2013 Veterinary Economics Hospital Design Competition Entry

Parker Veterinary Hospital
Oxford, Michigan
Constructed  September, 2011
A. Background

Parker Veterinary Hospital
5 Mechanic Street, Oxford, Michigan 48371 USA
ph: (248)628.2400    fax: (248)628.9302    email: parkerveterinary@yahoo.com    website: www.wilsonvethospital.com

Completed - September, 2011
Freestanding Building (owned by operator)
Primary care practice, up to 6,500 square feet
100% Small animal

Open 6 days a week: M W-12 hours,  TTh Fri Sat- 8 hours

Owners:
Dr. Adrian Holly, Ross University, School of Veterinary Medicine, 2003
Dr. John Wilson, Michigan State University, College of Veterinary Medicine, 1984

Staff size:
0 full time associates    0 part time associates
3 fulltime non-DVM employees    4 part time non-DVM employees

Primary Architects:
Anton Janezich, AIA and Stan Andrulis
AJ Architect.com, pllc
1785 Massachusetts Avenue NW, Suite 509, Washington, DC 20003 USA
Ph: (202)588.6392    fax: (202)588.6396    email: info@ajarchitects.com    website: www.ajarchitects.com

Interior design:
AJ Architects.com, pllc

Photography:
AJ Architects.com, pllc
Rebecca Huyghe, RebeccaHuyghe@gmail.com

Ms. Huyghe is a professional photographer
B. Physical characteristics

The project is a conversion (adapting an existing structure into a veterinary facility)

4,600 total square footage (3,800 sf of ground floor clinic space + 800sf of storage and mechanical basement)
4,600 square footage of expansion or renovation
100% finished areas with standard height ceilings
17% useable basement space

20,470 site area (sf)
4 exam rooms
26 cages
3 indoor hospital runs
16 combined client and staff parking spaces

C. Costs in U.S. dollars

$ 250,000 Land purchase ($150,000 land - $100,000 existing building)
$ 700,000 Building(s) (Include costs for building and cabinets only, exclude land purchase, landscaping, parking lot, etc.)
$ 152 Cost per square foot (Total building cost divided by total square footage)
$ 50,000 Site improvement (Include parking lot, landscaping, signage, utilities, etc.)
$ 110,000 Professional fees (Include architect, surveyor, attorney, accountant, lender, etc.)
$ 50,000 Equipment (Include cages, exam and surgery tables, radiograph equipment, autoclave, phone and intercom systems, surgical lights, ultrasound, endoscope, etc. Include depreciated items from previous facility.)
$ 1,000 Furnishings (Include such movable furnishings as chairs, artwork, desks, retail displays, etc.)
$ 20,000 Computers (Includes depreciated items from previous facility.)
$ 2,500 Additional fees (Include permit fees, city fees, impact fees, etc.)
$ 0 Other costs (Please specify)

$1,183,500 Total
**Design Objectives**  (section II)

We had been contemplating establishing a new practice in the town of Oxford, Michigan for some time when a very unique property became available. Located in the town’s central business district the unusual shaped property consisted of a sea of asphalt and a utilitarian 1940’s vintage structure that had been renovated in the 1970’s but not touched since. In programming discussions with our architects numerous issues with the existing structure were identified. The greatest problems revolved around the fact that the existing building was foreboding, metaphorically dark and physically without adequate natural light.

When a feasibility study ruled out the possibility of demolition of the existing building and the construction of a new replacement hospital was not a financial possibility, we decided to tackle the daunting task of renovation. Site investigation and study of difficult to discover existing documents revealed a non-intuitive solution. We uncovered the true nature of the original existing 1940’s building was destroyed by a 1970’s renovation that markedly reduced the size of fenestration, lowered the interior ceiling, added a pitched roof instead of repairing the original flat roof and added troubling brown trim to disguise it all.

Our approach became not one of addition but largely one of subtraction. We removed the 1970’s elements (except for the pitched roof) and repaired the damage done by those interventions. We discovered that the existing windows were much smaller than those originally designed in the 40’s. It became relatively easy to reinstate the original 9’ high window heads, and raise the ceiling height to as high as 10’-0” at the exterior walls resulting in a modest but light filled, inviting structure that was within the budget of the new practice.

The interior fit-out created a simple efficient space for the care of animals. The building is organized by a central circulation spine parallel to a mechanical distribution spine over the lower ceiling height (8’-0”) scrub, xray, icu and workstation functions. On either side of these spines are higher ceiling spaces such as lobby, lounge, and prep/treatment, lab, pharmacy and surgery that benefit from the natural lighting provided by the new fenestration.

The very tight site itself was another challenge with existing asphalt parking lot covering essentially the entire property. The solution followed an approach similar to that which was taken with the building. Asphalt was removed wherever possible to accommodate much desired green space that helps to create a richer more natural site experience. The new green landscape is carved out for the required parking spaces while functioning as storm water management infiltration beds that take advantage of the nature of Oxford’s highly porous soil.

We believe we have created a hospital that serves our clients with a welcoming, light filled contemporary environment appropriate for the state-of-the-art veterinary medical services we provide. The hospital reflects our practice philosophy, responds to the functional and environmental needs of staff, clients and patients and breathes new life into our corner of the beautiful village of Oxford.
Finish materials  

(section 2.4)

flooring, public areas: 20"x20" Corican Crème, Empire Series, by Crossville
base, public areas: cut Corican Crème, Empire Series, by Crossville

flooring, back of house: 12"x12" Knight Tile, SF-5, by Karndean
base, back of house: 4" vinyl base, by Johnsonite

flooring, ward: epoxy, Armorseal Rexthane 1, by Sherwin Williams

walls, interior:
gypsum board, with Panda White, Lo Lustre Hi-Bild Water Based Catalyzed Epoxy, by Sherwin Williams

flooring, ward:
grooming tub:
grooming tub:
walls, interior:

ceiling, ward:

ceiling, surgery:

ceilings, lobby:
gypsum board, with Snow Bound, Lo Lustre, Hi-Bild Water Based Catalyzed Epoxy, by Sherwin Williams

ceilings, back of house:
2’x2’ Optima Open Plan Tegular, cleanable acoustical ceiling tile, by Armstrong

ceiling, surgery:
2’x2’ Optima Open Plan Tegular, cleanable acoustical ceiling tile, by Armstrong

counters & work surfaces:
plastic laminate, Graphite Nebula, by Wilson Art

millwork:
plastic laminate, Designer White, by Wilson Art

interior door glass:
etched tempered glass, STD 192, by Bendheim

lobby lighting:
linear fluorescent direct/indirect pendant light, #3500, by Sistemalux

lobby benches:
back: 1”x1” glasstile, Hazel, by American Olean
seats: plastic laminate, Graphite Nebula, by Wilson Art

lobby reception desk:
vertical surfaces: 1”x1” glasstile, Hazel, by American Olean
horizontal surfaces: plastic laminate, Graphite Nebula, by Wilson Art
Environmental Systems (section 2.5)

The renovation transformed the existing dated structure into an efficient building envelope. Both the ceiling and walls have insulation values beyond what is normally found in similar buildings and required by code. This results in less energy used for heating and cooling. The new larger windows with their high efficiency low-e glass allow the majority of the new interior space to be flooded with natural light while simultaneously preventing heat loss during winter and heat gain during summer. The efficient use of natural light allows the new artificial lighting system to be inactive for portions of the day. In addition, lighting controls such as occupancy sensors automatically turn off lighting in unoccupied spaces further reducing energy consumption.

In discussions with our architect we examined the relationship between high efficiency, refined environmental zoning and first cost. We developed a solution that worked best for our needs which divided the hospital into 3 environmental control zones. The building is served three high SEER Lenox split-system heating (natural gas) and cooling (electric) systems. The public spaces including lobby arranged along the north wall with its greater heat loss are one zone. The back-of-house working spaces arranged along the south wall with its greater heat gain are a second zone. The third zone consists of the east facing patient exam rooms.

The Surgery is placed under positive air pressure to keep air-borne contaminates out by assuring that air from other portions of the building never reaches the operating area. A gas scavenger system also assures no inadvertent contamination from the use of anesthetics during procedures.

Our Ward is acoustically isolated from the rest of the clinic in several ways. This is accomplished firstly by sound attenuation walls enclosing the space as well as acoustical gaskets and acoustical drop seals at the ward entry door. It is also accomplished in a more subtle manner by arranging the hospital so that spaces that do not require great acoustical privacy such as laundry, grooming tub and lounge surround the ward. To provide as healthful environment as possible we exhaust a higher percentage of air from the Ward than required by code. This combined with the hospital's strict cleanliness policy, hose reel and floor drain system greatly reduces odor control issues.

To keep initial costs down for the new practice we chose to reutilize traditional film based radiological equipment that became available when one of our established sister hospitals converted to digital. We anticipate converting to digital in the future and have made accommodation for that upgrade by installing conduit to our x-ray viewer locations which will allow monitors to replace the viewers in the future without the necessity of breaking into walls to provide future cabling.

Controlled drug storage occurs within a locked cabinet in prep/treatment area. The key to the cabinet is stored within our locked office.
Section III

Financing (section 3.1)

Land acquisition financing, construction financing, permanent financing and equipment financing was provided by a local Community Bank.
Practice Philosophy  (section 3.2)

We strive to serve our community by providing state-of-the-art, moderately priced services. We rely upon the highest quality services being provided in the most cost efficient manner to the greatest number of clients. Through the years the communities in which we practice have continually validated our philosophy by rewarding the practice with sustained growth.

The 4,600sf Parker Veterinary Hospital is the sixth clinic in the family of hospitals that we have developed over the past two decades. It is located in the village of Oxford, where we had not previously practiced. While first cost was important we also required an installation into which we can grow as our practice matures. Our main 12,000sf hospital located 30 minutes away in Romeo, Michigan supports our mission by providing 24 hour emergency services. It also provides physical therapy/rehabilitation facilities, permanent reproductive storage facilities, orthopedic surgery, intensive care, endoscopy and isolation facilities. This relationship allows us to more efficiently serve the vast majority of our clients here on site while we are able to offer the greater range of services that a multi-location practice supports.

Our facility provides a full range of general medical and surgical service for our small animal patients. The renovation is designed to accommodate our practice in a manner consistent with our practice philosophy. We see it as an efficient renovation, with simple robust materials, that allows us to provide our clients with great service as well as a sense of architecture and light.
Site Selection and Utilization  (section 3.3)

The primary consideration for the selection of this site was its location in the commercial core of the Village of Oxford. The site’s presence a block away from the historic center of town with its ‘main street’ feel, shops and restaurants combined with the property being large enough to provide the off-street parking we required made the decision for us. We understood that the site’s peculiar shape and existing building would pose several challenges that we would need to depend on our architects to mitigate.

The property presented several zoning challenges for its use as a veterinary hospital. The site is zoned C-1 (commercial) and prior to our purchase of the disused property and commitment to renovate it veterinary hospitals were not a permitted use. In discussions with the Oxford planning officials and Mayor they agreed to solve this issue by amending the ordinance to redefine veterinary hospitals as a permitted use. With that commitment we purchased the property.

We soon realized that although with the zoning amendment our property use would be allowed the change of use from office (the building’s last use before its abandonment) to veterinary hospital presented another zoning issue. With the change of use the existing building’s rear yard setback from the adjacent residential property would not meet the required 25’. With the support of the planning officials, mayor and adjacent property owners we applied for and were granted a zoning variance to allow the existing condition to remain.

Except for the front yard on the east side of the building the property was completely asphalt covered. The vast majority of storm water drained off the property and into the city storm system. If we were a new development this undesirable condition would not be allowed, but as a renovation continuing the existing condition it was acceptable by code. Despite this we endeavored to mitigate the situation. While we needed to keep a minimum of 16 parking spaces to meet both our future needs and the zoning requirements we also wanted to create as much green space as possible. This green landscape serves several purposes. It creates a more pleasant experience for clients while somewhat buffering our property from the continuous asphalt parking lot to the north. Through judicious placement and some minor re-grading of the parking lot through the application of a new asphalt topping course we are able to channel most of the storm water run-off to our landscape areas. These areas and planting are designed to accept the storm water and infiltrate it into the very porous soil thereby substantially relieving the village storm water load. A side benefit of the creation of landscape space near the clinic entry is the ability to place a faux fire hydrant near the exit for the use of our more anxious patients.
Summary (section 3.4)

We believe that the selection of a disused site and building located in a robust small town veterinary services market allowed us to create a facility that will serve our clients needs for years to come while substantially improving our immediate area. The site, restrained renovation, selection of a design team that understands the needs of our practice and a good relationship with our new community has allowed us to create a new practice in an economical and sustainable manner.

The hospital has several design features that help us carry our our mission:

- **Our generously sized, light filled lobby uses robust materials to create a striking seating system that allows our clients the ability to self select the best location for their pet. The high backed seating also provides a visual barrier that can help to keep uneasy waiting pets more comfortable.** For the convenience of our clients we have created a generous product display area within the lobby. This display is not the floor to ceiling packed shelving of a pet superstore but a more refined version appropriate for a professional office.

- **Our 4 exam rooms offer the flexibility of small rooms, a large room appropriate for bigger dogs and their entire human family, and an exam/grieving space that allows clients to leave the clinic privately.**

- **The working portion of the hospital is arranged linearly with the glass enclosed surgery suite and doctor’s office on either side of the light filled open space of pharmacy, lab and preparation/treatment. We have also created a standing workstation for the doctor’s use between prep/treatment and lab and two additional workstations on the path from back-of-house to exam rooms for associate veterinarians.**

- **We offer medical grooming as well as limited aesthetic grooming services both of which are more easily accomplished with the custom designed tile stepped grooming tub located adjacent to both the ward and prep/treatment.**

One of the compromises we made during the process of searching for a site and designing the facility was the selection of the site itself. With the benefit of its location in the heart of the village comes zoning restrictions that a non-conforming site such as ours presents. We have designed the facility for our current and anticipated needs of the next decade and beyond. If we eventually do outgrow the facility we will be able to expand through the zoning variance process of additional adjacent land acquisition.

The design process of our building has reinforced our belief in the value of engaging and listening to all interested parties. We sought advice and comments from senior veterinary colleagues experienced in creating new hospitals, from our architects and our professional staff. We would advise others that an inclusive design process will usually result in a better final product.
lobby looking toward reception
lobby view toward reception
lobby view toward entry
lobby with reception desk on right
exam corridor at view to lobby
patient naps in waiting room
Equipment (section V)

Anesthesia equipment
- Butler Schein (Small animal anesthesia machine)
- Surgivet (classic T31M vaporizer X3)

Blood chemistry analyzers
- Idexx (vet test 8008)

ECG monitors
- Burdick (ECG EK/SA)

Pulse Oximeter
- Surgivet (V1030 handheld)

Cages
- VSSI (stainless steel X27)

Dental equipment
- Engler Scaler (Schus II)
- Ultima Dental Systems (Ultima 500)

Dog runs
- Custom walls, VSSI (Stainless steel run door X3)

Radiography (film)
- Great Lakes Imaging (Summit Innovet)

Exam tables
- VSSI (folding wall mount table X4)(standing wall mount exam table X1)

Wet table
- VSSI (stainless steel wet prep)

Surgical tables
- VSSI (v-top surgery table w/ adjustable hydraulic column X2)

Practice management software
- Intra vet

Ultrasound
- Toshiba (capasee)