

# BALA

Education | K-12

A photograph of a modern school interior. The space is characterized by a high ceiling with exposed wooden beams and a large skylight. A prominent feature is a wide staircase with grey steps and a black metal railing with a perforated metal infill. A woman in a grey top and black pants is walking up the stairs. To the right, a young girl in a grey t-shirt and shorts is walking on a lower level. The walls are finished with vertical wooden slats, and the floor is a light-colored, polished material.

Solving Complex Engineering Challenges for K-12  
Public, Independent and Specialty Schools

# FIRM INFORMATION

Bala's mission focuses on **People, Environment and Well-Being**. We are built on relationships first—Relationships with our staff, clients and business partners.

We believe sustainable design is essential design. As engineers and consultants we influence and change the path of design for the built environment. We educate our clients on optimal systems and solutions for their project's needs. The results are efficient, safe and healthy facilities that sustain people.



## POINTS OF CONTACT

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# EXPERTISE & MARKETS

School administrators are being challenged to improve existing facilities and develop new spaces, even completely new campuses, to accommodate the vast needs of today's K-12 student population. The technology and infrastructure requirements for dynamic classrooms, technical spaces, laboratory and event spaces and common areas have approached collegiate levels. Parents are demanding cutting-edge technology to help ensure that their children are well prepared after graduation whether to move on to college or join the workforce. These systems need to be simple to use and aid in creating a collaborative and safe environment.

Many of these buildings are also being planned as community spaces and emergency places of refuge. These different uses and schedules require systems that are flexible, scalable and reliable.

Additionally, communities are pushing for these educational facilities to lead the way in energy efficiency and the reduction of fossil fuel usage. Net Zero initiatives have become mainstream across the U.S. for K-12 schools which prompts new challenges for facility evaluation and design and new partnering opportunities between schools and local utilities.

Bala is an engineering partner who has vast experience with developing solutions from concept to construction across all school types including public and independent schools.

## THE BALA ADVANTAGE

Bala is leading the engineering of K-12 school evolution, including:

- All-electric/Net Zero ready school analysis, design and delivery
- Existing infrastructure upgrades and phased renovations
- Technology implementation for safe and stimulating learning environments
- Improved indoor air and environmental quality



Bala Designs Systems for  
New and Existing Facilities to  
Help Administrators, Teachers  
and Facilities Personnel Provide  
the Best Student Experience



# SERVICES

## MEP/FP

- Master Planning
- Facility Conditions Assessment
- Energy Modeling
- Life Cycle Cost Analysis
- Infrastructure Systems to Support Career Technical Education (CTE) Spaces
- Building Systems Electrification
- Geothermal Heating & Cooling Systems Design
- PV Systems Design
- EV Charging Systems Design
- Utilities Design & Coordination
- MEP/FP Systems Commissioning

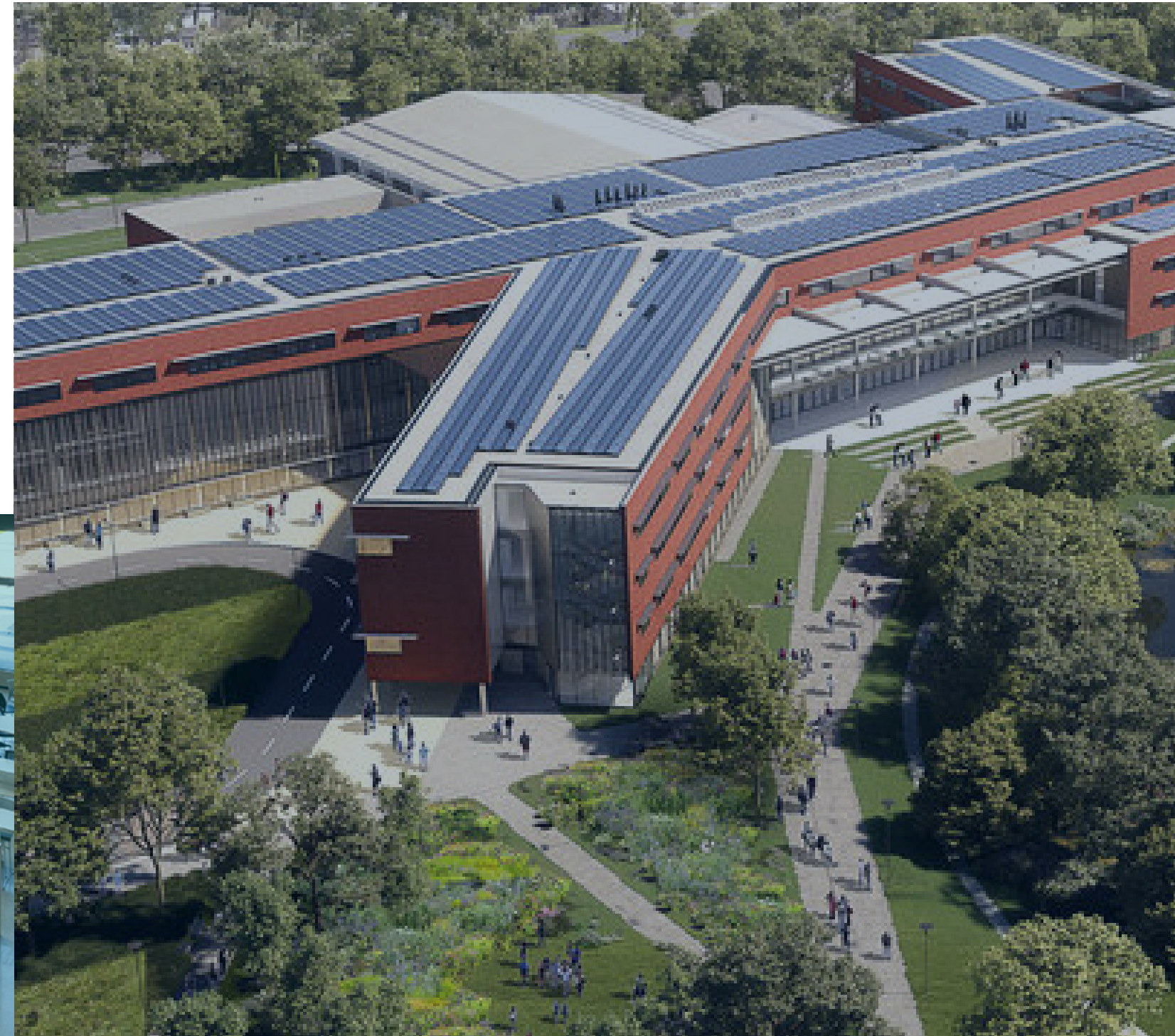
## TECHNOLOGY

- IT Network Systems Design
- Security Systems Design
- Audio Visual Systems Design
- Wi-Fi Coverage Modeling
- Structured Cabling Systems Design
- Facilities Management Technology Infrastructure
- Digital Messaging

# K-12 PUBLIC & INDEPENDENT SCHOOLS

## Delivering Diverse Learning Environments

Every school contains a wide array of environments - classrooms, gymnasiums, auditoriums, natatoriums, labs, cafeterias, CTE, social gathering and administrative office spaces, all of which have different infrastructure and technology requirements. From existing conditions analysis, feasibility studies, master planning services and systems life cycle cost analysis, Bala can help administrators, early on, navigate the intricacies of providing for such diverse energy-conscious environments.





# SPECIALIZED EDUCATION

## Providing Nurturing Environments for Diverse Learners


Students who have specialized learning needs require adaptive environments that consider a wealth of factors including lighting, sound and mobilization requirements. Bala marries practical engineering designs with a view to environmental considerations that we have experienced in designing LEED and WELL Certified buildings. Designing lighting palettes, heating and cooling comfort and proper humidity control, sound mitigation, and assistive learning technologies are all building blocks for creating a healthy educational environment that embraces all abilities.



# CAREER TECHNICAL EDUCATION

## Enabling High-Level Trade School Learning

Designing HVAC, electrical, plumbing and fire protection systems for CTE programs is far more complex than traditional K-12 school. The needs of science and technology focused facilities, trade programs, automotive, culinary arts and cosmetology are vastly different. These spaces require heating, cooling and exhaust systems that meet industrial standards. The infrastructure also needs to help facilitate the student's learning in real world simulated environments. All of these factors are specifically accounted for, classroom by classroom, across all segments of Bala's MEP/FP and technology design processes.

A modern university interior featuring a multi-level staircase with a white perforated metal railing. The background wall is a vibrant green with a white tree branch pattern. In the foreground, several students are seated at light-colored wooden tables with teal chairs, working on laptops. To the right, a long wall of green lockers is visible. The overall atmosphere is bright and contemporary.

Tailored engineering solutions focused  
on User Experience, Sustainability,  
Equity, Integration, and Evolution.

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