

Wilson Site

WRAPS Meeting #3, July 23, 2014



Arlington
Public
Schools



Agenda

- Demographic projections
- School area & capacity
- Site analysis
 - Potential community amenities
 - Multimodal access
 - Vertical school solution
 - Solar orientation
- Sustainable design

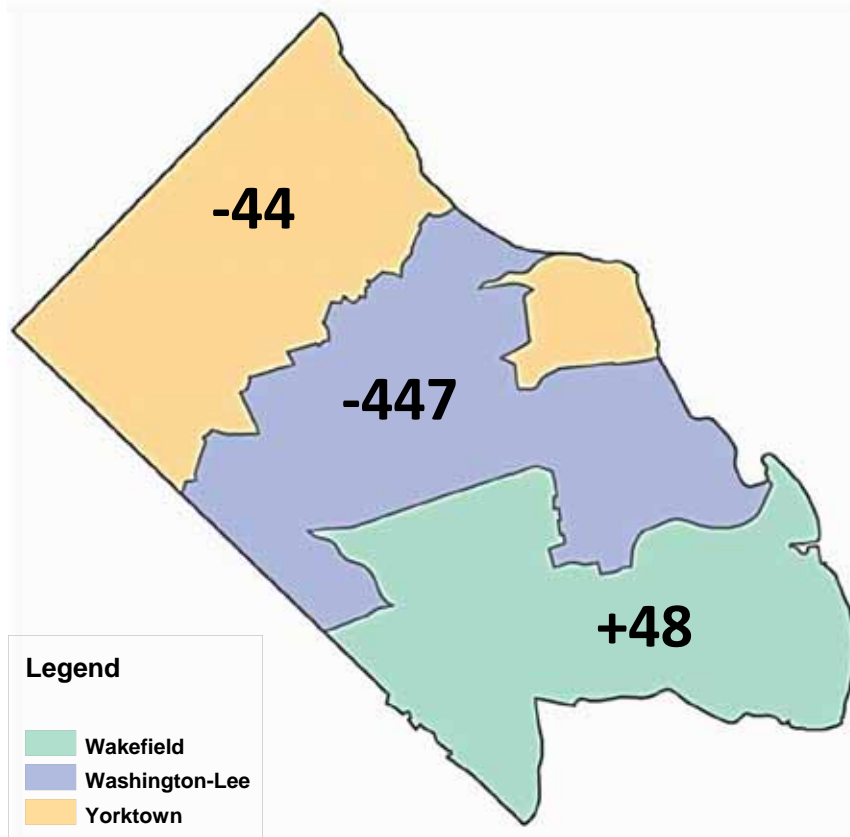
Seat Deficits

		Relocatables Number	Building Capacity	Enrollment Students	Seats	Delta %
2013/	Middle	13	5,065	4,676	389	8%
2014	High	12	6,080	5,847	233	4%
2018/	Middle	13	5,065	6,025	-960	-19%
2019	High	12	6,080	6,886	-806	-13%
2023/	Middle	13	5,065	6,655	-1,590	-31%
2024	High	12	6,080	8,858	-2,778	-46%

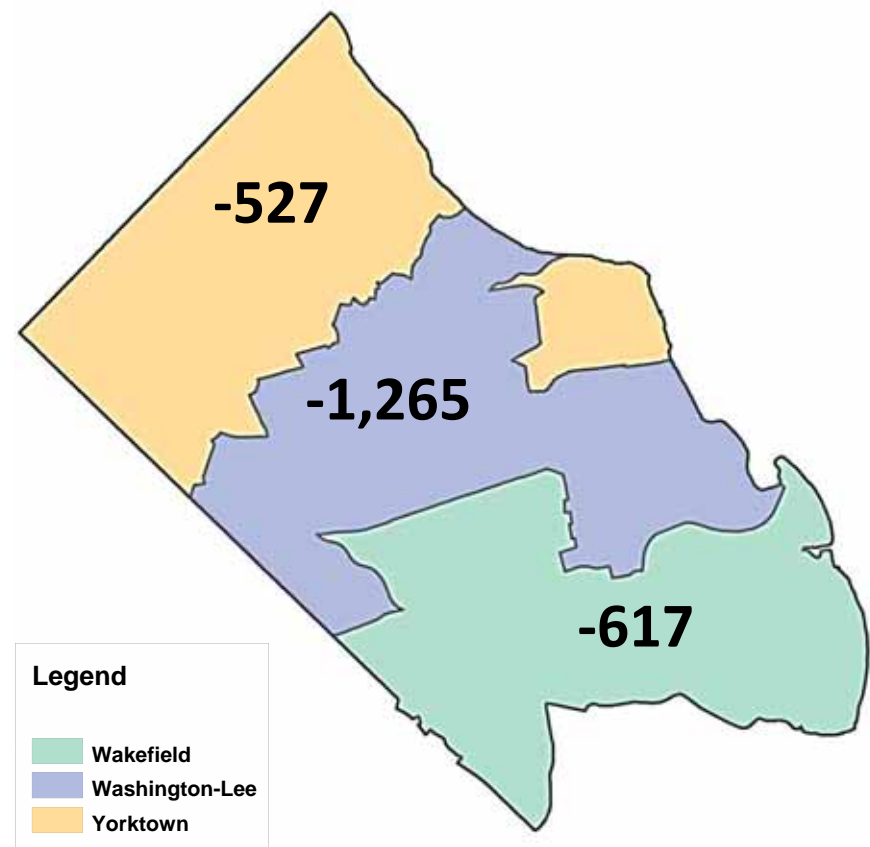
*Note: Building capacity does not include relocatables..

Comprehensive HS Seat Deficits

Projected 2018/2019



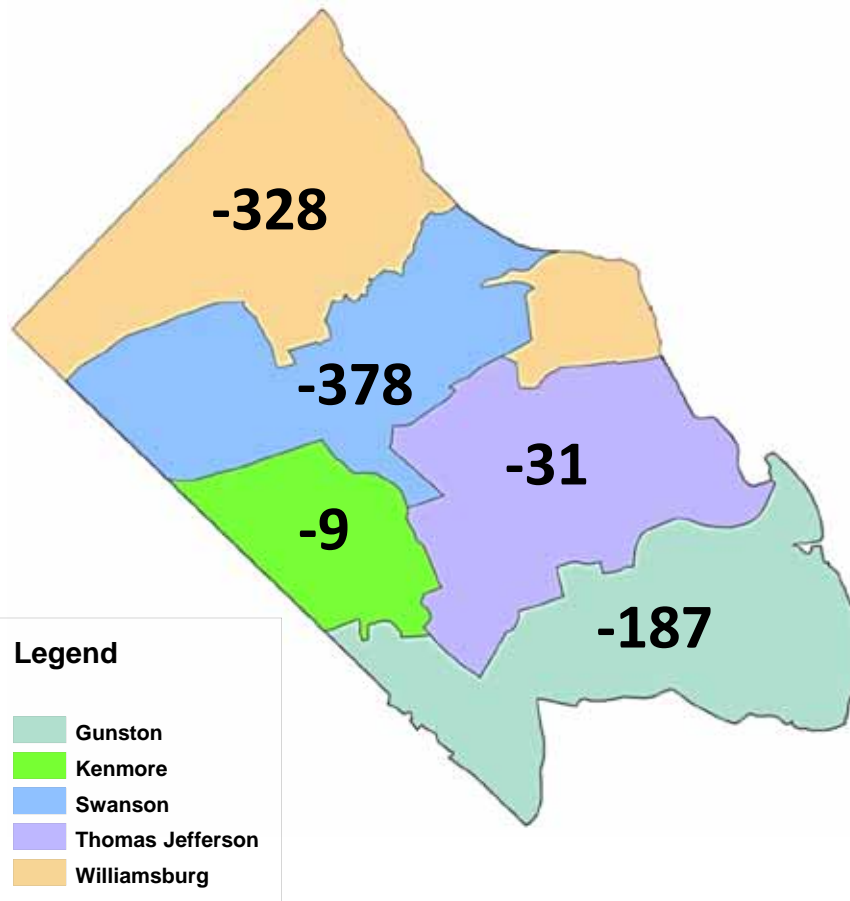
Projected 2023/2024



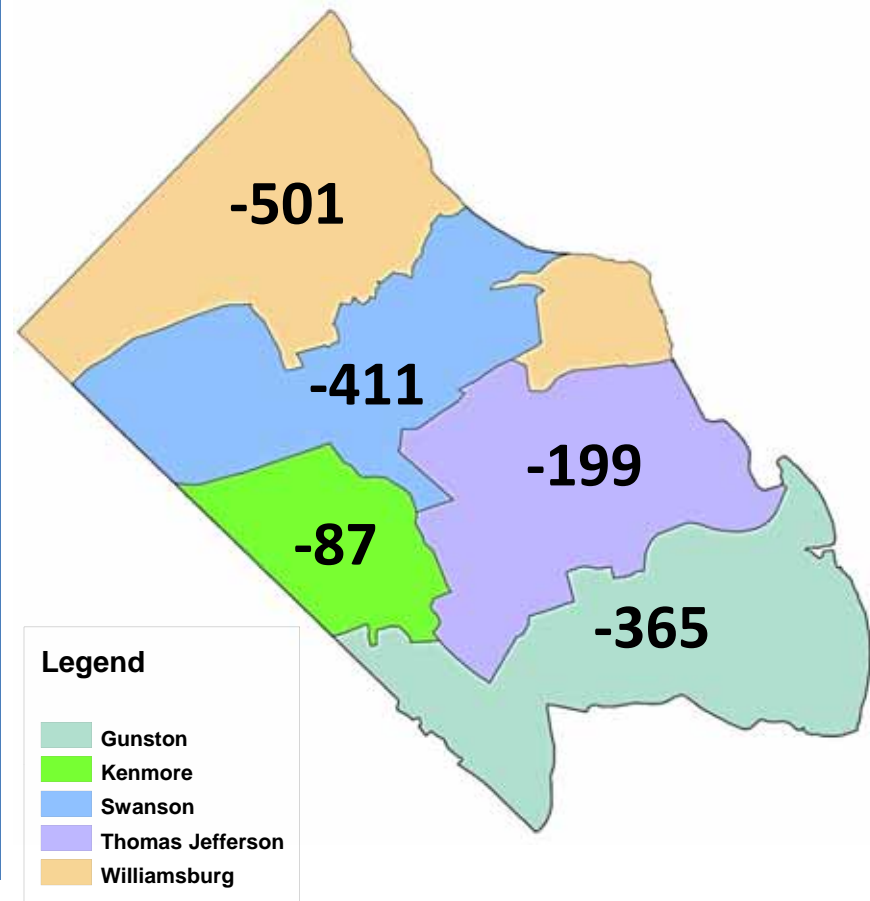
Note: HB Woodlawn, Stratford, Arlington Mill and Langston not included.

Middle School Seat Deficits

Projected 2018/2019

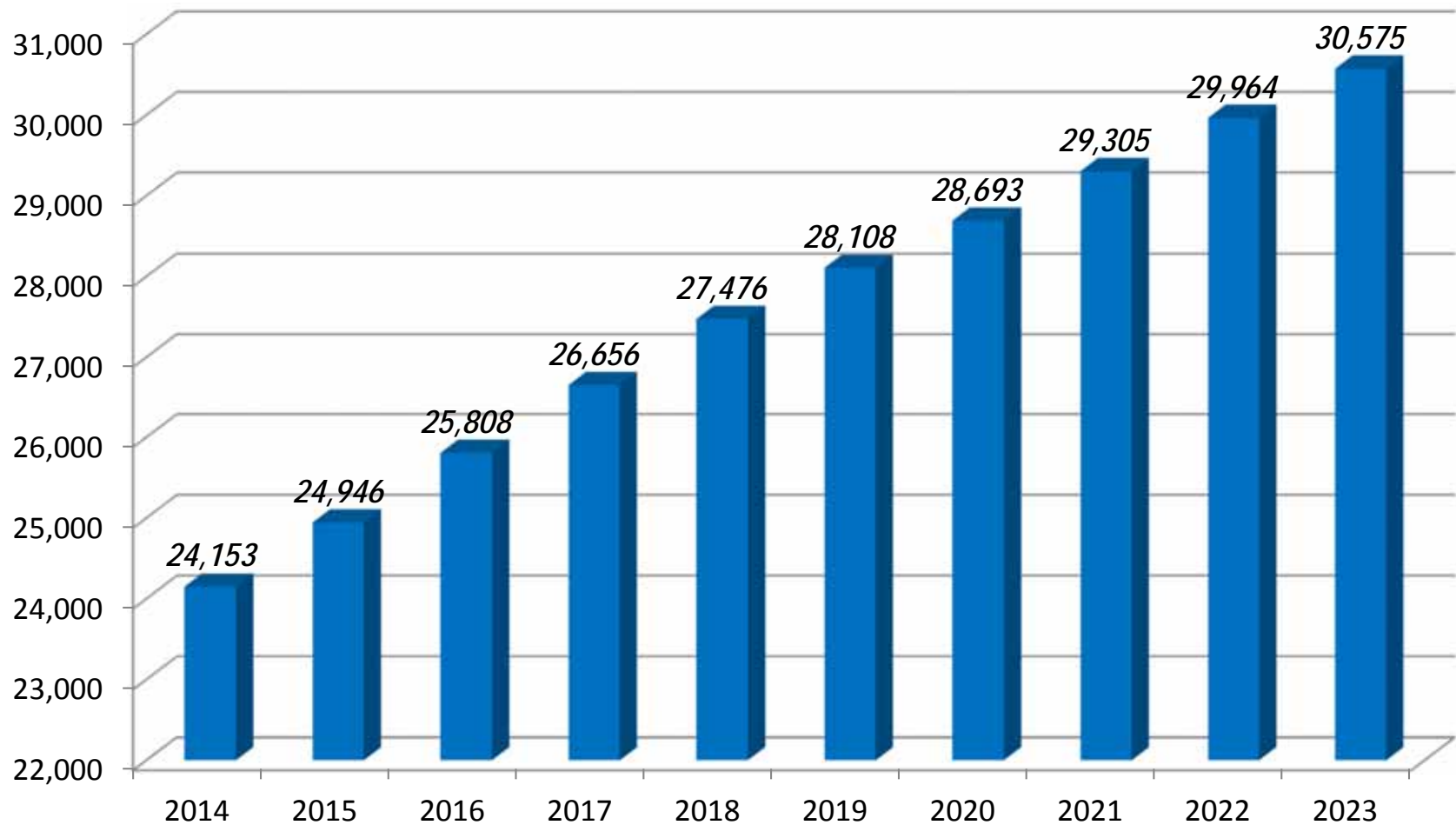


Projected 2023/2024



Note: Building Capacity excludes relocatables (FY14) and 27 seats needed at HB-Woodlawn and Stratford.

Ten Year Enrollment Projections



High School Baseline Data

School	Building Area	Capacity	Comments
Wakefield HS	403,940 SF	1,903	
Washington-Lee HS	362,673 SF	1,908	8 relocatables
Yorktown HS	388,946 SF	1,879	
Stratford/HB Woodlawn Site	140,603 SF	611	Plus Stratford Program



Middle School Baseline Data

School	Building Area	Capacity	Comments
Gunston MS	209,212 SF	932	
Jefferson MS	219,070 SF	982	1 relocatable
Kenmore MS	206,188 SF	985	
Swanson MS	132,158 SF	948	4 relocatables
Williamsburg MS	170,865 SF	997	8 relocatables
Possible Wilson Secondary Seats	200,000-250,000 SF	Up to 1,300	



Potential Community Amenities

- Exterior Community Amenities
 - Multipurpose turf field
 - Open general green space / plaza area
 - Rooftop basketball courts, tennis courts, open play area, etc.
- Interior Community Amenities
 - Gymnasium, fitness center, auditorium, library, multipurpose room, computer labs, and classroom areas

Site Photos: 8:00-8:30 am



Quinn St. & 18th St



Clarendon Blvd.



Quinn St. & Wilson Blvd.



Pierce St.

Middle Schools - APS GO!

Multimodal Access Survey Results

Mode	Gunston	Jefferson	Kenmore	Swanson	WMS	Average for 1,300 Students
Bus	56.7%	31.5%	42.8%	31.1%	48.5%	42.12% 548
Car	15.2	21.5	26.4	27	30.7	24.16% 314
Walk	20.7	32.9	21.9	32	12.5	24% 312
Bike	1.2	10.1	.5	4.7	1.7	3.64% 47
Carpool	6.1	2	3.5	4.9	5.9	3.51% 45
Transit	-	2	3	-	.3	1.06% 14
Other	-	-	2	.3	-	.46% 6

Secondary Schools - APS GO!

Multimodal Access Survey Results

Mode	MS Average	HS Average	Secondary School Average for 1,300 Students
Bus	42.12%	36.4%	39.26% 510
Car	24.16%	35.4	29.78% 387
Walk	24%	16.67	20.37% 265
Bike	3.64%	2.27	2.96% 38
Carpool	3.51%	6.07	4.79% 62
Transit	1.06%	2.2	1.63% 21
Other	.46%	1.03	.75% 10

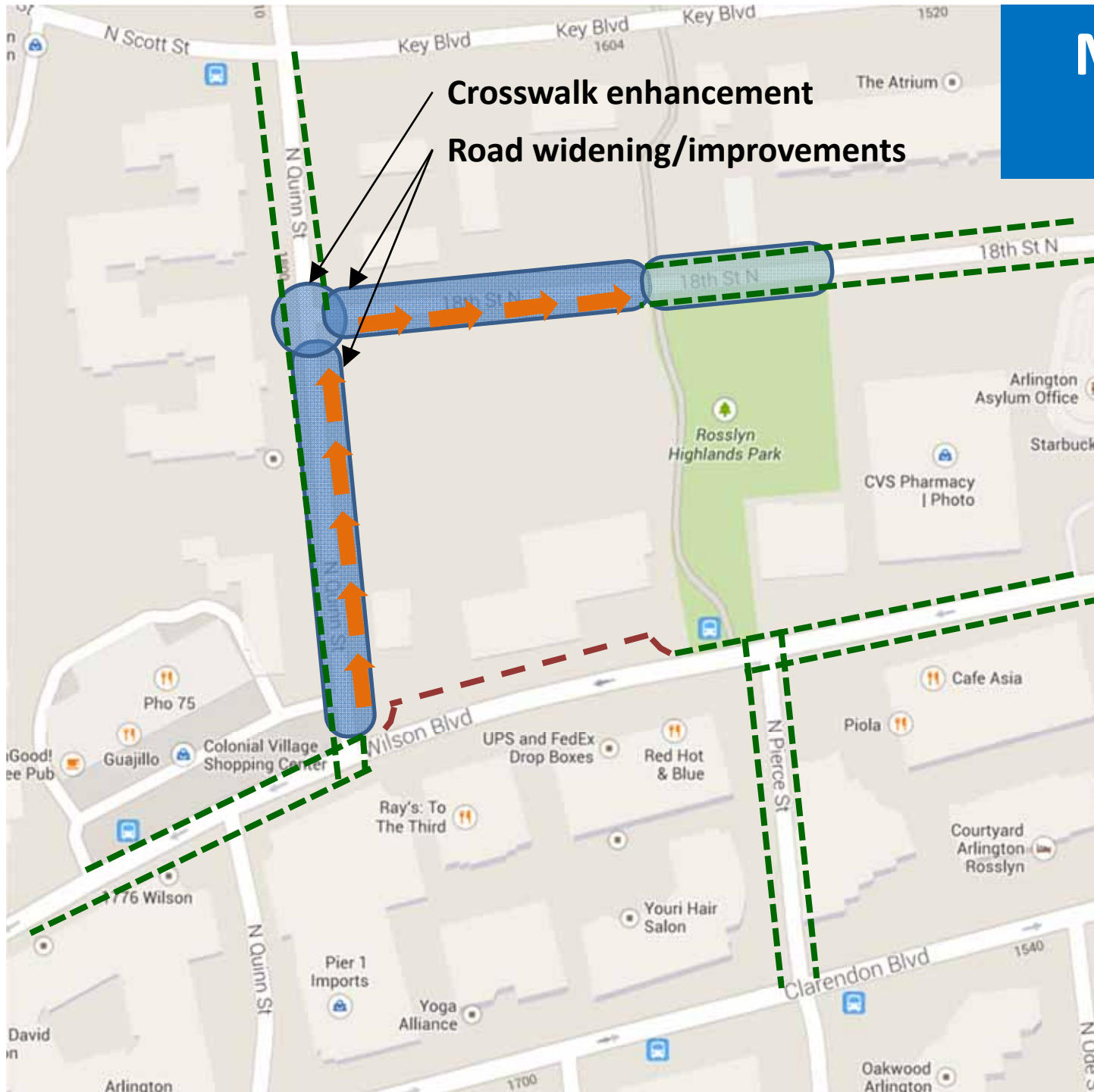
Possible Bus Ridership

- Based on average assumption **+/- 550 students on school buses**
- Approximately **15 buses** required with an average of 37 (of 50 available seats) students per bus.

These assumptions are based on averaging results from **APS GO! surveys** of existing schools.



Multimodal Access



Crosswalk enhancement
Road widening/improvements

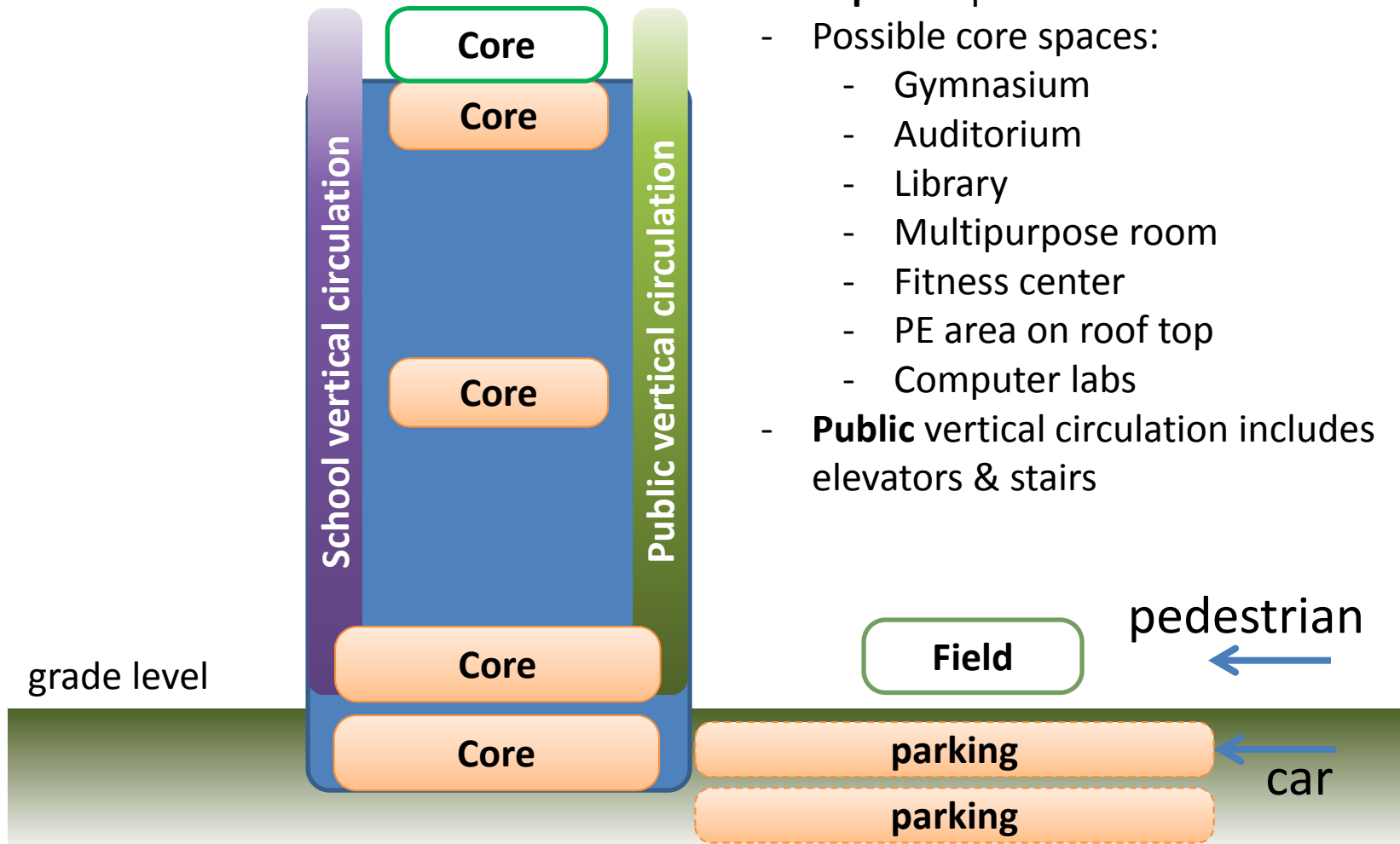
➔ Possible bus/vehicular drop off/pick up

--- Pedestrian safety routes

--- Possible parent drop off/pick up

🚌 Public transportation

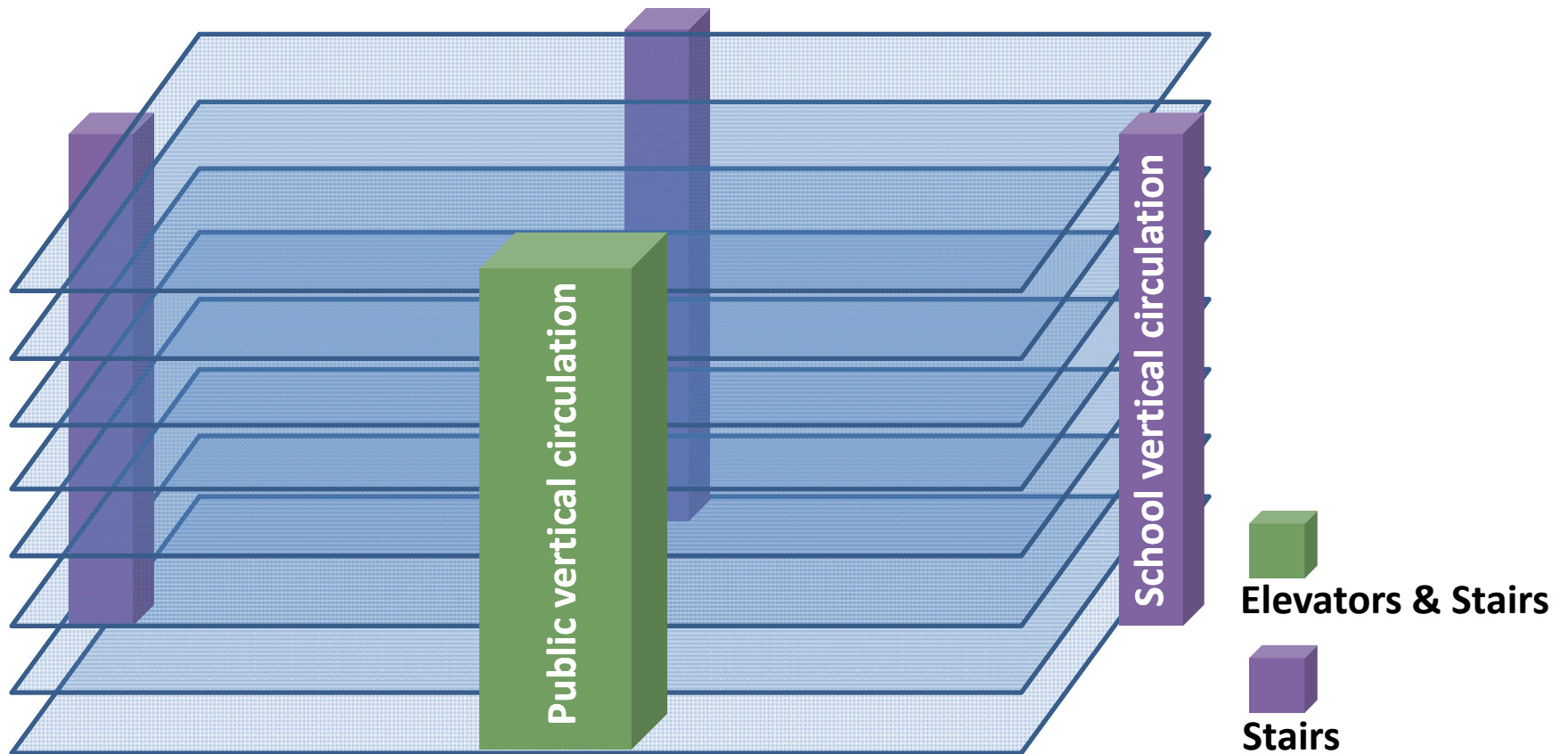
Space Layout – Section View



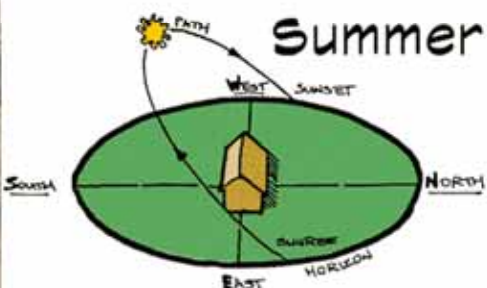
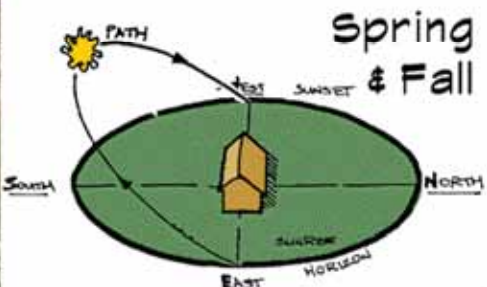
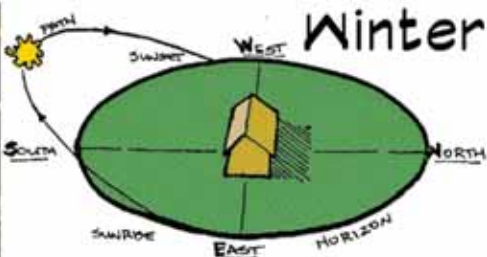
- **Separate** public and school circulation
- **Separate** pedestrian and car circulation
- Possible core spaces:
 - Gymnasium
 - Auditorium
 - Library
 - Multipurpose room
 - Fitness center
 - PE area on roof top
 - Computer labs
- **Public** vertical circulation includes elevators & stairs

Vertical Circulation

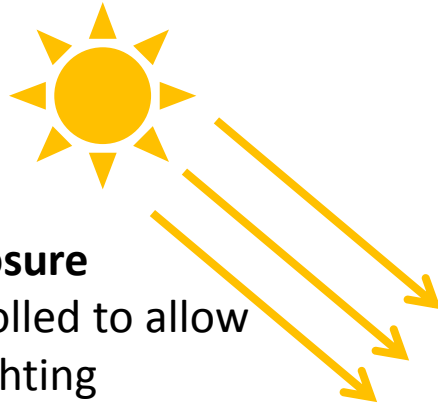
Primary student circulation - **stairs**



Solar Orientation



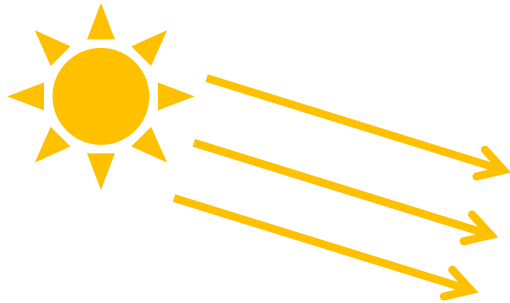
Sun Shade Studies



Southern exposure

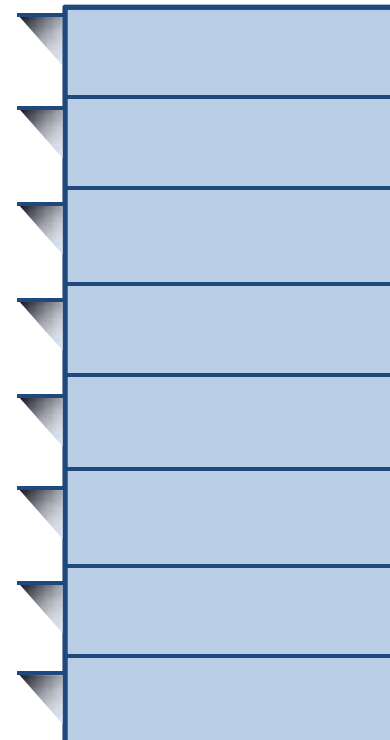
- Can be controlled to allow optimal day lighting

Appropriate **day lighting** increases student performance by **20%**!



East / west exposure

- Cannot be controlled
- Allows unwanted heat gain
- Shades are required (down 30-50% of day)



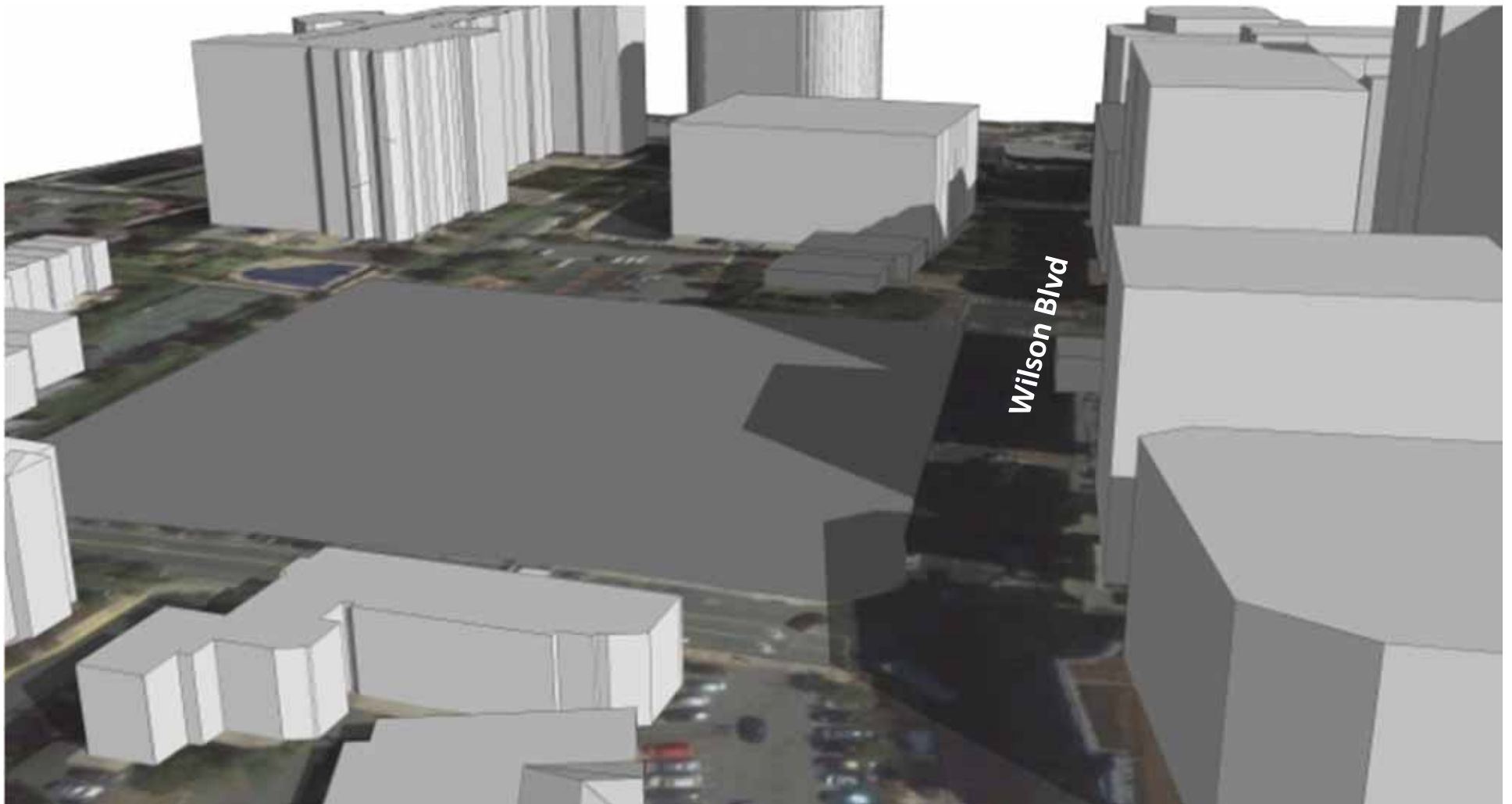
Sun Shade Studies – 9am, January 21



Sun Shade Studies – 12pm, January 21



Sun Shade Studies – 2pm, January 21



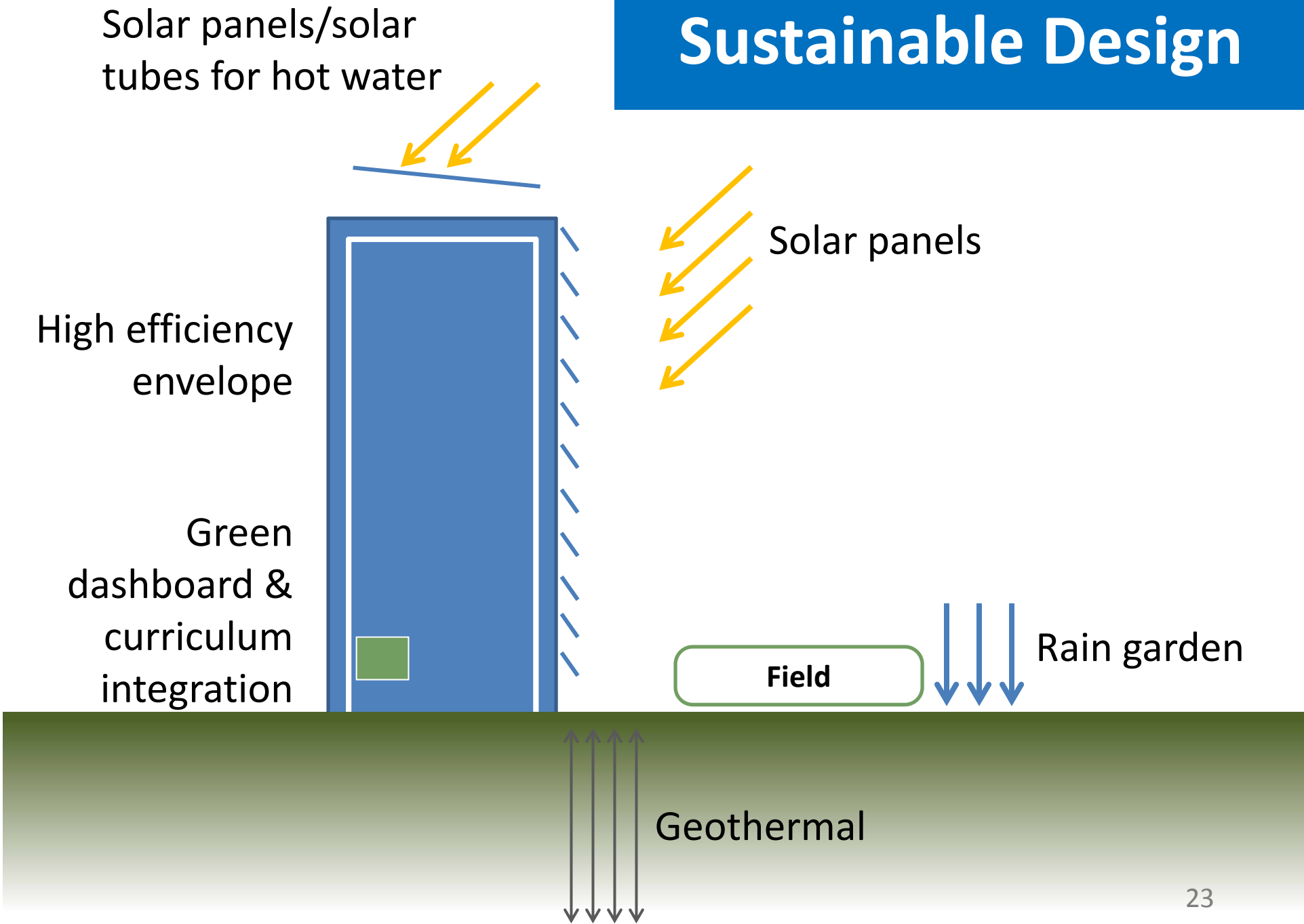
Building Location

Building will be facing south for maximizing solar shade and optimal **day lighting** for instructional spaces

Southern solar exposure



Sustainable Design



APS Commitment to Sustainability



Recent schools:

- Wakefield High School: LEED® Gold approaching Platinum
- Yorktown High School: LEED® Gold
- New Elementary School @ Williamsburg campus: LEED® Gold approaching Platinum



Thank You

