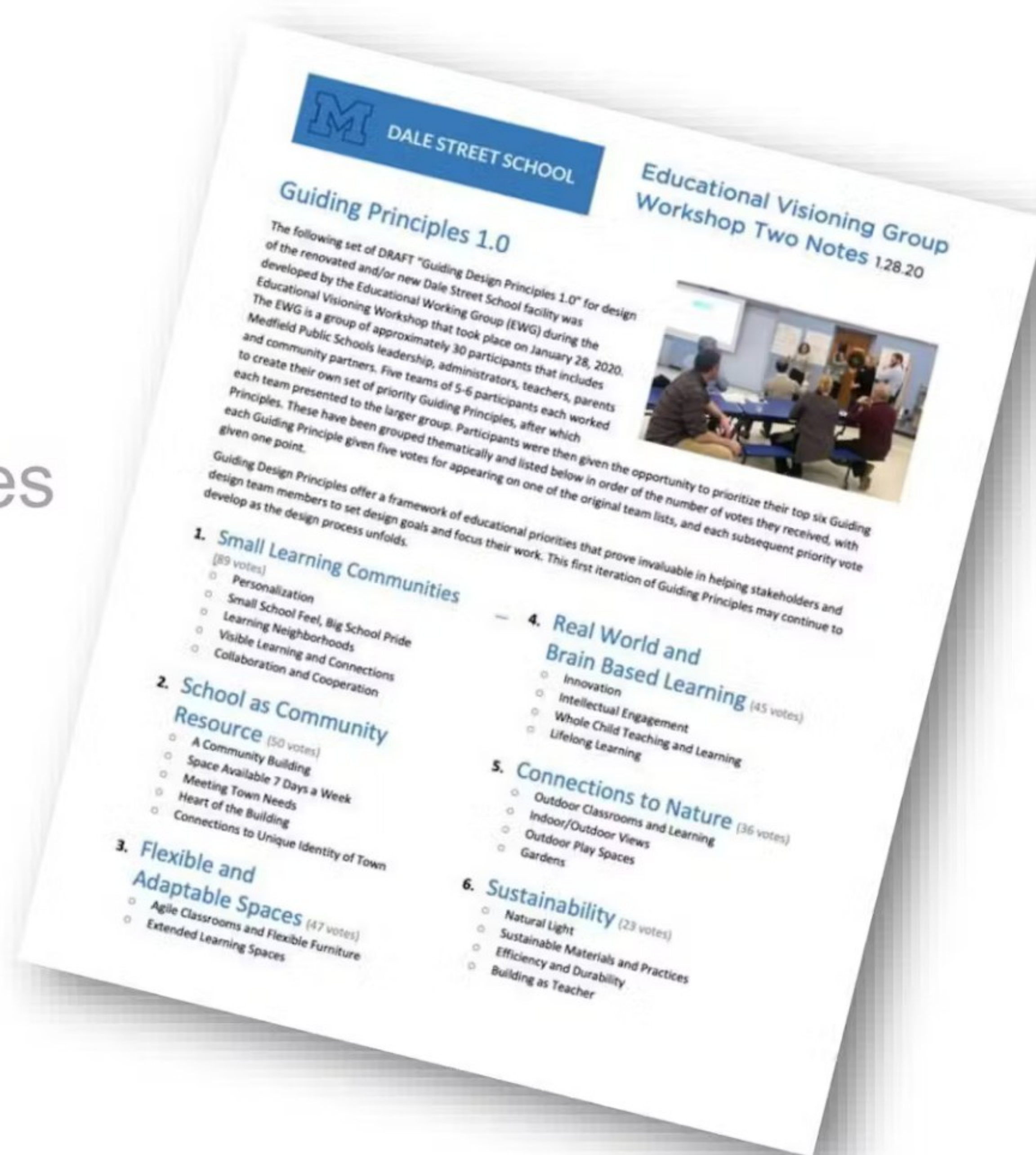




MANCHESTER SCHOOL DISTRICT

Guiding Principles

Guiding Principles set design priorities and offer an invaluable framework for making decisions and choices as the design process unfolds...



Jacobs

Elementary School

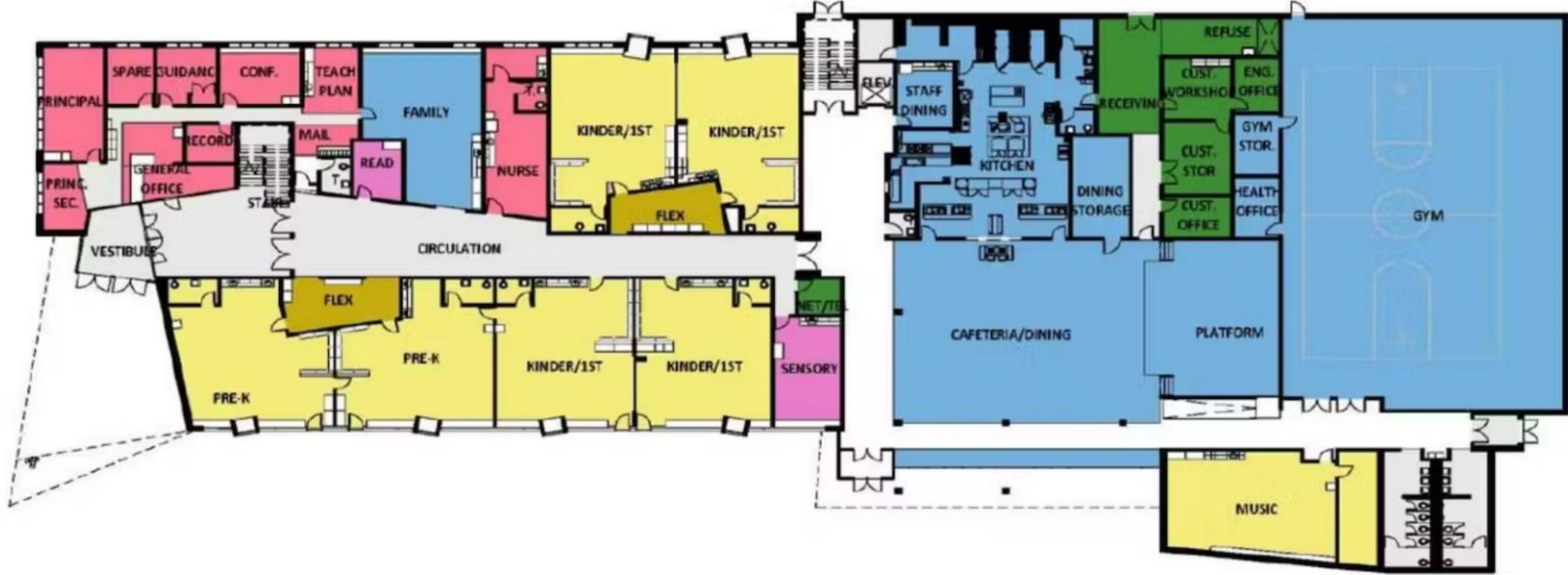
JACOBS ELEMENTARY



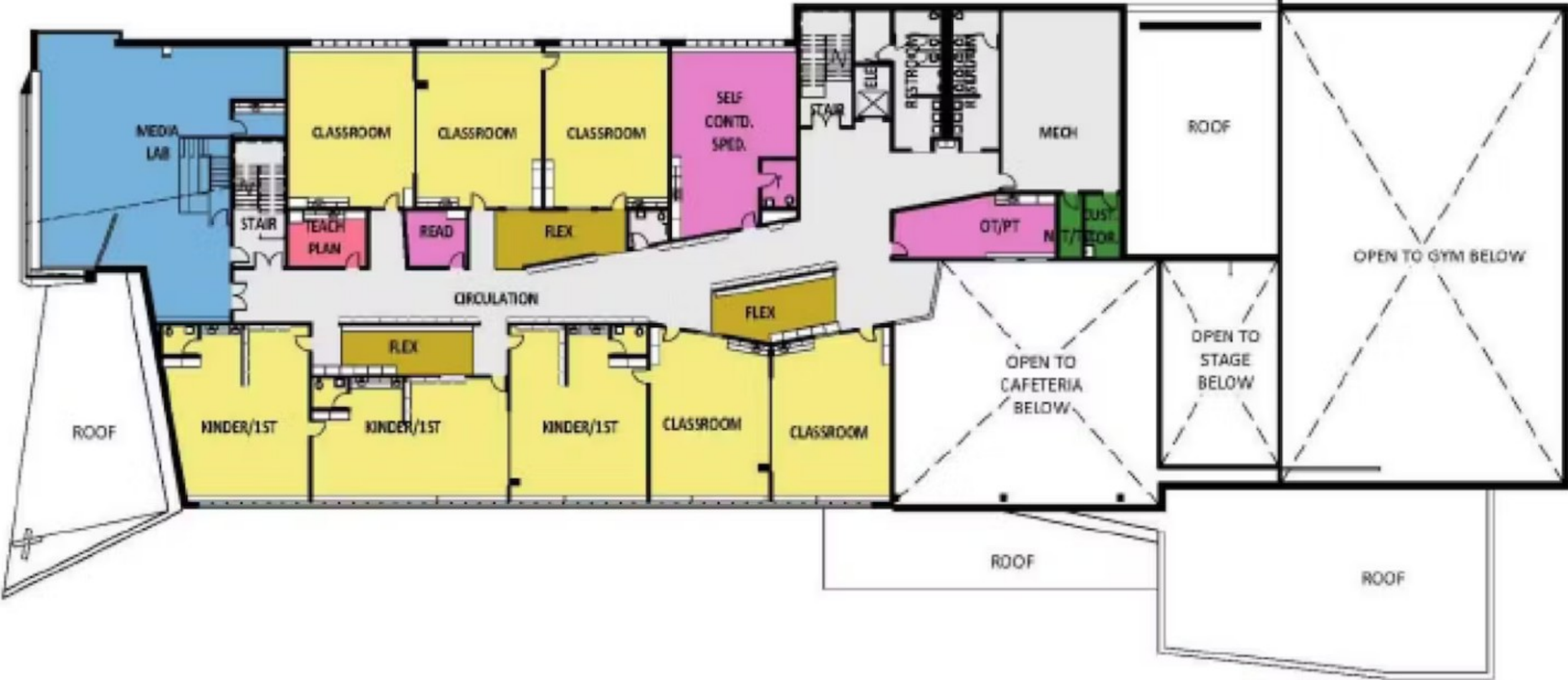
1. Real World and Brain-Based Learning
2. Learning Communities
3. School as Community Resource
4. Flexible and Adaptable Spaces
5. Outdoor/Nature Connections
6. Sustainability/Building as Teacher



Jacobs Elementary School



Jacobs Elementary School



Jacobs Elementary School



Jacobs Elementary School Community



Jacobs Elementary School Community



Jacobs Elementary School Flexibility



Jacobs Elementary School Flexibility





Jacobs Elementary School Flexibility



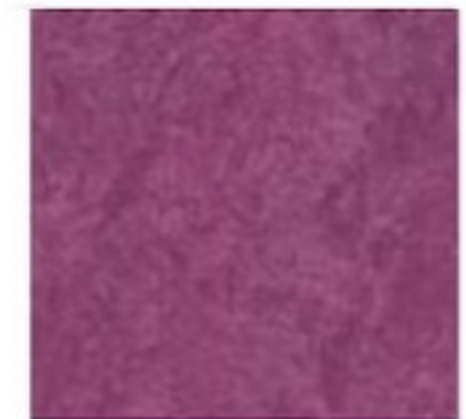
Jacobs Elementary School Wayfinding



Jacobs Elementary School Sustainable Materials



- Bamboo – rapidly renewable material
- Linoleum flooring - all natural bio-degradable product



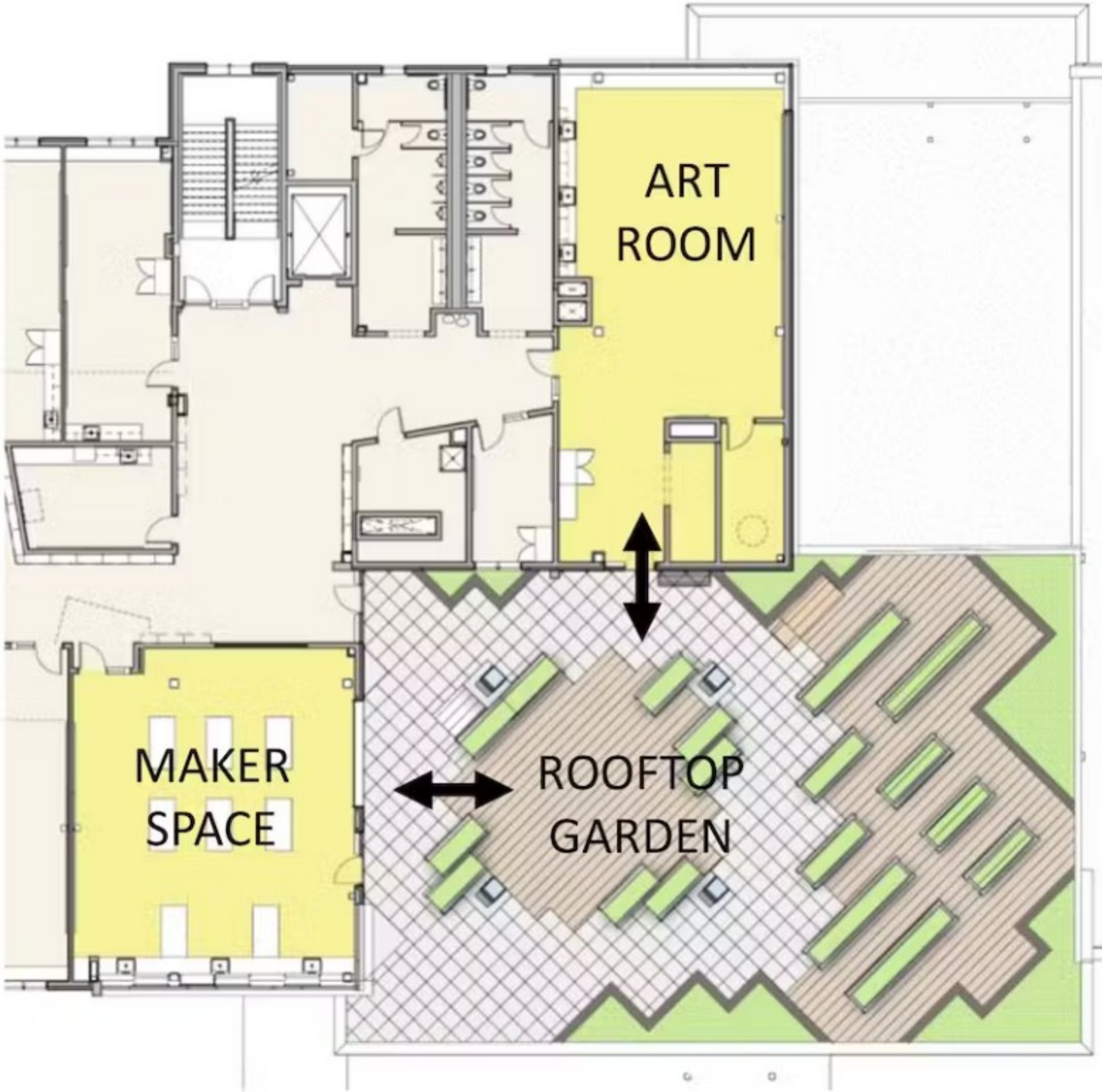
Jacobs Elementary School Scale



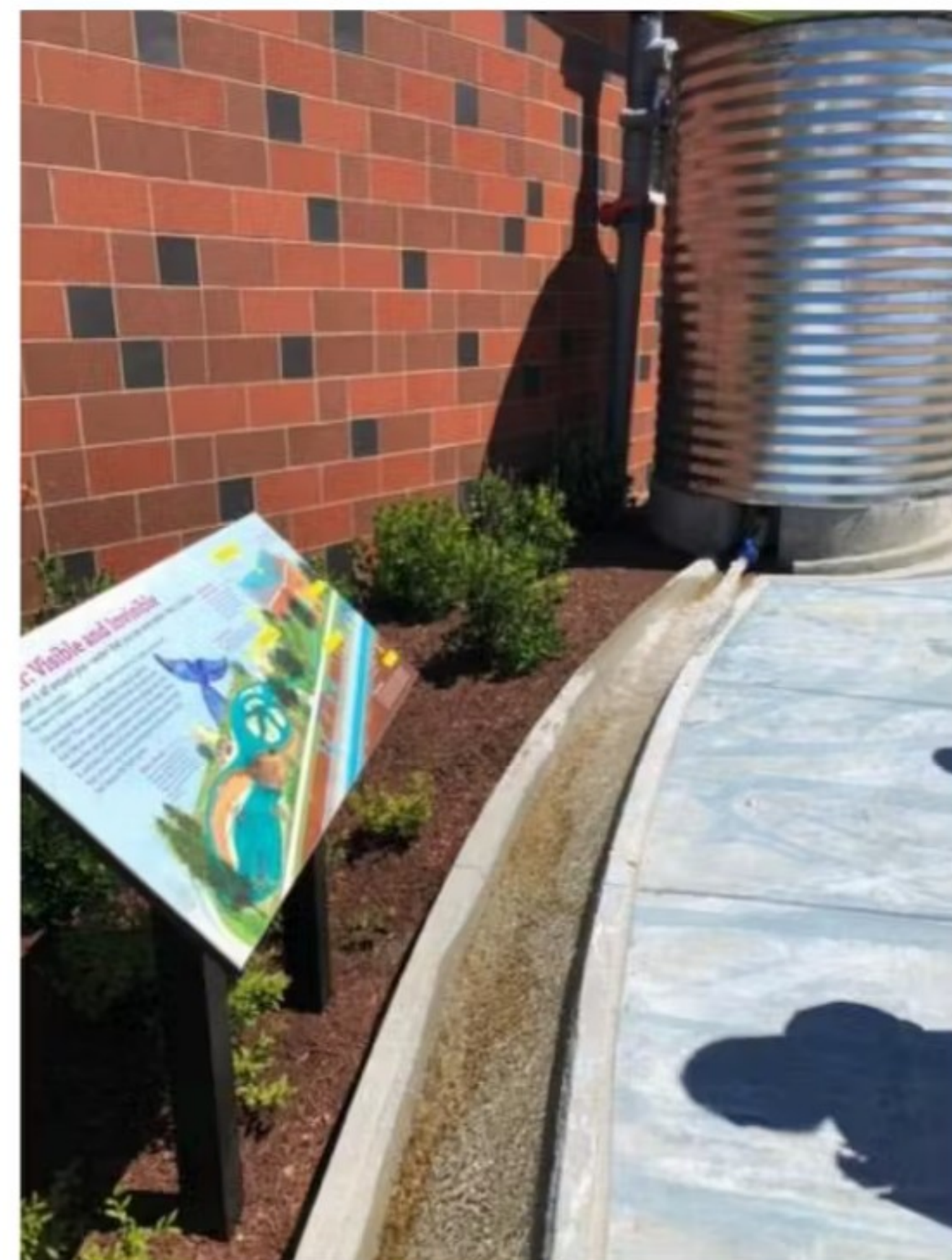
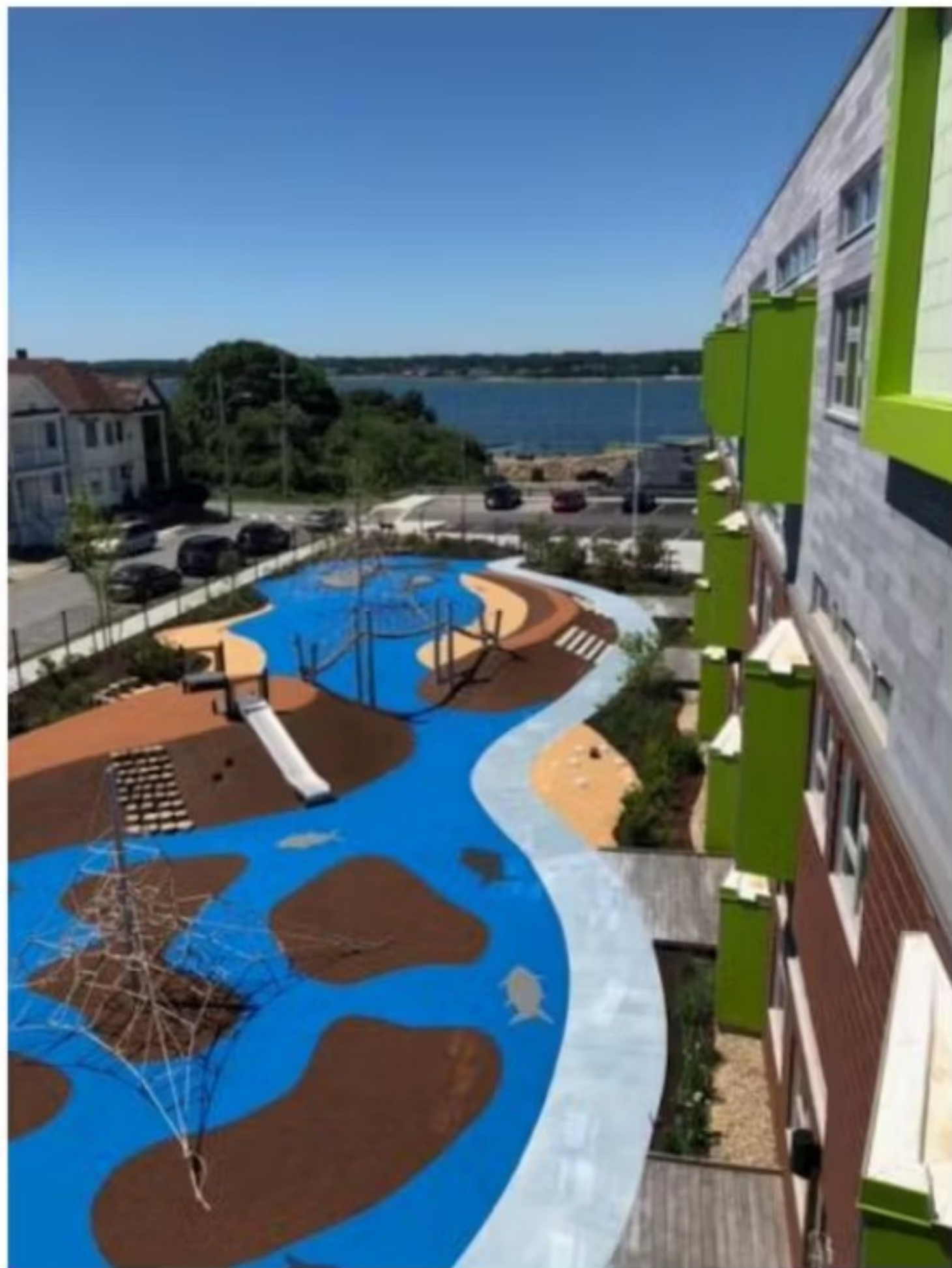
Jacobs Elementary School Hands On Minds On



Jacobs Elementary School Hands On Minds On



Jacobs Elementary School Play and Inquiry



Beverly

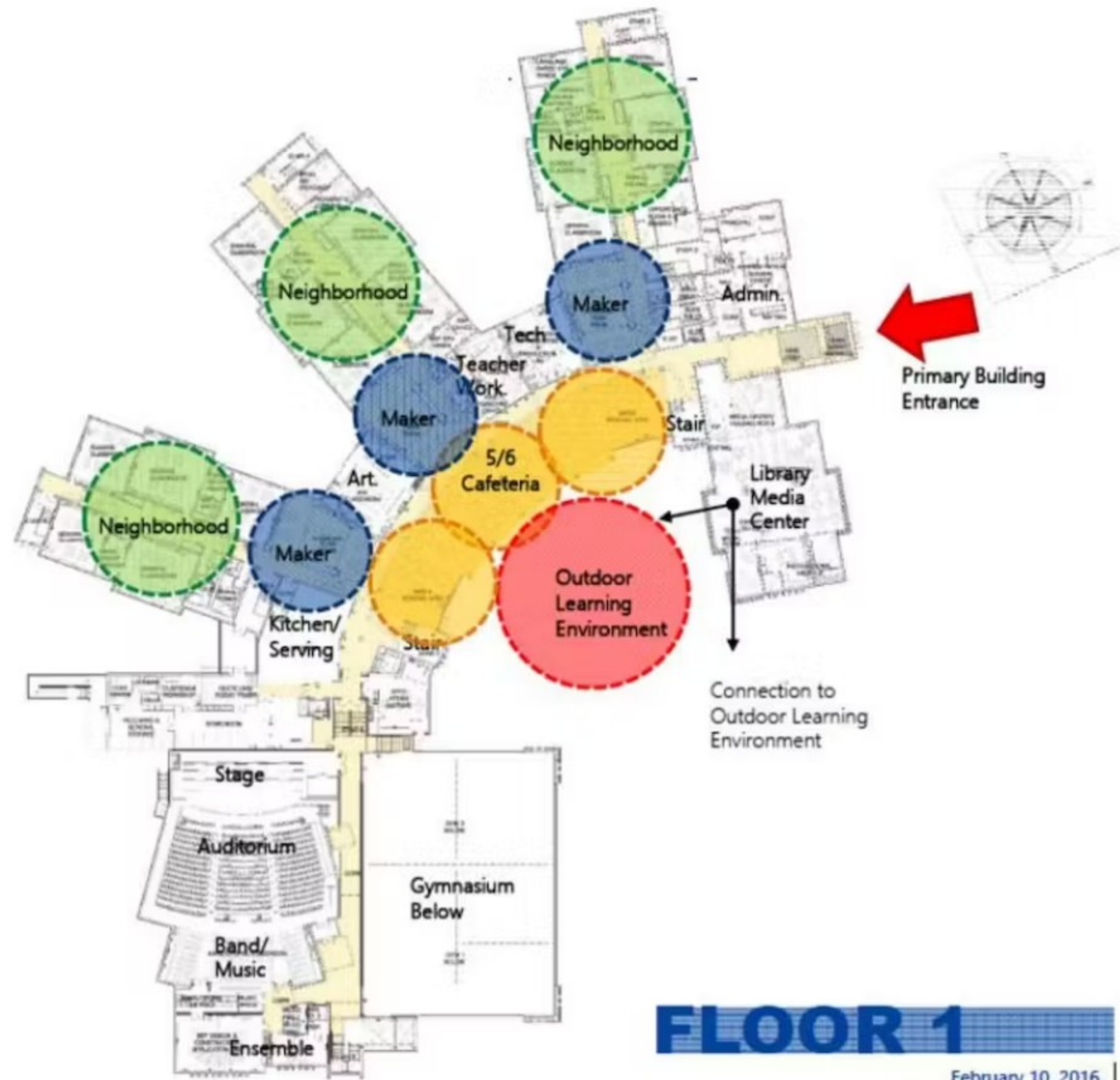
Middle School

BEVERLY MIDDLE SCHOOL



1. School Without Walls
2. Ever Evolving
3. Belonging and Ownership
4. Small School Feel,
Large School Pride
5. Growth Mindset





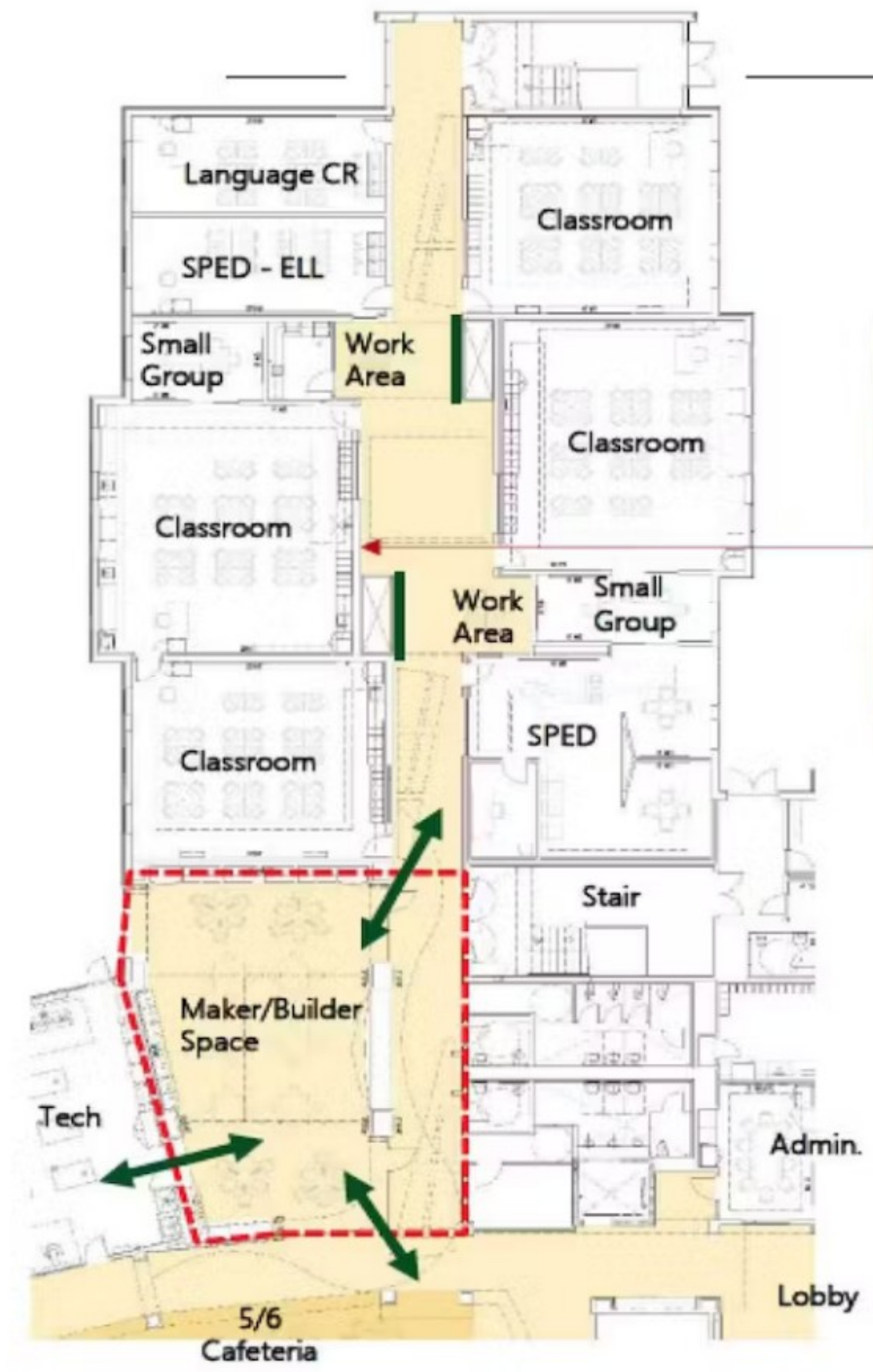
FLOOR 1

February 10, 2016





Academic Neighborhood

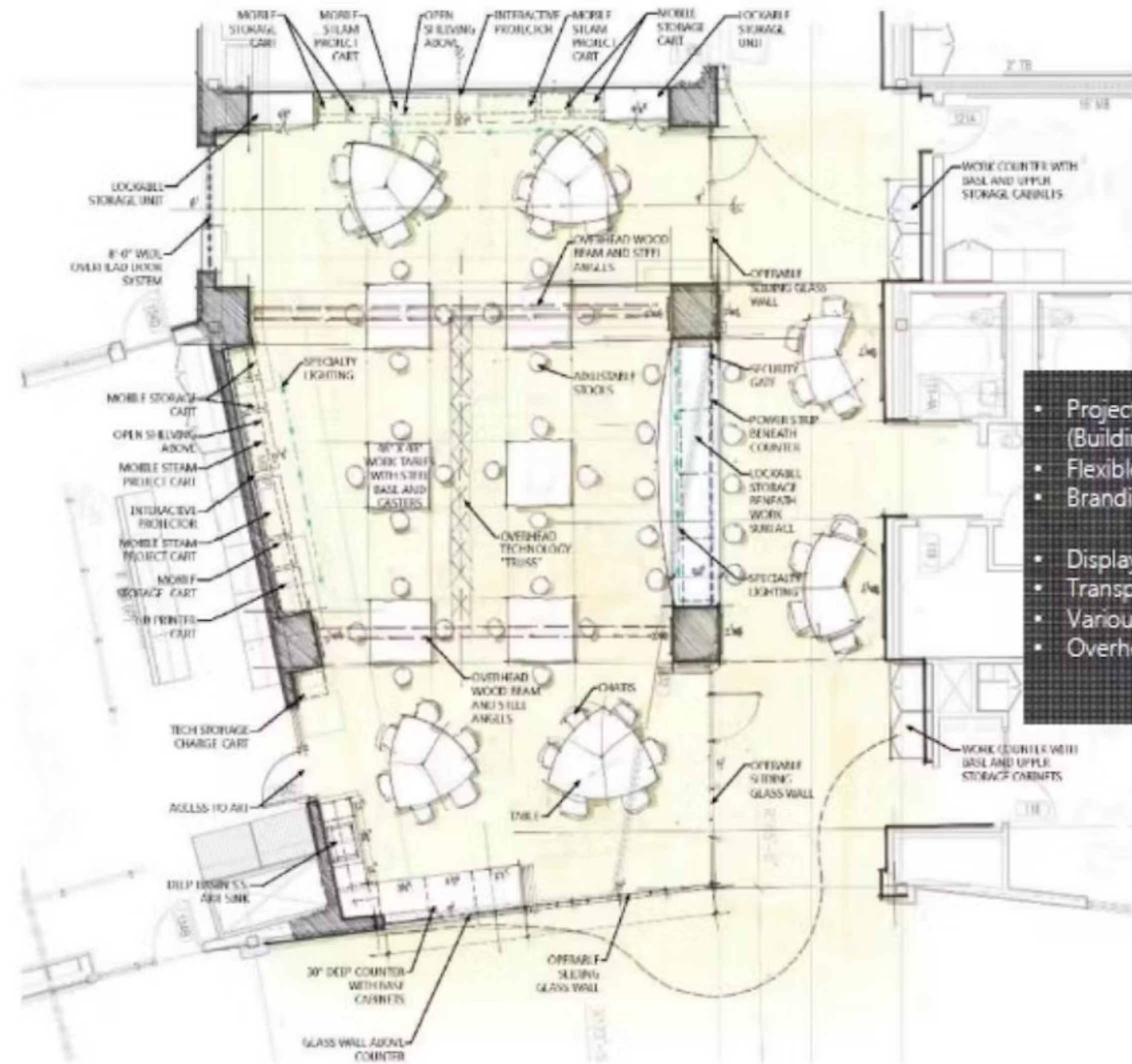


PORCELAIN WALL TILE: 4'-6" AFF

- Flexible & Adaptable Spaces (Maker/Builder Space)
- Integration of Arts/Tech (STEAM)
- Branding (Makerspace as gateway to Neighborhood)
- Display space for material/student work
- Transparency (visible connection / inspiration)
- Distributed Leadership
- Differentiated Instruction



Maker / Builder Space

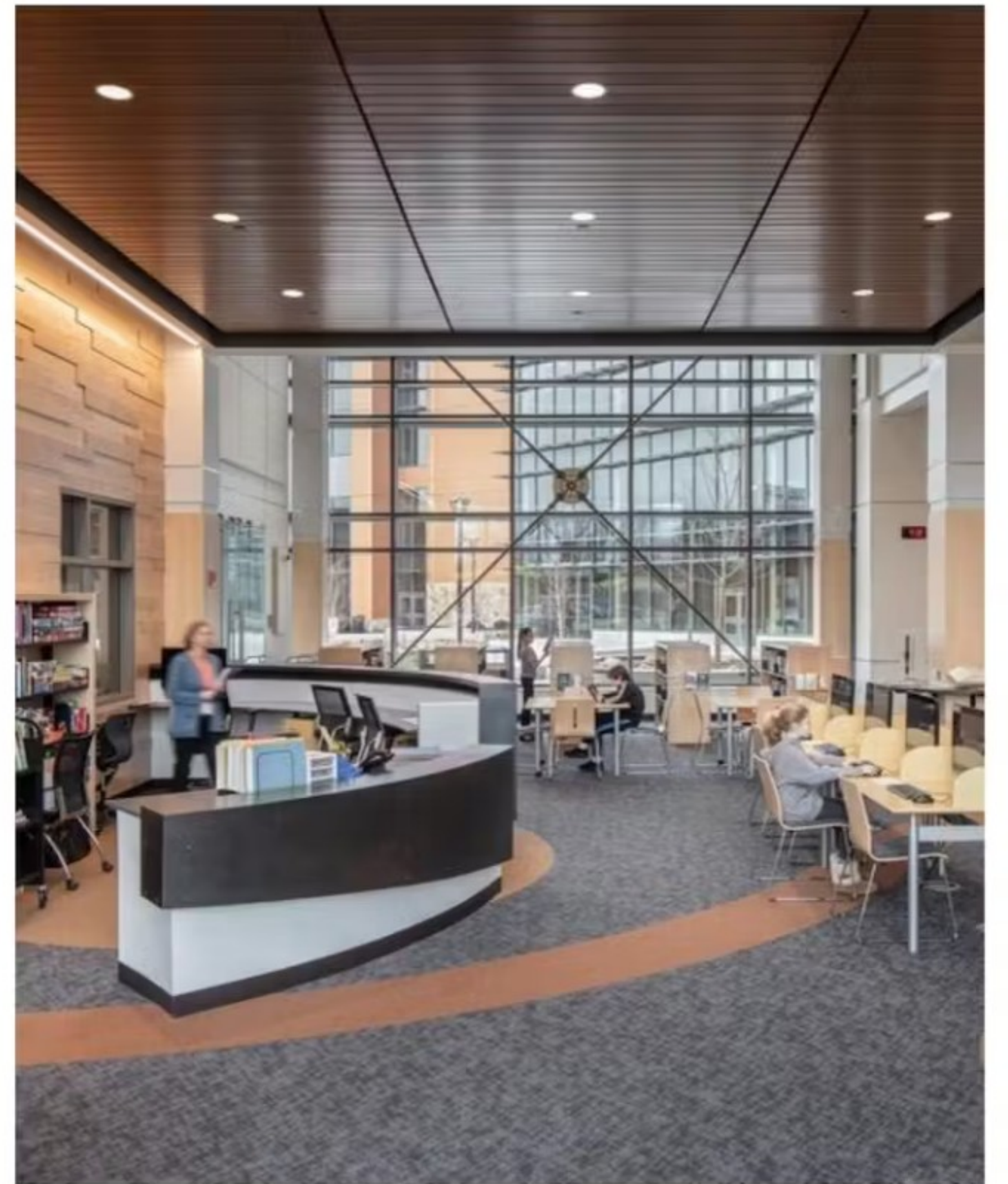


- Project based & research based learning activities (Building/Multi-media/presentation/arts integration)
- Flexible & Adaptable Space (Furniture/storage)
- Branding (Makerspace as gateway to Neighborhood)
- Display space for material/student work
- Transparency (visible connection / inspiration)
- Various writable surfaces
- Overhead Power / technology / water











- Educational Advantages:
 - Outdoor dining area
 - Outdoor amphitheater
 - Exhibit and work areas
 - Open green space
 - Outdoor classroom space
 - Outdoor science space
 - Outdoor project space – extension of maker/builder space
 - Examples.....
 - *Science:* (Raised planting beds, testing cars in physics projects, heat transfer, weather analysis, water features, engineering elements: pulleys, planes, etc.)
 - *Humanities:* (Socratic Debate, drama, poetry, Greek myths)
 - *Arts:* (3D installations, sculpture, etc.)
- Maintain a **secure** outdoor environment
- **Defined pathway** from drop off area to building entry
- Outdoor holding space for early arrivals and late departures
- Varying elevations of **"Educational Zones"**: more clearly defined areas
- Direct access from **Cafeteria**
- Maintain **privacy** from classroom neighborhoods
- Easy access from **centralized circulation stairs** for all grade levels
- Easy access for **maintenance equipment / staff**
- Greater potential for separate **structured community use**





North Middlesex

Regional High School

NORTH MIDDLESEX REGIONAL HIGH SCHOOL



1. Flexibility and Evolution

- a) Two Story Flexible Pods
- b) Humanities/STEAM

2. STEM/Art Integration (STEAM)

3. Integration and Synergy

- a) Science Dispersed Across 4 Pods
- b) Interdisciplinary Floor Plan

4. Outdoor Learning Environments

5. Joy of Learning



SMMA



FIRST FLOOR

- 1. Administration
- 2. Student Dining Commons with Stair & Stage
- 3. Small Commons w/ Operable glazed wall (LGI)
- 4. Gym Dance Fitness
- 5. Humanities, Arts & Science Classroom Pod
- 6. STEAM Pod
- 7. Project Based Learning & Maker Spaces
- 8. Covered Outdoor Classrooms
- 9. Outdoor Dining and Community Service Gardens
- 10. Teacher Planning
- 11. TV Studio and Lab
- 12. 600 Seat Auditorium, Fine Arts & Music Suites
- 13. School Store

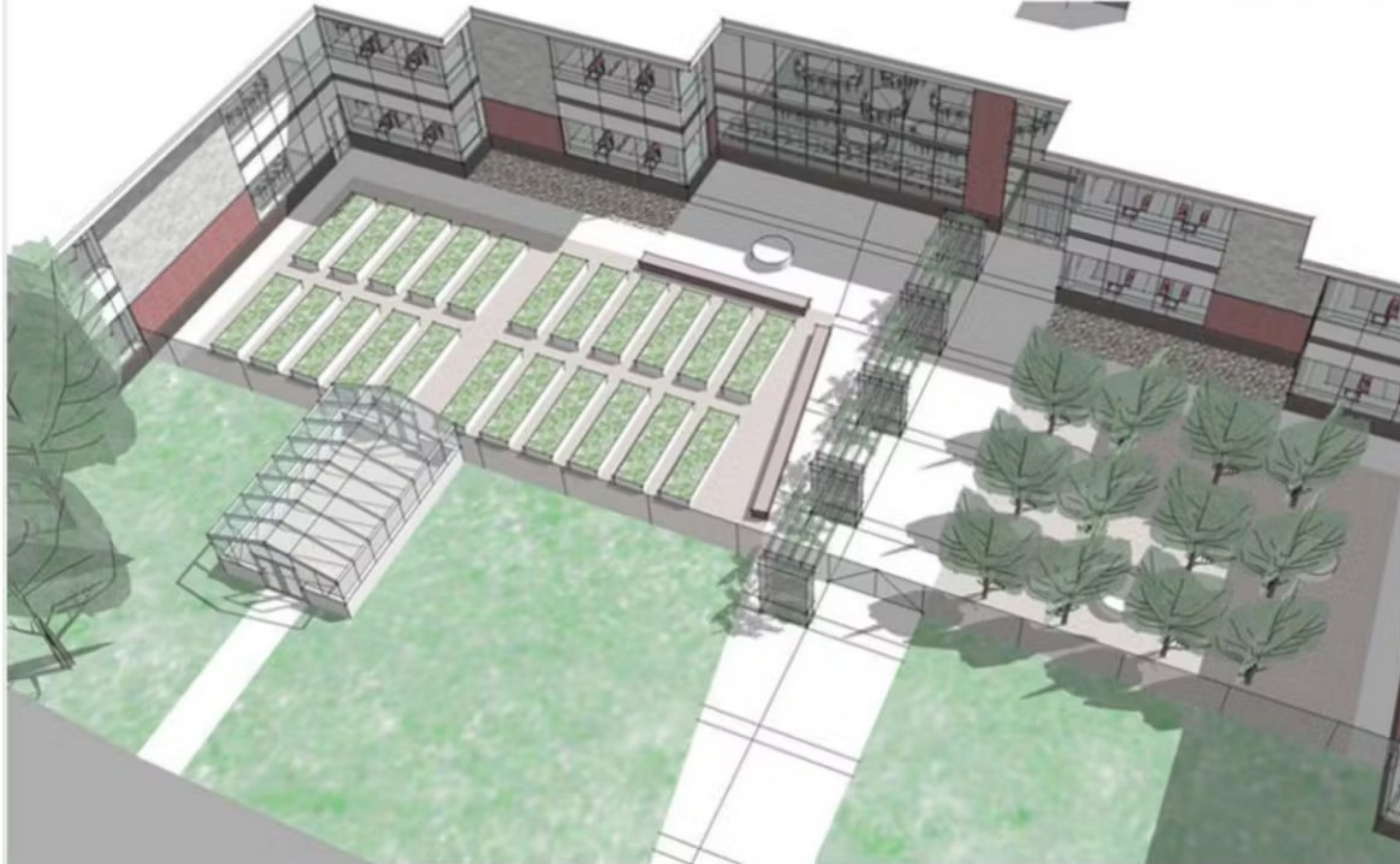


SECOND FLOOR

1. *Student Dining Commons with Stair & Stage Below*
2. *Small Commons w/ Operable glazed wall– Large Group Below*
3. *Gymnasium, Dance & Fitness Below*
4. *Humanities, Arts, and Sciences Classroom Pod*
5. *STEAM Pod*
6. *Science Labs*
7. *Project Based Learning & Makers Spaces Below*
8. *Teacher Planning*
9. *600 Seat Auditorium, Fine Arts & Music Studios below*
10. *Media Center*



Outdoor Classrooms



Community Service Gardens

Student Centric Spaces



Large Group Instruction (LGI)





Student Dining: Multiple dining options; Used throughout the day; integral to circulation; Hub of Public Spaces; Pre and Post Function space



Library / Media Center – classes, collaboration, research, reflection





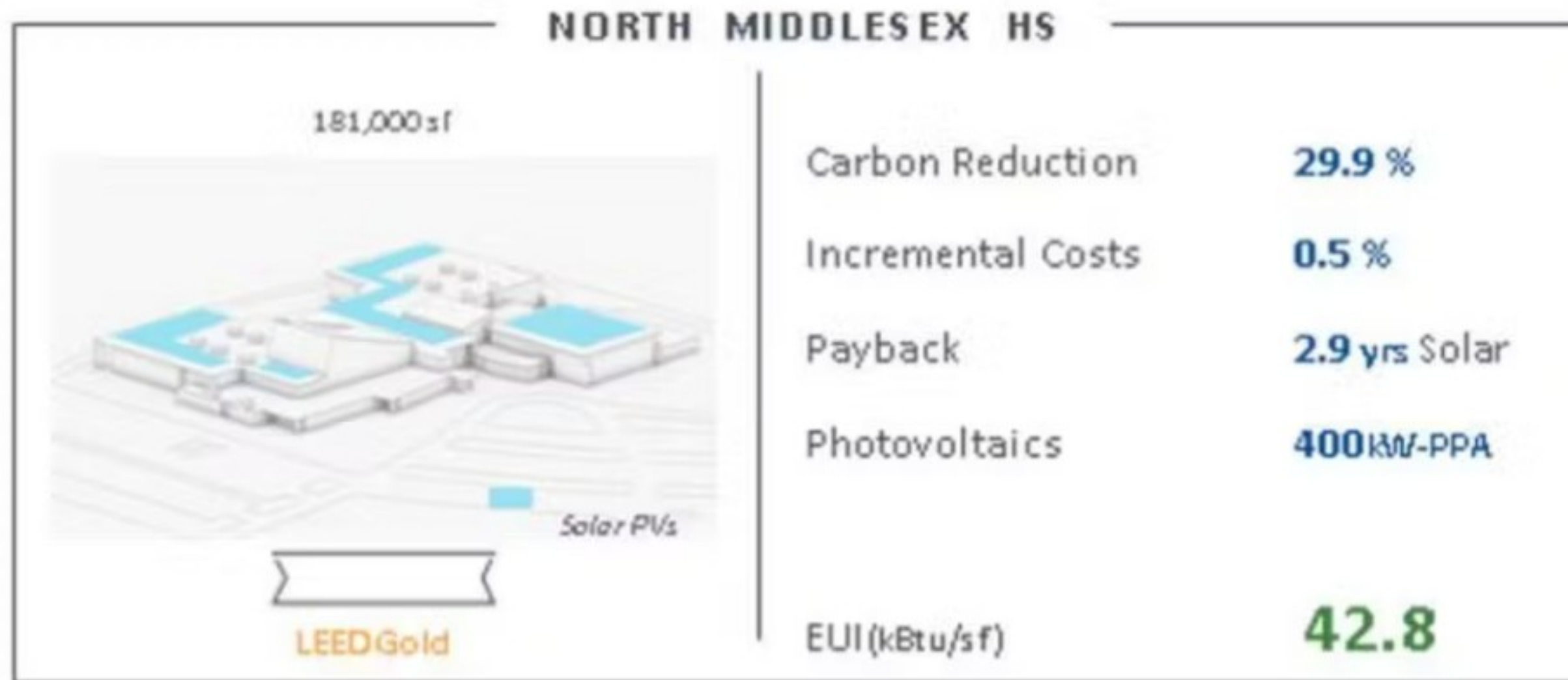
Sustainability and Wellness

The project had three core sustainability goals in mind:

- » Achieve an advanced standard of energy efficiency
- » Provide students with a healthy 21st century educational facility in all aspects
- » Foster environmental literacy

LEED Certification

North Middlesex Regional High School was awarded LEEDv3 2009 Gold Certification (63 points), achieved in part through the designers' expertise in sustainable design, as well as through a collaborative approach with the towns' constituents.



LEED Certification Review Report

This report contains the results of the technical review of an application for LEED® certification submitted for the specified project. LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council® (USGBC®). The LEED certification program is administered by Green Business Certification Inc. (GBCI®).

North Middlesex Regional High School

Project ID: 1000042708
 Rating system & version: LEED FOR SCHOOLS
 Project registration date: 05/27/2014



Construction Final Review Decision

PERMITTED: 63/63, DENIED: 0/0, PENDING: 0/0, AWARDED: 63/63, PLATINUM: 0/0

LEED 2009 SCHOOLS

ATTEMPTED: 72, DENIED: 1, PENDING: 8, AWARDED: 63 OF 110 POINTS

Category	Points	Sub-category	Points
SUSTAINABLE SITES	12 OF 24	MATERIALS AND RESOURCES	7 OF 13
SS1 Construction Activity Pollution Prevention	1/1	MR1 Storage and Collection of Recyclables	1/1
SS2 Environmental Site Assessment	1/1	MR2 Building Reuse: Maintain Existing Walls, Floors and Roof	0/2
SS3 Site Selection	0/3	MR3 Building Reuse: Maintain 50% of interior Non-Structural Elements	0/3
SS4 Development Density and Community Connectivity	0/4	MR4 Construction Waste Mgmt	2/2
SS5 Brownfield Redevelopment	1/3	MR5 Materials Reuse	0/2
SS6 Alternative Transportation: Public Transportation Access	0/4	MR6 Recycled Content	2/2
SS7 Alternative Transportation: Bicycle Storage and Changing Rooms	0/3	MR7 Regional Materials	2/2
SS8 Alternative Transportation: Use-Emitting and Fuel Efficient Vehicles	2/2	MR8 Rapidly Renewable Materials	0/3
SS9 Alternative Transportation: Parking Capacity	2/2	MR9 Carbon Footprint	1/3
SS10 Site Development: Protect or Restore Habitat	1/3		
SS11 Site Development: Maximize Open Space	1/3	INDOOR ENVIRONMENTAL QUALITY	12 OF 18
SS12 Stormwater Design: Quantity Control	1/3	EQ1 Minimum IAQ Performance	1/1
SS13 Stormwater Design: Quality Control	1/3	EQ2 Environmental Tobacco Smoke (ETS) Control	1/1
SS14 Heat Island Effect: Non-Roof	0/3	EQ3 Minimum Acoustical Performance	1/1
SS15 Heat Island Effect: Roof	1/3	EQ4 Outdoor Air Delivery Monitoring	1/3
SS16 Light Pollution Reduction	1/3	EQ5 Increased Ventilation	0/3
SS17 Site Master Plan	0/3	EQ6 Construction IAQ Mgmt Plan During Construction	1/3
SS18 Joint Use of Facilities	1/3	EQ7 Construction IAQ Mgmt Plan Before Occupancy	0/3
		EQ8 Low-Emitting Materials	4/4
		EQ9 Indoor Chemical and Pollutant Source Control	1/3
		EQ10 Controllability of Systems Lighting	1/3
		EQ11 Controllability of Systems Thermal Comfort	0/3
		EQ12 Thermal Comfort Design	1/3
		EQ13 Thermal Comfort Verification	1/3
		EQ14 Daylight and Views Design	0/3
		EQ15 Daylight and Views Verification	0/3
		EQ16 Enhanced Acoustical Performance	1/3
		EQ17 Mold Prevention	1/3
		INNOVATION IN DESIGN	5 OF 8
		ID1 Innovation: Green cleaning policy/program	1/3
		ID2 Innovation in Design	0/3
		ID3 Innovation in Design: Sustainable Purchasing - Reduced Mercury (Hg) in Lamps	1/3
		ID4 Innovation in Design	0/3
		ID5 Exemplary Performance: SSc5.2 Site Development: Maximize Open Space	1/3
		ID6 Innovation in Design	0/3
		ID7 Innovation in Design	0/3
		ID8 Innovation in Design - Exemplary Certified Wood	1/3
		ID9 LEED® Accredited Professional	1/3
		ID10 The School as a Teaching Tool	0/3
		REGIONAL PRIORITY CREDITS	2 OF 4
		RPC1 Brownfield Redevelopment	1/3
		RPC2 Stormwater Design: Quality Control	1/3
		TOTAL	63 OF 110

Mount Greylock
Middle High School

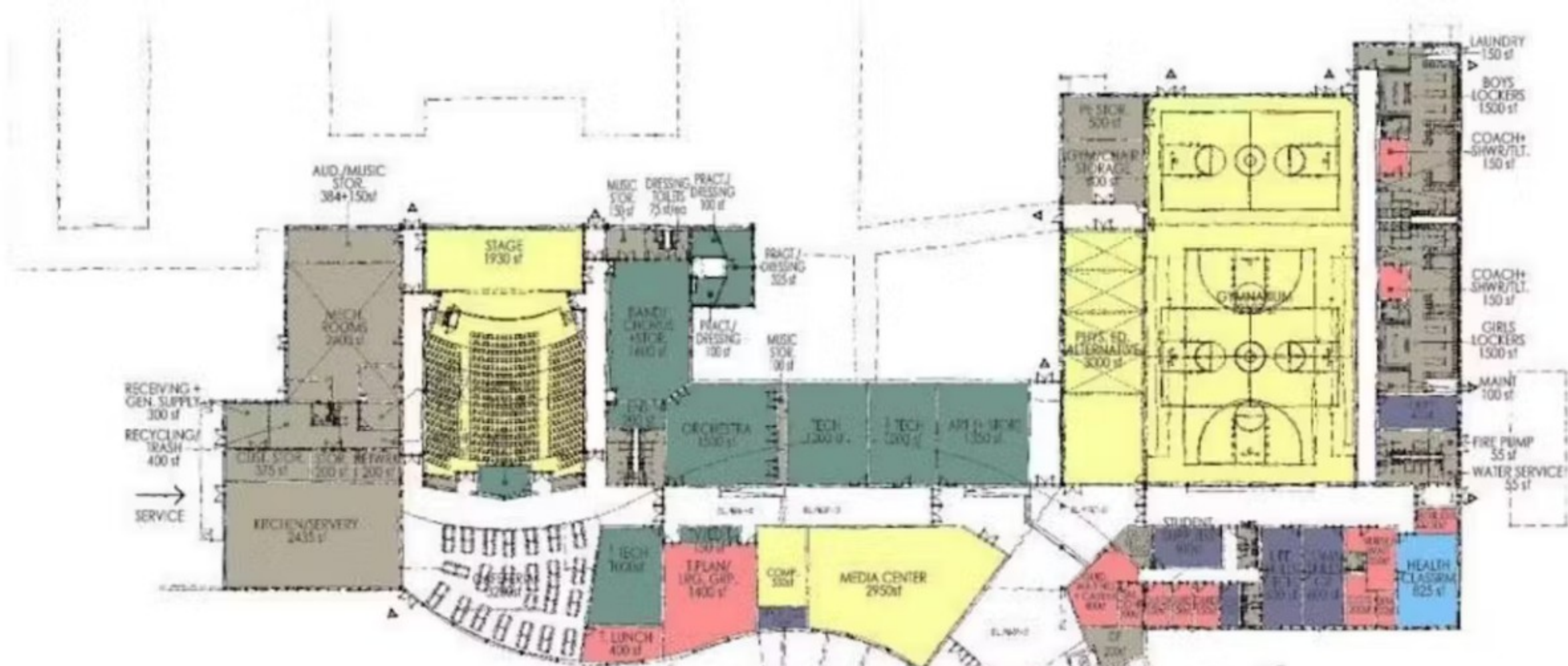
MOUNT GREYLOCK MIDDLE HIGH SCHOOL



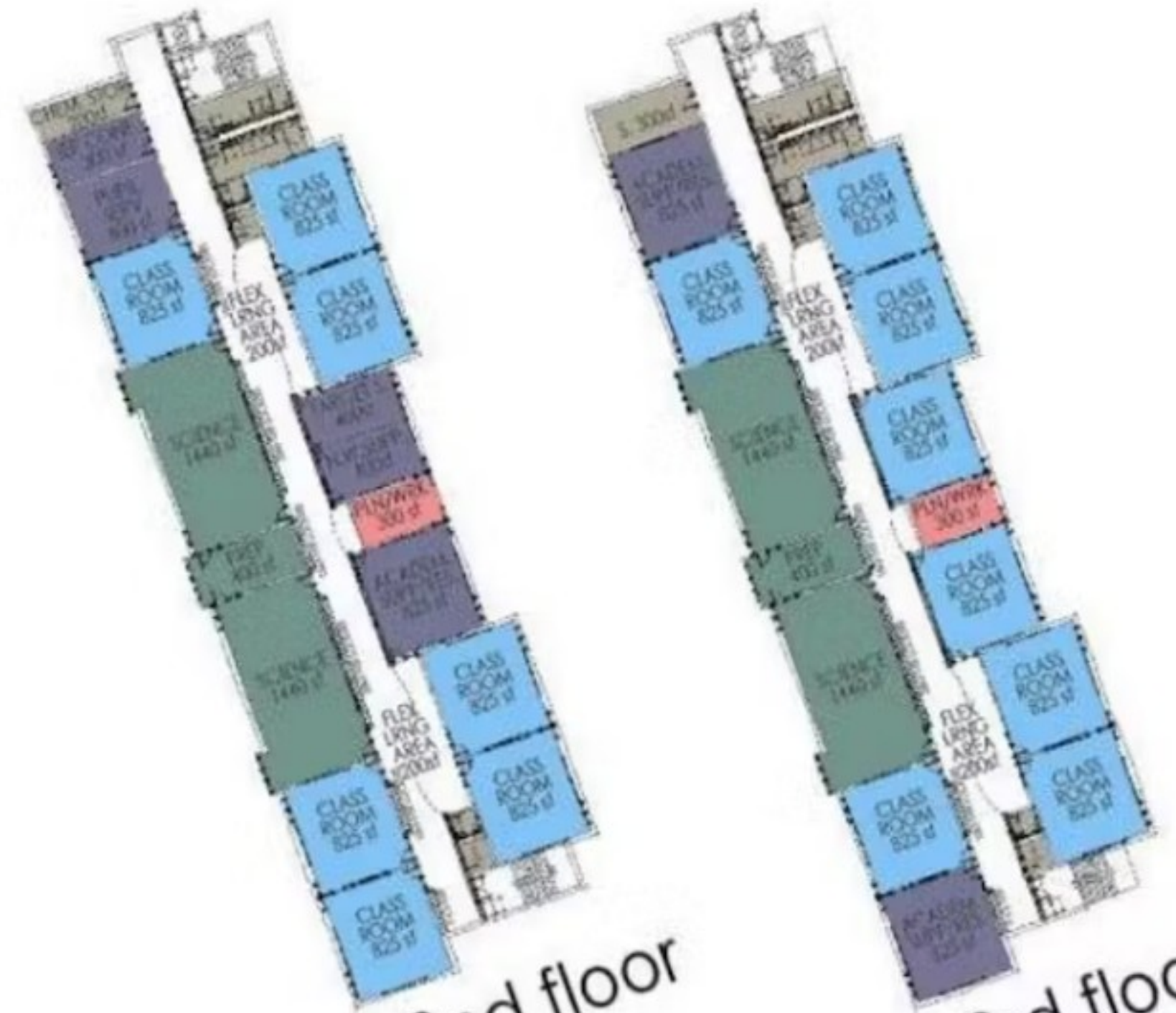
1. Flexible Learning
2. Personalization
3. Collaboration and Connection
4. Visible Learning
5. Environmental Integration
6. Seamless Technology







1st floor
95,900sf



2nd floor
18,700sf



3rd floor
18,200sf













Small Group Brainstorm

Work in small groups to brainstorm 5-7 Guiding Principles for renovated and/or new MSD facilities

Please take a screenshot of these Guiding Principles

- Real World and Brain-Based Learning
- Learning Communities
- School as Community Resource
- Flexible and Adaptable Spaces
- Outdoor/Nature Connections
- Sustainability/Building as Teacher
- School Without Walls
- Ever Evolving
- Belonging and Ownership
- Small School Feel, Large School Pride
- Growth Mindset
- Transdisciplinary Instruction
- Wrap Around Support
- Whole Child, Whole Community
- Visible Learning
- Community and Civic Hub
- Adaptability
- Flexibility and Evolution
- STEM and STEAM
- Integration and Synergy
- Outdoor Learning
- Joy of Learning

Instructions

Group leaders please list your group's priority Guiding Principles.

5

Responses

Equity

Sustainability

Whole child whole community

Community schools

Growth mindset

Please list your 2 personal favorite priority Guiding Principles here.

community campus
community inclusion
community schools
whole child
sustainability
whole community
growth mindset
community
equity
belonging
inclusivity and equity
practicality and afford
a building for today and



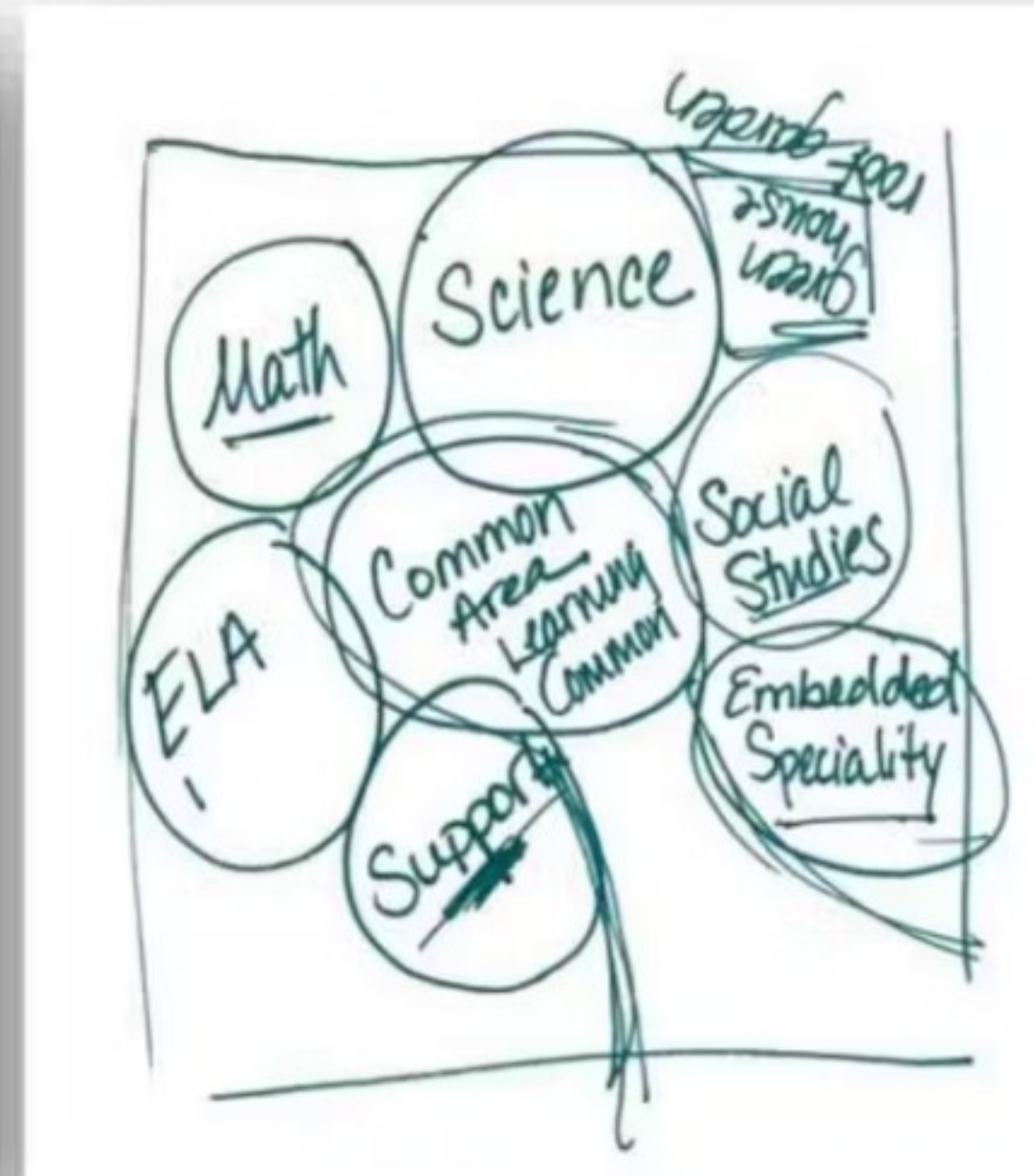
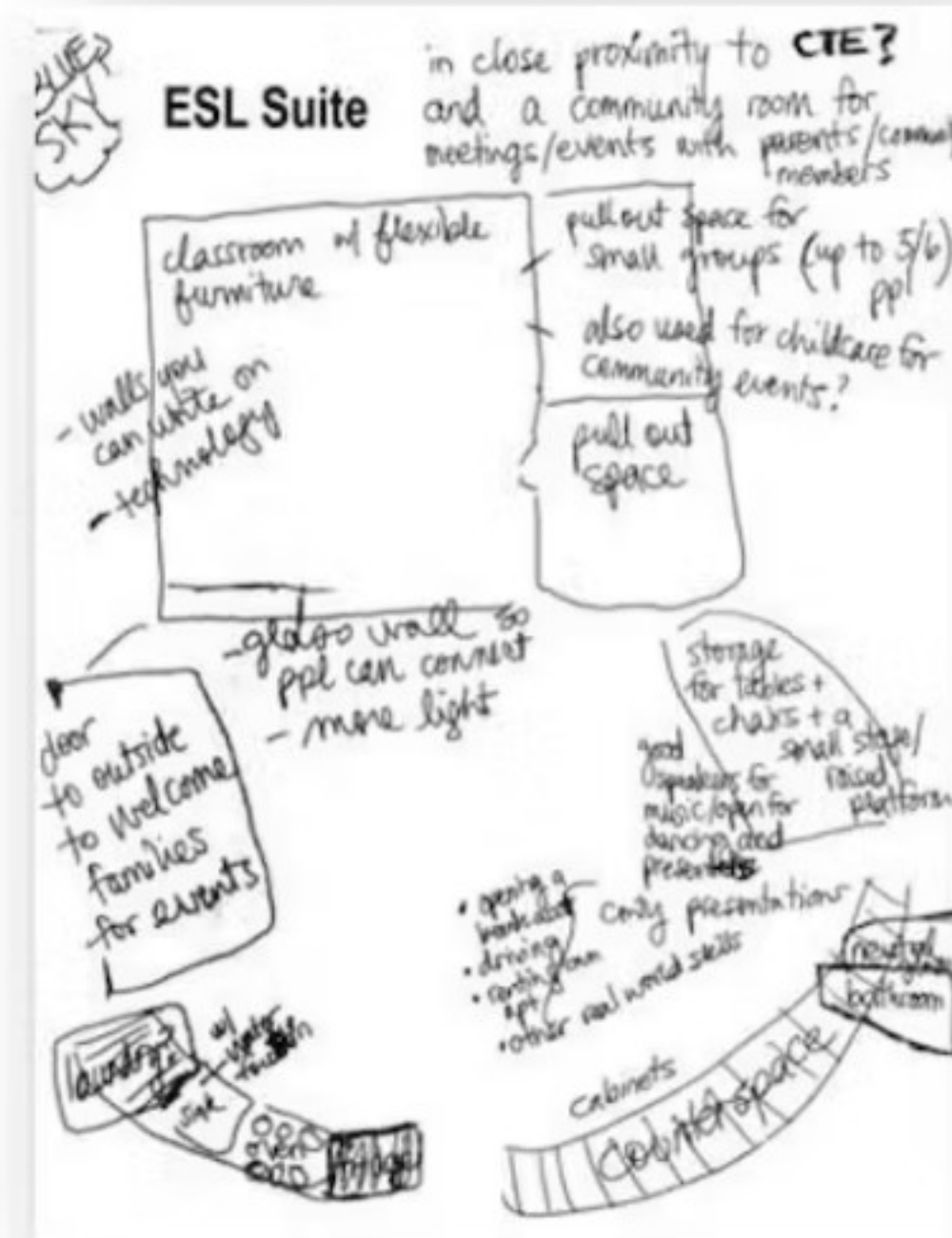
MANCHESTER SCHOOL DISTRICT

Blue Sky Ideas

Blue Sky Ideas ... Detailed

Take 5 minutes to describe and/or diagram one of your ideas in as much detail as possible

- Size
- Shape
- Use
- Furniture
- Lighting
- Color
- Occupants
- Etc.



Please share your Blue Sky aspirational ideas here. 17 Responses

Natatorium

Best arts and athletic facilities in the state

Rooftop gardens

Thinking of quality of space and pride in our schools

Architecture that is historically representative of Manchester

Natural light

Indoor track

Space for inter generational activity

Green

Please share your Blue Sky aspirational ideas here. 17 Responses

Up to date art spaces

Excellent teacher student ratio

Completely sustainable zero energy district

Bright colors

Gardens/Beautiful Green Spaces

Zero Energy

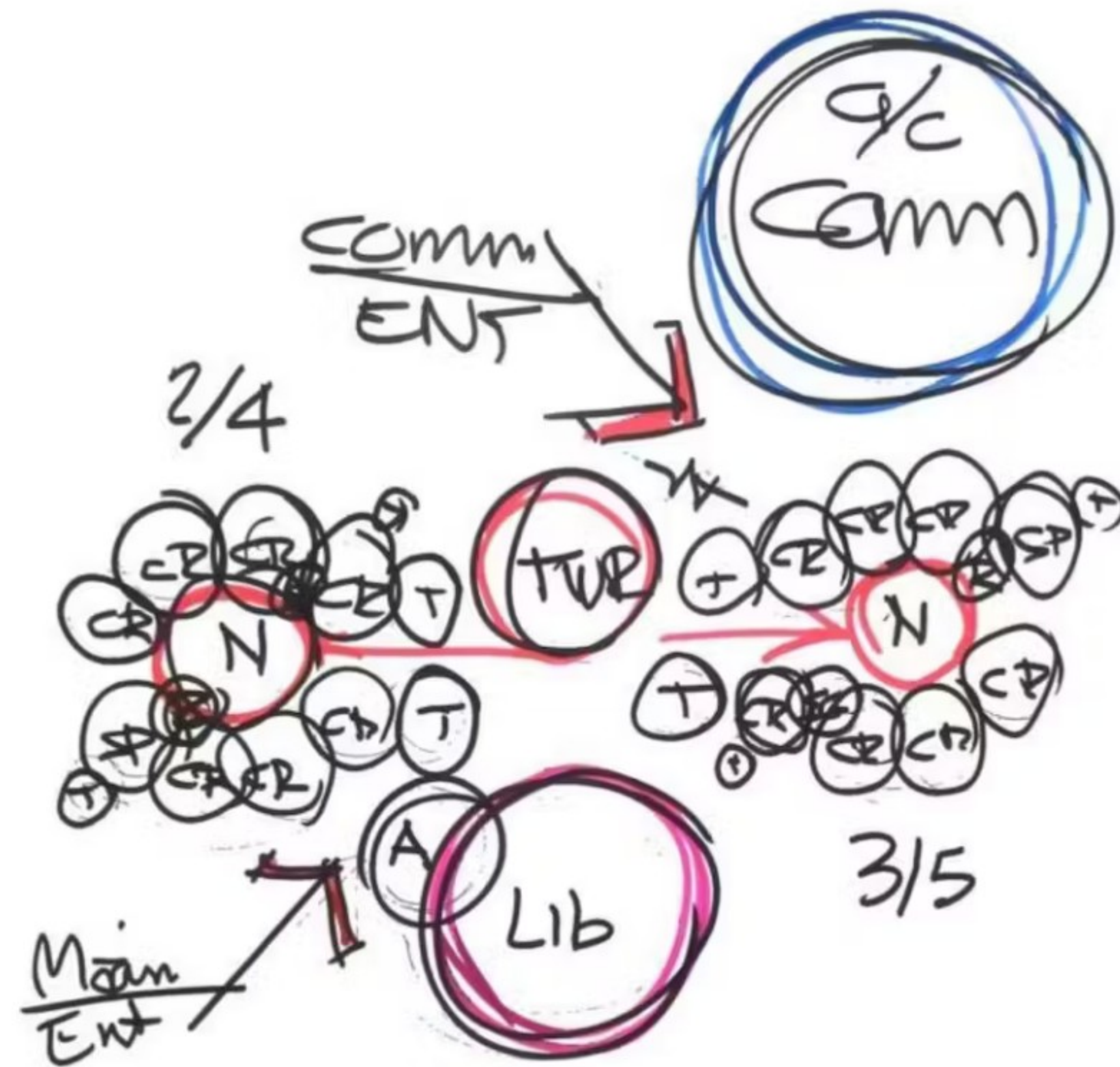
Incorporate Manchester's history

Community connections within the school building

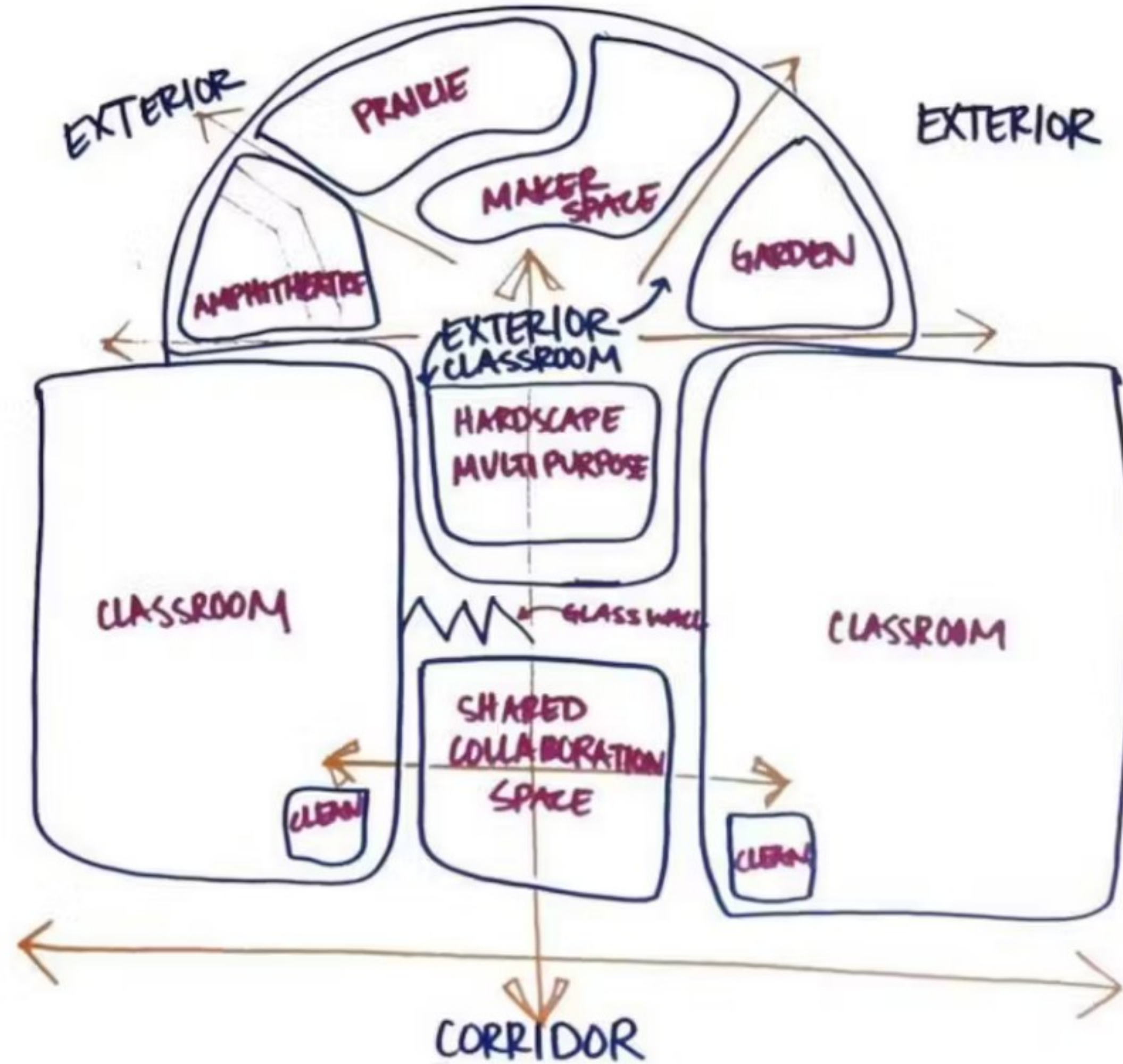


Bubble Diagrams

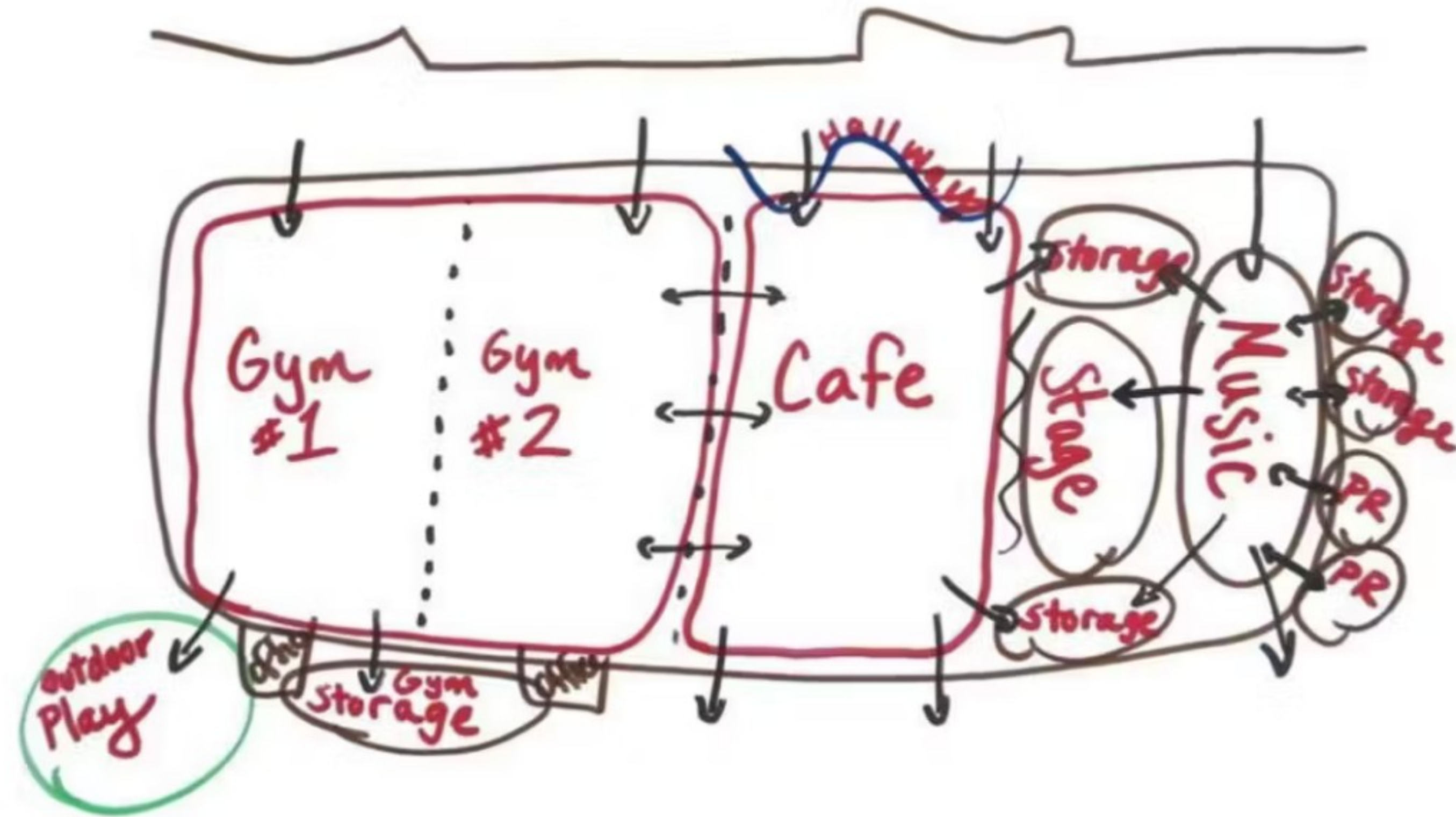
Whole School Relationships



Classroom Neighborhoods



Community Access



Bubble Diagramming Groups

- **Group 1** Elementary School Adjacencies
- **Group 2** Middle School Adjacencies
- **Group 3** High School Adjacencies



Next Steps and Q&A