



FALLS CHURCH SCHOOL SITE CAPACITY STUDY

SEPTEMBER 25, 2014



Summary

1. Purpose of the Study

- Optimize proposed high school facilities in coordination with existing middle school
- Identify the cost benefit tradeoffs associated with locating commercial development on site
- Explore alternate configurations to identify access, phasing, and facility organizational issues
- Describe options for locating school system facilities, i.e. tennis, parking, and commercial development.

2. Scope of Work

- Site Analysis:
 - Zoning, Topography, Land use, Vehicular and Pedestrian connectivity
- Test Fit:
 - High School Configuration Alternatives
 - Commercial Parcel Configuration Alternatives

3. Work Product Utilized

- In upcoming ULI TAP
- In future development of small area plan
- In school replacement public process



Existing High School	4 Acre
Existing Middle School	1 Acre
Existing Athletics Fields	9.5 Acre
Existing Parking	2.8 Acre
Bus Storage	0.4 Acre
Mulch Pile	0.5 Acre
Open Spaces, Roads, Service Areas, Pump Station...etc	17.8 Acre
Total	36 Acre
Owned by City of Falls Church	2.4 Acre

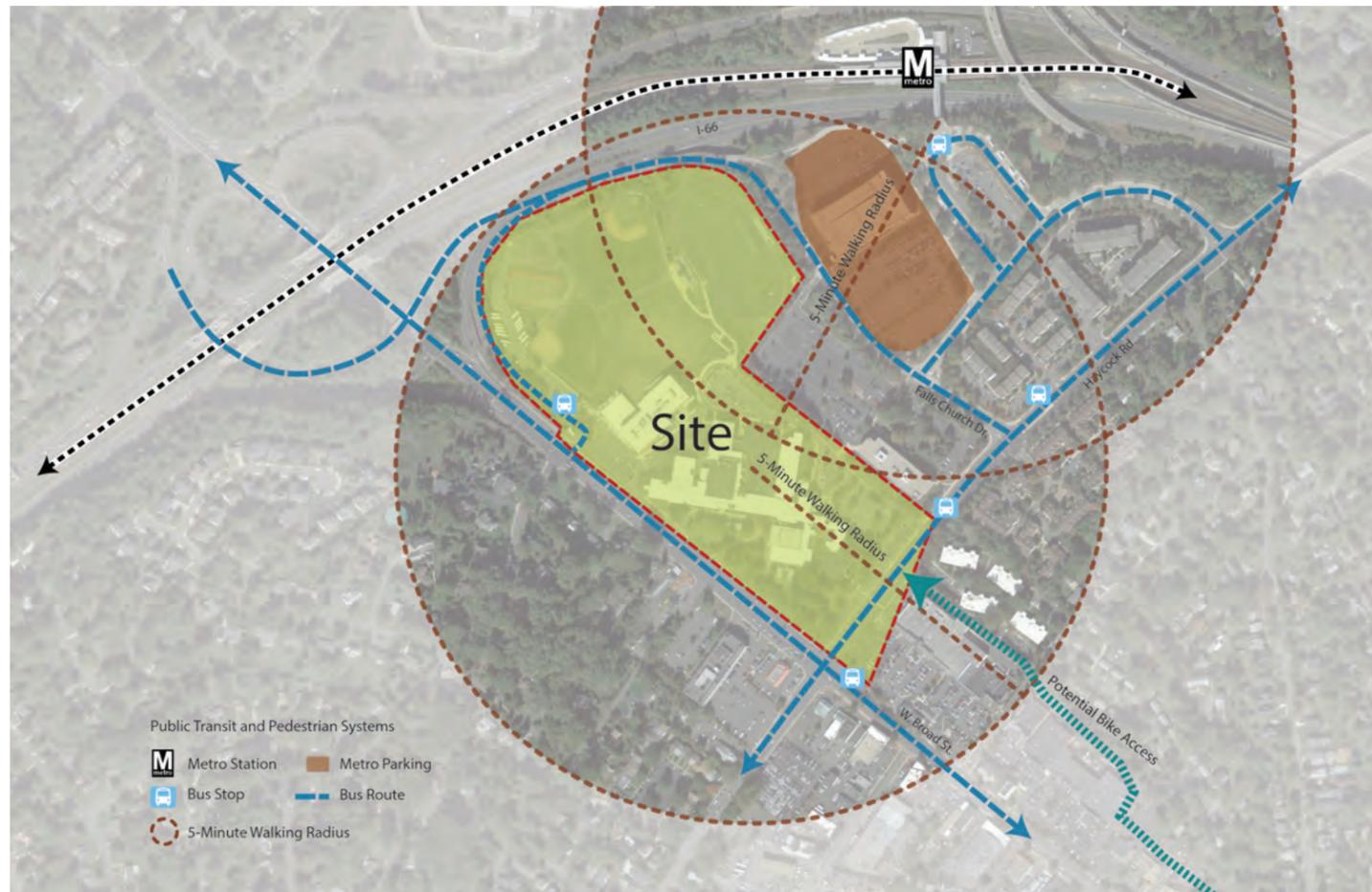
Findings:

- Public facilities under utilized for development.
- Falls Church West Broad Street zoning to extend northward.
 - Potential for commercial form and density.
- Fairfax County mixed use area doesn't achieve full potential.
- Irregular geometries result in site layout inefficiency.
- No functional synergy between existing middle school and high school
- Non-academic functions (mulch piles and bus storage) under utilize site area.
- No synergy with adjacent land uses.

Existing Land Use Designation

Fairfax County	Falls Church
Residential 1-2 DU/AC	Residential
Residential 2-3 DU/AC	High Density Residential
Residential 4-5 DU/AC	
Residential 5-8 DU/AC	
Residential 8-12 DU/AC	
Mixed Use	Business
Office	
Retail and Other	
Public Facilities	

* DU/AC means dwelling units per acre



Existing Public Transportation



Existing Topography

Findings:

- Falls Church West Broad Street commercial corridor is within 5-minute walking distance of Metro station.
- Site will be served by existing county bus networks with 5 stops.
- Haycock overflow impacts adjacent residential communities.
- Site access for service to UVA/Virginia Tech facility must be maintained
- No vehicle access at the intersection of W. Broad Street and Haycock Rd.
- W. Broad Street access is not optimized:
 - North bound traffic right in/right out
 - South bound traffic: non-signalized left turn across median.
- Existing high school sits on the highest point of the site.
- There is 30 foot difference between high school and adjacent shopping center.
- Current configuration of facilities do not integrate with topography.
- North side of site steps down in 10' intervals.
- Future programming coordinates with topo
 - parking structure (10' floor-to-floor)
 - academic facilities (14' to 15' floor-to-floor)

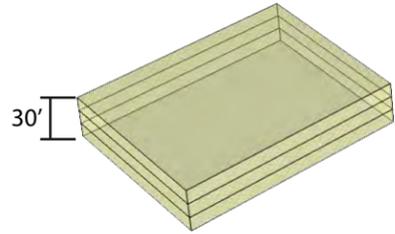


Academic
24.2 Acre (70%)



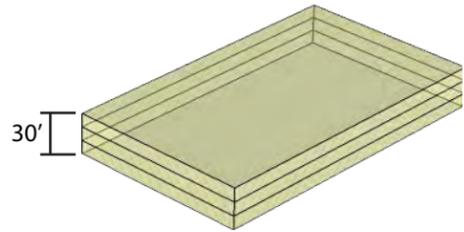
Commercial
10.4 Acre (30%)

1. Current George Mason High School operates over capacity.
2. School configuration presents operational challenges.
3. New program reflects 1,500 student capacity.
4. Program assumptions derive from "George Mason High School Architectural Assessment".



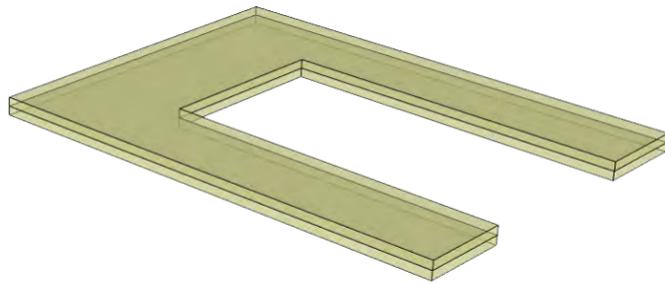
Auditorium, Stage and Support:
19,050 sf

+



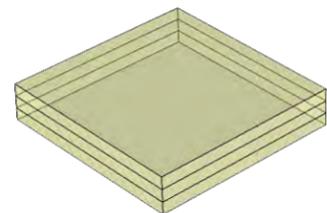
Gymnasium Facility:
30,230 sf

+



Academic (classrooms, admin-
istration, library, cafeteria....etc:
270,720 sf

Total: 320,000 gsf



Swimming Pool: 22,800 sf





- No phasing conflict
- No relocation is required
- Existing athletic field will be affected
- School buses need to use alternative route



- Scenario 1:
- Two phases construction
 - No relocation is required
 - Existing athletic field will be affected
 - School buses need to use alternative route

- Scenario 2:
- One phase
 - Temporary relocation is required
 - Existing athletic field will be affected
 - School buses need to use alternative route



- Two phases construction
- Minor relocation of 8-10 classrooms is required
- Existing athletic field will not be affected
- School buses need to use alternative route



- No phasing conflict
- No relocation is required
- Existing athletic field will not be affected
- School buses maintain existing route

	Existing	Option 1
		
Program	Area (Acre)	Area (Acre)
Athletics Area	14	12.9
Parking Structure (Below Athletics Fields)	0	600 spaces
Proposed High School	4 (1 story)	2.6 (6/3 stories)
Existing Middle School	1	1
School Courtyard	0	0
School Reserved Area	0	0
Roads, Service, Buffer, Surface Parking...etc.	15.6	7.7
Subtotal Academic Area	34.6 100%	24.2 70%
Subtotal Commercial Area	0 0%	10.4 30%
Site Area	34.6	34.6



1. 30% Commercial Parcel
 2. Construction and Operational Phasing Considerations
 3. Consolidated School
 4. School 6/3 Floors
 5. Tennis and Pool in Deck
 6. 600 Parking Spaces
- More expensive deck to accommodate athletic facilities.
Deck can increase to support university site parking requirement

	Existing	Option 2
		
Program	Area (Acre)	Area (Acre)
Athletics Area	14	16.6
Parking Structure (Below Athletics Fields)	0	514 spaces
Proposed High School	4 (1 story)	1.8 (5 stories)
Existing Middle School	1	1
School Courtyard	0	0.9
School Reserved Area	0	0
Roads, Service, Buffer, Surface Parking...etc.	15.6	3.9
Subtotal Academic Area	34.6 100%	24.2 70%
Subtotal Commercial Area	0 0%	10.4 30%
Site Area	34.6	34.6



1. 30% Commercial Parcel
2. No Phasing Conflict
3. Separate High School
4. School 5 Floors
5. Tennis and Pool in Deck
6. 514 Parking Spaces
7. Through Access Road

	Existing	Option 3
		
Program	Area (Acre)	Area (Acre)
Athletics Area	14	16.1
Parking Structure (Below Athletics Fields)	0	545 spaces
Proposed High School	4 (1 story)	2.6 (4 Stories)
Existing Middle School	1	1
School Courtyard	0	0.3
School Reserved Area	0	0
Roads, Service, Buffer, Surface Parking...etc.	15.6	4.2
Subtotal Academic Area	34.6 100%	24.2 70%
Subtotal Commercial Area	0 0%	10.4 30%
Site Area	34.6	34.6



1. 30% Commercial Split Parcel A/B
2. No Phasing Conflict
3. Consolidated School
4. School 4 Floors
5. 545 Parking Spaces

	Existing	Option 4
		
Program	Area (Acre)	Area (Acre)
Athletics Area	14	11.6
Parking Structure (Below Athletics Fields)	0	600 spaces
Proposed High School	4 (1 story)	4 (4 Stories)
Existing Middle School	1	1
School Courtyard	0	0
School Reserved Area	0	2.7
Roads, Service, Buffer, Surface Parking...etc.	15.6	7.7
Subtotal Academic Area	34.6 100%	27 78%
Subtotal Commercial Area	0 0%	7.6 22%
Site Area	34.6	34.6



1. 22% Commercial Parcel
2. Phasing Conflict
3. Stretched School
4. School 4 Floors
5. 600 Parking Spaces
6. Potential for Future School Expansion

	Existing	Option 1	Option 2	Option 3	Option 4
					
Program	Area (Acre)	Area (Acre)	Area (Acre)	Area (Acre)	Area (Acre)
Athletics Area	14	12.9	16.6	16.1	11.6
Parking Structure (Below Athletics Fields)	0	600 spaces	514 spaces	545 spaces	600 spaces
Proposed High School	4 (1 story)	2.6 (6/3 stories)	1.8 (5 stories)	2.6 (4 Stories)	4 (4 Stories)
Existing Middle School	1	1	1	1	1
School Courtyard	0	0	0.9	0.3	0
School Reserved Area	0	0	0	0	2.7
Roads, Service, Buffer, Surface Parking...etc.	15.6	7.7	3.9	4.2	7.7
Subtotal Academic Area	34.6 100%	24.2 70%	24.2 70%	24.2 70%	27 78%
Subtotal Commercial Area	0 0%	10.4 30%	10.4 30%	10.4 30%	7.6 22%
Site Area	34.6	34.6	34.6	34.6	34.6

Largest Area
 Smallest Area

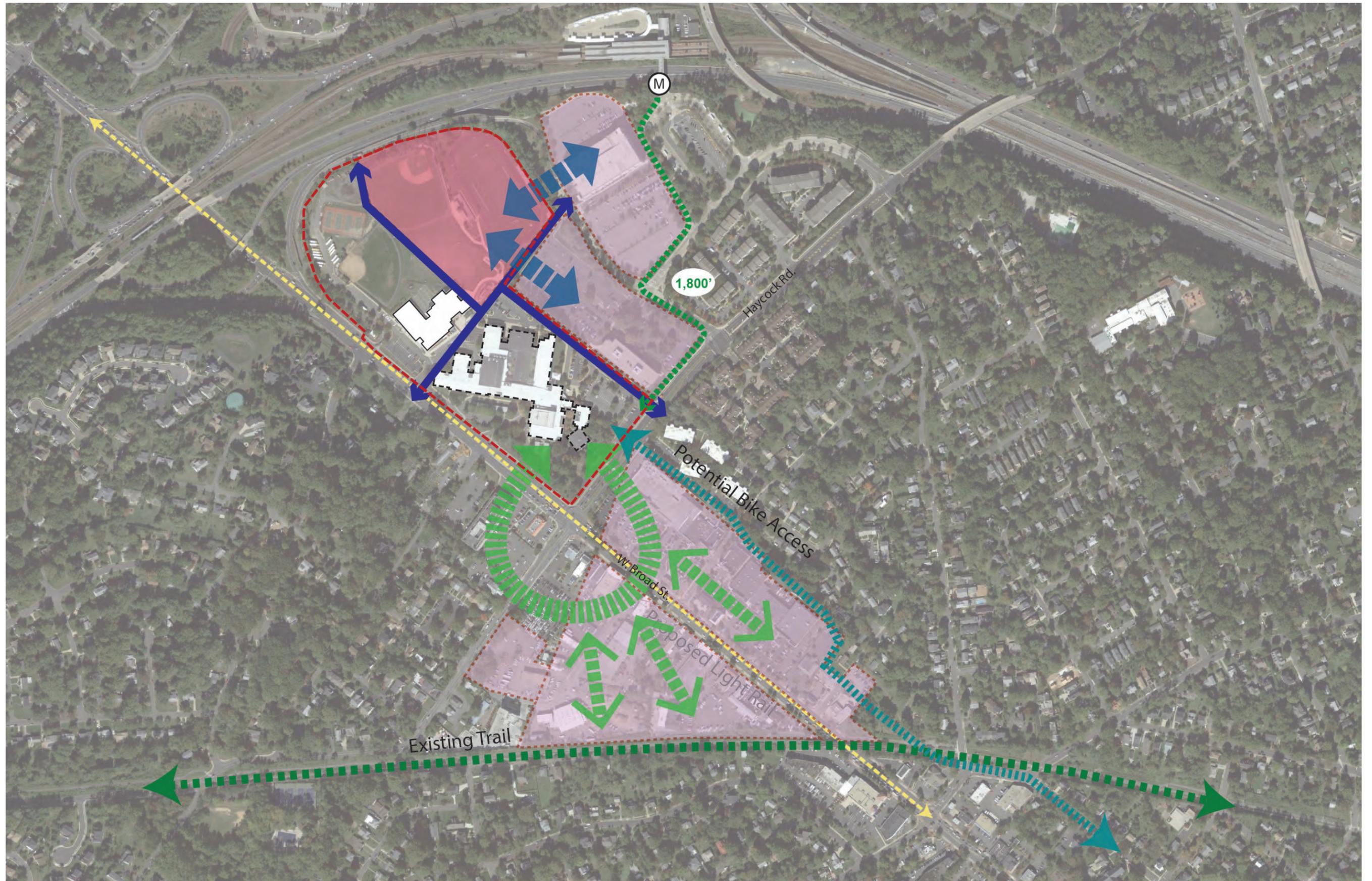
Findings:

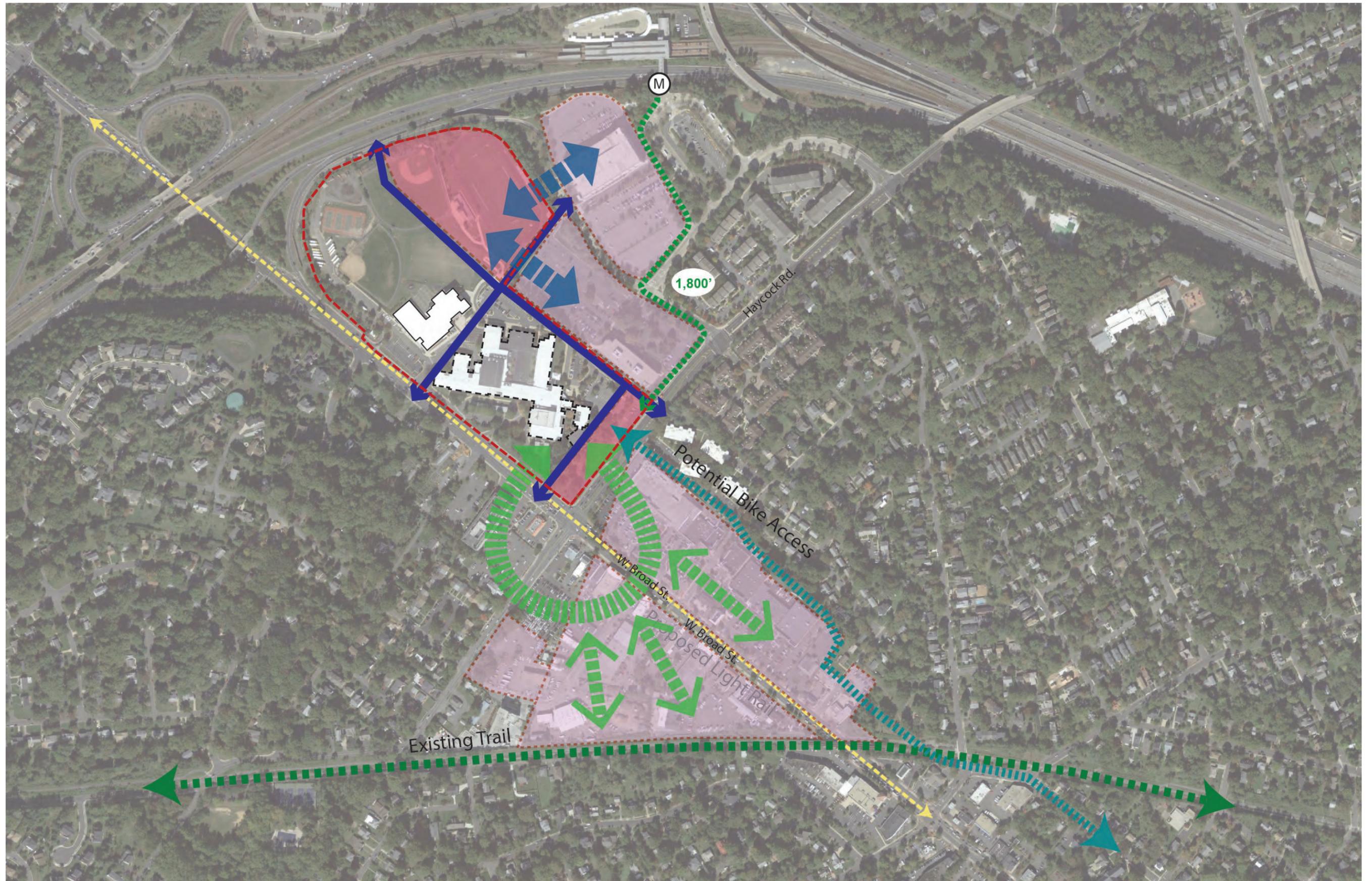
1. Returns from 30% commercial use justifies cost of academic vertical development.
2. High school increased in vertical development corresponds to decrease in footprint acreage.
3. Non-academic use, ie, school support and community facilities migrate off site to optimize site use.
4. Future growth of school population to 2,000 requires additional site resources.
5. Area for athletics increases to accommodate orientation and full sized playing fields.
6. Parking facility for academic use only, unless indicated



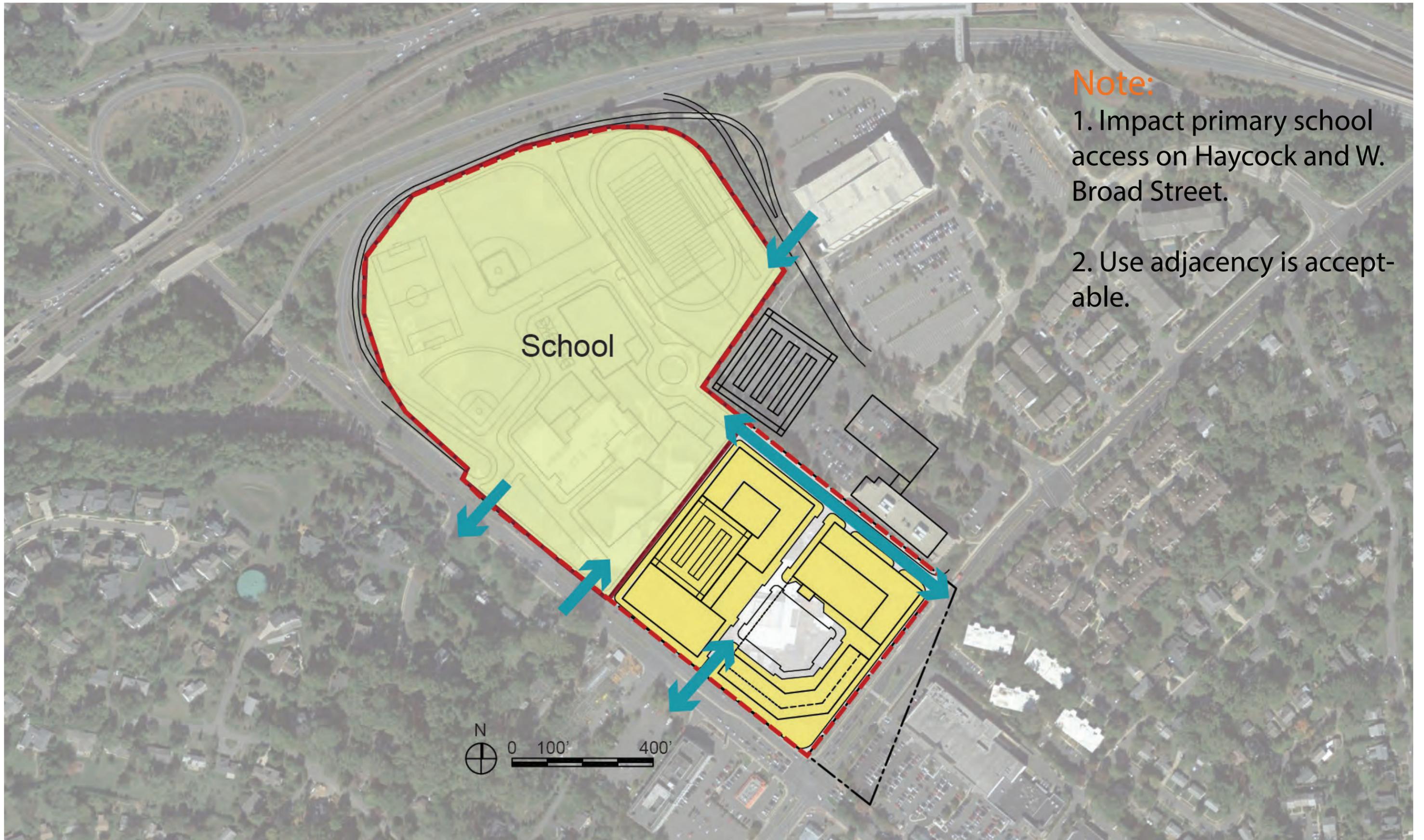
Findings:

- Consistency of current development massing and construction type.
- Trend of new development displacing low value uses along W. Broad Street corridor.
- Apartment sites are located south of school site.







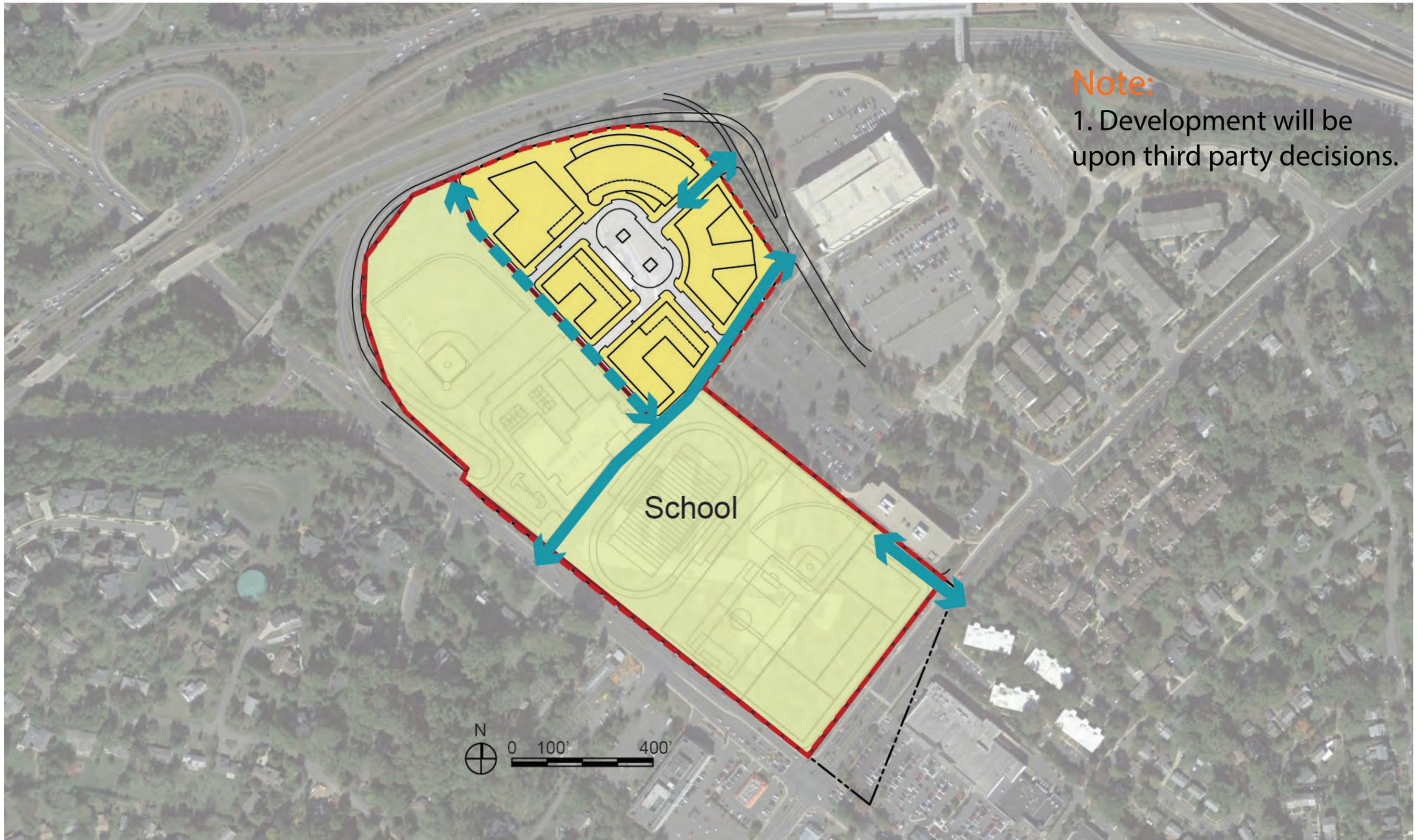


Note:

1. Impact primary school access on Haycock and W. Broad Street.

2. Use adjacency is acceptable.





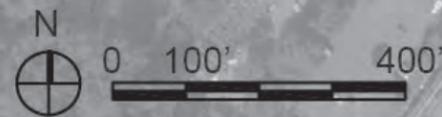
Note:
1. Development will be upon third party decisions.

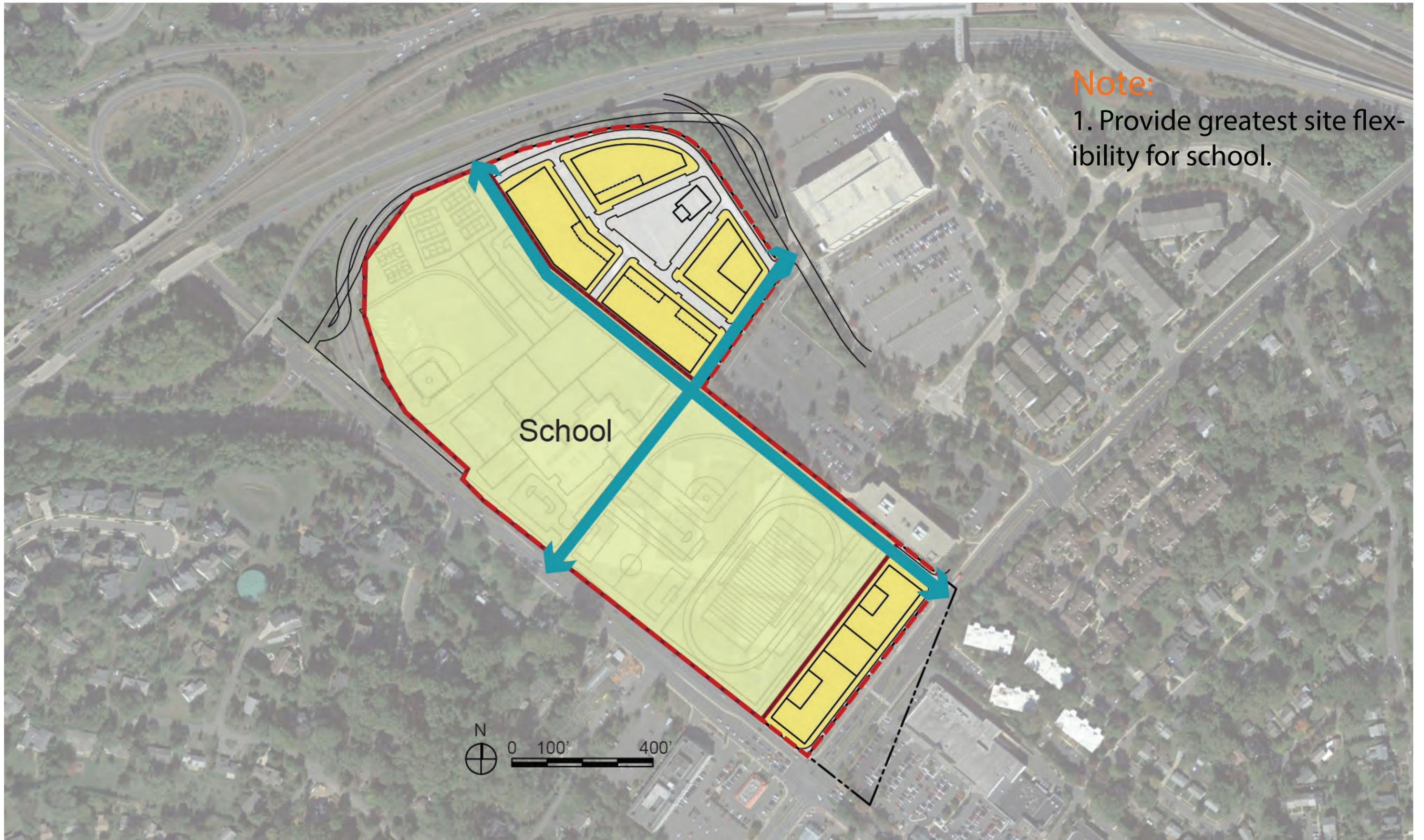


Note:
1. Development will be upon third party decisions.



- Future Commercial Development
- Educational
- Athletics
- Proposed School Building
- Existing School Building





Note:
1. Provide greatest site flexibility for school.



Option 1



Option 2A



Option 2B



Option 3

Findings:

1. Options 1 and 3 extend commercial activities from adjacent shopping areas, and could be catalytic in encouraging the redevelopment of those shopping centers.
2. Option 2A, 2B and 3 provide the opportunity for higher density TOD due to proximity to Metro station.
3. Each of the options could facilitate development opportunity of UVA/VT facility.

Thank You