



Animal Shelter and Adoption Center

Needs Assessment and Concept Design



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Introduction



**"I have a very old and very faithful attachment for dogs.
I like them because they always forgive."**

- Albert Camus, *The Fall*

Quorum Architects, Inc. was retained by the City of Pflugerville to perform a feasibility study and needs assessment of their current animal shelter. Quorum was commissioned not only to utilize our extensive experience with similar facilities, but also to meet with employees and animal advisory board to gather their input. In addition, because every animal shelter has its own unique needs and issues, the current operations of the existing facility were observed and completely analyzed. Quorum then addressed ideas and concerns through facilitated meetings with the staff. Operational aspects such as animal intake, processing, care, medical procedures and disposal, as well as public accessibility, safety, comfort, training, and the adoption process were all taken into account.

Existing data was gathered and evaluated to make projections to be included in this needs assessment. Quorum was able to assess current needs and project future needs based on population projections through 2025. Projections were developed from recent animal intake data provided by the shelter and population projections provided by the City of Pflugerville. Additional information was gathered from industry-respected sources, such as the HSUS publication, Guidelines for Housing Animals in Shelter Facilities, and The American Veterinary Medical Association's Statistics of National Pet Ownership. This information was then compared to other recently constructed facilities (with similar populations) to benchmark and confirm the findings.

After the Pflugerville needs assessment was completed and analyzed, Quorum developed a comprehensive set of conceptual site plans for an expanded new facility which will include an Animal Shelter and Adoption Center, a Police Substation, a Veterinary Clinic, and plans for a future dog park. All of the data, projections, evaluations, and recommendations are included in this document. This document was presented to the staff and will be presented to the City Council.

Demographics



Pflugerville is one of the fastest growing cities in the United States: Forbes listed it as being the 23rd fastest growing suburban community. Its population is currently 54,644 (2014 Population Estimate as of July 1, 2014) with a projection of 4,250 new residents added annually.

The population and animal projection information was obtained from the shelter's 2014 actual animal intake/adoption numbers and projected out to 2025 based on national standards, as well as current average animal hold times. These projections are included in the appendix using the categories listed below:

- Human population
- Number of animals per household
- Average number of animals that will be taken to the animal shelter
- Average overall intake based on animal overall length of stay

Existing Facility



The City of Pflugerville's Animal Shelter is located at 1600 Waterbrook Drive in Pflugerville, Texas. The existing facility is a campus of multiple metal Quonset huts and masonry buildings that were originally constructed for the Public Works Facility to house Fleet Maintenance and Water/Sewer Departments. This campus is located directly behind a residential neighborhood. The property is currently fence enclosed with access-control. Some existing metal buildings have been converted to a meeting/training room, a cat adoption room and storage building. Another metal building that has been used for storage over the years is in the process of being converted to temporarily house the adoptable dogs. The pre-existing portable Public Works office is now used for the shelter office.

These existing eight buildings are spread out over almost three acres. They are separated by gravel/dirt driveways, with the only paved public parking located at the main office. The number of parking

spaces is not sufficient to meet the needs of staff and visitors. There is not an accessible route between buildings. Efficiency of the staff's work flow is drastically affected by the separation of the buildings and exercise yards. Assisting the public, completing paperwork, moving supplies, cleaning buildings and doing laundry takes far more time than they would if housed in one building. Currently, the kennel cleaning process requires staff to relocate the dogs - one at a time to the exercise runs - until the adoption kennels are empty. Once the staff completes cleaning, they bring the dogs back in. This process is completed every morning and afternoon.

The outside chain link exercise yards are dirt and pea gravel. There is typically standing water when it rains, causing these yards to become muddy. The dogs will track in mud after the kennels have been cleaned, which leads to increased cleaning time for the staff. Disease or parasite transmission is possible because the outside exercise runs cannot be sufficiently disinfected. Industry studies demonstrate dirt and grass outdoor areas can become heavily contaminated over time. Parvo and many other parasitic eggs are virtually impossible to eliminate from such areas once contaminated.

According to the owner, drainage has been an issue throughout this site, so there is typically standing water when it rains, along with muddy drives. Drainage issues carry over inside the buildings as well. The building used to house dogs was designed with a trench drain that is located on the back of the kennels for the adoptable and stray dogs. Staff and volunteers wash down the kennels twice a day. The spilled food and dog waste is washed down through a slot in the back of the kennels with a standard



water hose/nozzle. The staff, then has to wash the trench drains down to prevent odor and disease from being spread throughout the shelter. The only access to this area is through an exterior door that is only 4'-6" high, causing anyone who enters to have to crouch to enter and then cannot stand

Existing Facility

up completely. The access aisles in the kennel area have exposed drains that have been covered with large rubber mats to prevent visitors, staff and volunteers from stepping in these open drains. The original drain covers were raised and created a tripping hazard. The foundation does not properly



slope to the drains, causing staff to squeegee standing water to the drains. Cleaning procedures are extremely inefficient. Food prep and Medical rooms also have no floor drains, therefore staff is spending more time cleaning by having to squeegee the water out the door into the kennel area to access the raised drain. The poor drainage system affects cleaning and disinfecting of this facility.

The types of finishes also play a large role in keeping any facility clean and healthy for the animals, as well as staff and visitors. The State Health Department requires that all finishes in an animal shelter be non-porous and durable to prevent harboring of any disease. Currently, the counter tops and cabinets in these rooms are wood and are thus susceptible to disease transmission. All of the rooms in the dog building area are open to the roof structure, exposing all ductwork. It is impossible

to keep these free of dust. The cat rooms cannot be properly cleaned because not only are they constructed with gypsum board walls but also do not have floor drains. Should there be an outbreak of disease, staff will be required to move all the cat cages to the exterior of the building, in order to completely wash down and disinfect the rooms. Rooms with porous wall finishes can only be wiped down or their finishes will be ruined. If any type of water hose is used to wash down the floors, then staff would have to spend time using a squeegee to push the water out of the room to a drain. Some areas will pond, due to the uneven floors.

The HVAC system at the dog shelter is insufficient and does not meet current State requirements nor does it maintain industry standards. The adoption side has the boards in place along the gutter, but



every time the wind blows, air blows into the kennels from outside. This makes it difficult to keep the dogs warm in winter (even with the heat running) and cool in the summer. Staff provides blankets or towels for each dog for extra warmth and comfort. During winter, staff often has to plug in space

Existing Facility

heaters, especially if the temperatures are getting near freezing. Ice has formed along the edge of the kennels by the gutter. If too many heaters are plugged in, the breakers are thrown causing a loss of all heat and sometimes even the lights. The bare metal roof lacks insulation. In summer this causes major cooling issues: it easily heats up and is very difficult to keep cool. Staff runs extra fans on the adoption side, but again, if they run too many, a breaker will be thrown. The units often freeze up causing difficulties in keeping rooms at proper temperatures for animals. If rooms are too cold/



warm, then the animal's health could be at risk for a UTI (Urinary Tract Infection) as well as other infections/diseases. The current HVAC system is not providing adequate air exchange for an animal shelter design. This is apparent as soon as anyone enters the adoptable cat building. There is a strong odor of cat urine which causes visitors to not want to stay an extended time in the room. This has a negative effect on adoption rates.

Lighting in the dog building is dim, which is not in compliance with State Health requirements. There is very little natural daylighting coming into the adoption room, and there are no windows located within the stray room. The amount of light that animals receive from artificial and natural daylighting has an effect on their health. Several kennels are hard to see inside of and are always dark. This is quite hazardous for several reasons: first, the kennels are next to impossible to properly clean and second, dark dogs raise safety risks when you cannot see them without squinting.

Noise is a constant issue that exists in the dog building. The adoption and stray side of the shelter are extremely loud when the dogs start barking, which can lead to added stress for the dogs. You cannot hold a conversation inside. Communication must be conducted via yelling or by vacating the

building. These loud sounds can cause damaged hearing for staff, volunteers and the dogs. There are no acoustical sound panels/baffles located inside the building to soften all of the hard surfaces within each room. Outside the building on the adoption side, there are several crude makeshift noise barriers hung to try to reduce noise to the neighborhood. These acoustical panels appear to be ineffective.

The kennels and cages are easily accessible to all visitors, as well as other dogs passing by the outside. Dogs have nose-to-nose contact with other dogs and visitors pet each dog, causing situations where disease can rapidly spread from kennel to kennel. In addition, this access allows dogs an opportunity to bite or scratch anyone reaching into the kennels. This in turn could cause a ten day quarantine of a previously healthy and adoptable animal.



The stray side of the shelter has kennels that are wider and equally as deep as those on the adoption side. Many are larger than what is on the adoption side, but the kennels are only four feet tall and are covered with a wire mesh and chain link tops. Staff has to crouch to enter the kennel with a dog, which is dangerous since it forces them to hover over a dog, which could cause a dog to bite out of

Existing Facility



fear. Many dogs jump up and hit their head on the chain link every time they jump. Staff often hits their heads when inside the kennel while trying to scrub the walls and floors. The chain link is damaged on some kennel tops and they have had issues with some dogs escaping the kennel by climbing out the top. Staff, as well as dogs, have been poked in the head with loose wire from damaged mesh or chain link tops. The health department has said these kennels need to be done away with, because they are too short and animals, staff and visitors can become injured. None of the kennels in this facility meet standard safety requirements by the State. They also have swinging gates for the food holders that frequently break and dogs are able to push them open and escape through the opening. The city is unable to replace these kennels with those the health department says are tall enough because the roof slopes too low and the kennels cannot fit. It would require removing the roof and adding height to the walls, then installing a new roof with metal beams instead of wood which would still not help with efficiency in cleaning.

The kennels on the adoption side of the shelter are too small for long term housing, which the health department says is any dog held two weeks or longer. Staff has indicated those kennels are only adequate for short term holding. Much larger kennels are needed for long term holding. These larger kennels feature an opening where food and water bowls slide through instead of having bowl holders. Food bowl holders are not recommended because dogs often break them. Dogs cannot wear collars in kennels with bowl holders because they are hazardous since the dog can be strangled should their collar catch on a broken bowl holder frame.

The current space does not allow a separate area to house sick and injured dogs for isolation. A quarantine area for dogs with rabies does not exist. There are not enough adoptable kennels available, forcing staff to mix stray and adoptable dogs. The risk of disease transmission increases when spaces are shared with different populations of dogs. Medical costs continue to increase with the spread of upper respiratory illness. The volunteer's office is converted to house a single sick dog when necessary. This space has a window air conditioning unit without heat. Portable heaters are required in the winter. This area is not set up for holding animals or disinfecting after a sick animal has been housed in it.