

1055 Powderhorn Drive
Glen Mills, PA 19342-9504

PH (610) 399-1826
FAX (610) 399-0995
E-Mail lhwill@verizon.net

PENN-JERSEY EDUCATIONAL RADIO CORPORATION

LICENSEE OF WDVR(FM)

CHANNEL 209

DELAWARE TOWNSHIP, NEW JERSEY

FCC Facility ID #52174

FCC FILE No. BLED-19990603KA

ENGINEERING EXHIBIT 19

1. FACILITIES REQUESTED

The instant minor application proposes to change the antenna supporting structure location and height, and the antenna C/R AMSL and HAAT, and the effective radiated power. Specifically we propose to relocate WDVR(FM) to a new 180 foot (54.9M) AG tower at 40-30-36 N, 074-57-34 W (NAD27), utilizing an ERP of 3.8 kW (V) and 0.0063 kW (H), with a C/R at 220.7 meters AMSL, 50 meters AG, and with an overall structure height of 54.9 meters. The proposed transmitting antenna is an ERI Model P300-3A-DA 3 bay one wavelength spaced antenna with an elevation power gain of 3.0x.

2. PROTECTION OF CHANNEL 6

Pursuant to 47 CFR 73.525(b)(4), a copy of this application was sent by the undersigned and by certified mail to the attention of the only “affected” TV station, WPVI(TV), 4100 City Avenue, Philadelphia, PA 19106, Attention Chief Engineer.

WDVR(FM) is located within the 47 dBu F(50,50) service contour of WPVI-TV, Channel 6, located in Philadelphia, PA. This is the only “affected” Channel 6 per 73.525. WDVR(FM) is a post December 31, 1984 facility proposing a minor change to a new tower. The proposed tower is only a few hundred feet from the currently licensed site. The changes proposed herein fall under the provisions of 73.525(b) for existing stations. A detailed 73.525 study for existing stations was completed by this office to show that the changes proposed result in a net DECREASE in predicted interference to WPVI-TV of over two for one as stipulated in 73.525(b)(2).

The EDX Signal® computer program was used for this study using 3 - second terrain data and 1 degree spacing between azimuths. WPVI facilities were derived from the FCC CDBS database. The F(50,50) WPVI field strength was found to be between 63 and 69 dBu near the proposed site. Using figure 73.599, the corresponding FM contours are 68; 68.4; 68.9; 69.4; 69.9; 70.5; and 71.0 dBu respectively.

WDVR presently is authorized circular polarization at 4.8 kW V and 0.008 kW H ERP. The instant application proposes 3.8 kW V and 0.0063 kW H maintaining the same H to V ratio. Thus the equivalent horizontal power (P) used for the calculations is the sum of the vertical power divided by 40 or 95 watts plus the horizontal power 0.0063 kW for a total of 0.101 kW. It should be noted that no portion of the present or proposed predicted interference area covers a city of 50,000 or more persons.

The resultant contour relationships and the interference area calculated per 73.525(e)(1)(v) are plotted and attached with this exhibit. The resulting interference area occurs in a rural portion of Hunterdon County, New Jersey. The interference (affected) area was then

transposed to a US Census Bureau map which is also attached. The interference area encompasses populated land areas in four Census Tracts. These Tracts are: 107.02 (part of Franklin Township), 113.02 (part of Franklin Township), 115 (part of Kingwood Township), and 116 (part of Kingwood Township). Of these there is zero net change in persons affected in Tract 113.02.

Uniform distribution of population within each tract was assumed as per 73.525(e)(2)(ii). Total areas and "affected" areas were determined by use of a Polar Planimeter. Areas over water were subtracted and the resulting "affected" areas were determined as a percentage of the total tract land area. These percentage values were then multiplied by the total 2000 population for the Tract. A tabulation of populations and affected areas in each Tract follows below. The application fully complies with 73.525 in that the number of persons that are predicted to receive new interference is 13 while the number of persons calculated to no longer receive interference is 33 with is a reduction of 2.5 to 1, meeting the requirement of 73.525(b)(2).

Tabulation of Tract areas (Sq. mile) and population

Tract No.	2000 Pop Total	Land Area	Affected Land Area	% of Total	Population Affected
107.02	2990	22.88	0.1159	0.506	5 Loss
115	5270	36.51	0.0618	0.169	9 Loss
116	5038	37.29	0.1398	0.375	19 Loss
115	5270	36.51	0.0927	0.2539	13 Gain
113.02	No net change				

TOTAL GAIN: 13 persons

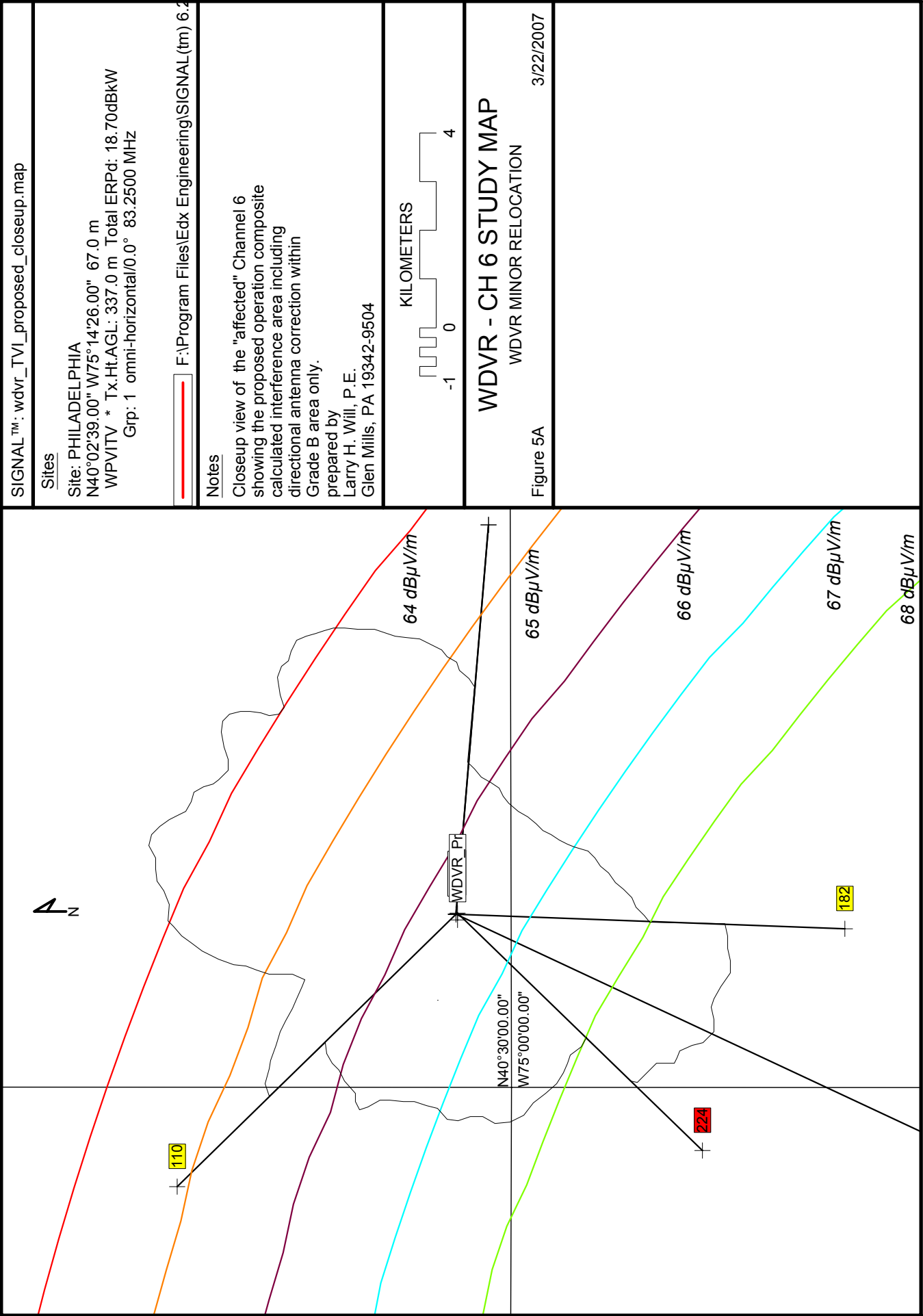
TOTAL LOSS: 33 persons

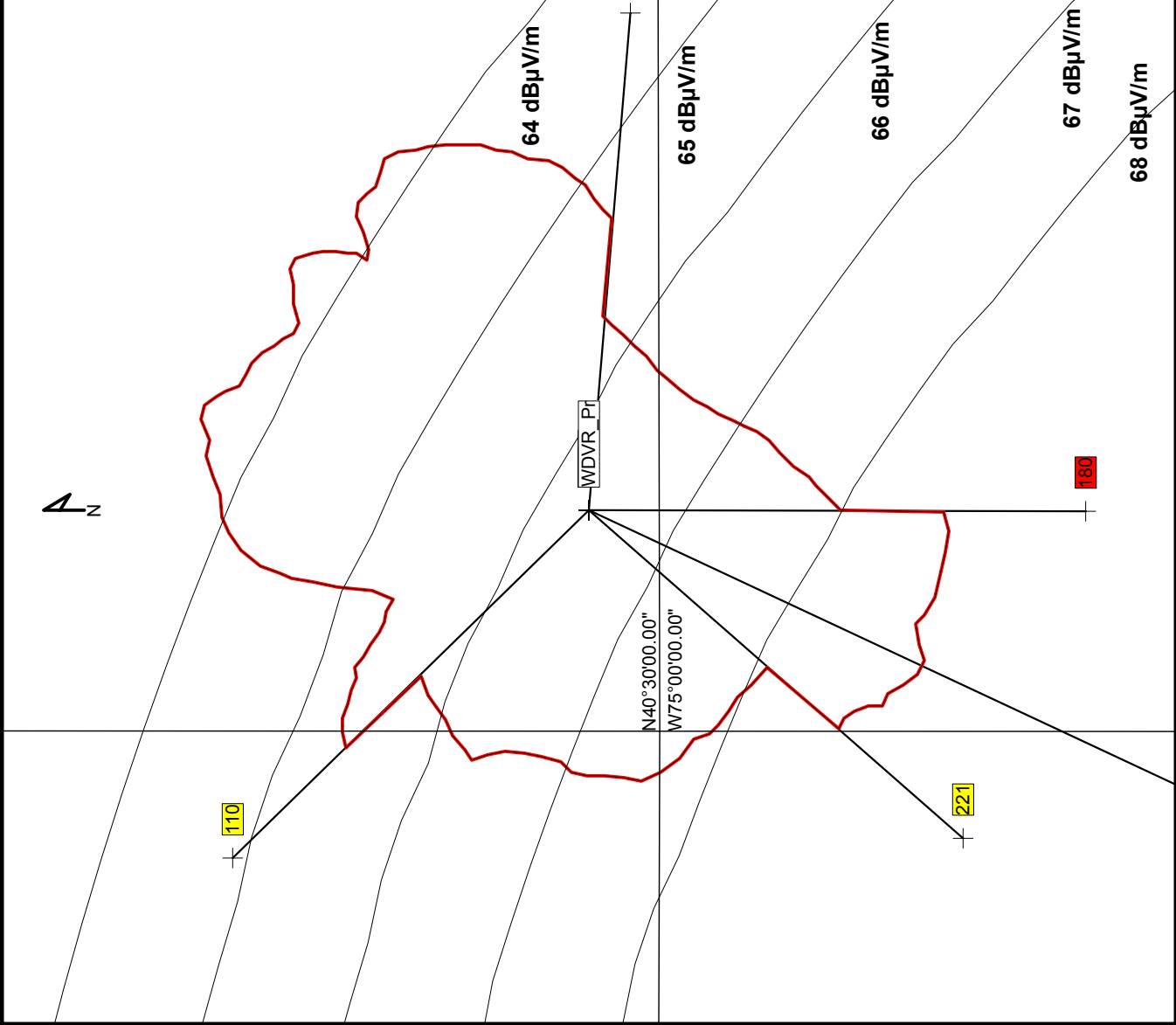
See also the attached Census Tracts for Hunterdon County, New Jersey, which are listed on the page listing of all of Hunterdon County, New Jersey.

3: CONCLUSIONS

Specifically, and utilizing the 2000 census data, the new WDVR(FM) facilities result in a net REDUCTION of predicted interference in the "existing predicted interference area" of 33

persons and NEW interference in the “proposed predicted interference area” of 13 persons. Thus the instant proposal satisfies the requirements of 73.525(b)(2) and thus granting this minor change would be in the public interest.





SIGNAL™: wdvrl_present_TVl_pop.map

Sites

Site: PHILADELPHIA
N40°02'39.00" W75°14'26.00" 67.0 m
WPVITV * Tx.Ht.AGL: 337.0 m Total ERPd: 18.70dBkW
Grp: 1 omni-horizontal/0.0° 83.2500 MHz

Notes

RED= Present composite calculated
interference area.
RED = 3070 persons.
See narrative for discussion of contour values.
2000 census
prepared by
Larry H. Will, P.E.
Glen Mills, PA 19342-9504

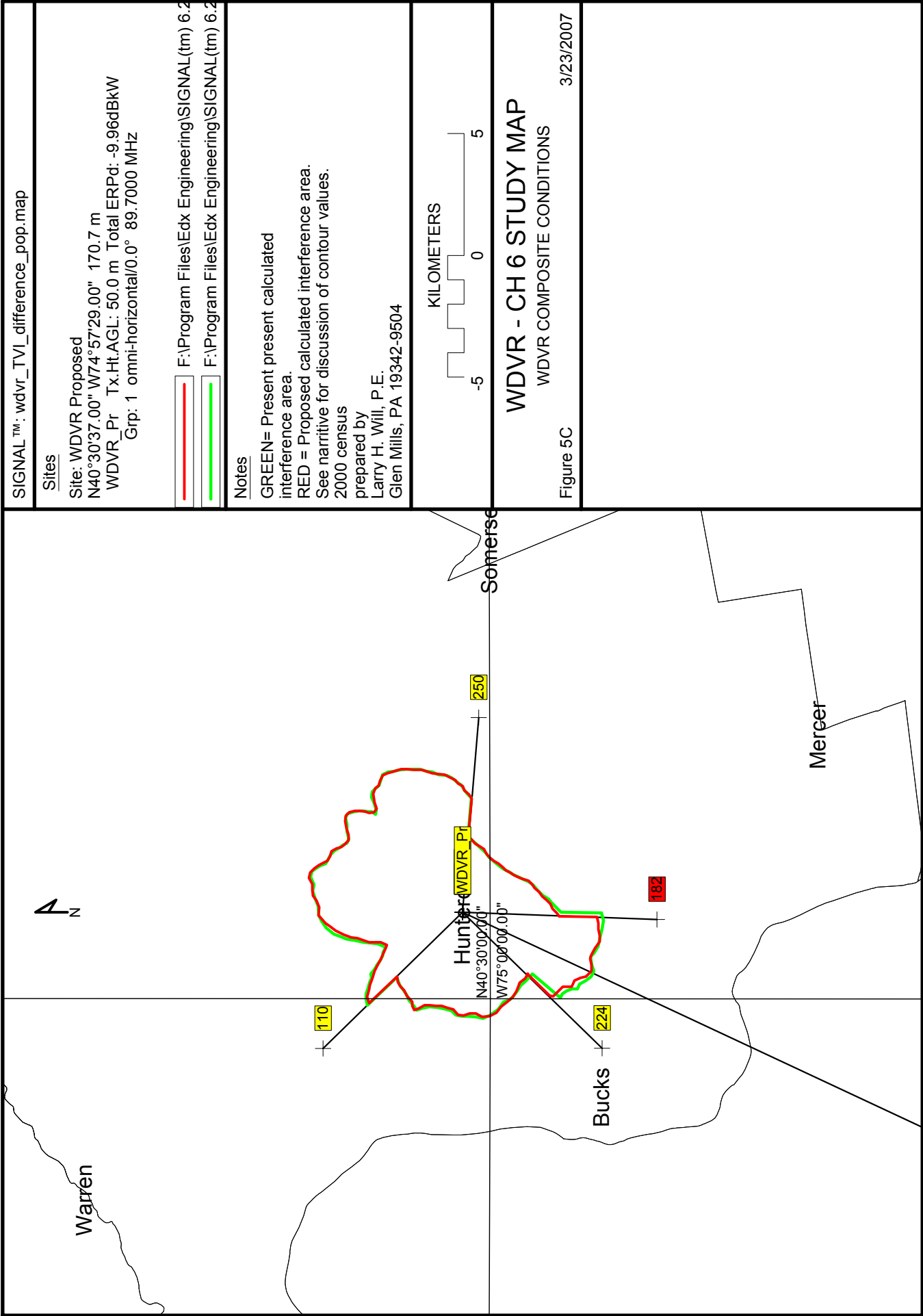


WDVR - CH 6 STUDY MAP

WDVR PRESENT CONDITIONS

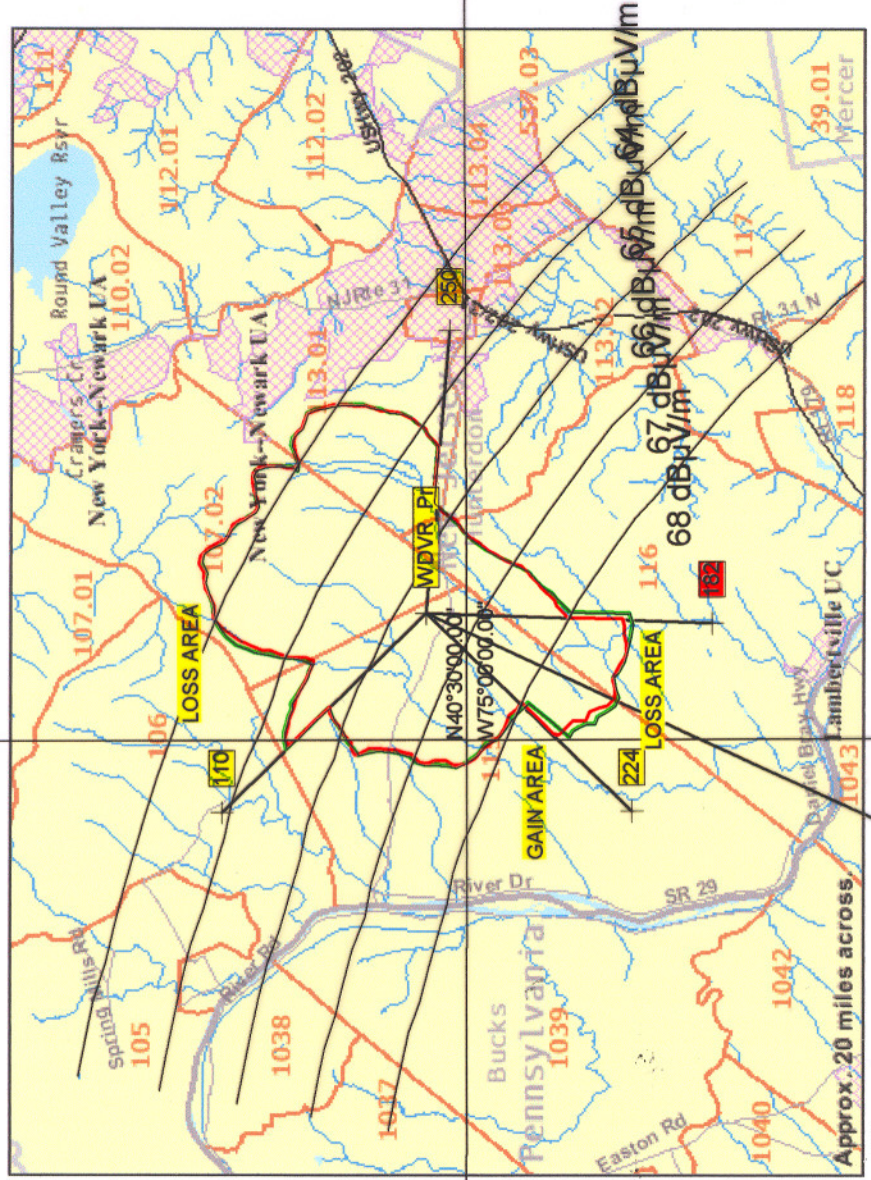
Figure 5B

3/19/2007



WDVR MINOR CHANGE APP
COMPOSITE CONTOUR ON US CENSUS MAP

FIGURE 5D



- Legend**
- Boundaries**
- State
 - '00 County
 - '00 Census Tract
 - '00 Urban Area
 - '00 Urban Area
- Features**
- Major Road
 - Street
 - Stream/Waterbody
 - Stream/Waterbody

Hunterdon County, New Jersey -- Census Tract
GCT-PH1. Population, Housing Units, Area, and Density: 2000
Data Set: Census 2000 Summary File 1 (SF 1) 100-Percent Data

NOTE: For information on confidentiality protection, nonsampling error, definitions, and count corrections see <http://factfinder.census.gov/home/en/datanotes/expsf1u.htm>.

Geographic area	Population	Housing units	Area in square miles			Density per square mile of land area	
			Total area	Water area	Land area	Population	Housing units
Hunterdon County	121,989	45,032	437.76	7.82	429.94	283.7	104.7
CENSUS TRACT							
Tract 101	5,541	2,052	31.65	0.02	31.63	175.2	64.9
Tract 102	6,871	2,430	32.70	0.05	32.65	210.4	74.4
Tract 103	3,448	1,403	3.10	0.00	3.10	1,113.1	452.9
Tract 104	4,706	1,645	21.75	0.00	21.75	216.4	75.6
Tract 105	5,124	1,942	24.09	0.39	23.70	216.2	81.9
Tract 106	5,893	2,082	28.86	0.18	28.69	205.4	72.6
Tract 107.01	6,160	1,725	20.59	1.62	18.97	324.8	90.9
Tract 107.02	2,990	1,125	22.92	0.04	22.88	130.7	49.2
Tract 108.01	2,632	1,095	1.42	0.04	1.37	1,916.0	797.1
Tract 108.02	1,065	477	0.87	0.00	0.87	1,227.3	549.7
Tract 109	3,776	1,478	2.43	0.02	2.41	1,566.0	613.0
Tract 110.01	5,807	1,588	12.72	0.32	12.40	468.4	128.1
Tract 110.02	7,150	2,646	21.21	3.61	17.60	406.2	150.3
Tract 111	5,496	2,191	14.17	0.05	14.12	389.2	155.2
Tract 112.01	6,992	2,295	22.66	0.04	22.62	309.1	101.5
Tract 112.02	3,315	1,308	10.99	0.04	10.95	302.7	119.4
Tract 113.01	6,073	2,126	17.17	0.05	17.12	354.8	124.2
Tract 113.02	5,361	1,957	13.87	0.02	13.86	386.9	141.2
Tract 113.03	4,986	1,956	2.59	0.00	2.59	1,925.9	755.5
Tract 113.04	3,389	1,055	4.28	0.00	4.28	792.6	246.7
Tract 114	4,200	1,876	1.07	0.00	1.07	3,927.4	1,754.2
Tract 115	5,270	2,052	37.16	0.65	36.51	144.4	56.2
Tract 116	5,038	1,959	37.63	0.34	37.29	135.1	52.5
Tract 117	4,455	1,624	28.72	0.04	28.68	155.3	56.6
Tract 118	2,383	984	21.90	0.18	21.72	109.7	45.3
Tract 119	3,868	1,961	1.25	0.12	1.13	3,408.6	1,728.1

(X) Not applicable

Source: U.S. Census Bureau, Census 2000 Summary File 1