## **ARLINGTON CAREER CENTER EXPANSION**

# COMMUNITY MEETING (meeting will begin shortly)

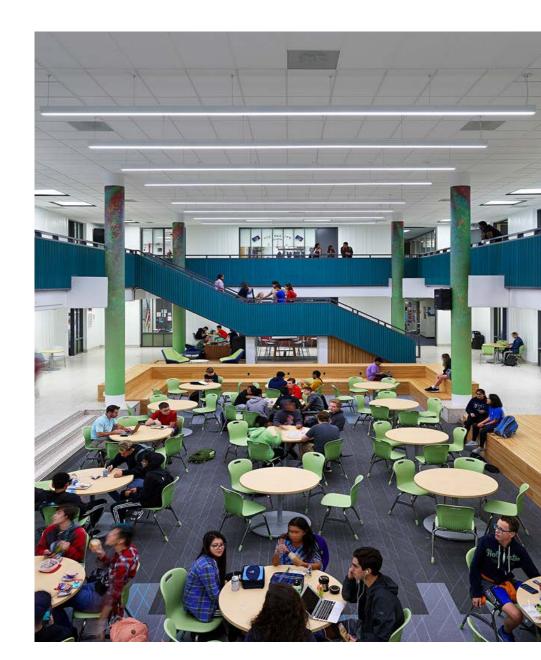
MAY 19, 2020





# VIRTUAL MEETING FORMAT

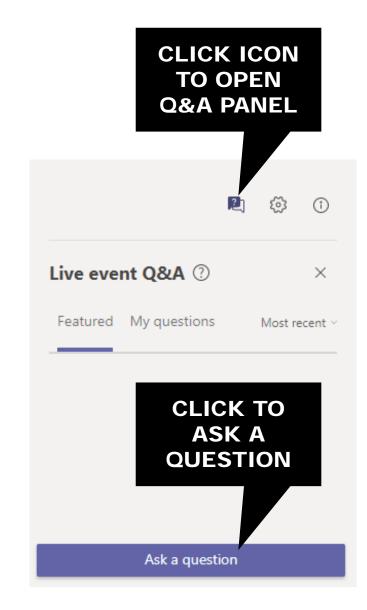
- 1. The meeting is hosted by APS to provide project updates to the Arlington community.
- 2. The meeting is not an official meeting of the Building Level Planning Committee (BLPC) or Public Facilities Review Committee (PFRC).
- 3. BLPC and PFRC Chairs and members were invited to participate.





# VIRTUAL MEETING FORMAT

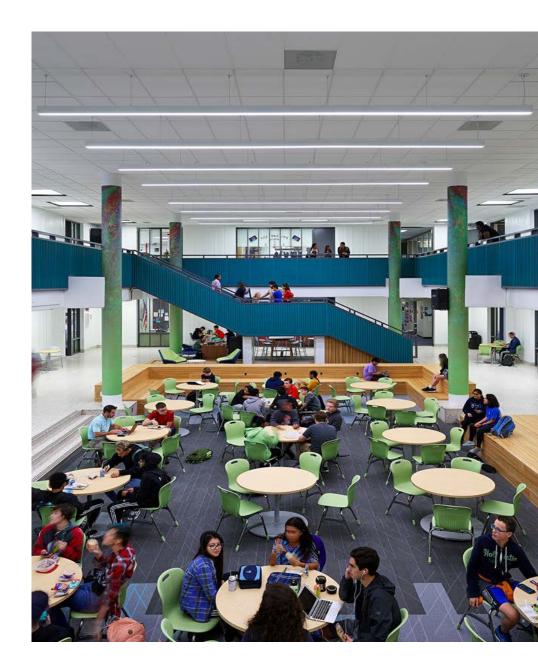
- 1. Welcome to our first virtual project meeting!! Please be patient with us as we navigate the new terrain.
- 2. Meeting will be recorded and posted to the project website.
- 3. Participants can provide comments and ask questions via the "Live event Q&A".
- 4. Staff will monitor submitted questions and respond during the meeting as time allows.
- 5. Feedback can also be provided via engage@apsva.us.





## AGENDA

- 1. Welcome
- 2. Review DRAFT Concept Design presentation for the May 21, 2020 School Board Information Item
- 3. Question & Answer





## **ARLINGTON CAREER CENTER EXPANSION**

# CONCEPT DESIGN

John Chadwick, Assistant Superintendent Facilities and Operations

SCHOOL BOARD INFORMATION ITEM

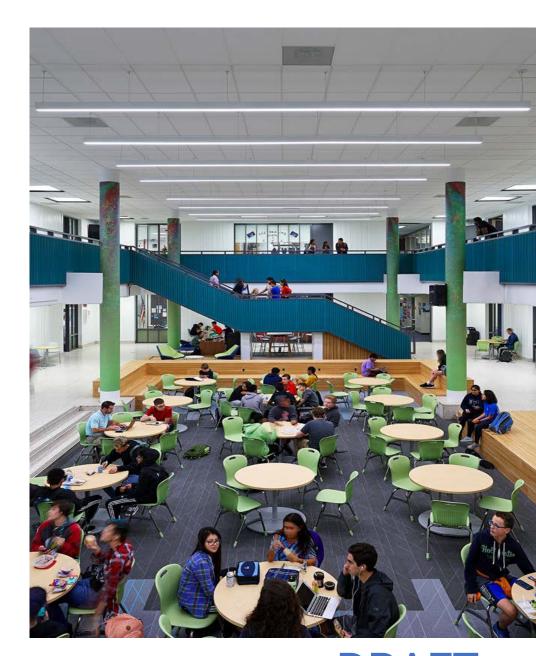
MAY 21, 2020





# AGENDA

- 1. Introduction
- 2. Educational Specifications (Ed Specs) Overview
- 3. Site Design
- 4. Initial Building Design
- 5. Revised Building Design
- 6. Recommendations









# INTRODUCTION

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SCHOOL BOARD INFORMATION ITEM MAY 21, 2020

# **CHECK IT OUT!**

https://www.apsva.us/design-and-construction/

### arlington-career-center/



Arlington Career Center Expansion

Hame / Design & Construction / Atlington Career Center Expension

### Design and Construction

Design & Construction

Awards and Recognitions

Advisory Council on School Facilities and Capital Programs



Alice West Fleet Elementary School

Arlington Career Center

#### Education Center Reuse

Dorothy Hamm Middle School

New Elementary School at Reed Building

The Heights Building Archived ROSTER. **RESPONSIBILITIES,** Ashlawn Addition PARTICIPANTS Discover **AND PROCESS** 

McKinley Additions/Renovations

### (VERY) RELEVANT BACKGROUND **INFORMATION**

### Additional 250 Arlington Tech seats for a total of 600 Arlington Tech spats by Sept. 2021 Creation of 800 new high school seats by Sept. 2025.

About the Career

Center Expansion

The FY 2019-28 Capital

Improvement Plan (CIP)

expansion projects:

contains two Career Center

The concept design phase for the Career Center Expansion is planned to begin in September 2019 including meetings with the Building Level Planning Committee (BLPC)/Public Facility Review Committee (PFRC). The process will include planning for continued growth of the Arlington Tech program. The School Board is scheduled to act on the concept design in March 2020. The concept design will inform development of the FY 2021-30 CIP, with School Board adoption expected in June 2020.

Building Level Planning Committee (BLPC) Membership

#### BLPC Charge

- Public Facilities Review Committee (PFRC) webpage
- Concept Design Phase Meeting Schedule

#### **Project Documents**

- May 1, 2019 Camp Casey Research and Historic Context Report
- September 5, 2018 Career Center Working Group (CCWG) webpage

#### and final report July 12, 2018 - Existing Conditions, Transportation Analysis Report

June 30, 2017 – School Board Approves Options for High School Seats

### news release

#### School Board Items

May 9, 2019 – Career Center Summer Work 2019 Presentatio





### SCHOOL BOARD INFORMATION ITEM MAY 21, 2020



meetings will start at 7pm and be held. Arlington Career Center Commons (816 5 Walter Reed Dr.) unless otherwise notified.\*\*\*

Meeting Schedule \*\*\*Al

September 17.

### SCHEDULED **MEETINGS ARE** SHOWN HERE

#### BLPC/PFRC

- October 29, 2019 -BLPC/PFRC
- November 20;
- 2019 BLPC/PFRC December 3.
- 2019 BLPC/PFRC
- December 18.
- 2019 BLPC/PFRC
- January 15, 2020 -BLPC/PFRC
- january 22, 2020 -
- Community Meeting
- February 19, 2020 - BLPC/PFRC
- February 26,

### RECENT PRESENTATIONS **TO SCHOOL**





## **PROJECT OVERVIEW**

800+ additional seats for ACC option programs

**Expansion of Arlington Tech** to 600 seats (As soon as possible)

> **High School-sized** gym/assembly space

**Performing Arts Center, Comprising Theater,** Black Box Theater and Music classrooms

> Cafeteria/ Multi-use space

Multi-use outdoor synthetic turf field with bleachers

450 to 500 space parking garage below grade, or other parking scenarios (to be developed in collaboration with Arlington County staff)



Columbia Pike Library to remain in place

(unless or until a suitable new location is found)

**Replacement**, enhancement and/or expansion of all special facilities for existing Career Technical Education (CTE) programs that are demolished or altered as part of the project

Future phases of expansion to allow as many different options as possible for phasing, instructional programs and outdoor athletic facilities, including possible neighborhood High School seats

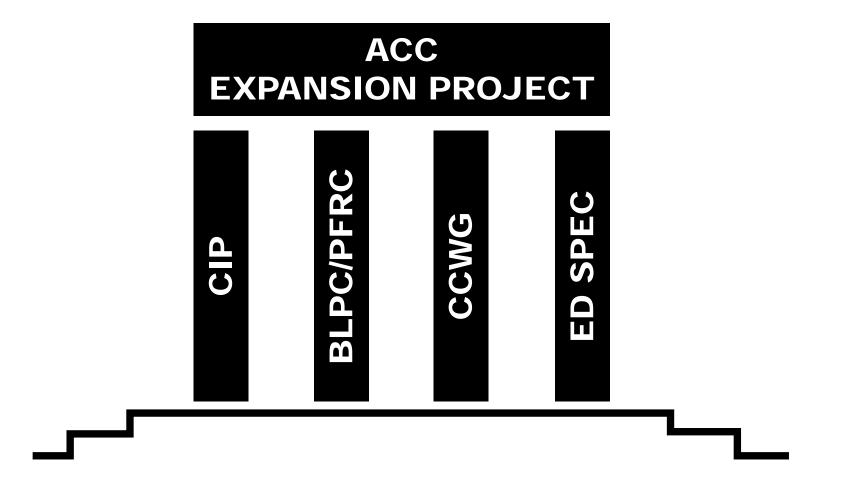
(as and when needed in the future)







## **PROJECT BUILDING BLOCKS**







SCHOOL BOARD INFORMATION ITEM MAY 21, 2020

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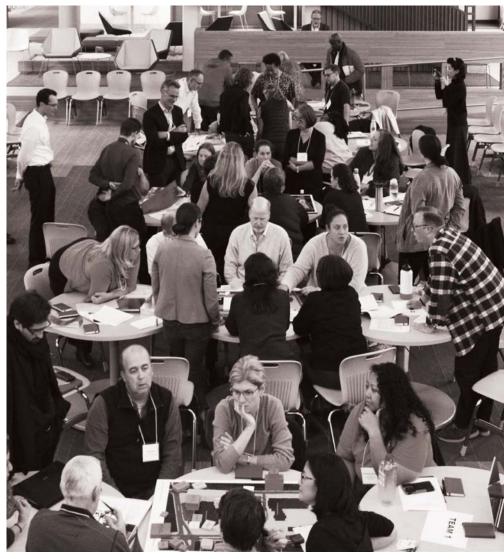
## THE JOURNEY WE'VE TAKEN – JOINT BLPC/PFRC

- Meeting No. 1: BLPC/PFRC Charge, Urban Design, CIP
- Meeting No. 2: CCWG, Transportation Study
- Meeting No. 3: Ed Specs, ACC Programs
- Meeting No. 4: Design Exercise
- Meeting No. 5: Bus and Parent Pick Up / Drop Off
- Meeting No. 6: Parking

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- Meeting No. 7: Auto Tech/Collision, Community, Service
- Meeting No. 8: Concept Design Review
- **Community Meeting:** Preliminary Concepts
- Meeting No. 9: Proposed Building Concept
- Meeting No. 10: Site Design and Garage Options
- **Community Meeting:** Revised Concept Design

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# EDSPECS **OVERVIEW**

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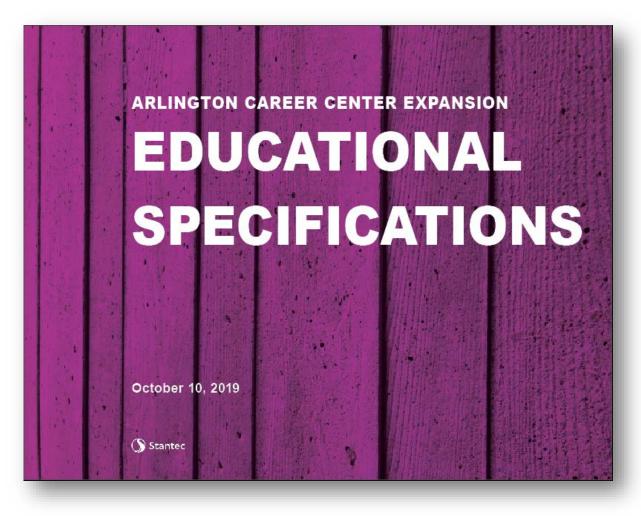
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PROGRAM AREA DESCRIPTION	Space	- CH	Art	Acad./	PEP	Total	NSF Ext'd	TS	NOTES
ACADEMIC / TECHNICAL									
Lace instruction									
						-44			
						24		114	
Subtot	al						53,300	58	
pecal Education							- Contraction		
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# **ED SPECS FOR THE ACC EXPANSION**

- Developed through a series of collaborative meetings with representatives from Department of Teaching and Learning, Arlington Career Center and Facilities and Operations
- Reflect APS and ACC pedagogy
- Adaptable to future instructional changes
- Approved by the School Board on November 7, 2019
- Refinements are anticipated as project develops at schematic and final design



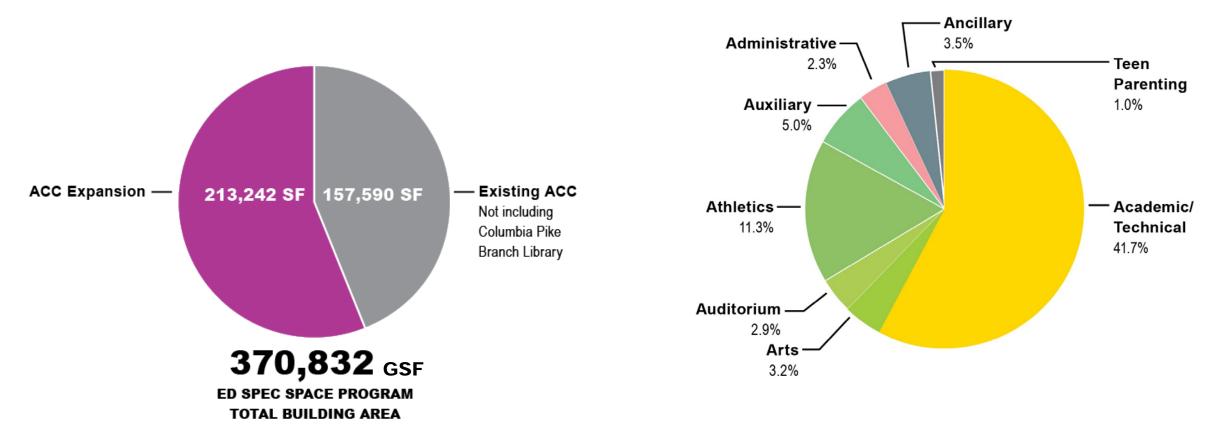




SCHOOL BOARD INFORMATION ITEM MAY 21, 2020



## **SPACE PROGRAM AT-A-GLANCE**



Note: GSF – Gross Square Footage





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# SITE DESIGN

Arlington Career Center

**CTE Shops** 

9th St South BOARD INFORMATION ITEM MAY 21, 2020



# **TRANSPORTATION: GOALS**

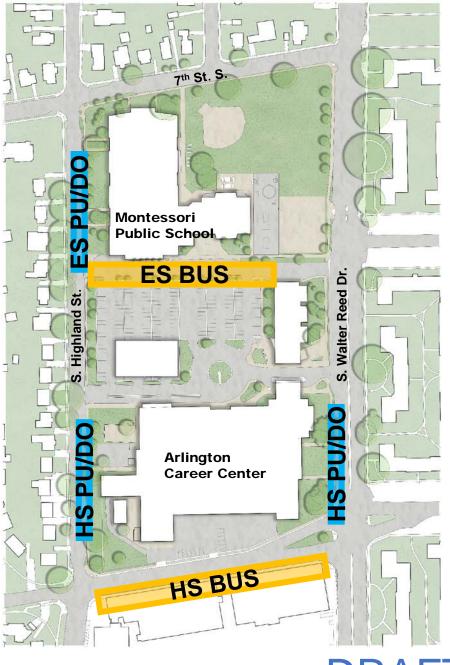
- 1. Provide and promote multi-modal options to help reduce the amount of driving to the Career Center
- 2. Create a safe campus for all modes of travel
- 3. Minimize traffic impact generated by the Career Center
- 4. Minimize parking costs of project
- 5. Minimize on-street parking conflicts
- 6. Provide efficient and convenient transportation options for APS families and staff
- 7. Minimize space dedicated to transportation on Career Center campus





## **BUS AND PARENT VEHICLE** PRELIMINARY RECOMMENDATION

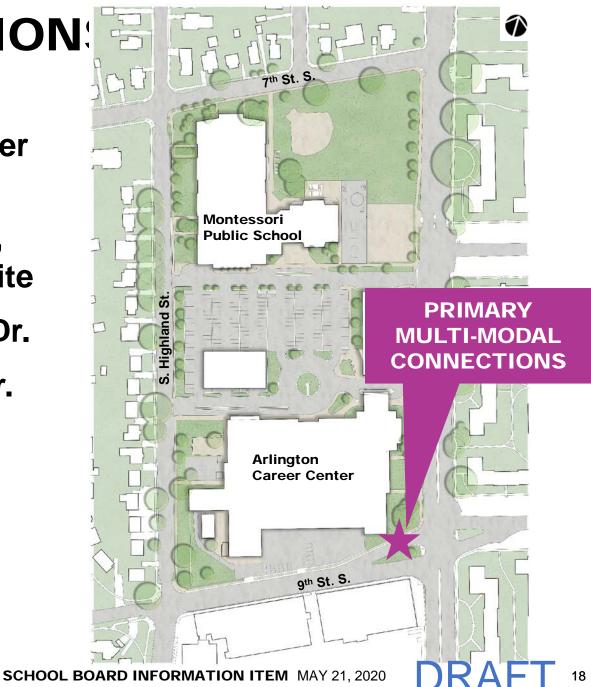
- Montessori bus loading/unloading and parent pick-up/drop-off (PU/DO) to remain in existing location
- Arlington Career Center bus loading/unloading to occur on 9<sup>th</sup>. St. S. (possible street closure at dismissal)
- Widen sidewalk on north side of 9<sup>th</sup> St. S.
- Arlington Career Center PU/DO expected to occur on S. Walter Reed Dr. and/or S. Highland St.





## MULTI-MODAL CONNECTION PRELIMINARY RECOMMENDATION

- Orient bike/ped/transit users to S. Walter Reed Dr. and the front door
- Distribute bike parking near front door, open space, and the perimeter of the site
- Minimize curb cuts on S. Walter Reed Dr.
- Work with County on S. Walter Reed Dr. "Complete Streets" program





## **PARKING** PRELIMINARY RECOMMENDATION

- Calculated peak "school day" parking demand for all uses and programs (ES, HS, and library) is 420 spaces
- APS prefers accommodating all peak demand on-site
- BLPC charge required study of multiple options for providing on-site parking
- No clear consensus reached between APS, Arlington County, BLPC, and PFRC on location of on-site parking
- Further discussion and study of options is required during schematic design





Possible Underground or Aboveground Location





# LOCATION OF ON-SITE PARKING

Items to consider when determining the quantity and location of on-site parking must include:

- 1. Maintaining safe school operations during construction
- 2. Initial capital and ongoing operational/maintenance costs
- 3. Construction phasing

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- 4. Trade-offs for alternative site uses:
  - a. Geothermal well field
  - b. Stormwater management (APS requirements and broader County goals)
- 5. Impact on flexibility for future site development
- 6. Ability to modify (expand or reduce) as parking demand changes





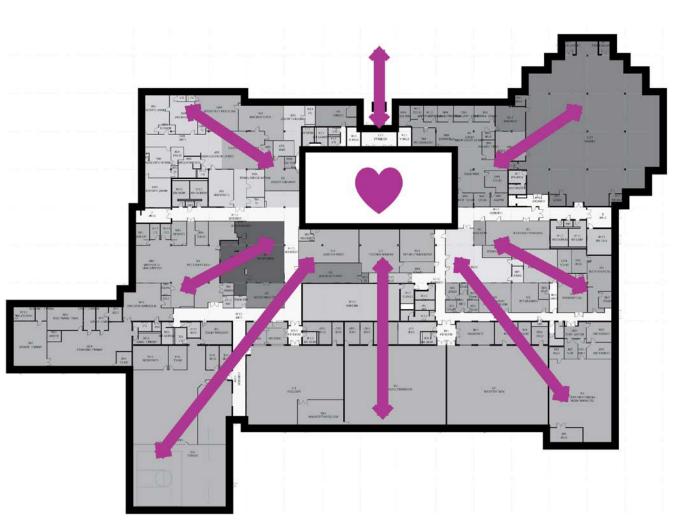
# NITIAL BUILDING DESIGN

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# **TRANSLATING THE ED SPECS**

### CONNECTED

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

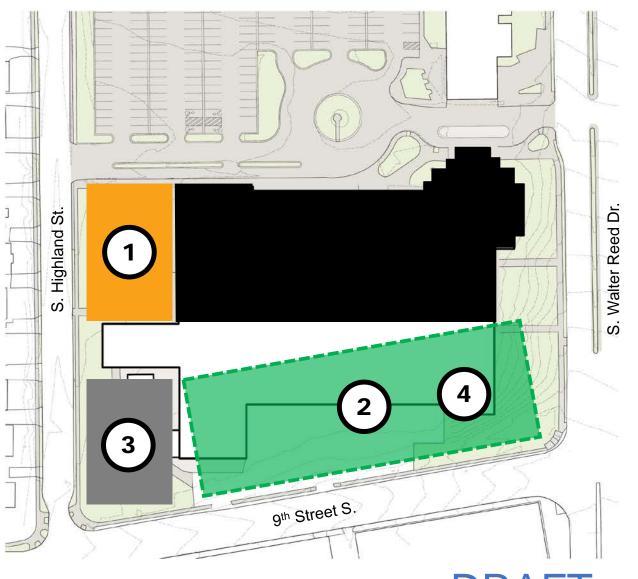






# **BLPC/PFRC: AREAS OF CONSENSUS**

- 1. CTE / Auto Programs Relocation
- 2. Community Program Location
  - Gym / Auditorium
- 3. Service Location
- 4. Maximize building height at corner of S. Walter Reed Dr. And 9<sup>th</sup> St. S.



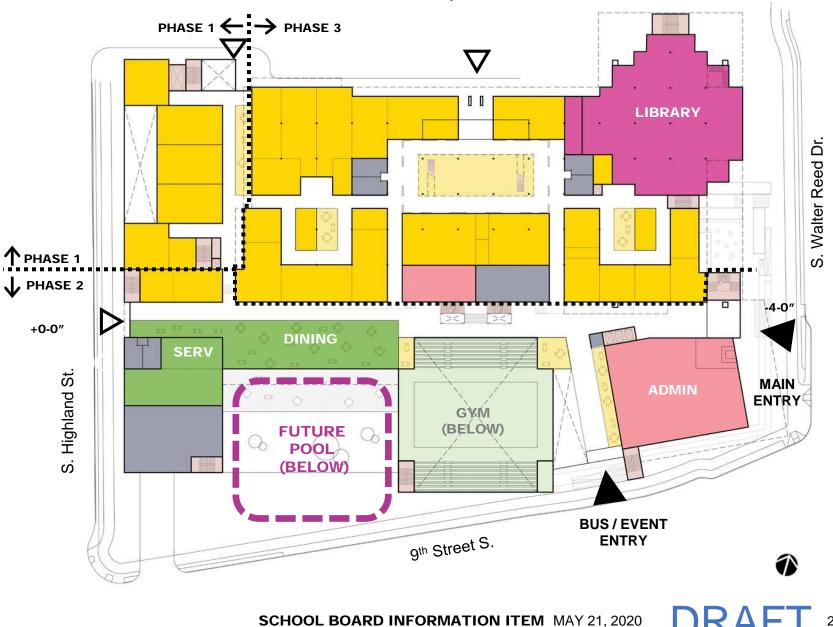


## LEVEL 1: (elev. -4' to level w/ exist. 1st floor)

### **FEATURES**:

- Main visitor entrance and bus/event entrance
- Columbia Pike Library
- Main office
- Classrooms and labs
- Student dining
- Kitchen and service

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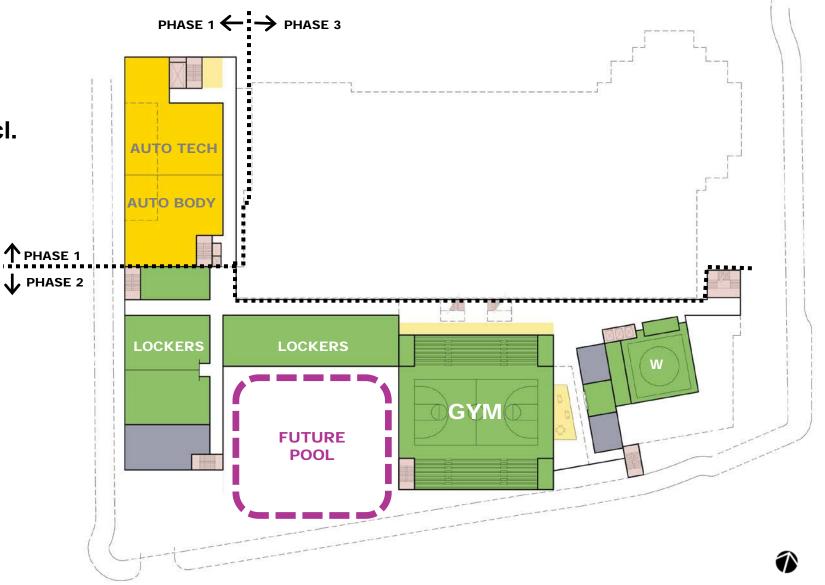




## LEVEL B: (elev. -16' below exist. 1st floor)

**FEATURES**:

- Competition Gymnasium, incl. concessions, toilets, etc.
- Wrestling Room
- Student Locker Rooms
- Auto Tech/Auto Body







## LEVEL 2: (elev. +12' above exist. 1st floor)

FEATURES:

- Auditorium
- Auxiliary Gymnasium
- Fitness area
- Classrooms and labs

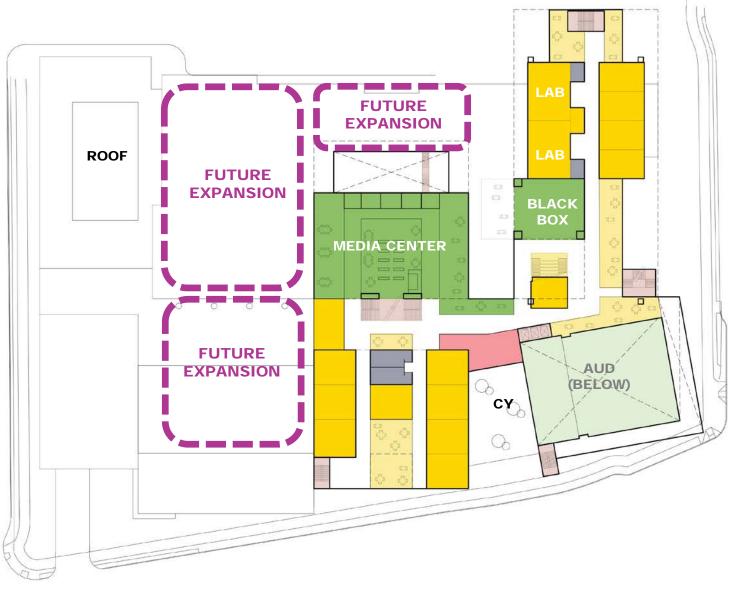




## LEVEL 3: (elev. +26' above exist. 1st floor)

### **FEATURES**:

- Black Box
- Media Center
- Outdoor courtyard
- Classrooms and labs
- ROOM TO GROW







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## LEVEL 4: (elev. +40' above exist. 1st floor)

FEATURES:

- Learning Stair
- Classrooms and labs







## LEVEL 5: (elev. +56' above exist. 1st floor)

FEATURES:

- Fine / Performing Arts
- Classrooms and labs
- ROOM TO GROW







## **CONSTRUCTION PHASING – FY2019-28 CIP**

FY2019-28 CIP considered two major project phases:

- School Year 2023-24 Athletic field and parking garage
- School Year 2025-26 800-seat addition and performing arts facility

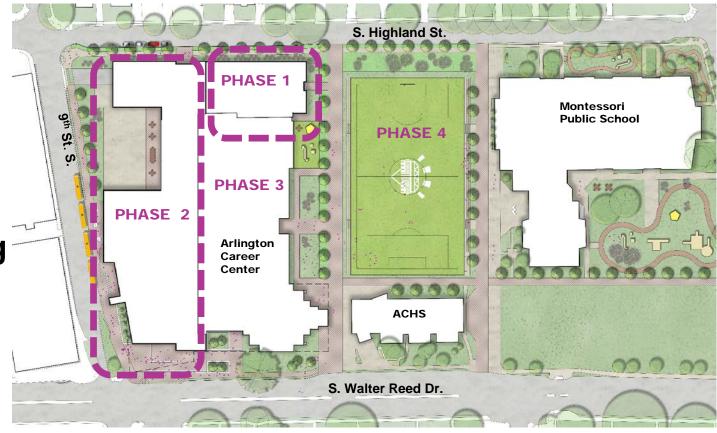
After extensive exploration during concept design, staff has concluded that completion of the athletic field prior to the 800-seat addition is not desirable because the area is needed to support continued school operations and construction logistics.





# **CONSTRUCTION PHASING – INITIAL DESIGN**

- Phase 1 west addition along S. Highland St.
- Phase 2 south addition along 9<sup>th</sup> St. S.
- Phase 3 renovation of existing building
- Phase 4 sitework, including athletic field
- Completion of parking garage depends on which option is selected.





# **COST ESTIMATES – INITIAL DESIGN**

- To ensure that School Board action is based on the most complete and up-to-date information, final total project cost estimates are prepared at the end of each major project phase by both the Architect/Engineering team (A/E) and Construction Manager at-Risk (CMR).
- Process for developing the final estimates:
  - A/E and CMR complete independent estimates
  - A/E and CMR meet to review draft estimates and reconcile to clarify scope
  - A/E provide revised estimates incorporating reconciliation efforts
- Estimates are influenced by historic cost databases and current market conditions.
- The COVID-19 crisis introduced volatility into the construction market making it difficult to project future construction costs. Typically cost estimates have assumed an escalation value between 4-5% per annum.
- It is unknown what impact COVID-19 will have on construction labor and materials.





# **COST ESTIMATES – INITIAL DESIGN**

- The A/E and CMR estimates for the initial design were relatively closely aligned, and both exceeded the approved funding indicated in the FY 2019-28 CIP.
- The overage is largely attributable to three items:
  - The project's total square footage, consisting of demolition, renovation, and new construction, grew considerably from the assumptions that formed the basis of the CIP;
  - Design and construction phasing complexity; and
  - A sharp increase in construction cost per square foot.



# **COST ESTIMATES – INITIAL DESIGN**

 Total project cost for building and garage identified in the FY 2019-28 CIP totaled \$184.70 million.

(7)	Estimated Total Project Cost for Building and Site (Excluding Garage)											
$\mathbf{\Sigma}$		Phase 1		Phase 2		Phase 3		Phase 4			Total	
Ζ		West	t Addition	Sou	th Addition	F	Renovation		Sitework		TOLAI	
	Construction Cost - CMR	\$	26.10	\$	139.37	\$	34.32	\$	6.31	\$	206.10	
$\Box$	Construction Cost - A/E	\$	18.81	\$	137.67	\$	36.09	\$	11.61	\$	204.18	
	Construction Cost - Average	Ś	22.46	\$	138.52	\$	35.21	Ś	8.96	Ś	205.14	
5	Construction Contingency	\$	1.12	\$	6.93	\$	2.82	\$	0.45	\$	11.31	
M	Soft (Owner) Costs	\$	5.89	\$	36.36	\$	9.51	\$	2.35	\$	54.11	
	Total	\$	29.47	\$	181.81	\$	47.53	\$	11.76	\$	270.57	

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	Estimated To	otal Pi	oject Cost fo	r Ga	arage Options			
			Option 1		Option 2	Option 3 7th/Walter Reed		
		Under Field		7th	/Walter Reed			
		Below Ground		A	bove Ground	Below Ground		
С	onstruction Cost - CMR	\$	37.23	\$	18.11	\$	29.72	
C	onstruction Cost - A/E	\$	34.32	\$	15.91	\$	28.09	
C	onstruction Cost - Average	\$	35.78	\$	17.01	\$	28.91	
С	onstruction Contingency	\$	1.79	\$	0.85	\$	1.45	
So	oft (Owner) Costs	\$	3.76	\$	1.79	\$	3.04	
Тс	otal	\$	41.32	\$	19.65	\$	33.39	
C	ost Per Space (420 spaces)	\$	98,381	\$	46,778	\$	79,489	

### Notes:

- 1. At this time, we cannot determine the impact of the COVID-19 crisis on the future construction market.
- 2. Costs presented in millions without escalation.
- 3. Construction Contingency calculated at 5% for new construction (Phase 1, 2, 4, and Garage) and 8% for renovation (Phase 3).
- 4. Soft (Owner) Costs calculated based on the sum of Construction Cost and Construction Contingency: 25% for building, 10% for garage.



# REVISED BUILDING DESIGN

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# **STRATEGIES TO REDUCE COST**

- 1. Minimize excavation and underpinning of existing building
- 2. Simplify building structure and exterior enclosure
- 3. Maximize addition above existing structure
- 4. Simplify construction phasing and logistics
- 5. Consider options to reduce building square footage
- 6. Explore alternative locations for future pool



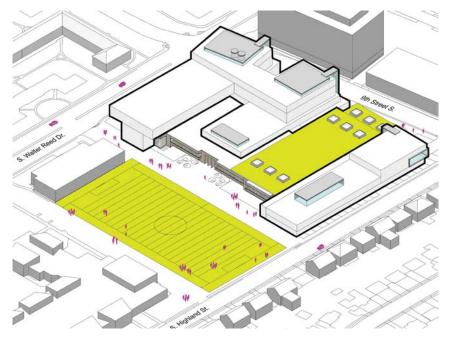




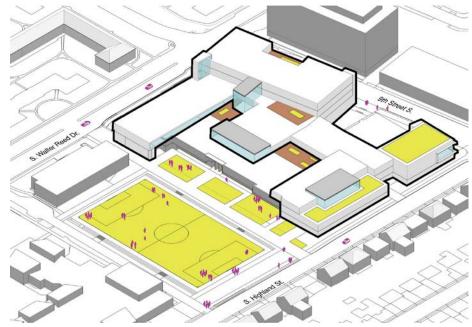
## **INITIAL AND REVISED BUILDING DESIGNS**

Revised design is generally consistent with initial design with two exceptions:

- 1. Reduces initial square footage by phasing the auditorium
- 2. Accommodates a future pool elsewhere on the campus



**Initial Building Design** 



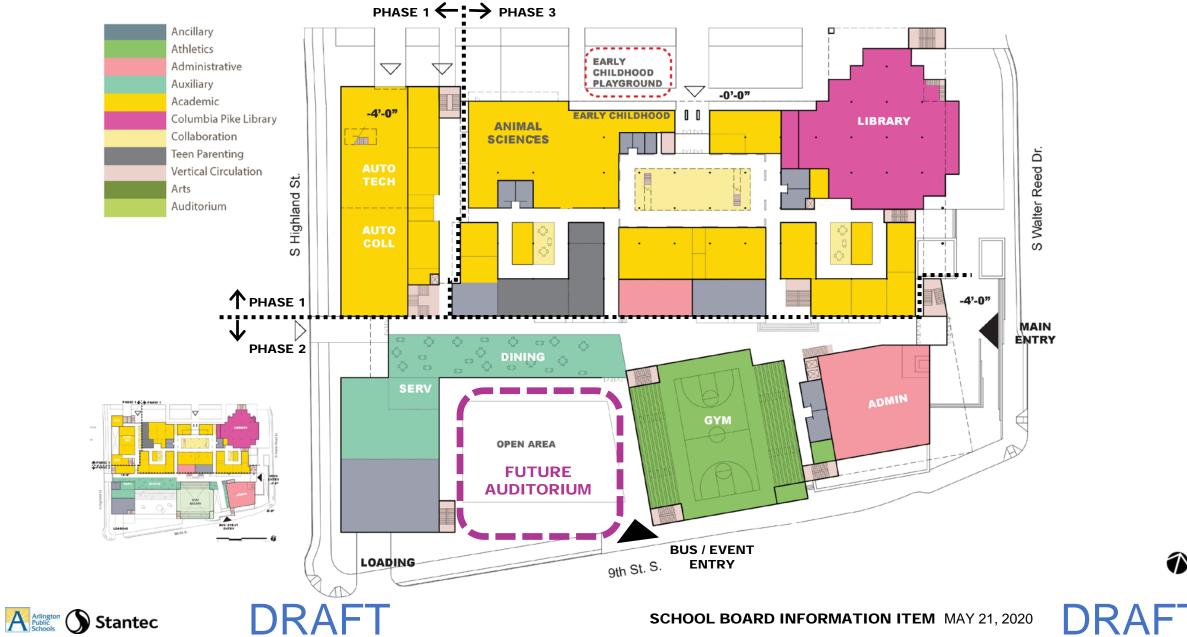
**Revised Building Design** 







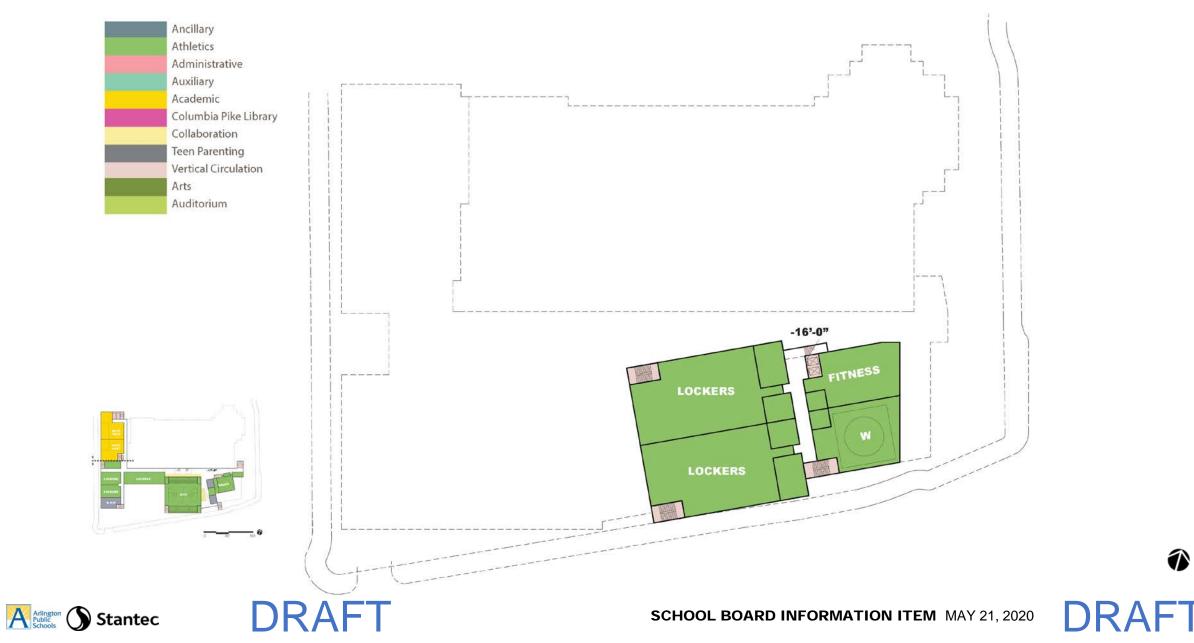
## LEVEL 1



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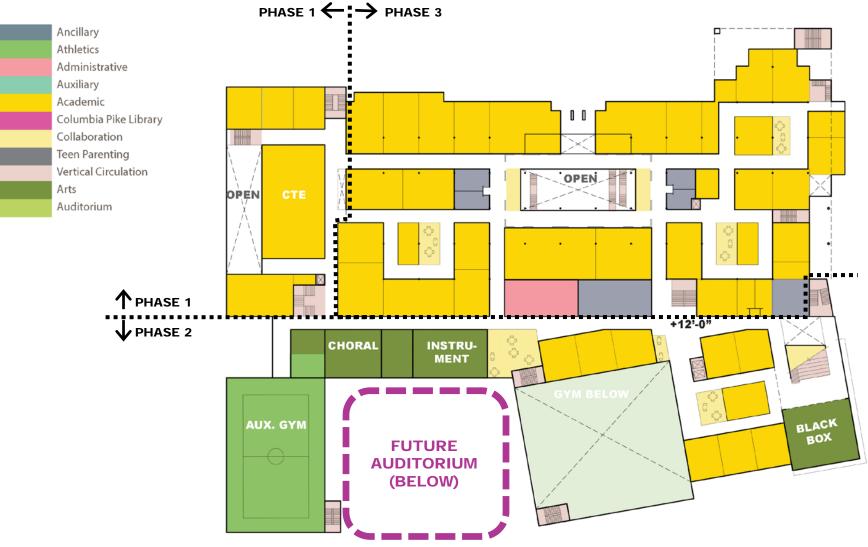
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## LEVEL B



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## LEVEL 2



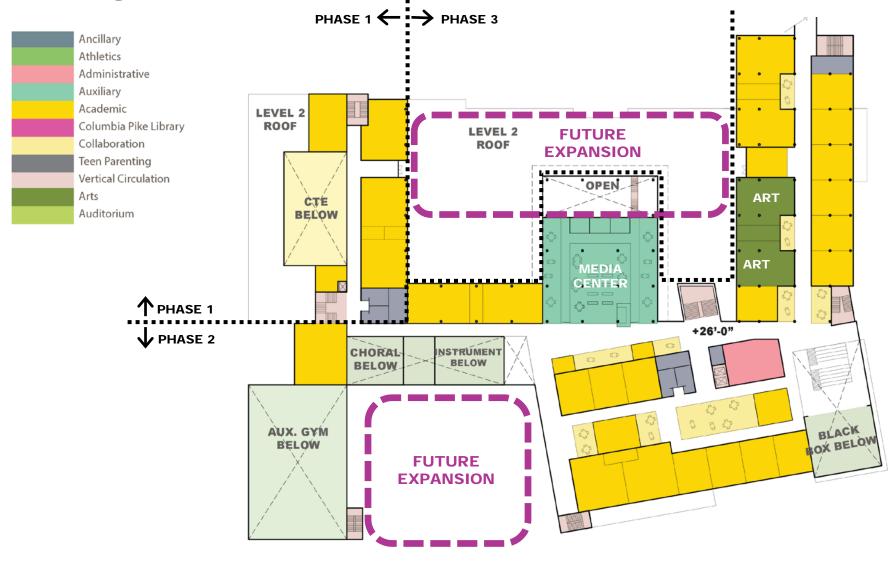


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## LEVEL 3



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## **LEVELS 4 AND 5**



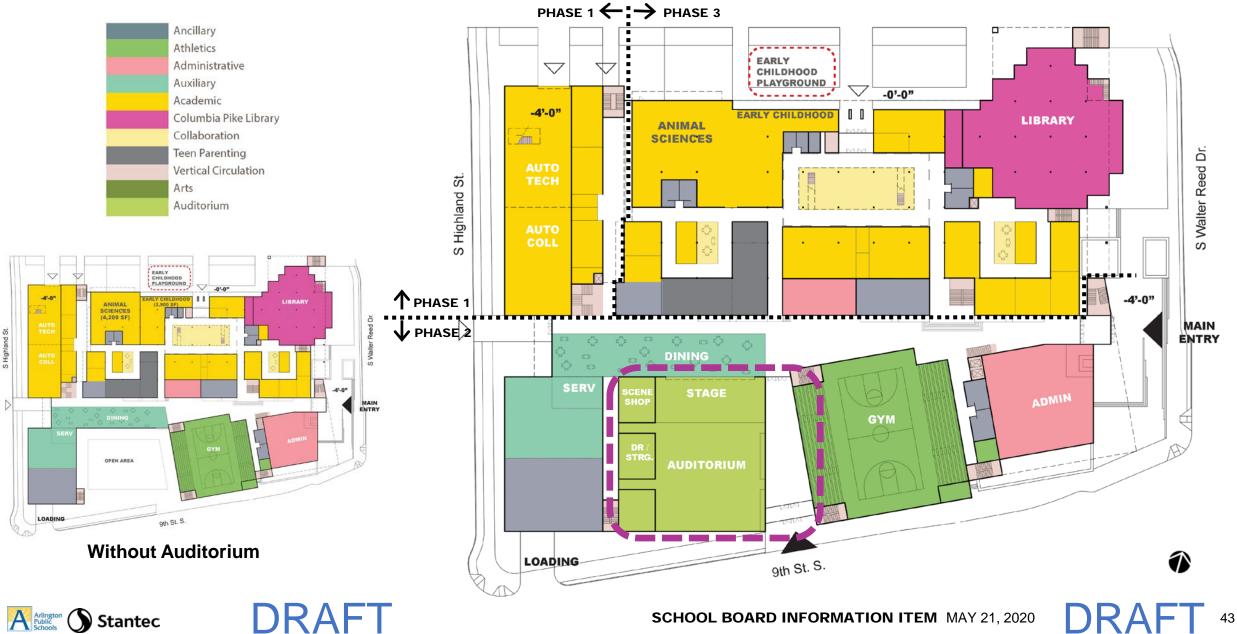




SCHOOL BOARD INFORMATION ITEM MAY 21, 2020

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## **LOCATION FOR FUTURE AUDITORIUM**



## (INITIAL BUILDING DESIGN) VIEW FROM INTERSECTION AT 9<sup>TH</sup> ST. AND S. WALTER REED DR.

SCHOOL BOARD INFORMATION ITEM MAY 21, 2020

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## (INITIAL BUILDING DESIGN) VIEW FROM INTERSECTION AT 9<sup>TH</sup> ST. AND S. WALTER REED DR.









## **(REVISED BUILDING DESIGN)** VIEW FROM INTERSECTION AT 9<sup>TH</sup> ST. AND S. WALTER REED DR.









### (INITIAL BUILDING DESIGN)

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It's happenning...! #proud (thepike #apscareercenter

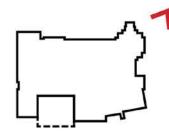
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VIEW ACROSS S. WALTER REED DR.







### (INITIAL BUILDING DESIGN)

VIEW ACROSS S. WALTER REED DR.









### (REVISED BUILDING DESIGN)

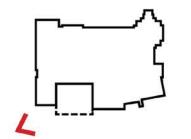
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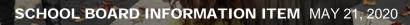




### (INITIAL BUILDING DESIGN)

VIEW FROM INTERSECTION AT S. HIGHLAND ST. AND 9<sup>TH</sup> ST. S.







## (INITIAL BUILDING DESIGN) VIEW FROM INTERSECTION AT S. HIGHLAND ST. AND 9<sup>TH</sup> ST. S.









## **(REVISED BUILDING DESIGN)** VIEW FROM INTERSECTION AT S. HIGHLAND ST. AND 9<sup>TH</sup> ST. S.

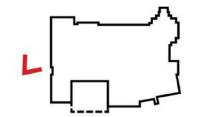




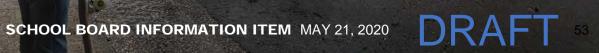




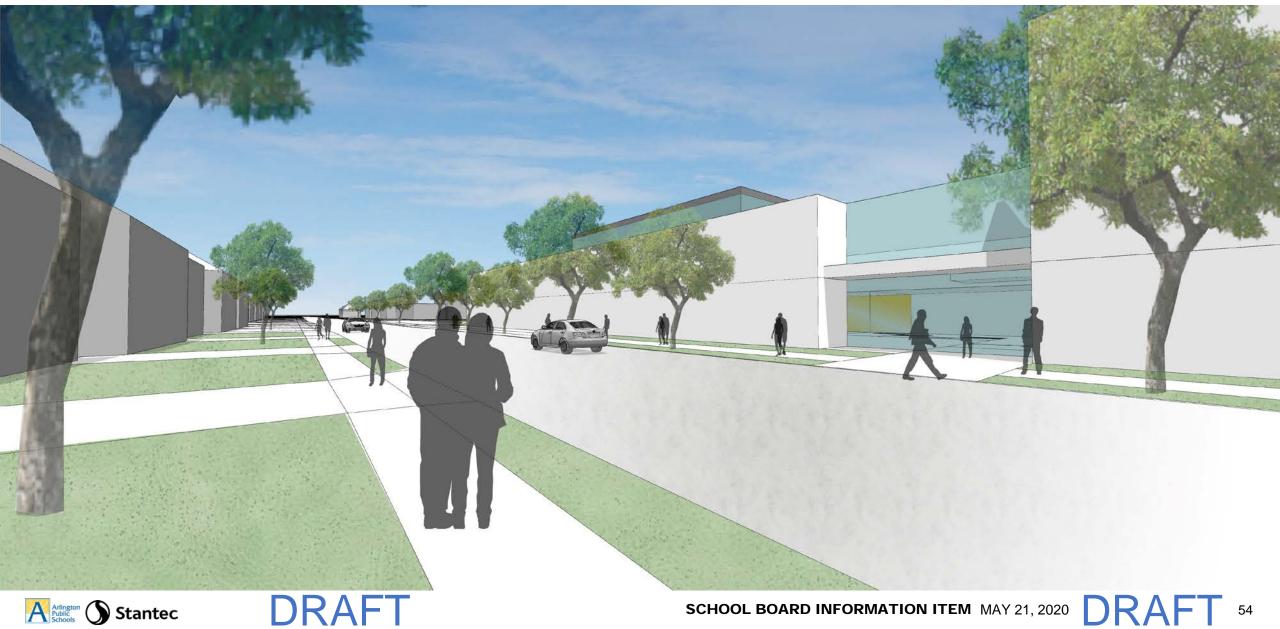
## (INITIAL BUILDING DESIGN) VIEW ACROSS S. HIGHLAND ST.







## (INITIAL BUILDING DESIGN) VIEW ACROSS S. HIGHLAND ST.



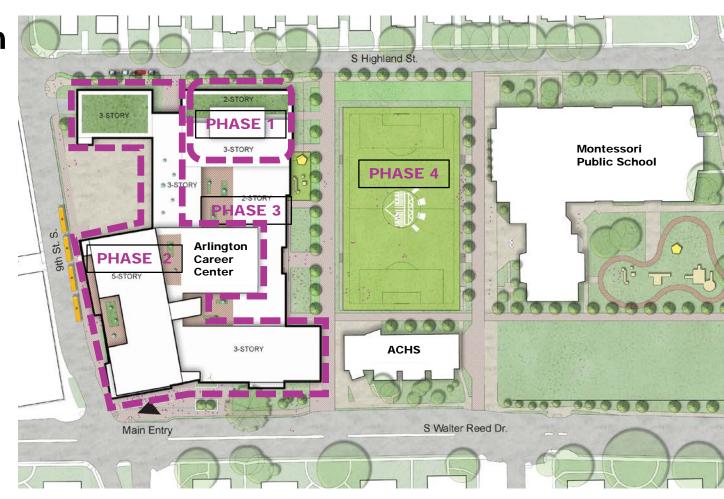
## (REVISED BUILDING DESIGN) VIEW ACROSS S. HIGHLAND ST.



## **CONSTRUCTION PHASING – REVISED DESIGN**

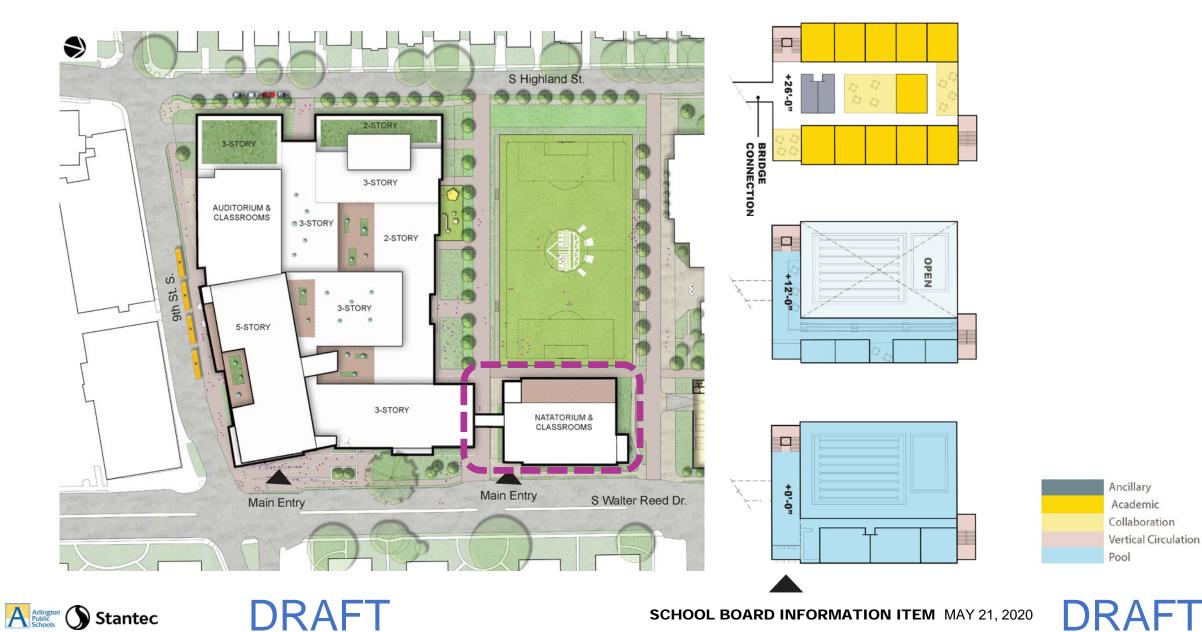
Phasing for the revised building design is largely consistent with the initial design.

Phase 1 may include some existing building renovation to enable the west addition along S. Highland St. to be more effective.





## **LOCATION FOR FUTURE POOL**



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## **COST ESTIMATES – REVISED DESIGN**

 Design revisions netted a reduction of approximately \$52 million, though still exceed the \$184.70 million identified in the FY 2019-28 CIP.

C	Estimated Total Project Cost for Building and Site (Excluding Garage)										
$\mathbf{\Sigma}$		Phase 1	Phase 2	Phase 3	Phase 4		Total				
Ζ		West Addition	South Addition	Renovation	Sitework		TOTAL				
	Construction Cost - CMR	\$ 23.88	\$ 106.57	\$ 28.83	\$ 6.39	\$	165.67				
	Construction Cost - A/E	\$ 21.50	\$ 101.32	\$ 30.76	\$ 11.30	\$	164.88				
		4	4		4						
	Construction Cost - Average	\$ 22.69	\$ 103.95	\$ 29.80	\$ 8.85	Ş	165.28				
	Construction Contingency	\$ 1.13	\$ 5.20	\$ 2.38	\$ 0.44	\$	9.16				
M	Soft (Owner) Costs	\$ 5.96	\$ 27.29	\$ 8.04	\$ 2.32	\$	43.61				
	Total	\$ 29.78	\$ 136.43	\$ 40.22	\$ 11.61	\$	218.04				

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Estimated Total Project Cost for Garage Options									
	Option 1			Option 2		Option 3		Option 4	
	ι	Jnder Field	7th	/Walter Reed	7th	/Walter Reed	7th	/Walter Reed	
	Be	low Ground	Ab	oove Ground	Be	elow Ground	Pi	refabricated	
Construction Cost - CMR	\$	37.25	\$	18.21	\$	29.86	\$	17.84	
Construction Cost - A/E	\$	34.32	\$	15.91	\$	28.09	\$	15.10	
Construction Cost - Average	\$	35.79	\$	17.06	\$	28.98	\$	16.47	
Construction Contingency	\$	1.79	\$	0.85	\$	1.45	\$	0.82	
Soft (Owner) Costs	\$	3.76	\$	1.79	\$	3.04	\$	1.73	
Total	\$	41.33	\$	19.70	\$	33.47	\$	19.02	
Cost Per Space (420 spaces)	\$	98,409	\$	46,915	\$	79,681	\$	45,293	

#### Notes:

- 1. At this time, we cannot determine the impact of the COVID-19 crisis on the future construction market.
- 2. Costs presented in millions without escalation.
- 3. Construction Contingency calculated at 5% for new construction (Phase 1, 2, 4, and Garage) and 8% for renovation (Phase 3).
- 4. Soft (Owner) Costs calculated based on the sum of Construction Cost and Construction Contingency: 25% for building, 10% for garage.



## COST ESTIMATES – REVISED DESIGN TOTAL PROJECT COST

- Total project cost for building and garage identified in the FY 2019-28 CIP totaled \$184.70 million.
- Depending on the options related to auditorium and garage, estimated total project costs range from \$237.06 to \$272.56 million.

	Estimated Total Project Cost								
			Without	With Auditorium					
			uditorium						
A	Building with Garage Option 1	\$	259.37	\$	272.56				
	Building with Garage Option 2	\$	237.75	\$	250.94				
2	Building with Garage Option 3	\$	251.51	\$	264.70				
	Building with Garage Option 4	\$	237.06	\$	250.25				
	FY2019-28 CIP	\$184.70							

### Notes:

- 1. At this time, we cannot determine the impact of the COVID-19 crisis on the future construction market.
- 2. Costs presented in millions without escalation.





## WHY DOES THE PROJECT COST SO MUCH?

- Educational Specifications include the following new spaces:
  - Gymnasium and locker rooms
  - Theater/auditorium and support spaces
  - Full-size cafeteria
  - Library
  - Music and art classrooms
  - Outdoor field space
- 800 seats and field require demolishing and rebuilding some existing spaces and building a parking structure.
- Complexity of construction and phasing to maintain and grow existing enrolment through construction add cost.
- Cost escalation has been greater than anticipated.

### **DRAFT**

## RECOMMENDATIONS

Recognizing that the estimated total project cost of the revised design substantially exceeds funding approved for the project in the FY 2019-28 CIP, and that debt capacity to fund the project will likely be reduced in future CIPs due to the impact of COVID-19 on the Arlington and national economies:

- Postpone approval of Concept Design;
- Evaluate other options, timelines and phasing for creating the 800 seats at the Career Center and/or at other locations;
- Evaluate other options, timelines and phasing for creating the spaces Arlington Tech and the other instructional programs at the Career Center are lacking as soon as possible; and
- Recognize continued need for 800 seats in CIP to be approved on June 25, 2020; evaluate options for 800 seats during 2020-21 School Year; include capital projects to provide 800 seats in CIP to be adopted in June 2021.



# OUESTION & ANSVER

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