TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
CONSTRUCTION PERMIT
TELEVISION STATION WELU-DT
AGUADILLA, PUERTO RICO

December 26, 2002

CHANNEL 34 250 KW 665 M

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Technical Statement

This Technical Exhibit was prepared on behalf of digital television broadcast station WELU-DT, Aguadilla, Puerto Rico, in support of an application for modification of its construction permit (See FCC File No. BPEDT-20010316AAV). WELU-DT is paired with analog NTSC TV station WELU-TV, Channel 32. The instant amendment proposes to relocate the proposed WELU-DT facility to an existing tower located near Maricao, Puerto Rico. It is proposed that the WELU-DT facility operate with a nominal non-directional average effective radiated power (ERP) of 24.0 dBk (250 kW) and an antenna radiation center height above average terrain (HAAT) of 665 m. As described in further detail herein, the proposed facility meets the FCC *de minimis* interference protection criteria.*

Proposed Facilities

The proposed transmitting antenna will be top-mounted on an existing 48.8-meter tower structure located on Monte del Estado near Maricao, Puerto Rico. The transmitter site elevation is 908.9 m AMSL. The antenna center of radiation will be

* See FCC *Public Notice*, "Commission Details Application Filing Procedures Digital Television (DTV)", Released: October 16, 1997; and, FCC *Public Notice*, "Additional Application Processing Guidelines for Digital Television (DTV)", Released: August 10, 1998.

located at 53 m above ground level and 962 m AMSL. Figure 1 is a summary of the technical specifications for the proposed operation.

Since the proposed structure is less than 200-feet in height above ground level and there are no public landing facilities within 8 km of the proposed site, the proposed antenna structure does not require FAA notification; nor does it require FCC antenna structure registration. Figure 2 is a sketch of the proposed antenna and supporting structure.

The proposed facility provides minimum 48 dBu f(50,90) contour coverage of Aguadilla in compliance with Section 73.625(a)(1) of the FCC Rules. Figure 3 herein is a tabulation of the calculated distances to the predicted WELU-DT coverage contours. Figure 4 herein is a map depicting the predicted coverage contours of the proposed facility.

Arecibo Observatory

The proposed facility is located more than 33 km from the Arecibo Observatory located near Arecibo, Puerto Rico. The proposed facility is located within the coordination zone for the Arecibo Observatory. Therefore, the Observatory has been notified of the proposal.

Allocation Considerations

The proposed WELU-DT Channel 34 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing U.S. NTSC facilities and U.S. DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software developed by

du Treil, Lundin & Rackley, Inc. based on the FCC published software routines.† Stations selected for analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. Accordingly, co-channel DTV and NTSC stations within 429 km and 407 km, respectively, were examined for potential interference; and first-adjacent DTV and NTSC stations within 229 km and 207 km, respectively, were examined for potential interference. Analog taboo-related NTSC stations within 142 km were examined for potential interference. The results of the interference analyses for the proposed WELU-DT facility are summarized herein at Figure 5. As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.‡

With respect to Class A TV station protection, the proposal has been evaluated according to the requirements of Section 73.623(c)(5) of the FCC Rules. The analysis reveals one potentially affected Class A TV station, as follows:

WQQZ-CA, Ponce, Puerto Rico, Channel 33 (FCC File No. BLTTA-20010313AAG)

A contour analysis indicates that there would be prohibited contour overlap between the proposed WELU-DT facility and WQQZ-CA. However, the applicant requests a waiver pursuant to Section 73.623(c)(5)(iii) of the FCC Rules to permit the use of the Longley-Rice terrain dependent propagation model as described in FCC OET Bulletin No. 69.§

† The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is an implementation of the procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.
‡ Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e. "masking") including the allotment facility for WELU-DT. This properly reflects the net interference change for determining compliance with the FCC DTV2%/10% *de minimis* standard.
§ The underlying WELU-DT facility was granted a construction permit notwithstanding contour overlap with WQQZ-CA pursuant to an analysis under the provisions of FCC OET Bulletin No. 69. There is little change in the WELU-DT facility proposed herein from that granted by the FCC for WELU-DT.

An analysis of predicted interference with respect to WQQZ-CA prepared according to OET Bulletin No. 69 reveals 0 predicted interference to WQQZ-CA (See Figure 5).

Environmental Considerations

With respect to the potential for human exposure to radio frequency (RF) radiation, upon completion of the WELU-DT installation, the applicant shall conduct RF measurements at the WELU-DT transmitter site to demonstrate compliance with the FCC's guidelines for human exposure to RF radiation. Furthermore, the applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the WELU-DT tower or antenna from radio frequency radiation in excess of the FCC guidelines.

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Consulting Engineer

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201 Fletcher Ave.
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(941)329-6000

December 26, 2002

Figure 1

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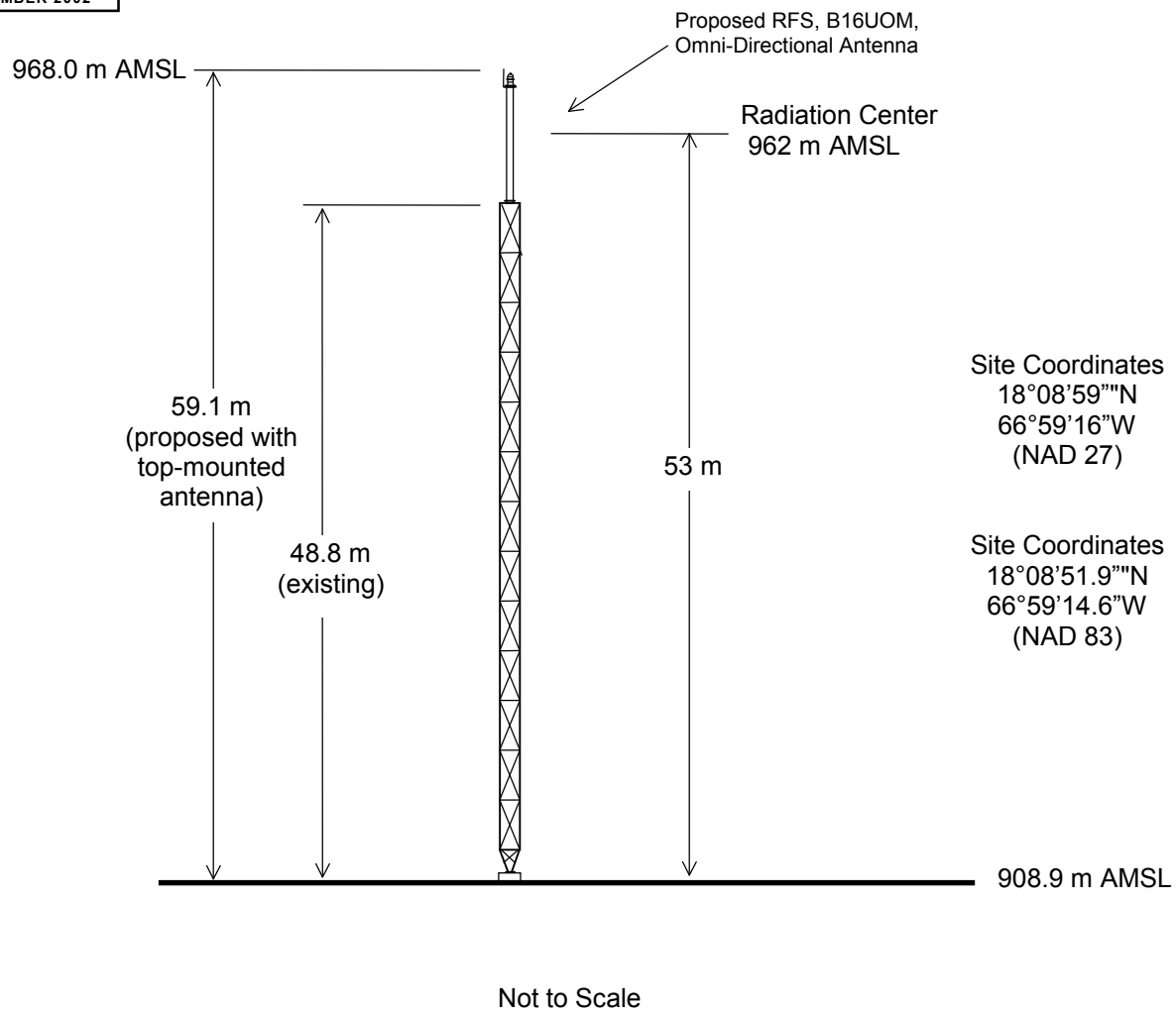
Technical Specifications

Channel / Frequency Band	34 / 590-596 MHz
Site Coordinates (NAD 27)	18°08'59" North Latitude 66°59'16" West Longitude
Site elevation	908.9m AMSL
Average elevation of standard eight radials, 3 to 16 km	297 m AMSL
Overall height of proposed structure	59.1 m AGL / 967.2 m AMSL
Height of antenna radiation center	53 m AGL / 962 m AMSL
Antenna radiation center HAAT	665 m

Proposed Operation	
Parameter	DTV
Transmitter power output	12.07 dBk (16.1 kW)
Transmission line loss (260-ft of RFS, HCA418)	0.57 dB
Antenna input power	11.5 dBk
Antenna gain (RFS, B16UOM)	12.5 dB
Nominal non-directional effective radiated power	24.0 dBk
Nominal non-directional ERP (kW - rounded)	250 kW

DECEMBER 2002



FAA Notification Not Required.
FCC Antenna Structure Registration Not Required.

PROPOSED ANTENNA AND SUPPORTING STRUCTURE

TELEVISION STATION WELU-DT

AGUADILLA, PUERTO RICO

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

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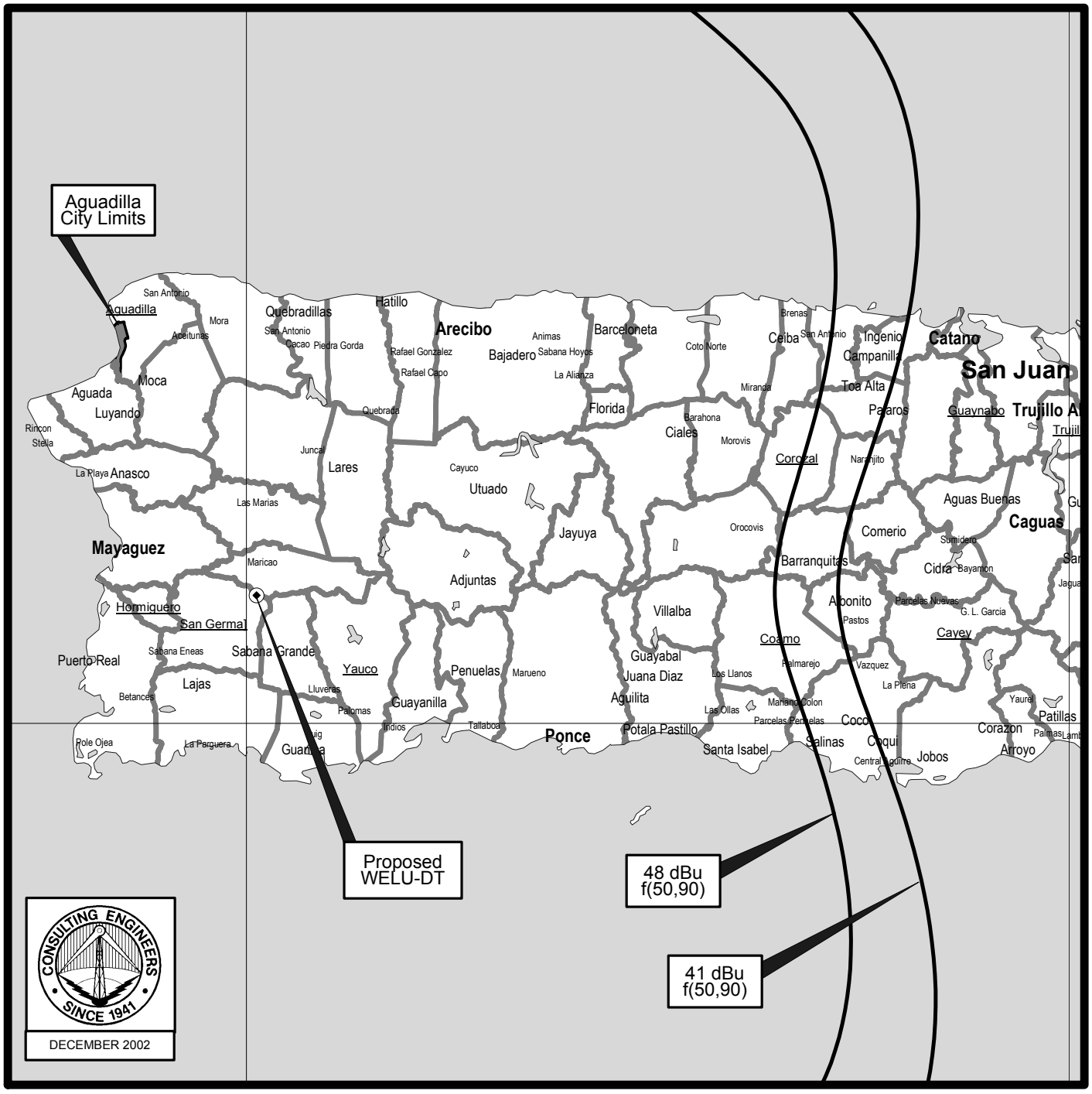
Tabulation of Average Elevations and
Distances to Predicted Coverage Contours

Azimuth (deg.T)	3-16 km Average Terrain (m)	Antenna HAAT (m)	ERP (kW)	48 dBu f(50,90) Contour (km)	41 dBu f(50,90) Contour (km)
0	330.6	631.4	250	95.4	109.3
45	397.7	564.3	250	92.3	106.0
90	770.2	191.8	250	66.6	74.7
135	265.6	696.4	250	97.7	112.1
180	92.3	869.7	250	103.4	118.7
225	111.1	850.9	250	102.8	118.1
270	134.7	827.3	250	102.1	117.3
255	271.0	691.0	250	97.5	111.9

Note: The 3-16-km average terrain is 297 m based on the eight conventional radials (0°, 45°, 90°, etc.). The U.S.G.S. linearly interpolated 3-second terrain database was employed in determining the average terrain elevations. The overall antenna radiation center height above average terrain is 665 m based on the eight conventional radials.



PREDICTED COVERAGE CONTOURS

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

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Summary of Allocation Analysis

Stations Potentially Affected by Proposed Station							
Facility Number	Channel	Call	City State	Distance (km)	Status	Application Prefix	Application Reference Number
1	20	W28AH	ARECIBO PR	50.1	LIC	BLTTL	20010102AAX
2	20	WKPV	PONCE PR	26.5	LIC	BLCT	20010130ABD
3	26	WQTO	PONCE PR	26.4	LIC	BLET	19861222KU
4	26	WQTO	PONCE PR	26.4	CP MOD	BMPET	20001020AAJ
5	30	WRWR-TV	SAN JUAN PR	95.5	LIC	BLCT	19841129LB
6	32	WELU	AGUADILLA PR	27.7	LIC	BLET	19870112KG
7	32	WELU	AGUADILLA PR	27.7	APP	BPET	19960628KR
8	32	WELU	AGUADILLA PR	27.7	APP	BPET	20020502AAO
9	33	WPRV-DT	FAJARDO PR	127.2	CP	BPCDT	19991101AGY

Stations Potentially Affected by Proposed Station							
Facility Number	Channel	Call	City State	Distance (km)	Status	Application Prefix	Application Reference Number
10	33	WPRV-DT	FAJARDO PR	127.2	PLN	DTVPLN	DTVP0916
11	33	W33BN	PONCE PR	26.6	LIC	BLTTL	19981208JA
12	34	WRUA	FAJARDO PR	127.2	LIC	BLCT	19970216KE
13	35	WIPM-DT	MAYAGUEZ PR	0.5	CP	BPEDT	20000426ABD
14	35	WIPM-DT	MAYAGUEZ PR	0.5	PLN	DTVPLN	DTVP0990
15	36	WDWL	BAYAMON PR	93.7	LIC	BLCT	19910322KF
16	38	WJWN-TV	SAN SEBASTIAN PR	27.5	LIC	BLCT	19860612KF
17	42	WIRS	YAUCO PR	43.5	LIC	BLCT	19920207KF

Summary of Interference Analysis for Worst-Case Scenarios							
Facility Number	Interference Population Before Analysis	Interference Population After Analysis	Baseline Population	Net Change in Interference	Percent of Baseline	Permissible Percent of Baseline	Result
1	--	--	--	--	0.000	--	pass
2	31135	31136	837878	1	0.000	2.0	pass
3	29838	29838	1003697	0	0.000	2.0	pass
4	45082	45082	1240624	0	0.000	2.0	pass
5	--	--	--	--	0.000	--	pass

Figure 5
Sheet 2 of 3

Summary of Interference Analysis for Worst-Case Scenarios							
Facility Number	Interference Population Before Analysis	Interference Population After Analysis	Baseline Population	Net Change in Interference	Percent of Baseline	Permissible Percent of Baseline	Result
6	34236	34236	600515	0	0.000	2.0	pass
7	105235	105609	879252	374	0.043	2.0	pass
8	26641	28568	591637	1927	0.326	2.0	pass
9	4322	36139	2912140	31817	1.093	2.0	pass
10	2363	29028	2912140	26665	0.916	2.0	pass
11	--	--	--	--	0.000	--	pass
12	85995	102524	2354736	16529	0.702	2.0	pass
13	10587	2433	2278372	-8154	-0.358	2.0	pass
14	7824	6710	2278372	-1114	-0.049	2.0	pass
15	--	--	--	--	0.000	--	pass
16	101536	101536	814467	0	0.000	2.0	pass
17	248319	248319	3704811	0	0.000	2.0	pass

Figure 5
Sheet 3 of 3

Appendix

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Transmitting Antenna
Manufacturer's Vertical Plane Pattern Data

(one page follows)

Radio Frequency Systems, Inc.
Cablewave Systems Division

B16U Series

1 Degree Beam Tilt
Gain 17.9 (12.5 dBd)