

# "A Greener, Greater, Grove" - Pine Grove Middle School @ East Syracuse Minoa CSD

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## **ABSTRACT**

Walk into any elementary or middle school in 2014 and it is likely to look much the same as it did decades ago - single grade classrooms with desks in rows and the teacher at the front of the room teaching as a "sage on the stage." Almost half of all public schools in the United States were built between 1950 and 1969 – and only 10% after 1985. As a result, school buildings across the country are aging and will be in need of major renovations or replacement in the coming years. Given the current climate of high-stakes testing and an emphasis on STEM and 21st century learning skills, the impending renovations are a critical moment in the history of our education system and an opportunity to rethink what school buildings should look like and how they will function.

While many designs will be newer versions of the status quo, we aim to study whether there are changes that can be made to significantly improve student learning outcomes. For example, does the indoor environmental quality (IEQ) of school buildings impact the learning and teaching performance of its occupants? Will a change in the spatial design of a school interior encourage interdisciplinary project-based teaching? In other words, how will shifting the current 20th century "industrial-age, assembly-line, factory-type" model to 21st century designs impact learning and human performance? These are powerful questions, the answers to which will accelerate change in the way we design facilities and curriculum for our children. Common sense compels us to think that cleaner air, natural lighting, and thoughtful spatial designs delivered with innovations in teaching and learning designs will improve student success. However, scientific evidence is lacking.

The summer 2014 renovation of Pine Grove Middle School in the East Syracuse–Minoa (ESM) School District provides a unique opportunity to collect data on both environmental conditions in the building and teaching techniques as related to student performance prior to (Phase I) and after (Phase II) the renovation in an attempt to begin to answer these and other related questions in a meaningful way.

## **BIOGRAPHIES**

**Jason Benedict** is one of the Partners-In-Charge of King + King Architects' K-12 Educational Design Studio. He has +15 years in the educational market. He manages and administers all project phases from inception through construction and was the Project Manager of the Pine Grove Middle School project.

**Matthew Finn** has over 8 years of professional experience in architectural design. His talents include his ability to foster and manage a multi-faceted and collaborative approach to design. As each project is unique with its own set of challenges, Matthew strives to 'think differently' by finding design approaches and solutions that best suite the needs of each client, project, budget, site and circumstance. His broad experience ranges in everything from K-12 and higher education, to commercial and healthcare work. In addition, Matthew is an adjunct professor at Syracuse University where he is committed to teaching design studios and theory seminars focusing on the practice of art and design. He holds a graduate degree in Architecture with Distinction from Cornell University.

**Amanda Thomas** has over 11 years of professional experience that is focused in the K-12 Education market. With a focus on design, she channels her creativity through a collaborative design process and leads with excellent communication and problem solving. She is dedicated to keeping up on issues and trends within the K-12 market and designs spaces that are stylish and contemporary yet timeless. Amanda is National Council for Interior Design Qualified (NCIDQ) in 2008 and completed her higher education at Rochester Institute of Technology with a Bachelors of Fine Arts/Interior Design in 2004.