

MSBA Roundtable

Thursday, January 8, 2026

**From Concept to Completion:
The School Building Process and Student
Engagement**



Presenters

Mary Pichetti

Executive Director, MSBA

Dianne Kelly

Superintendent, Revere Public Schools

Brian Dakin

Project Director, Leftfield

Dawn Guarriello

Associate Principal, Perkins Eastman

Christina Bazelmans

Principal, LPA | Architects

Todd McCabe

Vice President, Consigli Construction



The MSBA's Building a Logo Contest was geared towards connecting students with the work accomplished by the MSBA and inviting our most important clients, the students, to assist the MSBA in reimagining a new authority logo.



**Variety of learning opportunities for our students,
With the benefit that we can learn from them!**



*"Education is not the filling of a pail, but the lighting of a fire."
- William Butler Yeats*



MY IDEAL SCHOOL CONTEST



***“The world is but a
canvas to the
imagination”
— Henry David Thoreau***

WHY IS THIS IMPORTANT?



Pre-planning for “other” things is difficult when your “regular” job is all consuming.

Thoughtfulness about the variety of learning opportunities inherent in school building projects ensures we properly leverage those opportunities for our students.

We don’t know what we don’t know. Our students don’t know what they don’t know.

There are learning opportunities embedded for all community members. We should leverage these as well.

EXAMPLES OF CURRICULUM IDEAS



Elementary

- **MATH:** Use new building design materials for a unit on area and perimeter. (3.G.A, 3.MC.C)
- **HISTORY:** Who picked the name of your school and why? Identify two local heroes for whom you think the new school (or a portion of the school) should be named. (5.1, 5.2)
- **ELA:** Use descriptive language to imagine and explain what the new building will be like when it opens and how it could impact students. (Writing, Language)
- **ART:** Draw a diagram of the building you described in your ELA essay. (Visual)

EXAMPLES OF CURRICULUM IDEAS



Middle

- **MATH:** Using the projected costs of your community's new school, analyze how the cost of building a school has increased over time in your city/town. Calculate percent increases, averages, and trends over time. (6.RP.A, 7.SP.A)
- **HISTORY:** Investigate how public schools are funded and built in your city/town. Create a one-page memo for the Superintendent identifying which elected officials and which community members the Superintendent should work with and why – to get a new school built. (civics)
- **ELA:** Write a persuasive essay convincing elected officials that they should fund a new school building project. Include information about student learning needs and how schools impact community growth. (civics, W.6.1)
- **ART:** Work in teams to create a graphic design proposal that visually represents a new school building and its identity, using symbols, text, and layout to communicate purpose and feeling. (S.2)

EXAMPLES OF CURRICULUM IDEAS



High School

- **MATH:** Using the two different models provided by the new school architect for the academic wing, use systems of equations to determine when the costs of the two designs are the same. Which model would you choose and why? (A.CED.3)
- **HISTORY/ELA:** Analyze the historical significance of the site chosen for our new school building. Write a well organized essay exploring how land use reflects broader social, economic, and political trends in U.S. history. (US, Econ/Gov)
- **ART:** Design a sculpture reflecting the values, energy, and diversity of the student body and community. The winning sculpture will be funded by the building project and subsequently installed near the entrance of the new school. (S.1)

OWNER'S PROJECT MANAGEMENT ROLE & REQUIRMENTS

- Required by Massachusetts General Law for construction, reconstruction, installation, demolition, maintenance or repair of any building project by a public entity estimated to cost not less than \$1,500,000
- Required prior to entering into a contract for Design services
- Registered MA Architects or Professional Engineers with a minimum of 5 years experience in the construction and supervision of construction of buildings

OR

- Persons with a minimum of 7 years experience in the construction and supervision of construction of buildings

VARIED CAREER PATHS TOWARDS OWNER'S PROJECT MANAGEMENT

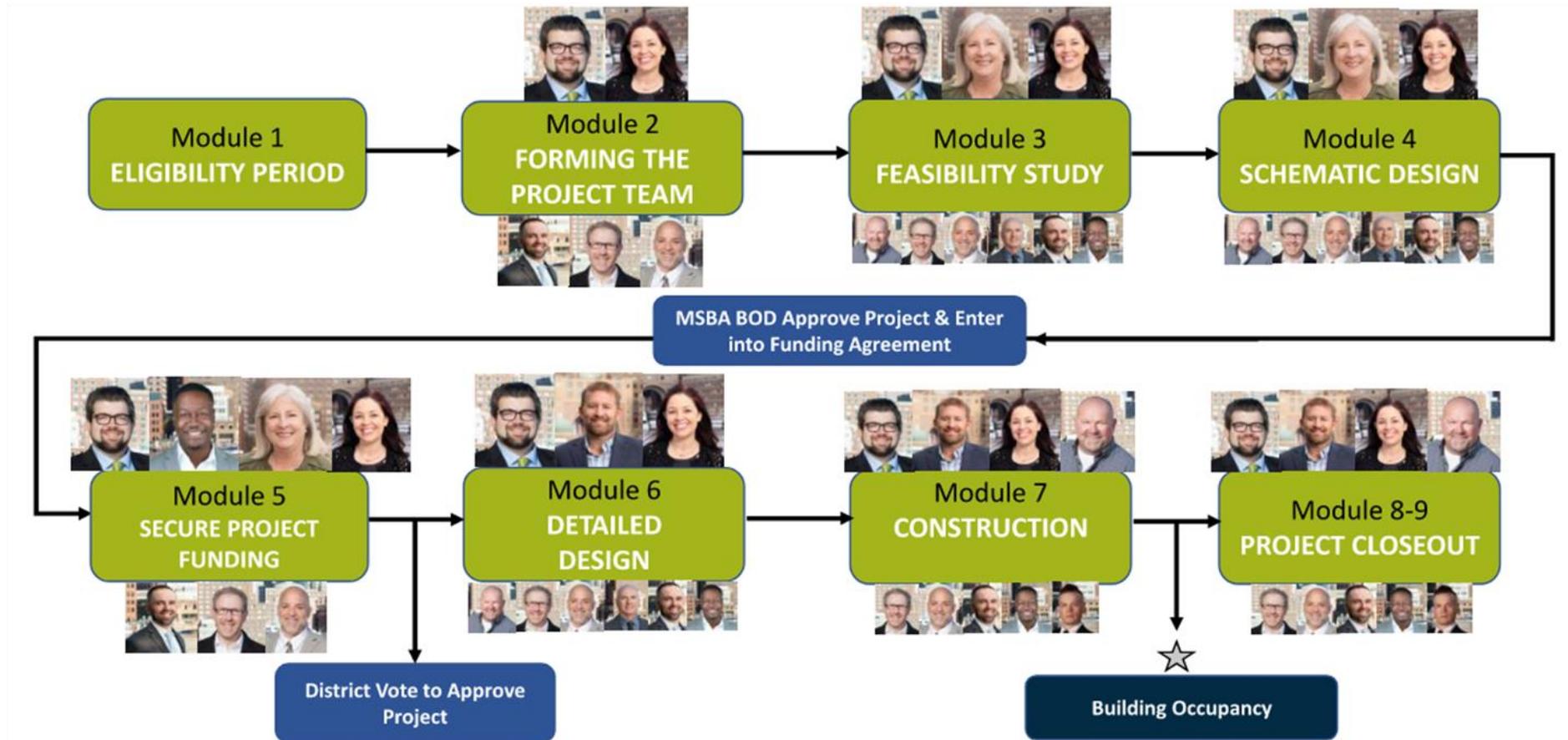
- Architecture
- Engineering (Civil, Structural, Environmental, Electrical, Plumbing, HVAC, various specialties)
- Construction (Trades, Management)
- Real Estate Development
- Various Civic Backgrounds (Municipal Management, Education, etc.)
- Various Vendor or Services Backgrounds (Technology, Business, Move Management, etc.)

KEY COMPONENTS OF OWNER'S PROJECT MANAGEMENT

- Knowledge of how differing municipalities function at a Civic level (City, Town, Regional District)
- Knowledge of related law
- Knowledge of design, engineering and construction
- Management of complex clients (SBC, SC, CC, Selectboard, "School", "City Hall", etc.)
- Management of experts

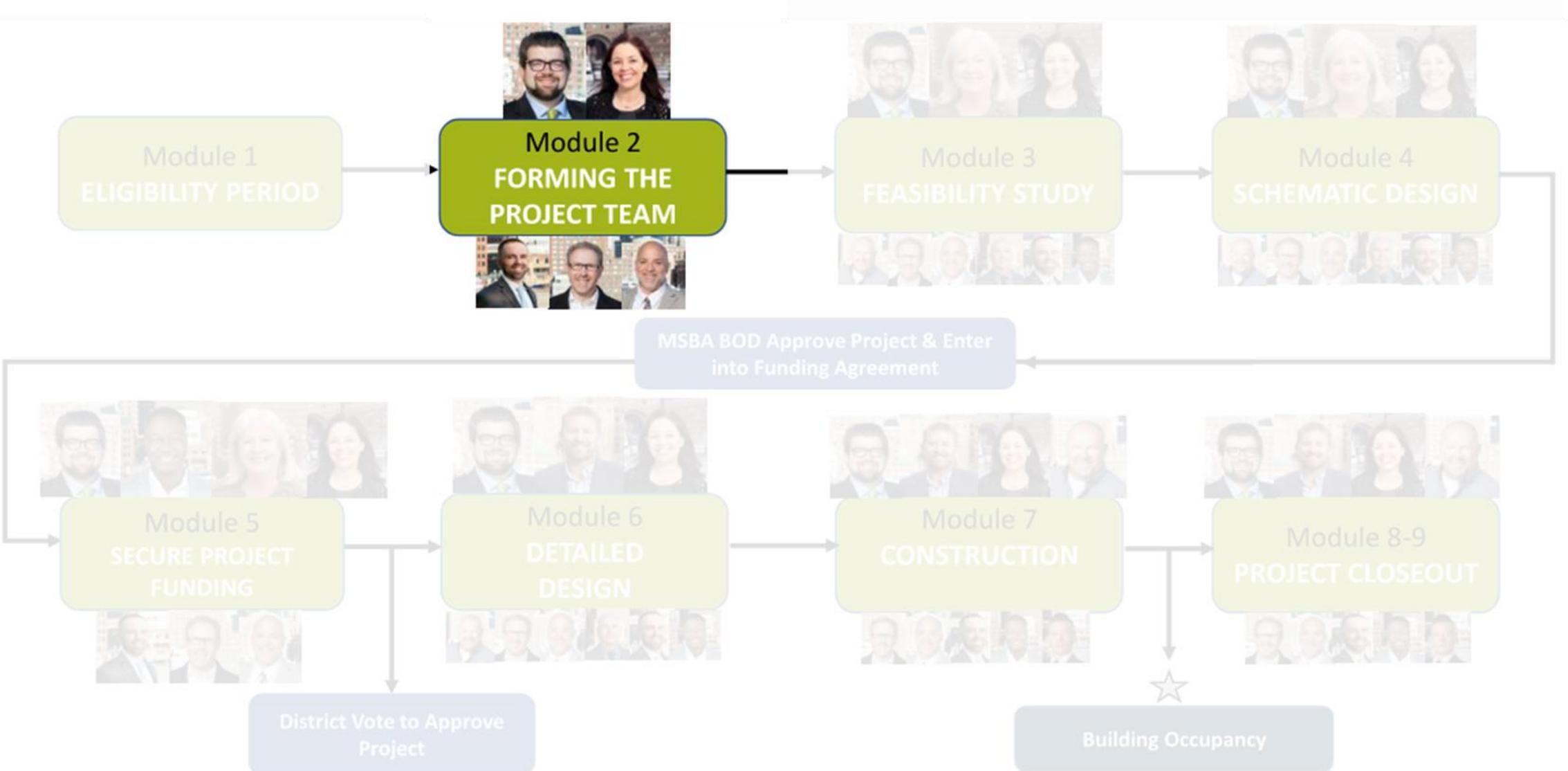
OPPORTUNITIES FOR STUDENT INVOLVEMENT IN SCHOOL PROJECT MANAGEMENT

- Conduit to opportunities/internships with Architect, Engineers, Contractors
- Establish opportunities for Students to participate via the School Building Committee
 - Exposure to how Cities/Towns function
 - Exposure to coordination between local and state entities / stakeholders
 - Financial capability planning
 - Permitting processes
- Opportunities vary over the lifespan of the School Project



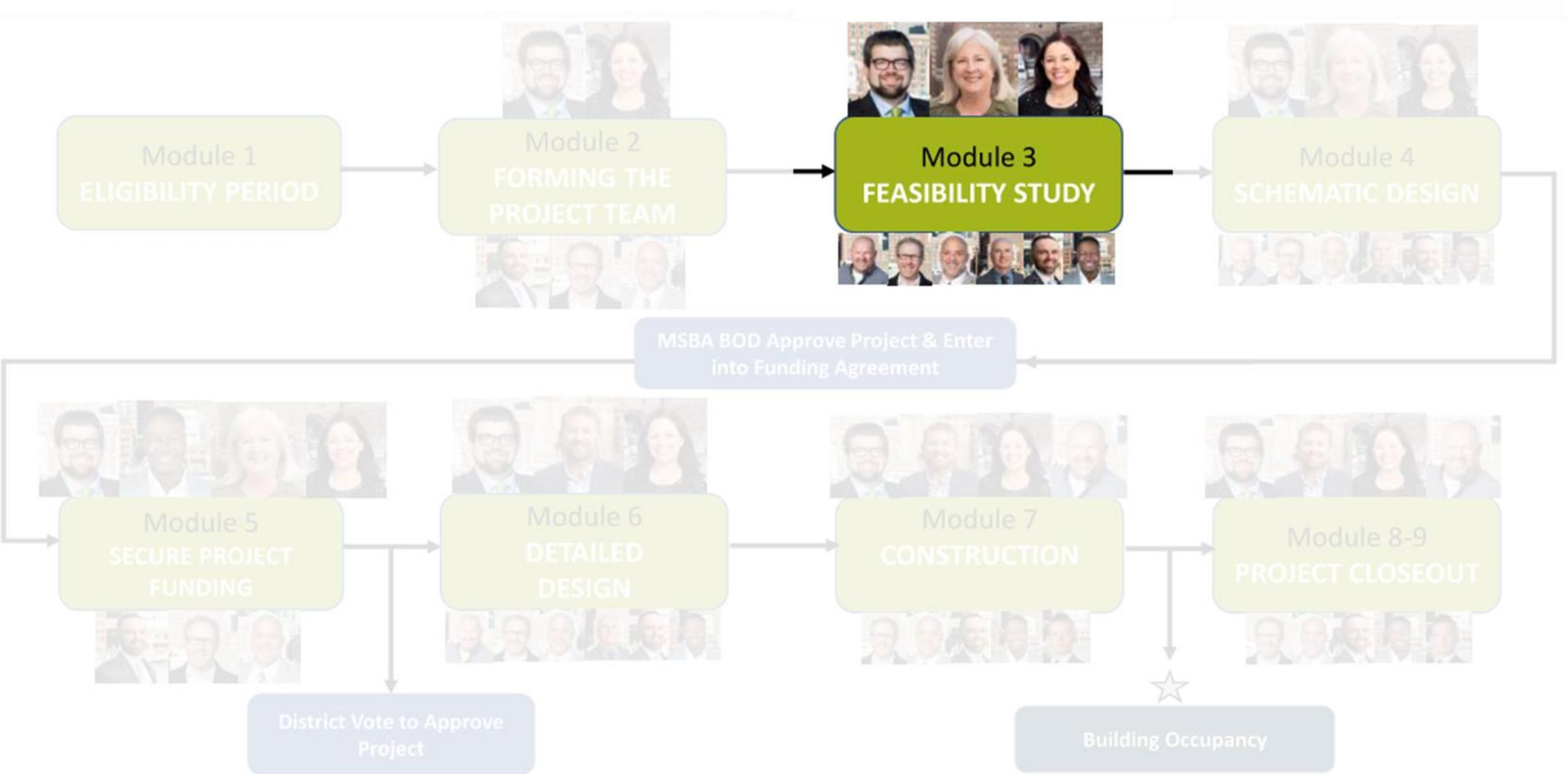
CIVIC GOVERNANCE IN MODULE 2 - FORMING THE PROJECT TEAM

- Coordination of Goals
- MSBA Designer Selection Panel
- Execution of Contracts



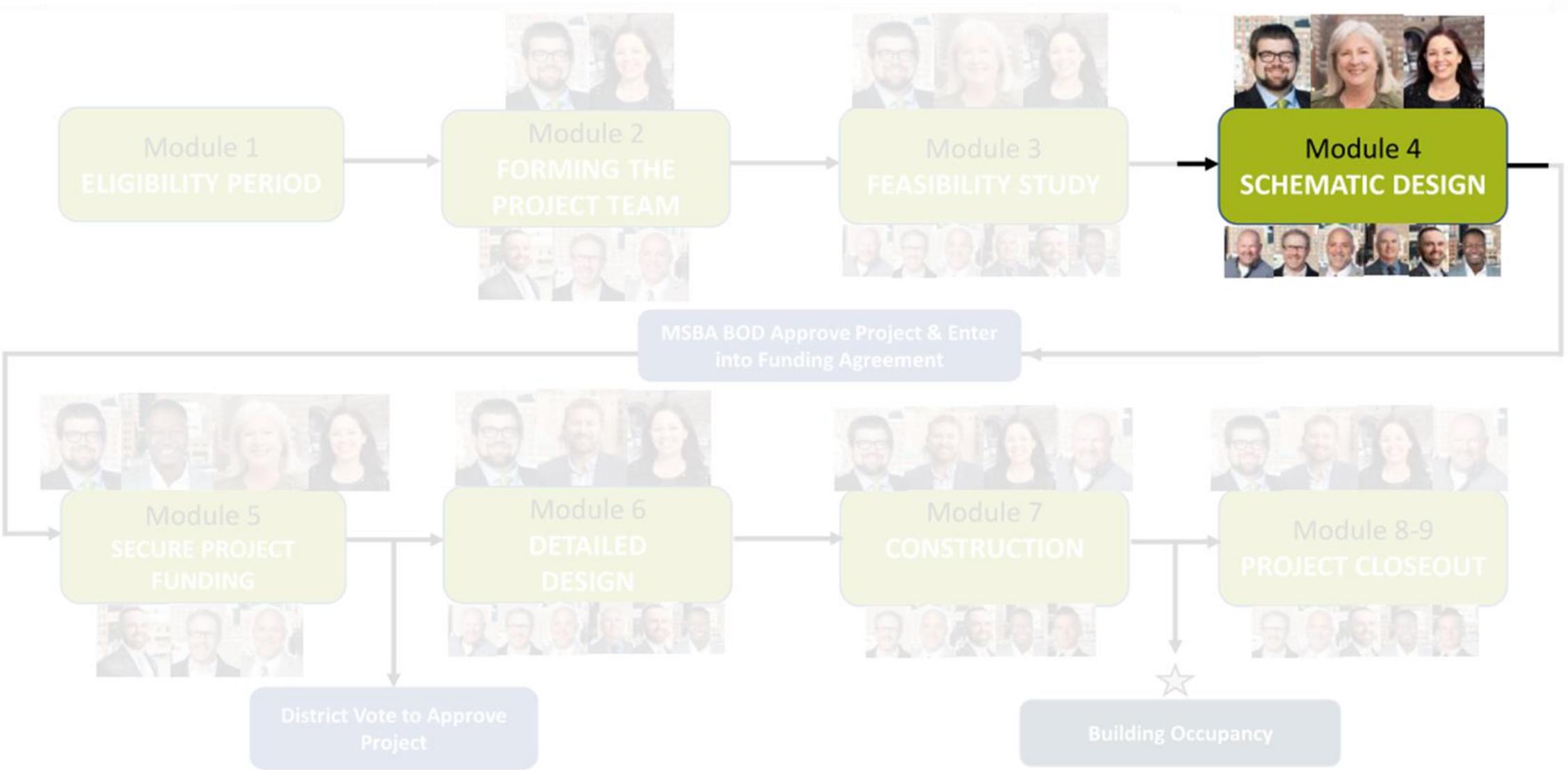
CIVIC GOVERNANCE IN MODULE 3 - FEASIBILITY STUDY

- How educational visioning drives the design of a School project
- Site Selection
- Funding Capabilities



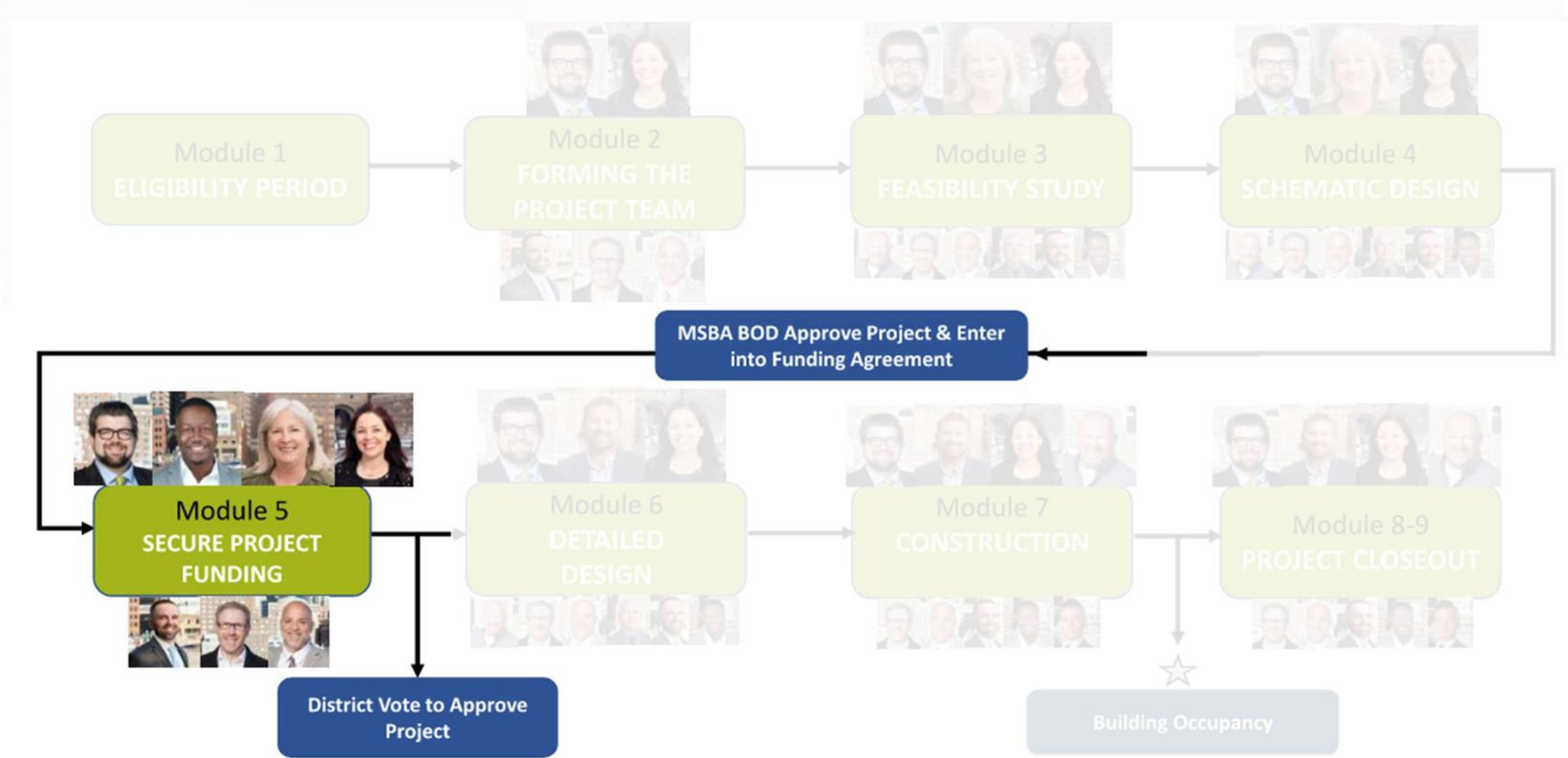
CIVIC GOVERNANCE IN MODULE 4 - SCHEMATIC DESIGN

- Establish construction delivery method (MGL Chapter 149 vs. 149a)
- Establishment of protocol for Project approval



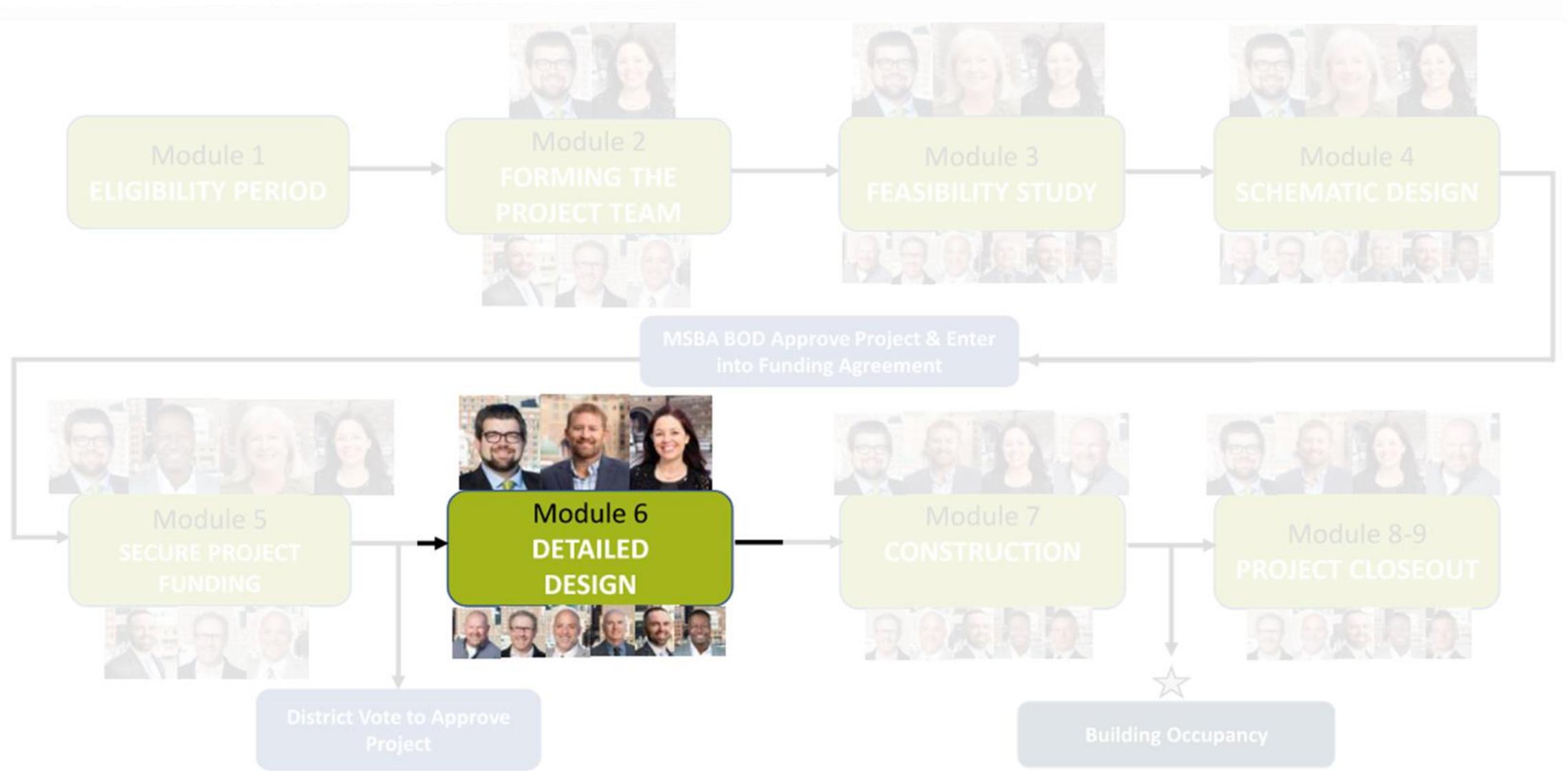
CIVIC GOVERNANCE IN MODULE 5 - FUNDING THE PROJECT

- Public outreach
- Get the Project passed!



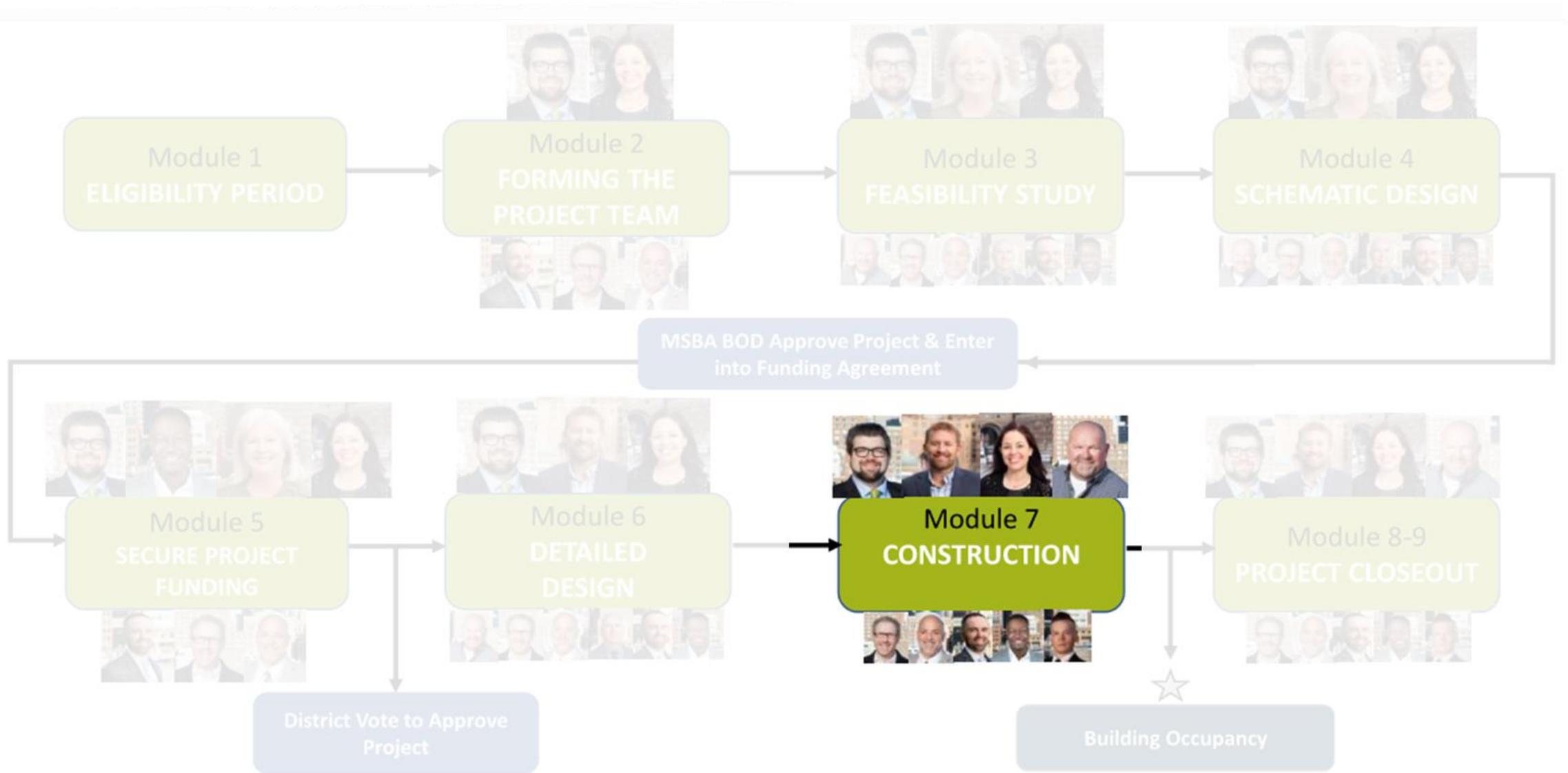
CIVIC GOVERNANCE IN MODULE 6 - DETAILED DESIGN

- Permitting
- Abutter outreach & general public communication of what's to come



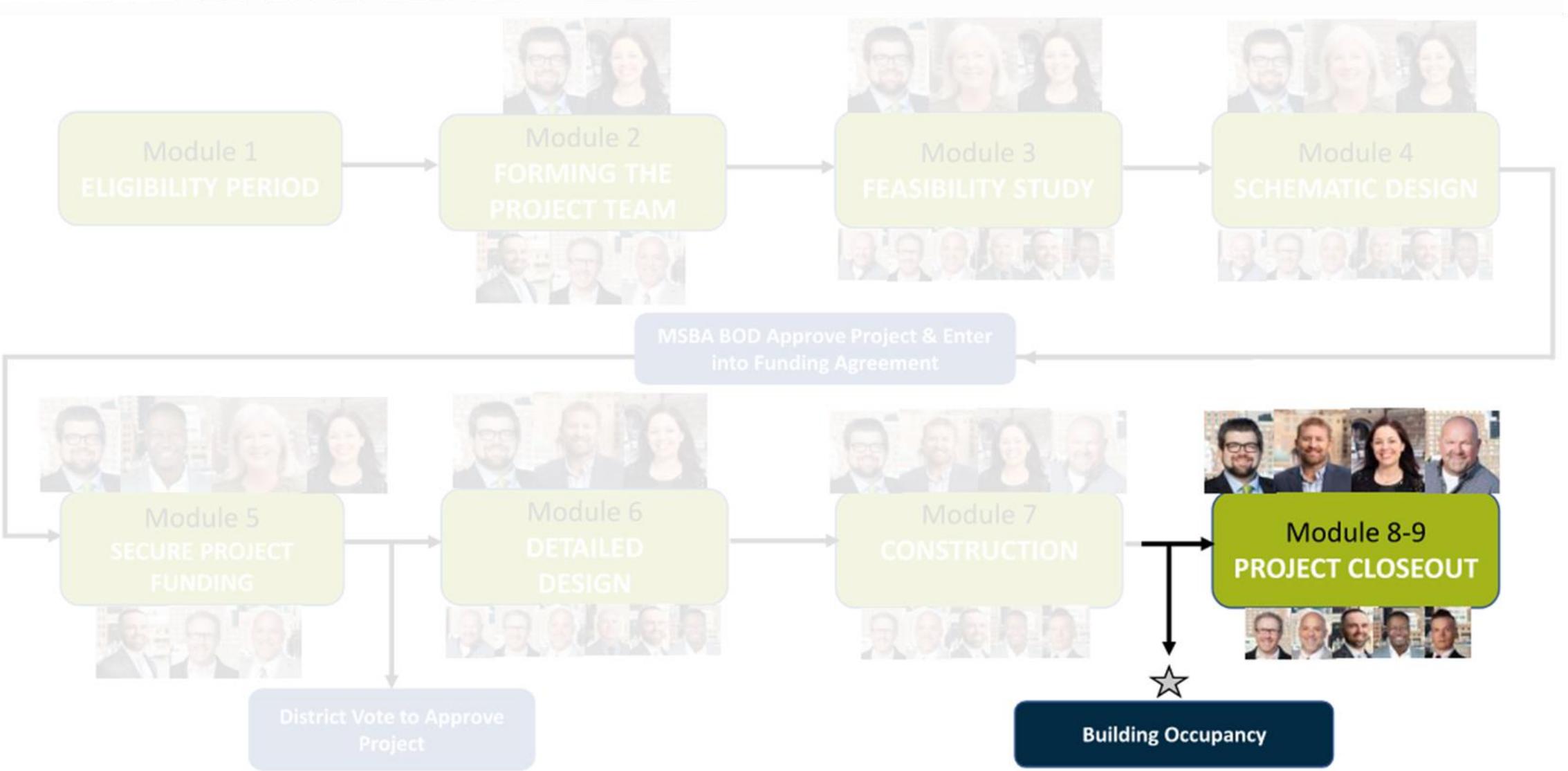
CIVIC GOVERNANCE IN MODULE 7 - CONSTRUCTION

- Oversight of process
- Coordinate w/ various involved vendors, inspectors, monitoring agencies



CIVIC GOVERNANCE IN MODULES 8 & 9 - CLOSEOUT

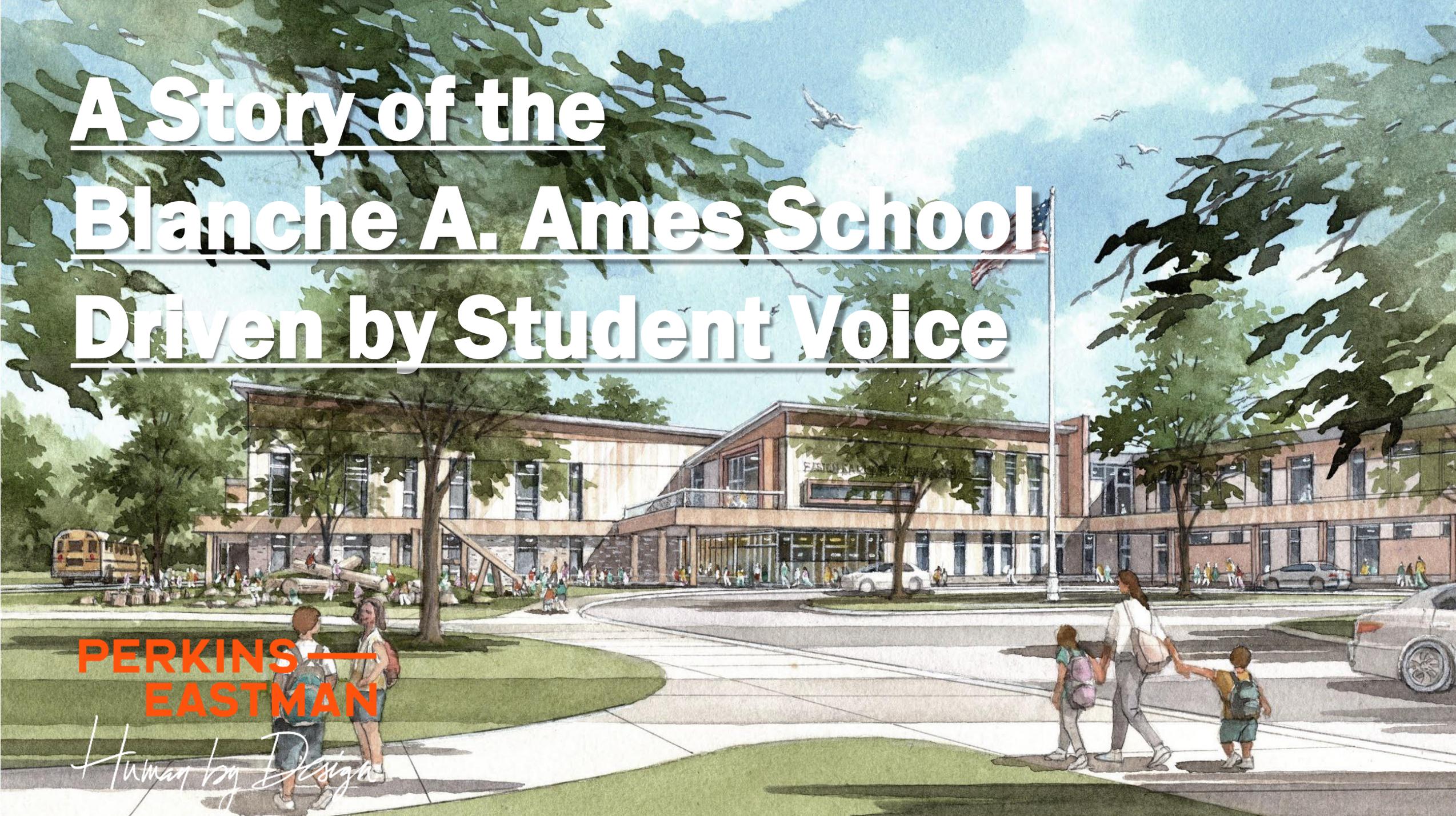
- Coordination of the move, commissioning, user follow-up, all issues large and small
- Prepare and execute Project financial audit with City/Town and MSBA



A Story of the Blanche A. Ames School Driven by Student Voice

**PERKINS —
EASTMAN**

Human by Design



The Journey

This is the story of how three neighborhood PK-2 schools unified to become The Blanche A. Ames Early Elementary School.



Who is Blanche A. Ames?

An artist. An inventor. A writer

A leader of the Women's Suffrage Movement in Massachusetts

A visionary. A humanitarian. A leader.

A wife, mother, grandmother and friend.

"For her to have an idea was to act."

- Daughter of Blanche A. Ames





Six Oliver Ames High School Students:

- Kiersten Chan
- Anna Galer
- Olivia Pierce
- Haley Chan
- Emma Lawson
- Aeden Marcus

Design Goals



1 Foster Creativity & Learning Through Play

We know that students ages 4-8 (PK-2 ages) learn through play and inquiry; the design will support this age appropriate learning philosophy by providing opportunities to learn both in the classrooms but also throughout the building and site. The design provides a unique opportunity to promote curiosity, think critically and exhibit resilience at an early age.



3 Age Appropriate/ Scaled

Each classroom cluster will have a theme tied to the history of Easton, will be color coded and have fun graphics to identify. Counting, manipulating, drawing, measuring and much more will all be promoted as the students' journey throughout the building. Numbered steps, magnetic walls, rulers and so much more will be provided to embrace curiosity, think critically and develop relationships.



2 Outdoor Learning/ Connections

Utilizing the sensory and environmental themes, the outdoor learning spaces will create endless opportunities for explorations, discovery, and project based learning. Using materials and aesthetic references that are reflective of Easton will deepen the connection to the Town's history and community at large.



4 Celebrate the Legacy of Blanche A. Ames

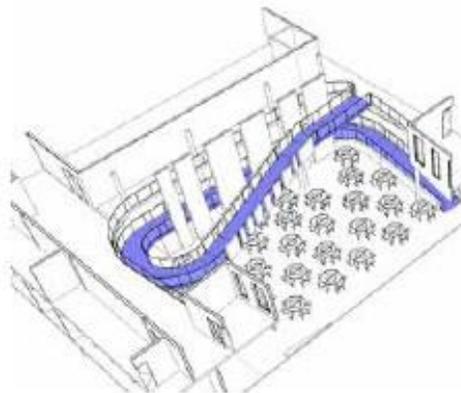
Easton resident Blanche A. Ames (1878 - 1969) was known as a longtime supporter of women's right to vote - marching with her husband, Oakes Ames, drawing political cartoons and organizing supporters at her Easton home. She was also an artist and an inventor who held several patents including one for entrapping enemy aircraft. She designed the Ames Mansion in what is now Borderland State Park, where she and Oakes raised their family. Ames also supported reproductive rights, becoming the first president of the Birth Control League of Massachusetts in 1916

“Our Perkins Eastman team has done a wonderful job designing the future Blanche A. Ames Elementary School to be responsive to how our youngest students learn, as well as incorporate meaningful elements to pay tribute to the town and the school's namesake.”

-Superintendent Lisha Cabral

5 Universal Design for All

The design team believes we can push this design beyond accessibility and embrace Universal Design principles. One example of this is a wide accessible ramp connecting the main floor to the upper floor and celebrates the journey for these young learners to travel throughout the building. All students will use the same journey to get upstairs and down and reinforces the principle of equitable use.



Site & Building Plans



SITE PLAN

- NEW CONSTRUCTION
- 760 STUDENTS + 60 PK
- 148,422 SF
- SPRING 2023



SECOND FLOOR PLAN

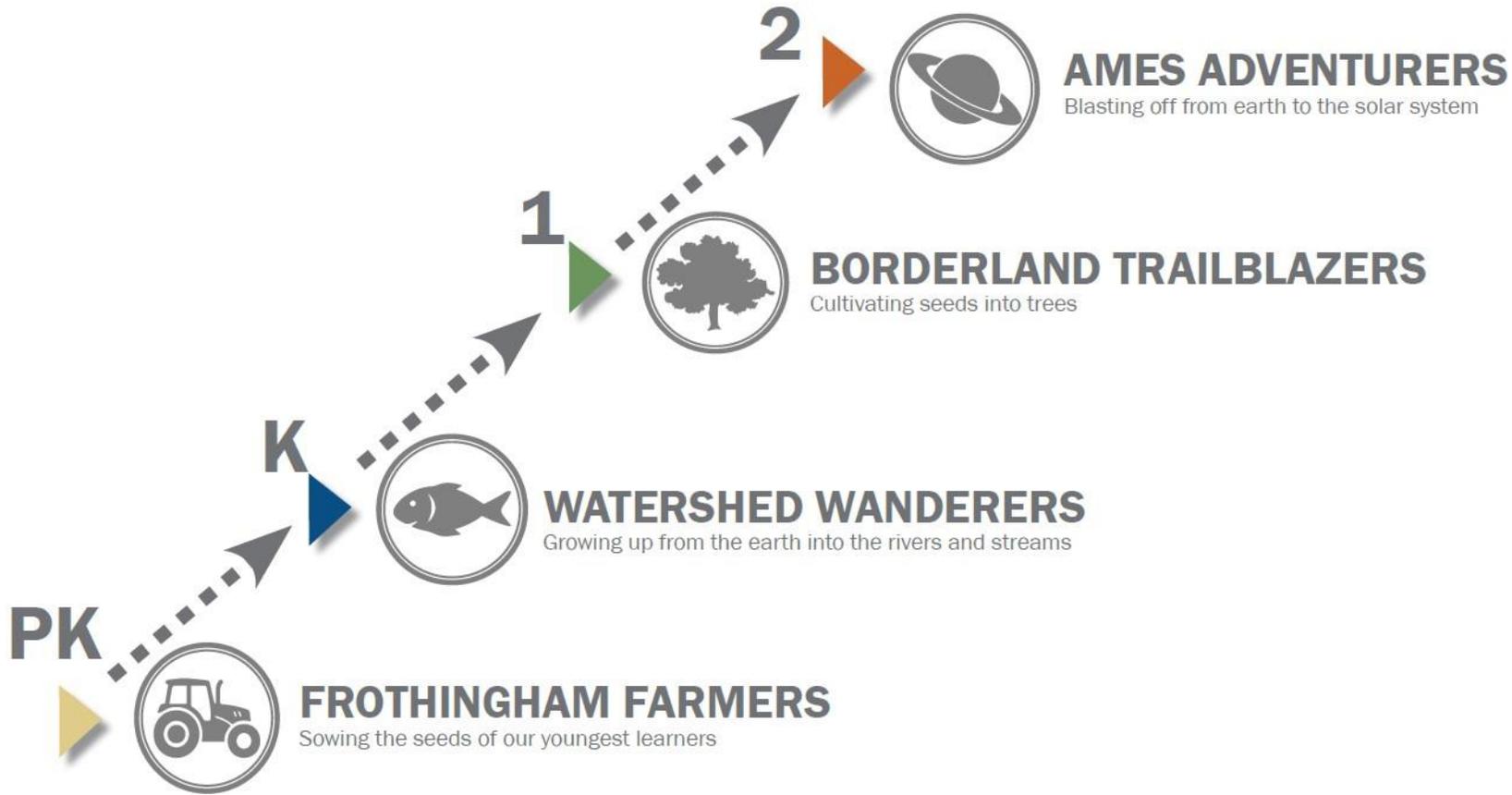


FIRST FLOOR PLAN

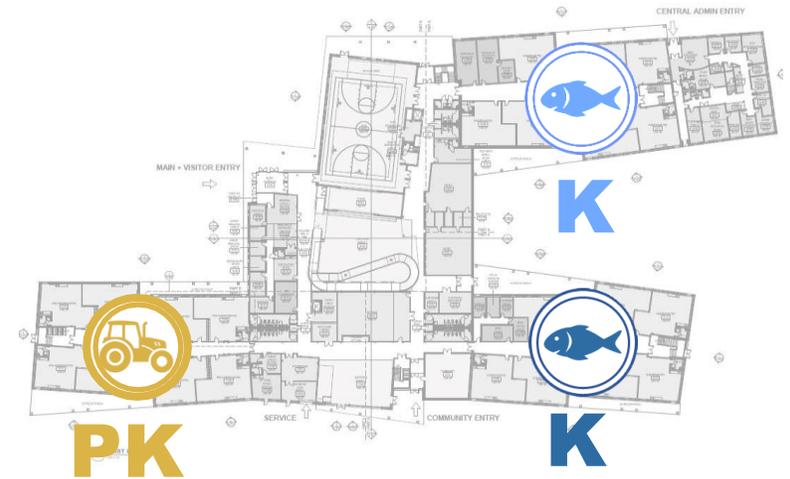
School Design Themes

ACHIEVER'S JOURNEY

INTERIOR CONCEPT

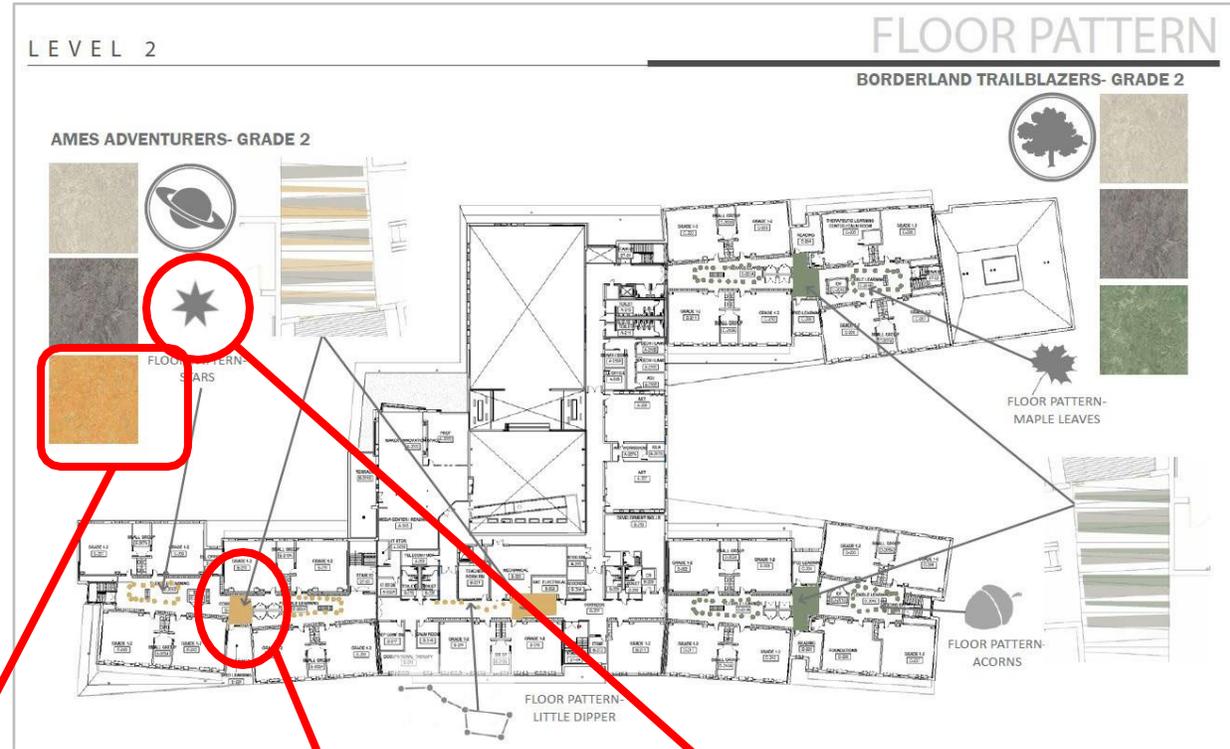
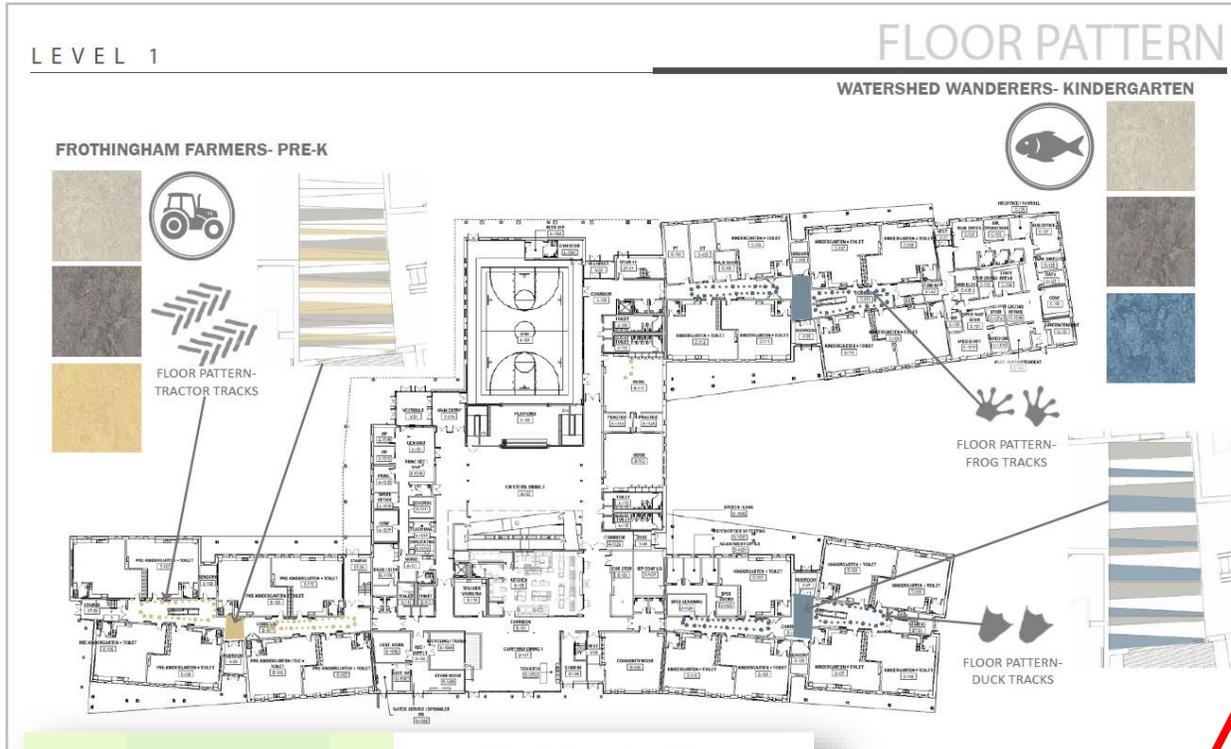


SECOND FLOOR PLAN



FIRST FLOOR PLAN

Corridor Design



Updates to the hallways

- Astronaut feet instead of stars
 - purple coloring instead of orange for space themes
- Deer or bear feet instead of acorns
- Possible painted ceilings?
 - Fit with 4 themes
 - Could definitely enlist art students
 - Community project



FROM ORANGE TO PURPLE ACCENT COLOR



FROM WOOD TO GWB FOR FUTURE STUDENT MURALS



FROM STAR TO ASTRONAUT FOOTPRINT

Orchid



Orchids

- Enclosed or raised platforms for orchids so students can't touch them
 - Glass or mesh encasing
- Different colored orchids matching the color scheme of the timeline graphics in the background

Orchid Wall Orchid motifs



Orchid Wall Precedent Images



Legacy Timeline



Blanche Ames Timeline

- Timeline with simple sentences on the ramp floor and more detailed descriptions on the wall
- Lines can connect corresponding flaps on the ramp wall to the dates on the ramp floor
- Modern color scheme w/black and white historical photos (under the flaps)

History Timeline Defining the Narrative

Blanche Ames

1878 February 18: Blanche Ames is born in Lowell Massachusetts

1899 Graduates as president of her class from Smith College with degrees in art and art history

1900 Marries Oakes Ames, a botanist who works at Harvard

1902 Begins making botanical drawings for Oakes's research

1901 Blanche and Oakes begin their travels around the world researching Orchids. Blanche draws the orchids for Oakes' books - considered the number one book on Orchids. Side by side the pair discovers over 1000 new breeds of orchid

1910 Unhappy with the Borderland architects, Blanche designs the Borderland mansion and engineers the dams and ponds herself

1910s Devises a system of raising turkeys, raised off the ground with wire to avoid disease

1915 Becomes the art editor of the Woman's Journal and publishes her own pro-suffrage cartoons in the magazine

1915 Becomes the treasurer of the Massachusetts Women's Suffrage League, on top of her duties as the Easton Women's Suffrage League President

1924 Blanche and Oakes win the first medal of achievement from the American Orchid Society. Blanche is asked to design the medal

1930s When their car stalls out in the middle of the jungle, Blanche fixes it with just a hairpin and a bullet

1939 Develops a hexagonal lumber cutter

1940s Invents a device for ensnaring enemy aircraft, taking inspiration from a sewing machine, and presents it to the US army

1940s To assist with the war effort, Blanche raises cattle on the Borderland grounds

1941 Becomes a board member and later the president of the New England Hospital for Women and Children

1964 Writes and publishes a biography of her father, Adelbert Ames, who was a Civil War soldier and a politician.

1968 At the age of 90, Blanche patents her invention "the antipollution toilet"

1969 March 2: Blanche Ames dies

PERKINS—EASTMAN SD.9

Precedent Images Interactivity

PERKINS—EASTMAN SD.11

History Timeline Defining the Narrative

Science

1901—Blanche and Oakes begin their travels around the world researching Orchids. Blanche draws the orchids for Oakes' books - considered the number one book on Orchids. Side by side the pair discovers over 1000 new breeds of orchids.

1910s Devises a system of raising turkeys, raised off the ground by wire to avoid disease

1924—Blanche and Oakes win the first medal of achievement from the American Orchid Society. Blanche is asked to design the medal.

Engineering

1910— Unhappy with the Borderland architects, Blanche designs the Borderland mansion and engineers the dams and ponds herself!

1930s—When their car stalls out in the middle of the jungle, Blanche fixes it with just a hairpin and a bullet.

1939— Blanche invents the hexagonal lumber cutter

1940s— Blanche invents a device for ensnaring enemy aircraft, taking inspiration from the sewing machine and presents it to the US army

1940s— At the age of 90, Blanche patents her invention "the antipollution toilet"

Art

1899—Blanche graduates as president of her class from Smith College with degrees in art and art history

1902—Blanche begins making botanical drawings for Oakes's research

1910—The Ames Color System

1915—Blanche becomes the art editor of the Woman's Journal and publishes her own pro-suffrage cartoons in the magazine.

1964—Blanche Ames writes and publishes a biography of her father, Adelbert Ames, who was a Civil War soldier and a politician.

Humanity

1878—February 18 Blanche Ames is born in Lowell Massachusetts

1900—Blanche marries Oakes Ames, a botanist who works at Harvard

1915—Blanche becomes the treasurer of the Massachusetts Women's Suffrage League, on top of her duties as the Easton Women's Suffrage League President

1941—Blanche becomes a board member and later the president of the New England Hospital for Women and Children

1969—March 2: Blanche Ames dies

PERKINS—EASTMAN SD.10

Precedent Images Floor Graphics

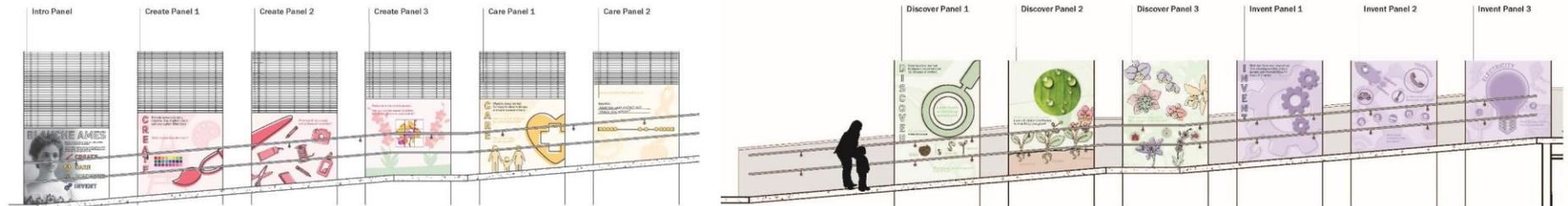
PERKINS—EASTMAN SD.15

CREATE

CARE

DISCOVER

INVENT





Photograph



Rendering

Legacy Wall Panels



Interactive Learning Elements





Outdoor Elements- Map of Easton

THE "HIDE AND SEEK" GARDEN

A SENSORY GARDEN AT EASTON ELEMENTARY SCHOOL

Designed to surprise and delight through the creation of a sequence of sensory spaces and experiences that appear at every turn. Vegetated as a habitat for birds and butterflies the garden becomes a fully immersive educational experience for students

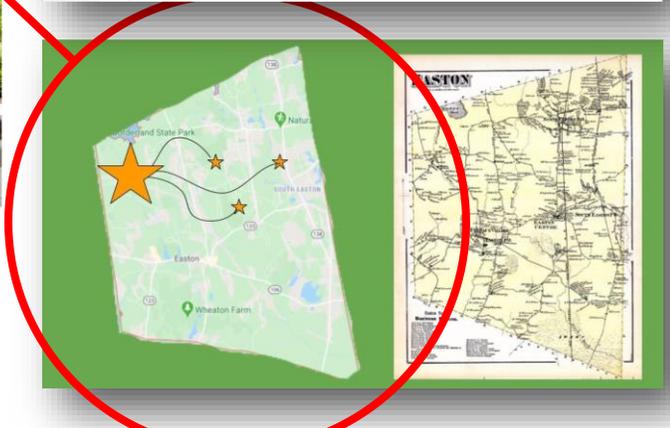


The organically sweeping pathways, naturalistic plantings, recreational lawns and semi-circular grassed outdoor classrooms are inspired by the iconic Olmstead designed landscapes of Easton. A diversity of spaces promote moments of quiet while others encourage activity and sensory rich play



Homage to 3 prior elementary schools

- Painted Town map on the ground
- Outside in main entrance way or just inside building
- Three stars where 3 schools were and larger star/symbol to connect them (with word in it?)
- Potentially also use as a teaching opportunity about Easton? Highlight key locations: Library, Borderland, Governor Ames estate, Langwater, etc.



Outdoor Elements- Sensory Garden

THE "HIDE AND SEEK" GARDEN

A SENSORY GARDEN AT EASTON ELEMENTARY SCHOOL

Designed to surprise and delight through the creation of a sequence of sensory spaces and experiences that appear at every turn. Vegetated as a habitat for birds and butterflies the garden becomes a fully immersive educational experience for students



The organically sweeping pathways, naturalistic plantings, recreational lawns and semi-circular grassed outdoor classrooms are inspired by the iconic Olmstead designed landscapes of Easton. A diversity of spaces promote moments of quiet while others encourage activity and sensory rich play

PERKINS EASTMAN EASTON EARLY ELEMENTARY SCHOOL PROJECT

TRAVERSE 1



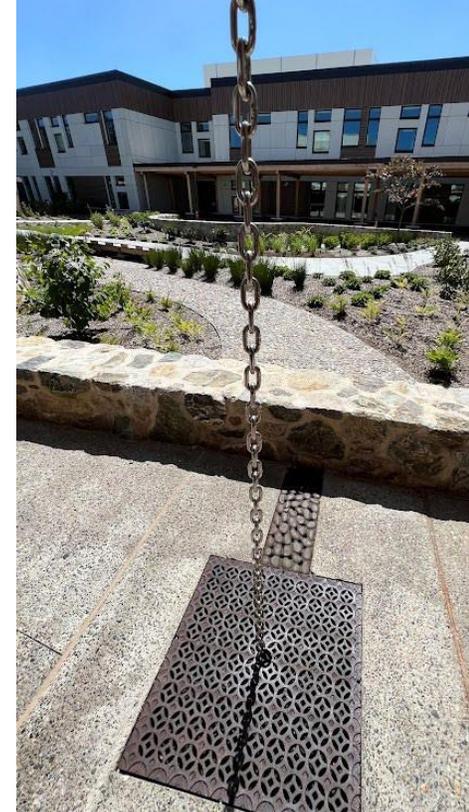
Sensory Garden

Main Symbols

Each plant will have a color coded symbol denoting which senses kids can use to interact with the plants. This is done so that kids who cannot read can still enjoy the garden.

Sound

The plant *Nigella Damascena* windchimes and bells can engage the sense of sound in the sensory garden



Meeting Timeline

DESIGN DEVELOPMENT

JULY 09, 2020

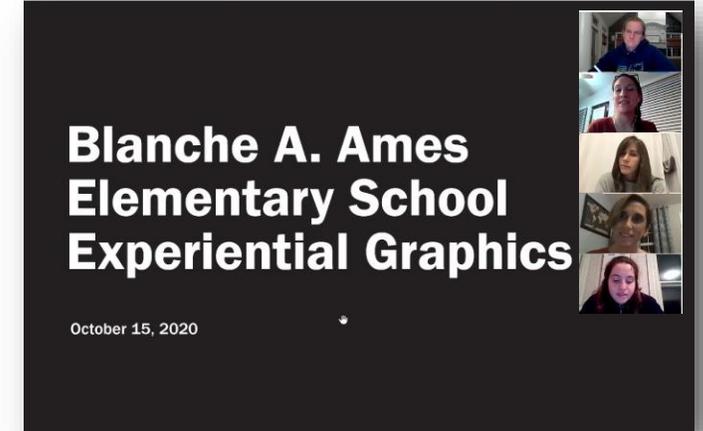


JULY 15, 2020



CONSTRUCTION DOCUMENTS

OCTOBER 15, 2020



GROUNDBREAKING CEREMONY

MARCH 30, 2021



APRIL 15, 2021



MAY 20, 2021





“ There was applause at the Ground-breaking Ceremony for our Student Involvement. **I really felt respected in that moment because they DID LISTEN to our ideas.”**

Aeden Marcus- Oliver
Ames High School
Senior; WBZ Radio
Interview

“I’m so grateful I got to work with these professionals.... in the back of my mind I thought ‘oh sure you want to hear from us’ but they **ACTUALLY DID LISTEN** and valued the things we had to say.”

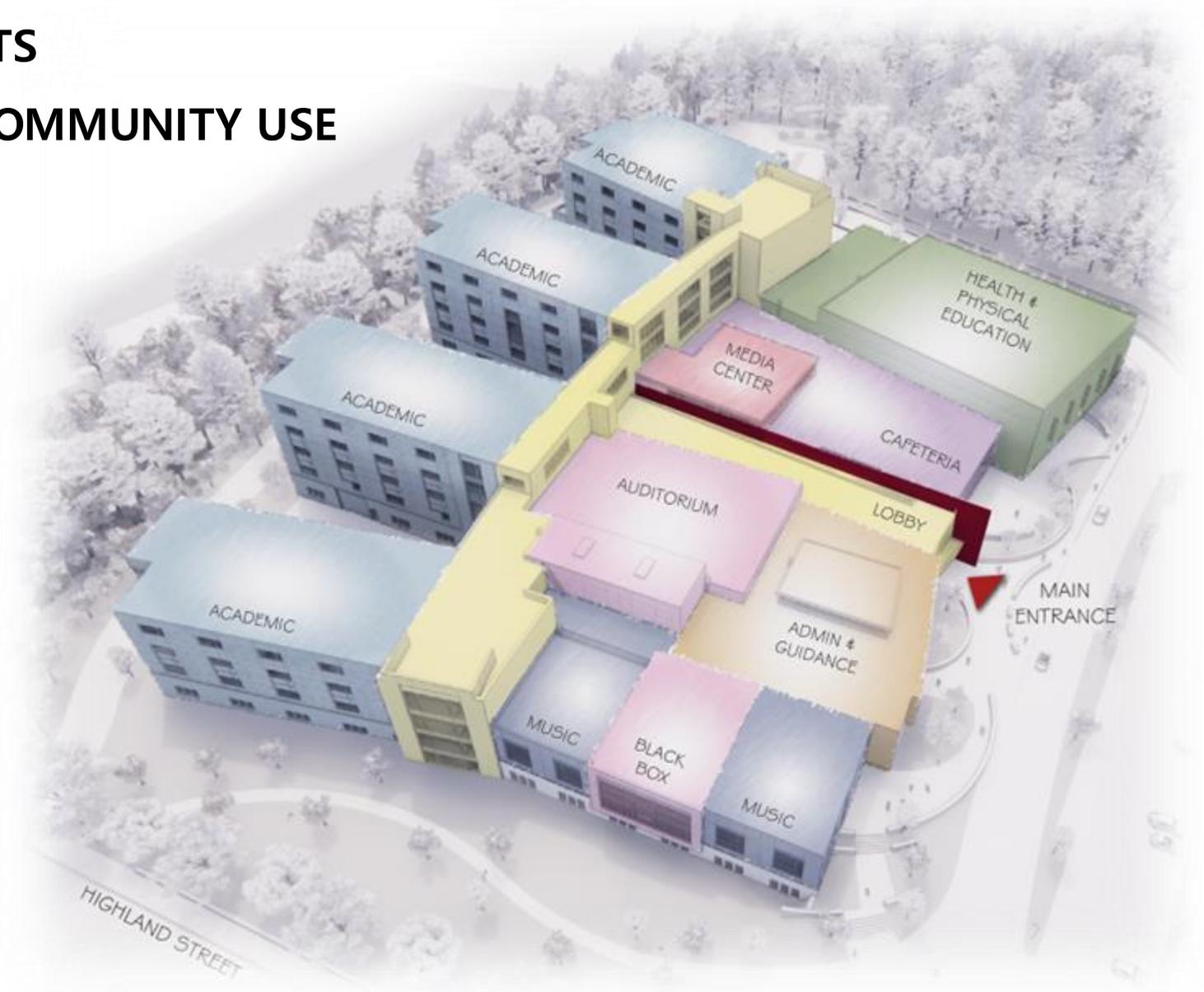
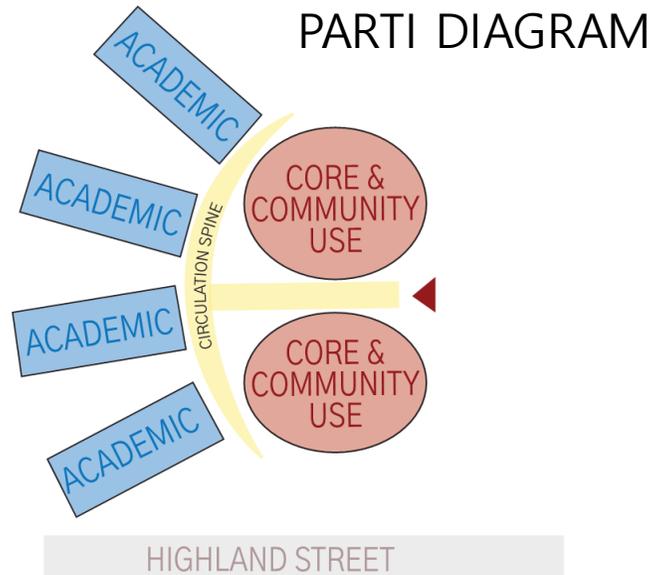
Anna Galer - Oliver Ames
High School Senior; WBZ
Radio Interview

**PERKINS —
EASTMAN**

DOHERTY MEMORIAL HIGH SCHOOL



- **NEW CONSTRUCTION** ADJACENT TO THE EXISTING SCHOOL
- ENROLLMENT: **1670 STUDENTS**
- EXPANDED PROGRAM AND **COMMUNITY USE**
- AREA: +/- **422,000 SF**
- OCCUPANCY **FALL 2024**



LIVING LAB OPPORTUNITIES

- ❑ BUILD CAREER AWARENESS. DIVERSIFY STEM FIELDS, TRADES, ARCHITECTURE, AND ENGINEERING.
- ❑ STRENGTHEN LOCAL WORKFORCE PIPELINES
- ❑ SUPPORT CURRICULUM PRIORITIES WITH TARGETED STUDENT ENGAGEMENTS

PROPOSED CHAPTER 74 PROGRAMS:

WORCESTER
PUBLIC SCHOOLS



Massachusetts Department of
ELEMENTARY & SECONDARY
EDUCATION



Learning that works
for Massachusetts

ENGINEERING & TECHNOLOGY ACADEMY

Enrollment: 400 Students (Existing to be expanded)

MARKETING MANAGEMENT & FINANCE

Enrollment: 200 Students

PROGRAMMING & WEB DEVELOPMENT

Enrollment: 200 Students

CONSTRUCTION CRAFT LABORER

Enrollment: 150 Students

ADVANCED ACADEMY IN BIOTECHNOLOGY

Enrollment: 200 Students

2022

2023

2024

2025

J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D

CONCRETE & STEEL
FBI/BDI STRUCTURAL PRESENTATION
SITE VISIT
ETA CLASS COLLABORATION
GEOTECHNICAL PRESENTATION

STRUCTURAL ENGINEER



ROOFING

FIREPROOFING

EXTERIOR FACADE

SITE VISITS
MASONRY / CURTAIN WALL / METAL PANEL
ENVELOPE OBSERVATION AND TESTING

MOCK-UP WALL

ENVELOPE TESTING



BIM COORDINATION

BIM COORDINATION
PRESENTATION

BIM COORDINATOR PRESENTATION

MECHANICAL ELECTRICAL AND PLUMBING INSTALLATION

SITE VISITS
COLLABORATION WITH UNION REPRESENTATIVES

COMMISSIONING PRESENTATION
SUSTAINABLE DESIGN ANALYSIS

COMMISSIONING AGENT

INTERIOR FRAMING AND FINISHES

SITE VISITS
STUDENT PROJECTS (HISTORY WALL, CLASS DEDICATIONS)

SUSTAINABLE DESIGN

HVAC ENGINEER

FURNITURE

SITE VISITS

LANDSCAPE ARCH.



ACCESS AND PARKING FOR NEW SCHOOL



ABATE AND DEMO EXISTING BUILDING

FIELD AND SITE COMPLETION

JOB FAIR

JOB FAIR

JOB FAIR

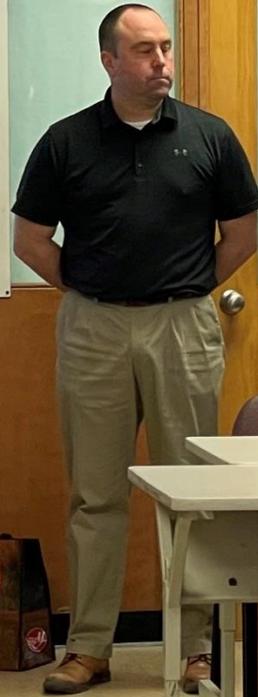
NEW SCHOOL OCCUPANCY

JOB FAIR

PROJECT COMPLETION

JOB FAIR

SCHEDULE



LIBRARY CLASSROOM



ABERCROMBIE & FITCH
NEW YORK





Build Your FUTURE

Ready to build your future? Scan here.
www.NASCT.org



North Atlantic States Regional
COUNCIL of CARPENTERS
BOOTH #3





NEW BRIDGE
LABORERS'
SHIP
PROGRAM

LABORERS' UNION

LABORERS' UNION

LABORERS' UNION



✓ A DESIGN AND CONSTRUCTION TEAM-UP WILL REACH MORE STUDENTS

DESIGN, ENGINEERING AND CONSTRUCTION TEAM COLLABORATION ALLOWED US TO REACH MORE STUDENTS AND TO GIVE A COMPREHENSIVE PICTURE OF THE PROJECT AND JOB OPPORTUNITIES FROM CONCEPTION TO COMPLETION.

✓ TIME INVESTMENT UP-FRONT

EXPECT GREATER TIME INVESTMENT AT FIRST TO ESTABLISH THESE RELATIONSHIPS AND BUILD UP MEANINGFUL PRESENTATIONS.

✓ DISTRICT-LEVEL SUPPORT IS VITAL

IN WORKING WITH THE TEACHERS, TIMING AND SCHEDULING CAN BE A CHALLENGE, SO IT HELPS TO HAVE STRONG SUPPORT AND REPRESENTATION AT THE DISTRICT LEVEL AS THESE PROGRAMS ARE ESTABLISHED.

✓ OPPORTUNITIES TO BE MORE HANDS-ON

FUTURE ENGAGEMENT SHOULD EXPAND TO INCLUDE DESIGN CHALLENGES, ESTIMATING EXERCISES, AND MORE HANDS-ON EXPERIENCES.



CAREERS IN CONSTRUCTION

Real Paths, Real Purpose

Todd McCabe
January 8, 2026



Opportunities in the Industry



CONSIGLI
Est. 1905



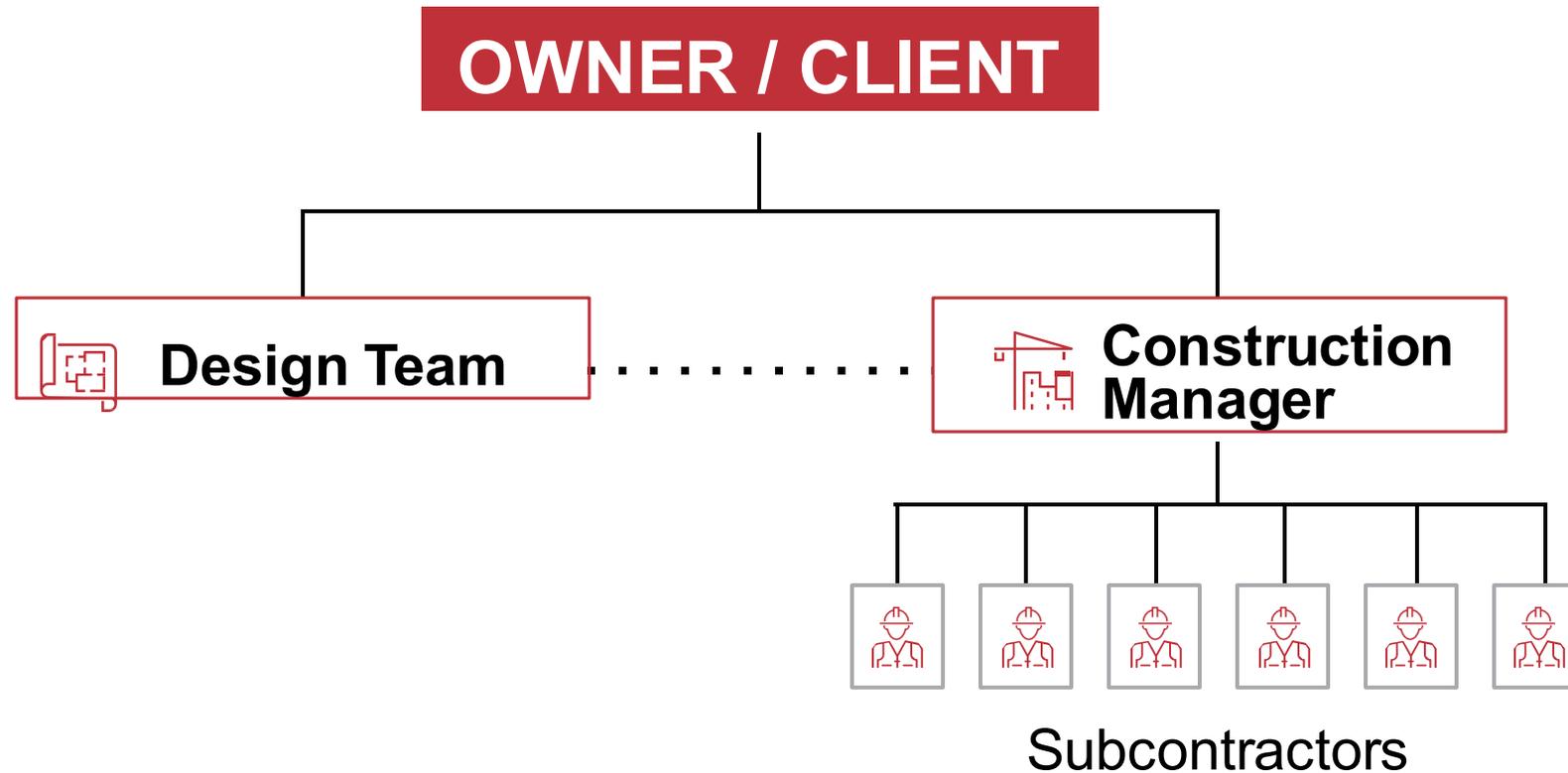
The Mindset of a Builder



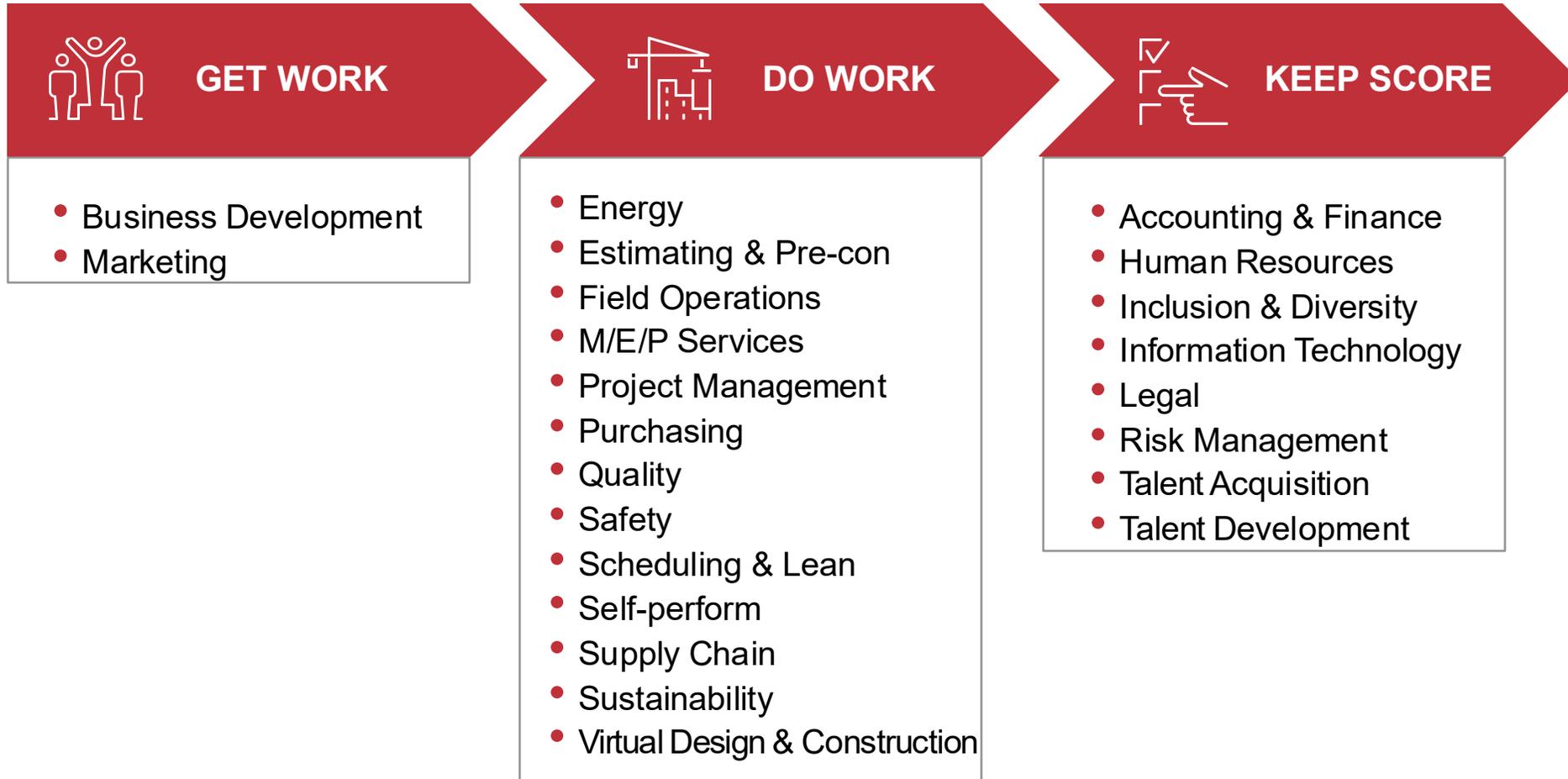
From the Ground Up



A Typical Project Team



Get Work, Do Work, Keep Score



Construction Team Structure



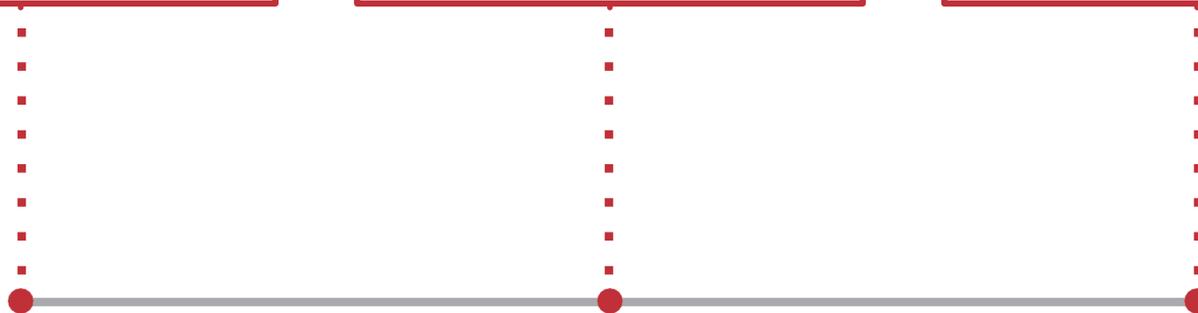
Project Management



Field Operations



Skilled Trades



Project Management



EDUCATION

Four-year degree
*Civil engineering,
mechanical
engineering,
construction management*



PRIMARY RESPONSIBILITIES

- Team leadership & communication
- Planning & coordination
- Budget management



Career Path

Project Engineer

0-3 years

Asst. Project Manager

3-5 years

Project Manager

5-10 years

Sr. Project Manager

10-15 years

Project Executive

15+ years

Field Operations



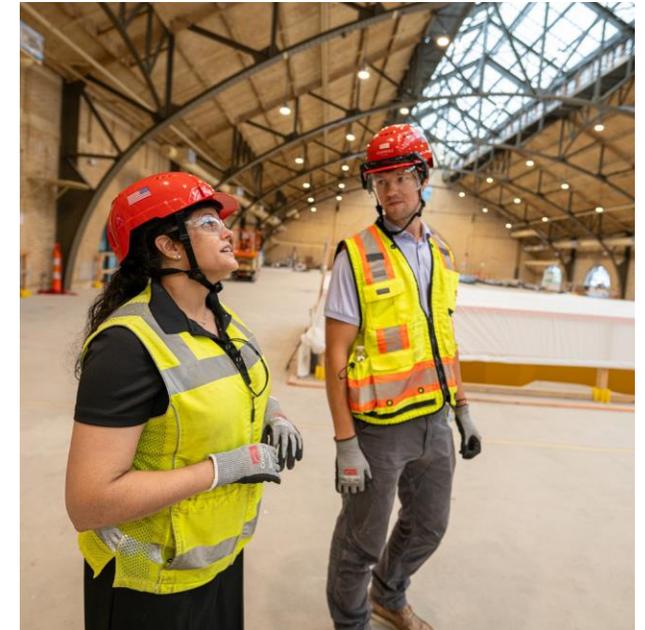
EDUCATION

Four-year degree
*Civil engineering,
mechanical engineering,
construction management*



PRIMARY RESPONSIBILITIES

- Subcontractor management
- Schedule, logistics, safety & quality
- Technical problem-solving



Career Path

Asst. Superintendent

0-3 years

Superintendent

3-5 years

Project Superintendent

5-10 years

Senior Superintendent

10-15 years

General Superintendent

15+ years

Skilled Trades



EDUCATION

Apprenticeships,
vocational
schools, on-the-
job training &
unions



PRIMARY RESPONSIBILITIES

- Building
- Technical problem-solving
- Coordination & communication



Career Path



Opening Doors



CONSIGLI
Est. 1905





Student Participants

Jannaca Lang

Lowell High School '26

Kiersten Chan

Town of Easton - Blanche A. Ames
Elementary School Building Project
UMass Amherst '27

Anna Galer

Town of Easton - Blanche A. Ames
Elementary School Building Project
Brown University '25

Miles Sperber

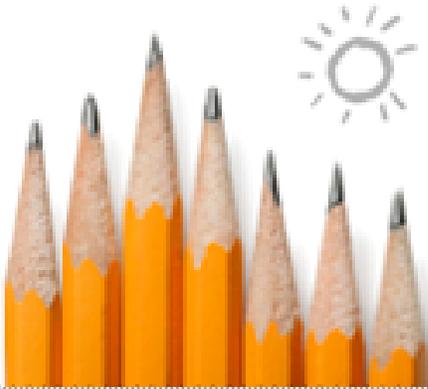
Concord Middle School – Grade 8

Casey Ganjoli

Revere High School '25
Wentworth Institute of Technology '29

QUESTIONS FOR STUDENT PARTICIPANTS

- a. How did you participate in your town's building project?
- b. How did you get involved?
- c. What do you think schools should do to engage more students?
 - i. How can principals better advertise to everyone so they even know about the opportunity? How do we make sure other schools are engaged?
 - ii. Have any of you worked with a student building committee?
- d. What has this experience meant to you



Questions and Conversation
