

*James D. MacConnell
Award Submittal | 2015*

ERNEST
McBRIDE
HIGH SCHOOL

*Long Beach Unified
School District*

Ernest McBride High School is a result of the **community's aspirations** to provide every student with the opportunity for a high performing and **interactive learning** experience in a place where they can see, touch and **experience** the connections between what they learn and what their future holds.

**T h i s s t o r y i s a b o u t
c o n n e c t i o n s**



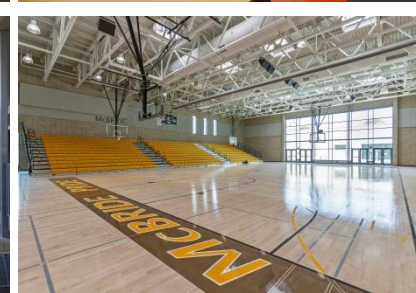
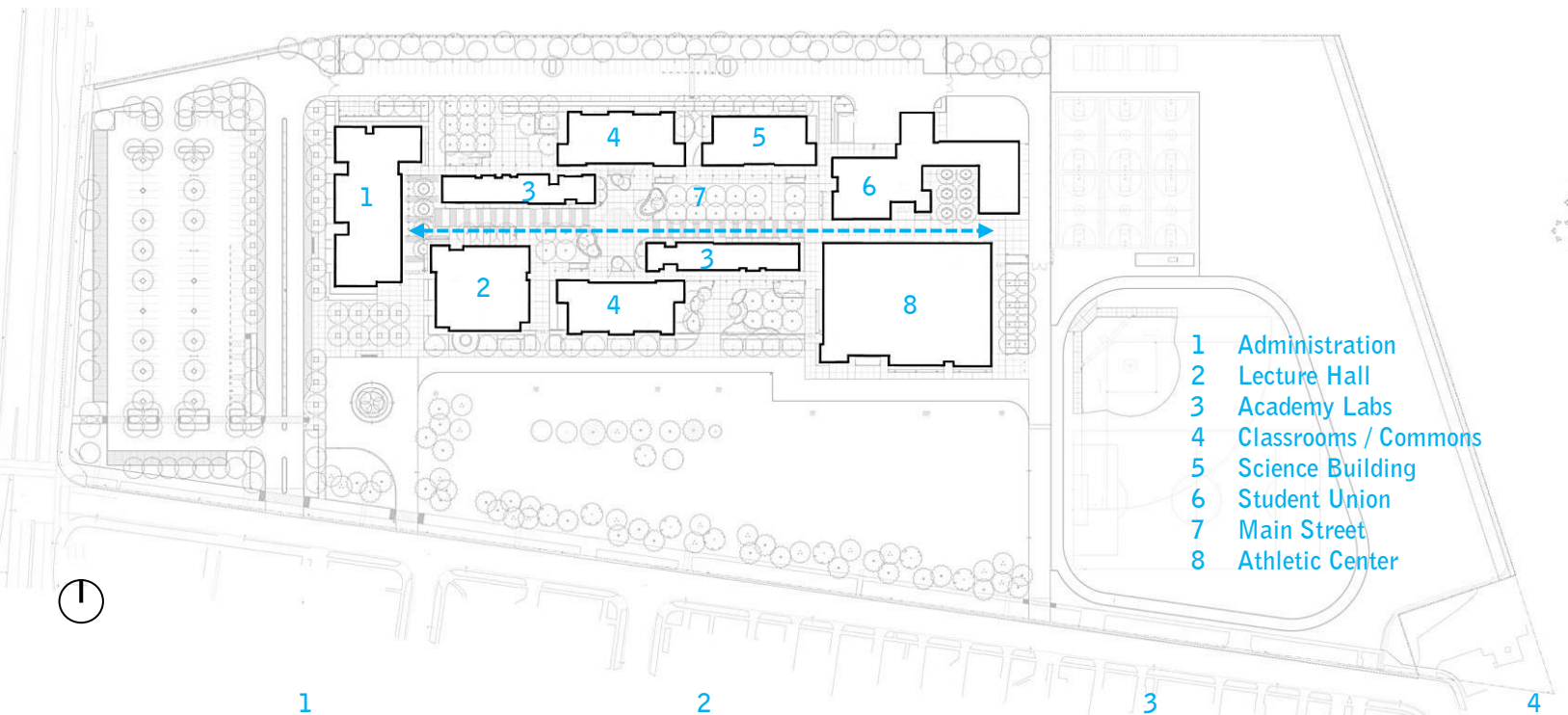
EXECUTIVE SUMMARY

Earnest McBride High School is the **first of several new thematic high schools in the District**. They were planned to relieve overcrowding at existing comprehensive high schools while supporting unique program offerings incubated in the District. From the start, planning and design was highly collaborative, engaging local business partners with District stakeholders, researching emerging technologies, and developing new curriculum and education standards. Through internships and projects with local businesses, the school fosters student engagement by knowing students well and building a strong sense of community. McBride High coursework is focused on making graduates both college and career-ready in three fields:

- Law Enforcement / Forensics Academy
- Health / Medical Academy
- Engineering Academy
- Future Academy to be determined



SCOPE OF WORK



project FACTS

Grade Levels
9-12

Planned Enrollment
1200 Students

Campus Size
24 acre site
150,000 sf

Project Budget
\$75M

Funding Source
Local Bond / Measure K

School Opening
August 2013

Sustainability
CHPS Designed

CONTEXT



Long Beach Unified School District is the third largest school district in California with about 81,000 students and over 80 schools. It has many of the same challenges as other [urban school districts](#) around the US. However, it has high attendance rates, low absentee rates and had been recognized by the Global Education Study as one of the world's five highest performing school districts. Their biggest challenge...overcrowded high schools.

DISTRICT
WIDE
COMMUNITY
ENGAGEMENT
PROCESS

*District
Facility Master
Plan*



SITE
SPECIFIC
ENGAGEMENT
PROCESS

*Curriculum
Planning
Committee*



EDUCATION +
PHYSICAL
ENVIRONMENT

*Design and
Construction*



PROCESS AND
PROJECT
RESULTS

Occupancy!

PROCESS OVERVIEW

A large indoor community meeting is taking place in a gymnasium. Numerous people are seated at round tables covered with white cloths, engaged in discussion. In the background, a basketball hoop and a scoreboard are visible. The entire image is overlaid with a semi-transparent blue filter.

DISTRICT WIDE COMMUNITY ENGAGEMENT PROCESS

*District Facility
Master Plan*

Early engagement of the Community, Business and Higher Education Leaders, and District Stakeholders was the hallmark of the planning process. This occurred in three phases:

1. District wide facility master plan
2. Curriculum planning development
3. Integrated campus design

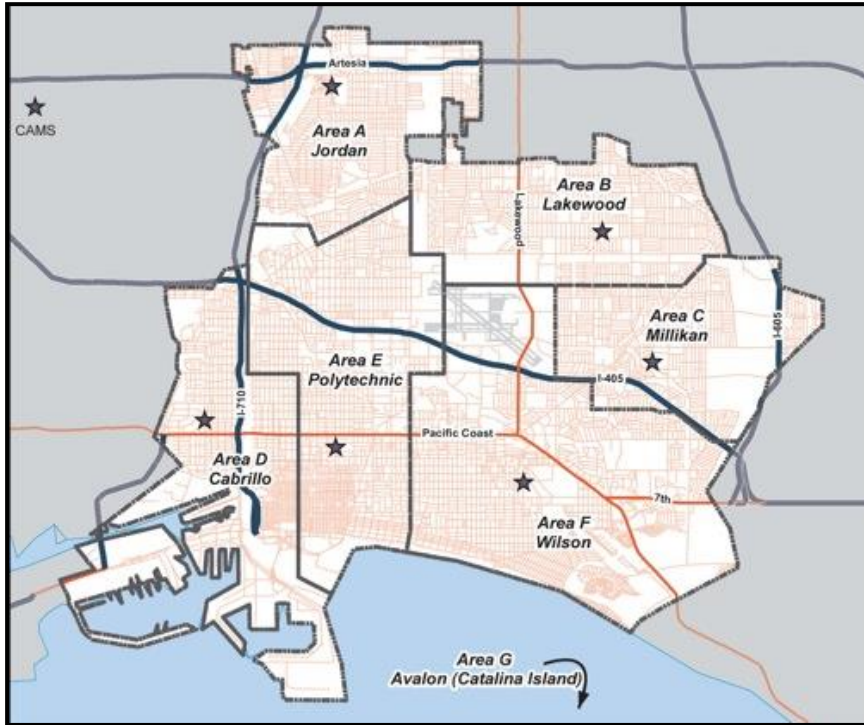
The community was engaged in all levels of the process - from inception to occupancy.





COMMUNITY ENGAGEMENT PROCESS

Highly innovative programs have long been incubated in the District, but with aging, overcrowded facilities, the District wished to provide better support for these programs with 21st Century facilities. To solve the problem, the District embarked on a year-long District-Wide Facility Master Plan that examined the educational framework, the condition of the existing schools, the cost of remodel and/or replacement, enrollment projections and school financing options within the district.

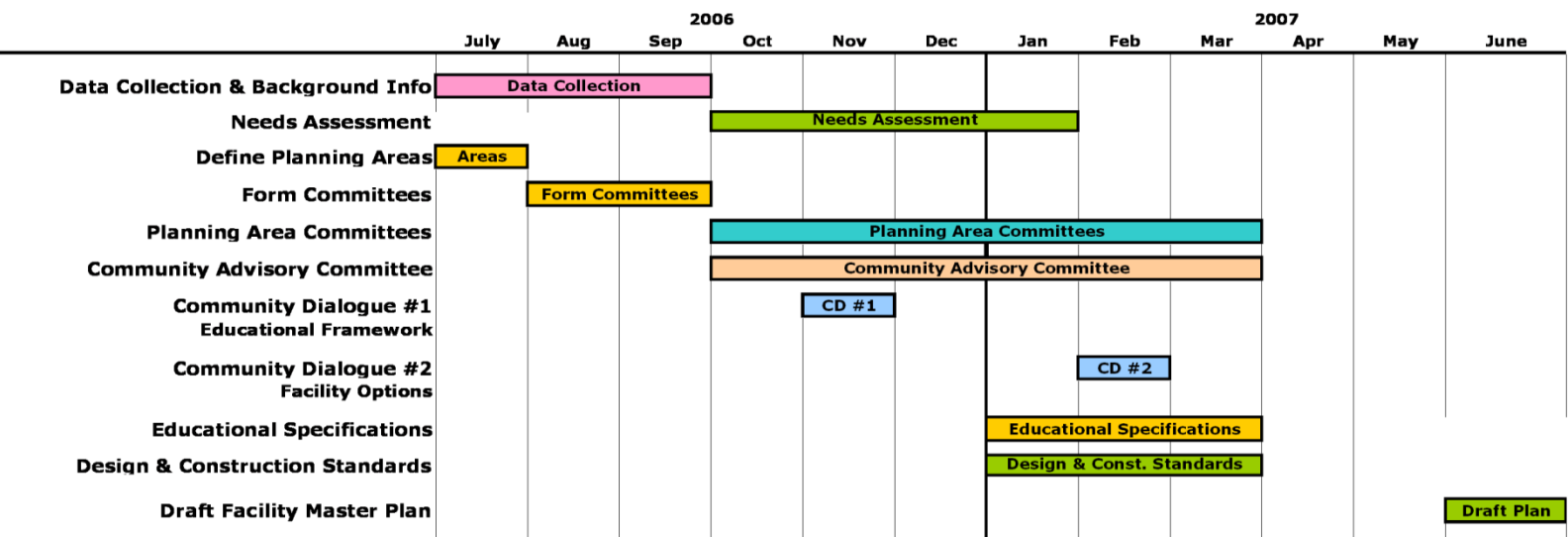


The organizational structure of the Facility Master Plan consisted of an overarching District Steering Committee with 7 Planning Area Committees, engaging of over 30 participants in each. Stakeholders included Parents, Teachers, District Staff, and Community and College Partners.

- A – Jordan
- B – Lakewood
- C – Millikan
- D – Cabrillo
- E – Poly
- F – Wilson
- G - Avalon

7 PLANNING AREAS

Long Beach Unified School District Facility Master Planning Timeline



Through additional Community Advisory Committees and Community Outreach Surveys the process included over **4,000** participants in a transparent and engaged process.



DISTRICT-WIDE GUIDING PRINCIPLES

Through the Facility Master Planning Process, participants identified key Guiding Principles that would shape the Facility Master Plan and guide the development of its recommendations. These planning principles reflect the **Facility Master Plan Theme: Building on Success, Schools for the Next Generation of Learning.**

- Create 21st Century learning environments to meet needs of schools for the next generation: This means understanding the learner, supporting new pedagogies and truly transforming the learning environment
- Renovate and replace aging infrastructure: two-thirds of the schools in LBUSD are over 50 years old, the FMP opened opportunities for re-use or replacement of aging facilities.
- Eliminate portable buildings on all campuses.
- Eliminate overcrowding at existing high schools by adding new small, thematic high schools to support innovative District programs
- Find opportunities for Joint Use while maintaining a safe and secure school environment

This collaboration included input from thousands of stakeholders, 7 District planning area committees, a community advisory committee, District Staff and Curriculum Leaders, local business partners and higher education leaders. The innovative result is a **new educational delivery system.**



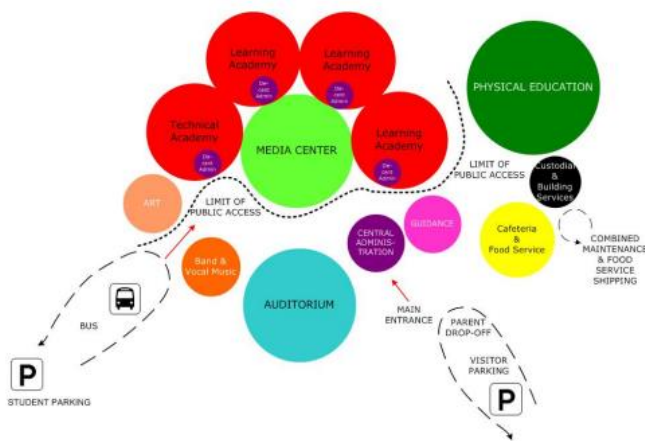


EDUCATIONAL GUIDELINES

The High School Educational Specification is a critical component of the Long Beach Unified School District Facility Master Plan. Developed as a component of that overall process, the Educational Specification detailed the essential components of each high school facility to be built in Long Beach as part of the Master Plan. It is a District-wide statement, and was applied to McBride High School

The District-Wide specifications stated are scalable for different sized High Schools; 600; 1,200; 1,800; 2,400; 3,000; and 3,600 students.

The Educational Specification outlines essential educational concepts and detailed facility needs. It includes considerations of community values, current and future instructional strategies, impact of technology on education, and cost constraints.



The Educational Specification is organized into distinct sections:

- Executive Summary
- Creating 21st Century Learning Environments
- Visioning
- 21st Century Best Practices
- Technology
- Safety + Security
- Site Issues
- Aesthetics
- Community Use
- School within a School / Clustering Program Areas

The focus of is centered on incorporation of thematic instruction, academic achievement and providing a variety of activities to explore greater possibilities for independent thinking.

The concept of McBride High School is a direct result of the community centered Facility Master Plan.



CHALLENGES AHEAD

The LBUSD Master Plan became an aggressive effort to address the district's infrastructure and aging facility needs. Implementing this plan was critical to making a real change to the physical learning environments to support student achievement and the school communities. Serious challenges still remained:

- Balancing Short-Term and Long-Term Needs
- Location of Sites for New Schools
- Finding Interim Housing for Students
- Funding the Facility Master Plan
- Capacity to Implement Phased Projects
- Operational Staffing Impact
- Re-Work of the School Boundary and Consolidation Planning

CHALLENGES AHEAD

With the completion of the Master Plan vision, a **Curriculum Planning + Development Committee** was formed and began work to implement the Master Plan Vision for the first of several Thematic High School.



A large group of people are seated at round tables in a gymnasium, likely attending a community meeting or public hearing. The room has a high ceiling with exposed pipes and a basketball hoop in the background. The text is overlaid on a semi-transparent white box in the center of the image.

SITE SPECIFIC ENGAGEMENT PROCESS

*Curriculum Planning
Committee*



CURRICULUM PLANNING + DEVELOPMENT ORGANIZATION

In establishing the first new Thematic High School, a curriculum planning committee was formed to define the school's Career Technical Educational curriculum. Participants in the engagement process included leaders from local colleges, business partners, teachers, principals, and District curriculum leaders to define the school's career pathways, the specific course curriculum, and the kind of environment that would best support project based learning. Once the site was selected, the District also reached out to neighborhood residents, teachers, school staff and members of the local community to foster a collaborative approach to the new school's design and program, and how the school would fit in an established neighborhood of homes, business, parks and schools dating back to the 1940's.



COMMITTEE MEMBERS / STAKEHOLDERS

DISTRICT STAFF

- Curriculum, Instruction and Professional Development
- Economic Development Department
- Office of Grants and Resource Development
- ROP Department Leaders
- Board Member

INDUSTRY PARTNERS

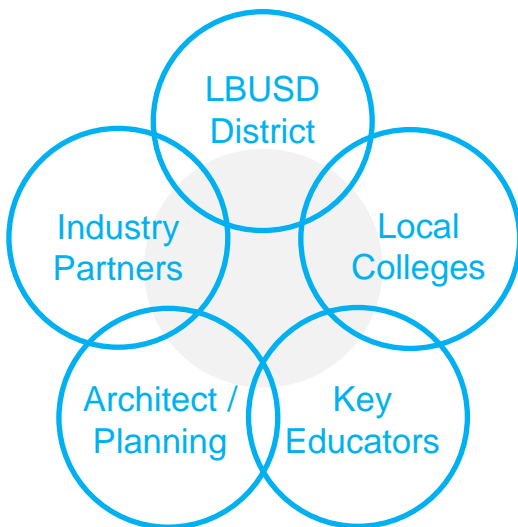
- Tech International
- Boeing
- PBS International
- Port of Los Angeles, Long Beach
- LB Molina Medical Center
- Capitol Criminal Scene Investigators

LOCAL COLLEGES

- California State University, Long Beach
- Long Beach Community College

EDUCATORS

- High School Principles
- Innovative Teachers who have developed and incubated successful Career Technical Courses throughout the District.





CURRICULUM PLANNING + DEVELOPMENT

The tasks of this group included the following:

- Understand students of the next generation
- Identify continuous community relationships
- Develop or confirm the governance and organizational structure
- Define the program impact on students and the community
- Create a mission and goals statement
- Agree on educational strategies
- Develop the educational program
- Develop a phase-in or transition plan
- Develop a financial plan
- Develop an implementation plan



THE PROCESS

OVERVIEW + PLANNING COMMITTEE ASPIRATIONS

From the beginning of the process, the committee maintained transparent communication and collaboration. The initial meetings included establishing key-milestones for decision making and identifying the potential programs that could occur at the new high school. The focus started with and revolved around the need for student engagement in real-world learning and creating a path for student success, in both career and college.

CASE STUDY / SITE TOURS + INDUSTRY IMMERSION

The Curriculum and Planning Committee reached out to other model programs around the nation to learn what has worked and what hasn't. This led to the creation of 5 sub-committees that would embark on a research-based, student-led series of tours to High Schools with Career Technical Programs and Small Learning Communities across the United States.

Several committee members – including the Design Team - participated in full Industry Immersion Days to gain insight into the career focused and technology needs of the pathways.

Lessons learned from these tours were brought back to the larger committee, providing inspiration to help shape the program and the environment of the new home for the District's Career Technical Programs.



CASE STUDY TOURS + INDUSTRY IMMERSION

SCHOOL SITE TOURS

- Wunsche High School | Spring ,Texas
- East Valley Institute of Technology (EVIT) | Mesa, Arizona
- High Tech High | San Diego, California
- Saddleback Community College Health Sciences Center | Mission Viejo, California

INDUSTRY IMMERSION DAYS

- Boeing International Design and Engineering Laboratory
- Trade + Business Center at the Port of Long Beach
- Long Beach Community Medical Center
- Long Beach Regional Police Training Center + Crime Laboratory



SHIFT IN EDUCATIONAL DELIVERY

Active participation by the community and stakeholders created awareness and consensus around ideas relating to the learning environment and how it can empower a dynamic learning experience and, in effect – the learning outcome for all students.



THE PROCESS

NEXT GENERATION OF LEARNERS

Research-based discussions, facilitated by both Educators and Planners allowed the Committee to shape educational goals and characteristics of the environment that would provide flexible, state of the art learning spaces for all types of learners. The brainstorming sessions became the catalyst for the design at McBride High School: Each career pathway is a distinct Small Learning Community clustered around a home, a shared commons space that would flow seamlessly to programmed outdoor space and social space.

EDUCATIONAL PROGRAM DEVELOPMENT

Conversations around the program development also occurred at the community level. Facilitated by the Architect, the committee participated in workshops to develop adjacency diagrams, a list of specialized labs, and shared spaces that would be multi-functional for the student's use based on need or activity.

IMPLEMENTATION, PHASING AND BUDGET ANALYSIS

Developing a new Thematic High School on an existing urban site required thorough analysis by the Planning Committee. The early variations ranged from major to minimal re-use of existing facilities, with budget estimates provided for review.

With the engagement of the neighboring community – the consensus priority was to re-establish a connection with the adjacent 2 ½ mile long urban parkway, creating a “**School within a Park**”. This connection, and the unique qualities of the learning environments are examples of the tangible long term influence a meaningful process of engagement can create.

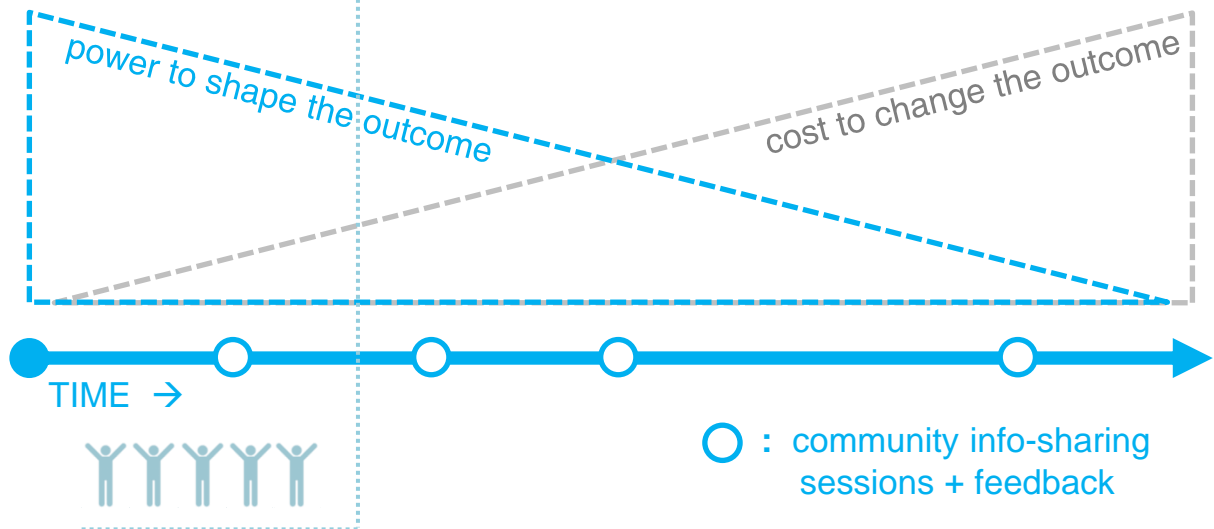


Resulting Program Goals:

1. Inspire Collegiate and Career Aspirations
2. Make Learning Relevant to All Learners
3. Empower Collaborative + Individual Modes of Learning
4. Model Sustainability
5. Authentic + Integrated Design Process



INTEGRATED CAMPUS DESIGN



As a project proceeds through the Planning and Design Process, the power of participants to shape the outcome is greatest at the beginning and diminishes over time, while the cost of influencing the outcome increases. Much of the success of the McBride process come directly from early engagement and integration of input from all participants early in the process, shaping the design through a logical, iterative process.

Continuing the momentum the previous planning processes, a fully integrated design process was used to design the school, carrying on the previous legacy of early engagement with the Community, District Stakeholders, Planners, Architects, Engineers, Interior Designers, Landscape Architects, Builders and other experts.

A holistic understanding of all the criteria and practical realities influencing the design developed by using a truly [Integrated Design Process](#), shaping the building's form, material selection, and site solutions – creating authentic and “aspirational” spaces for learning. An ethic of collaboration resulted in a project culture where all team members worked together, seeing out opportunities, problems, and solutions at the very beginning.

PROJECT VALUE + ASSETS

- Meets the school district's Academic and Career Success for all Students Initiative with the focus of the curriculum as career technical education in conjunction with college readiness
- Engages and Connects with Community Business Partners
- Incorporates, through collaboration with the City of Long Beach, a signal modification as well as improved public and student safety
- Will prepare students for high-demand, high performing careers
- Creates environments with a diverse community base that come together to become “**thinkers + doers.**”



EDUCATIONAL +
PHYSICAL
ENVIRONMENT

*Design and
Construction*

School Mission:

“To support all students’ personal and intellectual success through the development of interdisciplinary and action-oriented lessons, the creation of a safe learning environment, and the fostering of collaborative pathway communities.”

M c B r i d e M a n t r a :

***H o m e o f T h i n k e r s
a n d D o e r s***



EDUCATIONAL ENVIRONMENT

McBride is designed for four pathways, Engineering, Health Medical, Public Services-Forensics and a fourth pathway to be determined. Each pathway engages students around their interests, helps them find relevant connections through real world activities, and empowers the student's learning through collaborative, hands-on projects. Each pathway prepares students for the demands of college AND the career. With workplace learning experiences in their 12th grade year, the pathways empower and inspire students to make their own path and determine their own future.



"The school looks different than any other school in the District. With Career Labs and other specialized spaces, students will demonstrate what they have learned through projects, team collaboration + connections with industry partners who mentor and coach our students"

-McBride HS engineering teacher

"Addressing subjects at each grade level and centered on a career-themed course, students will see the natural connections between the theme of their pathway and English, History, Science and Math."

-McBride English Teacher

Each Career Pathway focuses on completing the University of California and Cal State University entrance requirements with a sequence of courses that are aligned to college expectations.

Each Learning Community will create options for students to earn college credits while in high school.

LINKED-LEARNING ENVIRONMENT

Each Learning Community combines rigorous academic subjects with challenging Career Technical Education.

Students are exposed to interdisciplinary cross-curricular connections and Project Based Learning activities. The four-year course of study based on career pathways will give students exposure so they can truly experience what their futures could be like.

Character of the Learning Environment:

- Engaging environments that empower hands on learning
- Learning happens EVERYWHERE
- The process of learning is on display / the energy is contagious
- Flexibility is seen throughout with multiple uses for every space
- Outdoor environments are programmed for academy-focused activities
- Shared learning environments occur in all scales, supporting individual as well small, medium, and large group learning.

This school is an example of
“if you build it, they will come”

The concept of small learning communities with a thematic focus was a direct result of the district-wide facility master plan. The design for McBride High School aligned these ideas...

building not just a school but a community of **“thinkers and doers”**



Understanding the social aspects for learning and programming outdoor environments that are scaled to meet the student's different needs, resulted in a sense of student ownership at McBride High School.





The environment at McBride High School encourages student independence and is relevant to their learning styles, preparing college and career-ready students.

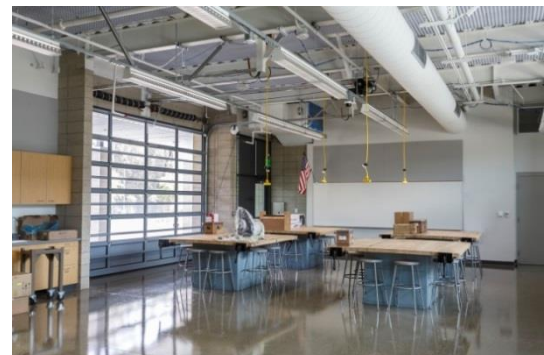
EDUCATIONAL ENVIRONMENT



- 1 Administration
- 2 Student Services
- 3 Career and Internship Center
- 4 Shared Lecture Hall
- 5 Art + Design Labs
- 6 Science Labs
- 7 Student Union
- 8 Gymnasium
- 9 Training, Fitness and Wellness Spaces
- 10 Academy Commons
- 11 Academy Classrooms
- 12 Academy Labs
- 13 Academy Courtyard
- 14 Academy Student + Faculty Center
- 15 Main Street

The environment supports a culture of learning by creating personalized spaces for CTE as well as shared environments that allow the students to come together either as a team in the Commons, as an entire academy in the Lecture Hall or as an entire school community in the Gym.

- Academy clusters include classrooms, labs, commons outdoor labs, and a student / faculty resource center.
- The furniture and technology are relevant to real world environments and foster collaboration.
- McBride has scaled spaces for collaboration and social learning
- The labs open to both their outdoor labs and to Main Street to encourage transparency and a culture of sharing knowledge.

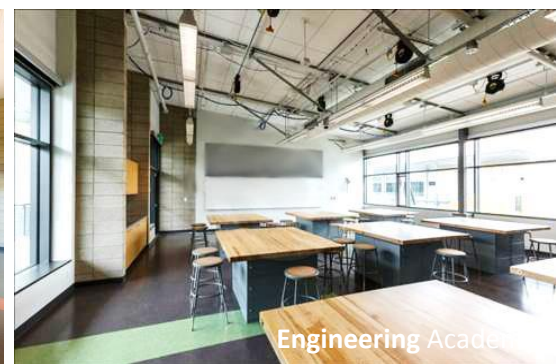


FUNCTIONAL ADAPTABILITY

The planning process resulted in insights about the activities that would occur in the labs or classrooms. The solutions were driven by creating ultimate flexibility and providing opportunities for future adaptability to occur. In the 'project' or 'messy' labs...it is what goes into these labs, FF&E and the Technology that makes them so specialized. Allowing the Furniture and Equipment to define the Academy provides a **"pedagogy-on-demand" environment.**

Additional features that provide a functional space that is adaptable to the lesson, activity or user are:

- transparent connections to outdoors; garage door opening
- ceiling suspended utilities in the labs
- acoustical and daylighting controls to allow for specialized activities
- resilient materials
- ceiling mounted Unistrut for project experiments or display



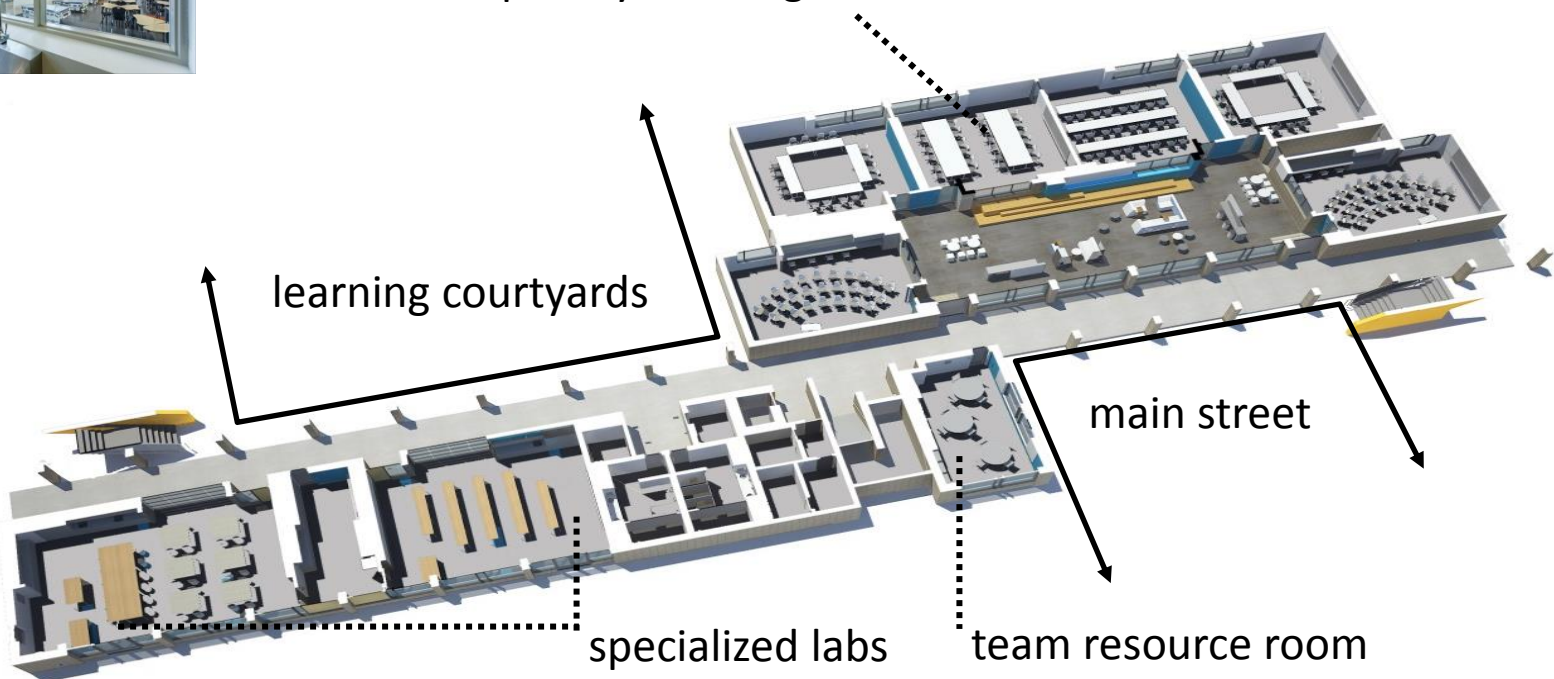
interdisciplinary learning studios

learning courtyards

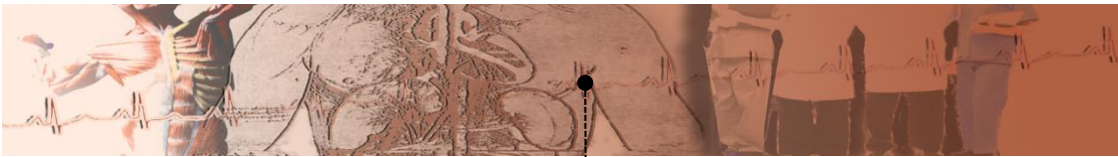
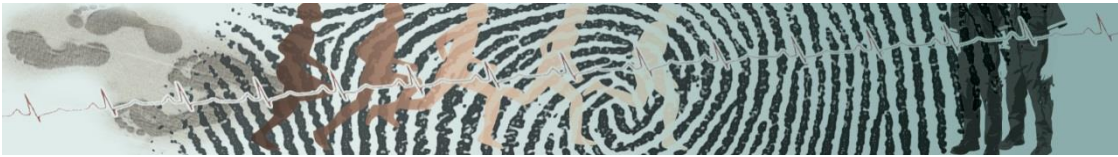
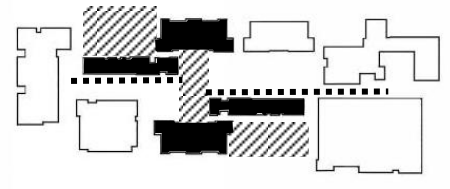
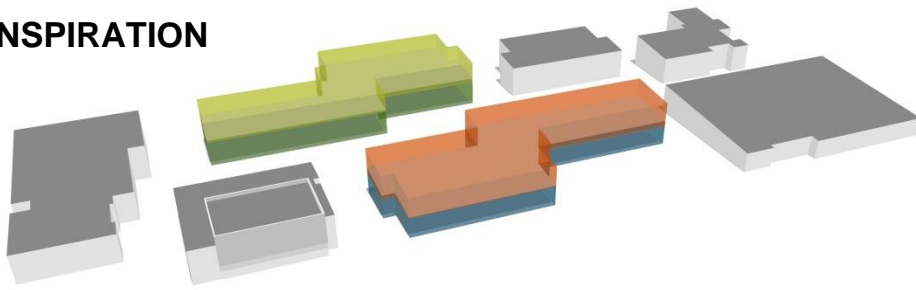
main street

specialized labs

team resource room



INSPIRATION



Each academy is branded with educational graphics relating to past methods and the future technologies, inspiring students and providing a sense of pride for each Academy.



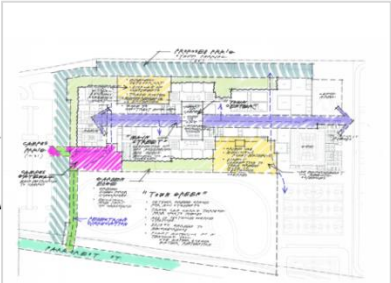


**Career + Collegiate aspirations are met.
McBride High School re-defines social
interaction at a high school, influencing students
by teaching exposure, ownership and respect.**



The 4 Student Commons at the center of each learning community are a resource to students with all types of learning styles, with spaces to gather actively, to observe passively, to work alone or in teams. These collision-rich environments allow for 'un-planned' learning to occur.

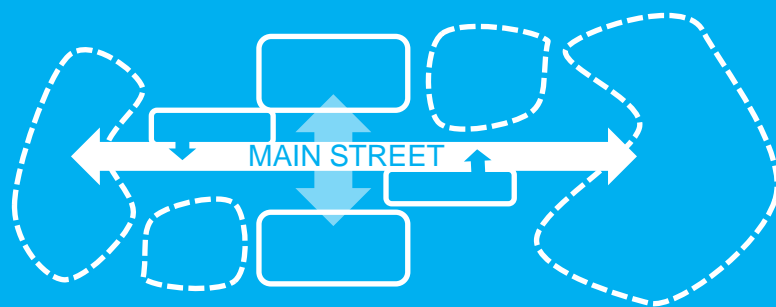
CAMPUS SITE PLAN The “school within a park” concept kept the campus to the north of the site, allowing for community engagement on the fields and along the natural edge at the south.





PHYSICAL ENVIRONMENT

Main Street broadens at the commons to celebrate the connections on campus, both indoors and out. The Student Services building anchors the west end with civic-minded inspirations on the feature wall. The east end celebrates health, wellness and student pride with the Gym and Student Union – opening to the community and fields at the west end of the park. The Academy Labs are directly on Main Street, with storefront openings and transparency to allow for learning to be on display.





PROCESS
+
PROJECT
RESULTS

Occupancy!

McBride High School exceeds the district and **community aspirations** to address overcrowding in the schools of Long Beach while at the same time supporting the District's most innovative programs. This is the first of several new thematic high schools in the district. The process and engagement with the neighborhood and the industry will be an example for others that follow.

The resulting project
brings pride to the
community



PROCESS RESULTS

Long Beach Unified School District is a large urban school district and a model of success for urban districts in so many ways. Their vision for the facility master plan resulted in a major effort that involved more than 4,000 community members. It successfully demonstrated that you can organize a large district into smaller areas for planning purposes, create area plans that meet local needs and at the same time **build broad regional consensus on the direction of school facilities in support of high performance learning**. This plan resulted in a successful \$1.2 billion bond election providing the assets needed to make these aspirations a reality.

The community engagement process continued from that inception through the occupancy of the project at McBride High School. The Grand Opening Ceremony included family members of Ernest McBride, Sr. (an important local leader of the Civil Rights movement). The school and the district hosted **Community Tours**, district and student led, to share their story about the new environment.

The Design Team initiated and facilitated interactive **Campus-Immersion Walks**. This was a significant moment for all involved, the faculty and administration of the school were able to hear first hand from the architect, landscape designer, interior designer, planners and engineers about the intentional design of the spaces, a how-to guide of the building. The McBride Community that was only established at the end of the construction phase was now part of the planning family and process.



Over 2,000 community members attended the McBride High School Opening Ceremony

Of the criteria used to rank school districts for the Global Education Study, one stood out that was used to characterize the Long Beach Unified School District; it was that the people of Long Beach and the leadership of the District share a **“Cultural Expectation of Value”**.

This was evidenced by the District’s track record as an incubator of home-grown innovative programs within the existing schools. Now, the environment at McBride High School meets the expectations of the District.



shared-use community meeting

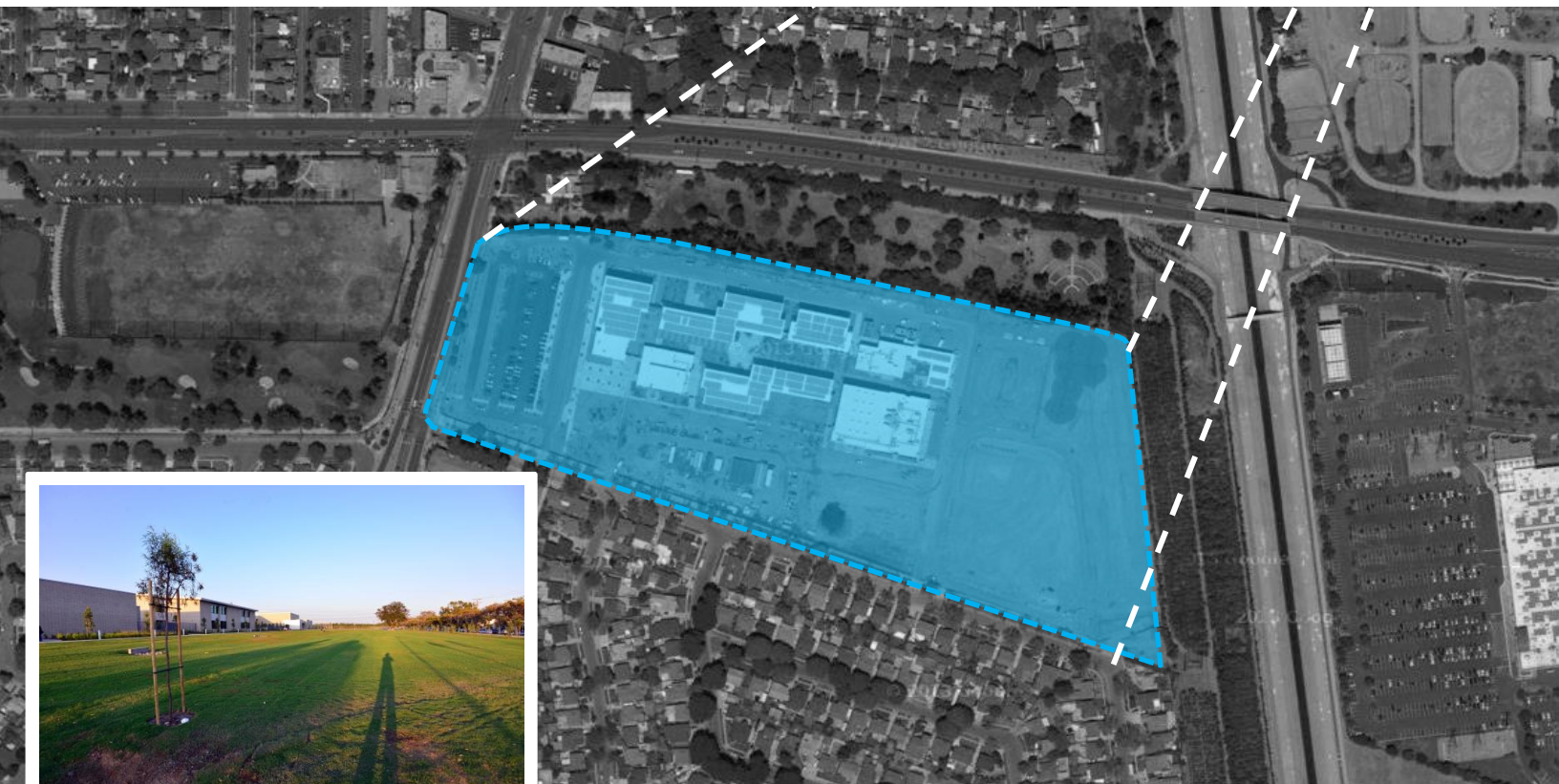


open house





CONTEXT / School in a Park



CONNECTIONS FOR COMMUNITY RESOURCE

The design sought to maximize open space, minimize the building footprint and extend the city park to encompass the school campus, diminishing the impact of a high school to the adjacent residential neighborhood. The school will draw students from throughout the district. The entrance is adjacent to two public bus routes and bike storage provides alternative means of transportation. Addressing neighborhood concerns about a High School in the community, McBride is now a resource to neighbors and a celebration of the community park.

An integrated design process shaped the outcome for sustainable success.



SUSTAINABLE RESULTS

Designed to qualify for the Collaborative for High Performance Schools (CHPS) Verified Program, the McBride campus exceeds California Title-24 energy standards by 40% and is a model of sustainability:

- Daylighting is provided for over 95% of the occupants
- 75% of the construction waste was diverted from landfills
- CMU block is used for both structure and enclosure, providing excellent thermal mass and durability for a long-lasting, sustainable solution
- A 277-KW photovoltaic system meets 60% of the estimated energy use. A monitor in the lobby illustrates the performance for students to see
- Stormwater percolates into the playfields for polishing and groundwater regeneration without burdening the existing city storm drain system





“Because McBride is an experimental school in many ways, many of the learning techniques are new and a great deal of technology is used in our daily activities. The use of our new procedures may someday be standard in all high schools, and I am very proud to be one of the first students to use them and to be a part of them.”

“Everyone has an opportunity to be involved in one way or another, and I think that's great. Even when the school is at its maximum capacity with all four grade levels, we all still will feel included and like we belong. We know one another's names, and we are all friends. It really feels like we are one big, happy family here.”

-Jessica Dowdy, class of 2014

