

8/5/2025

Hi Jessica and board members,

Upon doing research for how to mitigate sound/noise from an outside kennel situation, this is what I found to be most helpful. I have already looked into a few options and a solid wood fence on the Farquhar Road side of the kennel would be beneficial for not only sound but breakage of eyesight for the public and the dogs. As far as I know there are no opposed land owners on that side of this project.

On the side of the project for Caraboo Ln, there is a HUGE space and natural plant barrier before there is a house, but we can do something on that fence line if it proves a problem. Our fences will be 6 foot high and we can plant something on them or in front of the fence also.

The side facing Whippetree Road seems to be the problematic side where everyone is worried about noise. Whippetree road will be around 550' from the building with a heavy brush line and a large house in between the two. We had already planned on a heavily planted section of area by the kennels before we knew it would also be a sound absorbing feature. The people who are the most opposed to this project live 2 roads away on Kiowa Lane and I think are out of the prescribed 1000' radius. I have already had a fencing company come out to bid the job to fence so the dogs can't even get to the road on this piece of property. The projected start date is the first part of September.

We have also looked into utilizing a sound deterrent that I have attached to this research called The Dog Silencer MAX and detects barking up to 75 feet away and automatically responds with ultrasonic frequencies that only the dog can hear. These frequencies can reach dogs up to 300 feet away if unobstructed by barriers like fences or glass windows. Ultrasonic sound is inaudible to most humans.

Thank you for your consideration of this project,

Laura Serrano

## RESEARCH

### How far must a kennel be from homes to resolve the noise impact?

- Noise declines an average of six decibels for every doubling of distance.
- If the noise level is 100 dB at a distance of 50 feet from an outside dog run, then the level from an outside run with no noise abatement measures would be 81 dB at the outside of a home 400 feet away and 74 dB at 1,000 feet.
- Noise declines an average of six decibels for every doubling of distance.

A solid wood fence can help reduce the noise of dog barking in outdoor kennels, but it's important to understand the extent of this reduction and what factors influence it.

Here's a breakdown of how much a solid wood fence can muffle dog barking and related considerations:

### Noise reduction potential

**Blocking Line of Sight and Sound Waves:** A solid wood fence, particularly one with tight-fitting boards and no gaps, can act as a barrier to both the line of sight and sound waves. This can reduce visual stimulation that may trigger barking and physically block sound waves from traveling directly to observers.

### Decibel Reduction

While no fence can eliminate all barking noise, a well-constructed, solid wood fence can reduce decibel levels. Some sources suggest a good noise barrier fence can achieve a reduction of 5-10 decibels. Each additional foot of fence height above the line of sight can achieve approximately 0.5 dB further noise reduction.

### STC Rating

Wood fences typically have a Sound Transmission Class (STC) rating of 23. STC ratings measure a material's ability to block sound transmission, with higher numbers indicating better sound-blocking capabilities. However, it's important to note that the STC rating alone doesn't account for all aspects of noise reduction in an outdoor setting.

### Factors affecting effectiveness

**Fence Height:** A taller fence provides a more effective barrier against sound waves, especially if it breaks the line of sight to the barking dogs. Studies suggest a fence should be at least 50% higher than the noise source for optimal noise reduction.

**Fence Density and Thickness:** Denser and thicker materials absorb and deflect sound more effectively than thinner or less dense materials. A thicker wooden fence offers more mass to impede sound leakage.

**Gaps and Openings:** Even small gaps between fence boards can significantly compromise noise reduction by allowing sound to pass through.

**Type of Noise:** High-frequency sounds, like dog barking, are generally easier to block than low-frequency sounds, such as traffic noise.

**Distance to Noise Source:** Placing the fence closer to the barking dogs rather than the listener can enhance its effectiveness in reducing noise.

**Surrounding Environment:** Nearby structures or landscaping can either reflect or absorb sound, impacting the fence's overall noise reduction performance.

### Strategies for maximizing noise reduction

**Solid Construction:** Choose a fence with a solid construction, such as tongue-and-groove boards, to minimize gaps.

**Increase Height and Thickness:** Opt for the tallest and thickest fence allowed by local regulations to improve sound blockage. A taller fence is more effective in blocking sound waves, particularly from higher sources like traffic noise. Ideally, the fence should be at least 50% taller than the noise source to provide optimal noise reduction.

**Seal Gaps:** Ensure all gaps and cracks in and around the fence are properly sealed to prevent sound leakage.

**Combine with Other Solutions:** Fences alone cannot completely eliminate dog barking noise.

Consider combining a fence with other noise reduction strategies, such as:

- **Acoustic Panels:** Install specialized acoustic panels designed to absorb and block sound waves.
- **Landscaping:** Utilize dense vegetation, such as shrubs and trees, to create additional sound barriers. Mixed broadleaf and evergreen conifer plants can lower noise by 10 decibels. Broadleaf thickets need to be 25 feet (7.62 m) while conifers should be 50-100 feet (15-30 m) broad. Even deciduous plants are effective sound absorbing plants. For maximum benefits the plants should be dense, varied, and have foliage touching the ground. By strategically selecting and planting a combination of these recommended trees and shrubs, you can create a more tranquil and enjoyable outdoor space in Northern California, effectively reducing the impact of unwanted noise.
- **Manage Barking Triggers:** Reduce visual stimulation by using opaque barriers. Control acoustic stimulation by minimizing irritating noises and using soothing music. Train dogs for "quiet" and reward them when they are not barking.
- **Provide Comfort:** Ensure the kennel is a comfortable and stimulating environment for the dogs, reducing stress and potentially curbing excessive barking.

In conclusion, a solid wood fence can be a valuable tool in reducing dog barking noise in outdoor kennels, particularly when designed and installed strategically. However, it's crucial to combine a well-built fence with other noise reduction strategies.



## Effective Range Up To 350 Feet!

### Stop Barking: Any Dogs, Yours or Neighbor's!

- ✔ **Manual Activation:** Use the remote control from up to 350 feet away.
- ✔ **Automatic Operation:** Seamless activation within a 75-foot range.
- ✔ **Irritating Noise:** Whenever a dog barks, the device releases a powerful high-pitched tone.
- ✔ **Quick Learning:** Most dogs quickly learn that staying quiet helps them avoid this bothersome noise.
- ✔ **Effective Sound:** Dogs find this sound highly irritating, comparable to a siren's wail.

**Effortless Operation:** Enjoy seamless and extended use with the STUNICK SB1.

## Effective Range Up To 350 Feet!

- ✔ **Versatile Use:** Handles barking from your dog or neighbors' dogs.
- ✔ **Up To 350 Feet:** Perfect for managing barking up to 350 feet away, whether from your dog or a neighbor's.
- ✔ **Reclaim Your Peace:** Say goodbye to noisy disruptions and enjoy your tranquility once more.
- ✔ **Effortless Management:** Enjoy peace and quiet with effective range up to 350 feet.

**Important:** For best results, the anti barking device needs to have a clear line of sight with the dog(s) you wish to train.

## Install Where You Need It!

- ✔ **In a Tree:** Discreet placement for effective day or night training.
- ✔ **In Your Yard:** Teach your dog(s) to stop barking.
- ✔ **On Your Fence:** Use extendable feet for added stability.
- ✔ **On Your House:** Direct line-of-sight over the neighbor's yard.

**Peaceful Environment:** Whether it's your dog or your neighbor's, stopping the barking will bring peace and quiet that everyone will appreciate!

1:19 4G 40%

STUNICK

STUNICK SB1 uses safe ultrasonic sound to quiet your dog or a neighbor's, with a range of up to 350 feet. It's non-portable device is designed to make the presence of barking dogs more tolerable by effectively putting a stop to their excessive barking. Say goodbye to the frustration and sleepless nights caused by noisy neighbors and give this innovative solution a try. Note that the full 350 foot range is accessible only with the remote control.

- ✔ **Control:** Stop your dog's or neighbor's dog's barking.
- ✔ **Versatile Use:** Suitable for indoor and outdoor settings.
- ✔ **Weather Resistant:** IP65 rated for durability.
- ✔ **Includes:** Remote control and USB-C adapter.
- ✔ **Rechargeable:** USB-C with adapter wall charger.


**STUNICK SB1 Anti Barking Device**  
 \$129.95  
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