

HOME STUDIO DEVELOPMENT CASE STUDY

Andy Hillstrand



By Martin Merenyi from Musician On A Mission

In cooperation with Spaceless Design

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INTRODUCTION

Andy's room was quite a challenge to work on. Space was limited, and his original treatment consisted mostly of the eggbox type acoustic foam. While those products are adequate in some cases, unfortunately they are mostly cosmetic, giving the illusion of sound treatment. The low frequencies are not getting absorbed by those products at all, the region below 300Hz remains largely unaffected.

Thicker, more targeted treatment was necessary to create a listening position with an even sound.

One more issue was the fact that the original room sounded completely dead. This is counter intuitive for mixing, as people never exist in completely dead spaces. Also, mixing in a dead room usually leads to the engineer using too much reverb and echo to create the space he/she is missing in the mixing room. Therefore, diffusion had to be added to the room to create some sense of liveliness, but in a controlled way, without creating flutter echoes.

ROOM BEFORE

The original room was completely covered in acoustic foam, creating a completely dead sounding space, but with no real absorption taking place in the critical lower midrange below 300Hz.



ROOM PLANS

The proposed design included thick bass traps to manage the low frequency content with maximum efficiency down to a calculated 100Hz. Diffusion has been added to bring some life back into the room and to create a deeper, wider listening experience and an overall more realistic sound.



STUDIO BUILD

The final build of the studio didn't disappoint. Andy dedicated a lot of time and energy to his room. Additional support was given through continuous email communication and a Zoom meeting during the final stages to ensure everything is laid out perfectly.









TREATMENT SUMMARY

The final build looks absolutely incredible, and according to Andy, the sound has improved significantly as well. The room looks much cleaner and more professional. The speaker positions were adjusted slightly as well according to our recommendation, to create a realistic stereo image and depth perception.

Thick absorbers behind the speakers ensure a sufficiently dead front end, while the diffusers in the back add some life to the room. In essence, this is a LEDE – a Live End Dead End construction, which is a popular design concept for studios first proposed by Davies and Davies in 1980. The design is still popular due to its controlled stereo image and depth field, yet realistic and inclusive sound. The listener doesn't feel detached from the music.

We are very pleased with these results and very happy that Andy completed his build in such an incredible way.

ANDY'S TESTIMONIAL

"I would like to first thank Rob Mayzes for putting the Musician on a Mission program together, that has brought so many great instructors to help people like me fulfil their goal of becoming efficient at Mixing and finally having all the tools to finish the songs that are inside of us.

One of the aspects of the program was getting my home studio sounding as good as I could get it. There are so many Youtube videos out there that give you information but can leave you with more questions than answers.

Enter Martin Merenyi

I sent Martin a sound sample of what my room sounded like and he nailed exactly what was going on in the room. My room was more of a sound booth, very dead sounding.

What I failed to understand at the time were the absorption frequencies for the style of panels I had chosen. They were designed to absorb the higher frequencies but not the lows. Now that I have worked with Martin, he helped me to understand the way sound travels and is absorbed.

I sent him measurements and the layout of my room and very quickly he came up with a plan to make it better. I was lucky to have a decent budget but if you don't, he will still give you the best options you have to make it as good as you can get it.

My room now sounds alive compared to what it was, kind of like singing in a bigger room but without all the echoes you normally hear. One of the biggest things I did not realize was how much the diffusers he recommended would help to give me a big room sound in a small room. The low end has become much more even and controlled as well. Extremely excited to get to mixing.

I can't thank Rob and Martin enough for all the help and all the people I deal with at Musician on a Mission. I am one step closer to getting my Music Radio Ready from start to finish.

Thank You!

Andy Hillstrand"