

## Can You Hear Me Now?

Shelters turn down the volume with nifty design, cool construction, and enrichment programs

BY JIM BAKER



BRENT ISENBERGER PHOTOGRAPHY/ISENBERGERPHOTO.COM

Noise-control measures at the Animal Rescue League of Iowa include full-height dog enclosures with Plexiglass fronts, which prevent sound transmission better than typical runs, reducing overstimulation and promoting better behavior.

**When the Potter League for Animals** moved into its sparkling new \$7.2 million facility in Middletown, R.I., in 2009, it was everything that executive director M. Christie Smith had ever wanted in a shelter.

Designed by ARQ Architects of Kittery, Maine, a small firm that specializes in animal care facilities, the new shelter was modern, spacious, and even LEED Gold Certified, the first shelter in the country to attain that benchmark for green buildings.

It was also missing something.

“The morning after we moved all the dogs in, I was standing in the lobby, and

I went, ‘This is unbelievable, I can’t hear anything,’” Smith recalls. She had a staff member go and find a specific dog who was known to be noisy, and do something to make the dog bark. “So they got this dog barking, and I could hardly hear it. ... It was so much quieter.”

That’s when Smith realized the one thing her cutting-edge shelter was lacking: the racket of barking dogs.

Noise control is a major issue in shelters, where the wail and woof of stressed-out dogs provides an often-inescapable soundtrack to daily existence. It’s a problem for staff and

volunteers, who have to spend hours each day working in a painfully—and potentially dangerously—loud environment. It’s a turn-off for potential adopters, who might rather flee than endure the din. And the sonic assault is hard on the animals—not just dogs, but cats and other species, too. But it doesn’t have to be that way.

Smith is still adjusting to the tranquility at the new Potter League facility. At the old shelter, when the kennel was full and the dogs started barking, the noise level could hit 115 decibels, making it impossible to talk to adopters while they were looking at the dogs.

(For comparison, 120 decibels is roughly equal to the noise made by a jet airplane taking off, according to the American Speech-Language-Hearing Association.) Smith says it's still instinctive for her to tell visitors, "Before you go in to look at the dogs, I need to have a conversation with you." It's taking me a while to realize that is no longer true."

It's no accident that her shelter is calm and quiet: Noise control was part of the plan from the earliest stages of development, says Smith, who recognized that the loud factor had been a problem at the old facility. But even if your agency is a long way from having the funds to build a state-of-the-art facility, there are things you can do to bring the local shrill-o-meter back into the healthy range.

So before you resign yourself to noisy kennels as a simple fact of life, and spend the next few years wearing earplugs and lip-reading with your colleagues at work, know this: It doesn't have to be that way. Thanks to creative architectural design, a wide range of building products with improved acoustic qualities, and operational measures that can calm even the craziest kennel, shelters around the country are discovering that their kennel riots can get much more quiet.

### Going Acoustic

If you are on the verge of constructing a new building—or if you're thinking about it—you're in an ideal position to do something

about noise. Shelter design experts agree: Acoustics should be a major consideration right from the start of planning.

The beauty of new construction is that architects and engineers are starting with a blank sheet of paper. They can specify exactly what they need in order to achieve good noise control, without the need to change their plans in order to work around an existing structure or to minimize disruption to shelter operations. "There's usually no compromises," says Scott Learned, president of Design Learned Inc., a Norwich, Conn., engineering firm that designs building systems for shelters, veterinary hospitals, and kennels.

The only downside, says Learned, is that clients are often shocked at the cost of building a shelter that will do everything they want it to. "They're thinking, 'Oh, well, an office building costs 120 bucks a square foot.' These buildings cost 250 bucks a square foot. And that is the part that's tough to get over with new construction," Learned says. But for those who've got the cash to spend, he says, "We can *guarantee* an odor-free, noise-free—or greatly noise-mitigated—environment. I have places with hundreds of dogs that are almost dead silent."

Given the freedom to start over and design a new shelter, Smith and ARQ made major changes to the way Potter League houses its dogs. For example, they



The Potter League houses its dogs in individual, indoor/outdoor rooms that use laminated glass (both clear and translucent panels) in anodized aluminum frames and a sprayed acoustical plaster on the walls to control noise.

dispensed with the old model of one long kennel in which dogs are placed in opposing runs divided by a single aisle. Instead, they devised a floor plan of 20 individual, indoor/outdoor rooms with laminated glass fronts. Translucent dividers were incorporated to limit the dogs' face-to-face contact and thereby cut down on visual stimulation that often leads to barking. The walls and ceilings were treated with a sprayed acoustical plaster that can stand up to being sprayed with extremely hot water and works to maximize sound absorption. Acoustical ceiling tiles were chosen for hallways, the training center, and other public spaces. The result: vastly reduced noise transmission from

CATEGORY	DECIBEL LEVEL	EXAMPLES	RECOMMENDATIONS
Dangerous	About 110 dBA and up	Firearms; fireworks and jet engines at close range; loud concerts or music clubs	Always use ear protection
Harmful	About 100-110 dBA	Chainsaw; snowmobile; loud aerobics class	Protect ears when exposure exceeds 15 minutes
Potentially Harmful	About 85-100 dBA	Circular saw; loud string trimmer or power blower; motorcycle at high speed; loud wedding reception; loud mower; loud vacuum cleaner	Ear protection recommended, especially for regular, lengthy exposure
Relatively Safe	About 85 dBA or less	City traffic noise; hair dryer; electric string trimmer or mower; quiet vacuum cleaner; noisy dishwasher; noisy air conditioner	Ear protection not needed

To deter long-term hearing loss, *Consumer Reports* developed the above recommendations based on the findings of the National Institute on Deafness and Other Communication Disorders.

the rooms, and vastly reduced reverberation within them.

When the Animal Rescue League of Iowa was ready to replace its 13,000-square-foot shelter, it turned to Animal Arts, an architectural firm in Boulder, Colo., that designs shelters and veterinary hospitals. “We knew noise control is extremely important to us, because we basically didn’t have any in the old building,” says Tom Colvin, executive director of the Des Moines organization.

The goal was not only to introduce noise-control measures into the shelter’s design, but also to create an environment conducive to calm canines. The new, 43,000-square-foot facility, completed in October 2008, features Plexiglass-front runs arranged so that dogs aren’t always staring at each other, and multiple exits for staff and volunteers to take dogs out for walks, rather than one long aisle leading to a single door. Shelter dogs tend to get excited and bark at the sight of other dogs walking past their runs; taking a shorter route to a closer exit cuts down on the opportunity for these interactions.

Windows and skylights let in direct sunlight, and a powerful HVAC system circulates 100 percent fresh air throughout the shelter, including 15 air exchanges per hour in the adoption area—two factors that Colvin believes keep the animals happy and comfortable.

“Obviously, if we can keep the dogs quiet to begin with, if we can keep them not stressed, they’re going to be less likely to bark in the first place,” he says.

### The Sound of Music

Although addressing noise issues in design is crucial, shelters don’t have to finance and build a new facility to improve noise control in their kennels. A less-costly renovation project can still achieve great results. Architects face constraints when working with a shelter that’s 30 or 40 years old, but the same principles of reducing noise transmission and reverberation apply to retrofitting as they do to new construction.

When Animal Arts remodeled the housing in the kennel area of the SPCA Serving Erie County in Tonawanda, N.Y., it did so with acoustics in mind. The organization, located in an older facility, wanted to improve its kennels, where the sound of barking



MICHELLE RILEY/THE HSUS

Staff at Loudoun County Animal Care and Control use clicker training to shape the behavior of shelter dogs, who quickly learn to stay calm and quiet if they want to get a treat. Two “pupils” show they understand how the game works, with Jenny Swiggart, left, advanced animal care and behavior coordinator, and staff member April Primus.



MICHELLE RILEY/THE HSUS

Dogs at Loudoun County Animal Care and Control are given many physical and mental outlets to keep them busy, so they don’t get bored and start barking. Using a clicker, Jenny Swiggart trains this newly arrived dog to maneuver the shelter’s agility course.

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was overwhelming. Architects replaced the traditional runs with individual “real life” rooms for each dog. Finishes were improved with acoustic products. Natural light was let into the space, increasing the psychological comfort of the dogs. “By the end of the renovation, this was actually the quietest place in the shelter,” says Heather Lewis, an architect with Animal Arts.

If that type of project proves too costly for a shelter’s budget, there are still plenty of smaller but effective fixes. Architects and contractors can look at a variety of noise-absorptive products that inhibit reverberation (sound waves bouncing off of surfaces). A few examples would be acoustic ceiling tiles, special plaster finishes, rubber floor covering, and sound baffles (panels or pads of acoustic material).

To reduce sound transmission (noise moving from one space to another), look for solutions in acoustic (thick or multiple-layer) glass, solid-core doors with seals or gaskets to stop noise from “leaking” through gaps, and concrete-block walls, which have the mass to block sound from escaping a space.

Masking the noise in a kennel with background music is a quick, easy, and inexpensive way to improve the environment and reduce stress. Sound isn’t additive, so when a shelter plays classical music, it doesn’t make things louder. “It’s just filling in different frequencies, and so it has a tendency to mask the other noises,” Lewis says. “That’s actually a big reason why they have fountains in big hotel lobbies, so you don’t hear the clattering of suitcases and that sort of thing.”

The key to a renovation project, Learned notes, is to find a fix that works, is cost-effective, is least disruptive to shelter operations, and doesn’t require another major building component—such as the HVAC system or the roof—to be taken down and rebuilt.

### Stop that Barking

Some basic improvements to canine happiness can also help you quiet a kennel without hiring an architect, tearing down walls, or raising a cloud of dust.

Jenny Swiggart, advanced animal care and training coordinator at Loudoun County Animal Care and Control in Waterford, Va., uses a combination of enrichment and clicker

## Resources

The Occupational Safety and Health Administration (OSHA) has strict regulations regarding acceptable decibel levels (particularly on a continual or routine basis) to protect employees. Its guidelines state that when employees are exposed to 85 decibels or higher on an eight-hour average, ear protection must be available and a general hearing conservation program instituted. For more information, visit [osha.gov](http://osha.gov).

training to keep a lid on the noise at her shelter. Staff and volunteers keep dogs active with canine play groups, “bobbing for treats” in a kiddie pool, and sessions of chasing after soap bubbles.

“Everything we do here is geared toward getting the animals to think and interact with their environment, so we’ll do a lot of scent work,” Swiggart says. That means hiding scents like cinnamon or vanilla in pots, pans, or scent sticks—PVC pipes with holes in them, capped at both ends. “And then once they find it, they will roll it around and play with it, because it’s got this really interesting smell inside of it.”

The dogs get plenty of exercise to burn off energy, going with volunteers for frequent walks on a nearby bike path or even off-site for longer jaunts. The idea is to get them nice and tired, and give them opportunities to engage their minds. That’s where the clicker training comes in. Staff use a clicker noisemaker, along with treats, to look for, shape, and reward appropriate behavior. This technique is used with great success to quickly teach dogs how to stay quiet in their kennels. This kind of training is easy to teach, and easy to use. It works, too, keeping the kennel quiet—most of the time.

“You have a nice, quiet environment, and then you get a foxhound down there, and the foxhound’s like ‘Wooo wooo’ and super excited, and then you have to kind of start over,” Swiggart says. But, she says, “It actually doesn’t take a long time at all. That’s the beauty of clicker training. ... [Dogs] want to know, ‘What can I do to make that silly person give me a click and a goodie?’”

Stephanie Collingsworth, a certified professional dog trainer, directs behavior assessment and training at Multnomah County Animal Services in Portland, Ore. She uses a combination of strategies to reduce noise. The kennel there has 25 inside/outside runs on each side of an aisle, so the dogs are face-to-face all day. Staff will move dogs who are obviously inciting each other, or stagger them as space allows, but mostly they rely upon enrichment techniques, treating barking as a symptom of stress or boredom.

Dogs are given food-stuffed Kongs about 10 minutes before the shelter opens, to minimize their initial excitement when visitors arrive. Volunteers work with the dogs throughout the day, using food buckets on the front of their runs. If there’s a problem barker, they treat the barking as a symptom of the dog’s stress level, and offer him down time in a crate in an office or supervised on a dog bed. They also might offer more stuffed Kongs during the day, or extra potty walks.

Volunteers are encouraged to take the shortest route out of the kennel when walking the dogs. “In a building where you *have* to walk past other dogs, I would have someone throw high-value treats a few steps *behind* the dog being walked,” Collingsworth says. “If this happens over and over again, you will classically condition the dogs in their kennels that the appearance of a dog in the aisle signals a treat coming.”

When it’s possible, the staff puts dogs together for playtime, which has dramatically reduced barking; the dogs in their runs are either exhausted from playing, or, since they already know the dog in the aisle, they seem to decide he’s not worth barking at. Invariably, there’s a dog who’s not satisfied with any of these measures, and then the staff looks for a foster home, or transfer.

“But overall, the enrichment program has done a ton to reduce barking. On an average day, you can stand inside the dog kennels and talk in a normal voice to an adopter,” Collingsworth says. “It’s not perfect. God knows, you’ll come in on a day when it’s all fallen to pieces, and everybody’s barking, or we’ve just got a really jacked-up population of dogs. It happens where you’ve got a week where it’s just, ‘Gosh, these dogs are really hard to keep satisfied.’ So it’s not perfect, but when it works, boy, it works really, really well.” **AS**

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