



Arlington Public Schools

New Elementary School at Reed-Westover
SCHEMATIC DESIGN PHASE REPORT 08.02.2018

VMDO

VMDO believes that our best projects are the result of deep collaborations with all project stakeholders. We wish to thank the APS School Board, the Building Level Planning Committee, Public Facilities Review Committee, and the school based and central office staff that participated in this process.

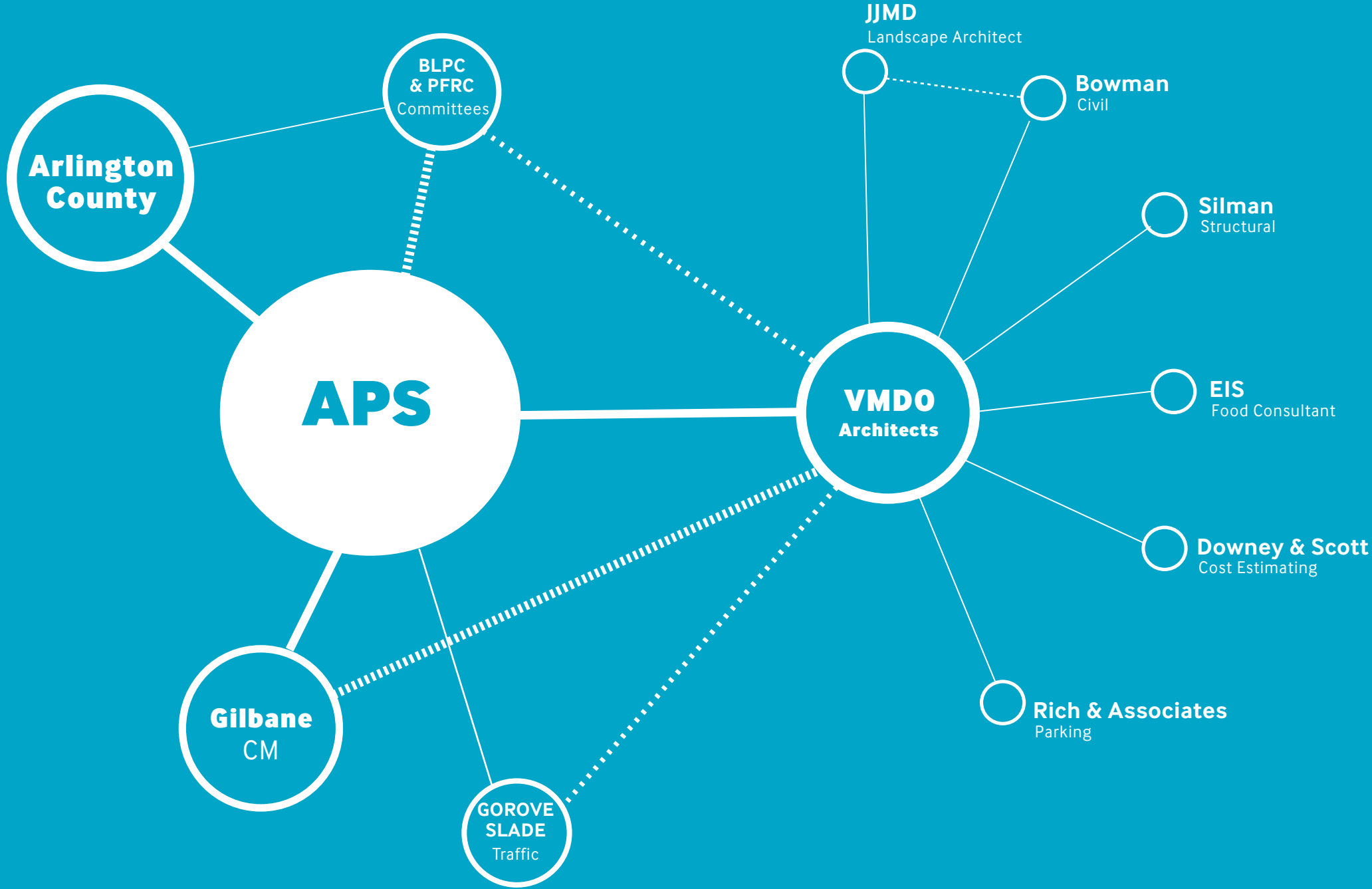
We appreciate their collective vision and the trust that they have placed in us as designers.

We also recognize that countless hours of time have been invested in our shared goal of creating a better school and we thank each of them for their contributions. We believe they will pay great dividends for the children of Arlington for many years to come.

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Project Team Relationships



01

Introduction

Executive Summary

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Executive Summary

This Schematic Design Phase Report reflects that capital project that was presented to the Arlington Public Schools School Board as an information item on July 17th and approved as an action item on August 2nd, 2018. The New Elementary School at Reed-Westover will have a capacity of 732 students in a 110,672 gross square foot building. It is scheduled to open in September of 2021 and has a not-to-exceed total project cost of \$55 million.

The report provides expanded detail on summary information from the two School Board presentations. This includes, but is not limited to:

- existing site documentation
- comprehensive list of spaces in the building
- a fully annotated site plan
- the anticipated pallet of exterior building materials
- a fully detailed tree plan indicating anticipated trees to be removed
- truck turning analysis at the loading dock off North Madison Street.

Recommendation letters from the respective Chairs of the Building Level Planning Committee (BLPC) and the Public Facilities Review Committee (PFRC), along with the final motion for School Board approval, can be found at the end of the Report.

The building and site design documented in this Report is the result of fourteen (14) meetings with the BLPC and PFRC over 9 months, beginning in late October 2017. Over that time, six (6) different designs were considered, with the final design receiving near unanimous support from both Committees. The building follows the precedent of a four (4) story elementary established by Alice West Fleet Elementary (currently under construction) and is a direct reflection of the often-repeated desire among Arlington residents to “build up and not out”. Many steps have been taken to ensure that the height and massing of the building appropriately blend in with the neighborhood context. The compact building footprint and appropriately sized parking, sidewalks, and play courts result in an only 22,363 square foot increase in impervious area to the site as a whole -- a major reason for the widespread popular support for the scheme.

As the building design moves through the next phases of documentation and permitting, every effort is being made to construct and open the building under the maximum cost of \$55 million. Project funding is dependent upon approval by the voters of Arlington in the November 2018 bond referendum.

Project Team

ARLINGTON PUBLIC SCHOOL BOARD

Patrick K. **Murphy**, Superintendent
 Reid **Goldstein**, Chair
 Tannia **Talento**, Vice Chair
 Barbara **Kanninen**, Member
 Monique **O'Grady**, Member
 Nancy **Van Doren**, Member

BUILDING LEVEL PLANNING COMMITTEE (BLPC)

Chair
 Hans **Bauman**, Chair

PTA/Parents
 Lauren **Reardon**, Discovery ES
 David **Goodman**, Glebe ES
 Fraser **Kadera**, McKinley ES
 Stacy **Rosenthal**, Nottingham ES
 Julie **Pandya**, Tuckahoe ES

Civic Associations
 Michael **O'Malley**, Highland Park Overlee Knolls
 Dianne **Hasselman**, Highland Park Overlee Knolls
 Molly **Ketcham**, Westover Village
 Michelle **Hejl**, Tara - Leeway Heights
 Vanessa **Guest**, Leeway Overlee Civic Association
 Stephanie **Talton**, Dominion Hills
 Sheila **Leonard**, Madison Manor

Other
 Miles **Mason**, Facility Advisory Council (FAC)
 Hamna **Shariq**, Student Advisory Board (SAB)
 James **Schroll**, Public Facilities Review Committee (PFRC)
 Bill **Braswell**, Immediate Neighbor / Previous BLPC
 Monique **O'Grady**, School Board Liaison
 Dena **Little**, Chief of Branch Services, Arlington County Library

APS Instruction
 Eileen **Gardner**, Assistant Principal, McKinley
 Tani **Vaughn**, Teacher, McKinley
 Kristen **Bartholomew**, Teacher, McKinley
 Allison **Andrews**, Teacher, Barcroft
 Wendy **Pilch**, Director of Elementary Education
 Heather **Hurley**, Supervisor of Personalized Learning

ARLINGTON PUBLIC SCHOOLS FACILITIES

John **Chadwick**, Assistant Superintendent for Facilities and Operations
 Jeff **Chambers**, Director of Design and Construction
 Benjamin **Burgin**, Assistant Director of Design & Construction
 Ajibola **Robinson**, Project Manager
 James **Meikle**, Director of Maintenance Services

PUBLIC FACILITIES REVIEW COMMITTEE (PFRC)

John **Vihstadt**, County Board Liaison

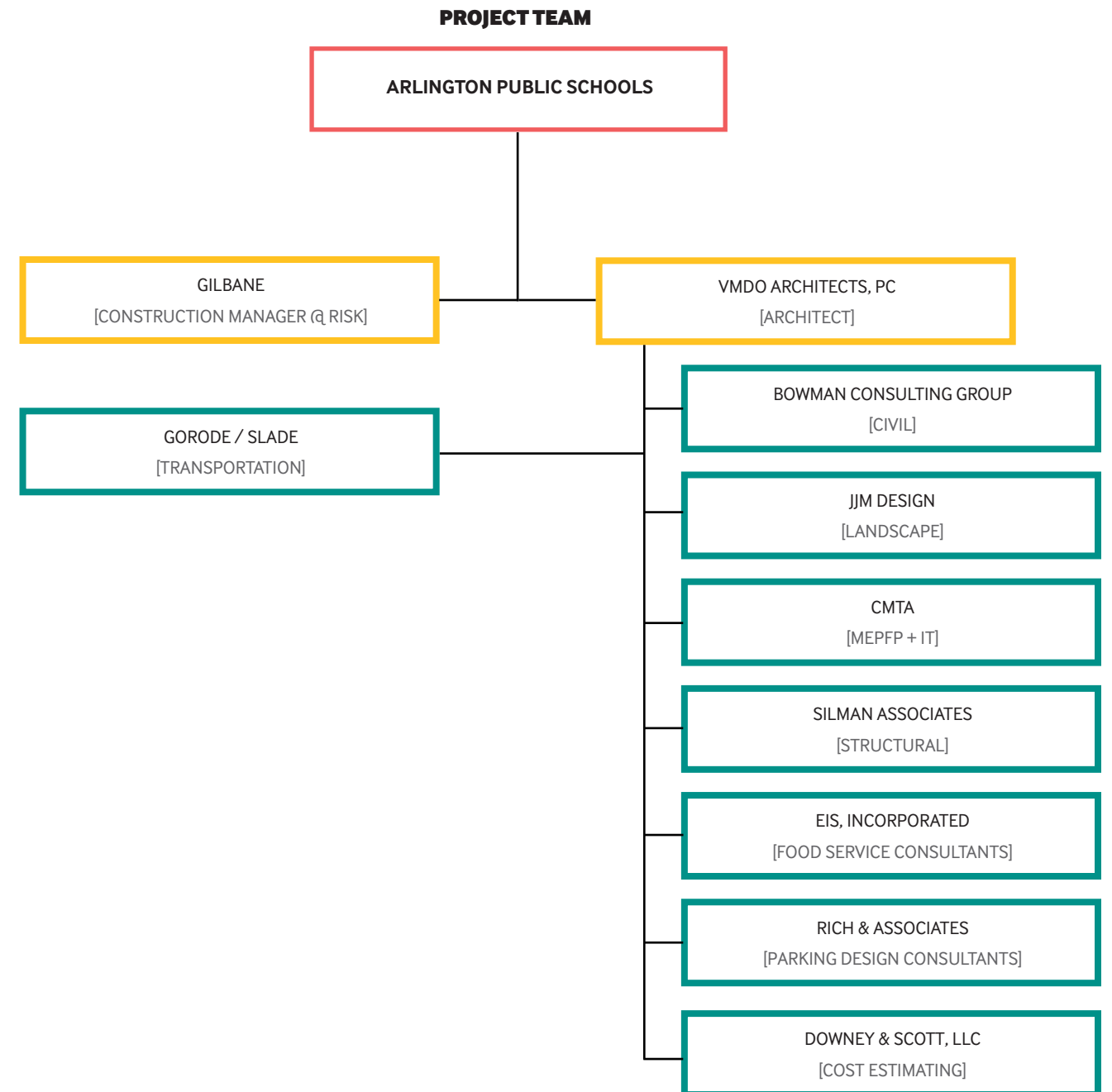
Core Members
 Hans **Bauman***, Seat 10 - APS Rep (BLPC Chair)
 James **Schroll***, Chair, PC Rep
 Doris **Ray**, Seat 2 - DAC Rep
 Stephen **Hughes**, Seat 3 - PC Rep
 Jessica **Skerritt**, Seat 4 - E2C2 Rep
 Jim **Lantelme**, Seat 5 - PC Rep
 Stephen **Baker**, Seat 6 - FAAC Rep
 Todd **McCracken**, Seat 7 - APS Rep
 Jeffrey **Certosimo**, Seat 8 - Housing Commission Rep
 Chris **Forinash**, Seat 9 - At Large
 Terri Hume **Prell**, Seat 11 - At Large
 Kevin **Rachlin**, Seat 12 - PRC Rep
 Michael **Perkins**, Chair, Seat 13 - TC Rep
 Nora **Palmatier**, Seat 14 - At Large (Urban Forestry)

Reed Project Specific Members
 Mike **O'Malley***, Highland Park - Overlee Knolls
 Michelle **Hejl***, Tara-Leeway Heights
 Molly **Ketcham***, Westover Village

Other
 Rob **Swennes**, Highland Park, Westover Farmers Market
 Kristy **Peterkin**, Westover Retail

VMDO ARCHITECTS PROJECT TEAM

Wyck A. **Knox**, AIA, LEED AP, Principal in Charge, Project Manager
 Bryce **Powell**, AIA, LEED AP BD+C, Project Manager
 Robert **Winstead**, AIA, LEED AP BD+C, Project Architect (Planning)
 Ken **Thacker**, AIA, LEED AP BD+C, Project Architect (Structure)
 Kelly **Callahan**, AIA, Project Architect (Exterior)
 Tyler **Jenkins**, Job Captain
 Maria L. **Bninski**, AIA, LEED AP BD+C
 Jon **Shealy**, AIA, LEED AP BD+C



Community Roles & Charges

Building Level Planning Committee (BLPC)

1. Primary Role:

The primary role of the BLPC is to serve as the principal communication liaison with community stakeholders. The BLPC is expected to assure effective community input during the design and construction of the project, and to collaborate with various community stakeholders to create plans that are broadly supported. Facilities and Operations Department staff shall facilitate the work of the BLPC in carrying out this critical communication function. BLPC members shall establish regular lines of communication, including email lists, web sites and attendance at community meetings, to assure appropriate community engagement in the process.

2. Communications:

Communication with stakeholders interested in school construction projects is critical. The following key roles have been identified to assure effective communication and community engagement in the BLPC process.

- PTA members of the BLPC shall keep parents informed of Concept Design, Schematic Design and other progress of the project.
- Civic association members of the BLPC and the Chair of the BLPC shall ensure notification and provide information to neighbors of the school regarding the Concept Design, Schematic Design and other progress of the project. Comments should be solicited by and shared with the BLPC for consideration.
- The BLPC, in conjunction with its civic association members, or through direct contact with the civic associations, shall ensure notification and coordination of the Concept Design and Schematic Design and progress of the project through outreach to the broader community through the civic associations. Comments should be solicited by and shared with the BLPC for consideration.
- The BLPC shall provide information on the Concept Design, Schematic Design and other progress of the project to the greater Arlington community. Comments, and/or directions, received from the School Board, or comments received directly from community members, shall be considered by the BLPC.
- The BLPC shall assist the staff of the Department of Facilities and Operations and the project architect with a public meeting prior to completion of Schematic Design. The BLPC shall receive comments from the public, the School Board, the County Board, PFRC, and relevant County Commissions.
- Facilities and Operations staff shall inform BLPC members of any School Board meeting agenda items concerning the project.

3. School Board Direction:

The BLPC will assist the School Board to achieve Goal 4 of the APS 2011-17 Strategic Plan 4 to Provide Optimal Learning Environments that are adaptable to future changes of use, energy efficient, environmentally sustainable, and provide adequate outdoor space for physical education, recess and community use.

The BLPC shall remain mindful throughout its participation that the project must be completed on time and within or for less than \$49 million, and that it must accommodate the minimum number of students approved by the School Board.

Link to BLPC Charge:

<https://www.apsva.us/wp-content/uploads/2017/09/NES-at-Reed-BLPC-charge-SB-approved.pdf>

Public Facilities Review Committee (PFRC)

1. Mission:

The Public Facilities Review Committee's (PFRC) mission is to ensure that the highest quality of land use planning, design, transportation planning, and other important community aspects are incorporated into civic projects as assigned to the Committee by the Arlington County Board.

2. Scope of Duty:

PFRC is being formed as a mechanism for advisory commissions and committees to have timely input on the development of significant County and School projects prior to the formal submittal of the project for public hearings held by the Planning Commission and County Board. The major responsibilities of the PFRC are the following:

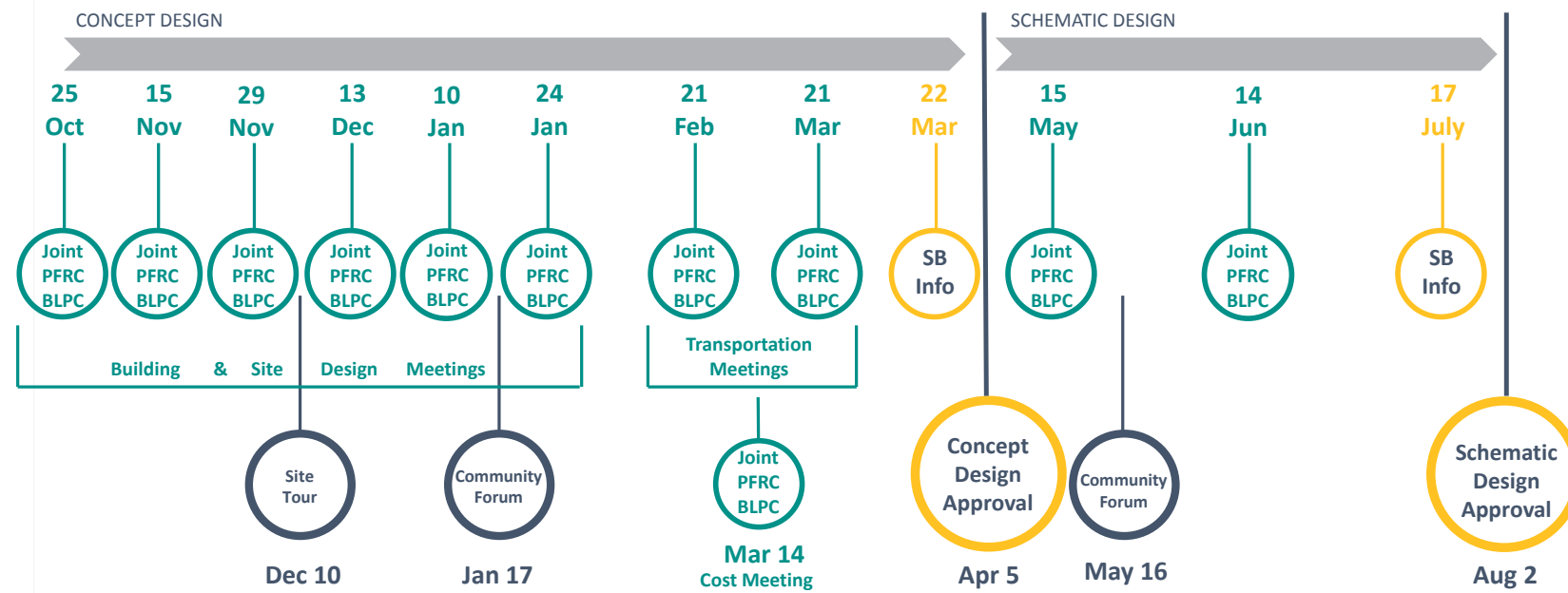
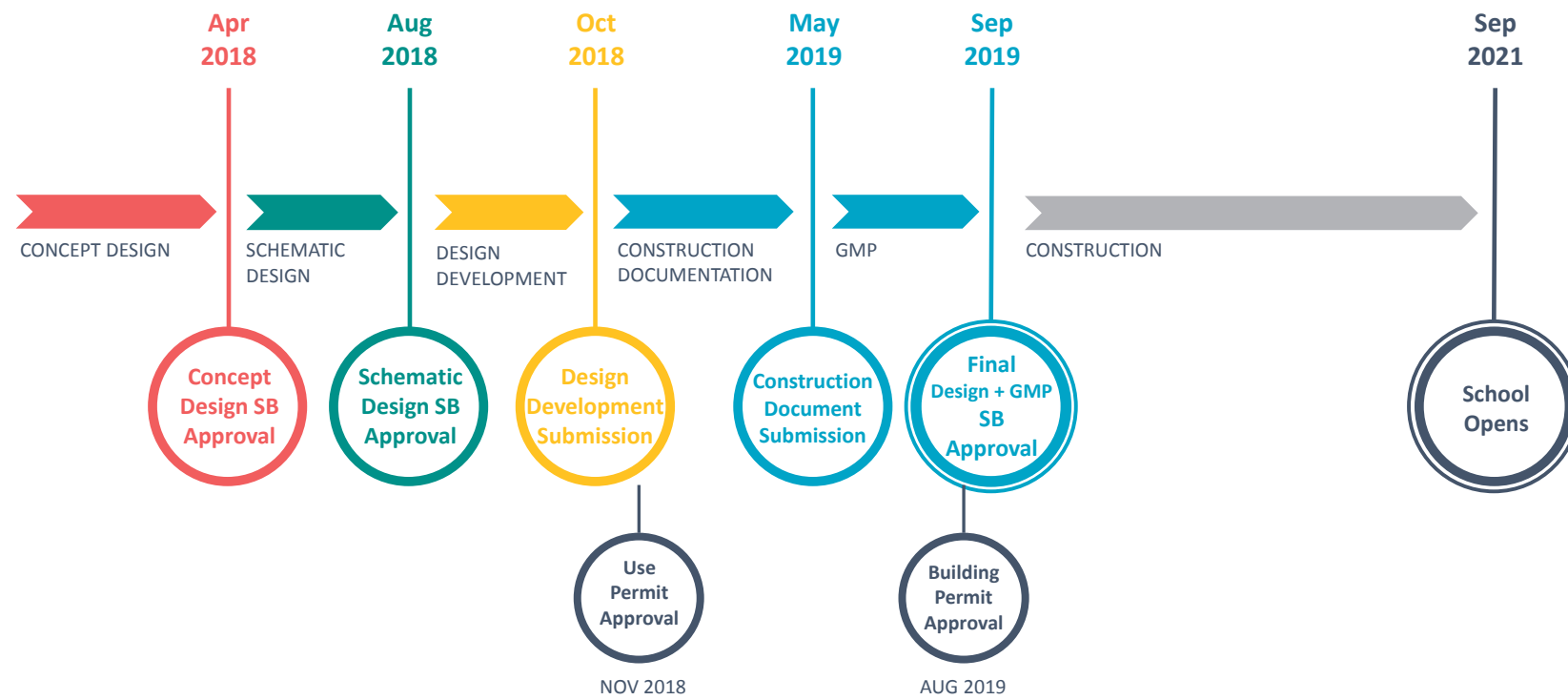
- Provide a forum in which the Planning Commission, citizens' community groups, advisory commissions and committees can have a dialogue with the project lead and other staff to review, discuss, and comment on any important public facility project.
- Ensure that the highest quality of land use planning and design is incorporated into development projects; Promote compliance with the County's Comprehensive Plan, other planning documents and County policies; Address community concerns and goals.
- Help inform commissions and the County Board on the outstanding issues with regard to a specific plan and any conditions which it might determine to be necessary or appropriate to address those issues.
- Provide an efficient means for broad-based public participation, precluding the necessity of multiple presentations to and reviews by each individual commission during the development phase. The PFRC provides the forum for everyone to be heard during the development of the public facility.
- Provide advice to the County Board and County Manager in the development of the Capital Improvement Program.

It is not the purpose of the PFRC to address programmatic needs and interior design; however it may be necessary to discuss the interior/layout as it may impact the exterior, placement, or massing of the building.

Link to PFRC Charge:

https://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/5/2014/06/PFRC_Charge_June2014.pdf

Project Chronology



Site Photos

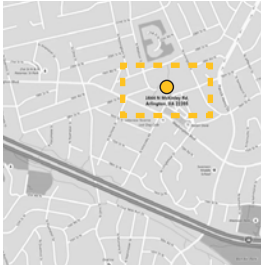
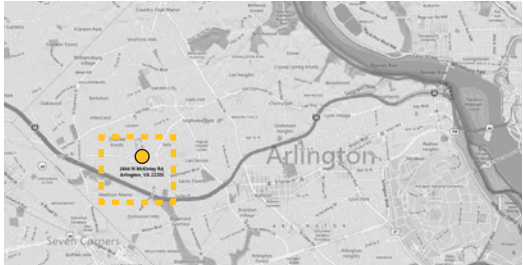
- 1 Westover Library at Washington Blvd & N McKinley Rd
- 2 Westover Library & Children's School along N McKinley Rd
- 3 Children's School Entry at N McKinley Rd
- 4 Children's School along N McKinley Rd
- 5 Children's School at N McKinley Rd and 18th St N
- 6 North West Facade of Westover Library and Reed School
- 7 Baseball Diamond along 18th St N
- 8 Sledding Hill looking toward Reed School
- 9 N McKinley Rd at Washington Blvd looking North East
- 10 North West Wooded Playground



Site Overview

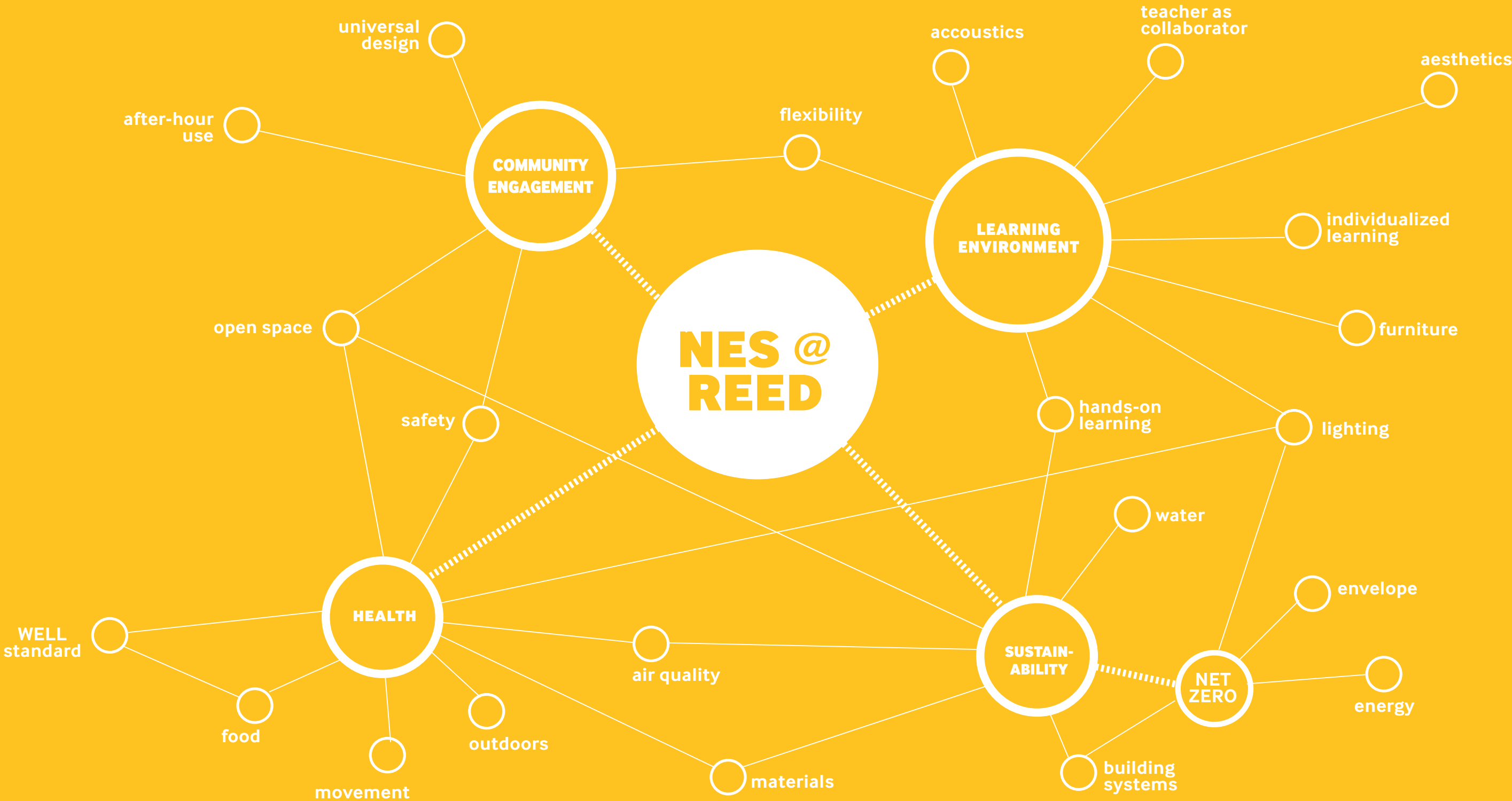
The Reed site is located within the Overlee Knolls' Civic Association, and is adjacent to the Westover precinct. It is bounded by N Lexington St to the North, 18th St N to the East, Washington Blvd to the South, 18th St N / 19th St N to the West. Existing uses at the Reed site include the Westover Branch Library, The Children's School and Integration Station, a community park located at the intersection of N Lexington St and 18th St N, a "pee-wee" size softball field used primarily by youth baseball, playfields, sledding hill, paved basketball courts and two playgrounds. The site also includes passive open spaces and two surface parking lots.

The Walter Reed Elementary School was originally built in 1938 and underwent expansions and renovations in 1950, 1966, and 2009. It currently serves as the Westover Branch of the Arlington Public Library and The Children's School and Integration Center for Arlington Public Schools.



- A. ARLINGTON PUBLIC LIBRARY - WESTOVER BRANCH
- B. THE CHILDREN'S SCHOOL & INTEGRATION CENTER
- C. SOFTBALL FIELD
- D. PLAY FIELD
- E. BASKETBALL COURT
- F. EXISTING NORTH WEST PARKING LOT
- G. EXISTING 18TH ST PARKING LOT
- H. SLEDDING HILL
- I. WESTOVER VILLAGE

Project Goal Relationships



02

Project Goals + Parameters

Goals & Organization

Flexible Learning Environments

Educational Opportunities

Space Program Summary

List of Spaces

Schematic Cost Estimate

Goals & Organization

Lens for Learning

The space program on the following pages seeks to provide a diverse menu of spaces for optimal learning to serve a minimum of 725 students.

The program is sub-divided into core program areas – grade levels, teaching and learning support, administration and teacher support, arts, music, library, food service, physical education, and extended day.

The educational specifications/schedule of functional spaces will be based on those of functional spaces approved by the School Board for Alice West Fleet Elementary, modified as necessary to reflect any specific requirements of the Department of Instruction. The final design shall be as adaptable as possible in order to accommodate future increases in enrollment and changes of instructional program. The School Board will approve the educational specifications/program of functional spaces when it approves the Schematic Design for the project.

The connection between spaces inside, and outside, the building will occur in a variety of ways to involve and activate sensory responses. Universal design and sustainability will be hallmarks of the new school. Taken as a whole, the goal is to create a school that students can't wait to get to in the morning and don't want to leave in the afternoon.

A properly designed new elementary school and grounds, one that truly engages the imagination, will be one of the strongest tools available to help APS reach all five of its strategic goals:

- Multiple pathways to success for all students
- Healthy, safe and supported students
- Engaged workforce
- Operational excellence
- Strong and mutually supportive partnerships



Flexible Learning Environments



Anytime, Anywhere Learning

The design will include a variety of furniture & learning spaces, both in characteristic and in size, to articulate the positive relationships between new pedagogic methods, community engagement, modern architecture and educational landscape strategies that promote health, well-being and collaboration. Specialized learning classrooms and extended learning areas are interwoven throughout the academic core to promote long-term programmatic flexibility, a sense of community and belonging amongst learners, and to ease transition-related sensitivities.

Every Space is a Learning Place

The layout will accommodate the need for flexibility as teaching and learning methods and practices evolve - while also strengthening, through design, the belief that every child learns in unique ways and teachers value opportunities to provide personalized, meaningful curriculum experiences for individuals and groups of all sizes.

A variety of space types; classrooms, hubs, innovation commons, team rooms, conference rooms, nooks and crannies, and outdoor classrooms will foster collaboration, interaction, innovation and invention in both formal and informal settings. The project will also be designed as a living lab for sustainable practices. An overarching goal for the design is the encouragement of creativity, curiosity and joy within an actively engaged community.



Educational Opportunities

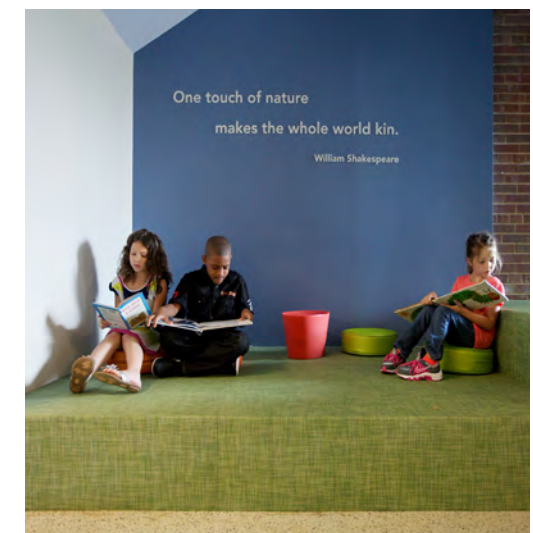
Child-Focused Spatial Synergies

Planning and designing a new elementary school for the next generation and beyond brings architecture and landscape design into direct discourse with contemporary educational practice and inspires conversations about how architecture can serve to meet the needs of the whole child. Designs that promote collaboration (spaces that inspire), community (spaces that encourage a sense of belonging and safety), and connection (spaces that foster sharing and empathy) are next generation learning environments. A holistic, whole child approach to design emphasizes health and well being as a precursor for better learning. Learning in and from nature, access to the outdoors, human-centered lighting strategies, indoor air quality, ergonomic and flexible settings, energy conscious systems, transparency, acoustics, and comfortable, beautiful places that translate a sense of calm and well being are hallmark qualities of child-centric, teacher optimized designs for the 21st century.

School Design for Health & Wellness

Design that allows physical activity and movement to permeate school culture empowers students with the choice of when and how they need to move - to learn. 'Active navigation' routes are the keys to designing for daily movement within the school as they link destinations with student-centric signage, active stairs, and intriguing spaces. The following principles from *The Physical Activity Design Guidelines for School Architecture (PLOS ONE)* helped shape the design of the new elementary school at the Reed site:

1. Maximize opportunities for physical activity (both unintentional and intentional) as part of the school routine.
2. Consider school spaces and features as opportunities to promote children's natural inclination to move, play and explore
3. Apply theory and evidence-based behavioral science practice to enable the school community to engage in higher levels of default physical activity.



Space Program Summary

Program	Sqft	Capacity Generating Classrooms
Pre K & Kindergarten (Early Childhood) :	7,420 nsf	7 classrooms = 148.65
First & Second Grades:	9,425 nsf	10 classrooms = 233.3
Third, Fourth & Fifth Grades:	12,375 nsf	15 classrooms = 349.95
Extended Learning & SGI:	7,800 nsf	
Guidance + Administration + Teacher Support:	7,200 nsf	
Art + Music:	6,305 nsf	
Library:	4,340 nsf	
Food Services:	5,290 nsf	
Physical Education + Extended Day:	9,450 nsf	
Net Square Footage:	69,605 nsf	
Support, Structure & Circulation:	39,675 sf	
Gross Square Footage:	109,280 gsf	Total Capacity = 732
Gross SF per student:	149 gsf	

List of Spaces

New Elementary School at Reed Space Program											
spaces listed in <i>italics and right justified</i> are not in the Alice West Fleet ES space program, or are related elsewhere in program as noted											
1.1	EARLY CHILDHOOD	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	PreK plus Toilet & Changing Table	1,040	1,060	1,019	1,060	680	2	2,120	1,360	16.00	32.00
B	Kindergarten plus Toilet	1,045	1,060	1,019	1,060	959	5	5,300	4,795	23.33	116.65
								7,420	6,155		148.65
1.2	PRIMARY GRADES 1-2	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	1st Grade Classroom plus Toilet	870	1,060	1,006	1,060	957	5	5,300	4,785	23.33	116.65
B	2nd Grade Classroom	825	825	816	825	825	5	4,125	4,125	23.33	116.65
								9,425	8,910		233.30
1.3	INTERMEDIATE GRADES 3-5	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	3rd Grade Classroom	825	825	835	825	801	5	4,125	4,005	23.33	116.65
(A)	4th Grade Classroom	825	825	816	825	824	5	4,125	4,120	23.33	116.65
(A)	5th Grade Classroom	825	825	829	825	820	5	4,125	4,100	23.33	116.65
								12,375	12,225		349.95
2.1	EXTENDED LEARNING AREA	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Early Childhood Extended Learning Area		700	625	350	855	2	700	1,710	0.00	0.00
(A)	Primary Grade Extended Learning Area		900	868	450	681	2	900	1,362	0.00	0.00
(A)	Elementary Grade Extended Learning Area		1,200	1,070	400	483	3	1,200	1,449	0.00	0.00
								2,800	4,521		0.00
2.2	SIG	APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Small Group Instruction	400-600	500	472	500	481	10	5,000	4,810	0.00	0.00
								5,000	4,810		0.00
										Building Capacity	731.90

List of Spaces

3.1 ADMINISTRATIVE SUITE		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Reception / Clerical Area	500	600	731	600	859	1	600	859	0.00	0.00
B	Principal's Office	200	200	201	200	223	1	200	223	0.00	0.00
C	Principal's Administrative Ass't Office (Admin Hub)	100	115	77	115	130	1	115	130	0.00	0.00
D	Assistant Principal's Office	120	120	147	120	130	1	120	130	0.00	0.00
E	Conference Room	250	250	188	250	358	1	250	358	0.00	0.00
F	Record Storage	300	90	94	90	76	1	90	76	0.00	0.00
G	Head End (+PA Nook)		200	194	200	185	1	200	185	0.00	0.00
H	Teacher Workroom	250	300	286	300	303	1	300	303	0.00	0.00
I	Staff Toilet	65	55	78	55	56	1	55	56	0.00	0.00
J	Clinic w/toilet	600	600	561	350	346	1	350	346	0.00	0.00
K	Clinic - Exam Room				130	131	1	130	131	0.00	0.00
L	Clinic - Toilet				75	72	1	75	72	0.00	0.00
M	SRO Office/Camera Station				90	139	1	90	139	0.00	0.00
N	PTA Storage				150	144	1	150	144	0.00	0.00
								2,725	3,152		0.00

3.2 STUDENT SERVICES		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Office + Table w/ 4 Chairs		130	120	150	160	10	1,500	1,600	0.00	0.00
B	Occupational Therapy/Physical Therapy	420	420	554	500	538	1	500	538	0.00	0.00
C	OT/PT Storage				150	85	1	150	85	0.00	0.00
								2,150	2,223		0.00

3.3 TEACHER SUPPORT (DISTRIBUTED)		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Teacher Conference Room		245	217	245	279	3	735	837	0.00	0.00
B	Teacher Professional / Itinerant Teacher Space, plus Kitchenette		350	244	350	180	3	1,050	540	0.00	0.00
C	Teacher Work Room with Copier		180	0	180	6 @ 182	3	540	1,091	0.00	0.00
D	Book Storage	300	200	158	250	256	1	250	256	0.00	0.00
								2,325	2,468		0.00

List of Spaces

4.1 ART CLASSROOMS		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Art Classroom	1 @ 1,730	1,350	1,317	1,350	1,411	2	2,700	2,822	0.00	0.00
B	Art Storage		150	294	150	109	2	300	218	0.00	0.00
C	Kiln Room		80	83	80	84	1	80	84	0.00	0.00
								3,080	3,124		0.00
4.2 MUSIC CLASSROOMS		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Vocal Music	950	950	967	950	896	2	1,900	1,792	0.00	0.00
B	Vocal Music Storage	200	150	inside classroom	150	56	2	300	112	0.00	0.00
C	Instrumental Music	825	825	990	825	731	1	825	731	0.00	0.00
D	Instrumental Storage	200	200	194	200	34	1	200	34	0.00	0.00
								3,225	2,669		0.00
5.1 LIBRARY		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Library (9,000 - 12,000 volumes per APS.. to be confirmed)	2,800	2,800	3,193	2,800	2,615	1	2,800	2,615	0.00	0.00
B	Library/Teacher Conference Room	150	250	0	250	348	1	250	348	0.00	0.00
C	Video Production	100	120	337	120	398	1	120	398	0.00	0.00
D	Office / Workroom	300	150	137	150	194	1	150	194	0.00	0.00
E	IT / AV Storage	200	250	243	250	366	1	250	366	0.00	0.00
F	ITC Coordinator Office	120	120	90	120	196	1	120	196	0.00	0.00
G	Innovation Commons (located remotely from library)		650	376	650	769	1	650	769	0.00	0.00
								4,340	4,886		0.00
5.2 FOOD SERVICES		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Dining Commons	3500 (Multipurpose)	3,200	3,191	3,500	4,377	1	3,500	4,377	0.00	0.00
B	Kitchen + Servery	1200-1600 (Off-site Prep)	1,790	1,921	1,790	2,580	1	1,790	2,580	0.00	0.00
	Kitchen Office		90	84	Part of Kitchen			Part of Kitchen		0.00	0.00
	Refrigerator / Freezer				Part of Kitchen			Part of Kitchen		0.00	0.00
	Dry Storage				Part of Kitchen			Part of Kitchen		0.00	0.00
	Dish Room				Part of Kitchen			Part of Kitchen		0.00	0.00
	Receiving Room				Part of Kitchen			Part of Kitchen		0.00	0.00
	Trash Room				Part of Kitchen			Part of Kitchen		0.00	0.00
	C	Chair Storage						1	0		0.00
								5,290	6,957		0.00
5.3 EXTENDED DAY		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Extended Day Office	wihin storage	200	226	200	187	1	200	187	0.00	0.00
B	Extended Day Storage	420	200	188	200	115	1	200	115	0.00	0.00
								400	302	0.00	0.00

List of Spaces

6.0 PHYSICAL EDUCATION*		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Gymnasium	4100-5100	7,000	6,418	7,000	5,914	1	7,000	5,914	0.00	0.00
B	Stage	450	900	915	900	849	1	900	849	0.00	0.00
C	PE Teachers' Shared Office	100	150	149	150	147	1	150	147	0.00	0.00
D	Chair Storage	200	200	215	200	168	1	200	168	0.00	0.00
E	PE Storage	150	200	207	200	209	1	200	209	0.00	0.00
F	Toilet Room	65	55	56	55	94	2	110	188	0.00	0.00
								8,560	7,475		0.00
6.1 CLASS ONE		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Class I Bike Storage		260	567	200	206	1	200	206	0.00	0.00
B	Class I Bike Toilet & Shower		90	461	90	209	1	90	198	0.00	0.00
								290	404		0.00
6.2 PARKS & RECREATION		APS 2004 Ed Spec	FLEET Program	FLEET Actual	REED Program	REED Actual	# of rooms	Program Net SF	Actual Net SF	Capacity generating	Total Capacity
A	Parks & Rec Storage		200	0	200	211	1	200	211	0.00	0.00
								200	211		0.00
TOTALS								NES at REED - Program	NES at REED - Actual	Calculated Capacity	
Net square footage (NSF)								69,605	70,492	731.90	
Gross multiplier								1.57	1.57		
Support, Structure and Circulation (SF)								39,675	40,180		
GROSS TOTAL (GSF)								109,280	110,672		
Capacity								732	732		
Gross square foot per student								149	151		

Schematic Cost Estimate

Maximum Project Funding (Millions) ¹	
Major Construction Bonds	\$ 44.25
Capital Reserve	\$ 4.00
Other (Operating) ²	\$ 1.25
Subtotal	\$ 49.50
ACG/APS Jointly Funded Items	
APS Funding	\$ 2.75
ACG Funding	\$ 2.75
Subtotal	\$ 5.50
Grand Total	\$ 55.00
Notes:	
1. FY 2019-2028 CIP, Adopted by the School Board on June 21, 2018.	
2. Furniture and equipment that cannot be bond funded.	

Estimated Cost (Millions) ¹		
	A/E	CMR
GMP (Construction Costs)	\$ 41.87	\$ 42.71
Owner (Soft) Costs ²	\$ 12.24	\$ 12.28
Total	\$ 54.11	\$ 54.99
Note:		
1. Based on final reconciled total project cost estimates.		
2. Owner costs include design, project management, and other professional services fees, utility/permitting fees, furniture, equipment, and project contingencies.		

03

Schematic Design

Existing vs Proposed Site Plan

Site Plan

Plans

Perspectives

Material Precedents

Existing vs Proposed Site Plan



Overall Existing Site Plan



Overall Proposed Site Plan

Site Plan



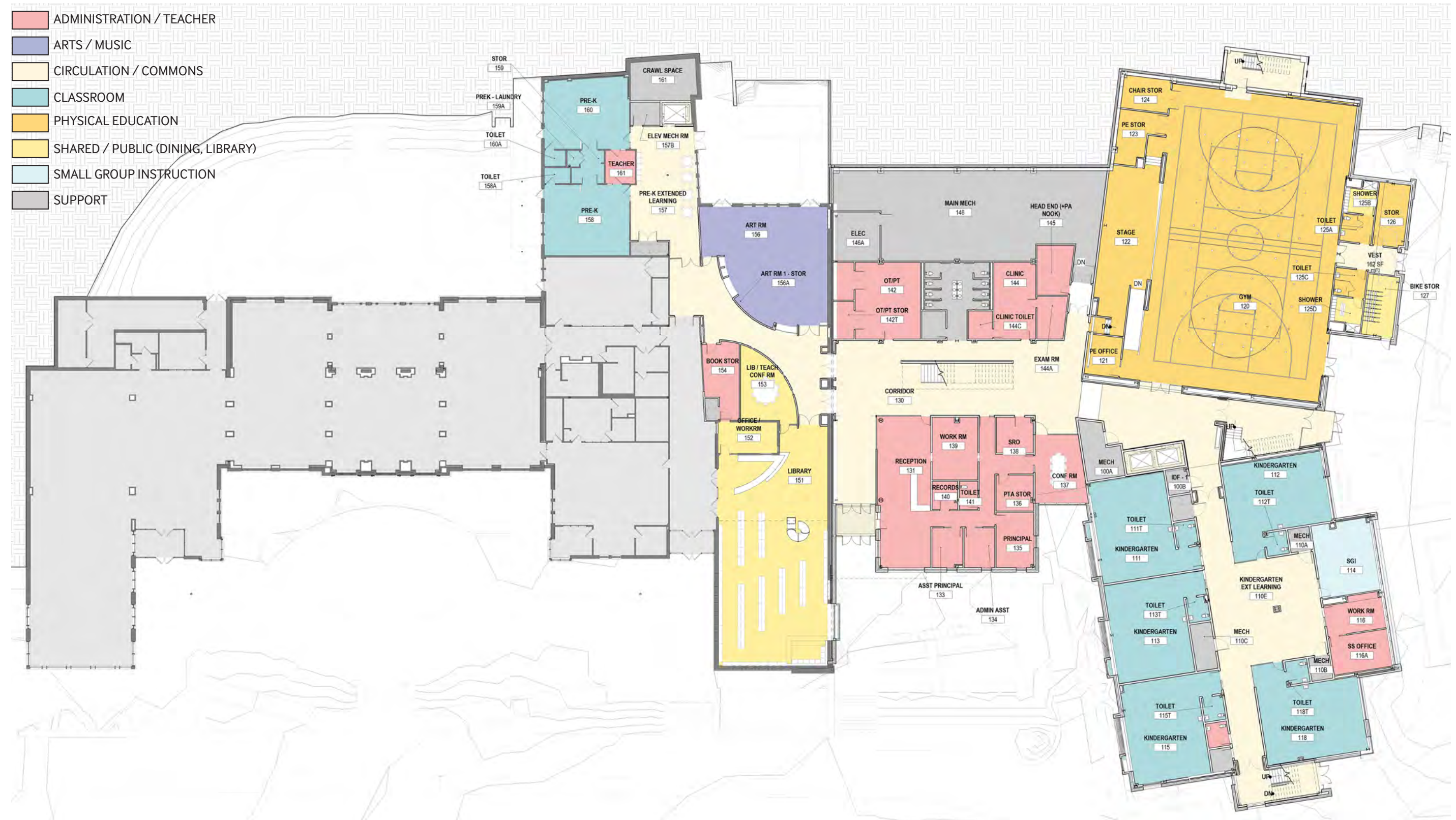
Impervious Areas (sf)

	Existing:	Final Schematic Design:
Building:	52,744 sf	58,875 sf
Play Courts:	16,272 sf	8,574 sf
Other Paving:	46,741 sf	50,165 sf
Parking:	26,476 sf	46,982 sf
Total:	142,233 sf	164,596 sf
% of Site	39%	45%

First Floor

PROGRAM LEGEND

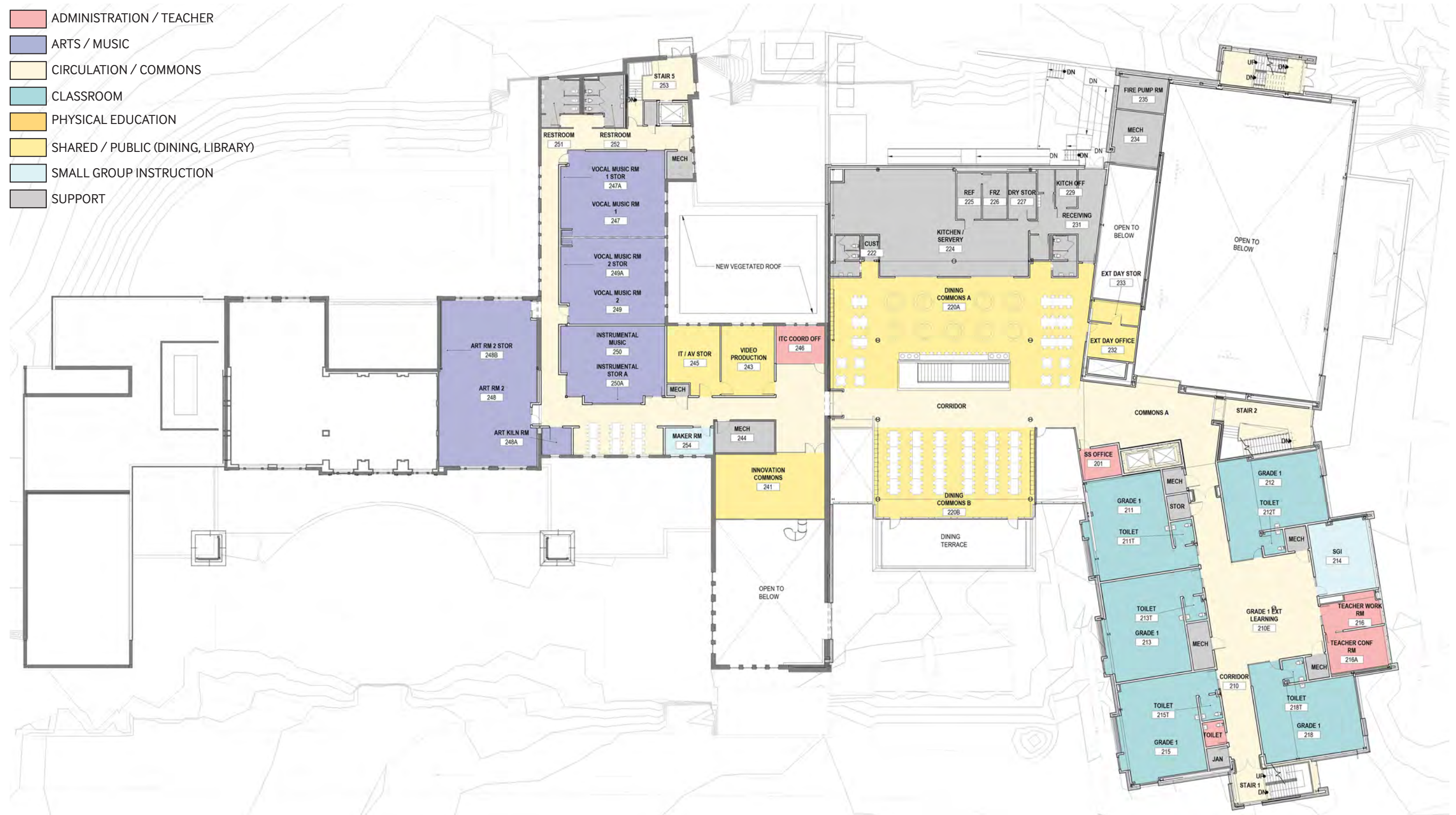
- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



Second Floor

PROGRAM LEGEND

- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



Third Floor

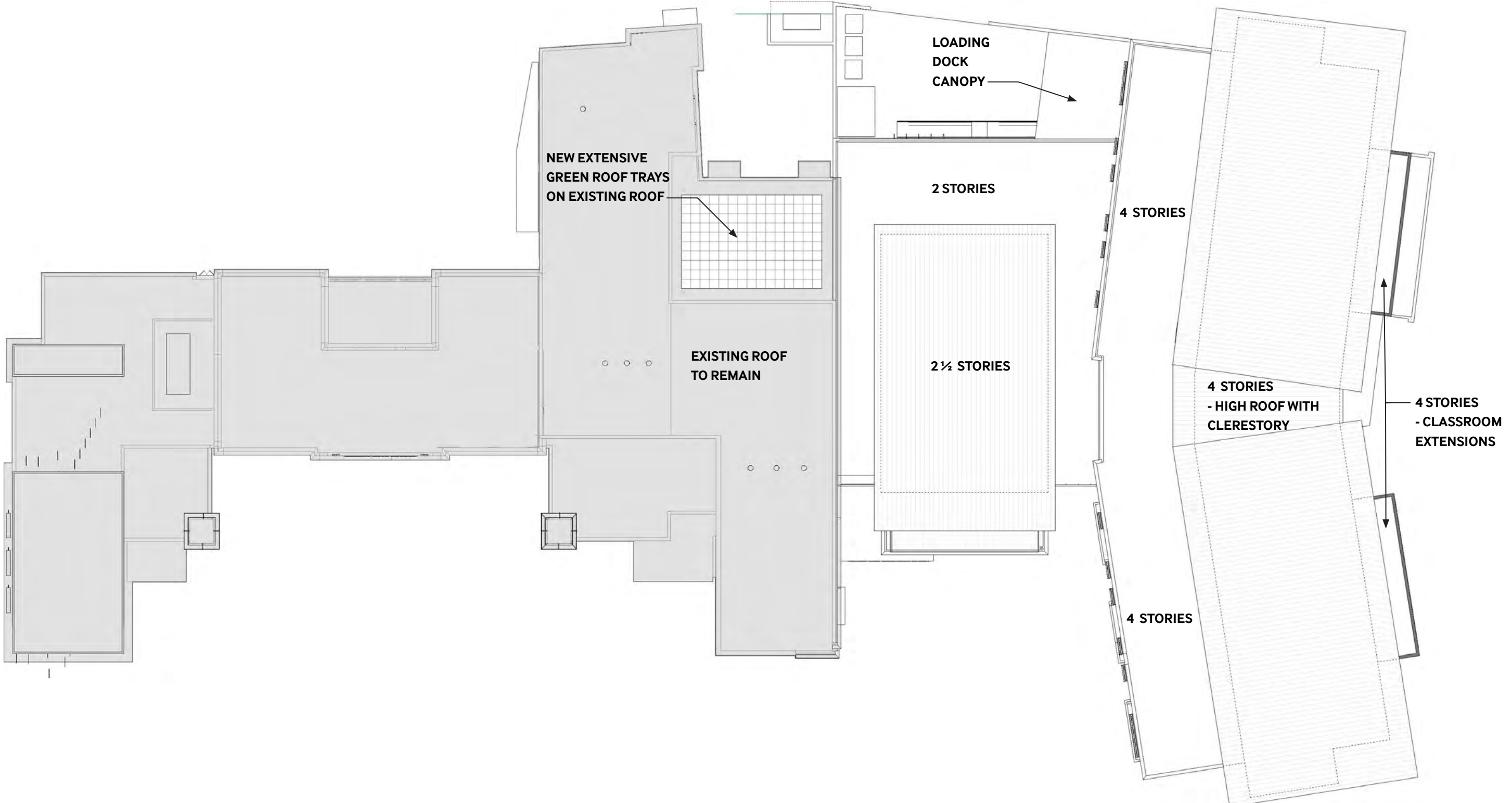
Fourth Floor

PROGRAM LEGEND

- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



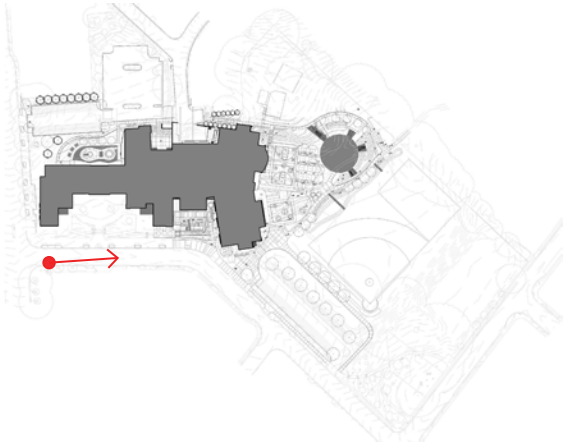
Roof Plan



Perspectives

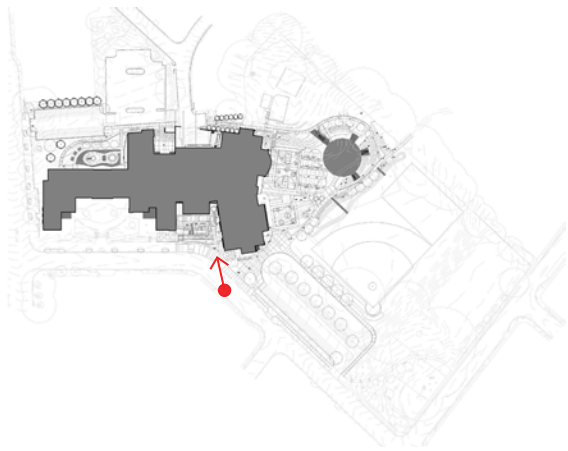


Render - View from intersection of Washington Blvd & N. McKinley Rd



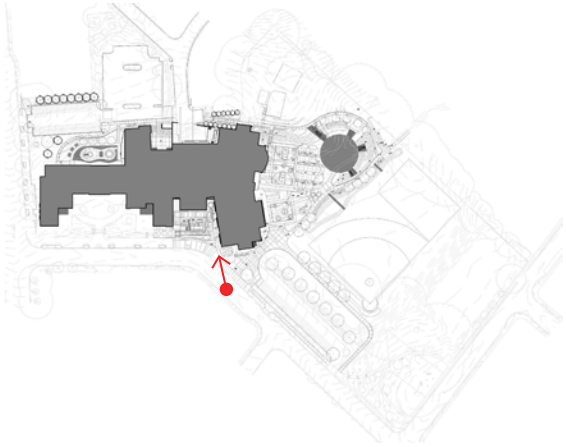


Render - View of entry plaza at N McKinley Rd & 18th St N



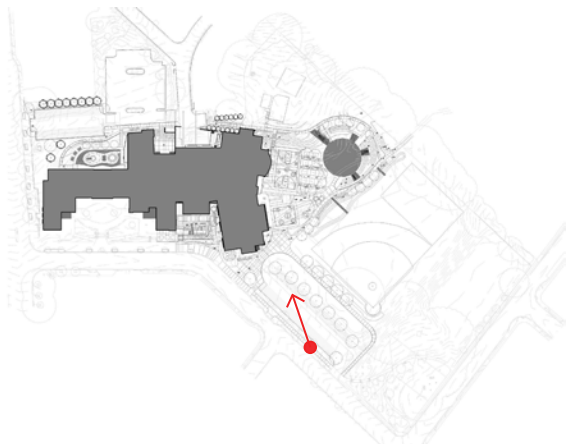


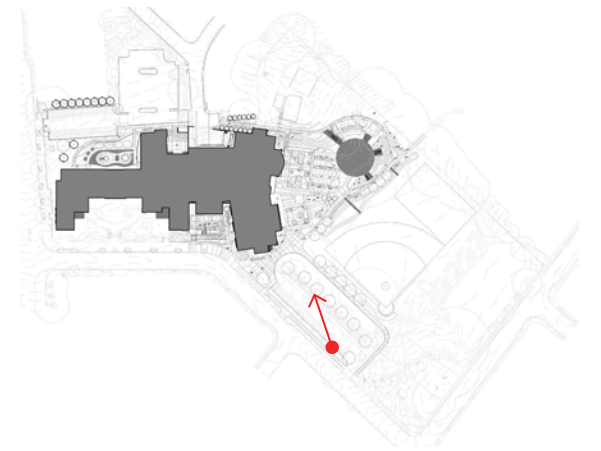
Render - Aerial view of entry courtyard at N McKinley Rd & 18th St N





Render - View from North approach on 18th St N

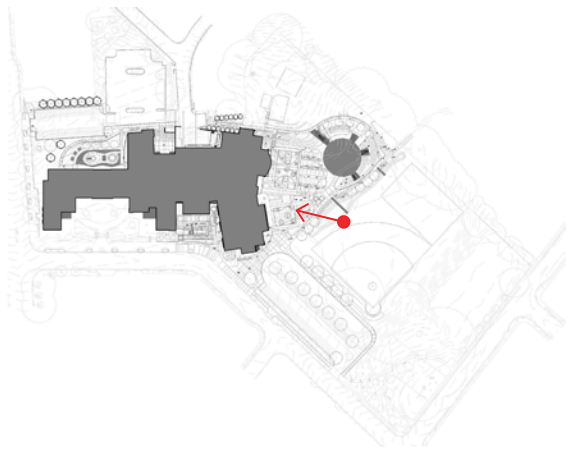




Render - Aerial view from North approach on 18th St N

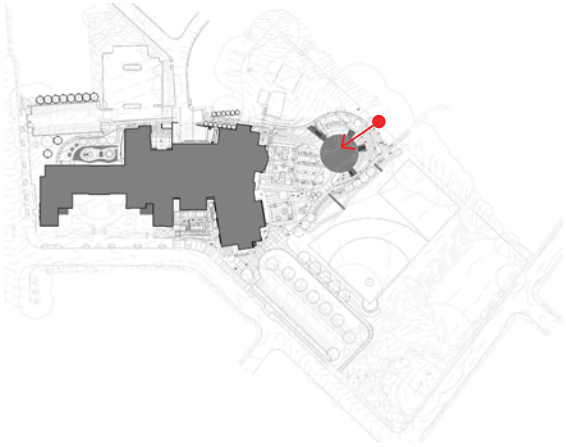


Render - View from softball outfield



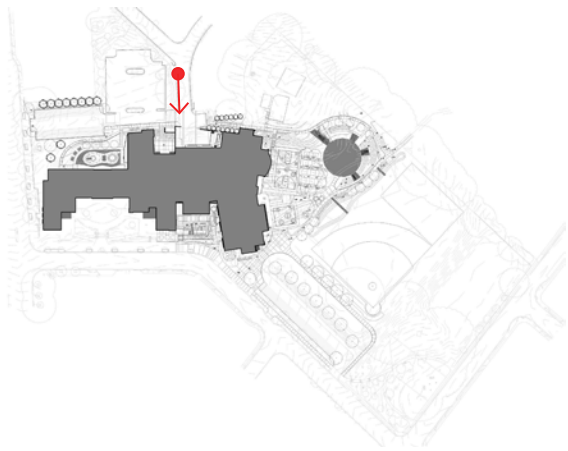


Render - Aerial view of play areas





Render - View from N Madison St & 18th St N



Material Precedents

Brick



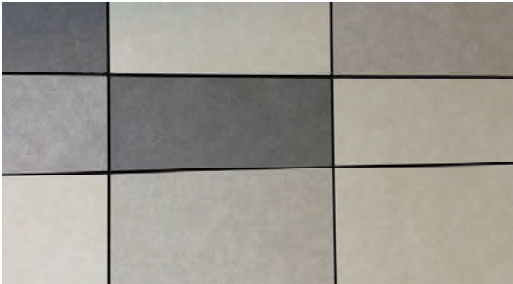
Blond masonry used in an ambassador shape



Contextual brick used in standard shape



Phenolic Wall Panels (Trespa)



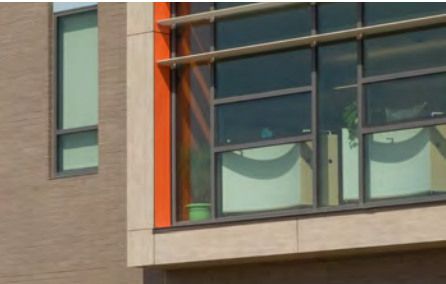
Subtle variations of texture/gloss



Used playfully with color



Used with coursing



Exterior Precedents



Used as in-fill with brick



Used as in-fill with phenolic panels



Corrugated Metal Panels



Used only where protected from elements



Wood

04

Appendix

Site Plan - Existing Tree Loss

Traffic Study - Loading Dock Access

Adaptable Learning Community Design

Line Drawing - Building Development

Committee Chair Letters

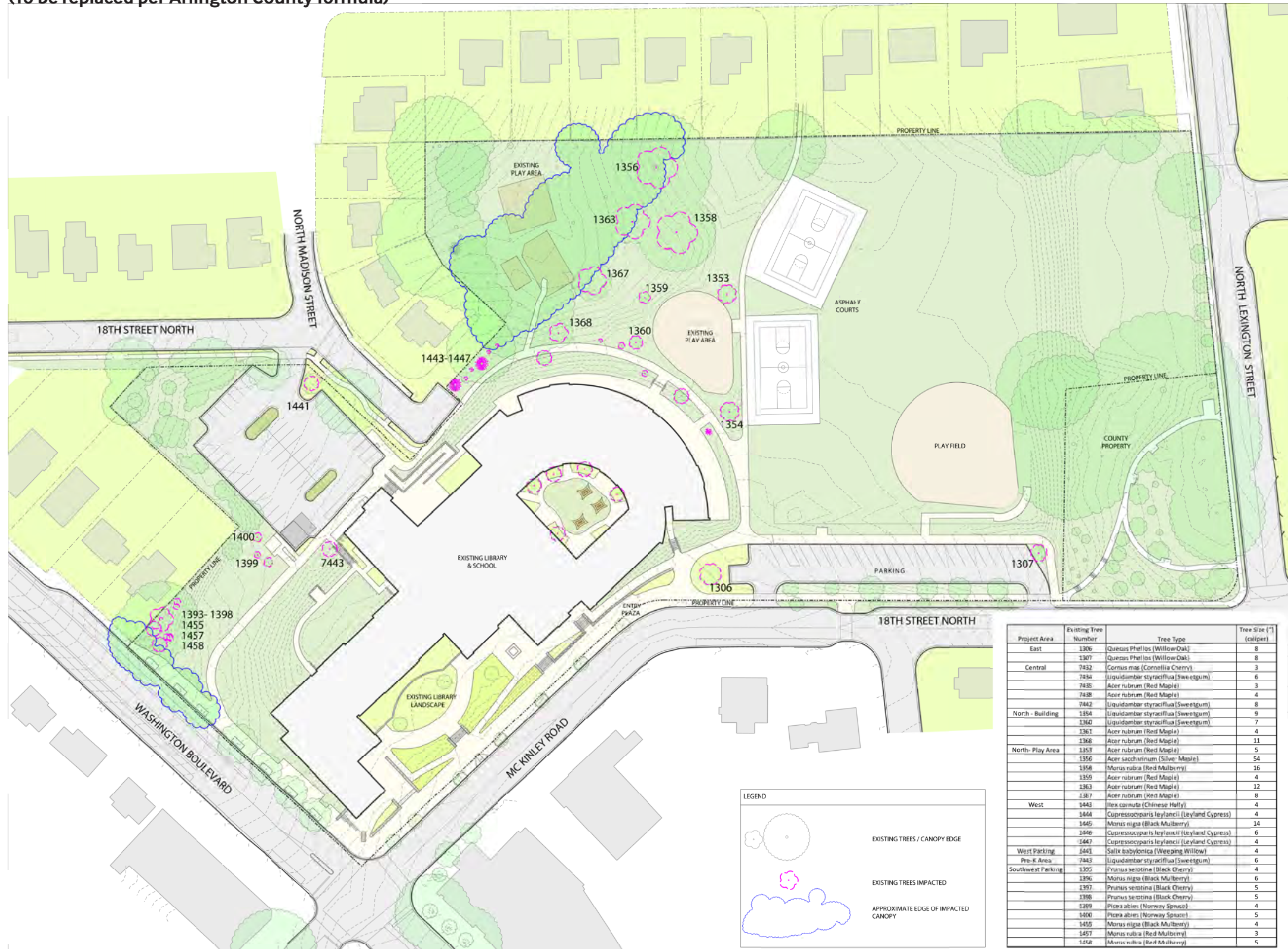
BLPC

PFRC

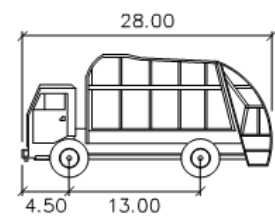
School Board Approval

Site Plan - Existing Tree Loss

(To be replaced per Arlington County formula)

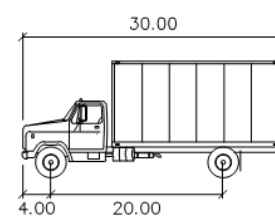


Traffic Study - Loading Dock Access



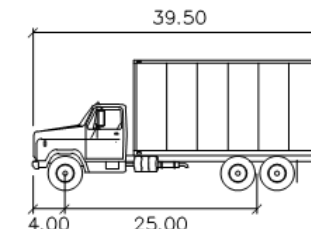
ARL GARBAGE

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 28.1



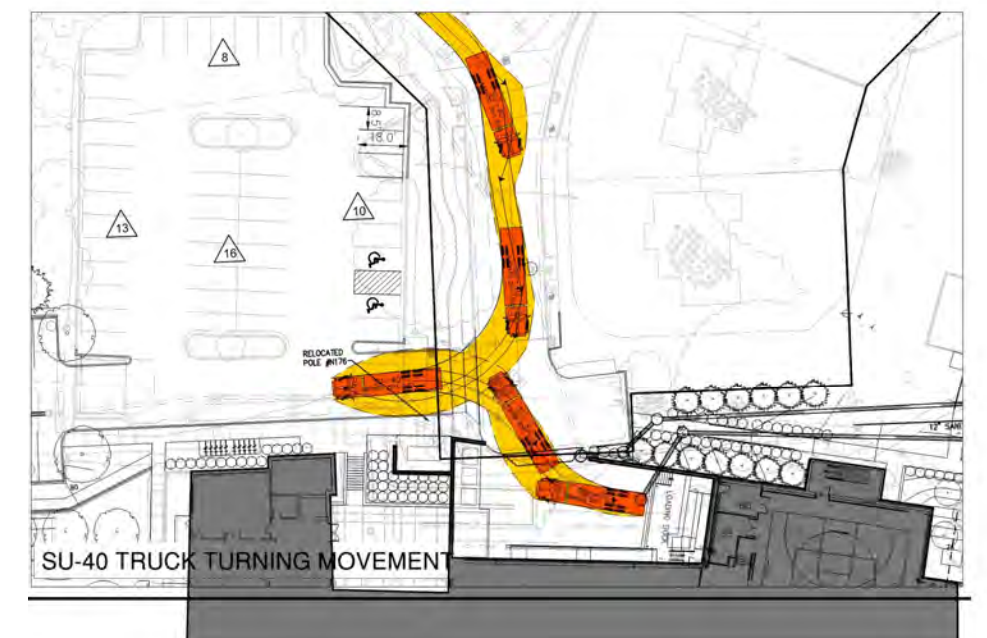
SU-30

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



SU-40

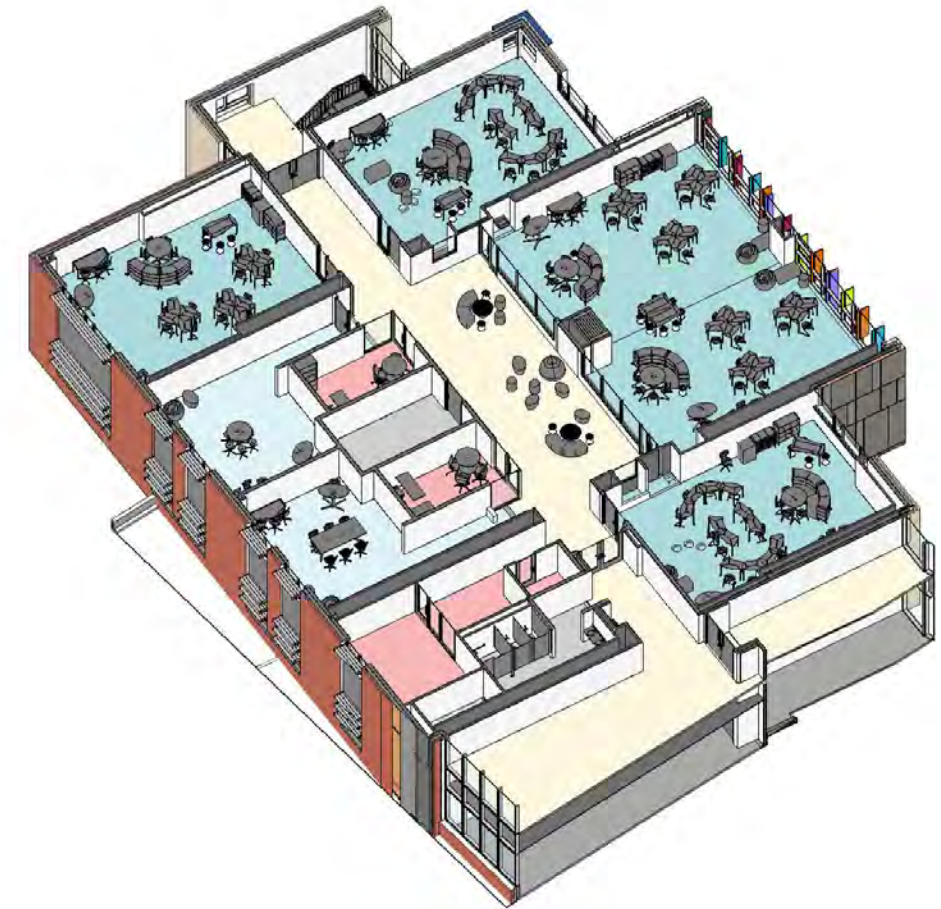
	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



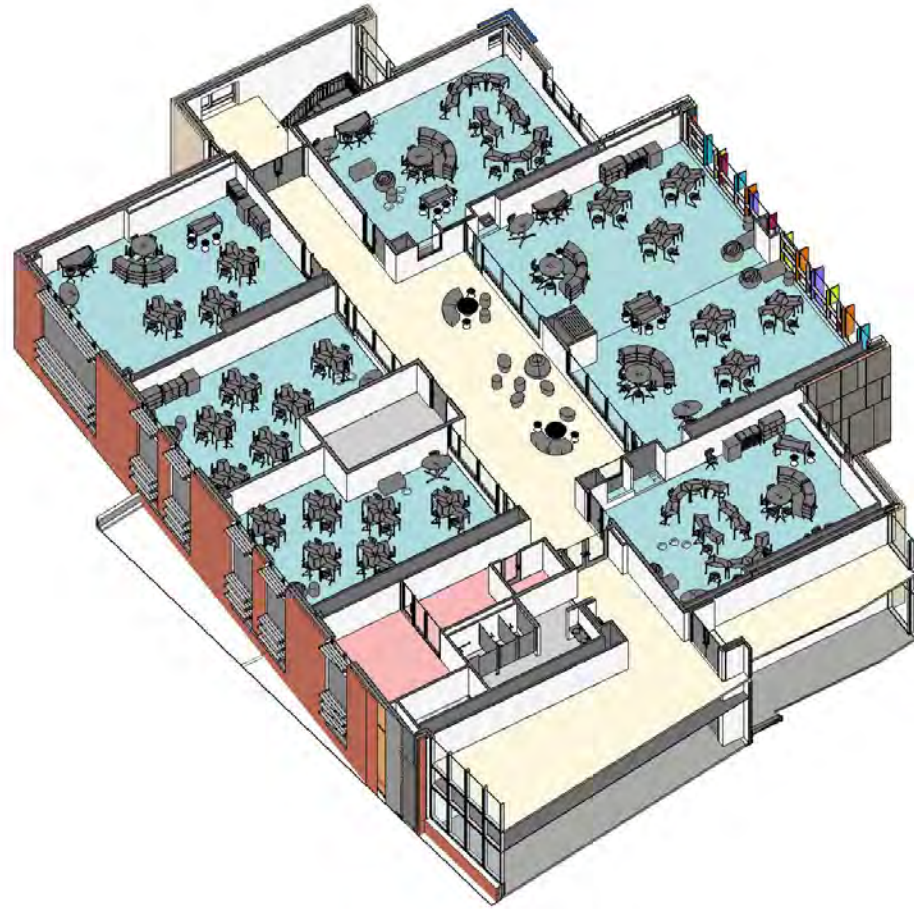
Adaptable Learning Community Design

PROGRAM LEGEND

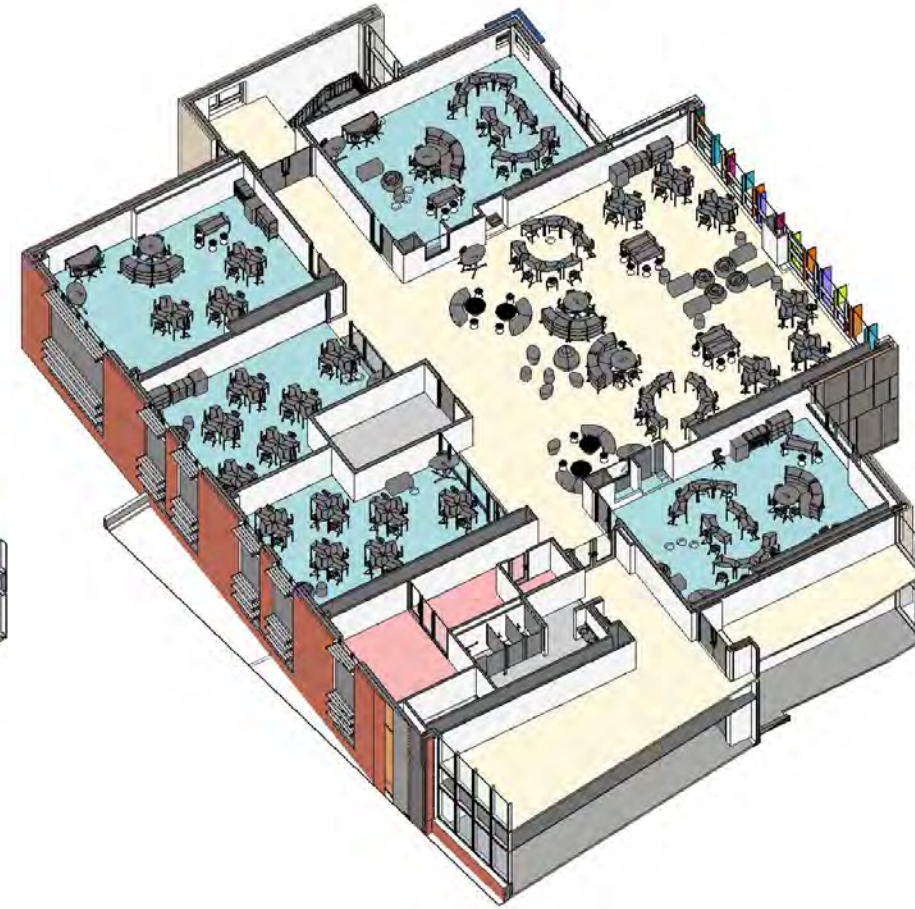
- ADMINISTRATION / TEACHER
- ARTS / MUSIC
- CIRCULATION / COMMONS
- CLASSROOM
- PHYSICAL EDUCATION
- SHARED / PUBLIC (DINING, LIBRARY)
- SMALL GROUP INSTRUCTION
- SUPPORT



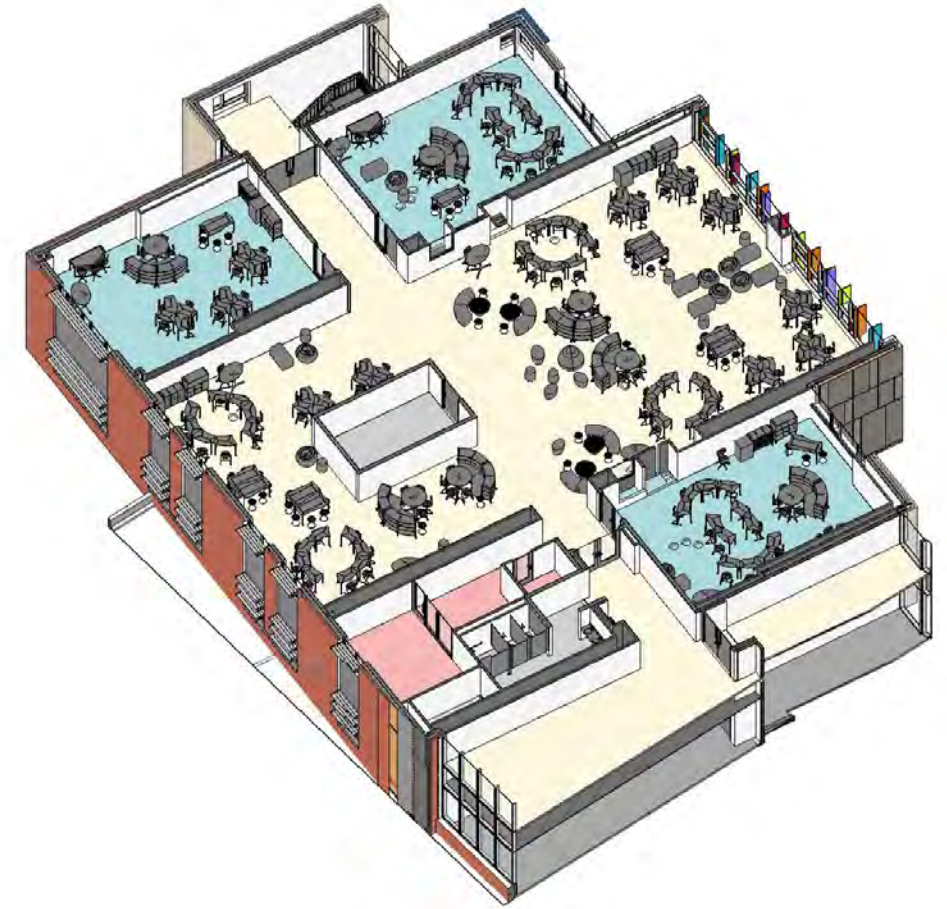
Typical Grade Level Learning Community



Learning Community with Two Future Classrooms

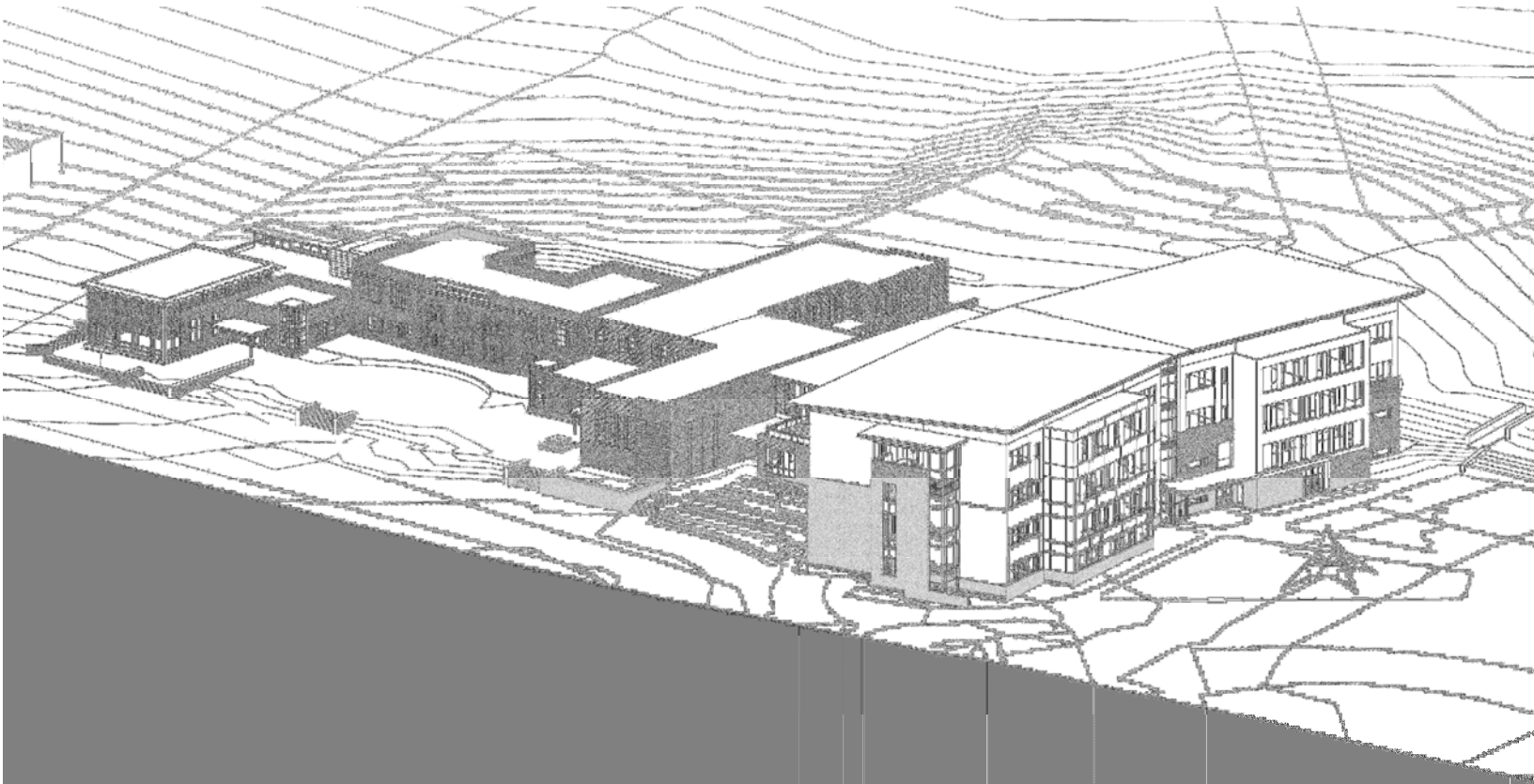


Learning Community With Five Enclosed Classrooms with Open Collaboration Space



Learning Community With Three Enclosed Classrooms with Open Learning Studio

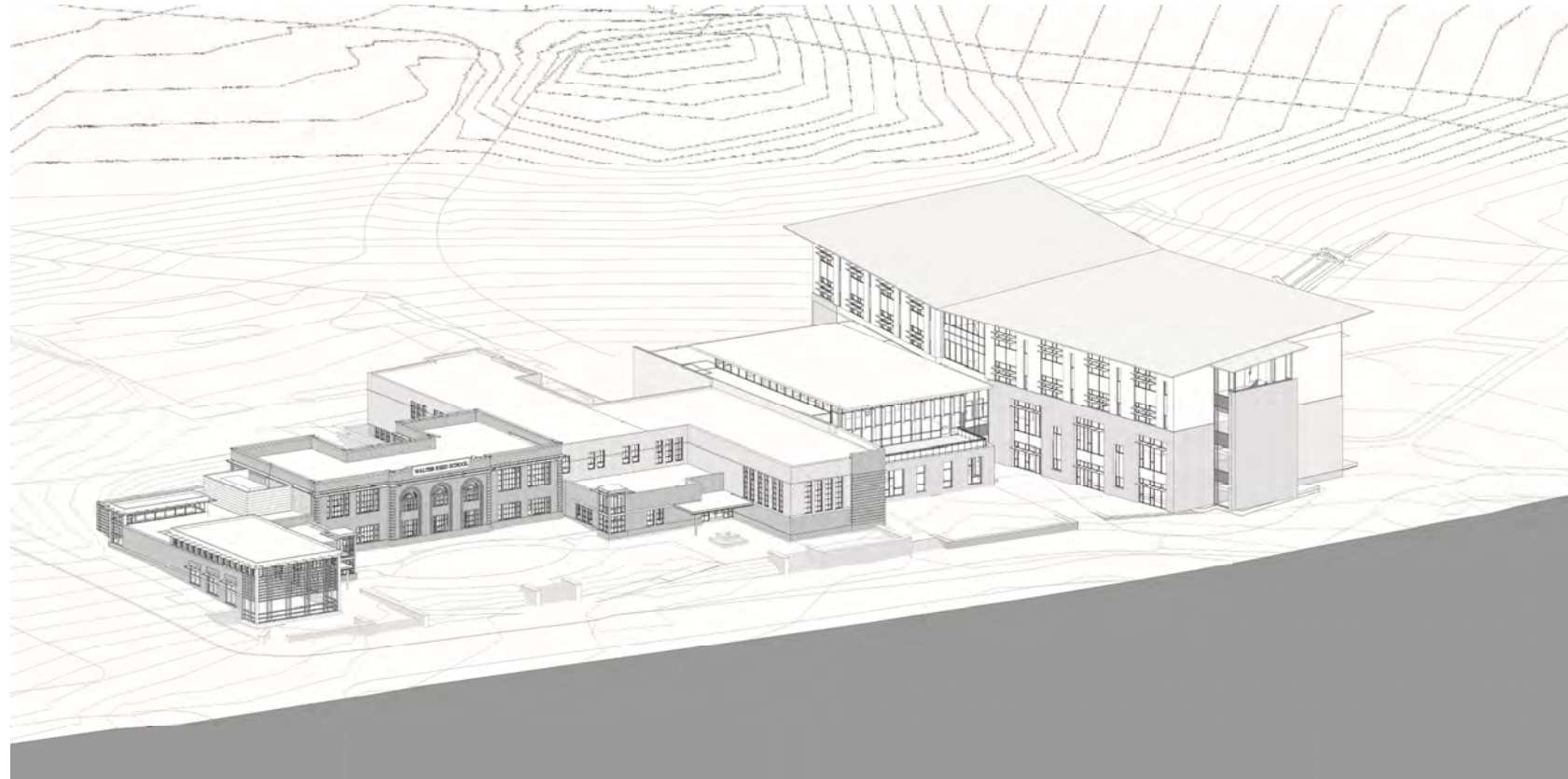
Line Drawing - Building Development



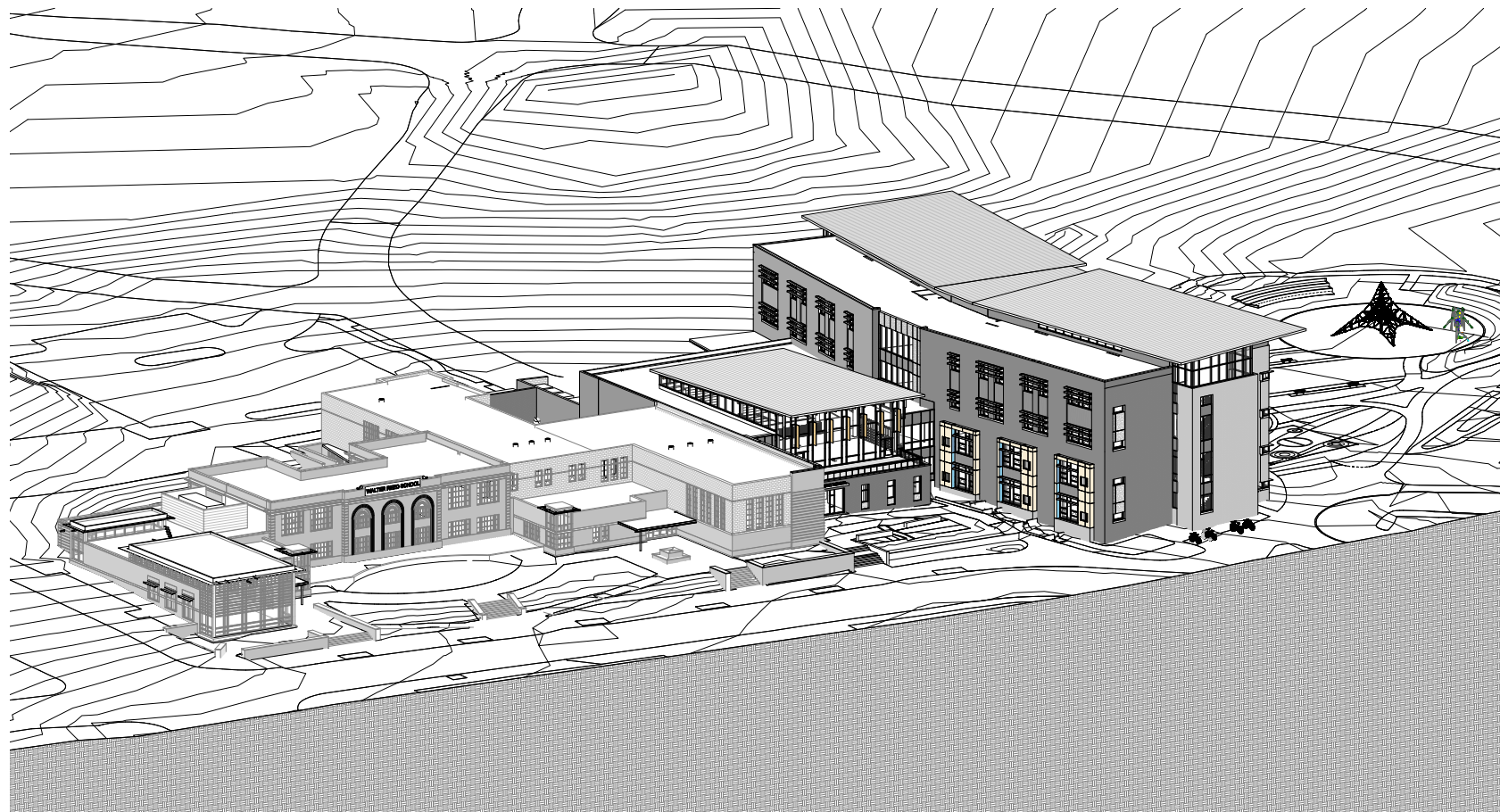
Line Drawings - NE View - Proposed SD Scheme from May



Line Drawings - NE View - Final SD Scheme from June



Line Drawings - SE View - Proposed SD Scheme from May



Line Drawings - SE View - Final SD Scheme from June

BLPC Recommendation Letter

Hans Bauman, Chair

Hans Bauman
Chair, Reed Expansion Project BLPC

June 28, 2018

Arlington County School Board
Dr. Patrick Murphy, Superintendent

Dear School Board Members and Dr. Murphy,

The Reed Expansion Project Building Level Planning Committee (BLPC) is pleased to offer our response to the schematic design developed in collaboration with APS, Architects VMDO, and Arlington County. We met as a full committee to review schematic designs twice after the approval of the concept design by the School Board. Though we have a few relatively minor concerns, **the BLPC strongly supports the current schematic design for Reed and urges APS and the County to move forward with this project.**

Concept Phase reflection

As you know, the BLPC and Public Facilities Review Committee (PFRC) have been meeting jointly throughout this process and we would urge both the County and APS to continue this practice in future projects. The practice of meeting as a larger group posed some logistical challenges but I believe our current consensus is a result of the rich, holistic conversations that were begun in the Concept Phase. The difficulty reconciling the competing interests of more seats, green space preservation, and transportation pressures forced all committee members to gain a more nuanced understanding of the site challenges. Having come out of that phase in strong alignment, the remaining work of the Schematic Phase was straightforward.

The BLPC was extremely pleased that the School Board revised its capital plans to allow the Reed Expansion Project to proceed with the Integrated Concept, whose cost estimates exceeded the original cost maximums. We are very thankful to APS and the County for their flexibility and creativity in finding a path forward in this constrained capital environment. We trust that the whole community will appreciate the investments at Reed as the best solution to a difficult design problem.

Schematic Design appreciation

The current proposal does an excellent job balancing and addressing the competing design drivers at the Reed site. The new design provides world-class learning environments for future students, including bringing natural lights into spaces whenever possible. The committee especially appreciates VMDO's flexible and versatile designs which allow reconfiguration of classroom and shared spaces, ensuring the new building can serve future, unplanned demands

and uses. VMDO's experience with educational spaces and attention to detail is obvious throughout the design, in small-but-significant ways such as the myriad of passive play-spaces and the inclusion of cubbies for extended day use in the cafeteria.

By siting the building largely within the footprint of the Children's School, the design maximizes the preservation of green space and public amenities while avoiding hidden underground utilities. The design adjustment which moved the play courts closer to the building (to allow for better fire department access) enabled the creation of an outdoor play and gathering area that takes advantage of existing topography. The architects have worked very hard to seamlessly integrate accessible pathways into the site design. Though a few larger trees are being removed, tree preservation was maximized and removed trees will be replaced with new plantings. Astonishingly, the design delivers a site increase of about 500 seats while only increasing the impervious surface from 39% to 45%, including parking and sidewalks. The fields at Westover are almost fully preserved, the County (former Library) greenspace is unaffected, and new accessible public bathrooms further complement the active recreational green spaces.

Reed is part of the vibrant Westover community, which includes a thriving commercial district immediately adjacent to the site. Parking and traffic impacts to the Westover shops have been a continued area of concern and study. Though some of these issues remain open, the design works hard to manage traffic impacts and to encourage parking away from the commercial lots, behavior that will likely need to get reinforced by APS policies and advocacy in the future.

Critically, APS informs us that the Schematic Design can be built within the revised maximum. The BLPC has been mindful of the School Board's direction to contain costs. Throughout the schematic process, the BLPC has pushed APS to consider adjustments to decrease costs and whenever possible has limited requests to cost-neutral changes. We are pleased that the County and APS are exploring process adjustments to further reduce costs in the use permit and construction phases of the project.

The BLPC is excited about and supports the current Schematic Design.

Ongoing Concerns

Despite strong and clear support of the design, there are several minor areas where we hope continued refinements can further improve the design, usage, and acceptance of the building.

Parking is a major concern at the Reed site and the design helps accommodate staff parking through a significant expansion of the "rear" parking lot off North Madison Street. The loading dock will also remain facing this otherwise purely residential section of the neighborhood. Neighbors have significant concerns about delivery truck maneuverability on these narrow streets as well as the increase in traffic from the parking lot expansion. VMDO has proposed changes to the street layout to improve how trucks maneuver into the loading dock but these

hardscape changes will need to be coupled with careful delivery drivers, the promised limited volumes and schedules, and a continued respect for the residential homes in this area.

Wayfinding to the correct entrances of the Westover Library and the Children's School are issues today. Ideally, the current confusion some visitors experience when approaching the complex will be mitigated with the new design. The front of the new building will appropriately face southeast to North McKinley Street as it curves into 18th Street. In order to deal with grading issues, the main entrance of the school is set back into a gently sloped, accessible courtyard. This means that site users approaching the main entrance from the parking area, the child drop-off area, and the Westover fields will need to walk around the western corner of the building in order to "find" the front door. Though signage could be employed, a site and/or building design that clearly presents a front entrance to all site users would be ideal.

The outdoor play areas include a large exciting play area set into a slightly recessed "bowl" near the northern edge of the site. We are pleased with this innovative design, especially as it could potentially allow the entire school to congregate outdoors. We are slightly concerned about maintenance and debris run-off issues with this play area, though proper grading and operational planning should make this an excellent resource for the school and the community.

The current Reed Expansion project was plagued in the early phases with confusion and uncertainty of how the Children's School building was actually constructed. Our understanding is that there were understandable but poorly recorded changes to the design during the construction phase. In fact, the early energy for "building up" at Reed were predicated on an understanding of as-built construction that turned out to be incorrect. This is unacceptable for a building that was built so recently. We believe there should be readily accessible as-built plans and documentation for any public building, including the new school at Reed. Such reference materials will be vital to take full advantage of the Reed's new flexible interior spaces, which can be reconfigured with inexpensive partition walls.

Moving forward

Assuming School Board adoption of the schematic design, ongoing tight cooperation between APS and the County will be critical to keep the Reed Expansion Project on schedule and at (or below) budget. We look forward to being appropriately engaged during the use permit process and being involved in any significant design modifications resulting from these reviews. In addition, the construction phase will put significant strain on the surrounding community so continued open and timely communication will be key. The BLPC and PFRC will reconvene in the early fall to review progress and evolving construction plans.

Conclusion

The BLPC is very grateful to the School Board for its recent support of the Integrated Concept which has allowed us to move forward efficiently in the design process. The BLPC strongly supports the final schematic design. Moving forward, pending School Board approval, the BLPC

looks forward to minor design adjustments and operational practices that will make the new elementary school at Reed an invaluable community asset.

Thank you for your support of the Reed Expansion Project BLPC and your trust in this open public process. I believe such investments in community engagement are vital to larger public acceptance and trust in Arlington's capital investments. We look forward to your approval of the outcome of this collaborative effort.

Sincerely,



Hans Bauman
Chair, Reed Expansion Project BLPC

PFRC Recommendation Letter

James Schroll, Chair



PUBLIC FACILITIES REVIEW COMMITTEE

2100 Clarendon Boulevard, Suite 700, Arlington, VA 22201
TEL 703-228-3525 FAX 703-228-3543 www.arlingtonva.us

June 27, 2018

The Honorable Barbara Kanninen, Chair
The Arlington County School Board
Syphax Education Center
2110 Washington Blvd.
Arlington, Virginia 22204

RE: Reed Elementary School –Schematic Plan Design

The Public Facilities Review Committee (PFRC) has held two (2) meetings during 2018 to consider Arlington Public Schools' ("APS's") Schematic Design Plan for a new elementary school at the Reed School site, all of which were held jointly with the Building Level Planning Committee (BLPC). The PFRC consists of representatives from County Commissions, as well as project-specific representatives.

The PFRC's mission is to ensure that the highest quality of land use planning, design, transportation planning, and other important community aspects are incorporated into civic projects as assigned to the Committee by the Arlington County Board. The PFRC uses the Principles of Civic Design (attached) to inform the design of civic facilities in Arlington.

Reed Elementary Schematic Design

The PFRC overwhelmingly supports the proposed Schematic Design for Reed School. Members expressed appreciation to the design team for its efforts to respond to comments from the PFRC and BLPC throughout the process. PFRC members noted, as well, that the Schematic Design – particularly the architecture – improved from the first meeting held on May 15 to the second meeting held on June 14. The design respects the community's desire for preservation of green space and keeps most of the recreation amenities that are on site currently.

Due to fire access requirements, APS adjusted the design to move the basketball courts closer to the school. In the current design, the courts would allow fire apparatus to access the west side of the school without increasing impervious surface dramatically to provide this access. In this process, the size of the basketball courts diminished – going from 2 courts in the initial draft to 1.5 courts in the revised version. While smaller, many liked the new location as some residents expressed concern about the noise generated from the proximity of the courts to their property as shown in the initial Schematic Design.

While the Committee's members are pleased with the overall design of the proposed facility, PFRC members did raise some concerns with the Reed Elementary School Schematic Design which are addressed in greater detail below.

Remaining Concerns

PFRC members raised some concerns with the design which they hope to see addressed in the final use permit. First, several members noted concerns about additional traffic in the rear of the site, specifically on 18th St. N. and N. Madison St., which residents noted are narrow roads. Members also raised concerns about the proximity to adjacent residential properties, particularly off N. Madison St. While PFRC members acknowledged that the location of the loading dock and the parking lot behind the library are not likely to change, members suggested

that APS actively discourage parent pick-up/drop-off in this location. Members offered that signage could be a solution or educating parents about the proper locations for pick-up/drop-off once the school is open.

Second, Members noted that the proposed design of the entrance along N. McKinley Rd./18th Street N. could be improved to highlight this façade more prominently. Members noted that many people will be walking along N. McKinley Rd/18th Street N. to access the school, therefore, there is an opportunity to give more attention to the design of this building frontage. While PFRC members acknowledged that the proposed design makes the entrance more accessible because of the 1:20 incline, the school's main entrance is somewhat hidden behind the plaza. Members encouraged APS and the architect to improve the design.

Finally, PFRC members appreciated the use of color throughout the design but cautioned against using too many colors or making the design of the basketball courts too elaborate such that the design may decrease the use by older residents. PFRC members encouraged APS to find a healthy balance in the design of the courts and other site amenities to ensure that they are visually interesting, while still functional for all users.

Going Forward

We look forward to working with APS and BLPC in refining the design in the use permit phase later this year. We hope that APS will take an inclusive approach as it finalizes the walk zones for this school to decrease the demand for parking. In addition, we encourage APS to work collaboratively with the County on any offsite improvements to ensure that this site can be accessed safely by students walking and biking to school. We have heard from many parents throughout this process that they would like their children to walk or bike to this new neighborhood school, and we hope they will be able to, as well. Thank you again for the opportunity to provide the Committee's feedback on this project.

Respectfully submitted,



James Schroll, Chair
Public Facilities Review Committee

Cc: Mark Schwartz, County Manager
Samia Byrd, Deputy County Manager
Bob Duffy, Planning Director, CPHD
Arlington County Board Members
Arlington County School Board Members
Dr. Pat Murphy, Superintendent, APS
John Chadwick, APS
Jeff Chambers, APS

Benjamin Burgin, APS
Aji Robinson, APS
Brett Wallace, CPHD
Nicole Boling, CPHD
Kris Krider, CPHD

Attached
[PFRC Charge](#)
[Principles of Civic Design](#)

August 2, 2018 - School Board Approval

School Board Motion

The Arlington School Board's adopted FY 2017-2026 Capital Improvement Plan (CIP) addressed, in part, the continued increase in enrollment throughout Arlington County by including a project for a new elementary school at the Reed site. Continuation of the project was affirmed in the adopted FY 2019-2028 CIP. The project officially began with a joint County Board and School Board work session on October 17, 2017. Since the joint work session there have been fourteen (14) meetings with the Building Level Planning Committee (BLPC), Public Facilities Review Committee (PFRC), members of adjacent civic associations, and other project stakeholders. The School Board previously approved the concept design for the new school on April 5, 2018. The proposed schematic design was presented to the School Board by APS staff and the design team on July 17, 2018.

Having carefully reviewed the extensive input from the BLPC, PFRC, civic association leaders and other stakeholders, and the Superintendent's recommendation, I move that the School Board approve the schematic design as generally described in Exhibits A through F in the presentation made at the August 2, 2018 School Board meeting.

By approving Exhibits A through F the School Board approves the following aspects of the schematic design:

- Reaffirm basic project criteria to create a new neighborhood elementary school with an attendance zone for a minimum capacity of 725 seats, to be completed in time for start of school September 2021, contingent on the availability of full project funding, as detailed in the last bullet below;
- General location, height, and massing of the building;
- General extent of reuse/renovation of the existing building;
- General layout of program spaces within the building;
- Schematic site plan showing general location and quantity of parking, with the understanding that further refinement of the site plan is expected during the Use Permit review/approval process; and
- Maximum total project funding of \$55 million, with strong direction to find opportunities to reduce costs. It should be noted that the FY 2019-2028 CIP funding for the Reed Project included \$44.25 million funded by bonds scheduled to be approved by the voters in the November 2018 bond referendum. Reed Project bond funding is contingent on voter approval.

With this approval, the School Board also provides the following direction to staff:

- Proceed to the design development phase, including preparation of the Use Permit application;
- Begin discussions with Arlington County Government (ACG) staff on quantifying APS/ACG jointly funded items;
- Pursue various strategies to reduce cost as the project advances to the next phase including, but not limited to, the measures shared with the School Board in the July 17, 2018 information presentation: and
- Provide a monitoring report to the School Board at the conclusion of the design development phase cost estimate reconciliation process.

August 2, 2018 - School Board Approval

FINAL SCHEMATIC DESIGN

- On-site parking: 133 spaces (9 over min)
- Space for 7 buses to load/unload at suggested location
- Space for a total of 30 cars to queue on-site in two rows
- Interior Class 1 bike storage with 2 showers
- Exterior bike racks



Exhibit A

Program	Classrooms	Factor	Capacity
Pre-K	2	16.00	32.00
Kindergarten	5	23.33	116.65
First Grade	5	23.33	116.65
Second Grade	5	23.33	116.65
Third Grade	5	23.33	116.65
Fourth Grade	5	23.33	116.65
Fifth Grade	5	23.33	116.65
Total	32		732



Exhibit B



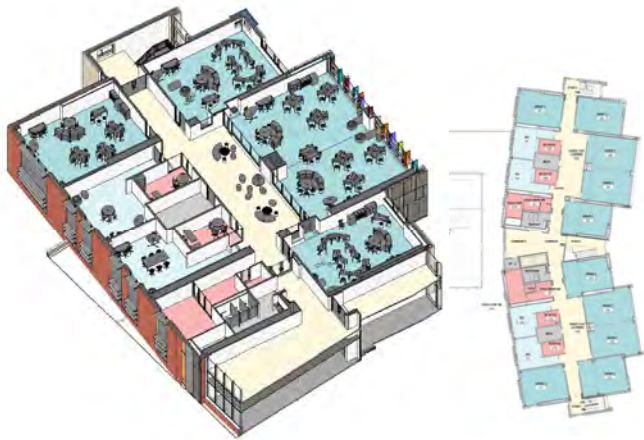
- CLASSROOM
- RESOURCE ROOM
- SHARED/PUBLIC (Dining, Library)
- PHYSICAL EDUCATION
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

Exhibit C



- CLASSROOM
- RESOURCE ROOM
- SHARED/PUBLIC (Dining, Library)
- PHYSICAL EDUCATION
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

Exhibit D



- CLASSROOM
- RESOURCE ROOM
- SHARED/PUBLIC (Dining, Library)
- PHYSICAL EDUCATION
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

Exhibit E

Maximum Project Funding (Millions) ¹	
Major Construction Bonds	\$ 44.25
Capital Reserve	\$ 4.00
Other (Operating) ²	\$ 1.25
Subtotal	\$ 49.50
ACG/APS Jointly Funded Items	
APS Funding	\$ 2.75
ACG Funding	\$ 2.75
Subtotal	\$ 5.50
Grand Total	\$ 55.00

Notes:
 1. FY 2019-2028 CIP, Adopted by the School Board on June 21, 2018.
 2. Furniture and equipment that cannot be bond funded.

Estimated Cost (Millions) ¹		
	A/E	CMR
GMP (Construction Costs)	\$ 41.87	\$ 42.71
Owner (Soft) Costs ²	\$ 12.24	\$ 12.28
Total	\$ 54.11	\$ 54.99

Note:
 1. Based on final reconciled total project cost estimates.
 2. Owner costs include design, project management, and other professional services fees, utility/permitting fees, furniture, equipment, and project contingencies.

Exhibit F