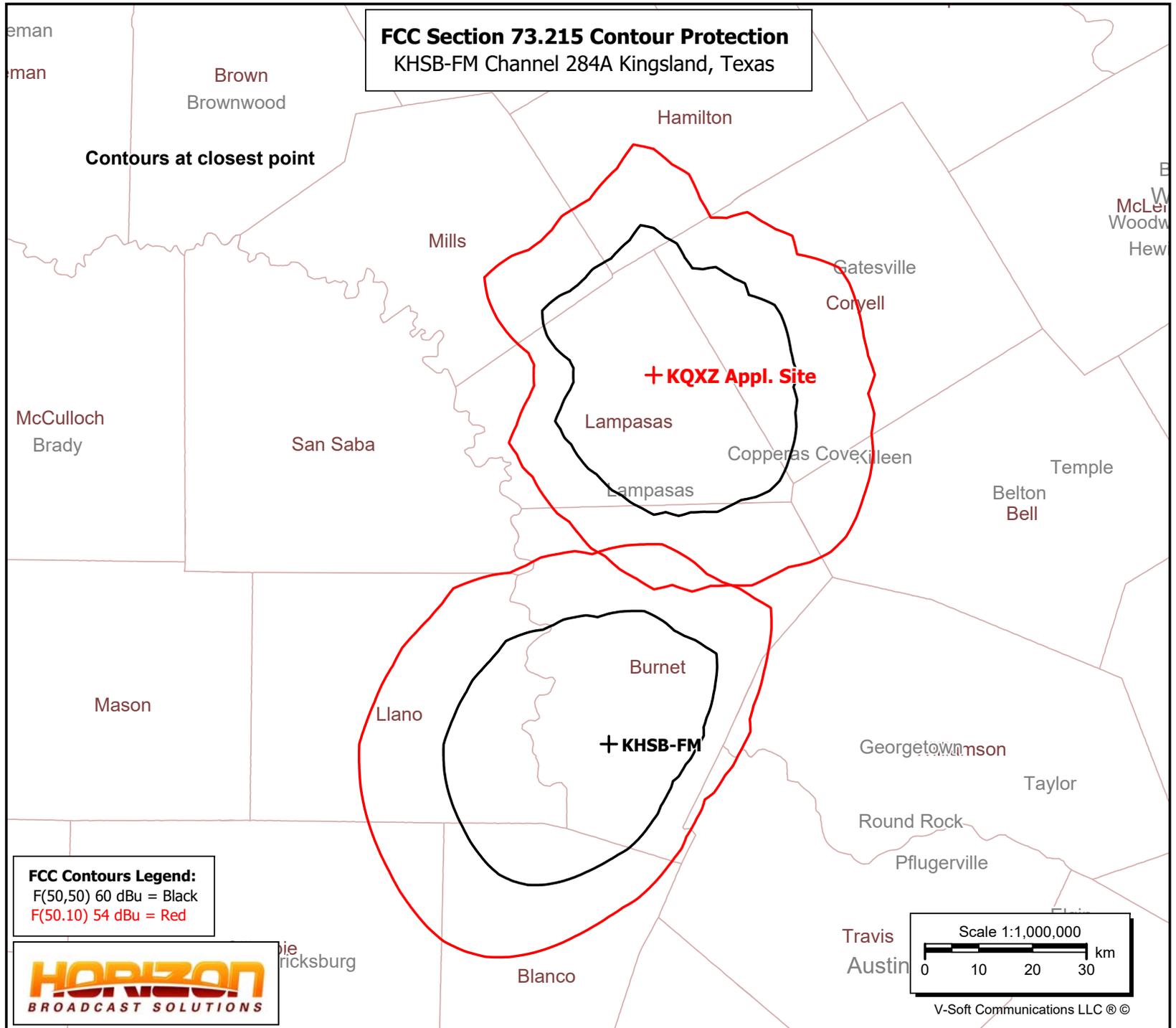
Adamsville, TX
0000158484
Latitude: 31-15-20.30 N
Longitude: 098-10-30 W
ERP: 4.90 kW
HAAT: 77.88
Channel: 285
Frequency: 104.9 MHz
AMSL Height: 439.7 m
Elevation: 344.7 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

KHSB-FM

Kingsland, TX
0000193000
Latitude: 30-38-19.70 N
Longitude: 098-15-45.50 W
ERP: 1.05 kW
HAAT: 242.0
Channel: 284
Frequency: 104.7 MHz
AMSL Height: 563.0 m
Elevation: 341.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

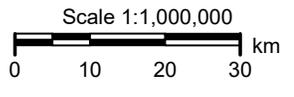
FCC Section 73.215 Contour Protection
KHSB-FM Channel 284A Kingsland, Texas

Contours at closest point



FCC Contours Legend:

F(50,50) 60 dBu = Black
F(50,10) 54 dBu = Red



V-Soft Communications LLC ©

**Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. QXZ MediaWorks LLC ("QXZ") is the permittee of FCC LMS construction permit 0000158484 for KQXZ, Facility ID 762373, Channel 285A, Richland Springs, Texas. QXZ is modifying construction permit 0000158484 by requesting Channel 285A (104.9 MHz) at Adamsville, Texas. The proposed KQXZ Channel 285A application site is an existing water tower 101.1 meters in overall height and is registered with Antenna Structure Registration ("ASR") number 1254561. The application site coordinates are 31° 15' 20.3" N ~ 98° 10' 0" W (NAD 83). The transmit antenna will be a side mounted ERI LP-2E two bay circularly polarized antenna with a center of radiation of 95 meters AGL. KQXZ would operate with 4.9 kW ERP non-directional at 77.88 meters HAAT. Because QXZ proposes to operate KQXZ from an existing water tower and no changes are being made to the tower or antenna, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The ERI antenna is included in the revised OET FM Model for Windows Program under Type 3 Opposed "U" dipole. The maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 5.438 $\mu\text{W}/\text{cm}$ at 62.4 meters, which is 2.719 percent of the general population/uncontrolled maximum permitted exposure limit. This is below the five percent threshold limit described in 1.1307(b) regarding sites with multiple emitters, which excludes applicant from responsibility for taking any corrective action in areas where the proposal's contribution is less than five percent.

The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

FM Model

Radio Frequency Safety

[FCC Policy on Human Exposure](#)

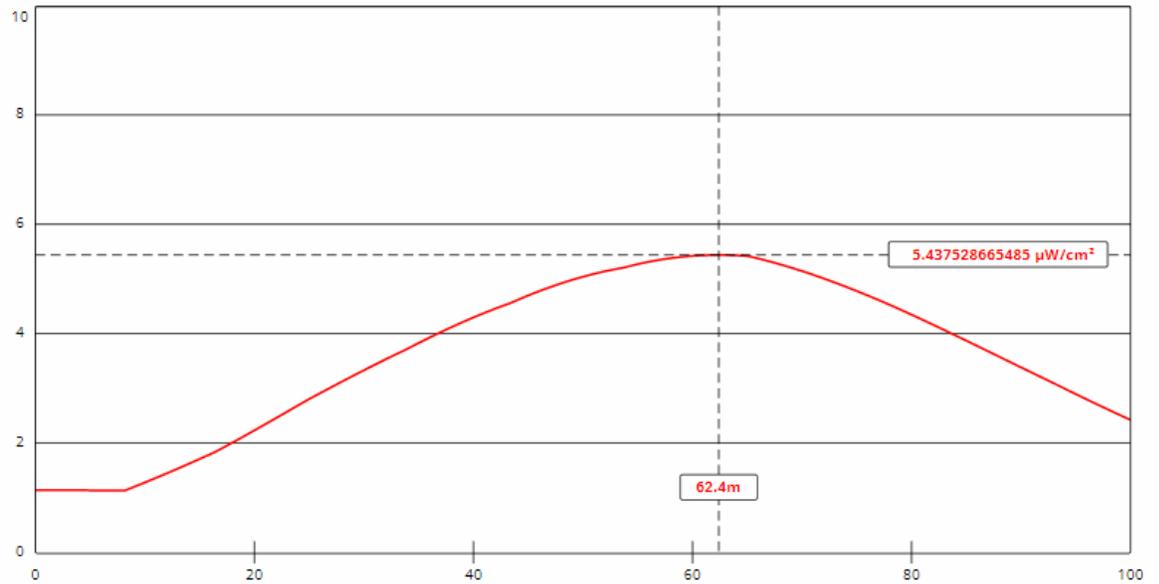
[RF Safety FAQ](#)

[Body Tissue Dielectric Parameters](#)

[RF Safety Highlighted Releases](#)

[FM Model](#)

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data [published in 1985 by the EPA](#). [Show More...](#)



[View Tabular Results +](#)

Channel Selection	Channel 285 (104.9 MHz) ▼		
Antenna Type +	EPA Type 3: Opposed U Dipole ▼		
Height (m)	<input type="text" value="95"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="4900"/>	ERP-V (W)	<input type="text" value="4900"/>
Num of Elements	<input type="text" value="2"/>	λ	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	

Bureau/Office:
[Engineering & Technology](#)