

AirKrete Application at the Saratoga Night Club

Hi Mr. Keene Christopher, his staff and all my partners in AirKrete Manufacturing

My name is Mark S. Reed, the owner of The Climate Chief LLC, a BPI certified company and New Time Remodelers and General Contractor, LLC, established in 1986 and offering a design and build service and much more.

I would like to share my experience involving an acoustical project for a nightclub in Saratoga Springs, New York, located in the basement of 6 Caroline Street and surrounded by many businesses. This community attracts many tourists and the street and sidewalks are packed with people in search of all types of entertainment. With this being said, you must consider all surrounding businesses and housing tenants.

One of the biggest fears is the unknown going into a project like this. I am not just an AirKrete installer to pump the product as requested and get out. There was much more at stake. There was the man's dream of operating his own nightclub with live bands in one of the busiest alleyway streets in the community and his fear of being shut down after his first opening for disturbing the peace. Next is the building owner. He has a responsibility to his present tenants, one of whom runs a dining restaurant just upstairs over the future nightclub and then the additional level of housing apartments above the restaurant. On top of all this, we were dealing with joining row buildings. Now we had to put yourself in the shoes of the building owner who has a great responsibility to all his tenants, neighbors and who, of which would have to lay out a great deal of cash to prep this basement for this nightclub project to go forward.

Now are you starting to feel the pressure that was laid in the hands of all the people involved? I met with the general contractor, architect, building inspector, nightclub business owner and the building owner on many occasions.

As with many of you, this was my first time taking on such a large responsibility in using AirKrete for sound control. The architect would have liked to have seen good sound acoustic reports, but I could not provide these to him. All I would say is we have a great product and I will do my best when installing using all the structural and building knowledge I have. Now just think of all the pressure of pointing fingers at who if this doesn't work out as hoped.

I finally got the OK to move forward with the project. Now the real fun begins. Looking, evaluating, determining, planning, layouts, directing the construction crews of what I thought would work for this project and how we would install our AirKrete product.

I want you all to know it was full-blown winter with snow banks three feet high. We removed the pumps from the trailer and set up shop in the basement. The air compressor we left in our trailer and flagged the hose on the sidewalk.

This project had floor/ceiling joists that were charred from a previous fire, damaged floor sheathing and sagging floor joists that had a variation from 20" to 14" after lasering and leveling

with sistered floor joist. There were doubled 14" steel I-beams installed down the middle of this room, separated about 4' to safely support the upper level. We had the same design in another section of this project. The foundation was a very thick stone wall. We next built a perimeter wall using 2"x4" metal studs keeping this wall off the foundation about 4"-6" and spacing studs to 16" o.c. leaving an air space in back of the wall studs. We next installed 5/8" fire rock on the back of the wall studs or foundation wall side. Now it was time to have all electrical, security wiring, smoke alarms, plumbing and fountain drink dispenser holes in place. We next installed our water sprinkler system. We also had to weld in place "I" beam support columns under the main 14" "I" beams.

Now comes the time to weld necessary bracket to the "I" beams to fasten metal wall studs across and around as necessary to attach the 5/8" fire rock. Our plans were to fill the 14" "I" beam cavity and the 14" to 20" floor joist cavities above these "I" beams with AirKrete. I felt that the sound waves would get into the steel "I" beams and vibrate along with increasing the noise level to other areas. We had close to 100 running feet of "I" beam cavity to box in to retain the AirKrete product. We designed the 5/8" fire rock cross panels for under the 14" "I" beams to go in place as needed while pumping AirKrete.

We would install a section of 5/8" drywall then pump AirKrete up to the floor joist. Next, add another section of 5/8" drywall and pump AirKrete again. This process continued to the end of the "I" beam cavity. Next we installed 5/8" fire rock on the metal wall studs leaving about a 12" section open on the top all the way around the room. We then pumped AirKrete into all cavities. Next we installed the top pieces of 5/8" fire rock and bored a 1 1/2" hole in all cavities and continued pumping AirKrete as necessary.

Next we installed 5/8" fire rock onto the ceiling rafters starting at the wall studs, one four feet wide row at a time and pumping AirKrete into each floor joist cavity out four feet on top of each sheet of 5/8" fire rock until we got to the center of the room. We next pumped AirKrete on top of the AirKrete that was pumped between the "I" beam cavities and filled it up to the floor sheathing, anywhere between 14" to 20" additional AirKrete. Now it was time to put the final small section of 5/8" fire rock on the ceiling close to the center "I" beam and bore a 1 1/2" hole to pump the rest of the AirKrete and pressurize the final cavities. It took a lot of time and patience to get AirKrete into all small cracks and cavities around the "I" beam girders and the "I" beam support columns. I knew that there was a lot riding on this outcome.

Now we move on to the next phase of the project. We ran beads of the acoustic Green Glue on all the existing 5/8" wall fire rock and then applied a second layer of 5/8" fire rock to the wall system and screw nailed as necessary. This green acoustic glue spaced out the 5/8" fire rock some, leaving an air space between the layers to absorb some of the sound waves.

We next installed RC channel on the pre-existing 5/8" fire rock on the ceiling to space down the next layer of 5/8" fire rock and allowing an air space between layers of the 5/8" fire rock to absorb some of the acoustic sounds.

The next is history.

The time now was here to face all people with a smile on our faces or put our head down and shake it with discouragement. Who knows?

We set up a good sound system and gradually started turning the volume up with myself and others upstairs in the first floor restaurant. What to our surprise did we discover, that this process, along with the AirKrete foam that Mr. Keene Christopher developed works so well that we could not even hear a sound through the floor or room area.

Next comes the test with the live Heavy Metal Bands and this was also very remarkable with no unacceptable sounds or vibration.

I was advised that a professional acoustic test was performed by the Green Glue Company and a verbal report was passed on to me that they have never seen results as good as these. I hope to someday have this report in my hands to share.

Please excuse my timeframe for getting the report out to you all

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As a further note, on November 8th of this year, I had the opportunity to meet with the nightclub owner. I am pleased to report that he could not say enough about what a wonderful job our product is doing for him. He shared that the acoustics and heating are just unbelievable.

Special thanks go out to Mr. Keene Christopher for his development of AirKrete and always being there to lend his knowledge, wisdom and support at all hours of the day.

I also would like to acknowledge all my staff for all the hard work put into this project and for achieving such rewarding results.