

From: Carlos Arias <carias@4gdev.com>
Sent: Tuesday, May 22, 2018 11:20 AM
To: 'Carla E. Muss-Jacobs' <CarlaHomes@msn.com>
Cc: 'Michael Towle' <mtowle@dowl.com>; Sandra Freund <sfreund@beavertonoregon.gov>
Subject: RE: Cedar Hills // Chick-fil-A Noise Concern

Sandra,

Can you please include this email correspondence and attachments as public record for the Public Hearing on May 30th?

Carla,

You are correct. The purpose of my email was not to summarize our entire phone conversation but rather to continue the dialogue specifically on potential designs for fencing. At the end of my email you will notice my attempt to set up a time to further discuss. Please accept my apologies for not being clear.

We would like to continue to work with you prior to the hearing on the 30th to find a fence design that both parties are agreeable to. Below are two options that we have researched with supporting data for noise reduction and we hope you are willing to further discuss these products with us. We propose to provide a fencing product that provides some level of noise reduction and works with the existing trees that are on the property line. Our hope is that we can use one of the products below, or an alternative product once we have had a chance to work with suppliers and installers, that provides similar levels of noise reduction to those noted below. As you saw in your previous research, there are a lot of different environmental factors that play into the actual level of reduction, however, we hope that the use of a material similar to those shown below will provide some level of relief for you.

Option 1: Acoustifence:

- This product can be installed between the double sided fence we originally indicated.
- The material itself is lab tested STC value of 28, which represents over an 80% reduction in sound to the human ear.
- See attached specs

Option 2: Tuf-Barrier (Reflective)

- This product commonly achieves a 5db-10db decrease. This equates to roughly 50% of the noise heard being mitigated.
- See attached brochure

Again, we would appreciate the opportunity to further discuss designs that achieve similar noise reduction levels to these products. Please let me know if there is a good time to discuss.

Carlos Arias – Project Engineer
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P.O. Box 270571, San Diego, CA 92198

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City of Beaverton
MAY 22 2018
Planning Division



Silent Protector® (Absorptive)

- ▶ PVC absorptive sound barrier wall system with acoustical mineral wool
- ▶ Noise Reduction Coefficient (NRC) rating of 1.0, the highest achievable rating
- ▶ Absorbs unwanted noise
- ▶ Silent Protector Plus® offers STC 36 and NRC 0.95, ask for details

NOISE REDUCTION
COEFFICIENT RATING
NRC 1.0

ALL Sound Walls are made from long-lasting, UV-resistant PVC,
with the highest percentage of recycled content available.



Tuf-Barrier® (Reflective)

- ▶ PVC reflective sound barrier wall system
- ▶ Blocks and reflects unwanted noise
- ▶ Tongue and groove interlocking connection
- ▶ Textured finishes available

SOUND TRANSMISSION
CLASS RATINGS UP TO
STC 36
WITH SILENT PROTECTOR PLUS®

**EASY-OFF
GRAFFITI
AND TAGGING**



Acoustifence Benefits and Specifications

- The material itself is lab tested STC value of 28, which represents over an 80% reduction in sound to the human ear. (Your results will be less as sound reflects off all surrounding materials or structures, i.e, buildings, trees, etc., and is relative to how high and wide your fence is.
- Acoustifence is unique in that it is free of Toxic Barium.
- Works extraordinarily well at blocking direct line of sight sound.
- Far less sound reflected than solid walls. At very low frequencies it actually tends to absorb noise as much as 75% (see NRC graph).
- Installed or removed in less than one hour.
- To store, Acoustifence easily rolls up like a carpet into 12 in. roll.
- Very UV resistant and does not support mold.
- Virtually indestructible, very resilient material.
- 100% recyclable & Comprised of 100% recycled materials.
- Will accept most paint finishes.
- Includes 80, 14 in. heavy duty 100 lb. stainless steel ties.
- Can blend in with any background using our Acoustifence-Landscapes® or easily painted.
- High strength reinforced edges.
- Spray paint graffiti easily removed.

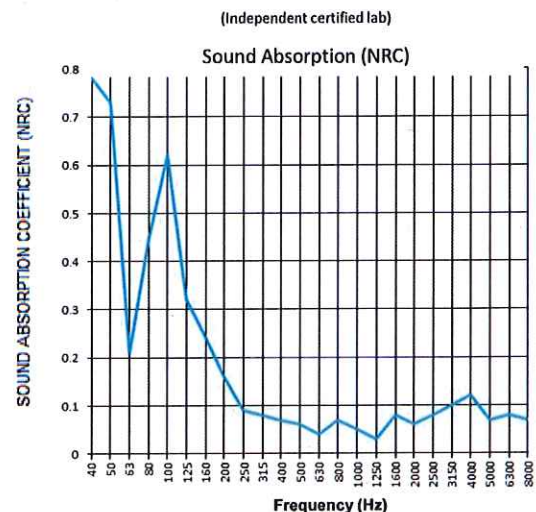
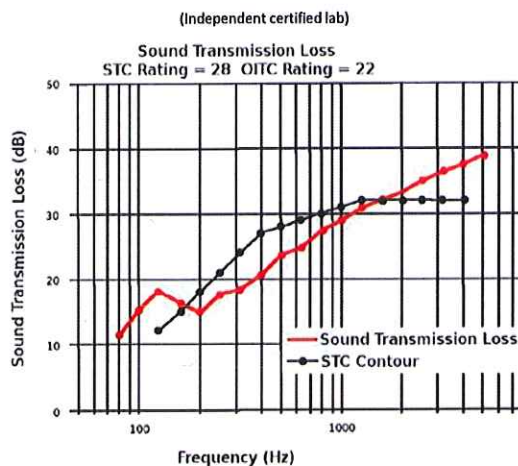


Material Specifications – Part # “Acoustifence 6x30 Industrial”

Acoustical Rating	STC 28 / OITC 22 (NRC of .78 @ 40 HZ)
Size	6 ft. (1.83m) x 30 ft. (9.14m) x 0.125 in (.3mm) 180 ft ² (16.72m ²)
Weight	Approx. 185 lbs. (84Kg)
Fastening	Black brass grommets every 6 in. (152mm) along top edge with four grommets spaced along the bottom edge, stainless steel cable ties included. Commonly installed horizontally. 440 LBS tensile strength reinforced edges.
Color	Black or Green

(This is an industrial product and minor surface blemishes are a possibility.)

(Independent lab test results indicates an amazing NRC of .78 at the low frequencies of 40 HZ)



Acoustifence® Acoustical Test Data

Performed by an Independent Certified Test Lab in the Lab
(Outdoor results will be less depending on environment.)

Specimen Area: 6.0 Sq. Ft.		Specimen: Acoustifence Sound Barrier Material				
Filler Area: 134.0 Sq. Ft.						
Operator: W. Green						
	Bkgrd	Absorp	Source	Receive	Filler	Specimen
Temp F	73.9	74.0	73.1	73.9	73.1	73.7
R. H. %	65.7	65.7	63.3	65.7	61.4	65.1

Freq (Hz)	Bkgrd SPL (dB)	Absorp (Sabines / Sq. Ft.)	Source SPL (dB)	Receive SPL (dB)	Filler TL (dB)	Specimen TL (dB)	95% Conf Limit	No. of Deficiencies	Trans Coef Diff
80	43.0	52.5	84.2	63.7	36.3	11	2.54	0	11.7
100	39.2	59.1	87.7	62.9	40.3	15	3.77	0	12.0
125	47.4	55.9	91.5	63.7	47.5	18	2.02	0	15.9
160	43.4	50.4	94.2	68.8	46.2	16	1.06	0	16.5
200	43.0	54.9	97.9	73.5	49.6	15	0.80	3	21.3
250	35.8	53.0	99.3	72.2	51.0	18	1.12	3	19.8
315	33.7	57.2	95.7	67.5	54.0	18	0.53	6	22.1
400	33.3	56.0	95.0	64.6	58.4	21	0.78	6	24.3
500	31.6	56.3	98.8	65.4	60.5	24	0.30	4	23.4
630	25.1	57.7	101.5	66.9	65.2	25	0.53	4	26.9
800	25.2	59.9	101.3	63.8	67.4	27	0.54	3	26.4
1000	23.2	62.6	101.0	61.9	72.2	29	0.49	2	29.8
1250	23.8	69.4	105.1	63.7	78.0	31	0.28	1	33.8
1600	20.1	70.2	111.4	68.6	81.8	32	0.22	0	36.3
2000	15.0	76.3	107.4	63.2	79.9	33	0.22	0	33.2
2500	7.5	86.9	105.9	59.3	74.8	35	0.23	0	26.3
3150	8.4	102.0	106.6	58.0	77.8	36	0.33	0	28.0
4000	7.7	124.9	105.6	55.0	81.1	37	0.33	0	30.2
5000	8.1	162.8	104.1	51.0	81.0	39	0.36	0	28.7

STC Rating = 28 (Sound Transmission Class)

Deficiencies = 32 (Number of deficiencies versus contour curve)

Don't like the look?

We have hundreds of beautiful PVC photo (Acoustiblok Landscapes) to hang over the Acoustifence. (see part # AFLSSV6X30)



Before

Information herein is, to the best of our knowledge and belief, accurate. However, since conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by the use of this material/product. All material/products may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of this material/product is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any nature are made hereunder with respect to the information contained herein or the material/product to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. Specifications subject to change without notice.