Cabarrus County Public Schools

Facilities Options Development

September 2023

COOPERATIVE STRATEGIES
ASSESS • PLAN • FUND • BUILD

Roberta Road Middle School Classroom

Key Planning Goals

THEMES/QUESTIONS/NEXT STEPS

Cabarrus County Schools

- A summary of Capital needs since 2018 shows nearly $500M in deferred maintenance
- **Goal: Prioritize major renovations or rebuilding when the identified needs exceeds 50% of a school's replacement value & identify priority repairs**

Get ahead of deferred maintenance

- Using design capacity, 11 schools were over 100% utilized and 10 were under 80% in 2022-23
- **Goal: Identify capital and non-capital solutions to balance enrollment & future capacity needs**

Balance utilization & address growth

- 1/10 available classrooms (4,492 seats) are in a mobile unit*
- **Goal: Prioritize additions or the rebuilding of under-sized schools to eliminate the long-term reliance on portables for student capacity**

Reduce long-term reliance on mobile units

*note: not all mobile units are used for classrooms

Cabarrus County Schools

Get ahead of deferred maintenance

Since 2018…

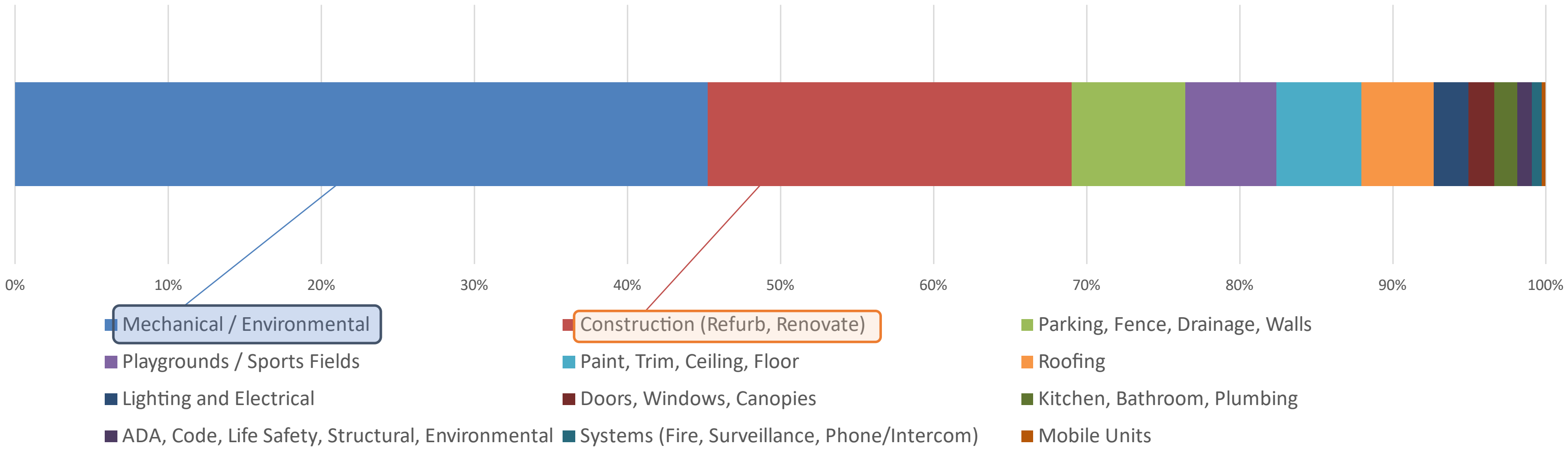
CCS has received $34.7M in deferred maintenance funding & identified $483M in need.

69% of all identified needs are in Mechanical / Environmental and Construction needs.

7 new campuses have been built.

	Deferred Maintenance: 2018-present		
	Funding	Identified Need	Difference
ADA, Code, Life Safety, Structural, Environmental	$ 1,147,302	$ 4,483,495	3.9x
Construction (Refurb, Renovate)	$ 5,335,178	$ 114,934,971	21.5x
Doors, Windows, Canopies	$ 454,082	$ 8,186,208	18x
Kitchen, Bathroom, Plumbing	$ 142,017	$ 7,356,092	51.8x
Lighting and Electrical	$ 1,070,564	$ 10,843,166	10.1x
Mechanical / Environmental	$ 7,681,230	$ 218,424,531	28.4x
Mobile Units	$ 5,468,241	$ 1,100,909	0.2x
Paint, Trim, Ceiling, Floor	$ 1,014,742	$ 26,929,906	26.5x
Parking, Fence, Drainage, Walls	$ 821,963	$ 35,766,070	43.5x
Playgrounds / Sports Fields	$ 1,040,502	$ 28,784,217	27.7x
Roofing	$ 9,642,913	$ 22,672,775	2.4x
Systems (Fire, Surveillance, Phone/Intercom)	$ 930,912	$ 3,313,972	3.6x
	$ 34,749,646	**$ 482,796,312**	**13.9x**

Funding by System/Need Since 2018



New Construction since 2018	Year
Hickory Ridge ES	2020
Royal Oaks SOTA (ES)	2018
Roberta Road MS	2022
West Cabarrus HS	2020
Cabarrus Virtual Academy	2021
Royal Oaks SOTA (MS Addition)	2019
Cabarrus Health Sciences Inst.	2022

Beginning in the 2020-2021 school year, the average class size for kindergarten through 3rd grade was lowered from 25 to 21 students. **The District-wide impact was equivalent to CCS losing 2.5-3 elementary schools.**

Before HB 90

Example ES with 40-classrooms

K	21	21	21	21
	21	21	21	21
1	21	21	21	21
	21	21	21	21
2	21	21	21	21
3	21	21	21	21
	21	21	21	21
4	26	26	26	26
5	26	26	26	26
	26	26	26	26

40 classrooms =900 capacity

After HB 90

18	18	18	18
18	18	18	16
16	16	16	16
16	16	16	17
17	17	17	17
17	17	17	17
17	17	17	17
17	17	17	26
26	26	26	26
26	26	26	26
26			

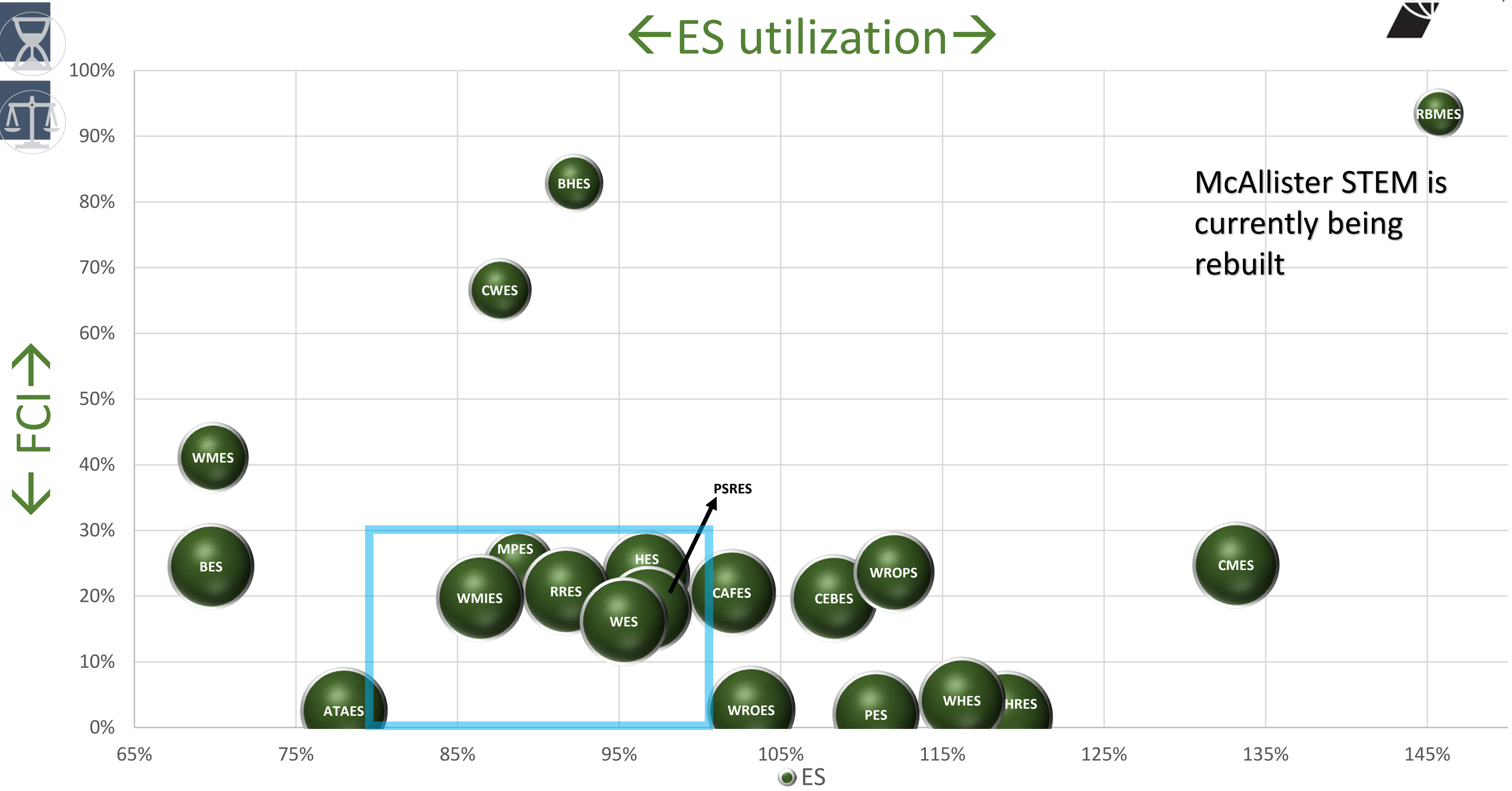
41 classrooms =786 capacity

Loss of 114 capacity (12%) while requiring one additional classroom

Cabarrus County Schools

Get ahead of deferred maintenance

Balance utilization & address growth



McAllister STEM is currently being rebuilt

Cabarrus County Schools

Get ahead of deferred maintenance

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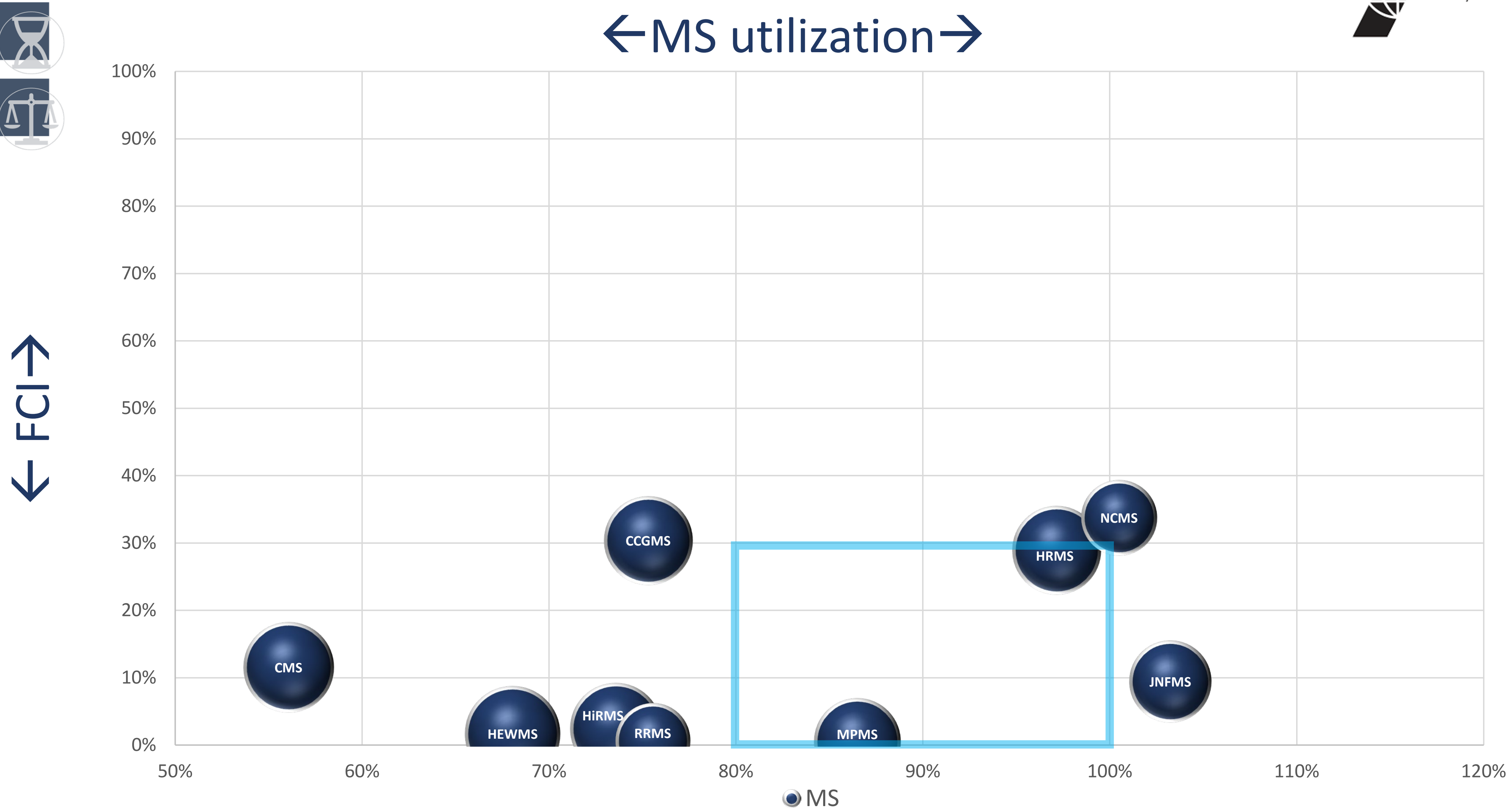


Cabarrus County Schools

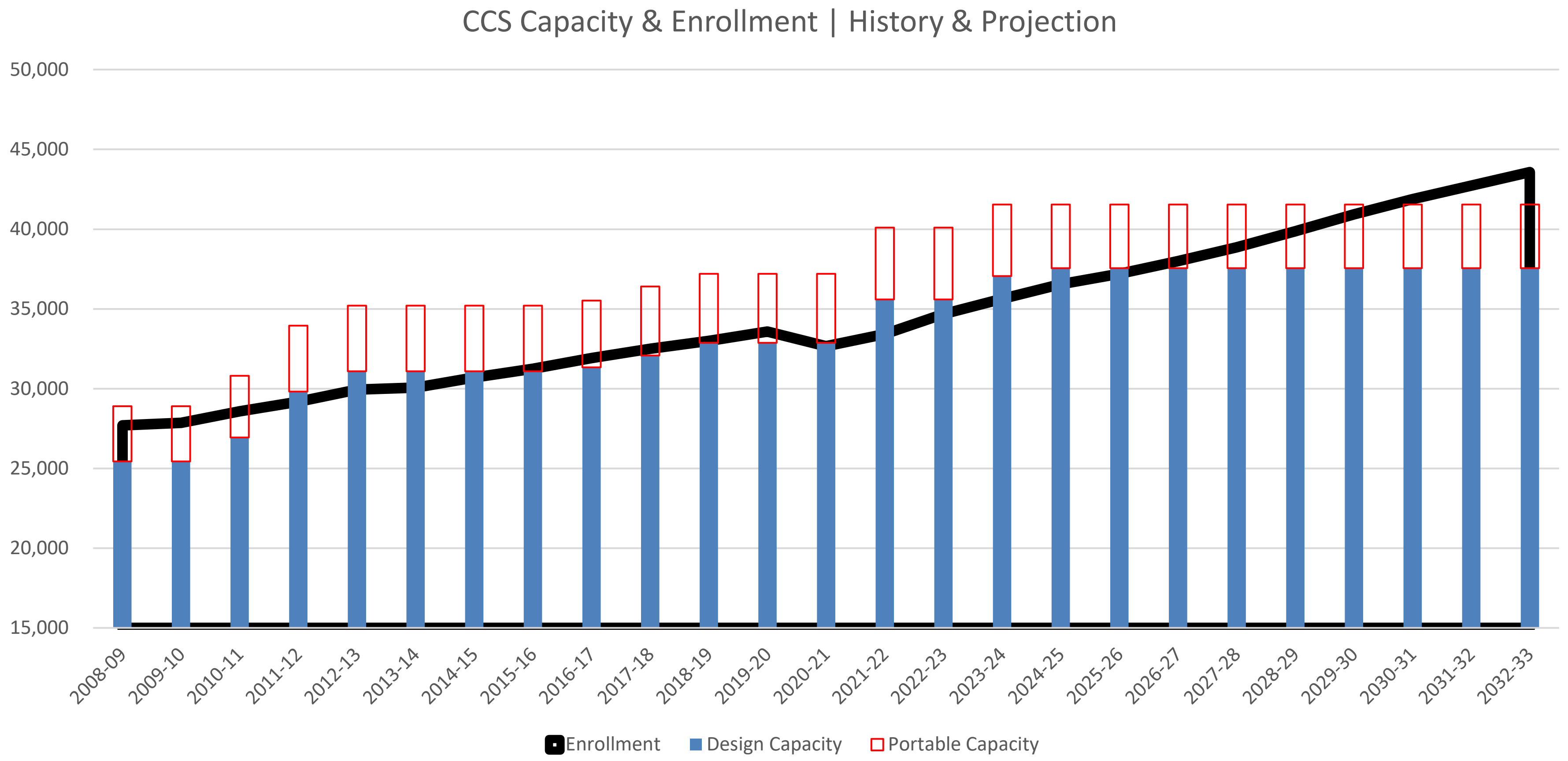
Get ahead of deferred maintenance

Balance utilization & address growth

←HS utilization→

Cabarrus County Schools

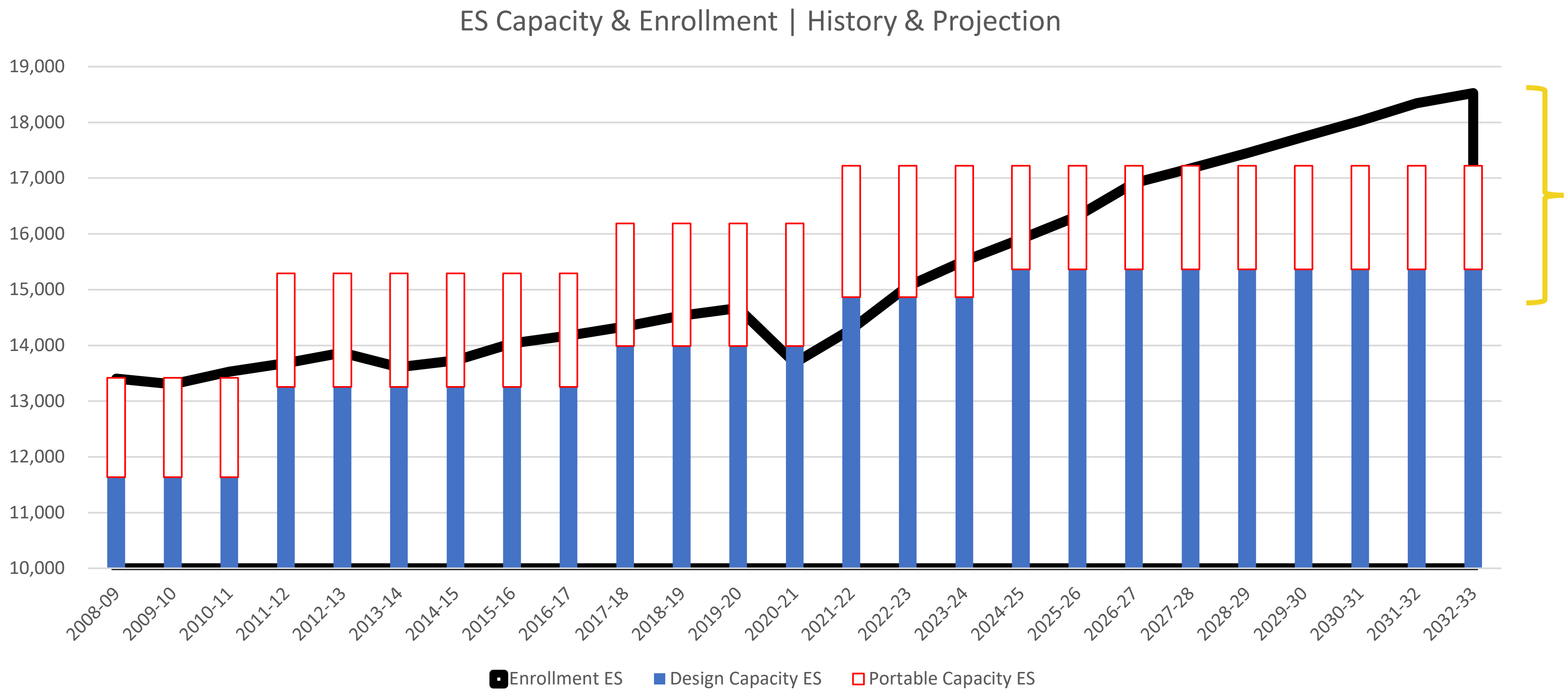
Reduce long-term reliance on mobile units



Enrollment projections performed by Cooperative Strategies, Summer 2023

CCS has historically used mobile units to accommodate population growth. After an enrollment drop due to the pandemic, enrollment is recovering to pre-pandemic trends

Reduce long-term reliance on mobile units

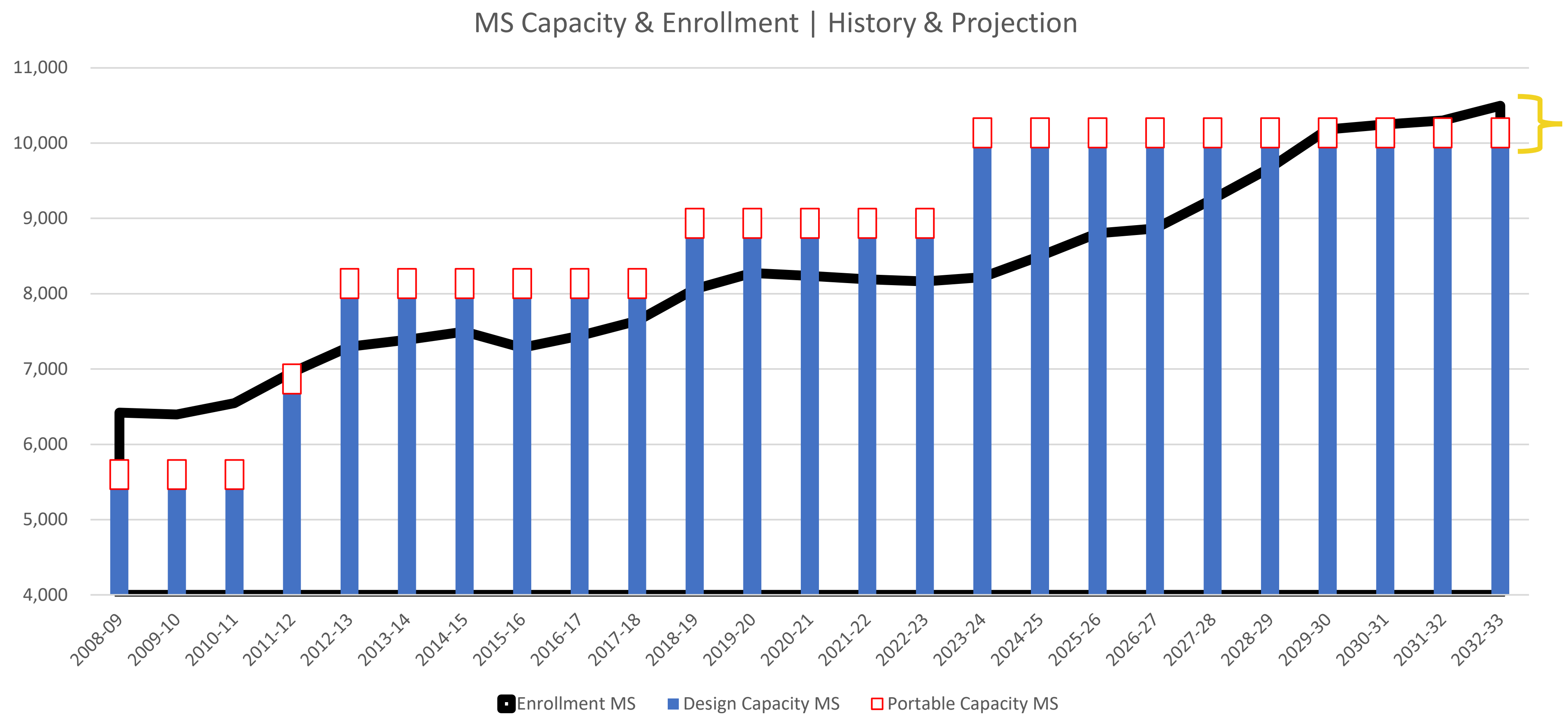


Elementary Schools have consistently been over-utilized and dependent on portables to accommodate growth.

There is a projected need of over 3,600 permanent ES seats by 2032.

Cabarrus County Schools

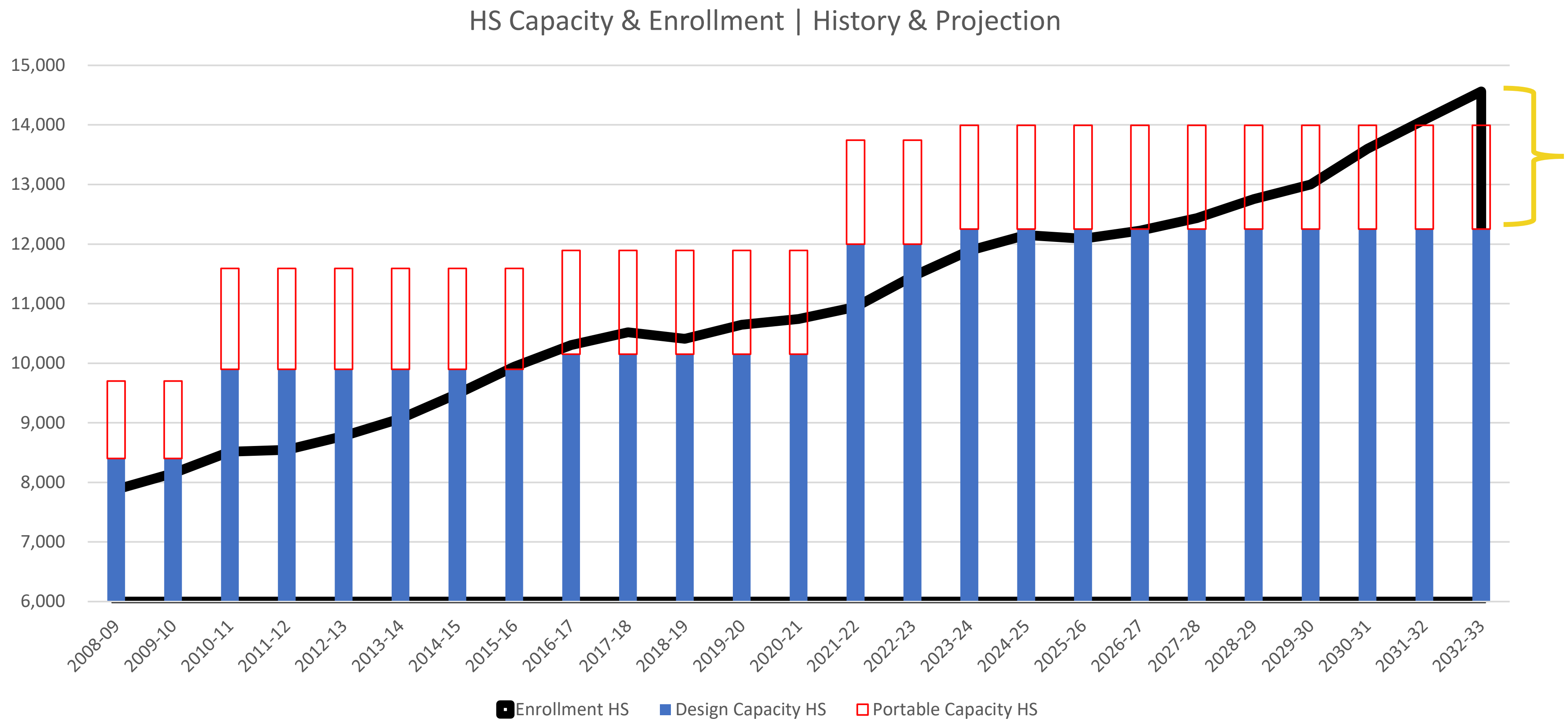
Reduce long-term reliance on mobile units



Middle Schools have a little surplus capacity but that is expected to be erased through growth by 2030.

► DISTRICTWIDE DATA DATA| Historic reliance on Mobile Units

Reduce long-term reliance on mobile units



Since 2015, CCS has needed mobile units to keep pace with HS population growth.

There are currently sufficient permanent HS seats, but projections indicate CCS will be short >2,000 seats by 2032.

Equity Analysis

DISTRICTWIDE CONDITION BY BUILDING

School Name	YEAR OPEN	ACRES	SQFT TOTAL	Present Replacement Value	Deficiencies	FCI
ALLEN ES	2010	28	111,570	$50,206,500	$1,285,162	3%
BETHEL ES	2004	36	110,000	$49,500,000	$12,132,013	25%
BEVERLY HILLS ES	1953	12	49,600	$22,320,000	$18,493,563	83%
BOGER ES	2007	26	111,570	$50,206,500	$9,886,283	20%
CABARRUS HEALTH SCIENCES INSTITUTE	2022		12,904	$6,348,768	$9,896,863	
CABARRUS TECH EARLY COLLEGE	2015					
CABARRUS VIRTUAL ACADEMY	2021					
CENTRAL CABARRUS HS	1966	127	147,632	$72,634,944	$28,875,879	40%
COLTRANE-WEBB STEM ES	1937	10	58,200	$26,190,000	$17,443,148	67%
CONCORD HS	1967	66	173,961	$85,588,812	$27,667,997	32%
CONCORD MS	1999	60	169,185	$80,362,875	$9,291,597	12%
COX MILL ES	2002	35	110,000	$49,500,000	$12,245,778	25%
COX MILL HS	2009	65	232,459	$114,369,828	$5,979,877	5%
FRIES MS	1989	55	139,500	$66,262,500	$6,252,153	9%
FURR ES	2007	16	111,750	$50,287,500	$10,317,011	21%
GRIFFIN STEM MS	2002	52	163,000	$77,425,000	$23,504,669	30%
HARRIS ROAD MS	2002	69	163,000	$77,425,000	$22,387,011	29%
HARRISBURG ES	2000	27	113,488	$51,069,600	$11,882,923	23%
HICKORY RIDGE ES	2020	45	126,878	$57,095,100	$892,600	2%
HICKORY RIDGE HS	2007	106	224,000	$110,208,000	$17,748,870	16%
HICKORY RIDGE MS	2010	64	173,000	$82,175,000	$2,038,874	2%
IRVIN ES	1999	40	113,488	$51,069,600	$10,065,246	20%
MARY FRANCES WALL	1971		57,568	$25,905,600	$4,854,202	19%
MCALLISTER STEM ES	1956	34	36,100	$16,245,000	$15,178,594	93%
MOUNT PLEASANT ES	1972	32	73,800	$33,210,000	$8,152,656	25%
MOUNT PLEASANT HS	1989	102	177,000	$87,084,000	$10,008,666	11%
MOUNT PLEASANT MS	2017	51	155,440	$73,834,000	$413,944	1%
NORTHWEST CABARRUS HS	1966	87	180,896	$89,000,832	$38,429,863	43%
NORTHWEST CABARRUS STEM MS	1979	87	118,800	$56,430,000	$19,038,840	34%
ODELL ES	2016	26	96,117	$43,252,650	$1,376,199	3%
ODELL PRIMARY	2007	16	113,768	$51,195,600	$10,220,521	20%
OPPORTUNITY SCHOOL	1923	17	99,000	$48,708,000	$27,348,875	56%
PATRIOT STEM ES	2010	24	111,570	$50,206,500	$1,002,041	2%
PITT SCHOOL ROAD ES	2005	22	110,000	$49,500,000	$8,929,653	18%
ROBERTA ROAD MS	2022	44	116,000	$55,100,000	$380,000	1%
ROBINSON HS	2001	76	256,060	$125,981,520	$15,259,824	12%
ROCKY RIVER ES	1997	37	113,488	$51,069,600	$10,595,476	21%
ROYAL OAKS SOTA	2018	17	110,000	$51,150,000	$0	0%
WEDDINGTON HILLS ES	1996	60	111,404	$50,131,800	$2,064,588	4%
WEST CABARRUS HS	2020	108	264,054	$129,914,568	$530,145	0%
WINECOFF ES	1999	20	113,488	$51,069,600	$8,262,479	16%
WINKLER MS	2011	45	188,000	$89,300,000	$1,515,532	2%
WOLF MEADOW ES	1974	35	73,800	$33,210,000	$13,648,033	41%
	1995	**1,879**	**5,291,538**	**$2,491,744,797**	**$455,497,649**	**18%**

	YEAR OPEN	SQFT TOTAL	FCI	Design Capacity	2022-23 Enrollment	2022-23 Utilization	% Economincally Disadvantaged
WINECOFF ES	1999	113,488	16%	808	770	95%	77%
ROCKY RIVER ES	1997	113,488	21%	808	741	92%	74%
ALLEN ES	2010	111,570	3%	808	630	78%	70%
BEVERLY HILLS ES	1953	49,600	83%	308	284	92%	68%
WOLF MEADOW ES	1974	73,800	41%	740	517	70%	65%
FURR ES	2007	111,750	21%	808	824	102%	61%
WEDDINGTON HILLS ES	1996	111,404	4%	808	939	116%	59%
IRVIN ES	1999	113,488	20%	808	698	86%	57%
COLTRANE-WEBB STEM ES	1937	58,200	67%	428	375	88%	54%
BETHEL ES	2004	110,000	25%	876	611	70%	50%
PITT SCHOOL ROAD ES	2005	110,000	18%	876	848	97%	50%
BOGER ES	2007	111,570	20%	808	875	108%	47%
MOUNT PLEASANT ES	1972	73,800	25%	740	657	89%	45%
PATRIOT STEM ES	2010	111,570	2%	808	896	111%	40%
MCALLISTER STEM ES	1956	36,100	93%	256	373	146%	39%
HARRISBURG ES	2000	113,488	23%	808	781	97%	28%
HICKORY RIDGE ES	2020	126,878	2%	876	1,042	119%	15%
ODELL ES	2016	96,117	3%	882	910	103%	14%
ODELL PRIMARY	2007	113,768	20%	734	822	112%	14%
COX MILL ES	2002	110,000	25%	808	1,076	133%	9%

McAllister had the highest FCI but is currently being replaced

The smallest schools and those with the highest FCIs serve the communities with higher than average rates of economically disadvantaged students.

DISTRICTWIDE	YEAR OPEN	SQFT TOTAL	FCI	Design Capacity	2022-23 Enrollment	2022-23 Utilization	% Economincally Disadvantaged
COLTRANE-WEBB STEM ES	1937	58,200	67%	428	375	88%	54%
BEVERLY HILLS ES	1953	49,600	83%	308	284	92%	68%
WOLF MEADOW ES	1974	73,800	41%	740	517	70%	65%

Average FCI of other ES = 16% (not counting McAllister STEM which is currently being rebuilt)

Config	Design Capacity	2014-15 Enrollment	22-23 Enrollment	31-32 Projected Enrollment	Current Utilization	Projected 31-32 Util.
ES	14,864	13,729	15,063	18,524	101%	125%
MS	8,740	7,495	8,164	10,497	93%	106%
HS	12,000	9,485	11,457	14,562	95%	119%

Growth figures were impacted by the pandemic but are trending back to pre-pandemic growth levels

- There are 3 ES <500 enrollment & they are 40+ years older with 2-3x FCI than ES>500; they also have surplus capacity suggesting parents are opting out
- All grade levels are near capacity and projected to be over-utilized in the coming years
- Concord & Robinson have some surplus capacity
- All schools, at all sizes, have relied on portables for capacity

DISTICTWIDE DATA| EQUITY ANALYSIS BY FEEDER PATTERN

Cabarrus County Schools

HS Network	Feeder	AGE	FCI	SF/ Student	% Cap in MU	2022 Util	# Surplus Seats	7yr Acad Perf	% Econ Disadv
		1 - 62	0 - 66%	91 - 194	0 - 36%	56 - 117%	(384) - 557	43 - 83	13 - 68%
CENTRAL CABARRUS HS	ES	23	23%	133	5%	81%	332	55	62%
	MS	21	30%	129	0%	75%	313	55	59%
	HS	57	40%	109	36%	97%	43	69	58%
CONCORD HS	ES	62	66%	145	13%	103%	70	60	54%
	MS	24	12%	133	0%	56%	557	43	65%
	HS	56	32%	120	2%	68%	461	63	68%
COX MILL HS	ES	15	17%	129	18%	113%	-316	82	13%
	MS	21	29%	129	16%	97%	36	83	16%
	HS	14	5%	155	21%	117%	-255	83	15%
HICKORY RIDGE HS	ES	13	9%	141	15%	109%	-227	76	28%
	MS	13	2%	136	0%	74%	335	78	18%
	HS	16	16%	149	11%	115%	-219	81	20%
ROBINSON HS	ES	17	19%	132	3%	99%	12	65	55%
	MS	1	1%	97	0%	80%	242		58%
	HS	22	12%	171	9%	72%	419	65	52%
MOUNT PLEASANT HS	ES	32	14%	119	12%	83%	261	67	57%
	MS	6	1%	194	0%	87%	108	66	47%
	HS	34	11%	169	0%	86%	146	68	40%
NORTHWEST CABARRUS HS	ES	20	18%	139	10%	102%	-29	58	62%
	MS	44	34%	149	14%	101%	-4	61	59%
	HS	57	43%	129	12%	81%	261	73	37%
WEST CABARRUS HS	ES	38	23%	119	27%	93%	92	61	62%
	MS	23	6%	161	1%	86%	379	71	44%
	HS	3	0%	143	0%	98%	33	51	61%

Central Cabarrus HS: HS has the 2nd lowest SF/student of all schools & greatest reliance on MU

Concord HS: Highest % Econ. Disadv., oldest schools, highest FCIs, surplus capacity

Cox Mill HS: Lowest % Econ. Disadv., highest performing K-12, over-utilized

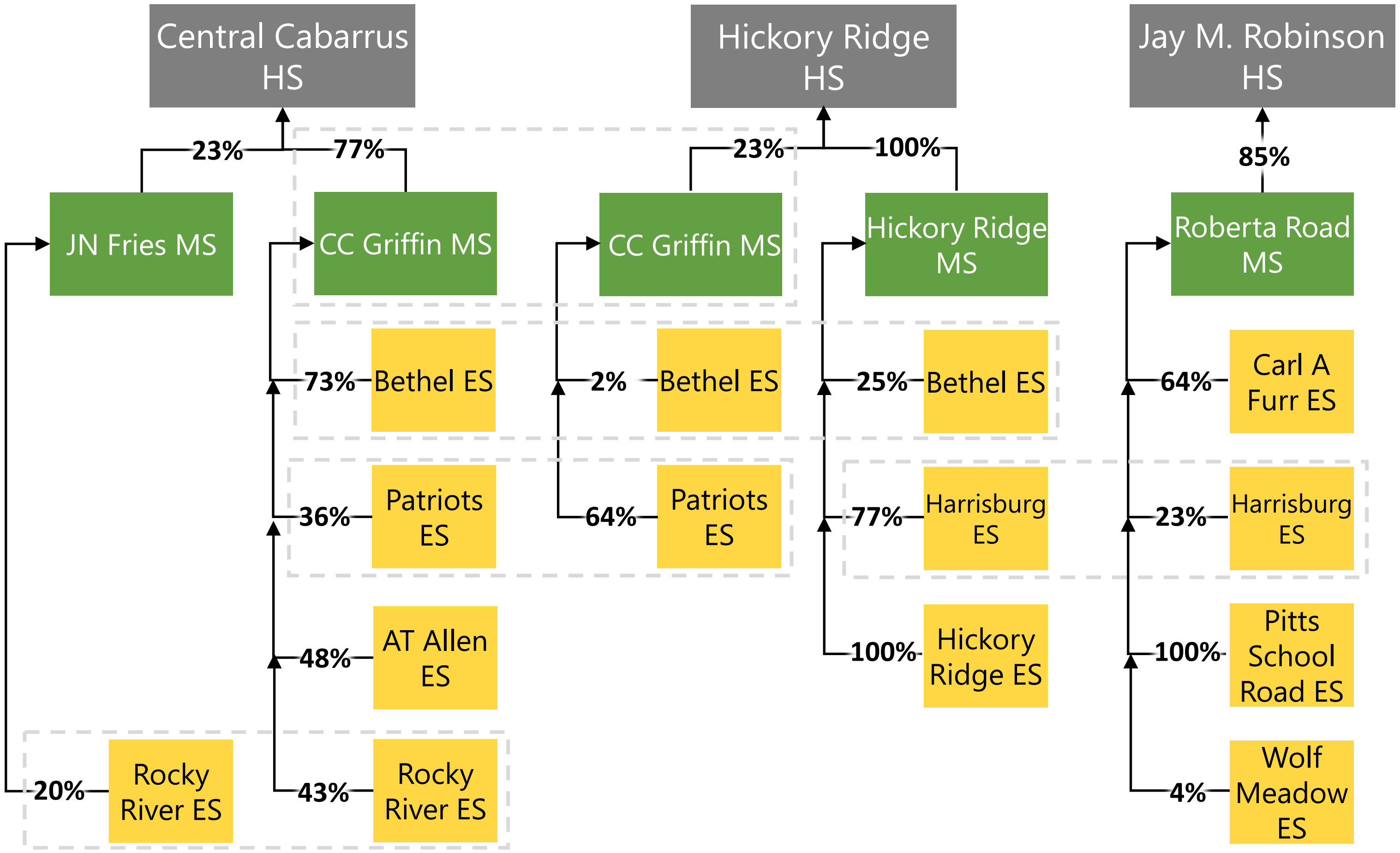
Hickory Ridge HS: Low % Econ. Disadv., high performing, over-utilized

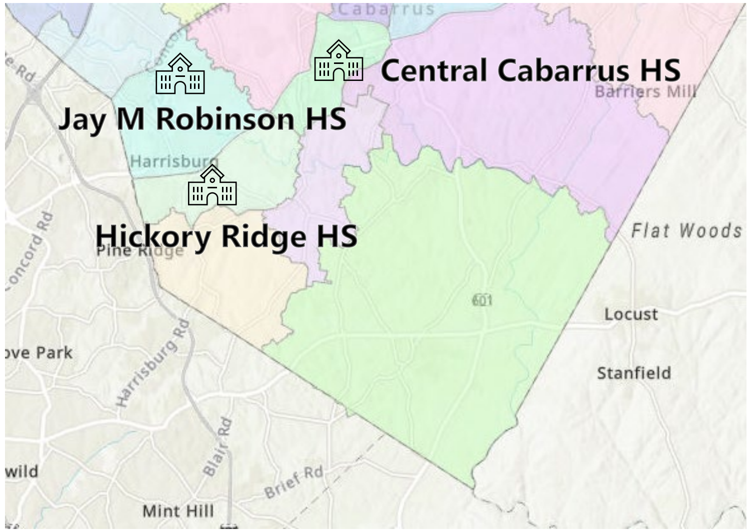
Robinson HS: Newest school but lowest SF/student, high SF/student HS

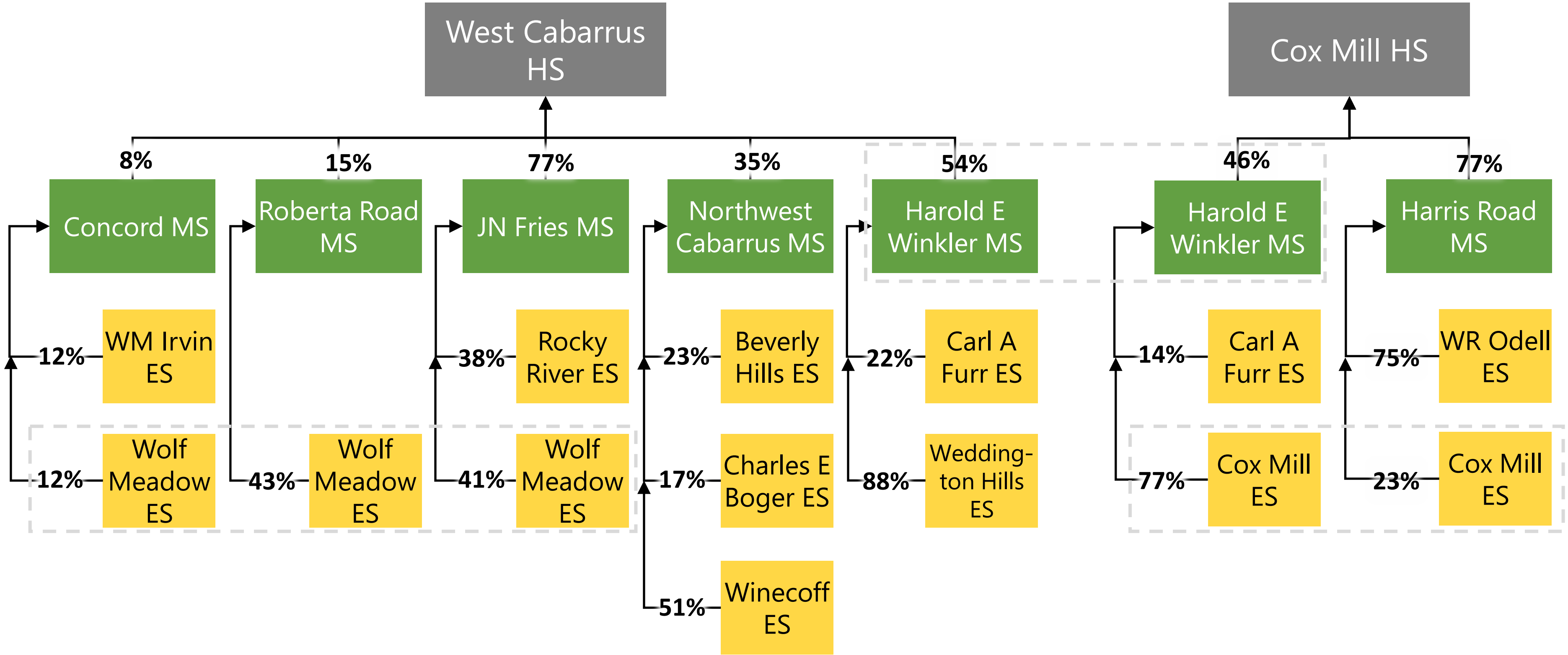
Mount Pleasant HS: Highest SF/ Student MS-HS with no reliance on MU.

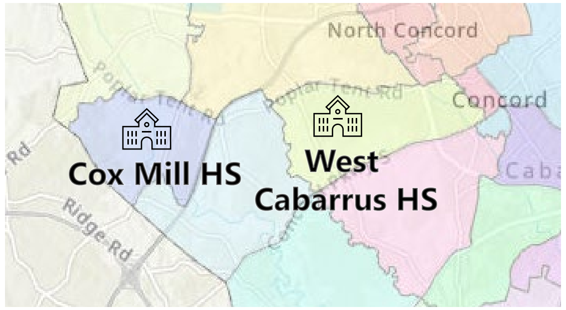
Northwest Cabarrus HS: Tied with Central Cabarrus for oldest HS & highest FCI

West Cabarrus HS: ~1/3 ES seats in MU, MS surplus capacity, new HS with no reliance on MU

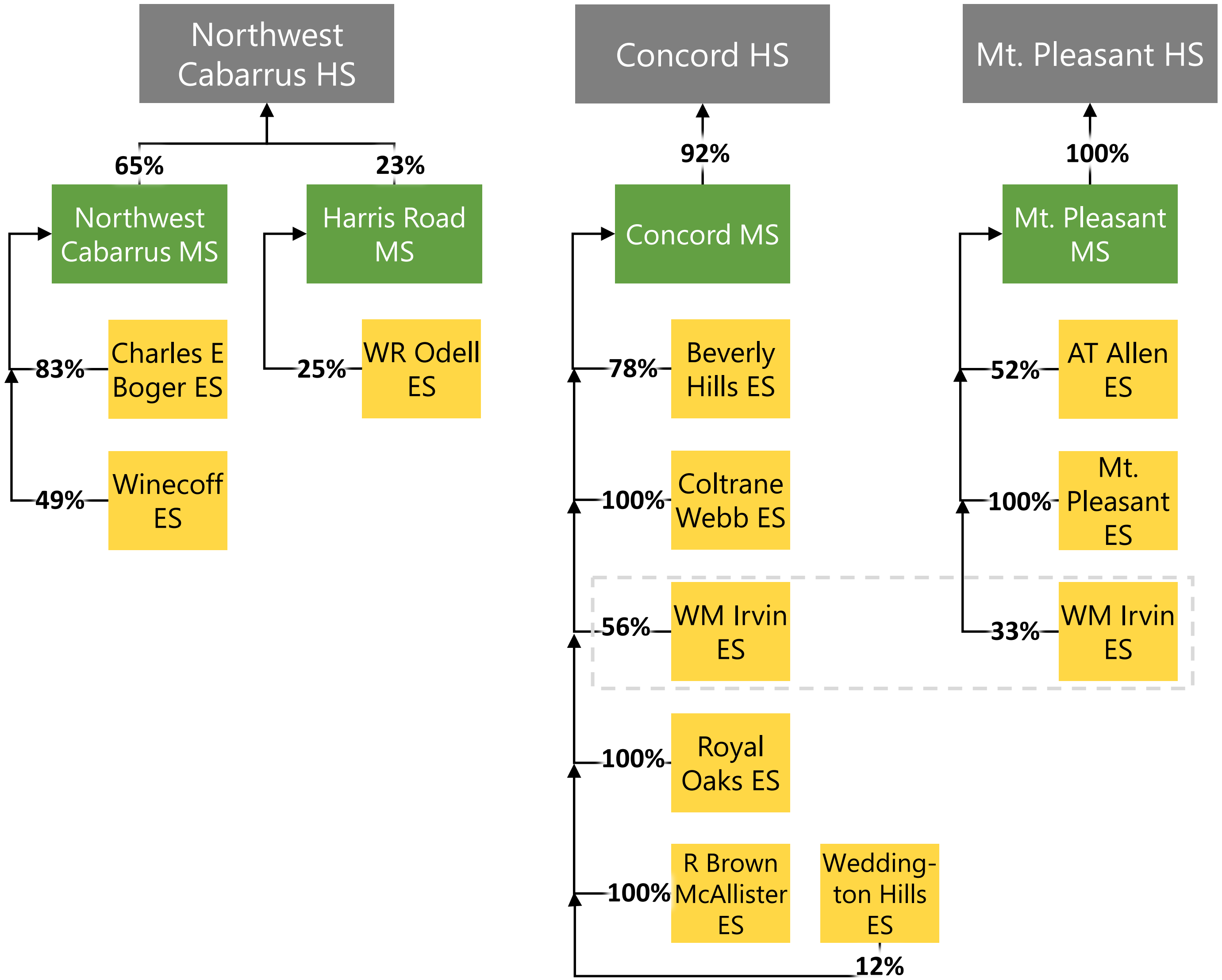

Central Cabarrus HS
Hickory Ridge HS
Jay M. Robinson HS
23%
77%
23%
100%
85%
JN Fries MS
CC Griffin MS
CC Griffin MS
Hickory Ridge MS
Roberta Road MS
73%
Bethel ES
2%
Bethel ES
25%
Bethel ES
64%
Carl A Furr ES
36%
Patriots ES
64%
Patriots ES
77%
Harrisburg ES
23%
Harrisburg ES
48%
AT Allen ES
100%
Hickory Ridge ES
100%
Pitts School Road ES
20%
Rocky River ES
43%
Rocky River ES
4%
Wolf Meadow ES

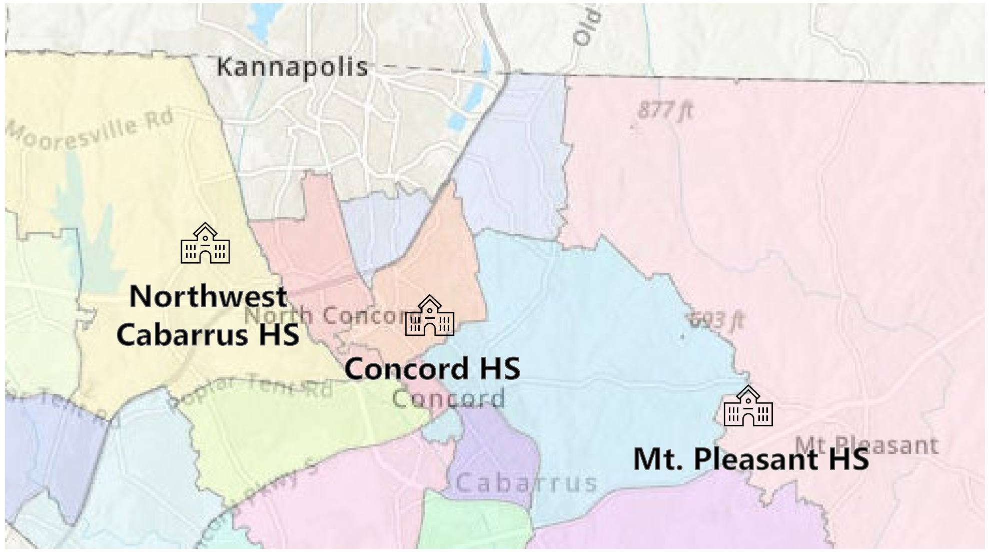

Central Cabarrus HS
Jay M Robinson HS
Hickory Ridge HS
Harrisburg
Flat Woods
Locust
Stanfield
Mint Hill
Harrisburg Rd
Blair Rd
Brief Rd
Concord Rd


West Cabarrus HS
8%
Concord MS
15%
Roberta Road MS
77%
JN Fries MS
35%
Northwest Cabarrus MS
54%
Harold E Winkler MS
12%
WM Irvin ES
12%
Wolf Meadow ES
43%
Wolf Meadow ES
38%
Rocky River ES
41%
Wolf Meadow ES
23%
Beverly Hills ES
17%
Charles E Boger ES
51%
Winecoff ES
22%
Carl A Furr ES
88%
Wedding-ton Hills ES
Cox Mill HS
46%
Harold E Winkler MS
77%
Harris Road MS
14%
Carl A Furr ES
77%
Cox Mill ES
75%
WR Odell ES
23%
Cox Mill ES


North Concord
Concord
Cox Mill HS
West Cabarrus HS

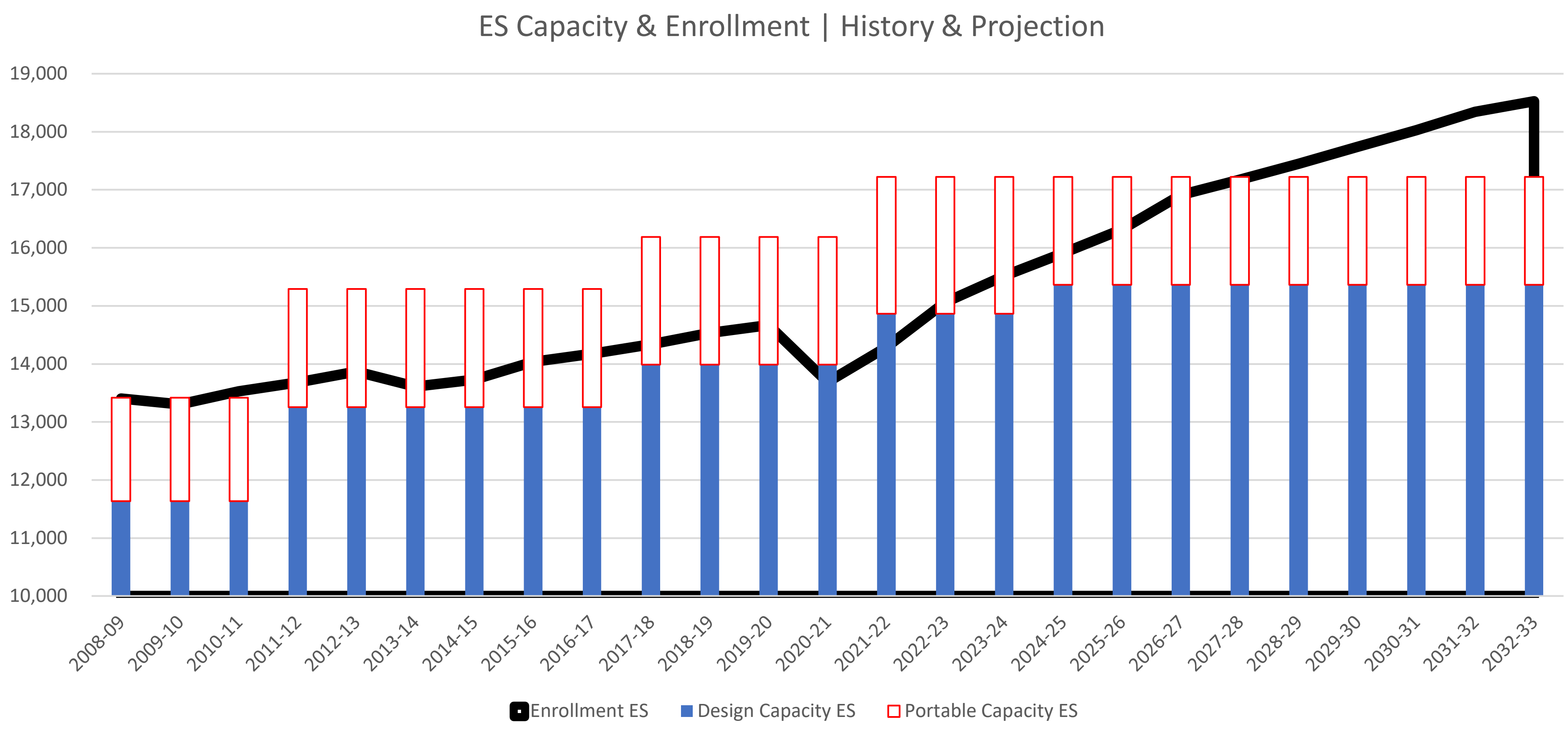
► DISTICTWIDE OPTIONS| Feeder Pattern Analysis





Recommendations

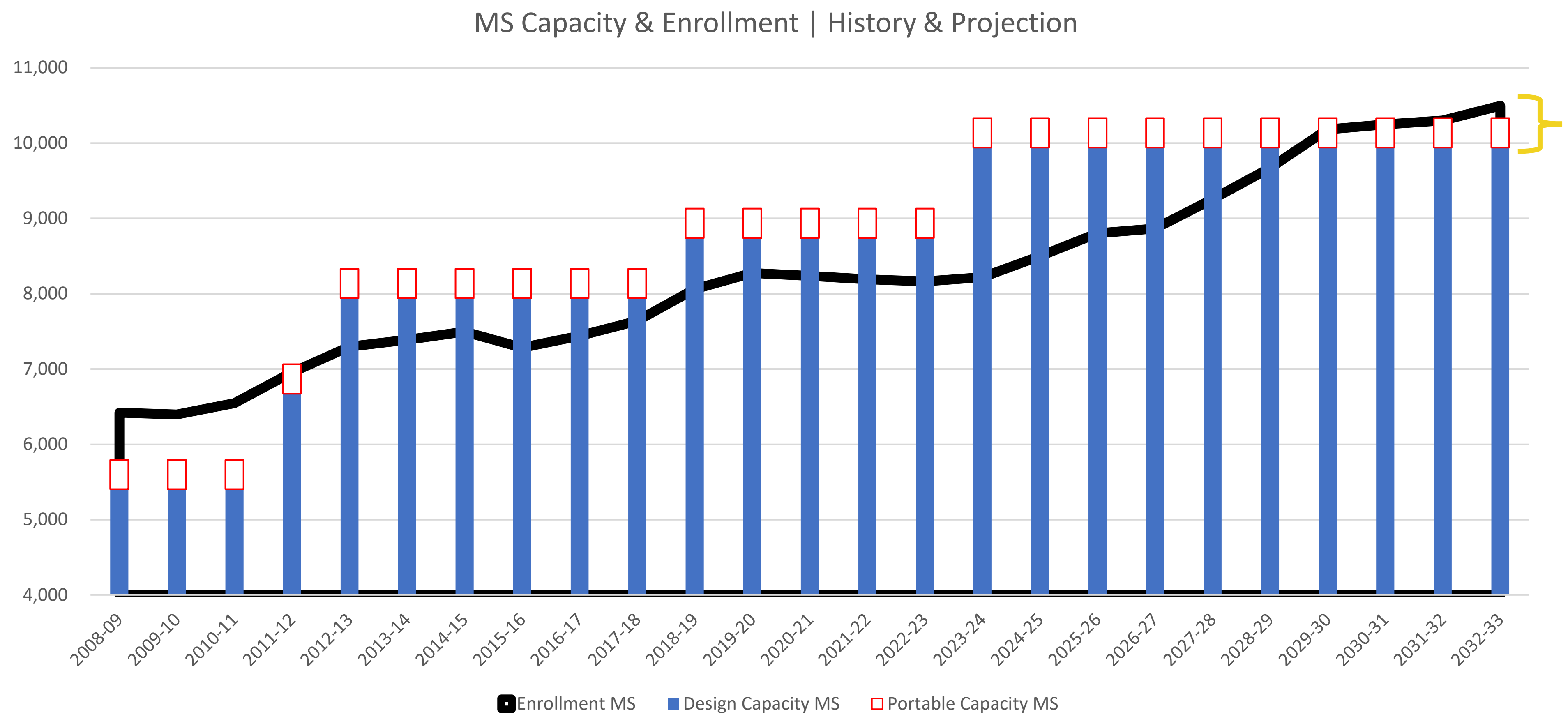
Reduce long-term reliance on mobile units



Build at least three new elementary schools to accommodate growth and replace most, but not all, portables

Cabarrus County Schools

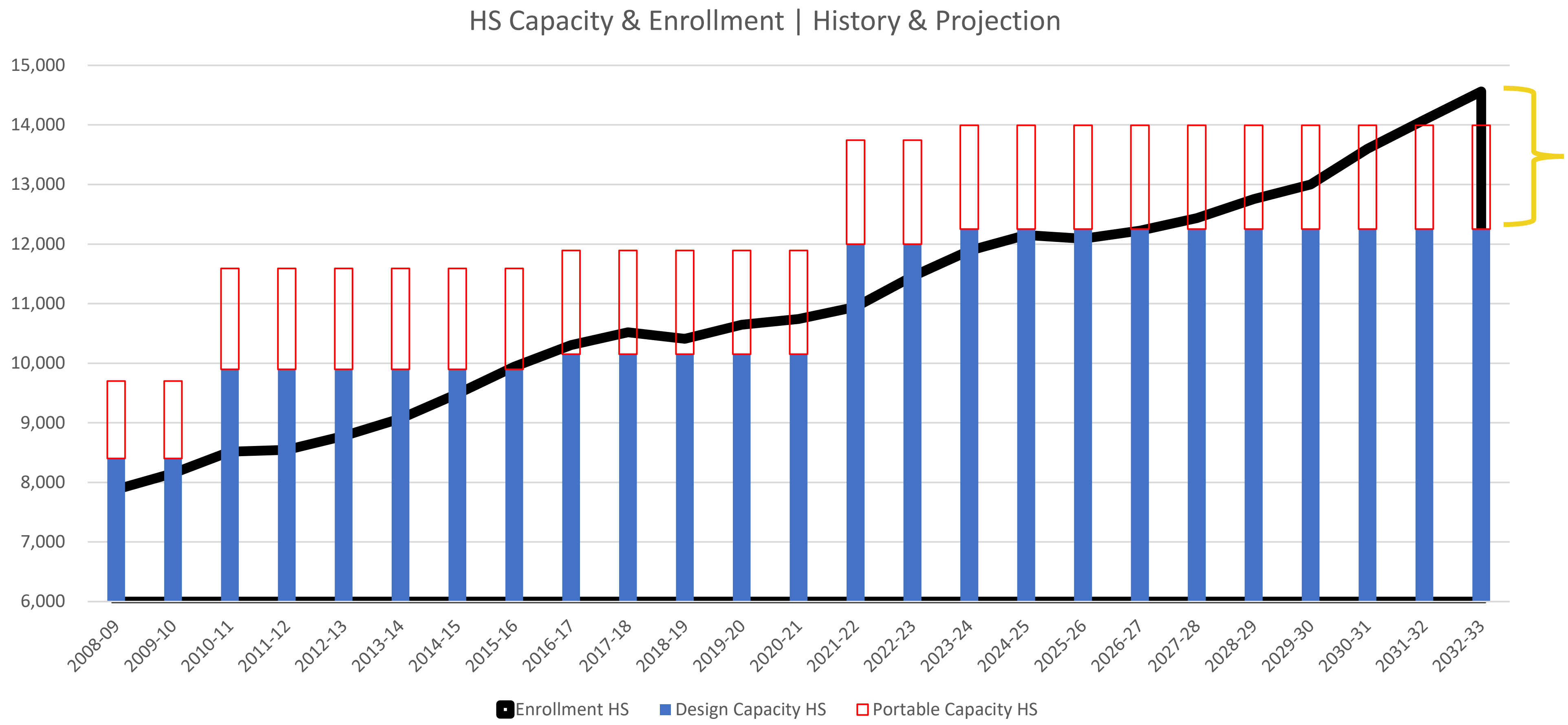
Reduce long-term reliance on mobile units



Address Middle School condition needs and plan to add additional capacity after 2030.

Cabarrus County Schools

Reduce long-term reliance on mobile units



Build at least one new High School to accommodate growth.

CCS has a HS site available adjacent to Bethel ES.

► Facilities Master Plan | High School Condition

HS Network	Feeder	AGE	FCI	SF/ Student	% Cap in MU	2022 Util	# Surplus Seats	7yr Acad Perf	% Econ Disadv
		1 - 62	0 - 66%	91 - 194	0 - 36%	56 - 117%	(384) - 557	43 - 83	13 - 68%
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CONCORD HS	ES	62	66%	145	13%	103%	70	60	54%
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Address the condition needs of the oldest High Schools with the highest FCIs.

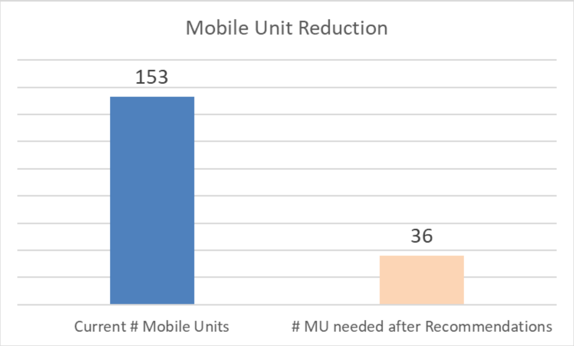
Facilities Master Plan | 0-10 Year Recommendations

3 new ES, 1 replacement ES. 1 new HS, 2 replacement HS. Priority Repairs.

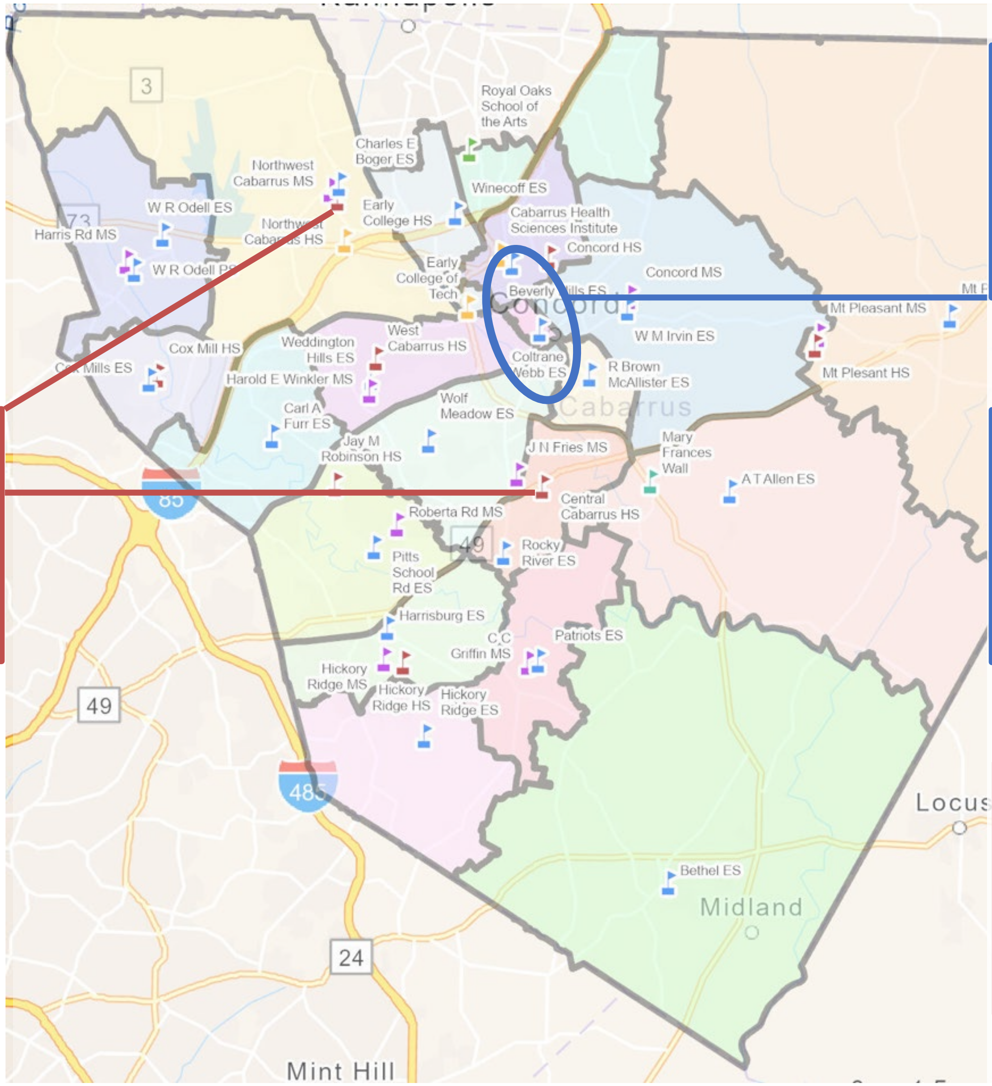
Capacity		Recommendations		
	Current	3 New ES	Build 1 New HS	Building replacements
ES	14,864	2700		200
MS	9,940			
HS	12,250		1850	950

Additional capacity

Capacity/Utilization	
Projected (2032)	After Recommendations
125%	104%
106%	106%
119%	97%



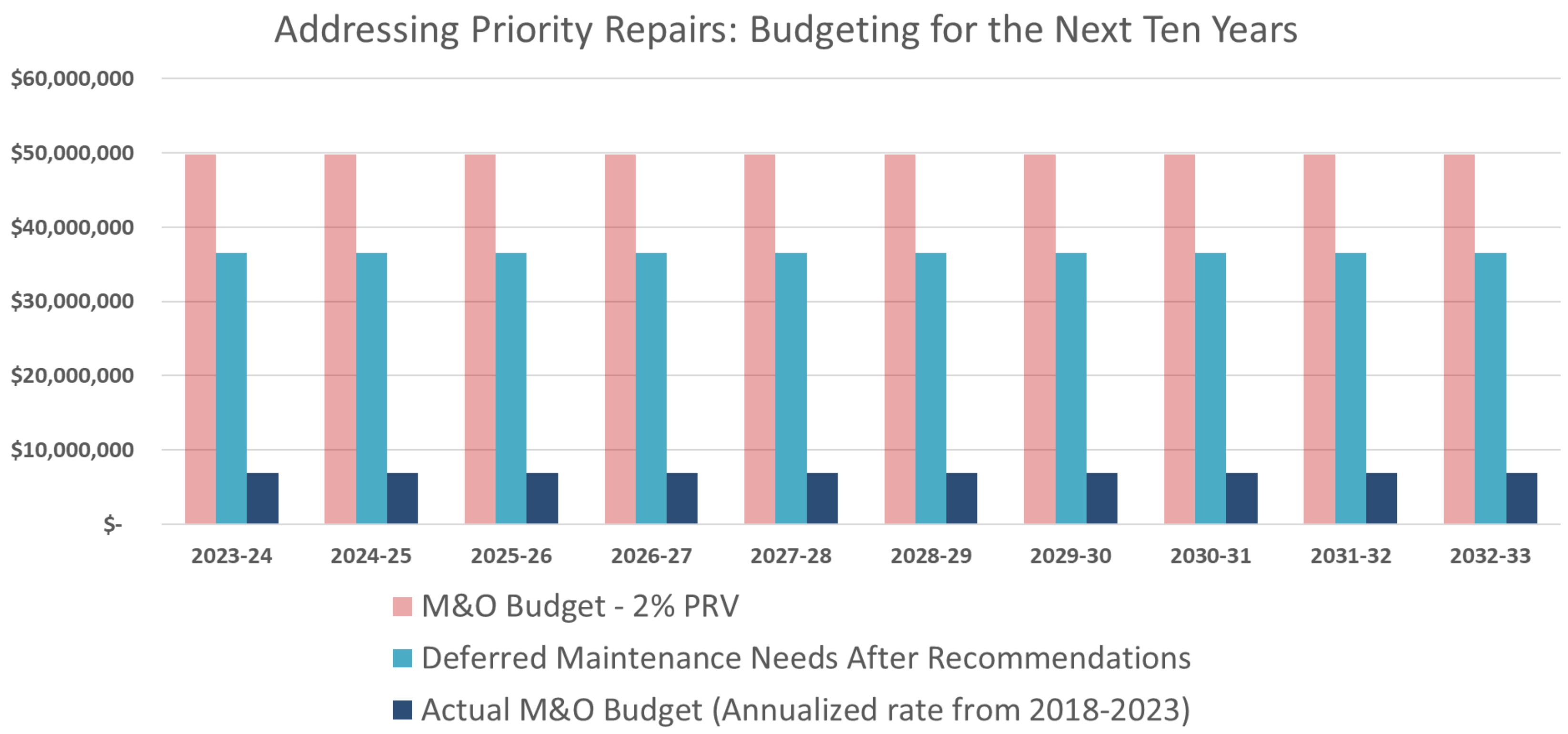
Rebuild NWHS & CCHS



Build 1 new ES for BHES & CWES

Build 3 new ES for capacity

Build 1 new HS for capacity



CCS has received $34.7M in total funding for Maintenance & Operations (M&O) funding to catch up on deferred maintenance, translating to ~$7M annually.

Based on an industry standard model of budgeting 2% of the Present Replacement Value (PRV) for annual capital needs, **CCS would need about $50M annually for its $2.5B portfolio**.

The recommendations remove $103M from the total need through rebuilding the worst condition schools, **leaving the District in need of~$36M annually** for the next ten years to address priority repairs.

Cabarrus County Schools

Remaining System Needs	Projects <$500k	Projects >$500k
ADA, Code, Life Safety, Structural, Environmental	$1,316,314	$750,000
Construction (Refurb, Renovate)	$12,144,387	$49,386,500
Doors, Windows, Canopies	$6,254,379	$0
Kitchen, Bathroom, Plumbing	$6,287,698	$0
Lighting and Electrical	$5,472,923	$2,664,850
Mechanical / Environmental	$1,455,459	$187,941,160
Mobile Units	$0	$2,300,000
Paint, Trim, Ceiling, Floor	$20,788,830	$3,110,000
Parking, Fence, Drainage, Walls	$15,899,085	$5,615,673
Playgrounds / Sports Fields	$9,783,246	$11,961,965
Roofing	$1,141,715	$18,005,200
Systems (Fire, Surveillance, Phone/Intercom)	$2,831,152	$0
TOTALS	**$83,375,188**	**$281,735,348**

$365,110,536

There are $365M in remaining deferred maintenance needs after the recommended rebuilds.

In the past five years, CCS has received ~$36M in total deferred maintenance funding. To address the remaining building needs in full, CCS would need that amount every year for the next ten years.

Cost Estimates for New Capacity & Rebuilding Schools

School Name/Site	**Construction Cost** (w/o inflation Adjustments)
Beverly Hills & Coltrane-Webb STEM ES (Rebuild)	$50,625,000
3 New Elementary Schools	$151,875,000
Central Cabarrus HS (Rebuild)	$130,000,000
Northwest Cabarrus HS (Rebuild)	$130,000,000
New HS	$130,000,000
Construction Cost	**$592,500,000**
Deferred Maintenance Cost	**$365,110,536**
Long-Range Facilities Master Plan Total Cost Estimate	**$957,610,536**

This plan includes priority renovations for every current school, rebuilding those in the worst condition, and providing urgent capacity where needed.

The new construction and renovations prioritized in this plan will be phased in as funding sources are identified and become available.

Note: These financial projections are estimates and actual project costs are to be determined.