

From: Yantis, Michael Michael.Yantis@stantec.com
Subject: RE: Hotel - a bit more
Date: April 20, 2019 at 7:26 PM
To: Bruce Anderson brucea@cutler-anderson.com



So, I ran some calculations. I did not have any sound level data for unamplified music other than high school or college bands and all of that data is indoors. I inquired on the National Council of Acoustic Consultants list serve to see if anyone across the country had data that they could share with me. I heard from an acoustician in Texas who started his career working for me in Seattle. He had Bulgarian folk music that he measured indoors, but in a large hall. I checked the sound levels. They are close to what I would expect for a wedding band – people could still have a conversation when the band was playing but they might need to raise their voices if they were 20 feet away. Perhaps it is a bit conservative, but it is the best I have without going to find a wedding somewhere.

I'm predicting a sound level at the southern boundary of 69 dBA without any attention for a bandstand "barrier". Code is 55 dBA up until 10:00 a.m. and then reduces to 45 dBA after 10:00. A practical limit for barrier attenuation due to reflections from nearby surfaces is 15 dBA. So that would put us right up at the daytime limit. I would not be surprised if the barrier attenuation was less than 15 dB from the multiple reflections off of the nearby buildings. There will likely need to be some sort of sound monitoring system that lets the band know if they are exceeding the code limits so they can monitor their own sound levels. There are some commercially available systems with red, yellow and green lights to indicate whether the sound is less than, near or over the code limits.

I am around on Monday or even Sunday evening if you would like to discuss this further.

Kind regards,

Michael R. Yantis, P.E.

Principal Acoustics

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Mobile: 206.919.9045

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From: Bruce Anderson <brucea@cutler-anderson.com>

Sent: Friday, April 19, 2019 6:48 PM

To: Yantis, Michael <Michael.Yantis@stantec.com>

Subject: Re: Hotel - a bit more

At the amphitheater as the first choice. We're showing a small band stand now, oriented NW toward the tree shown in your/our drawing. If we used your position, we'd want to slide it to the east to maintain the water feature axis.

Bruce Anderson

Cutler Anderson Architects
Voice 206.842.4710 Fax 206.842.4420

On Apr 19, 2019, at 6:45 PM, Yantis, Michael <Michael.Yantis@stantec.com> wrote:

Where might the wedding occur? Near the tree, or near the amphitheater? Could we create a little bandstand if needed, to tuck the band in and shield it from the neighbors? If so, it would be ideal to orient it toward the northwest, and locate it in line with the western edge of the amphitheater, probably right where the water feature is located now. Something like this:

<image001.jpg>

I'm sure this is just what you and Jim were hoping I would suggest! I don't know what is needed yet so I will run my first predictions with no screening. I'm just seeing where the boundaries are.

Kind regards,
Michael R. Yantis, P.E.
Principal Acoustics

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<image002.png>

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From: Bruce Anderson <brucea@cutler-anderson.com>
Sent: Friday, April 19, 2019 5:02 PM
To: Yantis, Michael <Michael.Yantis@stantec.com>
Subject: Re: Hotel - a bit more

Yes, and the sketches are still good.

Bruce Anderson

Cutler Anderson Architects
206.842.4710

From: Yantis, Michael Michael.Yantis@stantec.com
Subject: RE: Hotel Follow Up
Date: April 29, 2019 at 6:01 PM
To: Bruce Anderson brucea@cutler-anderson.com
Cc: Masoner, Ashley Ashley.Masoner@stantec.com



I think your assessment is correct. The 8' would reduce air brake pressure release, back up alarms, etc. (BTW, they make back up alarms that hiss rather than chime. They are less annoying.)

I can't tell you how long the barrier should be yet. It looks like trucks would enter from the east. Some of the trucks won't likely be semi-type so their muffler might not be 12' or 13' above ground. If I am correct, a barrier along the truck route would be helpful.

We should talk about noise code requirements on the phone.

Absorptive materials in the vicinity of noisy activity such as the dumpsters or walls near loading activity would be helpful. We should talk about where it should occur to be most effective. I'd need you to walk me through the plans and we can determine it together.

Kind regards,

Michael R. Yantis, P.E.

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From: Bruce Anderson <brucea@cutler-anderson.com>

Sent: Tuesday, April 23, 2019 8:02 AM

To: Yantis, Michael <Michael.Yantis@stantec.com>

Subject: Hotel Follow Up

Michael, we had a good meeting with the westerly neighbor's last night. Their focus is on sound and our loading dock/garbage pickup. I said we'd looked at this previously and showed them that a wall needed to be 15' tall to be effective. They don't like that aesthetically, so they've asked us to consider an 8' wall (measured from their grade). I said that would not block truck exhaust, but may have some effectiveness against noise (tires, back up alarms, loading dock activities, dumpster loading) that takes place below that height?

We're looking for your comments on this. If the wall does have some effectiveness, how long should it be relative to the position of the loading dock and trash pickup.

Second, they asked if sound absorptive materials surrounding the loading dock and trash pickup might be affective? I'm thinking we mostly have the lid of the underbuilding space to work with, but perhaps some of the walls too if that makes sense.

Bruce Anderson

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