



Tecton
ARCHITECTS

SUMMARY PRESENTATION FOR TRUMBULL PUBLIC SCHOOLS

EDUCATIONAL SPECIFICATIONS

HILLCREST MIDDLE SCHOOL

GRANT APPLICATION

for

Trumbull Board of Education

Long Hill Administration Building

March 26, 2024

**Grant Application
due: June 30th**

Tecton & Team	<p>Enrollment Projections (highest in 8-year period)* Space Standards Worksheet (SCG-2500) Site Analysis SCG-053 (Site impacts, FMC, Phase I*, geotechnical, CT Gen Stat § 8-24) Cost Estimate (SCG-2000, Unifomat online)</p>
Schools & Tecton	<p>Educational Specifications* School Safety and Security Letter SCG-9000, Approval from DEMHS Approval for Renovation Status (As appropriate) (SCG-3500)</p>
Town of Trumbull	<p>BOE Approval of Educational Specifications Certified Resolutions (building committee, filing of grant, SD drawings) Approval of funding (certified vote count)</p>

*By others and/or in coordination with Owner's consultants

Draft Education Specification (Updated 3.26.24)



TRUMBULL PUBLIC SCHOOLS

HILLCREST MIDDLE SCHOOL

530 DANIELS FARM RD, TRUMBULL, CT 06611

EDUCATIONAL SPECIFICATIONS



MARCH 2024
Report Prepared By Tecton Architects, PC
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PURPOSE & VISION

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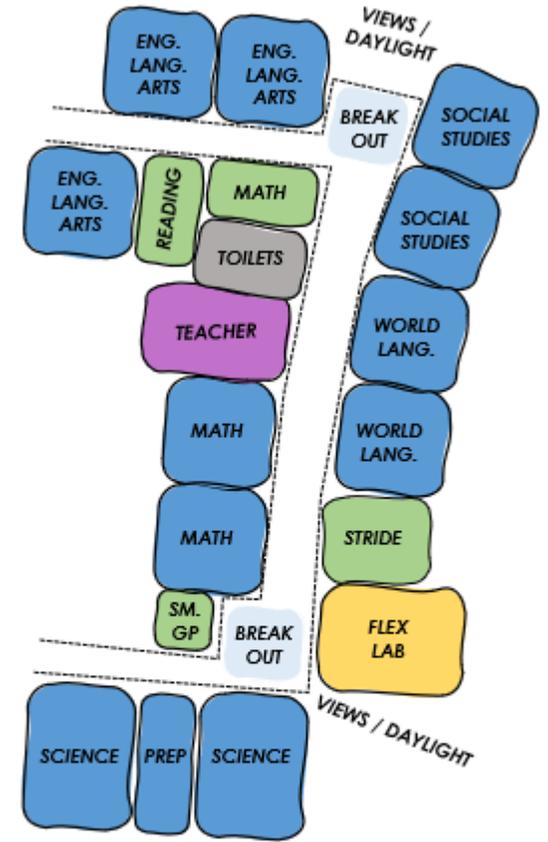
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SMALL LEARNING COMMUNITY - "L" SCHEME GRADE LEVEL NEIGHBORHOOD

PART 3	
MAR. TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL 2024 Educational Specifications	
PART 3: SPACE PROGRAM & ACTIVITY PAGES	
PLANNING (Tech Ed., E-Sports, Cyber, Digital Lit.)	
Room Area (SF)	2,000 SF
Number of Staff	4
Average Class Size	43/35
OBJECTIVES	
A technologically advanced, all-purpose, interdisciplinary learning environment that serves the middle school curriculum, the district and community at large. The classroom fosters deep learning through the sciences, arts, and technology. The space will support the growing E-Sports program, music, technology, astronomy, as well as clubs, assembly, field trips and community programs. This dynamic learning environment will engage students, learning experiences for students and assist them to become transferees to work-ready.	
USERS	ACTIVITIES/PROGRAMS
<ul style="list-style-type: none"> Students Teachers Intendees/visitors/parents Delaware Valley Community 	<ul style="list-style-type: none"> E-Sports Science Math & Computer Science Art & Music Language Arts
ENVIRONMENTAL CHARACTERISTICS	
Accessibility / Usability	<ul style="list-style-type: none"> Barriers and Obstacles Comply with ADA and other applicable laws and regulations
Windows	<ul style="list-style-type: none"> Callings Acoustical Admittance, IR Admittance, IR
Floors	<ul style="list-style-type: none"> Acoustical requirements apply Anti-static carpet tile Self-healing, low-VOC, slip-resistant, durable, and easy to maintain Self-healing, low-VOC, slip-resistant, durable, and easy to maintain Self-healing, low-VOC, slip-resistant, durable, and easy to maintain
Lighting	<ul style="list-style-type: none"> Technology/Devices Self-healing, low-VOC, slip-resistant, durable, and easy to maintain Self-healing, low-VOC, slip-resistant, durable, and easy to maintain Self-healing, low-VOC, slip-resistant, durable, and easy to maintain
Power, Data & Communications	<ul style="list-style-type: none"> Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply
FINISHINGS	<ul style="list-style-type: none"> Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply
Classroom Storage / Casework & Furniture	<ul style="list-style-type: none"> Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply
Teacher Storage / Casework & Furniture	<ul style="list-style-type: none"> Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply Acoustical requirements apply

Informational content for Part 3: Space Program & Activity Pages. Includes sections for Building Space Requirements, General Purpose Classroom/Educational Space, and Small Learning Community - 'L' Scheme Grade Level Neighborhood. The text describes the design goals, room specifications, and furniture requirements for the new classrooms.



EDUCATIONAL SPECIFICATIONS
Hilcrest Middle School | 530 Daniels Farm Rd, Trumbull, CT 06611



PART 1

PURPOSE & VISION

Rationale	1.1
School Mission.....	1.2
• <i>Middle School Philosophy</i>	
• <i>Core Values and Beliefs</i>	
Long Range Educational Plan.....	1.3
• <i>Vision of a Graduate</i>	
• <i>Strategic Priorities</i>	

1.3 LONG RANGE EDUCATIONAL PLAN

Vision of a Graduate

- **Innovation:** The ability to look at something familiar and see new possibilities, which leads to curiosity about new learning and the desire to create something original or imaginative.
- **Growth Mindset:** The belief that one can improve their intelligence or skills through continued hard work and adapt when faced with challenges.
- **Emotional Intelligence:** The aptitude for identifying how and why a person is feeling the way they are and how to regulate and address those emotions.
- **Integrity:** The act of consistently doing the right thing even when it's hard or no one is looking.
- **Self-Efficacy:** The belief that you are capable of successfully performing a task or managing a situation.
- **Collaboration:** The qualities and competencies we use to collectively make progress toward common goals or outcomes.
- **Communication:** The ability to understand others and be understood for a variety of reasons and purposes.
- **Critical Thinking & Problem Solving:** The ability to use knowledge, facts, and data to effectively solve problems.

Community Engagement & Development of Options

In addition to the technical components outlined above, a series of options were developed that included possibilities for new builds, renovations and yearly capital improvements. These options were continually refined through a collaborative process with a diverse group of stakeholders. From BOE workshops to Community Conversations and surveys, the planning process garnered feedback from residents, staff, educators, board members and administrators. The presentations and community engagement materials utilized throughout this process can be found in the Supplemental Materials section of the report.

This planning process illuminated opportunities within the district and sought creative solutions to its challenges. Several considerations were critical when developing planning options and ultimately, in selecting a preferred direction. These included:

1. **District Needs** – ability to address capacity issues and prioritize programmatic needs.
2. **Logistics Considerations** – site capacity and availability of "swing space" (i.e. where students are housed during construction in order to minimize disruption).
3. **Fiscal Responsibility** – maximizing reimbursement from the State of Connecticut and creating value for the Trumbull community.



PART 2

PROCESS & OUTCOMES

Projected Student Enrollment	2.1
Proposed Project Capacity	2.2
Learning / Educational Activities	2.3
• <i>Introduction to Trumbull</i>	
• <i>School Facility Summary</i>	
Overall Instructional Design	2.4

2.2 PROPOSED PROJECT CAPACITY

Hillcrest Middle School (2029-30) Highest 10-YR Projection	
Student Enrollment Projection	
Grade Level	# of Students
Sixth Grade	267
Seventh Grade	271
Eighth Grade	288
Total Students	826

source: McKibben Demographic Research, Population and Enrollment Forecasts (January 2023)

Sustainability, Resiliency & Clean Energy

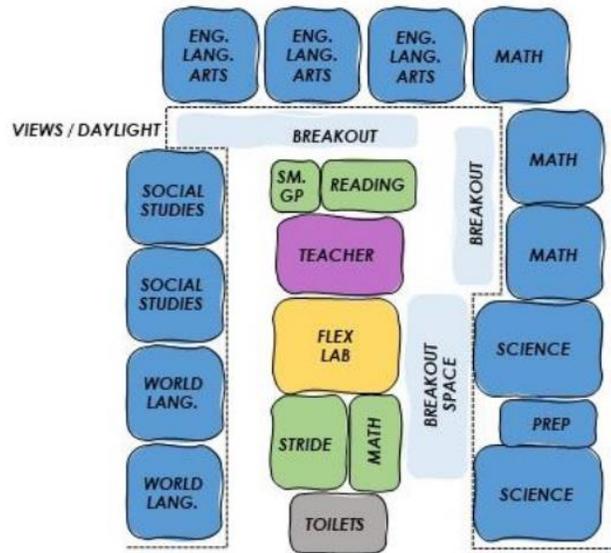
Facilities matter. And sustainable schools, or green schools, are the highest quality learning environments. They provide plenty of light and excellent air circulation and climate control. Green schools save taxpayer dollars - through economies during construction and through long-term savings on energy and utility costs. Green schools can also provide excellent opportunities for student explorations in science, ecology, engineering, and other career & technical fields. Since 2007, Connecticut law has mandated high performance efficiency buildings (CGS § 16a-38k). As required, DEEP has adopted high performance (Green) building construction regulations that incorporate design, construction, and operation practices that preserve the natural environment (RCSA 16a-38k 1-9). These state construction standards are consistent with, or in some cases, have exceeded the Leadership in Energy and Environment (LEED) silver design building rating system. Connecticut's green construction standards help achieve the state's greenhouse gas emission (GHG), energy, and cost reduction goals while driving economic growth.

Source: Connecticut Department of Energy & Environmental Protection High Performance (Green) Building Standards for State Agency Buildings and School Buildings

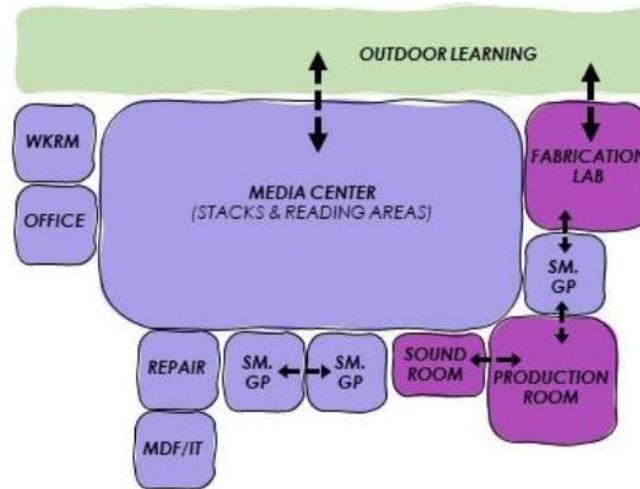
PART 3

SPACE PROGRAM & ACTIVITY PAGES

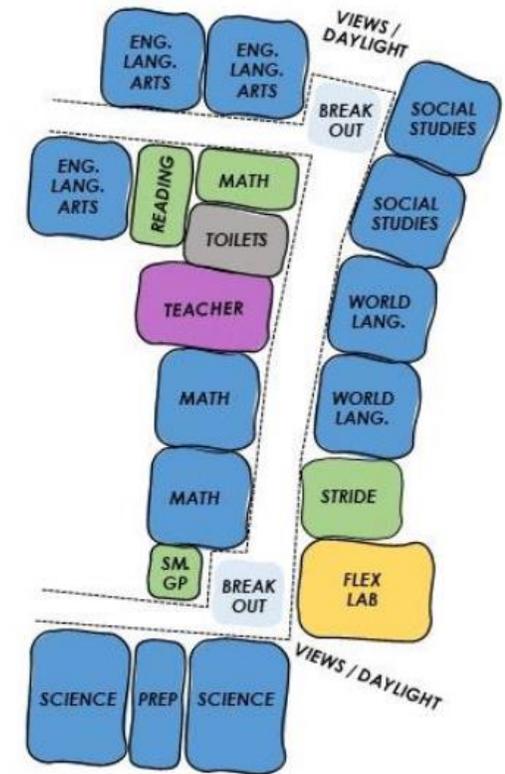
- Building Space Requirements.....3.1
- Educational Supporting Spaces.....3.2
- Detailed Description (Room Data Sheets)3.3



**SMALL LEARNING COMMUNITY –
POD SCHEME**
GRADE LEVEL NEIGHBORHOOD



MEDIA CENTER DIAGRAM
DYNAMIC HUB WITH LABS, GROUP ROOMS,
AND OUTDOOR CONNECTIONS

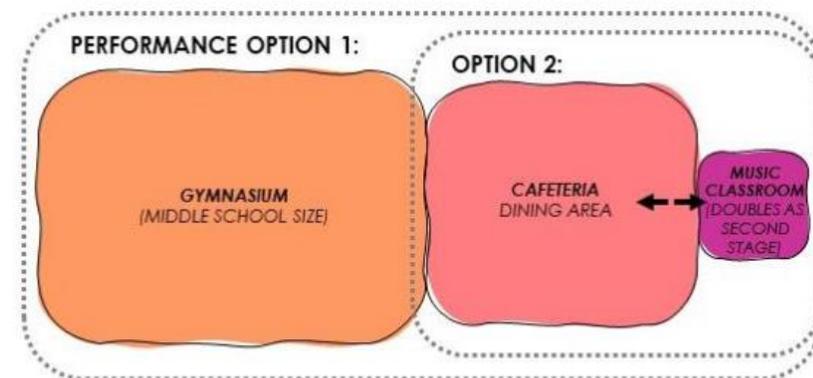
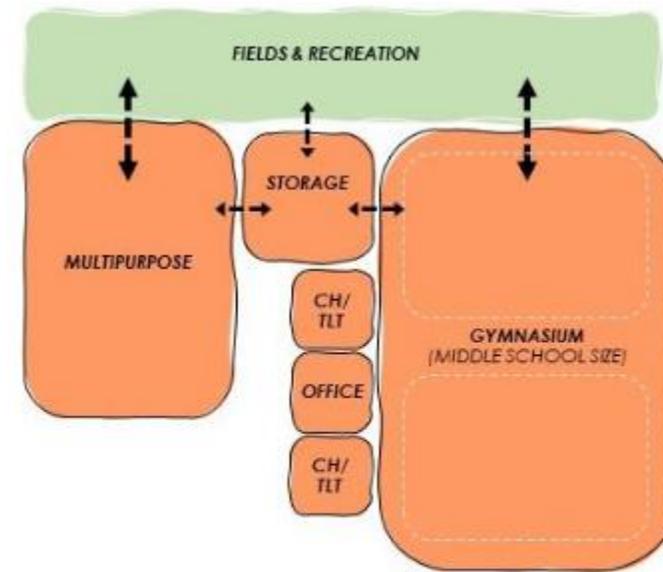
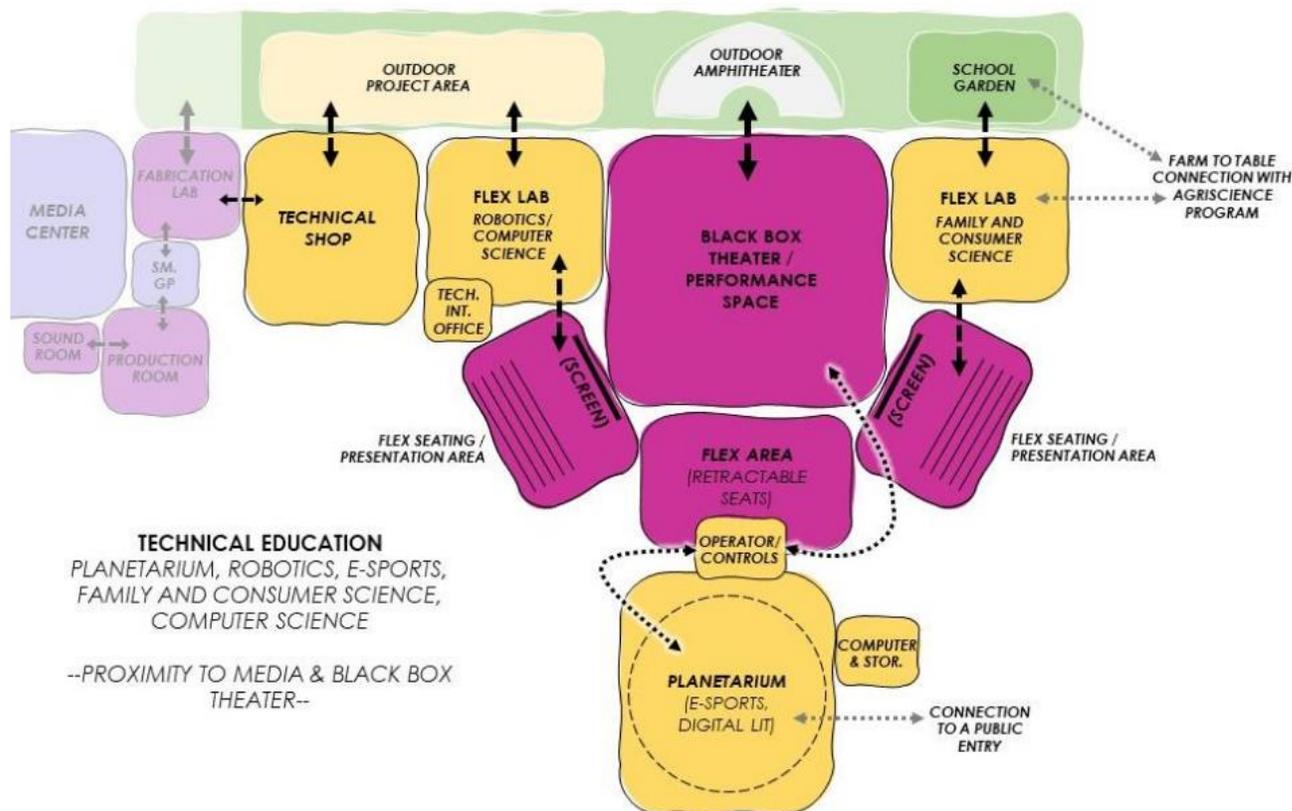


**SMALL LEARNING COMMUNITY –
“L” SCHEME**
GRADE LEVEL NEIGHBORHOOD

PART 3

SPACE PROGRAM & ACTIVITY PAGES

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PART 3

SPACE PROGRAM & ACTIVITY PAGES

Building Space Requirements.....3.1

Educational Supporting Spaces.....3.2

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MAR. 2024 TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL Educational Specifications	
3.3 DETAILED DESCRIPTION	
GRADE LEVEL LEARNING COMMUNITIES	
<ul style="list-style-type: none"> GRADES 6-8 GENERAL CLASSROOMS (ENGLISH LANGUAGE ARTS/READING, MATH, WORLD LANGUAGE, SOCIAL STUDIES) SCIENCE CLASSROOM/LAB SCIENCE PREP ROOM FLEX CLASSROOM/LAB EXTENDED LEARNING/BREAKOUT AREA SMALL GROUP/SENSORY ROOM MATH/READING INTERVENTION (BREAKOUT/OFFICE) STRIDE/RESOURCE TEACHER PREP/WORKROOM 	
SPECIAL EDUCATION	
<ul style="list-style-type: none"> SKILLS FOR SUCCESS OT/PT LIFE SKILLS/SELF-CONTAINED CLASSROOM SPEECH AND LANGUAGE THERAPY (BREAKOUT/OFFICES) WORKROOM & SUPPORT STORAGE SPECIAL EDUCATION DEPARTMENT CHAIR OFFICE 	
MAIN OFFICE	
<ul style="list-style-type: none"> GENERAL OFFICE PRINCIPAL'S OFFICE ASSISTANT PRINCIPAL'S OFFICE CONFERENCE ROOMS SOCIAL WORKER OFFICE SCHOOL COUNSELING OFFICE PSYCHOLOGIST OFFICE SECURITY OFFICE WORKROOM, STORAGE, TOILET ROOMS TESTING/ISS ROOM 	
NURSE	
<ul style="list-style-type: none"> WAITING/COTS OFFICE EXAM ROOM STORAGE TOILET ROOM 	
VISUAL AND PERFORMING ARTS	
<ul style="list-style-type: none"> ART STUDIO W/KILN ROOM GENERAL ART ROOM ORCHESTRA ROOM CHORAL ROOM BAND ROOM INSTRUMENT/MUSIC STORAGE MUSIC TECHNOLOGY BLACK BOX THEATER/AUDITORIUM STAGE, WINGS, STORAGE CONTROL ROOM/SOUND BOOTH 	
MEDIA CENTER	
<ul style="list-style-type: none"> MEDIA CENTER/STACKS BREAKOUT SPACES 	

MAR. 2024 TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL Educational Specifications	
PART 3: SPACE PROGRAM & ACTIVITY PAGES	
GRADES 6-8 GENERAL CLASSROOMS	
Room Area (SF) Number of Teachers Average Class Size	
OBJECTIVES An adaptable classroom designed for an integrated and interdisciplinary approach that promotes collaboration through arrangements and flexible configurations. The space should function as general instruction space while also promoting deep learning.	
USERS <ul style="list-style-type: none"> Students Teachers Paraprofessionals/Aides 	ACTIVITIES/PROGRAMS <ul style="list-style-type: none"> Reading Mathematics Language Arts Social Studies World Language
ENVIRONMENTAL CHARACTERISTICS	
Adjacency / Location <ul style="list-style-type: none"> Adjacent to classrooms that promote interdisciplinary learning neighborhoods Small group learning / breakout spaces nearby Resource spaces nearby Teacher workstation nearby 	Doors and Hardware <ul style="list-style-type: none"> Door with vision panel
Windows <ul style="list-style-type: none"> Operable window(s) Room darkening shades 	Ceiling <ul style="list-style-type: none"> Acoustical tile
Floors <ul style="list-style-type: none"> Resilient flooring, or similar Durable, low maintenance 	Walls <ul style="list-style-type: none"> Paint Wall Protection (as needed) (See Furnishings for Display areas)
SPECIALTIES/SYSTEMS	
Lighting <ul style="list-style-type: none"> LED Fixtures, dimmable Daylight sensors Occupancy sensors Variable light level switching 	Technology/Devices <ul style="list-style-type: none"> Ceiling mounted projector Interactive display at teaching wall Desktop/Laptop device at mobile teacher station Charging carts, or current technology Document camera
Power, Data & Communications <ul style="list-style-type: none"> Multiple electrical outlets at walls with USB charging modules Power/data/video connection at ceiling Telephone/public address system WiFi access Data/power near teaching wall for mobile teacher station Voice amplification/sound field system Access to charging/outlets from student desks, or nearby - without having to relocate to specific zones in the room 	Plumbing <ul style="list-style-type: none"> ADA compliant sink
	HVAC / Mechanical <ul style="list-style-type: none"> Refer to Building Systems section for additional requirements
FURNISHINGS	
Classroom Storage / Casework & Furniture <ul style="list-style-type: none"> Modular, mobile tables to support individual and collaborative work Mobile seating/chairs Circular tables for small groups with chairs Mobile display and bookshelves Mobile storage cabinets for learning materials, project supplies, lockable Fixed upper and lower cabinets (connected with tall wardrobe for teacher storage) Rag bracket & bag Charging capabilities built into furniture where possible Student lockers (in hallway, located outside the circulation pathway) 	Display <ul style="list-style-type: none"> Writeable Surface, Magnetic marker/whiteboard with music staffs Tackable Surface, bulletin board Projection Surface
	Teacher Storage / Casework & Furniture <ul style="list-style-type: none"> Mobile teacher station, mobile workstation Tall wardrobe/storage cabinet, lockable Lateral/vertical file cabinet, lockable

MAR. 2024 TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL Educational Specifications	
PART 3: SPACE PROGRAM & ACTIVITY PAGES	
WORKROOM & SUPPORT STORAGE	
Room Area (SF) Number of Teachers Average Class Size	
OBJECTIVES Area for planning and collaboration among special education instructors and paraprofessionals. The space should include a dining area, storage closet, copy/print area.	
USERS <ul style="list-style-type: none"> Teachers Paraprofessionals/Aides 	ACTIVITIES/PROGRAMS <ul style="list-style-type: none"> Work/break room Kitchenette Instructional Materials Storage
ENVIRONMENTAL CHARACTERISTICS	
Adjacency / Location <ul style="list-style-type: none"> Delimited across the building within learning communities. Include a kitchenette. Include a storage closet for instructional materials. 	Doors and Hardware <ul style="list-style-type: none"> Door with vision panel
Windows <ul style="list-style-type: none"> Operable window(s) Room darkening shades 	Ceiling <ul style="list-style-type: none"> Acoustical tile
Floors <ul style="list-style-type: none"> Resilient flooring, or similar Durable, low maintenance 	Walls <ul style="list-style-type: none"> Paint Wall Protection (as needed)
SPECIALTIES/SYSTEMS	
Lighting <ul style="list-style-type: none"> LED Fixtures, dimmable Daylight sensors Occupancy sensors 	Technology/Devices <ul style="list-style-type: none"> Printer/copier TV monitor
Power, Data & Communications <ul style="list-style-type: none"> Multiple power/data outlets at walls with USB charging modules Multiple power outlets at kitchenette Telephone/public address system WiFi access 	Plumbing <ul style="list-style-type: none"> ADA compliant sink with filtered water faucet Refrigerator with ice maker Dishwasher
	HVAC / Mechanical <ul style="list-style-type: none"> Refer to Building Systems section for additional requirements
FURNISHINGS	
Storage / Casework & Furniture <ul style="list-style-type: none"> Modular, mobile tables to support individual and collaborative work Mobile seating/chairs Fixed upper and lower cabinets at kitchenette. Fixed upper and deeper/lower cabinets to accommodate equipment. Open shelving in storage closet Tall wardrobe, lockable, or cubinets/lockers for personal belongings (primarily for paraprofessionals) 	Display <ul style="list-style-type: none"> Writeable Surface, Magnetic marker/whiteboard with music staffs Tackable Surface, bulletin board
	Appliances <ul style="list-style-type: none"> Full Size Refrigerator Microwave Coffee Maker Dishwasher
	Other <ul style="list-style-type: none"> Binding Machine Laminator Paper Cutter

MAR. 2024 TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL Educational Specifications	
PART 3: SPACE PROGRAM & ACTIVITY PAGES	
ORCHESTRA/STRINGS ROOM	
Room Area (SF) 1,200 SF Number of Staff 1-2 Average Class Size 18-30	
OBJECTIVES A space designed to cultivate musical talent and foster a collaborative environment for students interested in playing instruments. Its objective is to provide a dedicated space where students can practice, rehearse, and refine their musical skills under the guidance of instructors, promoting a passion for music education and ensemble performance.	
USERS <ul style="list-style-type: none"> Students Teachers Paraprofessionals/Aides 	ACTIVITIES/PROGRAMS <ul style="list-style-type: none"> Instrument Practice Orchestra Rehearsal Individual or Group Lessons
ENVIRONMENTAL CHARACTERISTICS	
Adjacency / Location <ul style="list-style-type: none"> Adjacent to Auditorium or performance space 	Doors and Hardware <ul style="list-style-type: none"> Double Door with vision panel
Windows <ul style="list-style-type: none"> Operable window(s) Room darkening Shades 	Ceiling <ul style="list-style-type: none"> Pyramidal ceiling clouds for acoustical variation
Floors <ul style="list-style-type: none"> Carpet Tile 	Walls <ul style="list-style-type: none"> Paint Wall Protection (as needed) (See Furnishings for Display areas) Acoustical wall treatments
SPECIALTIES/SYSTEMS	
Lighting <ul style="list-style-type: none"> LED Fixtures, dimmable Daylight sensors Occupancy sensors Variable light level switching 	Technology/Devices <ul style="list-style-type: none"> Ceiling mounted projector Interactive display at teaching wall Countertop printer Document camera
Power, Data & Communications <ul style="list-style-type: none"> Multiple electrical outlets at walls with USB charging modules Power/data/video connection at ceiling Telephone/public address system WiFi access Data/power near teaching wall for mobile teacher station Voice amplification/sound field system Stereo and Speaker System Recording equipment built into classroom for assessment purposes 	Plumbing <ul style="list-style-type: none"> (1) deep sink for instrument cleaning
	HVAC / Mechanical <ul style="list-style-type: none"> Refer to Building Systems section for additional requirements
FURNISHINGS	
Classroom Storage / Casework & Furniture <ul style="list-style-type: none"> Fixed upper and lower cabinets (connected with tall wardrobe for teacher storage) Performer Chairs Music Stands Large Move and Store Music Stand Carts Chair Move & Store Carts Portable Risers, 3 ft deep able to be relocated to the stage. Vertical files for music storage Stereo and Speaker System Electronic keyboard on stand 	Display <ul style="list-style-type: none"> Writeable Surface, Magnetic marker/whiteboard with music staffs Tackable Surface, bulletin board Projection Surface or screen
	Teacher Storage / Casework & Furniture <ul style="list-style-type: none"> Mobile teacher station, mobile workstation cart Tall wardrobe/storage cabinet, lockable Lateral/vertical file cabinet, lockable



PART 4

BUILDING SYSTEMS & SITE

Building Systems.....	4.1
Site Development	4.2
Construction Grant Bonus Requests	4.3

Building Systems & Infrastructure:

- 1. Fire Protection*
- 2. Plumbing*
- 3. Heating and Ventilation*
- 4. Electrical Systems*
- 5. Lighting*
- 6. Fire Alarm*
- 7. Technology, Data, AV, Clocks, Phones*
- 8. Security & Access Control*
- 9. Sustainability, NetZero, PV, Geothermal*

PART 5

COMMUNITY USES, FURNITURE & EQUIPMENT

Community Uses.....5.1

Furniture, Fixtures & Specialized Equipment.....5.2

- **Summer enrichment programs** – both educational and community related.
- **Summer school** – limited to specific areas of the school.
- **Town meetings** – public presentations, community board meetings.
- **PTO meetings and events** – including use of media center, gymnasium, cafeteria/kitchen.
- **Voting** – anticipated within the gymnasium area.
- **Temporary warming shelter** – during catastrophic community events for those in need, planned for the gymnasium, locker rooms, kitchen and cafeteria area.
- **Community recreation** – Physical education activities and programs in the gymnasium and outdoor field areas or courts, recreational leagues, general physical exercise like walking the track.
- **Nature and play** – access to play areas, playscapes, walking paths, or gardens after hours and during the weekends.
- **Various youth club programs** – for example Boy and Girl Scout events and meetings.
- **Community arts programs** – both visual and performing arts – located within the available amenity spaces.



PART 6

LIST OF EDUCATIONAL SPACES.....6.1

MAR. 2024 | TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL
2024 | Educational Specifications

PART 6

PART 6: LIST OF EDUCATIONAL SPACES

6.1 LIST OF EDUCATIONAL SPACES

PROPOSED PROGRAM - NEW HILLCREST MIDDLE SCHOOL

New Hillcrest Middle School			
Grade Configuration:	6-8		
Projected Enrollment:	826		
Area of Existing Building:	117,000		
OGA Allowable Area:	135,706		
Revision Date:	03.25.2024		

6TH GRADE ACADEMIC CLASSROOMS	QTY	UNIT SF	TOTAL SF
English Language Arts (ELA) / Reading Classroom	3	900	2,700
Math Classroom	3	900	2,700
World Language Classroom	2	900	1,800
Social Studies Classroom	2	900	1,800
Science Classroom and Lab	2	1200	2,400
Science Prep Room	1	800	800
Flex Lab Space (Science, Math, Eng., Technol.)	1	1200	1,200
Curriculum Storage	2	200	400
Math Intervention (Break Out/Office)	1	450	450
Reading Intervention (Break Out/Office)	1	450	450
Specialized Education - Small Group/Sensory	1	250	250
STRIDE - Self Contained Classroom / Resource	1	600	600
Teacher Prof. Dev./Work/Prep Room	1	600	600
6TH GRADE ACADEMIC CLASSROOMS	21		16,150

7TH GRADE ACADEMIC CLASSROOMS	QTY	UNIT SF	TOTAL SF
English Language Arts (ELA) / Reading Classroom	3	900	2,700
Math Classroom	3	900	2,700
World Language Classroom	2	900	1,800
Social Studies Classroom	2	900	1,800
Science Classroom and Lab	2	1200	2,400
Science Prep Room	1	800	800
Flex Lab Space (Science, Math, Eng., Technol.)	1	1200	1,200
Curriculum Storage	2	200	400

MAR. 2024 | TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL
2024 | Educational Specifications

PART 6

Office Workroom	1	175	175
Testing / I.S.S.	1	80	80
Storage Room	1	150	150
Social Worker Office	2	120	240
School Counselor Office	3	120	360
Psychologist Office	1	120	120
Administrative Restrooms	2	60	120
Security Office	1	100	100
Conference Room	1	300	300
Materials Storage	1	80	80
ADMINISTRATION	19		3,215

STUDENT HEALTH	QTY	UNIT SF	TOTAL SF
Nurse Office	1	225	225
Waiting/Cots/Main Room	1	400	400
Exam/Multi-Purpose Room	1	120	120
Storage Closet	1	60	60
Toilet Room	2	60	120
STUDENT HEALTH	6		925

VISUAL AND PERFORMING ARTS	QTY	UNIT SF	TOTAL SF
Art Studio	1	1200	1,200
General Art Classroom	1	950	950
Kiln Room / Art Storage	1	125	125
Orchestra Strings Room	1	1200	1,200
General/Choral Music	1	1200	1,200
General/Choral Music Storage	1	200	200
Band/Instrumental/Classroom	1	1200	1,200
Band/Instrumental/Classroom Storage	1	200	200
Black Box Theater / Auditorium	1	3500	3,500
Stage / Wing Space / Storage	1	1350	1,350
Auditorium Control/Sound Room	1	200	200
VISUAL AND PERFORMING ARTS	11		11,325

LEARNING COMMONS	QTY	UNIT SF	TOTAL SF
Media Specialist Office	1	150	150
Media Specialist Storage / Work Room	1	200	200

MAR. 2024 | TRUMBULL PUBLIC SCHOOL DISTRICT, HILLCREST MIDDLE SCHOOL
2024 | Educational Specifications

PART 6

Office	1	100	100
Janitor's Closet (Kitchen)	1	50	50
Toilet Room (Kitchen)	2	60	120
Chair/Table Storage	1	400	400
Teacher Dining / Small Break Out Dining Area	1	625	625
CAFETERIA / FOOD SERVICE	13		9,378

BUILDING SERVICES	QTY	UNIT SF	TOTAL SF
Building Storage	1	550	550
Toilet Room (Boys/Men)	4	250	1,000
Toilet Room (Girls/Women)	4	250	1,000
All-Gender / All Inclusive - Toilet Room	10	50	500
Custodial Closet	4	80	320
Mechanical Room	1	850	850
Main Electrical Room	1	400	400
Electrical Closet	3	80	240
IDF Room	3	80	240
Deliveries / Loading	1	450	450
Custodial Office/Storage	1	175	175
Custodial Toilet Room	1	60	60
BUILDING SERVICES	34		5,785

PROGRAM AREAS	#/ROOMS	TOTAL SF
6TH GRADE ACADEMIC CLASSROOMS	21	16,150
7TH GRADE ACADEMIC CLASSROOMS	21	16,150
8TH GRADE ACADEMIC CLASSROOMS	21	16,150
SPECIAL EDUCATION (refer to Academic CR)	6	2,750
ADMINISTRATION	19	3,215
STUDENT HEALTH	6	925
VISUAL AND PERFORMING ARTS	11	11,325
LEARNING COMMONS	11	6,416
CAREER, TECH. ED. & COMPUTER SCIENCE	8	6,250
WELLNESS / PHYSICAL EDUCATION	7	10,825
CAFETERIA / FOOD SERVICE	13	9,378
BUILDING SERVICES	34	5,785
Net SF		105,319
Circulation Factor	105,319	0.385
		40,548

Project Number: TBD LEA CODE: 904620
 School Name: New Hillcrest Middle School
 LEA Name: Trumbull Public Schools

SPACE STANDARDS WORKSHEET

This worksheet should be completed and submitted with the application for any N (new), E (extension), A (alteration, or RNV (renovation) project, or combination.

State Standard Space Specifications
Grades

Projected Enrollment	Pre-K & K	1	2	3	4	5	6	7	8	9	10	11	12
				Allowable Square Footage per Pupil									
0 - 350	124	124	124	124	124	156	156	180	180	180	194	194	194
351 - 750	120	120	120	120	120	152	152	176	176	176	190	190	190
751 - 1500	116	116	116	116	116	148	148	170	170	170	184	184	184
Over 1500	112	112	112	112	112	142	142	164	164	164	178	178	178

Steps for completing Section 1:

- In the field labeled "Projected Enrollment," enter your school's highest projected 8 year enrollment.
- Select "Yes" for each grade served or to be served in your school.
- Answer whether there is 1% additional space claimed for HVAC.
- Enter the existing square footage of your school constructed before 1959 remaining in completed project.
- Enter the square footage of the school built 1959 or later, as of the completion of construction.
- Note that all square foot calculations are measured to inside face of exterior walls.

Section 1.

Highest Proj 8-year enrollment: 826

Pre-K and/or K	<u>6</u> Yes	6	<u>148</u>
	<u>7</u> Yes	7	<u>170</u>
1	<u>8</u> Yes	8	<u>170</u>
2	<u>9</u>	9	
3	<u>10</u>	10	
4	<u>11</u>	11	
5	<u>12</u>	12	

Section 2.

(a) Total (grades Pre-K through 12)	<u>488</u>
(b) Number of grades housed	<u>3</u>
(c) Average [(a)/(b)]	<u>163</u>
(d) Extra 1% for HVAC (CGS10-286(c)(2))?	Yes <input type="checkbox"/>
(e) Maximum allowable square footage per space standards [(c) x (d)]	<u>135,706</u>

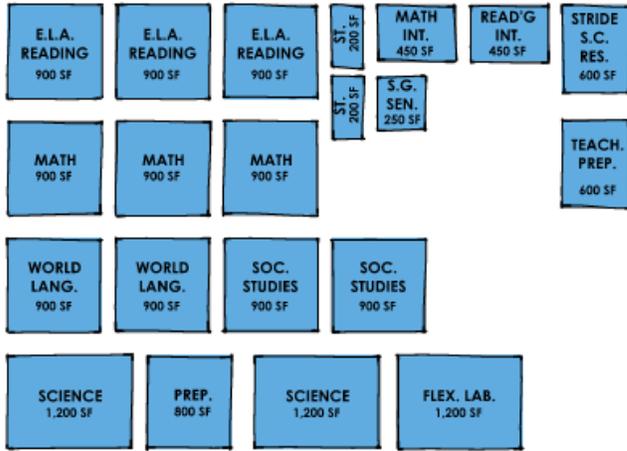
135,706
 Allowable SF*
 (826 Students)
 (Grades 6-8)

*As measured by OGA

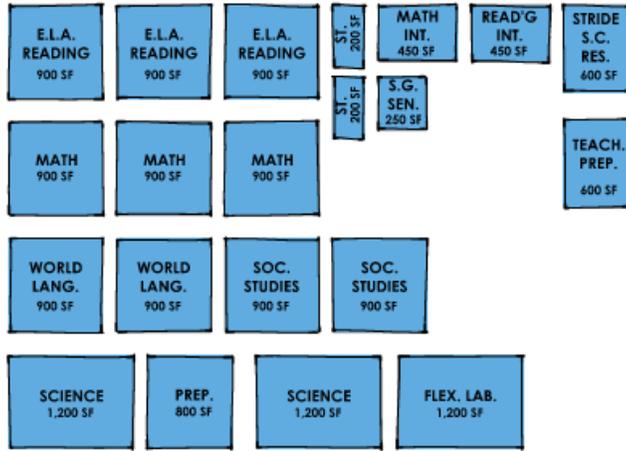
Proposed Program (Updated 3.18.24)



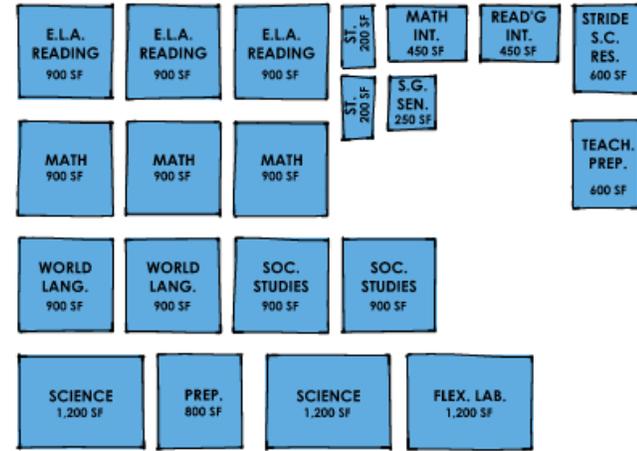
6TH GRADE - LEARNING COMMUNITY



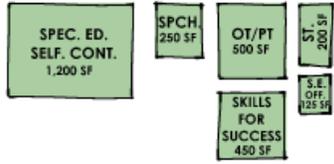
7TH GRADE - LEARNING COMMUNITY



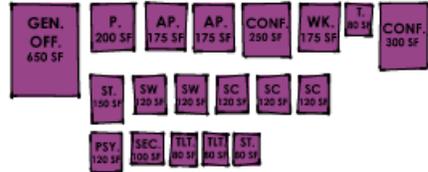
8TH GRADE - LEARNING COMMUNITY



SPECIAL EDUCATION



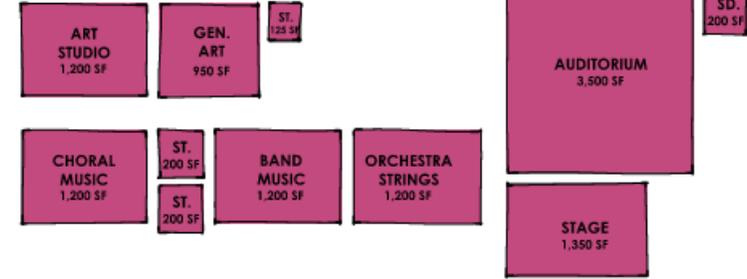
ADMINISTRATION



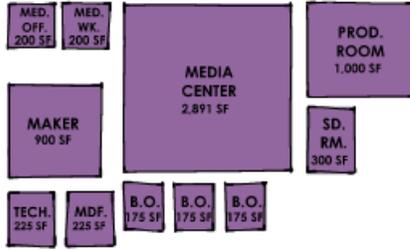
NURSE



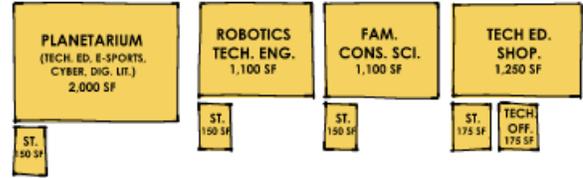
VISUAL & PERFORMING ARTS



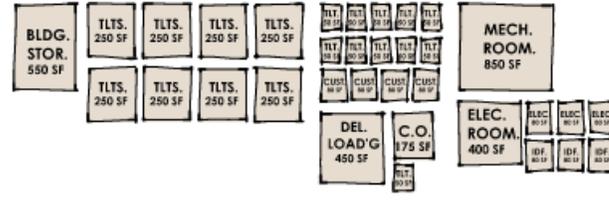
LEARNING COMMONS



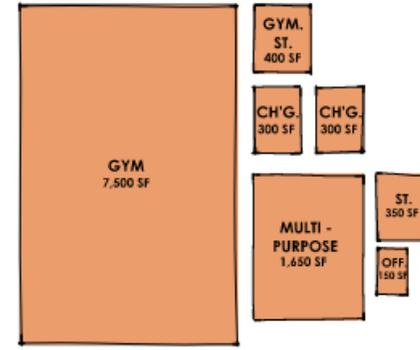
PLANETARIUM, CAREER, TECH. COMP. SCIENCE



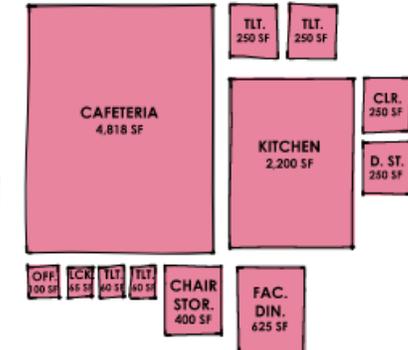
BUILDING SERVICES

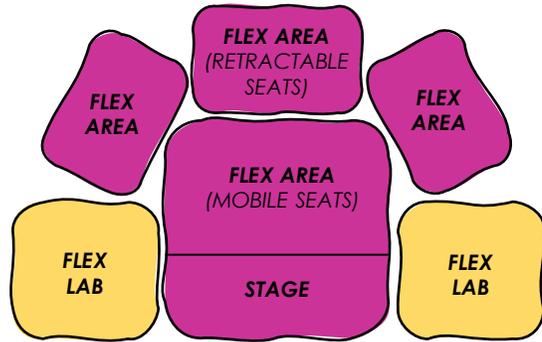


WELLNESS / PHYS. ED.

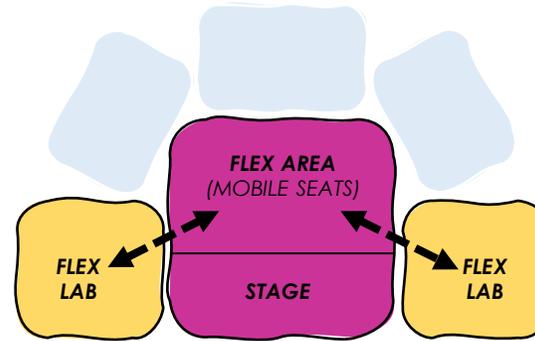


CAFETERIA / FOOD SERVICE

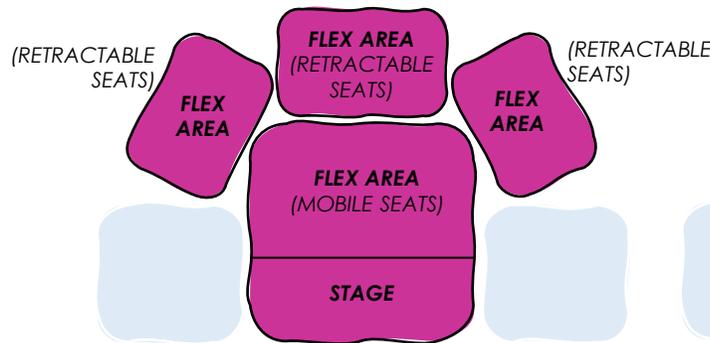




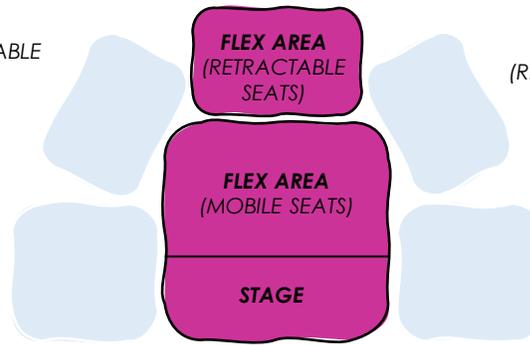
BLACK BOX DIAGRAM
OVERALL



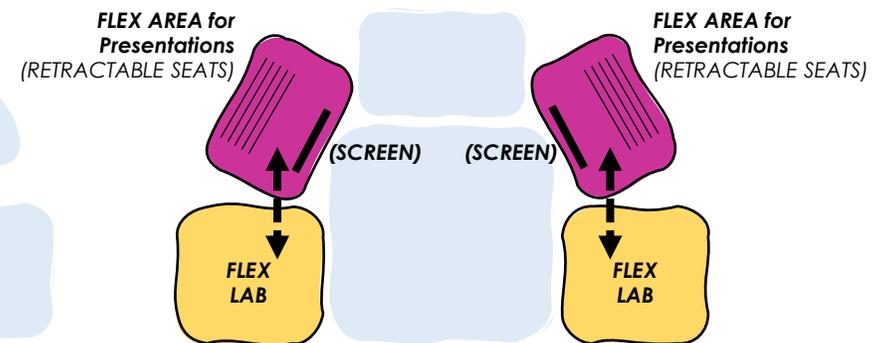
BLACK BOX DIAGRAM
PROFESSIONAL DEVELOPMENT/
FAIR/



BLACK BOX DIAGRAM
LARGE PERFORMANCE SETTING

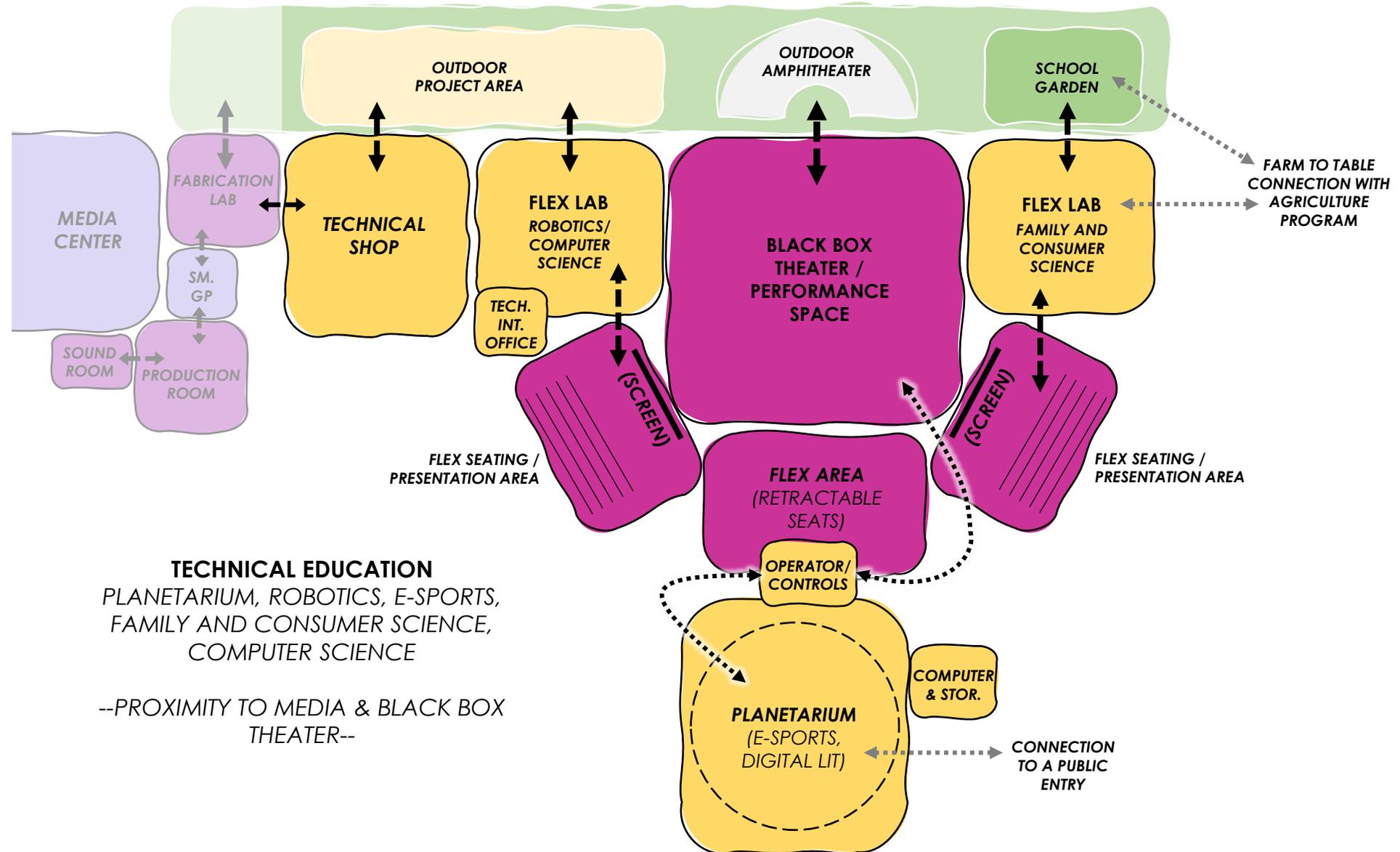


BLACK BOX DIAGRAM
SMALL PERFORMANCE/ LECTURE
SETTING



BLACK BOX DIAGRAM
FLEX TECH. LABS WITH BREAKOUT
& PRESENTATION

Program Diagrams (Black Box, Planetarium)



Costs Analysis New vs. Renovate Like New

Hillcrest Middle School

826 +/- Students



Tecton
ARCHITECTS

Topic for Consideration	Value Delta	Renovate Like New With Addition	New Building
Construction Costs	\$6,704,015	\$108,793,979	\$115,497,994
Possibility of unforeseen conditions, conflicts, and cost increases	-\$2,041,799	Somewhat Likely, est. 3-5% of const. \$4,351,759	Somewhat limited, est. 1-3% of const. \$2,309,960
General Conditions Analysis <small>(Typically range between 5-10% of construction)</small>	-\$2,928,619	48 Months (uses 8%) \$8,703,518	24 Months (uses 5%) \$5,774,900
Temp. Facilities, Field Off., Admin. exp. <small>(Typically between \$25,000 ~ \$35,000 per/month)</small>	-\$720,000	48 Months \$1,440,000	24 Months \$720,000
Temporary Modulars & Swing Space	-\$1,176,000	(8 Modular Classrooms) \$24,500/mth x 48 mths.	\$0
Multiple Move Costs	-\$328,750	(6 Total phased moves) 6 @ 65,750 each	1 Move @ 65,750
Subtotal of Value Lost	-\$7,195,168	+7,195,168	Less than or equal to!
Delta in Resultant Value	(\$491,153)	\$115,989,147	115,497,994

Chapter 173, Sec. 10-285a. Percentage determination for school building project grants.

for grants approved pursuant to section 10-283 for which application is made on and after June 1, 2022, (i) each town shall be ranked in descending order from one to one hundred sixty-nine according to the adjusted equalized net grand list per capita, as defined in section 10-261, of the town two, three and four years prior to the fiscal year in which application is made, and (ii) based upon such ranking, (I) a percentage of not less than ten nor more than seventy shall be determined for new construction or replacement of a school building for each town on a continuous scale, and **(II) a percentage of not less than twenty nor more than eighty shall be determined for renovations, extensions, code violations, roof replacements and major alterations of an existing school building and the new construction or replacement of a school building when a town or regional school district can demonstrate that a new construction or replacement is less expensive than a renovation, extension or major alteration of an existing school building for each town on a continuous scale.**

If costs between New and RNV are similar....consider requesting higher reimbursement rate for New (34.29%)

New Hillcrest Middle School - Budget Summary				Updated: 2/28/2024	
Grade Levels	Proj. Enr.	Highest 10 Yr . (Projected Enrollment)			
6-8	826	2029-30			
Max. Area Allowed	135,706	with 1% mechanical factor			
New Building GSF	145,884	7.50%	Typical gross up factor		
Existing Building	117,000				
Proposed Building (New Construction)		145,884			
Project Cost Summary					
Site Improvements	21.97	Acre	\$425,000	\$9,337,250	
Paving Lot & Vehicular Circulation	200	SF	\$9,250	\$1,850,000	
Building Environmental Remediation	117,000	SF	\$30	\$3,510,000	
Whole Building Demolition	117,000	SF	\$20	\$2,340,000	
New Construction	145,884	SF	\$575	\$83,883,271	
Geothermal Bore Field & Systems Premium	145,884	SF	\$22.50	\$3,282,389	
Carbon Neutral & Netzero Premium	145,884	0	\$18.50	\$2,698,853	
Construction Cost Subtotal		Avg/sf	\$732.79	\$106,901,763	
Soft Costs	19.50%			\$20,845,844	
Phasing & Logistics Costs (Contemplates occupied Site)	1.25%			\$1,336,272	
Project Cost + Construction Cost Subtotal		Avg/sf	\$884.84	\$129,083,879	
Cost Escalation	9.2%	Mid 2026	4.5%/year	\$11,878,944	
Total Project Cost (With Escalation)			\$966.27	\$140,962,823	
Total Project Costs			\$966.27	\$140,962,823	
State Reimbursement (Assumes higher %, most econ. sol. CGS 10-285a)			34.29%	(\$48,336,152)	
Ineligible Allowance (Offsite, Auditorium, etc.)			2.00%	\$2,819,256	
Estimated Total Cost to Trumbull				\$95,445,927	

Note: The intent of the opinion of probable costs is for budgeting purposes only, each line item requires refinement and costs will be adjusted as scope is further refined.

Hillcrest Middle School

New

Total Population: 826P
Allowable Area: 135,706 SF
New Building GSF: 145,884

Site Improvements: 200 parking spaces, athletic fields, outdoor educational space, bus/parent drop off

Building: Whole building demolition and abatement, new construction and NetZero/Carbon neutral premiums

Total Project Costs: \$140,962,823
Cost to Trumbull: \$95,445,927

ENERGY GOAL (EUI)	SIZE OF PV ARRAY	ARRAY SIZE (kW)	# OF PANELS	COST
Code Minimum 40	79,945 SF	1,360	2,386	\$3.09M
30	59,958 SF	1,020	1,789	\$2.32M
Path 1 25	49,965 SF	850	1,491	\$1.93M
22	43,970 SF	748	1,312	\$1.69M
Net-Zero 20	39,972 SF	680	1,193	\$1.55M
BASED ON HMS ~145,884 GROSS SF (570W PV Panels)				



Path 1 vs Path 2

Project Eligibility Requirements*

1. Commit to a ZNE, ZNE ready or Passive House (as a path to zero) project
2. Target a goal of 25 EUI or less **
3. Building must be a minimum of 20,000 square feet (sf) of heated and cooled space
4. Must anticipate year-round occupancy
5. Engage us before 50% schematic design
6. Include ZNE or ZNE ready goal and EUI target in project documents
7. Commit to building commissioning

* Please refer to MOU document for full eligibility requirements

** If 25 EUI is not possible due to project type or hours of operation, contact your Sponsor to discuss an alternative EUI target

Table 1: EUI Targets & Incentives

Site Specific	Site EUI	Incentives				
		Payable at end of construction		Payable at end of 1 year post-occupancy		
		Construction Incentive \$/sf	Heat Pump Adder*	Post-Occupancy Incentive \$/sf)	Adder for getting under Net Zero EUI target	Certification Incentive
Net Zero level	25 or less (or site-specific target)	\$2.50	Air Source Heat Pumps: \$640/ton capped at \$100,000 Variable Refrigerant Flow (VRF): \$1000/ton capped at \$150,000 Ground Source Heat Pumps: \$4,000/ton capped at \$200,000	\$ 1.50	\$0.05/ EUI point reduction/sf	\$3,000

EVERSOURCE



Part of the AVANGRID Family

Possible Incentive Cap
 \$4.25 per SF plus Heat Pump adder
 Hillcrest MS ~ \$688K

Inflation Reduction Act (IRC Section 48)

- Currently navigating for public & private clients – Madison, Cheshire, Trumpf, Inc.
- Early phases of development
 - Electronic portal application
 - Work together & identify possibilities



**Dynamic Glass – 30% Rebate
Saves \$\$ on energy, window treatments**

ELIGIBILITY	FEDERAL TAX CREDIT
Property Owners/Developers	Transferable, One Time
Government Buildings Owners	Paid Directly by the IRS
Tax Exempt Building Owners	

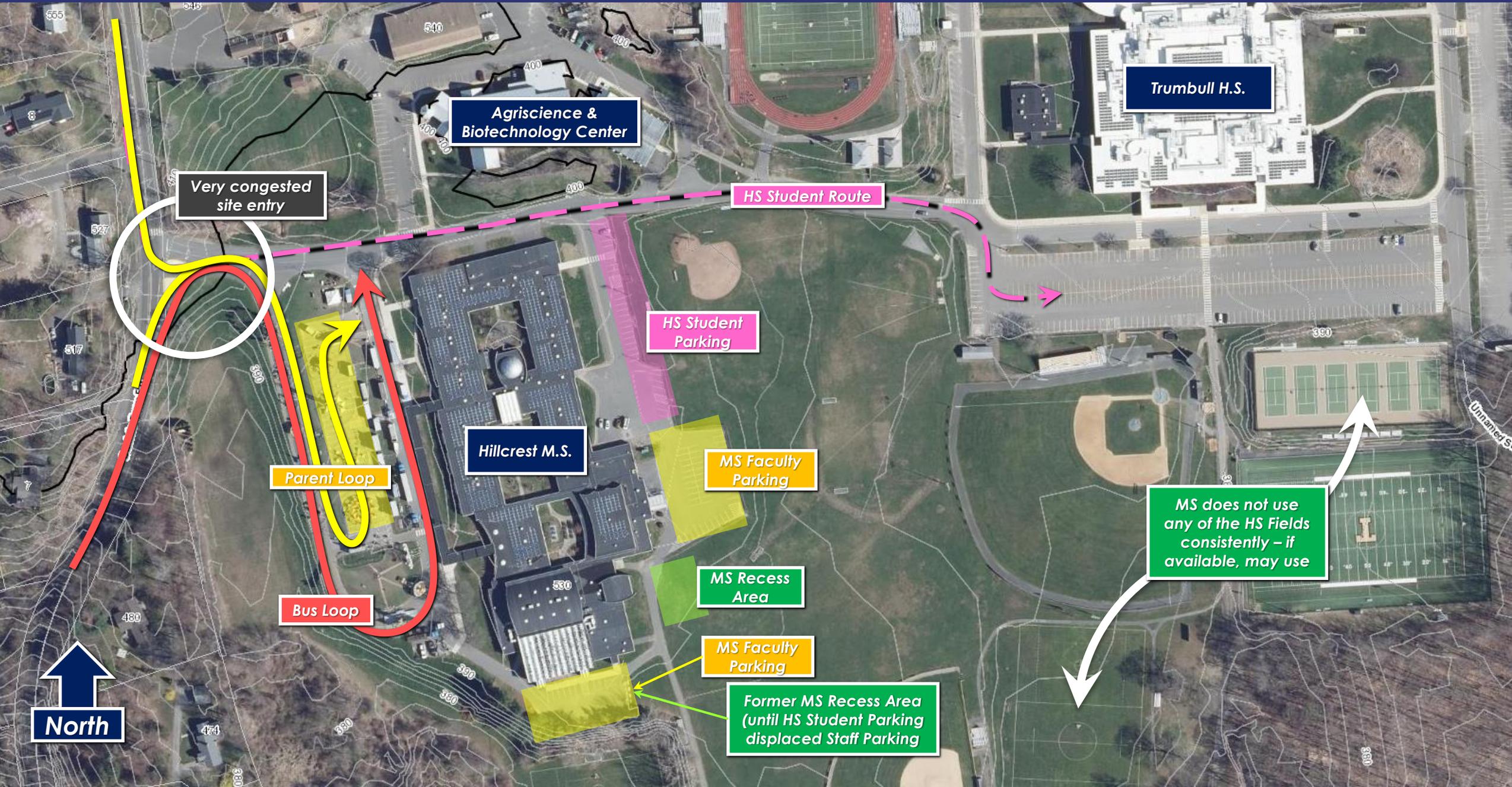
ENERGY %	QUALIFICATION
6%	Base Credit
+24%	Bonus - for projects started before 01/29/23, or meeting prevailing wage req
+10%	Domestic Content Bonus - 100% US steel/iron & 40% US manufactured products
+10%	Energy Community Bonus - located in brownfield, coal, oil, or natural gas sites
+10 or 20%	Low-Income Bonus - located in low-income or tribal lands, low-income housing

Federal tax credit for:

- Solar
- Geothermal
- Combined heat & power system
- Waste Energy Recovery Properties

- Dynamic glass
- Fiber-optic Solar
- Fuel cells
- Small wind energy
- Standalone energy storage
- Qualified biogas property
- Microgrid controllers

Existing Site Conditions



Very congested site entry

Agriscience & Biotechnology Center

Trumbull H.S.

HS Student Route

HS Student Parking

Parent Loop

Hillcrest M.S.

MS Faculty Parking

Bus Loop

MS Recess Area

MS Faculty Parking

MS does not use any of the HS Fields consistently – if available, may use

Former MS Recess Area (until HS Student Parking displaced Staff Parking)





Building Site
Option #1, Parking
Dropoff Area

Building Site
Option #2: Existing
JV Baseball Field

Building Site
Option #3: Existing
Soccer Field

OPT 1: Not Preferred

- Too close to Daniels Farm Rd., shared campus entry, and existing building (possibly used for elem. swing space)
- Would displace existing necessary parking

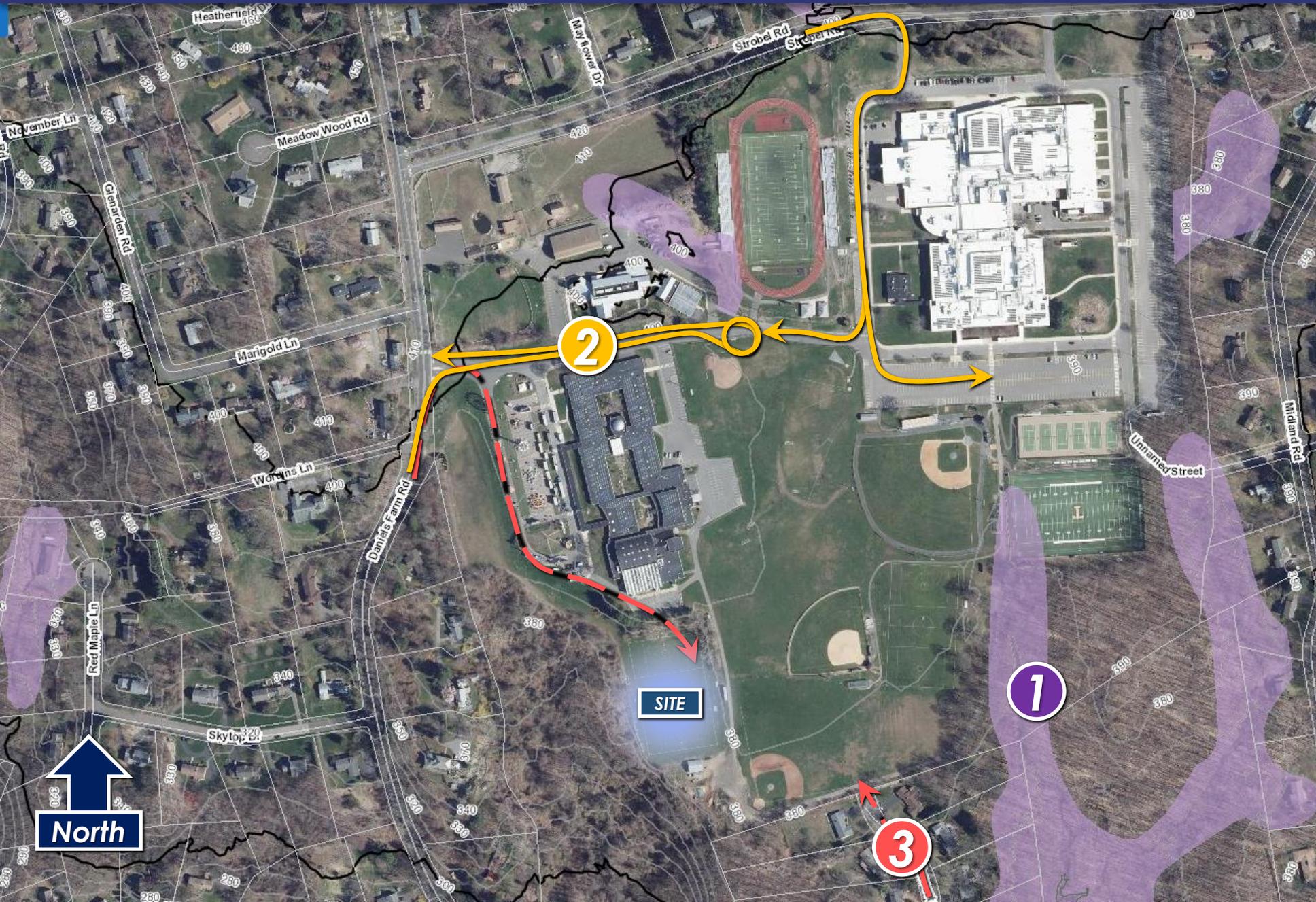
OPT 2: Not Preferred

- Field is used by the H.S. for JV baseball
- Close to other campus buildings, not enough separation

OPT 3: Preferred

- Creates distance from shared campus entry and other campus buildings
- Flat area to build (but...lower than surrounding grade, area called "the Pit")

Existing Aerial View to North



1 GIS identified wetland soils

2 Consider alternate traffic pattern (one-way loop with roundabout)

3 Consider alternate entry points?

Existing Aerial View to North



**Building Site
Option #1, Parking
Dropoff Area**

**Building Site
Option #2: Existing
JV Baseball Field**

**Building Site
Option #3: Existing
Soccer Field**

Trumbull Agriscience

Hillcrest Middle School

Trumbull High School

Existing Aerial View to North



Trumbull High School

Trumbull Agriscience

Hillcrest Middle School

Building Site
Option #2: Existing
JV Baseball Field

Building Site
Option #3: Existing
Soccer Field

Building Site
Option #1, Parking
Dropoff Area

Daniels Farm Rd

Daniels Farm

Existing Aerial View to North



**Building Site
Option #1, Parking
Dropoff Area**

**Building Site
Option #2: Existing
JV Baseball Field**

**Building Site
Option #3: Existing
Soccer Field**

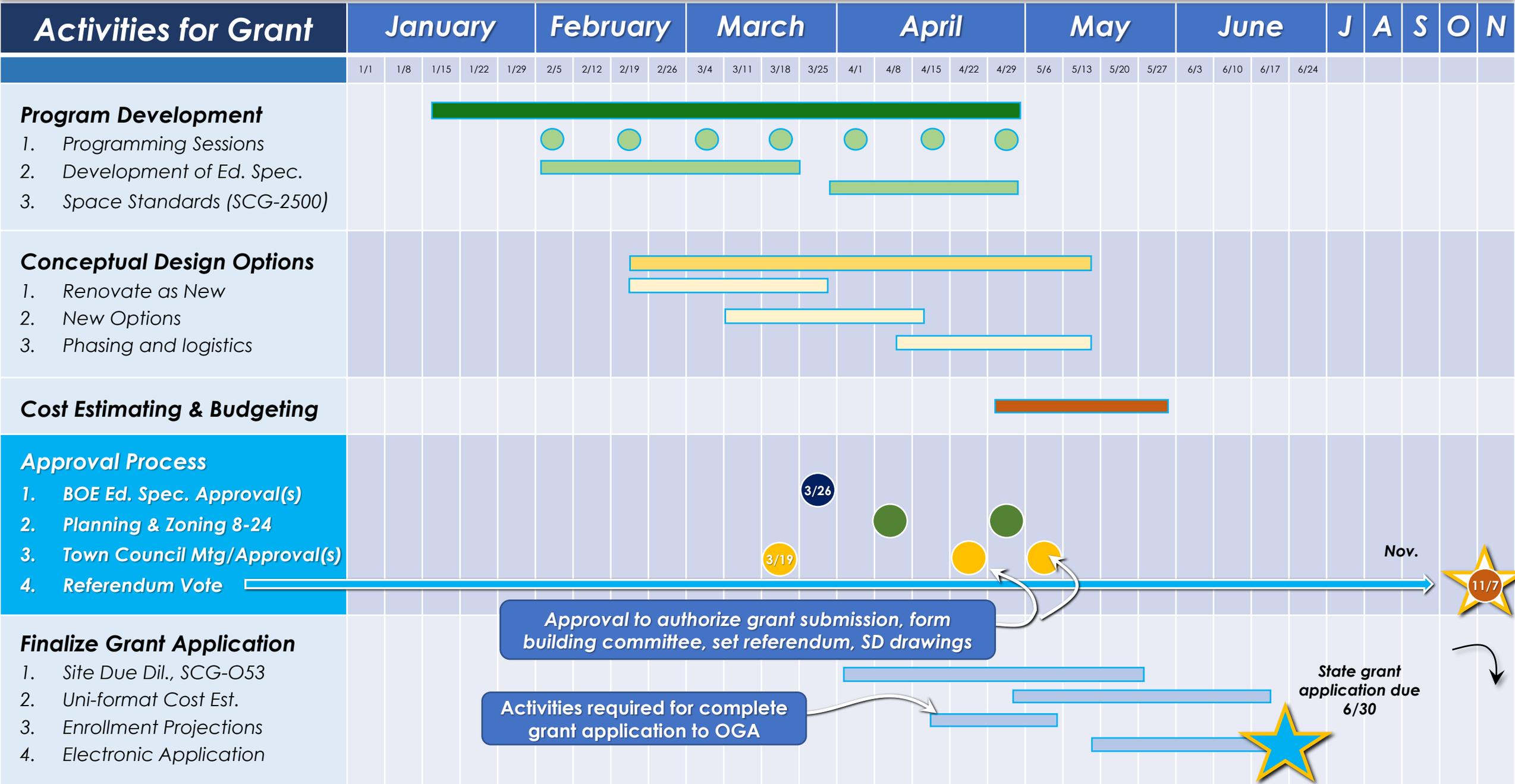
View of Existing Soccer Field



Building Site
Option #3: Existing
Soccer Field

- ~~3.19.24 - Town Council Meeting: General Summary of Master Plan + Hillcrest M.S. Update~~
- ~~3.20.24 - Final Educational Specification due to BOE~~
- **3.26.24 - Board of Education: Special Meeting – Educational Specification Approval**
- **Other Meetings**
 - 8-24 Approval, Planning and Zoning Commission
 - Town Council authorizations (SD, Referendum, Authorize to submit Grant Application to OGA)
 - Food Service, Facilities Review, Park & Recreation

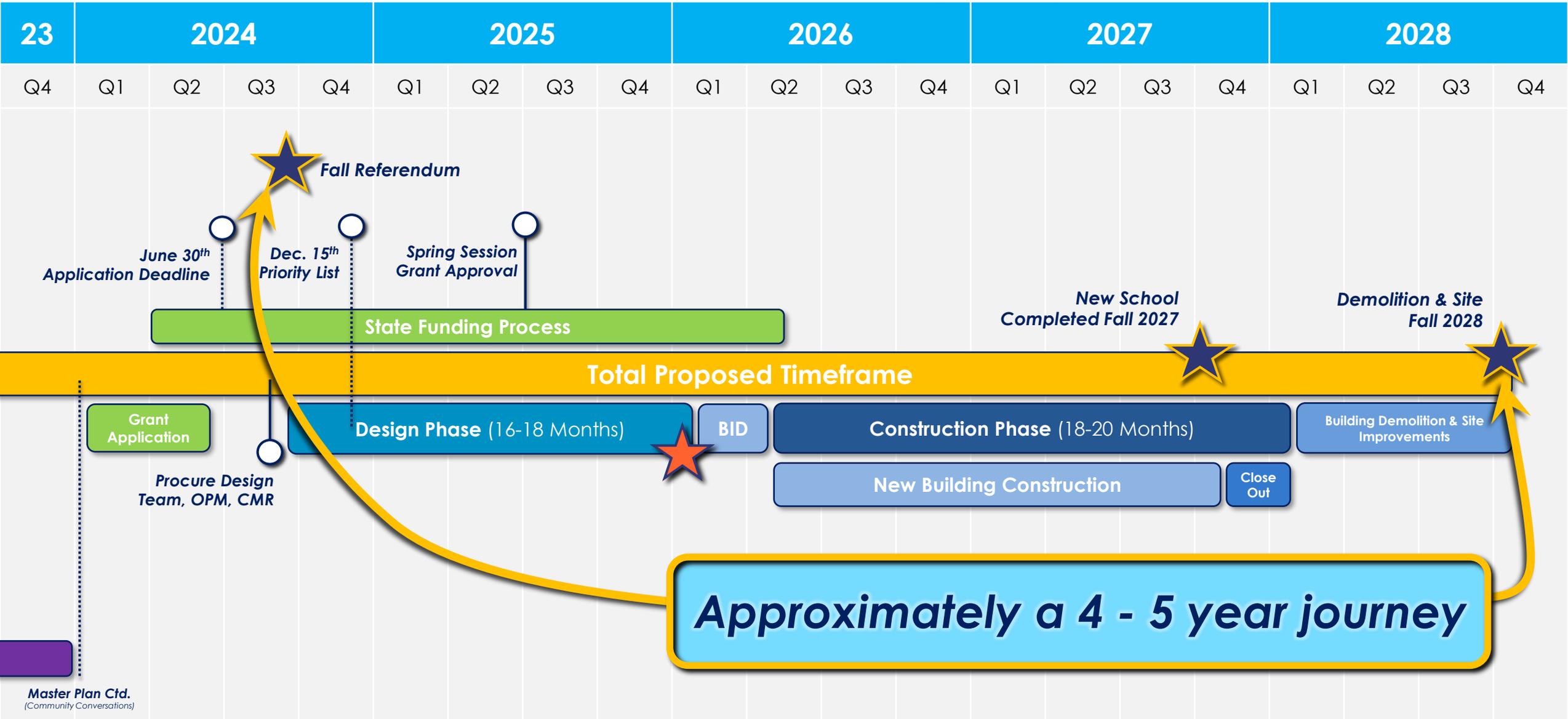
PROPOSED MICRO SCHEDULE



Putting It Into Perspective ~ Milestone Schedule



New





Tecton
ARCHITECTS

SUMMARY PRESENTATION FOR TRUMBULL PUBLIC SCHOOLS

EDUCATIONAL SPECIFICATIONS

HILLCREST MIDDLE SCHOOL

GRANT APPLICATION

for

Trumbull Board of Education

Long Hill Administration Building

March 26, 2024