Part 2 of this overall discussion starts at the point at which we explored context, influences and current building utilization, still rooted in....

Student-Based Learning

...as the end goal of trying to maximize the support and enhancement of learning by the built environment.



Briarcliff Manor UFSD Facilities Planning Committee March 10, 2020 Part 2





Before we start tonight's presentation, just a few notes.... You're doing a great job already; the Reputation of the Briarcliff Manor UFSD is well established.

Your Faculty, Administration & Board of Education work together. The use of Technology is integral to your Educational Program Delivery. Professional Development is ongoing; your efforts are Student-Based.

You have begun to holistically address practical building facility needs with long term planning in mind through the BCS & Facility Studies and previously completed capital construction projects.

Your facilities have the potential to continue to be physically adapted to become more attuned to your culture of learning, both locally and globally, with a forward lean into a pluralistic future.



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Our exploration with respect to the intersection of studentbased learning and the built environment at Briarcliff Manor starts with a few questions to frame our approach....

What works?

What doesn't work (so well)?

What could be better?

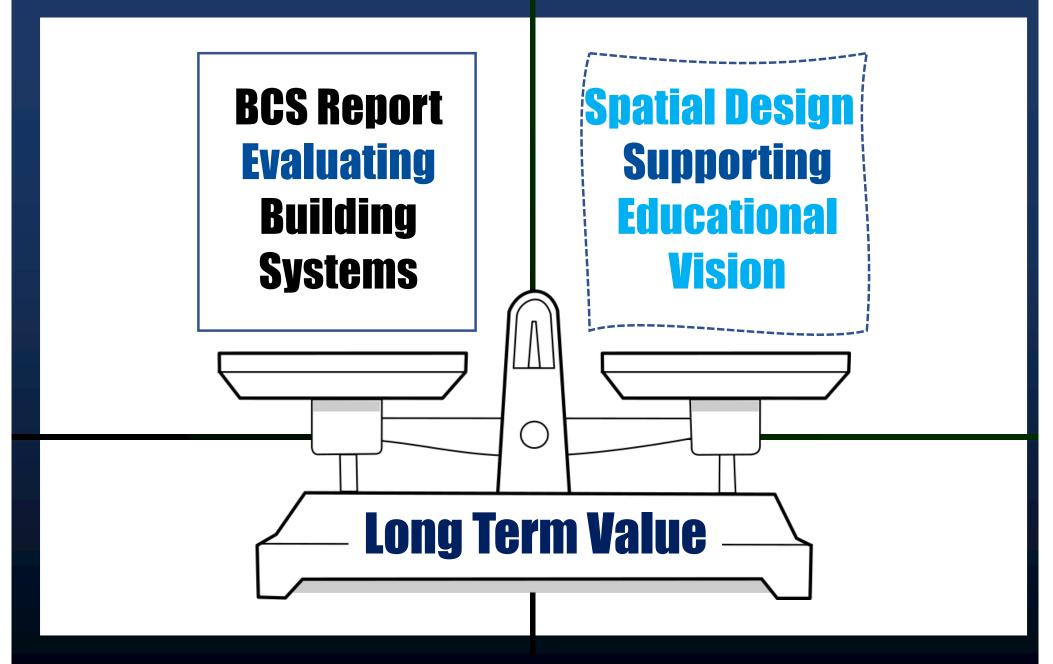


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Chapter Four: Initial Conceptual Floor Plans

Initial Conceptual Floor Plans

Chapter Five: (K-12) Student Capacity

Student Capacity Discussion

Planning Beyond Capacity

Current Enrollment, Current Capacity & Looking to Future Trends

Chapter Six: Capacity & Building Aid

Capacity & NYSED Building Aid Units (BAU)

'Next Step' Conceptual Floor Plan Diagrams

Chapter Seven: Cost Implications

Spatial Cost Implications: Order of Magnitude

Overall Cost Implications: Order of Magnitude & Schedule

CHAPTER

Conceptual Floor Plans



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Group Discussion



Conceptual Floor Plan Diagrams



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CHAPTER

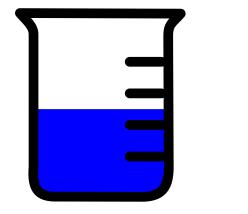
Student Capacity



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SECTION



Student Capacity Discussion



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Student Capacity: Overview

Capacity is ultimately a quantity used to measure the dynamic ebb and flow of students as they move through the building and of the relationship of this movement paired with the physical accommodation and delivery of the educational program.

Capacity varies with utilization; it is *dynamic***.**



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Student Capacity: Overview

Capacity varies with utilization; it is *dynamic*.

It is important to have a reference point when discussing spatial utilization and 'big ideas' with respect to student capacity.

- How many students can effectively occupy the building and be educated as intended?
- How is capacity calculated and measured in New York State?
- How is capacity affected by the Briarcliff Manor UFSD standard practice of maximum class sizes?
- Finally, how can an analysis of past and current enrollment trends should be used for future planning?



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Student Capacity: Definitions

Within New York State, there have been differing definitions over time that often confuse the conversation.

There used to be a term, "Rated Capacity" that has been replaced by the Building Aid Unit (BAU) count. This refers to the number of students in the building that NYSED uses to generate the Maximum Cost Allowance (MCA) that then informs the amount of Building Aid available on a project by project basis.

This report uses the term, "Building Capacity" to represent this (BAU) count, except as modified by the provided HS formula.



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Student Capacity: Definitions

Capacity varies with utilization; it is *dynamic*.

Within New York State, there have been differing definitions over time that often confuse the conversation.

There used to be a term, "Operating Capacity" that refers the modifications made to the Rated Capacity based upon a School District's educational program, class size policy, and how spaces align with the NYSED Guidelines for Space.

This report uses "Program Capacity" for this quantity.



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Student Capacity: Definitions

- Capacity varies with utilization; it is *dynamic*.
- **Building Capacity**
- **Program Capacity**

- All spaces 100% "full" as per NYSED Guidelines for Spatial Utilization
- Building Capacity modified by Percentage of Utilization (= Target)
- NYSED BAU Calculation High School Formula based upon Building Capacity as starting point [(100% Capacity) – (200)]/ 1.16



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Student Capacity: NYSED

Basic "Ground Rules" for (K-6) Elementary

- New (PreK & K) classrooms must be 900 SF minimum.
- New (Grade 1-6) classrooms must be 770 SF min, (28.5 sf/student).
- (Grade 1-6) classrooms maximum section size is (27) students, (= BAU)
- Existing (Grade 1-6) classrooms must be over 550 SF for capacity.
- Classrooms require 50% of their exterior wall to be windows.
- Classroom window areas require a minimum 30 FT open exterior space to opposing walls over 50% of their length, (i.e. minimum courtyard width).
- Windows are not required for support rooms or computer rooms,
- There should be one (1) P.E. Station per fourteen (14) (K-6) classrooms.
- (K-6) P.E. Stations should be (36ft x 52ft) = 1,872 SF minimum.
- Libraries are required for buildings with more than (13) classrooms.
- Spaces over 500 SF must have two means of egress.



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Student Capacity: NYSED

Basic "Ground Rules" for (7-12) Secondary

- New (Grade 7-12) classrooms must be 770 SF min, (26 sf/student).
- (Grade 7-12) classrooms maximum section size is (30) students, (= BAU)
- Existing (Grade 7-12) classrooms must be over 550 SF for capacity.
- Classrooms require 50% of their exterior wall to be windows.
- Classroom window areas require a minimum 30 FT open exterior space to opposing walls over 50% of their length, (i.e. minimum courtyard width).
- Windows are not required for support rooms or computer rooms,
- There are multiple and varied requirements by program for square footage per student and maximum section size, plus required numbers of art rooms, P.E. Stations, windows, natural light, etc.
- Spaces over 500 SF must have two means of egress.



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Student Capacity: NYSED/ BAU

Capacity varies with utilization; it is *dynamic*.

NYSED has Guidelines for the Calculation of Capacity. Capacity is calculated differently for (K-6) and (7-12).

NYSED uses BAU Calculations to Determine Building Aid for Spatial Projects; separate from BCS/ Infrastructure Projects.

A 'BAU' is basically a Student being Instructed. 'BAU' – Building Aid Unit.

Todd Elementary Briarcliff Manor MS Briarcliff Manor HS Program Capacity Approx.Program Capacity Approx.Program Capacity Approx.

810 students/BAU 620 students/BAU 1,050 students/BAU



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Student Capacity: District Policy

The previous page uses NYSED Guidelines for Space, including the amount of square footage per student per subject area, as well as the maximum class section size by subject. Briarcliff Manor UFSD follows its own standard practices for maximum class sizes. The HS is relatively unaffected as its class sizes align more closely with NYSED guidelines.

- (K-2) = 22 students maximum per section (NYSED = 27 BAU)
- 3-5) = 24 students maximum per section (NYSED = 27 BAU)
- (6-8) = 25 students maximum per section (NYSED = 27 BAU/ 30 BAU)
- (9-12) = 30 students maximum per section (varies greatly from 3 to 28+)

Todd Elementary Briarcliff Manor MS Briarcliff Manor HS Building Capacity (100%) Building Capacity (100%) Building Capacity (100%) Approx. 690 studentsApprox. 550 studentsApprox. 1,418 students



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Student Capacity: Planning

Capacity is a *dynamic* quantity and varies with utilization. There are national benchmarks for school planning that suggest an overall utilization factor of approximately 85%. For example, if you were planning a new building for an enrollment of (85) students, you would design the space to hold (100) students, modified as needed by the class size policy and number of sections/ teaching stations. *The numbers below reflect District Class Size Policies.*

Todd Elementary Briarcliff Manor MS Briarcliff Manor HS

Todd Elementary Briarcliff Manor MS Briarcliff Manor HS Building Capacity (100%) Building Capacity (100%) Building Capacity (100%)

Program Capacity (85%)AProgram Capacity (85%)ANYSED Calculated Capacity

Approx.690 studentsApprox.550 studentsApprox.1,418 students

Approx.586 studentsApprox.467 students/1,050 students



Briarcliff Manor UFSD Facilities Planning Committee <u>March 10, 2020 Part 2</u>





CURRENT BRIARCLIFF MANOR HS CAPACITY (NYSED)

CURRENT FIRST FLOOR UTILIZATION (2019-2020)

-					240		25			Educational F	0	1 1	1000 000 00 V	
	RM	SUBJECT(S)	TS	PERIODS	OPEN	SQUARE		(SED) SF/	(SED) SF	(SED) MAX.		ACTUAL	ACTUAL	ADDITIONAL
	#			USED/8	PERIODS	FOOTAGE		STUDENT	CAL'C	Pupil Stations	(STUDENTS)	MIN	MAX	NOTES
1	100	Biology/ Forensics/ Study Hall	1	6	2	1,235	sf @	50	24.7	24	24	4	21	Biology (3/8), Forensics (3/8), Study Hall (1/8); Open (1/8)
2	101	Biology	1	8	0	1,216	sf @		24.3	24	24	7	23	Biology (7/8); Study Hall (1/8)
3	102	Resource	0	5	3	437	sf @	26	16.8	0	0	n/a	n/a	Less than 550 SF
4	103	Physics/ Earth Science	1	7	1	1,235	sf @	50	24.7	24	24	12	24	Physics (4/8); Earth (3/8); Open (1/8)
5	104	Physics	1	7	1	1,106	sf @	50	22.1	24	22	8		Physics (7/8)
6	108	Chorus	1	4	4	1,399	sf @	music	28.0	28	28	23	23	Chorus (4/8); Study (1/8): Open (3/8)
7	112	Science Resource	0	4	4	490	sf @	30	16.3	0	0	16	16	Less than 550 SF/ No Windows
8	113	Resource	0	3	5	493	sf @	26	19.0	0	0	n/a	n/a	Less than 550 SF/ No Windows
9	114	Math/ Writing Lab	1	8	0	882	sf @	35	25.2	25	25	7	9	Computer Classroom for SED Purposes
LO	115	Science Research Lab	1	8	0	885	sf @		25.3	25	25	7	17	Computer Classroom for SED Purposes
11	117	Language Lab	0	0	8	812	sf @	35	23.2	0	0	n/a	n/a	Not included within Master Schedule (September 2019)
12	120	Technology/ Shop	1	2	6	1,099	sf @	75	14.7	14	14	7	12	Technology (2/8); Open (6/8)
13	121	Art	1	4	4	997	sf @	45	22.2	22	22	18	21	Art (4/4): Open (4/4)
14	122	Language	1	8	0	782	sf @	26	30.1	30	30	7	17	Language (8/8)
15	123	Language	1	6	2	782	sf @	26	30.1	30	30	10	23	Language (6/8); Open (2/8)
.6	124	Language	1	6	2	782	sf @	26	30.1	30	30	9	21	Language 6/8): Open (2/8)
.7	130	Orchestra	1	7	1	1,256	sf @	music	20.1	20	20	45	45	Orchestra (3/8): Lessons (4/8): Open (1/8)
.8	131	Band	1	1	7	1,689	sf @	music	27.0	27	27	74	74	Band (1/8): Open (7/8)
9	132	Dance	1	3	5	893	sf @	26	34.3	30	30	8	13	Dance (3/8); Open (5/8)
20	133	Film	1	1	7	573	sf @	35	16.4	16	16	14	14	Film (1/8): Study Hall (1/8): Open (6/8) [Computer CR for SED Purposes]
21	134	Photography/ Digital Art	1	3	5	1,027	sf @	45	22.8	22	22	5	11	Art (3/8): Open (5/8)
22	135	Art	1	5	3	968	sf @	45	21.5	21	21	5	16	Art (5/8): Open (3/8)
3	WGT	P.E. Station One	1	8	0	1,035	sf @	n/a	n/a	30	30	9	38	Less than 1,872 SF (36ft x 52ft)
4	GYM	P.E. Station Two	1	8	0	5,337	sf @	n/a	n/a	30	30	9	38	
.5	GYM	P.E Station Three	1	8	0	5,337	sf @	n/a	n/a	30	30	9	38	
26	CAFÉ	Study Hall/ Sub Station	1	8	0	4,881	sf @	16.5	207.1	207	207	n/a	n/a	Area divided by 16.5; times 0.7 (not to exceed 40% interchangeable CR)
7		HS FIRST FLOOR	22	TS		Teaching St	ations			733	731	1		CAPACITY @ 100%
						0				w/out SF				
				138	70	1				constraint				
						-								
te: T	ne follo	wing Middle School spaces are used for High	h Schoo	ol Instructio	on, partiall	y or in whole	2.							
	109	HS Math	1	2	6		sf @			29	30	18	22]
8	109					1,016	of @	26	39.1	30	30	٩	25	7
8	206	HS Math	1	4	4	1,010	SI W	20	33.1	30	50	9	20	
_		HS Math Music Lab	1	4	4 5	1,326			37.9	30	30	1		Computer Classroom for SED purposes

32 HS @ MIDDLE SCHOOL	4	TS	Teaching Stations	119	120
				w/out SF	
		12	20	constraint	

CAPACITY @ 100%



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CURRENT BRIARCLIFF MANOR HS CAPACITY (NYSED)

CURRENT SECOND FLOOR UTILIZATION (2019 - 2020)

						10.940		017-42		Educational F	rogram Guide	elines/Imp	acts	
1	RM	SUBJECT(S)	TS	PERIODS	OPEN	SQUARE		(SED) SF/	(SED) SF	(SED) MAX.	CAPACITY	ACTUAL	ACTUAL	ADDITIONAL
~	#			USED/8	PERIODS	FOOTAGE		STUDENT	CAL'C	Pupil Stations	(STUDENTS)	MIN	MAX	NOTES
28	200	Social Studies/ English/ Study/ Sub	1	6	2	872	sf @	26	33.5	30	30	10	28	SS (5/8); Eng (1/8); Study (1/8); Sub Station (1/8)
29	201	Math/ Social Studies/ Sub Station	1	5	3	804	sf @	26	30.9	30	30	4	28	Math (5/8); SS (2/8); Sub Station (1/8); No Windows
30	203	Math/ English/ Language	1	8	0	804	sf @	26	30.9	30	30	7	26	Math (6/8); English (1/8): Language (1/8)
31	204	Math/ Study Hall	1	6	2	875	sf @	26	33.7	30	30	10	24	Math (6/8); Study Hall (1/8): Open (1/8)
32		Math/ Study Hall	1	5	3	759	sf @	26	29.2	30	29	14	25	Less than 770 SF; Math (5/8); Study Hall (2/8): Open (1/8)
33	208	Math/ Study Hall/ Sub Station	1	5	3		sf @		33.4	30	30	11	27	Math (5/8); Open (2/8): Sub Station (1/8)
34	210	English	1	8	0		sf @		29.2	30	29	15	27	Less than 770 SF; English (8/8)
35	212	English/ Math	1	6	2		sf @		29.2	30	29	9	28	Less than 770 SF; English (6/8); Math (1/8); Open (1/8)
36	214	English	1	7	1		sf @		33.7	30	30	8	25	English (7/8); Open (1/8)
37	215	English/ Language	1	4	4		sf @		30.9	30	30	7	28	English (4/8); Language (4/8); No Windows
38	216	Resource	0	0	8		sf @		17.3	0	0	n/a	n/a	Less than 550 SF
39	217	English/ Social Studies	1	5	3		sf @		30.9	30	30	11	25	English (4/8); SS (1/8); Open (3/8); No Windows
40	218	Language	0	0	8		sf @		16.1	0	0	n/a	n/a	Less than 550 SF
41	221	Social Studies	1	7	1		sf @		34.3	30	30	8	26	Social Studies (7/8); Open (1/8)
42	222	Support	0	0	8	245	sf @	26	9.4	0	0	n/a	n/a	Less than 550 SF
43	223	Support	0	0	8		sf @		9.4	0	0	n/a	n/a	Less than 550 SF
44	225	Chemistry	1	6	2	1,212			24.2	24	24	12	24	Chemistry (6/8): Open (2/8)
45	226	Social Studies	1	8	0		sf @		34.3	30	30	11	20	Social Studies (8/8)
46	227	Math/ Technology Support	0	4	4		sf @		12.2	0	0	n/a	n/a	Less than 550 SF (Math 2/8)(Technology 2/8)(Open 4/8)
47	229	Chemistry	1	7	1	1,560			31.2	24	24	12	23	Chemistry (7/8): Open (1/8)
48	230	Biology	1	7	1	1,112			22.2	24	22	11	24	Biology (7/8); Open (1/8)
49		Marine Biology/ Language	1	7	1	1,000			20.0	24	20	12	17	Marine Biology (6/8); Language (1/8); Open (1/8)
50	232	Social Studies/ Language/ Study Hall	1	6	2	791	sf @	26	30.4	30	30	10	25	Social Studies (5/8); Language (1/8): Study Hall (1/8); Open (1/8)
51	233	Language	1	7	1		sf @		30.4	30	30	8	25	Language (7/8); Open (1/8)
52	234	Social Studies/ Language	1	7	1	787	sf @	26	30.3	30	30	10	28	Social Studies (6/8); Language (1/8): Open (1/8)
53		HS SECOND FLOOR	20	TS		Teaching St	ations	5		576	567			CAPACITY @ 100%

53	HS SECOND FLOOR	20	TS Teaching Stations	576	567		CAPACITY @ 100%
13		-		w/out SF		-	
		L	131 69	constraint			



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CURRENT BRIARCLIFF MANOR HS CAPACITY (NYSED)

III CURRENT BUILDING UTILIZATION (2019 - 2020)

54	FIRST FLOOR	22	TS	Teaching Stations	733	731		CAPACITY @ 100%	
55	SECOND FLOOR	20	TS	Teaching Stations	576	567		CAPACITY @ 100%	
56	MIDDLE SCHOOL	4	TS	Teaching Stations	119	120		CAPACITY @ 100%	
2. 25									
57	OVERALL	46	TS	Teaching Stations	1 200	1 / 1 8	1		

IV CURRENT BUILDING UTILIZATION (2019 - 2020) - N.Y.S.E.D. CAPACITY CALCULATION

58		1,309	1,418	2	100% CAPACITY
59		-200	-200		SUBTRACT 200
60	CAPACITY BASED UPON (SED) FORMULA = ((100% CAPACITY)-(200)/(1.16))	1,109	1,218		SUBTOTAL
61	FOR CURRENT UTILIZATION (2019 - 2020)	1.16	1.16		DIVIDE BY 1.16
62		956	1,050		RESULT (NYSED CALCULATED CAPACITY FOR BAU; TO BE VERIFIED BY NYSED)
		w/out SF			

constraint

V CURRENT ENROLLMENT (2019 - 2020) & S.E.D. GUIDELINES FOR CAPACITY CALCULATION

63	43.16%	565	39.84%	565	CURRENT ENROLLMENT AS OF (09-13-19) AS PER DISTRICT
64	100.00%	1,309	100.00%	1,418	100% CAPACITY BASED UPON CURRENT UTILIZATION
65	90.00%	1,178	90.00%	1,276	90% CAPACITY BASED UPON CURRENT UTILIZATION
66	85.00%	1,113	85.00%	1,205	85% CAPACITY BASED UPON CURRENT UTILIZATION
67	73.04%	956	74.05%	1,050	SED CALCULATED CAPACITY FOR B.A.U. BASED UPON CURRENT UTILIZATION
		w/out SF		(JA - 1) 2	
		constraint			

VI THE CURRENT BUILDING IS BEING UTILIZED AT APPROX. 39.8% OF ITS FULL CAPACITY, USING S.E.D. GUIDELINES FOR SPACE THE CURRENT BUILDING IS BEING UTILIZED AT APPROX. 43.1% OF ITS FULL CAPACITY, W/OUT USING S.E.D. SF GUIDELINES FOR SPACE

68 NOTE 1: The capacity of a building varies with its use of spaces. Different programs require differing amounts of space, or have different section sizes, etc.

69 NOTE 2: "Without SF Constraint" means taking the number of students per room per area of study per SED guidelines for same, but not imposing SED "SF per student" per area of study, per room.

70 NOTE 3: The "Operating Capacity" of a building is that capacity below 100% "Full" that allows for scheduling and operating flexibility.

1 NOTE 4: This information is presented for reference as a 'diagnostic', not as a determination of how this high school should function. Current patterns of use should be reviewed as future planning is considered.

Current (9-12) Enrollment is (565) Students



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(1,050) Students

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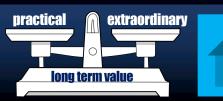
Group Discussion



Student Capacity Discussion



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SECTION



Planning Beyond Capacity



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Planning Beyond Capacity

It is important to evaluate the varying diagnostics available that compare gross square footages, square feet per student, especially in light of NYSED Guidelines for Space and the connection to Building Aid Units (BAU). However, there are other aspects of program and space utilization that have an effect on the student experience:

Capacity is not just about square footage; it's about the planning, design and flexible use of learning spaces.

Natural Light, Access to Views, Indoor Environmental Quality

Spaces that Encourage Collaborative Moments & Develop Student Connections

Wayfinding, Adjacencies, Travel Distances & Accessibility

Definition of Public, Semi-Private & Private Zones

How each Room, Space or Collection of Spaces adapts to developing Pedagogy

Ownership of Space



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Ownership of Space

Teacher Ownership Student Ownership Shared Ownership

Elementary classrooms are typically, "owned" by each teacher since their students spend most of their time with them, this would apply to traditional classrooms as well as frequently used ancillary break out spaces. Teachers may still want additional space to collaborate with one another professionally so as to not become isolated in individual classrooms.

In a secondary school setting, teachers can transfer ownership of interchangeable classrooms to the scheduling of students. This helps with full-day scheduling of these rooms, allowing for a greater percentage utilization of these spaces. Teachers would necessarily then need a place to collaborate; an expanded Maresca Center, (perhaps on both floors) that welcomes both students and teachers in multiple settings would be one possibility.



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Group Discussion



Planning Beyond Capacity



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SECTION



Current Enrollment Current Capacity Enrollment Trends Looking Ahead



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Currer	nt D	istrict E	Enrollm	nent
Kindergarten	80			
Grade 1	88			
Grade 2	72			
Grade 3	94			
Grade 4	98			Todd 515/ 690(100%) =
Grade 5	83	Todd	515 Students	+/- 74.6% Capacity
Grade 6	80			as currently used
Grade 7	113			M = 217 / 550 / 1000 /) -
Grade 8	124	Middle School	317 Students	MS 317/ 550(100%) = +/- 57.6% Capacity
Grade 9	133			as currently used
Grade 10	149			
Grade 11	141			HS 563/ 1,418(100%) =
Grade 12	140	High School	563 Students	+/- 39.8% Capacity
Total	1,395			as currently used



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Historical Enrollment

	Oct	Oct	Oct	Oct	Oct	Oct	Oct
	2013	2014	2015	2016	2017	2018	2019
Todd	605	582	562	552	530	509	515 Students
MS	363	348	346	351	360	357	317 Students
HS	585	592	561	581	552	565	563 Students
Averag	e per Gr						
Todd	101	97	94	92	88	84	85 (Start)
MS	121	116	115	117	120	119	105(+20)
HS	146	148	140	145	138	141	140(+35)



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Looking Ahead

Todd's largest average grade level (K-5) since 2013 was (101) students.

- For (K-2) @ 22 students max = 101/22 = 4.6 = 5 sections
- For (3-5) @ 24 students max = 101/24 = 4.2 = 5 sections
- (K-5) @ (5 sections) = Need (30) CR Sections + Other Spaces
- Enrollment could mathematically go up to (110) x (6) = (660)
- without the need for additional classroom sections.

The Middle School has additional capacity for growth.

The High School has additional capacity for growth, that can be manipulated in order to provide a variety of learning spaces that can expand and contract as needed in order to satisfy the educational program moving forward.



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Group Discussion



Current Enrollment Current Capacity Enrollment Trends Looking Ahead



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CHAPTER

Capacity & NYSED B.A.U.



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SECTION



Capacity & NYSED Building Aid Units (BAU)

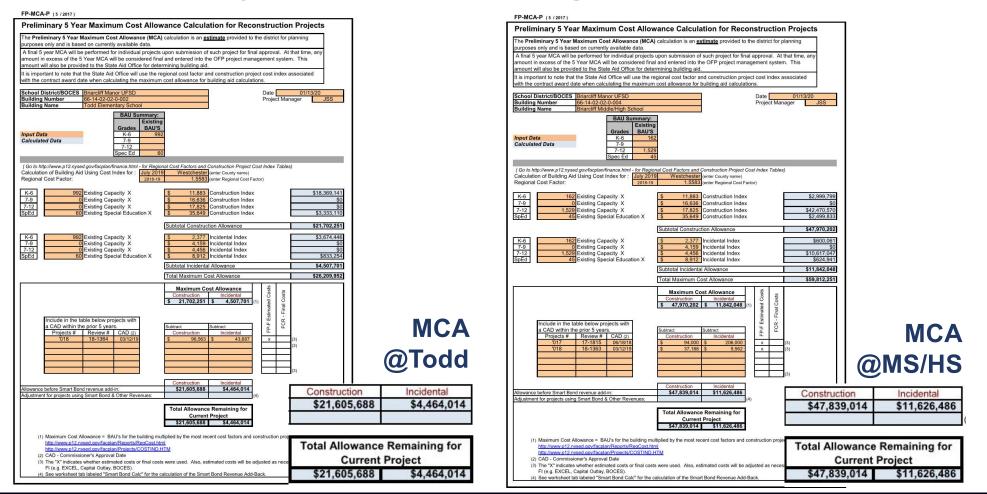


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Capacity & Building Aid/ MCA





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How the Maximum Cost Allowance (MCA) Relates to the Potential Maximum Building Aid

	Construction +	Incidental =	MCA
Todd <u>MSHS</u>	\$ 47,839,014 +	\$ 11,626,486 =	\$ 26,069,792 MCA \$ 59,465,500 MCA \$ 85,535,292 MCA

If 100% Aid= (\$85,535,292) x (30% Aid)

\$ 25,660,587 Max Aid (By Category)



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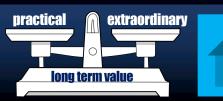




Capacity & NYSED Building Aid Units (BAU)



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SECTION

What If?

Next Step Floor Plan Diagrams "What If?"



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Next Step Floor Plan Diagrams "What If?"



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CHAPTER

Cost Implications



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SECTION



Spatial Cost Implications: Order of Magnitude



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This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made. Cost Implications: Spatial Order of Magnitude Conceptual Planning Estimates					
Ne	ew Construction	 +/- \$800/sf (conceptual) Example: +10,000 GSF New Space = approximately \$ 8,000,000 			
In	terior Reconstruction	 +/- \$400/sf (conceptual) Example: 10,000 SF Renovated Existing = approximately \$4,000,000 			
Po	Stential Premiums February 25, 2020 (Costs represented are subject to revision.)	Specialized Equipment Project Complexity (Site/Building) Temporary Space (Timing)			



Spatial Cost Implications: Order of Magnitude



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SECTION

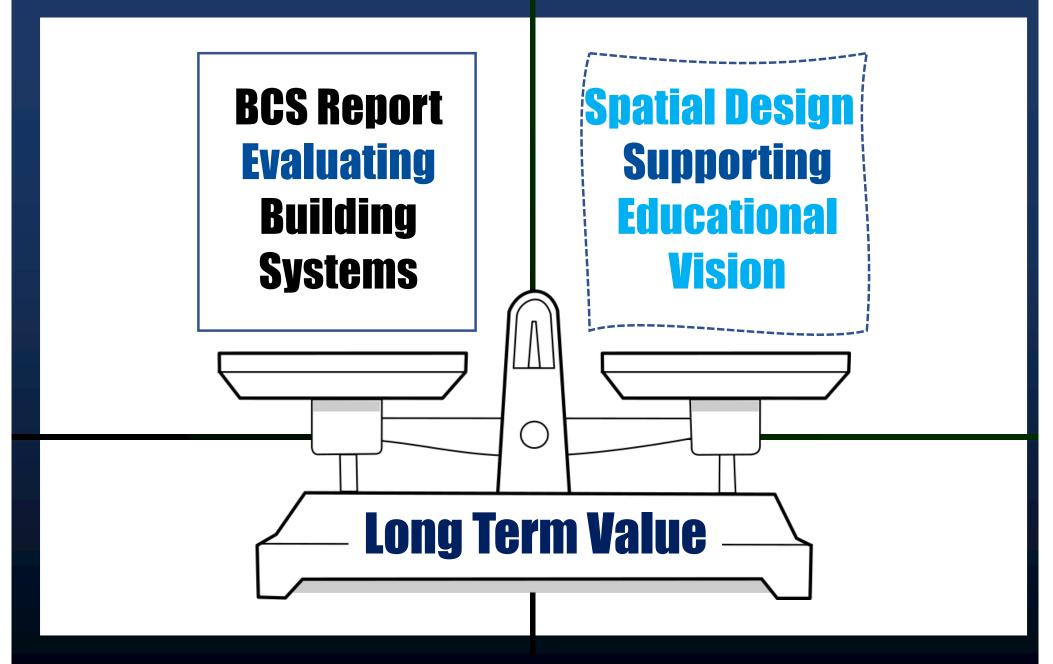
What If?

Overall Cost Implications: Order of Magnitude & Overall Potential Bond Schedule



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This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made.

The information provided within this presentation is preliminary in nature, and does not yet reflect the prioritization of BCS items by the Facilities Planning Committee for inclusion within any future Coordinated Scope of Work.

This information is intended to be used in context as a tool for understanding the relative order of magnitude of costs associated with differing ideas and components of the exploration of BCS, Infrastructure, EPC & Spatial Concepts for Consideration.



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Priority IA	\$ 4,107,405
Priority IB	\$ 406,050
I. Contraction	\$ 4,513,455
Priority II	<u>\$ 16,944,750</u>
&	\$ 21,458,205
Priority III	\$ 29,714,773
I,II & III	\$ 51,172,978
Priority IV	\$ 10,477,000
I,II,III & IV	\$ 61,649,978
Priority V	<u>\$ 1,198,700</u>
AII	\$ 62,848,678

Carry I & II	\$21,458,205
50% of III	\$ 14,857,387
I,II & 50% III	\$ 36,315,592

(Note: Todd E31 & E32 Removed from Priority III in above totals)

March 10, 2020 (Costs represented are subject to revision.)



This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made. Cost Implications – Overall 'A'

BCS I		\$	4,513,455		
BCS I&II		\$	21,458,205		
BCS 1,11 & 50% 111		\$	36,315,592		
BCS I,II & III		\$	51,172,978		
BCS I-IV		\$	61,649,978		
BCS ALL		\$	62,848,678		
Todd Spatial Concep	ts "What If?"	\$	15,099,247		
MS Spatial Concepts	"What If?"	\$	2,880,000		
HS Spatial Concepts	"What If?"	\$	37,966,976		
Spatial Concepts	"What If?"	\$	55,946,223		
POTENTIAL COMBINED			77,404,428		
March 10, 2020 (Costs represented are subject to revision.)					

This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made. Cost Implications – Overall 'B'

BCS	1		\$	4,513,455	
BCS	&		\$	21,458,205	
BCS	I,II & 50% III		\$	36,315,592	
BCS	I,II & III		\$	51,172,978	
BCS	I - IV		\$	61,649,978	
BCS	ALL		\$	62,848,678	
Todd S	Spatial Concepts	"What If?"	\$	15,099,247	
MS Sp	patial Concepts	"What If?"	\$	2,880,000	
HS Sp	oatial Concepts	"What If?"	\$	37,966,976	
Spatia	al Concepts	"What If?"	\$	55,946,223	
POTE	NTIAL COMBINE	ED	\$	92,261,815	
March 10, 2020 (Costs represented are subject to revision.)					



This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made. Cost Implications — Overall 'C'

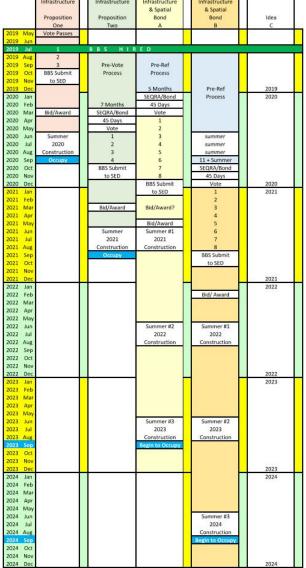
BC	S	I		\$	4,513,455
BC	S	&		\$	21,458,205
BC	S	I,II & 50% III		\$	36,315,592
BC	S	I,II & III		\$	51,172,978
BC	S	I - IV		\$	61,649,978
BC	S	ALL		\$	62,848,678
Тос	dd S	Spatial Concepts	"What If?"	\$	15,099,247
MS	Sp	oatial Concepts	"What If?"	\$	2,880,000
<u>HS</u>	Sp	atial Concepts	"What If?"	\$	37,966,976
Spa	atia	I Concepts	"What If?"	\$	55,946,223
PO	POTENTIAL COMBINED				107,119,201
March 10, 2020 (Costs represented are subject to revision.)					

This information has been provided for discussion purposes only for the Facilities Planning Committee; no decision have been made. Cost Implications – Overall 'D'

BCS	I		\$	4,513,455	
BCS	1 & 1		\$	21,458,205	
BCS	I,II & 50% III		\$	36,315,592	
BCS	I,II & III		\$	51,172,978	
BCS	I - IV		\$	61,649,978	
BCS	ALL		\$	62,848,678	
Todd S	Spatial Concepts	"What If?"	\$	0	
MS Sp	patial Concepts	"What If?"	\$	0	
HS Sp	oatial Concepts	"What If?"	\$	11,000,000	
Spatia	al Concepts	"What If?"	\$	11,000,000	
POTENTIAL COMBINED			\$	32,458,205	
March 10, 2020 (Costs represented are subject to revision.)					

Potential Bond Timing

Presented to BOE July 2019 Assume Option "B" for Bond Referendum Facility Committee through May 2020 BOE Approval/Adoption June/July 2020 SEQRA/Resolutions Late Summer 2020 Referendum Vote October 2020 Drawings Submitted for Approvals Fall 2021 Bid & Award Late Winter 2022 Construction Start Late Spring 2022 Occupancy Start September 2024





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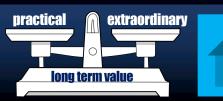




Overall Cost Implications: Order of Magnitude & Overall Potential Bond Schedule



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Thank you for your time and consideration.



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