

A SPACE THAT IS WORTHY OF ITS STUDENTS

A4LE Northeast Conference | March 29, 2019

### Who We Are



Larry Spang AIA
Architect

Principal, Arrowstreet



Emily Grandstaff-Rice FAIA Architect

Senior Associate, Arrowstreet

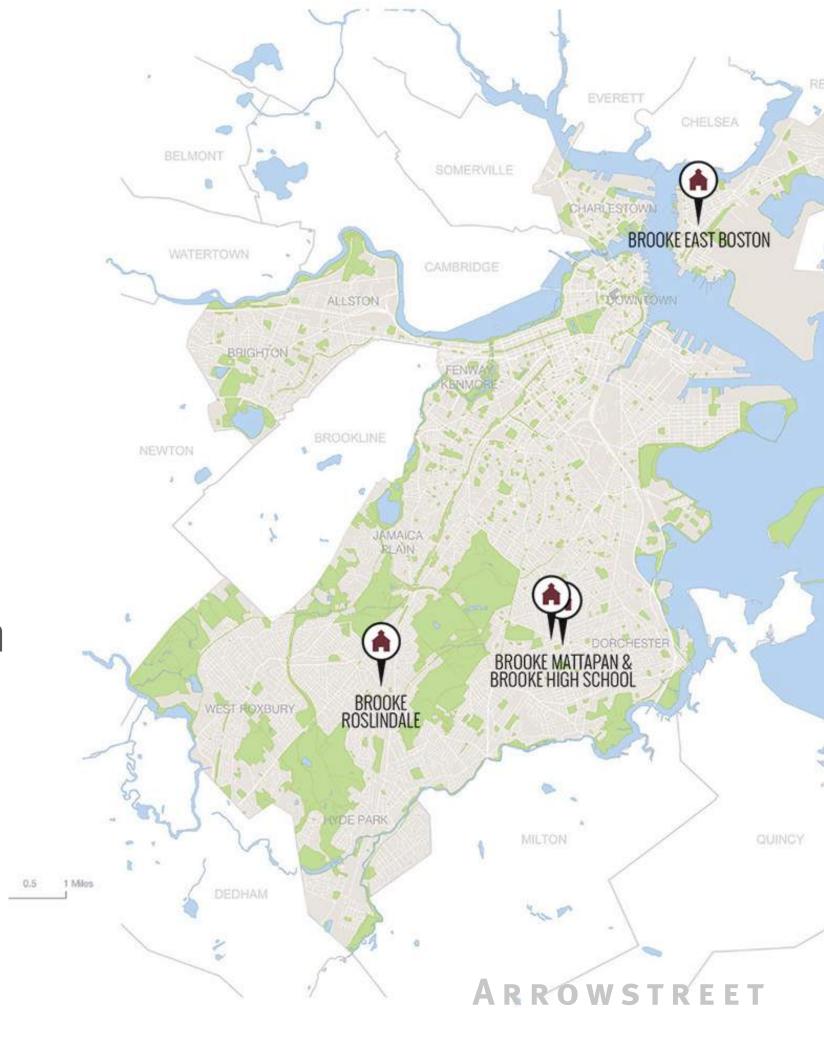


Scott Oran Brooke Charter Board Chair

Founder and Managing Director, Dinosaur Capital Partners

### Agenda

- Educational Philosophy of Brooke Charter Schools
- 2. Differences in Charter vs. Public School Programming
- 3. Designing for Brooke's Mission
- 4. Making the Project a Reality & Overcoming Challenges





"Brooke Charter High School is a 21st century school designed for success."

-Marty Walsh, Mayor, City of Boston

"A true gem in the crown jewel of education in Boston and the Commonwealth of Massachusetts."

-Charlie Baker, Governor of Massachusetts

"Brooke succeeds because its teachers and students appreciate the beauty of learning. Now they have a building that matches and is worthy of their accomplishments."

-Jim Peyser, State Secretary of Education

"This is more than a high school, it is a place where students and families can dream... it is a beacon of high expectations."

-Andrea Campbell,
City Council President

"It is so great to have a building that will now be an anchor to our community."

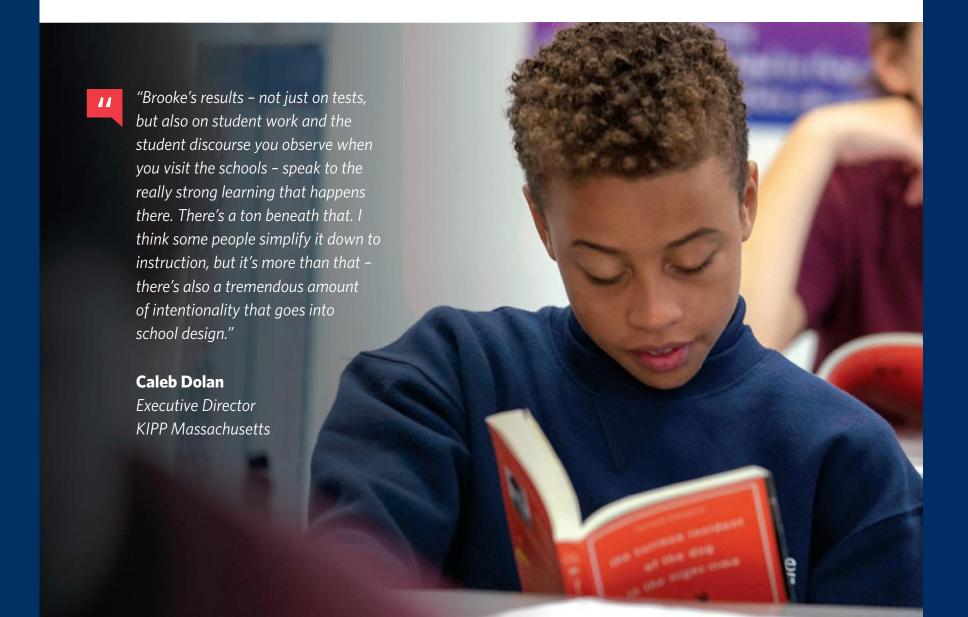
-Russell Holmes, State Representative, 6th Suffolk District





# DESIGNED FOR IMPACT

Great schools have a "north star," a guiding principle by which they make decisions, establish priorities, and define success. Our mission - to provide an academically rigorous public education to students from the cities of Boston and Chelsea that will ensure that they are prepared to enter into and succeed in college - is our north star. We believe all students can achieve at the highest levels if they have great teachers.



As a community, Brooke upholds four organizational values



**WE ARE DRIVEN BY AN URGENT MISSION** 



**GREAT TEACHING CLOSES THE ACHIEVEMENT GAP** 



**WE ARE ALL LEADERS** 



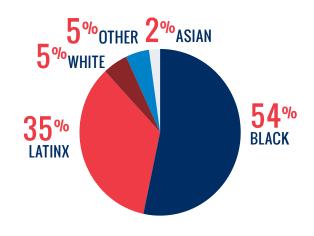
**WE GROW BEST TOGETHER** 

# **x** 4 = 1,740 STUDENTS

Brooke Charter Schools primarily serves families from the neighborhoods of East Boston,
Dorchester, Mattapan, and Hyde
Park, where the average annual family income is \$38,194.

78% of Brooke students qualify for free or reduced-price lunch

### STUDENT DEMOGRAPHICS





#### **DIVERSITY STATEMENT**

We believe in the power of diversity and inclusion including, but not limited to, race, ethnicity, culture, religion, language, socioeconomic status, citizenship, national origin, gender, sexual orientation, age, and physical abilities. With 89% of Brooke students identifying as Black or Latinx, we prioritize uprooting racism through academics, equipping our students with tools to advocate for a diverse, equitable, and inclusive future. By setting high expectations for our students, creating a culturally responsive curriculum, and developing a racially diverse staff, we intend to counteract the pervasive presence of societal racism that our students encounter as a condition of their daily lives.

# GREAT TEACHING: THE FOUNDATION



#### We challenge our students

#### Great teaching means students are challenged and known.

While buildings start with a foundation of concrete, Brooke is built on a foundation of great teaching. We challenge our students to become thoughtful readers, informed citizens, and problem solvers. Brooke schools promote a culture of achievement whereby we value, believe in, and celebrate individually and collectively reaching high, objective academic performance goals. Teaching teams utilize rigorous standards alongside rigorous assessment so that teachers can tailor instruction around what each student does and does not know, enabling all students to progress along the path to academic mastery.

Our teachers meet every parent before the school year starts and build **meaningful relationships** throughout the year.



We are committed to deeply knowing our students and families



Teachers provide **individualized tutoring** within the regular school day.



**Our class sizes are small**, ranging from 15 students

per class in lower grades up to 30 in eighth grade and above.

#### We revere teaching as an intellectual profession

We harness a combination of research, experience, and real-time data to define what great teaching looks like in the classroom. We know that great teachers are made, not born, so we invest in supporting them throughout their career:



Teachers spend **one afternoon a week** in professional development working together to meet their learning goals.



**Grade-level teams collaborate daily** in co-planning time to design lessons and analyze data with their grade-level team.



Teachers are supported to grow and develop through at least **30 observations per year**, which inform ongoing feedback on their strengths and growth areas.





#### We are eager to share our Elements of Effective Instruction

Incorporating videos of effective instruction in our teachers' professional development has helped propel great teaching at Brooke. Thanks to support from the Charter School Growth Fund, the Bill and Melinda Gates Foundation, and the Louis Calder Foundation, we were able to launch our new **RESOURCES.EBROOKE.ORG** website and share hundreds of high quality videos, standards, and unit plans with other schools in an open source platform.

# ACHIEVEMENT ON THE HORIZON

Over the last five years, Brooke has uniquely established itself as one of the very best schools in Boston. Their students consistently achieve at some of the highest rates in the city. When you look at the CREDO studies, you see that Boston is the best charter sector in the country – if Brooke is the leading the pack in the highest performing charter city, there's a legitimate case to be made that Brooke is the best charter school in the country."

- **Josh Biber**, Executive Director, Teach for America - Massachusetts



# 100%

of tenth graders scored "advanced" or "proficient" on all three MCAS tests

# **TOP 10**

"advanced" MCAS scores for high schools in Massachusetts

# BEST

open enrollment school in Boston, based on K-8 results

ARROWSTREET

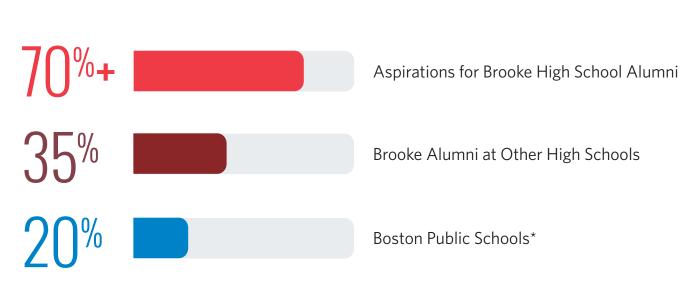
Before Brooke High School was founded in 2016, Brooke alumni attended 49 different high schools across the state. With a strong elementary and middle school foundation, these alumni went on to complete high school at a rate of 98%. Brooke alumni also have graduated from college at much higher rates than their Boston Public Schools (BPS) peers: 35% of Brooke's first three classes of alumni have graduated from two and four-year colleges and universities within six years of high school graduation compared to 20% of their peers in Boston Public Schools.\* While we are proud of our alumni, we know we can and must do better to ensure all Brooke alumni have the post-secondary education and skills necessary for long-term professional and personal success.

At Brooke High School, all of our scholars are required to take part in our signature program: Advanced Placement (AP) for All. Every Brooke High School scholar must take a minimum of three AP courses (including AP Computer Science). We believe that this level of rigor best prepares our scholars to have high-quality options to choose from upon graduating from Brooke High School. 600 Scholars will attend Brooke High School when it reaches full capacity.



### **COLLEGE PERSISTENCE**

Percent of students graduating from two and four-year higher education institutions within six years of high school completion







# MSBA Guidelines: High Schools

ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments
CORE ACADEMIC SPACES			1,150	
(List classrooms of different sizes separately)			,	
Classroom - General	850	1	850	825 SF min - 950 SF max
Teacher Planning	100	1	100	
Small Group Seminar (20-30 seats)	500	0	-	
Science Classroom / Lab	1,440	0	-	3 x85% ut=20 Seats-1 per /day/student
Prep Room	200	0	-	
Central Chemical Storage Rm	200	1	200	
SPECIAL EDUCATION			0	
(List classrooms of different sizes separately)				
Self-Contained SPED	950	0	-	assumed 8% of pop. in self-contained SPED
Self-Contained SPED Toilet	60	0	-	
Resource Room	500	0	-	1/2 size Genl. Clrm.
Small Group Room	500	0	-	1/2 size Genl. Clrm.
ART & MUSIC			3,700	
Art Classroom - 25 seats	1,200	0	-	Assumed use - 25% Population - 5 times/week
Art Workroom w/ Storage & kiln	150	0	-	
Band - 50 - 100 seats	1,500	1	1,500	Assumed use - 25% Population - 5 times/week
Chorus - 50 - 100 seats	1,500	1	1,500	
Ensemble	200	1	200	
Music Practice	75	0	-	
Music Storage	500	1	500	
OCATIONS & TECHNOLOGY			3,200	
Tech Clrm (E.G. Drafting, Business)	1,200	1	1,200	Assumed use - 50% Population - 5 times/week
Tech Shop - (E.G. Consumer, Wood)	2,000	1	2,000	Assumed use - 50% Population - 5 times/week
HEALTH & PHYSICAL EDUCATION			16,200	
Gymnasium	12,000	1	12,000	
PE Alternatives	3,000	1	3,000	
Gym Storeroom	300	1	300	
Locker Rooms - Boys / Girls w/ Toilets	0	1	-	5.6 sf/student total
Phys. Ed. Storage	500	1	500	
Athletic Director's Office	150	1	150	
Health Instructor's Office w/ Shower & Toilet	250	1	250	
MEDIA CENTER			3,650	
Media Center / Reading Room	3,650	1	3,650	
Media Center / Neading Nooni	-,			

JDITORIUM / DRAMA			2,650	
Auditorium	0	1	-	2/3 Enrollment @ 10 SF/Seat - 750 seats MAX
Stage	1,600	1	1,600	
Auditorium Storage	250	1	250	
Make-up / Dressing Rooms	300	2	600	
Controls / Lighting / Projection	200	1	200	
Software Figure 19 19 19 19 19 19 19 19 19 19 19 19 19	200		200	
NING & FOOD SERVICE			2,900	
Cafeteria / Student Lounge / Break-out	0	1	-	3 seatings - 15SF per seat
Chair / Table Storage	300	1	300	
Scramble Serving Area	600	1	600	
Kitchen	1,600	1	1,600	1600 SF for first 300 + 1 SF/student Add'l
Staff Lunch Room	400	1	400	20 SF/Occupant
Stall Editor (Conf.)	400		400	20 SF/Occupant
EDICAL			410	
Medical Suite Toilet	60	1	60	
Nurses' Office / Waiting Room	250	1	250	
Interview Room	100	1	100	
Examination Room / Resting	100	0	-	
Examination (Conf.) (County	100	<u> </u>		
DMINISTRATION & GUIDANCE			2,920	
General Office / Waiting Room / Toilet	300	1	300	
Teachers' Mail and Time Room	100	1	100	
Duplicating Room	200	1	200	
Records Room	200	1	200	
Principal's Office w/ Conference Area	375	1	375	
Principal's Secretary / Waiting	125	1	125	
Assistant Principal's Office - AP1	150	1	150	
Assistant Principal's Office - AP2	150	0	_	
Supervisory / Spare Office	120	1	120	
Conference Room	450	1	450	
Guidance Office	150	0	-	
Guidance Waiting Room	100	1	100	
Guidance Storeroom	100	1	100	
Career Center	300	1	300	
Records Room	100	1	100	
Teachers' Work Room	300	1	300	
ISTODIAL & MAINTENANCE			2,075	
Custodian's Office	150	1	150	
Custodian's Workshop	250	1	250	
	375	1	375	
Custodian's Storage			400	
Custodian's Storage Recycling Room / Trash	400	1		
Custodian's Storage Recycling Room / Trash Receiving and General Supply	400 300	1	300	
Custodian's Storage Recycling Room / Trash Receiving and General Supply Storeroom	400 300 400	1	400	
Custodian's Storage Recycling Room / Trash Receiving and General Supply	400 300	1		
Custodian's Storage Recycling Room / Trash Receiving and General Supply Storeroom	400 300 400	1	400	

# MSBA Guidelines: High Schools

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DOOM TWDE	ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments	AUDITORIUM / DR	ΔΜΔ			2,650	
ROOM TYPE					Auditorium	AWA	0	1	-	2/3 Enrollment @ 10 SF/Seat - 750 se
					Stage		1,600	1	1,600	2/3 Enrollment @ 10 3F/3eat - 730 se
RE ACADEMIC SPACES			1,150		Auditorium Stora	200	250	1	250	
List classrooms of different sizes separately)						<u> </u>				
Classroom - General	850	1	850	825 SF min - 950 SF max	Make-up / Dress		300	2	600	
Teacher Planning	100	1	100		Controls / Lightin	ng / Projection	200	1	200	
small Group Seminar (20-30 seats)	500	0	-							
cience Classroom / Lab	1,440	0	-	3 x85% ut=20 Seats-1 per /day/student	DINING & FOOD S				2,900	
rep Room	200	0	-			ent Lounge / Break-out	0	1	-	3 seatings - 15SF per seat
Central Chemical Storage Rm	200	1	200		Chair / Table Sto		300	1	300	
sinaar enemear eterage i un					Scramble Servir	ng Area	600	1	600	
IAL EDUCATION			0		Kitchen		1,600	1		1600 SF for first 300 + 1 SF/student
ist classrooms of different sizes separately)			0		Staff Lunch Roo	om	400	1	400	20 SF/Occupant
elf-Contained SPED	050	0		100/ 6						
	950	0		assumed 8% of pop. in self-contained SPED	MEDICAL				410	
elf-Contained SPED Toilet	60	0	-		Medical Suite To	oilet	60	1	60	
esource Room	500	0	-	1/2 size Genl. Clrm.	Nurses' Office /	Waiting Room	250	1	250	
mall Group Room	500	0	-	1/2 size Genl. Clrm.	Interview Room		100	1	100	
					Examination Ro	om / Resting	100	0	-	
& MUSIC			3,700			<u> </u>				
rt Classroom - 25 seats	1,200	0	-	Assumed use - 25% Population - 5 times/week	ADMINISTRATION	& GUIDANCE			2.920	
t Workroom w/ Storage & kiln	150	0	-			Waiting Room / Toilet	300	1	300	
ind - 50 - 100 seats	1,500	1	1,500	Assumed use - 25% Population - 5 times/week	Teachers' Mail a		100	1	100	
orus - 50 - 100 seats	1,500	1	1,500					•		
nsemble	200	1	200		Duplicating Roo	m	200	1	200	
usic Practice	75	0	-		Records Room		200	1	200	
lusic Storage	500	1	500		· ·	e w/ Conference Area	375	1	375	
					Principal's Secre	pal's Office - AP1	125 150	<u> </u>	125 150	
ATIONS & TECHNOLOGY			3,200			pal's Office - AP2	150	0	150	
ach Clrm - (F.G. Drafting Business)	1 200	1	1 200	Assumed use 500/ Deculation 5 times (use)	Supervisory / Sp		120	1	120	
<del></del>	2,000	1		A	Conference Roo		450	<u>'</u> 1	450	
ech Shop - (E.G. Consumer, Wood)	2,000		2,000	Assumed use - 50% Population - 5 times/week	Guidance Office		150	0	-	
THE PRIVATION FRANCE			46.000		Guidance Waitin		100	1	100	
LTH & PHYSICAL EDUCATION	40.000	_	16,200		Guidance Storer	room	100	1	100	•
ymnasium 	12,000	1	12,000		Career Center		300	1	300	
E Alternatives	3,000	1	3,000		Records Room		100	1	100	
m_Storeroom	300	1	300		Teachers' Work	Room	300	1	300	
ocker Rooms - Boys / Girls w/ Toilets	0	1	-	5.6 sf/student total	2112727111	INTENANCE			0.075	
ys. Ed. Storage	500	1	500		CUSTODIAL & MA Custodian's Offi		150	1	2,075	
thlatic Director's Office	150	1	150		Custodian's Offi		150 250	<u>1</u> 1	150 250	
lealth Instructor's Office w/ Shower & Toilet	250	1	250		Custodian's Wor		375	1	375	
					Recycling Room	<u> </u>	400	1	400	
CENTER			3 650		Receiving and G		300	1	300	
edia Center / Reading Room	3,650	1	3,650		Storeroom	111. 7	400	1	400	
omputer Lab	1,555		2,230		Network / Teleco	om Room	200	1	200	
process design					1					
					<u>OTHER</u>				0	
					Other (specify)					
									1	

### MSBA Guidelines: Elementary Schools

	(refer	to MSBA Ed	MSBA Guidelines SBA Educational Program & Space Standard Guidelines)			
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments		
CORE ACADEMIC SPACES		0	0			
(List classrooms of different sizes separately)			-			
Pre-Kindergarten w/ toilet	1,200		-	1,100 SF min - 1,300 SF max		
Kindergarten w/ toilet	1,200	0		1,100 SF min - 1,300 SF max		
General Classrooms - Grade 1-6	950	0		900 SF min - 1,000 SF max		
Contrar Classiconia Crase 1 c	000			ood of fillin 1,000 of filax		
SPECIAL EDUCATION			500			
(List rooms of different sizes separately)						
Self-Contained SPED	950	0	-	8% of pop. in self-contained SPED		
Self-Contained SPED - toilet	60	0	_			
Resource Room	500	0	_	1/2 size Genl. Clrm.		
Small Group Room / Reading	500	1	500	1/2 size Genl. Clrm.		
ART & MUSIC			0			
Art Classroom - 25 seats	1,000	0	-	assumed schedule 2 times / week / student		
Art Workroom w/ Storage & kiln	150	0	-			
Music Classroom / Large Group - 25-50 seats	1,200	0	-	assumed schedule 2 times / week / student		
Music Practice / Ensemble	75	0	-			
HEALTH & PHYSICAL EDUCATION			6,300			
Gymnasium	6,000	1	6,000	6000 SF Min. Size		
Gym Storeroom	150	1	150			
Health Instructor's Office w/ Shower & Toilet	150	1	150			
MEDIA CENTER			2 020			
MEDIA CENTER  Modia Contor / Pooding Poom	2,020	1	<b>2,020</b> 2,020			
Media Center / Reading Room	2,020	I	2,020			
DINING & FOOD SERVICE			3,000			
Cafeteria / Dining	0	1	-	2 seatings - 15SF per seat		
Stage	1,000	1	1,000			
Chair / Table / Equipment Storage	200	1	200			
Kitchen	1,600	1	1,600	1600 SF for first 300 + 1 SF/student Add'l		
Staff Lunch Room	200	1	200			

1	•	I.	I .	•
MEDICAL			310	
Medical Suite Toilet	60	1	60	
Nurses' Office / Waiting Room	250	1	250	
Examination Room / Resting	100	0	-	
ADMINISTRATION & GUIDANCE			1,865	
General Office / Waiting Room / Toilet	300	1	300	
Teachers' Mail and Time Room	100	1	100	
Duplicating Room	150	1	150	
Records Room	110	1	110	
Principal's Office w/ Conference Area	375	1	375	
Principal's Secretary / Waiting	125	1	125	
Assistant Principal's Office	120	0	-	
Supervisory / Spare Office	120	1	120	
Conference Room	250	1	250	
Guidance Office	150	0	-	
Guidance Storeroom	35	1	35	
Teachers' Work Room	300	1	300	
CUSTODIAL & MAINTENANCE			1,900	
Custodian's Office	150	1	150	
Custodian's Workshop	375	1	375	
Custodian's Storage	375	1	375	
Recycling Room / Trash	400	1	400	
Receiving and General Supply	200	1	200	
Storeroom	200	1	200	
Network / Telecom Room	200	1	200	
OTHER			0	
Other (specify)			-	
Total Building Net Floor Area (NFA)			15,895	
Proposed Student Capacity / Enrollment			0	
Total Building Gross Floor Area (GFA) <sup>2</sup>			_	
3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				
Grossing factor (GFA/NFA)			0.00	
,				

### MSBA Guidelines: Elementary Schools

	MSBA Guidelines (refer to MSBA Educational Program & Space Standard Guidelines)					
ROOM TYPE	ROOM NFA <sup>1</sup>	# OF RMS	area totals	Comments		
CORE ACADEMIC SPACES		0	0			
(List classrooms of different sizes separately)						
Pre-Kindergarten w/ toilet	1,200		_	1,100 SF min - 1,300 SF max		
Kindergarten w/ toilet	1,200	0	-	1,100 SF min - 1,300 SF max		
General Classrooms - Grade 1-6	950	0	-	900 SF min - 1,000 SF max		
SPECIAL EDUCATION			500			
(List rooms of different sizes separately)						
Self-Contained SPED	950	0	-	8% of pop. in self-contained SPED		
Sell-Contained SPED - tollet	60	U	-			
Resource Room	500	0	-	1/2 size Genl. Clrm.		
Small Group Room / Reading	500	1	500	1/2 size Genl. Clrm.		
ART & MUSIC			0			
Art Classroom - 25 seats	1,000	0	-	assumed schedule 2 times / week / student		
Art Workroom w/ Storage & kiln	150	0	-			
Music Classroom / Large Group - 25-50 seats	1,200	0	-	assumed schedule 2 times / week / student		
Music Practice / Ensemble	75	0	-			
HEALTH & PHYSICAL EDUCATION			6,300			
Gymnasium	6,000	1		6000 SF Min. Size		
Gym Storeroom	150	1	150			
Health Instructor's Office w/ Shower & Toilet	150	1	150			
MEDIA CENTER			2 020			
Media Center / Reading Room	2,020	1	2,020			
DINING & FOOD SERVICE			3,000			
Cafeteria / Dining	0	1	-	2 seatings - 15SF per seat		
Stage	1,000	1	1,000	go 1001 poi 0001		
Chair / Table / Equipment Storage	200	1	200			
Kitchen	1,600	1		1600 SF for first 300 + 1 SF/student Add		
Staff Lunch Room	200	1	200	20 SF/Occupant		

Less space allocation in Cl	narter Scho	ols —			
── Not typically included in C	harter Scho	ools			
MEDICAL			310		
Medical Suite Toilet	60	1	60		
Nurses' Office / Waiting Room	250	1	250		
Examination Room / Resting	100	0	-		
Ü					
ADMINISTRATION & GUIDANCE			1,865		
General Office / Waiting Room / Toilet	300	1	300		
Teachers' Mail and Time Room	100	1	100	•	
Duplicating Room	150	1	150		
Records Room	110	1	110		
Principal's Office w/ Conference Area	375	1	375		
Principal's Secretary / Waiting	125	1	125		
Assistant Principal's Office	120	0	-		
Supervisory / Spare Office	120	1	120		
Conference Room	250	1	250		
Guidance Office	150	0	-		
Guidance Storeroom	35	1	35		
Teachers' Work Room	300	1	300		
CUSTODIAL & MAINTENANCE			1,900		
Custodian's Office	150	1	150		
Custodian's Workshop	375	1	375		
Custodian's Storage	375	1	375		
Recycling Room / Trash	400	1	400		
Receiving and General Supply	200	1	200		
Storeroom	200	1	200		
Network / Telecom Room	200	1	200		
<u>OTHER</u>			0		
Other (specify)					
Total Building Net Floor Area (NFA)			15,895		
Proposed Student Capacity / Enrollment			0		
Total Building Gross Floor Area (GFA) <sup>2</sup>			-		
Grossing factor (GFA/NFA)			0.00		
C.CCCING IGOIOT (CITTUTAL)			0.00		

Not typically included in Charter Schools

**Less space allocation in Charter Schools** 

# SF per Student Comparison

	MSBA Guidelines	Typical Charter School
Elementary Schools	145—180 GSF / student	100 GSF / student
Middle School	160—190 GSF / student	100 GSF / student
High School	185—205 GSF / student	100 GSF / student

### General Classrooms

	MSBA Guidelines	Typical Charter School
Elementary Pre-K/K Clasrooms	1,100—1,300 NSF	900—1,000 NSF
Elementary Core Classrooms	900—1,000 NSF	750 NSF
Middle Core Classrooms	850—950 NSF	750 NSF
High School General Classrooms	850—950 NSF	750 NSF

## Science and Special Education Classrooms

	MSBA Guidelines	Typical Charter School
Middle School Science Classrooms	1,200 NSF	850—950 NSF
High School Science Classrooms	1,440 NSF	850—1,000 NSF
	Guidelines assume 16% of	Typically push-in with limited
Special Education Classrooms	population; special programs;	break-out rooms
	self-contained classrooms	DICAR OUT TOOTIS

# Administration and Support Spaces

	MSBA Guidelines	<b>Typical Charter School</b>
Teacher Planning Areas	300 NSF	300—450 NSF
Kitchen and serving area	1,600 NSF	<1,000 NSF
Dining area	15 GSF/student	15 GSF/student
Administration	1,865—2,920 NSF	2,500 NSF

# **Specialty Spaces**

	MSBA Guidelines	Typical Charter School
Art and Music	1,000 NSF	750—850 NSF
Elementary School Gym	6,000 NSF	4,700—5,500 NSF
High School Gym	12,000 NSF	7,000—8,000 NSF
Media Center	2,020—3,650 NSF	Varies
High School Auditorium/Stage	2,650 NSF	Varies



ARROWSTREET

and above.

