

NEW ELEMENTARY SCHOOL

REED SITE, ARLINGTON PUBLIC SCHOOLS

CONCEPT DESIGN

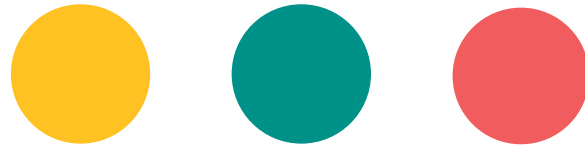


VMDO

COMMUNITY MEETING

1. Welcome / Opening remarks
2. Project & Process Overview
3. Design Progression
4. Questions & Answers
5. Next Steps & Adjourn

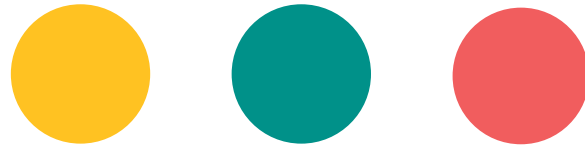
WELCOME / OPENING REMARKS



GOALS FOR THIS EVENING

1. Provide the community an overview of the new elementary school at Reed project and work completed to-date
2. Respond to questions and receive comments on the options under consideration

PROJECT & PROCESS OVERVIEW



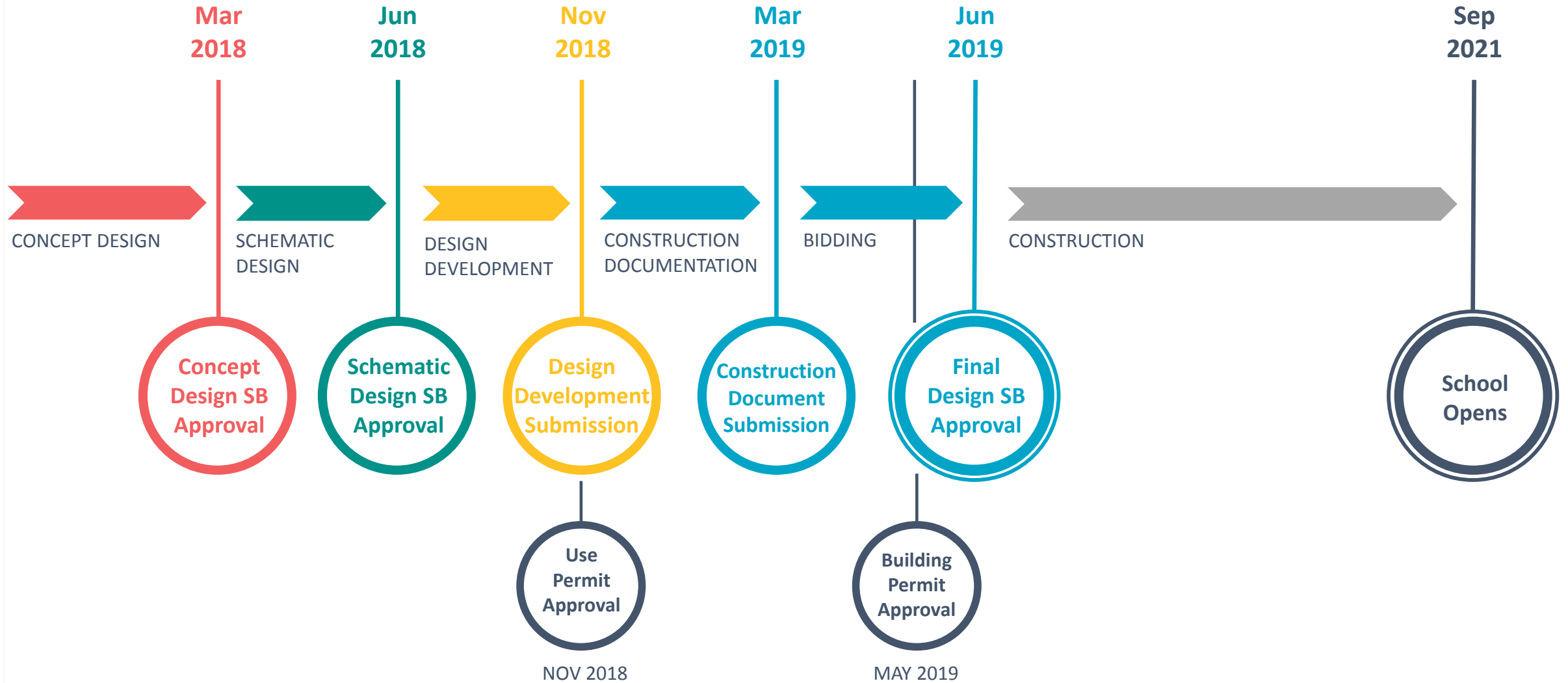
Project Description	OTHER FUNDING SOURCES					BOND FUNDING IN FY 2017-2026 CIP											TOTAL PROJECT COST
	Operating	Capital Reserve	Joint Fund		Previous Bond Funding	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026		
			APS	ArlCo		Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023	Fall 2024	Fall 2025		
Seats Available in						Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021	Fall 2022	Fall 2023	Fall 2024	Fall 2025		
COMMITTED PROJECTS																	
Stratford (1,000 seats in 2019)	\$0.80	\$0.25	\$2.11	\$2.11	\$5.25		\$17.00	\$9.03								\$36.55	
Wilson (114 seats in 2019)	\$1.90	\$7.00	\$3.00	\$3.00	\$7.50	\$36.00	\$39.40	\$3.00								\$100.80	
Career Center - Fenwick (600 seats in 2016)		\$0.40														\$0.40	
HVAC, Roofing & Infrastructure Projects					\$9.56	\$6.50	\$5.90	\$7.20	\$7.40	\$7.60	\$7.80	\$8.00	\$8.20	\$8.40	\$8.60	\$85.16	
PROPOSED PROJECTS																	
Gunston (60 seats in 2017)		\$1.00														\$1.00	
Kenmore (60 seats in 2017)		\$1.00														\$1.00	
Wakefield (300 seats in 2017)		\$4.00														\$4.00	
Yorktown (300 seats in 2018)		\$4.00														\$4.00	
Career Center/Arlington Tech (300 seats in 2018)	\$0.75		TBD	TBD		\$2.00	\$10.00									\$12.75	
Secondary Seats TBD (1300 seats by 2022)			TBD	TBD		\$5.00	\$5.00	\$27.50	\$21.50	\$31.00	\$13.75	\$12.50	\$5.25	\$18.21	\$7.00	\$146.71	
Reed - Expanded (725 seats in 2021)	\$1.25	\$4.00	\$2.75	\$2.75				\$12.00	\$19.25	\$7.00						\$49.00	
Elementary Seats TBD (400-725 seats in 2025)	\$1.72		\$4.58	\$4.58					\$0.50	\$2.00	\$6.00	\$19.75	\$29.79			\$68.92	
TOTAL COMMITTED & PROPOSED PROJECTS	\$6.42	\$21.65	\$12.44	\$12.44	\$22.31	\$49.50	\$77.30	\$58.73	\$48.15	\$46.10	\$23.55	\$26.50	\$33.20	\$56.40	\$15.60	\$510.29	
						2016		2018		2020		2022		2024			
BOND REFERENDA AMOUNTS						\$138.83		\$146.60		\$17.90		\$89.49		\$42.21			
Debt Service Ratio Target ≤9.8%						FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	Total	
Debt Service Ratio -- APS						8.17%	8.71%	9.75%	9.95%	10.20%	10.10%	9.79%	9.66%	9.67%	9.67%		
Annual APS Debt Service Increase						\$2.02	\$4.24	\$7.39	\$2.50	\$2.75	\$0.88	(\$0.70)	\$0.62	\$1.35	\$1.46	\$22.5	
TOTAL COUNTY & SCHOOLS DEBT SERVICE RATIO						8.08%	8.26%	8.91%	9.35%	9.77%	9.78%	9.65%	9.58%	9.49%	9.28%		

PROJECT PARAMETERS

1. Create a **new neighborhood elementary school** with an attendance zone
2. Support APS Strategic Plan Goals, specifically **Goal #4 – Provide Optimal Learning Environments**
3. Address capacity by providing at least **725 seats**
4. Open by start of school **2021**
5. Spend a maximum project cost **\$49 million, with options for less**

PROJECT INFO

- The **Children's School** and **Integration Station** will vacate the Reed building by July 2018
- Reed building will be used as a swing space for the **Stratford Program** until construction of the new school at Wilson is complete for start of the 2019-20 school year
- **Westover Branch Library** will remain open throughout construction



Building Level Planning Committee (BLPC)

- Appointed by and advises the School Board
- Membership represents a variety of school and community groups
- Works in collaboration with APS staff to review design options, including impacts on surrounding community
- Chair provides a letter to the School Board summarizing the BLPC's comments

Public Facilities Review Committee (PFRC)

- Appointed by and advises the County Board
- Membership largely represents Arlington County commissions
- Mission is "...to ensure that the highest quality of land use..."

APS Staff

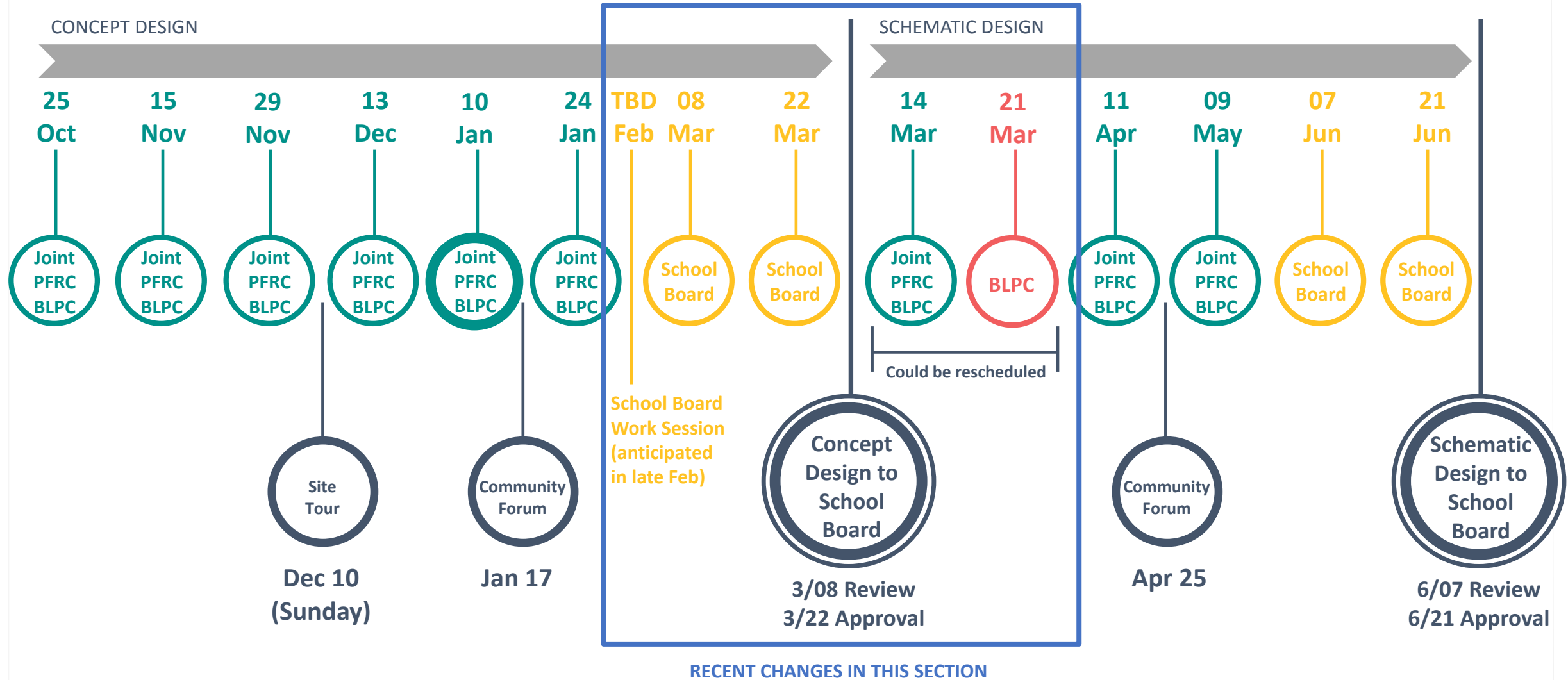
- Develop site-specific educational specifications
- Develop project cost estimates and monitor costs
- Develop content to support BLPC & PFRC

APS Consultants

- Architect: VMDO
- Transportation: Gorove/Slade

Arlington County Staff

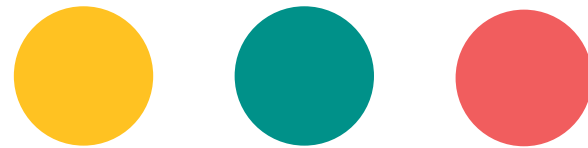
- Coordinate community review process with APS
- Provide feedback to APS on applicable County policies

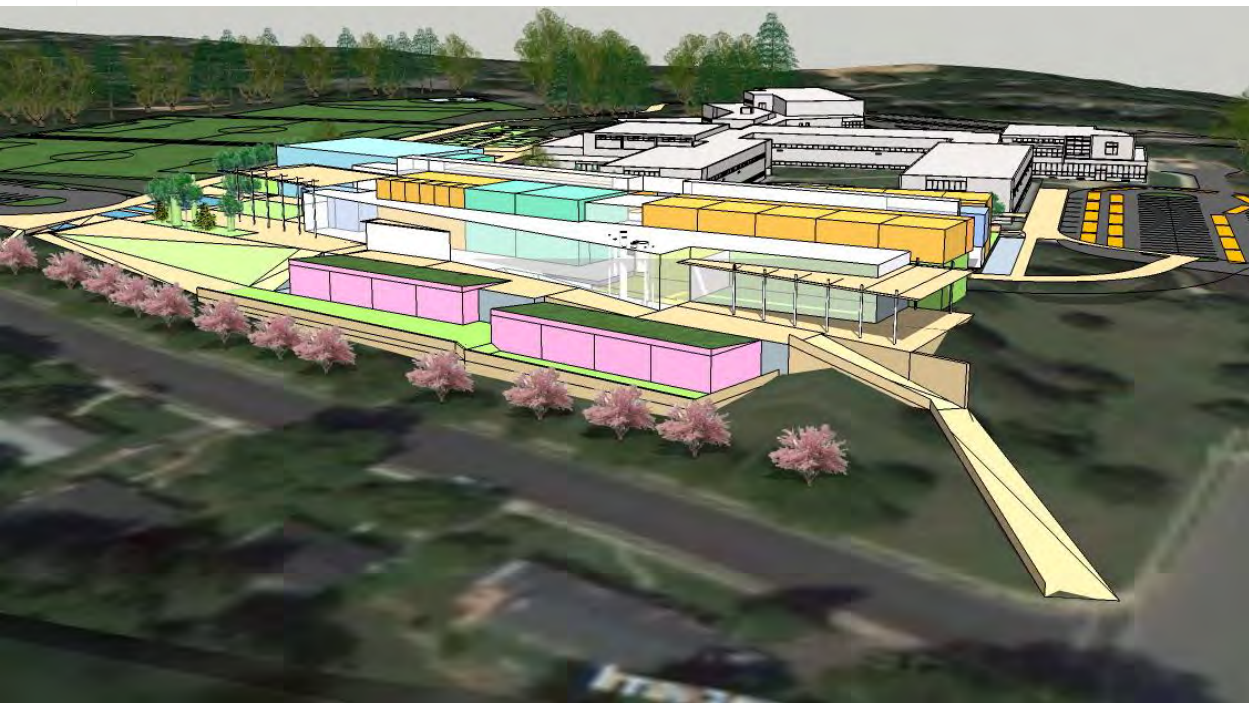


MAJOR COMPLETED AND ONGOING TASKS

1. Reviewed multiple building and site design options with BLPC and PFRC
2. Completed civil engineering survey and tree survey
3. Began documentation of existing conditions
4. Developed highly detailed test-fits of space program for design options
5. Held meetings with APS instructional staff to review design options
6. Began preliminary cost estimates
7. Construction Manager at-Risk (CMR) selection process (on-going)
8. Transportation study (on-going)
9. Investigating legal issues into demolishing a building while still repaying the bonds

DESIGN PROGRESSION





Discovery Elementary: Approved Concept Design,
early Feb 2013



Discovery Elementary: Approved Schematic Design,
late May 2013



Fleet Elementary: Approved Concept Design, late June 2016

Fleet Elementary: Approved Schematic Design, late Sept 2016

EXISTING PARKING

127

TOTAL SPACES

2 fewer than pre-survey analysis

72

EXISTING ON-SITE SPACES

PERMANENT

38

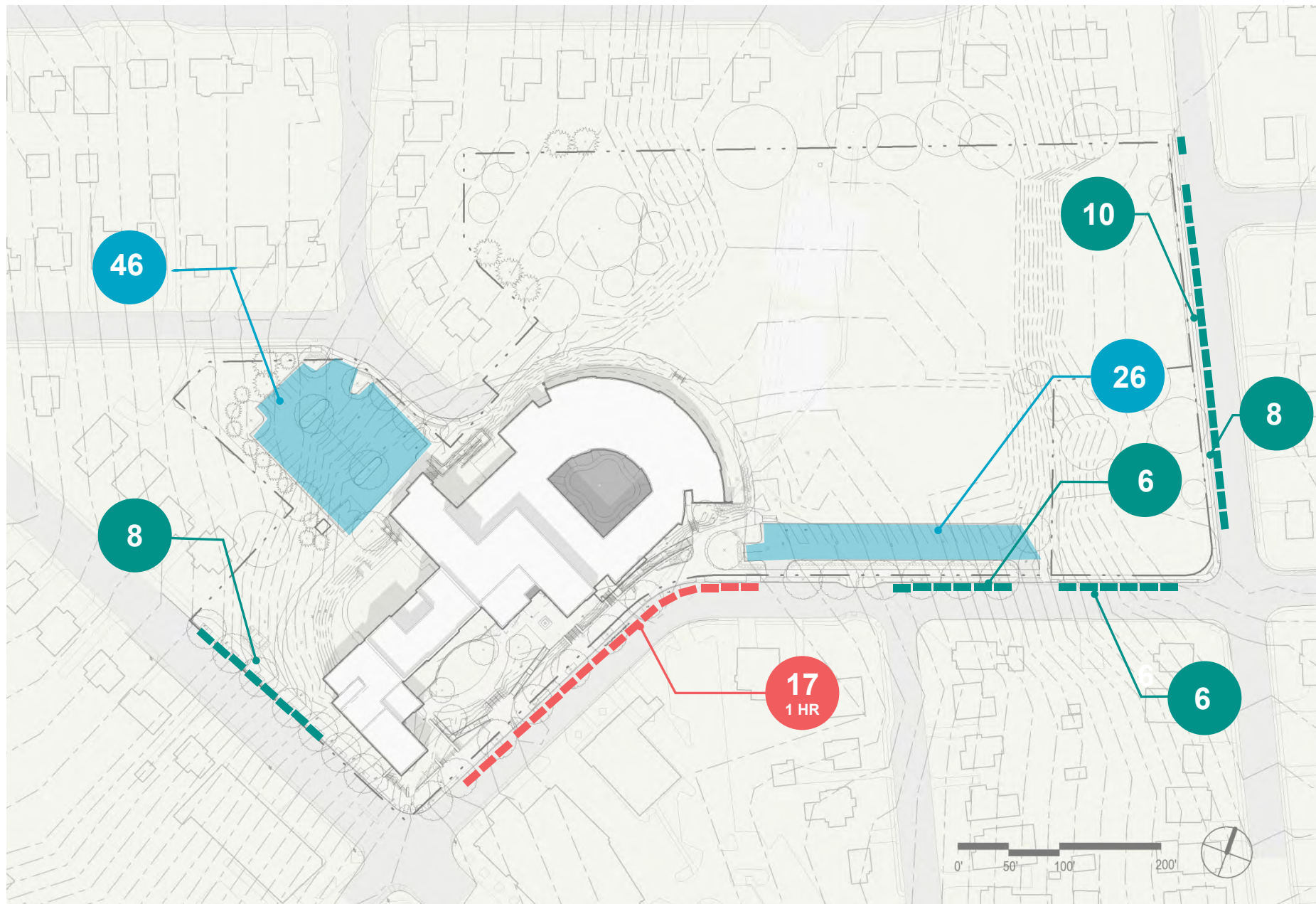
SPACES ON-STREET

ALL-DAY

17



SPACES ON-STREET

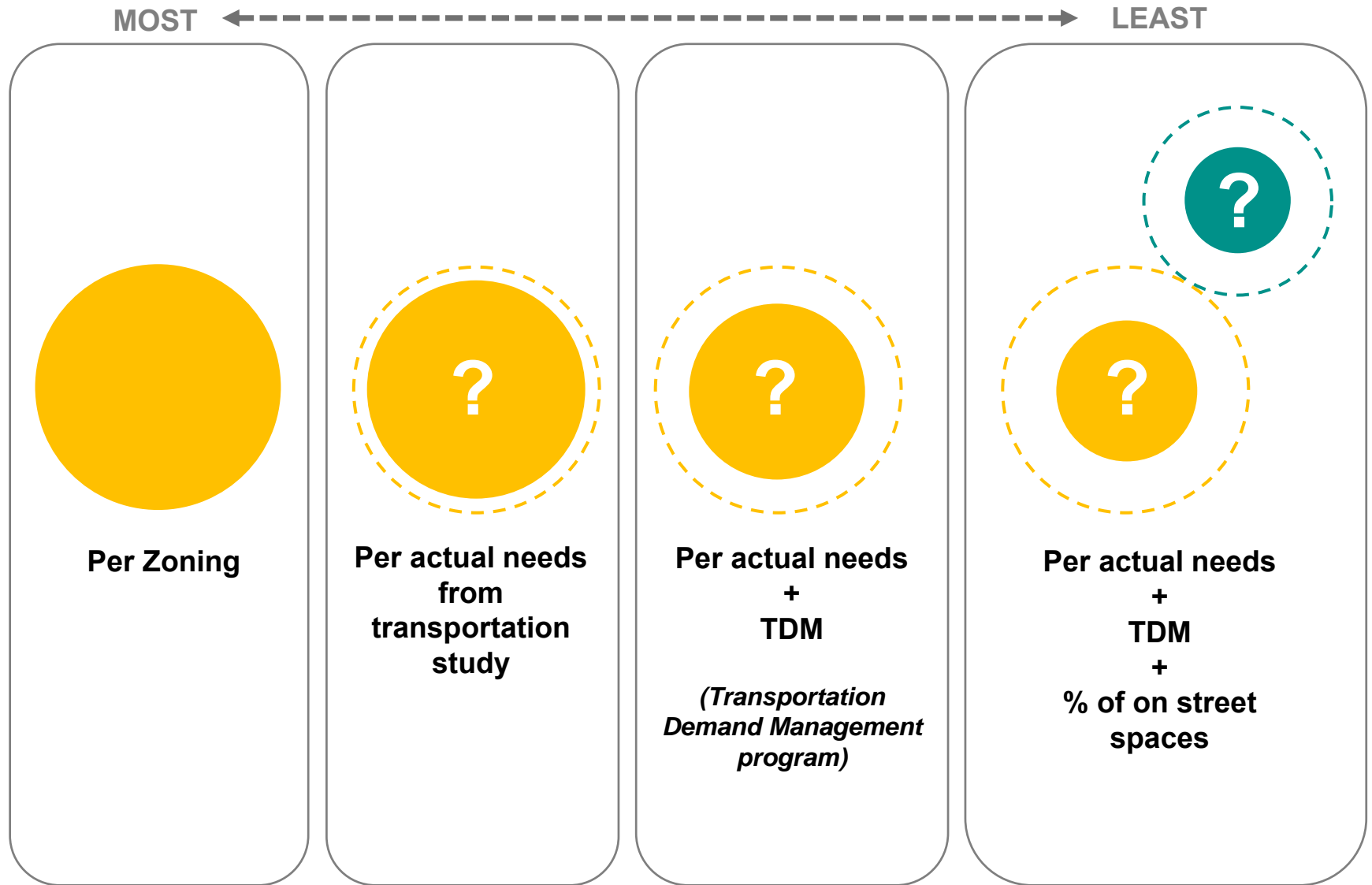
1 HR

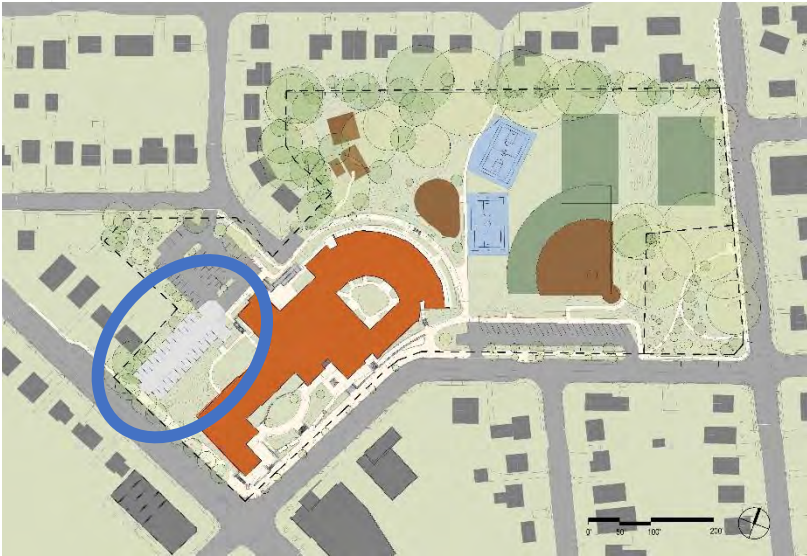


HOW DO WE REACH THE ACTUAL NUMBER OF ON-SITE SPOTS THAT SHOULD BE PROVIDED?

KEY

-  On-Site Spaces
-  On-Street Spaces





PARKING DECK AT NW LOT (WITH CURB CUT)

Existing lot demolished and new lot built at lower elevation

Structural retaining walls required shown in orange

Entrance/Exits shown in blue arrows

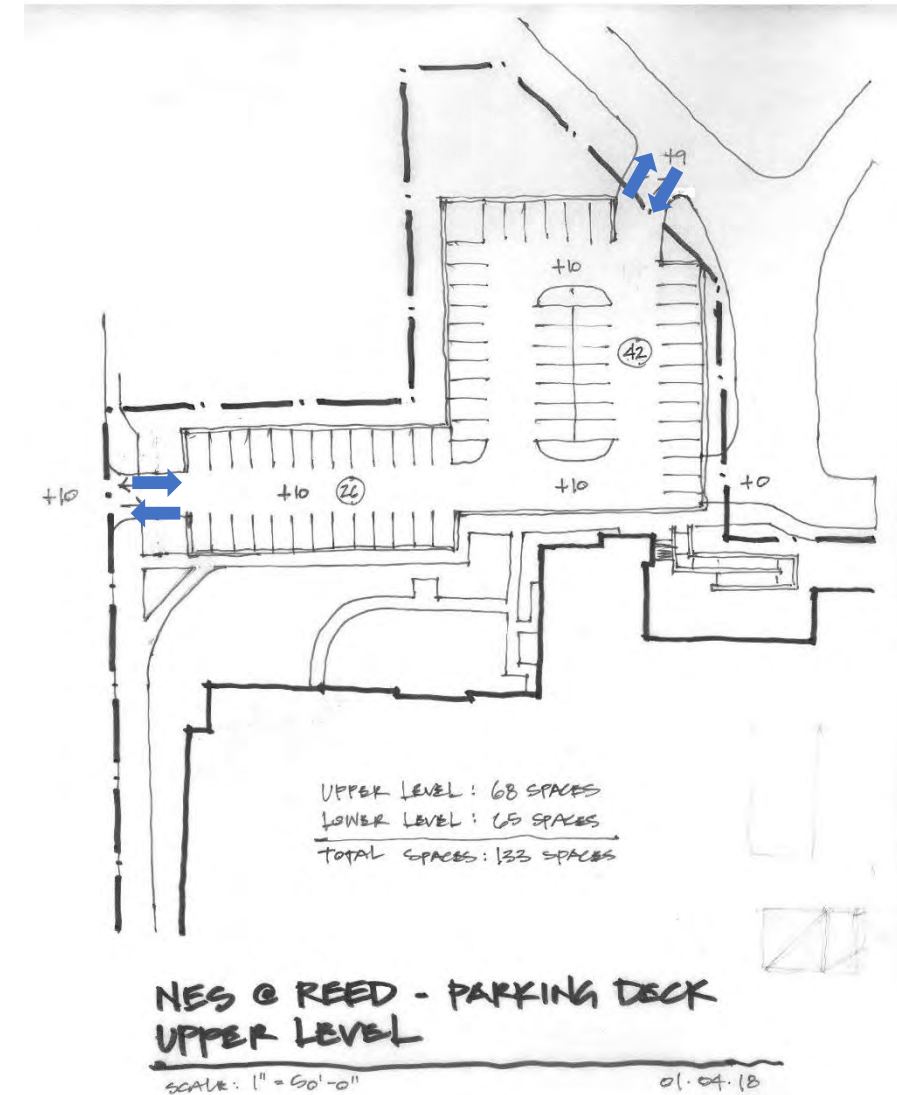
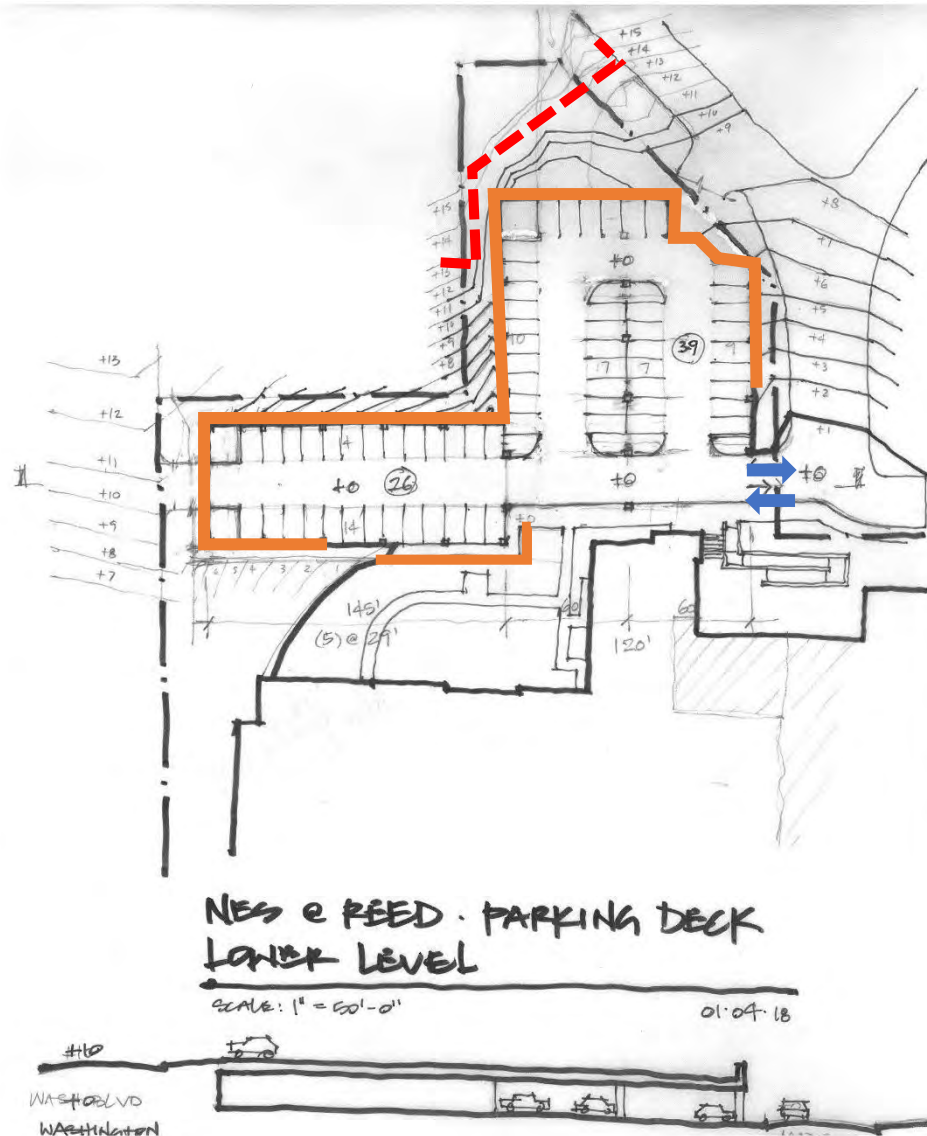
Curb cut at Washington Boulevard for entrance/exit to upper level of parking deck

Relocation of sanitary line shown in red

Relocation of Connect Arlington fiber line (not shown)

133 spots @ \$45K - \$70K each

\$6.5 Million to \$9 Million cost for parking structure



CRITICAL SUCCESS FACTORS

- Learner Focused
 - Teacher Friendly
 - Sufficient Parking
 - Preserve Trees
 - Maintain Green Space
 - Provide Multiuse Facility
 - Build in Flexibility
 - Best Playground
 - Bathrooms for Outside Programs
- MUST
- SHOULD
- WOULD





VOTES (DOTS) = 5





VOTES (DOTS) = 15





VOTES (DOTS) = 0





VOTES (DOTS) = 0





GROUP
3A

1. Does this scheme propose an addition to the existing building?
2. What is the relationship between this scheme and the County Park?
3. How do buses, cars, service vehicles and pedestrians circulate in/around the site?
4. How does this scheme address parking (# of spaces, on-site/off-site, etc.)?
5. Does this scheme require relocation of major utilities?
6. Where and how does the scheme address stormwater?
7. How does this scheme provide community access to school project amenities?
8. What are the major challenges of this scheme?
9. What are the greatest benefits of this scheme?

VOTES (DOTS) = 1



VOTES (DOTS) = 6



NORTH SCHEME



Option A



Option B

EAST SCHEME



Option A

SOUTH SCHEME

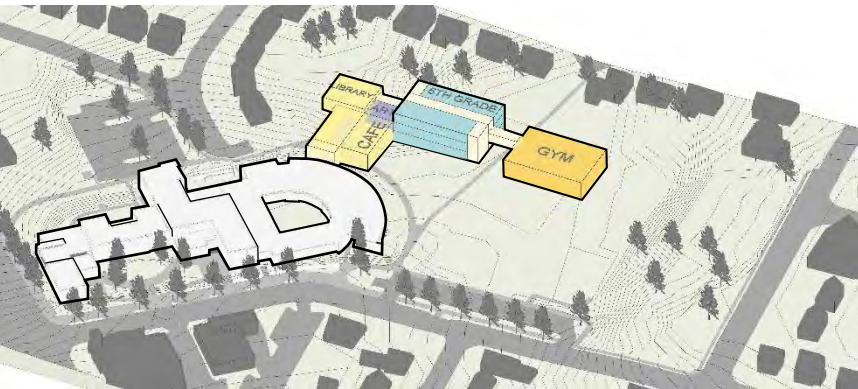


Option A



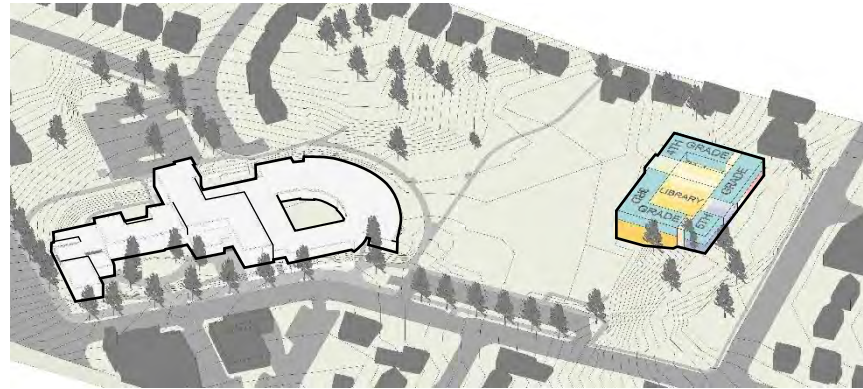
Option B

NORTH SCHEME



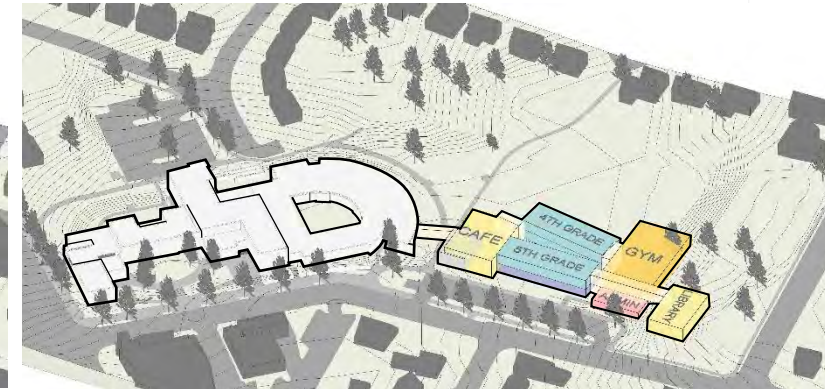
Option A

EAST SCHEME

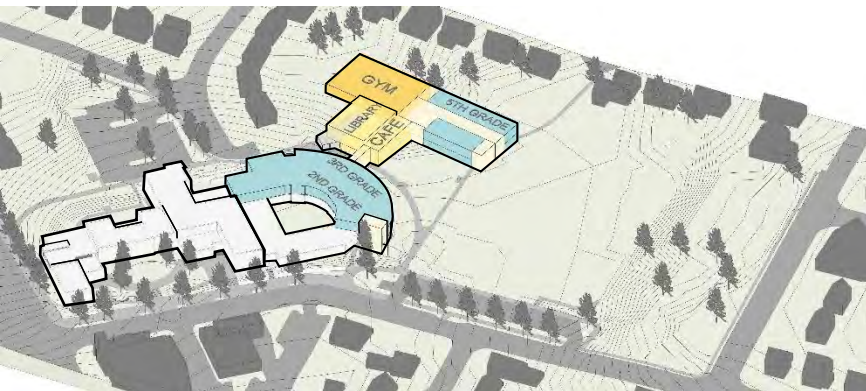


Option A

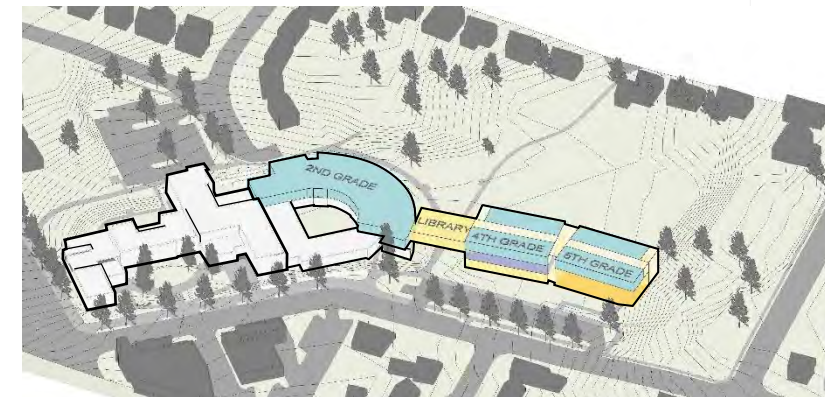
SOUTH SCHEME



Option A

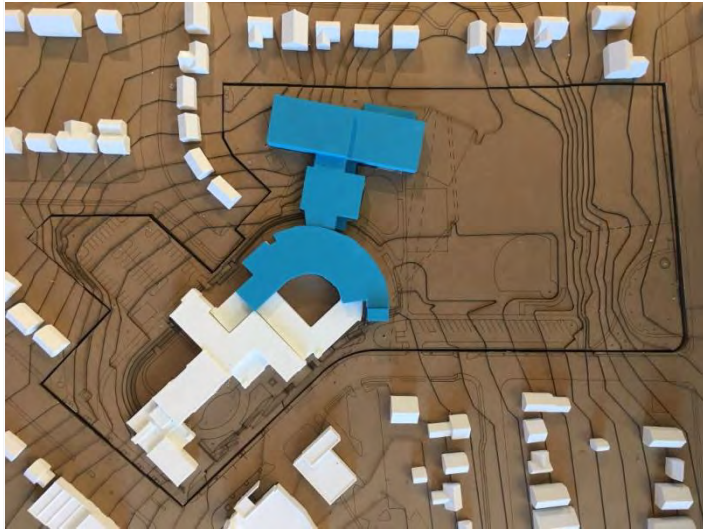


Option B



Option B

NORTH SCHEME - MODIFIED



EAST SCHEME



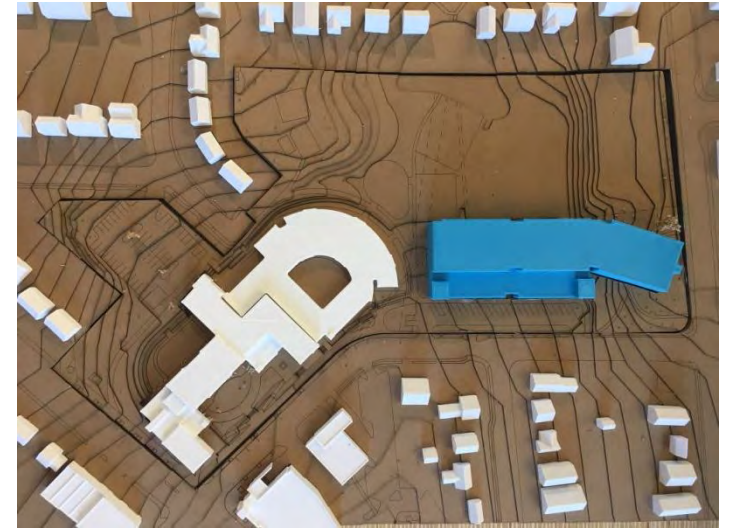
SOUTH SCHEME - MODIFIED



REPLACEMENT SCHEME



STANDALONE SCHEME



NORTH SCHEME - MODIFIED



EAST SCHEME



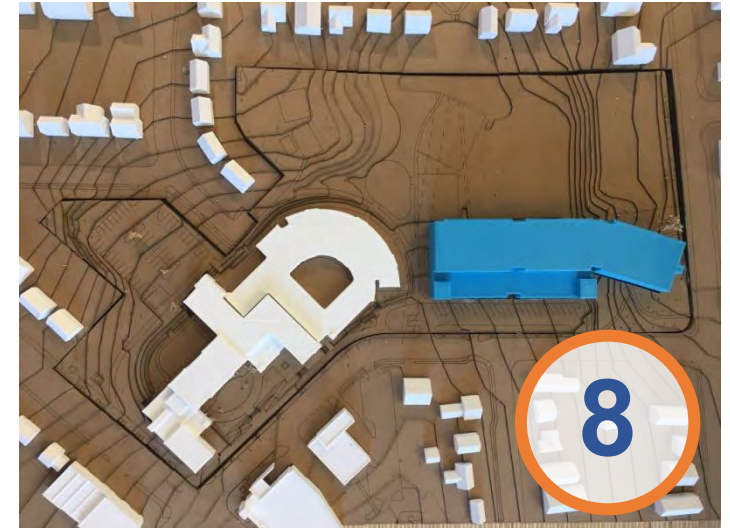
SOUTH SCHEME - MODIFIED



REPLACEMENT SCHEME



STANDALONE SCHEME



COMPARING THE SCHEMES RESULTS



Scheme	Attribute	Prelim. Estimated Cost (Compared to Budget)	Envelope to Area Ratio	School GSF	Footprint (SF)	Renovation Type	Energy Use Intensity (Lower = Better)	Solar Panel Area (SF)	Total Impervious (SF)	Site Work	Parking (Spaces on-site)	Open Space & Fields	Learning Environment	Rank
North (B)	-1 to +1 (\$ Mil)	1.07	45,500 Ren 64,700 New 110,100 Total	55,900	Medium (\$20/SF)	20 New 35 Ren 26.2 Avg	14,600 Add. Req.	147,800	\$\$\$	108 Spaces	-0 Fields -7 Trees -Tree Hill	Curved Corridor	1 st Place – 0 2 nd Place – 6	
East	-7 to -5 (\$ Mil)	1.03	45,500 Ren 57,800 New 103,300 Total	53,600	Light (\$2/SF)	20 New 54 Ren 36.7 Avg	26,500 Add. Req.	156,200	\$	115 Spaces	-0 Fields -3 Trees -Sled Hill	Two Schools	1 st Place – 0 2 nd Place – 1	
South (B)	-2 to 0 (\$ Mil)	1.06	45,500 Ren 63,000 New 108,500 Total	54,800	Medium (\$20/SF)	20 New 35 Ren 26.2 Avg	14,900 Add. Req.	140,400	\$\$	108 Spaces	-0 Fields -1 Tree	Bridge Separator	1 st Place – 3 2 nd Place – 10	
Partial Replacement	-1 to +1 (\$ Mil)	.86	26,200 Demo 20,800 Ren 86,000 New 106,800 Total	44,700	Heavy (\$50/SF)	19 New 24 Ren 19.4 Avg	7,400 Add. Req.	137,700	\$\$	132 Spaces	+1 Field -0 Trees	Learning Communities	1 st Place – 23 2 nd Place – 2	
Standalone	-1 to +1 (\$ Mil)	.85	45,500 Ext 109,100 New 154,600 Total	36,000 Exst 40,300 New 76,300	None (\$0/SF)	19 New * 00 Ren 19 Avg	10,300 * Add. Req.	158,900	\$	128 Spaces	-1 Field -5 Trees -1/2 Park	Extended Corridor	1 st Place – 1 2 nd Place – 9	

NORTH SCHEME

No Easy Fire Truck
Access Around New
Addition

Significant Loss of Trees,
Including Root Zones of
Trees with Canopy
Outside of Property Line

Re-routing of Utility Lines
into Washington Blvd
(shown in dashed line)



EAST SCHEME

Positive: Lowest cost by far

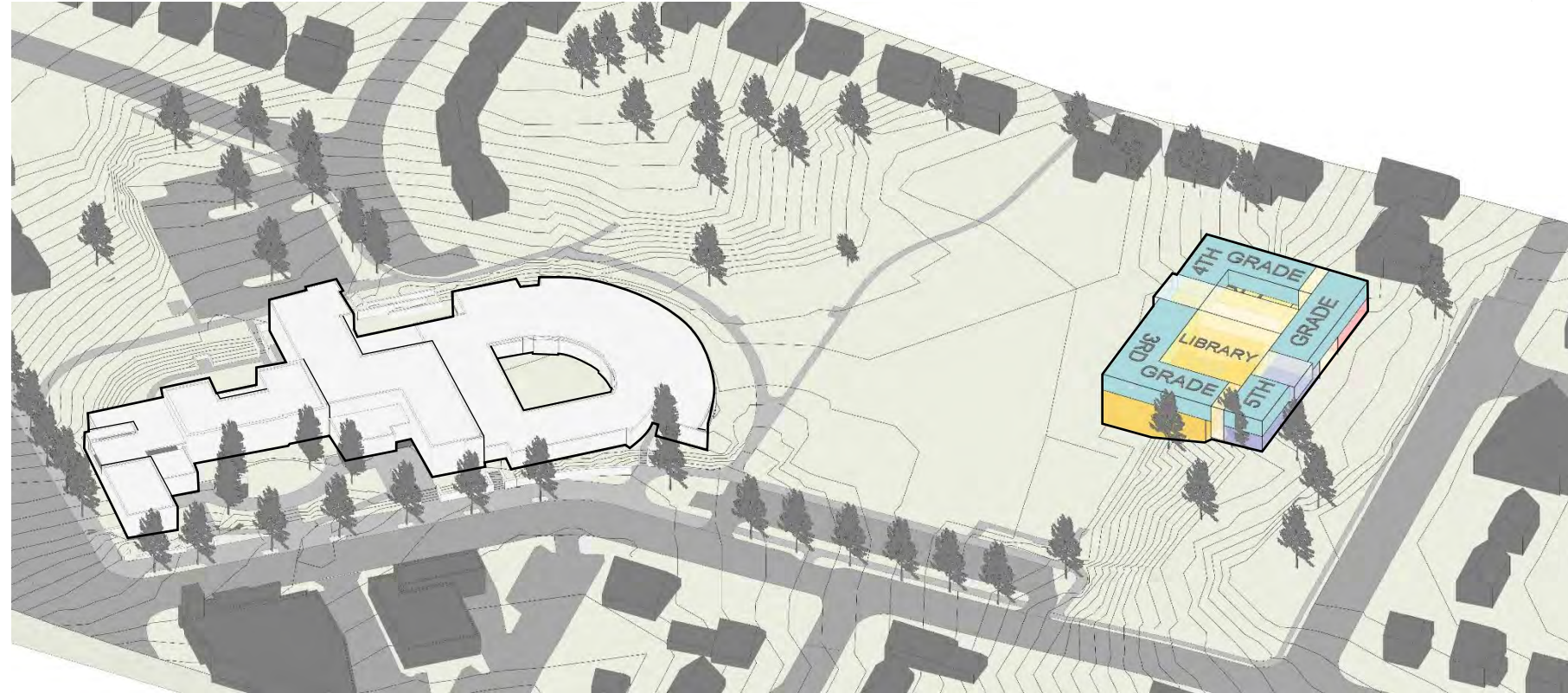
Negatives:

Two entirely separate, 365 student capacity schools, meaning:

- Increased operating costs for having two staffs
- Lack of flexibility when cohort sizes change
- Younger students would still need travel to upper school for resources

Loss of sledding hill

Unpopular!



Existing building, designed in 2007, was built for a very specific program.

Instructional Concerns

Appropriate for early childhood programs, but...

Inefficient layout

Space constrained for older students

Visibility/Security (curved corridors)

Tight circulation & hallway widths

Circuitous distances between programs

No extended learning areas

No small group instruction

Design and Construction Concerns

Cost and constructability of adding second floor

With a second floor, still need 63K-65K additional square feet

Below average energy efficiency

“Long Life”, but not “Loose Fit”



Existing Building: 2nd Floor



Existing Building: 1st Floor

NORTH SCHEME - MODIFIED



EAST SCHEME



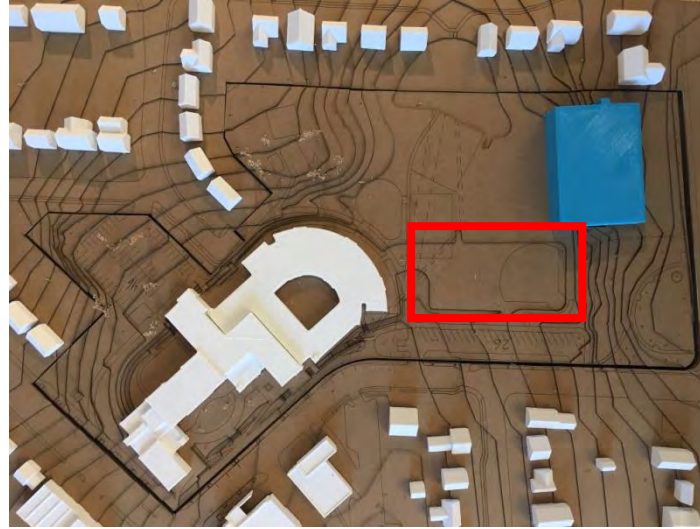
SOUTH SCHEME - MODIFIED



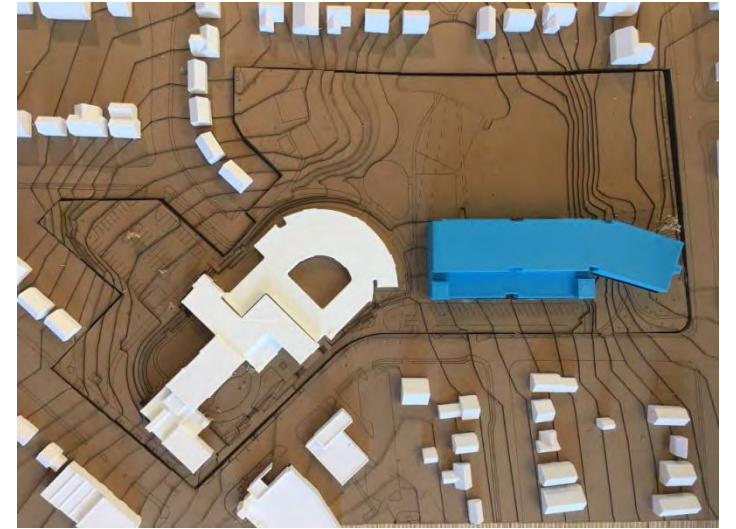
INTEGRATED SCHEME



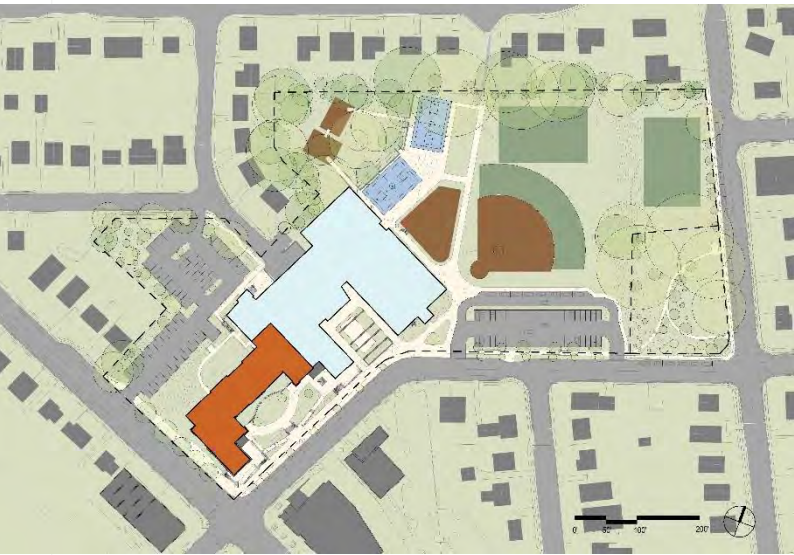
UPPER/LOWER SCHEME



STANDALONE SCHEME



INTEGRATED



Middle Cost

- Lowest Capacity (732)**
- Highest Cost per Seat**
- Lowest Impervious Surface**
- Lowest Total Energy Use per SF**
- Lowest Required Parking**

UPPER/LOWER



Lowest Cost

- Low to Middle Capacity (732+)**
- Middle Cost per Seat**
- Middle Impervious Surface**
- Middle Total Energy Use per SF**
- Middle Required Parking**

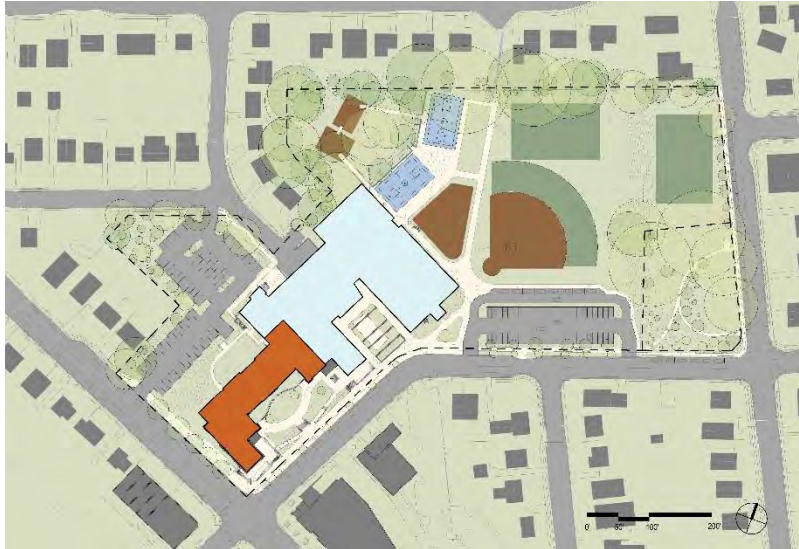
STANDALONE



Highest Cost

- Highest Capacity (1003)**
- Lowest Cost per Seat**
- Highest Impervious Surface**
- Highest Total Energy Use per SF**
- Highest Required Parking**

INTEGRATED



UPPER/LOWER



STANDALONE



BRIDGE (formerly South B)

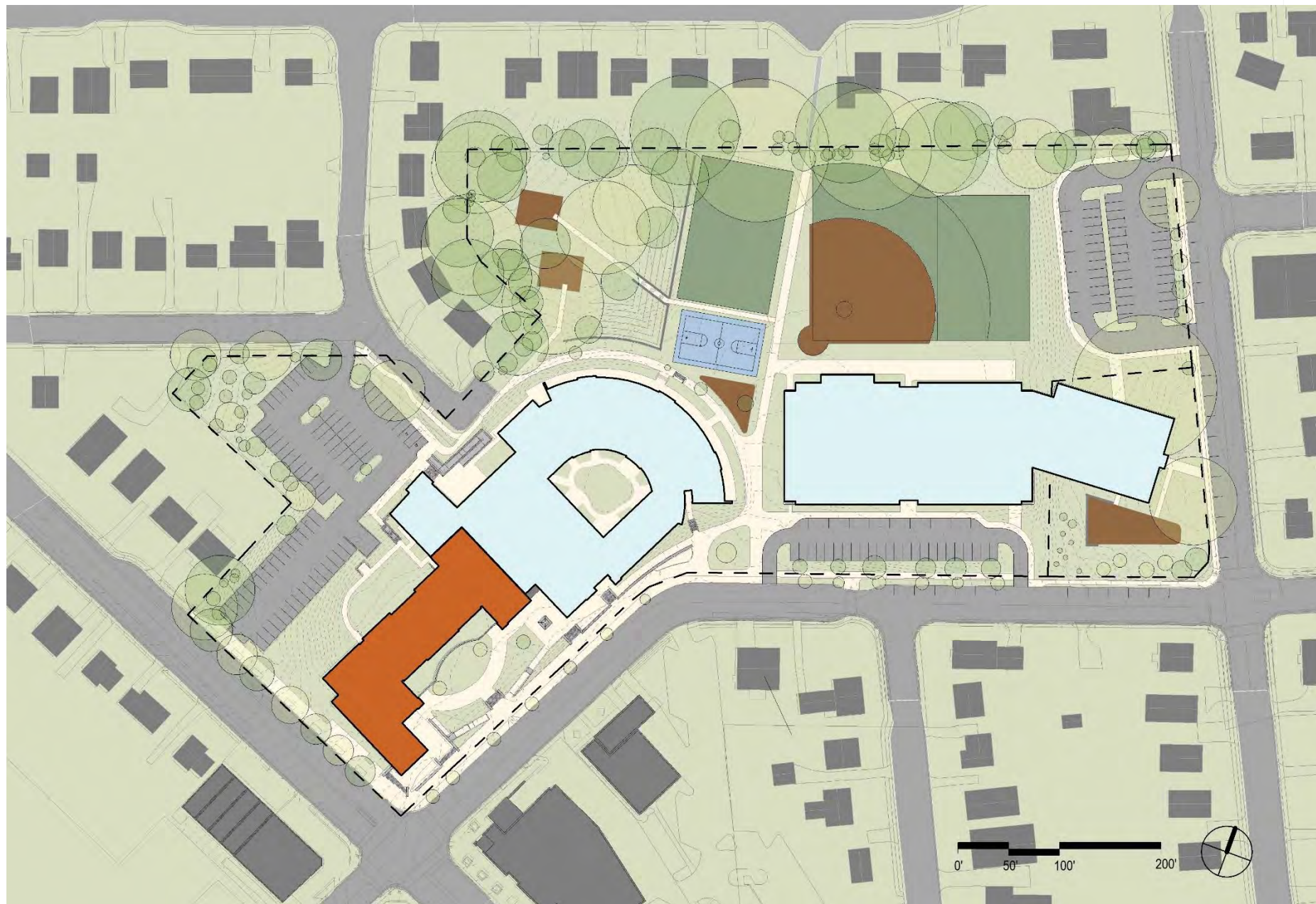


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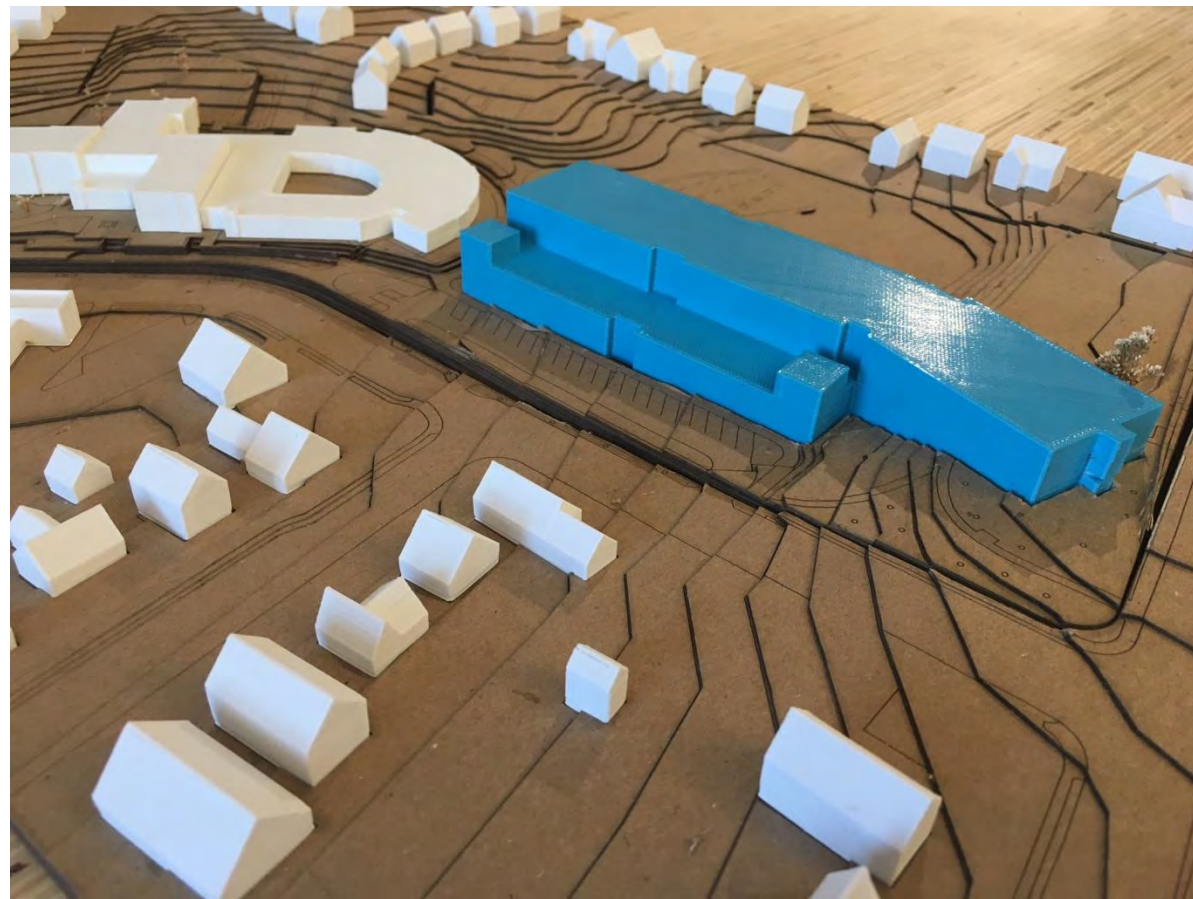
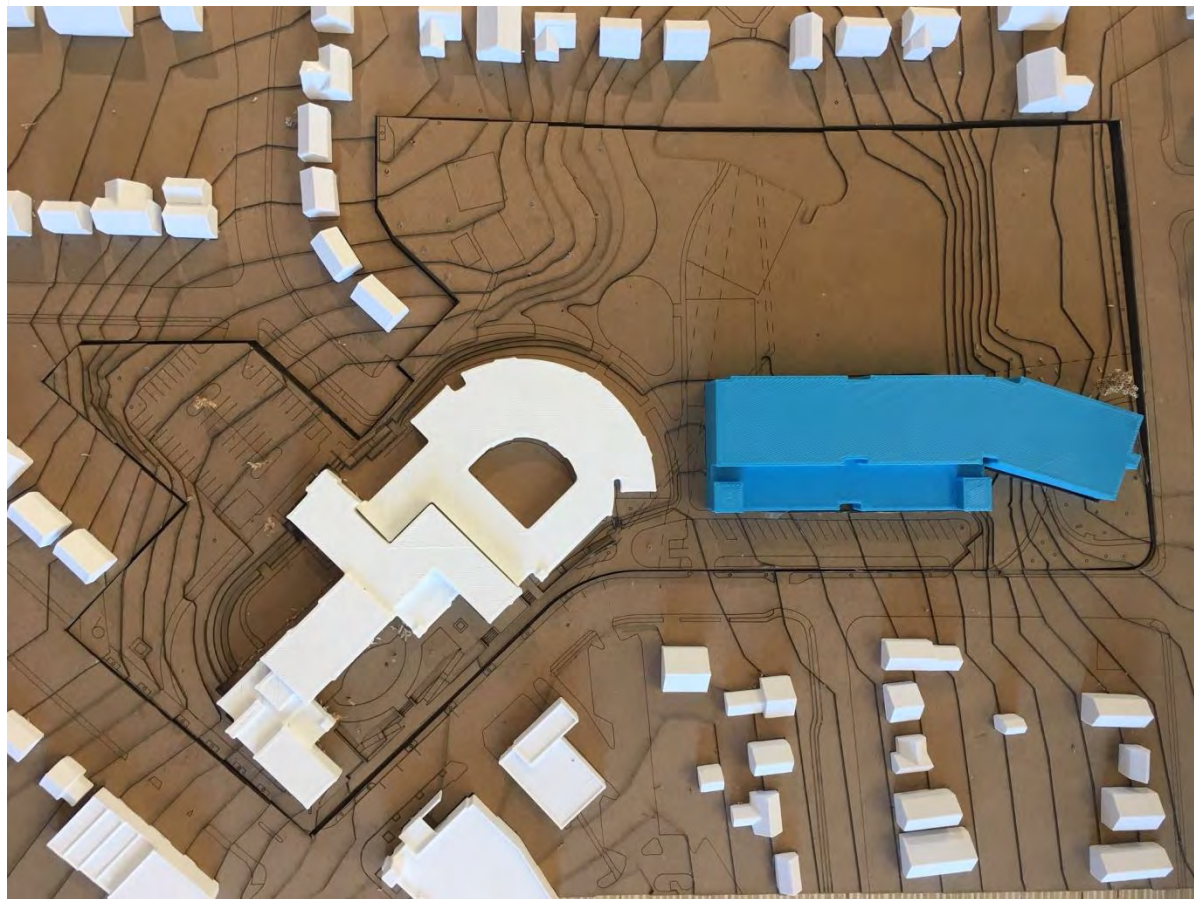


STANDALONE SCHEME

- +1 to +3 Cost v/s Budget (\$M)
- \$50-52K Cost per seat
- 1,003 Total student capacity (747 ES, 256 Pre-K)
- 76,300 SF Total school footprint (blue)
- +62,700 SF Impervious area (compared to existing)
- 204 Parking req. by zoning
- 20 Est. parking reduction
- 157 On-site parking
- 27 On-street parking
- 184 Total parking



STANDALONE SCHEME MASSING MODEL



EXISTING

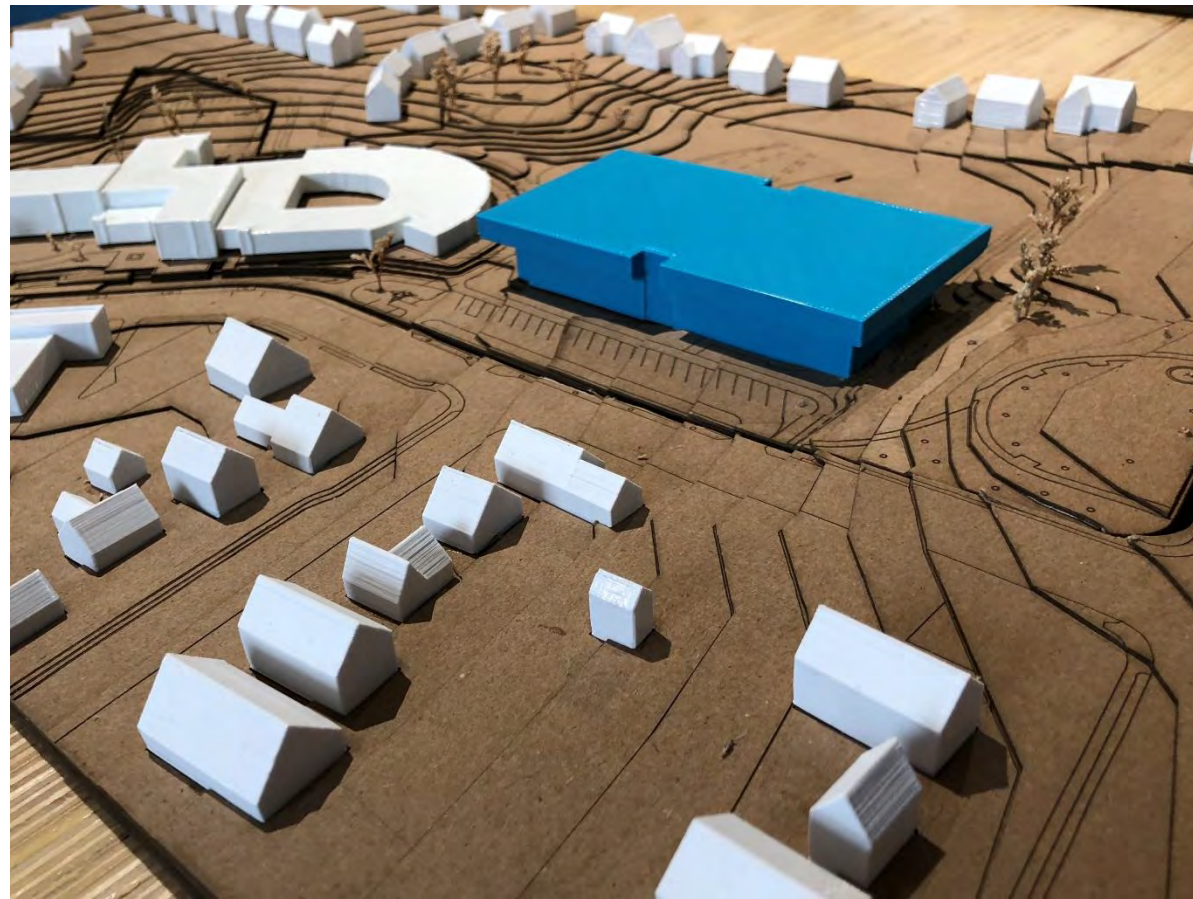
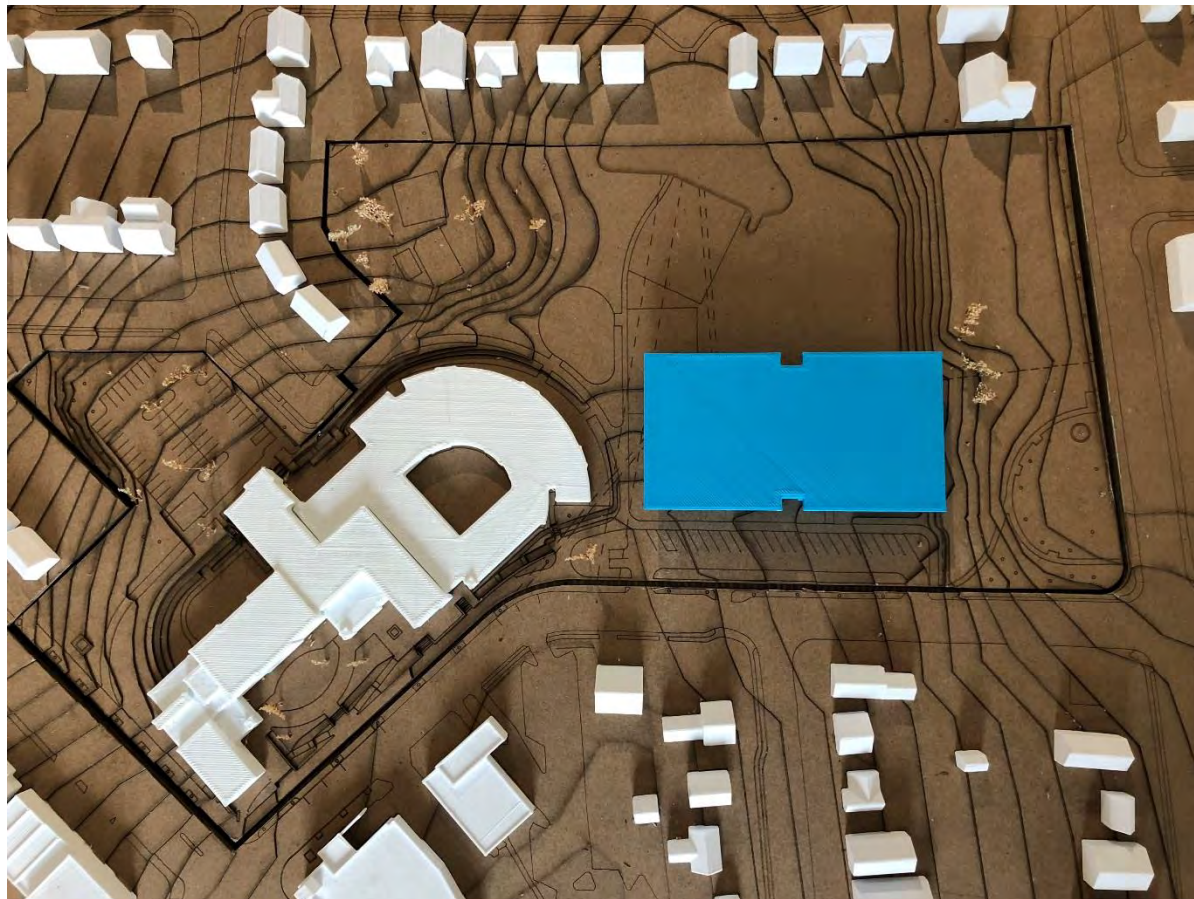


UPPER – LOWER SCHEME

- 3 to -1 Cost v/s Budget (\$M)
- \$63-66K Cost per seat
- 732+ Total student capacity
- 58,600 SF Total school footprint (blue)
- +37,300 SF Impervious area (compared to existing)
- 165 Parking req. by zoning
- 20 Est. parking reduction
- 139 On-site parking
- 6 On-street parking
- 145 Total parking



UPPER LOWER SCHEME MASSING MODEL

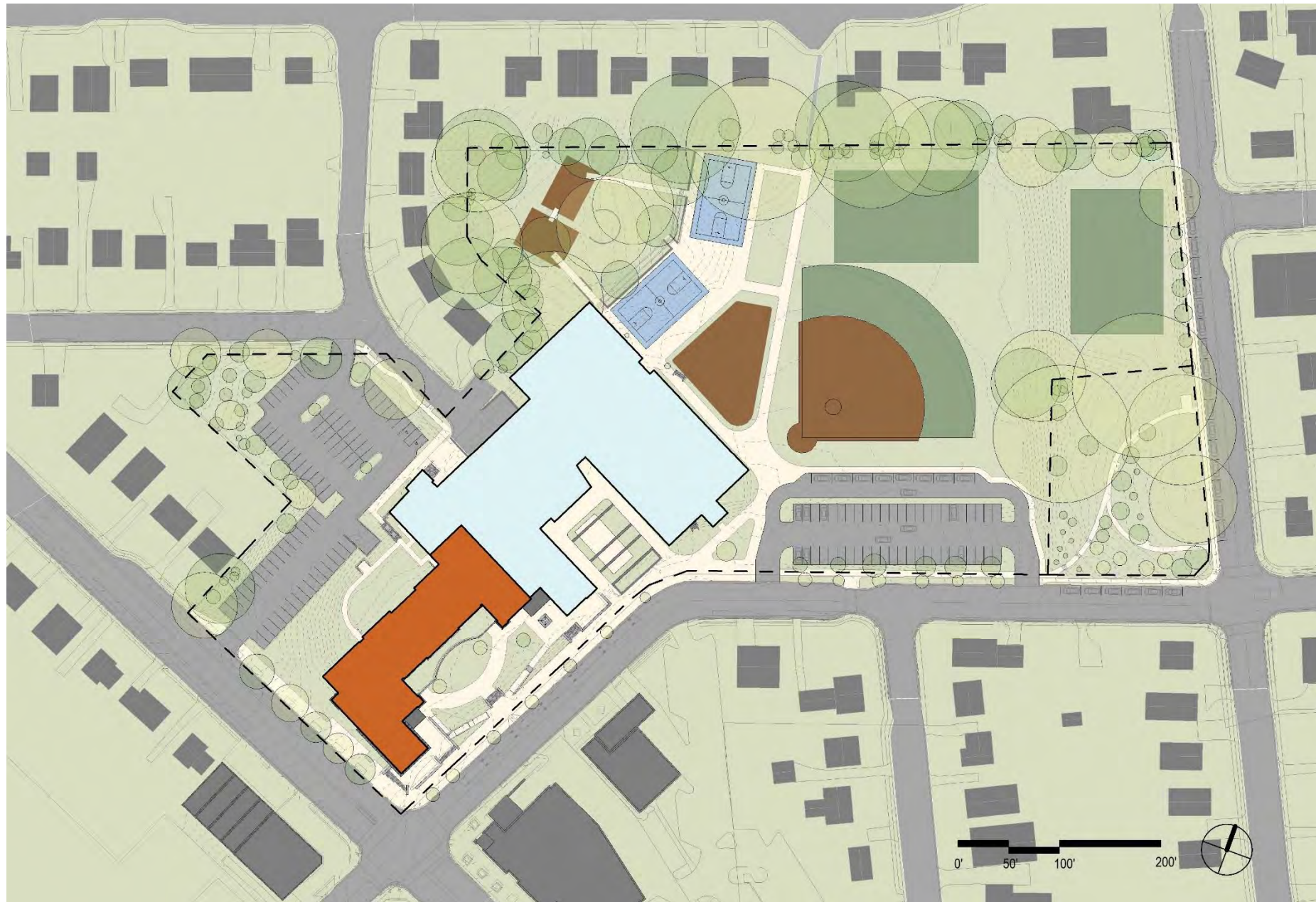


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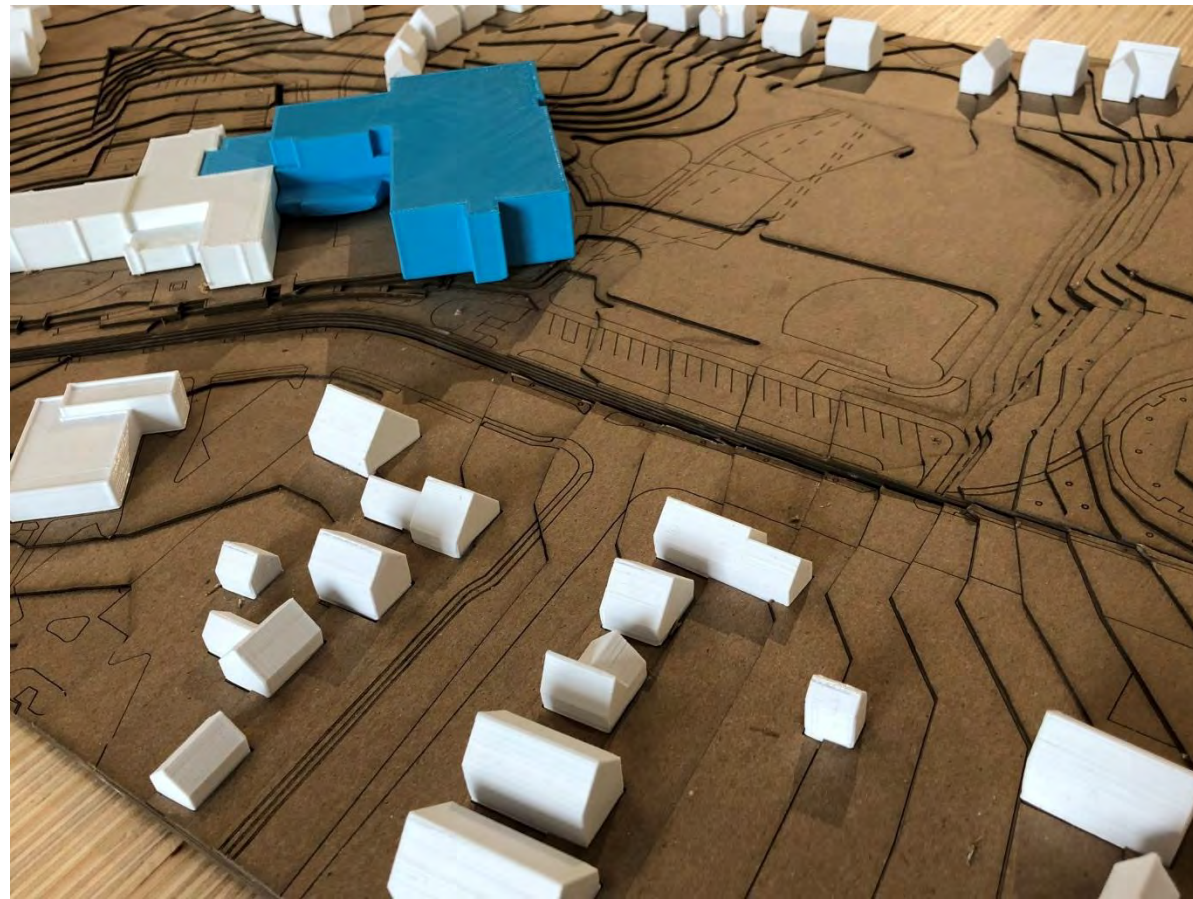
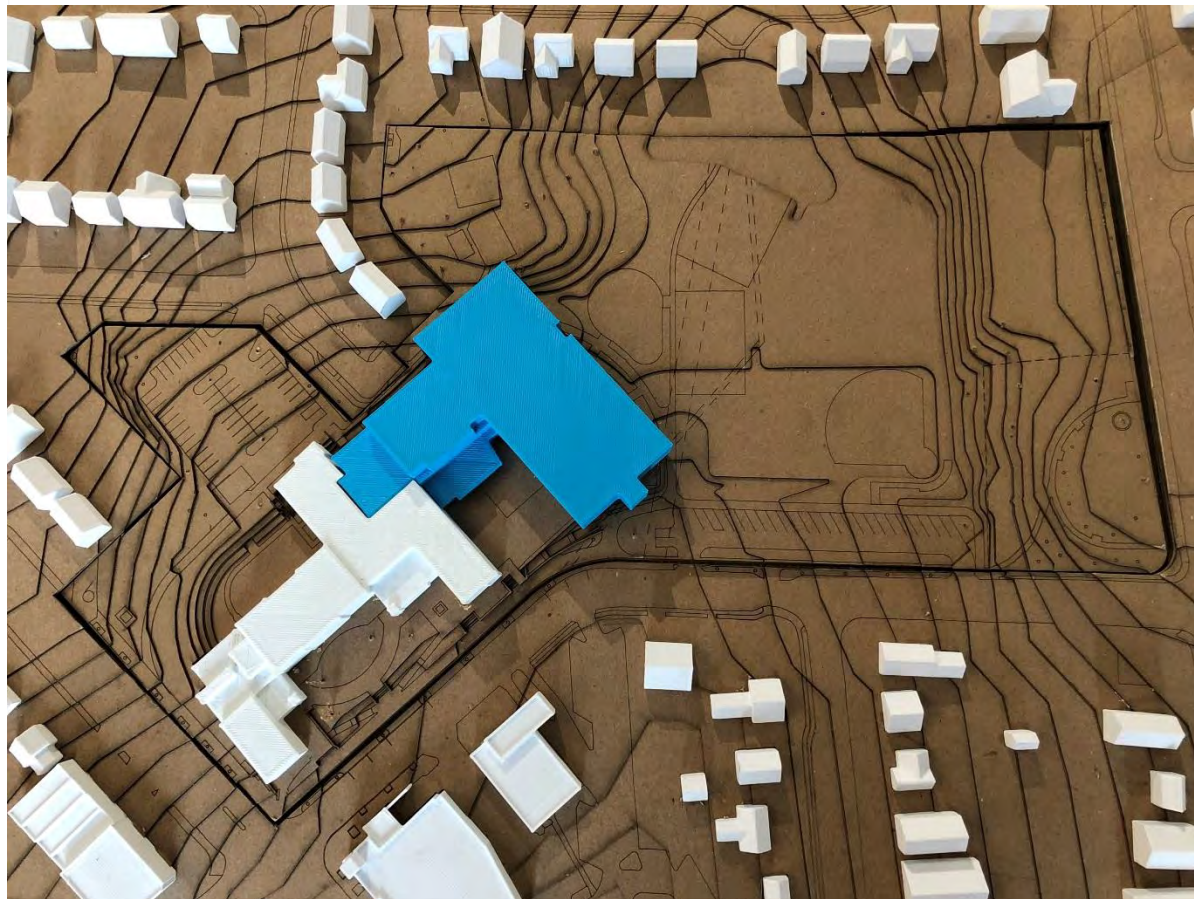


INTEGRATED SCHEME

- 1 to +1 Cost v/s Budget (\$M)
- \$66-68K Cost per seat
- 732 Total student capacity
- 44,000 SF Total school footprint (blue)
- +16,800 SF Impervious area (compared to existing)
- 150 Parking req. by zoning
- 20 Est. parking reduction
- 133 On-site parking
- 24 On-street parking
- 157 Total parking



INTEGRATED SCHEME MASSING MODEL



EXISTING

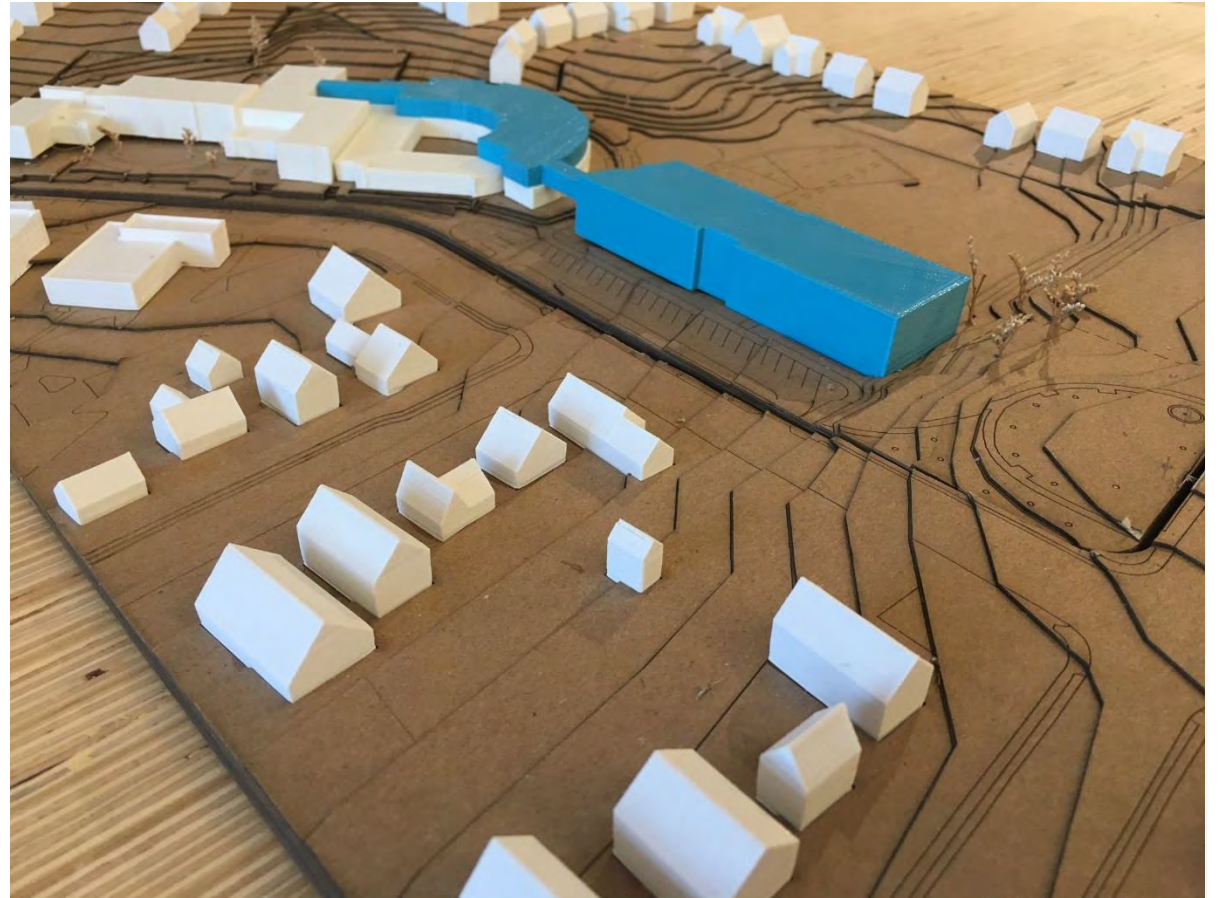


BRIDGE SCHEME

- 1.5 to +0.5 Cost v/s Budget (\$M)
- \$65-67K Cost per seat
- 732 Total student capacity
- 55,800 SF Total school footprint (blue)
- +35,500 SF Impervious area (compared to existing)
- 150 Parking req. by zoning
- 20 Est. parking reduction
- 139 On-site parking
- 6 On-street parking
- 145 Total parking



BRIDGE SCHEME MASSING MODEL



COMPARING THE SCHEMES



Scheme	Attribute												Rank
	Prelim. Estimated Cost (Compared to Budget)	Cost per Student Seat (Range)	Student Capacity	School GSF	Site Work	Renovation Type	Energy Use Intensity (Lower = Better)	Footprint (SF) New Construction	Total Impervious (SF)	Parking	Open Space & Fields	Learning Environment	
Standalone	+1 to +3 (\$ Mil) 	\$50-52K 	747 New 256 Pre-K 1,003 Total 	45,500 Ext 109,100 New 154,600 Total 	\$\$ 	None 	19.0 New 56.0 Ext 29.9 Avg 	76,300 	210,200 	157 On-Site 27 Off-Site 184 Total 	-1 Court -5 Trees -1/2 Park 	Extended Corridor 	
Upper / Lower	-3 to -1 (\$ Mil) 	\$63-66K 	732 	30,500 Ren 80,100 New 110,600 Total 	\$ 	Light / Medium 	19.0 New 35-50 Ren 25.3 Avg 	58,600 	184,800 	139 On-Site 6 Off-Site 145 Total 	-1 Court -3 Trees 	Curved Corridor 	
Integrated	-1 to +1 (\$ Mil) 	\$66-68K 	732 	26,200 Demo 20,700 Ren 86,700 New 107,400 Total 	\$ 	Medium / Heavy 	19.0 New 24-35 Ren 21.1 Avg 	44,000 	164,300 	133 On-Site 24 Off-Site 157 Total 	+1 Field -0 Trees 	Learning Communities 	
Bridge	-1.5 to +0.5 (\$ Mil) 	\$65-67K 	732 	45,500 Ren 63,000 New 108,500 Total 	\$ 	Medium / Heavy 	19.0 New 35-50 Ren 28.6 Avg 	59,300 	183,000 	139 On-Site 6 Off-Site 145 Total 	-1 Court -3 Trees 	Curved Corridor 	
Existing	- 	- 	256 	45,000 	- 	- 	56 	35,000 	147,500 	72 On-Site 	- 	- 	

INTEGRATED

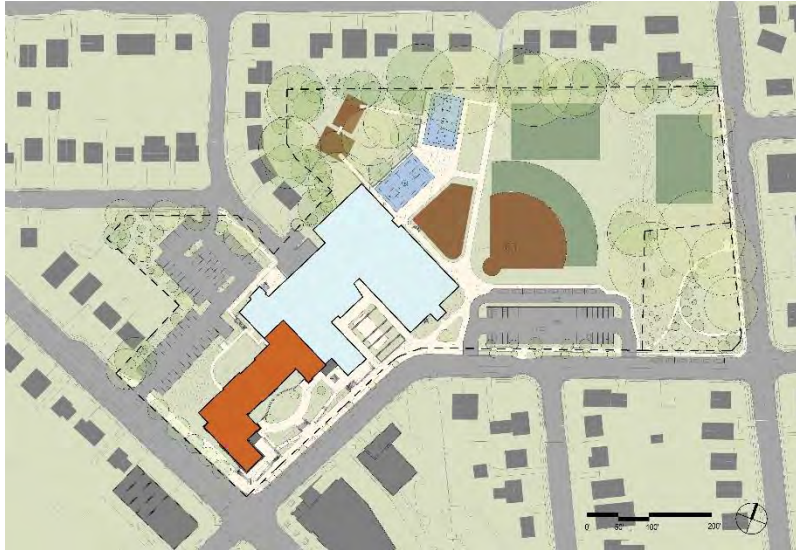
Cost v/s Budget (\$M)
-1 to +1

Cost per seat
\$66 - \$68K

Total student capacity
732

Impervious area
+16,800

Parking req. by zoning
150



UPPER/LOWER

Cost v/s Budget (\$M)
-3 to -1

Cost per seat
\$63 - \$66K

Total student capacity
732+

Impervious area
+37,300

Parking req. by zoning
165



STANDALONE

Cost v/s Budget (\$M)
+1 to +3

Cost per seat
\$50 - \$52K

Total student capacity
1,003

Impervious area
+62,700

Parking req. by zoning
204



BRIDGE (formerly South B)

Cost v/s Budget (\$M)
-1.5 to +0.5

Cost per seat
\$65 - \$67K

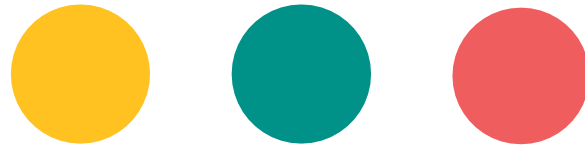
Total student capacity
732

Impervious area
+35,500

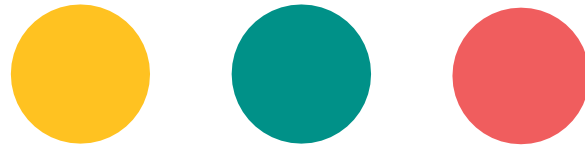
Parking req. by zoning
150



QUESTIONS & ANSWERS



NEXT STEPS & ADJOURN



NEXT STEPS

1. Upcoming Dates:

- Jan 24th – PFRC / BLPC (Wednesday) Last meeting of Concept Phase.
- Feb TBD – School Board Work Session (anticipated)
- March 8th – Information Item to School Board
- March 22nd – Action Item to School Board

ADJOURN

- Provide feedback to APS via project email: reed.info@apsva.us
- For further information, please contact:

APS Project Manager

Ajibola (Aji) Robinson PMP
703-228-7738
ajibola.robinson@apsva.us

County Project Manager

Nicole Boling
703-228-3945
nboling@arlingtonva.us

- BLPC, PFRC, and Community Meeting dates are scheduled and posted on the APS project website: <https://www.apsva.us/design-and-construction/new-elementary-school-reed/>
- Provide feedback and comments:
 - To APS: reed.info@apsva.us
 - To Arlington County: <https://commissions.arlingtonva.us/planning-commission/public-facilities-review-committee-pfrc/school-projects/walter-reed/>