

**Attachment B-
Acoustical Study**

Exhibit 14
OZAH Case No: CU 24-05

CERAMI

March 28, 2023

Carol Jarvinen
jarvinenc@yahoo.com

Re: Dog Daycare
Acoustic Study for Conditional Use Permit
C&A #234910.0018

Dear Carol,

On March 16th, we visited 24432 Ridge Road, Damascus, MD to perform an acoustic study as it pertains to obtaining the Conditional Use Permit to operate a Dog Daycare on the property. Included below are our observations, analysis, and recommendations.

1.0 Montgomery County Zoning Code

The following applicable requirements are outlined in Montgomery County Zoning Code Section 31B-5:

- A person must not cause or permit noise levels that exceed the following levels within a residential noise area:
 - 65 dBA daytime, 55 dBA nighttime
- A person must not cause or permit noise that creates a noise disturbance, such as animal noise.

Please note that these are separate requirements, and that the definition of a “noise disturbance” is not predicated on the noise exceeding the 65dBA daytime or 55dBA nighttime limits. This is discussed further in **Section 3.3** below.

2.0 Observations

Per the provided zoning map, the rear of the house is located approximately 166 feet from the nearest property line. It is our expectation that this will be the worst-case scenario in terms of dog noise at the property line.

We understand that the Northeast property line is closer to the front of the house than the Southwest property line is to the rear of the house; however, the dog kennel will be located on the basement level of the property, which is partially on grade and partially below grade, as the property slopes down slightly towards the rear of the house. This creates a partial “barrier” between the basement and the Northeast property line.

The basement includes several windows; however, the weakest point in terms of sound isolation will be the exterior door, located at the rear of the house.



Figure 2: Exterior Basement Door

3.0 Analysis

3.1 Indoor Space

To calculate the expected noise at the property line from dogs within the basement of the building, we assumed the following:

- 15 dogs maximum;
- 1/8" thick monolithic glass included at the windows and doors;
- Distances between the basement and the property line as shown in Figure 1
- Ambient noise levels at each property line as shown in Table 1

We utilized previously measured noise data for a single large dog barking (97 dBA at 1') to simulate the future noise levels within the basement.

Taking all the above factors into account, we expect that noise at all property lines due to 15 dogs simultaneously barking within the basement (a worst-case scenario) will be as shown in Table 1 below and will meet the Zoning Code Requirements for both daytime and nighttime noise, provided the windows and door remain closed while the space is occupied with dogs.

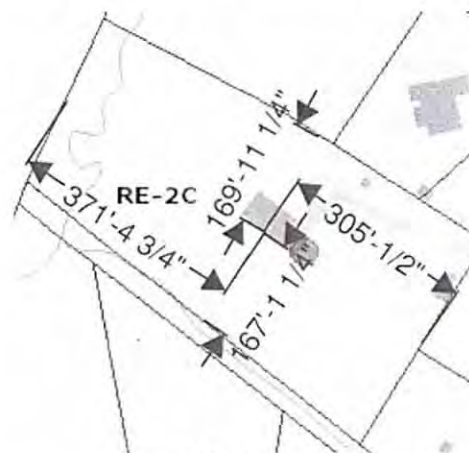


Figure 1: Zoning Map

Table 1: Noise Projections

Property Line	Distance	Ambient Noise Level	Projected Noise
Northeast	169'	37 dBA	48 dBA
Southeast	305'	44 dBA	45 dBA
Southwest	167'	46 dBA	50 dBA
Northwest	371'	43 dBA	44 dBA

3.2 Outdoors

We understand that only 2 dogs at a time will be outdoors on leash for elimination breaks. We expect that barking noise from these dogs will be below the 65 dBA daytime maximum requirement, but will exceed the 55 dBA nighttime requirement. If the dogs remain inside during nighttime hours (defined in the Zoning Code Requirements as 9pm-7am on Weekdays and 9pm-9am on Weekends and Holidays), we do not expect this to be an issue.

3.3 "Noise Disturbance"

As stated above in **Section 1** above, The Montgomery County Zoning Code, Sections 31B-5-b and 31B-5-c state that a person must not cause or permit noise that creates a noise disturbance, such as animal noise, even if the noise falls below the 55/65dBA limits.

This requirement is not quantifiable, as response to noise is personal and subjective, and is often affected by many factors. It is recommended that if the dogs utilizing the outdoor area bark consistently for several minutes, they be brought into the building to limit the potential for noise disturbance complaints.

This concludes our comments at this time. Please reach out with any questions you may have.

Regards,



James Meade