

GREENE COUNTY PUBLIC SCHOOLS ADDITIONS + RENOVATIONS

BOARD OF SUPERVISORS UPDATE

11 July 2017



PROCESS GCPS PLANNING

2014

DEC Formation of Facilities Study Committee

2015

JAN-APR Definition of Scope of Study Requirements
Finalization of Request for Proposal (RFP)

MAY RFP – Put Out to Bid

JUN-JUL RFP Responses Reviewed

JUL-OCT Interviews of Finalist Firms + Selection of Winner

OCT Study Awarded

OCT-FEB Contract Negotiations

PROCESS FACILITIES ASSESSMENT STUDY

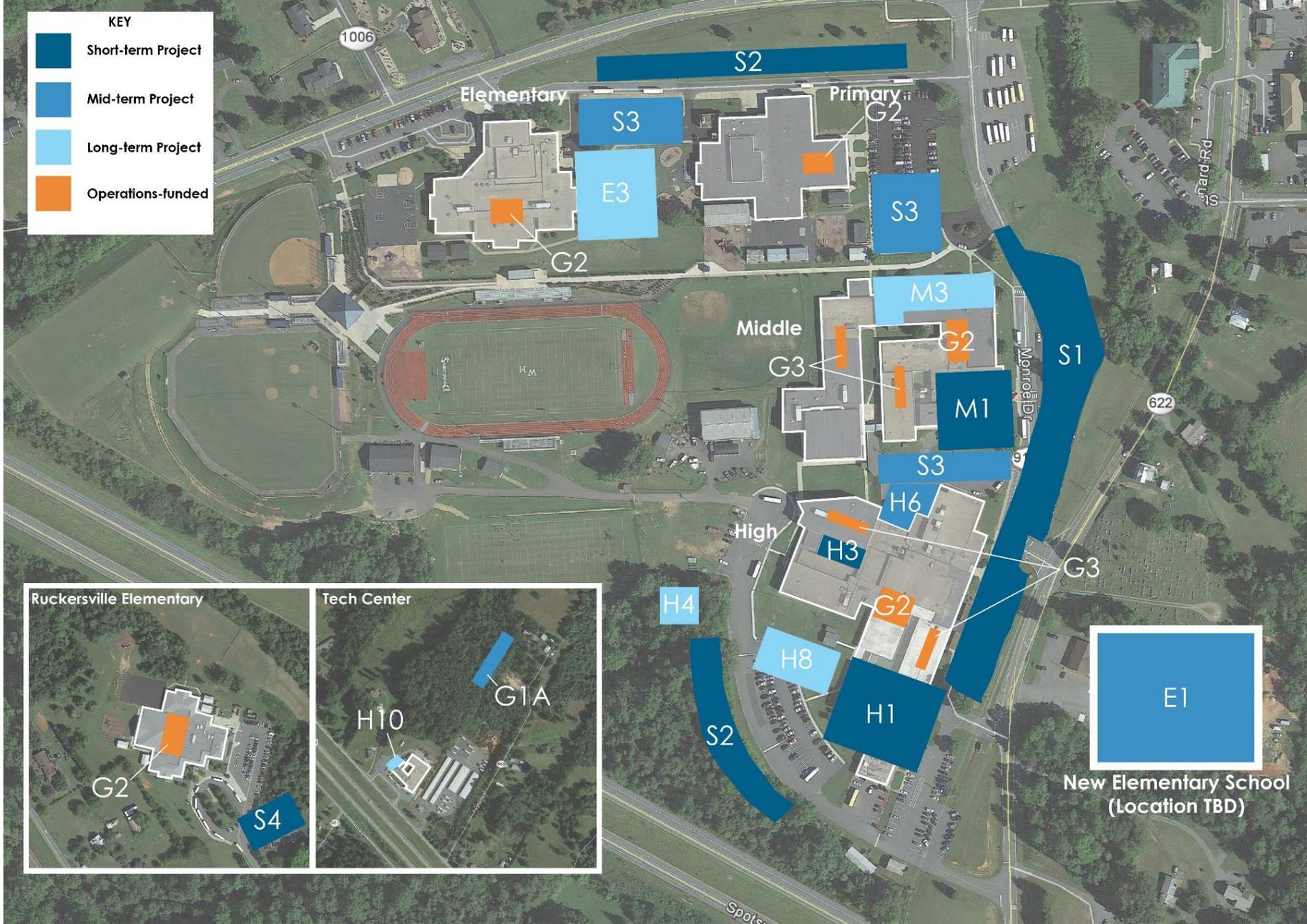
2016

FEB	09,16	Principal Meetings + Facilities Tours
APR	13	School Board Update
APR	27	Facilities Committee Meeting
MAY	16	Public Meeting 01
MAY	31	Meetings with Elem, Middle, High School Staff
JUL	20	Maintenance + Transportation Meeting
JUL	25	Food Service Meeting
AUG	03	Public Meeting 02
AUG	10	School Board Update

PROCESS FACILITIES ASSESSMENT STUDY

2016

SEP	16	School Board Update	Project Options
SEP	27	School Board / Board of Supervisors Workshop	Project Options
OCT	12	School Board Update	Project Prioritization
OCT	24	School Board / Board of Supervisors Workshop	Project Prioritization



CONCEPT STUDY: School Board Priorities + Recommendations

STUDY FINDINGS

- Every school approaching or over **CAPACITY**
- Every school lacking **QUALITATIVE PROGRAM** space to support education
- Middle School + High School **KITCHEN + DINING** spaces insufficient for current and growing enrollment; most kitchen equipment in district is nearing replacement
- Every school has **TRAFFIC + PARKING + SAFETY** issues

BOARD PRIORITIES

1. **Safety + Security**
2. **Increased Capacity (core program areas)**
3. **Flexible / Adaptable Learning Environments**
4. **Community Use + Access**

SHORT (HIGH PRIORITY)	H1A	HS Dining/Kitchen/Media	RANGE: \$16.7M - \$19.03M
	S1	Monroe Drive Reconfig	
	S2	WMHS + NG Parking	
	S4	Ruckersville Parking/Circ	
	M1A	MS Dining/Kitchen/Media	

* **H3 HS Courtyard Infill, inadvertently left out of Concept Design cost estimate range (\$1.29M)**

- | | | |
|-------------|------------|---|
| MID | E1 | New Elementary School |
| | H6 | HS Auxiliary Gym |
| | G1A | Central Operations Facility |
| | *S3 | Interior Landscaping & Walk Paths (Stanardsville) |
| LONG | H4 | AG/Shop Relocation |
| | H8 | HS Classroom Addition |
| | H10 | Tech Center Addition/Renovation |
| | M3 | MS Classroom Addition / Quad |
| | E3 | Combined NGES |

PROCESS SCHEMATIC DESIGN

JAN		Initial Site Survey + Geotechnical Analysis	
FEB	09	Owner Kick-off	
FEB	23	Principals Review	
FEB	27	Traffic, Circulation + Safety	Transportation Dept.
MAR	13,27	MS + HS User Workshops 01	Program, Innovation, + Visioning
MAR	29	Site Masterplan Update	Administration + Maintenance
MAY	04	Administrative Review	
MAY	10	School Board Update	Schematic Designs
MAY	30	MS + HS Teachers	
JUN	14	Preliminary Meeting w/ County Planning + VDOT	
JUN	14	School Board Update	Cost Estimates

SITE PROJECTS

LONG-RANGE SITE MASTERPLAN

S1 RE-CONFIGURATION OF MONROE DR.

S2 NEW PARKING – STANARDSVILLE

S4 NEW PARKING - RUCKERSVILLE

SITE GOALS

SAFETY + CIRCULATION

- **Clarify + separate** vehicular flows (car, bus, service) + **better define** drive aisles + parking areas; clearly **define pedestrian crossings**
- Remove bus + service vehicles from the fronts of schools – to **enhance identity and pedestrian safety + access.**

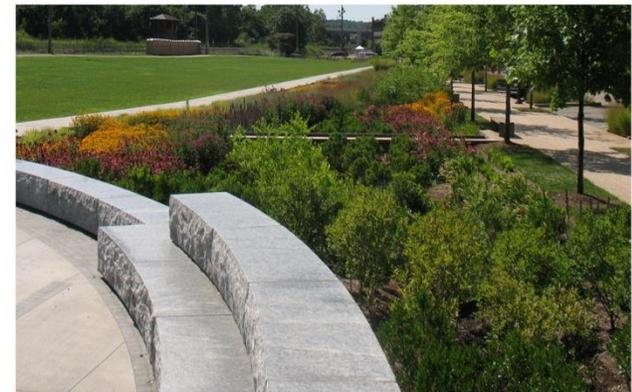
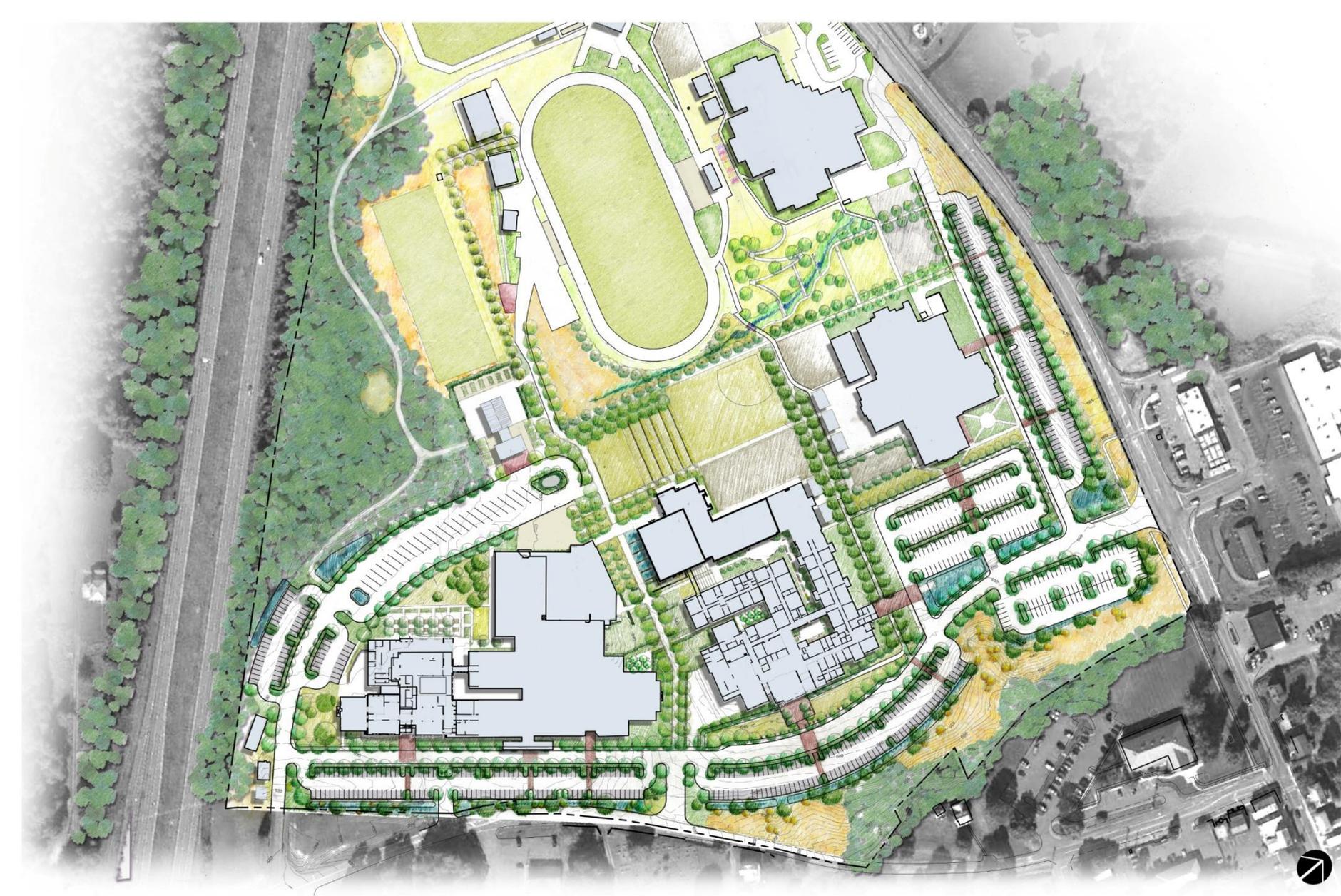
IDENTITY + CONNECTION

- **School + Campus Identity** can be improved through site moves
- Make the Stanardsville Campus **more green**, in the character of Greene County; create a **cohesive, integrated campus** feel
- Increase opportunities to **connect to the campus** through outdoor learning, recreation + athletic space
- Always strive for **integrated solutions** (stormwater, landscape, learning)

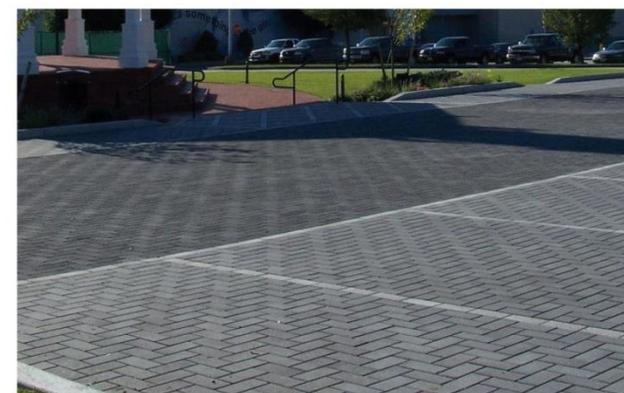
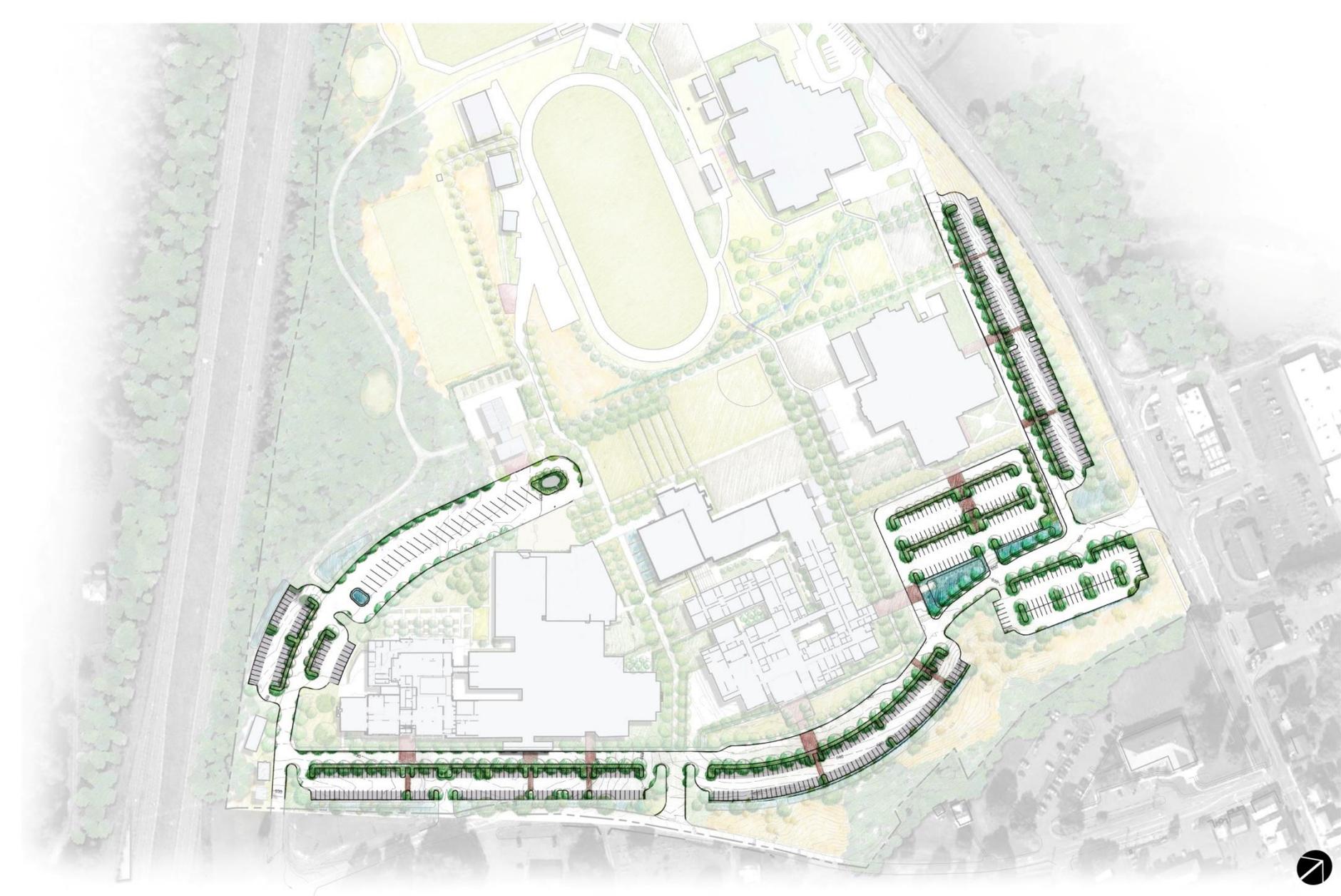
waterstreet studio



SITE MASTERPLAN
STANARDSVILLE CAMPUS



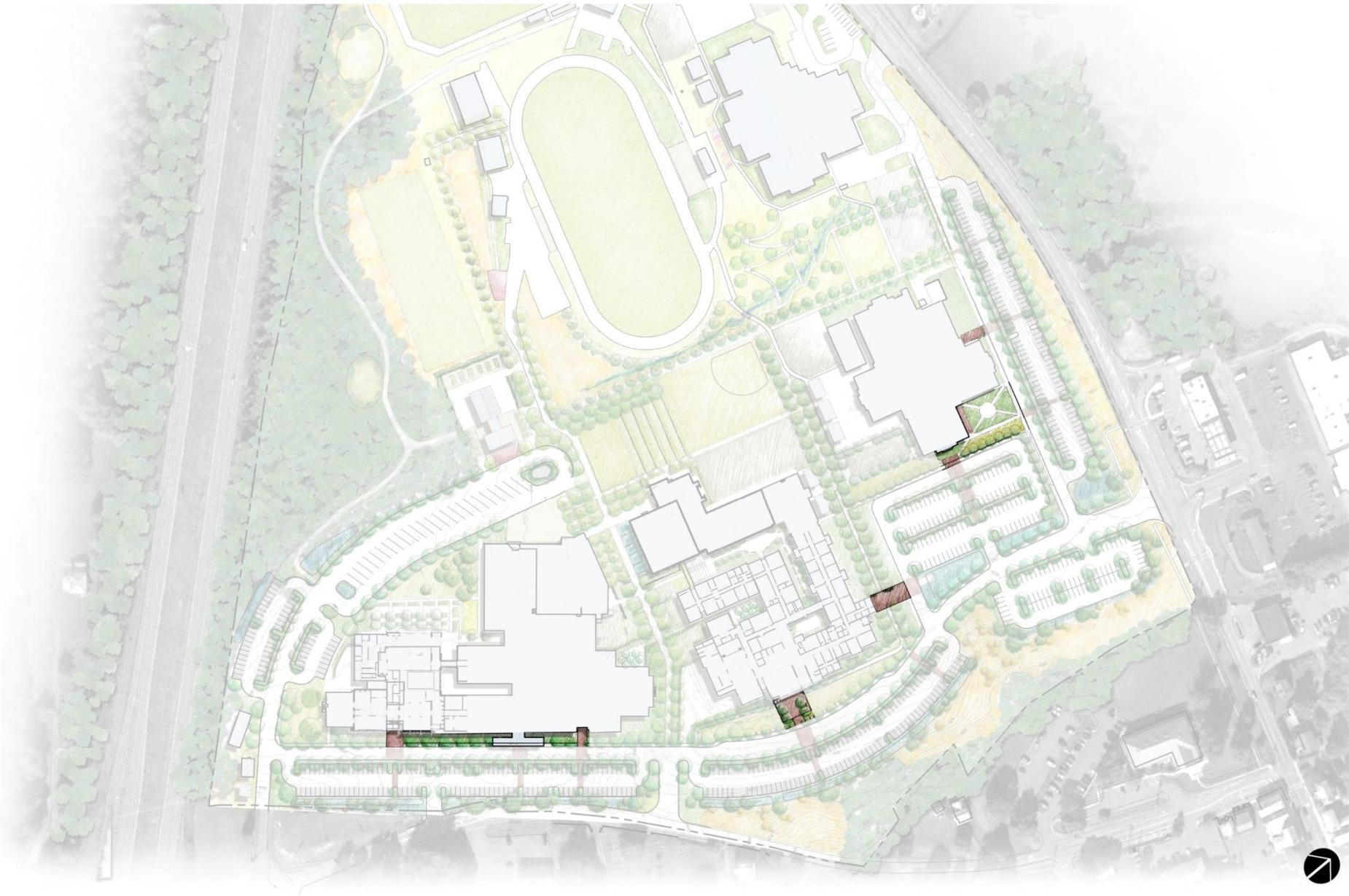
GARDENS + LANDSCAPE



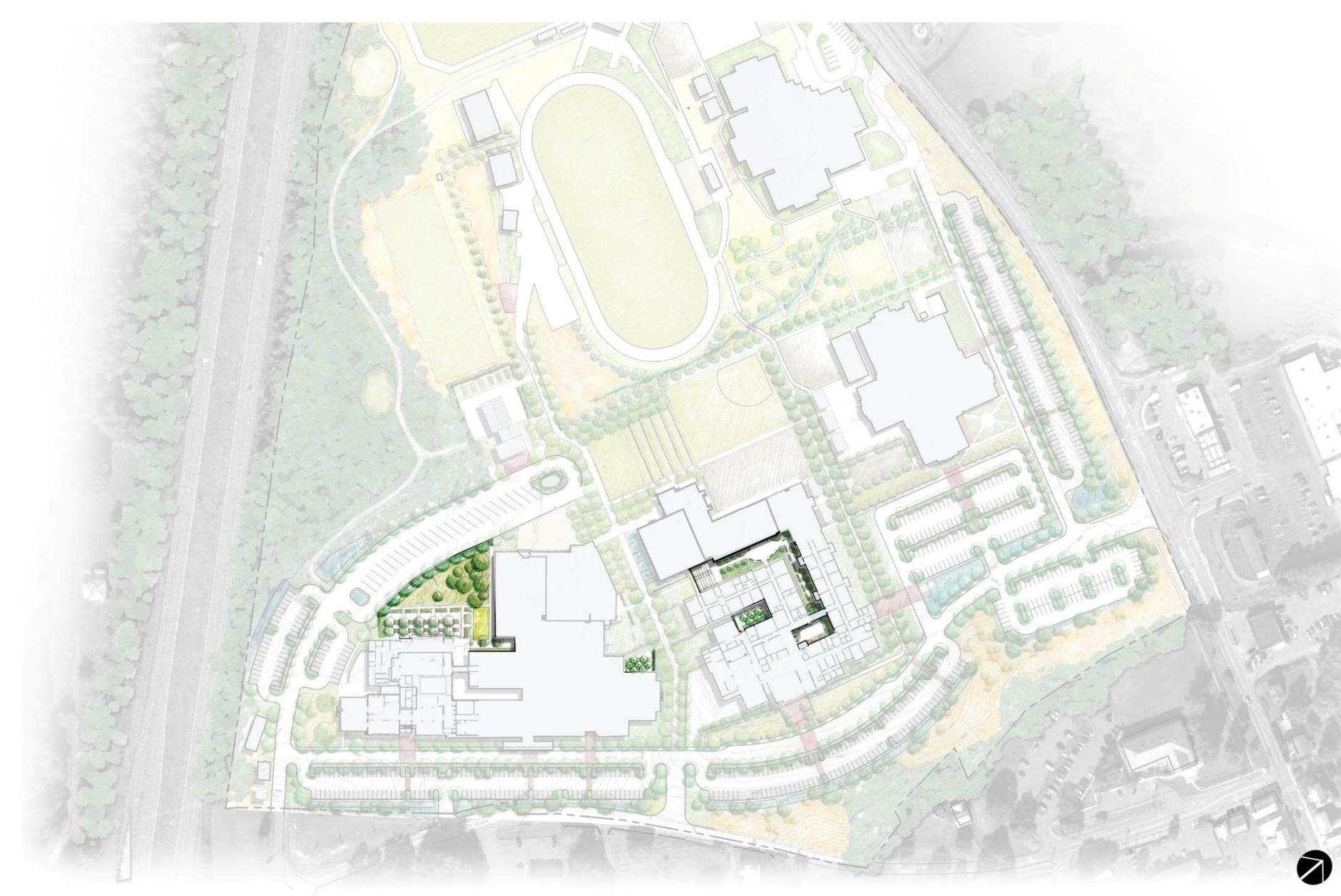
VEHICULAR IMPROVEMENTS + CIRCULATION/PARKING



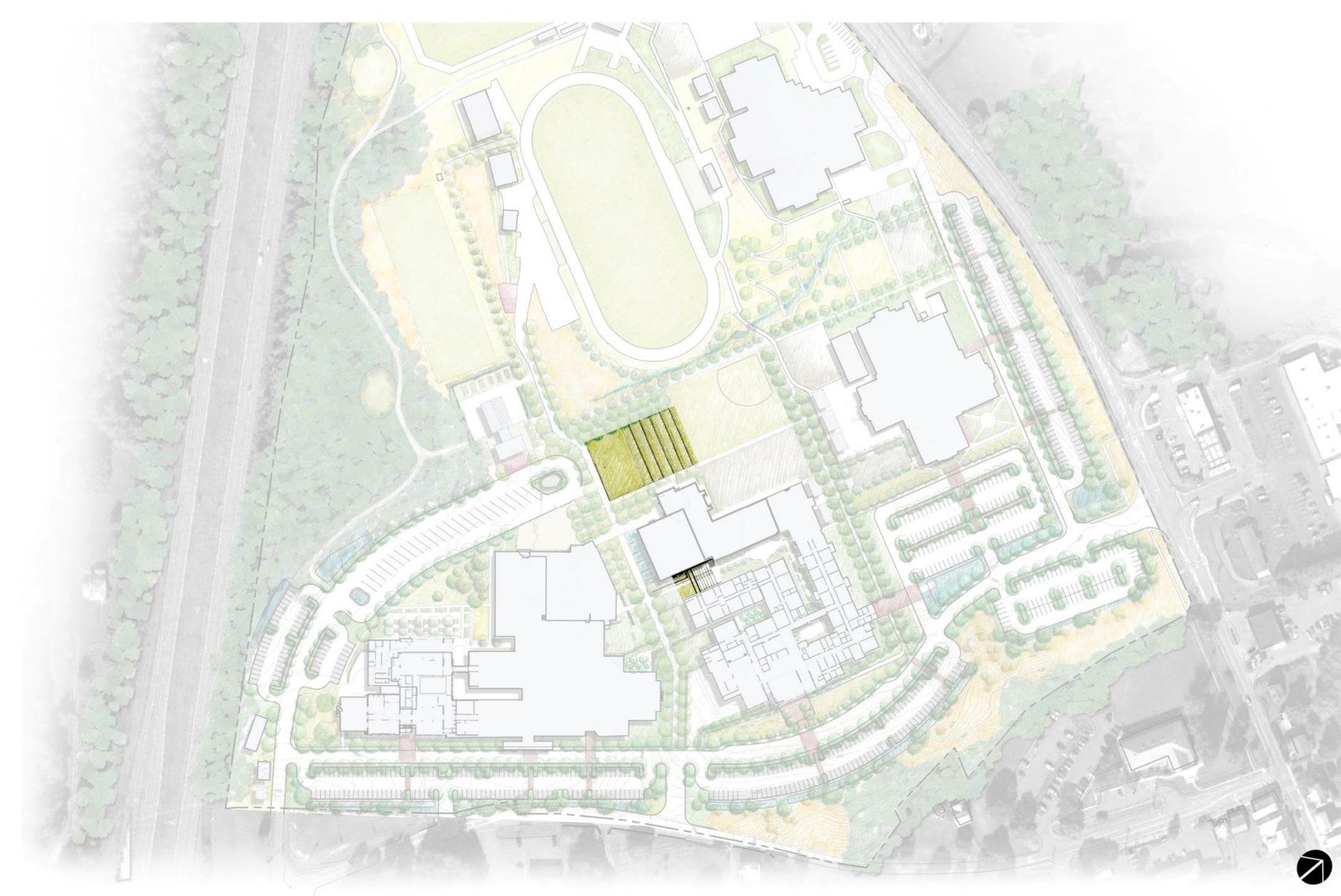
PEDESTRIAN IMPROVEMENTS + CIRCULATION



ENTRANCE TERRACES



COURTYARDS + OUTDOOR CLASSROOMS



AMPHITHEATERS

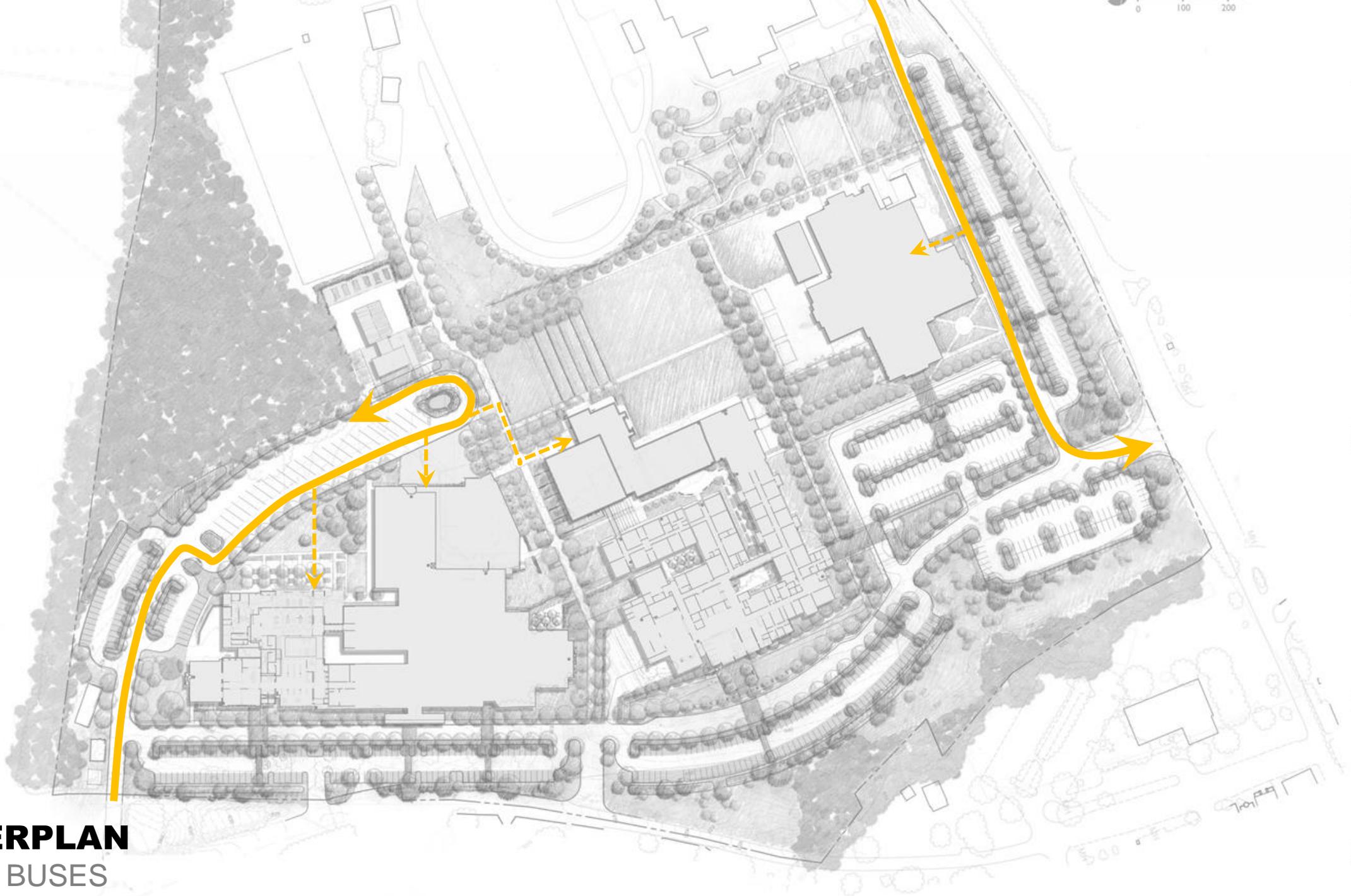


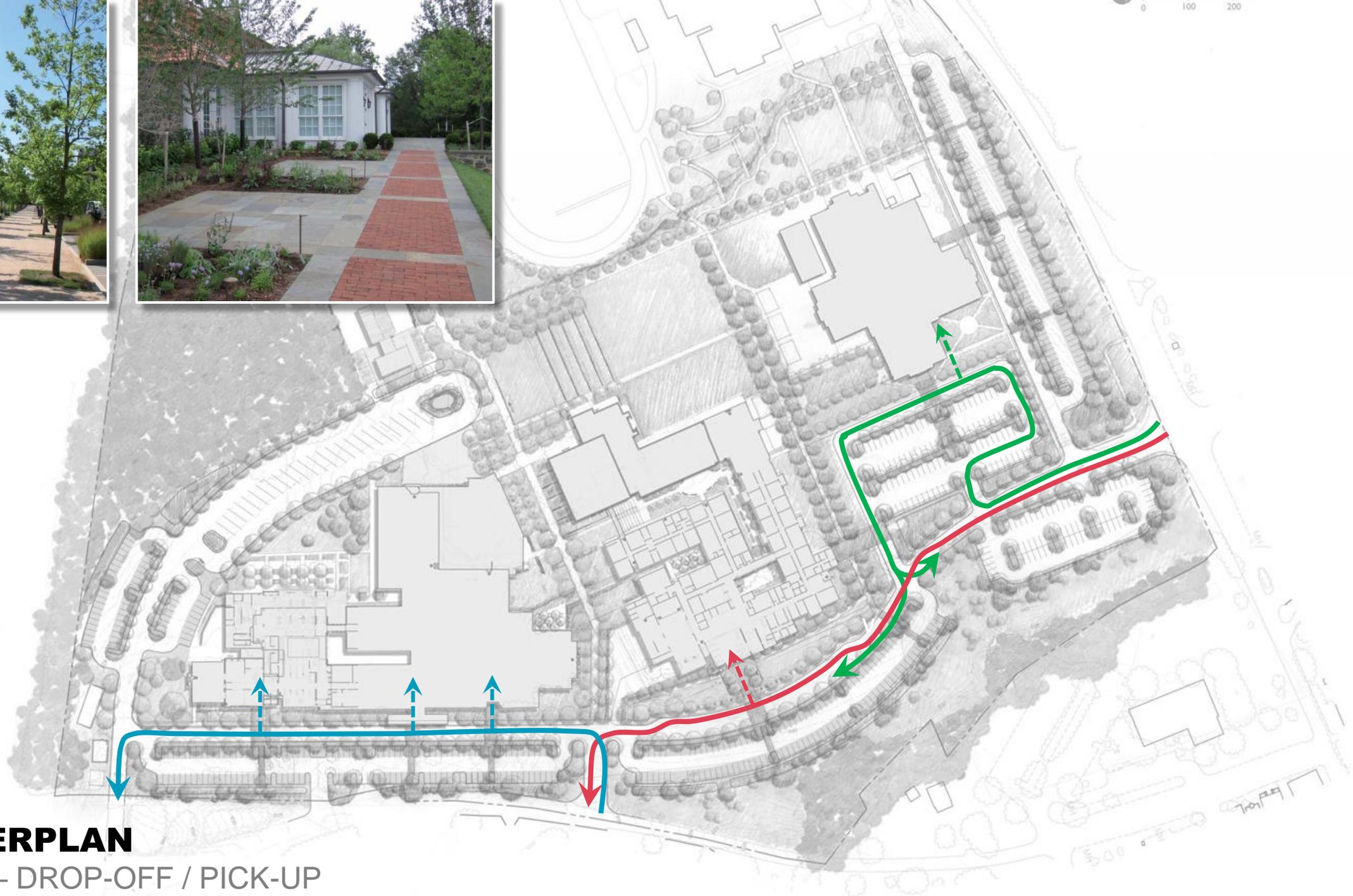
AGRICULTURE FACILITY + KITCHEN GARDENS



STORMWATER INFRASTRUCTURE

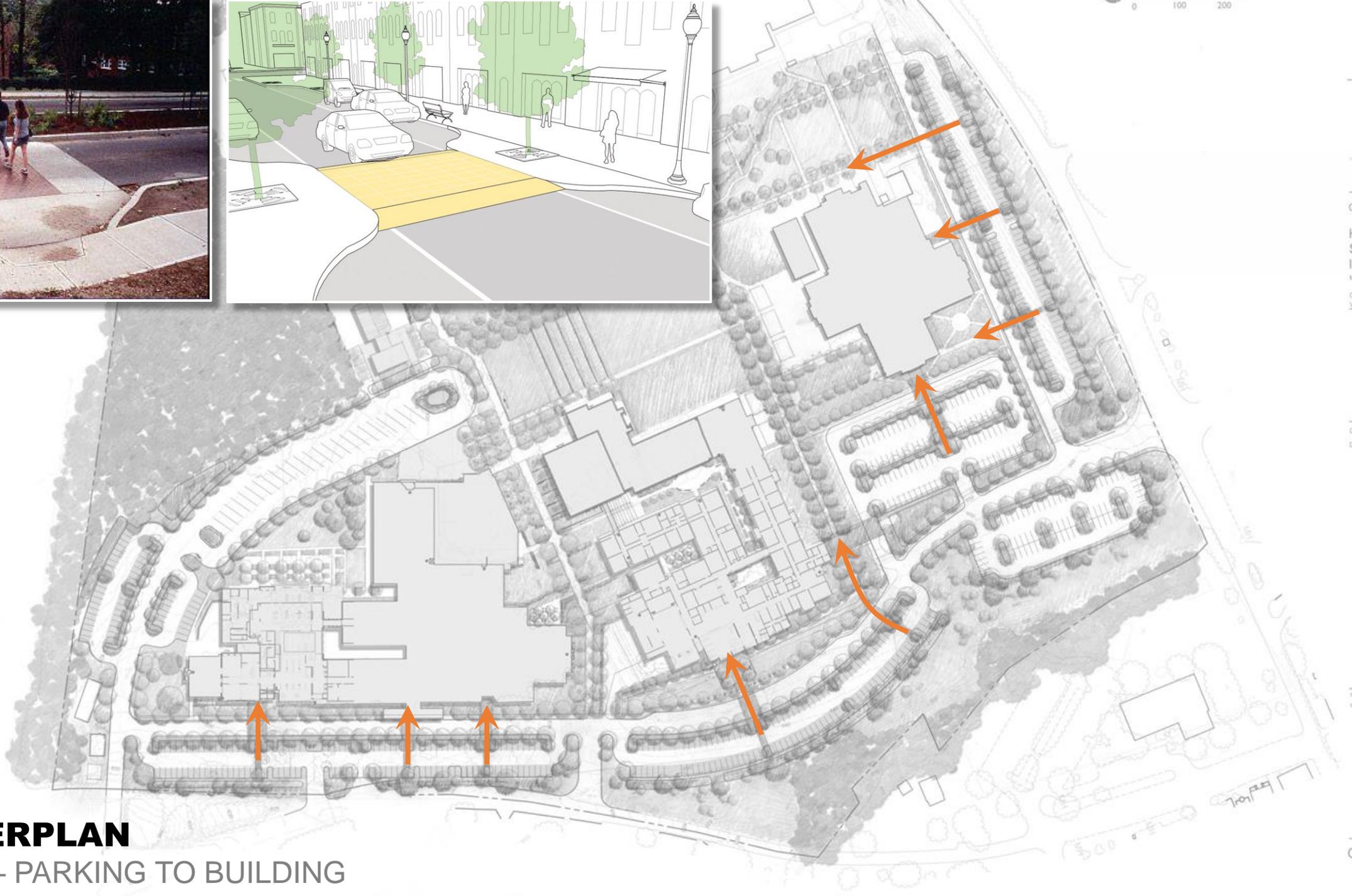
SITE MASTERPLAN
CIRCULATION - BUSES



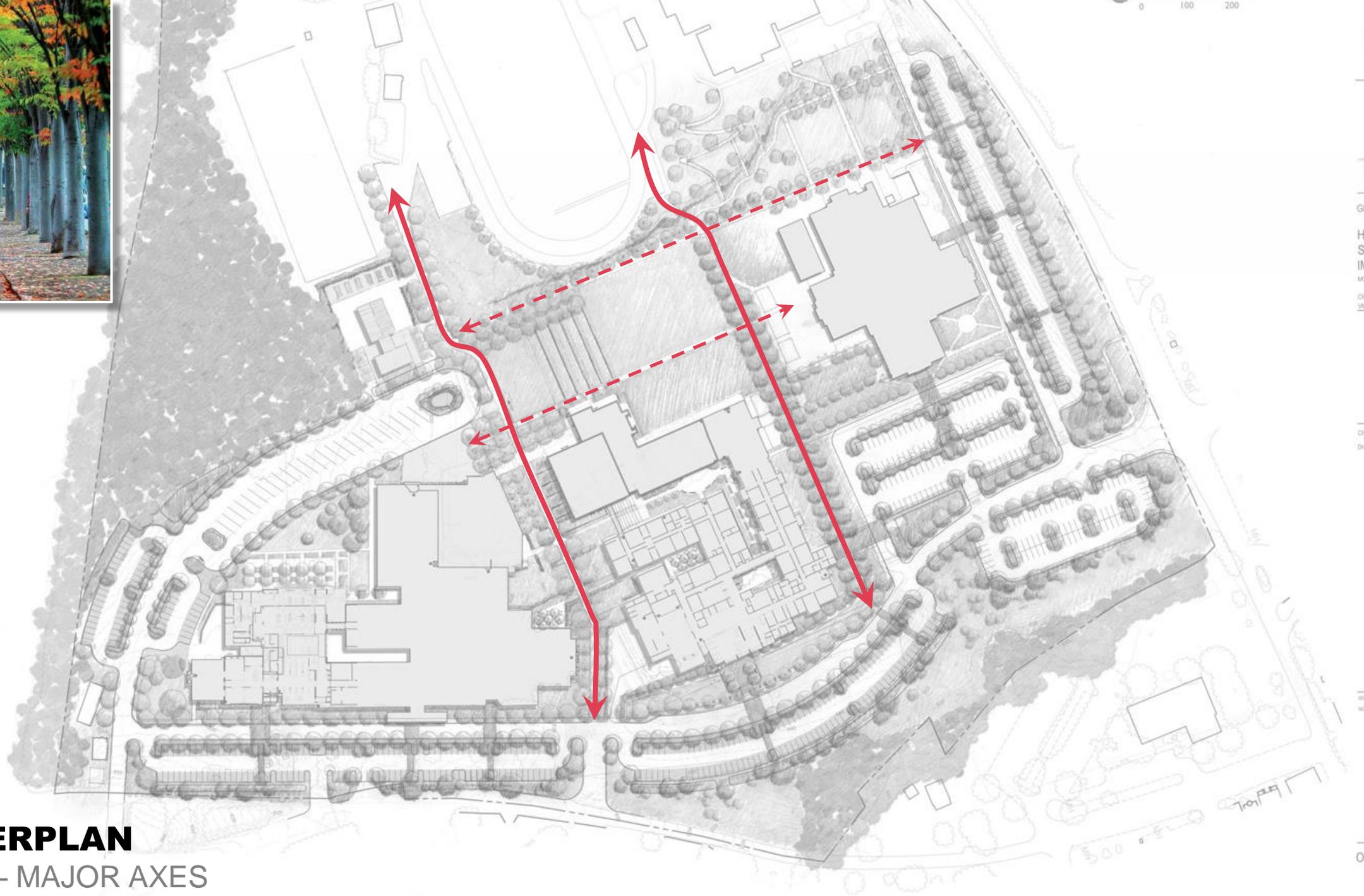


SITE MASTERPLAN

CIRCULATION – DROP-OFF / PICK-UP



SITE MASTERPLAN
CIRCULATION – PARKING TO BUILDING



SITE MASTERPLAN
CIRCULATION – MAJOR AXES



SITE MASTERPLAN
STANARDSVILLE CAMPUS



SITE MASTERPLAN
PHASE 1 SCOPE

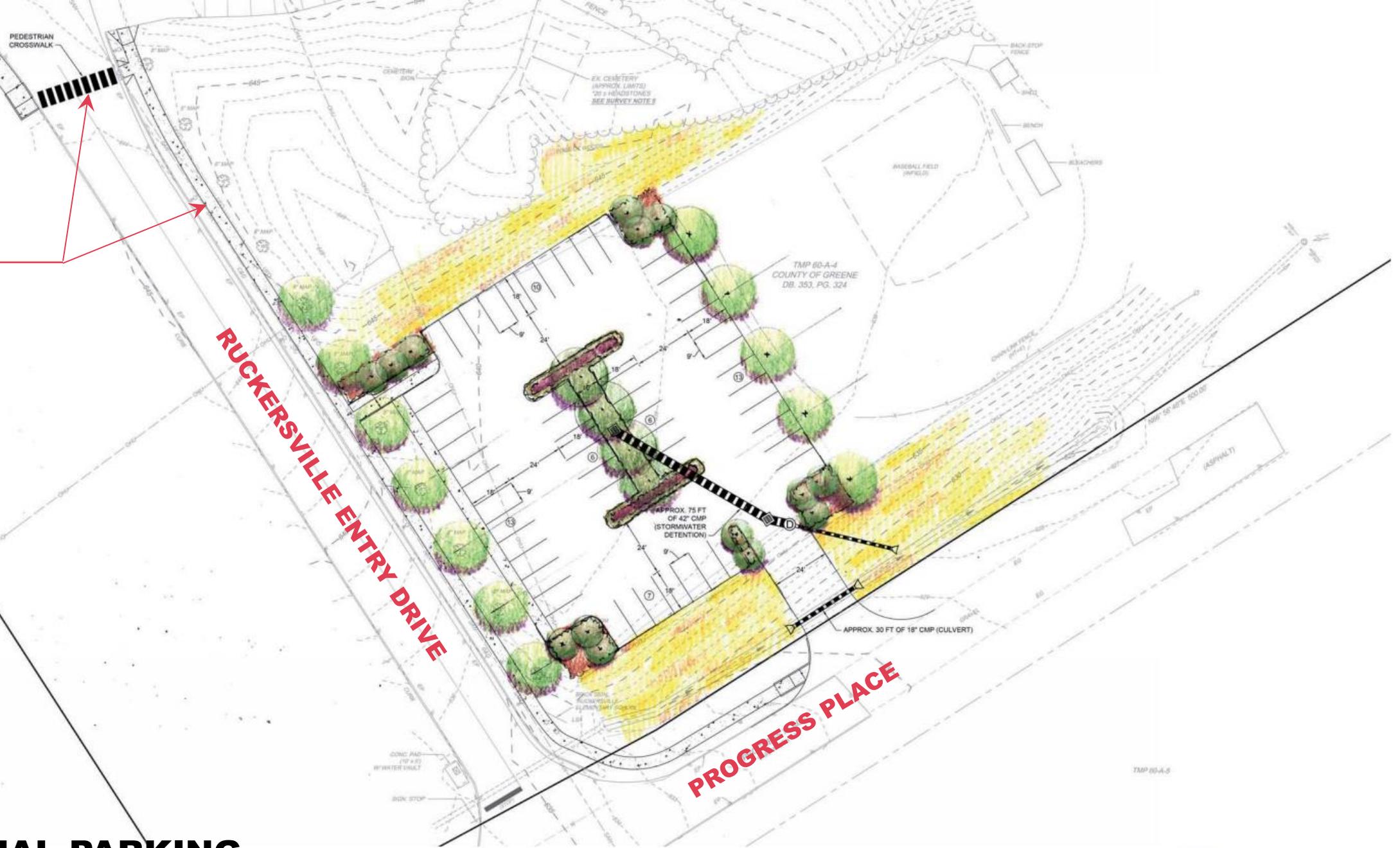
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SITE MASTERPLAN

RUCKERSVILLE

NEW SIDEWALK
+ CROSSWALK



ADDITIONAL PARKING

RUCKERSVILLE



PARKING ANALYSIS

STANARDSVILLE CAMPUS

Existing **579**

Proposed **621**

RUCKERSVILLE CAMPUS

Existing **105**

Proposed **160**

* All PROPOSED numbers account for total parking after completion of Phase 1 work.

** Stanardsville Campus totals (existing + proposed) do NOT count (70) spaces in County Lot (NE), where some buses currently park.

TRAFFIC STUDY

EXISTING CONDITIONS SUMMARY
IMPACT OF PROPOSED CHANGES

Existing Conditions Summary

Figure 2 Study Intersections

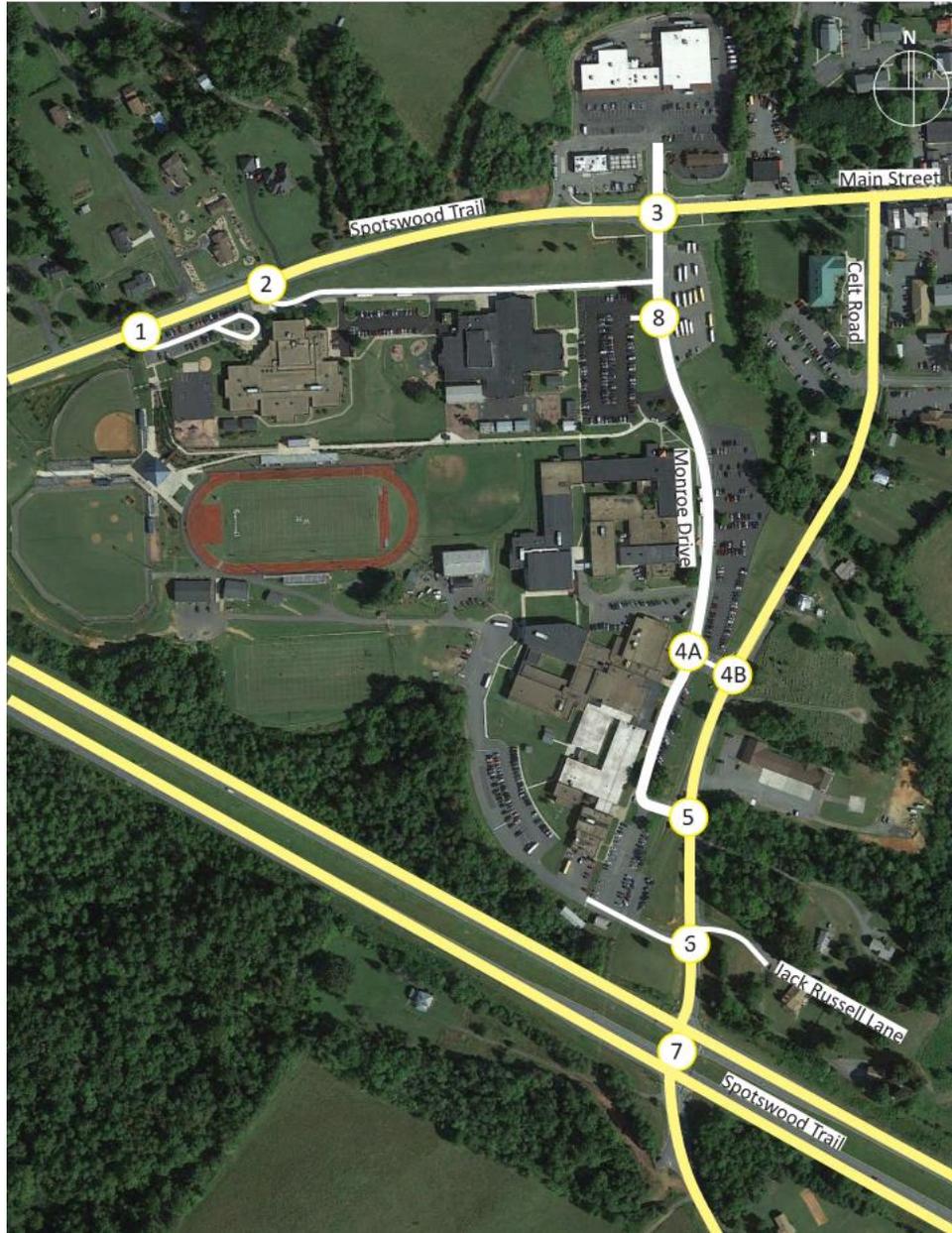


Figure 3 Existing Traffic Volumes (Combined)



Transportation Analysis

CONCEPT BENEFITS

- One-way travel will help to **organize traffic** south of the primary school, and **reduces traffic conflicts** at the primary school access points
- The access to parking east of Monroe Drive is more organized and orderly, thus **improving driver expectation** for when conflicts might occur.
- The strong pedestrian crossings should help to create a more **orderly and safe pedestrian** environment.

Transportation Analysis

Increase in left turns will result in additional northbound left turn delay. Consider traffic signalization or roundabout (if allowed by VDOT)

A substantial amount of traffic that previously entered at this entrance to make a right on Monroe will shift up to Main Street. As a result a multi-way STOP (three way stop control) will be needed at Main/Celt. This could accompany the streetscaping project and resulting curb extensions.

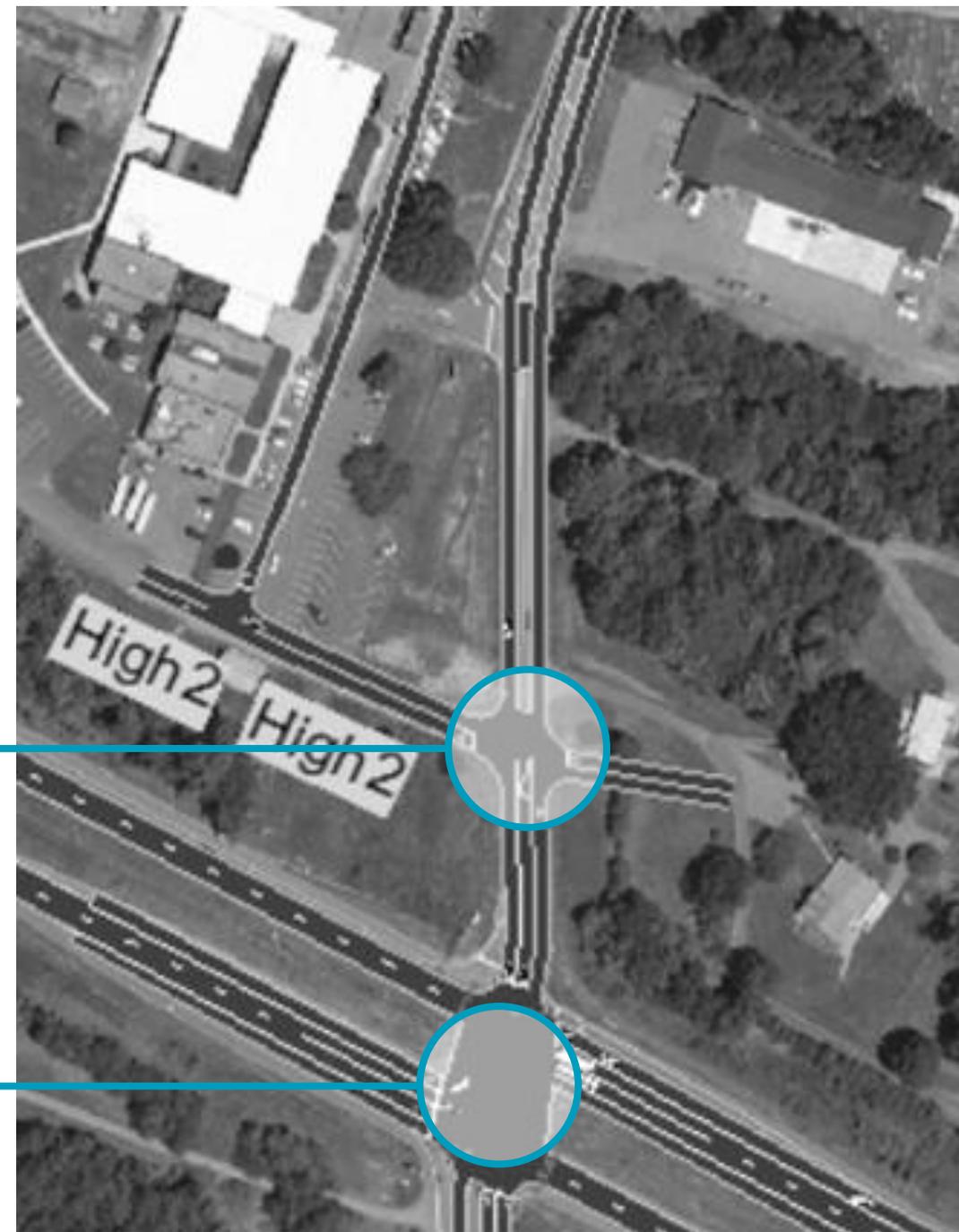
Two-way STOP control.



Transportation Analysis

More traffic will be leaving the site at this location. Police control will continue to be needed.

Adding a 2nd approach lane to Route 33 will help the traffic leaving campus clear the intersection. This will help to mitigate the queue as overall more traffic will use this intersection.



BUILDING PROJECTS

H1A HS ADDITION/RENOVATION [DINING, KITCHEN, MEDIA, LEARNING]

M1A MS ADDITION/RENOVATION [DINING, KITCHEN, MEDIA, ADMIN]

Schematic Design

Outline Priorities

Identify Resources | Contacts | Collect data

Highlight Variables | Negotiables

Confirm Facts

Reflect on Space Design Opportunities:

Transparency | Connection

Sustainability | Enjoyment

Flexibility

Learner-centered Spaces

Mobility | Interconnectivity

Multi-age | Multi-use

Learner-crafted environments

Learning | Making Throughout

Choice and Comfort Options

Inside | Outside Learning Connectivity

Space Design (not Classroom Design)



PROGRAM + USES

SPACES FOR TODAY

SPACES FOR TOMORROW



Learning | Spaces:

Space Design Considerations:

Resources | student, teacher & spaces
Learner-centered design vs presenter
Adaptable + Flexible for evolving pedagogies
Overlapping Use with technology rich and
Mix of density + energy | group + individual



Library | Media Center:

Space Design Considerations:

Balance of User Space + Collection Space
Role of the Librarian – Service Model
Complementary Functions
Technology as Feature or Function
Library as Social + Intellectual Crossroad



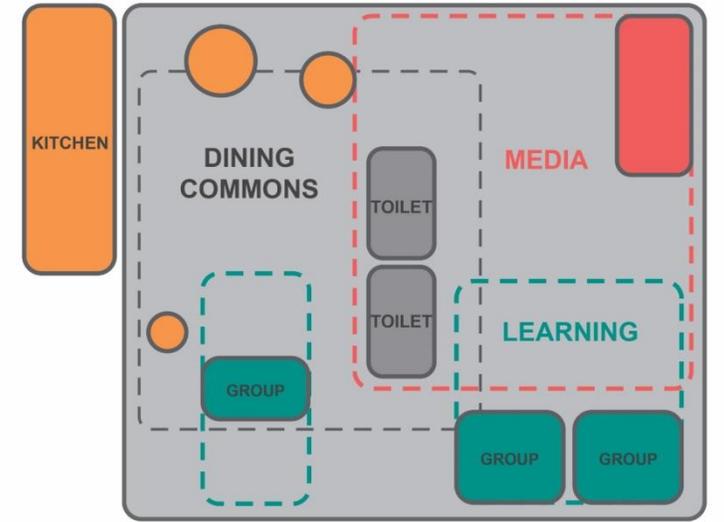
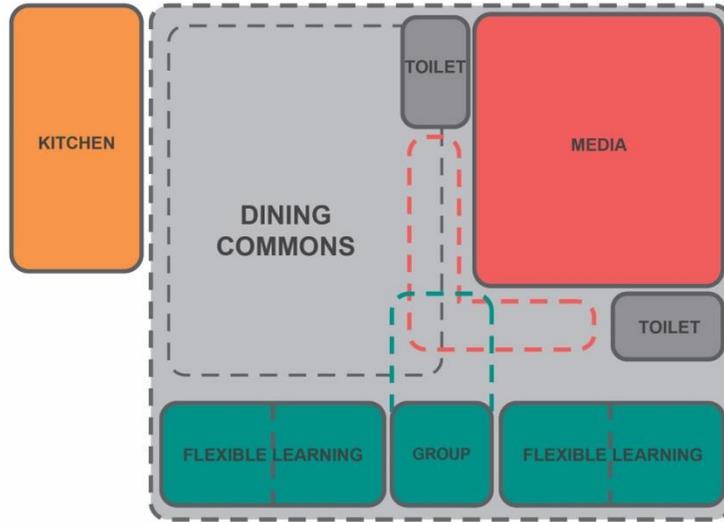
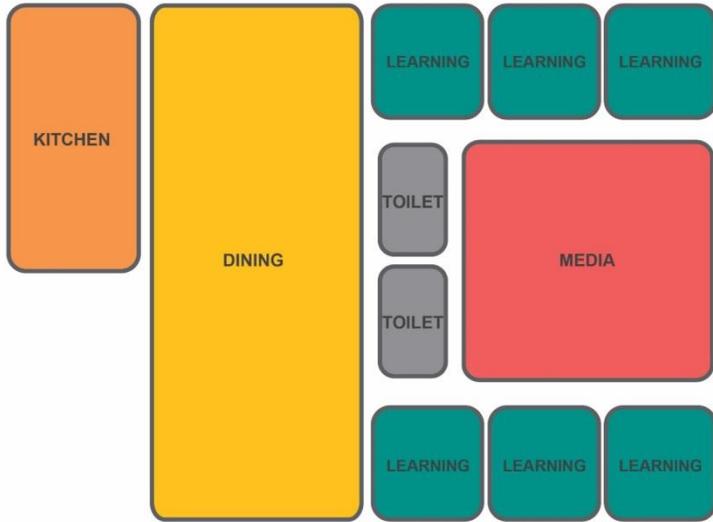
Cafeteria | Dining:

Space Design Considerations:

Number of Students/Dining Opportunities
Service Model – Platforms + Menu
Complementary Functions
Multi use as Feature or Function
Dining as Social + Intellectual Crossroad

DEFINITIONS OF SPACE + USE

SPATIAL CONTINUUM



Traditional
Individual

Proximate
Shared / Linked

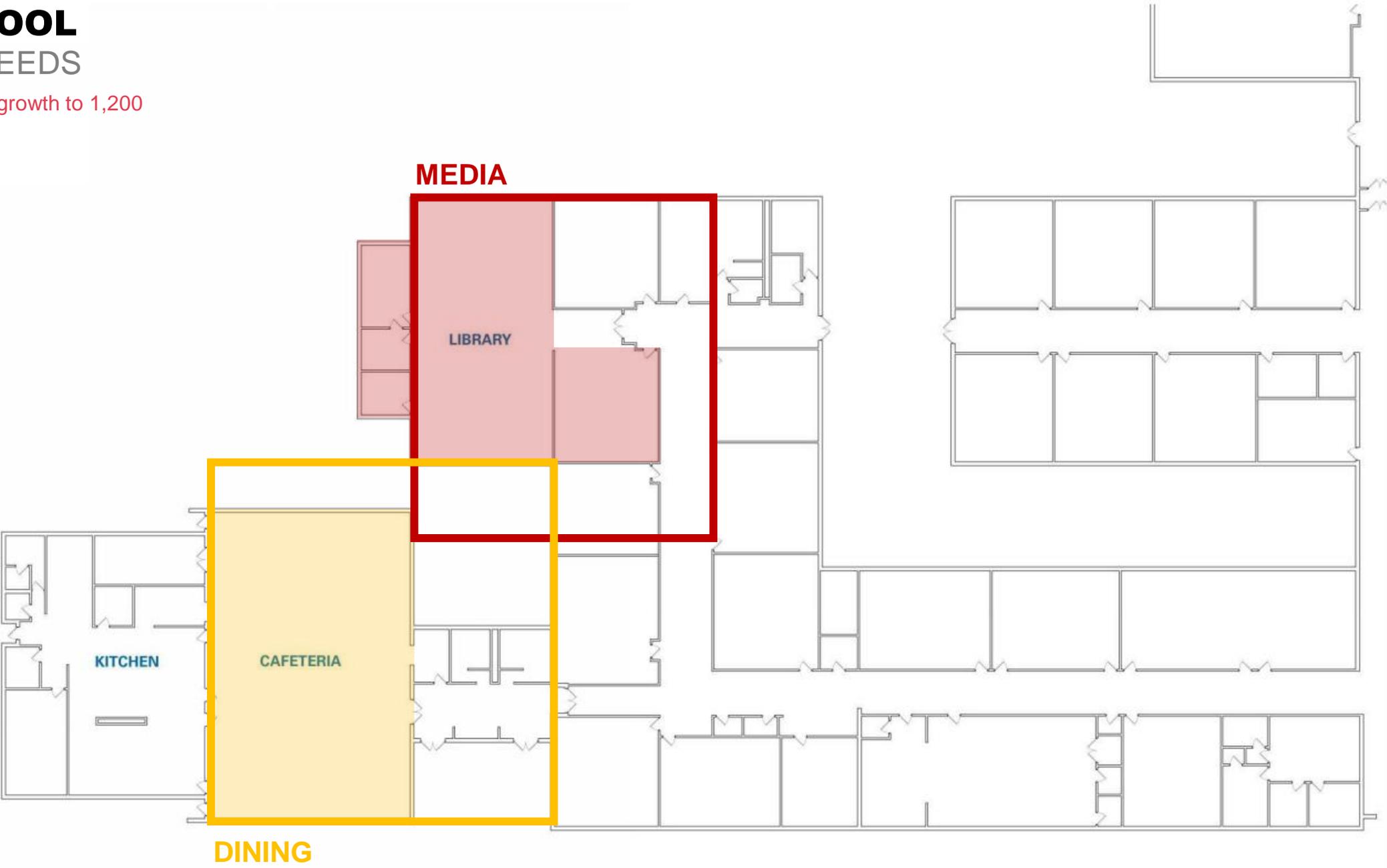
Integrated
Multi-use



HIGH SCHOOL

PROGRAM NEEDS

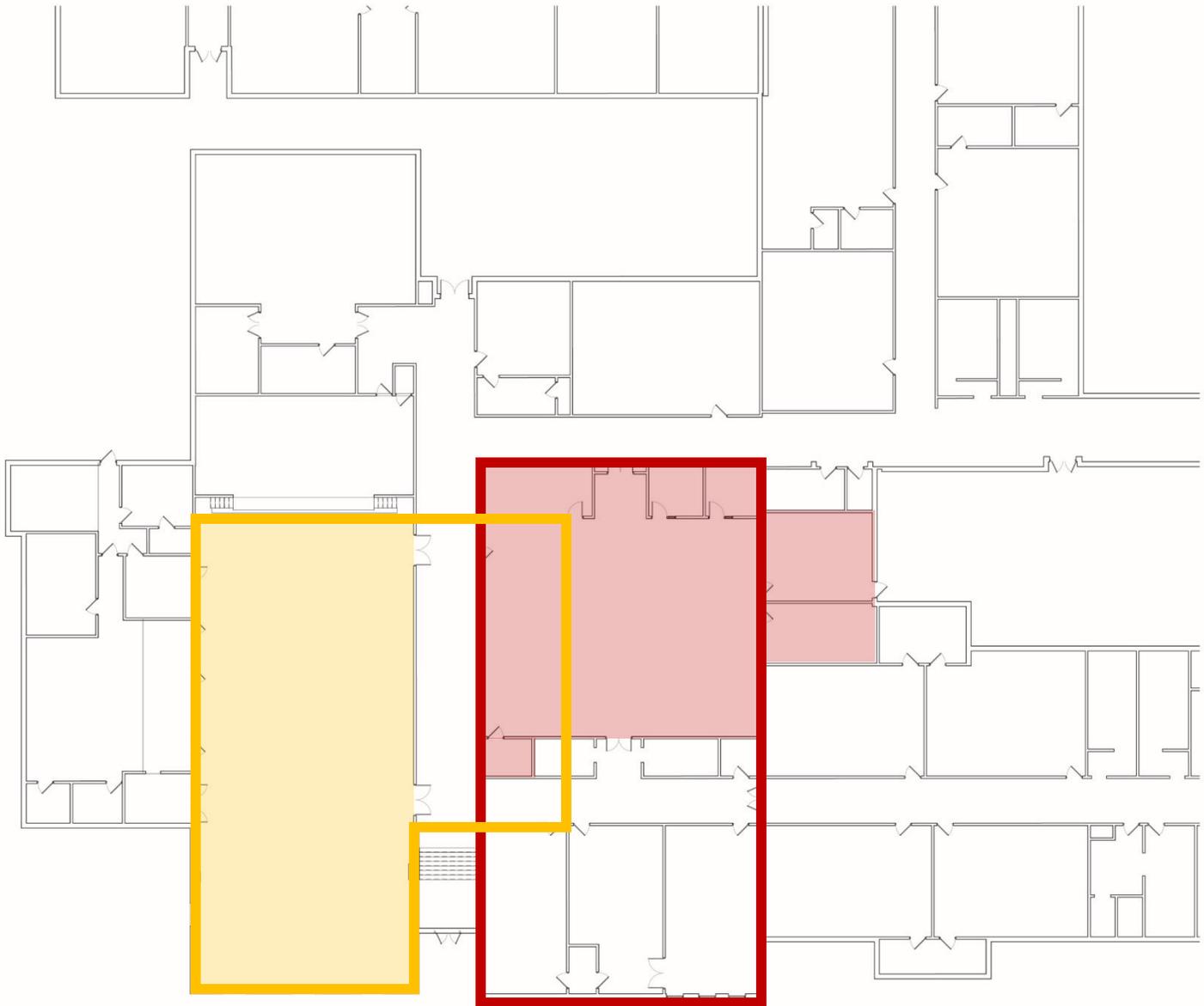
Assumes enrollment growth to 1,200



MIDDLE SCHOOL

PROGRAM NEEDS

Assumes enrollment growth to 900



DINING

MEDIA

DESIGN STRATEGIES

- Build core spaces for **50 year life** (and for anticipated growth)
- Use **durable, healthy materials** (for indoor occupant health/comfort)
- Introduce **natural light + connections to outdoors** wherever possible
- Establish building **identity through massing + materials**
- Establish + reinforce **campus-feel** through massing + materials
 - Similar materials at both schools, employed differently

LEGEND

- 1 - Adjusted parking layout
- 2 - Planting bed with groundcover and medium deciduous
- 3 - Small trees with groundcover
- 4 - Concrete sidewalk
- 5 - Picnic tables
- 6 - Seatwalls
- 7 - Raised planter bed for kitchen garden
- 8 - Crushed stone
- 9 - Groundcover
- 10 - Planting bed
- 11 - Lawn



HIGH SCHOOL GOALS

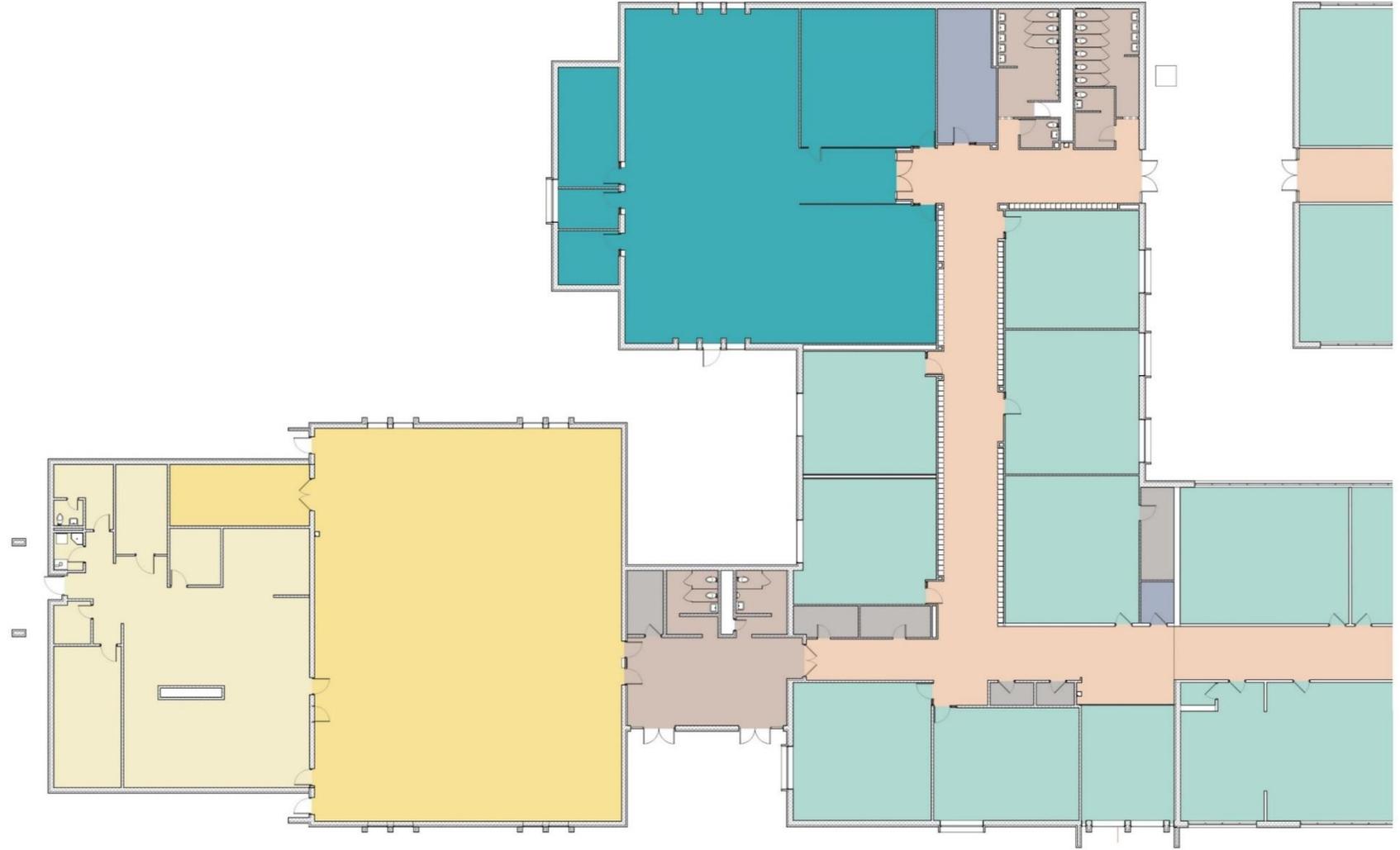
- **Increase dining capacity** for current + future enrollment
- **Reduce lunchtime congestion** with multiple circulation + access routes
- New Dining Commons doubles as a **flexible space** for instruction + project work, as well as school + community events
- Expand and **update Media Center**
- Create some **flexible + adaptable classroom typologies** not currently available
- Project to start to create a **new identity** for high school (in concert with Monroe Drive moves)

LEGEND

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- 3 - Small trees with groundcover
- 4 - Concrete sidewalk
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- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- RESOURCE



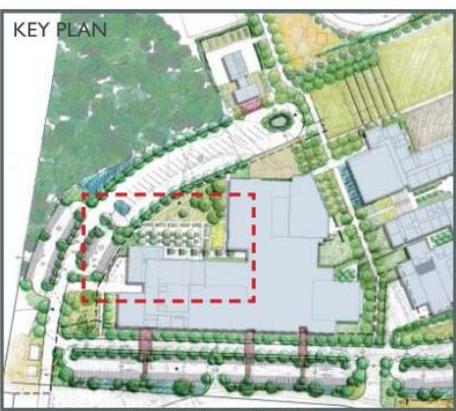
H1A HIGH SCHOOL (Dining, Kitchen, Media Center, Flex Learning)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- RESOURCE



H1A HIGH SCHOOL (Dining, Kitchen, Media Center, Flex Learning)

KEY PLAN

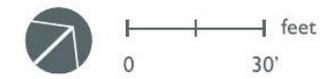


LEGEND

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HIGH SCHOOL
COURTYARDS + TERRACES





HIGH SCHOOL

EXISTING EAST ENTRY (CAFETERIA)



HIGH SCHOOL

PROPOSED EAST ENTRY (MEDIA CENTER + DINING)



HIGH SCHOOL

EXISTING KITCHEN + DINING (FROM SOUTHEAST)



HIGH SCHOOL

PROPOSED LEARNING COMMONS (FROM SOUTHEAST)



HIGH SCHOOL

EXISTING MEDIA CENTER + DINING (FROM SOUTHWEST)



HIGH SCHOOL

PROPOSED KITCHEN + DINING (FROM SOUTHWEST)



HIGH SCHOOL

EXISTING MEDIA CENTER (FROM NORTHWEST)



HIGH SCHOOL

PROPOSED DINING COMMONS + CONNECTION (FROM NORTHWEST)



HIGH SCHOOL

PROPOSED MEDIA CENTER



HIGH SCHOOL

PROPOSED FLEX SPACE



HIGH SCHOOL

PROPOSED FLEX SPACE



HIGH SCHOOL

PROPOSED DINING COMMONS



HIGH SCHOOL

PROPOSED DINING COMMONS

MIDDLE SCHOOL GOALS

- Relocate, expand, and **update Media Center**
 - Transparency between Media Center and school works to bring **natural light** into middle of building
- **Expand corridors** in this area of high congestion
 - Commons doubles as **pre-function space** for events held in cafeteria
- **Additional dining capacity** (56 seats) accommodated in Commons outside of Dining and Media Center (250 seats within Dining Commons)
- Provide opportunities for **meeting, conference + professional** space
- **Relocate Admin + Main Entry** to east side, in concert with Monroe Drive changes
 - Provide **clarity of circulation + access** from parking to entry
 - Enhance **security, safety + operations**
 - Match program + entry with **new identity**

LEGEND

- 1 - Concrete pavers with crushed stone bands
- 2 - Planting bed with groundcover
- 3 - Shrubs
- 4 - Moveable tables and chairs
- 5 - Crushed stone
- 6 - Bosc of small flowering trees with groundcover
- 7 - Concrete sidewalk with paved enclaves for art exhibitions
- 8 - Concrete sidewalk

KEY PLAN

feet

30'

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS



M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS

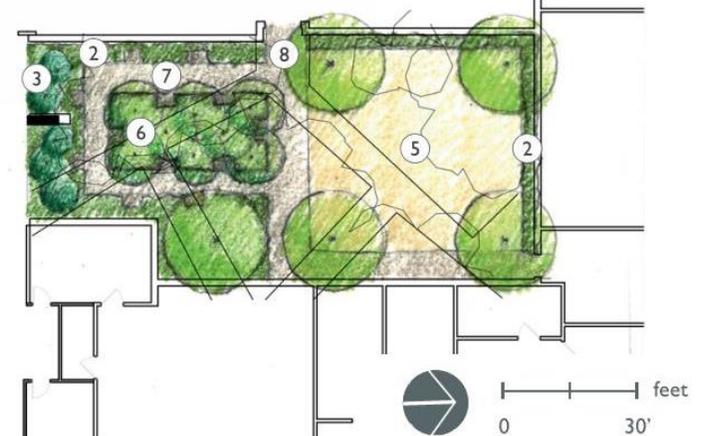


M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)



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MIDDLE SCHOOL
COURTYARDS + TERRACES



MIDDLE SCHOOL

EXISTING MONROE DRIVE APPROACH



MIDDLE SCHOOL

PROPOSED MONROE DRIVE APPROACH



MIDDLE SCHOOL

EXISTING EAST FAÇADE (ALONG MONROE DR.)



MIDDLE SCHOOL

PROPOSED EAST FAÇADE (ALONG MONROE DR.)



MIDDLE SCHOOL

EXISTING ENTRY @ DINING (FROM MONROE DR.)



MIDDLE SCHOOL

PROPOSED MAIN ENTRY (FROM MONROE DR.)



MIDDLE SCHOOL

EXISTING ENTRY @ DINING (FROM MONROE DR.)



WILLIAM MONROE
MIDDLE SCHOOL

MIDDLE SCHOOL

PROPOSED MEDIA CENTER



MIDDLE SCHOOL

PROPOSED ENTRY LOBBY (COMMONS + GALLERY)



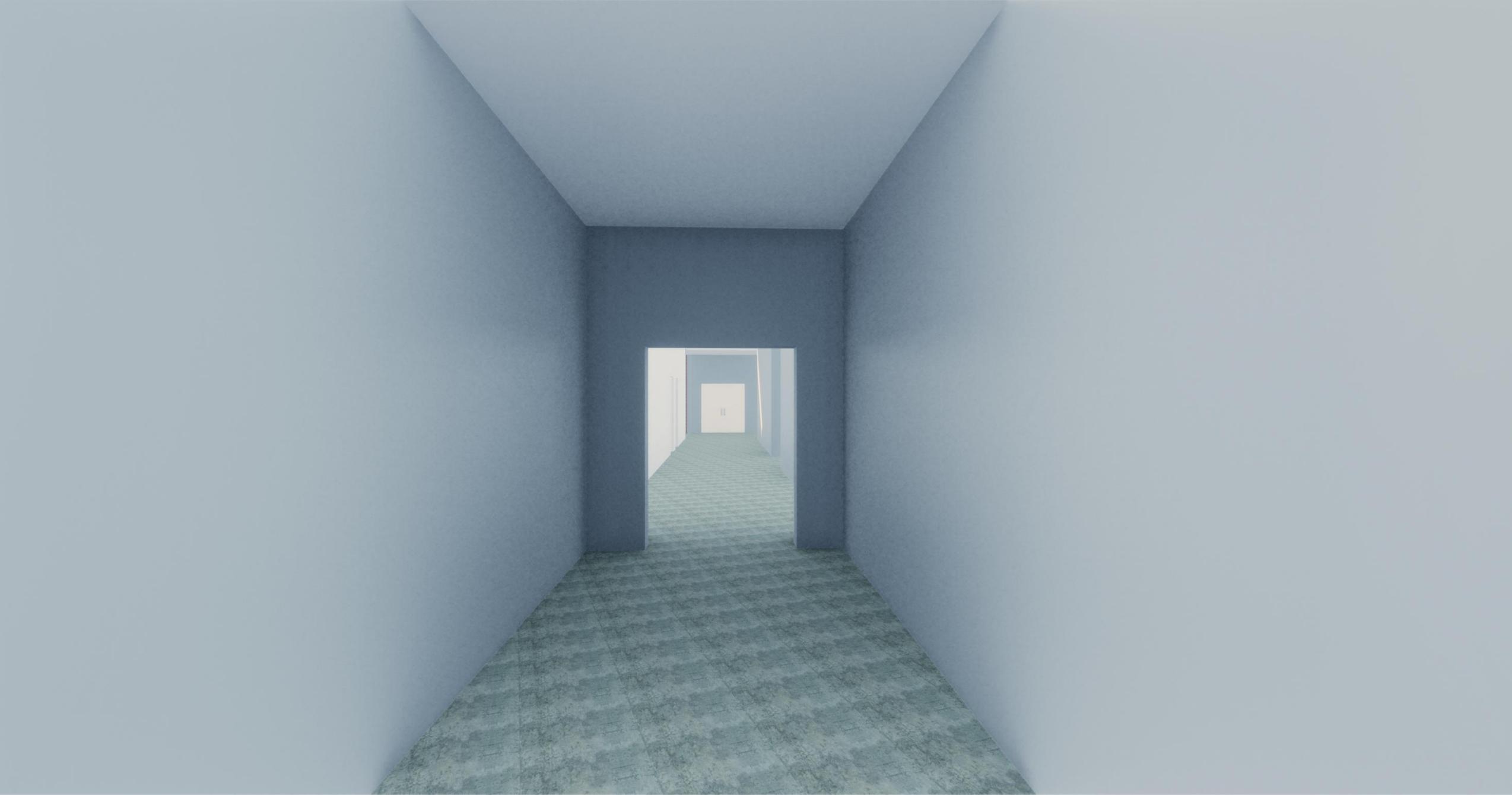
MIDDLE SCHOOL

PROPOSED COMMONS



MIDDLE SCHOOL

PROPOSED MEDIA CENTER



MIDDLE SCHOOL

EXISTING CORRIDOR



MIDDLE SCHOOL

PROPOSED ENTRY + COMMONS

COST ESTIMATES

SCHEMATIC DESIGN

Cost estimates will ultimately reflect **ranges of possible costs**, in most cases. There are a number of **variables** for each project type and **final scopes of each project are not thoroughly defined yet.**

Projects can always be done cheaper. However, these estimates represent funding assumptions that will result in **quality projects over the life of the buildings** – **construction, operation, maintenance, education.**

Variations of the plan are always possible. The **masterplan approach** is critical to providing **flexibility** in choices and decisions in the future, so that you can adapt as circumstances change – **enrollment, available funds, etc.**

Scope of some projects has increased to fully address the School Board's goals + priorities for Phase 1:

- Safety + Security
- Increased Capacity (core program areas)
- Flexible / Adaptable Learning Environments
- Community Use + Access

Scope of Phase 1 differs slightly from Concept Designs due to a better understanding of:

- Realities of the Extents of work required
- Phasing + Construction Requirements to best meet the goals and aspirations of the project priorities set forth by the School Board

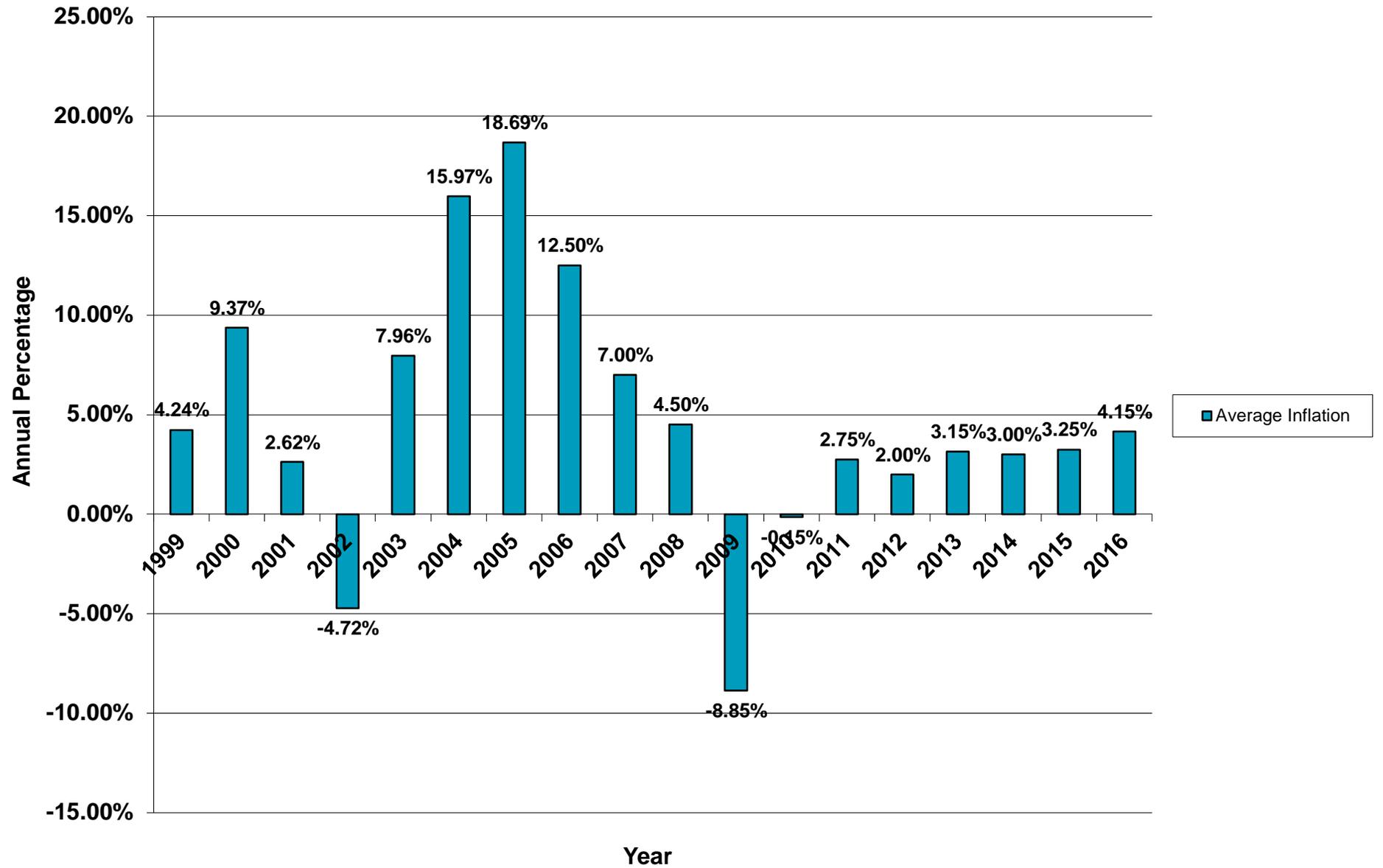
MARKET ALERT - SCHEDULE AND BUDGET BUSTERS:

April 7, 2017 - The Public Sector construction market in the Mid-Atlantic Region (and across the US) has seen rapid and significant increases in project costs (as much as 15% to 20% in some instances). We have updated our data base and changed certain categories on recent submissions for projects to capture these rapid market changes. Accordingly, we will continue to read the current labor and materials market with regular updates to our cost data base. This information has been gathered through discussions with numerous Construction Owners, General Contractors and Subcontractors. We continue to evaluate the situation utilizing market surveys and interviews.

- **Skilled trade labor shortages** (in most specialty trades) are causing significant delays to projects in construction and **wildly divergent labor pricing** in projects being bid
- The Construction Industry has **lost skilled workers** and the expanded market recovery has created a situation where contractors cannot keep up
- **Labor shortage & aging Labor forces** = major increases in direct labor costs (wages) and burden rates for most specialty trades
- An **excess of public projects to bid** resulting in contractors being **more selective** on what projects to bid and **bidding them at much higher margins**
- **Less competition** - contractors bidding projects, particularly at the subcontractor level
- Past market materials pricing has been relatively flat, but 2017 is seeing significant **upward trend in material costs** due to increased production costs & labor shortages
- **Major increases in salaries** (wages) for experienced Project Managers and Superintendents
- **Increase in mark-ups and profit margins for all trades** and General Contractors

ESTIMATES FOR C'VILLE / H'BURG AREA INCREASES IN 2017 = 7-8%

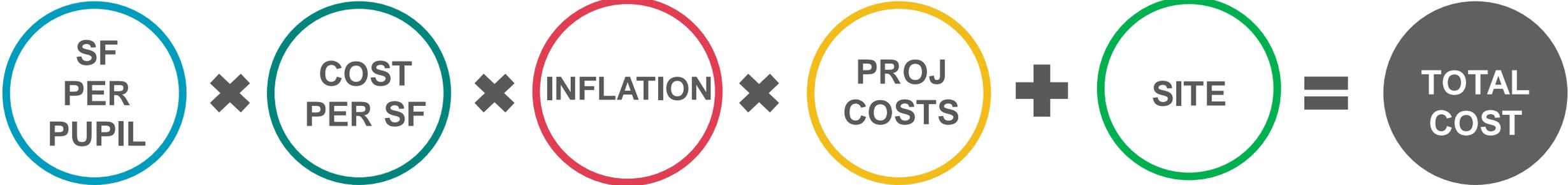
Year	Average Inflation
1990	-10.36%
1991	-5.47%
1992	9.61%
1993	3.34%
1994	6.02%
1995	16.11%
1996	8.55%
1997	3.57%
1998	0.07%
1999	4.24%
2000	9.37%
2001	2.62%
2002	-4.72%
2003	7.96%
2004	15.97%
2005	18.69%
2006	12.50%
2007	7.00%
2008	4.50%
2009	-8.85%
2010	-0.15%
2011	2.75%
2012	2.00%
2013	3.15%
2014	3.00%
2015	3.25%
2016	4.15%



HISTORICAL VA CONSTRUCTION COST ESCALATION

COST PARAMETERS

CONSTRUCTION COSTS



4.25% Annually *

20 - 30%

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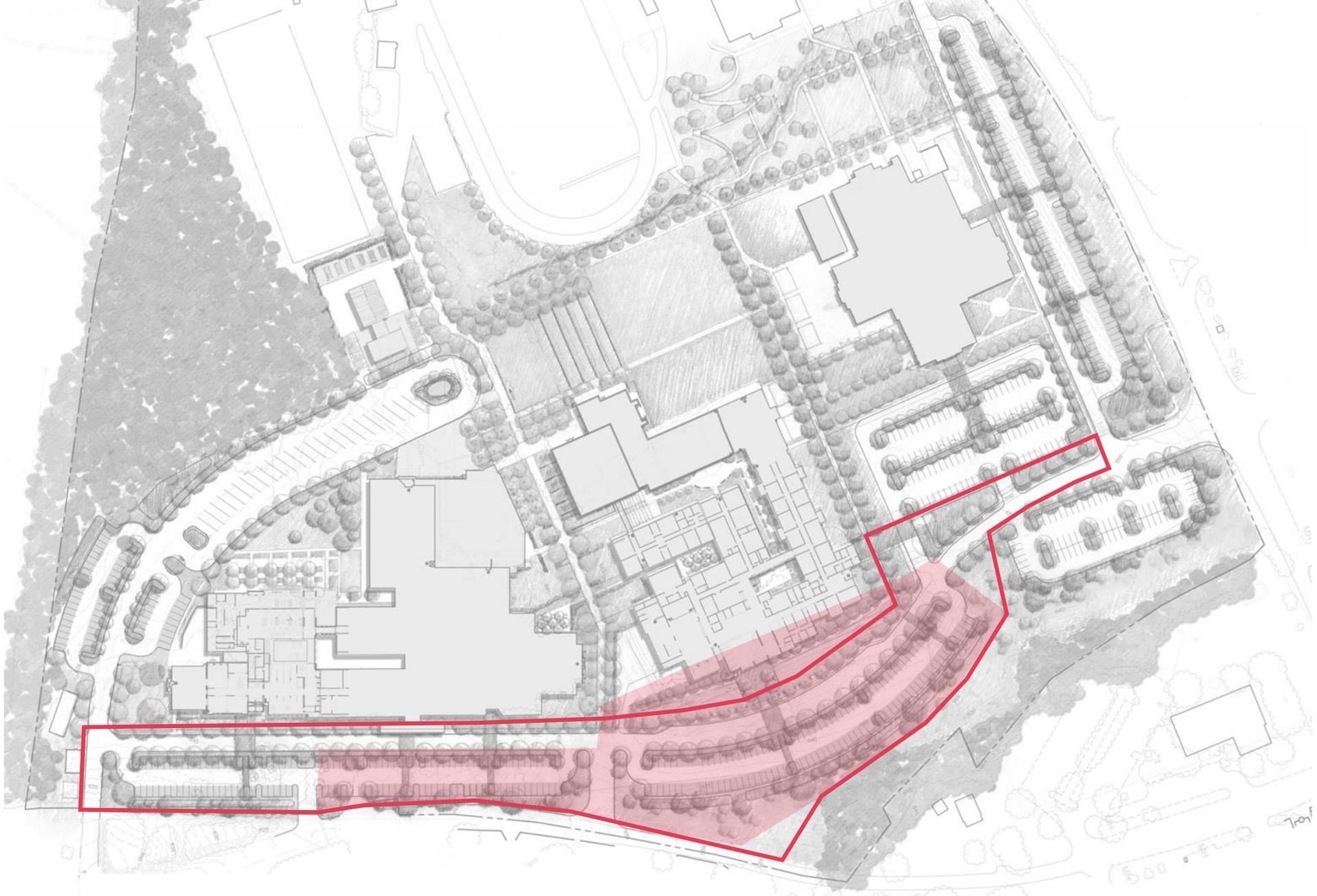
- Furniture, Fixtures, Equip
- Technology / AV
- Survey / Testing
- Utility Costs / Rights-of-Way
- Building Commissioning
- Architecture / Engineering Fees
- Permits
- Legal Fees
- Financing Costs
- Contingency
- Clerk of the Works

- Land Costs
- Off-Site Improvements

NOTE:
Construction Inflation for H'burg + C'ville predicted at 7-8% for 2017

SITE PROJECTS

- S1 RE-CONFIGURATION OF MONROE DR.
- S2 NEW PARKING – STANARDSVILLE
- S4 NEW PARKING - RUCKERSVILLE



S1 MONROE DRIVE (reorientation + parking)

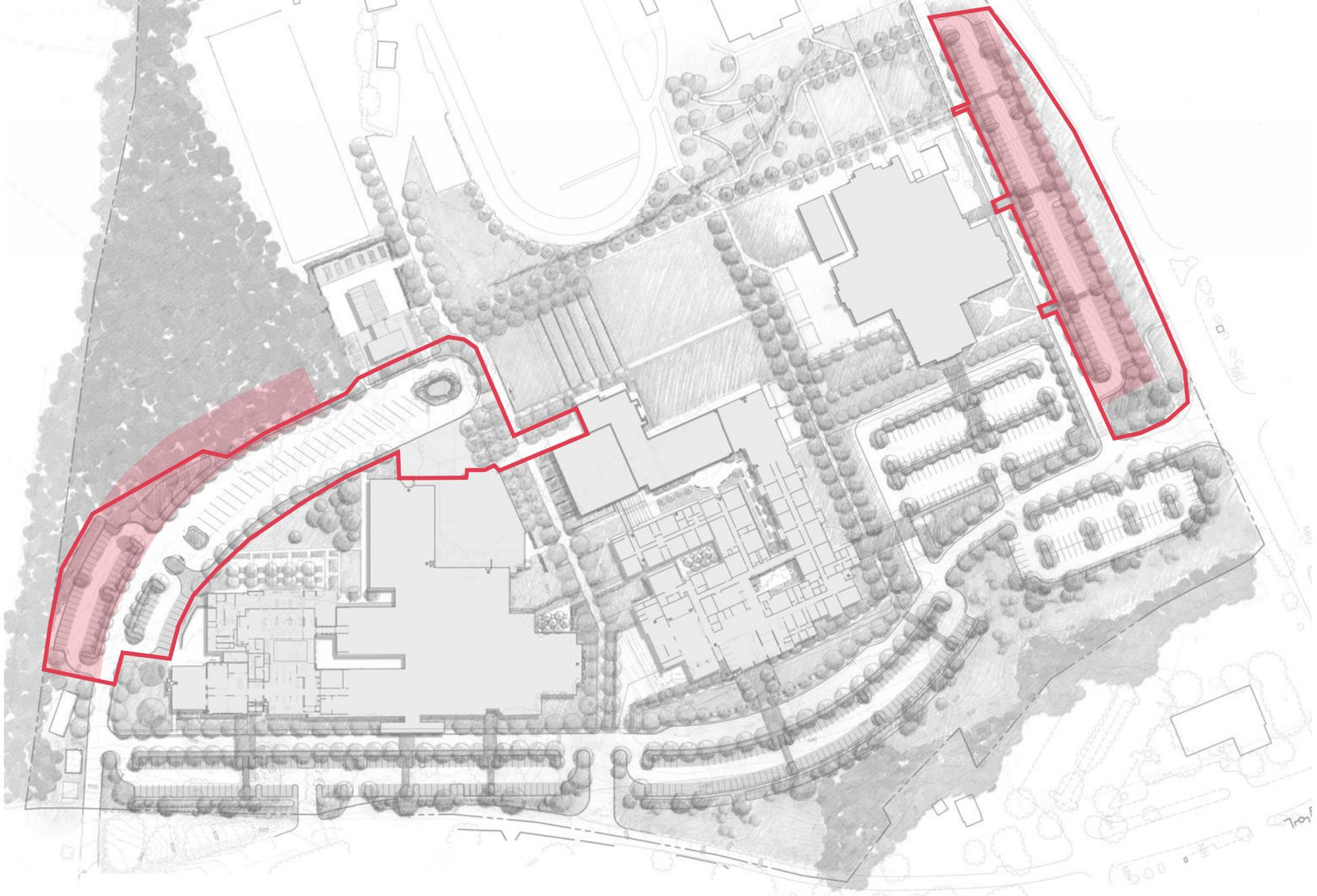
S1 Monroe Drive			Construction Cost	Project Cost	Total Cost
	\$ /sf	GSF			
Demo	\$4.50	78,295	\$352,328		
Paving	\$10	58,722	\$587,220		
Landscape	\$500,000 (per acre)	38,465 (0.88 acres)	\$440,000	20%	
Contingency		25%	\$344,887		
Total 2016			\$1,724,434	\$344,887	\$2,069,321
		2017	\$1,797,723	\$359,545	\$2,157,267
Construction Mid-Point		2018	\$1,874,126	\$374,825	\$2,248,951
		2019	\$1,953,776	\$390,755	\$2,344,532
		2020	\$2,036,812	\$407,362	\$2,444,174
		2021	\$2,123,376	\$424,675	\$2,548,052

SCHEMATIC ESTIMATE

\$3,080,761 construction

- 64% increase from Concept Estimate (2018 \$)
- 63% increase in project area
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate
- Stormwater requirements less than assumed at Concept Phase

S1 MONROE DRIVE (reorientation + parking)



S2 NEW PARKING (Stanardsville Campus)

S2 New Parking (WMHS, NGPS/NGES)

	\$ /sf	GSF	Construction Cost	Project Cost	Total Cost
Demo	\$4.50	-			
Paving	\$12	69,843	\$838,116		
Landscape	\$300,000 (per acre)	-		20%	
Contingency		25%	\$209,529		
Total 2016			\$1,047,645	\$209,529	\$1,257,174
		2017	\$1,092,170	\$218,434	\$1,310,604
Construction Mid-Point		2018	\$1,138,587	\$227,717	\$1,366,305
		2019	\$1,186,977	\$237,395	\$1,424,373
		2020	\$1,237,424	\$247,485	\$1,484,908
		2021	\$1,290,014	\$258,003	\$1,548,017

SCHEMATIC ESTIMATE

\$2,756,376 construction

- 142% increase from Concept Estimate (2018 \$)
- 135% increase in project area
 - Scope increase predominantly tied to HS/MS bus loop reconfiguration, which is in conjunction with traffic improvements at Monroe Dr.
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate
- Stormwater requirements less than assumed at Concept Phase



TOTAL
165
[75 staff]

S4 NEW PARKING (Ruckersville Campus)

S4 Ruckersville

	\$ /sf	GSF	Construction Cost	Project Cost	Total Cost
Demo	\$4.50	-	\$0		
Paving	\$10	30,000	\$300,000		
Landscape	\$500,000 (per acre)	5,000 (0.11 acres)	\$55,000	20%	
Contingency		25%	\$88,750		
Total 2016			\$443,750	\$88,750	\$532,500
		2017	\$462,609	\$92,522	\$555,131
Construction Mid-Point		2018	\$482,270	\$96,454	\$578,724
		2019	\$502,767	\$100,553	\$603,320
		2020	\$524,134	\$104,827	\$628,961
		2021	\$546,410	\$109,282	\$655,692

SCHEMATIC ESTIMATE

\$327,797 construction

- 32% decrease from Concept Estimate (2018 \$)
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate
- Stormwater requirements **not** required on this site, being satisfied by measures on Stanardsville Campus

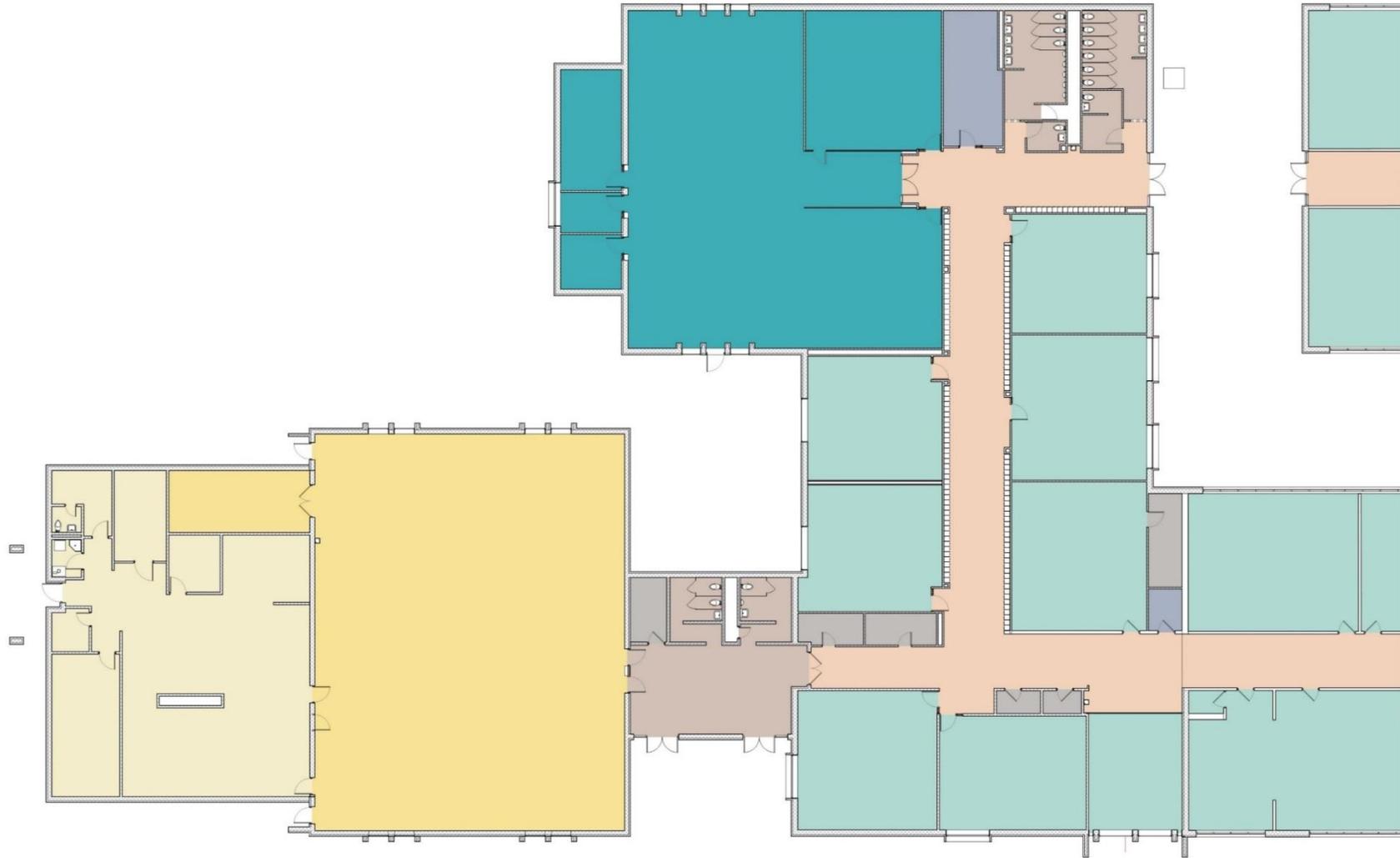
BUILDING PROJECTS

H1A	HS ADDITION/RENOVATION	[DINING, KITCHEN, MEDIA, LEARNING]
M1A	MS ADDITION/RENOVATION	[DINING, KITCHEN, MEDIA, ADMIN]
M1A	MS ADDITION/RENOVATION	[ADMIN ADD-ALT]
H3	HS COURTYARD INFILL	[ADD-ALT]



H1A HIGH SCHOOL (Dining, Kitchen, Media Center, Flex Learning)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- RESOURCE



H1A HIGH SCHOOL (Dining, Kitchen, Media Center, Flex Learning)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- RESOURCE



H1A HIGH SCHOOL (Dining, Kitchen, Media Center, Flex Learning)

H1A without Central Kitchen			Construction Cost	Project Cost	Total Cost
	\$ /sf	GSF *			
Demo	\$20	23,311	\$466,220		
Renovation	\$160	-	\$0	30%	
New	\$250	31,062	\$7,765,500		
**Equipment			\$400,000		
Total 2016		31,062	\$8,631,720	\$2,589,516	\$11,221,236
		2017	\$8,998,568	\$2,699,570	\$11,698,139
Construction Mid-Point		2018	\$9,381,007	\$2,814,302	\$12,195,309
		2019	\$9,779,700	\$2,933,910	\$12,713,610
		2020	\$10,195,337	\$3,058,601	\$13,253,938
		2021	\$10,628,639	\$3,188,592	\$13,817,231

SCHEMATIC ESTIMATE

\$9,113,249 construction

- 3% decrease from Concept Estimate (2018 \$)
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate



M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS



M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS



M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)

M1A					
	\$ /sf	GSF	Construction Cost	Project Cost	Total Cost
Demo	\$20	7,465	\$149,300		
Renov (L)	\$80	4,390	\$351,200		
Renov (H)	\$160	12,475	\$1,996,000	30%	
New	\$200	2,700	\$540,000		
Equip			\$300,000		
Total 2016		19,565	\$3,336,500	\$1,000,950	\$4,337,450
		2017	\$3,478,301	\$1,043,490	\$4,521,792
Construction Mid-Point		2018	\$3,626,129	\$1,087,839	\$4,713,968
		2019	\$3,780,240	\$1,134,072	\$4,914,311
		2020	\$3,940,900	\$1,182,270	\$5,123,170
		2021	\$4,108,388	\$1,232,516	\$5,340,904

SCHEMATIC ESTIMATE

\$5,361,196 construction

- 48% increase from Concept Estimate (2018 \$)
- 92% increase in scope of demolition and new construction vs assume renovation in the Concept Phase
 - Predominantly due to shift in Media Center location to front
 - Kitchen addition was slightly larger than initially assumed
- Schematic estimate assumes some of the landscape scope for new main entry plaza as part of this project, which was not part of Concept Estimate (area previously shown as part of **S1** scope)
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate

M1A MIDDLE SCHOOL (Dining, Kitchen, Media Center)



M1A MIDDLE SCHOOL (Administration Add-Alternate)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS



M1A MIDDLE SCHOOL (Administration Add-Alternate)

- CLASSROOM
- MEDIA
- DINING
- KITCHEN
- CORRIDOR / COMMONS
- SUPPORT
- ADMINISTRATION
- ARTS



M1A MIDDLE SCHOOL (Administration Add-Alternate)

SCHEMATIC ESTIMATE

\$1,127,722 construction

- Not included as part of Concept Estimate



H3 HS COURTYARD INFILL (Add-Alternate)

H3					
	\$ /sf	GSF	Construction Cost	Project Cost	Total Cost
Demo					
Renov				30%	
New	\$250	3,800	\$950,000		
Total 2016		3,800	\$950,000	\$285,000	\$1,235,000
		2017	\$990,375	\$297,113	\$1,287,488
Construction Mid-Point		2018	\$1,032,466	\$309,740	\$1,342,206
		2019	\$1,076,346	\$322,904	\$1,399,249
		2020	\$1,122,090	\$336,627	\$1,458,718
		2021	\$1,169,779	\$350,934	\$1,520,713

SCHEMATIC ESTIMATE

\$1,032,466 construction

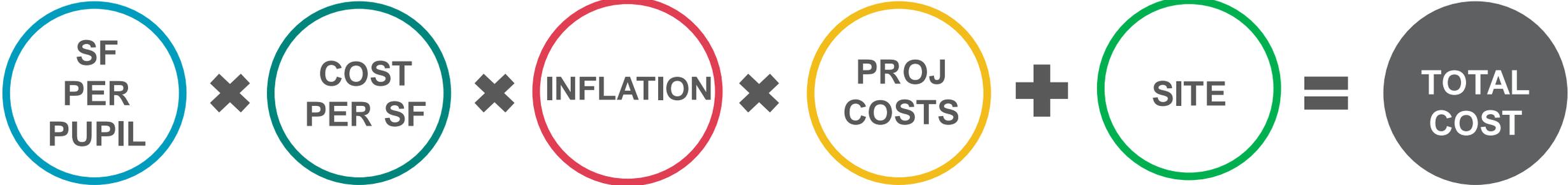
- Project inadvertently not included as part of part of Concept Estimate, despite School Board priority
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate

	Concept (2018 \$)	Schematic Estimate
S1 Monroe Drive	\$1.87M	\$3.08M
S2 New Parking (Stanardsville)	\$1.14M	\$2.76M
S4 New Parking (Ruckersville)	\$482K	\$328K
H1A HS Dining, Media	\$9.38M	\$9.11M
M1A MS Dining, Media	\$3.63M	\$5.36M
M1A MS Admin (Add-Alternate)		\$1.13M
H3 Courtyard Infill (Add-Alternate)		\$1.03M
TOTAL (Construction Cost) (Concept Scopes Only)	\$16.50M	\$22.79M (\$20.64M)

Schematic Estimate (Construction Costs)

COST PARAMETERS

CONSTRUCTION COSTS



4.25% Annually *

20 - 30%

T B D

- Furniture, Fixtures, Equip
- Technology / AV
- Survey / Testing
- Utility Costs / Rights-of-Way
- Building Commissioning
- Architecture / Engineering Fees
- Permits
- Legal Fees
- Financing Costs
- Contingency
- Clerk of the Works

- Land Costs
- Off-Site Improvements

NOTE:
Construction Inflation for H'burg + C'ville predicted at 7-8% for 2017

	Concept (2018 \$)	Schematic Estimate
S1 Monroe Drive	\$2.25M	\$3.69M
S2 New Parking (Stanardsville)	\$1.37M	\$3.31M
S4 New Parking (Ruckersville)	\$579K	\$393K
H1A HS Dining, Media	\$12.20M	\$11.39M
M1A MS Dining, Media	\$4.71M	\$6.70M
M1A MS Admin (Add-Alternate)		\$1.41M
H3 Courtyard Infill (Add-Alternate)		\$1.27M
TOTAL (Construction Cost) (Concept Scopes Only)	\$21.11M	\$28.16M (\$25.48M)

Schematic Estimate Total Cost (Construction + Project Costs)

ESTIMATE ANALYSIS

Rising Construction Cost Market

Sharp increase since Concept Estimate

Continued higher escalation going forward

Phase 1 goals required changes in scope of some projects

Cost Estimates do **not** include costs for any off-site traffic improvements.

PROJECT SCHEDULE

DESIGN

Design Development	8 weeks	Aug 04
Construction Documents	14 weeks	Nov 10

CONSTRUCTION

Bid + Negotiation	2 months	Jan 2018
Construction (Phased)	20 months	Jan 2018 – Aug 2019

* Schedule based on design team continuing to move forward, based on current or reduced scope.

Important to do what you can do really well

It is important to make sure there is a financing plan in place that matches the assumed scope + aspirations (and vice versa).

Regardless of the budget, VMDO will work to focus the best use of funds on:

students & building occupants

educational opportunities

long-term benefit

NEXT STEPS

Obtain Approval for Pursuing Funding

Initiate Site Plan Approvals Process

Complete Documentation

VWID O

Retiring Debt Structure

Fiscal Year	Carry Forward	New Retiring Debt	Total Available Retired Debt
2018	\$ 230,092	\$ 103,143	\$ 333,235
2019	\$ 333,235	\$ 182,536	\$ 515,771
2020	\$ 515,771	\$ 311,874	\$ 827,645
2021	\$ 827,645	\$ 16,454	\$ 844,098
2022	\$ 844,098	\$ 11,833	\$ 855,931
2023	\$ 855,931	\$ 12,338	\$ 868,268
2024	\$ 868,268	\$ 12,843	\$ 881,111
2025	\$ 881,111	\$ 53,137	\$ 934,248
2026	\$ 934,248	\$ 57,491	\$ 991,739
2027	\$ 991,739	\$ 12,005	\$ 1,003,744
2028	\$ 1,003,744	\$ 298,567	\$ 1,302,311
2029	\$ 1,302,311	\$ 462,815	\$ 1,765,126

Current debt load goes through 2037. Reduction in years 2030-2037 is less than \$2,000 per year

Capital Fund Balance	\$ 2,814,721
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Rate Scenarios

25 Year

Based on 25 year loans and borrowing based only on available retiring debt

Year	Available Retired Debt	Estimated Annual Payment at 3 %	Additional Required for Payment	Estimated Annual Payment at 3.5 %	Additional Required for Payment
FY 2018	\$ 333,235	\$ 1,630,377	\$1,297,142	\$1,722,536	\$1,389,301
FY 2019	\$ 515,771	\$ 1,630,377	\$1,114,606	\$1,722,536	\$1,206,765
FY 2020	\$ 827,645	\$ 1,630,377	\$ 802,732	\$1,722,536	\$ 894,891
FY 2021	\$ 844,098	\$ 1,630,377	\$ 786,279	\$1,722,536	\$ 878,438
FY 2022	\$ 855,931	\$ 1,630,377	\$ 774,446	\$1,722,536	\$ 866,605
FY 2023	\$ 868,268	\$ 1,630,377	\$ 762,109	\$1,722,536	\$ 854,268
FY 2024	\$ 881,111	\$ 1,630,377	\$ 749,266	\$1,722,536	\$ 841,425
FY 2025	\$ 934,248	\$ 1,630,377	\$ 696,129	\$1,722,536	\$ 788,288
FY 2026	\$ 991,739	\$ 1,630,377	\$ 638,638	\$1,722,536	\$ 730,797
FY 2027	\$ 1,003,744	\$ 1,630,377	\$ 626,633	\$1,722,536	\$ 718,792
FY 2028	\$ 1,302,311	\$ 1,630,377	\$ 328,066	\$1,722,536	\$ 420,225
FY 2029	\$ 1,765,126	\$ 1,630,377	\$ (134,749)	\$1,722,536	\$ (42,590)
FY 2030	\$ 1,764,999	\$ 1,630,377	\$ (134,622)	\$1,722,536	\$ (42,463)
FY 2031	\$ 1,765,596	\$ 1,630,377	\$ (135,219)	\$1,722,536	\$ (43,060)
FY 2032	\$ 1,766,776	\$ 1,630,377	\$ (136,399)	\$1,722,536	\$ (44,240)
FY 2033	\$ 1,768,730	\$ 1,630,377	\$ (138,353)	\$1,722,536	\$ (46,194)
FY 2034	\$ 1,766,584	\$ 1,630,377	\$ (136,207)	\$1,722,536	\$ (44,048)
FY 2035	\$ 1,765,311	\$ 1,630,377	\$ (134,934)	\$1,722,536	\$ (42,775)
FY 2036	\$ 1,764,920	\$ 1,630,377	\$ (134,543)	\$1,722,536	\$ (42,384)
FY 2037-FY 2042	\$ 1,765,440	\$ 1,630,377	\$ (135,063)	\$1,722,536	\$ (42,904)

Rate Scenarios

30 Year

Based on 30 year loans and borrowing based only on available retiring debt

Year	Available Retired Debt	Estimated Annual Payment at 3 %	Additional Required for Payment	Estimated Annual Payment at 3.5 %	Additional Required for Payment
FY 2018	\$ 333,235	\$1,448,437	\$1,115,202	\$1,543,602	\$1,210,367
FY 2019	\$ 515,771	\$1,448,437	\$ 932,666	\$1,543,602	\$1,027,831
FY 2020	\$ 827,645	\$1,448,437	\$ 620,792	\$1,543,602	\$ 715,957
FY 2021	\$ 844,098	\$1,448,437	\$ 604,339	\$1,543,602	\$ 699,504
FY 2022	\$ 855,931	\$1,448,437	\$ 592,506	\$1,543,602	\$ 687,671
FY 2023	\$ 868,268	\$1,448,437	\$ 580,169	\$1,543,602	\$ 675,334
FY 2024	\$ 881,111	\$1,448,437	\$ 567,326	\$1,543,602	\$ 662,491
FY 2025	\$ 934,248	\$1,448,437	\$ 514,189	\$1,543,602	\$ 609,354
FY 2026	\$ 991,739	\$1,448,437	\$ 456,698	\$1,543,602	\$ 551,863
FY 2027	\$ 1,003,744	\$1,448,437	\$ 444,693	\$1,543,602	\$ 539,858
FY 2028	\$ 1,302,311	\$1,448,437	\$ 146,126	\$1,543,602	\$ 241,291
FY 2029	\$ 1,765,126	\$1,448,437	\$ (316,689)	\$1,543,602	\$ (221,524)
FY 2030	\$ 1,764,999	\$1,448,437	\$ (316,562)	\$1,543,602	\$ (221,397)
FY 2031	\$ 1,765,596	\$1,448,437	\$ (317,159)	\$1,543,602	\$ (221,994)
FY 2032	\$ 1,766,776	\$1,448,437	\$ (318,339)	\$1,543,602	\$ (223,174)
FY 2033	\$ 1,768,730	\$1,448,437	\$ (320,293)	\$1,543,602	\$ (225,128)
FY 2034	\$ 1,766,584	\$1,448,437	\$ (318,147)	\$1,543,602	\$ (222,982)
FY 2035	\$ 1,765,311	\$1,448,437	\$ (316,874)	\$1,543,602	\$ (221,709)
FY 2036	\$ 1,764,920	\$1,448,437	\$ (316,483)	\$1,543,602	\$ (221,318)
FY 2037-FY 2047	\$ 1,765,440	\$1,448,437	\$ (317,003)	\$1,543,602	\$ (221,838)