

GREENE COUNTY PUBLIC SCHOOLS ADDITIONS + RENOVATIONS

SCHOOL BOARD UPDATE | Cost Estimates

14 June 2017



PROCESS

FEB	09	Owner Kick-off	
FEB	23	Principals Review	
FEB	27	Traffic, Circulation + Safety	Transportation Dept.
MAR	13	MS User Workshop 01	Program, Innovation, + Visioning
MAR	27	HS User Workshop 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	School Board Update	Cost Estimates

COST ESTIMATES

SCHEMATIC DESIGN

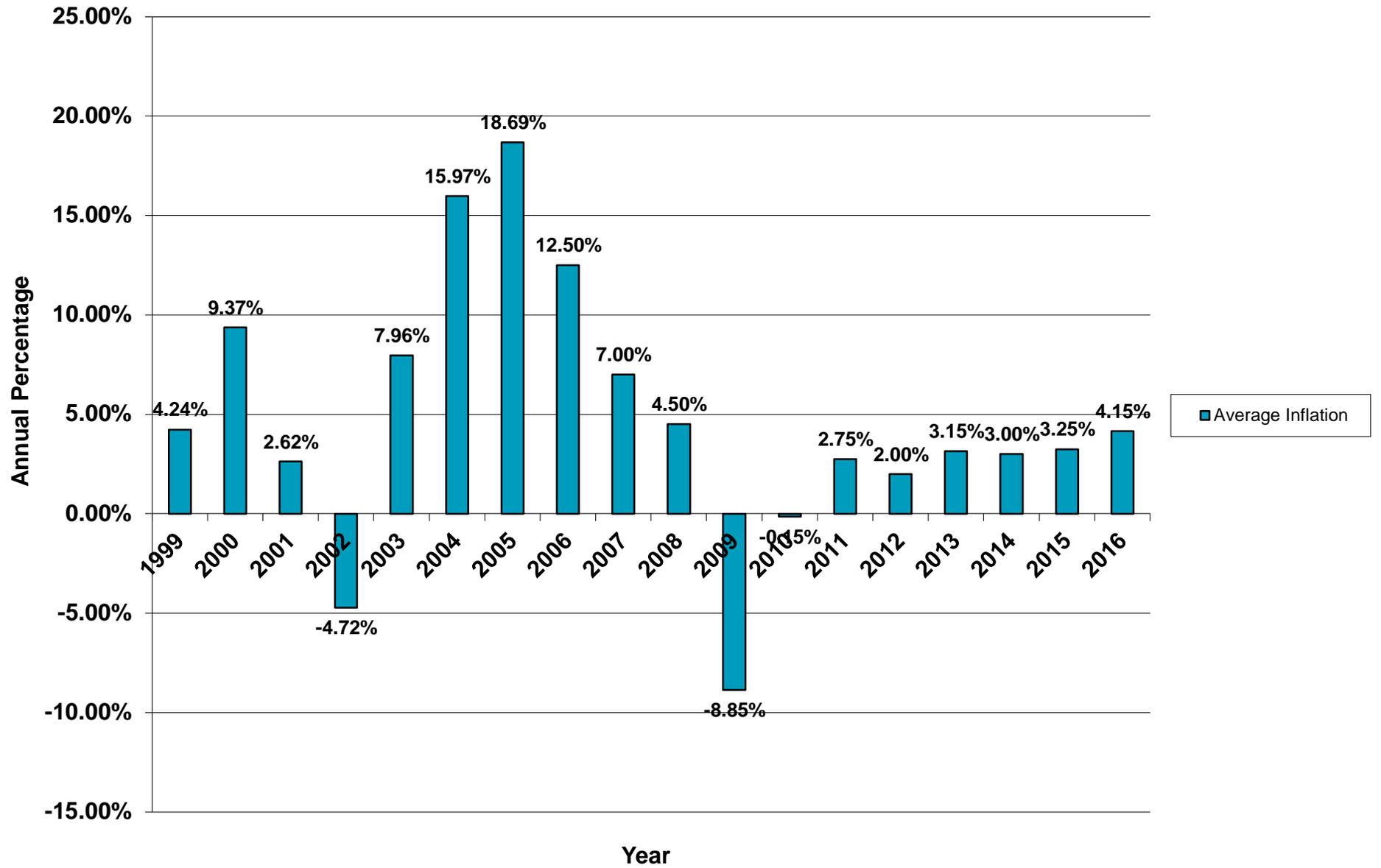
MARKET ALERT - SCHEDULE AND BUDGET BUSTERS:

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.

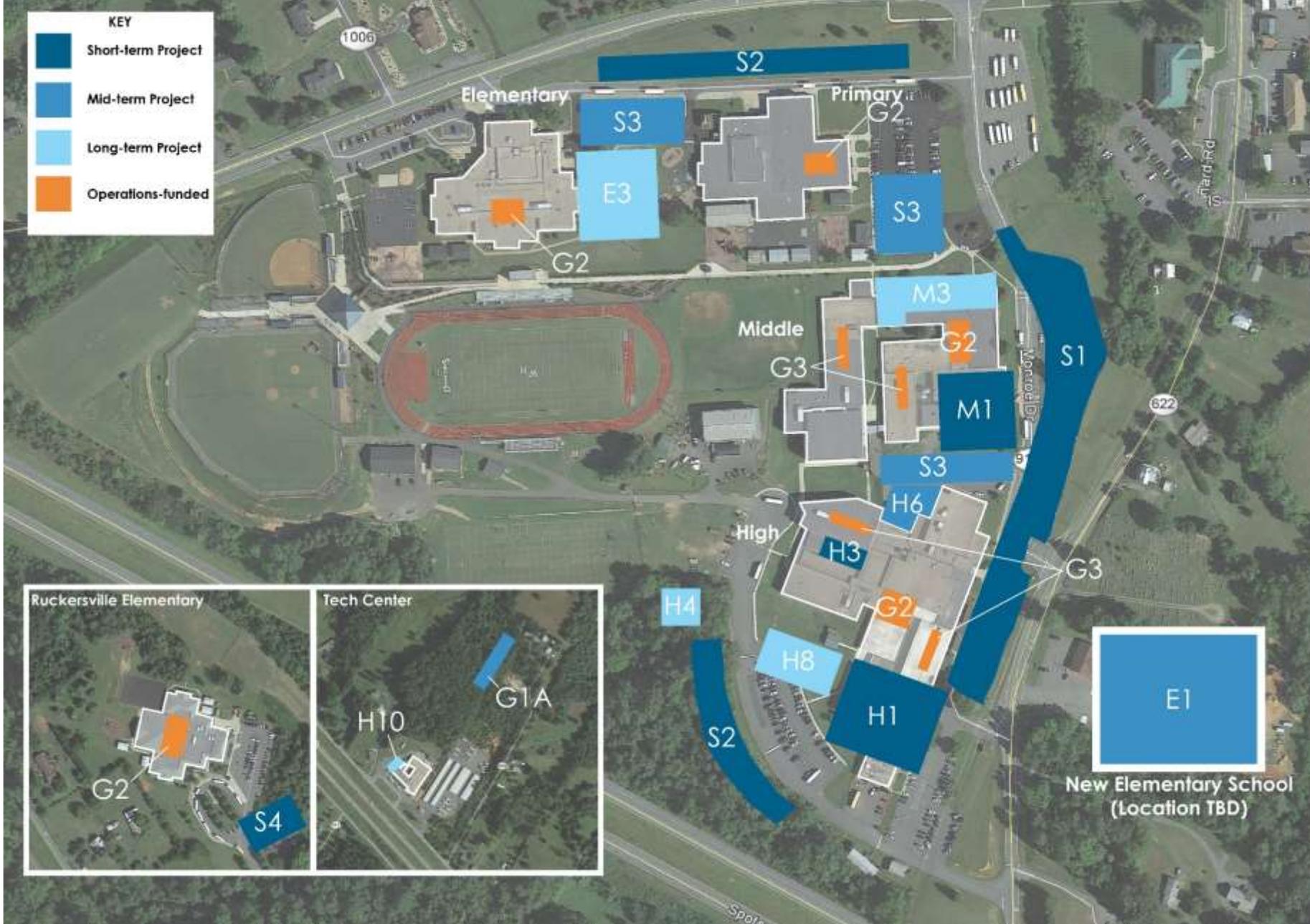
- **Skilled trade labor shortages** (in most specialty trades) are causing significant delays to projects in construction and **wildly divergent labor pricing** in projects being bid
- The Construction Industry has **lost skilled workers** and the expanded market recovery has created a situation where 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



CONCEPT STUDY: PRIORITIES + RECOMMENDATIONS

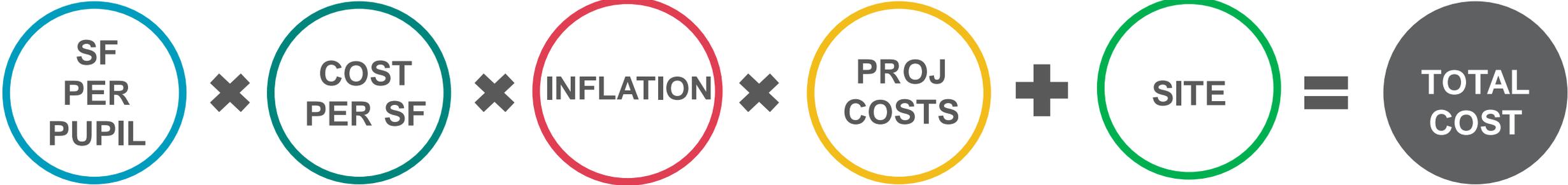
SHORT (HIGH PRIORITY)	H1A	HS Dining/Kitchen/Media	RANGE: \$16.7M - \$19.03M
	S1	Monroe Drive Reconfig	
	S2	WMHS + NG Parking	
	S4	Ruckersville Parking/Circ	
	M1A	MS Dining/Kitchen/Media	

* **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 |

COST PARAMETERS

CONSTRUCTION COSTS



4.25% Annually *

20 - 30%

T B D

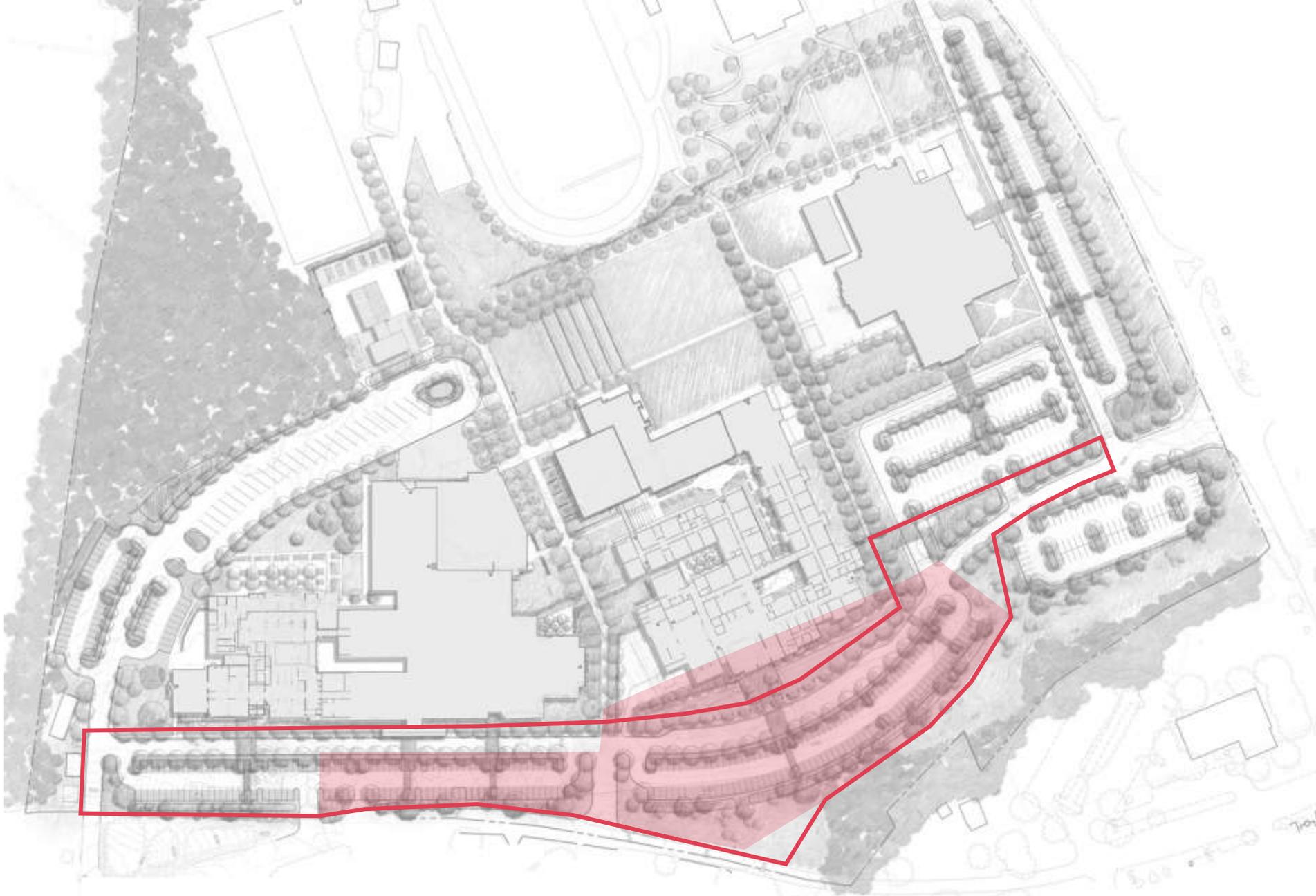
- Furniture, Fixtures, Equip
- Technology / AV
- Survey / Testing
- Utility Costs / Rights-of-Way
- Building Commissioning
- Architecture / Engineering Fees
- Permits
- Legal Fees
- Financing Costs
- Contingency
- Clerk of the Works

- Land Costs
- Off-Site Improvements

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

SITE PROJECTS

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



S1 MONROE DRIVE (reorientation + parking)

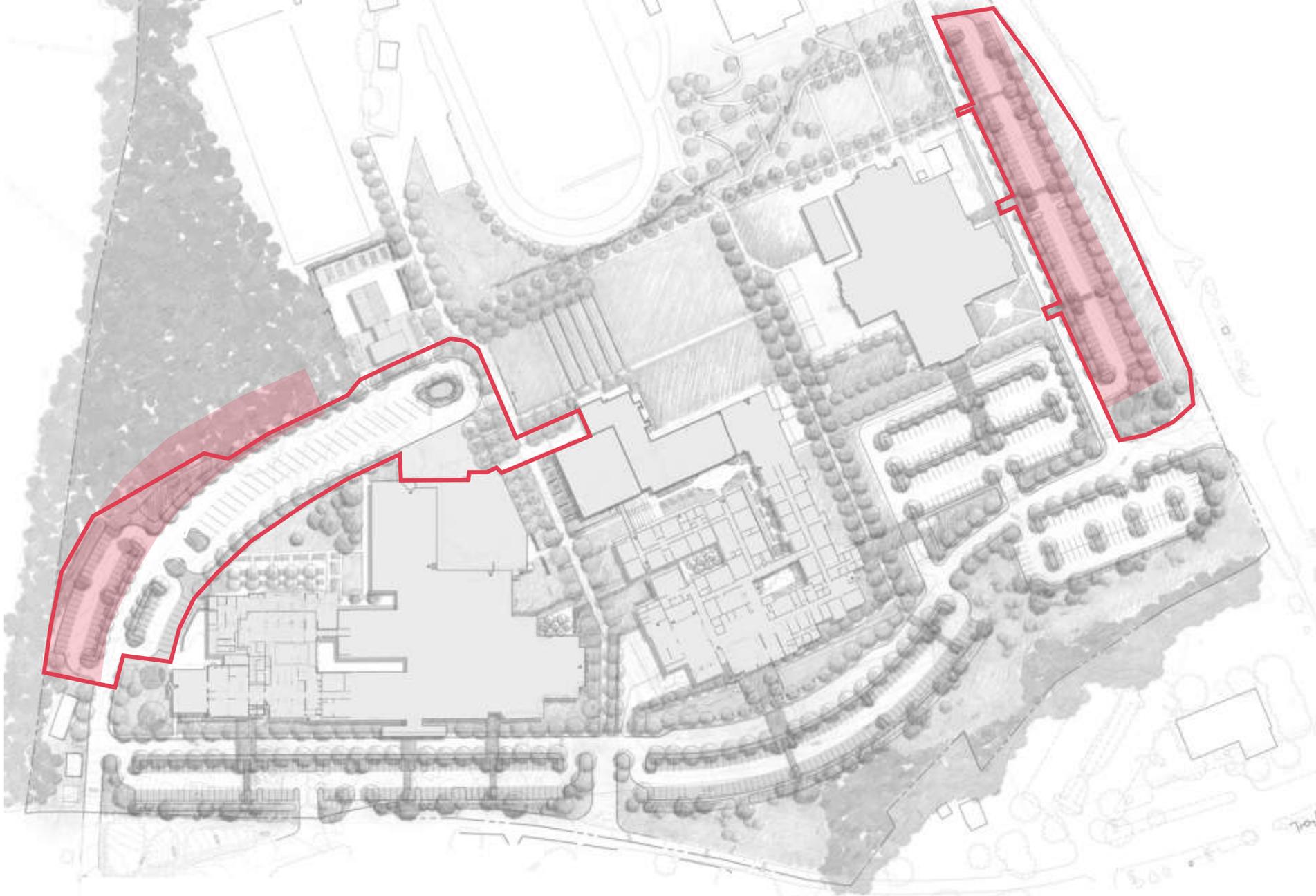
S1 Monroe Drive			Construction Cost	Project Cost	Total Cost
	\$ /sf	GSF			
Demo	\$4.50	78,295	\$352,328		
Paving	\$10	58,722	\$587,220		
Landscape	\$500,000 (per acre)	38,465 (0.88 acres)	\$440,000	20%	
Contingency		25%	\$344,887		
Total 2016			\$1,724,434	\$344,887	\$2,069,321
		2017	\$1,797,723	\$359,545	\$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

S4 NEW PARKING (Ruckersville Campus)

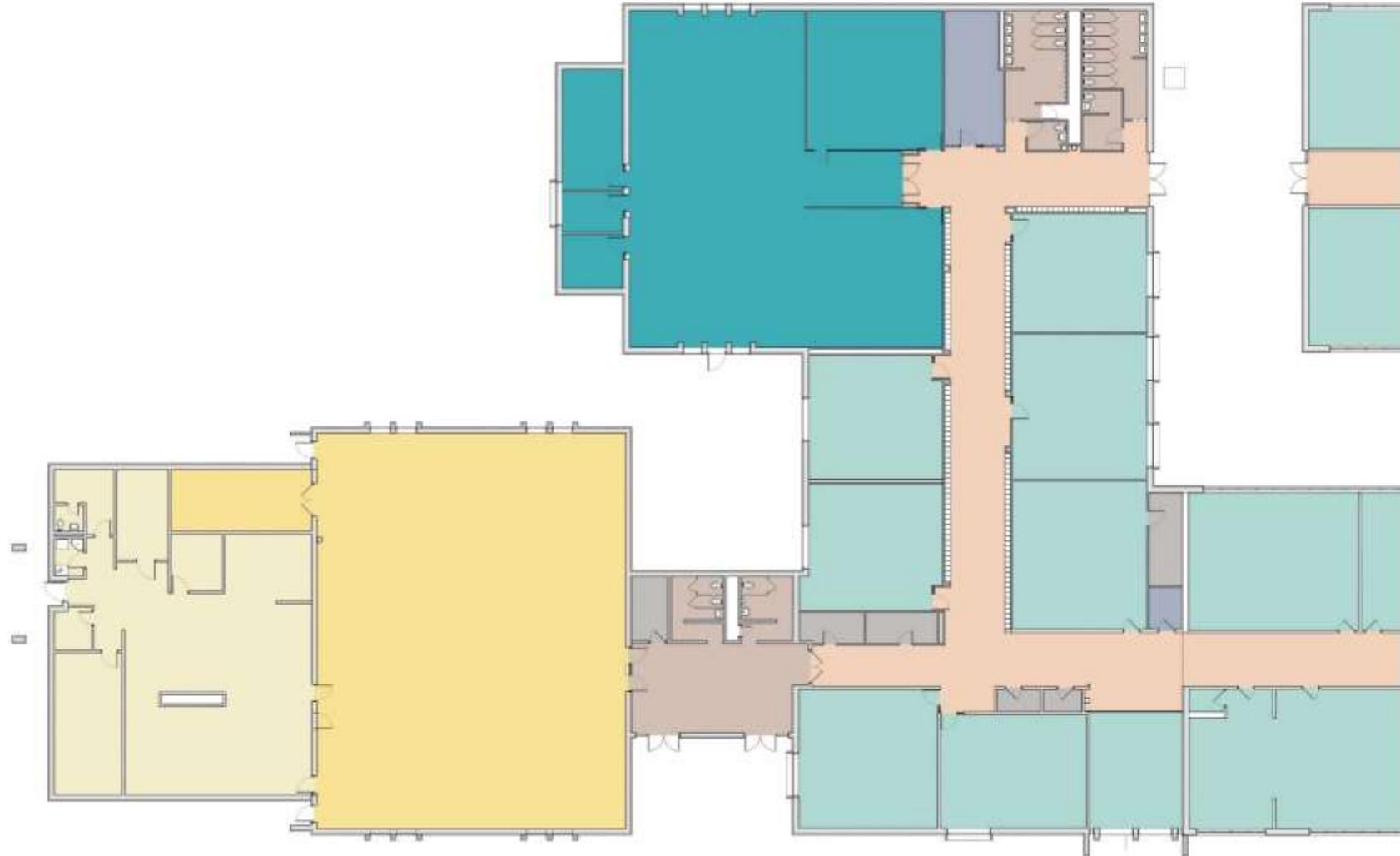
BUILDING PROJECTS

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

\$9,196,848 construction

- 2% 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

\$5,501,432 construction

- 52% 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 (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					
	\$ /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

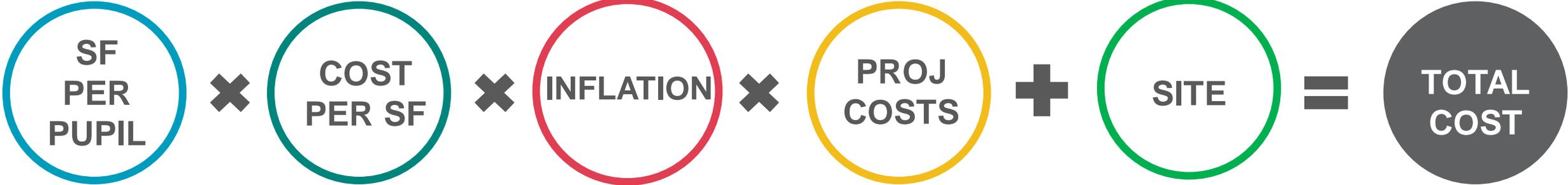
- Project inadvertently not included as part of part of Concept Estimate, despite School Board priority
- Concept Estimate assumed 4.25% escalation; construction prices up 7% (or more) since original Estimate

	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	\$9.19M
M1A MS Dining, Media	\$3.63M	\$5.47M
M1A MS Admin (Add-Alternate)		\$1.13M
H3 Courtyard Infill (Add-Alternate)		\$1.03M
TOTAL (Construction Cost) (Concept Scopes Only)	\$16.50M	\$22.98M (\$20.82M)

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	\$11.49M
M1A MS Dining, Media	\$4.71M	\$6.83M
M1A MS Admin (Add-Alternate)		\$1.41M
H3 Courtyard Infill (Add-Alternate)		\$1.27M
TOTAL (Construction Cost) (Concept Scopes Only)	\$21.11M	\$28.39M (\$25.71M)

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

Design Team currently analyzing strategies for reducing cost of some design elements, where applicable

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

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

students & building occupants

educational opportunities

long-term benefit

NEXT STEPS

Define Scope of Phase 1 (Phase 1 + Add Alternates)

Present Funding Request to Board of Supervisors

VWID O