

SILVER DOVE BROADCASTING, INC.  
Noncommercial FM Radio Station WVDG  
Dahlonega, GA  
CH204A, 88.7 MHz, 0.6 kW, -28m AAT

ENGINEERING STATEMENT

This engineering statement, together with the attached figures, has been prepared on behalf of Silver Dove Broadcasting, Inc., for a minor modification of construction permit BNPED-20071012AAR. The CP site is no longer available and hence application is being made for this new transmitter site.

The facility shall operate with 0.6 kW directional with circular polarization at -28m AAT from a structure 21 meters above ground level. The antenna support does not require antenna structure registration.

ENVIRONMENTAL CONSIDERATIONS

This was addressed in FCC Docket # 93-62, released August 1, 1996. Table 2 on Page 83 of the document depicts the ANSI/IEEE C95.1-1992 (IEEE C95.1-1991) protection requirements. The maximum permissible exposure for uncontrolled environments in the 30 to 100 MHz spectrum is a power density of 0.2 milliwatts per centimeter squared ( $\text{mw}/\text{cm}^2$ ).

Since the applicant will employ a one-bay SWR FMEH/1-DA circularly polarized antenna, the vertical elevation pattern of that antenna has been used in determining the effective radiated power below the horizon toward all areas 2 meters above ground level. For the uncontrolled environment in the non-commercial FM spectrum 2 meters above ground level, the power density will be  $0.038 \text{ mw}/\text{cm}^2$ , or 19 % of the allowed  $0.2 \text{ mw}/\text{cm}^2$ .

Should any maintenance worker require access to the structure, the applicant will either reduce power or cease operation until workers are outside the tower fence. Appropriate RF warning signs will be placed on all sides of the fence and it may be assumed that there will be no significant effect on the human environment with regard to exposure of the general public.

## AREA AND POPULATION SERVED

The proposed WVDG facility will serve within its 60 dBu contour a land area of 250.6 square kilometers and a population of 13,813 persons.

Area and population data has been determined from a mapping program employing block centroids and the 2000 US Census population figures. It should be noted that the 2010 population data was not yet available from the software provider.

## ATTACHED EXHIBITS

Figure 1, is a portion of the Dahlonega, GA 7.5 minute topographic map showing the proposed site at N 34-33-09 W 83-58-04 (NAD-27).

Figure 2 is a map depicting both 60 dBu and 54 dBu service contours from the proposed WVDG site. The 60 dBu contour covers all of Dahlonega, GA.

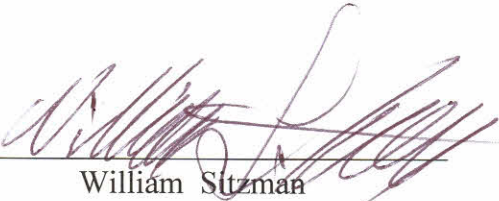
Figure 3A is an allocation map showing both co-channel and adjacent channel facilities and proposals with absence of contour overlap from this proposal.

Figure 3B is a detailed allocation map, again showing WVDG will neither cause nor receive prohibitive overlap.

Figure 4 is an allocation map showing the proposed WVDG 60 dBu contour overlaps the CP 60 dBu contour, confirming this is a minor modification.

Figure 5 shows the WVDG protection constraints in tabular as well as pattern envelope form. The antenna manufacturer shall design an antenna pattern which fits within the pattern envelope.

June 8, 2011

  
William Sutzman  
Consulting Radio Engineer

# WVDG CH204A 0.6 kW DA Allocation Map

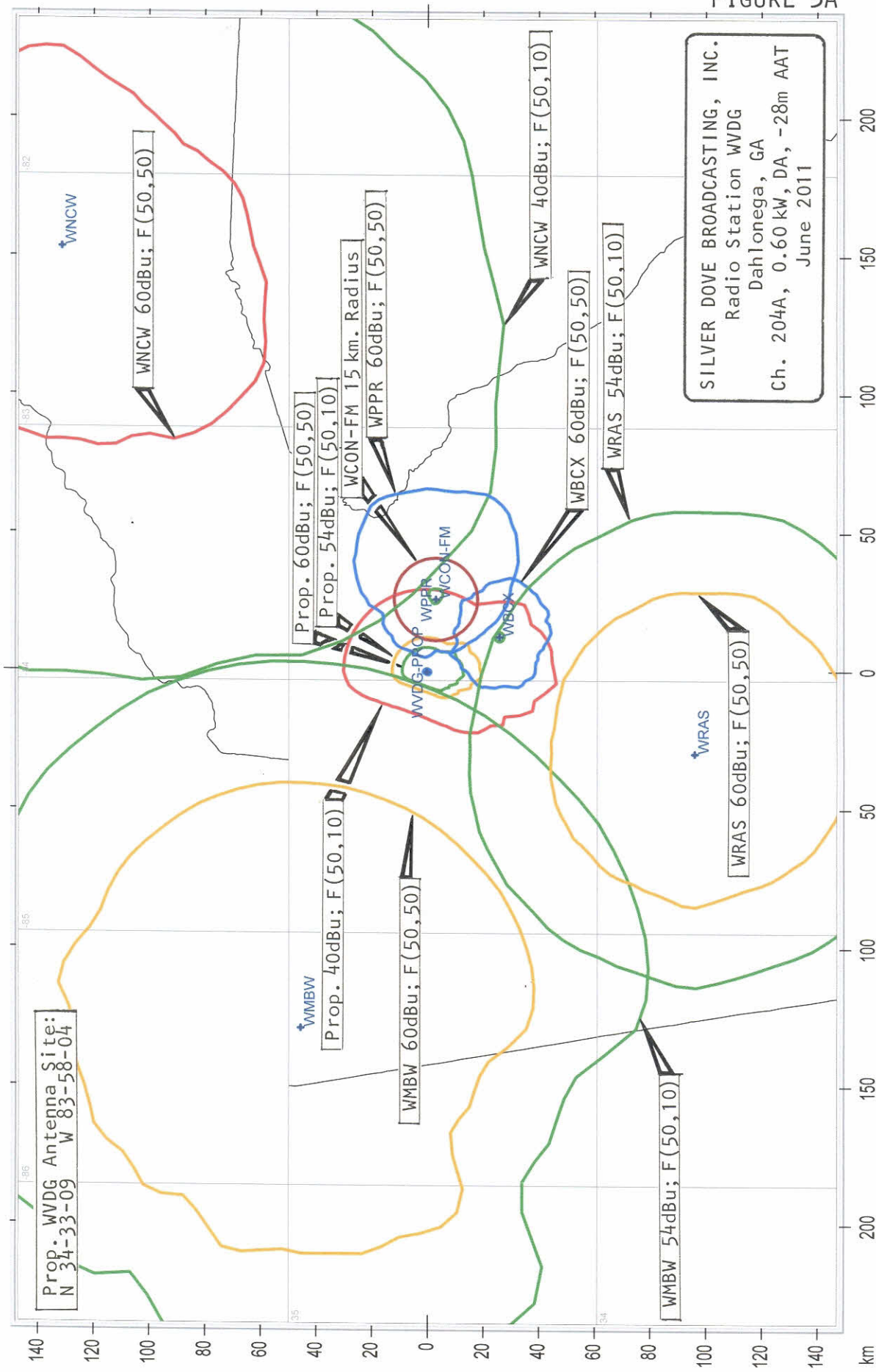


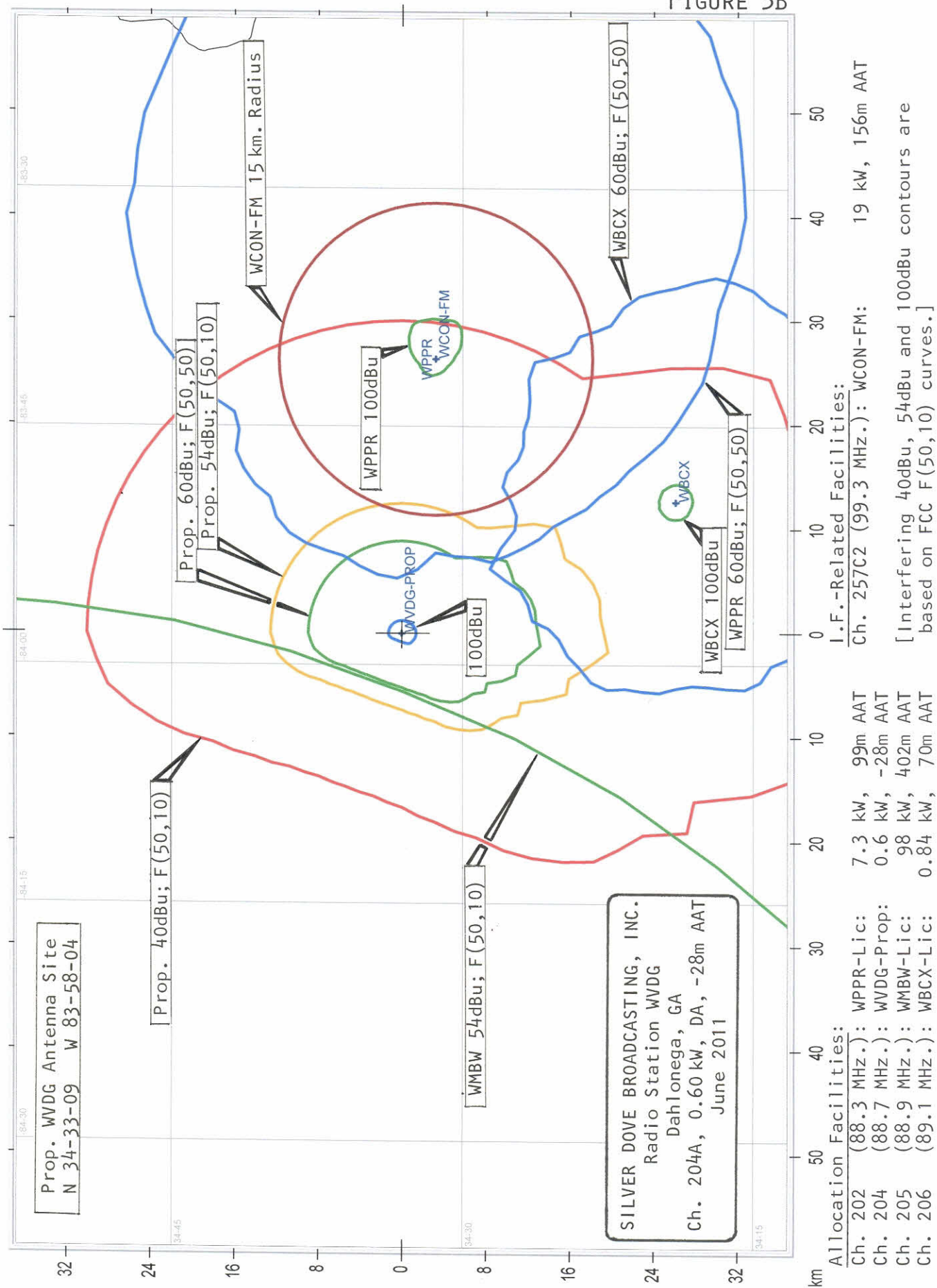
FIGURE 3A

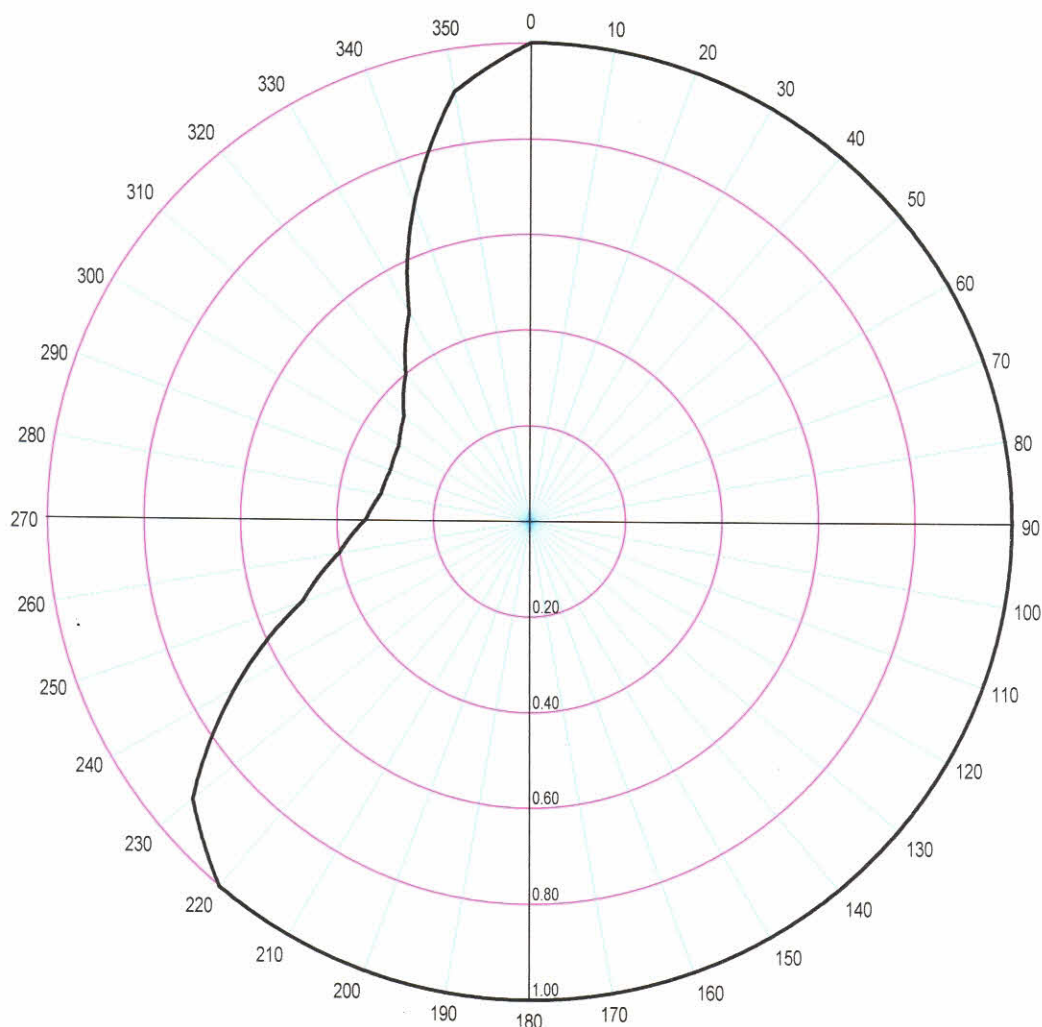
## Allocation Facilities:

Ch. 202	(88.3 MHz.):	WPPR-Lic:	7.3 kW, 99m AAT
Ch. 203	(88.5 MHz.):	WRAS-Lic:	100 kW, 94m AAT
Ch. 204	(88.7 MHz.):	WVDG-Prop.	0.6 kW, -28m AAT
"	"	WNCW-Lic:	17 kW, 800m AAT
Ch. 205	(88.9 MHz.):	WMBW-Lic:	98 kW, 402m AAT
Ch. 206	(89.1 MHz.):	WBCX-Lic:	0.84 kW, 70m AAT
I.F.-Related Facilities:			
Ch. 257C2	(99.3 MHz.):	WCON-FM:	19 kW, 156m AAT



## WVDG CH204A 0.6 kW DA Detailed Allocation Map





Azim	Rel.FS	ERP [W]	dBk
0.0	1.000	600.000	-2.218
5.0	1.000	600.000	-2.218
10.0	1.000	600.000	-2.218
15.0	1.000	600.000	-2.218
20.0	1.000	600.000	-2.218
25.0	1.000	600.000	-2.218
30.0	1.000	600.000	-2.218
35.0	1.000	600.000	-2.218
40.0	1.000	600.000	-2.218
45.0	1.000	600.000	-2.218
50.0	1.000	600.000	-2.218
55.0	1.000	600.000	-2.218
60.0	1.000	600.000	-2.218
65.0	1.000	600.000	-2.218
70.0	1.000	600.000	-2.218
75.0	1.000	600.000	-2.218
80.0	1.000	600.000	-2.218
85.0	1.000	600.000	-2.218

Azim	Rel.FS	ERP [W]	dBk
90.0	1.000	600.000	-2.218
95.0	1.000	600.000	-2.218
100.0	1.000	600.000	-2.218
105.0	1.000	600.000	-2.218
110.0	1.000	600.000	-2.218
115.0	1.000	600.000	-2.218
120.0	1.000	600.000	-2.218
125.0	1.000	600.000	-2.218
130.0	1.000	600.000	-2.218
135.0	1.000	600.000	-2.218
140.0	1.000	600.000	-2.218
145.0	1.000	600.000	-2.218
150.0	1.000	600.000	-2.218
155.0	1.000	600.000	-2.218
160.0	1.000	600.000	-2.218
165.0	1.000	600.000	-2.218
170.0	1.000	600.000	-2.218
175.0	1.000	600.000	-2.218

Azim	Rel.FS	ERP [W]	dBk
180.0	1.000	600.000	-2.218
185.0	1.000	600.000	-2.218
190.0	1.000	600.000	-2.218
195.0	1.000	600.000	-2.218
200.0	1.000	600.000	-2.218
205.0	1.000	600.000	-2.218
210.0	1.000	600.000	-2.218
215.0	1.000	600.000	-2.218
220.0	1.000	600.000	-2.218
225.0	0.955	547.215	-2.618
230.0	0.911	497.953	-3.028
235.0	0.808	391.718	-4.070
240.0	0.705	298.215	-5.255
245.0	0.603	218.165	-6.612
250.0	0.502	151.202	-8.204
255.0	0.451	122.041	-9.135
260.0	0.401	96.481	-10.156
265.0	0.371	82.585	-10.831

Azim	Rel.FS	ERP [W]	dBk
270.0	0.341	69.769	-11.563
275.0	0.327	64.157	-11.928
280.0	0.314	59.158	-12.280
285.0	0.311	58.033	-12.363
290.0	0.308	56.918	-12.447
295.0	0.311	58.033	-12.363
300.0	0.314	59.158	-12.280
305.0	0.327	64.157	-11.928
310.0	0.341	69.769	-11.563
315.0	0.371	82.585	-10.831
320.0	0.401	96.481	-10.156
325.0	0.451	122.041	-9.135
330.0	0.502	151.202	-8.204
335.0	0.603	218.165	-6.612
340.0	0.705	298.215	-5.255
345.0	0.808	391.718	-4.070
350.0	0.911	497.953	-3.028
355.0	0.955	547.215	-2.618



FIGURE 1

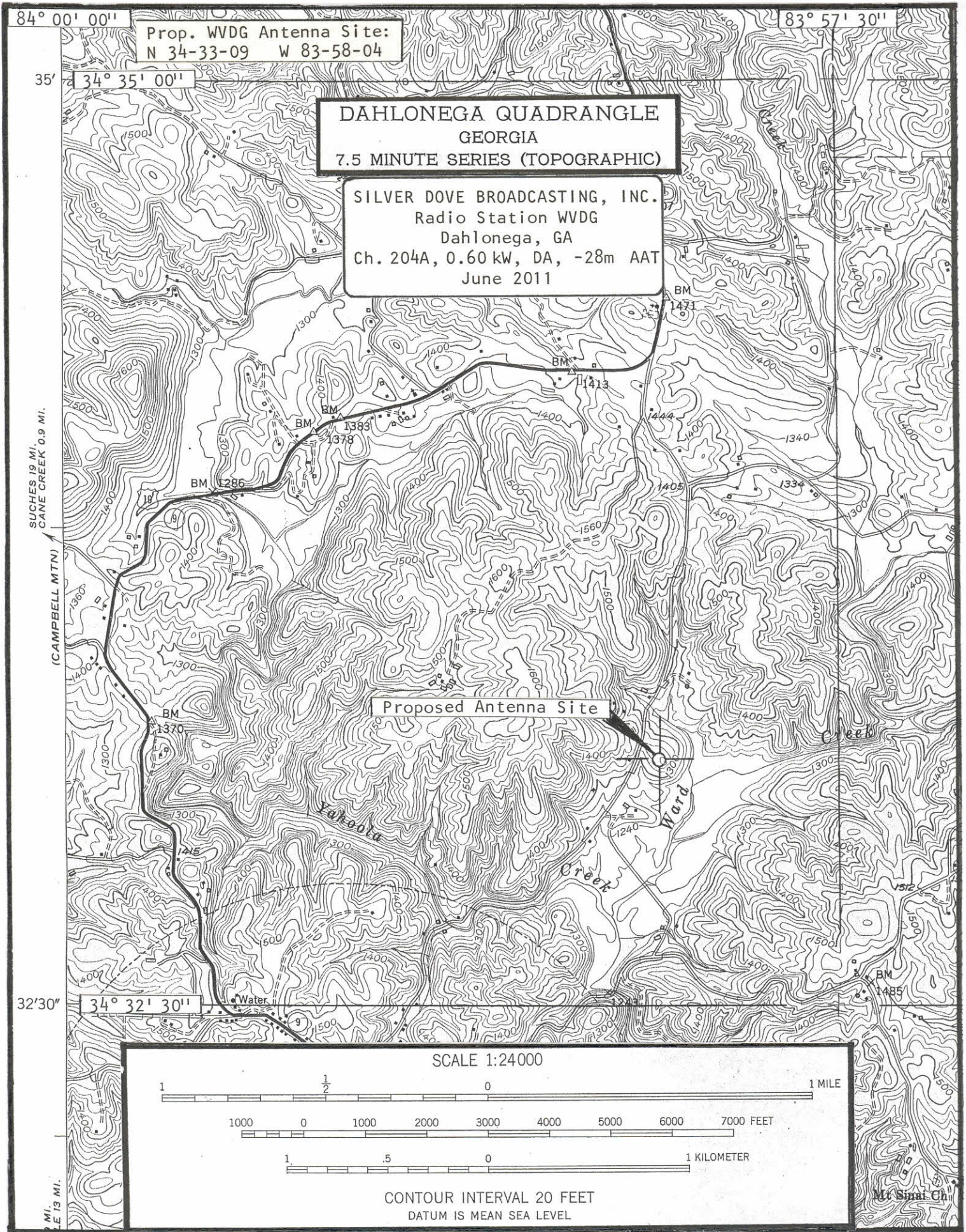
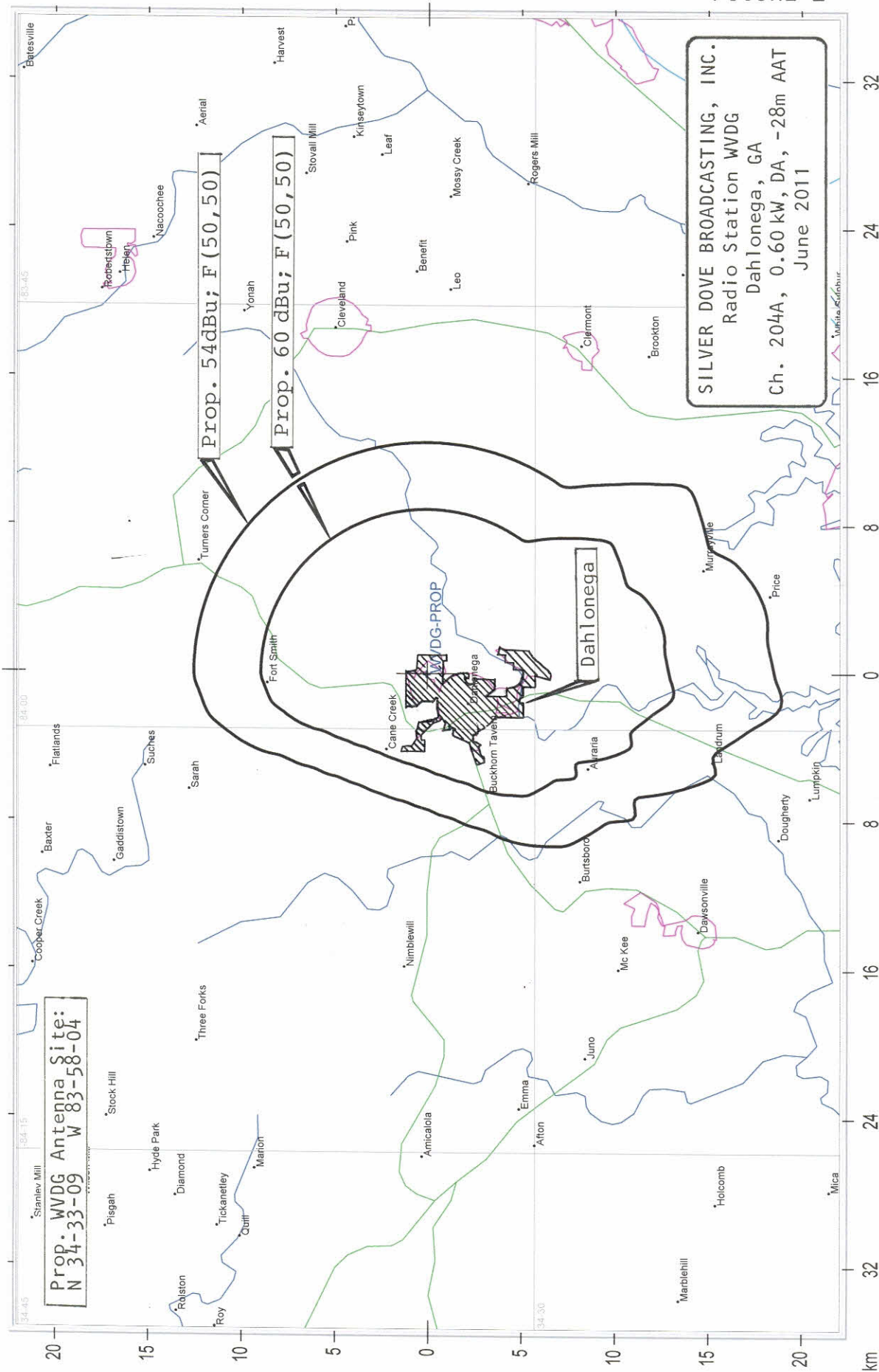




FIGURE 2

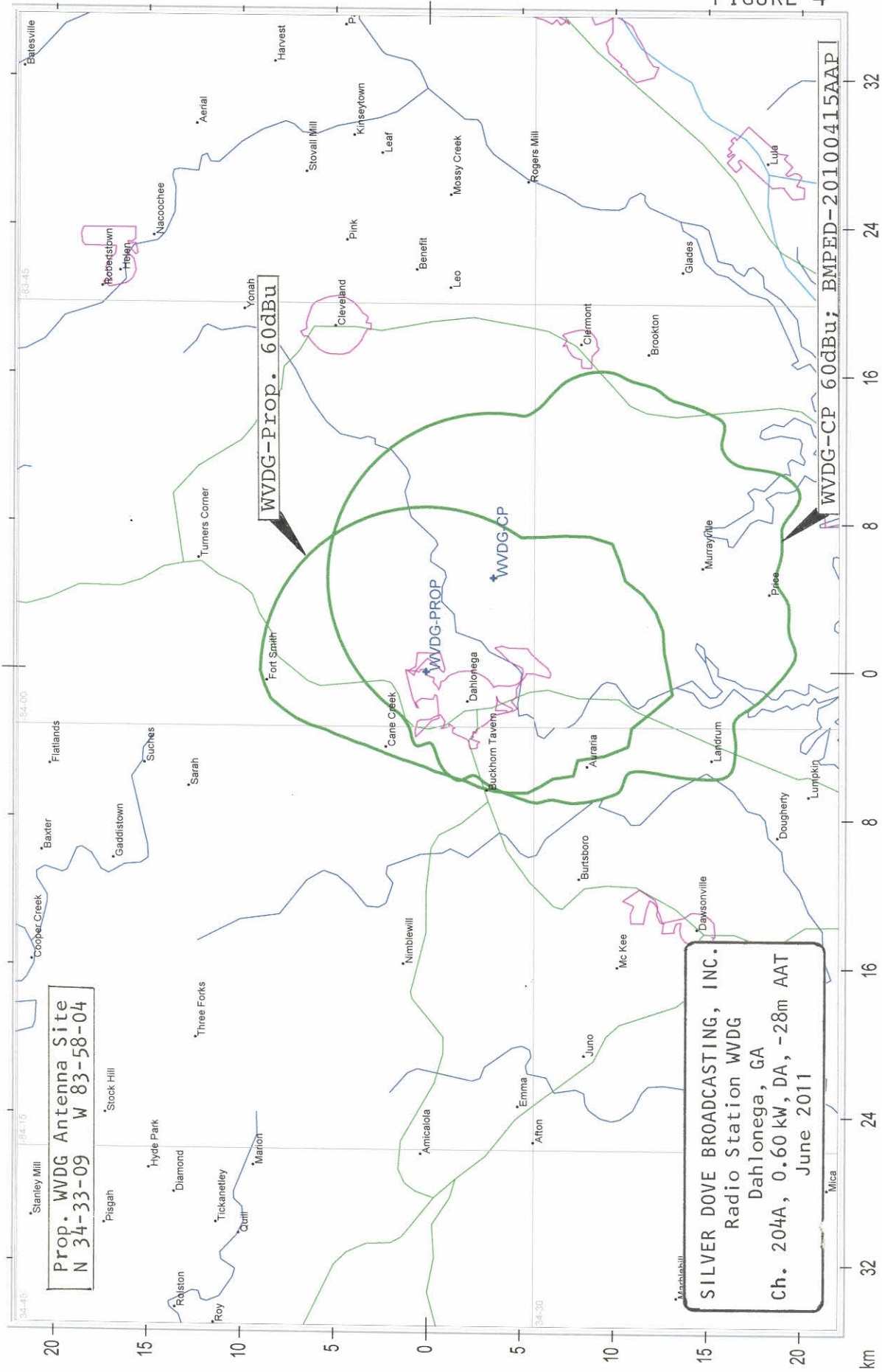
WVDG CH204A 0.6 kW DA 60 & 54 dBu Contour Map



The proposed WVDG 60dBu; F(50,50) contour covers 100 per cent of the city of Dahlonega, GA in compliance with the Commission's Rules affecting NCE FM stations.

FIGURE 4

WVDG Proposed & CP 60 dBu Contours



As shown, the 60dBu F(50,50) service contour of this proposed Minor Modification of Construction Permit substantially overlaps the 60dBu service contour of WVDG Construction Permit BMPED-20100415AAP, the authorization this proposal seeks to modify.