



# Brooks Acoustics Corporation

49 N. Federal Highway Pompano Beach, Florida 33062 754.229.1450

Mr. Al Ramphal, AIA, NCARB  
4001 Hillcrest Drive #1206  
Hollywood, FL 33021

18 November 2014  
PJ2014-1138-L02

Subject: Holly Acres Pet Resort – Kennel building acoustical treatment

Dear Mr. Ramphal:

As requested, Brooks Acoustics Corporation (BAC) has developed acoustical treatment for the kennel building replacement for the Holly Acres Pet Resort facility located at 10701 Sterling Road in Davie, Florida.

The acoustical engineering treatment options were developed for reducing the impact of sound levels from that facility in the surrounding neighborhood.

Two acoustical treatment options were developed for the site.

- 1 – Kennel building window canvas curtain sound barriers
- 2 – Fence fabric sound barrier wall

A description of these treatment options is as follows.

## **1- Kennel building window canvas curtain sound barriers**

The kennel building will have large windows to allow clean air to enter the interior dog run area.

It is recommended that the windows have the option of roll down window curtains. The curtains will be constructed of heavy canvas material covering the window opening. The heavy canvas curtains will act as a sound barrier.

Field test measurements of kennel dogs indicate that for a variety of dogs the heavy canvas curtains will reduce the sound levels emitted by the building by about 5 to 7 dBA.

The result would be reduced sound levels from the kennel in the residential neighborhood around the facility.

## **2- Fence fabric sound barrier wall**

A chain link fence currently secures the area to the west and north of the new building site.

In other areas of the kennel facility a fence fabric has been installed to provide both a visual and sound buffer to the areas outside of the facility.

Acoustical engineering calculations of the sound reduction properties of the fence fabric were conducted based on physical characteristics data from the manufacturer. The fabric is a solid sheet of polyester material which is about 0.35 mm thick with a weight of 0.44 kg per square meter (13 oz per square yard).

It is recommended that a sound barrier fence fabric wall be installed on the existing fence in the northwest corner of the property, about 8 feet high, for a length of approximately 40 linear feet.

Field test measurements of kennel dogs indicate that for a variety of dogs, the fabric fence sound barrier will reduce the sound levels emitted by about 8 to 10 dBA.

The result would be reduced sound levels from the kennel in the residential neighborhood to the northwest of the facility.

### Summary

The above acoustical treatment recommendations would each reduce the sound levels emitted by the kennel. Taken together the minimum expected sum of the reduction would be:

$$\text{Total sound reduction} = 5 \text{ dBA (canvas curtains)} + 8 \text{ dBA (fence fabric)} = \mathbf{13 \text{ dBA}}$$

A reduction of 13 dBA in sound level is equivalent to a **perceived reduction** of about **65 percent**.

It is anticipated that these combined recommendations, when implemented, will result in lower sound emissions from the kennel, and considerably less perception of the facility in the surrounding neighborhood.

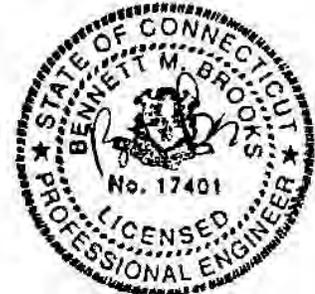
Please contact me if you have any questions concerning these findings.

Very truly yours,  
BROOKS ACOUSTICS CORPORATION



Bennett M. Brooks, PE, FASA, INCE  
President

Attachments



HOLLY ACRES PET RESORT  
KENNEL BUILDING REPLACEMENT  
10701 STIRLING ROAD  
DAVIE, FLORIDA 33328

DATE: 11-19-2014  
ALVA D. RAMPHAL  
FL. CERT. # 8594

ALVA D. RAMPHAL, M.A.  
dramphal@ramphal.com  
Tel: (954) 896-2283  
Fax: (954) 874-2283

ACOUSTICAL TREATMENT

DESIGNED BY: A.D.R. DATE: 11-19-2014  
DRAWN BY: ADR. SCALE: AS SHOWN  
JOB NO.: A-04-01-2014  
CHECKED BY: ADR. COUNTY: FLORIDA  
REVISION: 50 SOUTH RANGE #1 EAST, PLAT BOOK 2,  
TOWNSHIP 50 SOUTH RANGE #1 EAST, PLAT BOOK 2,

SHEET  
NUMBER:  
ACST-1



LOOKING NORTH WEST AT FENCE



EXISTING CANVAS WINDOW CURTAINS

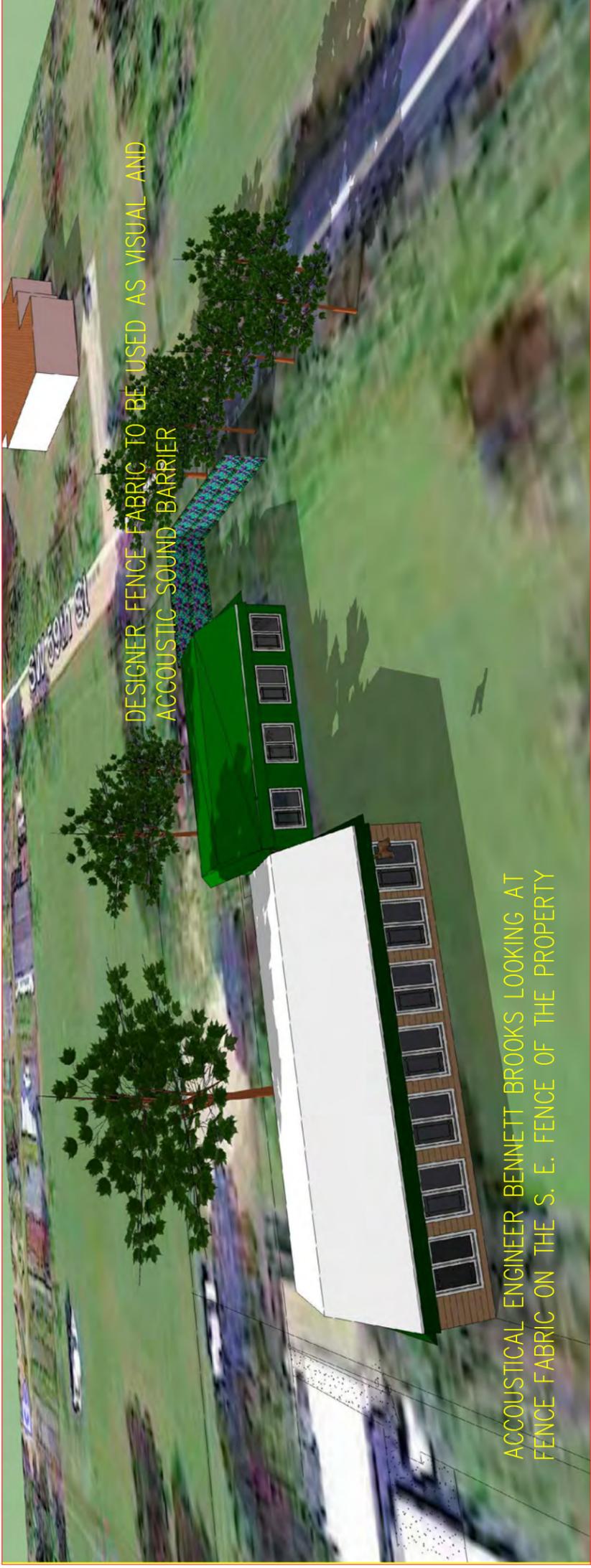


EXISTING KENNEL LOOKING NORTH WEST



EXISTING CANVAS WINDOW CURTAINS





SHEET  
NUMBER:  
**ACST-2**

DESIGNED BY A.D.B. DATE 11-19-2014  
 DRAWN BY K.E.R. SCALE AS SHOWN  
 JOB NO. A-01-2014  
 REVIEWER COUNTY, FLORIDA  
 TOWNSHIP 30 SOUTH, RANGE 11 EAST, PLAT BOOK 2

ACOUSTICAL TREATMENT

A.I.A.  
 ALVA D. RAAPHAL, AIA  
 Tel: (904) 874-2283  
 alvadr@bnet.com

DATE: \_\_\_\_\_  
 ALVA D. RAAPHAL  
 FL. CERT. # 8594

HOLLY ACRES PET RESORT  
 KENNEL BUILDING REPLACEMENT  
 10701 STIRLING ROAD  
 DAVIE, FLORIDA 33328

