
Improving the Worship Space

For the last few months or so, I have been writing to you about installing worship sound systems, dealing with the various personalities and hierarchy of church politics and government and getting paid for your efforts. However, in the last month I have been asked to improve the acoustics of two very different worship spaces. The first one is at a Christian camp in the San Bernardino Mountains of California known as Camp Cedar Crest. This camp has a large central auditorium that is used for a variety of worship music and speaking events. The second is located in the basement of a small church in Newport Beach, Calif. that is currently being used for storage. The church would like to turn the space into a youth area where programmed and live music could be played. The fact of the matter is I very rarely get a call to treat the acoustics of a room, and to have two calls in one month is really a phenomenon. I have no difficulty walking into a room and hearing that the acoustics suck. Or entering a sanctuary that has just heavenly acoustics. The challenge is to get from suck to heaven. Obviously I am willing to have a go at it.

Let's start with the Camp Cedar Crest project. This building is roughly 75 feet by 75 feet with 30-foot ceilings. Each corner of the room has a large laminated wooden beam that travels up the wall and meets at the center of the ceiling. The room is drywall with a carpeted floor and some large windows. There is currently an assortment of dark blue 4-foot by 8-foot sound panels on the walls. My assignment is to not only improve the acoustics of the room but also to improve the aesthetic appeal.

Now, the Newport room is a very different story. It is approximately 20 feet by 25 feet with a 10-foot ceiling. The entire room is concrete cinder block, with a drywall ceiling and a tile floor.

Like I mentioned earlier, we can all hear when a room's acoustics are good or when they are bad, but we may not always know which options to choose in order to improve the acoustics. With regards to the Newport room, I started by furring out the cinder block walls, putting up some sound insulation batts and dry walling the room with 5/8" drywall. I have an advantage here since I was introduced to the construction field at the age of 10 when I worked with my father wiring houses on the weekends.

As it turned out, all the work in Newport was basically construction work. The goal was to deaden the room, and that is exactly what I did. It really does help to have some knowledge of construction basics when you are attempting to change the acoustic characteristics of a room. So, do a little homework and learn something about building materials.

The Newport project is currently not finished. It could be done by the time you read this. Either way, once the sound insulation and drywall is up, I will have the room painted in a flat finish and the tile floor will be covered with a sisal mat. This is a tightly woven grass carpet, which is very durable and will deaden the tile floor.

After the room is done, I may add some sound panels to further treat the space. Of course, there are all kinds of measuring devices and programs out there to fine-tune a room. With regards to the Newport room, I need to get the walls treated before I can hear or test for any further problems.

Of course, once the Newport Church is finished they will need a new sound system. I have yet to submit a proposal for the sound, but assuming I do a great job on the acoustic treatment, I pretty much set myself up for the next step.

OK, let's get back to the Camp Cedar Crest project. The space is much larger -- and so is the budget for that matter. But that's not the point. I approached this job in a very different way than the Newport room.

There will be no construction at Cedar Crest. I will only be treating the walls of the room and possibly the windows. The room has a sound system and is used regularly for worship events. I drove to the camp during one of these events. The group using the room had brought in their own sound system, but I still had a chance to listen to the room while a loud rock band was playing.

The room sounded pretty good. There was some bass build up in the corners near the laminated beams and some mids and highs were bouncing off three of the walls. I showed up without any testing gear, only my ears. I walked the room while the band was playing and various speakers were talking. In a few minutes I felt that I had sized up the room pretty well and decided to return with some testing equipment and check out the room when it was empty.

My first impression was just about right. The bass was less of a problem than I had initially thought, but the mids and highs were still bouncing. Now my challenge was how to address the sound issues and the aesthetic issues at the same time. I decided on attaching really cool looking acoustic panels to three of the four walls. There are lots of manufacturers out there, so for me it was just a matter of finding a company that could fix the acoustic problems, fit in the budget and look great. I haven't decided what to do with the windows, but they are currently covered with drapes and that may be just how they will stay. This project is also not finished yet. I will let you all know how both of these projects turn out when they're finished. If it all goes well, I can add something new to my resume and get more diverse work in the worship biz.

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