

LED Video Wall Design, A Viable Option for Your Church?



By Doug Hood

With more options than ever before, it's more cost effective now for more churches to look at LED as a viable option.

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LED video walls. Everybody wants them. They're big, bright, and crazy cool. Are they the right answer, though, for your church? Let's explore.

First off, why does everyone want them? They certainly have many advantages that create an attraction. Compared to even a high-output projector, in general, an LED video wall will produce far more brightness. As a result, it will cut through stage lighting, so you can still use all your stage lights and not wash out the screen.

If the culture of your church uses house lights full on and very bright, or if you have gorgeous large windows that pour in the

natural light powered by the blazing sun, LED is for you. It can overcome these light sources, and still give you an image that will pop.

If you're pursuing the look of a large center stage backdrop, particularly with a giant screen that spans the stage and sits very low to serve as a visual backdrop of digital scenery, an LED wall is an excellent space saving solution as well.

With this approach, you can use all your stage floor space, compared to a projector scenario with a similar setup, but where you would have to evaluate where the band can or cannot stand, since they can't cross the light path between the projector and screen, because they would likely cast a shadow on the screen behind them. With an LED wall,

since there is no light source out front, you can position people wherever you need them, without any concern over creating shadows. This gives you have more useable stage space.

Beyond the brightness, LED gives a vibrant visual experience, because it better reproduces the color black. Most projection screens are white. As such, that screen will only be as dark as the material allows. If you have a black slide with white lyrics on it, or a video loop with black, a projector cannot "paint" a black color over a white screen. It can just minimize the white.

Compare this to a LED video wall, which when it is turned off, it is actually black, the difference can be rather stark. Therefore black will look better on an LED wall, where you can achieve better contrast, and in general, your overall video experience can be much better.

So, with all these advantages, LED needs to be right for every person, and every

application, right? Wrong. There are several factors to consider when evaluating LED for a new project.

LED walls can be big, heavy, power hungry, and have very long lead times for procurement. A system like this needs to go through a proper design process, so correct infrastructure can be planned for. These walls can easily weigh thousands of pounds, so an experienced professional must help you plan for how the wall will be installed.

Options for an LED video wall include having it mounted to a wall, suspended from the ceiling, or ground supported from the stage. This design exercise is a critical step, which cannot be skipped.

Although an LED wall is comprised of many smaller video tiles, when you add them all together, they can require a substantial amount of electrical circuits. This is not a do-it-yourself, run down to the hardware store, and chain a bunch of power strips together kind of power solution.

An LED video wall should be designed and coordinated with a design professional, in collaboration with your electrical contractor.

Lastly, depending on which manufacturer you work with, there is a good chance your system will not be in stock and sitting on a shelf. Many systems can take 8-12 weeks for your product to arrive, once you have approved the order, and put down a deposit.

When you add in the current tariff uncertainty to the mix, all of this means planning for an LED wall will take some time.

When evaluating an LED wall versus a projector, it's not quite as simple as just comparing one "screen" to another. In other words, you can't simply look at the cost of a

16 foot by 9 foot screen using a projector, and compare it to the same sized screen using LED. There are a many reasons. With LED, you can build upon it over time. It can grow with you. You can scale it.

You can also reconfigure the orientation of the tiles. For instance, you can build vertical LED towers and place them on carts to distribute across your stage. Video content can be spread across these towers, to create some visual interest. This type of vertical tower system can be used in addition to your regular video display, which might be a center, or a left/right, or a left/right + center. This offers you lots of flexibility to let your imagination run wild.

For me, this is one of the aspects of LED that I personally love – it enables and encourages you to be more creative.

With more options than ever before, it's more cost effective now for more churches to look at LED as a viable option. You might be surprised at the possibilities.

Do your homework, connect with a consultant or integrator, and give yourself time to study this amazing technology. Be creative!