



# Flint Cultural Center

# Academy

A Vision for Success







*Financially supported by:*



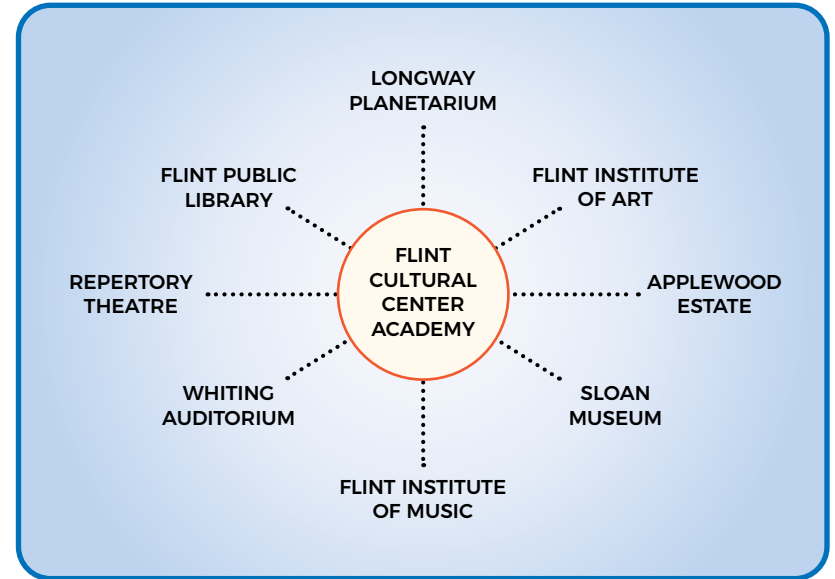
**AN URBAN SCHOOL PROTOTYPE  
DESIGNED TO CHANGE THE OUTCOMES  
OF DISADVANTAGED STUDENTS**

## A DREAM FOR A BETTER FUTURE

Creating a new Charter School District from scratch can be a daunting challenge for any K-12 school designer. But incorporating a new educational experience that immerses all students, every day, in the Cultural Center of a community created the ultimate challenge for THA Architects Engineers when designing the new Flint Cultural Center Academy (FCCA).

Yes, Flint is the city that has struggled for decades in a post manufacturing era, dealing with crime, poverty and decreasing educational outcomes, just like many industrial cities. Add to that the lead contaminated water crisis in Flint and you will understand the environment that led local leaders to strive to create alternative outcomes for these at-risk students.

Understanding that children have multiple types of learning styles that include hands on learning, small group interaction, and teaming to improve their learning outcomes, it became the dream of Ridgway White, CEO of the Mott Foundation, to develop these new educational techniques in harmony with one of Flint's long standing assets, the Flint Cultural Center. Since the early 1950's, Flint has enjoyed the unique development of a 48 acre campus that encompasses Fine Arts, Music, Science, History, Performing Arts and Drama, and the largest Planetarium in the State of Michigan. The challenge presented was to create a new Charter School that would embrace the immersion of every student, every day into the surrounding campus.



*The new Flint Cultural Center Academy is the result of years of dreaming and planning for a measurably more successful future for each and every student in the Flint area.*

## CREATING THE VISION

THA Architects Engineers was challenged to help create a brand new charter school district within the Flint Cultural Center to house 650, K-8 students.

The intention was to use the school as an urban school prototype, demonstrating that no matter how challenging one's living environment may be, all students have the ability to expand their learning capabilities through hands on, project based learning that is fully immersed in the cultural arts of the community.

Working with an educational consultant, THA helped develop the educational program specifications and establish the goals required for the Charter School application. All of this was accomplished without the presence of a Board of Education, a superintendent, nor a single employee of the soon to be created school district.

The Architects then assembled a complete team of consultants to address every element of the required built environment. Working with the funder, Charles Stewart Mott Foundation and the Flint Cultural Center Corporation, the Architects developed multiple site design options in and around the Flint Cultural Center to help determine the best opportunities for students to navigate the two block campus in the most efficient manner, while minimizing impact on the day to day operations of the cultural facilities.

Finally, two days before Christmas in 2017, the funder approved a conceptual design with a construction budget of \$20 Million to construct a 78,000 SF, two-story charter school called the Flint Cultural Center Academy.

## FCCA DESIGN TEAM

### THA ARCHITECTS ENGINEERS

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Project Architect

Madonna Bennett

Mechanical Engineer

Karl Strine

Construction Administrator

Joshua Steere

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Solar Panel Designer

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Landscape Architect

Doug Schultz

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Food Service Consultant

Jim Petersen

### BARTON MALOW TECHNOLOGY

Technology Engineering

Brian Jessie



## CHALLENGE #1: OPTIMIZED SITE PLAN

Locating a school and its accessory site elements is always a bit of a challenge. The site challenges for the new Flint Cultural Center Academy were of a much greater proportion. The Cultural Center encompasses six major Cultural community elements including a music center, an art center, a performance center, a planetarium/youth theater facility, a history and automotive museum, and a public library.

The goal of the new charter school was to find a location as central as possible to make daily student access as approachable as possible in both warm, sunny weather as well as during the harsh winter weather.

THA Architects Engineers developed a total of 6 different site locations for the Cultural Center entities to examine as we discussed the pros and cons of each. The problem was that, other than the two residential sites, the existing boundaries of the Cultural Center were currently being used for Cultural buildings and parking lots, and parking spaces were at a premium when large events occurred in the Cultural Center. Each entity was loath to give up any of their designated areas to satisfy the site needs for the School no matter how important the school was to the community and the Cultural Center.

Add to this scenario a strong desire by the Cultural Center to eventually create a new vehicle access to the Cultural Center and relieve traffic from the current two-lane city street that runs through the heart of the Cultural Center.

# Solution

*Ultimately, THA was able to demonstrate that the new two-story school could be located behind the Flint Institute of Music and the Sloan Museum of Discovery and provide even more parking for events than what they had originally started with.*

*The new design also created the new vehicle entry from Robert T. Longway Boulevard to the north, past the new school, and into the heart of the Cultural Center. The creative siting of the school allowed a new entry for the Cultural Center, increased available parking, created visual exposure for the school from Longway Boulevard and allowed the school to connect directly to the Flint Institute of Music and the Sloan Museum of Discovery so students could use those facilities without ever going outside.*

*The site also solved a lot of very critical problems which are inherent for most charter schools that do not have a bus system. That is the problem of parent pick-up and drop-off of students. There can be hundreds of cars all arriving at the same time and a carefully arranged process must be included in the design to address this potentially dangerous condition. The new site layout provided plenty of queuing spaces for cars, with a second future queue area designed on the opposite side of the building.*

# 48 ACRE CULTURAL CENTER CAMPUS

TOTAL QUEUING		TOTAL PARKING	
East Parking	93	FIM	141
West Parking	61	Charter School	206
<b>Total Queuing</b>	<b>154</b>	Sloan	142
		Whiting	340
		<b>Total Parking</b>	<b>550</b>

- 1 **CREATED A NEW VEHICLE ENTRY** from Robert T. Longway Blvd.
- 2 **ADDED VISUAL EXPOSURE** from Robert. T. Longway Blvd.
- 3 **CREATED 150+ QUEUING SPACES** for parent pick-up and drop-off
- 4 **INCREASED EVENT PARKING** for Cultural Center



## CHALLENGE #2: THE SKY IS THE LIMIT

Every new educational facility has plenty of challenges: financial, conflicting personalities, physical site limitations, and inflexible schedules to name a few. Developing a new school prior to defining a Board of Education, a superintendent, educators, or even an operations manager while having the funding handed over without a vote from the public, may seem like a dream come true for a designer. However, designing without limits or restrictions can be a very real challenge for the Architect. Working with the CEO of the Mott Foundation and an educational consultant to make every decision required, with the success of the facility resting squarely on the shoulders of only a few, can be very daunting. There are no educational policies, there is no curriculum, there is no district history, there is no defined parent group or even previous district failures to learn from.

# Solution

*It would take an unwavering dedication to strict educational principles by the Visioners, years of educational teaching and administrative experience for an educational consultant to lead the chartering process, and it would take an Architect with decades of experience designing conventional schools, learning from past successes and failures, to create an exciting new school district; a school district with an exciting new school facility that can be flexible enough to meet the needs of such a variety of students as a home base for their daily journeys into the world of Arts and Sciences.*

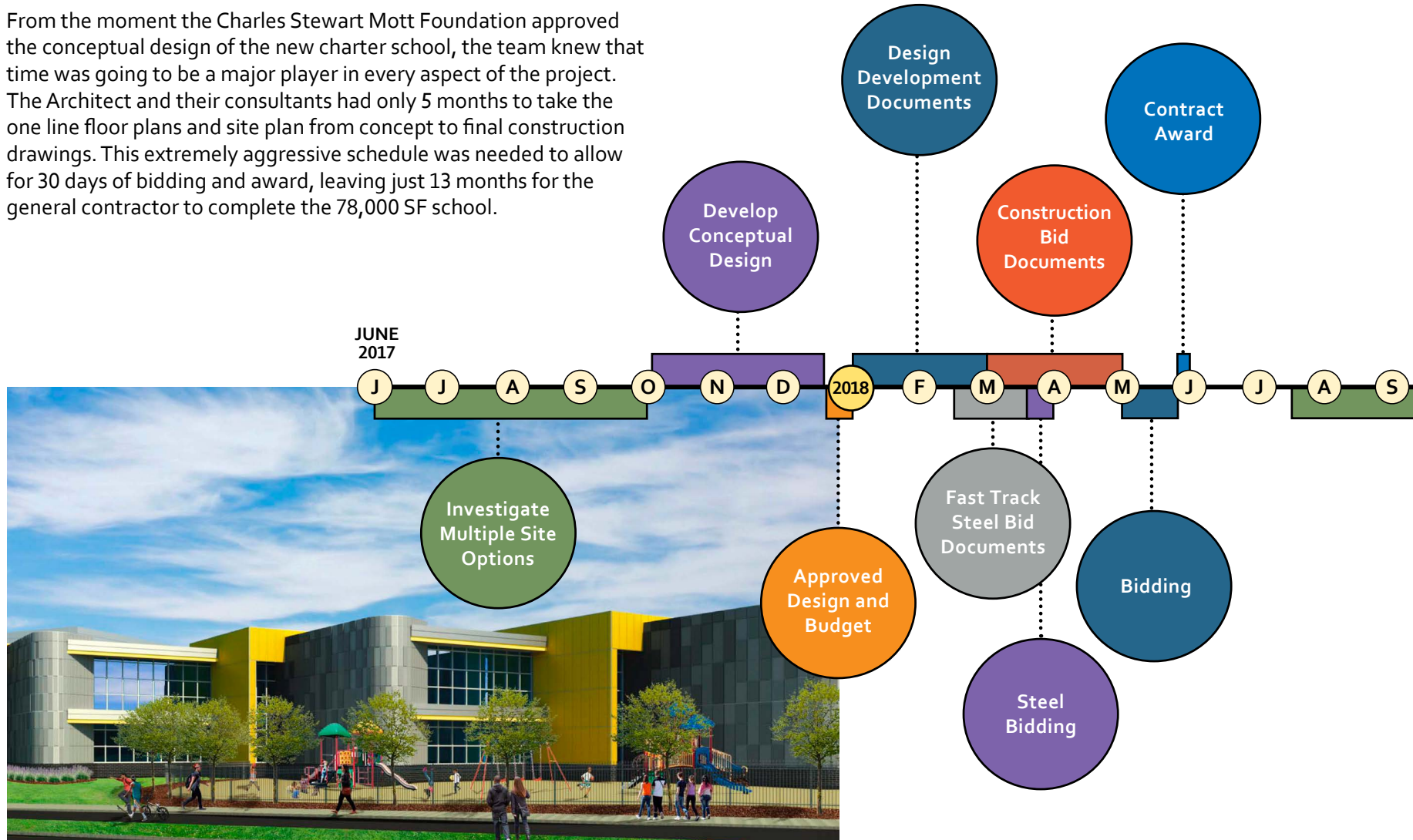


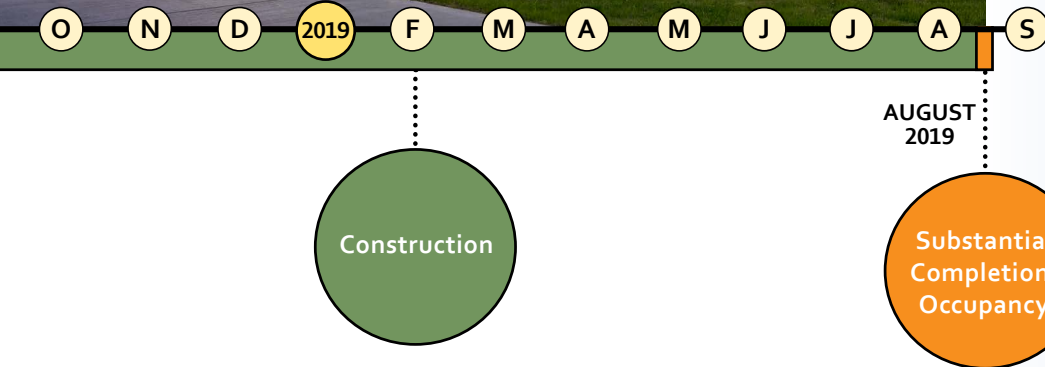




### CHALLENGE #3: FAST TRACK SCHEDULE

From the moment the Charles Stewart Mott Foundation approved the conceptual design of the new charter school, the team knew that time was going to be a major player in every aspect of the project. The Architect and their consultants had only 5 months to take the one line floor plans and site plan from concept to final construction drawings. This extremely aggressive schedule was needed to allow for 30 days of bidding and award, leaving just 13 months for the general contractor to complete the 78,000 SF school.





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# Solution

The tight time frame dictated a steel frame building (with minimal masonry) and stud wall and abuse resistant gypsum to speed up the construction process. Insulated metal panels were the predominant exterior materials along with blue tinted glazing. This allowed early access by trades to begin their work without waiting for load bearing walls and floors to be constructed.

The structural steel was fast tracked a month earlier with the successful steel bidder assigned to the successful general contractor after shop drawings were underway. It was critical that the Architect and their consultants work cooperatively and the use of Revit® greatly improved efficiencies and coordination of each discipline. It was even more critical that the Architect work closely with the general contractor to make decisions quickly and look for opportunities to streamline the construction process.



FCC ACADEMY

COMMUNICATE

ENVISION

CREATE

INVESTIGATE







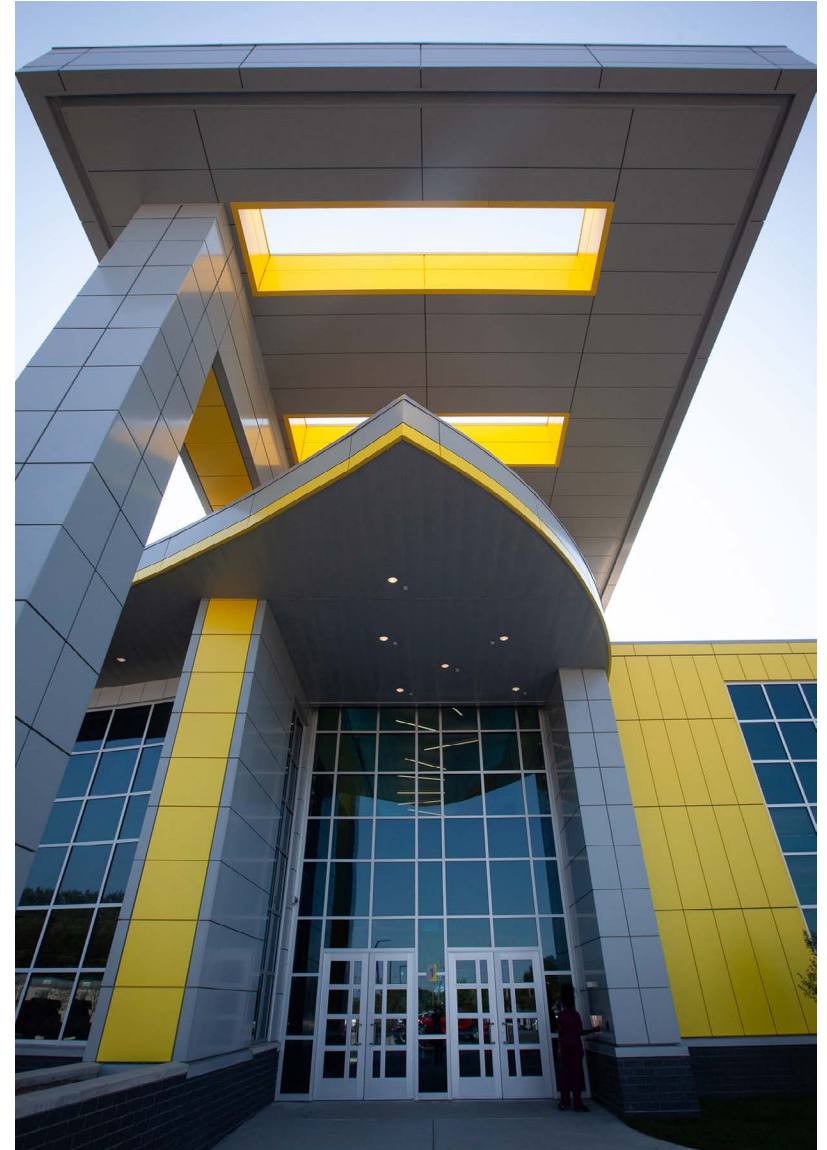


## ENVISION, CREATE, EXPLORE AND LEARN

The goal of the school is to house an array of State of the Art educational spaces that excite the students and staff each day to envision, to create, to explore and to learn about a world they never knew existed.

For students, parents and staff alike, the drama starts with a tall 40 foot cantilevered entrance canopy that sets atop a sleek, two story building of glass and metal panels that leave behind the traditional models of brick and block and introduces the community to a 21st century, urban expression.

The drama continues down Main Street where students can see the cafeteria and gym through tall glass windows and experience the giant-sized Learning Stairs that draws their eyes to the second floor and the glass enclosed Innovation Center. This daily first impression is meant to inspire and excite everyone who enters.

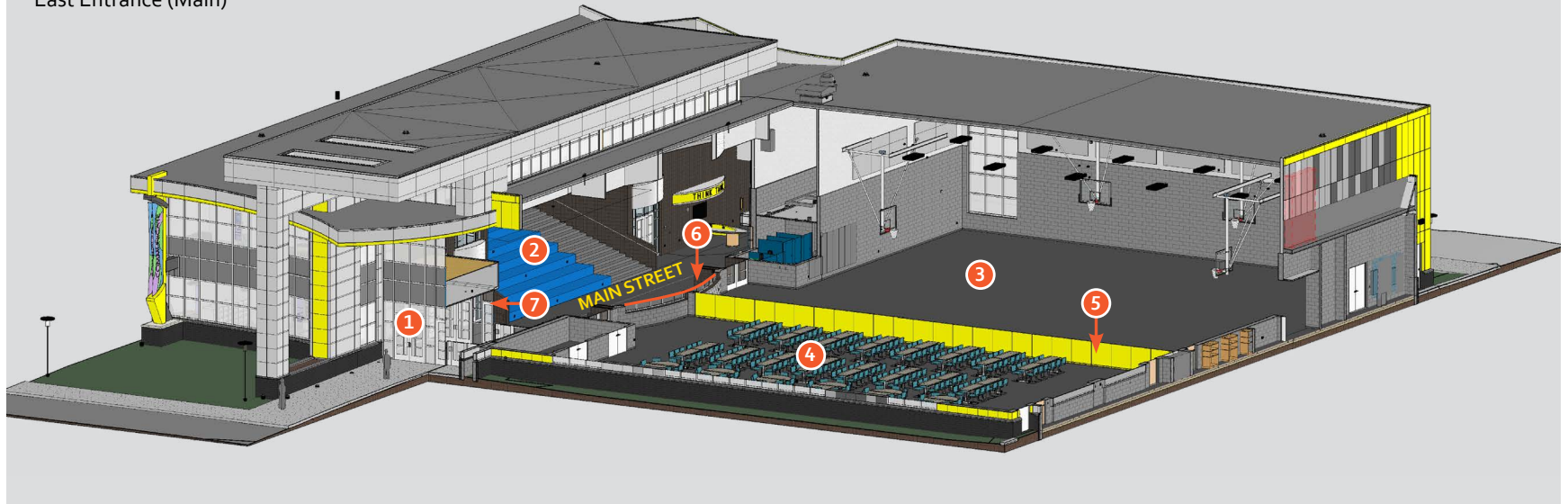






LEARNING STAIRS

East Entrance (Main)



## SPACE ARRANGEMENT

### MAIN STREET

An often overlooked, but critical planning concept, is the ease of way finding in a 78,000 SF school. One of the attributes of the FCC Academy is that, upon entering, the Main Street is a major organizational element. All of the “public” spaces are accessible from Main Street with large glass areas looking into the gymnasium and cafeteria as well as the main office. The central feature of Main Street is the two story Learning Stair which is open and provides views to both the 1st floor and second floor classroom corridors. So, upon entering Main Street, the school plan concept is visible and understandable. The classroom corridors are a loop, so there are no wings to get lost in. Traveling any corridor brings you back to Main Street, no matter what level you are on.

- 1 Secure Entry
- 2 Learning Stairs
- 3 Gymnasium
- 4 Cafeteria
- 5 Moveable Separation Partition
- 6 Window view into Gym/Cafeteria
- 7 Main Office/Administration



VIEW OF PUBLIC SPACES



CYMNASIUM



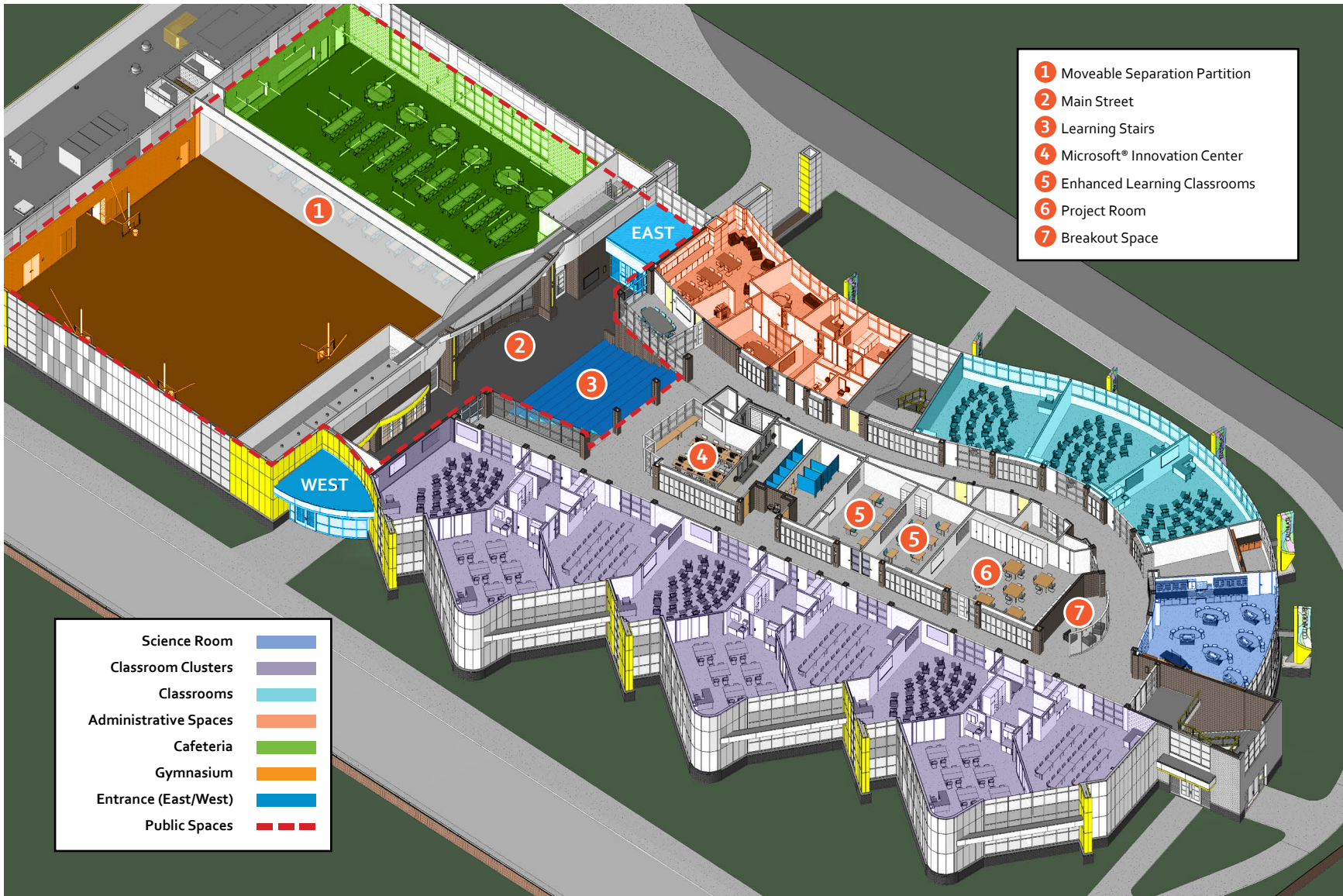
CAFETERIA

## FLEXIBILITY AND PUBLIC SPACES

All of the public spaces are located off of Main Street and access to the 1st floor classroom corridors are through lockable doors and at the top of the Learning Stairs is a row of fire rated rolling shutters that close off the Learning Stair from the second floor classroom corridors.

This arrangement allows the school to have after school programs or even to rent out the "public" spaces and still control access to the classroom functions.





- 1 Moveable Separation Partition
- 2 Main Street
- 3 Learning Stairs
- 4 Microsoft® Innovation Center
- 5 Enhanced Learning Classrooms
- 6 Project Room
- 7 Breakout Space

- Science Room
- Classroom Clusters
- Classrooms
- Administrative Spaces
- Cafeteria
- Gymnasium
- Entrance (East/West)
- Public Spaces



**CLASSROOM CLUSTER**

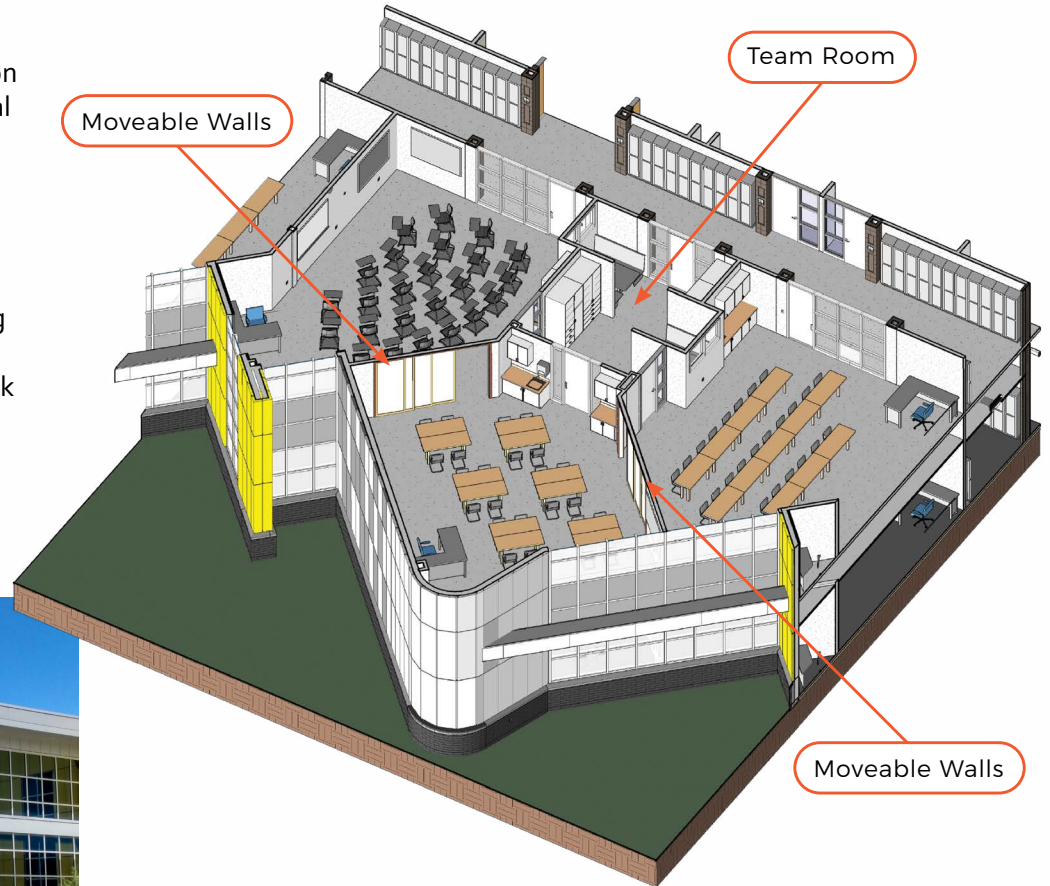


## FLEXIBLE LEARNING ENVIRONMENT

To further promote flexible learning and multiple teaching styles, the classrooms for grade levels 1-7 are arranged in clusters of three, divided by moveable walls. These walls can slide open for team teaching and student collaboration or remain closed to provide students with more traditional structured learning opportunities. The clusters are totally flexible and have good sound separation.

### CLASSROOM FURNITURE

Within each classroom, students will have the assigned “traditional” seats, but there are also multiple soft seating and learning nooks that will allow students who need to be more mobile to relocate and slouch, or lay down or rock while paying attention to the presented materials.





CLASSROOM CLUSTER

## TEAM ROOMS

Each classroom cluster has a central team room which is accessible from each independent classroom. The team room is where the classroom and curriculum supplies are stored, and also houses conference furniture. These team rooms can be used by students to work on small group project based learning modules so they can share their ideas more easily and learn from one another. Teachers can use the team room after hours to plan curriculum and coordinate team teaching opportunities. Team rooms will also be a place where teaching assistants or parent volunteers will work with students who need more personal attention.





SCIENCE LAB



KINDERGARTEN ROOM

## SUPPORTS MULTIPLE LEARNING AND TEACHING STYLES

### BREAK OUT ROOMS

There are multiple break out rooms located throughout the classroom corridors to provide space for students from multiple grade levels to come together for team building and hands on projects. These break out rooms are glass enclosed areas with flexible, comfortable furniture to address all types of teaming capabilities. Students will carry two-way communication pucks that will allow teachers the ability to remotely listen to the conversation (monitoring) as well as for all students to reach teachers for advice.



### PROJECT ROOMS

Each floor has a very large project room available for teachers to use as needed for project based learning. The project rooms are large, open rooms equipped with large lab tables that can be moved to the side to provide open floor area for robotics or pushed together to allow for the creation of large models. Each room contains walls of storage cabinets that house curriculum building elements such as Legos, claymation, erector sets, etc. Projects rooms can be set up for different grade levels to use and explore at their own level and also serves as a flexible teaching space for instructors of the Cultural Center facilities to teach their lessons if weather conditions prevent students from traveling to the facility.

### MICROSOFT® INNOVATION CENTER

Partnering with Microsoft, the FCCA curriculum incorporates Microsoft Education tools geared towards technology based instruction by utilizing the Microsoft K-12 Education Transformation Framework platform. With traditional technology labs being replaced with technology in every classroom, the Microsoft® Innovation Center is designed as a break-out, drop-in technology lab with very specialized computer programs that support CAD, modeling, animation, school video production and other unique learning opportunities. There are only 23 Microsoft Flagship schools worldwide, with the Flint Cultural Center Academy being 1 out of 3 located in the United States.



PROJECTS ROOM



THE LINK



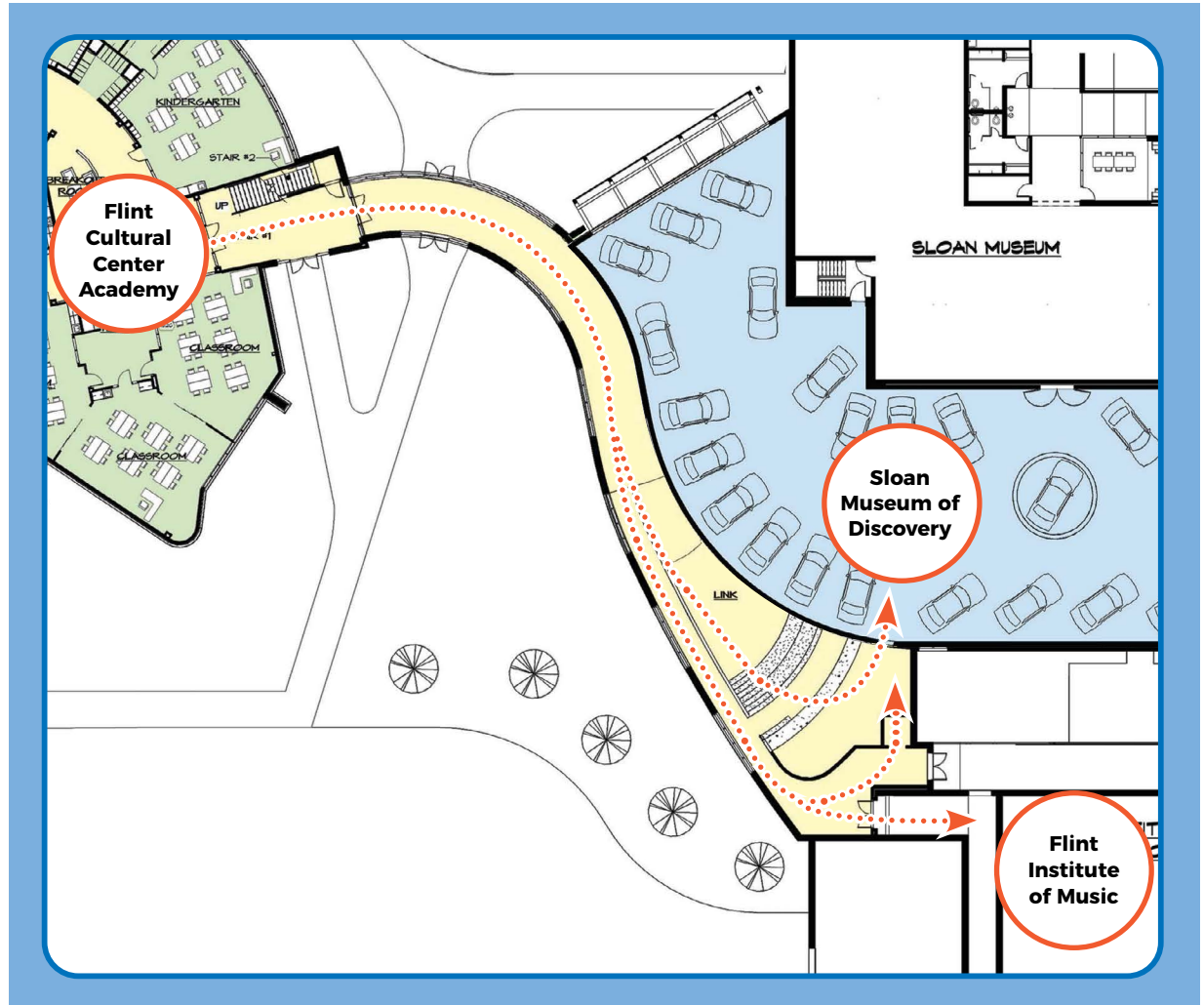
## CONNECTION TO FCC FACILITIES VIA THE LINK

### LINK ACCESS - PHASE 2

By locating the new school close to two of the most heavily accessed Cultural Center facilities, the Sloan Museum of Discovery and the Flint Institute of Music, the Architect created a physical connection between these two buildings, allowing students and staff easy access to these resources without ever having to leave the interior of the building. This is most critical during cold winter days and in bad weather.

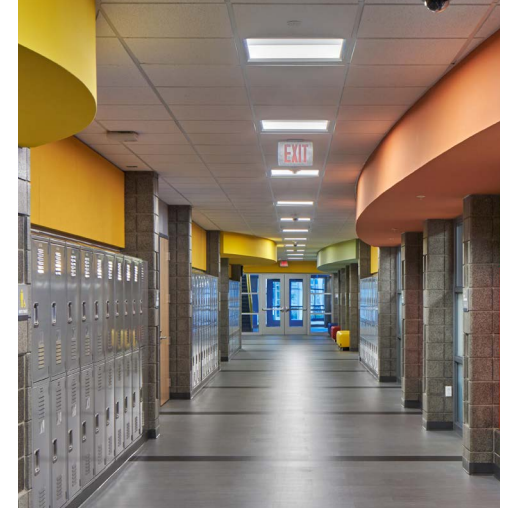
Ramps were used to create a smooth transition between the differing levels of grade when traveling between facilities and the creation of a small Learning Stair serves as collaborative learning space for studying, presentations, or relaxing with friends.

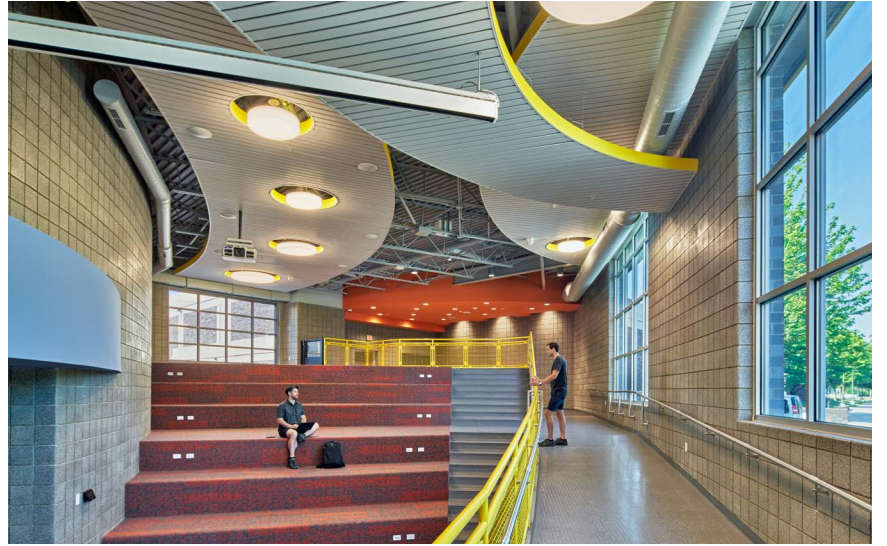
The link houses 8th grade classrooms and the Learning Stair is to be shared with the Sloan Museum and the Flint Institute of Music for their programs as well.



## INTERIOR EXPRESSION: EXCITEMENT THROUGH COLORS

From the multiple floor patterns of the gym and cafeteria spaces to the classroom cluster corridor bulkheads, vibrant color is everywhere. Each grade level has their own color theme and public spaces provide their own colors that usher visitors from one space to another. Yet once in the learning spaces, colors become more subdued and respectful of the environment needed for concentration.







## EXTERIOR VISUAL EXPRESSION

Along the two-story curved glass classroom portion of the building, the Architects have created a two-story high colonnade with exposed steel column elements and bright banners that extol the goals of education. These banners are designed to be easily replaced with new banners, new colors, and new messages of inspiration. So even the main visual expression of the school is flexible and can change with the times.



PHOTO CREDIT: Rick Smith



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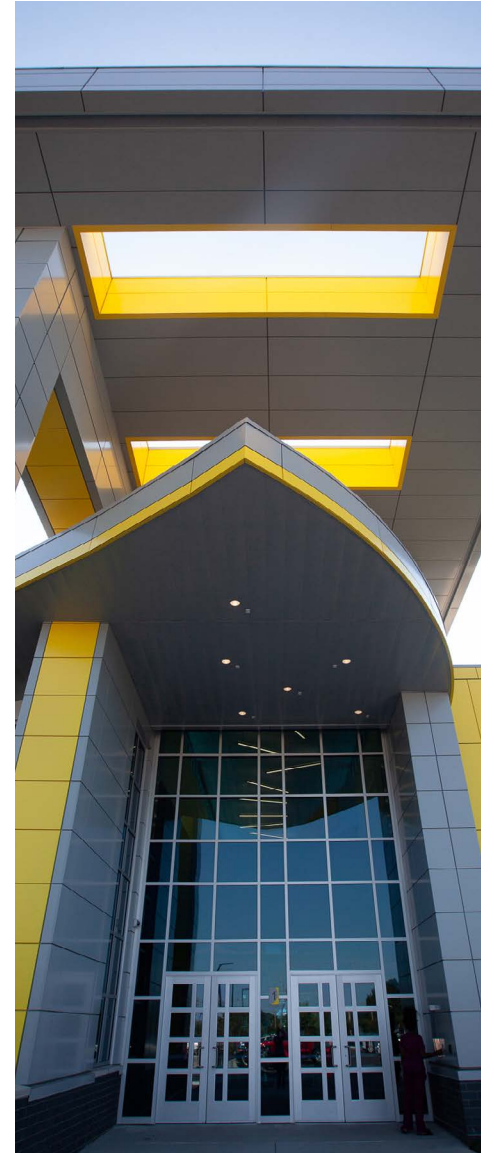


PHOTO CREDIT: Rick Smith

## OWNER

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Facilities Manager  
Todd Moyer

Superintendent  
Eric Lieske

Board of Education  
Todd Slisher  
Rodney Lontine  
Kay Schwartz  
Renita Bingham  
Lamont Richardson

## FUNDER

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President/CEO  
Ridgway White

Project Manager  
Amy Hovey

## EDUCATIONAL CONSULTANT

Bill Haley



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Joshua Steere

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