

ACC EXPANSION

BLPC/PFRC JOINT MEETING #3

OCTOBER 15, 2019



WELCOME



PROJECT UPDATES



MEET YOUR TEAM

BLPC / PFRC



Ted Black BLPC Chair

Barbara Kanninen School Board Liaison



Jim Lantelme PFRC Chair

Katie Cristol County Board Liaison

STANTEC



Derk Jeffrey

Francisco Waltersdorfer

Camilo Bearman

Haidi Liu

STAFF



John Chadwick

Jeff Chambers

Ben Burgin

Steve Stricker



Brett Wallace PFRC Coordinator

DESIGN TEAM



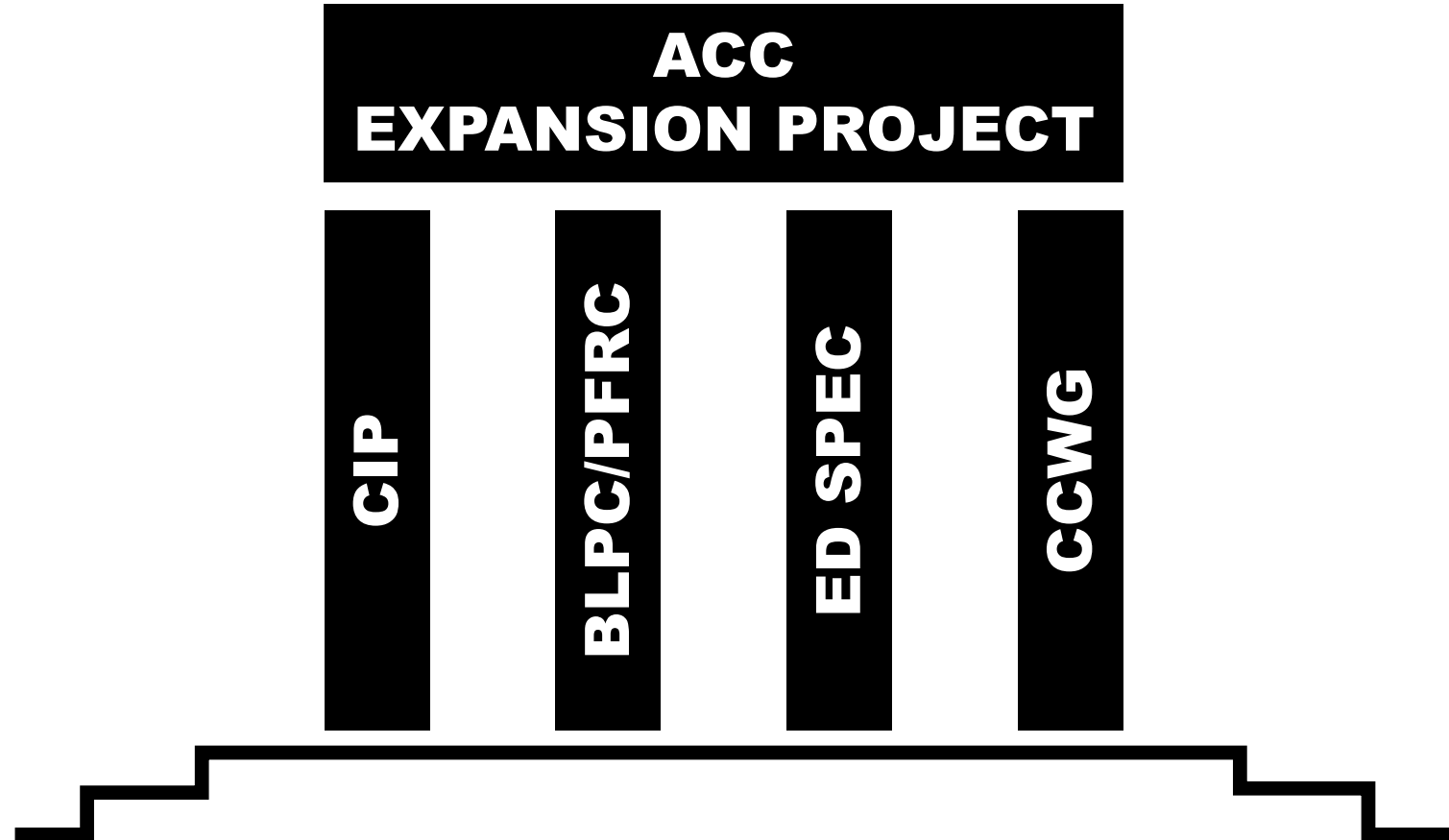
Robert B. Schiesel

CONSTRUCTION MANAGER

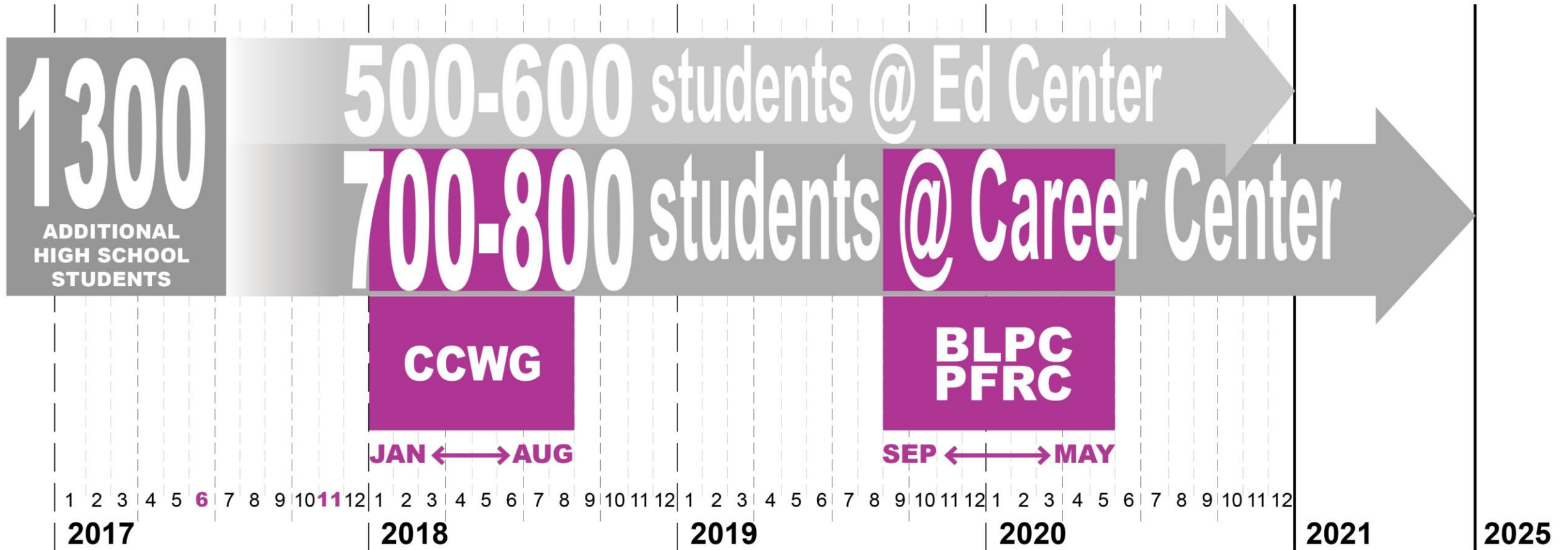


Tyler Swartzwelder

WHAT WE DISCUSSED: PROJECT BUILDING BLOCKS

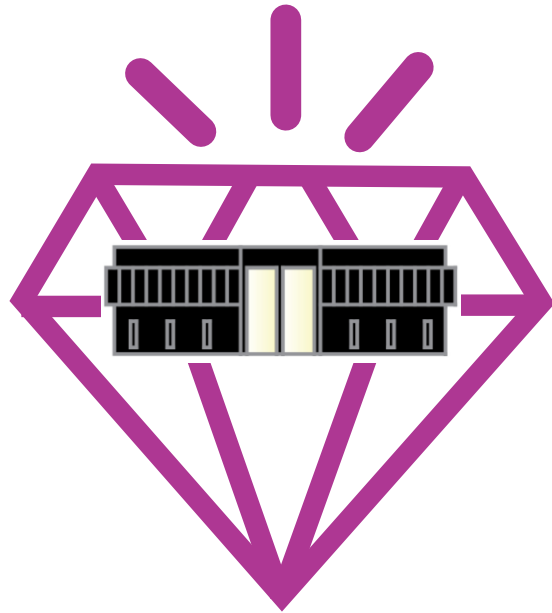


WHAT WE DISCUSSED: CCWG CONTEXT



WHAT WE DISCUSSED: CCWG RECOMMENDATIONS AND CHARGES

“Jewel of the Pike”



+

Study Area	Massing & Density
Future Expansion	Additional Amenities
Facility-Specific Items	Library Subcommittee
Transportation & Parking	Implementation Plans

WHAT WE DISCUSSED: TRANSPORTATION

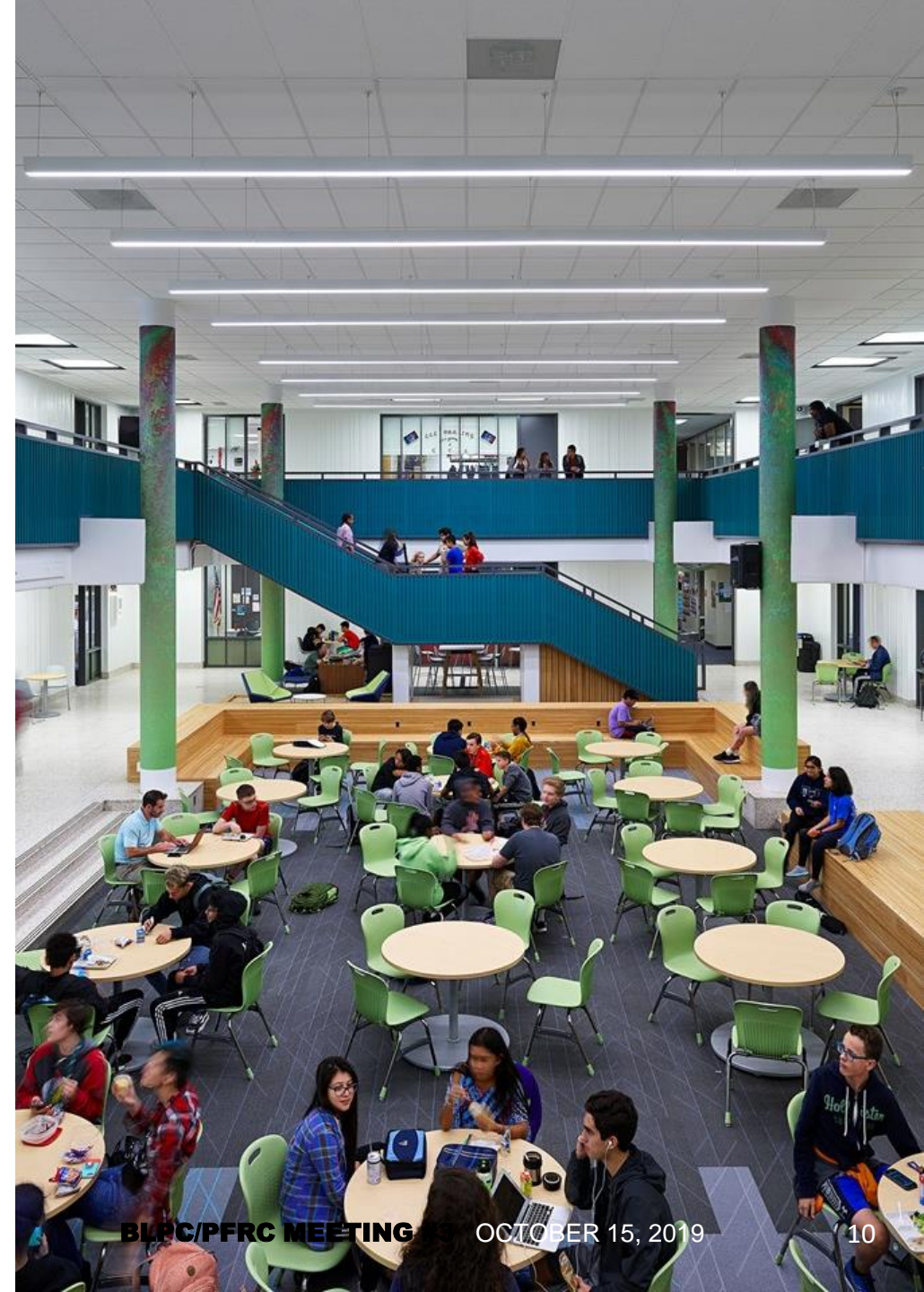


AGENDA



AGENDA

1. Arlington Career Center Programs
2. Educational Specifications
3. Building Analysis
4. Public Comments
5. Adjourn



ARLINGTON CAREER CENTER PROGRAMS

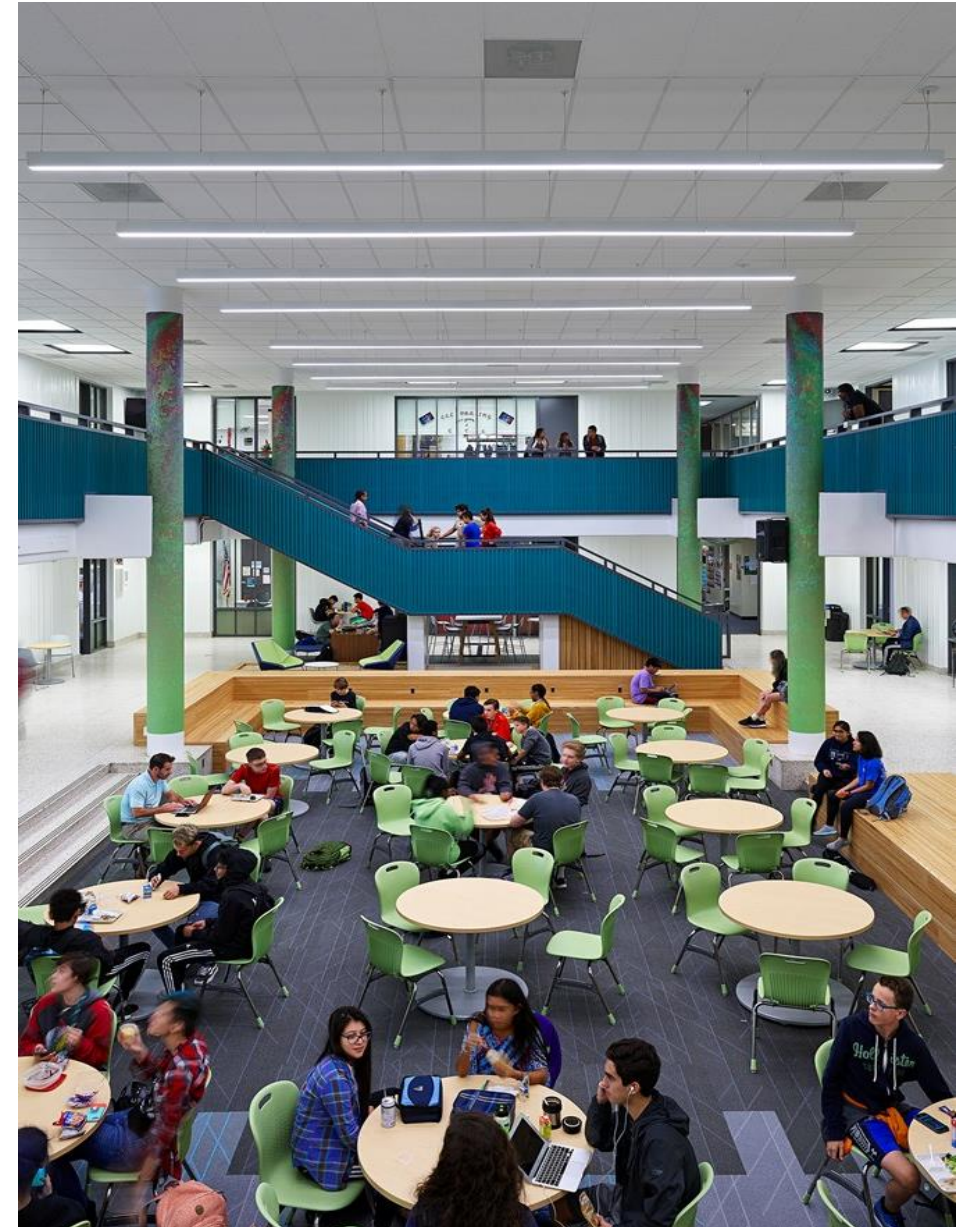


WELCOME TO ACC!



THE ACC JOURNEY

1. Who We Are.
2. Becoming ACC.
3. The Big Ideas.



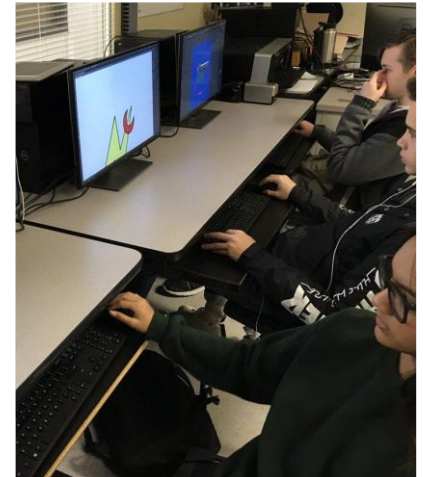
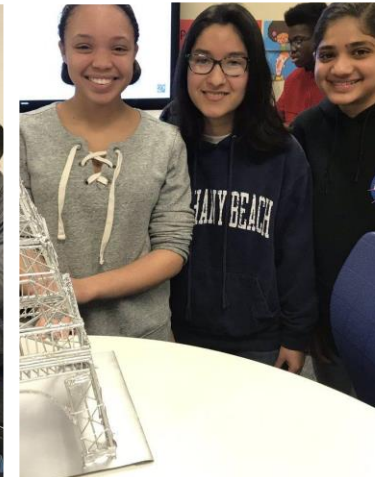
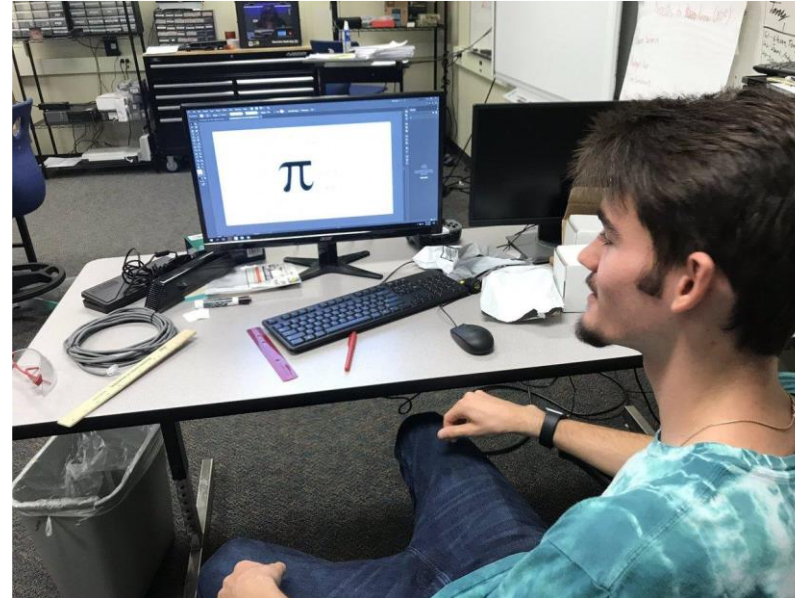
ACADEMIC ACADEMY IS...

- Small Class Sizes.
- Individual Mentoring.
- Personalized Learning.



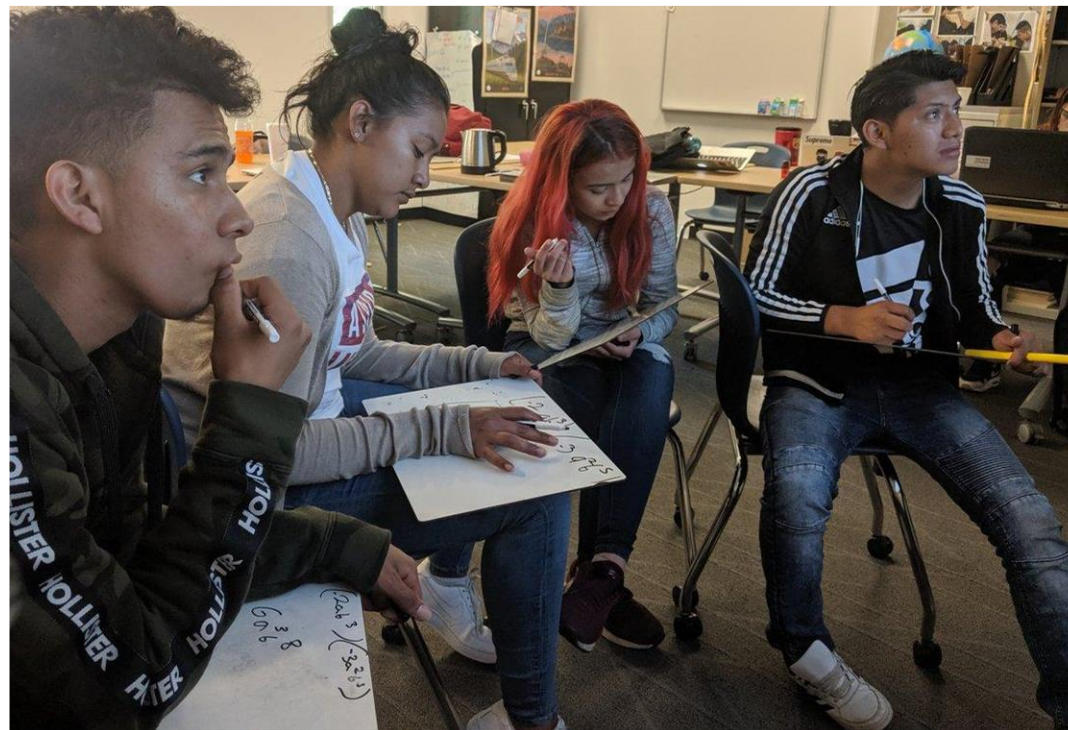
ARLINGTON TECH IS...

- Inquiry Learning and Student Empowerment.
- Developing Institutionalized PBL Process



HILT INSTITUTE IS...

- Supportive Family-like Environment.
- Student Success in College and Careers.



PEP IS...

- Travel Training.
- Independent Living Skills.
- Internships & Workplace Skills



TEEN PARENTING IS...

- Parenting education.
- Caring center for children.
- Comprehensive health and social services.

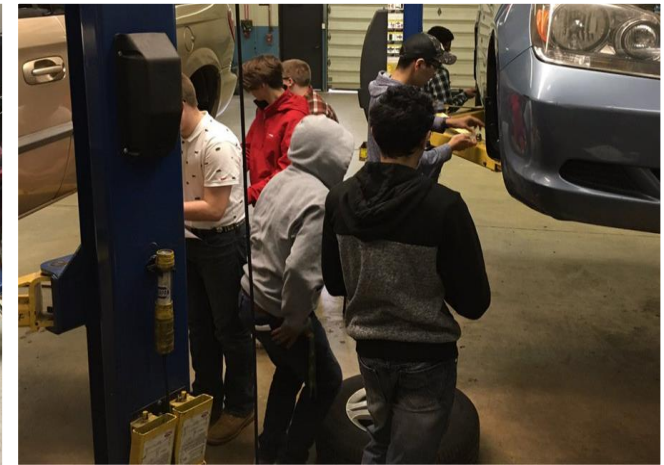


ENGINEERING / TRADES-INDUSTRIAL

DE-Dual Enrolled Courses

*National/State Licensure or Certification

- Aviation*
- Auto-Tech* (DE)
- Auto Collision Repair
- Robotics
- Engineering
- Networking / Electricity*



IT / DIGITAL MEDIA

DE-Dual Enrolled Courses

*National/State Licensure or Certification

- Computer Programming (DE)
- Cyber Security* (DE)
- Digital Photography
- Graphics / Digital Animation*
- TV Production (DE)
- Web Design (DE)

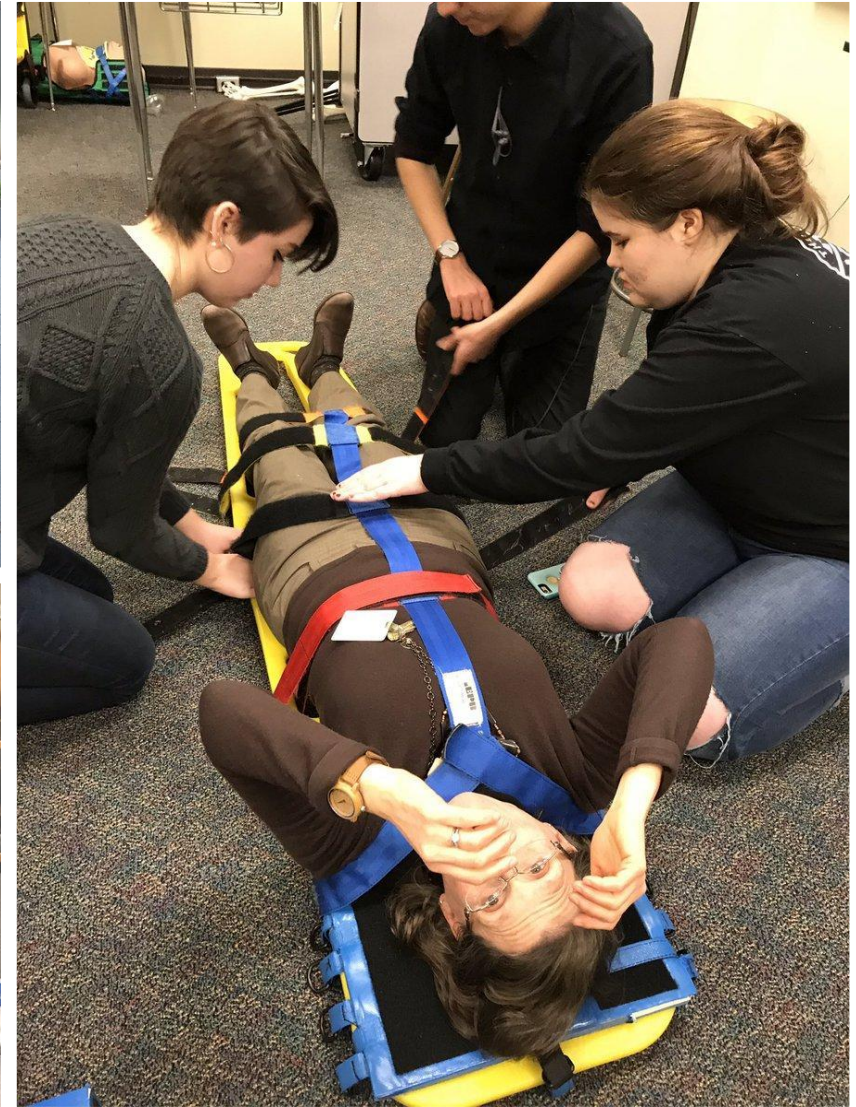


HEALTH AND MEDICAL

DE-Dual Enrolled Courses

*National/State Licensure or Certification

- Animal Science / Vet Tech
- EMT* (DE)
- Forensic Science
- Health and Medical Terminology (DE)
- Pharmacy Tech *
- Physical Therapy/Sports Medicine



HUMAN / PUBLIC SERVICES

DE-Dual Enrolled Courses

*National/State Licensure or Certification

- Culinary Arts
- Cosmetology / Barbering*
- Early Childhood Education* (DE)
- AF - JROTC



BECOMING ACC... OUR JOURNEY

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Academy	40	37	42	48	48
Arl Tech		38	106	183	291
HILT	73	62	68	65	67
PEP	40	43	51	52	66
CTE (only)	653	713	675	626	633
Total	806	893	942	974	1,105

BECOMING ACC... OUR JOURNEY

WHAT WORKED

- **Breakout spaces near classrooms.**
- **Flexibility of learning environment.**
- **Integrated.**
- **Visibility between Auto Tech classrooms and lab space with windows.**
- **Creating private and intimate spaces (prayer room, group rooms).**

WHAT DIDN'T WORK

- **Isolation of programs in corners.**
- **Departmentalization of classes.**
- **No area for all students to come together**
- **Commons furniture to work with flexibility of the space.**
- **Lack of offices and conference spaces.**
- **Continued enrollment without proper space impacts our ability to provide a quality program.**

CELEBRATING CULTURE & COMMUNITY EVENTS



INFORMAL / FLEXIBLE / BREAKOUT LEARNING SPACES



OFF THE PIKE!



TRANSFORMATIONAL USE OF SPACE



TRANSFORMATIONAL USE OF SPACE



OWNING THE SPACE



CAPACITY/SEATING CHALLENGES



EMPOWERING OUR STUDENTS



THE BIG IDEAS

1. Community
2. Connectivity
3. Change



EDUCATIONAL SPECIFICATIONS

Arlington Career Center Expansion

DRAFT

Space Program

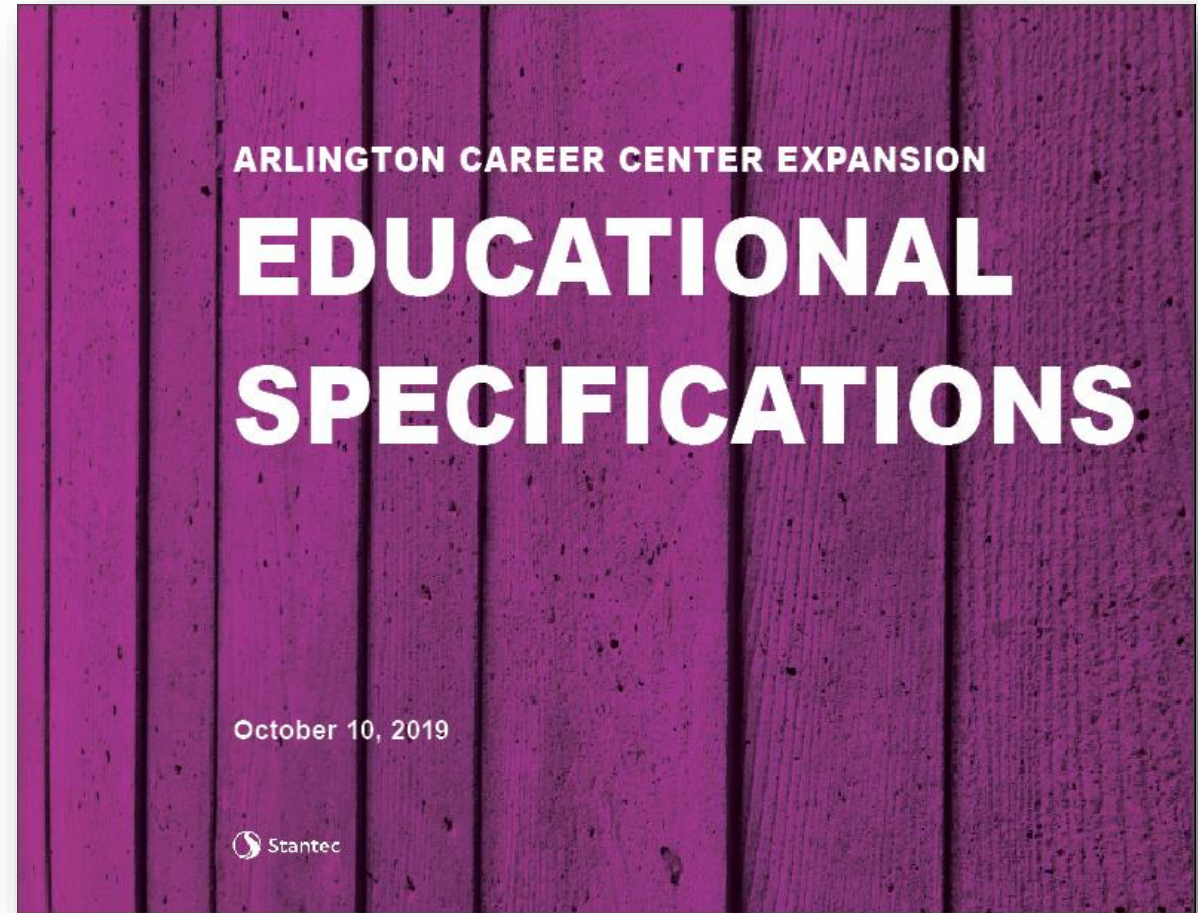
9.24.19

Capacity: 1,000 Students / 800 High School Option Seats + 400 Arlington Tech, 200 CTE-only, 70 HLT, 60 Academic Academy, 70 PEP
 Student/Teacher Ratio: Arlington Tech 20:1, 24:1 @ science lab, CTE 20:1, HLT/Academic Academy 15:1, PEP/Special Ed 10:1
 Utilization: 85%
 Total Teaching Stations: 123 119 CTE: 44, Arlington Tech: 57, Academy/HLT: 10, PEP: 8) + 5 (Visual/Perf. Arts) + 1 (Fitness)

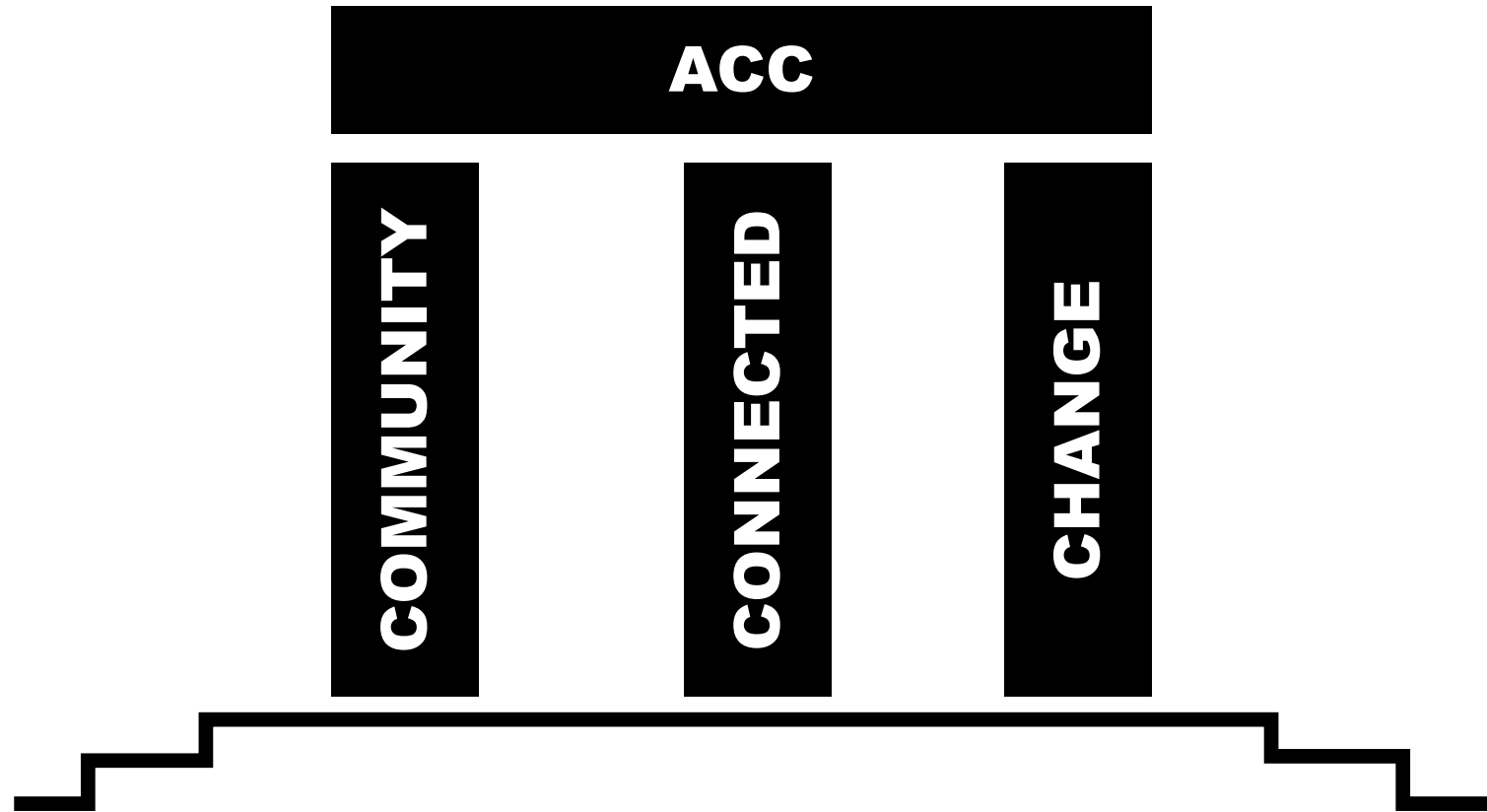
PROGRAM AREA DESCRIPTION	NSF / Space	CTE	Art. Tech	Acad./ HLT	PEP	Total Spaces	NSF Ext'd	TS	NOTES
ACADEMIC / TECHNICAL									
Core Instruction									
Classroom	700		38	8		44	30,800	44	
Universal Lab (Science)	1,400		12	2		14	19,600	14	
Prep Room	400		6	1		7	2,800		
Chemical Stg	100		1			1	100		
Subtotal							53,300	58	
Special Education									
Special Needs Classroom	700		4		8	12	8,400		
Life Skills Lab	1,000				1	1	1,000		
Toilet / Changing	100				1	1	100		
Storage	200				1	1	100		

ED SPECS FOR THE ACC EXPANSION

1. Developed through a series of collaborative meetings with representatives from Department of Teaching and Learning, Arlington Career Center and Facilities and Operations
2. Reflect APS and ACC pedagogy
3. Are adaptable to future instructional changes



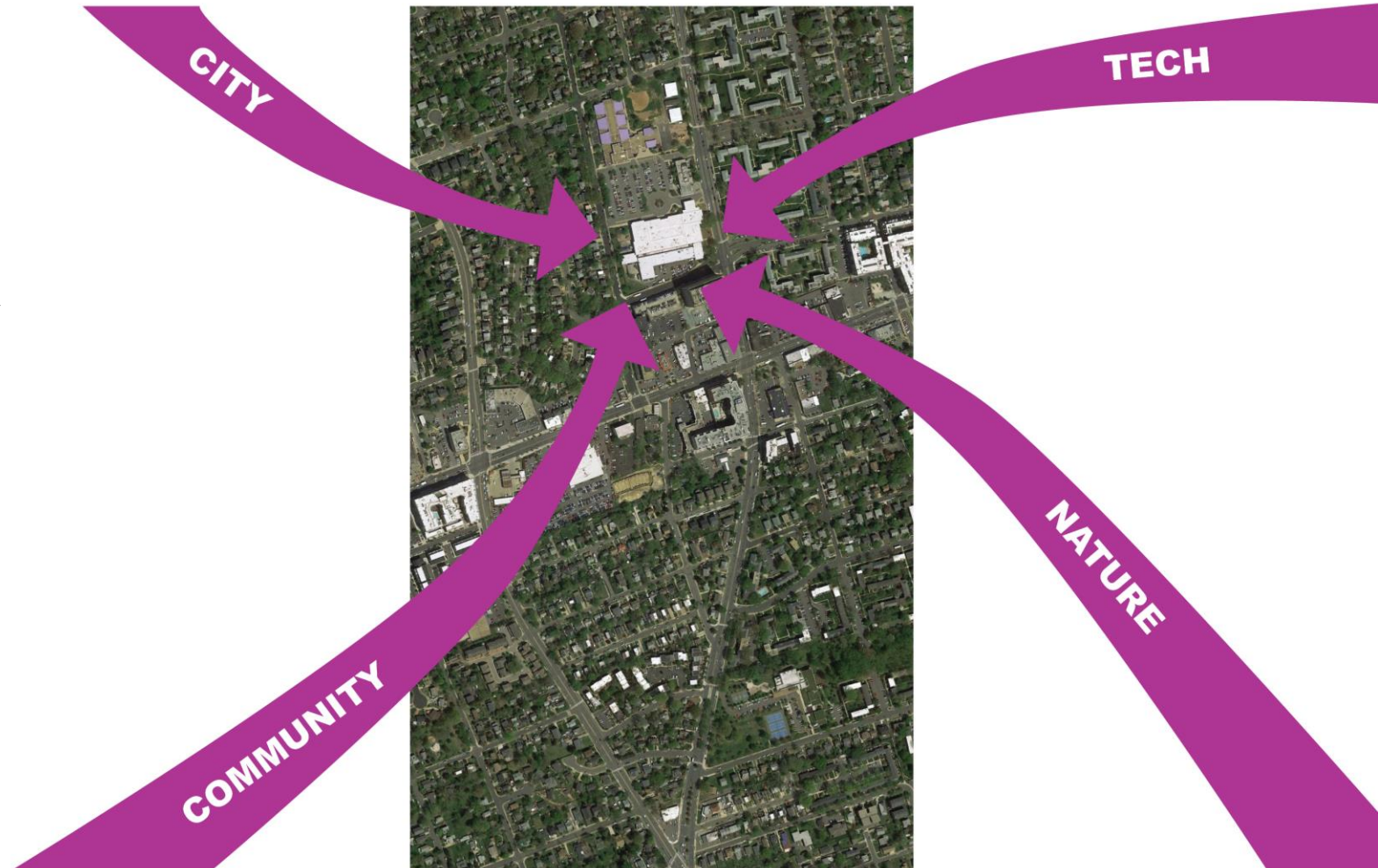
FRAMEWORK FOR EXPANSION



FRAMEWORK FOR EXPANSION

COMMUNITY

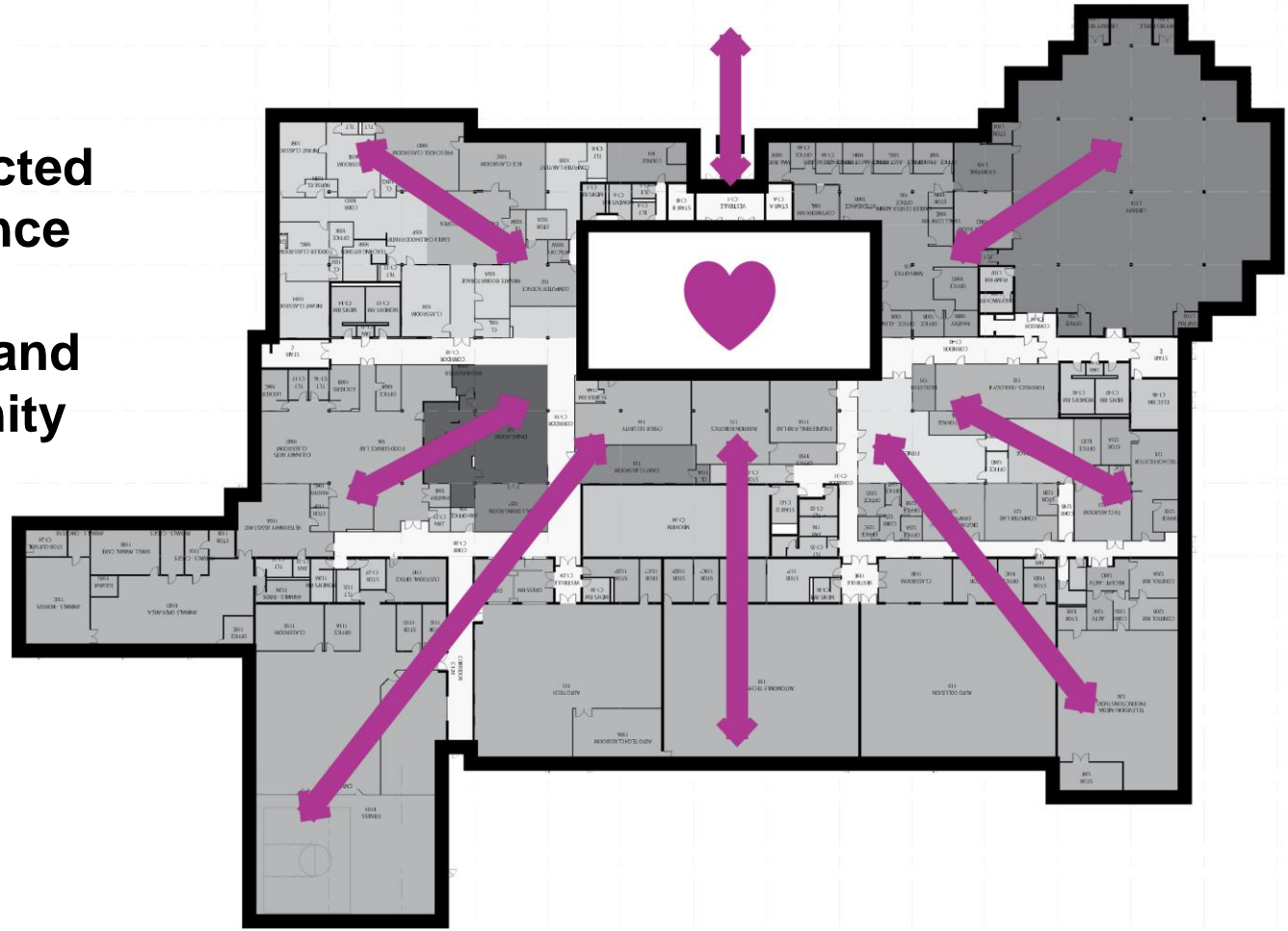
- Part of the community it serves
- Relies upon strong relationships with school, business and higher education partners



FRAMEWORK FOR EXPANSION

CONNECTED

- Students and staff at ACC connected in common purpose and experience
- Different instructional programs and students are united as a community of learners



FRAMEWORK FOR EXPANSION

CHANGE

ACC is on the path of transformation from the inside-out, characteristics of:

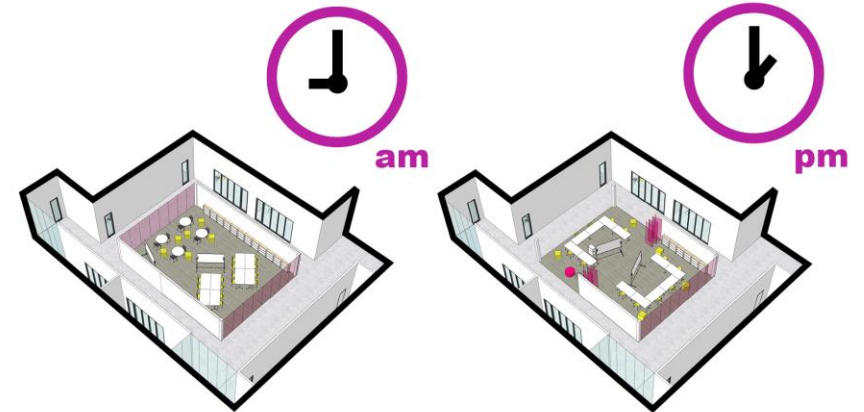
'NOT SO PRECIOUS'

EASILY ADAPTABLE

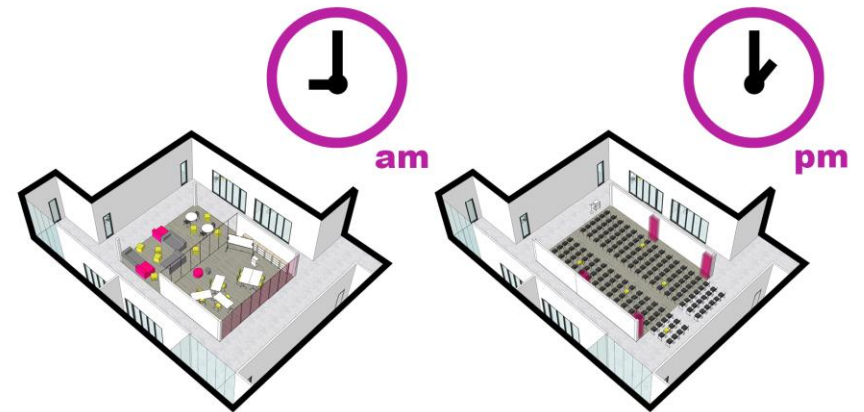
MULTI-FUNCTIONAL

COMMUNITY-ORIENTED

will continue to define its campus.



2019



2029

PLANNING PARAMETERS

1. Planning parameters are aligned with school, APS and DOE strategic initiatives
2. Program and capacity analysis for the following instructional programs inform facility requirements in these Ed Specs:

Program	Planned Enrollment (min.)
Arlington Tech	600
TBD ¹	800
CTE (from neighborhood HS) ²	300
Academic Academy	60
EL (formerly HILT)	70
<u>PEP</u>	<u>70</u>
Total	1,900

1. Ed. Specs. assume the space requirements and facility needs are similar to those of the Arlington Tech program.
2. Provides capability of serving up to 900 students each day; 300 students in each of three blocks.

1.2 Programs and Capacities

Instructional Programs

CTE

Serves students seeking to supplement academic instruction with applied, hands-on, technical training in a variety of programs offered in industry-simulated settings.

*In addition to serving students enrolled in other all-day programs, the Career Center receives approximately 300 students from the neighborhood high schools three times each day to serve approximately 900 students each day.

Arlington Tech

Serves students in grades 9-12 who have opted into a rigorous, 4-year STEM-focused program delivered in a Project-Based format that integrates CTE coursework and culminates in a senior-year Work-Based Learning experience and Capstone project.

The infographic uses human icons to represent enrollment and teacher ratios. For CTE, it shows 300 planned enrollment (represented by 300 black icons) and a teacher:student ratio of 1:20 (represented by 1 pink icon and 20 black icons). For Arlington Tech, it shows 600 planned enrollment (represented by 600 black icons) and a teacher:student ratio of 1:20 (1:24 for labs) (represented by 1 pink icon and 20 black icons).

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CAPACITY SUMMARY

PROGRAM/DEPT.	TEACHING SPACES	TSR ¹	TSR WITH UTILIZATION ²	CAPACITY
ACADEMIC				
Classrooms	36	26	X 22	= 792
	10	15	X 13	= 130
Science Labs	12	24	X 20	= 240
Special Needs	12	10	X 8	= 96
TECHNICAL				
CTE Labs	26	20	X 17	= 442
CTE Classrooms	18	20	X 17	= 306
ATHLETICS				
P.E.	4	28	X 24	= 96
VISUAL/PERFORMING ARTS				
Labs	2	26	X 22	= 44
Choir/Band	2	28	X 24	= 48
	122			2194
	TEACHING SPACES			STUDENTS

1) TSR - Teacher Student Ratio

2) Utilization factor is .85

SPACE PROGRAM AT-A-GLANCE

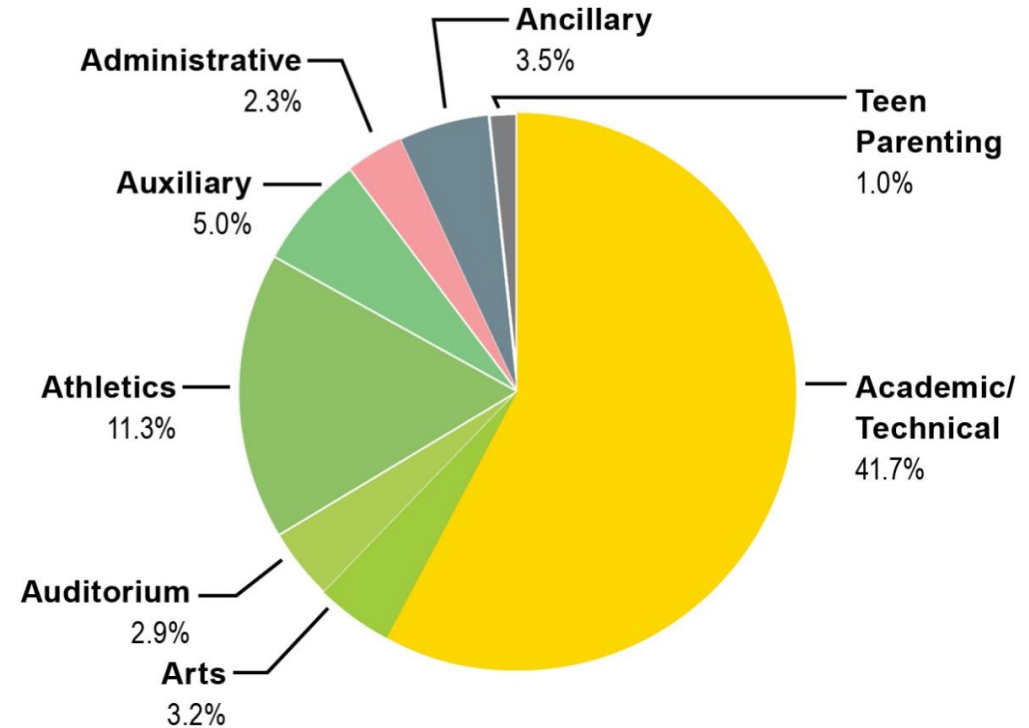
Space Program is organized by type:

ACADEMIC

Includes (not limited to):

- Classrooms
- Labs
- Collaboration Areas
- Teacher Planning

PROGRAM AREA TOTAL: 155,900 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

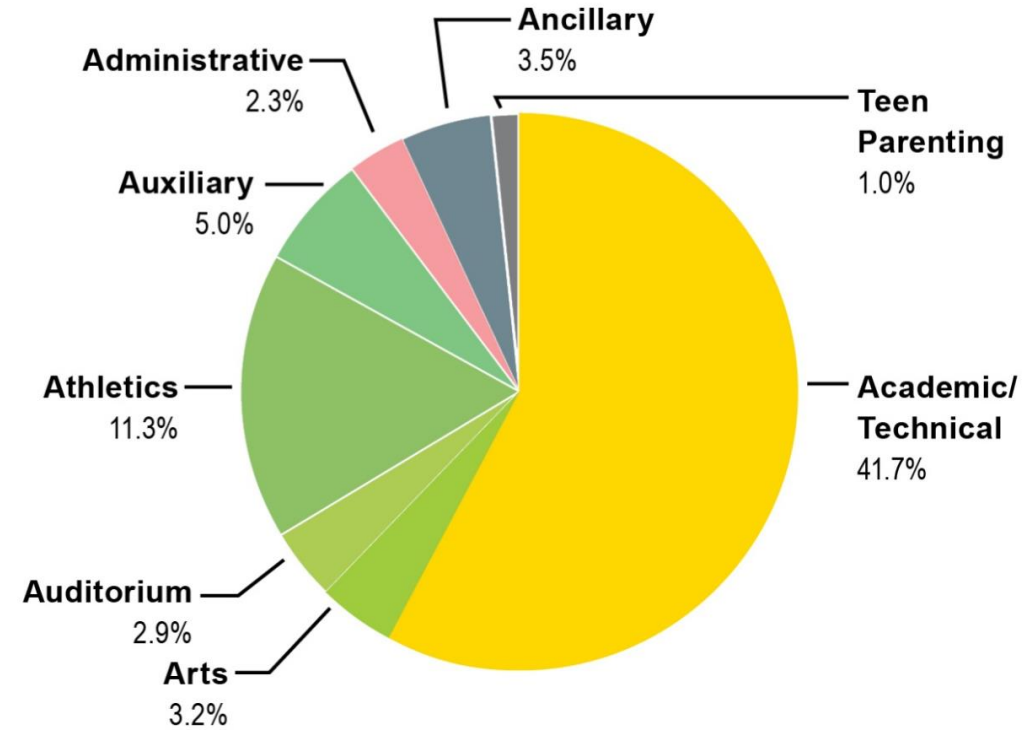
Space Program is organized by type:

ARTS & AUDITORIUM

Includes (not limited to):

- 500-Seat Auditorium
- Black Box Theater
- Visual and Performing Arts Spaces

PROGRAM AREA TOTAL: 23,150 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

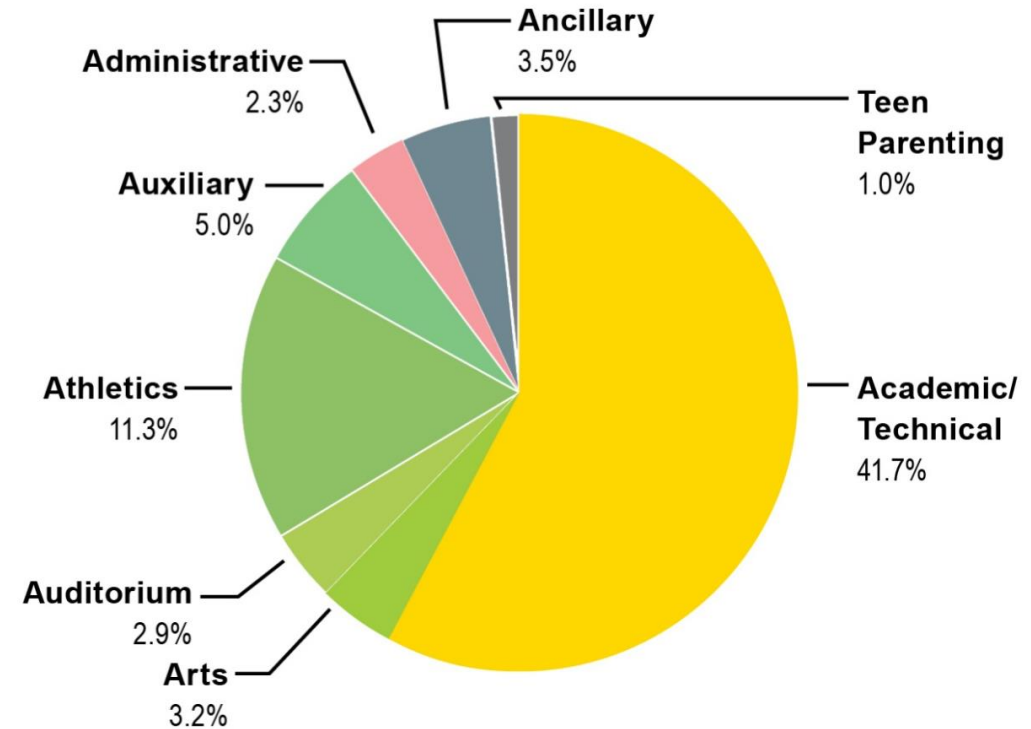
Space Program in these Ed. Specs. is organized by type:

ATHLETICS

Includes (not limited to):

- Competition Gymnasium
- Auxiliary Gymnasium
- P.E. and Locker Rooms
- Fitness and Health Rooms

PROGRAM AREA TOTAL: 42,350 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

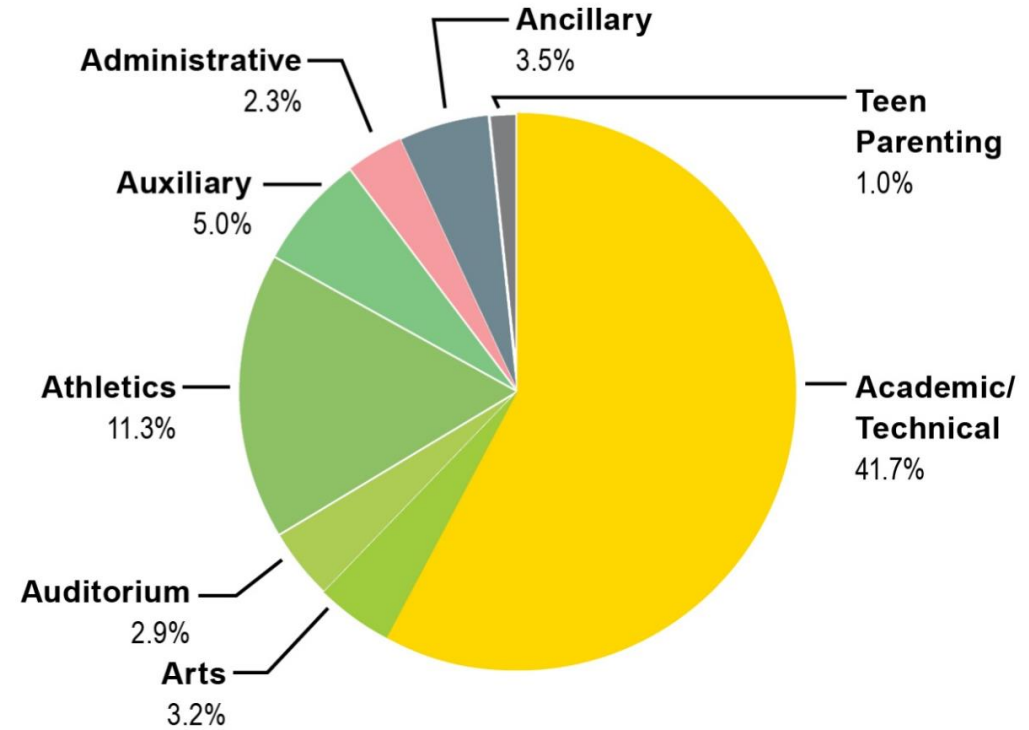
Space Program is organized by type:

AUXILIARY

Includes (not limited to):

- Library
- Student Dining
- Food Prep

PROGRAM AREA TOTAL: 19,000 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

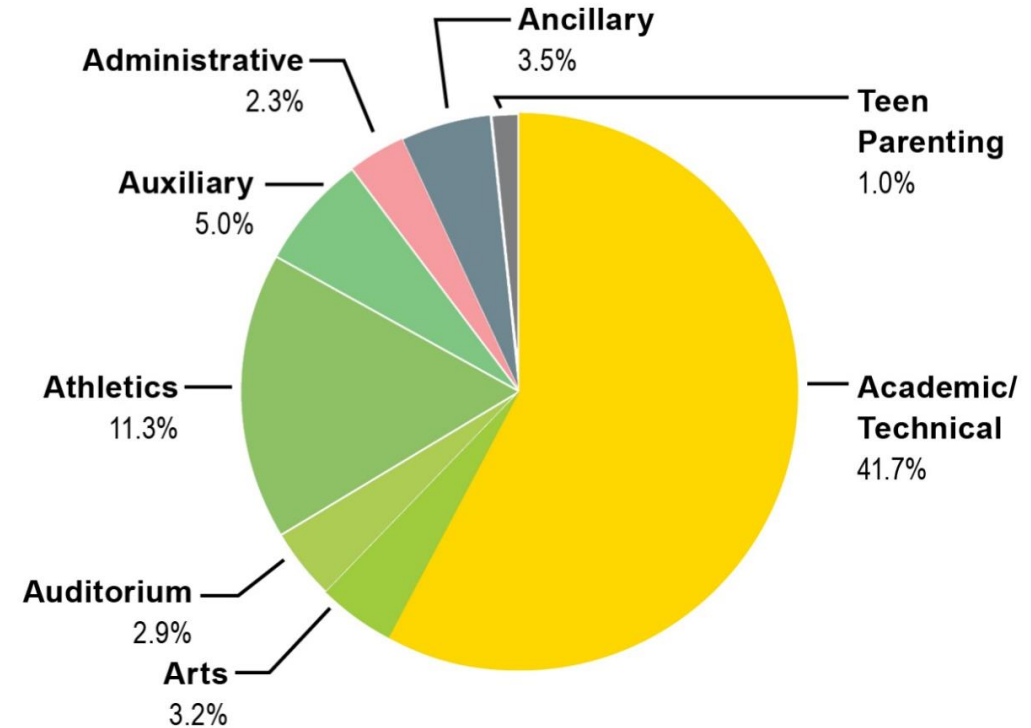
Space Program is organized by type:

ADMINISTRATIVE

Includes (not limited to):

- Administrative Offices
- Counseling
- Health Services

PROGRAM AREA TOTAL: 8,870 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

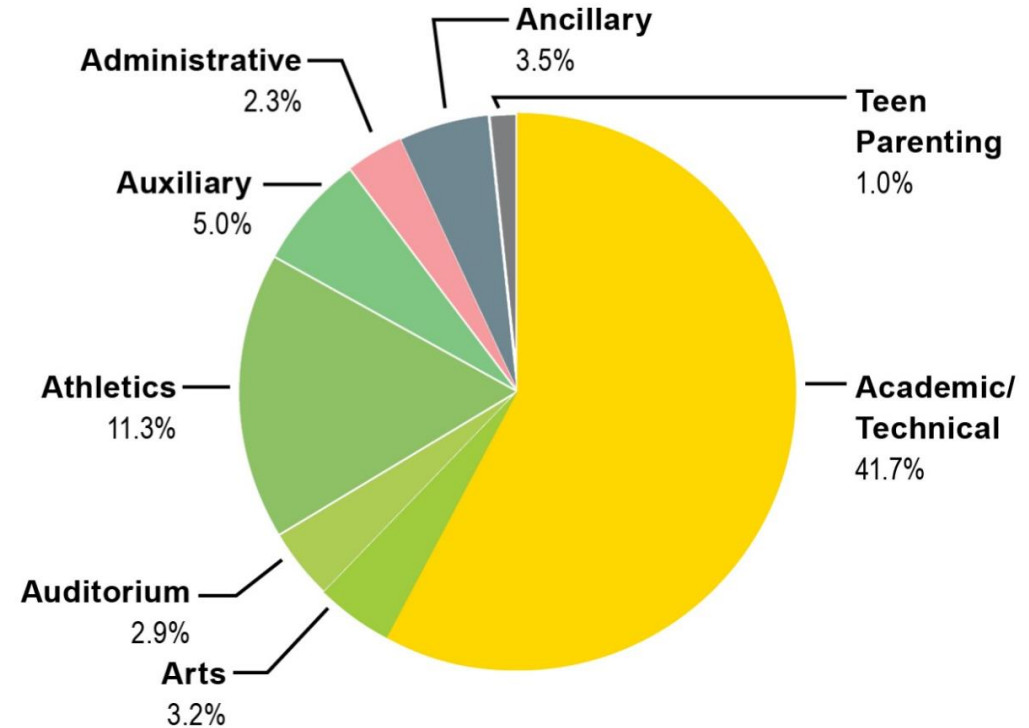
Space Program is organized by type:

ANCILLARY

Includes (not limited to):

- Technology Services
- Building Services

PROGRAM AREA TOTAL: 13,200 NSF



Note: NSF – Net Square Footage

SPACE PROGRAM AT-A-GLANCE

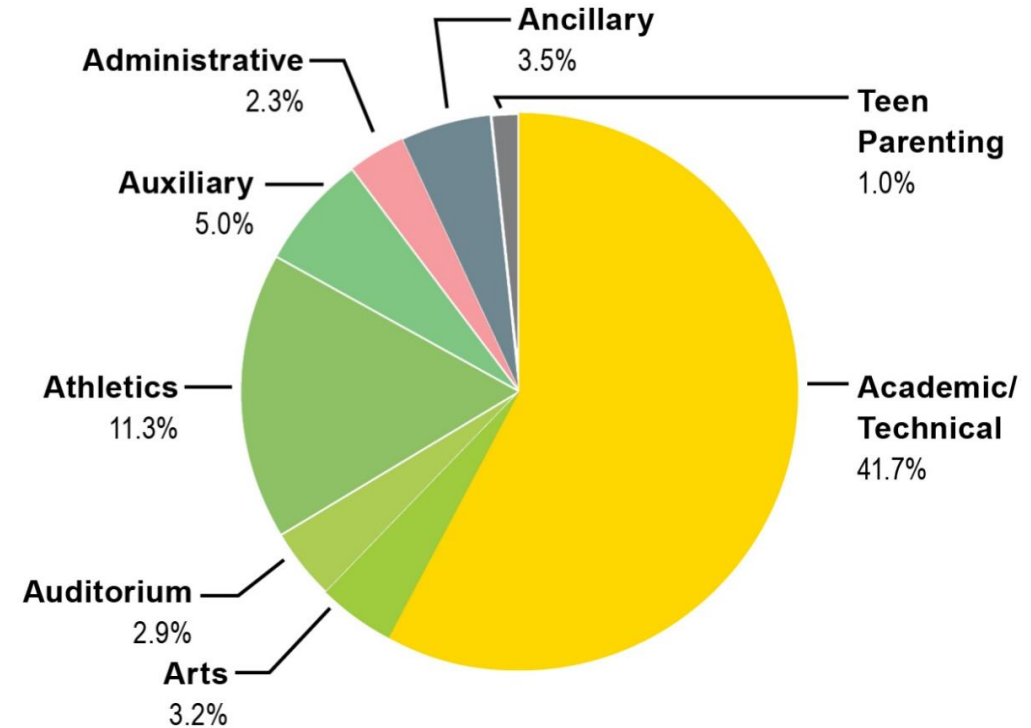
Space Program is organized by type:

TEEN PARENTING PROGRAM

Includes (not limited to):

- Classrooms
- Indoor Play Area
- Kitchenette
- Offices

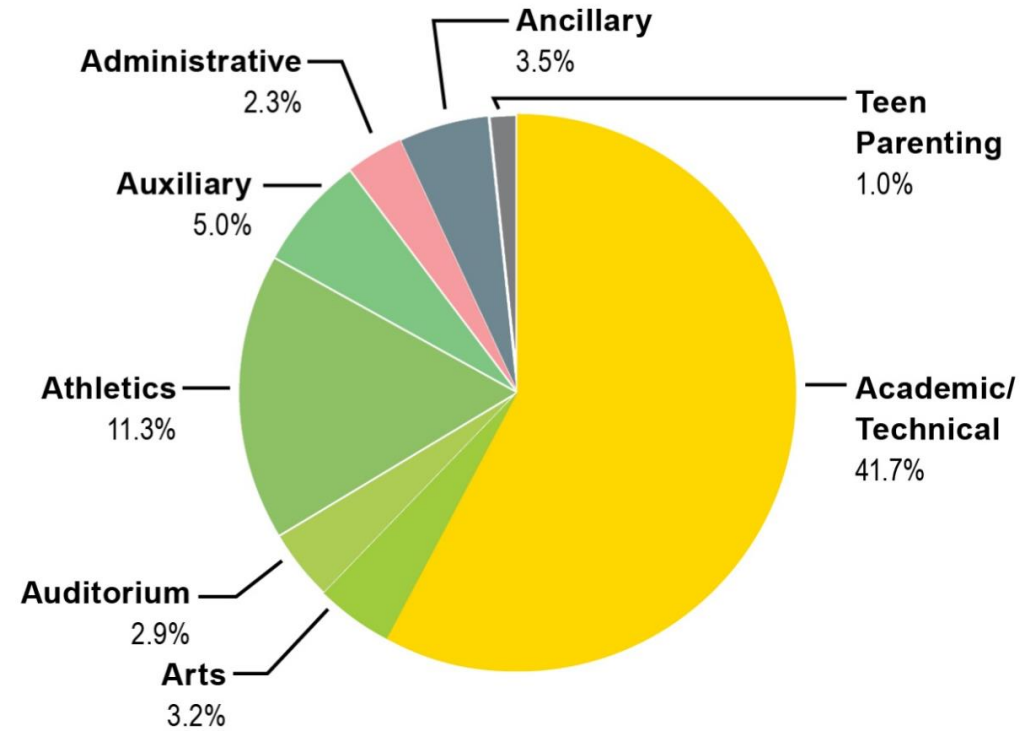
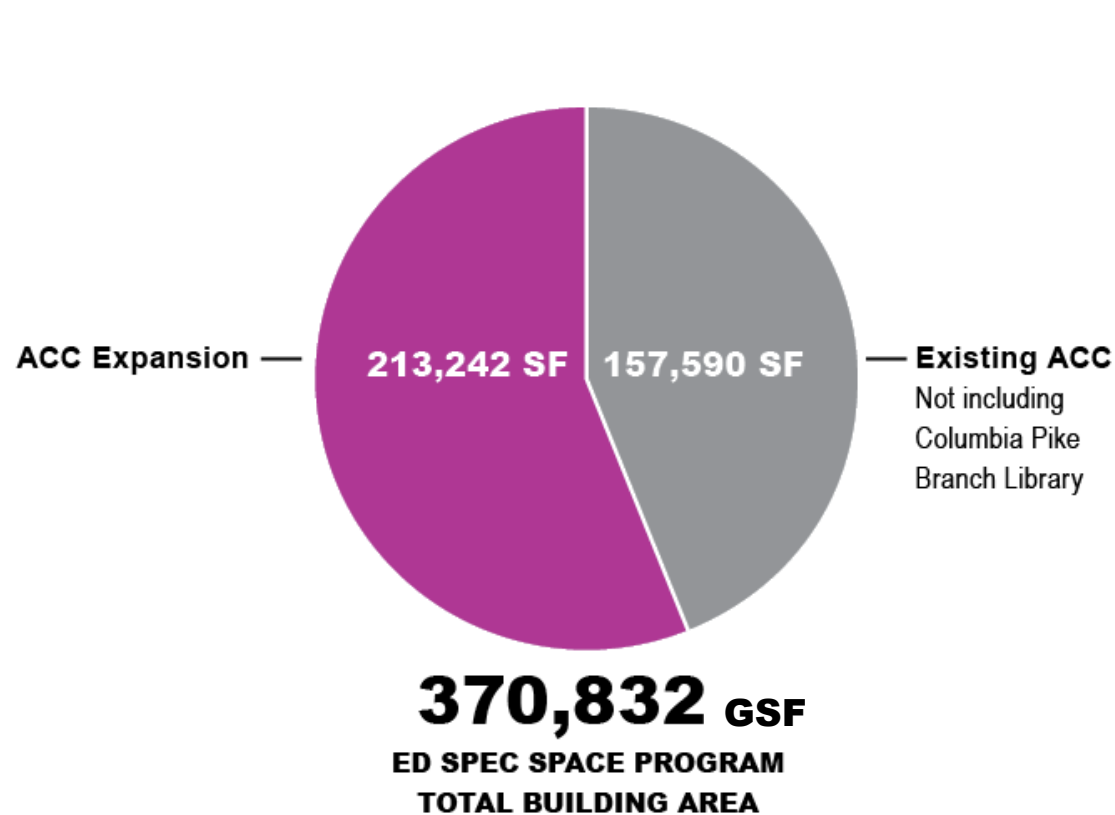
PROGRAM AREA TOTAL: 4,010 NSF



Notes:

1. NSF – Net Square Footage
2. Teen Parenting Program provides space that also supports the ACC Pre-school

SPACE PROGRAM AT-A-GLANCE



Note: GSF – Gross Square Footage

COMPARATIVE SUMMARY

	ACC Expansion	Wakefield	Washington-Liberty	Yorktown
Gross Square Feet (GSF)	370,832	403,940	378,068	355,887
Building Capacity (students)	2,194	2,203	2,208	2,189
GSF/Student	169	183	171	163

Notes:

1. GSF for existing high schools from APS Facility Inventory
https://www.apsva.us/wp-content/uploads/2019/10/APS_Facility_List_SY19_20.pdf
2. Building Capacity for existing high schools from 2019 AFSAP
<https://www.apsva.us/wp-content/uploads/2019/09/AFSAP-2019-v12-September-23-2019.pdf>

APPENDIX A
AQUATIC CENTER
SPACE PROGRAMS

AQUATICS CENTER SPACE PROGRAM

In long-term expansion of the Career Center, the campus may include a pool.

PROGRAM AREA DESCRIPTION	NSF/ Space	No. of Spaces	NSF Extended	NOTES
Public Entry				
Lobby/Vestibule	200	1	200	
Reception	150	1	150	
Toilets	200	2	400	
Vending/Telephone Alcove	100	1	100	
Multi-Use Room	500	1	500	
Subtotal			1350	
Locker Rooms				
Men's Changing Area	450	1	450	
Men's Shower/Drying	150	1	150	
Men's Toilets	150	1	150	
Women's Changing Area	450	1	450	
Women's Shower/Drying	150	1	150	
Women's Toilets	150	1	150	
Unisex Locker Room	200	1	200	
Subtotal			1,700	
Operations				
Offices	120	2	240	
First Aid	150	1	150	
Laundry	100	1	100	
Storage	100	1	100	
Subtotal			590	
Aquatics				
Competition Pool	4,505	1	4,505	
Diving Well	1,150	1	1,150	
Instructional Pool	1,500	1	1,500	
Deck Area	5,360	1	5,360	
Pool Equipment Storage	150	1	150	
Swim Meet Storage	150	1	150	
Spectator Seating	780	1	780	
Subtotal			13,595	
Support				
Pumps/Filtration Room	300	1	300	
Chemical Storage Room	180	1	180	
Custodial Room	60	2	120	
Subtotal			600	
PROGRAM TOTAL			17,835 SF	

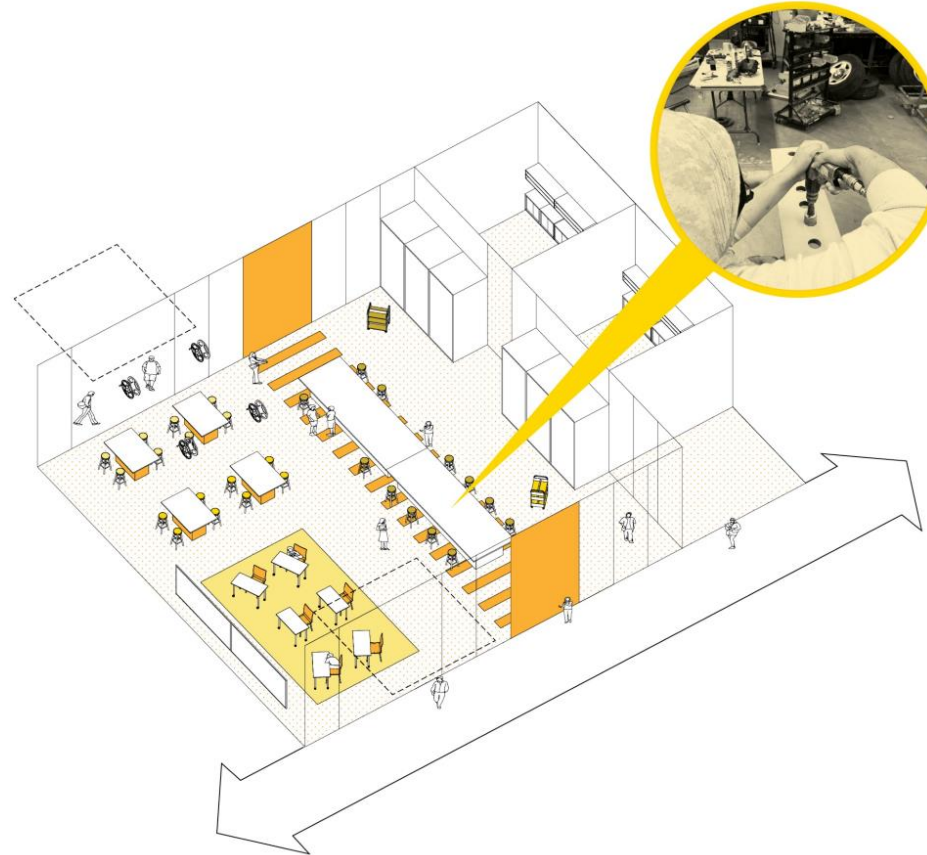
APPENDIX B

SPACE TYPES



SPACE TYPES

1. Used to consider the activity of a particular space as primary, and to identify other programmed spaces that support similar activities.
2. Offer suggestions for how each Space Type might be realized to meet the requirements of multiple program areas.



“...quit talking, begin doing.” -Walt Disney

04 HIGH INTENSITY LAB

Flexibility  Medium

Capacity **10-26**

Activity

instruction; prototyping; practice;
small-large group collaboration;
presentation

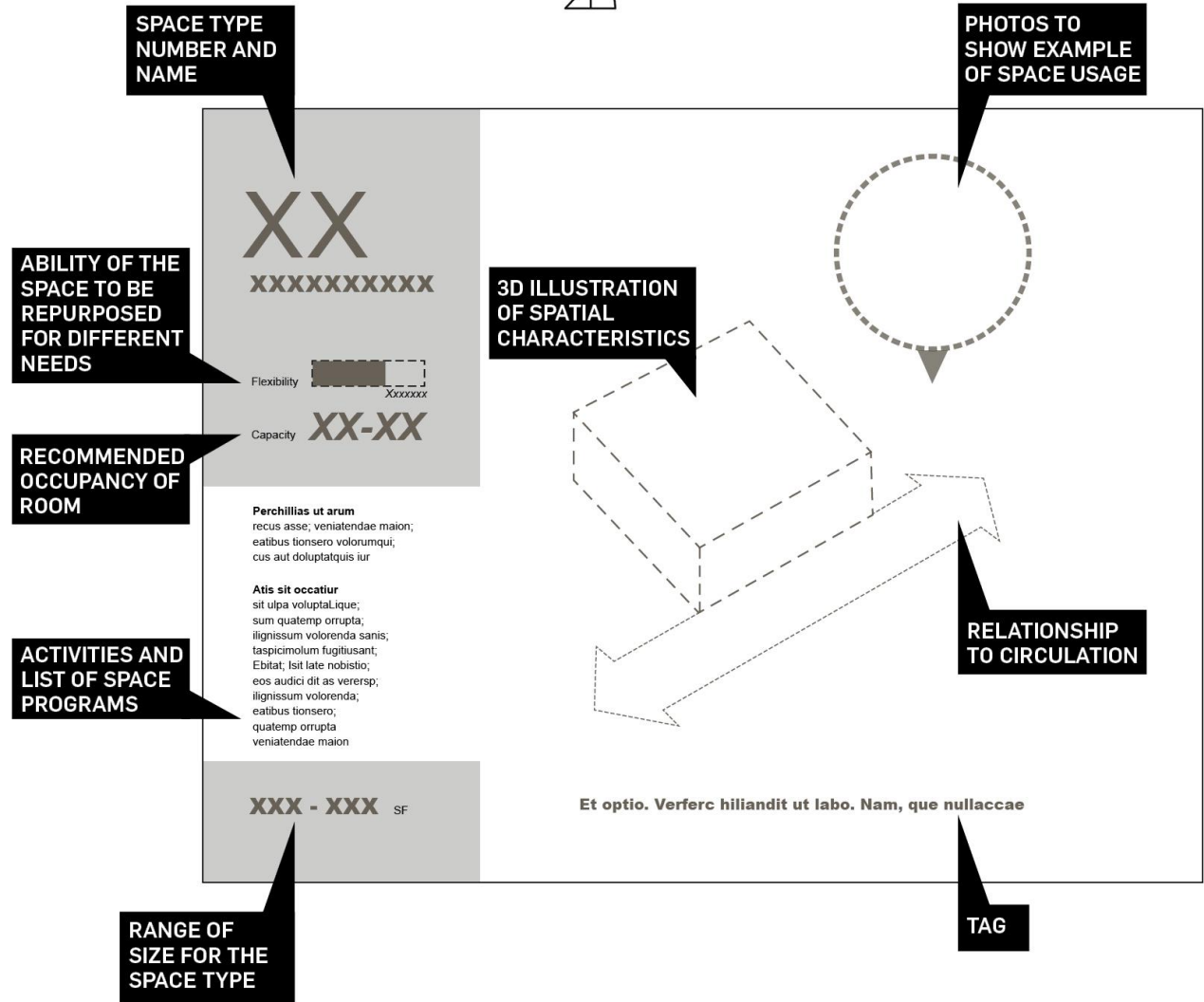
Space Programs

Health/Medical/Pharm.Tech;
Physical Therapy/Sports Med;
Animal Sciences/Vet Tech;
Auto Collision; Auto Technology;
Aviation Technology;
Cosmetology/Barbering;
Culinary Arts; Electricity;
Fabrication Lab; Maker Lab

2,000 - 5,000 SF

51

HOW TO READ THIS SECTION



SPACE TYPES

1. Used to consider the activity of a particular space as primary, and to identify other programmed spaces that support similar activities.
2. Offer suggestions for how each Space Type might be realized to meet the requirements of multiple program areas.

05 PERFORMANCE

Flexibility  High

Capacity **100+**

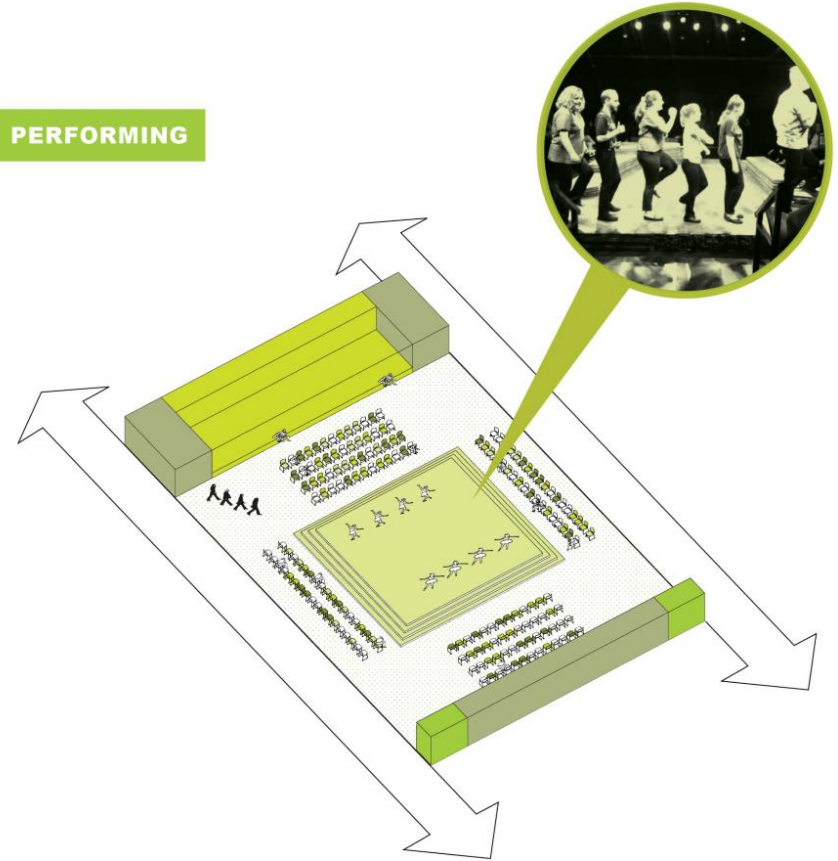
Activity
rehearsal; instruction; gathering;
performance

Space Programs
Instrumental Music; Choral Music;
Black Box/Drama Classroom;
Ensemble/Practice; Practice Room;
Music Library; Theater; Control
Room; Ticket Booth; Scene Shop;
Costume/Prop Storage;
Dressing Room

7,000 - 10,000 SF

52

PERFORMING



Come together...right now...over here. 

**APPENDIX C
PRINCIPLES
OF SCHOOL
PLANNING &
DESIGN**

PRINCIPLES OF SCHOOL PLANNING AND DESIGN

1. Flexibility/Agility
2. Collaboration
3. Visual Transparency
4. Interior Design
5. Security and Safety
6. Outdoor Learning
7. Community Use
8. Energy and Sustainability

Principles of School Planning and Design

Security and Safety.



Concerns for improved safety and security may be addressed through thoughtful planning and design. Reducing the number of entrances, eliminating “blind” hallways, incorporating clear sight lines, generous use of interior glass, smaller learning communities that increase personalization among adults and students, and creating an overall sense of visual “connectedness” throughout the school will help to keep students safe, secure, and in the best possible frame of mind to achieve.

Outdoor Learning.



Much is known about the psychological and physiological benefits of incorporating the natural environment into the overall learning experience. Sunlight; fresh air; breezes; and the sights, sounds, and smells of the world around us combine to create a powerful backdrop for human interaction. Landscaped courtyards, gardens, terraces, and amphitheater-type spaces provide opportunities for students and teachers to meet outdoors and connect their indoor classroom work to a natural context. Additionally, safe and comfortable settings such as these allow the entire site to be fully leveraged as a “learning landscape”.

NEXT STEPS

1. November 7, 2019 – School Board action on Ed Specs
2. November 2019 to February 2020 – Concept Design phase BLPC/PFRC meetings
 - Ed Specs refinement is expected during the phase as design options are developed
3. March 2020 – School Board information and action on proposed Concept Design
4. June 25, 2020 – School Board action on FY2021-30 Capital Improvement Plan



BUILDING ANALYSIS

Arlington Career Center

CTE Shops

9th St. South

3RD LEVEL STUDY - CHALLENGES CONSIDERED

STRUCTURE

What can be done with the existing building's loading capacity?

What will be the underlying planning grid of the addition?

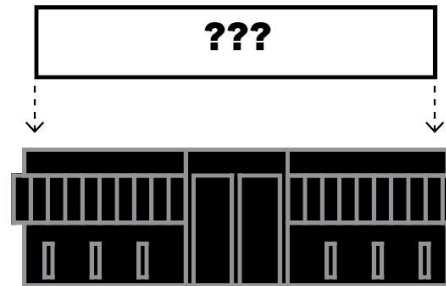
To what extent can we minimize reinforcing the existing building structure?

CODE & FIRE SAFETY

What are the occupancy limitations of the addition?

Does the existing building require any code-related improvements prior to the addition?

Is the addition an extension to the existing building or a separate entity?



ARCHITECTURE

How flexible can LVL 03 be to address a wide range of learning modalities?

What is the relationship of the addition to future phasing?

Can the experience of the existing school be improved via the addition?

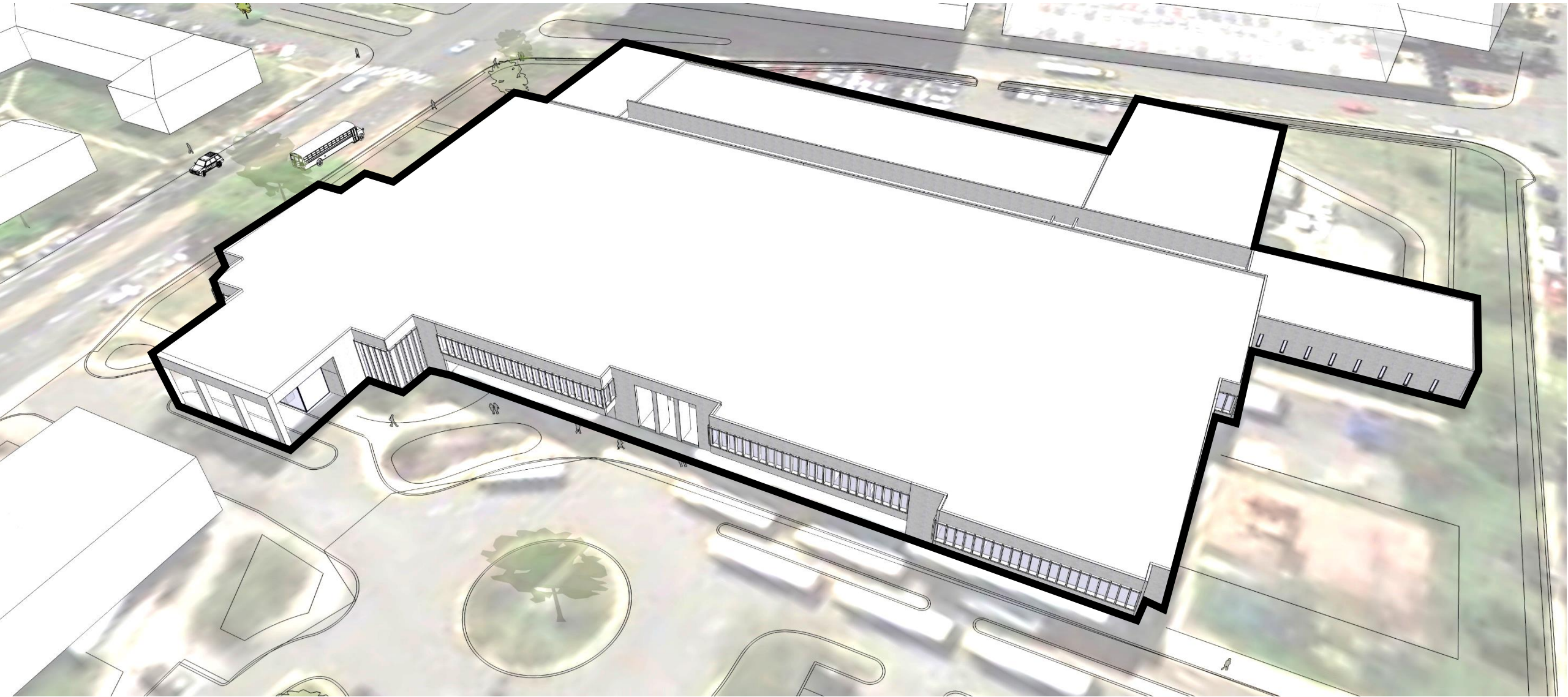
MEP

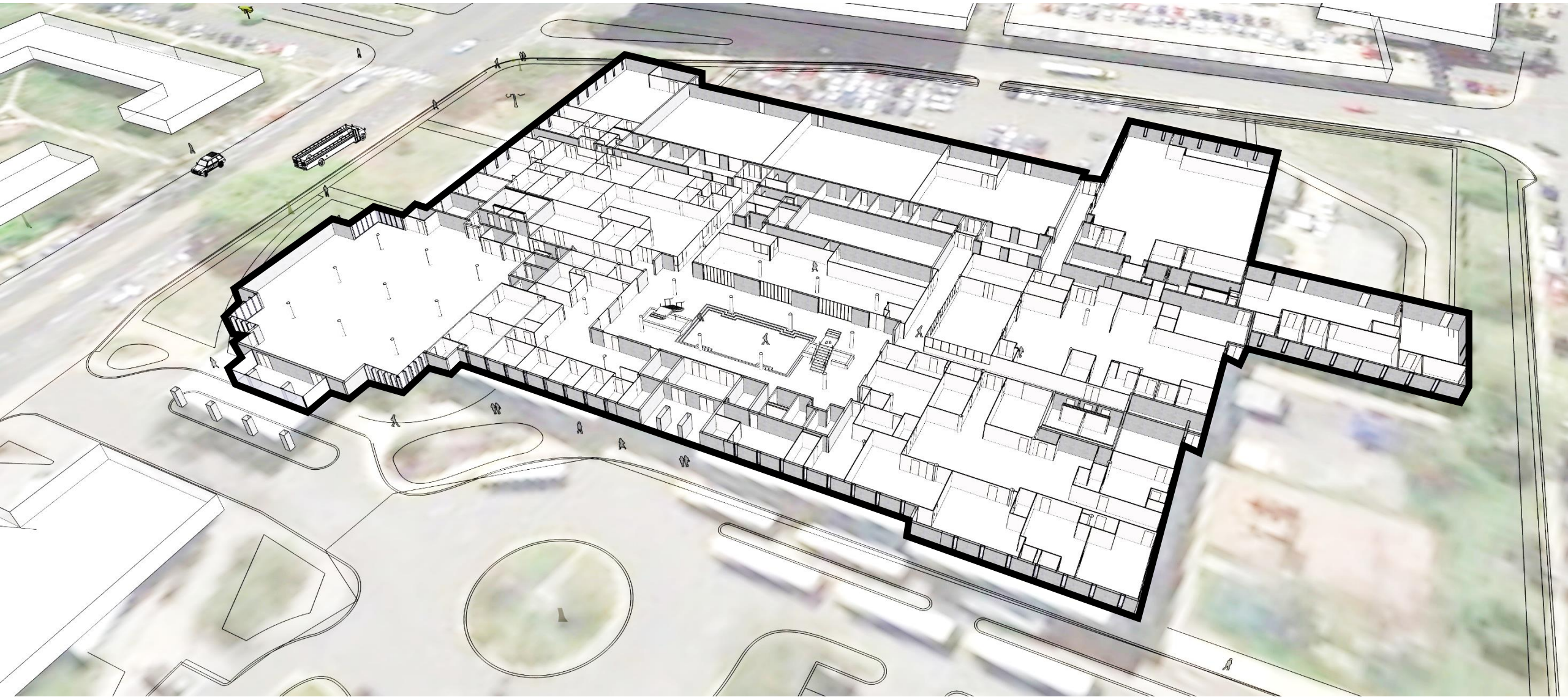
What is the relationship to existing building systems?

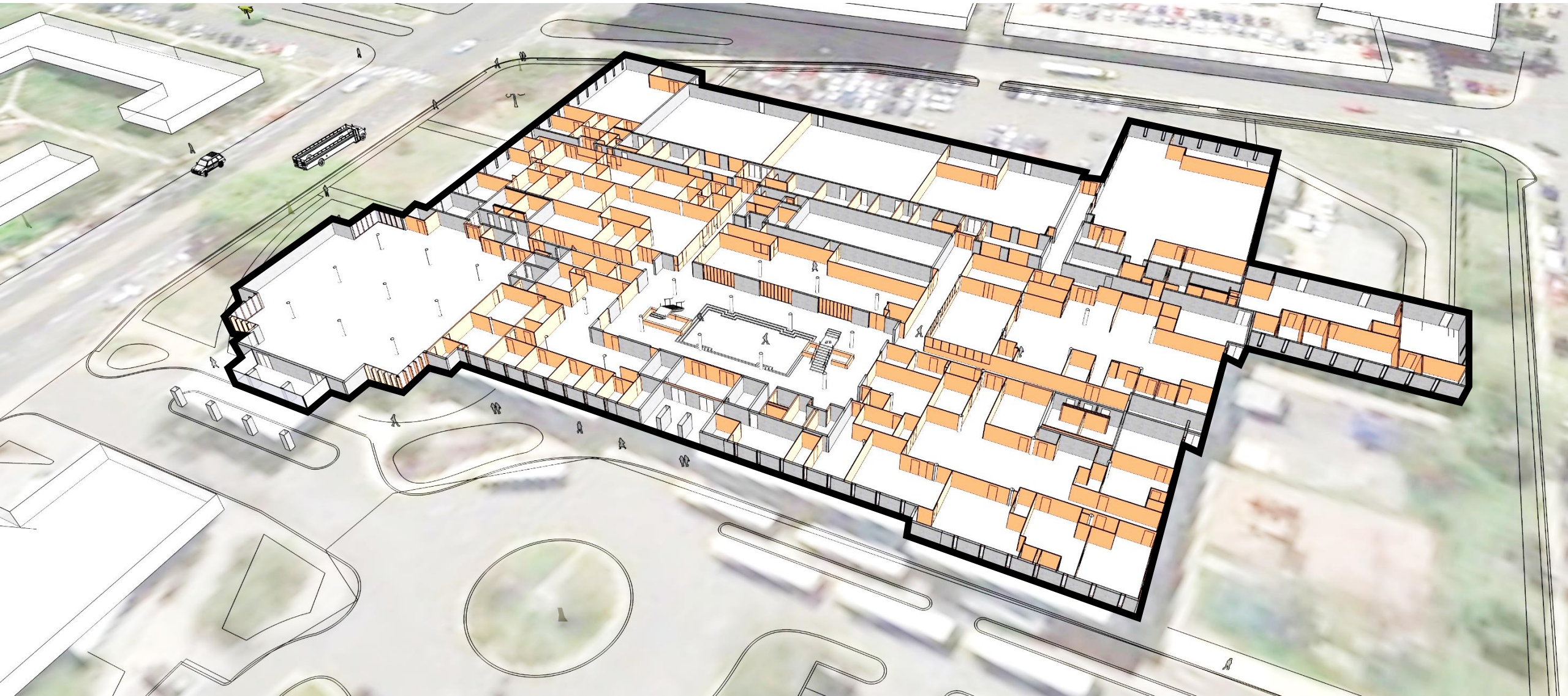
How can we set an exemplary model for sustainable design within the classroom?

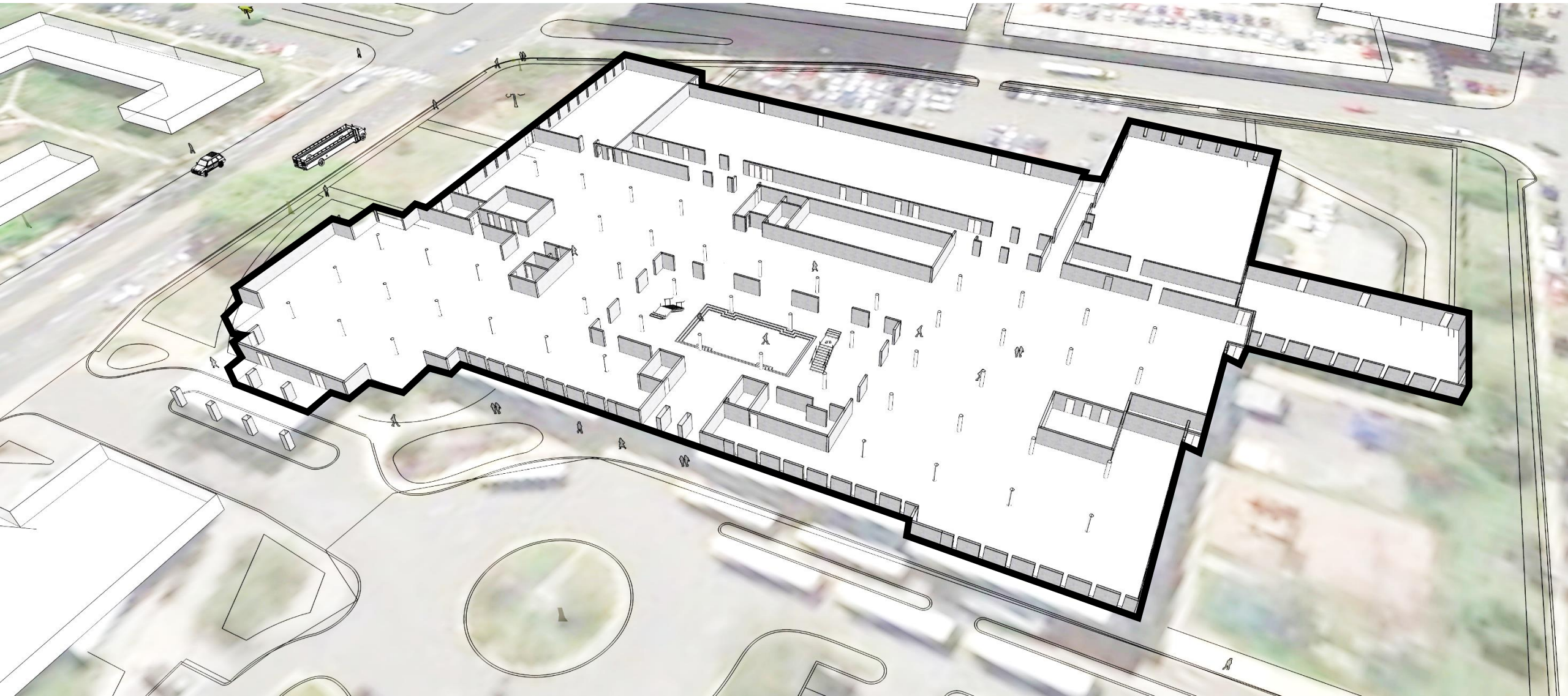
What type of building systems will be required to operate the addition?









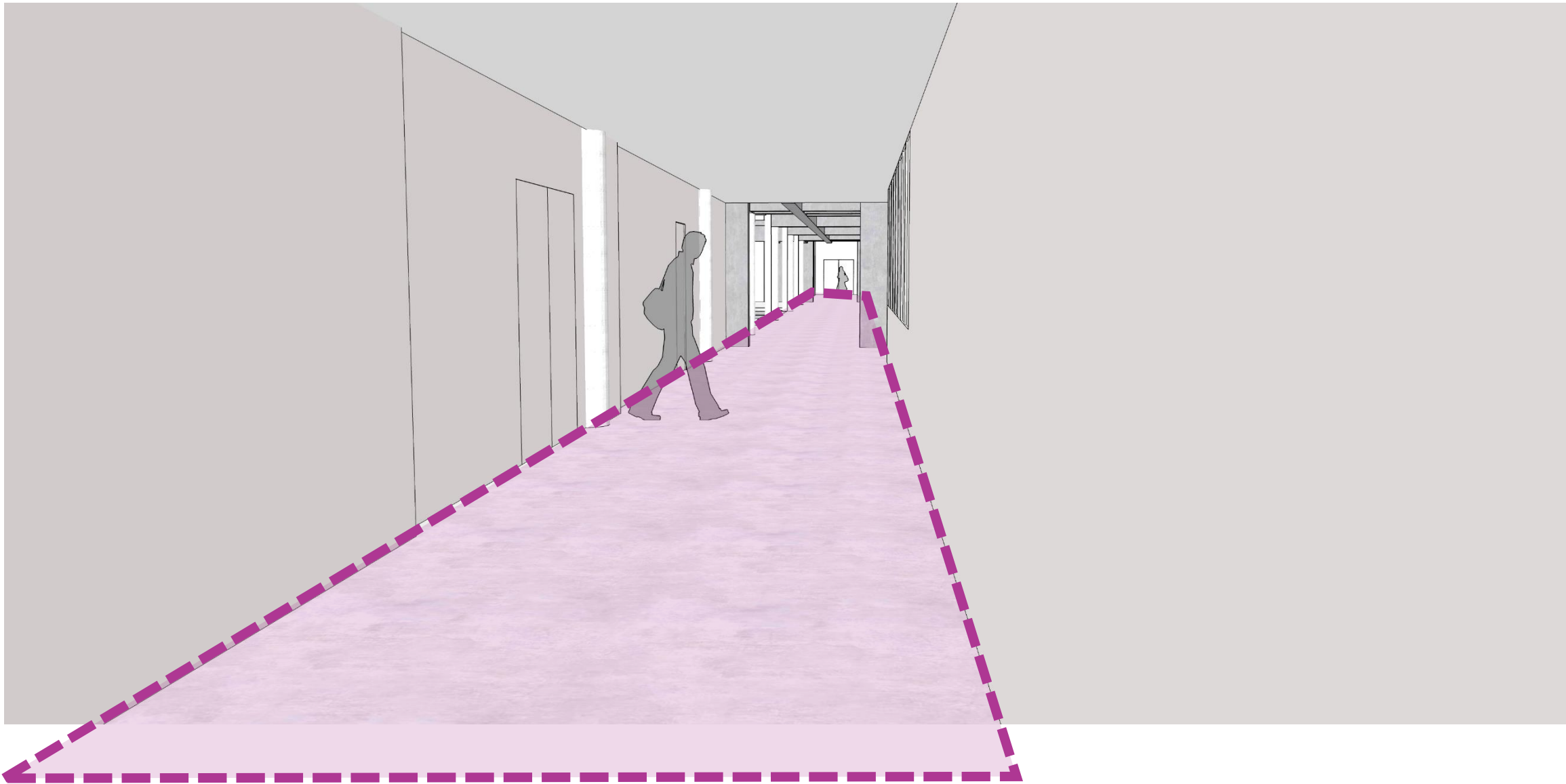


WHAT WE LEARNED IN THE PROCESS

STRUCTURES

1. The existing concrete structure of the ACC is a testament of design with flexibility in mind.
2. Columns are organized within a 27' x 27' grid.
3. This floor plan, dated 1972, illustrates the very “structural skeleton” of ACC, without any walls or partitions for clarity.



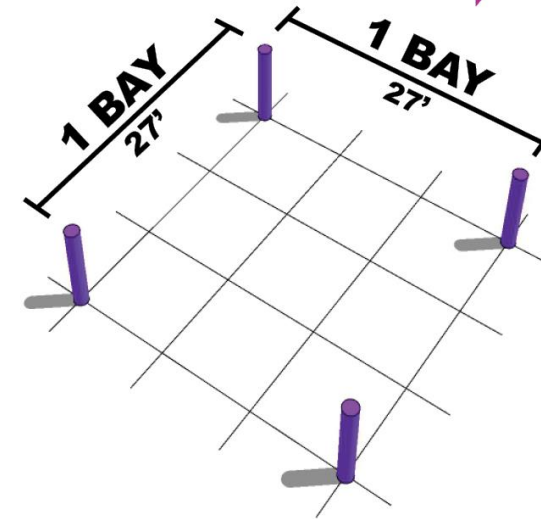




WHAT WE LEARNED IN THE PROCESS

STRUCTURES

1. So what is the existing 27' x 27' grid able to afford spatially if we were to reconfigure ACC's floor plan?

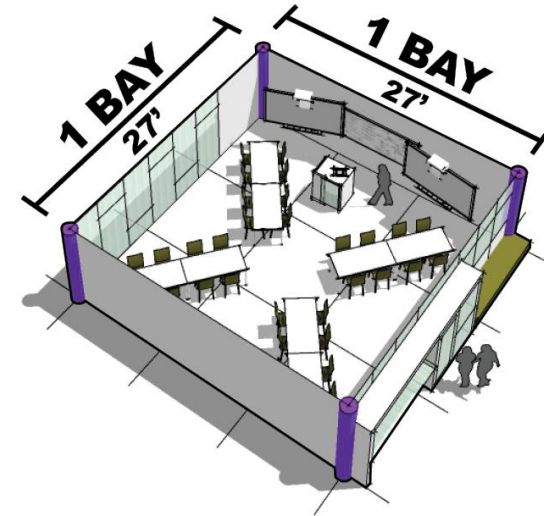


3RD FLOOR ADDITION
STRUCTURAL BAY,
PREDICATED BY THE
NEED TO ALIGN WITH
EXISTING STRUCTURAL
GRID BELOW

WHAT WE LEARNED IN THE PROCESS

STRUCTURES

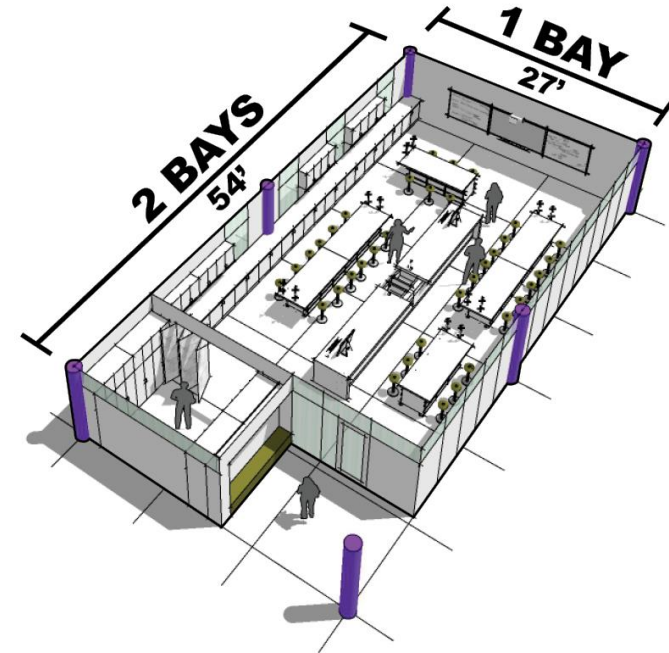
1. So what is the existing 27' x 27' grid able to afford spatially if we were to reconfigure ACC's floor plan?
2. A classroom!



WHAT WE LEARNED IN THE PROCESS

STRUCTURES

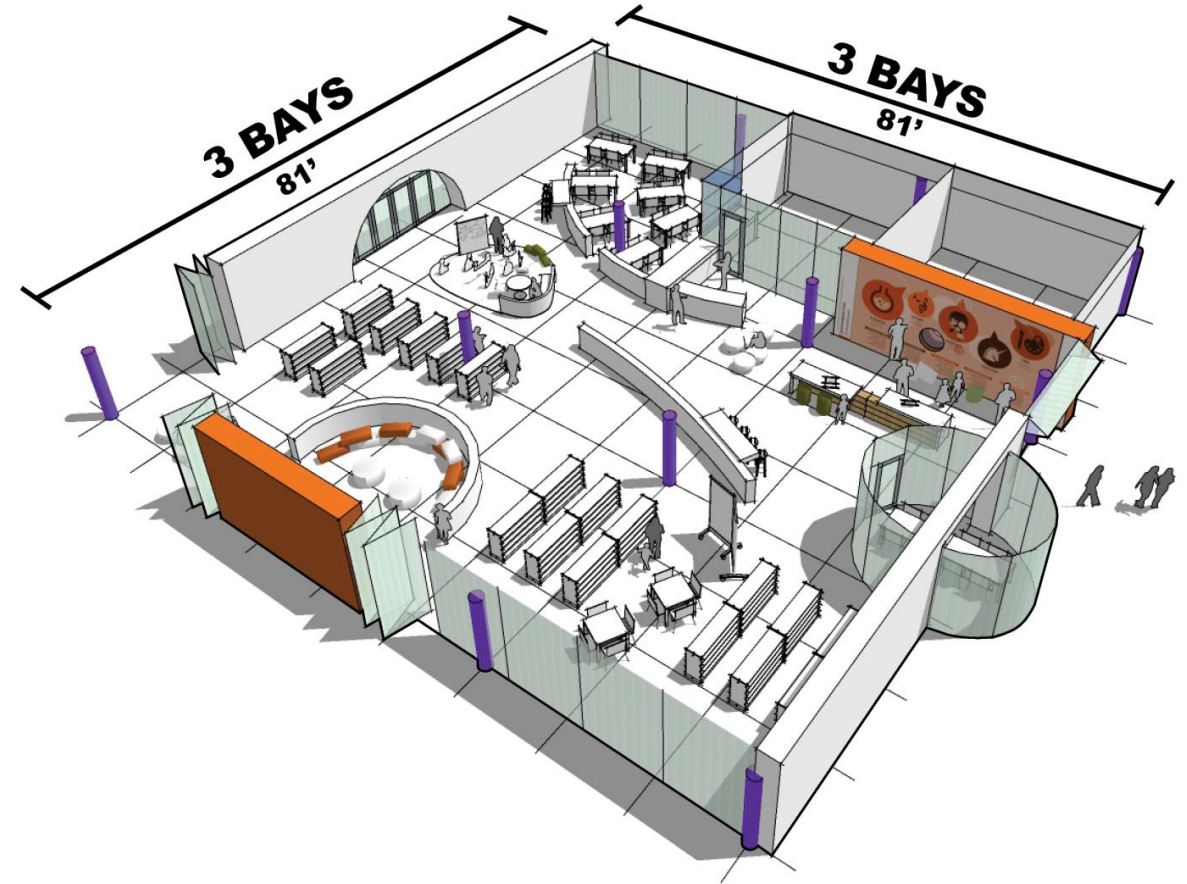
1. So what is the existing 27' x 27' grid able to afford spatially if we were to reconfigure ACC's floor plan?
2. A lab and a prep room!



WHAT WE LEARNED IN THE PROCESS

STRUCTURES

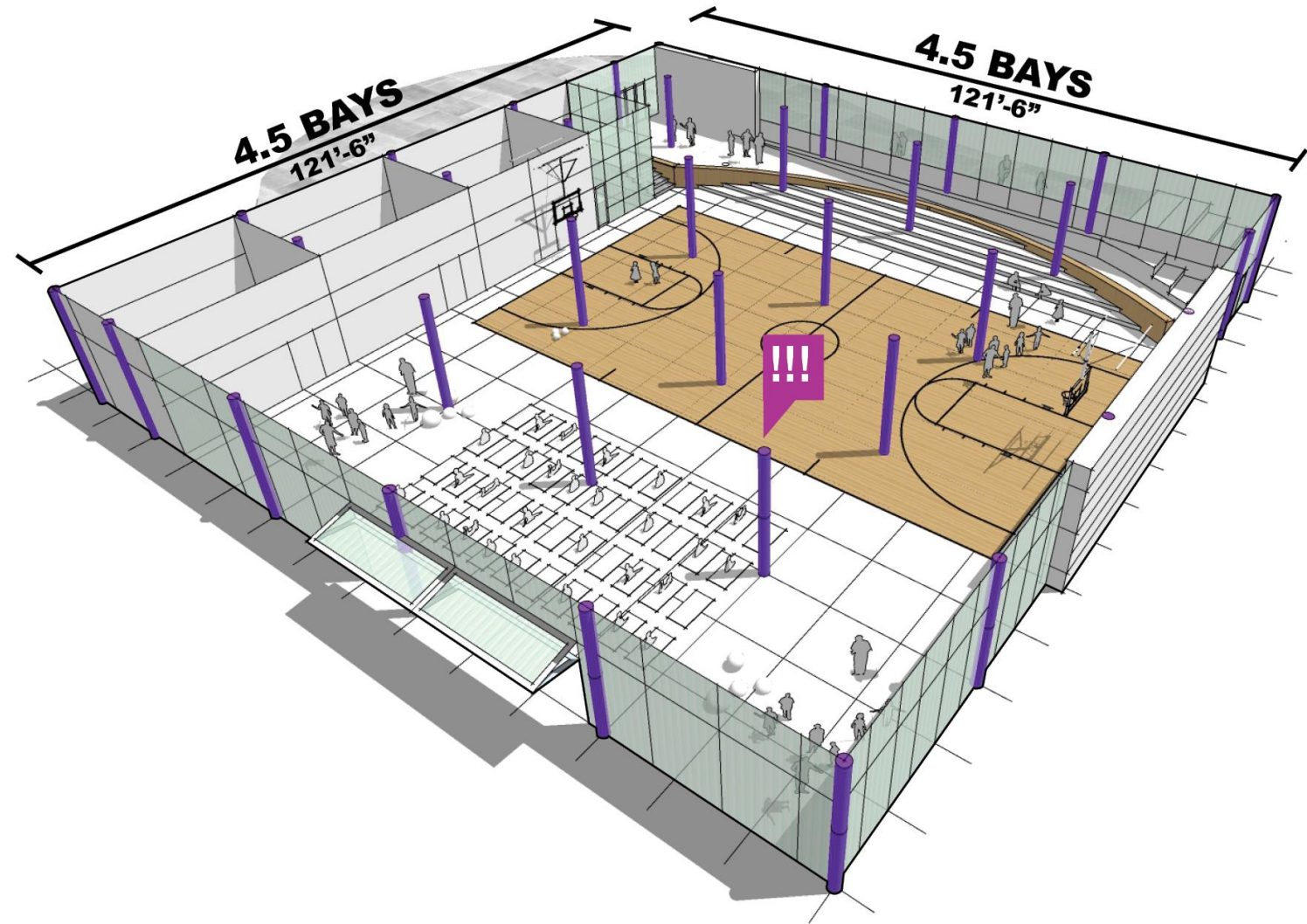
1. So what is the existing 27' x 27' grid able to afford spatially if we were to reconfigure ACC's floor plan?
2. A Media Center!



WHAT WE LEARNED IN THE PROCESS

STRUCTURES

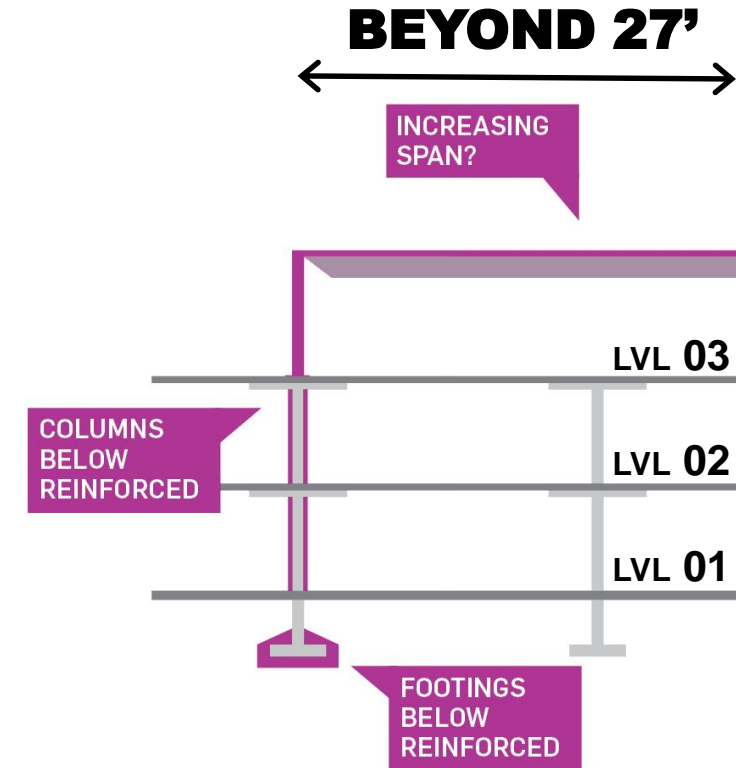
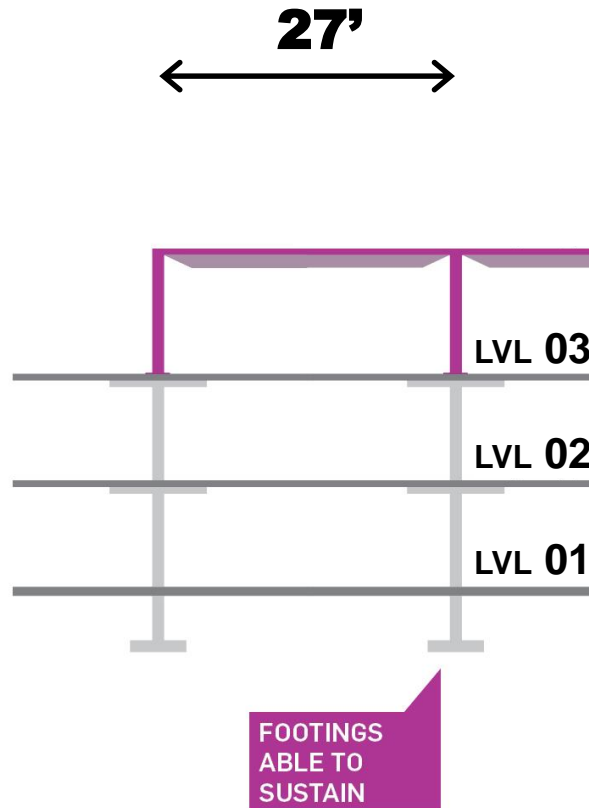
1. So what is the existing 27' x 27' grid able to afford spatially if we were to reconfigure ACC's floor plan?
2. Not gymnasium... :(
3. Unfortunately, structural grids have limitations relative to certain programmatic functions. I.e: It may not work for all uses.



WHAT WE LEARNED IN THE PROCESS

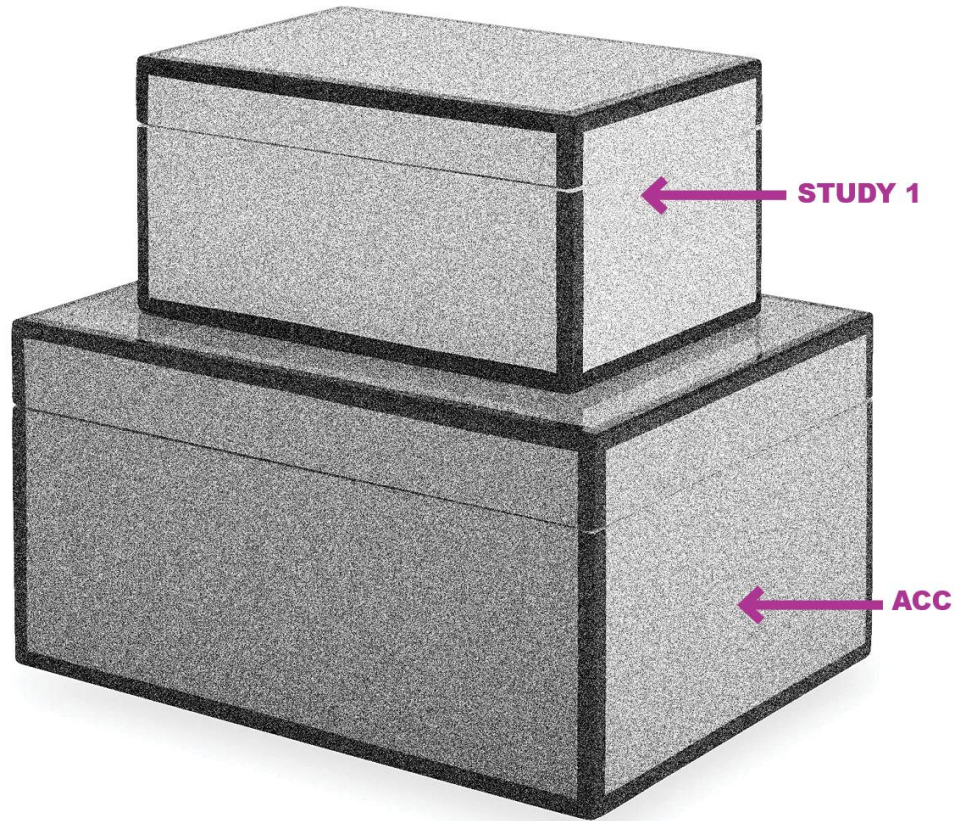
STRUCTURES

1. Great news! The existing structure of the ACC is able to support a third floor addition.
2. However, the structural grid of the proposed addition will have to align with the existing.
3. Increasing the span of the grid to allow for a theater or gymnasium is possible, but at the expense of work on the lower levels.

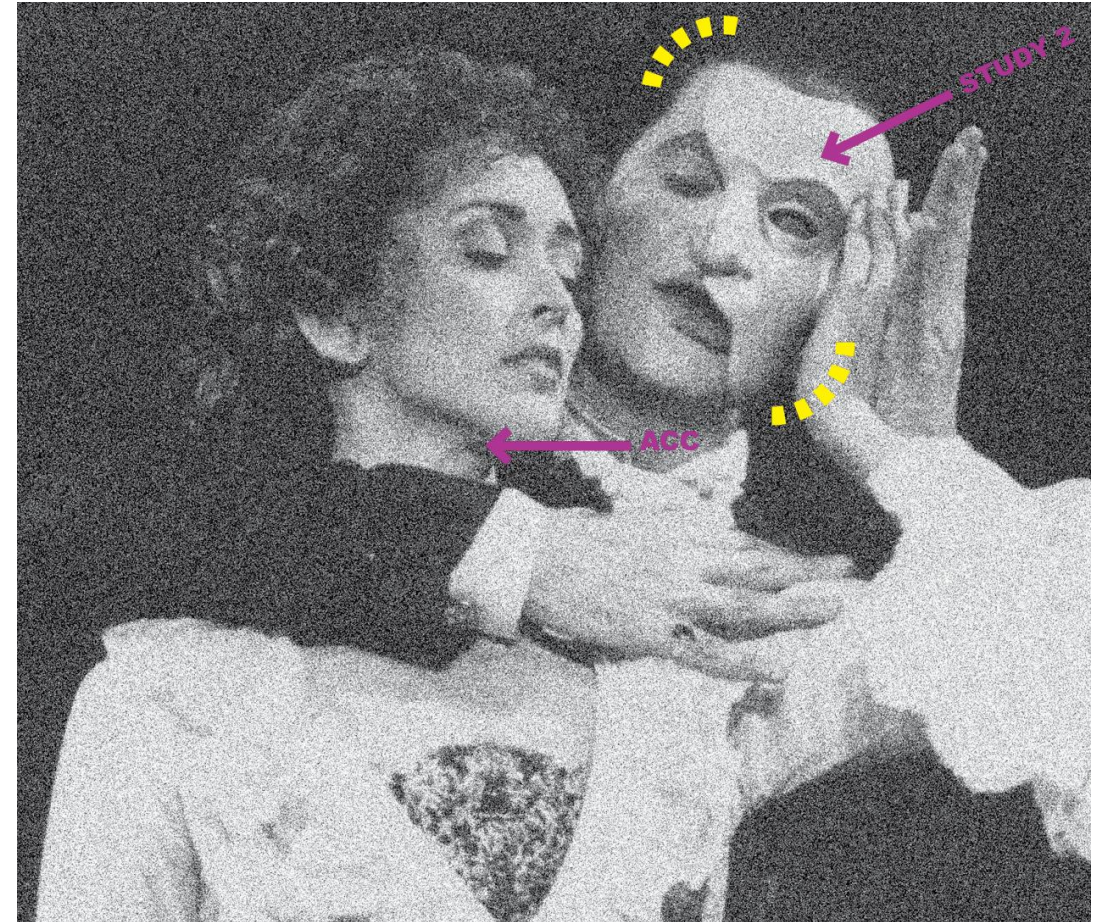


APPLYING WHAT WE LEARNED

LAYOUT STUDY 1



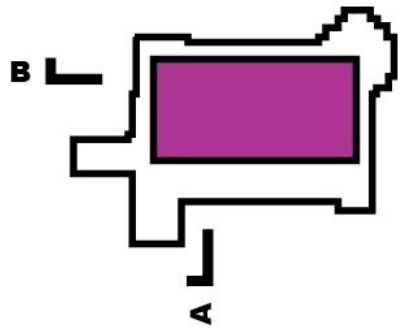
LAYOUT STUDY 2



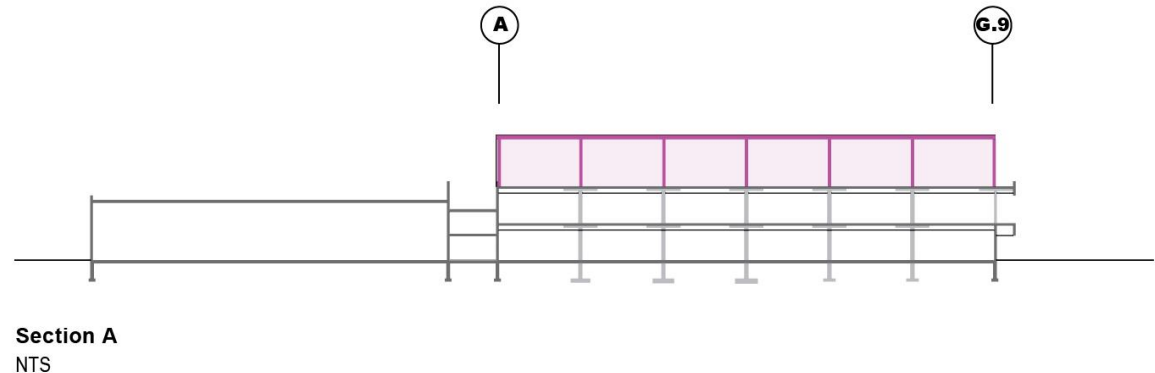
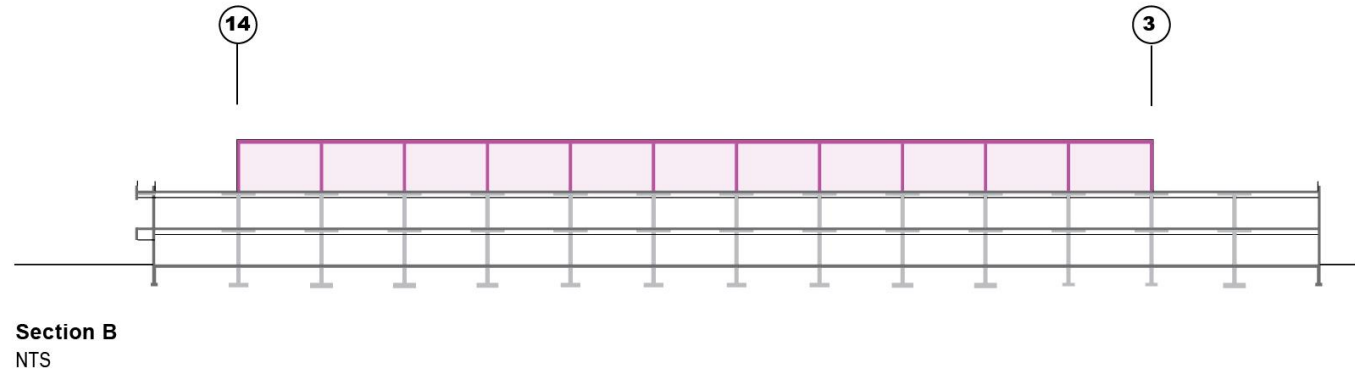
APPLYING WHAT WE LEARNED

LAYOUT STUDY 1

1. To the right we have a 3rd floor addition study with a 27' structural grid that aligns with levels below.



STUDY 1 SECTIONS

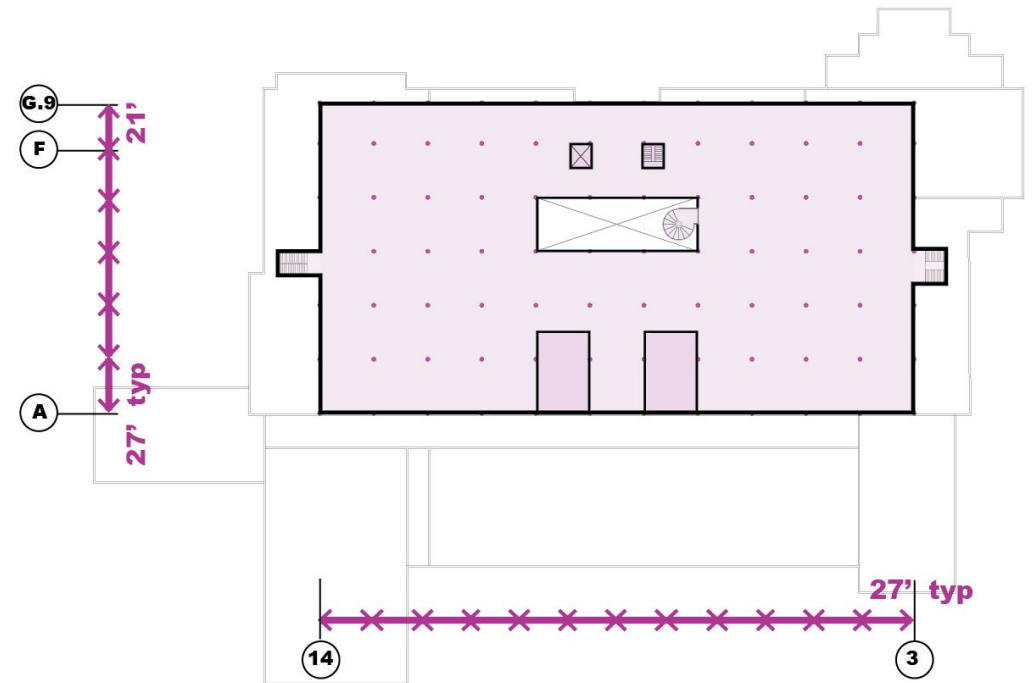


APPLYING WHAT WE LEARNED

LAYOUT STUDY 1

1. To the right we have a 3rd floor addition study with a 27' structural grid that aligns with levels below.

STUDY 1 FLOOR PLAN

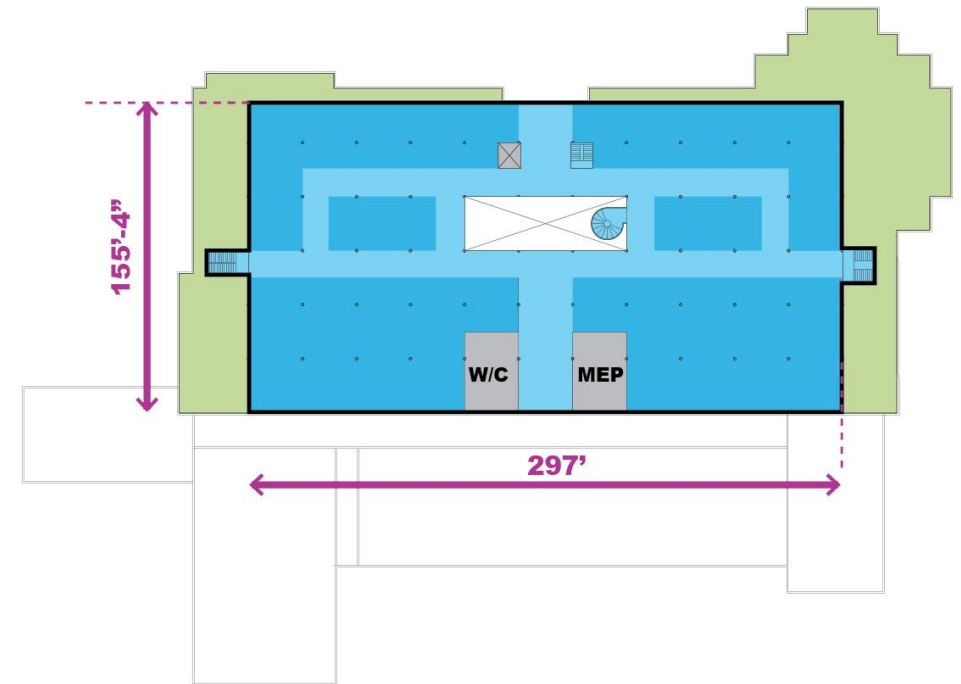


APPLYING WHAT WE LEARNED

LAYOUT STUDY 1

1. To the right we have a 3rd floor addition study with a 27' structural grid that aligns with levels below.

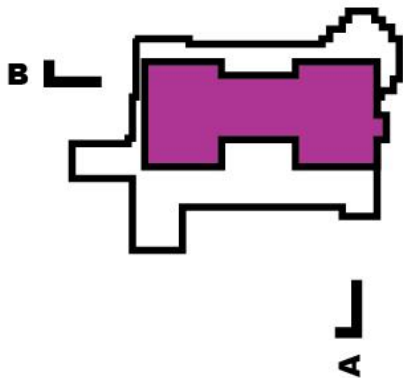
STUDY 1 FLOOR PLAN



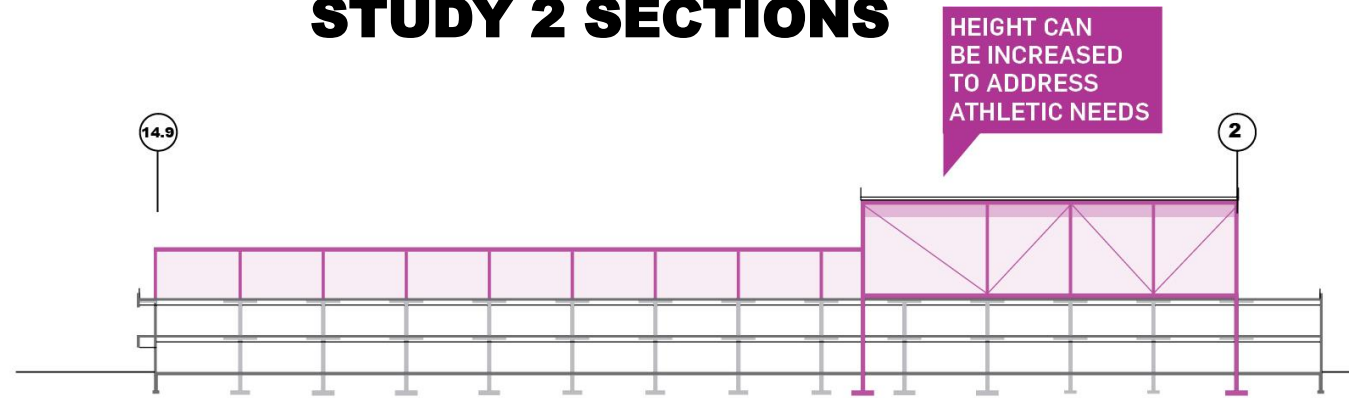
APPLYING WHAT WE LEARNED

LAYOUT STUDY 2

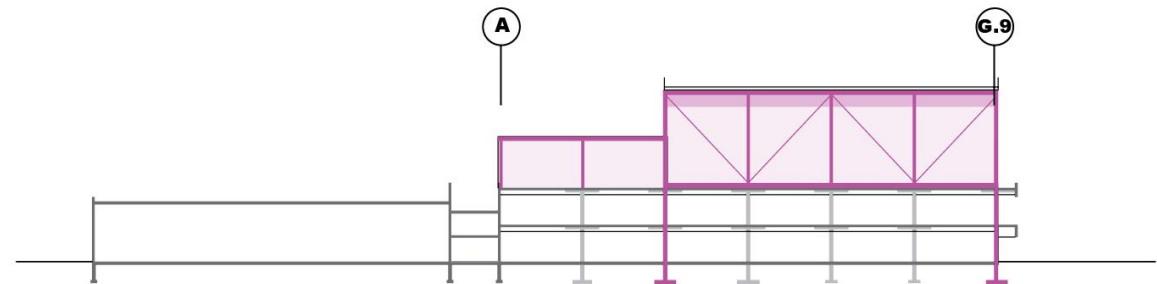
1. To the right we have a hybrid 3rd floor addition study. One portion with a 27' structural grid that aligns with levels below and another with a large span.



STUDY 2 SECTIONS



Section B
NTS



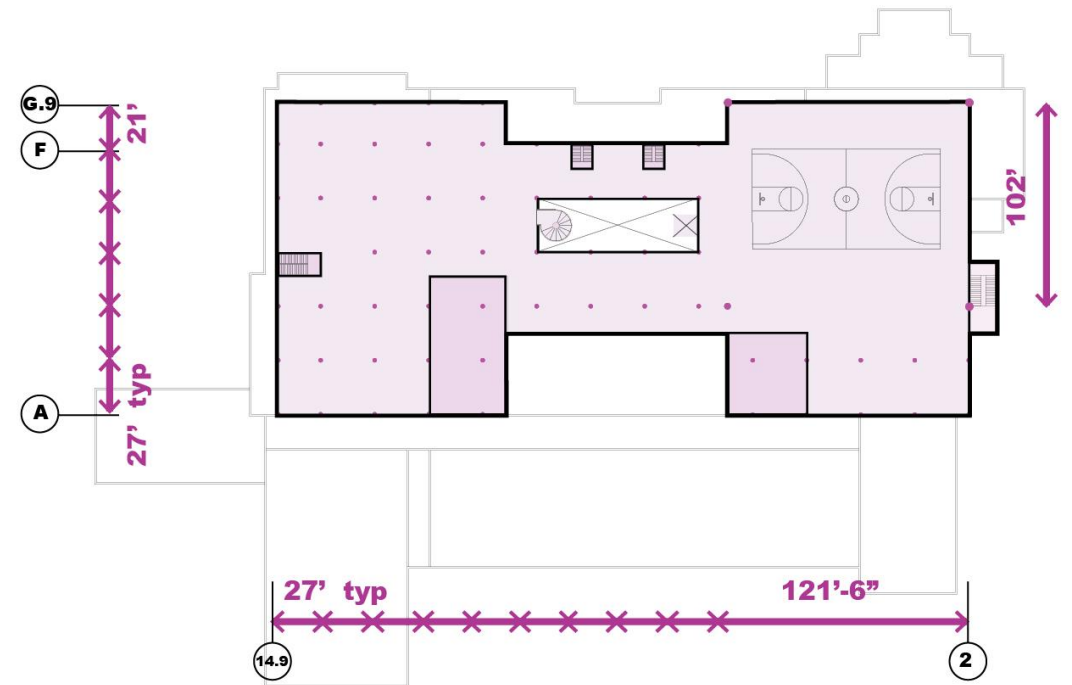
Section A
NTS

APPLYING WHAT WE LEARNED

LAYOUT STUDY 2

1. To the right we have a hybrid 3rd floor addition study. One portion with a 27' structural grid that aligns with levels below and another with a large span.

STUDY 2 FLOOR PLAN

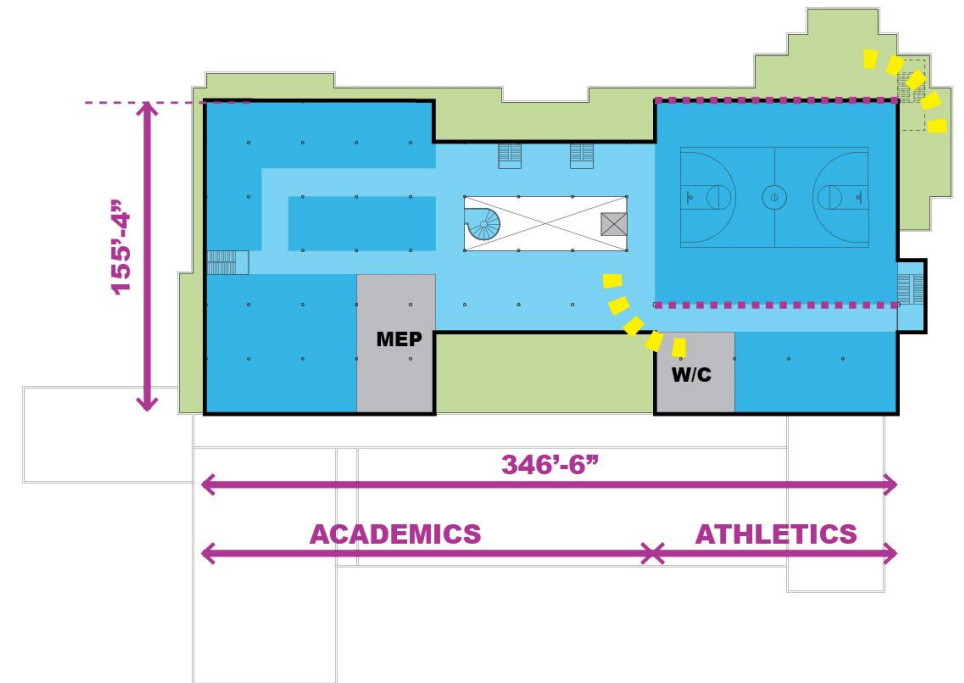


APPLYING WHAT WE LEARNED

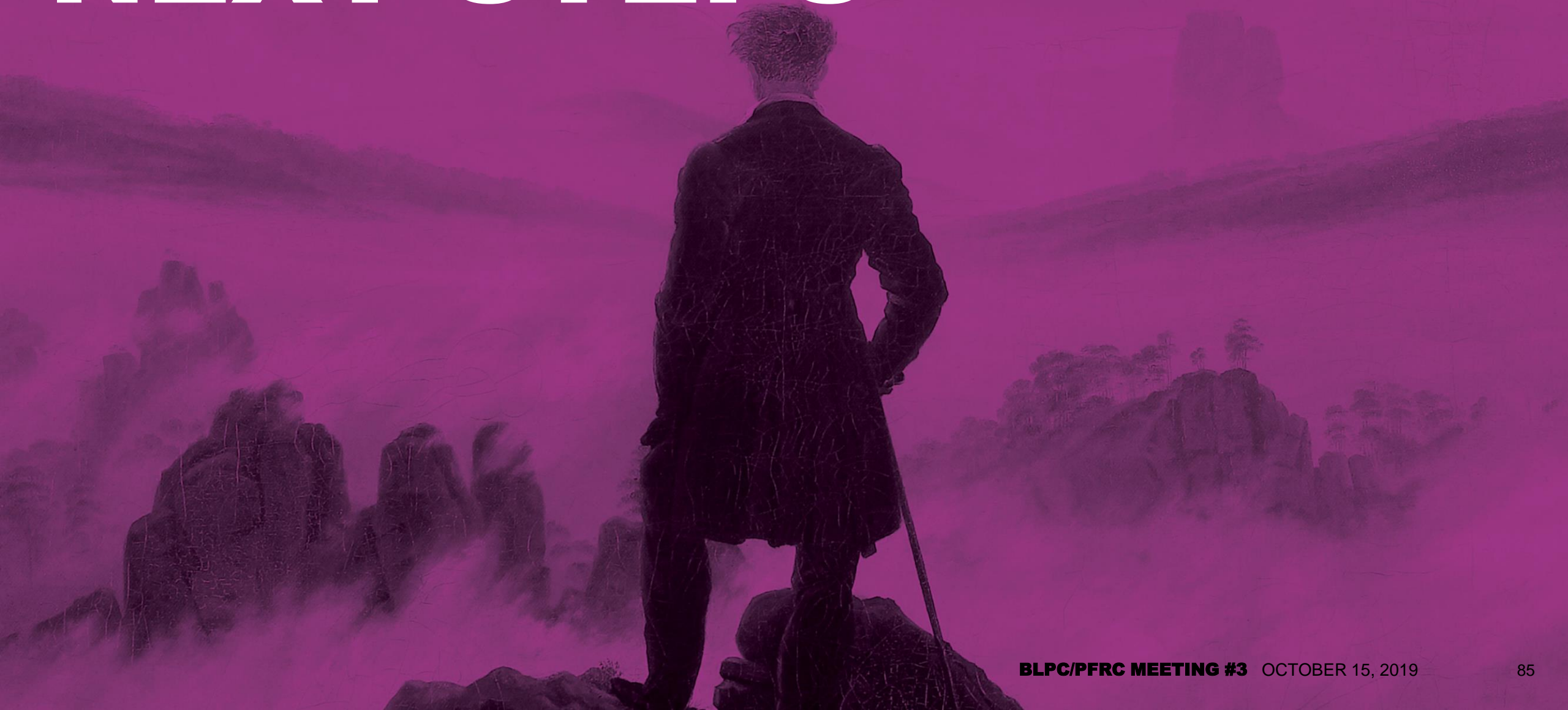
LAYOUT STUDY 2

1. To the right we have a hybrid 3rd floor addition study. One portion with a 27' structural grid that aligns with levels below and another with a large span.

STUDY 2 FLOOR PLAN



NEXT STEPS



MEETING #4

Agenda

Heights Building Tour (6:00 – 7:00 pm)

- Concept Design Workshop
- Public Comment

PLEASE NOTE: there will be no Heights Building tour on 10/29 and the joint BLPC/PFRC meeting will take place at the Career Center commons as per usual

Outcome

Identify emerging design ideas and directions through creative, collaborative work.

October				November			
W 01	W 02	W 03	W 04	W 01	W 02	W 03	W 04
			29				

#4 Preliminary Design Strategies

- Heights Building Tour
- Future-Ready Learning Environments
- Group Exercise
- Public Comment

Outcome

Identify emerging design ideas and directions through creative, collaborative work.

PUBLIC COMMENTS



ADJOURN



ADJOURN

As a reminder the APS Project Manager is:

Steve Stricker

(703) 228-7749

steven.stricker@apsva.us

Public meeting dates and past presentations are posted on the APS project website: <https://www.apsva.us/design-and-construction/arlington-career-center/>

Next meeting: **October 29, 2019 @ 7:00pm (6:00 – 7:00 Heights Tour)**

PLEASE NOTE: there will be no Heights Building tour on 10/29 and the joint BLPC/PFRC meeting will take place at the Career Center commons as per usual

To provide feedback and/or comments to APS use: engage@apsva.us