

EDspaces

Designing the Future of Education
Charlotte, NC | November 7-9, 2023

Prioritizing Outdoor Learning through Holistic Planning Strategies

Tuesday, November 7 | 8am-9am



Zachary Broussard
CARBO Landscape Architecture



Partner

Institutional | Commercial Studio Principal

15+ Years Experience

45+ Higher Ed and K-12 Projects

Bachelor of Landscape Architecture
Louisiana State University

Greg Papay
Lake Flato Architects



Partner

Schools Studio Co-Leader

35+ Years Experience

100+ K-12 and Higher-Ed Projects

Master of Architecture
University of Texas at Austin

Zachary Broussard
CARBO Landscape Architecture



Partner

Institutional | Commercial Studio Principal

15+ Years Experience

45+ Higher Ed and K-12 Projects

Bachelor of Landscape Architecture
Louisiana State University

Greg Papay
Lake Flato Architects



Partner

Schools Studio Co-Leader

35+ Years Experience

100+ K-12 and Higher-Ed Projects

Master of Architecture
University of Texas at Austin



Indian Springs School
Indian Springs, AL



CLTCC
Alexandria, LA



LSU HEALTH - CENTER FOR
MEDICAL EDUCATION
Shreveport, LA

Zachary Broussard
CARBO Landscape Architecture



Partner

Institutional | Commercial Studio Principal

15+ Years Experience

45+ Higher Ed and K-12 Projects

Bachelor of Landscape Architecture
Louisiana State University

Greg Papay
Lake Flato Architects



Partner

Schools Studio Co-Leader

35+ Years Experience

100+ K-12 and Higher-Ed Projects

Master of Architecture
University of Texas at Austin

LAKE FLATO

*TEXAS-BASED CONTEXTUAL &
LANDSCAPE FOCUSED ARCHITECTURE*







Awty International School
Houston, TX



Indian Springs School
Meadowbrook, AL

WHAT'S SO GREAT ABOUT THE OUTDOORS?



WHAT'S SO GREAT ABOUT THE OUTDOORS?

LEARNING

- Enhances Creativity
- Higher student performance
- Improves memory retention
- Improves environmental stewardship
- Provides inspiration
- Provides more diverse learning opportunities
- Improves social connectivity



WHAT'S SO GREAT ABOUT THE OUTDOORS?

LEARNING

- Enhances Creativity
- Higher student performance
- Improves memory retention
- Improves environmental stewardship
- Provides inspiration
- Provides more diverse learning opportunities
- Improves social connectivity

HEALTH

- Reduces Stress
- Boosts immune system
- Raises alertness
- Improve physical healing outcomes
- Provides serotonin (Improves sleep)
- Social connectivity = Health



MENTAL HEALTH & WELLBEING



SINCE COVID

Among those aged 5-18

MENTAL HEALTH & WELLBEING



SINCE COVID

Among those aged 5-18

- Incidents of severe depression has increased 10%

MENTAL HEALTH & WELLBEING



SINCE COVID

Among those aged 5-18

- Incidents of severe depression has increased 10%
- Emergency room visits for mental health incidents have increased 32%

MENTAL HEALTH & WELLBEING



SINCE COVID

Among those aged 5-18

- Incidents of severe depression has increased 10%
- Emergency room visits for mental health incidents have increased 32%
- Suicide rates are near their highest levels ever among teens

MENTAL HEALTH & WELLBEING



SINCE COVID

Among those aged 5-18

- Incidents of severe depression has increased 10%
- Emergency room visits for mental health incidents have increased 32%
- Suicide rates are near their highest levels ever among teens

Schools need to function both as places of mental well-being as well as places of learning!



A MOMENT OF INDEPENDENCE





CONNECTIONS WITH FRIENDS





THIS IS OBVIOUS!
EVERYONE KNOWS THE OUTDOORS IS GREAT

VALUE OF OUTDOOR LEARNING SPACES



VALUE OF OUTDOOR LEARNING SPACES



VALUE OF OUTDOOR LEARNING SPACES

COST vs VALUE



VALUE OF OUTDOOR LEARNING SPACES

COST vs VALUE

COST

Initial Construction

Annual Maintenance



VALUE OF OUTDOOR LEARNING SPACES

COST vs VALUE

COST

Initial Construction
Annual Maintenance

VALUE

Health
Aesthetics
Educational
Community | Cultural
Environmental



LANDSCAPES AS CLASSROOMS | SCIENCE



LANDSCAPES AS CLASSROOMS | TECHNOLOGY



LANDSCAPES AS CLASSROOMS | ENGINEERING



LANDSCAPES AS CLASSROOMS | MATH



LANDSCAPES AS ART



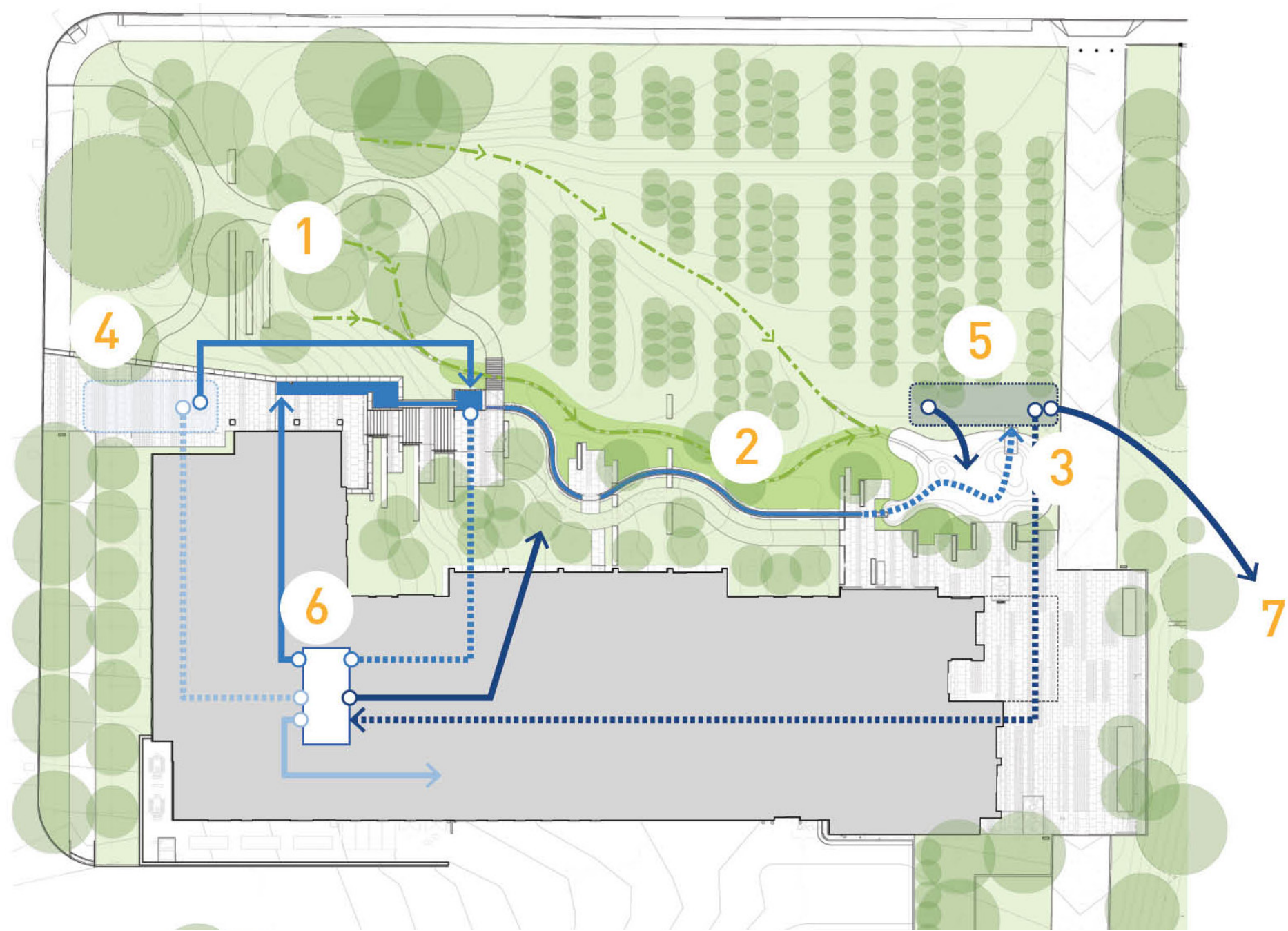
LANDSCAPES AS COMMUNITY SPACES



LANDSCAPES AS COMMUNITY SPACES



LANDSCAPES AS SYSTEMS



LANDSCAPES FOR HEALTH



CURRICULUM INTEGRATION



CURRICULUM INTEGRATION | CHEMICAL REACTIONS



CURRICULUM INTEGRATION | ROCKET SCIENCE



CURRICULUM INTEGRATION | ENERGY CONVERSION



CURRICULUM INTEGRATION



CURRICULUM INTEGRATION | SOLAR ENERGY



CURRICULUM INTEGRATION | CLIMATE & WEATHER



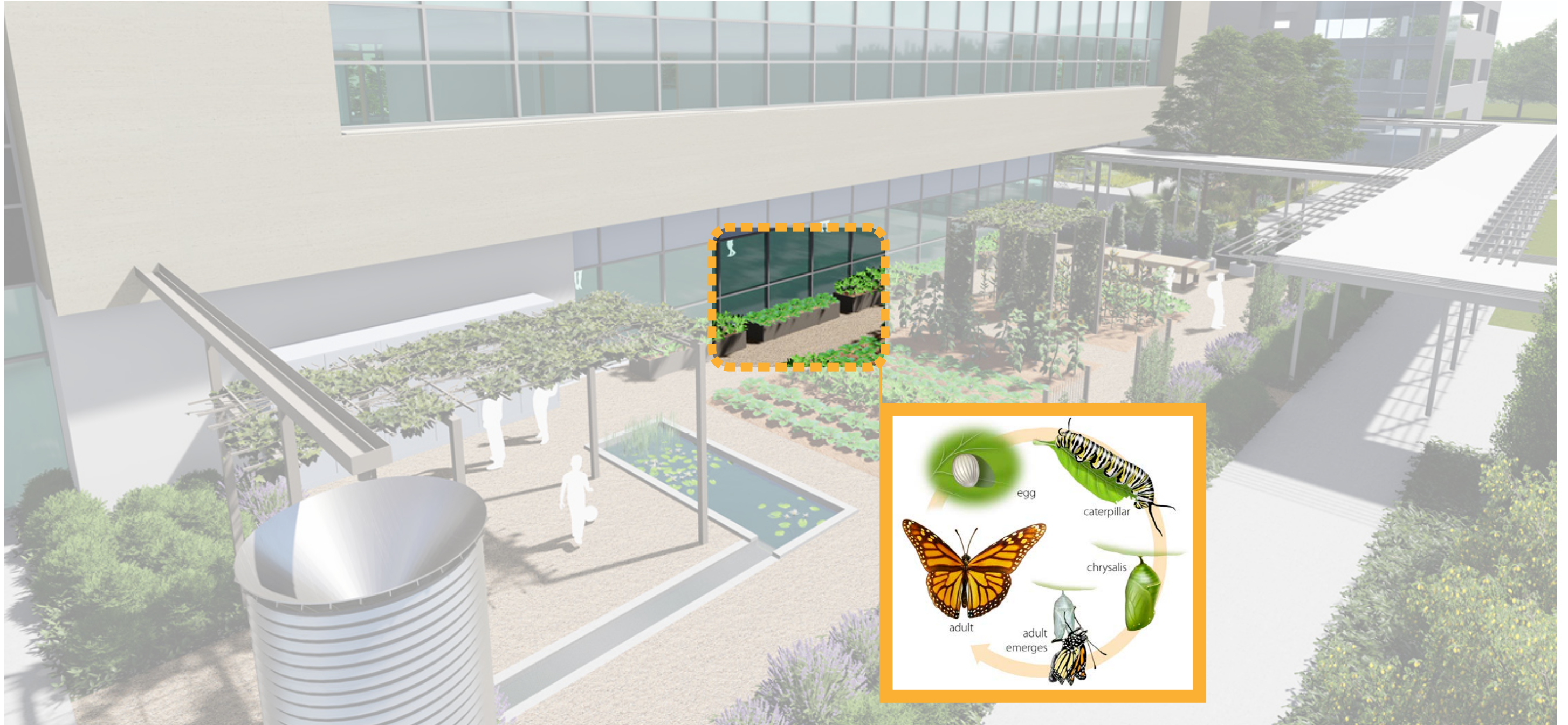
CURRICULUM INTEGRATION | GEOLOGICAL FORMATIONS



CURRICULUM INTEGRATION



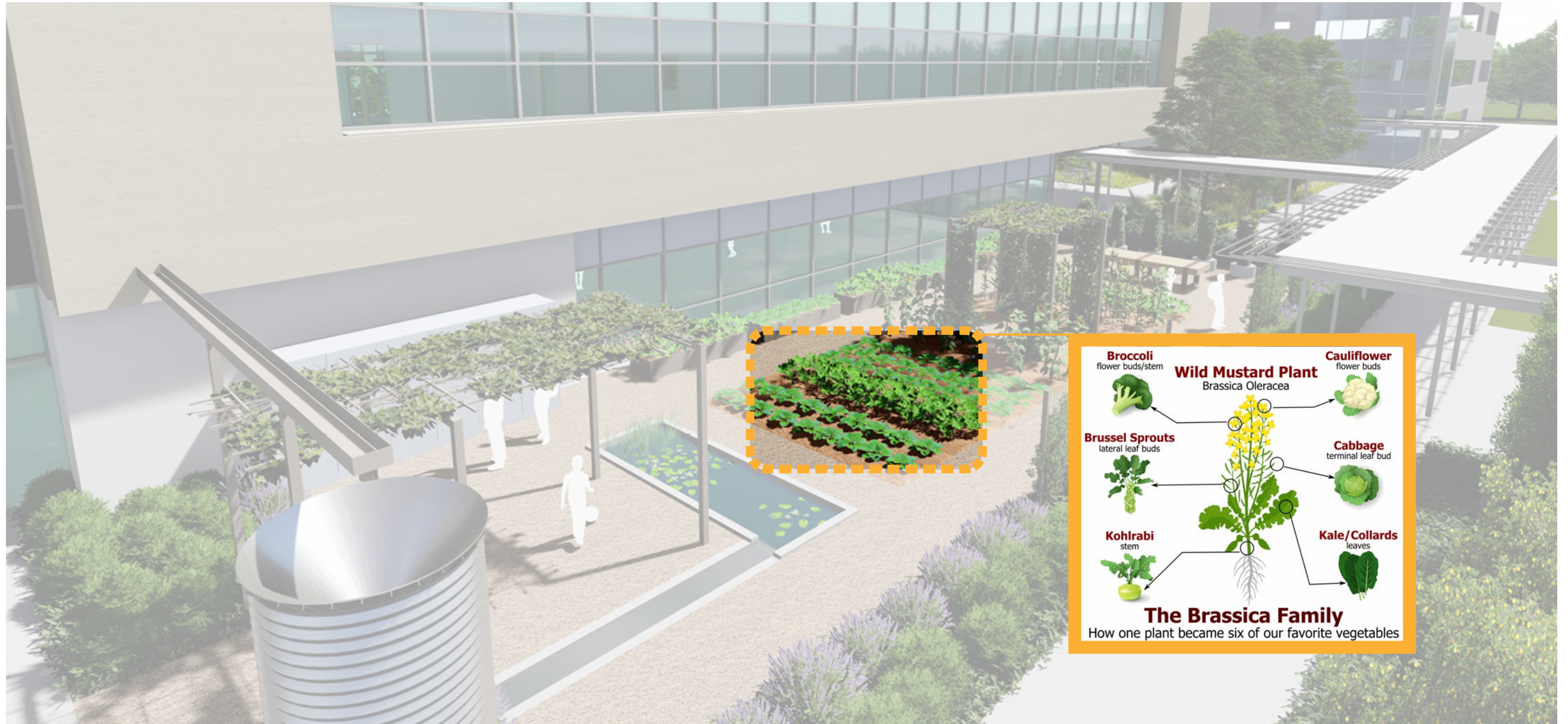
CURRICULUM INTEGRATION | LIFE CYCLES



CURRICULUM INTEGRATION | LIGHT & SHADOWS



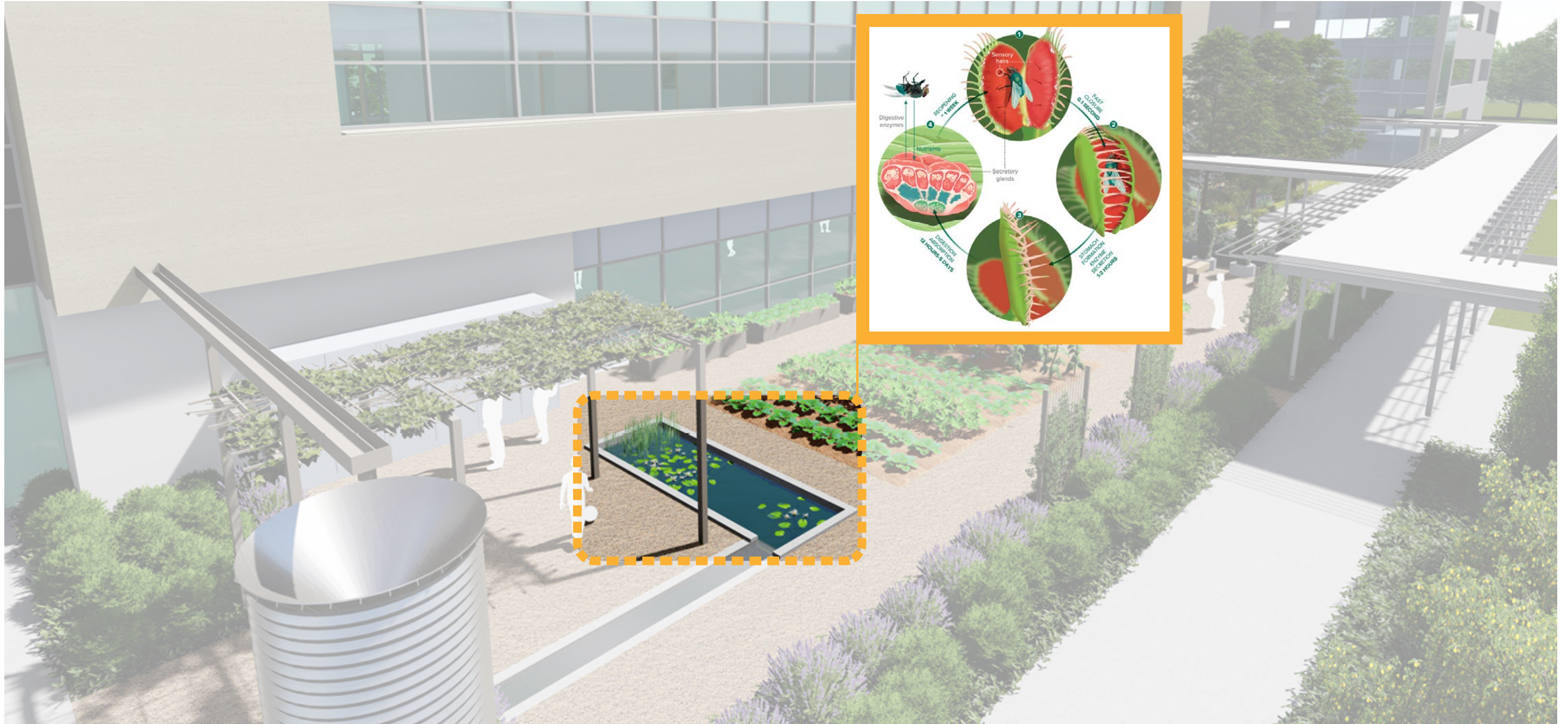
CURRICULUM INTEGRATION | GENETICS



CURRICULUM INTEGRATION | WATER CONSERVATION



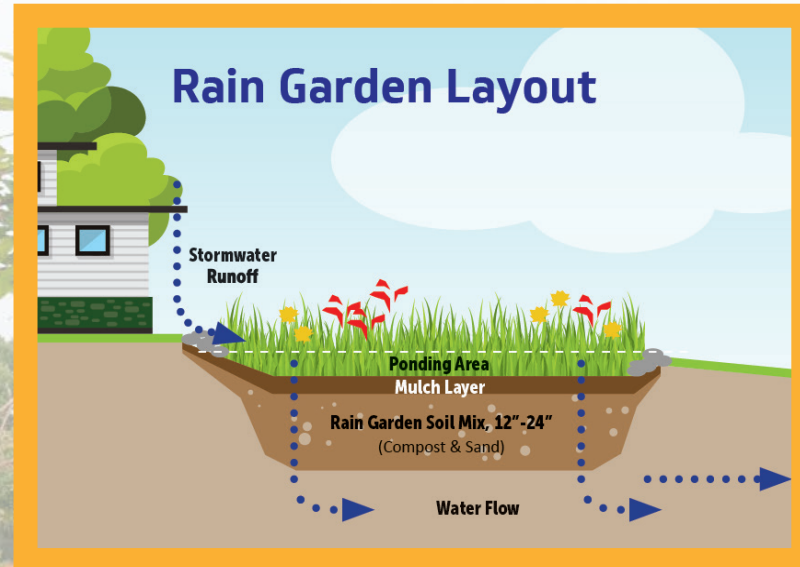
CURRICULUM INTEGRATION | BIOLOGY



CURRICULUM INTEGRATION



CURRICULUM INTEGRATION | ENVIRONMENTAL SCIENCE



CURRICULUM INTEGRATION | GEOMORPHOLOGY



CURRICULUM INTEGRATION | BIOMIMICRY



RESOURCES



American Society of
Landscape Architects

Cities Connecting
Children to Nature

21st CENTURY
SCHOOL FUND



Children & Nature Network

HOLISTIC DESIGN & PLANNING



AWTY SCHOOL HOUSTON



AWTY SCHOOL HOUSTON

- Original Proposal Building-First, Outdoors-last



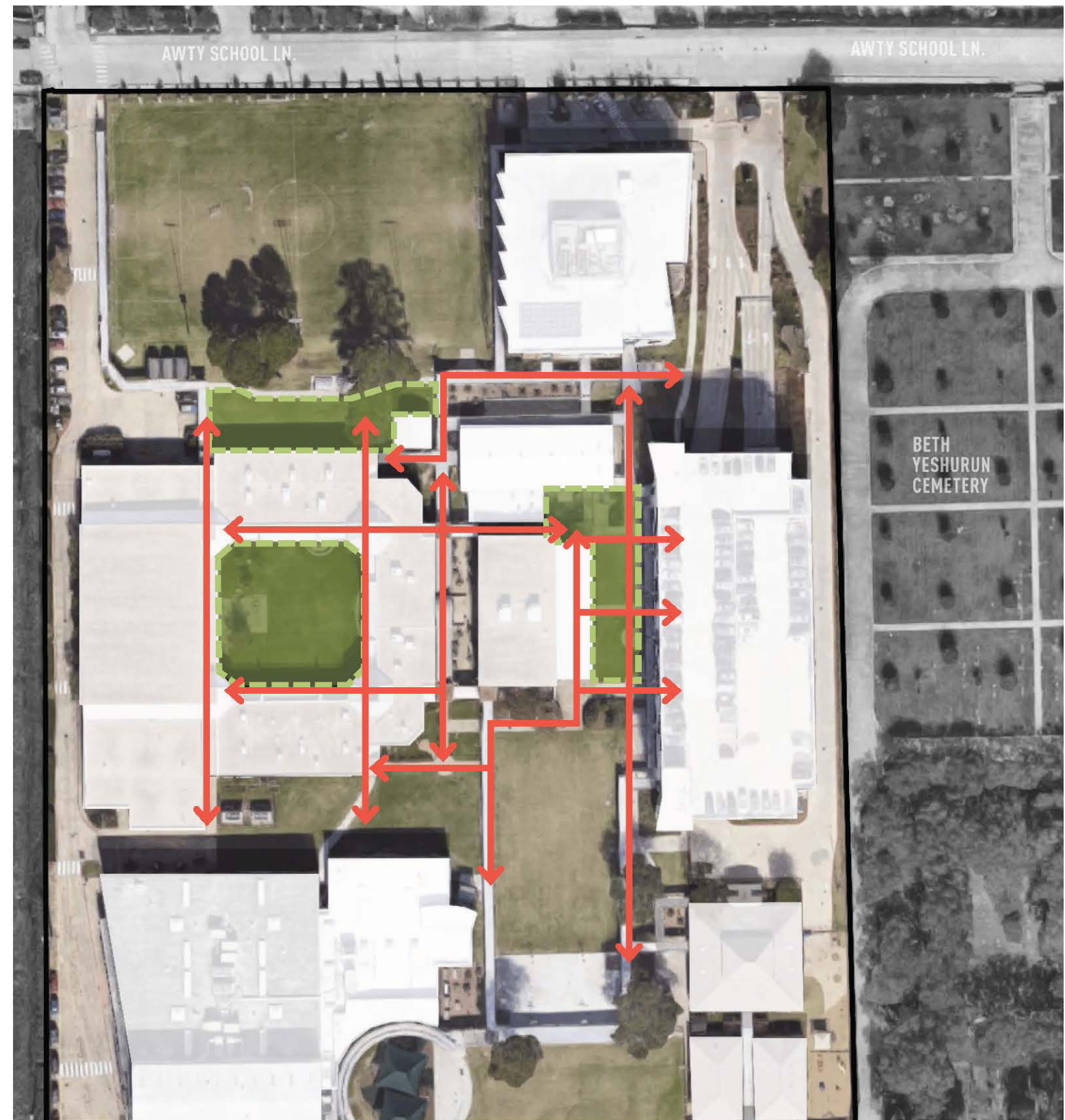
AWTY SCHOOL HOUSTON

- Original Proposal Building-First, Outdoors-last
- Existing Outdoor Spaces Undersized & Underutilized



AWTY SCHOOL HOUSTON

- Original Proposal Building-First, Outdoors-last
- Existing Outdoor Spaces Undersized & Underutilized
- Travel is fractured & Disjointed



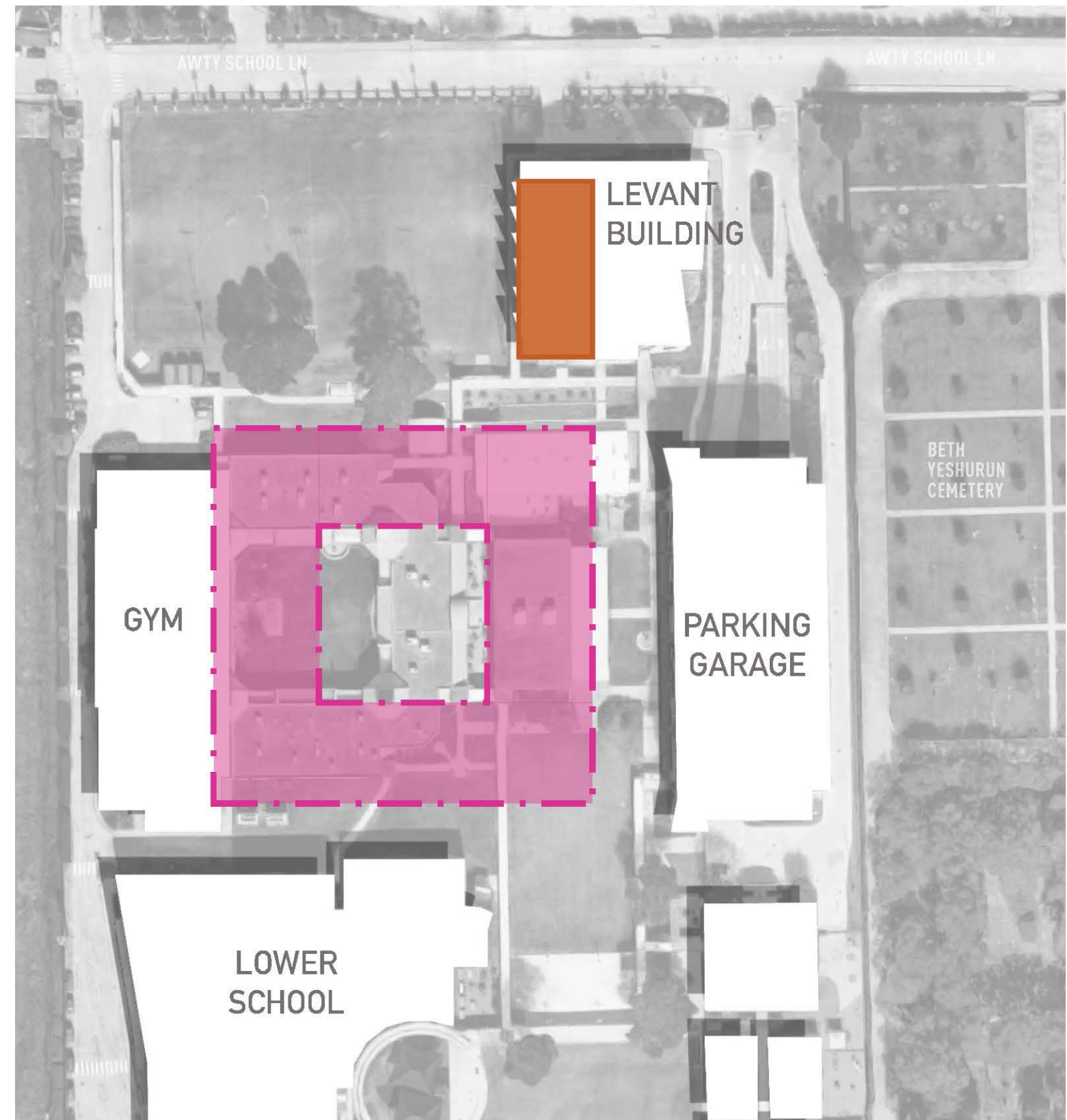
AWTY SCHOOL HOUSTON

- Original Proposal Building-First, Outdoors-last
- Existing Outdoor Spaces Undersized & Underutilized
- Travel is fractured & Disjointed
- Outdoor Opportunities are Challenging Because Most Campus Structures are 1-Story



AWTY SCHOOL HOUSTON

- From There We Proposed a Development Zone



AWTY SCHOOL HOUSTON

- From There We Proposed a Development Zone
- Development Zone Must Be Shaped By Outdoor Learning Spaces & Connections



AWTY SCHOOL HOUSTON

- From There We Proposed a Development Zone
- Development Zone Must Be Shaped By Outdoor Learning Spaces & Connections
- This Forms a True 'Heart of Campus'



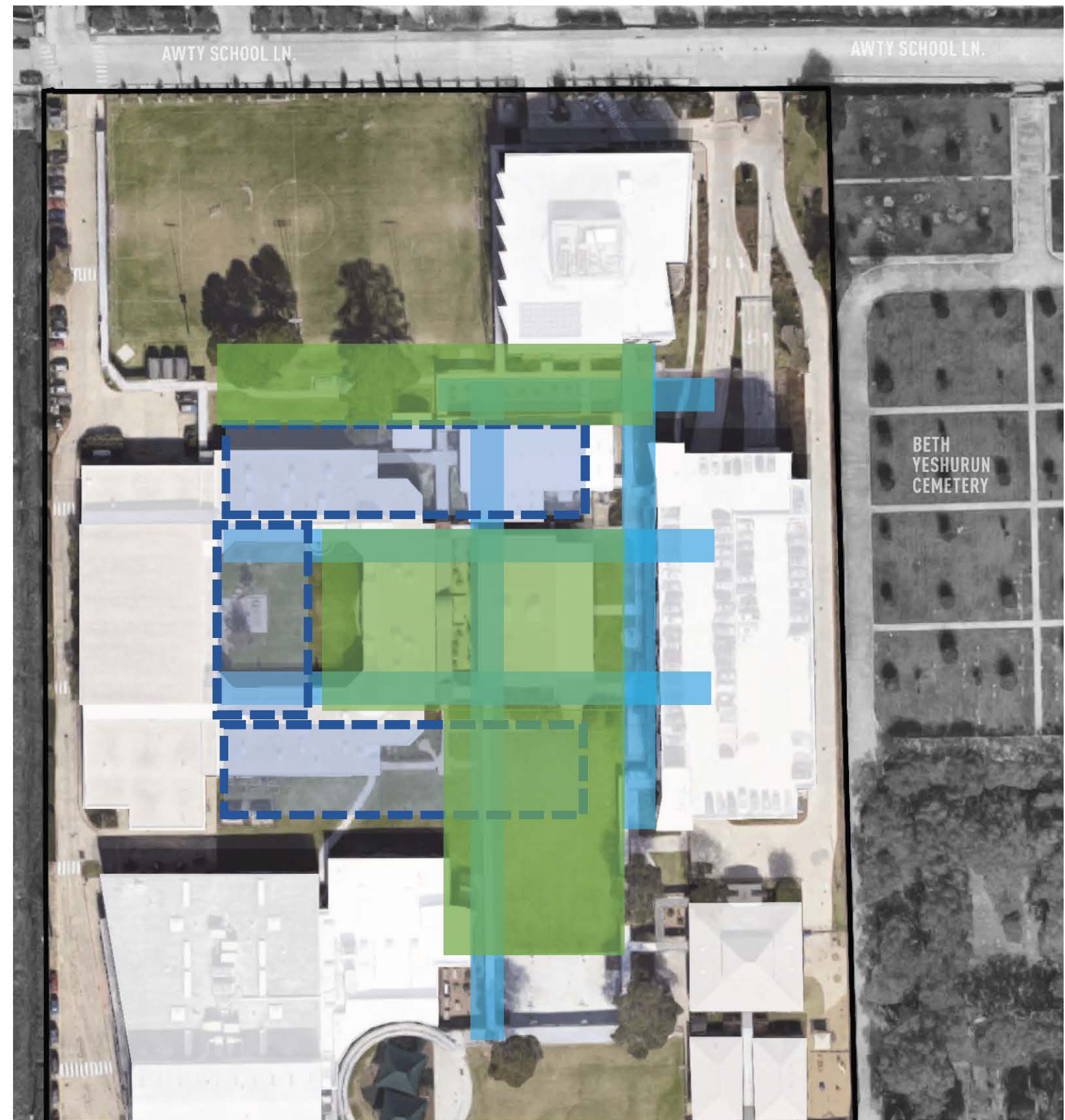
AWTY SCHOOL HOUSTON

- From There We Proposed a Development Zone
- Development Zone Must Be Shaped By Outdoor Learning Spaces & Connections
- This Forms a True 'Heart of Campus'
- Taller Structures To Open The Outdoors



AWTY SCHOOL HOUSTON

- From There We Proposed a Development Zone
- Development Zone Must Be Shaped By Outdoor Learning Spaces & Connections
- This Forms a True 'Heart of Campus'
- Taller Structures To Open The Outdoors
- Everything Comes Back to Enhancing the Outdoor Experience







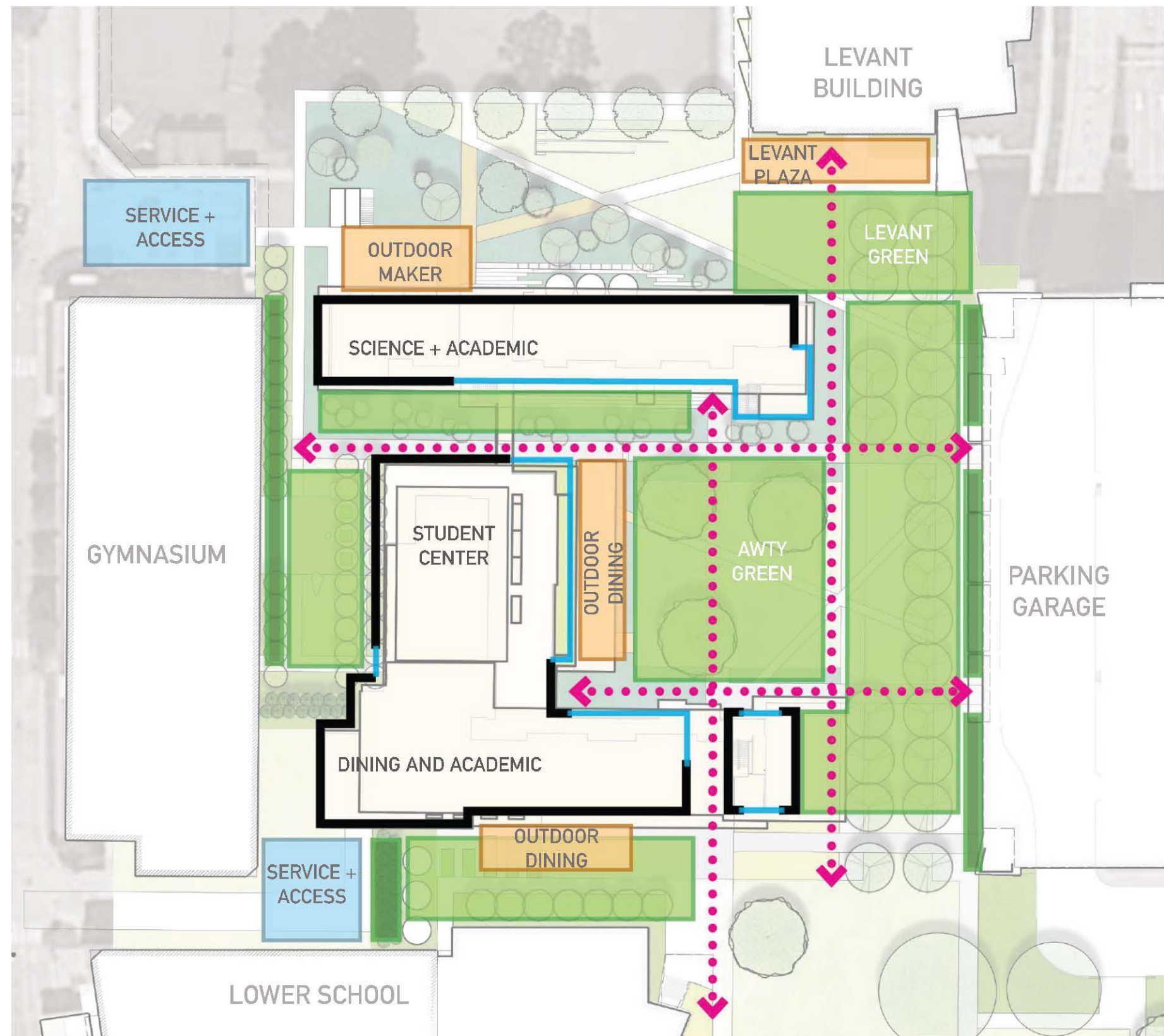
WHAT WAS OUR NEXT STEP?

COMMUNITY ENGAGEMENT



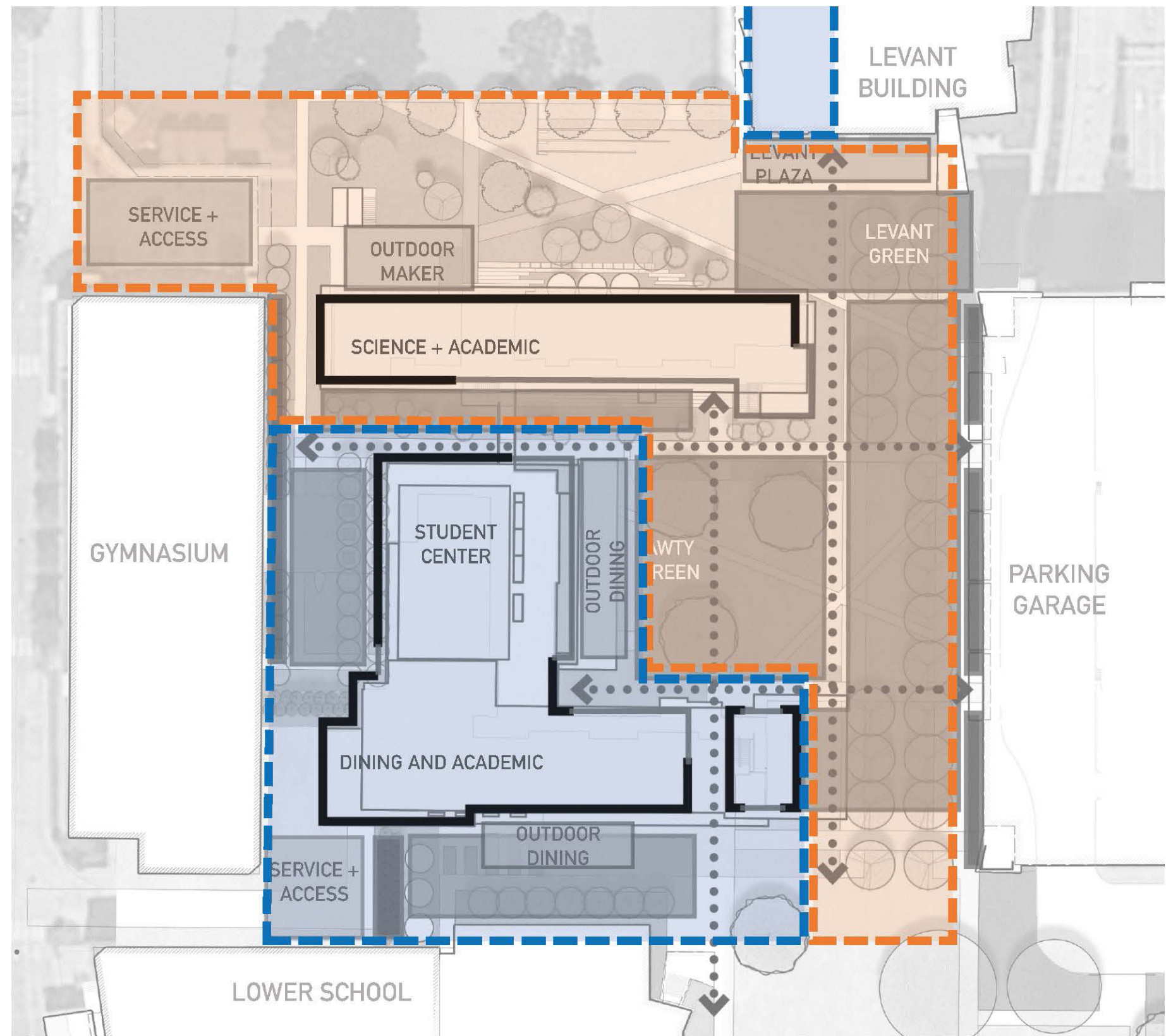
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*



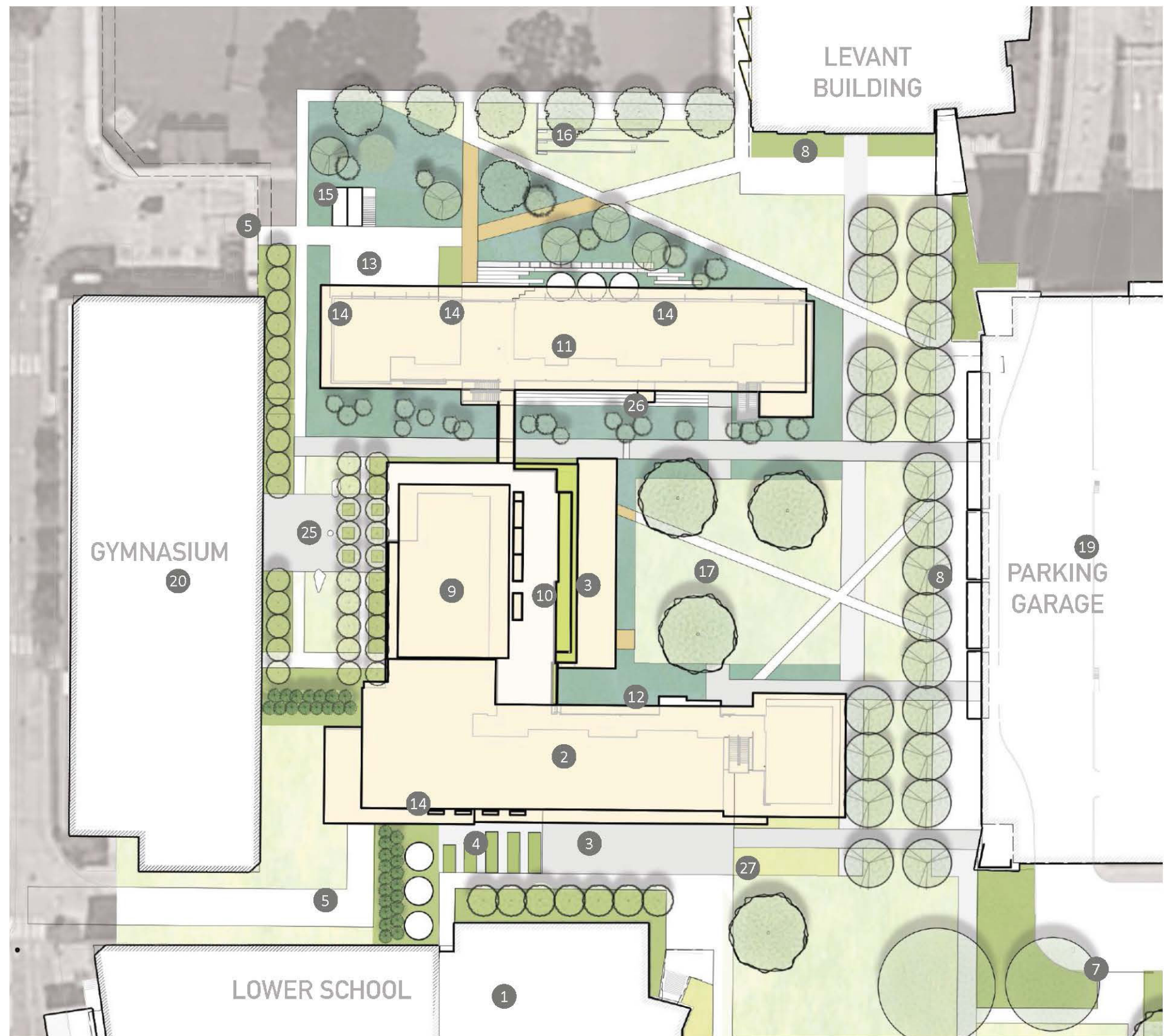
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture



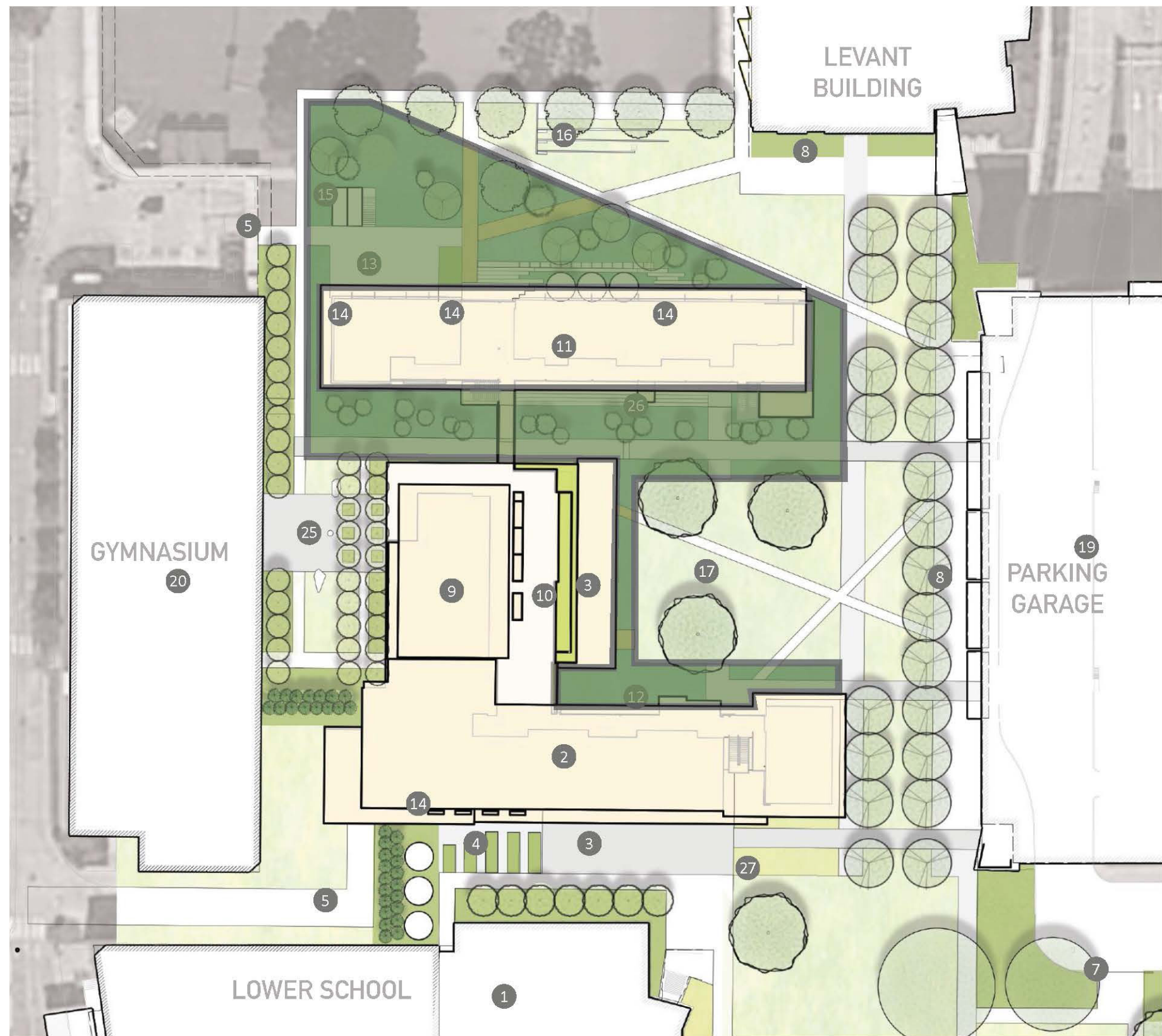
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors



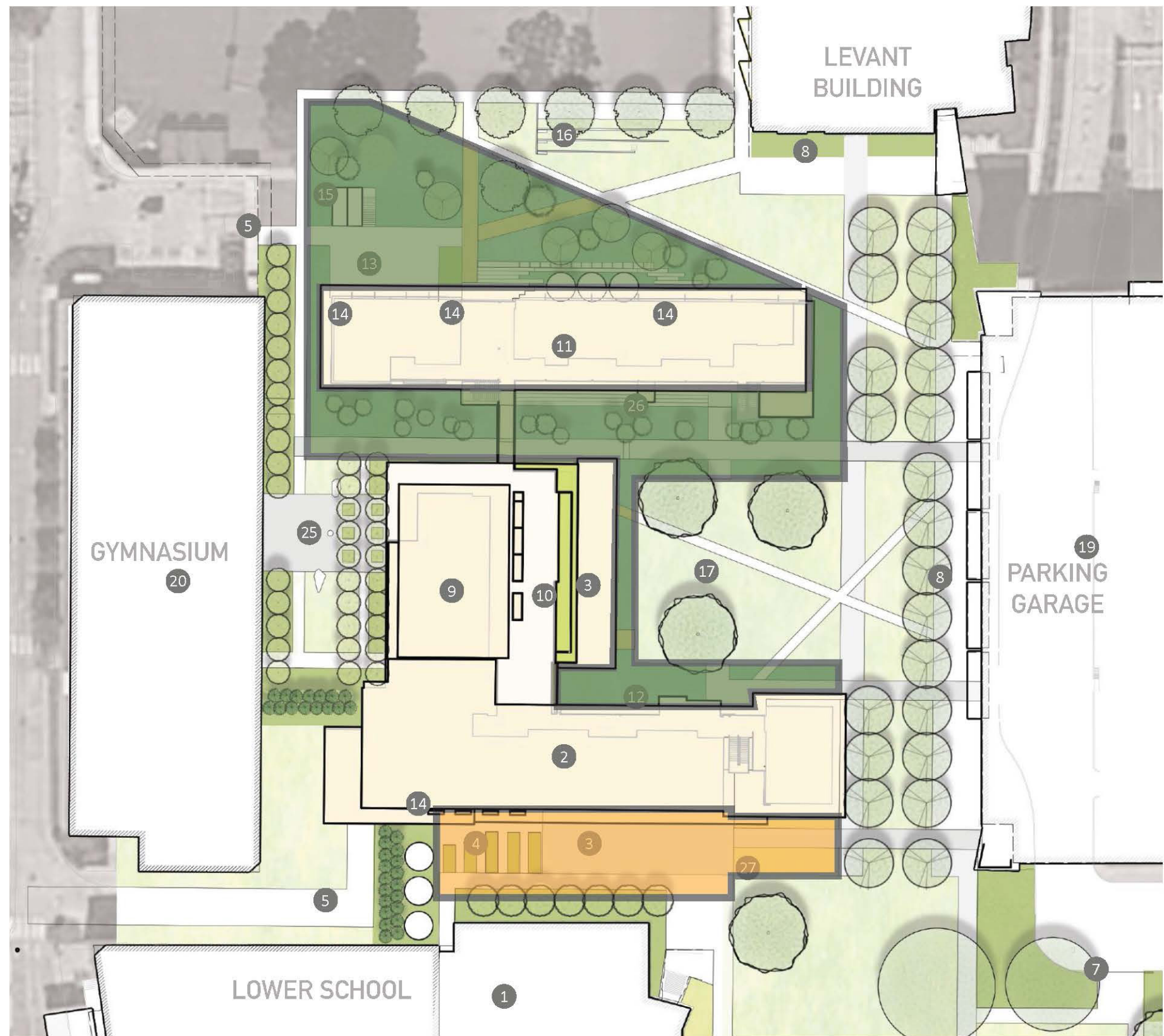
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors



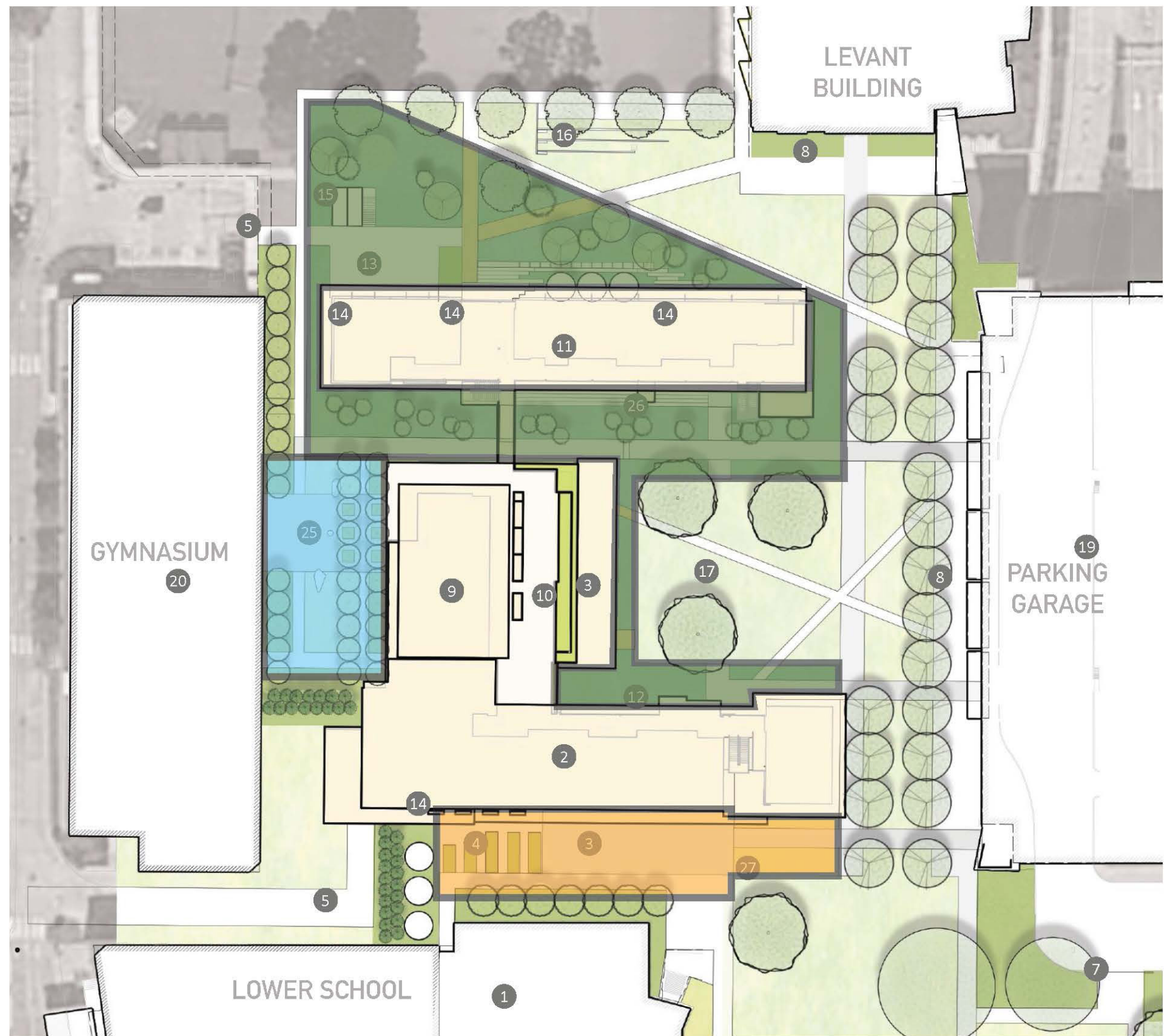
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors



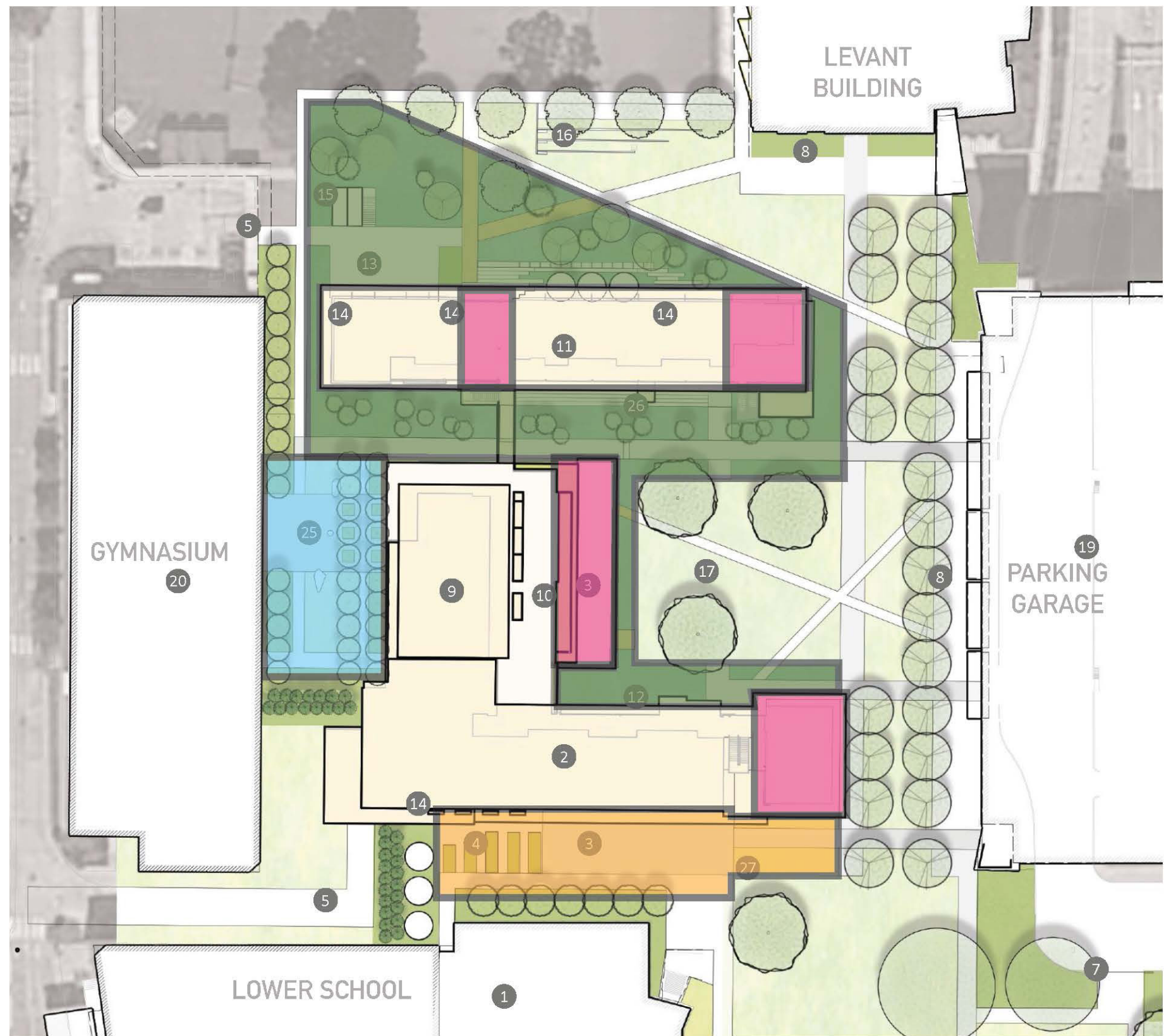
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors



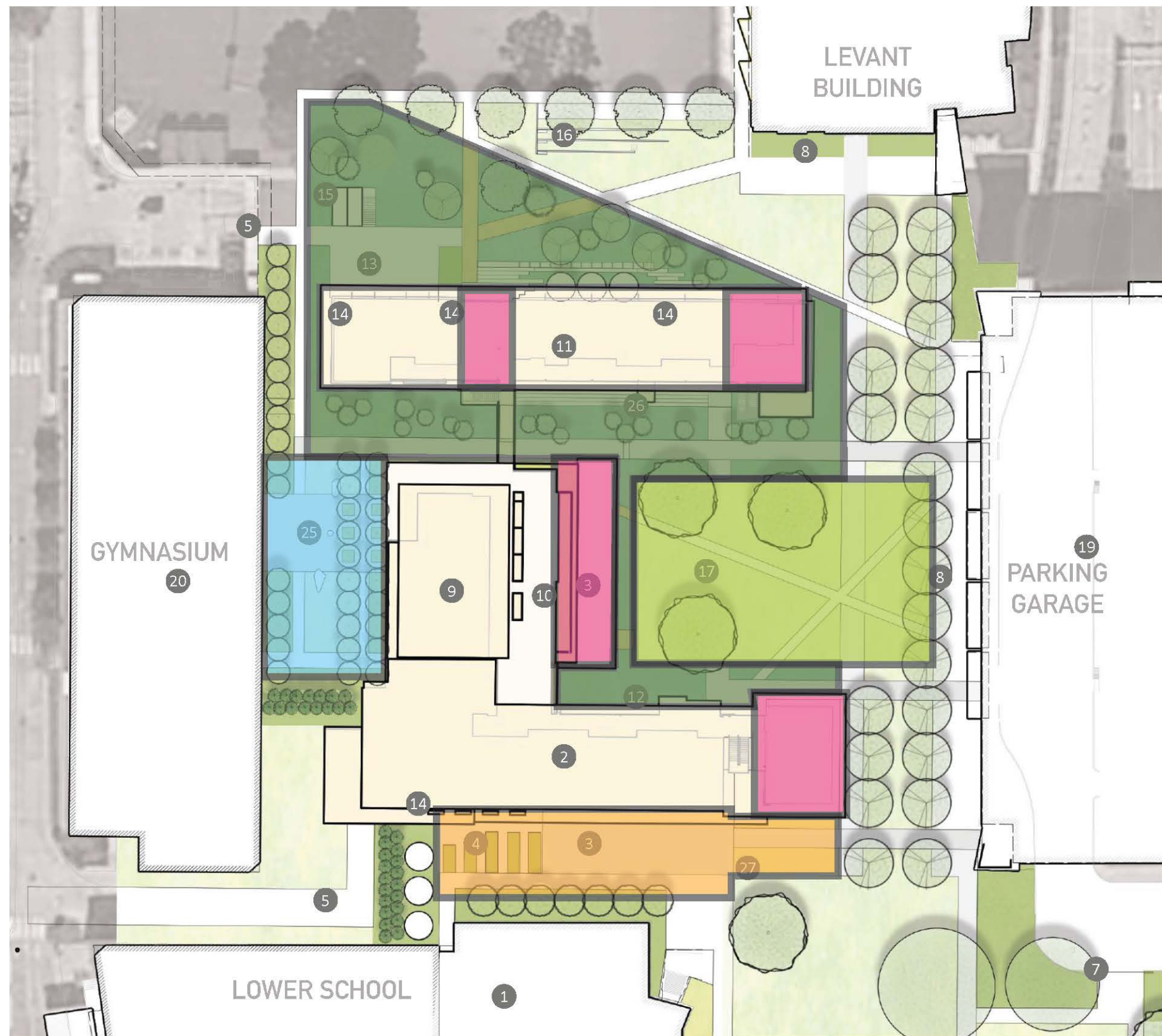
AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors



AWTY SCHOOL HOUSTON

- Develop the Outdoor Concept *First!*
- This Then Crucially Informs the Area For Architecture
- The End Result is Cohesive and Collaborative Play Between Indoors & Outdoors





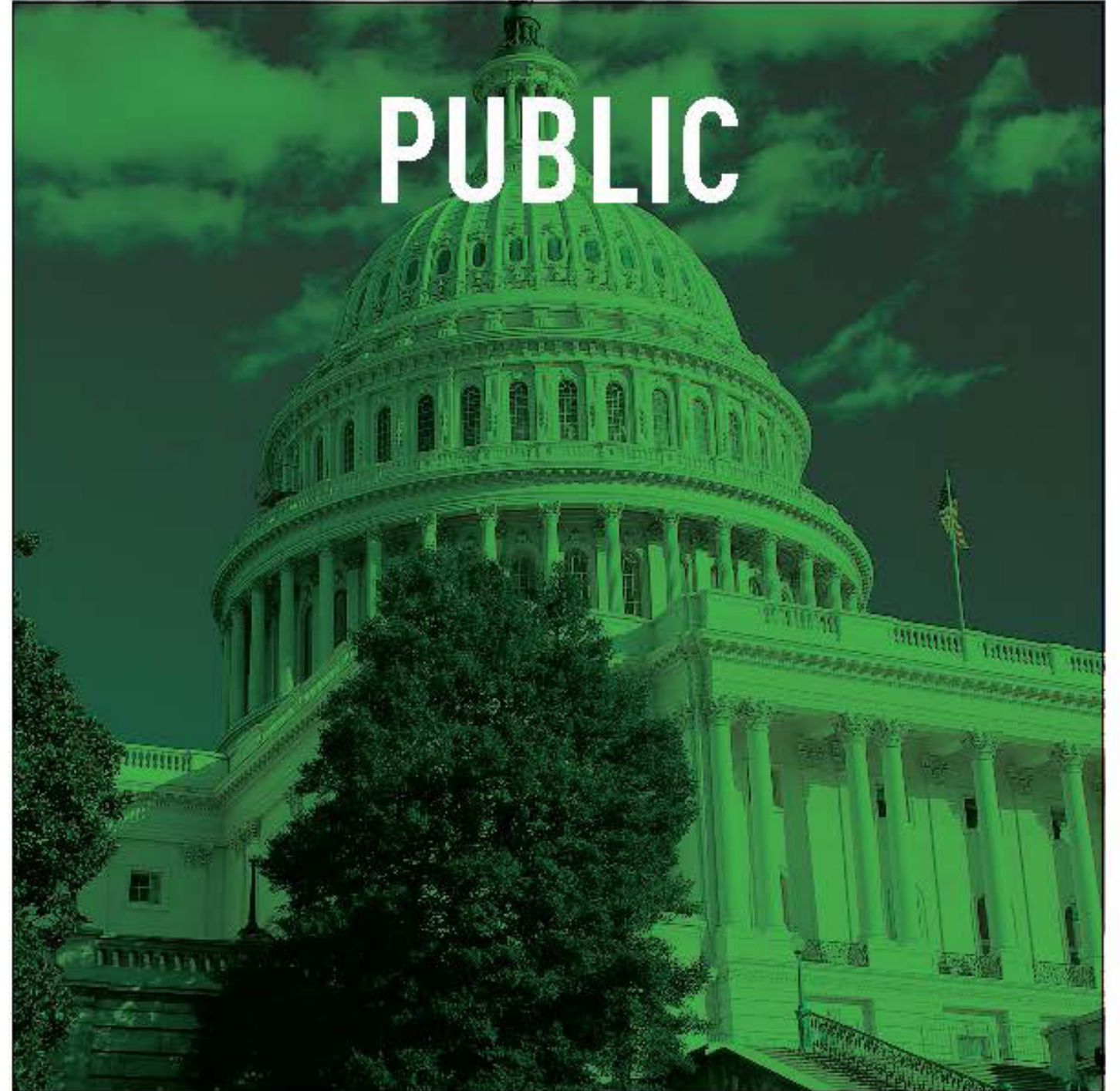


FUNDING OPPORTUNITIES

PRIVATE



PUBLIC



EDspaces

Designing the Future of Education
Charlotte, NC | November 7-9, 2023

Thank You!

Please scan the QR code to
provide session feedback.



SCAN ME