



REQUEST FOR QUALIFICATIONS FOR AN ANIMAL RESCUE CENTER
ARCHITECTURAL DESIGN SERVICES

JACKSON COUNTY

MARCH 5, 2019



**mcmillan
pazan
smith**
ARCHITECTURE



Don Adams
Jackson County Manager
Jackson County Justice / Administration Center
401 Grindstaff Cove Road - Suite A2017
Sylva, NC 28779

April 5, 2019

Re: Jackson County, North Carolina RFQ Animal Rescue Center / Architectural Design Service

Dear Mr. Adams,

The design of your new Animal Shelter is an exciting opportunity to improve the lives of thousands of animals in Jackson County, and as proud pet owners we would be delighted to offer our talents toward your vision.

Why Consider McMillan Pazdan Smith?

- **You can expect great outcomes.**
Our animal shelter clients frequently hire us for subsequent phases of work because they've surpassed their goals. From reducing their Length of Stay by 75% in two years to doubling their net income, we help shelters consistently achieve great outcomes through our designs.
- **You gain the benefit of our perspective across multiple industries.**
What can a retail outlet teach us about animal shelter design? A lot – especially because you compete with PetSmart, cat cafés, and others for adopters, and because pet-related retail items can offer a strong revenue stream to shelters. Members of our proposed team have experience in retail, healthcare, industrial, and commercial design sectors, and we cross-pollinate the best ideas from our for-profit clients to bring innovative solutions to our not-for-profit clients.

Unique Advantages of Our Team

- **Ability to test the design before you build it.**
Our Lean design approach makes it unlikely that you will overbuild or underbuild. We work with you to first optimize staff and animal flow, and then form our design around those processes which results in streamlined building footprints. We use computer simulation modeling to test the efficiency of our designs and demonstrate shortened Lengths of Stay.
- **Expertise in cost-effective construction techniques.**
We have experience in housing animal shelters and clinics in prefabricated buildings and repurposed warehouse space, helping our clients achieve their goals amidst capital constraints.
- **Expertise in enhancing revenues.**
We help nonprofits and local government weather fluctuations in operating capital by creating spaces that enable multiple revenue stream opportunities.

Thank you for considering our team for this project. We would be honored to have an opportunity to work with you. Please contact me if you have any questions: 864 316 1010 or rsmith@mcmillanpazdansmith.com

Ron Smith, AIA
Principal In Charge

A handwritten signature in black ink, appearing to read "Ron Smith", written in a cursive style.

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LOVE
IS A
FOUR
LEGGED
WORD

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mcmillan
pazzan
smith
ARCHITECTURE



Medical Center

Spay & Neuter
Vaccine Clinic
Pet Surrender



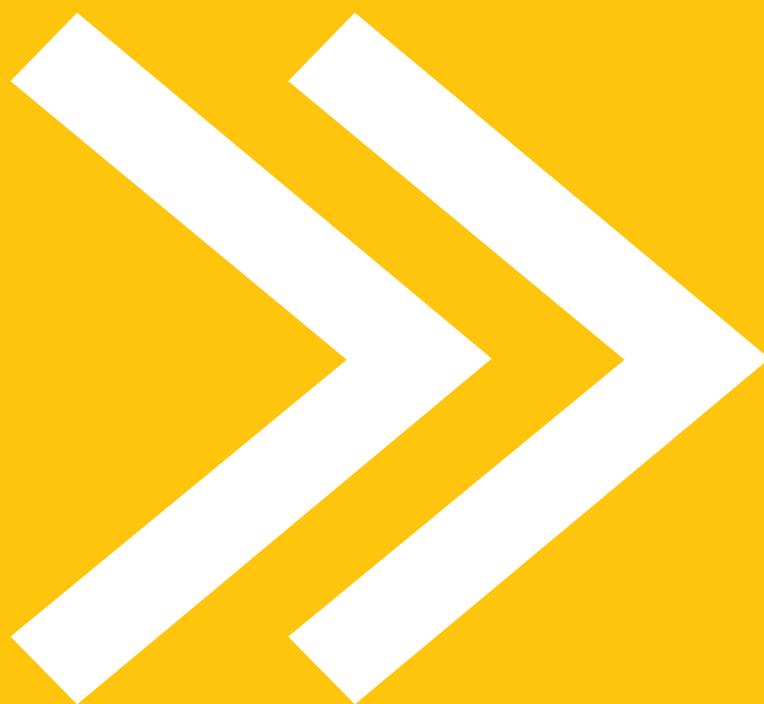
Vaccine Clinic



Spay
Neuter

1

**FIRM
OVERVIEW /
WORKLOAD**



MCMILLAN PAZDAN SMITH

FIRM OVERVIEW

McMillan Pazdan Smith is a regional, studio-based architecture, planning and interior design firm whose mission is to help clients create environments that embody their personalities, enrich their lives and enhance the quality of their community.

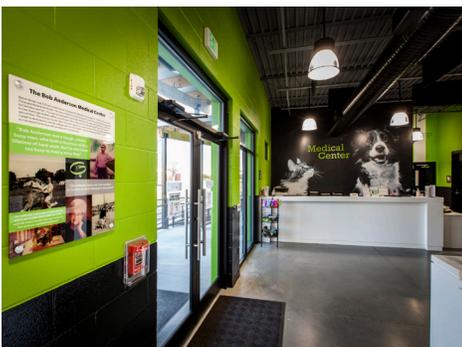
At McMillan Pazdan Smith, good design is integral to all of our services, creating functional, beautiful, cost-effective and well-designed buildings that are long lasting and contribute to the success of our clients and the quality of life for our community. Good Design is client focused, service oriented, value driven, and award winning. Through our collaborative culture, creativity and innovative design solutions, McMillan Pazdan Smith enjoys a diverse portfolio of complex, sophisticated projects that have received local, regional and national recognition.

Practicing since 1955, McMillan Pazdan Smith currently has offices throughout the Southeast in Charleston, Greenville and Spartanburg, SC; Asheville and Charlotte, NC; and Atlanta, GA.

“We gave them best in class facilities that we had studied to review but **they took the research many steps further**. They delved into our business strategy—thoroughly understanding it **and ensured that the strategy came to life** in our new building.”



– **Kim Pitman**
Executive Director
GREENVILLE HUMANE SOCIETY



NAME + OFFICE LOCATIONS

COMPANY NAME

McMillan Pazdan Smith, LLC

OFFICE WORK PERFORMED FROM:

Greenville Office

400 Augusta Street, Suite 200

Greenville, SC 29601

o: 864 242 2033

f: 864 242 2034

Additional Offices:

Asheville

34 Commerce Street

Asheville, NC 28801

o: 828 398 5016

Charlotte

1307 West Morehead Street

Suite 102

Charlotte, NC 28208

o: 980 201 3035

Atlanta

434 Marietta Street

Suite 105

Atlanta, GA 30313

o: 678 251 4602

Charleston

121 Calhoun Street

Charleston, SC 29401

o: 843 566 0771

Spartanburg

127 Dunbar Street

Spartanburg, SC 29306

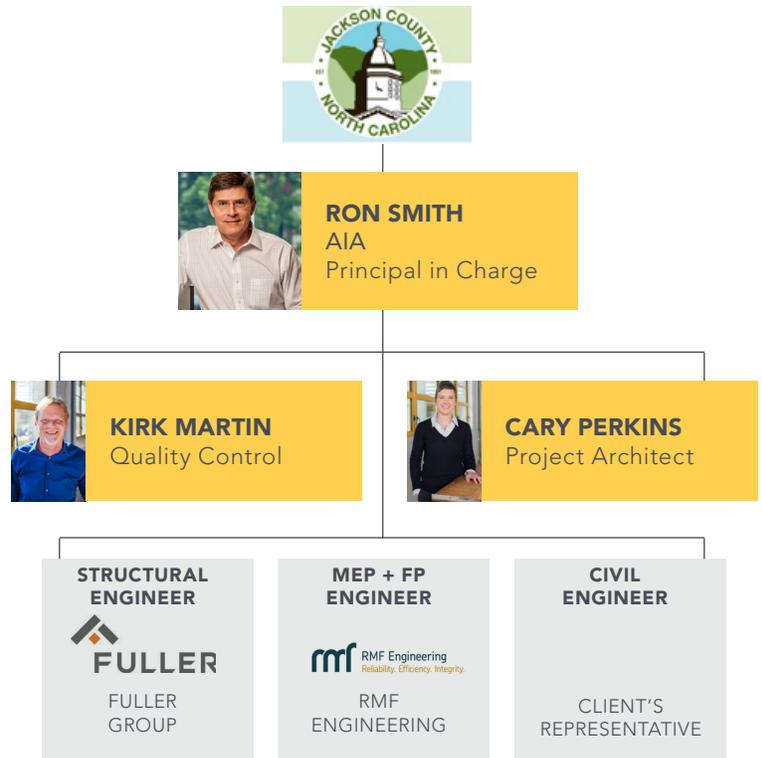
o: 864 585 5678

HISTORY + ORGANIZATION

McMillan Pazdan Smith Architecture is an S-Corporation, initiated in the state of South Carolina and is a Limited Liability Corporation (LLC). With a history of principals practicing since since 1955, the present company has been in business since 2009, when McMillan Smith & Partners Architects, established in 1992, and Pazdan Smith Group Architects, established in 1993, merged. Currently the firm has 244 total employees, including 92 registered architects divided between seven studios. Our animal

shelter projects are supported by our Community Studio based in Greenville, SC. Additional support comes from our North Carolina offices in Asheville and Charlotte.

ORGANIZATIONAL CHART



WORKLOAD

All team members have availability for your project

The individual team members who have been assigned to your project have a stable workload but have availability to immediately provide the appropriate design services to meet your needs. These firm resources are available to begin work as soon as necessary.

One of the advantages of McMillan Pazdan Smith's structure and size (240+ employees), is our ability to manage variations in workload to accommodate client needs. Our studio-based structure provides small studios in which projects are assigned, designed, and managed carefully. Additional resources, either in expertise or document production capacity, can be provided should a client's schedule change.

2

**PROJECT
TEAM**



RON G. SMITH, AIA

PRINCIPAL IN CHARGE

Ron guides the firm's design efforts, gaining experience in a wide variety of architectural building types. Recognized as a successful consensus builder, Ron can quickly understand the unique needs of each client, providing guidance and management of critical decisions during the project design process. He excels at capitalizing on value for a client, without sacrificing aesthetic quality, and he has received numerous awards and publication opportunities. Ron is a Managing Principal of the firm.

PROJECT EXPERIENCE

Spartanburg Humane Society

New Facility

York Veterinary Hospital

New Facility

Cleveland Park Animal Hospital

Addition

Tryon Equestrian Center

The Legend's Club

New Facility

NFL Carolina Panthers

Bank of America Stadium

Renovation, Addition

Conference Room

Renovation

Indoor Practice Facility

Study

Strength & Conditioning Area

Renovation

Team Areas

Renovation

Training Camp Viewing Area

Bank of America Stadium Ticket Office

Expansion, Renovation

Jackson County School District

Scotts Creek Elementary

New Facility

Charlotte-Mecklenburg Schools

Olympic High School

Addition and Renovation

Smoky Mountain Center for Mental Health

New Facility

Jackson County Public Library Complex

Historic Renovation, Addition

Jackson County

Department of Social Services

New Facility

Cherokee County Family YMCA

New Facility

Family YMCA of Greater Augusta

Aiken Branch

New Facility

YMCA of Greater Spartanburg

Thomas E. Hanna Family YMCA

New Facility

City of Spartanburg

Barnet Park + Zimmerli Amphitheatre

New Facility

University of North Carolina at Asheville

Ramsey Library

Master Plan

University of North Carolina Pembroke

Football Stadium Seating and Field House

New Facilities

University of North Carolina at Charlotte

Softball Training Facility

New Facility

Western Carolina University Campus + Academic Master Plan

Noble Residence Hall

New Facility

The Spartanburg County Foundation

New Facility



EDUCATION

Bachelor of Arts in Design

Clemson University, 1983

REGISTRATIONS

SC, NC, GA, VA

PROFESSIONAL AFFILIATIONS

Spartanburg Council of Architects,
Member

South Carolina American Institute of
Architects, Member

American Institute of Architects,
Member

National Council of Architectural
Registration Boards, Member

CIVIC ACTIVITIES

Spartanburg Convention & Tourism
Board, Advisory Board

Spartanburg Downtown Rotary Club

Leadership Spartanburg Board of
Regents, Past Chairman

SRHS Foundation Heart Center
Board, Past Member

South Carolina Athletic Hall of Fame
Board of Directors, Past Member

2002 March of Dimes Walk America
Honorary Chairman

CARY PERKINS, AIA

PROJECT MANAGER / PROJECT ARCHITECT

Cary is an architect in the Community Studio with 13+ years of experience focused in non-profit, community, and cultural spaces. Her passion for animal-related projects is rooted in the belief that a shelter's overall success within the community is closely tied to the health of its physical environment. These goals are mutually beneficial that can be solved through good design.

PROJECT EXPERIENCE

Charlotte Animal Referral and Emergency C.A.R.E. CLINIC

New Facility
Project Manager

Greenville County Humane Society

Phase I - Adoption Center
Renovation
Project Manager, Project Architect

Phase II - Medical Center

New Facility
Project Manager

Phase II - Foster Center

New Facility
Project Manager, Project Architect

Aiken County Animal Shelter

Phase I - New Facility
Phase II - Addition
Project Manager, Project Architect

Asheville Community Theater

Renovation
Programming Leader

AnMed Health

Jenny Gilmer Sculpture Fountain
North Campus Artwork
Women's + Children's Cancer Center Art Program

Arcadia Creativity Mill

Renovation
Project Manager, Project Architect

Columbia Metropolitan Convention Center

Renovation, Expansion, and Feasibility Study
Project Manager

Wofford College

Rosalind S. Richardson Center for the Arts
New Facility
Project Manager

Christ Church Episcopal School Performing Arts Center

New Facility
Project Manager, Project Architect

Clemson University

Lee Hall School of Architecture, Arts + Humanities
Restoration, Renovation, Addition
Design Team Member, Graphic Designer

McBee Station

Mixed-Use Development
New Facility
Intern Architect, Designer

Table 301

Southern Pressed Juicery
Interior Upfit
Project Manager, Project Architect

YMCA of Greenville

Signage and Donor Recognition Various Branches
Project Manager, Project Designer

Monastery of the Holy Spirit

Master Plan
Intern Architect



EDUCATION

Master of Architecture
Clemson University, 2004

Bachelor of Fine Arts
Converse College, 1996

SUPPORT FOR ANIMALS IN THE COMMUNITY



In April of 2017, with Cary's help, our firm co-sponsored "Puppies and Pints" with Upstate Craft Beer, a benefit that helped raise funds for the Greenville Humane Society's medical building capital campaign. All of the puppies at the event were adopted!

KIRK MARTIN

COMMUNITY STUDIO QUALITY CONTROL DIRECTOR

Kirk is an architectural designer in the Greenville Community Studio with a career that spans over forty years, with 15 of those years spent with McMillan Pazdan Smith. His role in the firm is focused on blending technical acumen with design sensibility through every project phase. In the Community Studio, responsibilities are team organization based including Construction Document planning, scheduling, and execution for both the drawings and the project manual. Outside of the Studio, Kirk serves as a mentoring technical and planning resource across all offices, having been a member of several internal Quality Control, Construction Administration, Standard and Specification Committees.

PROJECT EXPERIENCE

Document Coordination and Quality Control on the following:

Aiken County Animal Shelter
New Facility

Lancaster County Animal Shelter
New Facility

Warehouse Theatre
Renovation/Adaptive Reuse

The Children's Museum of the Upstate
Renovation

St. Anthony of Padua Catholic School
New School

Wofford College
Rosalind S. Richardson Center for the Arts
New Facility

Kent Court
Restoration/Renovation/Adaptive Reuse

JHM Hotels
Hyatt Regency
Exterior Renovation

Table 301
Soby's New South Cuisine
Adaptive Reuse

The Lazy Goat
Interior Upfit

Stone + Main
Master Plan/Mixed-Use

Oyster Park
New Mixed Use Facility

Judson Mill
Adaptive Reuse Mixed Use

City of Greenville
Public Restrooms at ONE Plaza
New Facility

Asheville Housing Authority,
Lee Walker Heights
New Multi-Family Housing
Master Plan

Wofford College
Jerry Richardson Indoor Arena
New Facility

St. Joseph's Catholic School
Classroom and Locker Room
Addition

Confidential Aeronautical Company
Employee HUB
Cafeteria, Kitchen, Offices, Retail
Renovation / Expansion

Fire Station
New Facility

Cane Bay Plantation
Private Fire Station
New Facility

Clemson University
Lee Hall School of Architecture,
Arts + Humanities
Restoration, Renovation, Addition

100 East
New Mixed-Use Development
New Facility

Christ Church Episcopal School
Performing Arts Center
New Facility

Furman University
Football Field House and Press Box
New Facilities

Physical Activities Center
Renovation



EDUCATION

Lawrence Technological
University 1979-1981

CIVIC ACTIVITIES

March of Dimes 2006 - 2010

MS Society 1991 - Current

AVERY MONROE, PE, LEED AP

MEP / FP ENGINEER

Avery is the director of RMF's Charlotte office with experience in the design, analysis and construction administration of MEP building systems. He has managed and designed systems for new and renovation projects which frequently include the coordination of multiple construction phases for a wide variety of system types and building occupancies. Avery performs detailed engineering economic analyses on a variety of projects to support his engineering approach. His primary role on many of his projects is Lead Mechanical Engineer, responsible for all aspects of the mechanical design. He handles the complete coordination of all production work and communication with the client.

PROJECT EXPERIENCE

City of Charlotte

Charlotte Mecklenburg Police Animal Care and Control X-Ray Installation

Rowan Cabarrus Community College

650 Concord Parkway Remodel
Phases I + II

North Carolina State University - college of Veterinary Medicine

Randall B. Terry, Jr. Companion Animal Veterinary Medical Center

University of North Carolina at Wilmington

New Teaching Laboratory Building
(Contains Vivarium)

Oyster Research Hatchery

North Carolina A&T State University

Webb Hall (Contains Vivarium)

North Carolina Department of Agriculture

Rollins Chemistry Lab to BSL-2 +
Renovation (Veterinary Diagnostic Lab)

UNC Coastal Studies Institute

New Coastal Studies Institute (Contains
Marine Life Wet Labs)



EDUCATION

Bachelor of Science in
Mechanical Engineering

Master of Science in Management

CIVIC ACTIVITIES

March of Dimes 2006 - 2010

MS Society 1991 - Current

JOSH THOMPSON, PE, RCCD

MEP / FP ENGINEER

Josh is an electrical engineer with design and construction project management experience in the municipal, sports and recreational, healthcare, higher education, entertainment and commercial real estate markets. He has experience in designing normal, emergency and critical electrical generation and distribution, lighting systems, fire alarm, telecommunications, audio/visual and security systems. He also has experience on-site as a project field engineer, working hand-in-hand with electricians and technicians performing installations and maintaining a strong relationship with his clients through the life of the project.

PROJECT EXPERIENCE

City of Charlotte

Charlotte Mecklenburg Police Animal Care and Control X-Ray Installation

Fire Station 32 AHU Replacement

CMPD Main Water Heater Replacement

Rowan Cabarrus Community College

650 Concord Parkway Remodel
Phases I + II

Mission Health System

Transylvania Regional Hospital ACA
Clinic Renovation

Mecklenburg County Government

South County Library Expansion +
Renovation

Pearl Street Park Renovations

City of Fayetteville

Fayetteville Regional Airport Terminal
Improvements



EDUCATION

Bachelor of Science in Electrical
Engineering

Bachelor of Science in Computer
Engineering

WILLIAM T. FULLER

STRUCTURAL ENGINEER

As a design professional for 33 years and as an owner of an engineering company for the last 19 years, William has been responsible for the design of over 30 million square feet (3,000 building structures). Bill has knowledge of all common building construction materials including steel, concrete, metal, masonry and wood. His career has given him the opportunity to observe hundreds of these buildings during the construction phase of the projects. Along with running the management of the practice, William takes an active role in project management and in the engineering of projects.

PROJECT EXPERIENCE

Greenville Humane Society

Greenville, SC

Vet Center Addition

Pensacola, FL

Miller Veterinary

Conyers, GA

Wayne Vet Clinic

Goldsboro, NC

Animal Hospital

Beaufort, SC

Cedarville Animal Hospital

Virginia

Animal Hospital

Statesboro, GA

Animal Hospital

New Market, TN

Seneca Animal Hospital

Seneca, SC

Aiken County Animal Shelter

Aiken, SC



EDUCATION

MSCE, University of Colorado,
1987

BSCE, North Carolina State University,
1983

CIVIC ACTIVITIES

Greenville Humane Society, Board
Member

National Society of Professional
Engineers

Structural Engineers Association of
South Carolina

American Institute of Steel
Construction

American Concrete Institute



LUCAS G. YOUNG

STRUCTURAL ENGINEER

Lucas has been responsible for the design of over 3 million square feet (multiple structures) in various states. His design experience has enabled him to gain extensive experience in most building types across many sectors. Lucas has knowledge of all common building construction materials including steel, concrete, metal, masonry, and wood. He is also proficient in lateral design requirements including seismic and wind analysis conforming to the latest IBC and ASCE building codes.

PROJECT EXPERIENCE

Cedarville Animal Hospital
Virginia

Animal Hospital
Statesboro, GA

Animal Hospital
New Market, TN

Seneca Animal Hospital
Seneca, SC

Aiken County Animal Shelter
Aiken, SC



EDUCATION

MSCE, Clemson University, 2008

BSCE, Clemson University, 2007

CIVIC ACTIVITIES

Structural Engineers Association of South Carolina

National Society of Professional Engineers

American Institute of Steel Construction

ENGINEERING CONSULTANTS



RMF ENGINEERING

MEP/FP Engineer
Charlotte, NC

RMF Engineering, Inc. (RMF) is a full-service mechanical, electrical, plumbing and fire protection engineering firm. RMF has been in existence for over 34 years and has more than 250 employees in 12 offices. RMF is routinely ranked as one of the top MEP firms in the country, and is an industry leader in the development of new engineering production methods and technologies, including Building Information Modeling (BIM), carbon reduction strategies, and in-depth assessment technologies. The firm has a 10 year working relationship with McMillan Pazdan Smith.



FULLER GROUP, INC.

Structural Engineer
Greenville, SC

Fuller Group, Inc. provides structural engineering services to architects, contractors, fabricators, owners and others associated with the building industry. FCE has extensive experience in the design of hospitals, schools, offices, community, civic, commercial, and industrial facilities. Fuller and MPS have a long working relationship completing 250+ projects together, including work for the Aiken County Animal Shelter and the Greenville Humane Society.

CIVIL ENGINEER

McMillan Pazdan Smith will work with the Civil Engineer of the County's choosing.

While we are not a Minority Business Enterprise or Women Business Enterprise, we continue to make good faith outreach efforts to identify minority team members. To encourage MBE/WBE participation on projects, our firm works closely with owners and clients to identify and include provisions in the contract documents that encourage MBE/WBE participation in the bidding and construction phases of a project.

3

RENDITION EXPERIENCE



>> Rendition Expertise - BIM Technology



McMillan Pazdan Smith is a national leader in the use of Building Information Modeling Software to improve the design process, including nearly a decade of complex project experience and hundreds of projects completed in our firm's portfolio. We use the Revit C4R / BIM Software to create a design model, and then export the model into Lumion, which is a program used to create photo realistic images. The images can then be exported in a variety of types.

McMillan Pazdan Smith's BIM processes integrate practical workflows that allow us to virtual design, study, and make informed decisions to yield savings prior to the actual construction of a project. Our goal is to provide our clients with a virtual design and construction (VDC) package that can be leveraged today and in the future.

BENEFITS OUR CLIENTS EXPERIENCE FROM BUILDING INFORMATION MODELING (BIM)

> Smoother Collaboration and Coordination with Consultants

In any design and construction process, thousands of decisions are made and communicated among dozens of people. Revit C4R has significantly opened up lines of communication and the ease with which our teams collaborate. **A change anywhere becomes a change everywhere.** This facilitates discussions within the team, allowing changes to be quickly vetted for suitability and quality.

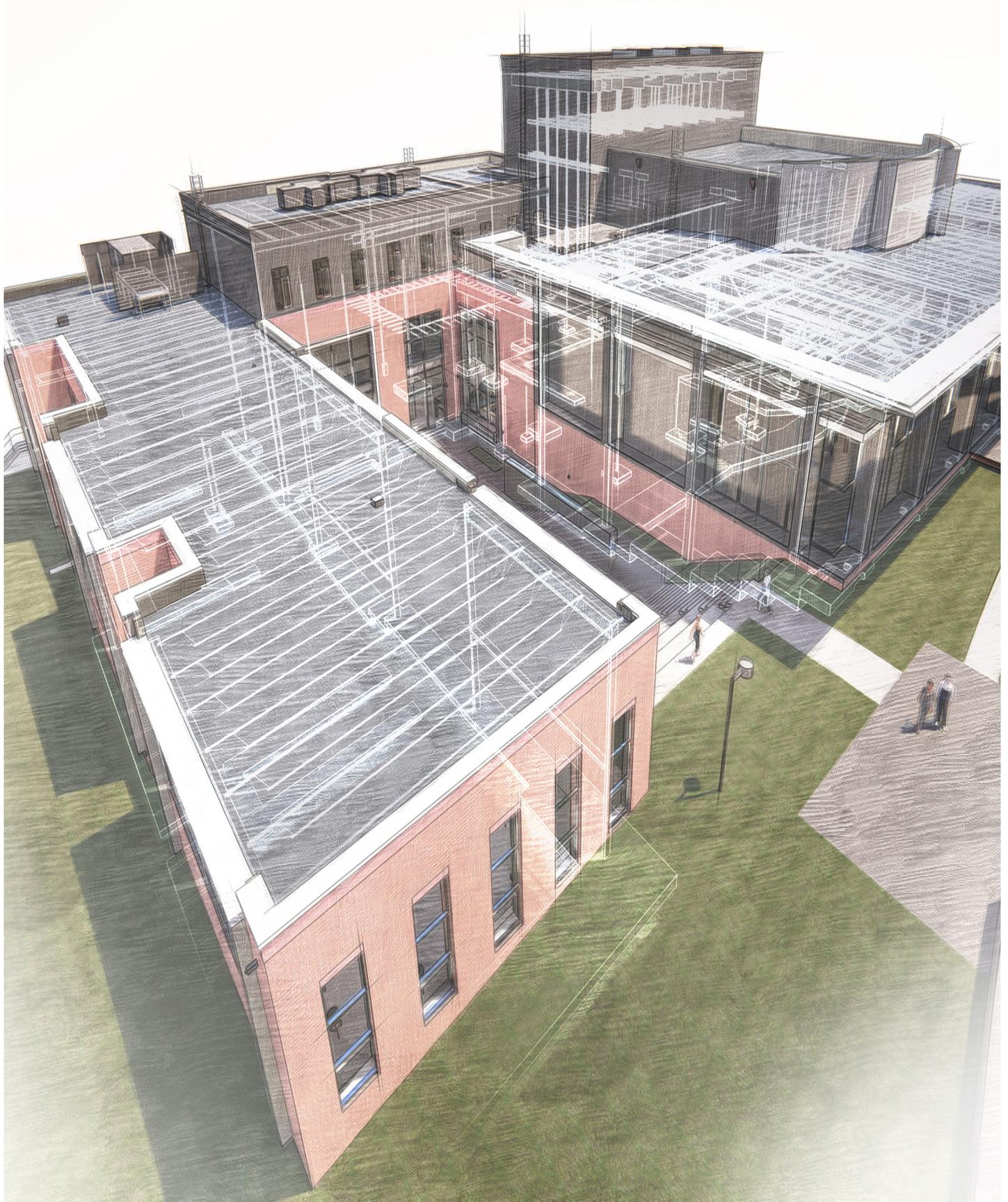
On one project alone, simply by sharing a virtual model rather than emailing models back and forth between consultants, we saved more than 300 hours.

> Faster Approvals

Due to the shared virtual file location, teams are able to provide live feedback. This shortens the time needed for changes and approval processes, keeping the projects on schedule. Drawings, plans and models can be shared online with anyone, regardless of whether they have an A360 license, providing clients, and even local officials, a robust and interactive tool for critiquing and analyzing the design.

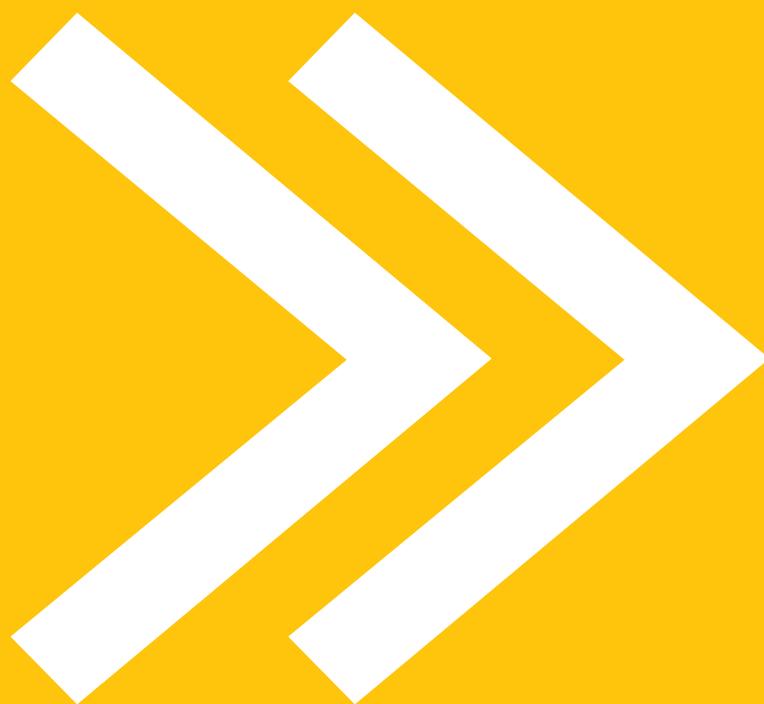
> Better Stakeholder Buy-In

Flying through a 3D model in real-time not only provides incredible benefits in seeing how the design actually works. Because end users can experience the design virtually rather than having to read and understand floor plans, we can receive faster signoffs from stakeholders and undergo fewer change orders during construction because of its effectiveness as a communication tool.



4

**RELEVANT
DESIGN
EXPERIENCE**





Aiken County ANIMAL SHELTER

Location
Aiken, SC

Year Completed
PHASE 1: 06/2014
PHASE 2: 11/2017

SIZE: 19,000 SF

COST/SF: \$79

2 PROGRAMS

The old shelter was hopelessly outdated and small. It had open trenches for waste, no outdoor facilities, no ventilation systems for proper air exchange, no isolation facilities, and sometimes as many as five animals had to be housed in one small indoor kennel.

More than doubling the amount of space, McMillan Pazdan Smith designed a new 19,000 square foot shelter with three long buildings on a four-acre site. Flanking the main building are intake and adoption buildings that provide cover for animals and easy access to the outdoors.

Three separate fenced-in play yards, located adjacent to the shelter, allow animals and prospective adopters to get to know each other better.

The euthanasia rate has fallen 50% since the new shelter opened - from 71% in 2013 to 20% in 2017.



HVAC Techniques Decrease Illness

Approximately 11,000 square feet of the shelter's floor space is unheated to save energy. But this also creates a healthier environment for animals, because it permits air to flow naturally through the outside kennels. Overhead radiant heaters, fueled by natural gas, keep more than 2,400 square feet of exterior kennel space heated and comfortable for impounded animals. The heating units warm the wall and floor surfaces instead of heating open-air space within the buildings where animals are kept.

Plumbing Techniques Reduce Staff Labor and Animal Stress During Cleaning

Automatic watering bowls are available in each kennel. This reduces the manpower required to monitor and refill bowls and helps maintain clean water for each animal. Flushing floor drains are available on the interior and exterior of kennel walls, making it easier to clean them. This also allows animals to move freely back and forth between each kennel's interior and exterior spaces, and prevents them from having to be moved and suffer undue stress when their kennels are cleaned.

Separate Cat Adoption Building Reduces Stress

A Cats At The Shelter (CATS) adoption building, called the "Cat Colony," allows adoptable cats to be separated from dogs. This reduces the stress for cats and keeps them healthy.

Isolation Rooms Prevent the Spread of Illness

Two separate isolation rooms, which have their own heating and air-conditioning units, are available to quarantine sick animals. This increases the likelihood that sick animals will recover more quickly, and decreases the risk that illnesses will spread to other animals. The facility also has a clinic with an operating room.



Greenville Humane Society
MASTER PLAN, ADOPTION CENTER, MEDICAL CENTER, FOSTER BUILDING

Location
 Greenville, SC

Year Completed
 PHASE 1: 05/2011
 PHASE 2: 09/2017

SIZE: 10,000 SF

COST/SF: \$120

3 PROGRAMS

Awards:
 2012 Design Merit Award
 The American Institute of Architects

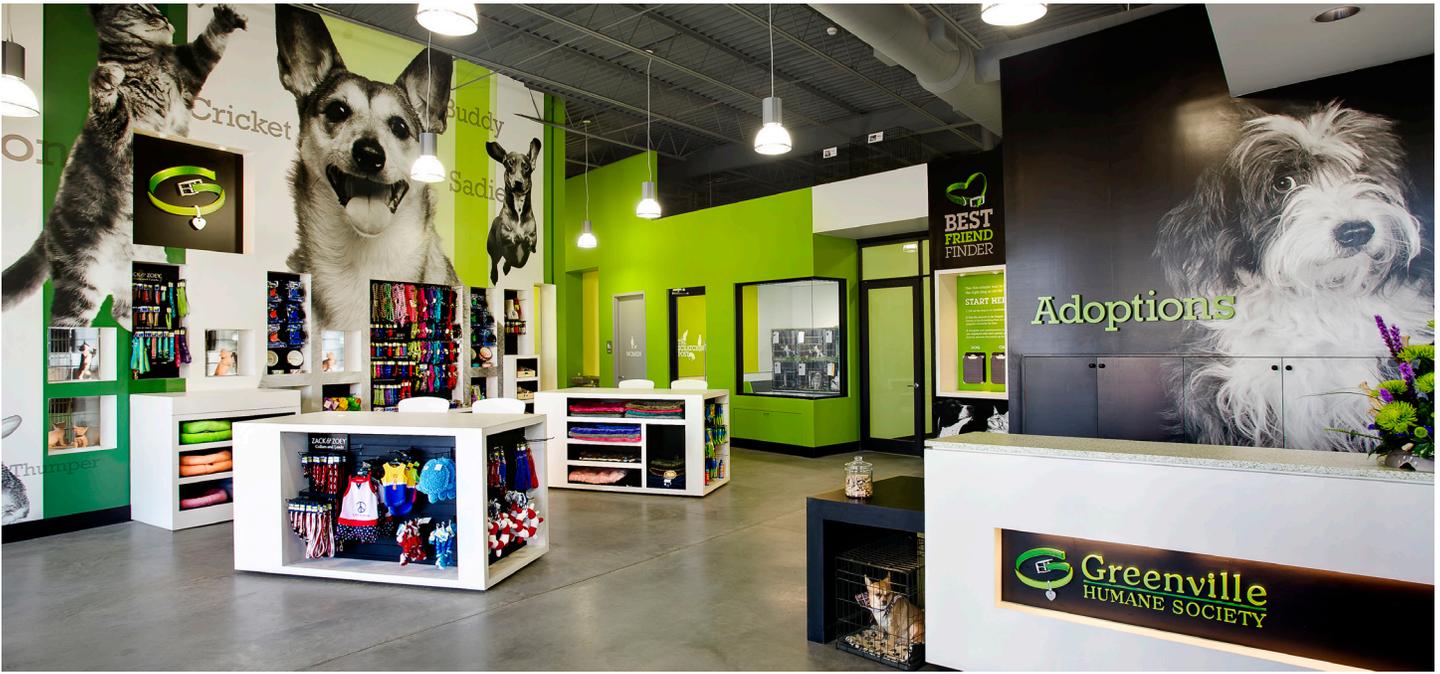
Greenville Humane Society (GHS) engaged our team to design three buildings and the master plan for their four-acre site, spanning two implementation phases. Due to the overwhelming success of the Phase 1 buildout, GHS is now the second largest no-kill facility in the Southeast and has completed Phase 2 of construction to keep up with demand.

Phase 1: Adoption Center with Design Features to Engage the Public

The design process to renovate an existing warehouse reinvents the brand and rethinks the entire experience of animal care and adoption. A wraparound porch gives GHS the flexibility to hold “yappy hours” events. There is a waiting list for weekend birthday parties where kids get “behind the scenes” tours and often donate presents for the animals. The parties attract families who never would have visited the old shelter.

Efficient Workflow Boosts Staff Productivity in Medical Care Center

An efficient workflow throughout the renovated warehouse, particularly for surgical and animal care staff, was a major focus in the planning and layout. The daily schedule of caring for nearly 150 animals is streamlined



for ease of work and an increase in productivity. The design team streamlined the work areas so staff members don't have to backtrack as they make their rounds.

Cost-Effective, Easily Sterilized Building Materials

Façade materials include Hardie siding in GHS signature green and painted concrete block for cost effectiveness and easy sterilization.

Phase 2: Additional Medical Care Space Increases Capacity

To keep up with the public's demand for medical appointments, the Phase 2 design incorporates a new 13,000 square foot Medical Services Building that triples their capacity. It includes holding rooms for infirmary stays, public animals receiving vaccinations, and healthy shelter animals awaiting space on the adoption floor. The additional exam rooms, surgery suite, and enlarged lobby will increase the number of animals that can be vaccinated, cut the wait time for each patient, provide privacy for people and their animals, and reduce uncomfortable interactions between pets due to congestion.

New Foster Services Building - "The Healing Place"

Phase 2 also included the construction of a foster services facility that allows temporary housing for contagious animals receiving special care and facilitates fostering prior to an animal's ability to move to the Adoption Center.



The program included a wide range of medical treatment capabilities, yet, one of the primary driving factors was a highly restrictive budget. The team worked through multiple rounds of design options with both the contractor and the owner to create a phased plan that achieved the base level of services desired in a cost-effective and creative manner with options for future growth. Delivered in a design-build delivery method, the building was occupied in 2015.



York County ANIMAL SHELTER

Location

Fort Mill, SC

Year Completed

2004

SIZE: 16,600 SF

COST/SF: \$139

1 PROGRAM

The need to double the capacity for the York County Animal Shelter led to the design of a new 16,600 SF facility with cost-saving features such as high-tech waste removal, odor control systems and a crematorium.

Promoting community service and education initiatives was a crucial goal for the county, resulting in public adoption areas, a kitty viewing room and small pet supply store. Circulation patterns provide separate access for lost and found animals from the public adoption, holding and isolation areas.

The design maximizes functionality, yet provides a light and friendly environment to increase adoptions and public support of the shelter's mission.



Spartanburg Humane Society ANIMAL SHELTER

Location
Spartanburg, SC

Year Completed
1998

SIZE: 22,000 SF

COST/SF: \$77

2 PROGRAMS

The Spartanburg Humane Society was designed with efficiency, maintenance and improvement of image as the three primary goals governing design.

The 22,000 SF facility currently provides a positive, customer friendly atmosphere for pet adoptions. Serving as a large county intake facility, visibility, accessibility, and proper circulation within public and private spaces were important issues.

The design of a chase system for waste removal and the use of durable materials for floors and walls continue to save the shelter time and money on maintenance.

Efficiency was maximized with an effective layout of space, ensuring a smooth transition from receiving to adoption. Key concerns addressed in the building plan included airflow controls and the elimination of odors.

5

PROJECT APPROACH



Project Approach

UNDERSTANDING OF SCOPE OF WORK

Many of our new animal shelter clients tell us the same story: Their facility is overcrowded, they struggle to reduce numbers without euthanasia and intake numbers continue to be unwieldy. Compounding the issue is the fact that an overcrowded shelter is harder to keep clean and free of disease, yet it's more difficult to adopt out sick or stressed animals. This cycle sounds familiar because it's one that almost every shelter faces.

However, it doesn't have to be this way. Through Good Design it is possible to improve adoption rates, reduce operational costs, and increase community engagement. Our team brings years of experience designing award-winning animal shelters and clinics across the Carolinas. Ron, Cary, Kirk and our Engineering Team will provide unique solutions that address the major operational challenges of your animal shelter, all while staying within your project budget.

APPROACH TO DESIGN

WORKFLOW DESIGN

Forming Spaces Around Processes

Much of the work of an animal shelter is getting the right animal to the right location within the facility, and then getting it out of the facility as quickly as possible. Our approach is to form spaces around the processes that they house.

Documenting Journeys in Multi-Day Charrettes

In a multiple-day charrette process, we work with your staff to document each step in the different journeys of animals from arrival to departure. We then work with your team to shorten the number of steps, by reducing walking distances and wasted movement, to reduce length of stay.



The shorter the length of stay, and the faster animals exit the facility, the healthier the shelter will be overall.

PROGRAMMING AND PLANNING

Developing Programs with Funding in Mind

We develop space programs with the funding mechanism in mind. By developing the program as a collection of individual components that can be implemented separately as funding becomes available, you avoid a domino-effect construction sequence requiring interdependency between functions.

Flexibility for Future Unknowns

This provides the client with the flexibility to add, subtract, or modify project modules as intake volumes change. We do this through standardized space dimensions and modules, enabling spaces to change both function and location.

INTERIOR DESIGN

Controlling Odors, Pathogens, and Noise

A large emphasis of the design process is selecting materials, surfaces, and fixtures that prevent odors and pathogens, control acoustics, are easily cleanable, and reduce noise.

Infection Control Expertise

As experts in infection control protocols, we are fluent in developing designs that minimize seams and crevices for bacteria to collect, specifying furnishings that are "disinfect-able", locating handwashing stations in the most impactful areas, and isolation and maintenance regimes that minimize cross-contamination.

Furnishings That Stand Up to Pet Urine

In addition, we select moveable equipment and furnishings that have been tested to hold up to pet urine and accidents. Non-corrosive metals and impermeable materials are necessary to maintain a clean facility.

DESIGN TECHNIQUES TO MINIMIZE NOISE & CAUSES OF BARKING

Kennel Configuration in Smaller Groupings

There is a lot of research focused on this central question: Do dogs bark more when they can see another dog (kennels located directly across from

one another) or is it actually more stressful for them to hear and smell other dogs but not see them (kennels facing outward or in single rows)?

It is possible to strike a balance with small rooms of dogs that can see each other but are in small quantities to keep the noise level down. Fewer dogs within a room also has positive effects on adoption rates.

Sound Control at Walls and Openings

Controlling outside noises that agitate dogs can reduce stress levels and therefore barking. Sound control at walls and openings is important to this end. Providing music in dog holding rooms can also mitigate outside noises and have a relaxing effect on the dogs. Sound control between dog and cat areas is of critical importance to cats.

Acoustic Material Choices

Noise dampening is a must in shelters, however most materials that absorb sound energy also absorb moisture and bacteria. So placement of these panels is critical; high on the walls or ceiling (beyond the "wet" area) is the best strategy, keeping "hard", cleanable and non-porous materials on the lower half of the room surfaces.

By using acoustically sound walls (similar to those used in universities to separate music practice rooms) and sound absorption materials on the walls and ceilings, many of these potential issues can be mitigated from the beginning. Noise pollution from outdoor kennels can also be attenuated using acoustic metal decking as a roof.

Proximity to Outdoor Exercise Areas

A major cause of barking is boredom and need for stimulation/socialization. Kennels should be located in very close proximity to outdoor exercise areas in order to make exercise, play, and leash training efficient and easy for the staff.

Exercise and socialization (with other dogs and humans) have positive effects on barking simply by managing dog energy and stress levels. This becomes more important the longer animals are in the shelter.

DESIGN TECHNIQUES TO REDUCE STRESS

We have seen that adoption numbers go up when animals are free of stress and therefore well-behaved and healthy. Healthy (disease free), relaxed

(exercised) animals are stress-free (less barking and anxiety-driven behavior) are more “appealing” to customers and approachable, especially for children.

Our philosophy is to develop designs that produce better outcomes by reducing stress and noise to increase adoption rates.

Solid Walls, Soft Sleeping Surfaces Provide Sense of Security

Solid walls on 2-3 sides of a cage or run provides a sense of security and gives the dog the option of avoiding visual contact with other animals. Soft sleeping surfaces are nice for dogs but can harbor bacteria in a shelter. There are a variety of alternatives that are comfortable, will contribute to a sense of security, but are also cleanable.

DESIGN TECHNIQUES TO PROMOTE ADOPTIONS

A clean and fresh shelter environment (good air flow, cleanable surfaces, natural light) with space to see individual animals (no overcrowded rooms or kennels, limited selections) allows a customer to be comfortable and less overwhelmed.

Public Education Through Pet Stories

The shelter must be an engaging place that supports staff in their efforts to educate the public on animal issues. Feature walls with “story” boards tell the story of how an animal helped a family or individual, and showcase hard-to place animals to give them extra publicity and a prominent location within the shelter.

Interaction Areas

Creating communal areas for out-of-cage time allows pets to interact with potential adopters without disruption to caregivers. Chairs with wide arms for cats, outdoor space for dogs, and accessible treat jars create comfortable opportunities for bonding. Private rooms let potential adopters bring existing pets to test their interaction with the potential new pet.

Community Engagement

By creating an overall friendly and welcoming design with customer experience in mind from start to finish – visiting the shelter shouldn't be a

sad experience that a person goes through once every 10-15 years, it should be fun and a regular occurrence. Cat cafés have figured this out!

Selling retail items or pet medicines, and offering other services such as low-cost vaccines or spay/neuter surgeries, pulls customers to the shelter more often and can result in more adoptions (or at the least, more community support and engagement, which ultimately drives adoptions).

VALUE-ADDED DESIGN & COST CONTROL

Value-Added Design

For each client, we aim for choices that represent excellent value. This means careful consideration of the design of the exterior envelope, architectural elements, material selection, and building system choices.

The process includes a building cost analysis of both initial and operational costs. Often, needs are greater than resources to meet them, so the design and engineering team offer options that can be made to bring down costs without compromising design integrity.

We diligently work to seek optimum value for the project and the Owner's interests. Our goal is to eliminate or modify features that would add cost to a facility without compromising the quality, durability or appearance.



Cost Control

Our cost compliance process begins on Day 1. We listen to learn about your established goals and clarify the scope and design intent. Cost estimators join the discussions with their up to the minute knowledge of unit prices and economic conditions.

As soon as the project program, budget and schedule are balanced, the cost compliance process proceeds with the engineers and consultants evaluating and recommending systems.

From then on, costing is managed by frequent monitoring of material quantities and quality changes as the design evolves. BIM Modeling allows our cost estimating team to stay aware of metrics such as quantities, unit prices, area labor factors, and market conditions.

This process eliminates the disadvantages of the traditional process of completing the design, then pricing, then addressing overruns; our team stays in touch with the budget from start to finish.

PLUMBING CONSIDERATIONS

From a plumbing standpoint, there are several approaches on locations and type of floor drains. This requires in-depth discussion with shelter staff and an understanding of maintenance protocol, but of critical importance is the ability to quickly and properly clean all animal areas and to maintain clean drains that are also safe and sanitary for the animals. Of critical importance are drain grills that dog feet can't fit through or dogs can't chew on, with no open areas in drains that dogs can get into.

MECHANICAL CONSIDERATIONS

To make the mechanical systems as flexible and energy minded as much as possible, we have used 100% outside air handling units with energy recovery wheels. This eliminates smells/odors and provides a healthy environment for our furry friends. Care should be taken not to return air back to the energy recovery systems from quarantine areas.

Kennel areas should be provided with radiant floor systems for comfort and the doggy door entry areas should also be provided with ceiling radiant heat due to the high levels of infiltration.

The same can be said for the animal entry and exam areas. The animal entry area is typically through a roll up door area and should be provided with an entry

vestibule and ceiling radiant heat.

We have found that in general 10-20 ACHR is a healthy air exchange rate for animals and of course pressurization control of clean and dirty spaces is a must.

Area return grilles should be provided with filtered grilles, capture fur and dander at the source, and reduce maintenance at the main air handlers.

We typically have seen that budgets are an issue so we tend to see a lot of DX systems for cooling as well as electric heat, although gas heat is preferred.

FLEXIBLE SPACES

At the Aiken County Animal Shelter we created maximum flexibility through a "pod" configuration, which allows the staff to open all pods or only a limited number for a multitude of reasons. They can also convert pods into quarantine areas if needed.

Some general holding rooms can accommodate different types of animals if needed but can flex to handle different numbers as well. Convertible rooms can also be used for examination or bonding. Ultimately, creating several small areas rather than one large room gives staff more flexibility and control.

UNIQUE QUALIFICATIONS

Our approach to shelter design has led to real world success stories for many of our clients. We have helped reduce operational costs, increase revenue, improve adoption rates, and reduce the use of euthanasia. We measure our success by the positive impacts our design has for our animal shelter clients and their communities.

CURB APPEAL & COMMUNITY ENGAGEMENT

Get people in the door in order to get animals out. One of the things our design team tried to do at the Greenville Humane Society (GHS) in South Carolina was to create a destination where people want to spend time rather than a place to go every 10 years when they want a new pet. We want people to visit the shelter every month to purchase pet products, take advantage of low-cost surgeries and attend a birthday party or special event like "Yappy Hour". Our goal is a volunteer friendly environment that thrives on community involvement.

Good Design begins at the front door by welcoming people in and carving out as much space as possible for people and animals to gather—even a porch or yard or walking trail—creating spaces where animal lovers can see animals on a regular basis. This helps boost adoptions, fostering and transfers, while also creating new revenue streams.

- GHS net retail income was up by 103 percent in the first two years of the new building
- Income from spay/neuter surgeries increased by 134 percent in the first two years
- Birthday parties at GHS generate \$15,000 a year since the new building was opened

SPACE ALLOCATION & WORKING THE PROCESS

Through Good Design, we can help identify a manageable and affordable capacity, and more important, the right allocation and arrangement of space for intake, holding, quarantine and adoptions that gives the staff flexibility to work the process. For example, at GHS, adoptable adult dogs visible to the public are intentionally limited to only 10, based on research that a smaller pool of options leads to faster decision making by adopters. A smaller room is also quieter, more manageable and better for disease control. More adult dogs are in a separate holding area nearby, so as soon as a kennel opens up, another dog is ready.

Similarly, at a new facility we designed for Aiken County Animal Shelter in South Carolina, we created more flexibility by designing multiple small pods of 10 kennels each, which staff can use for adoption, holding, quarantine or any combination needed. Both cases have yielded impressive results:

- Aiken County adoptions went up almost 40 percent in the first two years and almost doubled by year four
- GHS adoption revenue increased by 22 percent in the first two years
- GHS length of stay for adult dogs is currently one to two weeks versus one to two months in the previous facility

EFFICIENCY & EFFECTIVENESS

The Humane Society of the United States estimates that it takes 15 minutes a day to care for one animal. Considering that many shelters are understaffed, the scenario gets worse. One of the biggest lessons from our past animal shelter projects was just how critical an efficient workflow is and how much a building layout can help the staff's ability to run the shelter effectively. The basic diagram of the building is the backbone that allows staff to keep the process moving—to have what they need where they need it, to handle daily and constant tasks quickly and to manage successful flow-through. The measure of its success is ultimately in the number of lives saved.

- Aiken County Animal Shelter's euthanasia rate dropped in half in the first two years, then in half again by year four
- GHS has been so successful at flow-through that it pulls animals from 11 other public shelters to keep up with demand



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PROXIMITY / REFERENCES





PROXIMITY + FAMILIARITY

With offices in Asheville and Charlotte, NC, McMillan Pazdan Smith is engaged in the growth of the region and intimately familiar with the unique characteristics including the topography, soil, and native plant materials. We are specifically versed and experienced in the architectural aesthetics and have provided both traditional and non-traditional adaptations that have blended well into the existing built environment of both urban and rural settings. Proximity to our clients and community engagement are key initiatives to our corporation and the individuals we employ. McMillan Pazdan Smith offers close proximity to Jackson County and can easily respond quickly to your needs. Our philosophy is one of “going the extra mile” for the client in terms of service, response, and availability; and our mission as a “relationship based” firm is deeply rooted in people, building trust with our clients, and in our belief that accessibility aids responsiveness — a cultural and philosophical focus for our business model and process.

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964 242 3636

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803 285 6323