



# Arlington Public Schools

New Elementary School  
CONCEPT DESIGN PHASE REPORT 07.20.2016

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.

# Contents

<b>Introduction</b>		<b>4</b>
Executive Summary		5
Project Team		6
Community Roles & Project Chronology		7
Site Overview		8
Site Photos		9
South Arlington Working Group		10
Thomas Jefferson Working Group		11
<b>Space Program</b>		<b>13</b>
Goals & Organization		14
Flexible Learning Environments		15
Educational Opportunities		16
Space Program		17
List of Spaces		18
Concept Cost Estimate		21
<b>Design Process</b>		<b>22</b>
BLPC-PFRC Kickoff	April 20th, 2016	23
BLPC	May 04, 2016	25
BLPC-PFRC	May 18, 2016	33
BLPC	June 01, 2016	37
<b>Concept Design</b>		<b>46</b>
BLPC & PFRC	June 15, 2016	47
BLPC Letter		69
PFRC Letter		72

# 01

## Introduction

Executive Summary

Project Team

Community Roles & Project Chronology

Site Overview

Site Photos

South Arlington Working Group

Thomas Jefferson Working Group

# Executive Summary

VMDO Architects and our team of consultants are pleased to present this "CONCEPT DESIGN PHASE REPORT" describing our work to date on Arlington Public Schools' (APS) New Elementary School at the Thomas Jefferson Middle School Site. The conceptual design documented in this booklet was submitted for consideration by the Building Level Planning Committee and the Public Facilities Review Committee in a joint meeting on June 15th, 2016 (and subsequently to the PFRC on June 23rd). Each committee has approved the conceptual design and we look forward to receiving approval letters from each chair and adding them to the final version of this document. Likewise, the cost estimates are close to being complete and will be added to this document when the printed version is made available to the School Board. Total funding available for the project is \$59 million.

The conceptual design process has benefited greatly from the previous work of two citizen working groups. Given the charge of determining whether or not an elementary school should be built on this site, the Thomas Jefferson Working Group overwhelmingly decided that a new school COULD be built here (under certain conditions), but split as to whether or not it SHOULD be built here. After studying many other potential sites, the South Arlington Working Group later determined that the school should indeed be built on this site, and that the existing Patrick Henry neighborhood school be moved to this location, with the Montessori program (currently co-located at Drew ES) to occupy the existing Patrick Henry facility, thereby creating new capacity at two locations in South Arlington. We are indebted to the work of these two groups and are confident that the proposed conceptual design meets both the letter and spirit of the recommendations from each Working Group.

The proposed design is for a 110,000 gross square foot elementary school with a official capacity of 729 students from PreK to 5th grade. The building has a compact footprint of 38,720 square feet, yet still locates a full sized gymnasium, stage, dining commons, kitchen, administration and all PreK and Kindergarten classrooms on the ground floor with direct access to the exterior. Grades 1 and 2 are located on the second floor, grades 3 and 4 on the third floor, and the 5th grade is on a smaller fourth floor. In deference to the neighborhood context, the building "steps back" as it "goes up" – placing the 4th story portion of the building closest to the center of the site and as far away from houses as possible.

The building sits on a podium over a single level of structured parking that can accommodate 228 parking spots, which are in addition to 6 spots in the existing service yard of the middle school. APS's transportation consultant has determined that need for parking spots on the west side of the site ranges from 221 to 249 spots. The proposed design can accommodate a number of new surface spots off the new bus driveway in order to reach, or exceed the 249 requirement. The design allows for the demolition of the existing small lot at the corner of South Old Glebe and Second Street, and the creation of a new corner park and pedestrian entryway into the site.

Ambitious planning goals for the New Elementary School project include a comprehensive approach to Universal Design, the creation of a Net Zero Energy Ready building, as well as pursuit of LEED certification at the Silver level -- or better. The proposed "pedestrian mall" between the parking structure and the existing middle school will allow the three building entrances primarily used by the students to become fully accessible, and provide for possibilities of bringing more natural light into the lower levels of the middle school. Park amenities will also be greatly enhanced as a surface parking lot gets transformed into an engaging landscape for students, neighbors, and the citizens of Arlington.

Design documents are scheduled to be completed in June 2017. Construction is scheduled to commence thereafter, and the school will be completed and the school will open for the first day of school in September 2019.

**ARLINGTON PUBLIC SCHOOL BOARD**

Patrick K. **Murphy**, Superintendent  
 Nancy **Van Doren**, Chair  
 Barbara **Kanninen**, Vice Chair  
 Reid **Goldstein**, Member  
 James **Lander**, Member  
 Emma **Violand-Sanchez**, Member

**BUILDING LEVEL PLANNING COMMITTEE (BLPC)**

PTA  
 Katie Vivalo **Rouse**, Henry ES  
 Megan **Haydasz** (Chair), Henry ES  
 Andrea Durso **Lehn**, Henry ES  
 Ted **Loza**, Henry ES  
 Caroline **Rogus**, Long Branch ES  
 Heather **Whyte**, Long Branch ES (south of Arl. Blv.)  
 Nadia **Conyers**, Hoffman-Boston ES  
 Alisa **Key**, Thomas Jefferson MS  
 Lisa **Sleigh**, Thomas Jefferson MS  
 Joe **Everling**, Special Education PTA (SEPTA)

Civic Associations  
 Stephenie **Chong**, Immediate Neighbor  
 Lisa **Turcios**, Arlington Heights  
 Lander **Allin**, Alcova Heights  
 Stacy **Snyder**, Ashton Heights  
 Sarah **McKinley**, Columbia Heights  
 Joye **Murphy**, Douglas Park  
 Adam **Rasmussen**, Lyon Park  
 Janet **Dorn**, Penrose

At-Large  
 Todd **McCracken**, Public Facilities Review Committee (PFRC)  
 Edgar Aranda **Yavoc**, Pre-school Parent  
 Monique **O’Grady**, Community Member

Other  
 Greg **Greeley**, Facility Advisory Council (FAC)  
 Graham **Weinschenk**, Student Advisory Board (SAB)  
 Barbara **Kanninen**, School Board Liaison

APS Instruction  
 Annie **Turner**, Henry ES Principal  
 Keenan **Hall**, Henry ES Teacher  
 Kelly **Seidewand**, Henry ES Teacher  
 Keisha **Boggan**, Thomas Jefferson MS Principal  
 Jeremy **Siegel**, Thomas Jefferson MS Teacher  
 Donna **Snyder**, Director, Elementary Education

**ARLINGTON PUBLIC SCHOOLS FACILITIES**

John **Chadwick**, Assistant Superintendent for Facilities and Operations  
 Benjamin **Burgin**, Acting Director of Design & Construction  
 Steve **Stricker**, Project Manager

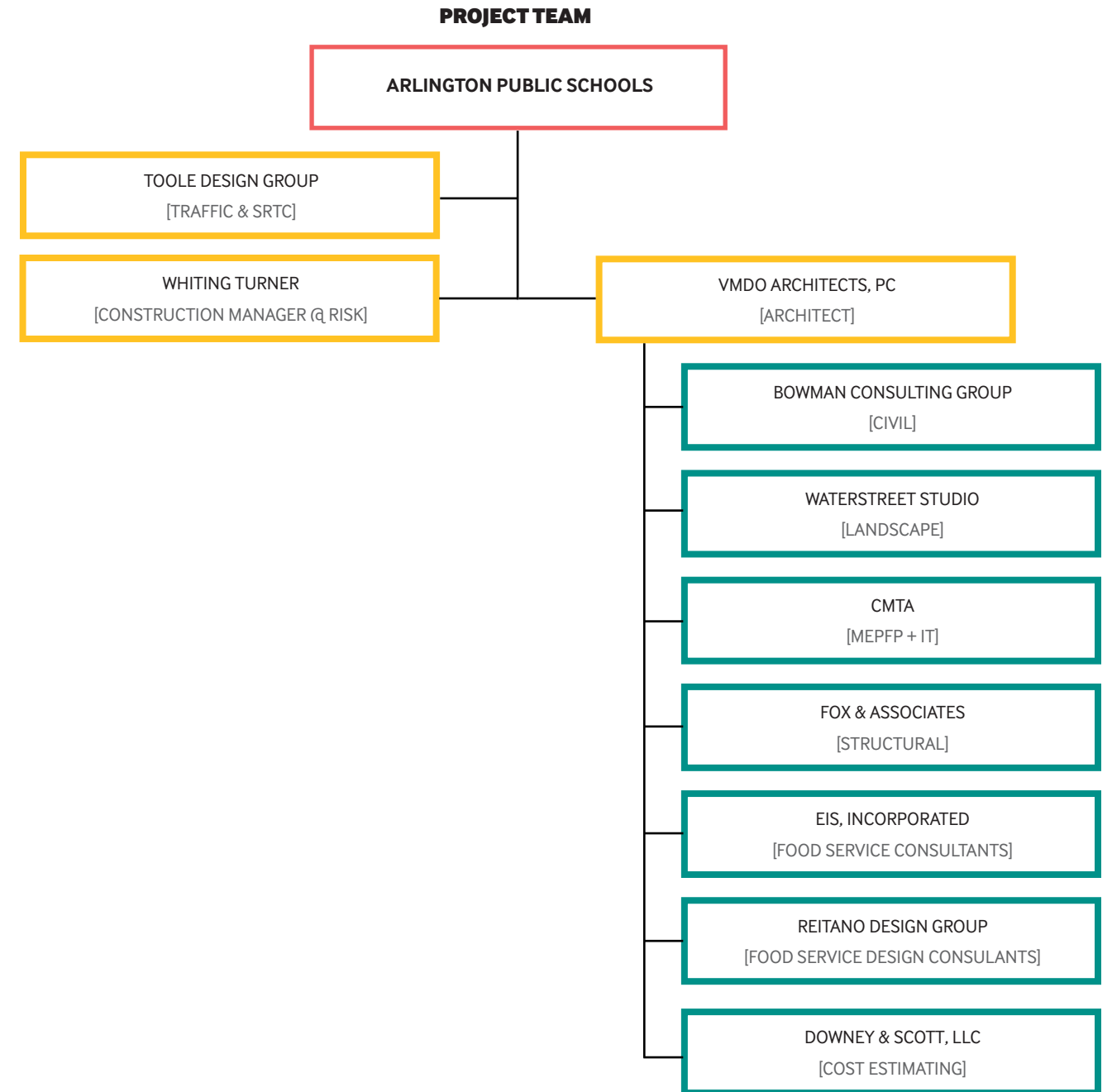
**PUBLIC FACILITIES REVIEW COMMITTEE (PFRC)**

Core Members  
 Stephen **Sockwell**, Chair, PC Rep  
 William Patrick **Staderman**, Seat 2 - DAC Rep  
 Stephen **Hughes**, Seat 3 - PC Rep  
 Scott **Dicke**, Chair, Seat 4 - E2C2 Rep  
 James **Schroll**, Seat 5 - PC Rep  
 Stephen **Baker**, Seat 6 - FAAC Rep  
 Todd **McCracken**, Seat 7 - APS Rep  
 Jeffrey **Certosimo**, Seat 8 - Housing Commission Rep  
 Heather **Obora**, Seat 10 - APS Rep  
 Terri Hume **Prell**, Seat 11 - At Large  
 Elizabeth **Gearin**, Seat 12 - PRC Rep  
 Chris **Slatt**, Chair, Seat 13 - TC Rep

TJ Project Specific Members  
 Lander **Allin**, Alcova Heights  
 Molly **Calkins**, Arlington Heights  
 Maureen **Critchley**, Arbors of Arlington  
 Jordan **Cross**, Dominion Square TH  
 Lisa **Turcios**, Dominion Arms Apartments  
 Craig **Esherick**, Sports Commission  
 Rene **Gornall**, County Fair  
 Carrie **Johnson**, At-Large  
 Nora **Palmtier**, Urban Forestry  
 Juliet **Hiznay**, Friends of TJ Park  
 Greg **Greeley**, APS FAC

**VMDO ARCHITECTS PROJECT TEAM**

Bob **Moje**, FAIA, Partner-in-Charge  
 Wyck A. **Knox**, AIA, LEED AP, Project Manager  
 Philip M. **Donovan**, AIA, LEED AP BD+C, Project Architect  
 Alissa **Tucker**, LEED AP BD+C, Job Captain  
 Daniel **Mowery**, LEED AP BD+C, Staff Designer  
 Asher **McGlothlin**, LEED GA, Staff Designer  
 Renee **Ritchie**, Intern Designer



# Community Roles & Charges

## Building Level Planning Committee (BLPC)

- Assists APS Staff during Concept and Schematic phases by reviewing:
  - Building location and massing
  - Site Amenities
  - Adjacencies between interior spaces and site amenities
  - Community use of the building and site
  - Impact of project on surrounding community
- Distribute project updates to constituency groups
- Solicit comments from constituency groups and share with the BLPC for consideration

## Public Facilities Review Committee (PFRC)

PFRC Charge (June 18, 2014):

- Mission: 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.
- Key responsibilities:
  - Provide forum for advisory commission and committee input
  - Ensure highest quality of land use planning and design
  - Promote compliance with County Comprehensive Plan and other County planning policies
  - Provide means for broad-based public participation
  - Provide advice to County Board and County Manager

## Arlington Public Schools (APS)

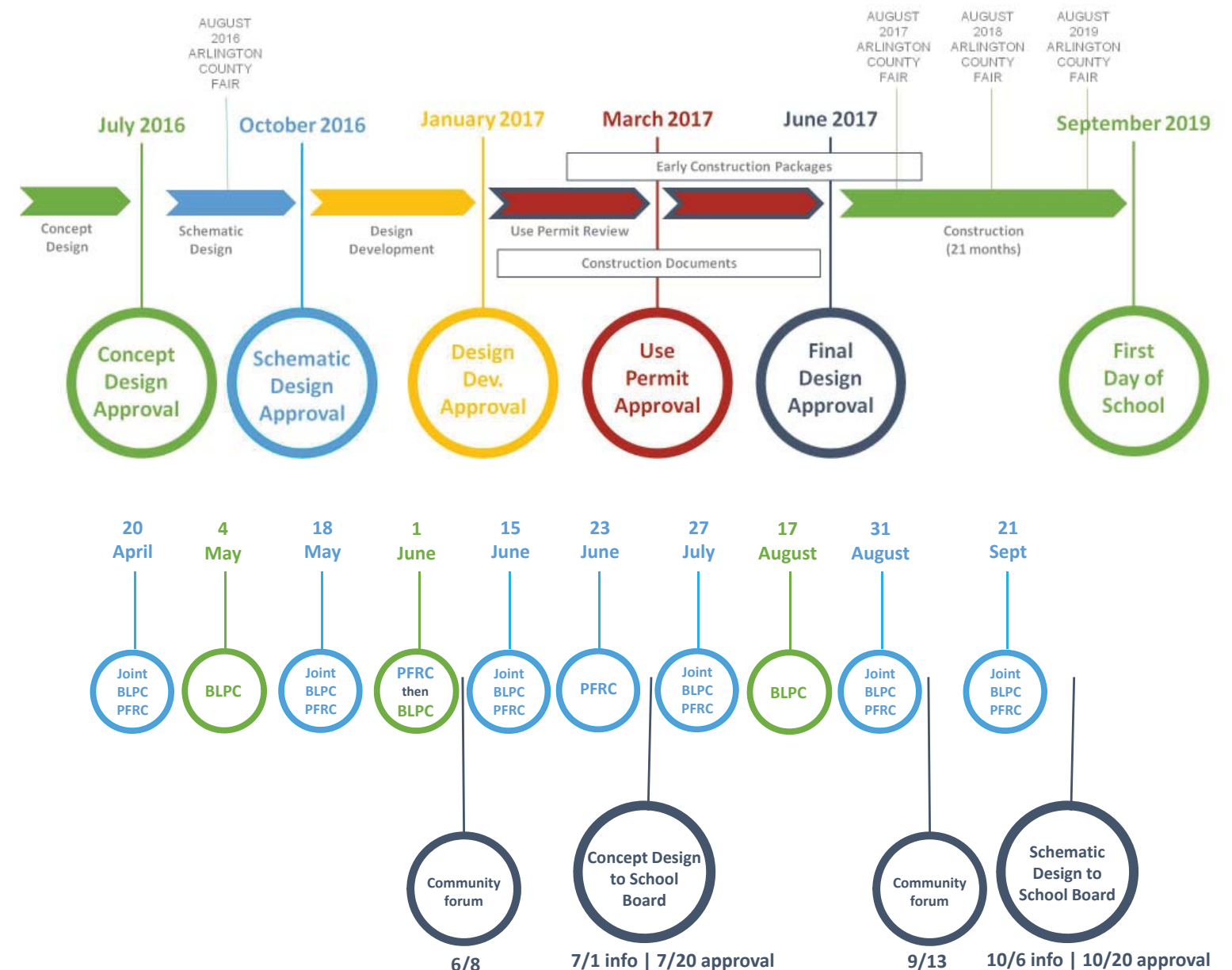
- Develop Site-Specific Educational Specifications
  - List of Spaces
  - Educational Vision and Pedagogy
  - Space Character and Adaptability
  - Detailed floor plan layouts and adjacencies
- Develop Project Cost Estimates and Monitor Costs
- Develop content to support BLPC and PFRC

## County Staff

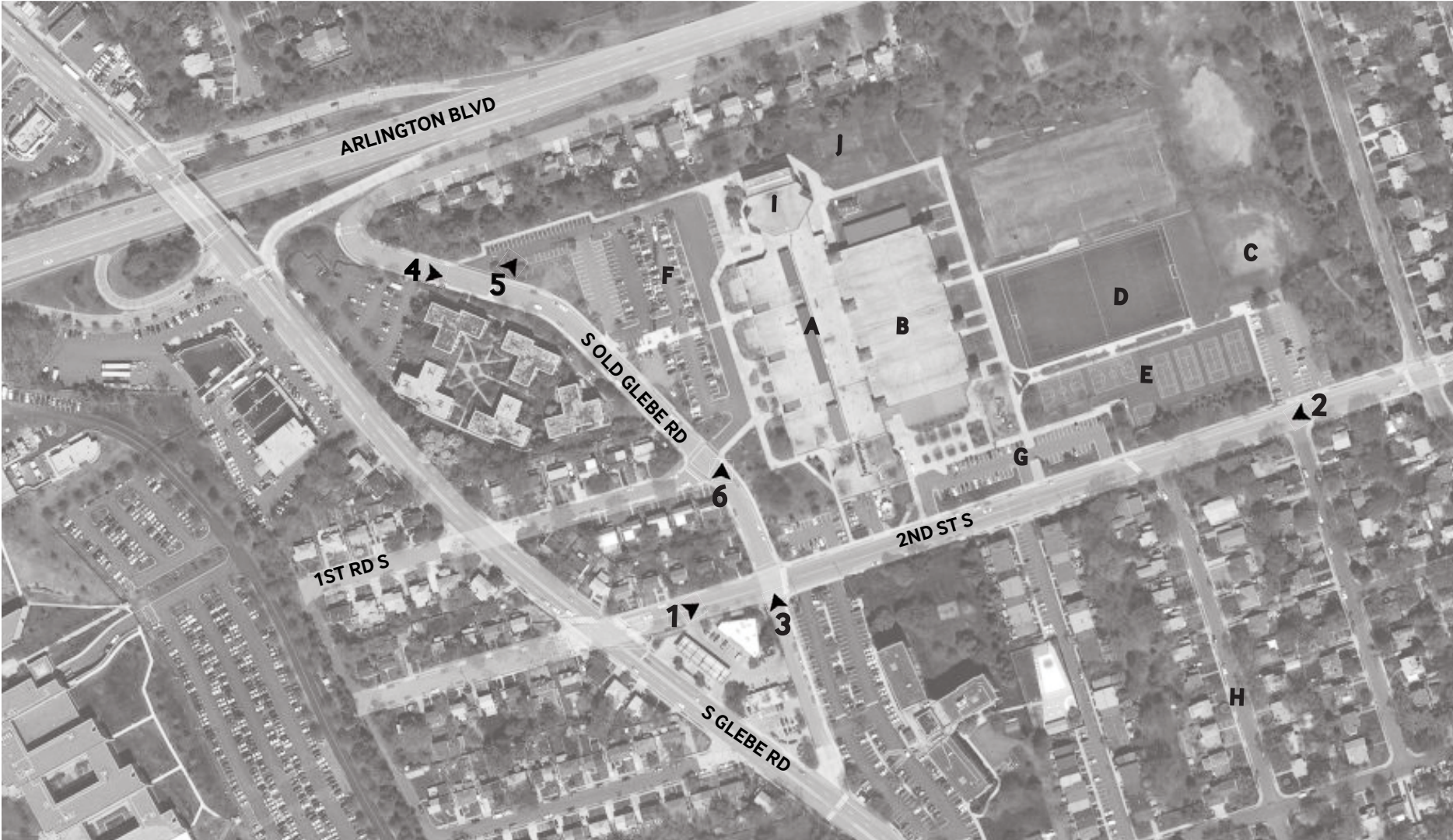
- Coordinate community review process with APS
- Provide feedback to APS on applicable County policies
- Use permit and beyond

# Project Chronology

- |                |  |
|----------------|--|
| October 2012   | School Board Adopted FY 2013-2022 CIP identifies Kenmore site as the location of a new elementary school   |
| June 2014      | School Board Adopted FY 2015-2024 CIP identifies Jefferson site as preferred location for a new elementary school  |
| September 2014 | County Board appointed TJWG begins   |
| January 2015   | TJWG issues Final Report and County Board decides "not now" to a new elementary at the Jefferson site  |
| June 2015      | School Board appointed SAWG begins   |
| November 2015  | SAWG issues Final Report including a preference to build a new elementary school for Henry on the Jefferson site   |
| December 2015  | School and County Board approves Jefferson as the site for a new elementary school   |
| March 2016     | School Board approves first three preferences of the SAWG: <ul style="list-style-type: none"> <li>Build a new school for Henry Elementary on the Jefferson site</li> <li>Relocate existing Montessori Program from Drew to Henry</li> <li>Open approximately 400 seats at Drew as a result of the Montessori relocation</li> </ul> |



# Site Overview



- A. THOMAS JEFFERSON MIDDLE SCHOOL
- B. THOMAS JEFFERSON COMMUNITY CENTER AND PARK
- C. BASEBALL FIELD
- D. SOCCER FIELD
- E. TENNIS COURTS
- F. EXISTING MAIN PARKING LOT
- G. EXISTING 2ND ST SOUTH PARKING LOT
- H. ARLINGTON HEIGHTS
- I. COMMUNITY THEATER
- J. COMMUNITY GARDEN



The Thomas Jefferson site is located within the boundary of the Arlington Heights Civic Association, and is bounded by Arlington Boulevard to the north, South Irving Street to the east, 2nd Street South to the south, South Old Glebe Road to the west, and excludes a series of single family homes located at the northwest corner of the site facing Arlington Boulevard. Existing uses at the site include Thomas Jefferson middle school and community garden, Thomas Jefferson Community Center, and Park, Community Theater, a playground, lighted basketball courts, lighted tennis courts, a diamond field used primarily by youth baseball, lighted grass rectangular field used primarily by youth and adult soccer, a lighted synthetic turf drop-in field, two unrestricted-use playgrounds and a measured fitness trail. The site also includes passive open spaces and surface parking lots and is the location of the annual Arlington County Fair.

In the late 1960s the 27-acre site Jefferson site, then sparsely developed, was assembled by the County as the new location for what was then called Thomas Jefferson Junior High School. The school was paired with a county-run community center in an innovative partnership described in a 1972 brochure as a jointly funded, jointly operated "community growth center" serving the "interests of all ages" for education, recreation and the arts. The last two lots on the site's southeast corner were purchased in 1989 and 1991 and added to the park. [TJWG]



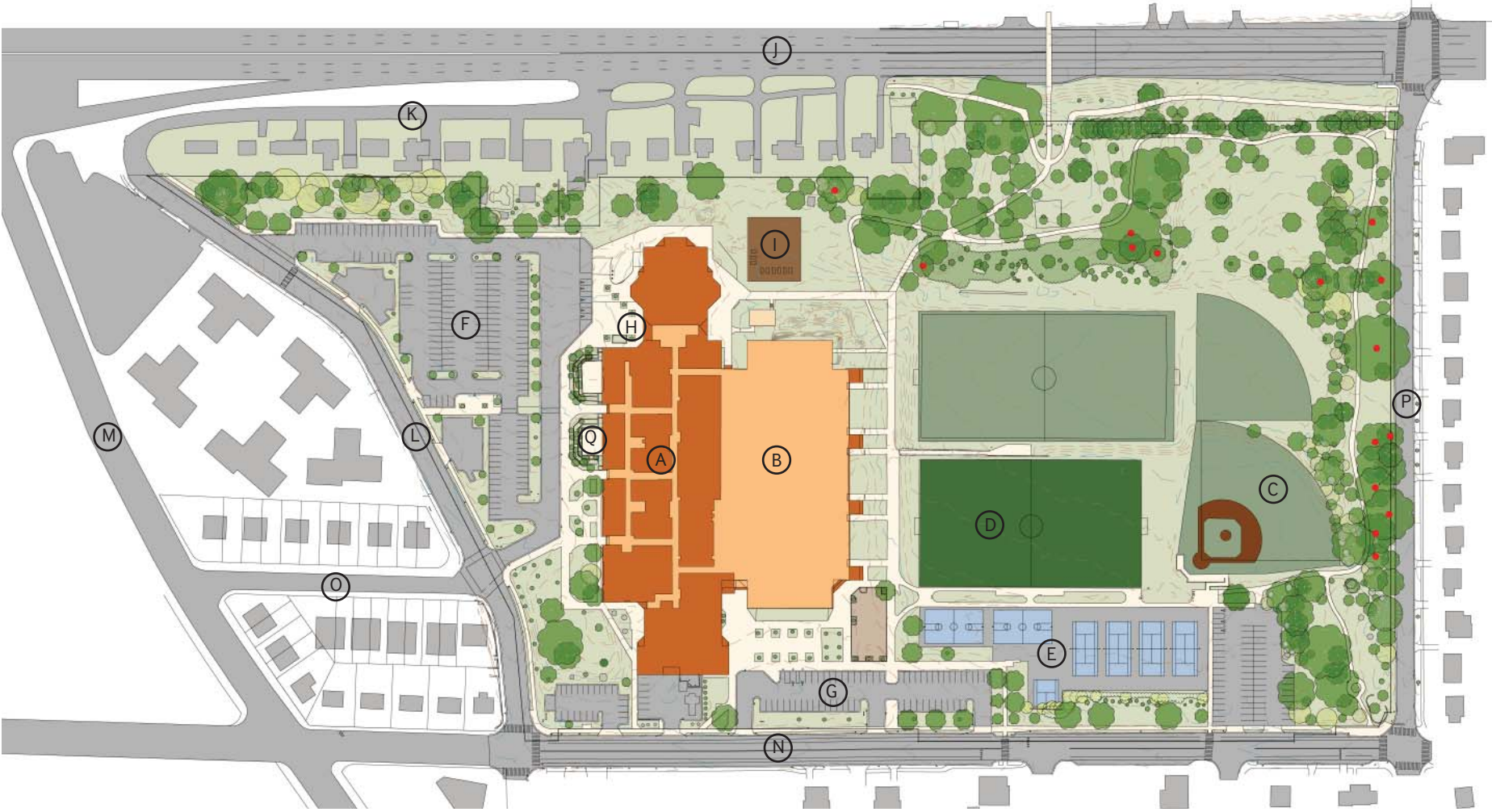
# Site Photos



2nd Street S	1
2nd Street S	2
S Old Glebe Rd	3
S Old Glebe Rd	4
Existing Parking Lot	5
Existing Parking Lot	6
School Entrance and West Elevation	7
Service Area on South 2nd Street	8
Corner of South Old Glebe Road and 2nd Street	9
South Side of Gymnasium from Community Center Parking Lot	10
View of Gymnasium and Towers Across Field	11
View from South Old Glebe Road	12

# South Arlington Working Group

## Final Report Summary



- (A) THOMAS JEFFERSON MIDDLE SCHOOL
- (B) THOMAS JEFFERSON COMMUNITY CENTER AND PARK
- (C) BASEBALL FIELD
- (D) SOCCER FIELD
- (E) TENNIS COURTS
- (F) EXISTING MAIN PARKING LOT
- (G) EXISTING 2ND ST SOUTH PARKING LOT
- (H) THEATER ENTRANCE
- (I) COMMUNITY GARDEN
- (J) ARLINGTON BLVD
- (K) N ARLINGTON BLVD
- (L) S OLD GLEBE RD
- (M) S GLEBE RD
- (N) 2ND ST S
- (O) 1ST RD S
- (P) IRVING ST
- (Q) MIDDLE SCHOOL OUTDOOR CLASSROOM

The South Arlington Elementary Working Group was established by the School Board to analyze site options for a new neighborhood school in south Arlington and provide input on related instructional program moves. The School Board invited every civic association in south Arlington and every Parent Teacher Association in south Arlington to nominate representatives for the Working Group, in addition to some community groups. The Working Group met from June through November for a total of over 24 hours. It reviewed data related to school populations, projections, and performance in addition to a wide variety of sites owned by APS, the County and the private sector.

The south Arlington community representatives ultimately agreed upon two strongly held—and interlocking—recommendations for 2019, and one additional recommendation regarding school needs beyond 2019.

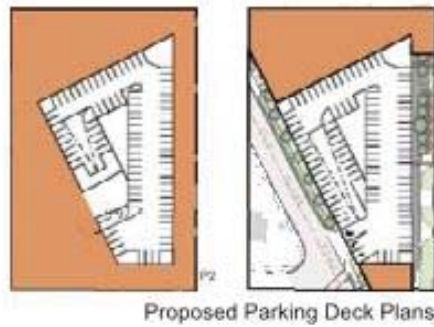
First, the Working Group overwhelmingly preferred that APS build a new home for the Henry Elementary School at the Thomas Jefferson site. In doing so, the Working Group recognized that building this new school has already been delayed and that further delay is untenable given school population projections.

Second, the Working Group paired this site selection with plans to move the Montessori Program out of its current location at Drew to the current Henry Elementary School building, opening 400 seats at the Drew Model School. This pairing was important for two reasons. It provides needed capacity for multiple schools in south Arlington and, by separating the two programs currently housed on the Drew campus, it helps to ensure that both programs can be more successful and focused in the future.

Third, the Working Group overwhelmingly concluded that a second south Arlington elementary school will be needed in the Pentagon City (or “22202” zip code) area. Working Group members support the School Board working with the County Board to start a process in 2016 to plan for a second south Arlington elementary school in the Pentagon City area.

# Thomas Jefferson Working Group Charge

The original version of this scheme provided a significant net gain of play/recreational areas, but concentrated all of the traffic on just 50% of the length of Old South Glebe. The revised scheme keeps a combined bus loop, but creates a new ES parent drop-off loop & visitor parking at the far NW corner of the site. MS students riding the bus will still enter Thomas Jefferson on the north end, but a new main entrance is created on the ground level of the southern end of the building, providing a remedy to existing ADA issues. MS parent drop-off and visitor parking occurs on Second Street, and the number of driveways into the site from Second is reduced from seven (existing) to four – enhancing pedestrian safety. Structured parking cost has been reduced by eliminating drop-off lanes and the underground connection to the ES, and by not excavating along the entire length of the MS. (The cost of the second level of the garage could also be weighed against one level of parking under the tennis courts as shown in scheme three)



- (A) Existing TJ Middle School + Community Center
- (B) New Middle School Entrance
- (C) Community Center Entrance
- (D) Area of future MS expansion
- (E) New Elementary School
- (F) Elementary School Entrance
- (G) Dedicated ES play space
- (H) Combined ES/MS Bus Queue/Drop
- (J) Bus rider entry
- (K) Service Yard
- (L) Community Garden
- (M) Community Playground
- (N) Playfield drop-off
- (P) Dedicated MS drop-off, visitor parking
- (Q) Parking beneath elevated field, opening on to pedestrian plaza.
- (R) Dedicated ES drop-off, visitor parking
- (S) Existing "pits" on west side of MS are joined to create a plaza with an at grade opening into the parking structure

## SCHEME 2 (SELECTED BY TJWG)



SCHEME 1



SCHEME 3



SCHEME 4

## SUMMARY OF THE TJWG CHARGE

- Retain the current wooded eastern end of "TJ Park" as is.
- Maintain a cohesive park; ensure no significant loss of green space and no net loss of recreational programming.
- Consider the neighborhood impacts of traffic and parking and ensure safety of existing pedestrian walkways and bikeways.
- Ensure that the community center would remain available for use.
- Ensure the building massing is compatible with adjacent neighborhood.

# TJWG Design Guidelines, Conditions & Design Principles

In addition to general County and Arlington Public Schools (APS) policies and rules governing construction of public facilities, the following guidelines, conditions and design concepts should be applied to any school construction on the Thomas Jefferson site:

1. Because parks and open space are such valuable community assets, a project adding any other use on such **lands should be accompanied by efforts to add, recover and/or improve green areas and usable open space on the site.**
2. **To protect the area east and north of the APS/County property line** (the area generally known as “TJ Park”), the following conditions should be met:
  - a. The area should be maintained essentially “as is,” with existing conditions and features unchanged and undisturbed, with the possible exception of structured parking as noted in c. below, or improvements made in accord with a master or other plan developed by the Department of Parks and Recreation (DPR) with community input.
  - b. To preserve public safety and a sense of openness, clear views and pedestrian access from 2nd Street South through the trees into the park should be maintained.
  - c. Any structured parking located on this portion of the site should be coordinated with DPR plans for the park and designed to be wholly or partially depressed, with recreational amenities above, with its top no higher than the pre-construction elevation of the ground or basketball or tennis courts, so as not to impede views and access into the park.
3. **Locating an elementary school on the site should not result in any significant loss of green space or recreational programming.** To minimize construction impacts, coordination among APS, DPR and major stakeholders (the County Fair Board, theater users and others) should be maintained during planning and all phases of construction on the site:
  - a. Development of the site should be jointly planned in order to maximize the value and benefits of APS and county capital investments.
  - b. The existing community center and indoor and outdoor park and recreation functions and activities (i.e., art studio, woodshop, County fitness center, basketball courts, measured trail, etc.) should be maintained.
  - c. The integrity of a consolidated park should be maintained, with amenities relationally located (i.e., tennis practice wall located adjacent to tennis courts).
  - d. Any relocated amenities should be rebuilt to current DPR standards.
  - e. Construction and staging areas should be carefully planned well in advance to minimize impacts on nearby residents, middle-school students, and users of the park, community center and theater. If community activities are unavoidably interrupted or access and parking reduced, APS and County staff should work closely with those affected to find alternatives, including interim locations for theater groups and the County Fair if needed.
4. An elementary school or middle school addition should **minimally impact the surrounding community:**
  - a. Any new structure should be designed with **multiple stories and a compact footprint.** Building massing and height should be consistent with the neighborhood.
  - b. Any development and related driveways and parking areas adjacent to private homes should have **adequate setbacks and green buffering to shield neighbors from excessive noise and lights.**
  - c. The planning and design of any new elementary school should consider possibilities for **future renovation and expansion of the community center and middle school,** to ensure those facilities can continue to meet the needs of their respective users into the future.
5. The value of existing community amenities at the TJ site should be recognized and enhanced in the course of school construction:
  - a. **APS should seek opportunities to improve existing community amenities and areas used by the general public,** whether on school-held or county-held property (i.e., the community center entrance, the outdoor area along the east wall of the existing middle school, and walkways and plaza areas outside the theater).
  - b. APS development of the site should recognize the value of the TJ Community Garden, an existing amenity not expressly noted in the working group’s charge, and keep it in its current location if at all possible. If relocation is required, the new location should have ample sun, a convenient water source, and proximity to the middle school.
  - c. The measured trail should not be harmed, interrupted or shortened by any development of the site. Everyday vehicular circulation, including school buses, should not be permitted on the measured trail or on the walkway between the wall of the gym and the fields.
  - d. The entrance to the community center may be relocated or enhanced, but should not be blocked, visually obstructed or hidden from street view by a school building.
6. The **recreation needs of additional students should be accommodated without impinging on general community use of the park:**
  - a. Planning and design of an elementary school campus should include plans for the indoor and outdoor play space, including a playground, as needed to meet requirements for elementary -age physical education, recess, and extended day programs on that campus.
  - b. In the event of middle-school expansion, the impacts of additional students on TJ park fields and other facilities should be evaluated in advance and any needed upgrades of those features included in the project.
  - c. The joint use agreements between the County and APS should be updated to reflect changes in school enrollment and recreation needs.
7. A comprehensive, **well-planned approach to parking** on the site should incorporate the following:
  - a. On-site parking should be **conveniently located** where needed for the various uses of the site, and adequate on-site vehicular and bicycle parking should be provided for everyday activities and most events.
  - b. On-street parking should be preserved for nearby residents’ use to the maximum extent possible.
  - c. Structured parking, at least partially underground, should be part of any plan for a new elementary school at this site. All costs and funding sources associated with that parking should be identified early as part of the school’s overall cost.
8. Any proposal to **locate environmental or energy-related features (i.e., major stormwater management facilities or geothermal wells) anywhere on the site should be considered early in project planning,** with thorough disclosure and community discussion. Further, such projects should be planned and coordinated with County plans for the site and scheduled County major maintenance or improvements of the area involved.
9. Any school development should require a **comprehensive transportation solution** which, among other points:
  - a. **Reduces the impacts of traffic flow** in the surrounding community;
  - b. Increases safety, convenience and connections to the site for walkers and cyclists;
  - c. Provides efficient school bus access as well as parent-drop offs on the site in a manner that improves traffic conditions for residents and commuters as well as school-related travelers; and
  - d. Provides for periodic APS/County review and adjustments of traffic patterns and controls if needed to address problems.
10. The determination of school programming for any new elementary school on the site (i.e., neighborhood versus choice) should be made **through a transparent and engaged community process in advance of planning and design of any new elementary school.**

# 02

## Space Program

Goals & Organization

Flexible Learning Environments

Educational Opportunities

Space Program Summary

List of Spaces

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, special education, administration and teacher support, arts, music, library, food service, physical education, and extended day.

Using the December 2004 APS Elementary School Space Guideline as its foundation, the space program provides the quantity and size of instructional and support spaces consistent with elementary schools across the County, but to serve a capacity of a minimum of 725 students.

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:

- Ensure that every student is challenged and engaged
- Eliminate achievement gaps
- Recruit, retain and develop high quality staff
- Provide optimal learning environments
- Meet the needs of the whole child



# 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. Indeed, the entire west side of the existing site is being re-invented to afford teachers the chance to use every space as a learning place - including middle school teachers at Thomas Jefferson. 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.












*"The physical design of the school itself is very inspirational to students. They love coming here, they love being in this space, and they love learning in this space ... The students know that they're in a special place. From the very thoughtful design of the individual classrooms ... when you put those things together, you end up with students that are really excited to be here. They know that every day is an opportunity to learn and to grow."*

*Chris Vaccaro  
Discovery Elementary School 3rd Grade Teacher*



# Space Program Summary

Program	Sqft	Capacity	Generating Classrooms
 Pre K & Kindergarten (Early Childhood) :	9,200 nsf	8	classrooms = 156.6
 First & Second Grades:	10,560 nsf	10	classrooms = 233.3
 Third, Fourth & Fifth Grades:	12,700 nsf	14	classrooms = 326.6
 Special Education + Specialty Programs:	9,080 nsf	2	classrooms = 12
 Guidance + Administration + Teacher Support:	6,155 nsf		
 Art + Music:	6,305 nsf		
 Library:	4,340 nsf		
 Food Services:	5,390 nsf		
 Physical Education:	9,110 nsf		
Net Square Footage:	72,840 nsf		
Support, Structure & Circulation:	37,148 sf		
<b>Gross Square Footage:</b>	<b>109,988 gsf</b>		<b>Total Capacity = 729</b>
<b>Gross SF per student:</b>	<b>151 gsf</b>		

# List of Spaces

**NOTE : SPACE LIST IS PRELIMINARY. A FINAL LIST OF SPACES WILL BE DEVELOPED DURING THE SCHEMATIC DESIGN PHASE.**

New Elementary School at Thomas Jefferson Middle School Space Program

Concept Design, June 2016

spaces listed in *italics and right justified* are not in the proposed NES at TJ space program, or are relabled elsewhere in program as noted

EARLY CHILDHOOD	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
PreK plus Toilet	1,040	1,060	2	2,120	16.00	32.00
PreK SPED plus Toilet with changing table	1,040	1,080	1	1,080	8.00	8.00
Kindergarten plus Toilet	1,045	1,060	4	4,240	23.33	93.32
Flex Classroom: Pre-K to K (plus Toilet)	1,045	1,060	1	1,060	23.33	23.33
Early Childhood Extended Learning Area		700	1	700	0.00	0.00
				9,200		156.65

PRIMARY GRADES 1-2	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
1st Grade Classroom plus Toilet	870	1,060	4	4,240	23.33	93.32
2nd Grade Classroom	825	825	4	3,300	23.33	93.32
Flex Classroom: 1st or 2nd (plus Toilet)	825	1,060	2	2,120	23.33	46.66
Primary Grade Extended Learning Area		900	1	900	0.00	0.00
				10,560		233.30

ELEMENTARY GRADES 3-5	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
3rd Grade Classroom	825	825	4	3,300	23.33	93.32
4th Grade Classroom	825	825	4	3,300	23.33	93.32
5th Grade Classroom	825	825	4	3,300	23.33	93.32
Flex Classroom: 3rd, 4th or 5th Grades	825	825	2	1,650	23.33	46.66
Elementary Grade Extended Learning Area		1,200	1	1,150	0.00	0.00
				12,700		326.62

SPECIAL EDUCATION	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
County-wide Program, Communications	400-600	500	2	1,000	6.00	12.00
Small Group Instruction, SPED	400-600	500	6	3,000	0.00	0.00
County-wide Program, DHOH	400-601	500	3	1,500	0.00	0.00
Functional Skills plus Toilet with changing table	825	825	0	0	0.00	0.00
Occupational Therapy/Physical Therapy	420	420	1	420	0.00	0.00
				5,920		12.00

**Building Capacity** 728.57

READING, GIFTED AND ENGLISH LANGUAGE LEARNERS	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Small Group Instruction, Gifted	400-602	500	1	500	0.00	0.00
Small Group Instruction, ELL	400-603	500	3	1,500	0.00	0.00
Reading Classroom	420	420	2	840	0.00	0.00
Primary Grade Reading Recovery / Book Room	400	120	1	120	0.00	0.00
Book Storage	300	200	1	200	0.00	0.00
				3,160		0.00

# List of Spaces

**NOTE : SPACE LIST IS PRELIMINARY. A FINAL LIST OF SPACES WILL BE DEVELOPED DURING THE SCHEMATIC DESIGN PHASE.**

GUIDANCE / COUNSELING / STUDENT SERVICES SUITE	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Social Worker Office	120	120	1	120	0.00	0.00
Psychologist Office	120	120	1	120	0.00	0.00
Testing Coordinator Office		120	1	120	0.00	0.00
Math Resource Office		120	1	120	0.00	0.00
Counselor Office		130	2	260	0.00	0.00
Testing Room / Small Conference Room	150	200	1	200	0.00	0.00
Speech Therapist		120	3	360	0.00	0.00
				1,300		0.00

ADMINISTRATIVE SUITE	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Reception / Clerical Area	500	600	1	600	0.00	0.00
Principal's Office	200	200	1	200	0.00	0.00
<i>Principal's Toilet</i>			0	0	0.00	0.00
Principal's Administrative Ass't Office (Admin Hub)	100	115	1	115	0.00	0.00
Assistant Principal's Office	120	120	1	120	0.00	0.00
Conference Room	250	250	1	250	0.00	0.00
Record Storage	300	90	1	90	0.00	0.00
Head End (+PA Nook)		200	1	200	0.00	0.00
Admin / Teacher Workroom	250	300	1	300	0.00	0.00
Clinic w/toilet	600	600	1	600	0.00	0.00
Staff Toilet	65	55	1	55	0.00	0.00
				2,530		0.00

TEACHER SUPPORT	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Teacher Conference Room		245	3	735	0.00	0.00
Teacher Professional / Itinerant Teacher Space, plus Kitchenette		350	3	1,050	0.00	0.00
Teacher Work Room with Copier		180	3	540	0.00	0.00
<i>Teacher's Lounge with Toilet</i>	600					
<i>Teacher's Lounge Work Areas</i>	300					
<i>Teacher's Lounge Storage</i>	150					
				2,325		0.00

ART CLASSROOMS	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
<i>Art</i>	1,730					
Art Classroom		1,350	2	2,700	0.00	0.00
Art Storage		150	2	300	0.00	0.00
Kiln Room		80	1	80	0.00	0.00
				3,080		0.00

MUSIC CLASSROOMS	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Vocal Music	950	950	2	1,900	0.00	0.00
Vocal Music Storage	200	150	2	300	0.00	0.00
Instrumental Music	825	825	1	825	0.00	0.00
Instrumental Storage	200	200	1	200	0.00	0.00
				3,225		0.00

# List of Spaces

**NOTE : SPACE LIST IS PRELIMINARY. A FINAL LIST OF SPACES WILL BE DEVELOPED DURING THE SCHEMATIC DESIGN PHASE.**

LIBRARY	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Library (9,000 - 12,000 volumes per APS.. to be confirmed)	2,800	2,800	1	2,800	0.00	0.00
Library/Teacher Conference Room	150	250	1	250	0.00	0.00
Video Production	100	120	1	120	0.00	0.00
Office / Workroom	300	150	1	150	0.00	0.00
IT / AV Storage	200	250	1	250	0.00	0.00
ITC Coordinator Office	120	120	1	120	0.00	0.00
Innovation Commons (located remotely from library)		650	1	650	0.00	0.00
<i>Multimedia Lab (Computer Lab)</i>	825					
<i>Production Room</i>	200					
<i>Communications Room</i>	150					
				4,340		0.00

FOOD SERVICES	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Dining Commons	3500 (Multipurpose)	3,200	1	3,200	0.00	0.00
Kitchen / Servery	1200-1600 (Off-site Prep)	1,700	1	1,700	0.00	0.00
Kitchen Office		90	1	90	0.00	0.00
				4,990		0.00

PHYSICAL EDUCATION*	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Gymnasium	4100-5100	7,000	1	7,000	0.00	0.00
Stage	450	900	1	900	0.00	0.00
Chair Storage	200	200	1	200	0.00	0.00
PE Teachers' Shared Office	100	150	1	150	0.00	0.00
PE Storage	150	200	1	200	0.00	0.00
Toilet Room	65	55	2	110	0.00	0.00
Class I Bike Storage		260	1	260	0.00	0.00
Class I Bike Toilet & Shower		90	1	90	0.00	0.00
Parks & Rec Storage		200	1	200	0.00	0.00
				9,110		0.00

EXTENDED DAY	APS 2004 Ed Spec	NES at TJ	# of rooms	Net SF	Capacity generating	Total Capacity
Extended Day Office	wihin storage	200	1	200	0.00	0.00
Extended Day Storage	420	200	1	200	0.00	0.00
				400	0.00	0.00

TOTALS	APS 2004 Ed Spec	NES at TJ	Calculated Capacity
Net square footage (NSF)		72,840	728.57
Gross multiplier		1.51	
Support, Structure and Circulation (SF)		37,148	
GROSS TOTAL (GSF)		109,988	
Capacity		729	
Gross square foot per student		151	

# Concept Cost Estimate

## Available Funding (\$ Millions)

Major Construction Bonds	\$ 40.30
Other <sup>1</sup>	\$ 0.80
<b>Subtotal</b>	<b>\$ 41.10</b>
County/School Board Joint Fund	
• APS Funding	\$ 8.95
• County Funding	\$ 8.95
<b>Subtotal Joint Fund</b>	<b>\$ 17.90</b>
<b>Grand Total Funding Available</b>	<b>\$ 59.00</b>

Notes:

1. Furniture and equipment that cannot be bond funded.

## Proposed Design - Project Cost (\$ Millions)<sup>1</sup>

<b>Construction Costs</b>	<b>\$45.67</b>
<b>Owner (Soft) Costs</b>	<b>\$13.33</b>
<b>Total Project Cost</b>	<b>\$59.00</b>
Proposed Alternates <sup>2</sup>	
• Photovoltaic (PV) Panel System	\$ 2.40
• TJMS Stair and Façade Modifications	\$ 0.21
• TJMS Canopy and Window Enhancements	\$ 0.16
• Increase Garage Height to 9'-0"	\$ 0.22
• Rainwater Collection System	\$ 0.38

Notes:

1. Based on two independent professional cost estimates.  
 2. Possible scope additions pending outcome of future estimates.

## Joint Fund Items (\$Millions)<sup>1</sup>

1. Parking Deck and Other Improvements	\$ 12.00
2. Site Costs not Directly Associated with the New Elementary School	\$ 2.10
3. Publically Accessible Restroom(s) at Play Area	\$ 0.09
4. Utility Undergrounding	\$ 0.09
5. Emergency Responder Network	\$ 0.18
6. Allowance for Other Items	\$ 3.44
<b>Total</b>	<b>\$ 17.90</b>

Notes:

1. Includes construction, soft, and contingency costs.

# 03

## Design Process

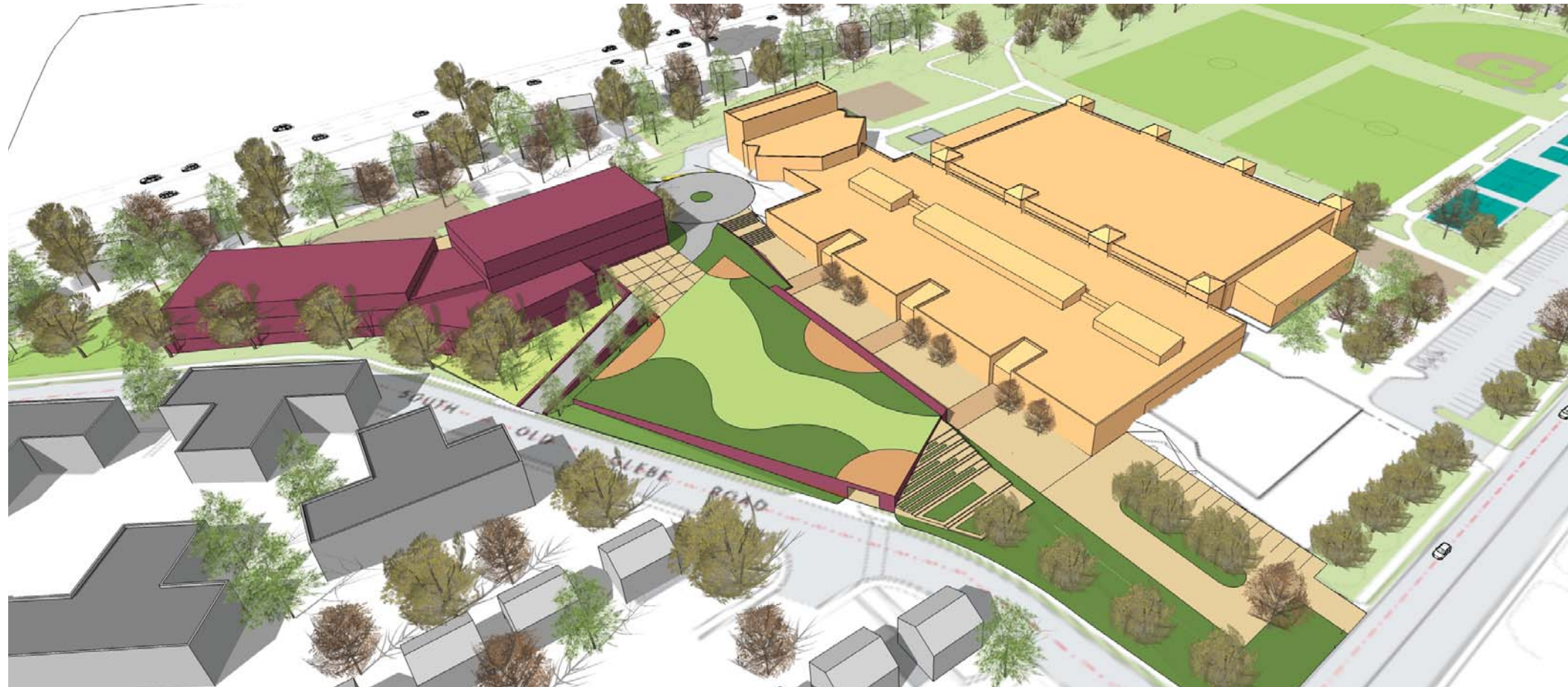
April 20, 2016 BLPC & PFRC Kickoff

May 5, 2016 BLPC

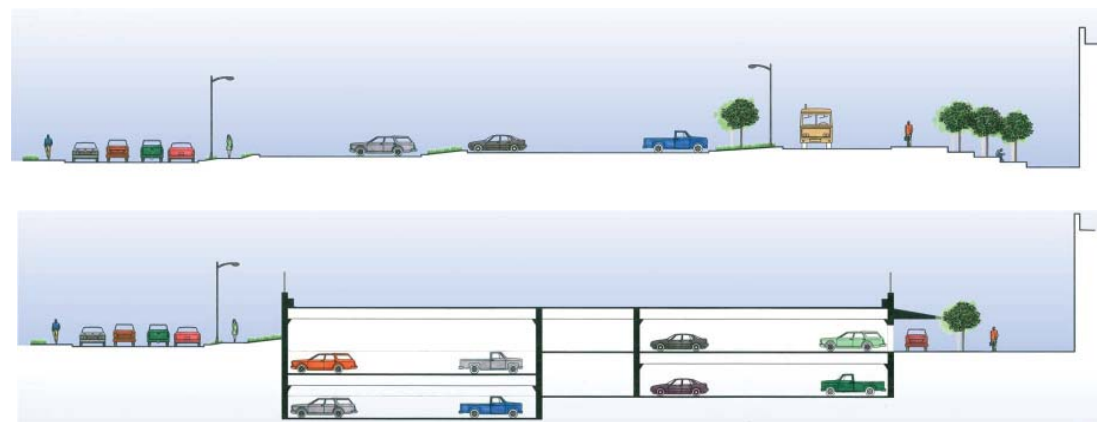
May 18, 2016 BLPC & PFRC

June 1, 2016 BLPC

# April 20, 2016 BLPC - PFRC Kickoff & Overview



TJWG SELECTED SCHEME



ROAD SECTION STUDIES



TJWG SELECTION SCHEME

The Kickoff Meeting reviewed BLPC & PFRC's approval of Scheme 2, which located the school at the Northwestern area of the Thomas Jefferson site.

## Project Goals

- New Elementary School for the Henry Community
- Support APS Strategic Plan Goal #4 –Provide Optimal Learning Environments
- Address capacity by providing 725 seats
- Open by start of school 2019
- Multi-story building in northwest corner of site
- Structured parking
- Project cost \$59 million

## Key Transportation Issues

- Ensure safe and convenient pick-up and drop-off
- Ensure adequate consideration is given to neighborhood impacts and parking
- Enhance the safety of existing pedestrian walkways and bikeways

## Ongoing Transportation Design Topics

- Ongoing BLPC/PFRC, staff and community engagement
- Future traffic analysis
- Continued dialogue with the County about parking requirements
- Continue to explore off-site transportation improvements for bike/ped access, safety and traffic circulation
- Work with VMDO on site plan / arrival and dismissal design
- Continue to work with staff and APS on arrival and dismissal staffing, outreach to parents, etc.
- Continue to explore potential Transportation Demand Management (TDM) strategies
- Use permit conditions and school TDM Plan



# Pedestrian Plaza



# May 04, 2016 BLPC Community Architectural Imagery Comments



- MEETING/GATHERING SPACE
- NICE OUTSIDE LEARNING SPACE ON ROOF
- OPEN, WIDE PANORAMIC VIEW
- GREAT LEARNING & LUNCH SPACE
- REMINDS ME OF YARDS PARK (DC)
- CREATIVE, FUN, NATURAL



- GREAT COLORS
- MOVEMENT
- COLORS, CREATIVE, FUN
- ENGAGING



- THE WALK SPACE BETWEEN TJ AND PARKING IS IMPORTANT
- THE RELATIONSHIP BETWEEN TJ & THE PARKING GARAGE IS IMPORTANT
- LIKE FOR TJMS/ES PLAZA
- NOT APPROPRIATE FOR A SCHOOL

VMDO presented a large selection of architectural imagery for the community to respond to begin an open dialogue on how to approach the character of the building and the surrounding landscape approaches for the school. The images represented to the left are a variety of spaces that were most favored .



- LIKE SHADE CANOPY
- GREAT ACCESSIBLE, SHADE
- INCLUSIVE
- SHADE, ADA



- MORE GLASS



- GREEN SPACE ROOF
- CREATIVE FUN - LIKE THE WATER FEATURE
- GREAT PLAY SPACE
- GOOD PLAY SPACE
- IF THIS IS IT, NOT ENOUGH VARIETY
- NEED EQUIPMENT THAT BUILDS STRENGTH



- LIKE GREEN ROOF
- LOW MAINTENANCE GROUND COVER ON ROOF



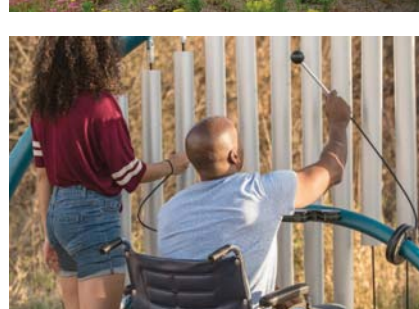
- LIKE WATER RETENTION SITE



- OUTDOOR SPACE
- LIKE THE INTEGRATION OF INDOOR AND OUTDOOR
- LOTS OF WINDOWS - LETS OUTSIDE IN
- LIKE THE COURTYARD INDOOR/OUTDOOR INTEGRATION
- TOO MUCH PAVEMENT



- LIKE OUTDOOR PLAY
- LOVE THE SENSE OF BEING VERY NATURAL
- LOVE FUN CALM
- FUN OUTDOOR AREA



- LIKE MUSIC ACTIVITY
- MUSIC FOR ALL!
- COOL - SOUND!
- PEACEFUL
- YES!



- CALM
- LOVE IT IF IT DOESN'T BREAK
- BETTER THAN ASPHALT
- WEEDS?



- I LIKE THE GARDEN FOR LEARNING
- LOVE THE GREEN SPACE!
- FRESH
- GARDEN FOR KITCHEN FOOD LIKE DISCOVERY



- LOVE! SHADED OUTDOOR EATING
- I LIKE THE LOOK... NEEDS FENCING SECURITY



- GOOD LIGHT
- LOVE GLASS, LIGHT, INDOOR, OUTDOOR
- YES TO LIGHT
- LIKE THE GLASS AND LIGHT
- GOOD LIGHT
- NO TO CORRUGATED METALS

# Community Discussion Topics

## Concerns Expressed at First Meeting

- Plan the project with a long term vision, to support multiple uses.
- Create an inclusive community vision for the school and site.
- Study and provide cost for additional levels of parking to accommodate future needs.
- Maximize APS strategic goals by utilizing and building upon what was learned at Discovery ES.
- Account for impact of extended day with traffic and parking.
- Review timing of traffic light at Glebe and 2nd.
- Account for the appropriate number of buses.
- Have a clear understanding of construction phase site operations for parking, drop-off, school access, theater access, and construction material staging.
- Have a clear understanding of the impact construction has on TJ instruction.
- Have a clear understanding of theater and county fair operations during construction.
- Maintain viable recess space for kids during construction.
- Provide as many off-site pedestrian walkway and bikeway improvements as possible.
- Improve conditions on the site “park side” of the site.
- Design building within broader context of APS needs, including issues of equity.
- Keep project on budget so as to not jeopardize future APS projects.
- Create outdoor habitats to serve both children and park patrons.
- Be creative in designing site environment.
- Make sure school AND rec center is accessible for all kids.
- Avoid 2 different access points: one for handicapped and one not accessible.
- Build a facility that maintains outdoor classroom space.
- Consider the environmental impacts of the project.
- Understand all risks to completing project on schedule, as it impacts Henry, Montessori and Drew.
- Talk to other BLPC chairs and build upon lessons learned.
- Create great gathering spaces and common spaces for kids.
- Create after-school use of play areas on top of parking garage.
- Clearly understand parking deck safety strategies.

## Patrick Henry Culture (Per Annie Turner and PHES staff)

- Neighborhood school
- involved in the community
- Diverse, 23 languages spoken
- 575 students currently
- Growing by 40 student a year
- Currently crowded
- Exemplary project – helping hands community service program
- Outdoor learning spaces
- Kids are in the community doing service – 5th graders marking storm drains
- Partnerships with businesses and APS programs in the community and Career Center
- Would like to collaborate with TJMS once in the new school
- Strong Art Programs - could rival an arts magnet school
- Proud of performing arts program – need large and flexible performance spaces
- Blue ribbon school
- Very diverse community, large 2nd language population
- Large special ed population
- Technology is important – project based learning using technology
- Flexible learning spaces – freedom to set up individual classroom
- Houses county wide communications program and deaf student program
- Currently 3 neighborhood buses, 3 special ed
- Big walking school – how will that translate to new location
- Big community school – parent congregate after school on playground, during the weekend, etc.
- 35% walk/bike, drive is about 45%

## Question for BLPC: one thing you are passionate about when it comes to this project?

- Support instruction changes over time, flexibility
- Good public and civic presence
- Flexibility of spaces over time
- Impact on the Middle School, collaboration with the Middle School
- Flexibility and functionality of learning spaces
- Shared spaces between ES and MS
- How school fits into context of all APS schools, equity between schools
- Budget
- PFRC spoke up about collaboration
- Accessibility
- State of art facility
- Collaborative spaces for staff and students
- Performance and community spaces
- Technology
- Bringing the outdoors in and the indoors out
- Fiscal responsibility
- Safety concerns
- Versatility of spaces, safety for exterior circulation
- Representing diversity
- Maintainability

# Community Discussion Topics

## “Keep, Toss, Create” Exercise

### KEEP

- Keep quality educators and staff from Patrick Henry.
- Keep outdoor learning spaces.
- Keep the diverse student population.
- Keep natural grass/open space areas.
- Keep the crossing guard programs (“safe routes to school?”).

### TOSS

- Toss the trailers.
- Toss the idling buses.
- Toss loose woodchips on playground.
- Toss windowless spaces.
- Toss the carpets in the hallway.
- Toss the chain-link fences.

### CREATE

- Create waste free technologies.
- Create more ways for the school to be open to the community and meetings.
- Create connections with Thomas Jefferson MS.
- Create smarter traffic flow from S Old Glebe Rd, 2nd Street, Irving.
- Create “Safe Routes to School”
- Create collaborative meeting spaces for teachers.
- Create grade level gathering spaces (grade level collaborative spaces).
- Create small group, breakout spaces for special needs children.
- Create outside dining spaces.
- Create necessary separations as well with TJ Middle School.
- Create good building design and low maintenance, sustainable landscaping.
- Create another net zero school.
- Create a safe school (interior safety).
- Create a space for families and children, community spaces within the school.
- Create an efficient and safe way for drop-off and pick-up.
- Create safe walking patterns/environment and walk zones.
- Create accessible areas for physical, cognitive, and spatial needs (deaf/blind).
- Create safe and accessible walking/biking areas during construction periods as well.
- Create new opportunities for other technologies to be used for the school (aside from energy).

## “Dot Democracy” 50 Goals in 5 Minutes

- Stormwater retention
- Maintainability
- Flexible space
- Net zero energy
- Safe parking lot
- Fun and purposeful spaces
- Natural light
- New use of technology
- Less concrete more trees
- Smart cost effective
- More windows
- Safe exterior environment
- Indoor acoustics
- Expand parking capacity
- Outdoor restrooms
- Great connecting spaces between MS and ES.
- Future expansion in mind.
- Community use after hours.
- Waterproofing
- Fun and interesting design
- Under or at budget
- Standardized mechanical equipment
- Slides
- Maintain diversity
- Permeability of walkways and parking
- Accommodation of students with special needs (amplification)
- Integrated sound systems
- Maximize soft surfaces outside
- Enhancements of exterior of TJ middle school/parking garage
- Soccer for community and students
- Themes incorporating diversity in the school design
- Privacy/soundproofing to neighborhoods

# Northwest Site Schemes

**Scheme 1**



In general, classroom spaces are at their highest and best orientation facing due north or south. This allows for constant, indirect northern light or easily controlled southern sun light to effectively illuminate our learning spaces. East and West sunlight tends to shine from low on the horizon reaching deep into our classrooms and causing glare on learning surfaces. With this in mind VMDO has attempted to orient the learning spaces south and north in the community preferred site location. Additionally a southern facing slope of 5° inclined from horizontal is the ideal orientation to generate electricity from the sun's rays. The massing and roof forms herein acknowledge and are given purpose by this concept.

**Scheme 2**



**Scheme 3**



**Scheme 4**



# Scheme 1



Perspective View



Aerial View



Parking Garage Level



Play Surface Level

VMDO started its conceptual design explorations by physically modeling the “test fit” concept that was the preferred option chosen by the TJWG in their report to the Arlington County board. Scheme 1 locates the building mass in the northwest corner of the site stepping up to the east from two stories to four stories with a two story parking garage located to the south. The building and parking are bifurcated by the bus-loop/theater drop-off. The parking garage contains a play surface for the elementary school on its top deck which is located at the same height as the first floor of the building so that students can cross the bus loop at grade and move out into the play area.

Student bus-drop off occurs between the existing TJMS and the east end of the new elementary school for both the NES and the existing MS students. Parent drop off for the new elementary school occurs in the northwest corner parking lot. Parent drop off for the middle school occurs in the new garage.

Site lines and views from S. Old Glebe are maintained towards the entrance to TJMS and Thomas Jefferson Community Theater. The parking garage is located 60’ to the west of the existing middle school. In this scheme a pedestrian mall is created by lowering the grade to align with the first floor of TJMS and on the same level as the top floor of the garage.

## Scheme 2



Perspective View



Aerial View



Parking Garage Level



Play Surface Level

Scheme 2 also locates its massing to the northwest on the site and its parking garage south of the massing adjacent to TJMS. However in this scheme the parking garage rises one and a half stories above grade instead of being built below grade as in Scheme 1. Building the garage up rather than down saves money and reduces construction risk.

The building massing is oriented south acknowledging the graceful curve of S. Old Glebe in playful, gentle curves fanning out as the building reaches southward. The building blocks step up four stories to the east allowing for the program to bridge over the bus-loop and engage the play surface on top of the parking garage without having students cross the bus access road at grade. The parking garage is shaped to create a maximum parking footprint in the available space on site while maintaining a 60' of space between itself and TJMS. This shape however increases construction cost due to its non-repetitive building elements, an issue with the garage in Scheme 1 as well.

Student bus-drop off occurs between the existing TJMS and the east end of the new elementary school for both the NES and the existing MS students. Parent drop off for the new elementary school occurs in the northwest corner parking lot. Parent drop off for the middle school occurs in the new garage.

Site lines and views from S. Old Glebe are maintained towards the entrance to TJMS and Thomas Jefferson Community Theater. Unlike other schemes, this scheme does not "dig out" next to the middle school to create a pedestrian mall. This scheme preserves the existing open space condition and parking lot at the intersection of 2nd street and South Old Glebe. After hours access to the play area on top of the garage would have to be via stairs or elevator located within the garage.

# Scheme 3



Perspective View

Scheme 3 begins to unfold the bar of stacked program sliding the building and garage together so the educational spaces have direct engagement with their outdoor play surface. This move is orchestrated by locating the bus and theater access to the northern edge of the site.

Scheme 3 spreads its program out in a larger footprint resulting in only three stories that step up to the east from S. Old Glebe. However the increase in building footprint reduces the available play space on top of the garage. The main programmatic bar is also angled south further reducing outdoor space above the garage. The parking garage is shaped to create a maximum parking footprint in the available space on site while maintaining a 60' of space between itself and TJMS. A one level garage reduces construction cost, but like Schemes 1 and 2, it's triangular shape is still costly due to a lack a repetitive, similar sized members.

Student bus-drop off occurs in the loop between the existing TJMS and the east end of the new elementary school for both the NES and the existing MS students. Parent drop off for the new elementary school occurs in the northwest corner parking lot. Parent drop off for the middle school occurs in the new garage.

In this scheme a pedestrian mall is created by lowering the grade to align with the first floor of TJMS and on the same level as the garage. After hours access to the play area above the garage occurs by an inclined walk at the south end of the garage, at grade from the sidewalk along the bus loop, or via stairs and ramps along South Old Glebe.



Aerial View



Parking Garage Level



West View

# Scheme 4



Perspective View

Scheme 4 also unfolds the building from the single programmatic bar however this scheme maintains a more compact footprint resulting in four stories that step up towards the east from S. Old Glebe. The gym/auditorium reaches out and locates itself within the play area allowing for direct access to the outdoor spaces from the largest multi-purpose space in the school. The dining commons also connects the bus loop and play area together, allowing for direct after hours access to the main public areas of the school.

The parking garage is a one-level, rectilinear shape extending under the building footprint with the play surface on top. This approach resulted in the lowest overall cost per parking spot.

Student bus-drop off occurs in the loop between the existing TJMS and the east end of the new elementary school for both the NES and the existing MS students. Parent drop off for the new elementary school occurs in the northwest corner parking lot. Parent drop off for the middle school occurs in the new garage.

In this scheme a pedestrian mall is created by lowering the grade to align with the first floor of TJMS and on the same level as the garage. After hours access to the play area above the garage occurs by an inclined walk at the south end of the garage, at grade from the sidewalk along the bus loop, or via stairs and ramps along South Old Glebe.



Aerial View



Parking Garage Level

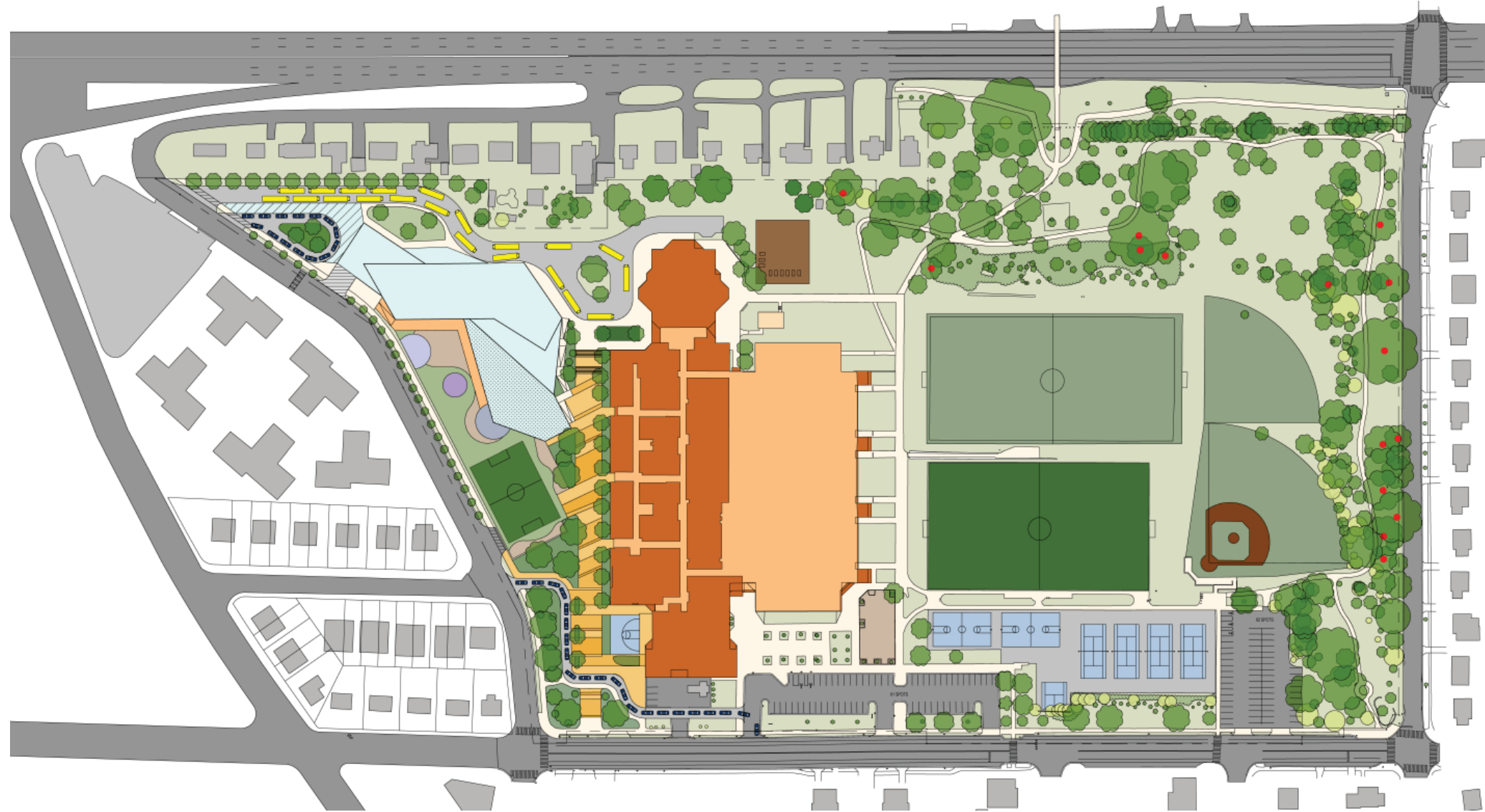


West View



# May 18, 2016 BLPC & PFRC

## Scheme 4.1

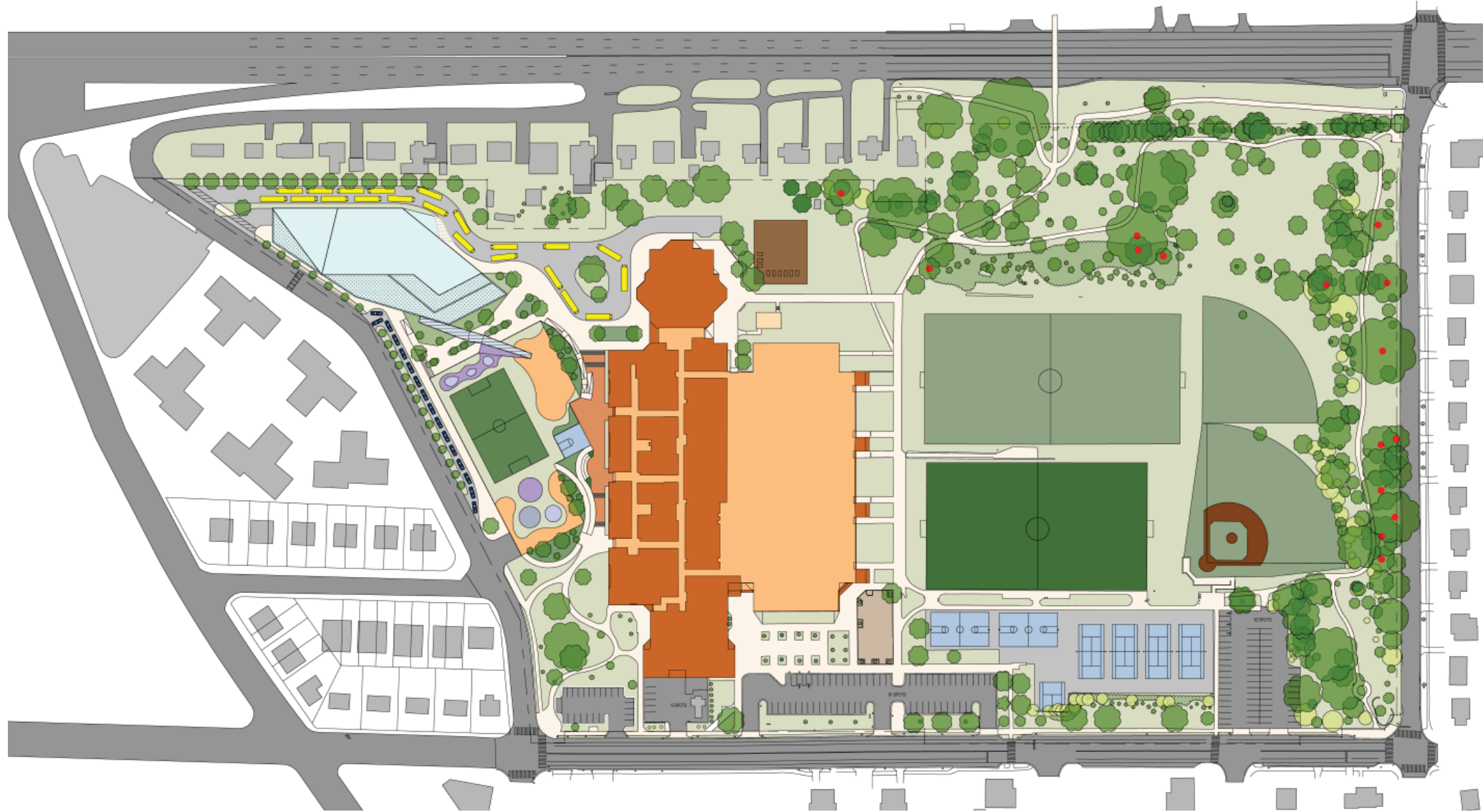


Scheme 4.1 wraps the program around the northeast edge of the parking garage with a three story massing.

- Creates outdoor terraces on multiple levels
- ES drop-off occurs in parking lot at NW corner of the site. MS drop-off occurs within southern half of site entering on second street and exiting on S. Old Glebe Rd.
- The site is "dug out" to the TJMS first floor/parking garage level to create a pedestrian mall extending all the way to Second Street.

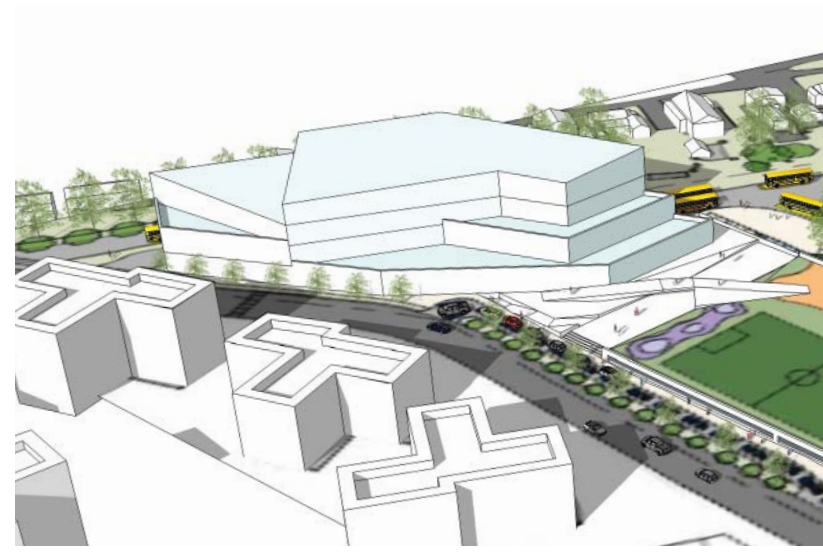


## Scheme 4.2

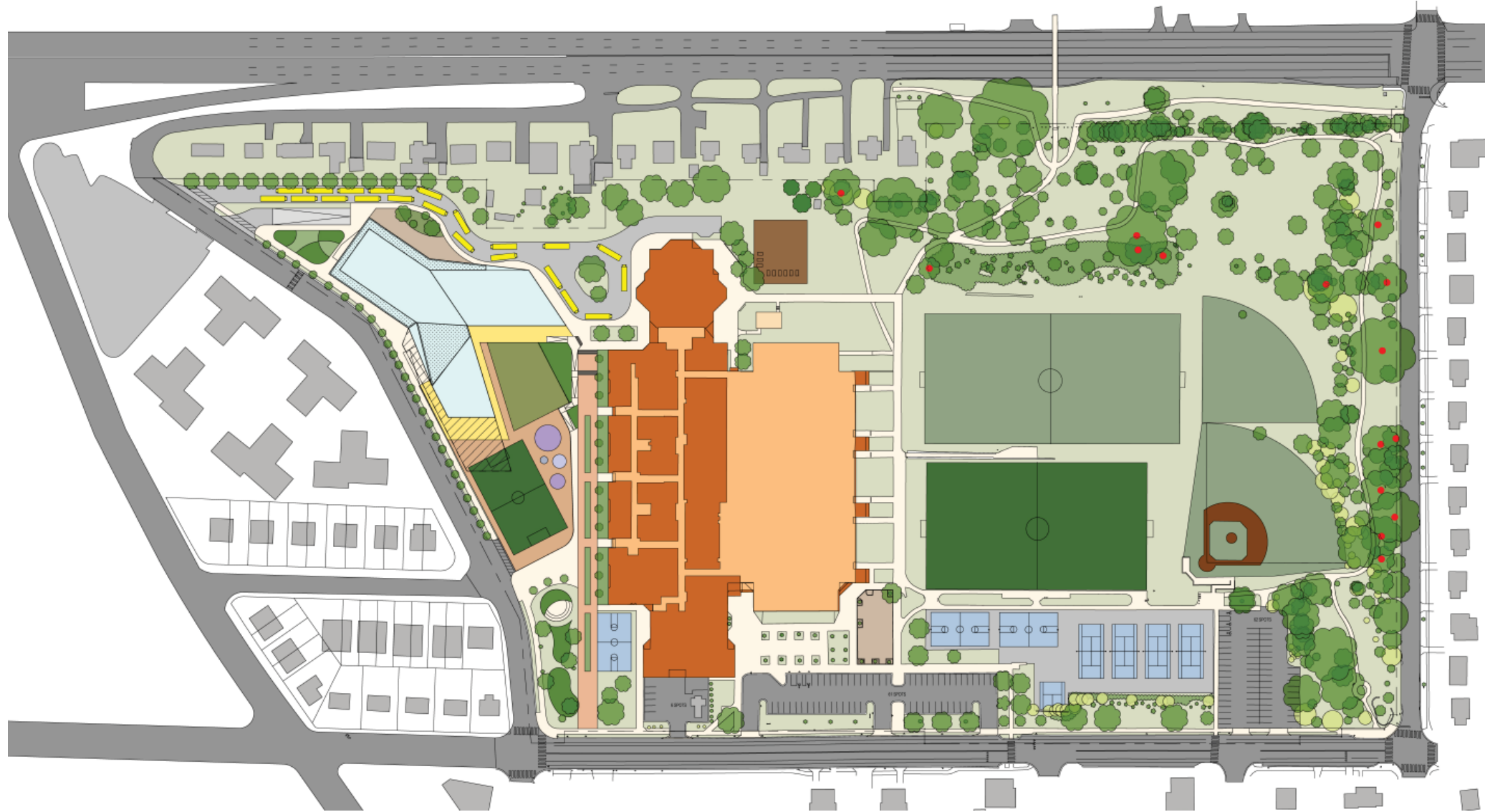


Scheme 4.2 consolidates the program in four stories in the NW corner of the site.

- Creates pedestrian street between the building footprint and the play area above the garage.
- Parent drop-off for both schools occurs in a dedicated lane adjacent to S. Old Glebe Rd.
- A small pedestrian plaza is created between the garage and the MS is sunken to the first floor of TJMS and rises up to grade to the north and south of the MS.
- The southeast corner of the site could remain untouched, although fire truck access to the middle school could be problematic

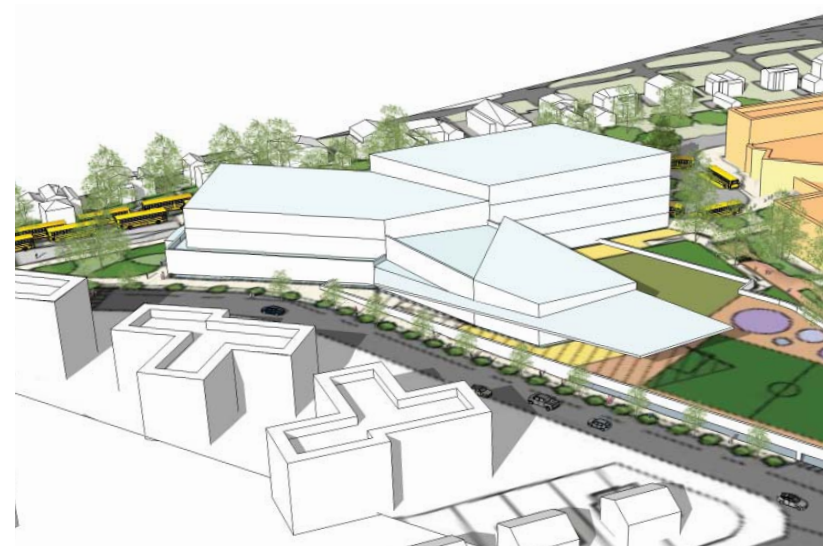


## Scheme 4.3

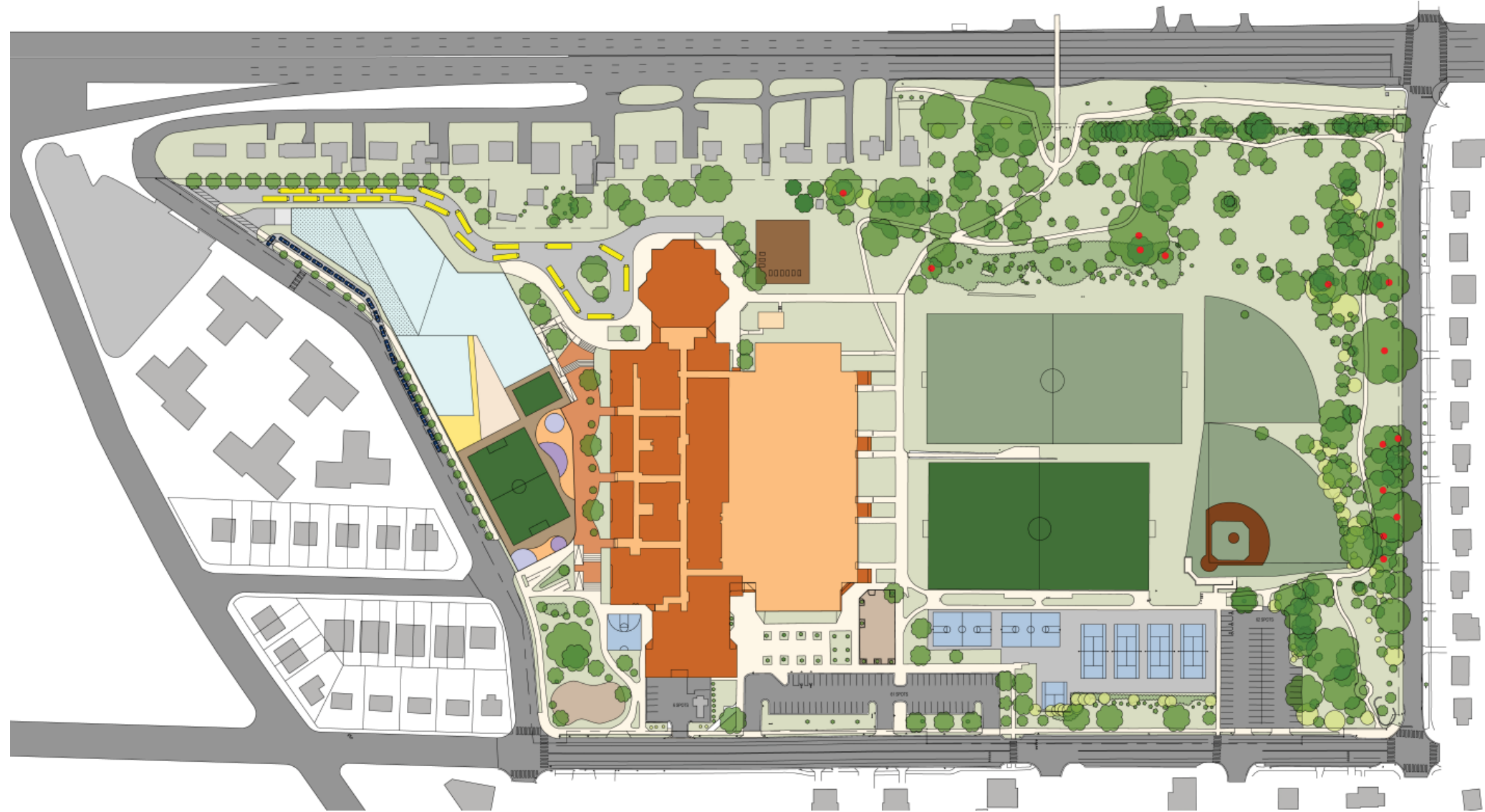


Scheme 4.3 advances design strategies from Scheme 4 presented at the previous meeting. Building massing steps eastward to four stories from S. Old Glebe.

- Gym space is located within play area along western edge
- All vehicle drop-off occurs within parking garage
- The site is "dug out" to the TJMS first floor/parking garage level to create a pedestrian mall extending all the way to Second Street.

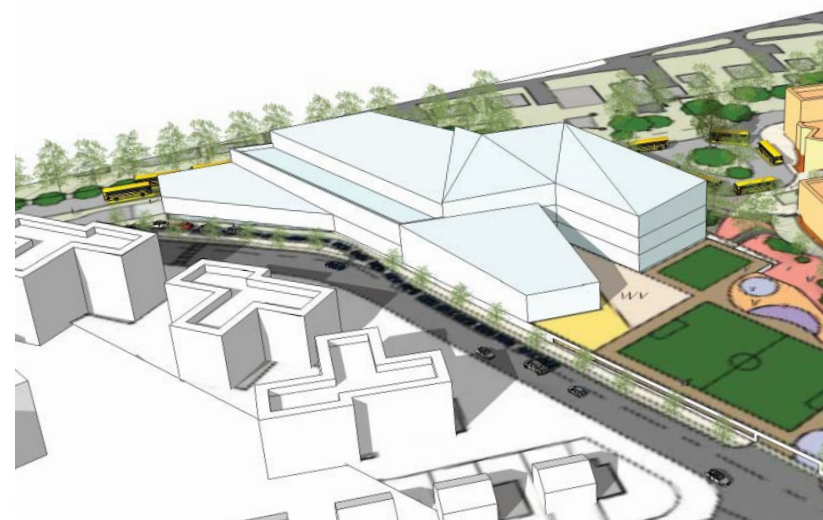


## Scheme 4.4



Scheme 4.4 swings a three story programmatic bar south to align with S. Old Glebe. It locates the gym and dining commons in wings that stretch into the play area on top of the parking garage.

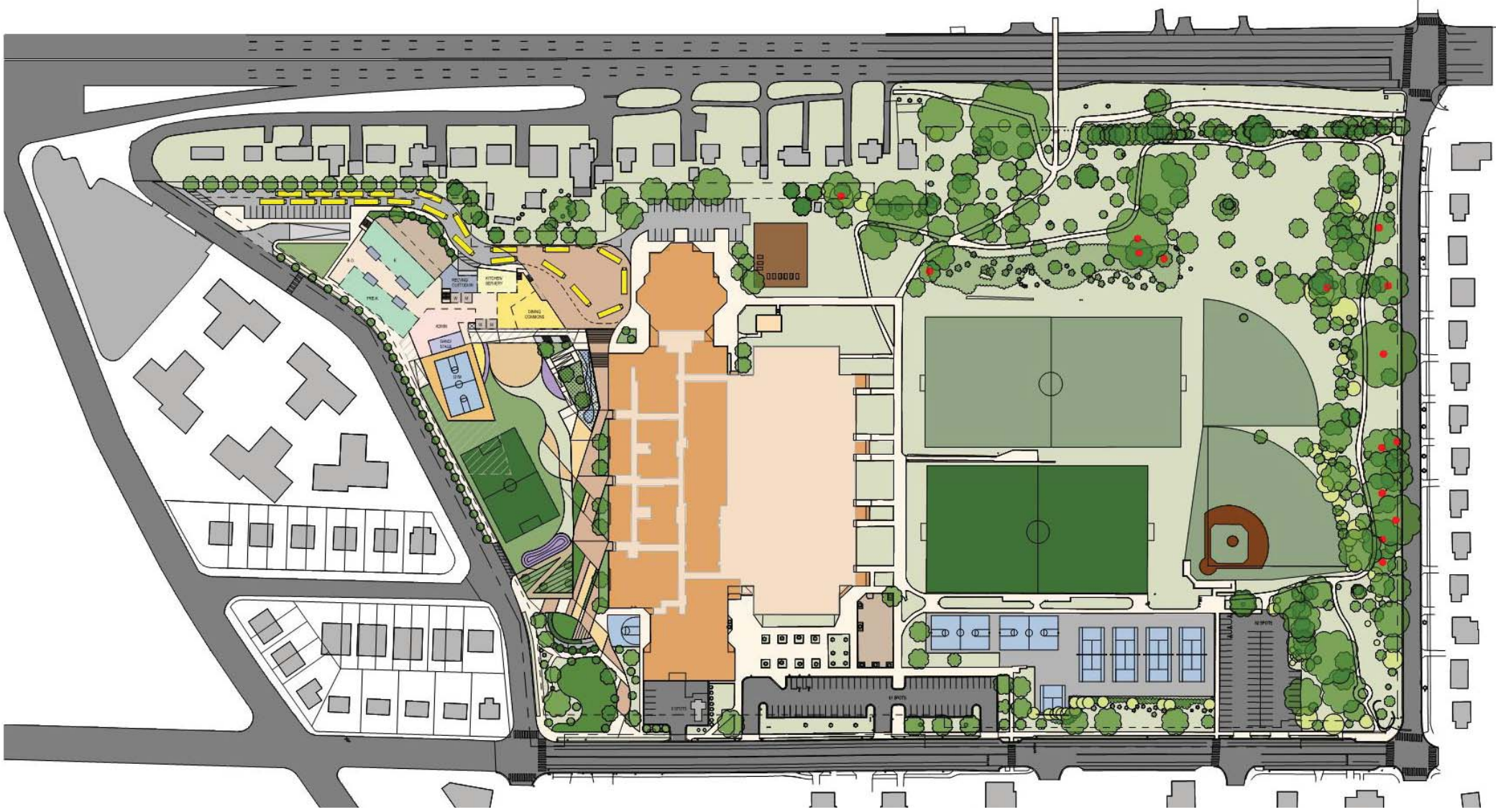
- Car drop-off for queuing for both schools occurs in the on-street parking lane on the east side of S. Old Glebe
- A small pedestrian plaza is created between the garage and the MS is sunken to the first floor of TJMS and rises up to grade to the north and south of the MS.
- The southeast corner of the site would be partially reconfigured, although similar to Scheme 4.2, fire truck access to the middle school could be problematic



# June 01, 2016 BLPC

## Scheme 4.3a

### “The Lobster”



Building massing steps up to four stories from west to east

- All major shared public spaces are located on the first floor with access from the bus/theater loop and the play area
- PreK and Kindergarten classrooms have a separate play area along the north and west sides of the NES
- Parent drop-off for both schools occurs in the garage
- Parking garage is 60' from the middle school
- Pedestrian mall connects to Second Street through a new corner park.
- The southeast corner is configured in a way that builds upon ideas from Scheme 4.4
- Fire truck access and turnaround issues are solved.





**View North @ Public Park**

JUNE 01, 2016 BLPC MEETING : DESIGN PROCESS



View South @ Bus Loop

JUNE 01, 2016 BLPC MEETING : DESIGN PROCESS



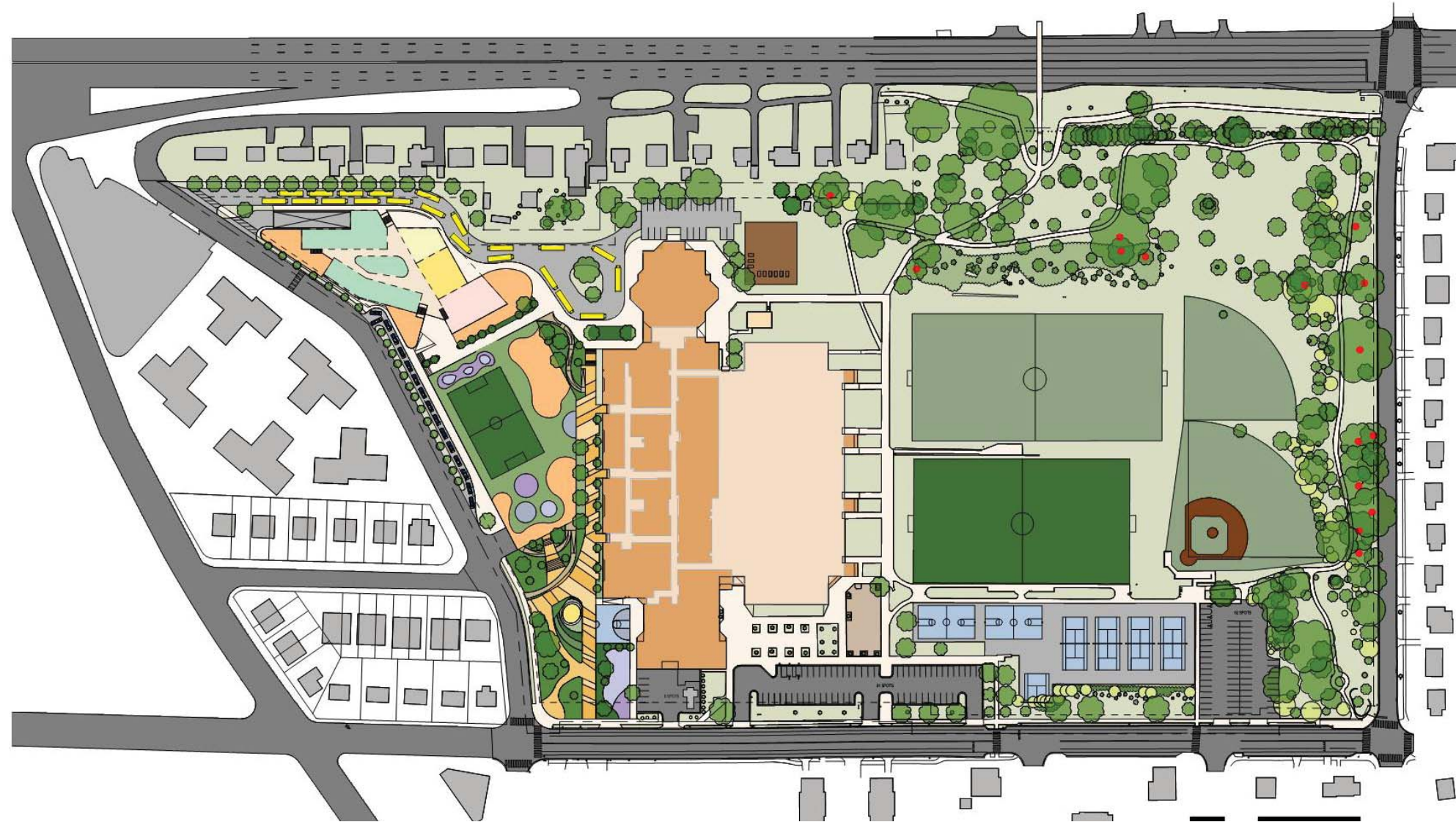
**View North @ Pedestrian Plaza**



## Scheme 4.2a "The Biscuit"

Building massing is a continuous four stories

- Gym is located on third floor with dedicated elevator to secure lobby.
- Pedestrian street across top of parking garage between NES and play area.
- PreK and Kindergarten classrooms have a separate play area along the north and west sides of the NES
- Parent drop-off for both schools occurs in dedicated lane adjacent to S. Old Glebe.
- Parking garage is 40' from the middle school
- Pedestrian mall connects to Second Street through a new corner park.
- The southeast corner is configured in a way that builds upon ideas from Scheme 4.4
- Fire truck access and turnaround issues are solved.





**View North @ Public Park**



**View East @ South Old Glebe**



View South @ Bus Loop

JUNE 01, 2016 BLPC MEETING : DESIGN PROCESS

# Compare & Contrast



Scheme 4.2a: "Biscuit"



Scheme 4.3a: "Lobster"

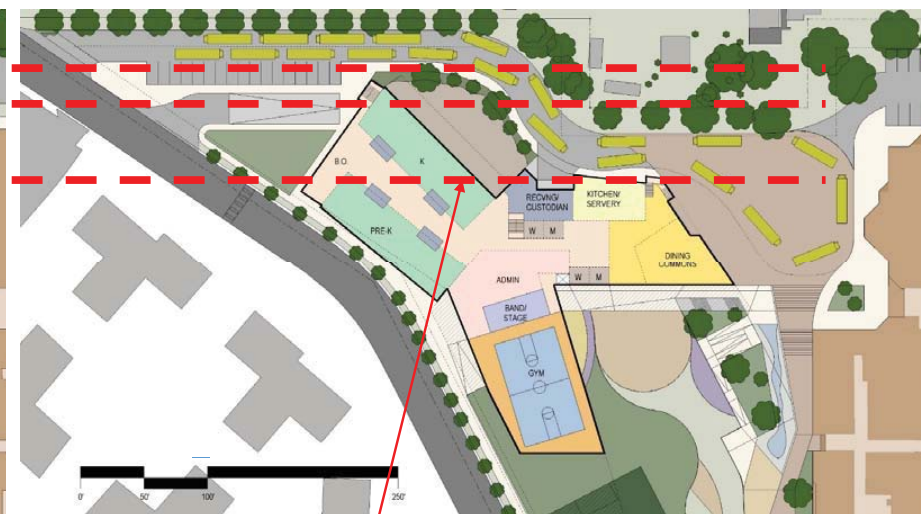
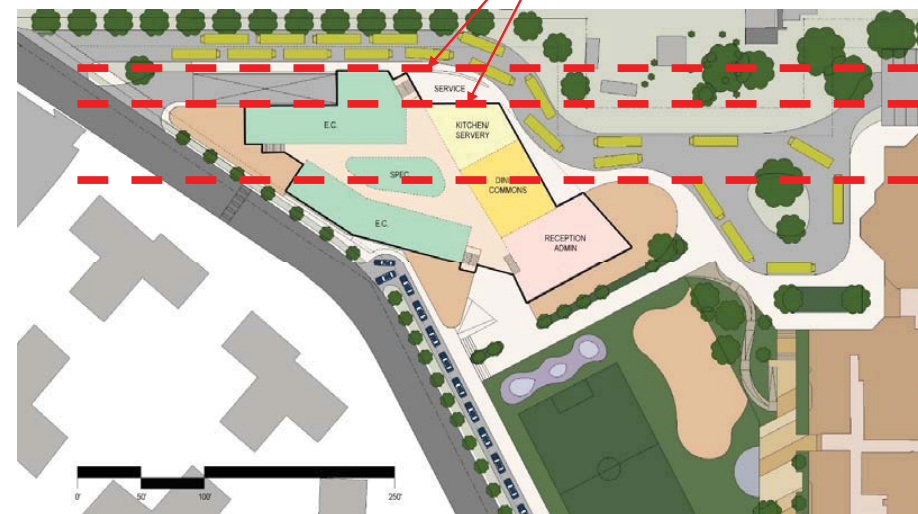
## Scheme 4.2a: "Biscuit"

- 1st floor exterior footprint: 27,828 gsf
- Gym on third floor
- Building slightly cantilevers out as it goes up
- 4 stories
- Linear feet of exterior skin: 3,341 linear feet
- Energy Use Intensity (EUI): 18 kBtu/sf/yr
- Annual energy cost: \$50,201
- Roof space suitable for solar panels: 26,700 sf
- Post energy production EUI: 4

## Scheme 4.3a: "Lobster"

- 1st floor exterior footprint: 38,723 gsf
- Gym on ground floor
- Building slightly steps back as it goes up
- Part 3 story, part 4 story
- Linear feet of exterior skin: 3,749 linear feet
- Energy Use Intensity (EUI): 18 kBtu/sf/yr
- Annual energy cost: \$50,652
- Roof space suitable for solar panels: 53,760 sf
- Post energy production EUI: -2.5

Northern-most extent of facades of 4 story building massing in "Biscuit"



Northern-most extent of facade of 4 story building massing in "Lobster" 80' further south

# 04

## Concept Design

June 15, 2016 BLPC & PFRC Meeting

Concept Overview

Concept Design & Floor Plans

Site Plan

Garage Level Plan

Landscape & Parking

Process Sketches

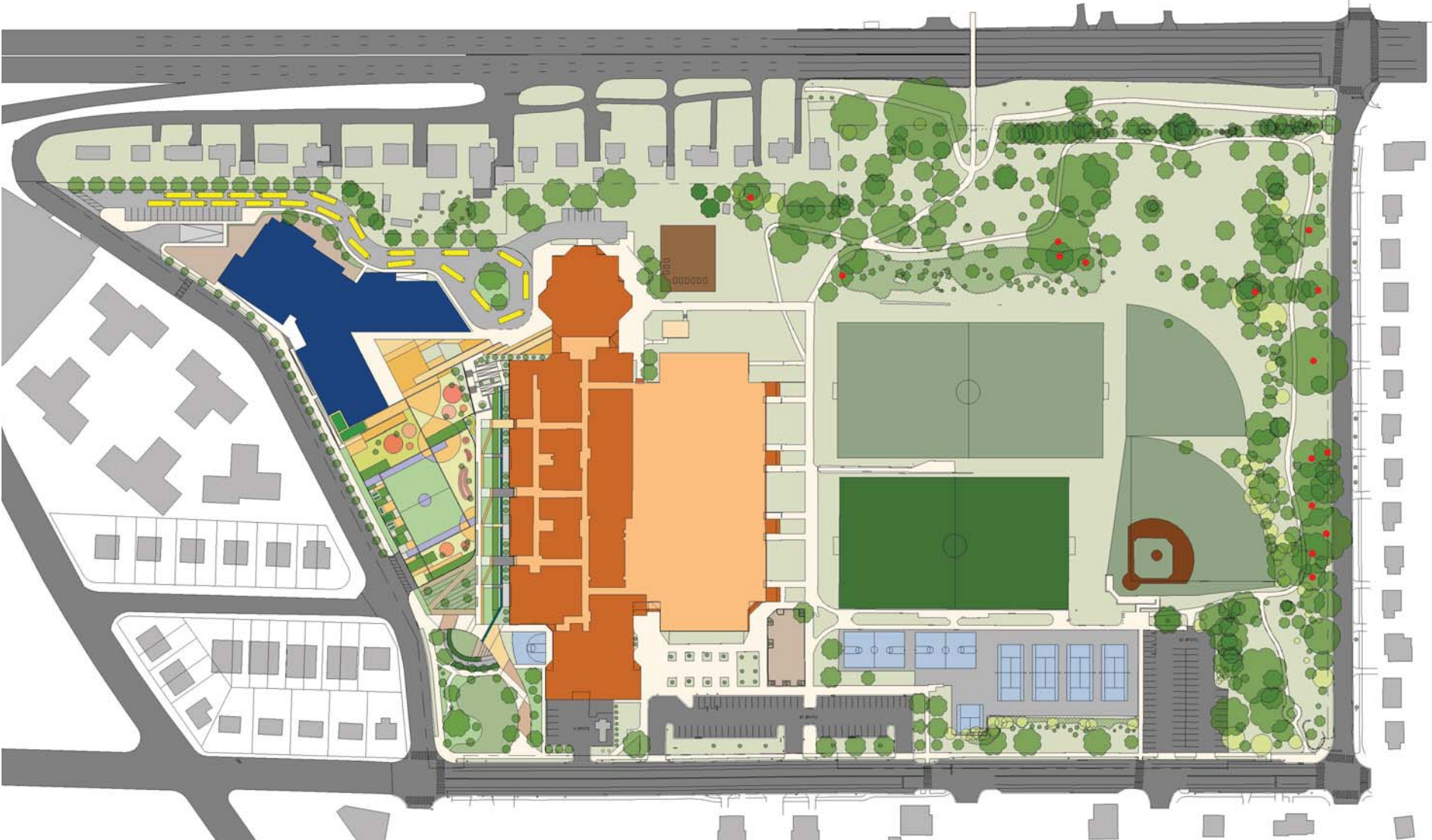
Renderings

Committee Chair Letters

BLPC

PFRC

# June 15, 2016 BLPC & PFRC Concept Overview



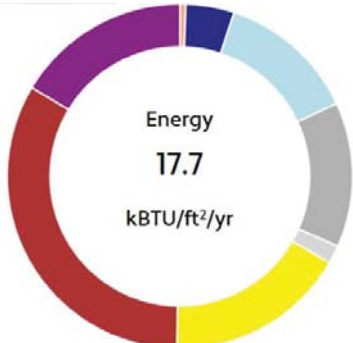
### Scheme 4.3B

#### Areas of Concerns / Design Goals

- Negotiate/settle the required quantity of parking spaces
- Improve site access and safety
- Improve TJMS site amenities
- Plan for after-hours community access to site and NES amenities
- Consider TJMS, Community Center, and Theater operations during construction (parking, bus and vehicle pick-up/dropoff, etc.)
- Civic presence of building and site elements
- Keep on schedule and within budget

#### Site Goals from Charge to TJWG

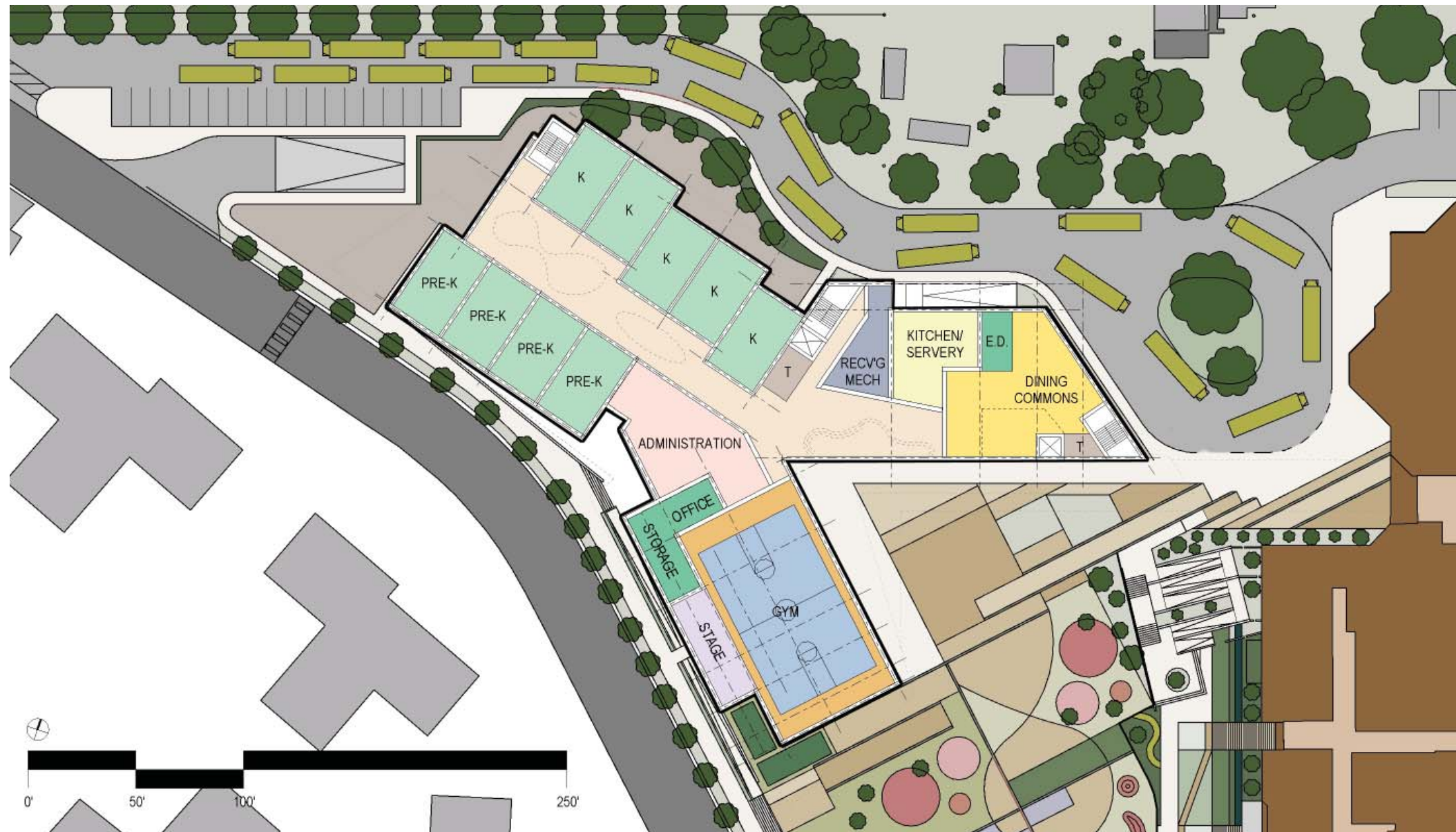
- Retain the current wooded eastern end of "TJ Park" as is (area along the western portion of South Irving Street and stretching west along Arlington Blvd)
- Ensure no significant loss of green space and no net loss of recreational programming, including 2 full size rectangular fields and other amenities outlined in the study area description
- Maintain a cohesive park
- Ensure adequate consideration given to neighborhood impacts of traffic and parking
- Enhance safety on existing pedestrian walkways and bikeways
- Ensure that the community center would remain available for use
- Ensure that building massing is compatible with adjacent neighborhood



- |                  |                  |         |
|------------------|------------------|---------|
| Heating          | Cooling          | Fans    |
| ■ AHU            | ■ AHU            | ■ AHU   |
| ■ Zones          | ■ Heat Rejection | ■ Zones |
| ■ Humidification | ■ Zones          |         |
| Interior         | ■ Pumps          |         |
| ■ Lighting       | ■ Other Gas      |         |
| ■ Equipment      |                  |         |



# Concept Design



## Site & Massing Layout

The Concept Design consolidated many of the community concerns and opportunities discovered throughout the massing and siting concepts.

A few major concepts are :

1. A public park at the intersection of South Old Glebe & 2nd Street South.
2. A single story parking area located underneath the elementary play space and elementary school.
3. A 50' wide pedestrian plaza between the parking & existing TJMS for combined elementary and middle school dropoff with structured outdoor learning and play zones outside the existing middle school.
4. Bus loop is located at the north end of the site which allows for the new elementary school to be directly connected to the outdoor play space without traffic interference.
5. Gym & public amenities of the school are on the ground floor and directly connect with the play space to foster after hour community engagement.
6. Elementary playground pathway design & gym massing emphasize a connection with the community theater from South Old Glebe.

First Floor



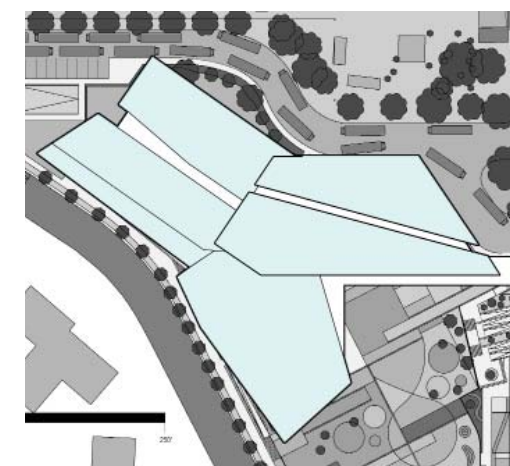
Second Floor



Third Floor



Fourth Floor



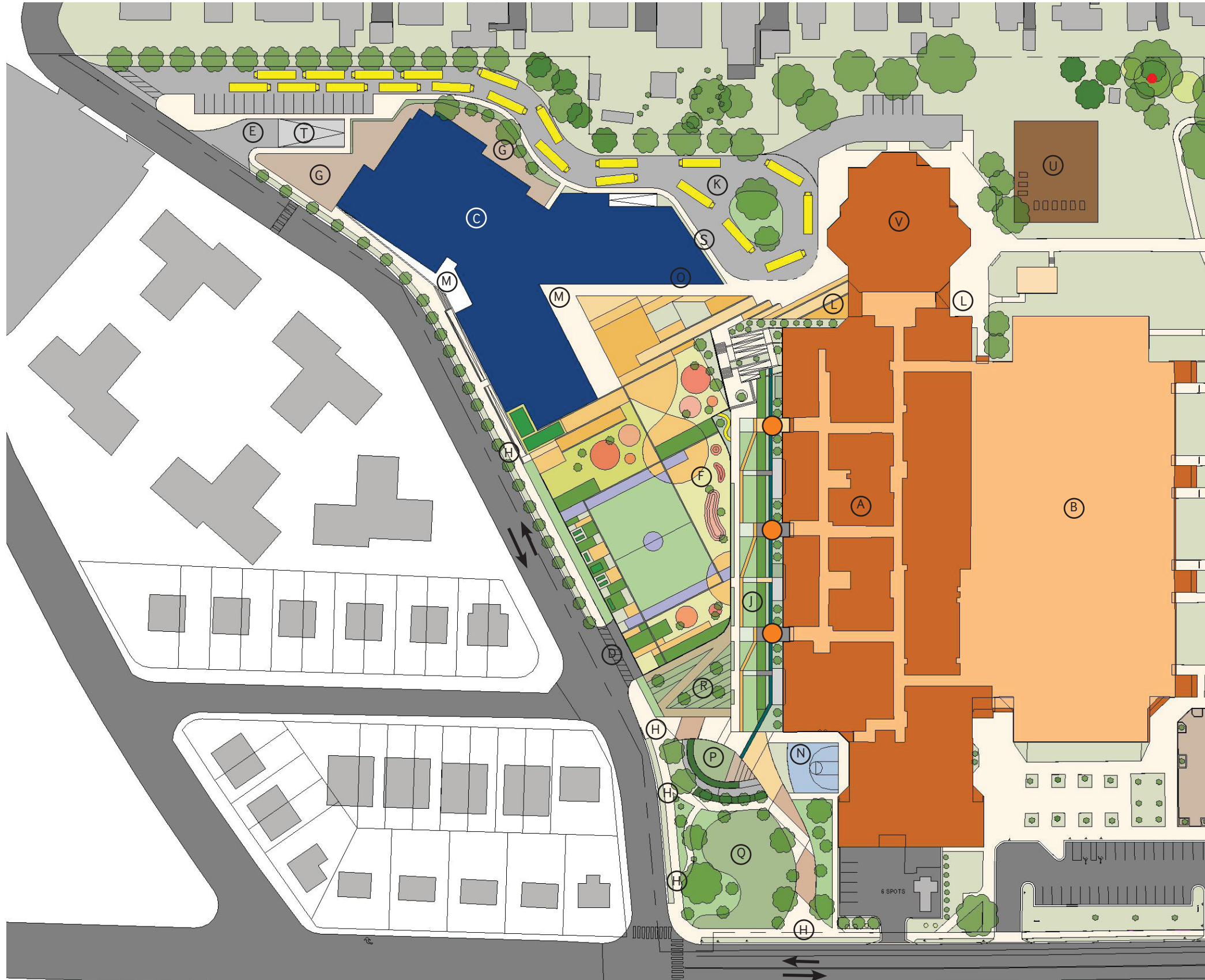
Roof Plan

## Interior Layout

The programmatic layout of interior spaces allows for a quieter wing of classrooms to be grouped to the NW of the building footprint with the more public spaces grouped around the center and east side of the footprint further into the site. All learning spaces have access to an exterior wall and natural daylighting and views. Additionally the roof forms allow for skylights to be situated above interior corridors.

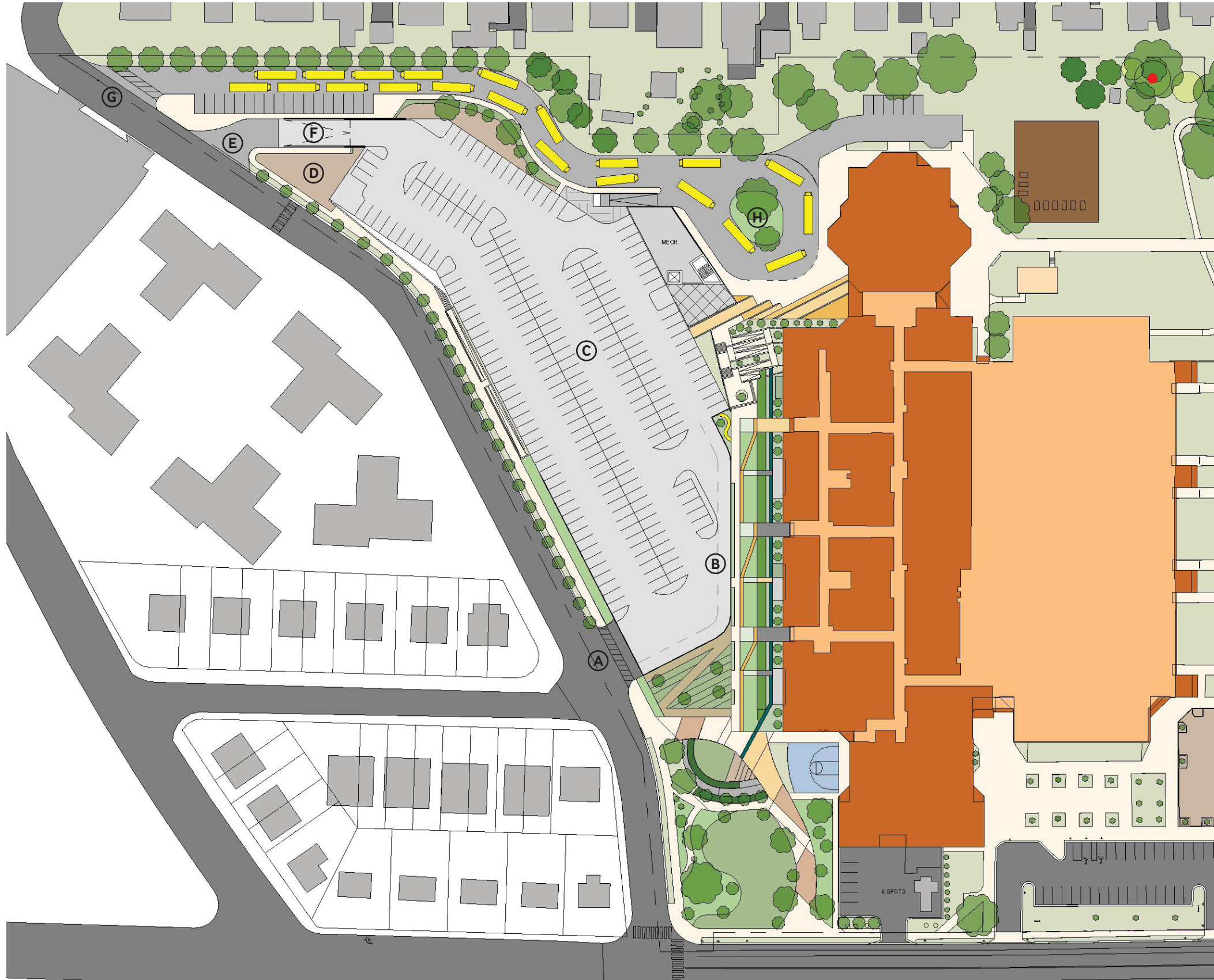


# Site Plan



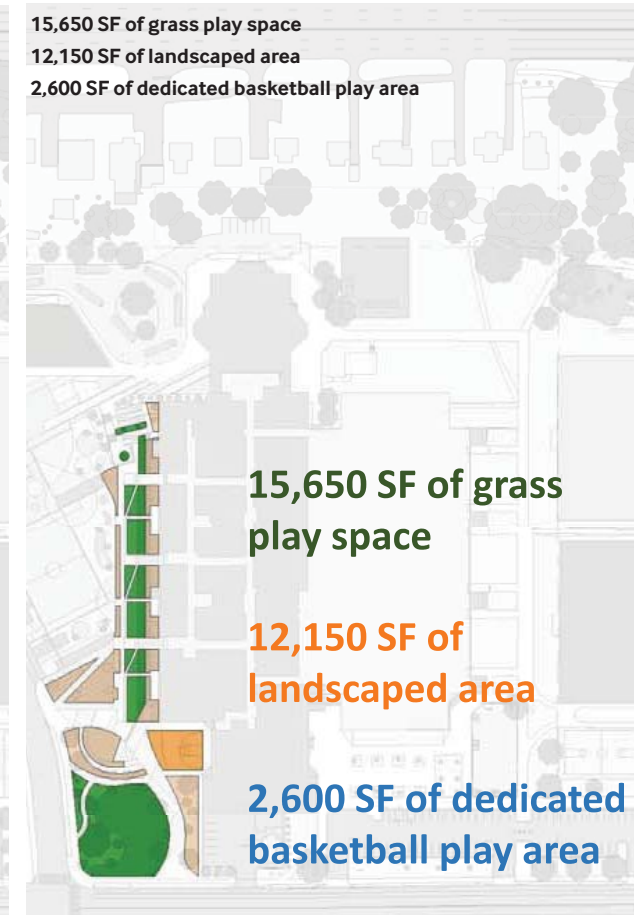
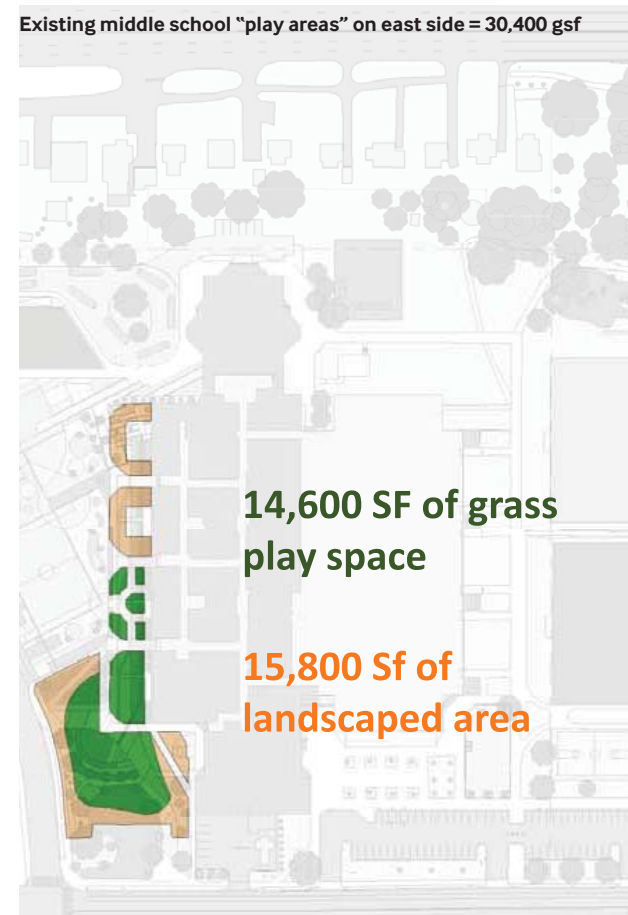
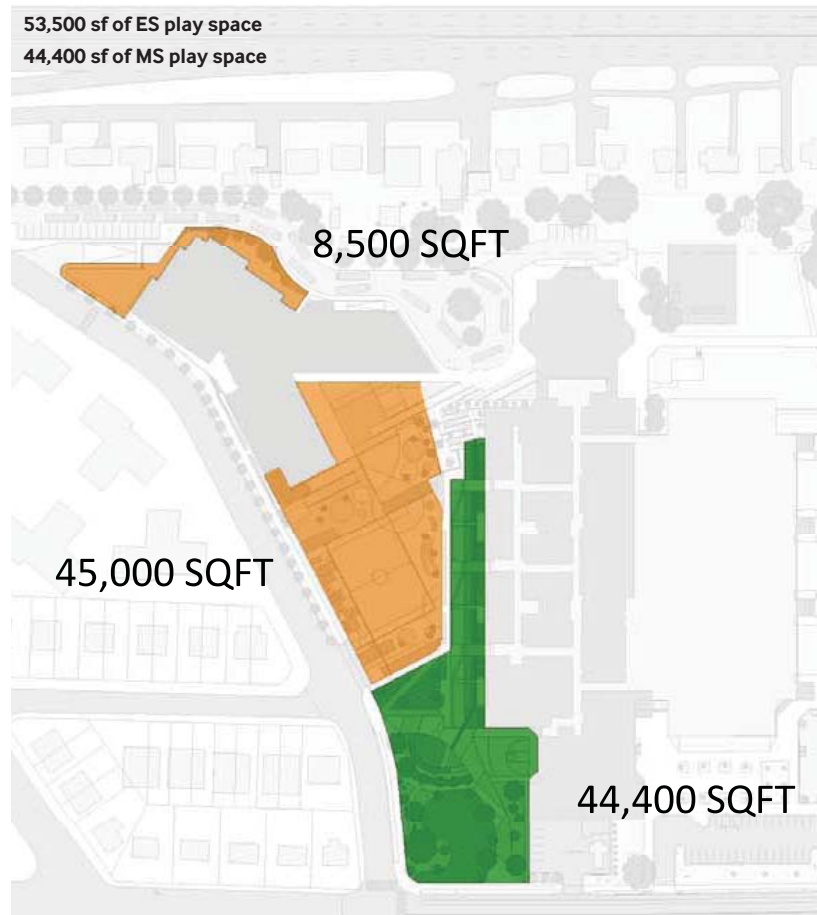
- Ⓐ Existing MS
  - Ⓑ Existing Community Center
  - Ⓒ New ES
  - Ⓓ New parking garage and dropoff entry
  - Ⓔ New parking garage and dropoff exit
  - Ⓕ ES Elementary play area
  - Ⓖ ES Early Childhood play area
  - Ⓗ Pedestrian entry points to site
  - Ⓙ Pedestrian mall
  - Ⓚ Joint ES/MS bus loop
  - Ⓛ Main entry point to Middle School and Theater
  - Ⓜ ES Main Entry point
  - Ⓝ New half court basketball court for MS
  - Ⓞ Elevator out of garage for theater and MS use
  - Ⓟ Outdoor Classroom and Bio-retention area
  - Ⓠ Public Park and outdoor play space for MS
  - Ⓡ Planted Terrace and 1:20 sloped access to top of garage
  - Ⓢ ES secondary entry (bus riders)
  - Ⓣ Ramp out of parking garage
  - Ⓤ Community Garden
  - Ⓥ Community Theater
- ↔ Two-Way Traffic
- MS student entry points, currently not accessible, but will be made accessible as part of project.

# Garage Level Plan



- (A) Southern Garage Entrance / Exit
- (B) Combined School Drop-Off in Dedicated Lane
- (C) Garage (225 Parking Spots)
- (D) Secure Play/Outdoor Area
- (E) Northern Garage Entrance / Exit
- (F) Garage Ramp
- (G) Bus Loop/Theatre/Service Entry
- (H) Bus Loop/Theatre/Service Loop

# Landscape & Parking



## Landscape

The landscape has developed into two major zones; the upper zone (orange) with direct access to the new elementary school & the lower zone (green) with direct access to 2nd street and the existing middle school.

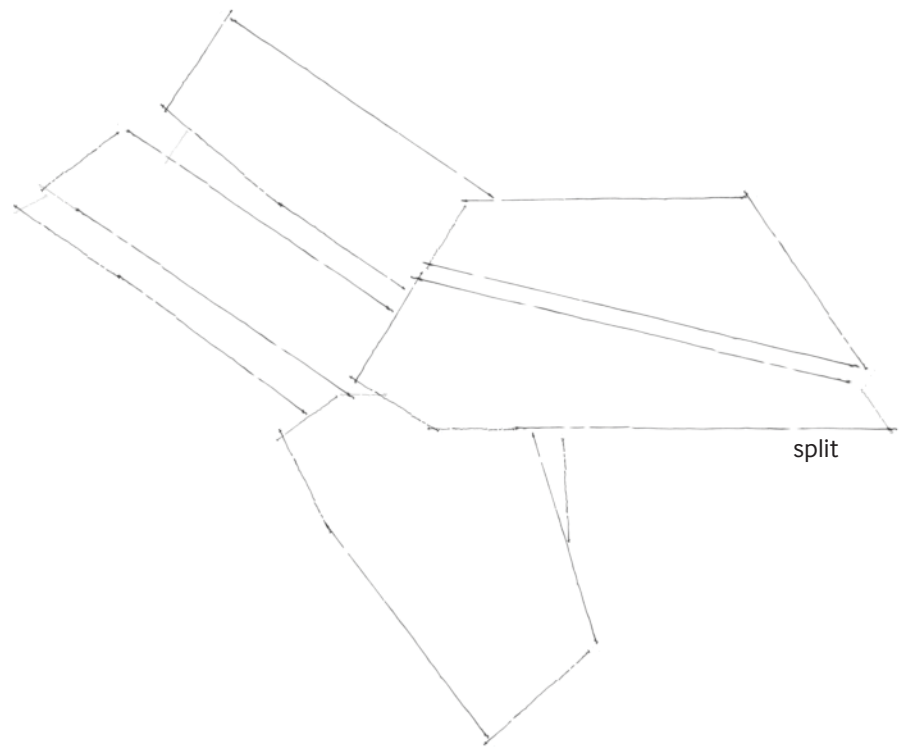
The orange zone provides a playscape above a parking garage with a dedicated PreK / Kindergarten area to the north and a playscape for the upper grades to the south.

The green zone has restructured the existing middle school "play areas" to provide a combination of soft and hardscape play and study areas, including a dedicated half court basketball play area.

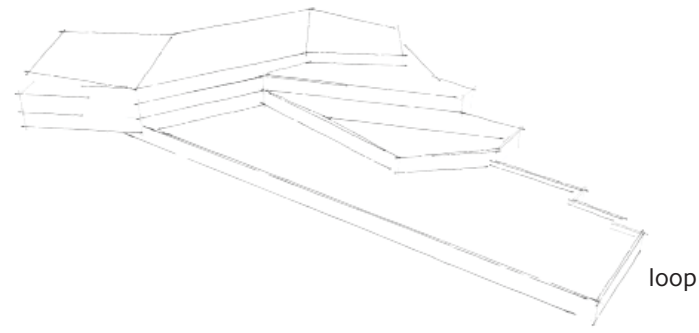
## Parking

The images below show a variety of parking options proposed to the community. The consensus result of the studies was a single level parking scheme which provided parent drop off along the pedestrian mall.

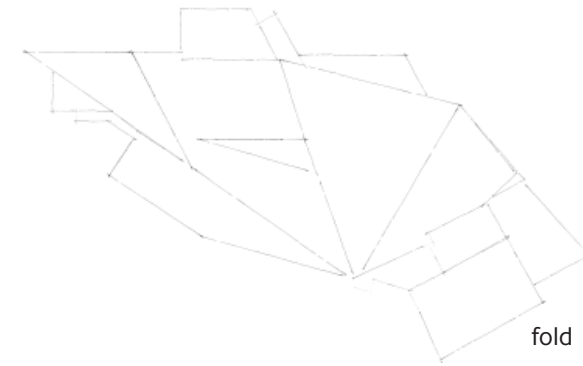




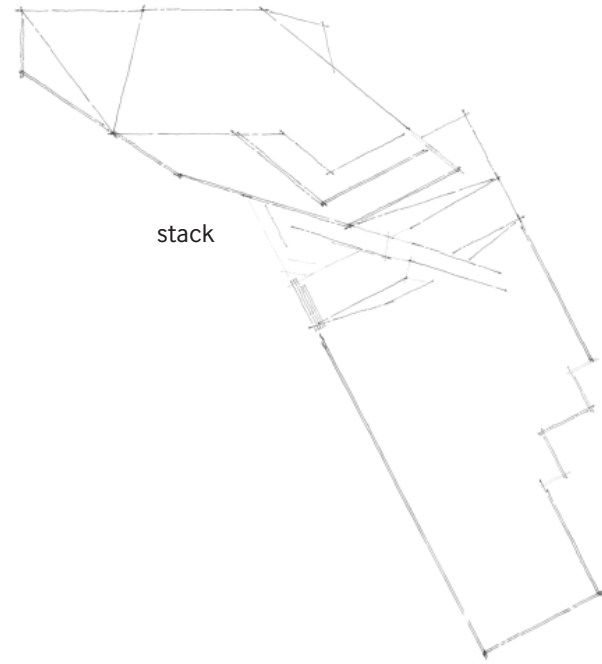
split



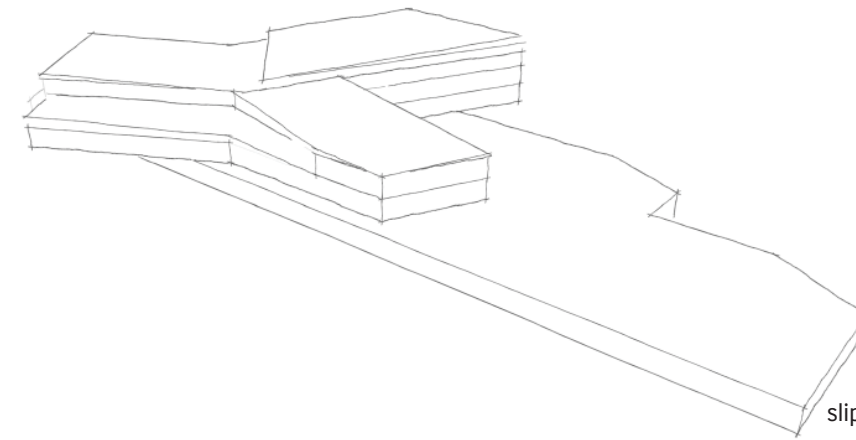
loop



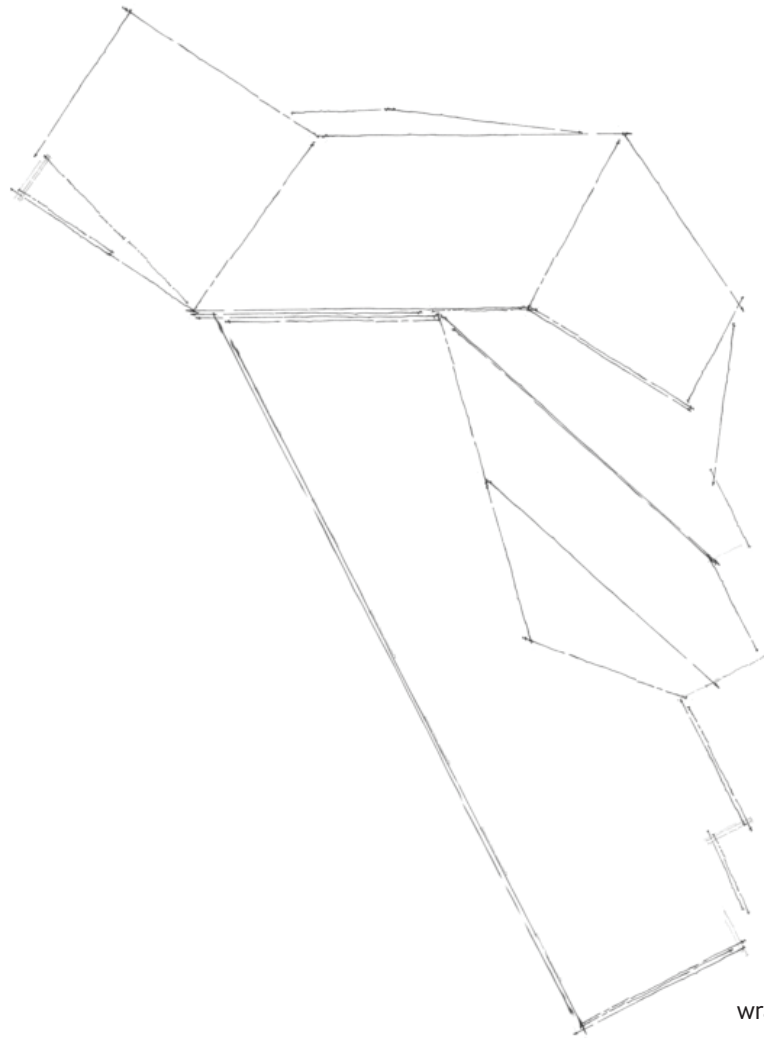
fold



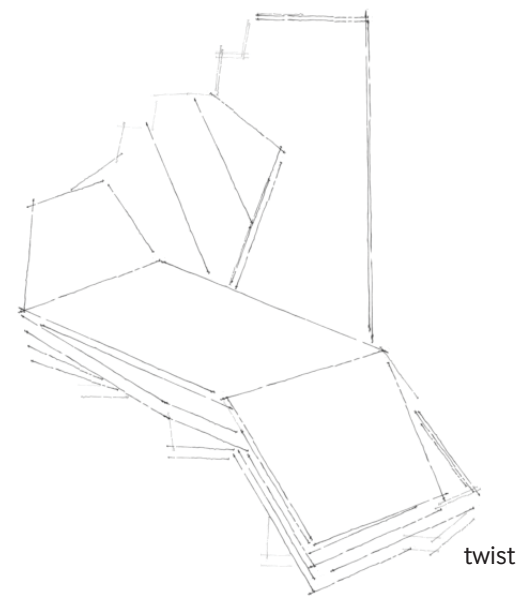
stack



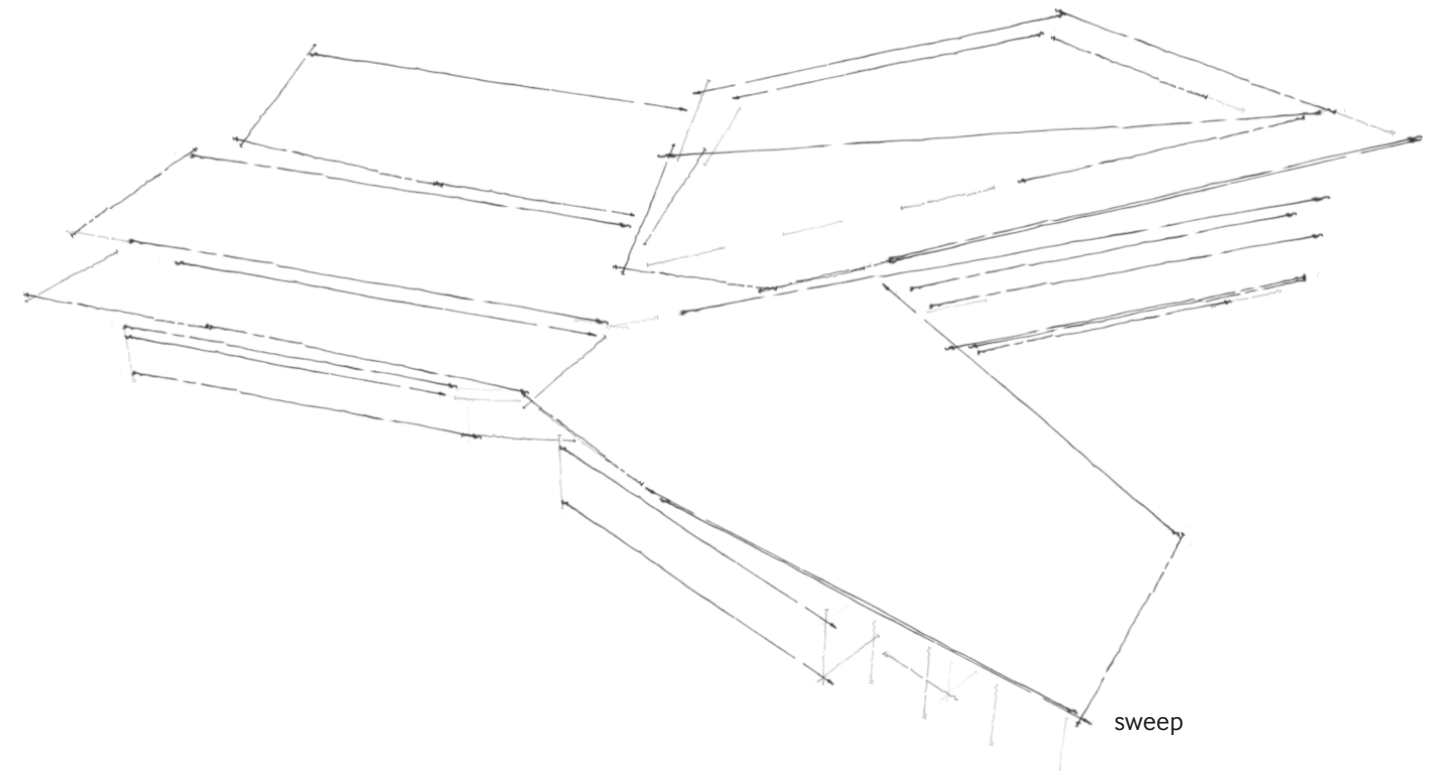
slip



wrap

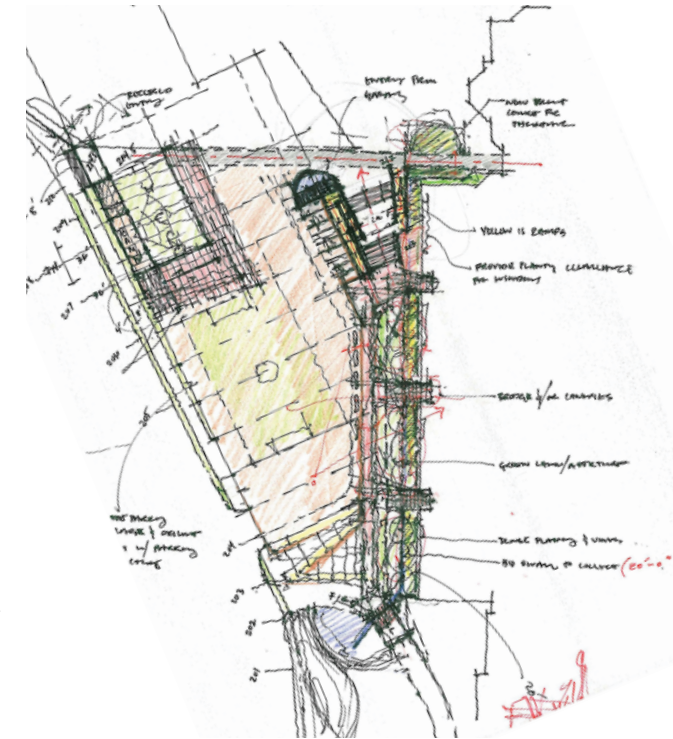


twist



sweep

# Process Sketches





Overall Aerial Looking North



**View of Garage Entrance along South Old Glebe Rd**



**View Looking Northeast from South Old Glebe Rd**



**View of Main Entry to Elementary School and Gymnasium along South Old Glebe Rd**





After hours pedestrian path to Theater across Elementary Play Space



**Aerial view of Theater Walk & Elementary Play Space**



Overview Aerial of Elementary Play Area Above Parking Garage



Overview Aerial of Parking Garage Below Play Surface



**View of Parent Drop-off in Parking Garage**



## Parking Garage During Community Events



**View of Outdoor Spaces as Seen from Second Street**



**View of Pedestrian Mall Between Parking Garage and TJ Middle School**





## Parent Drop-off at Pedestrian Mall



**Aerial View of Pedestrian Mall showing connection to upper level**



**Pedestrian Mall looking south towards Second Street**



View of Pedestrian Mall from Bus Loop

## EXECUTIVE SUMMARY

### BLPC COMMENTS

June 30, 2016

Arlington County School Board  
Arlington Education Center  
1426 N Quincy St  
Arlington, Virginia 22207

Dear School Board Members:

The Building Level Planning Committee (BLPC) for the new elementary school at the Thomas Jefferson (TJ) site is pleased to offer its concept design recommendation for the new, 725-seat home for what is currently known as the Patrick Henry Elementary School, scheduled to open in the fall of 2019. In straw polls taken on June 1, 2016, and June 15, 2016, respectively, the BLPC unanimously preferred the “Lobster” building massing and site design scheme 4.3a<sup>1</sup> (further developed as 4.3b<sup>2</sup> for the subsequent PFRC straw poll on June 23, 2016) over the “Biscuit” design scheme 4.2a, and, jointly with the Public Facilities Review Committee (PFRC), heavily favored the structured parking footprint outlined under both “Option A” and “Option B” (versus “Option C”)<sup>3</sup>, for further development during the schematic design phase.

### Overview

This BLPC includes 4 Patrick Henry Elementary School (PHES) PTA reps, 2 Thomas Jefferson Middle School (TJMS) PTA reps, 3 PHES and 2 TJMS educators (including both principals), 4 neighboring elementary PTA reps, 1 Special Education PTA rep, 1 Arlington Heights civic association rep and 2 other Arlington Heights resident reps, 6 neighboring civic association reps, 4 APS staff members, 2 APS advisory committee reps, and 1 PFRC rep.

Our committee has met five times over the past three months, including one tour of the multi-use TJ site, one tour of the new Discovery Elementary School (for comparison), and, based on the short timeline for design and construction with this project, three joint meetings with the PFRC.

We have worked closely with APS staff, County staff, the architects (VMDO), traffic engineers (Toole Design Group), PFRC, and community members to identify the best building massing, bus loop and parent drop-off

<sup>1</sup> For detailed information on “Lobster” design scheme 4.3a, please see slides 43-56 of the June 1, 2016, BLPC Meeting [presentation](#) and scheme comparison [chart](#), along with slides 30-38 of the June 15, 2016, joint PFRC/BLPC Meeting [presentation](#).

<sup>2</sup> For detailed information on “Lobster” design scheme 4.3b, please see slides 39-73 of the June 15, 2016, joint PFRC/BLPC Meeting [presentation](#).

<sup>3</sup> To compare structured parking Options A, B, and C, please see slides 27-29 of the June 15, 2016, joint PFRC/BLPC Meeting [presentation](#).

locations, parking footprint, and overall site design to support a 725-seat neighborhood elementary school for Patrick Henry’s student body, whose current building is projected to have a 170-seat deficit and be at 136.7% of its 463-seat capacity by the start of the 2019-2020 school year.

Together, we have begun to evaluate many challenges of the TJ site, including: the joint-use complexities resulting from its adjacency to TJMS, the Thomas Jefferson Community Center (TJCC), Thomas Jefferson Theatre, Thomas Jefferson Park (TJ Park), and many residential neighbors; the limited acreage on which construction is permissible (west of TJMS only); limited future school expansion potential; universal access requirements; traffic flow and parking requirements; and emergency evacuation and vehicle access requirements. That said, we have yet to evaluate effective traffic management and traffic-calming strategies; pedestrian safety enhancements; existing and future storm-water management and waterproofing strategies, including the potential need for geothermal wells; canopy tree and greenspace preservation; mitigation of potential noise and light pollution; and the impact on adjacent residential properties and existing community recreation amenities both during and post-construction. We look forward to tackling these additional challenges during the upcoming schematic design phase.

In addition to opportunities for public comment during our committee meetings, Arlington Public Schools (APS) hosted a separate community meeting on June 8, 2016, to both inform and receive feedback from the public on our developing concept design. An online comment link has also been established on the PFRC’s project website, and comments are being aggregated and distributed to all BLPC and PFRC committee members prior to each subsequent meeting.

As result of all our collective efforts up to this stage, the BLPC’s recommendations, current concerns, and primary considerations for the schematic design phase of the project are detailed on the following pages.

### Recommendations

#### **The BLPC supports the “Lobster” concept design for further development because its...**

- Building height, set-back, and 3-to-4 story stacking strategy pulls the massing, structure, and shade line away from the adjacent residences along its northern and western borders of Route 50 and South Old Glebe Road.
- First floor gym and cafeteria provide new amenities for civic, arts, and recreational use, including outdoor access available for community events, as well as more opportunities for students to interact with the outdoors during their physical education classes and lunch periods.
- Roof space and optimal solar orientation offers the potential for a net-zero energy building.
- Pedestrian plaza space between the elementary playspace/garage and the middle school would create a more formalized (vehicle-free) outdoor dining and recreation area for TJMS students.
- Civic presence along 2nd St S will be markedly improved/enhanced through the elimination of the existing, conflicting-use surface parking lot, which will be replaced by recreational greenspace.
- Emergency access plan has been approved by the Fire Marshall and incorporated into the design.
- Design is supported by Friends of TJ Park.

#### **The BLPC supports the structured parking footprint outlined under both “Option A” (1-level) and “Option B” (2-level) vs. “Option C” (3-levels, all underground), for further development because its...**

- Wider-yet-shallower footprint reduces the cost of additional shoring/under-pinning necessitated by digging deeper, thereby preserving more funding for school and park assets. Digging a 3rd level could potentially undermine the TJMS building foundations, thereby pushing the budget well over the \$9M allocated for the parking structure in the County’s CIP.

- Partially-submerged design and interior drop-off lane with pedestrian exits onto the plaza between the elementary and middle schools permits natural daylight and ventilation inside the garage, and creates significant lines of sight, thereby making it safer.
- Taller ground-floor parking bay would allow community events, such as County Fair booths or a farmer's market, to be hosted there.
- "Conversation pits" on the western façade of the middle school will be dug out, allowing more light inside and creating even more opportunities for day-lighting TJMS.
- Universal accessibility is improved through direct access to the lower level of the middle school, whereas all entrances other than the main entrance currently open onto split-level stairs.
- Joint bus loop (with staggered middle and elementary school start times) at the north end of the site will reduce motorist conflict and reduce shadowing for residences north of the school.
- Joint drop-off inside the garage will eliminate most of the queuing on S Old Glebe Rd, address traffic flow issues, and improve pedestrian accessibility to both schools.

#### In addition, the majority of the BLPC membership strongly supports...

- The preservation and/or planting of canopy trees at the TJ site.
- The preservation of greenspace and natural play surfaces (e.g. grass) at the TJ site.
- The preservation of at least an equivalent amount of middle school playspace to what is currently utilized immediately west of TJMS.
- Additional, joint County/APS funding for universal access to the first floor of Thomas Jefferson Middle School and related aesthetic improvements to its western façade, which will only have 50-feet of separation from the new school and proposed parking structure, thereby making it critical to design with a cohesive eye for both schools.

#### Current Concerns

##### Joint-Use

- **Limited Future Expansion Potential for TJMS** – To avoid impinging on TJ Park to the east of TJMS or the new elementary school to its west, the only two remaining addition options lie in the northern area surrounding the theatre and the southern loading dock area and would have to rise several stories. Committee members expressed concern about adding even more students to what will be an already tightly-packed site.
- **Construction-Staging Impacts** – Lack of a plan to reduce potential noise and light pollution, and provide alternative parking while the garage is under construction, could create short-term pressures that will be very uncomfortable for adjacent neighbors, TJMS staff and families, and patrons of TJCC, TJ Theatre, and TJ Park.
- **Obscuring the Theatre** – The presence of a new 3-to-4 story elementary school building and a potentially raised playspace/parking structure will limit direct sight lines to the theatre entrance from S Old Glebe Rd and 2nd St S, thereby reducing its civic presence.
- **Surface Parking Infringement on Garden and Pedestrian Bridge** – Building additional surface parking north of the theater would reduce greenspace, could impact the physical layout of the existing TJMS garden (an integral part of the middle school's curriculum), and would present a safety risk to walkers and bikers commuting over the north-end pedestrian bridge to the west side of the site. Pedestrian access to the site must be encouraged to minimize the number of drivers requiring on-site parking, and therefore motorized traffic past the bus loop should be limited to that which is necessary to building, park, and garden operations.

##### Traffic, Safety, and Accessibility

- **Pedestrian Safety** – The to-date lack of a full traffic-safety analysis of the site's adjacent roadways – 2nd St S, S Old Glebe Rd, and 1st Rd South – and lack of subsequent discussion of potential traffic-calming measures

and pedestrian safety enhancements has left many committee and community members nervous about moving forward with an approved concept design that does not incorporate any such design elements, particularly as there have been several pedestrian-related traffic incidents along 2nd St S, as recently as May 2016.<sup>4</sup>

- **Traffic Congestion** - Neighbors have expressed an interest in providing input to help mitigate the impact of the increased traffic flow expected throughout Arlington Heights as a result of the new elementary building's non-central/northwest corner location
- **Universal Access** – Members have residual concerns about the ease with which those with limited mobility could access the *upper* floor of the middle school from the lower level on its west side. Although the main entrance in the northwest corner of the school will remain accessible from the bus loop, there is only one elevator in the southeast corner of the school, and it is shared with the community center.
- **Safety and Accessibility of Above-Grade Playspace** – Concerns were expressed regarding children playing up to 11 feet above ground-level on top of the parking structure and what methods (e.g. fences and/or walls) will be constructed to keep them from climbing out or falling off.
- **Emergency Evacuation & Vehicle Access** – Although the Fire Marshall and Patrick Henry principal have okayed the proposed emergency evacuation plan, there were concerns that 5th graders and/or students with disabilities won't have sufficient time to exit the building down the stairwells from the 4th floor to ground level in the event of an emergency. Several committee members and neighbors also questioned whether there is sufficient outdoor at-grade space for the children and staff of both the 725-student elementary school and 1,086-student middle school to congregate quickly in the event that both schools need to be evacuated that does not infringe upon the 20' strip required for emergency vehicle access.

##### Parking

- **On-site Parking Need** – Despite extensive parking analysis of the TJ site by the traffic engineers over the past 2-year period, there is significant concern from members on both sides of the argument that the on-site parking supply will be either over- or under-estimated in the west-side structured parking garage design. Some are concerned about the continued availability of on-street parking for immediate neighbors, while others have cited examples of neighboring elementary schools, such as Long Branch and Barcroft, where adjacent on-street parking is very limited, yet still workable. Greenspace advocates support shared parking across the entire site and oppose any new west-side surface lots in favor of encouraging multi-modal transportation. Others feel that shared parking fails to account for site users' resistance to crossing the east-west parking barrier if the lots on their preferred side of the site are full, thus pushing parking further out onto neighborhood streets and necessitating more permitted parking. Shared parking advocates have countered that future parking need on the east side of the site can be addressed, if/when parks and community center demand increases, via joint APS/County funding, since the county is contributing to the parking costs at the new school. Leased parking could also be explored by APS, if necessary.
- **Traffic Demand Management (TDM) Incentive** – The 10% reduction in automobile parking demand driven by TDM incentives that the traffic engineers are factoring into their overall parking need for the TJ site is a largely unproven, since similar strategies at other APS sites have only around a year's worth of data to pull from and have not yet hit the 10%-reduction mark.
- **Parking Aesthetic and Pedestrian Accessibility** – Several committee members and neighborhood residents have opined that the current site design makes vehicular access comfortable at the expense of the neighboring residents' aesthetic and pedestrian experiences. As a result, they have requested further exploration and discussion of a fully-submerged/hidden parking garage option.
- **Garage Access Points** – Residents of 1st Rd S are adamantly opposed to aligning the parking garage entrance with the intersection of 1st Rd S and S Old Glebe Rd and have requested that this entrance be moved/reconfigured to minimize traffic impacts on their street.

<sup>4</sup> Please reference these recent pedestrian-related traffic accidents along 2nd St S on [June 20, 2016](#), and [May 20, 2015](#).

## Environmental Impacts

- **Limited Acreage for Recreation** – Some members expressed concern that the “Lobster” design’s roughly 39,000 square-foot (SF) footprint (versus the “Biscuit” design’s roughly 28,000 SF footprint) adversely impacts the already-limited space available for outdoor recreation at the site. They are also concerned that the existing Patrick Henry Elementary has significantly more outdoor playspace (estimated at ~90,000 SF with the 8 trailers slated to be onsite for the 2016-17 school year) than the new ES will have (53,500 SF). However, Patrick Henry would potentially lose some additional greenspace with an addition to bring the school’s capacity up from 463 to 725, including large common spaces such as a new gymnasium and cafeteria. Furthermore, there was concern that estimates of existing middle school play areas at the TJ site do not account for the additional square-footage of the bus lane that middle school students currently use for recreation, including basketball (with a portable hoop) and touch-football. The multi-use nature of the new plaza for pedestrian access, recreation, and dining could limit middle schoolers’ play options.
- **Reduced Natural-Grass Greenspace** – Design schemes depicting a rectangular, synthetic, U-9 soccer field with full southern exposure have raised concerns regarding limited natural grass field space and a lack of sufficient shade from canopy trees, which would not be permitted around the perimeter of a synthetic field but could possibly be planted around a natural grass field. Other synthetic field concerns include the creation of a heat island effect from May-October that would prevent casual, after-school community gatherings and increased after-hours traffic and parking demand.
- **Loss/Lack of Canopy Trees** – Parks and greenspace advocates, including the Urban Forestry Commission, expressed their view that canopy trees not only provide shady respite for students and park users, they also improve air quality, which they feel is essential for schools located next to a 6-lane highway such as Route 50. Advocates noted that such trees require deep, expansive soil for their roots and questioned whether they could grow on top of an elevated parking structure.
- **Preservation of “The Habitat”** – Patrick Henry’s staff and PTA representatives both echoed their desire to maintain a similar outdoor classroom, fish pond, and garden space to that which exists at its current location (~6,000 SF), since all of these areas are integrated into the school’s curriculum.
- **Plaza Surface Materials** – Concern was expressed that the surface material required to simultaneously support pedestrian site access from the street and garage drop-off, middle school recreational play, and emergency vehicle access on the plaza between the schools would have to be primarily a combination of paving materials and synthetic grass, whereas natural grass would be preferred for play.
- **Geo-Thermal Energy and Storm-Water Management** – The committees have not yet had a chance to fully evaluate the need for (and financial impact of) geo-thermal wells for heating and cooling and/or additional waterproofing measures that may be required as a result of limited opportunities for stormwater management on such a tightly-packed site.

## Financial Impacts

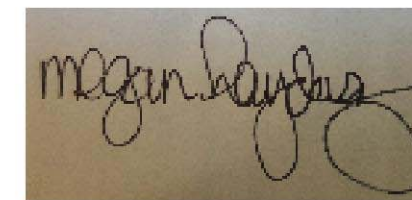
- **Opportunity Cost and Replacement Cost of Land** – In light of the County Board’s recent vote to spend ~\$700,000 to acquire private land (8,500 SF) for parkland expansion at Benjamin Banneker Park, members questioned why is they are essentially “giving away” the designated parkland on the west side of TJ to be used for a school and parking structure with rooftop playspace.
- **Equity in Spending Public Funds** – Whereas the Wilson Site for construction of a new, 775-seat H-B Woodlawn has a maximum estimated project cost of \$80.2M, the new, 725-seat home for Patrick Henry Elementary at TJ only has a budget of \$59M, including the cost of structured parking. If these funds prove insufficient to address all the challenges resulting from building on such a tightly-packed (4-acre), joint-use site, some committee members and neighbors feel that modest increase in the budget for this project could be warranted.

## Primary Considerations for Schematic Design Phase

- **Confirm Interior Space Locations** – We need to work with APS staff and Patrick Henry Elementary’s principal to confirm the list of required interior spaces and finalize their locations within the new building.
- **Refine On-site Parking Spot Quantity** – In the June 15, 2016, straw poll, the vast majority (31 vs. 4) of BLPC and PFRC members preferred the general parking garage footprint outlined in both “Option A” (1-level) and “Option B” (2-level) vs. “Option C” (3-levels, all underground), but members were relatively evenly divided (18 vs. 16, with 1 abstention) on the 1-level vs. 2-level options within that footprint. Further study and evaluation of the cost trade-offs between the two options is needed.
- **Evaluate Partially-Submerged vs. Fully-Submerged Parking Garage Options** – Several PFRC members’ support for the “Lobster” concept design was contingent upon our exploration of new options during the schematic design phase that (a) reduced the above-ground height of the parking garage (e.g. from 11’ to 9’) and (b) hid the garage fully underground.
- **Verify Additional Joint APS/County Funding for TJMS Improvements** – Since the proposed parking garage design creates an exterior plaza space level with the first floor of TJMS, some additional funding must be secured to provide universal access to that floor (along with related aesthetic improvements, such as doors and windows), thereby replacing the existing mid-level entries off the 3 west-side stairwells.
- **Evaluate Environmental Impacts and Mitigations** – We need to re-assess and work to maximize outdoor recreational space and the use of canopy trees throughout the site; evaluate the ratio of natural materials vs. synthetic and/or paving materials on all playspaces and plazas; and develop plans with associated cost estimates for geo-thermal wells, storm-water management, and waterproofing.
- **Adjacent and Off-site Transportation Improvements** – An in-depth review of all known traffic and safety concerns should be undertaken, with input from neighbors, and related traffic-calming and enhanced pedestrian infrastructure plans should be developed.
- **Determine Areas of Focus for Use Permit Conditions** – We will collaborate with the PFRC and County staff to ensure that schematic design elements resulting from committee preferences are in-line with the upcoming use permit review process and requirements.

In closing, our committee appreciates the many tough decisions that the School Board must make to meet our student capacity needs. For this new elementary school at the Thomas Jefferson site, we ask for your concurrence with the Lobster concept design, the general parking footprint outlined in Options A & B, and the \$59M estimated project cost, with additional joint funding for universal access and aesthetic improvements to Thomas Jefferson Middle School. During the schematic design phase, we will continue to work hard to balance community needs with the capital budget, while maintaining the joint-committee and community collaboration necessary to complete the design and construction of a new home for the current Patrick Henry Elementary at the Thomas Jefferson site by the fall of 2019.

Sincerely,



Megan E. Haydasz  
Chair, Building Level Planning Committee  
New Elementary School at Thomas Jefferson

June 30, 2016

The Honorable Emma Violand-Sanchez, Chair  
The Arlington County School Board  
1426 N. Quincy St.  
Arlington, Virginia 22207

*RE: New Elementary School at Thomas Jefferson –Concept Plan Design*

The Public Facilities Review Committee (PFRC) held five (5) meetings during 2016 to consider Arlington Public Schools' ("APS's") Concept Design Plan for a new elementary school at the Thomas Jefferson site, three 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 process is following two other community discussions involving the proposed school: the Thomas Jefferson Working Group and South Arlington Working Group processes. This process involves the design of a complex site because the site design places a new elementary school on the west side of an existing middle school, theater, community center and park.

Generally the main issues that continue to be discussed are the size and impact of the above ground parking garage, the number of parking spaces, traffic impacts, transportation planning issues, pedestrian flow to school and theater entrances, preservation and use of open space, and preservation and replacement of trees. At present, the PFRC has identified no issues with stormwater management, but will review the schematic design for any problems.

***Building Massing and Design***

APS presented several alternative designs for the new elementary school at Jefferson. Two designs, which became colloquially known as the "biscuit" scheme and another known as the "lobster" or "claw" design, were alternatives presented for final group discussion. Both designs presented certain advantages and disadvantages versus each other. The "lobster" scheme is a four story building, stepping down to three stories, located at the north end of the site with a one-story above-ground parking garage that is largely open around the sides. The "biscuit" design is a more compact four story building. Ultimately, a straw poll of PFRC members showed a preference by a vote of 14 to 7 (with two members not participating) for the "lobster" design as the basis for the Concept Design Plan, although several members expressed reservations about aspects of the design.

***Building***

Members felt that the "lobster" scheme offered certain advantages. Several members felt that the location of the gym at ground level (as opposed to the top floor in the "biscuit" design) was a distinct advantage for the use of the gym. Also, the design pulls massing and structure away from the homes facing Route 50 and South Old Glebe

Road. This design also provides the possibility of a net zero building. Some members also commented favorably on the plan to allow parents to drop-off students inside the garage as decreasing impact on the surrounding community. Lastly, some members like the potential for a design offering a net zero energy building.

As noted, about a third of PFRC members voted against the proposal. Some of those members expressed concern about the location or use of the gym and its impact on nearby neighbors. Others expressed concerns about the impact of additional traffic on roads that neighbors feel currently have traffic design problems. Several members, including some voting for the proposed Concept Design Plan, felt that designs for the parking garage gave too much prominence to the garage and tended to detract from the design of the building.

Other concerns expressed by members had to do with various aspects of the proposed design, including: the design blocks visibility of the theater and middle school entrances, the building is too tall for use by elementary students, and the footprint uses too much green space.

***Parking Garage***

A primary concern in PFRC discussion was the size and prominence of the proposed above ground parking garage. The one-story parking garage, as designed, is located to the south of the proposed elementary school building and is separated from the middle school by fifty (50) feet. The garage is proposed with open edges and would provide for drop-off and pick-up within the parking garage, a feature that many members supported. The number of parking spaces with the garage remains an open issue. PFRC members in an earlier straw poll, supported shared parking with the community center to meet zoning requirements thus reducing the number of spaces in the garage, but the desire of the larger (joint PFRC/BLPC) was unclear.

Many members expressed support for the concept design with the caveat of exploring the possibility of lowering or completely submerging the parking garage. This move would make the playing fields more accessible, provide better visibility to the theater and middle school entrance, and make the site more comfortable for pedestrian and bicycle access. Earlier joint meetings between the BLPC and PFRC showed overall support for a single story garage, but considerable interest in exploring design of a two story underground garage.

***Other Issues***

The current design proposal calls for parking on the north side of the site. Several members continue to feel that there should be no parking to the north.

Several members were interested in any changes to the middle school as a result of building the elementary school. Specific projects mentioned as possible were installation of ground floor windows on the west side of the middle school facing the



new elementary school, and improved elevator access. Members questioned whether these projects would occur and how they would be funded.

***Going Forward***

A member raised concerns about handicap access to the school and playing fields. APS's architect (VMDO) made changes to design to meet these concerns, but the PFRC will be interested in a full review of such access for schematic design. VMDO also continues to working on possible solutions to the fear of light and noise spillover from the gym or playing field into the community. The PFRC will review specific proposals as part of future discussion.

Respectfully submitted,

A handwritten signature in cursive script that reads "Stephen Sockwell".

Stephen Sockwell, Chairman  
Public Facilities Review Committee

Cc: Mark Schwartz, County Manager  
Gabriela Acurio, 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  
Ben Burgin, APS  
Stephen Stricker, APS  
Michelle Stahlhut, CPHD  
Marco Rivero, CPHD