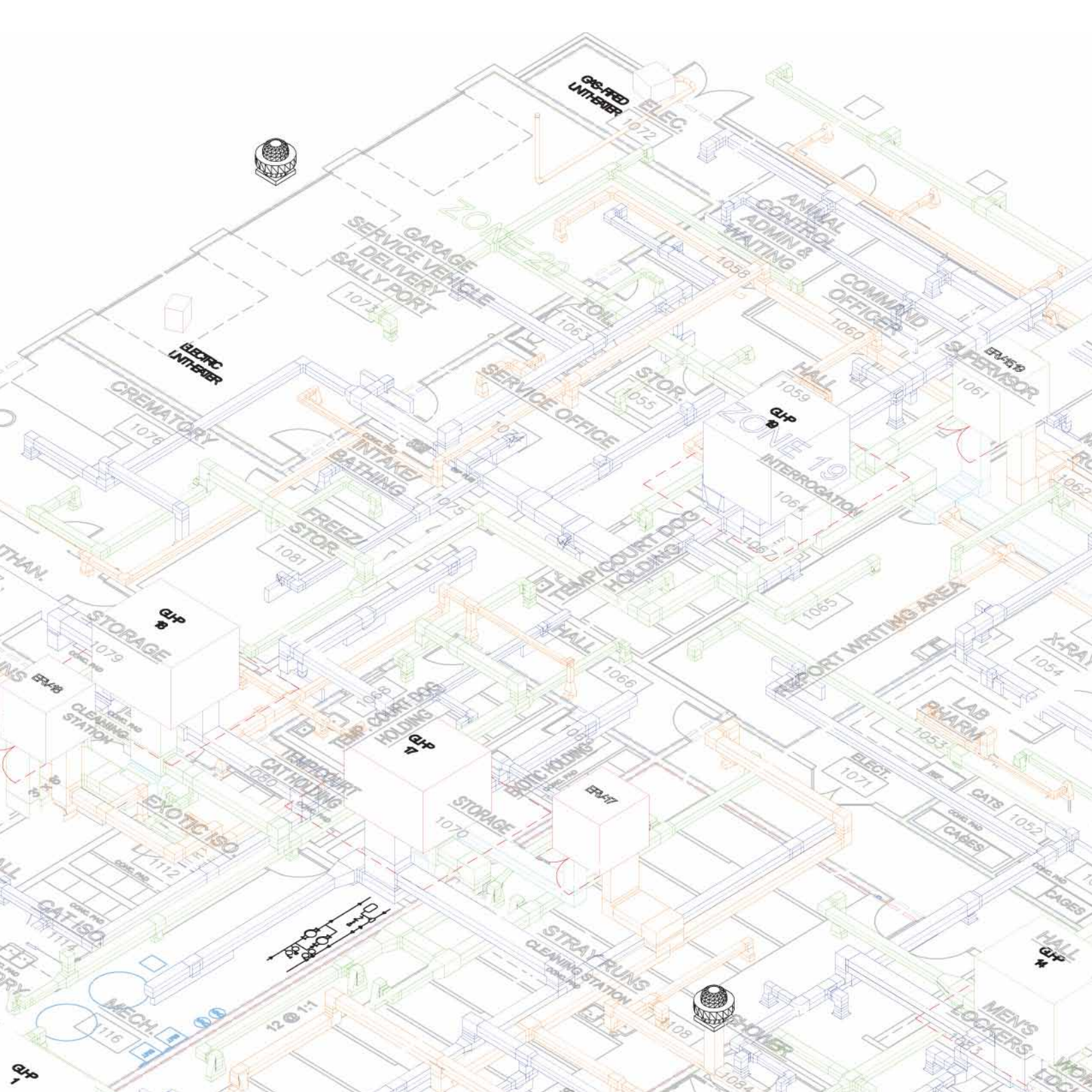




DESIGN **LEARNED** INC.  
*animal facility engineering*



# A CRUCIAL COMPONENT OF YOUR BUILDING DESIGN TEAM

FOUNDED IN 1993, DESIGN LEARNED, INC. has been a *crucial component* of more than 200 HVAC, electrical, plumbing, fire protection, and noise control engineering and consultation projects for veterinarians, kennels and animal shelters across the United States and Canada.



## SMART DESIGN FOR THE ANIMAL CARE INDUSTRY

**THE DESIGN LEARNED GROUP** is a highly specialized, exceptionally knowledgeable team of engineers and professionals, collaboratively developing detailed, comprehensive, and complete building system designs for the animal care industry.

The firm is uniquely qualified in animal care facility engineering — possessing unparalleled experience in this highly specialized field. We continuously fine-tune our design philosophies and educate ourselves in the requirements of the veterinary, shelter, and kennel industry. This ongoing research is incorporated into all our designs.

### *Memberships:*

- Humane Society of the United States
- National Fire Protection Association
- United States Green Building Council
- National Society of Professional Engineers
- American Society of Heating, Refrigerating and Air Conditioning Engineers



## ABOUT THE COMPANY FOUNDER

**C. SCOTT LEARNED, MS, MBA, PE, LEED AP** is president of *Design Learned, Inc.*, supervising the engineering of mechanical, electrical, plumbing, fire protection, and air and noise control aspects of animal care facilities. In addition, he provides consultation, floor planning recommendations, and the specification of animal caging, animal equipment, and finishes.



Scott possesses a vast knowledge of animal facility requirements — inspired and informed by his extensive experience caring for pets and rescued animals.

**SCOTT LEARNED IS BOARD CERTIFIED**, both as a Licensed Professional Mechanical Engineer (PE) and a Licensed Professional Electrical Engineer (PE) and is a Leadership in Energy and Environmental Design Accredited Professional (LEED AP). He is registered with the NCEES and holds Professional Engineering registrations throughout most of the United States.



**SCOTT LEARNED IS A FREQUENT SPEAKER ON ANIMAL CARE FACILITY ENGINEERING** at national conferences, including the Pet Care Services Association, the Humane Society of the United States, the Central Veterinary Hospital Design Conference, the North American Veterinary Conference, and the Wild West Veterinary Conference. He has published a range of articles addressing the challenges of engineering for animal care facilities in *Pet Services Journal*, *Animal Sheltering* magazine, and the proceedings of several veterinary organizations.

**MR. LEARNED ATTENDED THE UNIVERSITY OF CONNECTICUT** earning his Master of Business Administration, Master of Science in Mechanical Engineering, Bachelor of Science in Psychology, and Bachelor of Science in Engineering, Mechanical Engineering.

## WE ARE BUILDING DESIGN SPECIALISTS

**IN TRADITIONAL BUILDING DESIGN PROJECTS, OWNERS TYPICALLY ENGAGE AN ARCHITECT.**

For most commercial and public applications, the architect is responsible for all blueprints and coordination of the project, and required to hire licensed engineers to design and certify certain types of blueprints — specifically civil, structural, mechanical, electrical, plumbing, and fire protection.

However, some buildings are so complicated — particularly from a mechanical and electrical perspective — that only a select group of engineering firms specialize in those types of building projects, providing design consulting services directly to clients as well as architects. *Design Learned is one of those firms.*

*We provide four general types of services exclusively for veterinary hospitals, animal shelters, animal kennels, groomers, and other animal care facilities:*

- Existing building reviews, consultations and recommendations
- Engineering specifications for remediation of specific problems in existing facilities
- Engineering blueprints for building permits and construction
- Expert witness services

## OUR ENGINEERING SERVICES ARE DIFFERENT

**WELL DESIGNED ANIMAL CARE FACILITY ENGINEERING REQUIRES SPECIAL KNOWLEDGE.**

The combination of animal density, multiple disease paths, odor and cleaning considerations, and noise control make animal care facilities one of the most difficult and deeply coordinated building challenges. Design Learned knows this well — not only from our design work, but from the substantial amount of remediation consultation we perform every year, very often on new buildings with design defects in need of correction.



Our approach to engineering is comprehensive, and goes beyond animal care specifications. We prefer to participate from the beginning of a project, with involvement from the architectural programming through the final construction and commissioning. In addition to mechanical and electrical engineers, we employ a veterinary technician, an interior designer, and

a construction administrator. Our work is thorough, well coordinated, and carefully communicated, and so we produce more drawings, details and specifications than other engineering firms in an effort to minimize or eliminate questions and costly change orders during construction.



## ENGINEERING SERVICES

### Comprehensive Solutions

#### Initial Design Meeting

- Project requirement analysis
- Mechanical options, systems and sustainable building considerations
- Plumbing, cleaning, electrical, lighting and exterior requirements for animals
- Typical construction, animal equipment, and operating costs

#### Mechanical and Odor/Disease Control Engineering and Drafting

- Code and compliance requirements, mechanical zoning and placement
- Comprehensive cooling, heating and dehumidification equipment sizing and selection
- Accurate ventilation, exhaust, energy recovery, and indoor air treatment equipment sizing and selection
- Detailed equipment and ductwork design

#### Plumbing and Waterborne Disease Control Engineering and Drafting

- Code review and compliance requirements, accurate hot and cold water and drainage calculations
- Plumbing fixture selection and specialized water distribution engineering
- Animal trench drainage, hairtraps, interceptors, and odor and disease control design
- Automatic trench drain flushing and solid waste removal system engineering and drawings
- Animal care cleaning system specifications, engineering, and equipment selection
- Oxygen and medical gas piping and scavenger systems selection, sizing and schedule preparation

#### Electrical and Lighting Engineering and Drafting

- Electrical Code review and compliance requirements
- Electrical, lighting, power, and emergency generator design and drafting
- Electrical switchgear, metering, main riser diagram, and distribution engineering and design
- Specialized lighting design for kennel, grooming, or veterinary areas
- Emergency and exit lighting engineering, fire alarm design and specifications, telecommunication location plan

## ENGINEERING OPTIONS

### Additional Services

#### LEED or Sustainable Building Assistance

- Sustainable building recommendations and economic comparisons
- Sustainable building modeling and ComCheck reviews
- LEED commissioning and HVAC documentation

#### Interior Design and Architectural Support

- Noise control recommendations and details for walls, ceilings, and behavior control
- Material recommendations for finishes and flooring
- Recommendations and specifications for equipment and caging

#### Design Management

- Responsibility for hiring and coordinating the design team and other professionals
- Additional meetings with the design professionals
- Drawing reviews, coordination, and submissions to municipal authorities
- Preparation of bidding material and Project Specification Manual
- Pre-qualifying and interviewing bidders
- At least weekly supervisory calls or meetings with the contractor for project progress and status

#### Fire Sprinkler Engineering and Drafting

- Sprinkler system main sizing and equipment schedules
- Sprinkler main hydraulic calculations, distribution engineering and specifications

#### Municipal or Planning and Zoning Hearings

- Hearing preparation and attendance
- Code review and defense preparation for odor, noise, waste, traffic, and other public concerns





The exterior of the Oldwick Animal Hospital had to conform to strict local ordinances, therefore the Design Learned team used soft lighting on the outside to maintain the residential feel necessary for the area.

**OLDWICK ANIMAL HOSPITAL**  
*Oldwick, New Jersey*

## CASE NOTES

### **OLDWICK ANIMAL HOSPITAL** *Oldwick, New Jersey*

**Design Learned Inc. collaborated with local architects and geothermal engineers from project conception through construction to design for LEED Certification this state-of-the-art veterinary facility.**

The interior has three levels of lighting so that the staff and patients can adjust the wattage to the task at hand.

This facility has been built for superior energy efficiency by utilizing a vast amount of natural light and geothermal technology.

**Learn more about the hospital at:**  
*[oldwickanimalhospital.com](http://oldwickanimalhospital.com)*

Oldwick Animal Hospital  
130 Oldwick Road  
Whitehouse Station, NJ 08889  
908-439-2470



Our mechanical design includes many zones which have dedicated heat pumps so that the geothermal system can deliver heating and cooling only where necessary.

A separate system cleans, filters, and adds fresh air to ensure the building keeps the staff and patients healthy.



CASE NOTES

**GLOUCESTER-MATHEWS  
HUMANE SOCIETY**  
*Gloucester, Virginia*

**Design Learned worked with animal care architects Bacon Group and local architects Caro, Monroe, Liang to create this beautiful, state-of-the-art shelter for the community of Gloucester, Virginia.**

Completed in 2009, this 3.2 million dollar, 14,293 square foot facility has both comfort and luxury. The building contains individually conditioned dog suites as well as cat condos that are continuously exhausted from the litter areas.

**Learn more about the shelter at:**  
[gloucestermathewshumanesociety.org](http://gloucestermathewshumanesociety.org)

Gloucester-Mathews Humane Society  
6620 Jackson Lane  
Gloucester, VA 23061  
804-693-5520



## CASE NOTES

---

### **VETERINARY HEALTHCARE CENTER** *Monterey Park, California*

**Design Learned collaborated with local architects in the creation of a state-of-the-art veterinary facility.**

The treatment area was outfitted with specific hospital grade electrical, HVAC, and lighting systems. Mechanical systems are hidden from view yet deliver fresh air in strategic locations to keep the staff and patients healthy.

DLI utilized its design expertise to innovate air curtains and pressurized zones which help to control the spread of disease and provide an odor-free facility.

---

**Learn more about the facility at:**  
*[www.vhc.vetsuite.com](http://www.vhc.vetsuite.com)*

Veterinary Healthcare Center  
241 West Pomona Boulevard  
Monterey Park, CA 91754  
323-890-9000



CASE NOTES

## LA DOGWORKS

*Los Angeles, California*

LA Dogworks — “Los Angeles’ first exclusive dog Mecca” — recruited Design Learned and other leading industry professionals to create a pleasant and contemporary kennel equipped with ultra-modern technology to ensure the highest level of health and safety for dogs of all shapes and sizes.

Advanced technology features include a high tech drainage and flushing system throughout the facility that moves “dirty” water out of the building in a timely manor. The HVAC system rivals most hospitals, assisting in the prevention of bacteria, mold and control pathogens.

Learn more about the kennel at:  
*[ladogworks.com](http://ladogworks.com)*

LA Dogworks  
1014 North Highland Avenue  
Los Angeles, CA 90038  
323-461-5151



LA Dogworks has been recognized as one of the best dog care centers in the world.

SANTA BARBARA ANIMAL HOSPITAL  
*Santa Barbara, Florida*

Design Learned provided environmental design consulting to this innovative clinic — featuring digital radiology, an underwater treadmill, an ICU, and an isolation area.



## A SELECT PORTFOLIO

### *Design, Remediation and Consultation*

#### Kennel and Grooming

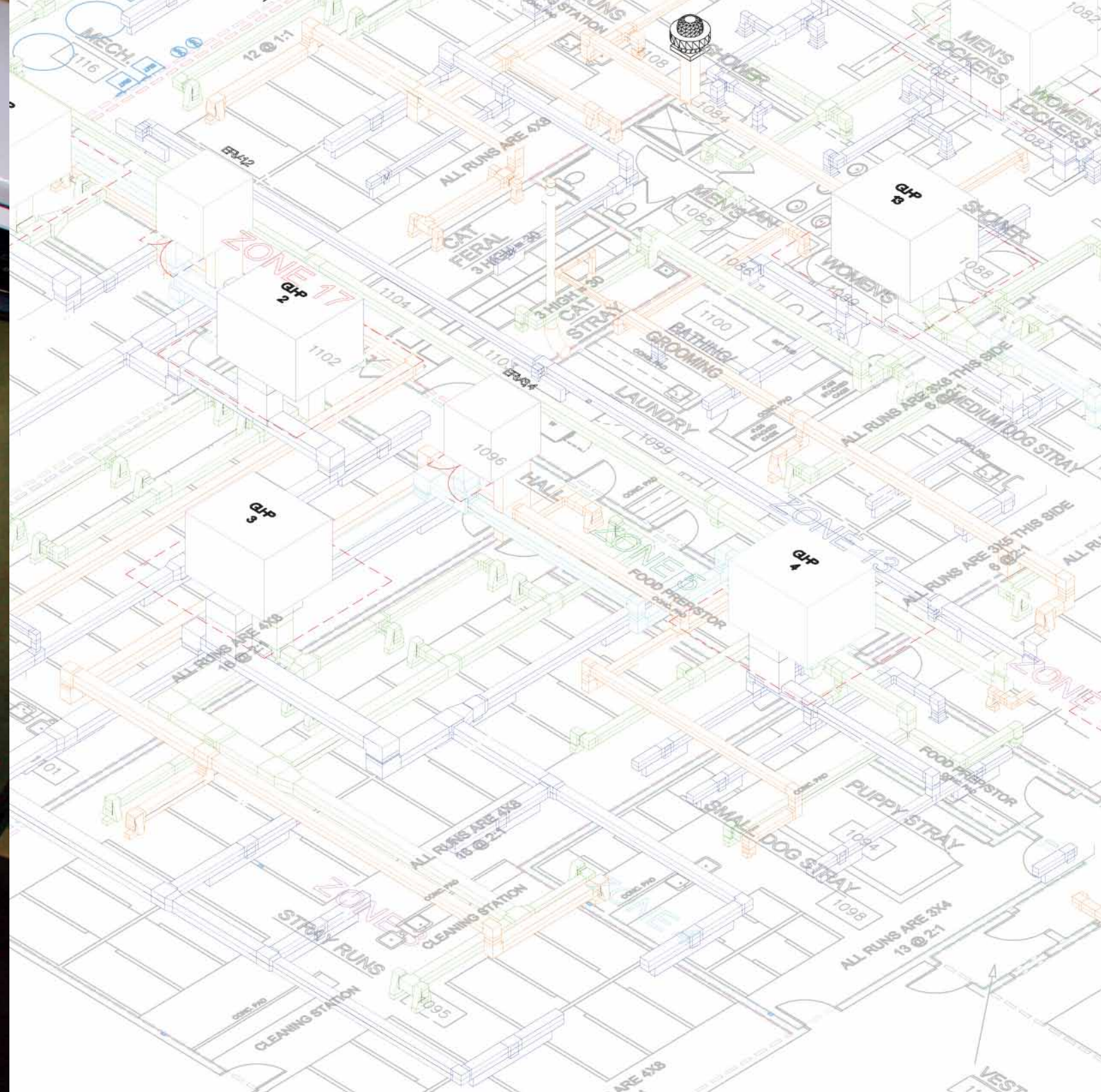
Ashland Animal Care, MA  
Autumn Kennels and Training, NY  
Best Friends Pet Resorts, Berlin, NJ  
Best Friends Pet Resorts, Chestnut Ridge, NY  
Best Friends Pet Resorts, Duluth, GA  
Best Friends Pet Resorts, East Cobb, GA  
Best Friends Pet Resorts, Exton, PA  
Best Friends Pet Resorts, Gaithersburg, MD  
Best Friends Pet Resorts, Glendale Heights, IL  
Best Friends Pet Resorts, Indianapolis, IN  
Best Friends Pet Resorts, Islip, NY  
Best Friends Pet Resorts, North Plainfield, NJ  
Best Friends Pet Resorts, Norwalk, CT  
Best Friends Pet Resorts, Palatine, IL  
Best Friends Pet Resorts, Rocky Hill, CT  
Best Friends Pet Resorts, Sudbury, MA  
Best Friends Pet Resorts, Tyngsboro, MA  
Canine Nation Training Facility, NY  
Carolina Pet Care, NC  
CosmoPAWlitan, FL  
Country Kennels CA  
Davis Residence, MN  
Dog and Cat Laundromat, CA  
Doggy Dude Ranch, VA  
Dogs and Peoples, NH  
Four Paws, RI  
Greenbriar Kennels, MD  
Guide Dog Foundation, NY  
Hill's Pet Nutrition, KS  
Horstmann Kennels, NY  
K-9 Guardians, NJ  
LA Dogsworks, CA  
Lange Foundation, CA  
Mattke Kennel, CO  
Morris Animal Inn, NJ  
My Second Home, TN  
New England Dog Training Institute, CT  
Northland Radio Fence, MN  
Palms Pet Resort, TX  
Paws Awhile Pet Motel, VA  
Pet Galaxy, CA  
Pet Paradise, FL  
PetSafe, TN  
Purr 'N Pooch, NJ  
Roerig Kennel, NJ  
Shackelford Kennel, TX  
Sniffles and Friends, PA  
Sydney's Pet Spa, KS  
Toureen Kennels, MA  
Troy's Stay and Play, NJ  
Urban Hound, MA  
Wagsworth Manor Pet Resort, PA  
Winds Chant Kennel, IL

#### Veterinary Hospital

Animal and Bird Hospital, CA  
Animal Care Center, NV  
Bay Area Animal Hospital, FL  
Coal Ridge Animal Hospital, CO  
Compassionate Care Veterinary Hospital, NY  
Dunmore Dog and Cat Hospital, PA  
Eagle Veterinary Clinic, NJ  
Eagle Veterinary Clinic, TX  
Ettrick Animal Hospital, Bermuda  
Four Paws Veterinary Clinic, CT  
Freeland Animal Hospital, WA  
Frey Animal Hospital, IA  
Godspeed Animal Clinic, VA  
Hurricane Animal Hospital, WV  
Lincoln Land Animal Clinic, IL  
Madison Pet Clinic, MO  
MedVet, TN  
New Canaan Veterinary Hospital, CT  
New York Cat Hospital, NY  
Oldwick Animal Hospital, NJ  
Pewee Valley Veterinary Hospital, KY  
Portsmouth Veterinary Clinic, MA  
Richland Veterinary Service, WI  
Rolling Hills Pet Hospital, CA  
Santa Barbara Animal Hospital, FL  
Small Animal Care Center, CA  
South Shores Animal Clinic, CA  
Southampton Vet Clinic, VA  
Steeplechase Animal Hospital, TX  
Strawberry Hill Animal Hospital, CT  
Sugar Grove Animal Hospital, IN  
Veterinary Healthcare Center, CA  
Veterinary Oncology Center, CT  
Village Veterinary, IL  
Woodside Animal Hospital, WA

#### Animal Shelter

Adopt-A-Dog, NY  
Anderson County Animal Shelter, SC  
Animal Lovers League, NY  
Austin Animal Shelter, TX  
Brookhaven Animal Shelter, NY  
Cat Care Society, CO  
Cedar Bend Humane Society, IA  
Dallas SPCA, TX  
Fairfield Animal Shelter, CT  
Frederick County Animal Shelter, VA  
Gloucester-Mathews Humane Society, VA  
Helping Hands Humane Society, KS  
Humane Society of Parkersburg, WV  
Humane Society, Fairfax County, VA  
Kentucky Humane Society, KY  
Loudoun County Animal Shelter, VA  
Memphis Animal Shelter, TN  
Nashua Humane Society, NH  
New Orleans SPCA, LA  
Norwich Animal Control, CT  
Paws and Claws Humane Society, MN  
Tallahassee-Leon Animal Service Center, FL  
The Animal Foundation, NV  
Town of Southold Animal Shelter, NY  
Virginia Beach Animal Shelter, VA  
Yonkers Animal Shelter, NY



AIR



SAFETY



LIGHT



POWER



WATER



NOISE



LEED



**860-889-7078**

116 Main Street, Norwich, CT 06360

[INFO@DESIGNLEARNED.COM](mailto:INFO@DESIGNLEARNED.COM)

[DESIGNLEARNED.COM](http://DESIGNLEARNED.COM)