

Not Your Typical Building Prototype

An innovative NJ architect seeks an experienced MEP partner for prototypical childcare design.



Lightbridge Academy
Willow Grove, PA

Speak with Justin A. Mihalik for any length of time and it becomes apparent that he knows his stuff, especially when the topic of childcare facilities is raised. Mihalik founded JAM-ARCH, an architecture firm located in Fairfield, NJ, in 1998. In 2008, he jumped into the childcare arena, and has never looked back. “We have been successfully expanding our footprint into the growing childcare market.” Mihalik stated. One important note Mihalik makes regarding his success in this space: A solid team of engineers by your side can make all the difference. “Because of our work and some successful partnerships, our clients now include Kiddie Academy, Celebree Schools, Amazing Explorers, Goddard Schools and, of course, Lightbridge Academy.”

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THE CHALLENGE

Fine tuning the mechanical systems has been a challenge. That’s the biggest, most impactful building system for any building, right?”

– JUSTIN MIHALIK

Lightbridge Academy is a rapidly growing franchise of Early Education Providers that now have locations in nearly 10 states, including New Jersey, New York and Pennsylvania. JAM-ARCH has been their go-to architect since 2014, and developed the current building design prototype that all Lightbridge Academies are based upon. “There is a prototype that we developed with Lightbridge over the last seven years.” And if you think the Lightbridge Academy prototype is just a simple box, Mihalik will

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PROJECT STATS

- **Project Title:**
Lightbridge Academy
- **Early Education Provider**
- **Project Locations:** Florida, Maryland, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee and Virginia.
- **Currently has over 119 centers** either open, under construction or in development.
- **Average Square Footage:**
10,000 – 12,000 Square Feet
- **Includes fitouts and new builds**
- **Typically 1-story or 2-story** over grade
- **Prototype developed by**
JAM-ARCH in 2014
- **“One of the fastest-growing** early education childcare center franchise opportunities in the U.S.”



THE KEA ADVANTAGE

Each job is treated like a priority. That's really important to me."

– JUSTIN MIHALIK

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be the first to correct you. "There's a lot of work that went into that box!" Considerations included: parking location, playground location, entrances, exits, child safety, technology systems, classroom size, state government regulations, teacher-child ratios, childcare licensing and climatic zones, just to name a few. Mihalik relayed some of the challenges he faced while developing the prototype. "It's been very interesting, because you've got different people, different approaches, different building codes, different licensing, different regulations in each state."

One of the biggest hurdles Mihalik faced? Mechanical building systems. "Fine tuning the mechanical systems has been a challenge. That's the biggest, most impactful building system for any building, right? It's what makes the interior environment comfortable for people." JAM-ARCH Staff Designer/Project Manager Kevin Miranda agrees. The fact that the prototype must be made viable in several different states, climates and humidity's adds to the complexity. "These projects vary in terms of mechanical systems.

ABOUT JAM-ARCH

- www.jam-arch.com
- Home Office: Fairfield, NJ
- Other Locations: Tampa, FL and Austin, TX
- Established in 1998
- Founded and led by Justin A. Mihalik
- 10 Full-Time Staff
- Licensed in 22 states
- "With JAM-ARCH, you get the personal attention of a small shop, the technical capabilities of a large firm and the knowledge and experience gained from decades spent in architecture and construction. The result? Excellence in both functional and aesthetic design."



Lightbridge Academy
Montgomeryville, PA

You know, each part of the country has its own set of climate conditions that we have to abide to." Says Miranda.

Enter KEA Engineers, a MEP Engineering firm with more than 37 years of experience developing mechanical, electrical, plumbing and fire protection systems for a range of building types, including childcare facilities. Mihalik and the JAM-ARCH team first began their relationship with KEA Engineers back in 2012. "Prior to KEA, I was working with



A PARTNERSHIP

You can't replace the long-term relationship and solid partnership I have with KEA. That's why I keep working with them."

– JUSTIN MIHALIK

these one-man shops. That one man might do mechanical, but then he was outsourcing to an electrical, plumbing and fire suppression guy." The coordination between these disciplines was cumbersome and, most of all, time consuming. Having the mechanical, electrical, plumbing and fire protection consultants under one umbrella was a huge advantage to the JAM-ARCH team. On top of the coordination and time savings, Mihalik says the relationship with the KEA project team is the real advantage of working with KEA. "Consistent team members who retain lessons learned. That has really impacted my success."

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Lightbridge Academy
Hoboken, NJ



Lightbridge Academy
Garnet Valley, PA

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KEA Engineers Mechanical Engineer/Project Manager, Premal Solanki, has been the lead contact on the Lightbridge Academy projects since 2018. “With the Lightbridge Academy’s, it’s always been about how efficiently we can apply the prototype design, whether we’re looking at mechanical, lighting, plumbing or fire protection design.” Solanki states. It’s KEA’s goal to provide a design that meets the needs of the client from the perspective of cost, schedule, flexibility and energy efficiency. For child-care centers, this includes keeping up to speed with the latest energy codes, including those that call for increased outside air. Solanki explains, “More outside air means more humidity issues in certain climate types, which we specifically target to address. It’s a fine balance to provide a building with HVAC zoning control while also keeping costs down.”

With more outside air also comes questions of air filtration and children’s safety. One aspect of the Lightbridge Academy prototype that KEA Engineers is thrilled to support is the implementation of a Microcon Filtration system, which filters out 99.97 % of unwanted airborne particles yet does



EXPERIENCE MATTERS

KEA does their homework and makes it work. I would definitely recommend KEA to other architects because of their knowledge and experience.”

– KEVIN MIRANDA

not affect HVAC sizing or power requirements. Even more recently, KEA Engineers and Lightbridge Academy have started using Bipolar Ionization technology to reduce the amount of outside air needed, while cleaning the air as well.

Currently, JAM-ARCH and KEA Engineers have eight projects in design, including five Lightbridge Academy’s across Maryland, North Carolina and New York State. Several other Lightbridge Academy’s are in the construction administration phase, which KEA Engineers consults on as well. “You can’t replace the long-term relationship and solid partnership I have with KEA.” Says Mihalik. KEA Engineers looks forward to future projects with Justin A. Mihalik and the JAM-ARCH team. ■



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