M.S.D. WASHINGTON TOWNSHIP

PLANNING for our FUTURE

EDUCATIONAL SPECIFICATIONS

for

MIDDLE SCHOOLS

February 13, 2018

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BrainSpaces, Inc.

brain SPACES

UNITING EDUCATION & ARCHITECTURE

MSDWT MIDDLE SCHOOLS

Educational Specifications

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1.0   INTRODUCTION

Executive Summary

Metropolitan School District of Washington Township is planning for the future of its school facilities. However, creating a responsive school environment isn't rigidly defined by square-footage or construction budgets; more importantly, it's about making thoughtful connections between learning and facilities. Thus, as the districtwide standards and benchmarks for educational facilities are developed, the teaching and learning philosophy and practices of the District are analyzed, and this information is translated into "educational specifications" that will guide the renovations of existing facilities to serve the present and future needs of the MSDWT community of middle school learners.

The school facilities planning effort is, by nature, a collaboration among students, staff, and the wider community. Together, we have developed a plan that is both thoughtful and actionable, both inspirational and responsible, both respecting the past and looking towards the future.

The facility planning parameters presented in this document summarize a series of targeted and inclusive activities conducted to ensure that the educational specifications ultimately reflect the values and priorities of the MSDWT students, staff, leadership and community.

BrainSpaces Inc. (BSI) is delighted to have been invited to collaborate with the school district to lead the effort to develop these educational specifications (planning and design guidelines) for MSDWT middle schools.

Educational Specification Parameters

MSDWT middle schools are being planned to enroll 800-1,050 students in grades six through eight. Adjustments to enrollments may require a proration of the space standards included in this document.

Educational specifications (ed specs) are intended to define physical parameters for environments to support teaching, learning and school operations. Detailed information included herein is intended to document user needs and to assist design teams in accommodating these needs.

Key areas identified in the scope of the referendum for facilities include:

-   Safety, Security and Code Compliance

-   Capacity / Educational Adequacy

-   Healthy Learning Environment

-   Technology

However, ed specs do not specifically include technical aspects for items and systems such as structural, mechanical or electrical systems, code compliance items, life-safety issues such as fire suppression or alarm systems, energy-efficiency strategies, active security systems such as access controls or camera systems, nor do they include specifics for incorporating technology.

Ed spec information should be used in conjunction with any MSDWT standards and guidelines such as those for technology, design, and building performance, and with all applicable codes and regulations, including ADA, and is not intended to supersede any such requirements. Energy-conscious and sustainability measures should also be considered by design teams implementing the ed specs for specific buildings.

Where guidelines noted herein are in conflict with these requirements, the applicable guidelines, codes and regulations will govern. Where guidelines noted herein cannot be or are not planned to be incorporated into a building design, the design team should inform the MSDWT Project Representative to discuss and/or determine acceptable alternatives.

Note that spaces such as restrooms and other gross areas which are governed by codes and other standards are included only when such detail may be above and beyond these general requirements. Some gross area spaces are listed (but not necessarily detailed) simply so that they are not forgotten during the planning and design processes.

___

In these ed specs, program areas are loosely grouped by their functions; however, the listing of spaces is not intended to indicate how spaces might be arranged in any building.

The listing of spaces as well as diagrams illustrating potential spatial adjacencies of components are included in the ed specs to capture the desired functionality. Parameters included in the ed specs should not be considered "absolutes", and the design team is encouraged to creatively interpret the needs of the school in its ultimate design of a building project. In other words, slight deviations are expected.

Proposed net program areas are listed below. Additional detail is included in Section 3.0:

Category:	net square-footage:	# teaching stations:
Academic Teams & Supports	60,000	36
Exploratory Commons	47,000	14
School Commons	32,000	0
Main Office & Support Areas	10,500	0
Building Support	2,500	0
Totals:	152,000	50

While the net square-footages for each space are outlined herein, gross building areas for each school will be determined for each site, based on specific parameters of individual plans, mechanical systems, and/or existing building floor plans. In general, the targeted gross building area for MSDWT middle schools will vary but should range from about 190,000 to 210,000 gross square feet.

Process Overview

With a rapidly increasing body of research into the human mind, evidence suggests that children by their nature are passionate, creative, open to new ideas, and full of energy to discover the world around them.   This also reinforces the need to support creative leadership and teachers who see themselves as collaborators in designing a new type of learning environment that is more flexible, creative, and challenging. The goal of education today is to seek and find new ways to capture all of this positive energy, and to make sure that the students and teachers themselves are part of both the process and the solution at each step of the way.

Steps in the process included:

Step 1: **Preparations** - Setting the Stage, getting to know current practices, initiatives and given parameters;

- Brainstorm Project Game Plan: Process, Activities, Schedule, Participants
- Define Context & Parameters - (prior reports, educational programs, floor plans, funding, etc.)
- Awareness Sessions – Observe, discuss and/or clarify gathered info: current practices and initiatives
- Project Committee Kick-off (What to Expect)

Step 2: **Visioning** - Understanding what's important, what's possible, and what you aspire to be;

- Educational Visioning
- Community Engagement Activities
- Staff & Student Focus Groups
- Guiding Principles

Step 3: **Synthesis (a: quantitative)** - Translating Vision into Spatial Parameters, exploring how the facility supports your vision; **Synthesis (b: organizational) -** Organizing your Spatial Parameters, including building and site components;

- Planning Charrettes to explore ideas and opportunities
- Develop/Review quantitative parameters (space program)
- Develop/Review organizational parameters (adjacency diagrams)
- Strategic Critique
- Planning Options Review

Step 4: **Educational Specifications –** Documenting the planning and design guidelines;

- Document the process and outcomes (ed specs)

Schedule Overview

The estimated timeframe for this scope of work is outlined below, however a fair amount of overlapping of tasks is also expected. The schedule for design collaboration will be dependent on the Architectural team's schedule.

Fall 2016	Step 1:	**Preparations**
Winter 2016	Step 2:	**Visioning**
Spring 2017	Step 3:	**Synthesis**
Winter 2018	Step 4:	**Educational Specifications / Documentation**

Participation

Leadership Team

Role: Leadership for project, district-wide continuity, direction-setting and decision-making

Outcome: Direct and approve final recommendations to the Board

Design Advisory Team

Role: Design direction for project, district-wide continuity, direction-setting and decision-making

Outcome: Synthesize all project parameters into final recommendations for Leadership Team approval

Focus Groups

Role: Insights & recommendations on specific areas of focus

Topics: Focus groups covered topics/areas such as:

- teachers and staff
- activities programs (art, music, PE, etc.)
- front office / administration
- library / media center
- student services, nurse, guidance, etc.
- food services / nutrition
- community use
- safety/security
- site / outdoor learning needs
- maintenance and operations staff
- etc.

Outcome: Insights and input from Focus Groups informed the building's program of spaces (quantities and sizes of spaces/rooms), the building's layout (organization of spaces), and the spatial attributes (access, lighting and other services, controls, finishes, fixed equipment, general furniture and movable equipment needs, etc.) for the building and grounds.

Community Engagement

Strategies and activities were offered throughout the process to allow community members to stay informed of the evolution of the project. These included print and web-based communications as well as an "open-house" session for the community to review the progress of the work. The appendix includes summaries of insights gathered during the process.

Thank You

The BrainSpaces team wishes to thank all of the participants, students, staff, administration and community members for their inspired insight and input for developing these educational specifications. It is with great anticipation that we move forward with you in this endeavor to provide the best possible facilities for the learners of MSDWT schools.

2.0   CONTEXT & VISION

The following section includes contextual information quoted and/or summarized from Metropolitan School District of Washington Township, its staff, and/or its website. The reader is encouraged to seek additional updated information on the District, its context, schools, statistics, programs, staff and accolades by visiting www.msdwt.k12.in.us.

Metropolitan School District of Washington Township

"The Metropolitan School District of Washington Township (MSDWT) is located in the northern section of Indianapolis, Indiana and Marion County. It is a dynamic community with broad diversity in cultures, religions, ethnic groups, races and socioeconomic levels. Washington Township has been an educational leader in Indiana for the last sixty years and offers a comprehensive educational curriculum with special activities and programs geared to provide enrichment, exploration, and instructional support for students.

MSDWT Vision & Mission:

Our vision is "Superior Schools in a Supportive Community."

The mission of Washington Township Schools is to develop lifelong learners and globally-minded citizens by fostering the academic, creative, and social skills needed to achieve excellence in a multicultural environment.

(source: www.msdwt.k12.in.us)

Washington Township is pleased and proud to offer the IB Primary Years Program in all of its elementary schools, the IB Middle Years Program in all three middle schools and North Central High School, and the IB Diploma Program also at North Central High School. This implementation of IB across all grade levels, makes Washington Township the first district in Indiana to offer International Baccalaureate to EVERY student, and one of only six districts in the world.

The MSD of Washington Township provides excellent opportunities for students to participate in outstanding performing arts, fine arts, academic teams, publications, athletics, and other student activities. Washington Township provides quality education in award winning schools built on a foundation of outstanding educators, administrators, school board members, and supportive parents." (https://www.msdwt.k12.in.us/about-the-district/, retrieved 8/1/17)

Facility Planning

In November of 2016, the community of MSDWT voted to support the "district's ability to continue our rigorous educational programs, attract and retain outstanding teachers, enhance services and opportunities for ALL students, maintain our current buildings, expand our capacity to safely accommodate our growing number of students, offset decreasing and inadequate state revenues, and help maintain property values." Strategic planning and facility master planning efforts have solicited community input over many months. In addition, students and staff input was gathered and synthesized to specifically address middle school facilities needs throughout the district.

Vision & Guiding Principles

The development of any strategy for addressing facilities must begin with an understanding of the educational vision – including goals, strategies and projected future needs – that these facilities are intended to support. In short, instruction should drive construction.

In the global context, skills we now need to include collaboration, creativity, communication, inquiry and critical thinking, among others. Schools that aim for student mastery of these skills provide rigorous project-based learning, social-emotional learning, and ubiquitous access to technology.

These schools are places where innovation is the rule, not the exception; where students become lifelong learners and continuously develop these necessary skills.

A goal of the educational specification process was to establish GUIDING PRINCIPLES to assist the District's design teams in implementing the ed specs and offering the most appropriate designs for new and renovated schools.

This process began with an exploration of possibilities without much regard for general physical or operational constraints. When anything is possible, the discussion can focus on what is best to support your vision. During the visioning process, many stakeholder voices were solicited and heard through a series of workshops, discussions and an on-line survey. Precedents and best practices from throughout the country were reviewed. Through engaged visioning, a common set of values resulted, supporting a commonly held set of desired outcomes - to allow all students who experience their middle school education throughout the district to be ready for the ever-changing world that awaits them.

Aligning nicely with the MSDWT mission and vision, the following common themes emerged. These themes were explored and synthesized into Guiding Principles for MSDWT school facilities. Please note that as with any of the lists throughout this report, items are listed in no particular order.

Common Themes

All MSDWT Schools should be…

> … SUPPORTIVE OF ALL STUDENTS;

> … UNIQUE, INSPIRATIONAL AND EMPOWERING;

> … SUPPORTIVE OF NEXT-GENERATION LEARNING;

> … EQUIPPED WITH 21st CENTURY TOOLS AND TECHNOLOGY;

> … WELCOMING YET SECURE;

> … FLEXIBLE, ADAPTABLE AND EFFICIENT;

> … CONNECTED TO THE OUTDOORS;

> … A HUB OF ACTIVITY AND SOURCE OF COMMUNITY PRIDE.

At MSDWT Middle Schools:

1. THE DIVERSE NEEDS OF <u>ALL</u> OUR STUDENTS ARE SUPPORTED

Our student population reflects the diversity of our community. The designs of our schools will recognize the power of all students. The styles of learning, interests, strengths and abilities of ALL students will be celebrated. Students of all cultures and ethnicities are welcome, respected and supported. Empowering the whole student, not just her/his intellect, will help cultivate students as curious, empathetic, resilient, interesting, healthy, confident young adults. Students will have choices and options for social, emotional, physical and intellectual growth.

The design of our schools will be tailored to support the wide range of developmental needs of our learners. Properties will be easily accessible for occupants and visitors.

At MSDWT Middle Schools:

2. INNOVATIVE PHYSICAL CHARACTERISTICS OF THE SCHOOL INSPIRE LEARNING

Innovative and inspirational environments are vital for empowering students and supporting high quality teaching and learning. Facilities will be aesthetically and culturally attractive, playful and engaging. The image of the new school will inspire its occupants, welcome community members, and strengthen the positive identity and distinctiveness of each site. Elements of the building itself will serve as teaching tools for real-world learning. As much as possible, each school campus should include connections to outdoor environments for exploring, learning, play, and environmental stewardship.

At MSDWT Middle Schools:

3. FACILITIES SUPPORT 21st CENTURY LEARNERS

Innovation is sustained, hands-on learning is supported, and collaboration is expected. Unique and varied spaces support curricular and co-curricular programs that integrate theoretical, conceptual and practical knowledge and provide the authentic, real-world relevance that "next-generation" students crave. Relevance, personalization and choice are key motivators, connecting students to understanding and knowledge while empowering them to take responsibility for their own academic success. Our schools will include learning environments for a rigorous and challenging curriculum offered through interesting, engaging, relevant, hands-on, and innovative activities that support next-generation learning and our International Baccalaureate Programme.

At MSDWT Middle Schools:

4. STATE OF THE ART TECHNOLOGY AND OTHER TOOLS ARE READILY AVAILABLE

Our schools will be equipped with the materials, resources and technology required of 21st century teaching and learning. Technology can enable a community where learning is available for everyone, and as such should be current, reliable and readily accessible. Additional resources such as up-to-date training, books, supplies, and other instructional materials should also be available and easily accessible to teachers and learners.

At MSDWT Middle Schools:

5. OCCUPANTS ENJOY A SAFE, HEALTHY AND NURTURING ENVIRONMENT

On MSDWT properties, both inside and out, students and staff will BE and FEEL safe. Occupants will be safe and secure through a school climate that is accessible, welcoming, nurturing and healthy. Such environments can reinforce achievement by eliminating distractions caused by fear, sickness, insecurity and judgment.

At MSDWT Middle Schools:

6. THE SCHOOL ENVIRONMENT CAN ADAPT TO MEET VARYING NEEDS

Our school facilities will be flexible to support varying needs of our community, while also incorporating strategies for easy adaptability to support future / unknown programs, activities and operational strategies. To facilitate everyday activities, a variety of space types will be available, and spaces will be designed to accommodate multiple functions wherever possible. Adaptability and choice are key for the facility to maintain its value and relevance both daily and throughout the logical life of the building itself.

At MSDWT Middle Schools:

7. OUTDOOR CONNECTIONS STRENGTHEN STUDENT EXPERIENCES

Relationships with the outdoors strengthen educational programs and offer real-world and applied learning opportunities. Students can be empowered to view the world critically, to think and act both locally and globally. Our schools will include safe and healthy outdoor learning environments that promote wellness, play, socialization, global citizenship and environmental awareness.

At MSDWT Middle Schools:

8. THE SCHOOL IS A HUB OF ACTIVITY AND A SOURCE OF COMMUNITY PRIDE

MSDWT schools are a source of pride for past, current and future generations of students by serving as hubs of activity and places of life-long learning. Facilities and grounds will include ample space for exhibition and display of current and past student creativity, promoting the pride of ownership and the celebration of our community. Our school facilities will be evidence that resources were used effectively and efficiently, illustrating a measurable return on investment, thus sustaining the current districtwide culture of accountability, trust and mutual support.

These Guiding Principles will be instrumental in keeping both quantitative and qualitative aspects of the project on track. At the completion of each project, when everyone is using their new or updated facilities, the guiding principles become the measure of a job well done.

Student Insights

During the planning process, student workshops were conducted at all three middle schools to gather student ideas and insights for their schools.

Themes that emerged from student ideas and conversations are summarized below. In summary, middle school students want:

- School should feel more welcoming
- More readily available, effective and reliable technology
- More variety and choice
- Outdoor connections ("learning in the sun")
- Attention to aesthetics – color, murals, windows (school is too bland)
- Comfortable after school place to do homework, like a lounge / guided study area
- No need for computer labs, except for coding
- More self-directed activities and projects
- More sports
- Fitness center and fitness activities throughout the day
- Access to food / snacks throughout the day
- Presentation room / authentic audiences
- Stage in the gym and access to theater classes
- More flexible and comfortable furniture (don't like rows of combo desks)
- A space like the library, but where being quiet is not constantly enforced
- More convenient lockers (only "half" of students use their lockers)
- More drinking fountains, possibly bottle-fillers
- Larger (less crowded) lunch room, with more/better choices of food
- Makerspace for 3D printing
- More play time ("should be able to use the playground during advisory")
- Break rooms for each grade level, "chill-out space"
- More trash cans and recycle options
- Modesty curtains in changing rooms
- Space and time for social interactions ("We should be allowed to have informal conversations at lunch)
- Cleaner / healthier environment, particularly need cleaner restrooms and carpets
- More ability to move around while learning ("get tired of just sitting in most of my classes")
- Like having lockers but need to be larger and more convenient. Music lockers should be lockable.
- Vegetable garden in coordination with cooking classes and nutrition
- Varying class sizes ("sometimes it's good to have fewer kids in a class")
- More small group project areas
- Ability to control indoor temperature
- Protected place to wait after school
- Classes clustered together, minimize travel time between classes
- Space for clubs, after school activities, ping-pong, etc.
- "School is just too old – needs a more modern feel."

Community Survey

During the planning process, an on-line survey was conducted to gather insights and opinions from the greater community. A series of images, primarily photos of school facilities from throughout the country, were presented in the survey along with questions and prompts for each image.

Approximately 740 responses were collected with the following demographics:
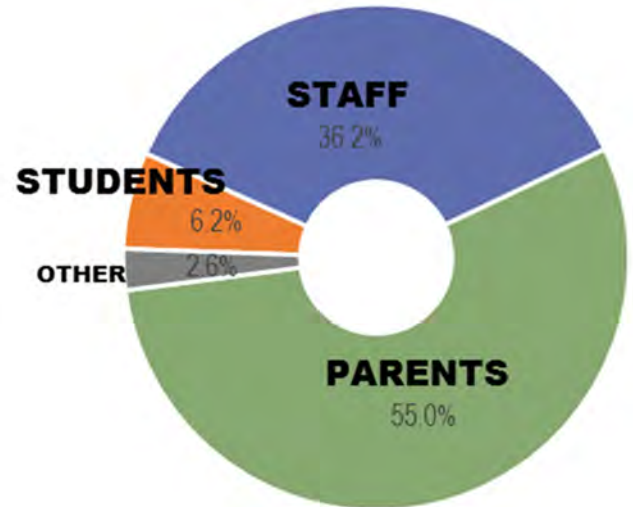
Right: Percentage of total respondents who identified their primary connection to the district.

STAFF 36.2%

STUDENTS 6.2%

OTHER 2.6%

PARENTS 55.0%

Below: Percentage of respondents who identified connections to specific district schools.

School	Percentage
Allisonville ES	10.5%
Crooked Creek ES	7.1%
Fox Hill ES	6.2%
Greenbriar ES	4.9%
Nora ES	4.4%
Spring Mill ES	6.0%
Harcourt ES (new school site)	1.9%
John Strange ES	9.8%
Wyandotte ES (new school site)	2.5%
Eastwood MS	11.0%
Northview MS	6.0%
Westlane MS	7.4%
North Central HS	15.5%
J. Everett Light Career Center	3.5%
Hilltop School	3.2%
Other	0.2%
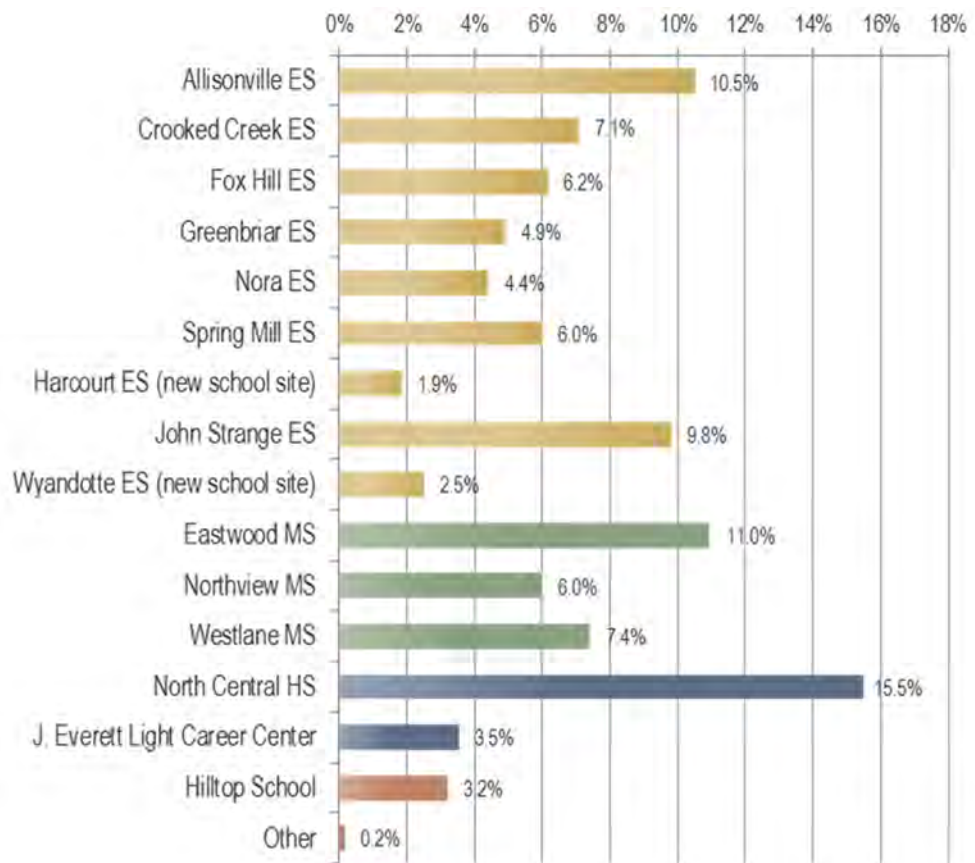
The introduction to the survey read as follows:

Thank you for taking the time to help us design learning environments for students of MSDWT!

In addition to the work we have done and are doing to ensure that our school buildings and grounds will be safe, healthy, durable, code compliant and supportive of our student enrollment numbers, we are requesting your insights to help clarify and further define educational environments to support our Board approved goal of "educational effectiveness".

Ideas and insights will inform our Educational Specifications, documents that will define the types, quantities and qualities of educational spaces that should be present in all our buildings in order to achieve our mission: "Superior Schools in a Supportive Community".

Wherever you like or do not like a concept presented, let your voice be heard, and we will have a stronger idea of how best to proceed with the educational specifications. This exercise is intended to gauge your opinions of a range of example school facilities - NOT to indicate that any of the ideas presented in the photographs are already being incorporated into our building plans.

INSTRUCTIONS:
A) First, we'll ask you a few questions to understand your context.

B) Then take a look at each image and answer the questions that follow. NOTE that there are no "right" or "wrong" responses, this survey is intended to gather your insights and perceptions! (Also, the photos are loosely organized by grade level, feel free to skip through these images/questions, and simply respond to those images that strike you.)

C) Finally, you'll have a chance to offer additional insights about MSDWT school facilities in general.

Thank You!

The survey presented thirty images of elementary, middle and high school environments. Associated with each image were the following prompts:

1) Do you have this type of environment in your schools?
  ___ Yes, thankfully!   ___ No, thankfully!   ___ Not Sure
  ___ Yes, unfortunately!   ___ No, unfortunately!

2) Would you like this type of environment in your schools?
  Yes, here's what interests me:
  _____

  No, here's what concerns me:
  _____

  Not sure, it could be cool, but I worry about:
  _____

The following is an example of one survey question and responses for a photograph of a middle school shop / maker space (Survey Image #20)

Additional documentation of survey results is included in the Appendix.

Image #20 of 30: A middle school shop / maker space

Question 1: Do you have an environment like this in your school(s)?

Yes, thankfully! ☺	5%
Yes, unfortunately! ☹	1%
No, thankfully! ☺	7%
No, unfortunately! ☹	70%
Not Sure... ☺	17%
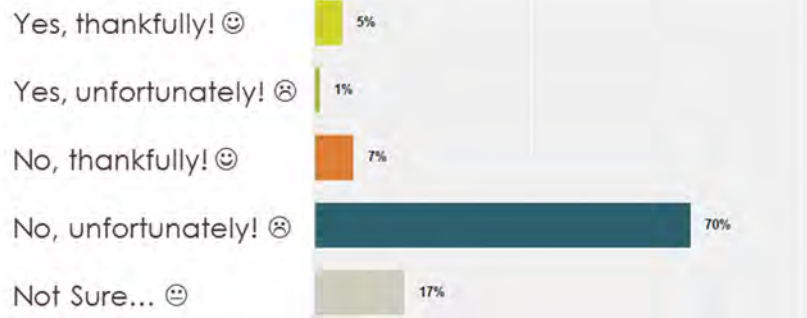
Question 2: Would you like an environment like this in your school(s)?

MAYBE 9%
NO 17%
YES 74%
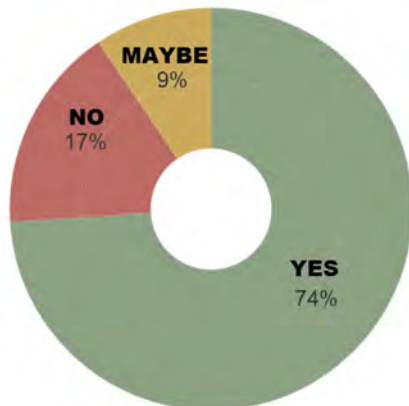
Question 2 Comments:

Summary of Interests/Likes:

openness, STEM learning, project space, making science fun, tinkering space, interactive, collaborative, ok to be messy, kids would love it, inspiring, good for IB, inquiry based, supports varying learning styles, inventing/experimenting space, creative and fun, students need more opportunities to explore, flexible, would attract kids, could be used after hours for clubs, embraces the future, help keep pace with national trends

Student Comments:

- *"I like that it is a place where we can get up and do stuff instead of sit around for a whole class."*
- *"you wouldn't have to disturb an art class to work on projects or get materials."*

Teacher & Parent Interests/Likes:

- *"Love this; learn about something - then go make it!"*
- *"great space for collaboration and spreading out big projects, no fear of messes in this environment!"*
- *"Maker spaces are all the rage and so much fun."*
- *"Definitely needed with today's focus/emphasis on STEM"*
- *"Gives students an opportunity to imagine/design"*
- *"I would love a space like this to help engage engineering and creative building. This is the best way children learn."*
- *"Embrace the present and future!!!*
- *"looks like fun for kids while they are learning"*
- *"I love openness, room to move around and different styles of learning areas for different student personalities and style of learning. I also love the brightness. I really feel that bright roomy rooms promote a better well-being and attitude with most students. It helps keep students more alert and upbeat."*
- "This looks like a real-world space for artists or architects or engineers •
- *"Maker spaces allow for students to create and design projects associated with a variety of disciplines and are extremely helpful in the overall learning environment.*


Summary of Concerns/Dislikes:

Underutilized, space is not necessary, too open, messy, chaotic, too busy, cost, ceilings too high, hard to keep clean, code compliance, energy use, what programs get cut to fund this program?

Student Concerns: none

Staff & Parent Concerns/Dislikes:

- *"could this kind of space be multi-use to make sure it's used throughout the day"*
- *"Ceilings are too tall and a waste of valuable space."*
- *"When you have a lab that has to be scheduled teachers don't do these lessons often enough."*
- *"I love the idea of a lab with materials and time for open exploration of ideas. I just wonder where we would get the money to furnish and staff this lab and I wonder when students would have time to use it. I think it might work as an after-school option but it would need dedicated staffing."*

Additional documentation of survey results is included in the Appendix.

3.0 Space Requirements

Quantitative Parameters

Grade Configuration: 6th through 8th grades

Target Capacity: 800-1,050 students (may vary among school sites)

Organizational Strategy: Academic teams, organized by grade level but flexible to change over time as needed

Net Program Areas

The net area of a building is a tally of usable spaces. In a school building, this includes spaces such as classrooms, offices, music and art rooms, libraries, gymnasiums and the like. Net area does not include hallways and other spaces which exist to support the usable spaces.

Categories for Net Areas

CORE
1. Core Academics
classrooms, learning support, teacher support

ACTIVITIES
2. Activities Programs
music, art, PE, etc.

COMMONS
3. School Commons
lobby, discovery center, stage, cafeteria

OFFICE
4. Main Office & Supports
main office, student support services, nurse, staff support

SUPPORT
5. Building Support
maintenance, custodial, storage, etc.

Proposed Net Area Summary

A summary of net areas is shown below and a detailed listing of all spaces with area requirements is included later in this section of the ed specs. The listing of spaces is intended to capture the desired functionality. Spatial parameters included in the ed specs should not be considered "absolutes", and design teams are encouraged to creatively interpret the needs of the school in its ultimate design of the building. In other words, slight deviations are expected.

1.00	2 Teams per Grade	Net S.F.	# T.S.
1.01	Core Learning	9,600	10
1.02	Learning Support	5,000	2
1.03	Social Commons	3,300	0
1.04	Staff Support Spaces	2,100	0
	x 3 Grades	**60,000**	**36**

2.00	Exploratory Commons	Net S.F.	# T.S.
2.01	Music	9,100	3
2.02	World Languages	5,500	5
2.03	Art & Projects	6,300	3
2.04	PE / Health	26,100	3
		47,000	**14**

3.00	Community Commons	Net S.F.	# T.S.
3.01	School Commons	5,000	0
3.02	Learning Commons	7,000	0
3.03	Performance Space	10,000	0
3.04	Food Services / Nutrition	11,000	0
		33,000	**0**

4.00	Offices & Services	Net S.F.	# T.S.
4.01	School Office	3,500	0
4.02	Centralized Teacher Support	1,400	0
4.03	Student Services + SpEd	5,000	0
4.04	Health Office	600	0
		10,500	**0**

5.00	Building Support	Net S.F.	# T.S.
5.01	Maintenance/Custodial	1,300	
5.02	Mechanical/Electrical	0	
5.03	Building Support	1,200	
		2,500	0

	Total Net S.F.	# T.S.
ESTIMATED NET AREA TOTAL	**153,000**	**50**

Gross Area Estimates

The total gross area of a building equals the net usable area plus space for hallways, stairways, elevators, walls, mechanical spaces, building services, toilet rooms, etc. The actual gross building area is determined as a building's design progresses to a level of detail that includes a schematic building layout on the site, and accounts for the spatial implications resulting from the selection and placement of mechanical systems, life-safety code requirements for occupant exiting, selection and engineering of building materials and structural systems, and requirements for toilet fixture counts and the like.

Typically, to estimate the gross area of a building prior to the determination of these items, a "grossing factor" is used to realistically estimate the gross square footage of a building. The total net usable building area is increased by this factor resulting in the overall total gross area estimate for the building – for the purposes of budgeting, design and engineering. Since this Ed Spec is intended to be used for both new and renewal projects, gross area estimates will vary widely among applications, and are thus not calculated as part of the ed specs.

- ## Circulation
  access areas such as hallways, stairways, elevator, etc.

- ## Construction
  area occupied by permanent walls, structure, etc.

- ## Services
  spaces for mechanical, plumbing, electrical, data rooms, etc.

- ## Vestibules
  air-lock areas at exterior doors

- ## Other
  other square-footage that is necessary to support the building
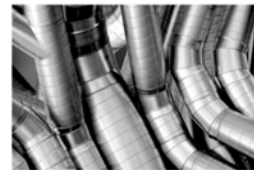
Teaching Stations

Teaching stations are categorized as either "scheduled" or "auxiliary" teaching stations. These categories affect the way students are scheduled in and/or assigned to spaces, and thus how student capacities are calculated for the purposes of this educational specification.

Scheduled Teaching Stations

Scheduled teaching stations include learning environments regularly scheduled to support a class of students. The term is often used interchangeably with "classrooms" and/or "learning studios" but may also include art and music rooms, gyms, labs, etc., as long as they are consistently scheduled to support a class of students.

Auxiliary Teaching Spaces

Auxiliary Teaching Spaces are spaces that support the educational activities outside of the regularly scheduled classrooms. While each of these spaces can potentially support a teacher and a class of students, they do not add to the school's enrollment capacity because they are used to supplement core learning activities, and/or they are used by teachers through a "check-out" system.

Pull-out spaces for special education programs are also considered auxiliary teaching spaces, since students can be assigned to these spaces more temporarily than regular teaching stations.

Examples of auxiliary teaching spaces include gyms, libraries, art rooms, project and computer labs, resource classrooms, large-group instruction areas, and the like.

For flexibility, some auxiliary teaching spaces can be used as scheduled teaching stations periodically as needed. Once an auxiliary teaching space is scheduled, it is considered a scheduled teaching station, thus adding student capacity to the school as needed to accommodate short-term fluctuating enrollments.

The following chart illustrates the quantities of regular classrooms and auxiliary teaching spaces recommended for MSDWT middle schools.

Program Areas:	Teaching Stations	Aux. Spaces	Totals
6th grade core	12	2	14
7th grade core	12	2	14
8th grade core	12	2	14
Music	3	1	4
World Languages	5	-	5
Art and Project Labs	3	1	4
PE & Health	3	5	5
Library / Learning Commons	-	1	1
Performance Platform	-	1	1
Dining Commons	-	1	1
Totals	50	16	66

In summary, the above chart illustrates that there are 50 teaching stations in the benchmark middle school space program, PLUS 16 spaces that are classroom-sized or larger where teachers/staff could work with a class of students.

Detailed Program of Spaces

The following pages include the detailed list of spaces, including types, sizes and quantities of spaces recommended for MSDWT middle schools. Additional notes are included as needed to clarify the needs of several spaces as captured during our educational specifications work sessions and focus groups.

1.0 — 2 Teams per Grade

1.01		Core Learning	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Learning Studios - Math**	2	900	1,800	
Reg. T.S.	.02	**Learning Studios - Language Arts**	2	900	1,800	
Reg. T.S.	.03	**Learning Studios - Social Studies**	2	900	1,800	
Reg. T.S.	.04	**Learning Studios - Science**	2	1,200	2,400	locate 2 Science rooms adjacent with ability to combine
Reg. T.S.	.05	**Learning Studios - Resource**	1	900	900	
Reg. T.S.	.06	**Learning Studios - Reading**	1	900	900	
					9,600	

1.02		Learning Support	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Intervention Classroom**	1	900	900	shared between 2 teams (1 per grade)
Aux. T.S.	.02	Large Group Collaboration (LGI)	1	1,800	1,800	1 per grade, dividable into 2 spaces
Aux. T.S.	.03	Specialty Classrooms	1	900	900	3 specialty rooms total: AVID, Communication, Flex
Reg. T.S.	.04	**ENL or SpEd Room**	1	900	900	(shown in this list to suggest dispersing among teams)
	.05	Small Group Rooms	3	100	300	2 per team, 1 located near ENL or Sped room
	.06	Reset / Sensory Room	1	200	200	
					5,000	

1.03		Social Commons	Qty.	Net S.F.	Total Net S.F.	NOTES
	.01	Team Commons	2	1,000	2,000	identity, genius bar, digital screen. could connect to LGI
	.02	Display Areas (digital, 2D, & 3D)	4	25	100	Include variety: Digital, 2-D, and 3-D
	.03	Student Lockers	2	600	1,200	140 lockers each team, can be centralized or in hallway
	.04	Student Restrooms	4	300	gross area	consider single-stall, gender neutral
					3,300	

1.04		Staff Support Spaces	Qty.	Net S.F.	Total Net S.F.	NOTES
	.01	Science Prep/Storage Room	1	300	300	1 may shared by 2 science labs
	.02	Think-Tank (Collabortion/Workroom)	1	1,000	1,000	conference area with work area, copier/printer, etc.
	.03	Team Storage Rooms	2	200	400	one per team
	.04	Staff Restrooms	2	250	gross area	
	.05	Conference / Office	2	200	400	
					2,100	

				Net S.F.	NOTES
		Sub-Total: Each Grade Level		**20,000**	

			Total Net S.F.	
	All Teams			
	All 3 Grade Levels		**60,000**	

(detailed space program is continued next page)

2.0 Exploratory Commons

	2.01	Music	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Band Room**	1	2,000	2,000	flat floor, 16-24' ceilings, direct access to inst. stor.
Reg. T.S.	.02	**Choir Music Room**	1	2,000	2,000	mirrors on 1 wall, curtain, drinking fountain
Reg. T.S.	.03	**Orchestra Room**	1	2,000	2,000	16'-24' ceilings, add'l instrument storage in room
Aux. T.S.	.04	Electronic Sound/Music Tech.	1	900	900	Keyboarding, Composing, Mixing, Recording
	.06	Practice Rooms	6	75	450	2 for each program
	.05	Office / Library or Repair / Storage	2	150	300	2 spaces total for 3-4 staff. incl. copier, high density music storage
	.07	Band Instrument Storage	1	450	450	approx 4sf/instrument, incl. sink
	.08	Orchestra Instrument Storage	1	450	450	+/- 4sf/instrument, incl. humidity control
	.09	Uniform Storage	1	250	250	
	.10	Robe Storage	1	100	100	
	.11	Display Areas (digital, 2D, & 3D)	5	20	100	
	.12	Student Instrument Lockers	50	2	100	hallway access
					9,100	

	2.02	World Languages	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Learning Studios**	5	900	4,500	ability to open studios into commons
	.02	Language Lab (optional)	1	400	400	(optional, if space allows) can be open area in/near commons
	.03	Small Group Rooms	2	100	200	visibility for supervision
	.04	Storage	1	100	100	
	.05	Teacher Think-Tank	1	300	300	Teacher work area, collaboration, copier, etc.
	.06	Language Commons			-	circulation space among WL learning studios, include displays/graphics
					5,500	

	2.03	Art & Projects	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Art Labs**	2	1,200	2,400	3 sinks (min) per lab
Aux. T.S.	.02	Design Lab (Computers)	1	900	900	visibility for supervision, 3D printers
Reg. T.S.	.03	**Applied Learning Lab** (dividable)	1	1,800	1,800	Coding/Computer Tech (could be maker space in future)
	.04	Kiln Room / Clay Storage	1	150	150	
	.05	Exhibition / Display Areas	1	250	250	"gallery" space, could be located near/in commons
	.06	Supply & Project Storage	4	150	600	
	.07	Shared Office / Workroom	1	200	200	art resources, private phone calls, planning, etc.
					6,300	

	2.04	PE / Health	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Gymnasium**	1	8,000	8,000	2 TS, divider curtain, bleachers for 1,500, ht for VB
	.02	Retractable Bleacher Seating	2	150	300	floor area in Gym for stacked/retracted bleachers
Aux. T.S.	.03	Fitness/Weight Room	1	3,000	3,000	visibility to gymnasium if possible
Aux. T.S.	.04	Health Classroom	1	900	900	visibility to fitness/weight room
Reg. T.S.	.05	**Aux Gym** (with full court)	1	5,000	5,000	adjacent to fitness/weight room (ALT: include a small stage)
Reg. T.S.	.06	**PE Activity Space**	1	3,000	3,000	Aerobics/Dance/Wrestling, open floor (minimal equipment)
	.07	Student Locker Rooms	2	1,200	2,400	box lockers,(showers/toilets per code)
	.08	Student Private Locker/Dressing Area	2	200	400	changing area for students with physical challenges
	.09	PE Staff Offices	2	300	600	for 3 PE staff each
	.10	Coach Offices	2	250	500	
	.11	Shared Staff Locker Room	1	200	200	box lockers, easy access for all building staff
	.12	Staff Shower / Changing Rooms	4	75	300	multiple rooms shared by all staff, PE staff, coaches, etc.
	.13	PE/Athletics Storage	3	300	900	May be combined, one room accessible to outdoor fields
	.14	PE Uniform Storage	1	300	300	
	.15	Laundry	1	100	100	
	.16	Concessions	1	200	200	
	.17	Outdoor Teaching Stations	4	outdoor areas		field/track, practice field, tennis, BB/SB diamonds, Basketball hoops
	.18	Display Areas (digital, 2D, & 3D)		in hallway/commons		
	.19	"Public" Restrooms		gross area		easy access for public use during events
					26,100	

				(square feet)	NOTES
	Total NET Exploratory		**47,000**		

3.0   Community Commons

3.01   School Commons

		Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Central Commons	1	3,000	3,000	lobby/prefunction (space in addition to gross area)
.02	Community Commons / Welcome Center	1	500	500	large conf. room, Parent Ed room
.03	Welcome Center Kitchenette	1	50	50	coffee station
.04	Bookstore	1	200	200	Include space for lockable storage
.05	Club Hub / Activities / Group Space	1	600	600	
.06	Club Hub Storage Closet	1	200	200	
.07	Activities Coordinator	1	150	150	Include space for lockable storage
.08	Unassigned Office: Temporary Activities	4	25	100	short term events and activities such s Book Fair, etc.
.09	Student Work Display Areas	4	25	100	
.10	Information Display Areas	4	25	100	
.11	"Public" Restrooms	TBD		gross area	
				5,000	

3.02   Learning Commons

			Qty.	Net S.F.	Total Net S.F.	NOTES
	.01	Media Center (low bookstacks & open areas)	1	4,600	4,600	high ceiling, graphics, kid-friendly space, 12K volumes
	.02	Circulation Desk	1	50	50	include book drop from adjacent hallway to circ. desk
	.03	Media Specialist Office	1	150	150	
	.04	Workroom/Storage	1	200	200	
	.05	Quiet Alcoves	5	20	100	MUST be visible for supervision, could be furniture
	.06	Digital Recording Area	1	200	200	broadcast, green screen, etc.
Aux. T.S.	.07	Technology Lab	1	900	900	also for use during testing
	.08	Literacy Specialist / Reading Coach	1	150	150	
	.09	Instructional Technology Specialist	1	150	150	
	.10	Technology Storage/Workroom	1	100	100	
	.11	Shared Conference Room	1	200	200	
	.12	Teacher Resources/Book Room	1	200	200	adj to shared conf & workroom/storage
	.13	Outdoor Reading Plaza	TBD		outdoor area	
	.14	Restrooms	TBD		gross area	
					7,000	

3.03   Performance Space

			Qty.	Net S.F.	Total Net S.F.	NOTES
Aux. T.S.	.01	Performance Platform/Stage	1	3,000	3,000	to accommodate +/-100 performers
OPTIONAL	.02	Audience Seating / LGI (Optional)	1	5,000	5,000	Using dining commons for audience reduces need for this area
	.03	Platform Storage Room	1	200	200	Piano, costumes, props, acoustical shell system, etc.
OPTIONAL	.04	Scene Shop (Optional)	1	600	600	Include if soace permits, otherwise use art/project rooms
	.05	Costume/Prop Storage	2	250	500	can be combined into one space
	.06	Dressing Rooms	2	150	300	easy access to nearby restrooms
	.07	A/V Equipment Storage	1	100	100	
	.08	Control Room	2	100	200	
	.09	Concessions / Box Office	1	100	100	
					10,000	

3.04   Food Services / Nutrition

			Qty.	Net S.F.	Total Net S.F.	NOTES
Aux. T.S.	.01	Dining Commons (Cafeteria)	1	4,400	4,400	3 lunches (+/-350), can obe mult-use (i.e. audience seating)
		Optional Additional Cafeteria Space	1	2,600	2,600	Increase size of cafeteria if 2 lunches (+/- 550 students)
	.02	Food Services Kitchen & Serving Lines	1	2,200	2,200	storage, prep, clean-up, etc
	.03	Storage Rooms	3	200	600	
	.04	Staff Dining Area	1	600	600	near staff lounge
	.05	Cafeteria Director Office	1	100	100	
	.06	Kitchen Staff Lockers	1	100	100	
	.07	Kitchen Staff Restroom	1	50	50	
	.08	Table/Chair Storage	1	300	300	
	.09	Custodial Room	1	50	50	
	.10	Restrooms	2	gross area		visibility / supervision from dining area
					11,000	
					(square feet)	NOTES
	Total NET Community Commons				**33,000**	

4.0   Offices & Services

4.01   School Office

		Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Security Vestibule	1	150	150	air-lock & security functions
.02	Welcome Center/Waiting Area	1	250	250	
.03	Receptionst / "Front Desk"	1	150	150	sized for 2 workstations
.04	Principal's Office	1	200	200	Sized to support small meetings
.05	Principal's Restroom	1	60	60	
.06	Asst Princ Offices	2	150	300	May be located with/near grade level Pods
.07	Enclosed Offices	4	120	480	office mgr, data tech, bookkeeper, +1 flex office
.08	Open Office Workstations (attendance, discipline	1	200	200	privacy panel, files storage, lockable
.09	Large Conference Room	1	400	400	dividable?
.10	Small Conference Room	1	200	200	
.11	Workroom / Copier	1	200	200	near / connected to the reception area
.12	Supply Storage	1	100	100	
.13	Staff Restrooms	2	100	200	possibly share w/ teacher support restrooms (4.02.03)
.14	In-School Intervention	1	400	400	4-5 students max, individual focused workstations
.15	Security Resource Officer	1	100	100	
.16	Student Waiting Area	1	50	50	near attendance/discipline, visible for supervision
.17	PA Alcove	1	20	20	verify technology
.18	Lost and Found Alcove	1	20	20	
.19	Deliveries Alcove	1	20	20	
.20	Kitchenette / Breakroom			-	included in workroom
				3,500	

4.02   Centralized Teacher Support

		Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Workroom/Mailroom	1	400	400	near main office
.02	Staff Lounge	1	800	800	with kitchenette, centrally located
.03	Staff Lounge Restrooms	2	100	200	
				1,400	

4.03   Student Services + SpEd

			Qty.	Net S.F.	Total Net S.F.	NOTES
Stud. Svcs	.01	Guidance Reception / Waiting Area	1	100	100	4-6 students, also families
	.02	Office - Guidance	3	150	450	
	.03	Office - Psych. / Soc.	1	200	200	include small area for observed testing
	.04	Office - Speech/Language	1	150	150	access to testing room (currently a shared position)
	.05	Secure Storage Room (Tests)	1	120	120	secure storage/prep for testing materials
	.06	Records/files Storage (Vault)	1	100	100	needs security
Special Ed						
Aux. T.S.	.07	Self-Contained Classroom	1	900	900	do not need to be located together, sinks in room
	.08	Restroom	1	80	80	
Aux. T.S.	.09	Lifeskills/Intensive Needs Classroom	1	1,200	1,200	
	.10	Lifeskills Toilet/Changing	1	100	100	no need to have shower if near nurse office
	.11	Lifeskills Storage Closet	1	100	100	
	.12	Office - Special Ed	1	150	150	
	.13	Office - Therapist	1	150	150	
	.14	Sensory Rooms			-	located with grade levels, for both regular ed and sped
	.15	OT/PT Equipment Storage	1	100	100	
Shared						
	.16	Classroom/Conference Room	1	350	350	12-15 students + 1-2 adults
	.17	Workroom / Copier	1	200	200	
	.18	Small Conference / Testing	2	100	200	
	.19	Open Office / Itinerant Home Base	1	250	250	
	.20	Storage Room	1	100	100	
					5,000	

4.04   Health Office

		Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Waiting Alcove	1	50	50	visibility to adjacent rooms
.02	Office / Private Consultation Area	1	100	100	visibility to adjacent rooms, include blinds/shades
.03	Treatment Room	1	100	100	include sink, refrigerator & ice machine
.04	Cot Room	1	150	150	dividable for boys/girls if needed
.05	Restrooms	2	75	150	with shower, need water fountain outside restrooms
.06	Storage Closet	1	50	50	lockable medication room
				600	
				(square feet)	NOTES

Total NET Admin & Student Services	**10,500**	

5.0 Building Support

5.01	Maintenance/Custodial	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Maintenance Workroom/Equipment	1	1,000	1,000	
.02	Custodial Staff Lockers/Restroom	1	200	200	
.03	Custodial Closets	TBD	50	Gross area	located throughout building
.04	Custodial Office	1	100	100	
				1,300	

5.02	Mechanical/Electrical	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Main Mechanical Room	1		Gross area	
.02	Main Electrical/Telecom	1		Gross area	
.03	Data/Telecom Distribution	1		Gross area	
.04	Centralized Control Room	1		Gross area	
				0	

5.03	Building Support	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Deliveries/Receiving	1	400	400	can be combined with Storage
.02	Building Supply Storage	1	800	800	can be combined with Receiving
.03	Dumpster Yard	1		outdoor area	Open-air with security gate and visual screen
.04	Landscape/Maintenance Equipment	1		Gross area	
				1,200	

				(square feet)	NOTES
	Sub-Total NET Building Support			**2,500**	

Acceptable Deviation

The size of individual instructional spaces may be altered ± 10 percent for design, structural and flexibility purposes provided the following conditions are considered:
- An increase in square footage for instructional space is balanced by a decrease in square footage for support spaces and not by a decrease in square footage for another instructional space.
- The target gross square footage of the building should not be exceeded.

The quantity of instructional spaces may be altered to accommodate programs and delivery methods provided the following conditions are considered:
- The total teaching station count should not be reduced.
- Individual instructional spaces should not be removed or reduced in size to increase the size and/or quantity of support spaces.
- The target gross square footage of the building should not be exceeded.

Sizes indicated for support spaces are not intended to be absolutes, but instead to serve as guidelines for early budgeting, planning and design purposes.

4.0 PLANNING & DESIGN

General Goals

Several characteristics must be considered in designing a new school as well as addressing needs of existing school facilities. Since these ed specs are intended to apply to renovations to existing middle schools, various interpretations of the following ideas and goals are expected.

As defined in this ed spec, the school building should be designed for the latest teaching techniques, quality equipment and furnishings while being flexible for future changes. The selection of materials and finishes must lend themselves toward longevity, ease of maintenance and continuity of design. It is important to use durable materials that will withstand wear and tear and at the same time provide an atmosphere that will promote good educational response and be pleasing to the users.

School facilities should be constructed in a manner in which change is the norm, not the exception. Building materials and furniture should be selected to support change and flexibility. Modern office concepts should be taken into consideration: demountable and/or movable wall systems, modular furnishings, expandable/retractable modular buildings, floor conduits and power towers, non-load-bearing wall systems, raceways and cable trays and more generic spaces that can be easily adapted to specialized uses. Spaces should be conducive to eye contact and communication, allowing for supervision and easy interaction between students and teachers. At the same time, systems must provide for acoustical separation as required for best use of spaces as intended.

School buildings should be carefully integrated with existing site conditions, nearby neighborhoods and traffic patterns. Site circulation must be designed to safely zone different types of vehicular and pedestrian traffic. The building design must be organized to aid wayfinding and be easy to supervise and monitor. Interior lighting must be appropriately provided to meet the needs of each instructional area. Exterior lighting must be balanced to provide safe ingress and egress at all hours. Exterior landscaping should be planned to integrate the existing vegetation, support site circulation and grounds maintenance and beautify the grounds, without posing safety hazards.

The following notes describe general issues that should be considered in the design of a school. While some of these attributes have limited impact on the quantities and sizes of spaces, their successful interpretations and implementation will contribute to the success of each facility.

- promote an individual student's sense of identity within the total school enrollment
- be flexible - a physical environment that can change or adjust to meet changing educational needs and objectives
- promote faculty collaboration, emphasizing interdisciplinary teaching and teaming
- promote parent participation/involvement in the educational process
- be accessible for all
- be open for community usage after school hours and welcoming for controlled use during school hours
- promote environmental responsibility
- be open to partnering with business, civic and other educational institutions
- incorporate passive security strategies (i.e. minimal "blind" corners; vision glass between faculty and student areas; bright, well-lit spaces, etc)

- allow building components and features to serve as learning tools
- allow/provide students access to technology throughout the day
- respond to future changes and program growth requirements
- reflect the value and importance of learning – through its appearance, aesthetics, materials and architectural style
- be architecturally interesting, visually exciting and enjoyable – a facility that uplifts the human experience and invokes a sense of pride, while at the same time, striving for timelessness

Environmental Learning

The design of the building should incorporate sustainable features to allow for learning opportunities to support its curriculum. For example, establishing a school waste reduction and recycling program provides an excellent opportunity for schools to conserve energy and natural resources, reduces pollution, preserves landfill space and offers a positive, hands-on educational experience for students, teachers and other school personnel. In addition, recycling and waste-reduction programs that actively involve students are educating the next generation on the value of caring for our environment and provide opportunities for leadership within the school and the community.

Another example is to incorporate alternative energy features such as solar and wind energy harvesting which can be used as active learning tools, reinforcing the school community's understanding of the use and wider potential of such resources. As with the recycling and waste-reduction programs, the use of alternative energy sources can actively exhibit the value of caring for our environment.

Safety and Security

A key goal is to design an inviting, non-institutional school environment, while simultaneously to provide a safe environment for students, staff and community who use the facility and adjacent support services. Safety concerns begin at the streets adjacent to the school. Design features from the point of entrance to the perimeter can directly affect security issues. A school's main entry should be visible and easily accessible. Visitors should be welcomed to the site and directed to the main entry by clear symbols such as building scale, lighting, symbolism and graphics. The building configuration, location of restrooms, visibility to the playground and perimeter fenced areas directly affect the ability to secure and supervise the campus.

The organization of a building can have a major impact on student behavior and safety concerns. Building security can be addressed in an active or a passive manner: active security is based on security systems; passive security is based on program design, building configuration and community participation. The school design should focus on passive concepts and apply active concepts as an overlay where reinforcement may be necessary. Active approaches typically address the symptoms of security problems as opposed to passive approaches that often address the causes of security problems. The two overarching strategies of passive security – high visibility and appropriate channeling of traffic – can also be key characteristics of the welcoming, warm atmosphere desired at a middle school.

The principles and strategies of CPTED, Crime Prevention Through Environmental Design, may provide additional guidance for incorporating passive security strategies.

Community Use

Across the state and around the country, there are increasing expectations of school facilities to offer services to the community. A trend in school planning and design is to increase interdependence among schools, families, community members and businesses. This should include strong support for parent and family involvement with a focus on customer service. A school mirrors its community and is diverse on many levels. Maximizing resources by organizing around a unified societal vision, the school building should send a strong message to an expanding clientele focused on lifelong learning, an important school and district core value.

Community's involvement in education and education's involvement in the community can take a variety of forms before and after the school day. Some activities can take place during the school day as long as they support the educational program for students. The community is expected to support the educational program through volunteers and aides.

The library, gym, cafeteria, kitchen, performance space, and play fields are examples of spaces that should be designed for easy after-hours use by the community. It is possible that school buildings may eventually be utilized all days of the week, year-round. Gyms and play fields should be designed to accommodate youth and adult community groups and built to standards that support these uses where feasible. For after-hours use of spaces, the school should include a separate control panel to provide switching to control HVAC and other systems to those spaces utilized after hours.

Consider the Benefits of Formalized Shared Use

Shared use is an arrangement or agreement between schools and another entity, such as a government agency, nonprofit or community organization, to utilize indoor or outdoor space for recreation, programs, meetings or other purposes, after school hours or on weekends. Shared use also encompasses "open space" agreements, which are policies districts have to allow playgrounds, tracks and ball fields to be used by the public.

Shared use partnerships can connect schools to other public entities such as libraries, recreation centers, colleges and universities, YMCAs, and urban leagues. Community development and planning agencies can assist with making connections, developing plans and creating facilities with multiple uses throughout the day and over their lifespan.

Ideas for shared use include libraries, gymnasiums, parks, parking lots, field space, fitness facilities, and playgrounds.

Shared use between schools and communities has several benefits including:
- Saving schools the cost of building and operating redundant facilities
- Increasing physical activity, overall health and academic achievement
- Increasing community cohesion and community support of schools through levies and bonds

Sensitivity to the Neighborhood Context

Neighborhoods surrounding the school site often have an established character and rhythm. The design team should carefully evaluate the scale and context within which the school buildings will be placed and determine appropriate locations of compatible elements based on the kinds of activities anticipated. The school building should not imitate, but rather, complement, existing neighborhood structures. Sensitivity to neighborhood perceptions of school-generated noise, lighting glare, overviews and traffic should also be considered.

General Site Goals

Middle school sites should accommodate a variety of amenities including outdoor physical education; athletic and environmental learning programs; automobile and bicycle parking stalls; access roads for fire, trash, bus delivery and drop-off areas; and pedestrian walkways. Planning and building codes dictate building setbacks, area of landscaping, number of street entryways and ratio of required parking stalls to occupants. Site issues including topography, drainage, pedestrian and vehicular traffic, bus drop-off and pick-up areas, service entry, and safety of playground areas must be thoughtfully addressed by the design team of architects and engineers.

The following additional considerations should be taken into account when addressing needs of each middle school site:

Accessibility

Access to a school, movement through a school, as well as engaging with a school's site amenities should be accessible to people of all abilities. In addition to satisfying ADA legislation, middle schools should be designed to be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability. This is typically referred to as "universal design".

Site Adjacencies and Separation of Disparate Activities

The layout and thoughtful consideration of traffic use patterns that occur on a daily basis is essential. Students can be difficult to see and must not cross between busses. Consequently, bus drop-off and pick-up must be separate from parent drop-off and pick-up lanes. If possible, staff and visitor parking should also be separate from bus traffic patterns unless traffic is staggered. Kitchen delivery, trash and recycled material pick-up and maintenance vehicle circulation should be well planned so that they do not cross normal student egress pathways. Fire truck access must reach all portions of the school building, within the guidelines of local codes and regulations. Loading docks should be convenient to the food services areas. Trash/recycle bins should be appropriately located for custodial access. Large truck turn-around and back-up drives must be accommodated. Views to these areas may need to be screened and isolated from neighbors and students.

Identifiable Entries and Community Access

Clearly defined indicators and directions to main and ancillary school entrances support the clarity and cohesion of the building design. Navigating through the building is particularly critical for those visitors who are unfamiliar with the school, perhaps coming from the community or from student homes to support and participate in school programs. Community access to parts of the building that involve after-school extended learning also should be clear and distinct. Location of these extended-use areas of the school should be convenient to evening parking.

Site Signage

The purpose of site signage is to identify the school to the public; however, it should also instill pride of belonging in its students, staff and community. At minimum, it should include the name and address of the school. It can also include the school logo/mascot, school colors and space for general news and announcements. Signage must conform to local sign ordinances as applicable. Signage should be easily visible and clearly identifiable when entering or driving by the school site and should have adequate lighting to promote visibility during the daytime and at night. It should be located near the main vehicular entrance to the site without interfering with vehicular or pedestrian traffic.

Additional signage should direct the visitor to the main entrance, as well as to the after-hours entrance to the school building.

Site Safety

Site layout strategies for enhancing visibility include providing ample views of the campus from surrounding streets and homes to facilitate passive surveillance and patrols; providing adequate lighting for all parking and pedestrian areas; and providing security lighting around buildings and in parking lots. To channel traffic appropriately, separate all vehicular from pedestrian traffic, separate staff and community parking areas and separate bus traffic from pedestrian and other types of vehicular traffic. Provide parent drop off in the area with best access to the school and if possible, provide sufficient queuing area so that school traffic will not back up onto surrounding roadways.

Zoning the site for various activities and users can be achieved through thoughtfully placing a variety of fences, bollards, landscaping, fields, pathways and/or other site amenities. Enhance visibility by using low-height shrubs and other landscaping to deter blind spots and hiding. For example, bushes next to the building should be kept lower than 3'. Skateboard mitigation measures should be incorporated into landscaping features and site furnishings.

Site Furnishings

Fixed benches and enclosed trash receptacles should be available along walks to main building entrances. Tables and additional benches, and enclosed trash receptacles should be included in or near playground areas.

Planting, Landscaping and Water Retention/Detention

A building's landscape setting and entry can be enhanced by incorporating elements such as visual displays of perennial blossoming plants, seasonal colors and natural and native plant habitats. Exterior areas may be used as learning laboratories involving explorations such as science, art, literature, math and history. Aside from complementing the building, landscaping may also include a variety of hardscaping, pathways, planters and sculpture. Water retention and/or detention is

another important element from an engineering standpoint and may also be used as part of an environmental curriculum study, if applicable safety concerns are addressed. Outdoor learning is an important element of school design and landscaping should be considered as more than just a backdrop for school buildings.

Additional Design Ideas

The Appendix of this report includes additional ideas for enriching the learner experience through design including:

- Designing the Facility as a Teaching Tool

    Every square foot of a school building and its grounds can be seen as an educational opportunity. Giving students an understanding of how the school building works and how it fits into their broader community can foster their sense of ownership and engagement with their learning environment

- Designing Outdoor Learning Environments

    School grounds can provide students with hands-on outdoor learning experiences and promote enhanced awareness of the interdependence of the natural and human environments. A school's grounds include potential educational spaces where concepts taught within the school building can come alive to students. Outdoor learning areas connect and engage the learners with the natural environment, further their health and social skills, and increase awareness of natural resources.

- Play-based Environments

    Play is incredibly important to the development of children's social, emotional, cognitive and physical development, as well as creativity and imagination. Studies have shown that free play affects neurological development and determines how the neural circuits of the brain are wired. In other words, free play affects a child's confidence, intelligence and ability to articulate. Our favorite neighbor, Fred Rogers, once said, "Play gives children a chance to practice what they are learning."

- Physical Education & Health Areas

    Good personal health is essential to a student's readiness to learn. Through health education students will gain the knowledge, attitudes and behaviors that will prepare them to maintain a high level of physical, social, and mental health and safety.

Educational Technology

The role of instructional technology is to aid its students in becoming skilled, knowledgeable, independent, and self-directed learners who are comfortable with and proficient in using technology. Through the use of technology, with its varied aspects and applications, each student will be afforded opportunities and challenges that will allow them to successfully engage the future.

As the marriage of technology and education progresses, the teacher/student connection to this dynamic environment will continue to be emphasized. In the meantime, it is important to remember that these tools only work as well as they can be implemented constructively. First, the utility and

practicality of equipment should be considered when designing the physical configurations of educational environments. Second, steps must be taken to ensure that students understand the applicability of what they are learning, especially because it will improve the quality of their lives beyond the school's educational environment. In the end, it is a personal decision on the educator's part as to what degree these tools will be integrated to support the curriculum. However, the infrastructure and design should allow for full implementation. Above all, technology should be looked upon as a companion in the classroom, much like a teaching assistant who helps to facilitate inquiry, discussion, expression and learning.

Successful learning activities depend on more than just the technology. Certain conditions are necessary for schools to effectively use technology for learning, teaching and educational management. Physical, human, financial and policy dimensions greatly affect the success of technology use in schools.

A combination of these conditions is required to create learning environments conducive to powerful uses of technology, including:
-         Vision with support and proactive leadership from the education system
-         Educators skilled in the use of technology for learning
-         Content standards and curriculum resources
-         Student-centered approaches to learning
-         Assessment of the effectiveness of technology for learning
-         Access to contemporary technologies, software and communications networks
-         Technical assistance for maintaining and using technology resources
-         Community partners who provide expertise, support and real-life interactions

In conjunction with district wide technology guidelines, the technologies outlined in this section should be considered for the design of the new school.

Technology-supported Student Learning
Technology-supported student learning is part of the "new basics" required for participation in the Information Age. Technology, as a tool to support student learning, can give all students the chance to master basic skills in the core academic areas and opportunities to apply those skills in project-based activities, using video, the Internet and other print and non-print resources, to provide them with personal learning experiences that are meaningful to them.

Multimedia resources are used to enrich, clarify, reinforce, connect and support curriculum. Effective instructional practices incorporate varying media formats to expose a rich array of viewpoints and experiences, stimulate discussion, establish context and provide for individual learning styles. Teachers must be empowered to support all students learning, including students with disabilities and those traditionally underserved, with professional development that focuses on integrating technology, along with the new standards, into their teaching and learning strategies for the new curriculum.

School administrators must be recognized as leaders in building a strong school culture that supports technology as a tool to engage students in their learning activities. Teachers play a crucial role in incorporating technology into the curriculum by understanding and supporting efforts to offer all students access to skills needed as we progress through the 21st Century.

Effective learning environments meld traditional approaches and new approaches to facilitate learning of relevant content while addressing individual student needs. The resulting learning environments should prepare students to:
-         Communicate using a variety of media and formats;

- Access and exchange information in a variety of ways;
- Compile, organize, analyze, and synthesize information;
- Draw conclusions and make generalizations based on information gathered;
- Know content and be able to locate additional information as needed;
- Become self-directed learners;
- Collaborate and cooperate in team efforts;
- Interact with others in ethical and appropriate ways.

What matters most are not the machines and the wiring themselves, but what teachers and students do with them… a constructivist approach toward learning, in which students work in rich environments of information and experience, often in groups, and build their own understandings about them, taps into the computer's greatest strengths.

A rapidly changing technological environment makes specifying technology equipment and service difficult at best. In order to achieve the optimal use of technology in the school, it is prudent to discuss technology in terms of desired performance and support of the teaching and learning processes – as opposed to specifying actual equipment which may be obsolete before construction even begins.

It is recommended that all learning environments have voice, data, internet and video accessibility. Robust Wi-Fi is essential. This will enhance the flexibility of the learning environment to respond positively to alterations in the use of space. The wiring and other infrastructure components should be the first priority since terminal devices and user equipment is expected to change frequently over time. The facility should have surplus electrical power and cooling capacity to permit expansion of technology use, equipment and devices.

Technology Components
Technology has four primary applications within the school environment. These applications interface with each other and impact all aspects of the educational processes.
>
> Educational Technology:
>> Such as media, computer applications, A/V, connected learning, etc.
>
> Student Services:
>> Such as schedules, grades, attendance, counseling, transportation, etc.
>
> Communication/Productivity:
>> Such as e-mail, phone, Internet, word processing, spreadsheets, etc.
>
> Business Systems:
>> Such as accounting, payroll, inventory, staff/HR, etc.

Key components of the technology environment include both wired and wireless systems include:

- Voice: Voice communications and connectivity in every classroom and workspace to support internal and external communications

- Video: Video distribution / streaming in every classroom and throughout the building with interactive video capabilities to support whole and small group instruction, distance learning and to provide access to a wide range of internal and external resources

- Data: Data retrieval capabilities in every classroom and throughout the building to support communication, management and instructional applications.

Recognizing the need for appropriate technology to be available throughout the span of the project and throughout the life of the building, it is imperative for the design team to seek and find a balance of technology devices (short-term) and infrastructure (long term) that will support the learners of both today and tomorrow.

Overall Building Adjacencies

Small groups of participants were asked to consider conceptual organizational layouts of an "optimal" middle school building without regard for specific school sites or existing buildings. The ideas generated during the workshop were then translated into the adjacency diagram shown below.

Diagrams here and throughout this ed spec communicate conceptual building organizational strategies, in other words, they illustrate how various spaces might be arranged in a building to achieve the desired functionality.

Since MSDWT middle school buildings already exist, pure replicas of this diagram by the district and their design teams are not expected as they are applied to each school. The diagram is presented here as a point of departure for addressing needs of middle schools, and design teams are encouraged to creatively explore solutions that best meet the needs of individual school sites.

Organizational Diagram:
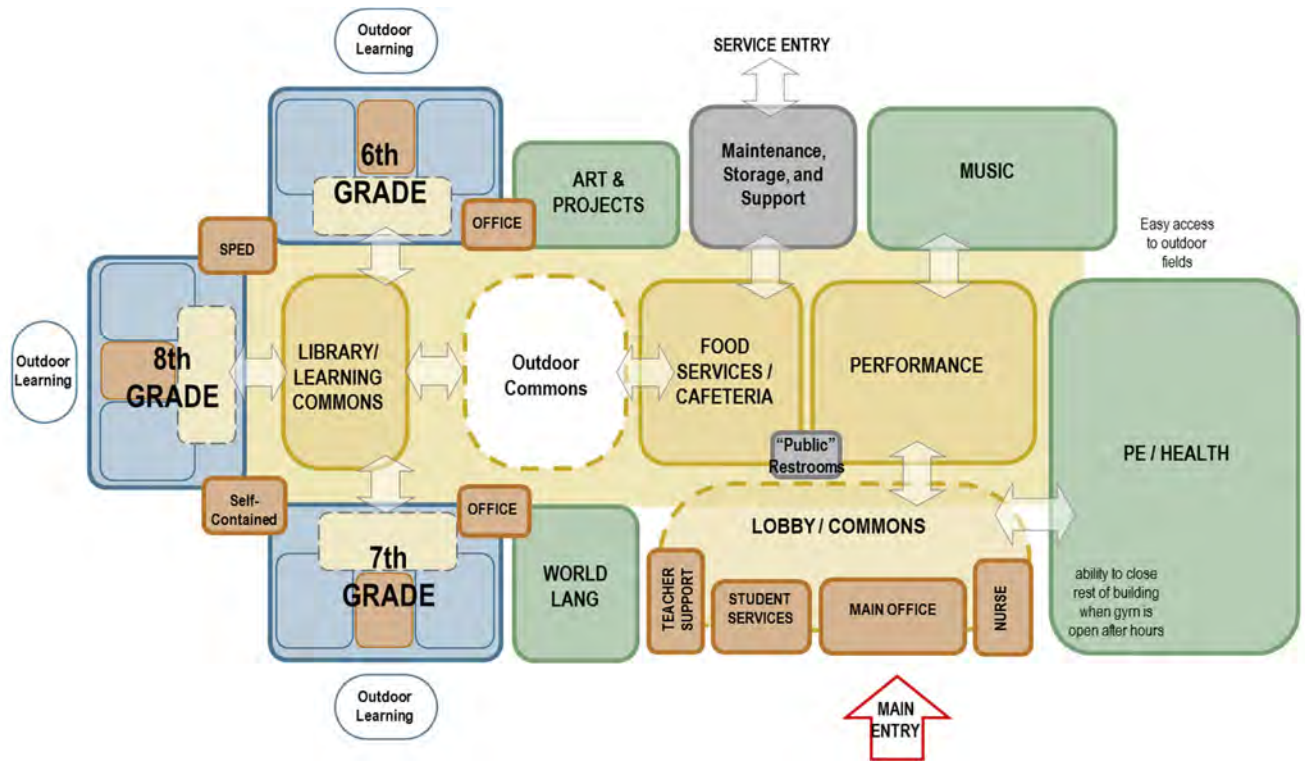
5.0 PROGRAM COMPONENTS

Introduction

Insights and feedback gathered from various activities and discussions form the foundation of these educational specifications, and the bulk of the detailed information included in this section. All program details are expected to undergo further scrutiny during the design process, when stakeholders as well as additional consultants (such as for kitchen design, acoustics, technology, furniture/equipment, etc.) are expected to offer additional insights and feedback on the plans being developed for the project.

The following details, including both general and specific data, represent our translations of the insights gathered for each component of a middle school. The following information is included for each category of spaces:

A. General Description
A general description and overview of requirements

B. Program of Spaces
The space program included in Section 3.0, included here specifically by component.

C. Recommended Adjacencies
Basic diagrams showing possible spatial adjacencies.
Several work sessions with various focus groups further identified space needs and adjacency requirements. Diagrams in this section are intended to illustrate fundamental relationships only. No floor plan is implied and no distinction between floor levels is made. Further interpretation of these relationships is being made by the design team to accommodate the identified building and site planning goals and parameters for each middle school.

D. Spatial Attributes

Detailed information is intended to document user needs and assist the design team in accommodating them. Interior attributes for key spaces planned for the MSDWT middle schools supplement the following notes:

This information should be used in conjunction with any MSDWT standards and guidelines such as those for planning, design, technology and building performance, and with all applicable codes and regulations, including ADA, and is not intended to supersede any such requirements. Energy-conscious and sustainability measures should also be considered.

Wherever category entries are blank or designated with the symbol "-" no specific requirements beyond applicable district standards, codes, regulations and standards are defined.

Where guidelines noted herein are in conflict with these requirements, the applicable guidelines, codes and regulations will govern. Where guidelines noted herein are not planned to be incorporated into the building design, the design team should inform the MSDWT Project Representative to discuss and/or determine acceptable alternatives.

Note that spaces such as restrooms and other gross areas which are governed by codes and other standards are included only when such detail is above and beyond these general requirements. Some gross area spaces are listed (but not necessarily detailed) simply so that they are not forgotten during the planning and design processes.

Spatial attributes describe details including:
- Activities & Usage
- Furniture & Casework
- Windows & Vision Panels
- Control & Safety Needs
- Special Considerations

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed below:

Furniture & Casework

In general, casework and furniture should be durable and sturdy to resist vandalism without appearing overly institutional. Modular, movable furniture is recommended where appropriate. Built-in casework such as storage and shelving should be included where movement of such is a concern.   In all cases, safety of students and staff should be considered.

Furniture should be ergonomic and support a variety of sizes, weights and heights, and physical abilities of students and teachers. Adjustability should be easy and intuitive.

Learning Studios should include white boards and tack boards as well as lockable storage units, and brackets for US flags.

Technology

Accommodations for district standards and needs for technology should be incorporated throughout the design process so that the most appropriate up-to-date technology is included. MSDWT technology experts are expected to direct the planning of specific technologies to be incorporated into district schools.

It is expected that all teaching spaces have access to robust technology, including high-speed hard-wired and wireless connectivity. In general, all teaching spaces should include intercom/PA systems with voice connectivity, interactive whiteboard technology and/or digital projector, soundfield amplification systems, and synchronized clocks.

Finishes

Finishes should be durable, sturdy and easily maintained to resist vandalism without appearing overly institutional. Resilient flooring should be used in high traffic areas. All finishes should be coordinated with lighting and acoustical design parameters.

Color is an important aspect of interior design and can enhance a child's perception of space. Color should be used judiciously and intentionally to support learning, wayfinding and school spirit.

Acoustics

Because environmental stimuli such as sound and noise can affect learning and behavior, good acoustical separation of spaces is necessary. Wherever possible, spaces with divergent acoustical needs should not be located adjacent to each other (for example, a gymnasium and a library). Where the adjacency of these spaces is required to support the educational program, special attention to acoustical separation is required.

American National Standards Institute (ANSI), is the current American National Standard on Acoustical Terminology, and in association with the American Standards Association (ASA) provides recommendations for acoustical standards for educational facilities. Acoustical designs of spaces should comply with ANSI/ASA recommendations for unoccupied background noise and wall sound transmission between rooms.

Utilities & Services

Lighting: All learning spaces should have access to natural daylight. Borrowed light may be used if direct access is unavailable. Artificial lighting should be energy efficient, taking advantage of natural light as much as possible to achieve the required light levels throughout the day. Artificial lighting may be automated for increased energy efficiency; however, lighting should also be able to be manually controlled for various activities. Fixtures should be able to provide uniform lighting at work surfaces and desks. Additional lighting should be planned for teaching walls, boards and/or displays. Lighting should be considered a component of the security strategy for the facility and grounds.

Power: Access to power outlets and data connectivity throughout the building should be located for flexible uses and varying locations of technology and equipment.

HVAC: Include access to fresh air (natural ventilation), particularly in classroom spaces, in addition to regular mechanical ventilation strategies.

Plumbing: Restrooms should include floor drains for ease of maintenance. Hot water, where available, should not exceed 120°F.

Windows & Interior Vision Panels

Interior glass should be tempered and protected from impact and vandalism. Interior vision panels may include privacy shades as needed.

Control & Safety Needs

Classroom access doors should be lockable from both sides. Rooms and spaces should have good visibility throughout, avoiding "blind" areas.

Special Considerations

Ceiling heights should be 9'-0" minimum in rooms over 200 square feet in floor area.

Wayfinding through the facility should be intuitive and easy. Signage should support staff, students and visitors of varying ages and abilities.

1.00   Core Learning

The Middle Years Program (MYP) includes students in grades 6-8 and is a challenging framework that encourages students to make practical connections between their studies and the real world. The MYP curriculum framework provides a broad and balanced education for early adolescents.

The MYP aims to help students develop their personal understanding, their emerging sense of self and responsibility in their community. In addition to core curriculum, students engage in at least one collaboratively planned interdisciplinary unit each year that involves at least two subject groups. MYP students also complete a long-term project, where they decide what they want to learn about, identify what they already know, discovering what they will need to know to complete the project, and create a proposal or criteria for completing it.

Teaching and learning in the MYP is underpinned by the following concepts:

- Teaching and learning in context: Students learn best when their learning experiences have context and are connected to their lives and their experience of the world that they have experienced. Using global contexts, MYP students develop an understanding of their common humanity and shared guardianship of the planet through
- Conceptual understanding: Concepts are big ideas that have relevance within specific disciplines and across subject areas. MYP students use concepts as a vehicle to inquire into issues and ideas of personal, local and global significance and examine knowledge holistically.
- Approaches to learning: A unifying thread throughout all MYP subject groups, approaches to learning (ATL) provide the foundation for independent learning and encourage the application of their knowledge and skills in unfamiliar contexts. Developing and applying these social, thinking, research, communication and self-management skills helps students learn how to learn.
- Service as action, through community service: Students take action when they apply what they are learning in the classroom and beyond. IB learners strive to be caring members of the community who demonstrate a commitment to service—making a positive difference to the lives of others and to the environment. Service as action is an integral part of the programme, especially in the MYP community project.
- Inclusion and learning diversity in MYP: As part of the MYP curriculum, schools address differentiation within the written, taught and assessed curriculum

This IB learning model has many implications for the design of the curriculum as well as the physical facility. Traditional teacher-centered classrooms transform into student-centered learning studios clustered with activity areas and small group spaces to form "Learner Neighborhoods".

Learner Neighborhoods support collaborative and independent learning, critical thinking, oral and written communication, ubiquitous use of technology, and project-based curriculum. Learner neighborhoods should provide for engagement and interaction, teamwork, and concurrent interdisciplinary themes. Student centered learning environments included in the learner neighborhoods promote various modes of diverse learning styles, thereby accommodating the varied learning styles of students, thus strengthening student motivation, promoting peer communication, reducing disruptive behavior, building student-instructor relationships, and promoting discovery and active learning.

Neighborhoods are clusters of core environments to support groupings of students by grade-levels and/or across grade levels. To support this flexibility, all neighborhoods are defined to include identical spaces, however it is expected that the furniture for learning environments will be sized to

suit the grade levels served. All furniture should be easily movable to allow for shifts in grade-level assignments among learner neighborhoods.

Three grade levels are organized into two academic teams each, thus six academic team clusters or "pods" are defined in this ed spec. While each team includes learning environments specifically assigned to that team, there are also several spaces that serve an entire grade (those that are to be shared by two teams).

For flexibility in assigning grade levels to various team "pods", space planning for all academic teams is identical. Nothing in the planning or design of the team areas should preclude the leadership for each building to assign team areas as they see fit over time. The essential differences among spaces should be limited to movable items such as furniture to support this desired flexibility.

The diagram below illustrates an optimal organization of an entire grade level, comprised of two teams plus shared spaces. Shared spaces should be centralized with easy access for both teams. In addition, science labs should be located adjacent to each other, as shown, to allow for collaboration between the two science teachers for a given grade level and sharing of a single prep/storage space. The diagram is intended to illustrate fundamental adjacencies and spatial relationships only. No floor plan is implied and no distinction between floor levels is made. Further interpretation of these relationships is being made by the design team to accommodate the identified building and site planning goals and parameters for each middle school.

Two Academic Teams = one grade level:
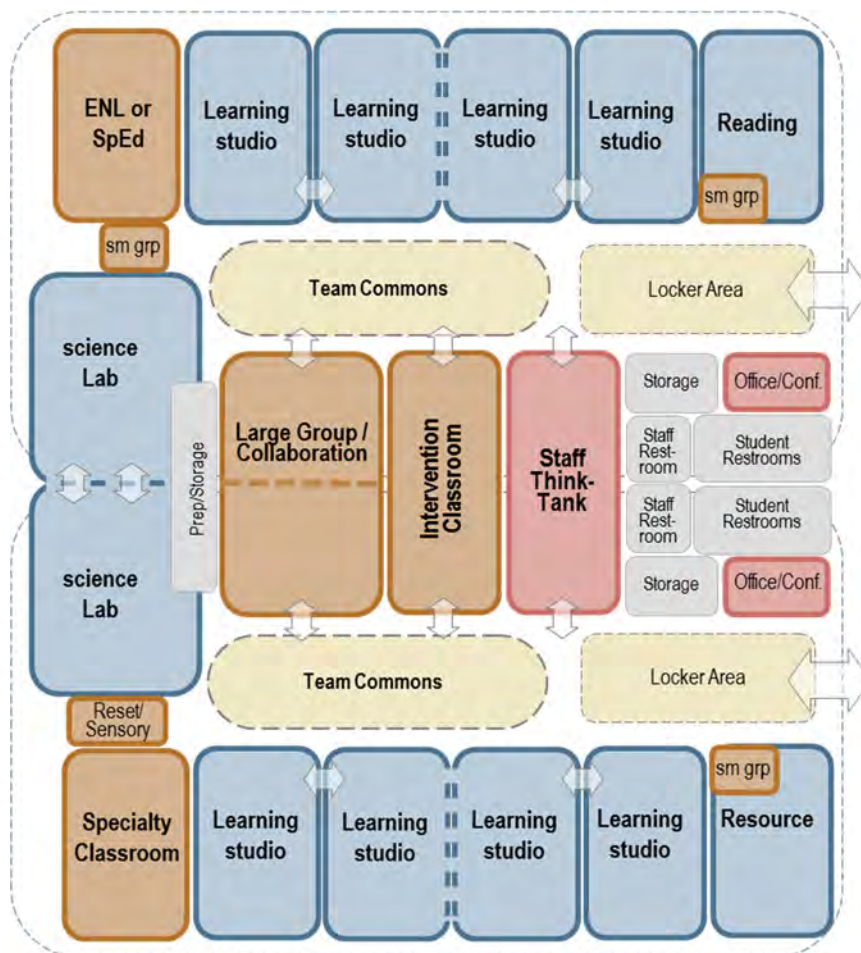
Program of Spaces

1.0 2 Teams per Grade

1.01		Core Learning	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Learning Studios - Math**	2	900	1,800	
Reg. T.S.	.02	**Learning Studios - Language Arts**	2	900	1,800	
Reg. T.S.	.03	**Learning Studios - Social Studies**	2	900	1,800	
Reg. T.S.	.04	**Learning Studios - Science**	2	1,200	2,400	locate 2 Science rooms adjacent with ability to combine
Reg. T.S.	.05	**Learning Studios - Resource**	1	900	900	
Reg. T.S.	.06	**Learning Studios - Reading**	1	900	900	
					9,600	

1.02		Learning Support	Qty.	Net S.F.	Total Net S.F.	NOTES
Reg. T.S.	.01	**Intervention Classroom**	1	900	900	shared between 2 teams (1 per grade)
Aux. T.S.	.02	Large Group Collaboration (LGI)	1	1,800	1,800	1 per grade, dividable into 2 spaces
Aux. T.S.	.03	Specialty Classrooms	1	900	900	3 specialty rooms total: AVID, Communication, Flex
Reg. T.S.	.04	**ENL or SpEd Room**	1	900	900	(shown in this list to suggest dispersing among teams)
	.05	Small Group Rooms	3	100	300	2 per team, 1 located near ENL or Sped room
	.06	Reset / Sensory Room	1	200	200	
					5,000	

1.03		Social Commons	Qty.	Net S.F.	Total Net S.F.	NOTES
	.01	Team Commons	2	1,000	2,000	identity, genius bar, digital screen. could connect to LGI
	.02	Display Areas (digital, 2D, & 3D)	4	25	100	Include variety: Digital, 2-D, and 3-D
	.03	Student Lockers	2	600	1,200	140 lockers each team, can be centralized or in hallway
	.04	Student Restrooms	4	300	gross area	consider single-stall, gender neutral
					3,300	

1.04		Staff Support Spaces	Qty.	Net S.F.	Total Net S.F.	NOTES
	.01	Science Prep/Storage Room	1	300	300	1 may shared by 2 science labs
	.02	Think-Tank (Collabortion/Workroom)	1	1,000	1,000	conference area with work area, copier/printer, etc.
	.03	Team Storage Rooms	2	200	400	one per team
	.04	Staff Restrooms	2	250	gross area	
	.05	Conference / Office	2	200	400	
					2,100	

				Net S.F.	NOTES
	Sub-Total: Each Grade Level			**20,000**	

				Total Net S.F.
	All Teams			
	All 3 Grade Levels			**60,000**

Spatial Attributes

Detailed information is intended to document user needs and assist the design team in accommodating them. Interior attributes for key spaces planned for MSDWT middle schools supplement the following general notes:

Wherever category entries are blank or designated with the symbol "-" no specific requirements beyond applicable codes, regulations and standards are defined.

This information should be used in conjunction with any MSDWT standards and guidelines such as those for planning, technology, design, and building performance, and with all applicable codes

and regulations, including ADA, and is not intended to supersede any such requirements. Energy-conscious and sustainability measures should also be considered.

Where guidelines noted herein are in conflict with these requirements, the applicable guidelines, codes and regulations will govern. Where guidelines noted herein are not planned to be incorporated into the building design, the design team should inform the MSDWT Project Representative to discuss and/or determine acceptable alternatives.

Note that spaces such as restrooms and other gross areas which are governed by codes and other standards are included only when such detail is above and beyond these general requirements. Some gross area spaces are listed (but not necessarily detailed) simply so that they are not forgotten during the planning and design processes.

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed above, in the introduction to this section of the ed spec.

Images and photographs are offered as examples of similar spaces in other schools. They are not intended to be direct representations of the designs for MSDWT, but instead offer some insight into the intent of each space.

SPACE: CORE LEARNING STUDIOS

These guidelines also define space attributes for: Intervention, ENL, AVID, Resource, Reading, etc.

Area/Department:	Academic Teams: Core Learning & Learning Support
Occupants:	25-30 students, plus teachers/staff, IA's, volunteers as needed (as few at 10 students for special programs)

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, lecture, presentation, demonstration, etc. to support MYP curriculum, including combinations of the above and/or team teaching.

FURNITURE & CASEWORK (see diagram below for sample room layouts)

Furniture	Student tables and chairs, teacher workstation, mobile storage units and bookshelves, mobile marker boards, soft seating. Recommend varying height tables/chairs/stools for standing and sitting activities.
Fixtures	Movable/flexible system of wall mounted marker boards and tack boards, projection surface
Fixed Casework	Minimize the extent of built-in casework, movable is preferred

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

Optional: Two rooms per team could be able to open to make a double space.
In rooms designated for special education, consider alternate lighting than fluorescent.

LEARNING STUDIOS: ROOM LAYOUT IDEAS:
Regardless of the subjects taught in the learning studio (classroom), the space should accommodate multiple arrangements of furniture and equipment to support various activities throughout the day. It should be able to support students working as a whole group, or small groups and individuals. Furniture should be mobile to allow various teaching styles and learning needs. In addition to windows with views to the outside, studios should have direct visibility to the activity commons so that teachers may supervise students working in the commons as needed.

The diagrams below suggest furniture and equipment that may be used in a learning studio. The four views show the exact same furniture set able to be rearranges to suit various teaching and learning activities. MSDWT technology staff will specify the types and placement of educational technology and equipment, so these items are shown for reference only. Furniture shown may not match exact items to be purchased for each school and is shown to illustrate the desired functionality of a typical learning studio.
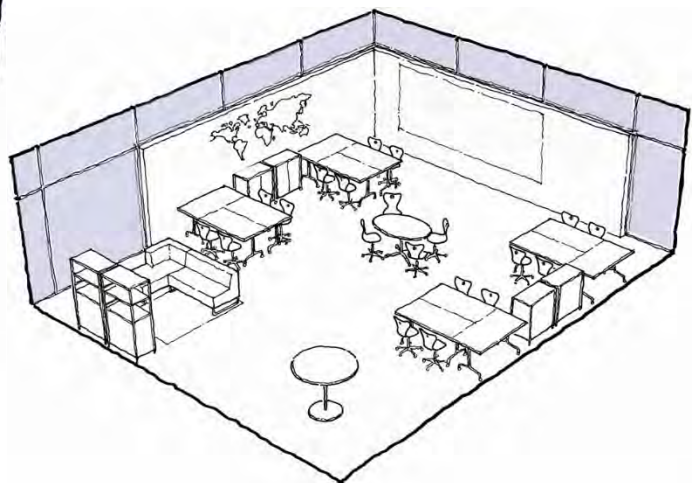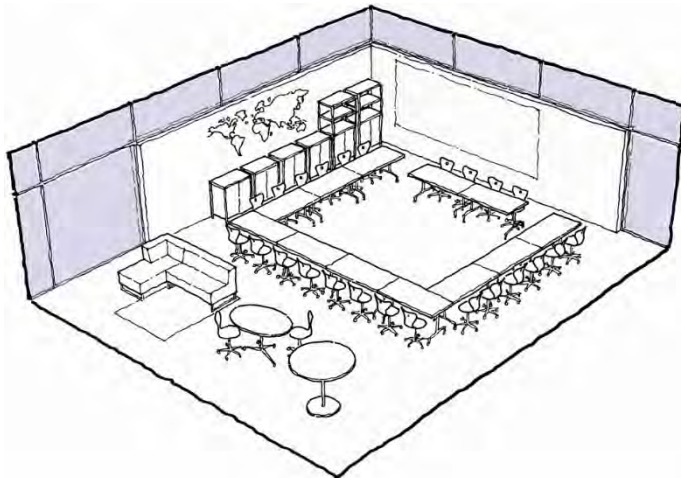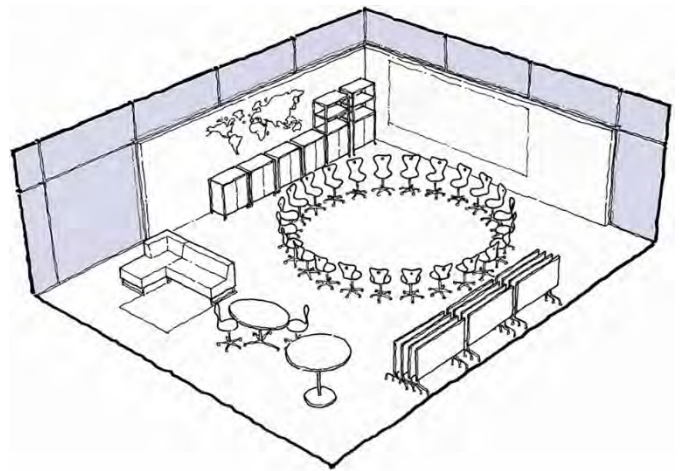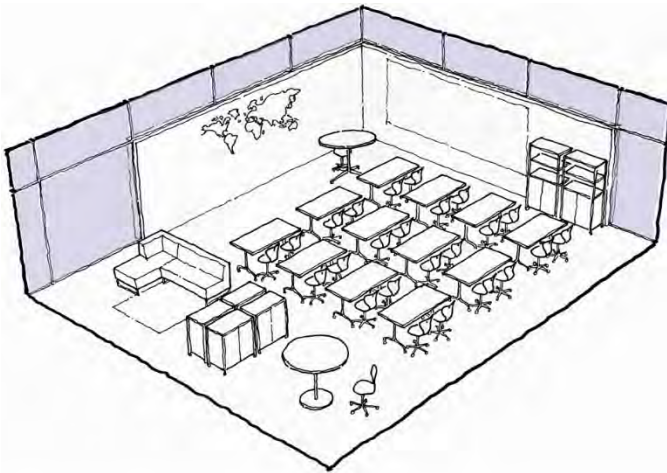
SPACE: SCIENCE LEARNING STUDIOS

Area/Department:	Academic Teams: Core Learning
Occupants:	25-30 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group collaboration and individual instruction, discussion, lecture, presentation, demonstration, experimentation, data collection, research, etc. to support MYP science curriculum, including combinations of the above and/or interdisciplinary team teaching.

FURNITURE & CASEWORK (see diagram below for sample room layouts)

Furniture	Student tables and chairs, teacher workstation with demonstration area, student lab tables, mobile storage units and bookshelves, mobile marker boards, soft seating. Recommend varying height tables/chairs/stools for standing and sitting activities.
Fixtures	Movable/flexible system of wall mounted marker boards and tack boards, projection surface
	Open frame ceiling grid for hanging displays and student projects
Fixed Casework	Lab stations (fixed portion of lab stations to include power, water, gas), safety equipment cabinet, demonstration station, durable/impervious work surfaces, built-in storage cabinets, open shelves/cubbies for student access to supplies

WINDOWS & VISION PANELS

|		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1. Two science labs per grade should be located adjacent to each other to collaborate and to share prep/storage rooms.

2. Include emergency gas shut-off, safety equipment and eye-wash station

3. Power outlets should exceed code requirements to support all lab stations and flexible technology

4. Durable/impervious floor surfaces, chemical resistant if possible

5. Recommend heat-triggered fire sensors (vs smoke-triggered)

6. Dimmable lighting controls

7. Optional: ceiling mounted power reels in center of room

8. Optional: 2 rooms per team could be able to open to make a double classroom space.

1.02   Learning Support

General Description

Learning support spaces facilitate teaching and learning for the entire student body. A variety of large and small group spaces are included to allow for flexibility of use for various needs.

MSDWT will also continue to support students with special needs in a variety of settings. The support structure, including environments, should be designed to help children feel safe while also fostering creativity, learning and self-reliance needed to address the unique needs of each student. Students often receive one-on-one attention in a close-knit environment.

Specialty Learning Studios are intended to serve the varying needs of students throughout each school. In addition to core subjects, learning studios are included to support reading and resource learning for each team, and intervention, ENL, special education, AVID and communication programs. These spaces are included within academic team areas to promote integration and streamlined access for all students when they need it. These learning environments should support smaller class sizes with various needs and should be located to be and feel part of the general school population, not segregated into a separate hallway.

As noted above, all learners should have easy access to student support spaces when needed. A self-contained learning studio is included in the program to serve students with an intensity of needs that may be difficult to accommodate in the regular learning neighborhoods. Student use of these spaces may be full-time and/or part-time, depending on specific student needs and other parameters. When not needed full-time, the self-contained/lifeskills learning studio may be scheduled as a regular classroom and is sized as such. Self-contained spaces are more specifically defined in the section labelled "Student Services and Special Education".

Program of Spaces

	Learning Support	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	**Intervention Classroom**	1	800	800	shared between 2 teams (1 per grade)
.02	Large Group Collaboration (LGI)	1	1,600	1,600	1 per grade, dividable into 2 spaces
.03	Specialty Classrooms	1	800	800	3 specialty rooms total: AVID, Communication, Flex
.04	**ENL or SpEd Room**	1	800	800	(shown in this list to suggest dispersing among teams)
.05	Small Group Rooms	3	100	300	2 per team, 1 located near ENL or Sped room
.06	Reset / Sensory Room	1	200	200	
				4,500	

Spatial Attributes

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SPACE: LARGE GROUP INSTRUCTION

Area/Department:	Academic Teams: Learning Support
	(1 LGI per grade, shared between 2 teams)
Occupants:	50-60 students, plus teachers/staff, IA's, volunteers/visitors as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Able to accommodate a single class or multiple classes, whole group, small group collaboration and individual instruction, discussion, lecture, presentation, demonstration, experimentation, data collection, research, etc. to support MYP curriculum, including combinations of the above and/or interdisciplinary team teaching.

FURNITURE & CASEWORK (see diagram below for sample room layouts)

Furniture	Student tables and chairs, teacher workstation with demonstration area, large activity/project tables (durable/impervious work surfaces on project tables), mobile storage units, mobile marker boards, stools, modular soft seating. Recommend varying height tables/chairs/stools for standing and sitting activities, mobile safety equipment cabinet, demonstration station area
Fixtures	Movable/flexible system of wall mounted marker boards and tack boards, projection surface
	Open frame ceiling grid for hanging displays and student projects
Fixed Casework	Minimize the extent of built-in casework. In general, movable is preferred

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway for supervision	N	Y
Optional:	Operable transparent wall panels to open room onto Team Commons		

OTHER / SPECIAL CONSIDERATIONS

1. Optional: This large room can be divided into 2 smaller rooms to accommodate future needs
2. Power outlets should exceed code requirements to support multiple uses and flexible technology
3. Durable/impervious floor surfaces, chemical resistive if possible
4. Recommend heat-triggered fire sensors (vs smoke-triggered)
5. Optional: ceiling mounted power reels in center of room

SPACE: SMALL GROUP ROOMS

Area/Department: Academic Teams: Learning Support

Occupants: 2-6 students, plus an adult as needed

ACTIVITIES & SPACE USAGE

Activities/Use   Small group and individual instruction, discussion, project work, pull-out services, parent conferences, meetings, testing, quiet space, etc.

FURNITURE & CASEWORK

Furniture   Small conference table and chairs

Fixtures   Marker boards and tack boards, projection surface

Fixed Casework   -

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior preferred, not necessary	N	Y
Interior	Visibility to/from commons/hallway and/or adjacent rooms	N	Y

OTHER / SPECIAL CONSIDERATIONS

1.   Coordinate mobile furniture with adjacent spaces for sharing and flexibility.
2.   These spaces may be enclosed or open to the team commons, or a combination of both
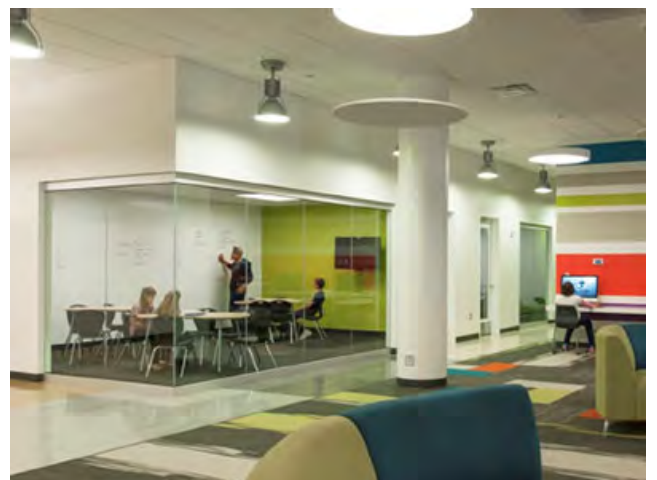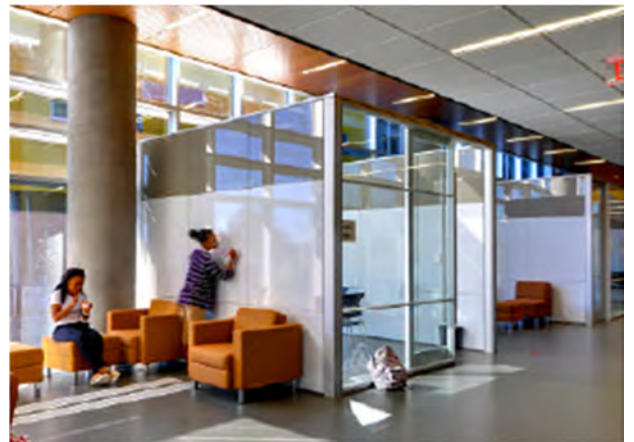
SPACE: **RESET / SENSORY ROOMS**

Area/Department:	Academic Teams: Learning Support
Occupants:	1-3 students, plus an adult as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Small group and individual use as quiet space, reset/cool-down, refocus, etc.

FURNITURE & CASEWORK

Furniture	modular soft seating, tactile/sensory items, floor mats
Fixtures	Marker board and tack board
Fixed Casework	storage cabinets (lockable)

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior preferred, not necessary	N	Y
Interior	Visibility to/from adjacent space or hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS
1. controllable light sources and light therapy such as color cubes, fiber optic lights, rope light, bubble columns, lava lamps, liquid light projectors, etc. (no fluorescent lighting)
2. aromatherapy equipment with a variety of scent options
3. include a variety of tactile opportunities such as playdoh, textured balls, tactile wall surfaces, swatches of carpets and fabrics, massagers, vibrating toys, etc.
4. auditory input products, producing a variety of soothing sounds, music or white noise
5. avoid use of fluorescent lighting

1.03　Social Commons

General Description

Social learning is a fundamental component of a child's development. Spaces for social learning are included within teams, grade levels, and for the entire school. These spaces also support collaboration and various activities, displays of student work and successes. The team commons spaces provide the physical connections to all spaces in the team clusters. Through these spaces students will also have access to lockers - storage of student belongings – and restrooms.

Common areas are intended to enhance a student's daily experience at school, providing the physical and potentially social/emotional breaks among more structured and scheduled activities.

Program of Spaces

Social Commons		Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Team Commons	2	1,000	2,000	identity, genius bar, digital screen. could connect to LGI
.02	Display Areas (digital, 2D, & 3D)	4	25	100	Include variety: Digital, 2-D, and 3-D
.03	Student Lockers	2	600	1,200	140 lockers each team, can be centralized or in hallway
.04	Student Restrooms	4	300	gross area	consider single-stall, gender neutral
				3,300	

Spatial Attributes

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SPACE: TEAM COMMONS

Area/Department: Academic Teams: Social Commons

Occupants: varies

ACTIVITIES & SPACE USAGE

Activities/Use	support of activities to supplement learning studios – such as exhibitions, whole group projects, small group collaboration, discussion groups, homework projects, peer-to-peer tutoring, parent volunteers, guest presentations, celebrations, etc.

FURNITURE & CASEWORK

Furniture	soft seating, mobile/modular project tables, chairs, tall tables/stools, movable storage units, etc. variety and mobility are key
Fixtures	movable marker boards, digital screens
Fixed Casework	casework for sink and storage, optional "genius bar" (countertop with stools), optional large retractable projection screen for all-team presentations
Display Areas	Include **DISPLAY AREAS** throughout the Team Commons area for display and celebration of student work, projects, events, etc. Display areas should accommodate digital, 2D and 3D displays.

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior are preferred	-	-
Interior	Visibility to/from adjacent learning studios/LGI	-	-

OTHER / SPECIAL CONSIDERATIONS

1. Considerations for supervision/monitoring from learning studios and/or LGI

2. Recommend connection / access to outside learning areas

3. Should be designed to allow for neighborhood "identity" and school spirit

4. Considerations for acoustical control as needed

SPACE: STUDENT LOCKERS

Area/Department:	Academic Teams: Social Commons
Occupants:	Varies

ACTIVITIES & SPACE USAGE

Activities/Use	Storage/security of individual student belongings, potentially including books, notebooks, supplies, equipment/technology, outerwear, sack lunches, etc.

FURNITURE & CASEWORK

Option 1:	Cluster lockers for each team together in one space, limit height of lockers to allow visibility and supervision throughout the space, include horizontal work surfaces on tops of lockers for additional collaboration and learning activities.
Option 2:	Locate lockers along perimeter hallway walls, coordinate locations of lockers to retain windows / visibility from studios to hallway for supervision and daylight

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior preferred, not necessary	-	-
Interior	Visibility to/from adjacent spaces	-	-

OTHER / SPECIAL CONSIDERATIONS

1. Networked clock system, WiFi, PA system speakers

2. In existing facilities with congested hallways, removing lockers from one or both sides of hallways should be considered as a strategy for increasing the width and enhancing traffic flow. In new facilities where Option 2 is preferred, design hallway widths to accommodate space for lockers as well as additional width for students accessing the lockers.

Option 1: showing lockers together in one space.

Option 2: showing lockers located along hallway walls but allowing good visibility into learning spaces.

NOTE: Images are included to illustrate various points, and are not intended to represent actual design suggestions, colors, materials or equipment.

1.04 Staff Support Spaces within Teams

General Description

For teachers and many staff, working directly with learners is only part of their daily responsibilities. Planning, organizing, administrating, researching, communicating, scheduling, planning, learning, collaborating, grading, are just a few of the tasks requiring time, space and/or equipment to facilitate teaching.

Spaces shown below are included to support various staff activities within academic team areas but outside the "classrooms". In addition to support spaces for each grade level, the overall building includes staff support spaces shared by staff for all grade levels - such as a mailroom and a staff lounge. These are listed in separately/later in this ed spec.

Program of Spaces

	Staff Support Spaces	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Science Prep/Storage Room	1	300	300	1 may shared by 2 science labs
.02	Think-Tank (Collabortion/Workroom)	1	1,000	1,000	conference area with work area, copier/printer, etc.
.03	Team Storage Rooms	2	200	400	one per team
.04	Staff Restrooms	2	250	gross area	
.05	Conference / Office	2	200	400	
				2,100	

Spatial Attributes

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SPACE: THINK TANK (Staff Collaboration/Workroom)

Area/Department:	Academic Teams: Staff Support Spaces
Occupants:	Varies (one Think Tank is shared between two teams)

ACTIVITIES & SPACE USAGE

Activities/Use	Team planning, collaboration, prep, copying/filing, private conversations, meetings, storage/security of individual belongings, etc.

FURNITURE & CASEWORK

Furniture	workstations, chairs, modular conference table, tall tables/stools, movable storage units, etc. variety and mobility are key
Fixtures	marker boards, tack boards
Fixed Casework	Optional: small kitchenette with sink and storage cabinets

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior preferred, not necessary	-	-
Interior	Visibility to/from adjacent spaces	-	-

OTHER / SPECIAL CONSIDERATIONS

1. Optional: "box" lockers for staff belongings (particularly relevant for those who don't have consistent/assigned classrooms)

2. Optional: Soft seating/lounge area within space

Note: the spaces shown are smaller than that proposed for MSDWT.

SPACE: CONFERENCE / OFFICE

Area/Department: Academic Teams: Staff Support Spaces

(TWO conf/offices shared between two teams)

Occupants: Varies

ACTIVITIES & SPACE USAGE

Activities/Use   The uses of these rooms are intended to be flexible to accommodate either office staff or small conference activities. Since there are two of these rooms per grade level, it is expected that there could be one of each use, shared by both teams. However, 2 conference rooms may be needed, or 2 offices may be preferred, so each grade level can assign the rooms as they choose.

Conference Room: Small group planning, collaboration, prep, private conversations, meetings, private conversations, etc.

Office: typical office / administrative functions. This could be used by main office staff, or by team teaching staff, or by special programs staff as needed.

FURNITURE & CASEWORK

Furniture   1 mobile desk/workstation and task chair, small conference table and 4-6 chairs, mobile storage units

Fixtures   marker boards, tack boards

Fixed Casework   minimize the extent of fixed elements in these rooms – to promote flexible use as needed.

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior preferred, not necessary	-	-
Interior	Visibility to/from adjacent spaces	-	-

OTHER / SPECIAL CONSIDERATIONS

1.   Sound attenuation to support confidential conversations

2.   -
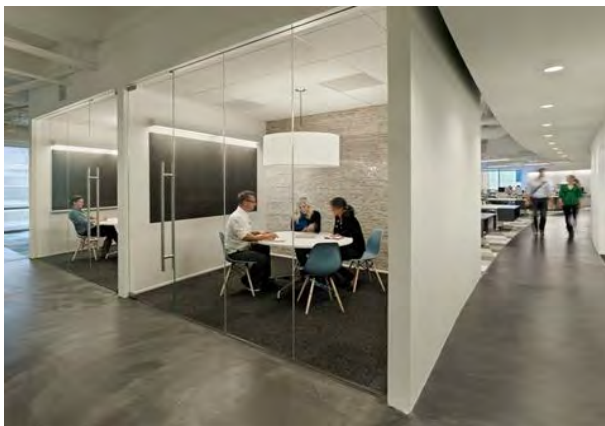
2.00 Exploratory Commons

Exploratory programs enhance student learning by offering opportunities for a well-rounded educational experience. Activity-based programs supplement core classroom activities with additional hands-on activities for students to learn by doing. The following spaces are planned to support the IB Programme and activities-based programs at MSDWT middle schools.

Spatial Attributes

Detailed information is intended to document user needs and assist the design team in accommodating them. Interior attributes for key spaces planned for MSDWT middle schools supplement the following general notes:

Wherever category entries are blank or designated with the symbol "-" no specific requirements beyond applicable codes, regulations and standards are defined.

This information should be used in conjunction with any MSDWT standards and guidelines such as those for planning, technology, design, and building performance, and with all applicable codes and regulations, including ADA, and is not intended to supersede any such requirements. Energy-conscious and sustainability measures should also be considered.

Where guidelines noted herein are in conflict with these requirements, the applicable guidelines, codes and regulations will govern. Where guidelines noted herein are not planned to be incorporated into the building design, the design team should inform the MSDWT Project Representative to discuss and/or determine acceptable alternatives.

Note that spaces such as restrooms and other gross areas which are governed by codes and other standards are included only when such detail is above and beyond these general requirements. Some gross area spaces are listed (but not necessarily detailed) simply so that they are not forgotten during the planning and design processes.

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed above, in the introduction to this section of the ed spec.

2.01 Music

General Description

Music in the MYP gives students access to musical experiences that allow for the development of thinking skills, intuitive skills, practical abilities, communication and the ability to relate to others. Engagement with existing and emerging music from the local community and from around the world allows students to understand the significance of music to the cultures of the world and, by engaging in practical work, to develop understanding of how the act of making music is a significant and universal aspect of human expression.

Middle school student experience music in many ways: by reading, writing, arranging, speaking, chanting, singing, playing, moving, and creating. The basic elements learned in middle school provide a foundation for continuing development in middle school as students sing, play, compose, improvise, and evaluate music and musical performances.

Separate spaces for band, orchestra and choir are included. In addition a lab for electronic music, such as keyboarding, composing and recording is included. Rehearsal spaces are supplemented with storage spaces for instruments and uniforms, practice rooms and office space. Display areas are included for program awards and acolades as well as student work. These should accommodate 2D, 3D and digital displays, and be located with good visibility to common areas of the school.

Program of Spaces

Music	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 **Band Room**	1	2,000	2,000	flat floor, 16-24' ceilings, direct access to inst. stor.
.02 **Choir Music Room**	1	2,000	2,000	mirrors on 1 wall, curtain, drinking fountain
.03 **Orchestra Room**	1	2,000	2,000	16'-24' ceilings, add'l instrument storage in room
.04 Electronic Sound/Music Tech.	1	900	900	Keyboarding, Composing, Mixing, Recording
.06 Practice Rooms	6	75	450	2 for each program
.05 Office / Library or Repair / Storage	2	150	300	2 spaces total for 3-4 staff. incl. copier, high density music storage
.07 Band Instrument Storage	1	450	450	approx 4sf/instrument, incl. sink
.08 Orchestra Instrument Storage	1	450	450	+/- 4sf/instrument, incl. humidity control
.09 Uniform Storage	1	250	250	
.10 Robe Storage	1	100	100	
.11 Display Areas (digital, 2D, & 3D)	5	20	100	
.12 Student Instrument Lockers	50	2	100	hallway access
			9,100	

Adjacency Goals
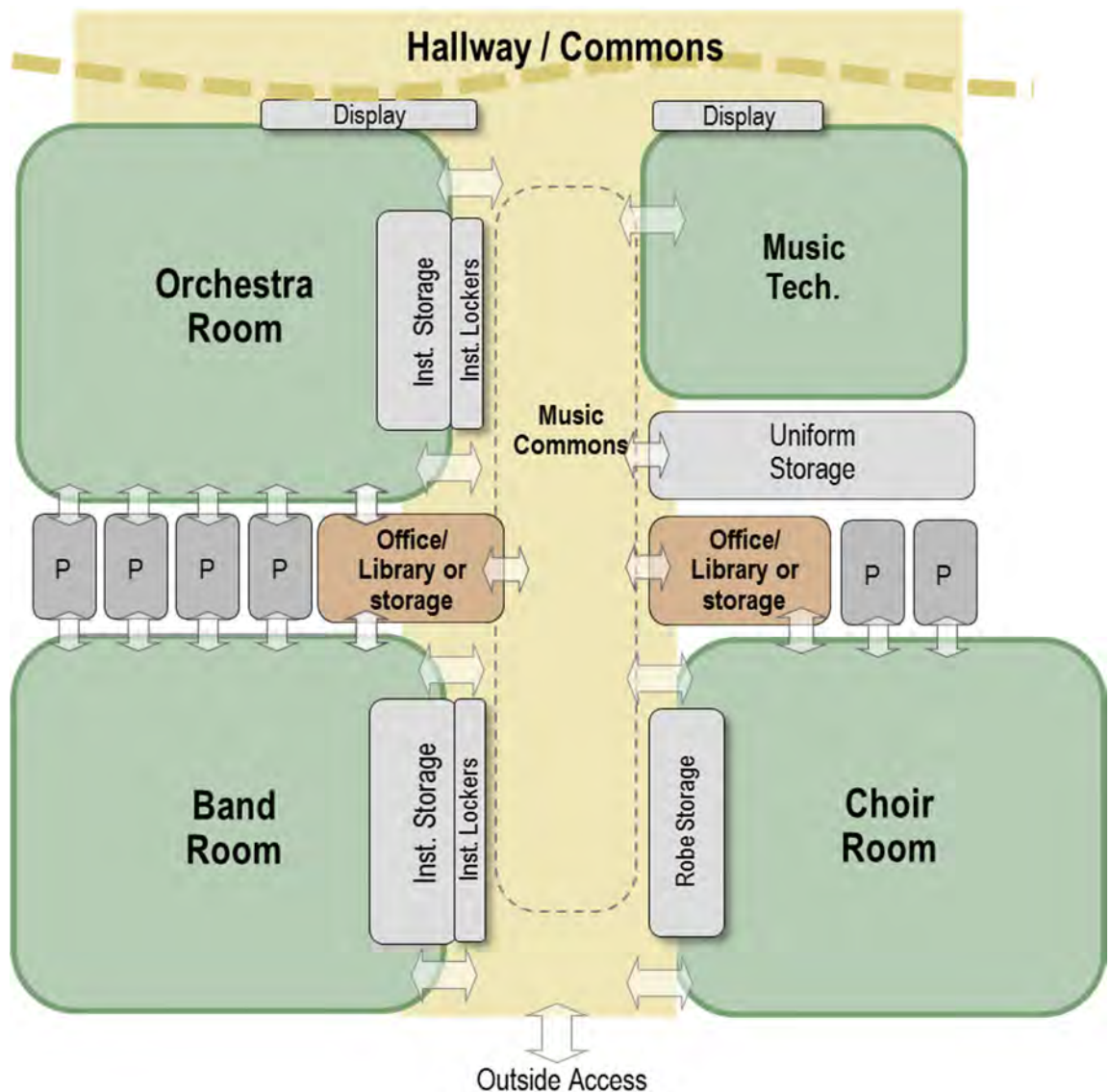
Spatial Attributes

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SPACE: Band Room

Area/Department: Exploratory Commons: Music

Occupants: 25-100 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, lecture, presentation, recording, etc. to support music curriculum, performance, rehearsals, including combinations of the above and/or team teaching.

FURNITURE & CASEWORK

Furniture	Student music stands and posture chairs, teacher station, mobile storage units, mobile marker boards, movable risers, instrument repair work table
Fixtures	Marker boards and tack boards, projection surface
Fixed Casework	Instrument storage units, countertop with sink for flushing instruments

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. acoustical isolation from adjacent spaces
2. a drinking fountain is recommended
3. easy access to performance spaces / stage
4. adjacent to secure storage for instruments, equipment and materials
5. quantities of chairs, risers, and music stands to accommodate the largest class
6. adjacent to practice rooms with visibility for supervision. One practice room large enough for percussion
7. capacity to record

SPACE: **Choir Room**

Area/Department: Exploratory Commons: Music

Occupants: 25-100 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use: Whole group, small group and individual instruction, discussion, lecture, presentation, recording, etc. to support music curriculum, performance, rehearsals, including combinations of the above and/or team teaching.

FURNITURE & CASEWORK

Furniture: Student music stands and posture chairs, teacher station with sound control connectivity, mobile storage units, mobile marker boards, flat floor with 4x8 standard movable risers (4 high and 4 wide)

Fixtures: Marker boards and tack boards, projection surface

Fixed Casework: Instrument storage units, wall mirror at front of room with ability to cover when not in use (cover via sliding marker boards is preferred, curtains also possible).

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. acoustical isolation from adjacent spaces

2. a drinking fountain is recommended

3. easy access to performance spaces / stage

4. adjacent to secure storage for instruments, equipment and materials

5. quantities of chairs, risers, and music stands to accommodate the largest class

6. adjacent to practice rooms with visibility for supervision

7. capacity to record
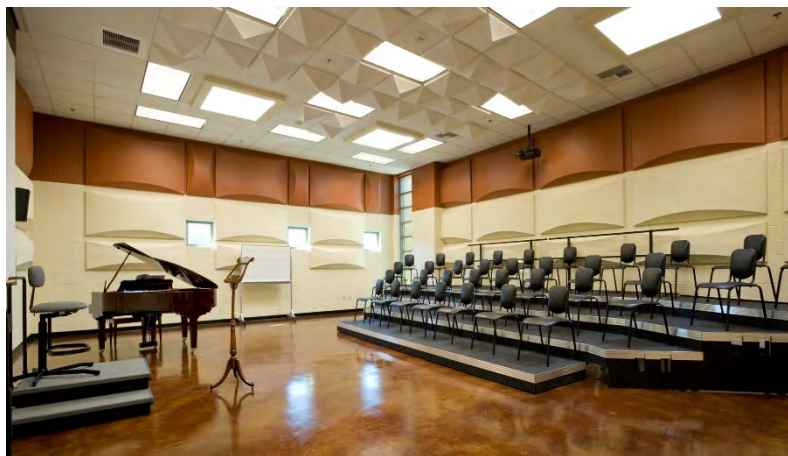
SPACE: Orchestra Room

Area/Department:	Exploratory Commons: Music
Occupants:	25-100 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, lecture, presentation, recording, etc. to support music curriculum, performance, rehearsals, including combinations of the above and/or team teaching.

FURNITURE & CASEWORK

Furniture	Student music stands and posture chairs, teacher station, mobile storage units, mobile marker boards, movable risers, cello racks
Fixtures	Marker boards and tack boards, projection surface
Fixed Casework	Instrument storage units

WINDOWS & VISION PANELS

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. acoustical isolation from adjacent spaces
2. easy access to performance spaces / stage
3. adjacent to secure storage for instruments, equipment and materials
4. quantities of chairs, risers, and music stands to accommodate the largest class
5. adjacent to practice rooms with visibility for supervision
6. capacity to record

SPACE: Electronic Music   (Music Tech)

Area/Department: Exploratory Commons: Music

Occupants: 25-30 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, lecture, presentation, keyboarding, composing, collaborating, recording, etc. to support music curriculum, including combinations of the above and/or team teaching.

FURNITURE & CASEWORK

Furniture	Student computer workstations, including piano keyboards, teacher station, mobile storage units, mobile marker boards, equipment carts
Fixtures	Marker boards and tack boards, projection surface
Fixed Casework	-

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. acoustical isolation from adjacent spaces

2. ability to project player keyboard for demonstrations and visual instruction

3. Guided Education Controller (GEC) system with mic'd headphones (or equivalent)

2.02 World Languages

General Description

The study of additional languages in the Middle Years Programme (MYP) provides students with the opportunity to develop insights into the features, processes and craft of language and the concept of culture, and to realize that there are diverse ways of living, viewing and behaving in the world. The ability to communicate in a variety of modes, in more than one language, is essential to the concept of an international education. Students are given the opportunity to develop their language skills to their full potential, as well as the possibility of progressing through various phases over the course of the MYP.

Program of Spaces

World Languages	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 **Learning Studios**	5	900	4,500	ability to open studios into commons
.02 Language Lab (optional)	1	400	400	(optional, if space allows) can be open area in/near commons
.03 Small Group Rooms	2	100	200	visibility for supervision
.04 Storage	1	100	100	
.05 Teacher Think-Tank	1	300	300	Teacher work area, collaboration, copier, etc.
.06 Language Commons			-	circulation space among WL learning studios, include displays/graphics
			5,500	

Adjacency Goals
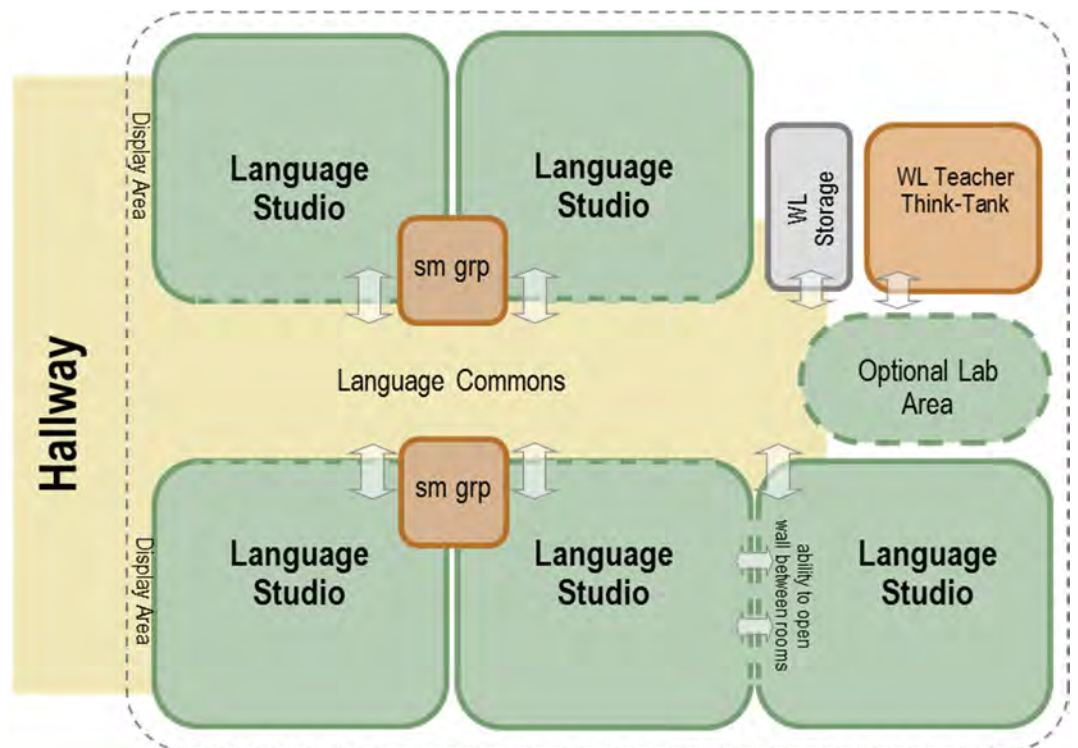
Spatial Attributes

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SPACE: LANGUAGE STUDIO

Area/Department:	Exploratory Commons: World Languages
Occupants:	25-35 Students, plus teachers/staff, IA's, visitors/volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, lecture, presentation, acting, dancing, role-playing, etc. to support World Languages curriculum

FURNITURE & CASEWORK

Furniture	Student tables and chairs, teacher workstation, mobile storage units and bookshelves, mobile marker boards, standing-height tables/stools
Fixtures	Marker boards and tack boards, presentation screen
Fixed Casework	-

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1. Good acoustical separation from adjacent spaces

2. Need class sets of language-learning technology (i.e. computers, headphones with microphones) in lieu of a dedicated language lab – otherwise, a shared language lab is needed

3. Preferred: multiple options for student furniture, ranging from typical desks/chairs to soft seating and kinesthetic options

2.03 Art and Projects

General Description

In the IB Middle Years Programme (MYP), students develop through creating, performing and presenting arts in ways that engage and convey feelings, experiences and ideas. It is through this practice that students acquire new skills and master those skills developed in prior learning. Students have opportunities to function as artists, as well as learners of the arts.

Arts stimulate young imaginations, challenge perceptions and develop creative and analytical skills. Involvement in the arts encourages students to understand the arts in context and the cultural histories of artworks, supporting the development of an inquiring and empathetic world view. Arts challenge and enrich personal identity and build awareness of the aesthetic in a real-world context.

The art program provides a standards based curriculum that encourages students to create works of art in two and three-dimensional modes to develop their capacity for innovation, enrichment and creativity and where applicable, to integrate with other content areas. Students explore many fundamental techniques with an emphasis on developing and enhancing skills related to group interaction, selfesteem, reflection, decision making and innovative thinking as a means of self-expression through art. Natural daylighting and views are desirable features in the Art Rooms.

While both art rooms should be able to support both 2D and 3D projects, one lab should be designated for more dusty/messy processes and materials such as working with clay, and the other should be maintained for less messy processes such as drawing and painting.

As an expanding definition of teaching and learning and practicing creativity, art also includes design, graphic arts, digital design and computer aided design. A Design Lab is included with the intention of serving students from both art rooms, and should be located with easy access to both. Separations (walls) between the Design Lab and the Art Labs should allow for transparency and supervision while also providing a relatively "clean" environment for technology such as computers and 3D printers.

An "Applied Learning Lab" is included to support students' natural interests and curiosity in exploring how things work. Currently middle schools offer coding classes and other STEM activities which this space is defined to support. The Applied Learning Lab is the size of two classrooms, and can easily be divided into two spaces if needed through the addition or expansion of hands-on and applied learning programs and activities.

A central open space among these labs should be designed as an exhibition space, a gallery to exhibit, critique and celebrate student creativity.

Program of Spaces

Art & Projects	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 **Art Labs**	2	1,200	2,400	3 sinks (min) per lab
.02 Design Lab (Computers)	1	900	900	visibility for supervision, 3D printers
.03 **Applied Learning Lab** (dividable)	1	1,800	1,800	Coding/Computer Tech (could be maker space in future)
.04 Kiln Room / Clay Storage	1	150	150	
.05 Exhibition / Display Areas	1	250	250	"gallery" space, could be located near/in commons
.06 Supply & Project Storage	4	150	600	
.07 Shared Office / Workroom	1	200	200	art resources, private phone calls, planning, etc.
			6,300	

Adjacency Goals
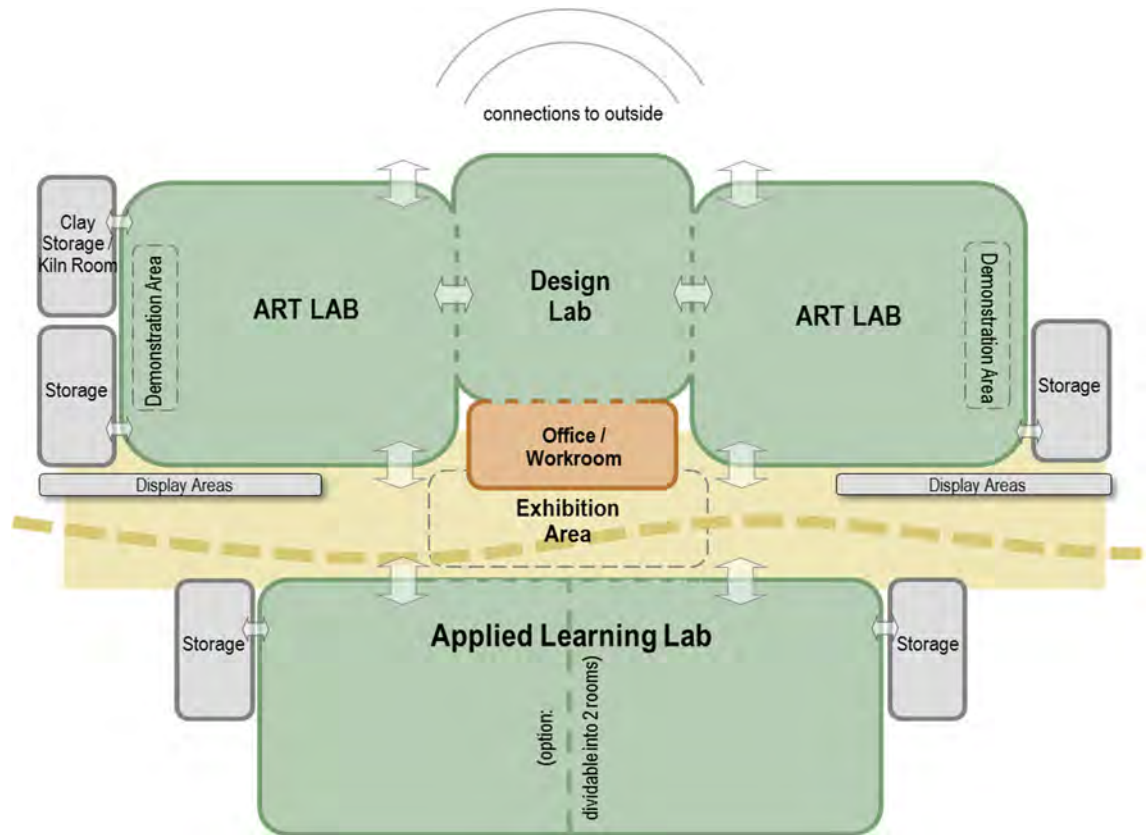
Spatial Attributes

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SPACE: ART LAB

Area/Department: Exploratory Commons: Art & Projects
Occupants: 25-30 Students, plus teachers/staff IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use   Whole group, small group and individual instruction, discussion, presentation, drawing, painting, sculpting, creating, etc. to support Visual Arts curriculum, including combinations of the above and/or cross-curricular team teaching.

FURNITURE & CASEWORK

Furniture   Student work tables and stools, teacher workstation, mobile storage units and racks, large open shelving units for in-progress student projects, mobile marker boards, easels

Fixtures   Marker boards and tack boards

Fixed Casework   storage cabinets at perimeter of room, display cases (visible to hallway), oversized sinks for cleanup (3 minimum)

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior (North preferred)	preferred	Y
Interior	Visibility to/from hallway	-	N

OTHER / SPECIAL CONSIDERATIONS

1.   Visibility into Art Lab from hallway to reinforce "Learning on Display"

2.   Connection to outside art learning area is desired (optional)

3.   Adjacent to art supply storage rooms

4.   All finishes to be durable and easily cleaned (no carpet), floor drain if possible

5.   Optional: overhead power reels in center of room

SPACE: DESIGN LAB (Computers)

Area/Department: Exploratory Commons: Art & Projects
Occupants: up to 30 Students, plus teachers/staff IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Whole group, small group and individual instruction, discussion, presentation, digital and computer-based art, etc. to support Art Labs, Applied Learning Lab and IB portfolios

FURNITURE & CASEWORK

Furniture	Student work stations and task chairs, mobile storage units, mobile marker boards, easels, printer carts, equipment carts, 3D printers
Fixtures	Marker boards and tack boards, projection screen
Fixed Casework	for flexibility of use and arrangement, minimize extent of fixed items

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior (preferred, not necessary)	N	Y
Interior	Visibility to/from adjacent spaces	N	N

OTHER / SPECIAL CONSIDERATIONS

1. Visibility into both Art Labs for supervision and collaboration

2. Lockable room for security of technology and equipment

SPACE: APPLIED LEARNING LAB / CODING

Area/Department: Exploratory Commons: Art & Projects

Occupants: Students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use   Whole group, small group and individual instruction with a focus on hands-on project work, "Full-class collaboration" – all students exploring the same project individually or in small groups, simultaneously.

FURNITURE & CASEWORK

Furniture   student work tables, computer workstations, chairs/stools, mobile storage units, standing desk options for students, 2 teacher "command stations" (podium, computer, stool)

Fixtures   marker boards, tack surfaces, safety equipment cabinets, multiple projection surfaces

Fixed Casework   student project lockers, project sinks for student use

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1.   Locate near Art Labs for collaborative and mixed media opportunities

2.   Visibility into Applied Learning Lab from hallway to reinforce "Learning on Display"

3.   Room should be able to be divided into two rooms for computer and coding classes

4.   Dimmable lighting

5.   Locate with easy access for tech support

2.02 PE / Health / Wellness

General Description

In the IB Middle Years Programme, physical and health education empowers students to understand and appreciate the value of being physically active and to develop the motivation for making healthy life choices. Physical and health education focuses on both learning about and learning through physical activity.

Physical and health education courses foster the development of knowledge, skills and attitudes that will contribute to a student's balanced and healthy lifestyle. Through opportunities for active learning, courses in this subject group embody and promote the holistic nature of well-being.

Through physical and health education, students can learn to appreciate and respect the ideas of others, and develop effective collaboration and communication skills.

This subject area also offers many opportunities to build positive interpersonal relationships that can help students to develop a sense of social responsibility.

Program of Spaces

PE / Health	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 **Gymnasium**	1	8,000	8,000	2 TS, divider curtain, bleachers for 1,500, ht for VB
.02 Retractable Bleacher Seating	2	150	300	floor area in Gym for stacked/retracted bleachers
.03 Fitness/Weight Room	1	3,000	3,000	visibility to gymnasium if possible
.04 Health Classroom	1	900	900	visibility to fitness/weight room
.05 **Aux Gym** (with full court)	1	5,000	5,000	adjacent to fitness/weight room (ALT: include a small stage)
.06 **PE Activity Space**	1	3,000	3,000	Aerobics/Dance/Wrestling, open floor (minimal equipment)
.07 Student Locker Rooms	2	1,200	2,400	box lockers,(showers/toilets per code)
.08 Student Private Locker/Dressing Area	2	200	400	changing area for students with physical challenges
.09 PE Staff Offices	2	300	600	for 3 PE staff each
.10 Coach Offices	2	250	500	
.11 Shared Staff Locker Room	1	200	200	box lockers, easy access for all building staff
.12 Staff Shower / Changing Rooms	4	75	300	multiple rooms shared by all staff, PE staff, coaches, etc.
.13 PE/Athletics Storage	3	300	900	May be combined, one room accessible to outdoor fields
.14 PE Uniform Storage	1	300	300	
.15 Laundry	1	100	100	
.16 Concessions	1	200	200	
.17 Outdoor Teaching Stations	4	outdoor areas		field/track, practice field, tennis, BB/SB diamonds, Basketball hoops
.18 Display Areas (digital, 2D, & 3D)		in hallway/commons		
.19 "Public" Restrooms		gross area		easy access for public use during events
			26,100	

Adjacency Goals
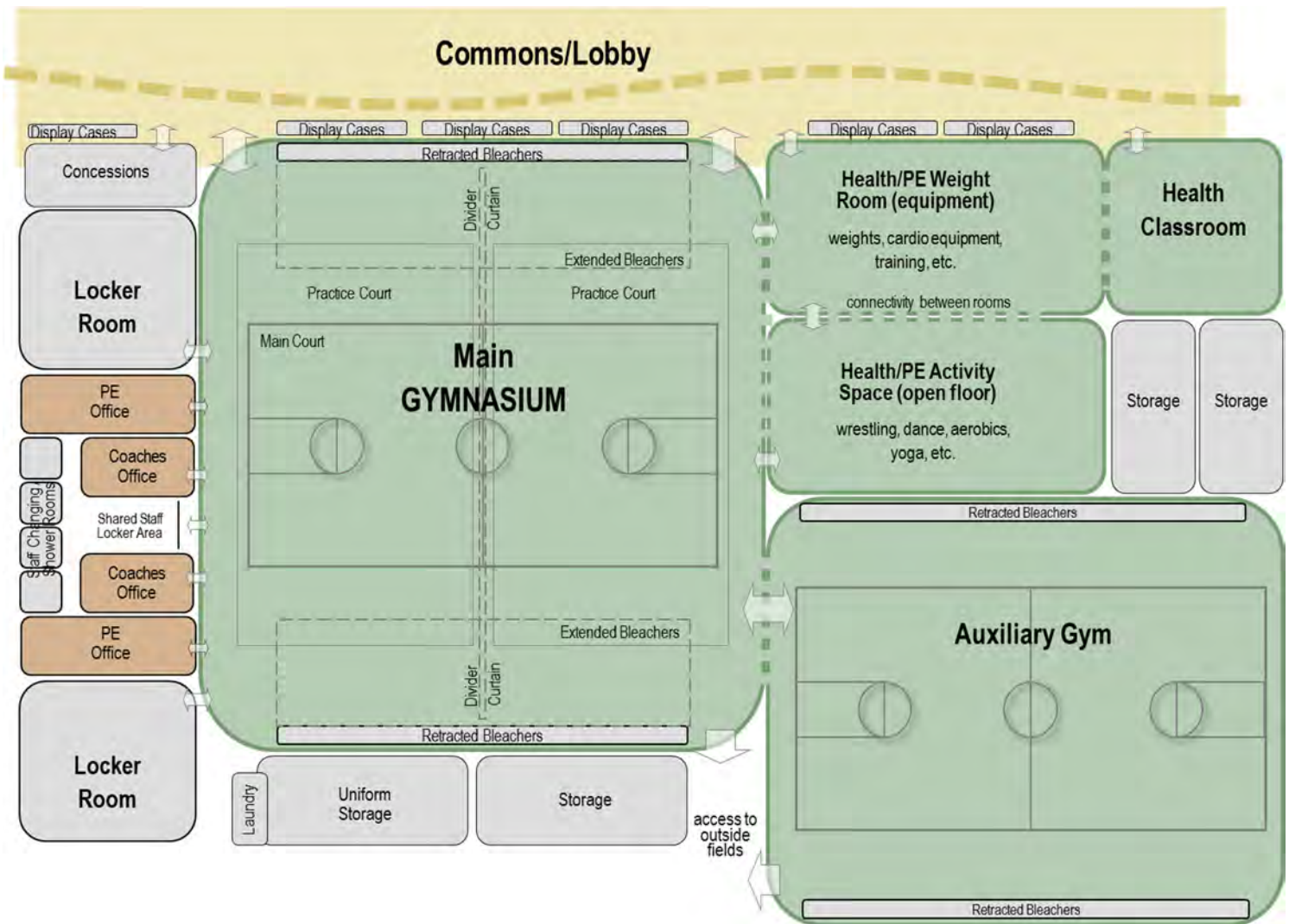
Commons/Lobby

Display Cases — Concessions

Display Cases | Display Cases | Display Cases

Retracted Bleachers

Divider Curtain

Locker Room

Practice Court — Extended Bleachers — Practice Court

PE Office

Main Court

Coaches Office

Main GYMNASIUM

Staff Changing Shower Rooms

Shared Staff Locker Area

Coaches Office

PE Office

Extended Bleachers

Divider Curtain

Retracted Bleachers

Locker Room

Laundry | Uniform Storage | Storage

access to outside fields

Display Cases | Display Cases

Health/PE Weight Room (equipment)

weights, cardio equipment, training, etc.

connectivity between rooms

Health Classroom

Health/PE Activity Space (open floor)

wrestling, dance, aerobics, yoga, etc.

Storage | Storage

Retracted Bleachers

Auxiliary Gym

Retracted Bleachers

Spatial Attributes

Images and photographs are offered as examples of similar spaces in other schools. They are not intended to be direct representations of the designs for MSDWT, but instead offer some insight into the intent of each space.

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed in the introduction to this section of the ed spec.

SPACE: MAIN GYMNASIUM

Area/Department:	Physical Education / Health
Occupants:	25-100 students, plus teachers/staff, IA's, volunteers as needed
	Events/performances: spectator seating for 1,500

ACTIVITIES & SPACE USAGE

Activities/Use	Can serve as 2+ teaching stations as needed for whole group, small group and individual health/fitness and athletics programs (such as basketball, volleyball, etc.), games, exercises, practices, drills, presentations, assemblies, rallies, performances, after school programs, and informal student activities

FURNITURE & CASEWORK

Furniture	mobile marker boards, mobile storage units
Fixtures	Marker boards and tack boards, projection surface
Fixed Equipment	retractable bleacher seating on both sides, divider curtain between cross-courts

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1. As a teaching station, the gym should include the same technology as a classroom for instruction.
2. sound system / PA
3. drinking fountains
4. easy access from common areas for after-hours use
5. near PE offices, easy access to outdoor fitness/sports areas
6. ceiling height to accommodate volleyball
7. include inspirational colors, logos and other graphics

SPACE: FITNESS / WEIGHT ROOM

Area/Department: Physical Education / Health

Occupants: 25-35 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	student and staff use of fitness apparatus and equipment such as cardio and weight machines, free weights, stretching, demonstrations, progress charting, etc. Use by PE, sports/training and staff fitness

FURNITURE & CASEWORK

Furniture	mobile marker boards, mobile storage units, standing tables, 2-4 stools
Fixtures	Marker boards and tack boards, projection surface, wall mirrors, floor mats
Fixed Equipment	mobile / movable fitness and weight equipment, ballet barre on one wall

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	Y	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. As a teaching station, this room should include the same technology as a classroom for instruction.
2. sound system / PA, speakers and controls
3. Drinking fountain
4. easy access for after hours use

SPACE: HEALTH CLASSROOM

Area/Department: Physical Education / Health

Occupants: 25-30 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use   Whole group, small group and individual instruction, discussion, lecture, presentation, demonstration, etc. to support MYP curriculum, including combinations of the above and/or team teaching

FURNITURE & CASEWORK (see diagram below for sample room layouts)

Furniture   Student tables and chairs, teacher workstation, mobile storage units and bookshelves, mobile marker boards. Recommend varying height tables/chairs/stools for standing and sitting activities.

Fixtures   Movable/flexible system of wall mounted marker boards and tack boards, projection surface

Fixed Casework   Minimize the extent of built-in casework, movable is preferred

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1.   Locate with easy access to other PE spaces

2.   -

SPACE: AUXILIARY GYMNASIUM

Area/Department: Physical Education / Health

Occupants: 25-35 students, plus teachers/staff, IA's, volunteers as needed

Events/performances: spectator seating for 500

ACTIVITIES & SPACE USAGE

Activities/Use   whole group, small group and individual health/fitness and athletics programs (such as basketball, volleyball, wrestling, etc.), games, exercises, practices, drills, presentations, performances, after school programs, and informal student activities

FURNITURE & CASEWORK

Furniture   mobile marker boards, mobile storage units

Fixtures   Marker boards and tack boards, projection surface

Fixed Equipment   retractable bleacher seating on one or both sides

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1.   As a teaching station, the aux. gym should include the same technology as a classroom for instruction.

2.   sound system / PA

3.   Drinking fountains

4.   easy access from common areas, outdoor fitness areas

5.   controlled access for after-hours use

SPACE: PE ACTIVITY SPACE

Area/Department: Physical Education / Health

Occupants: 25-75 students, plus teachers/staff, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use — open-floor space to support a variety of activities such as aerobics, yoga, dance, wrestling, large-group and team teaching, etc. can be used as a health classroom as needed for whole group, small group and individual health/fitness, PE and athletics programs, games, exercises, practices, drills, presentations, after school programs, informal student activities, etc.

FURNITURE & CASEWORK

Furniture — mobile marker boards, mobile storage units

Fixtures — marker boards and tack boards, projection surface

Fixed Equipment — minimize amount of fixed equipment to promote flexibility of use

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	Y	Y
Interior	Visibility to/from hallway, Fitness Room and/or Gym	N	N

OTHER / SPECIAL CONSIDERATIONS

1. As a teaching station, the gym should include the same technology as a classroom for instruction.
2. sound system / PA
3. Drinking fountains
4. easy access to/from Fitness/Weight room gyms and locker rooms

3.00 School Community Commons

General Description

MSDWT schools can be the centers of their communities serving not only learners but also their families, friends, neighbors and local businesses. Middle schools should support community engagement, inviting appropriate activities both during and after schools hours within a safe, secure and welcoming environment. School facilities offer opportunities for positive first impressions, pride and community spirit.

This category includes spaces that facilitate student learning and activities, community engagement, dining and nutrition, performances, and sustaining positive school culture.

A central student commons supports student activities and clubs and should be designed as a place for before, during and after school activities. As a hub, the commons should be the active jumping-off place for access to other components of the building. It should be designed with color and ample school spirit, multiple displays that celebrate student creativity, comfortable and flexible furniture, and durable finishes.

The Learning Commons (media center) should be the "heart" of the school, located with easy access to all academic teams. Multiple activities take place in this inspiring, pleasant and flexible space.

Performing is a vital activity for any community of learners. Performance space is included to serve a variery of activities and performances including music, theater, lectures, presentations, and the like. Performance spaces should be located with easy access to music spaces, and easy access to art spaces may facilitate design and construction of props and sets.

Food services are provided through the Dining Commons spaces, including food services kitchen and associated support spaces. MSDWT middle schools currently offer three lunch periods, accommodating roughly 1/3 of the schools student population each. Furniture should include a variety of options for students to choose, while also being flexible and easily moved when an alternate function requires use of the open dining space.

Wherever possible, the dining commons space should be designed to be used as audience audience seating for performance. This dictates that the performance stage be connected to the dining commons in some way. Diagrams are offered below to illustrate various options for the configuration of these spaces.

Spatial Attributes

Detailed information is intended to document user needs and assist the design team in accommodating them. Interior attributes for key spaces planned for MSDWT middle schools supplement the following general notes:

Wherever category entries are blank or designated with the symbol "-" no specific requirements beyond applicable codes, regulations and standards are defined.

This information should be used in conjunction with any MSDWT standards and guidelines such as those for planning, technology, design, and building performance, and with all applicable codes and regulations, including ADA, and is not intended to supersede any such requirements. Energy-conscious and sustainability measures should also be considered.

Where guidelines noted herein are in conflict with these requirements, the applicable guidelines, codes and regulations will govern. Where guidelines noted herein are not planned to be incorporated into the building design, the design team should inform the MSDWT Project Representative to discuss and/or determine acceptable alternatives.

Note that spaces such as restrooms and other gross areas which are governed by codes and other standards are included only when such detail is above and beyond these general requirements. Some gross area spaces are listed (but not necessarily detailed) simply so that they are not forgotten during the planning and design processes.

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed above, in the introduction to this section of the ed spec.

3.01 School Commons

MSDWT middle schools should make a lasting and positive impact on both occupants and visitors alike. The school commons should be designed for a positive impression while alse serving as a hub of the school, a prefunction for events, and a gathering space for learners. Good wayfinding through the rest of the building is estblished in the commons, and the dynamic and thoughtful activities of learners should be easily seen from and within these spaces.

A "welcome center" is included to support parents and visitors to the school while also adhering to safety and security protocols. It is recommended that "public" restrooms are accessible from the commons to support variety of activities and events in the school both during and after school hours.

To support after school activities and clubs, a "club-hub" will serve as a centralized area for student participation in clubs and other activities – without disrputing teaching spaces or classrooms. It is expected that clubs abd activities will also have access to and use the shared central commons area for larger activities needing more space.

To support intermittent activities offered at the school, such as Book Fair, an unassigned office space is located near the commons area. This office can be used to organize and administer activities that are temporarily within the school. A storage room for the commons will add flexibility to move furniture and equipment and use the space in a variety of ways.

Additional functions that should be located with easy access for everyone include the Bookstore, activities coordinator office and storage rooms.

Program of Spaces

School Commons	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 Central Commons	1	3,000	3,000	lobby / prefunction (space in addition to gross area)
.02 Community Commons / Welcome Center	1	500	500	large conf. room, Parent Ed room
.03 Welcome Center Kitchenette	1	50	50	coffee station
.04 Bookstore	1	200	200	Include space for lockable storage
.05 Club Hub / Activities / Group Space	1	600	600	
.06 Club Hub Storage Closet	1	200	200	
.07 Activities Coordinator	1	150	150	Include space for lockable storage
.08 Unassigned Office: Temporary Activities	4	25	100	short term events and activities such s Book Fair, etc.
.09 Student Work Display Areas	4	25	100	
.10 Information Display Areas	4	25	100	
.11 "Public" Restrooms	TBD		gross area	
			5,000	

Adjacency Goals
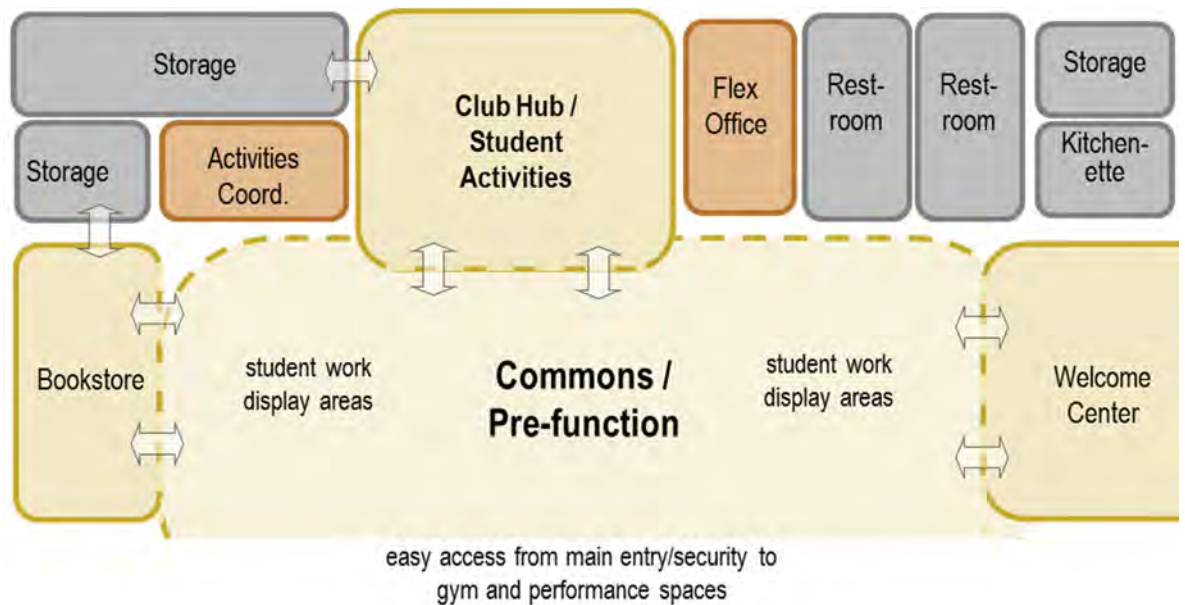
easy access from main entry/security to
gym and performance spaces

Spatial Attributes

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed in an earlier section of this ed spec.

Images and photographs are offered as examples of similar spaces in other schools. They are not intended to be direct representations of the designs for MSDWT, but instead offer some insight into the intent of each space.

SPACE: CENTRAL LOBBY / COMMONS

Area/Department: Community Commons: School Commons

Occupants: varies

ACTIVITIES & SPACE USAGE

Activities/Use Multi-function lobby commons function, high impact, dynamic, memorable space. Pre-function and/or overflow for large activities and events

FURNITURE & CASEWORK

Furniture lounge furniture, benches
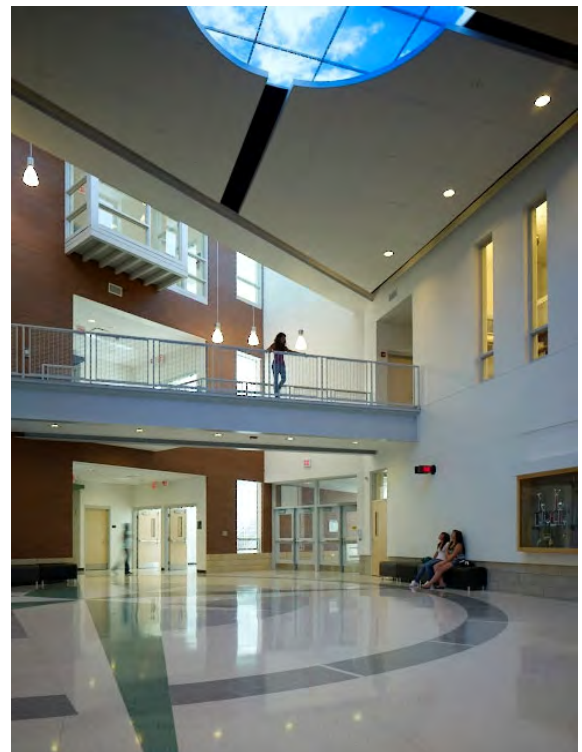
Fixtures display areas (cases, tack, digital)

Fixed Casework -

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	TBD
Interior	Visibility to/from adjacent spaces	N	N

OTHER / SPECIAL CONSIDERATIONS

1. durable finishes

2. color, graphics, school spirit, wayfinding

3. zoned controls for after-hours use
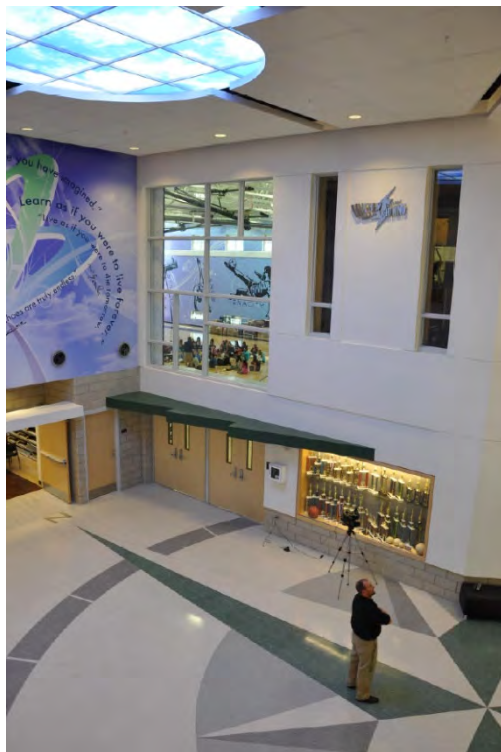
SPACE: COMMUNITY/PARENT WELCOME CENTER

Area/Department:	Community Commons: School Commons
Occupants:	varies

ACTIVITIES & SPACE USAGE

Activities/Use	Space for PTO and parent/community volunteers, partnerships, etc.

FURNITURE & CASEWORK

Furniture	modular/mobile conference table and chairs
Fixtures	marker and tack boards, information/pamphlet kiosk
Fixed Casework	kitchenette alcove to include base cabinet with sink, small fridge, microwave

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	Y

OTHER / SPECIAL CONSIDERATIONS

1. access to central commons space
2. access through security vestibule
3. able to be secured from rest of school for after hours use
4. kitchenette/coffee station should be an alcove within the space

SPACE: **BOOKSTORE**

Area/Department: Community Commons: School Commons
Occupants: varies

ACTIVITIES & SPACE USAGE

Activities/Use   space for display and sale of school merchandise, lockable area for stock

FURNITURE & CASEWORK

Furniture   display and stock shelving, PoS workstation, stools, step ladder

Fixtures   marker and tack boards, information board

Fixed Casework   transaction counter, display cases

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	-	-	-
Interior	Visibility to/from commons	Y	Y

OTHER / SPECIAL CONSIDERATIONS

1.   access to central commons space, could be a walk-in space or a transaction counter opening to the commons with a security grille as needed.
2.   signage / advertising
3.   able to be secured (but maintain display of merchandise) when not open for business
4.   lockable storage with safe

SPACE: CLUB HUB

Area/Department:	Community Commons: School Commons
Occupants:	varies

ACTIVITIES & SPACE USAGE

Activities/Use	space for clubs, activities and small groups, storage of supplies and equipment used by clubs, intended to be used in conjunction with the open space of the commons area

FURNITURE & CASEWORK

Furniture	lockable mobile storage cabinets, stacking/folding chairs and tables, movable marker boards
Fixtures	information board
Fixed Casework	-

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	-	-	-
Interior	Visibility to/from commons	Y	Y

OTHER / SPECIAL CONSIDERATIONS

1. opens to central commons space (possibly via overhead door, or operable partition) to allow for activities to extend into commons as needed

2. furniture and storage units should be easily movable to commons for use by multiple clubs/activities simultaneously

3.02 Learning Commons

General Description

The heart of a middle school is the Learning Commons. More than a traditional library, it is a dynamic space that is able to serve multiple functions simultaneously. As a hub of activity, the Learning Commons should be visible, centrally located and easily accessible from the school's commons areas and all academic teams. Large and small group work should be supported, and access to multiple forms of media should be easily available.

Various areas should be provided to accommodate small group work, confidential meetings and other activities needing acoustical separation. The Learning Commons should include a large open area for student gatherings and community events. All furniture should be mobile and flexible to accommodate various activities and groupings.

The learning commons should be a technology-rich space with robust wifi connectivity, multiple screens (a combination of projection, monitors, and interactive whiteboards). Technology carts and charging stations should make mobile technology readily available for students and staff. Technology support staff should be connected to the learning commons to offer support through training and general tech help. A digital recording area is proposed to support student productions and broadcasts.

The large space of the learning commons is intended to facilitate a variety of activities. Locating and designing this space with the ability to open up to the school commons area can increase its size as needed to accommodate various group needs throughout the day as well as after school hours. Furniture should include a variety of structured and soft seating, all easily movable to support various configurations. Additionally, opening the Learning Commons onto an outdoor reading area is desired and should be included if possible.

A book return should be accessible from the hallway and located near the circulation desk. Consider technology-based options for book check-outs, allowing for multiple points and easily accessible process for checking out resources, materials and technology.

Program of Spaces

Learning Commons	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 Media Center (low bookstacks & open areas)	1	4,600	4,600	high ceiling, graphics, kid-friendly space, 12K volumes
.02 Circulation Desk	1	50	50	include book drop from adjacent hallway to circ. desk
.03 Media Specialist Office	1	150	150	
.04 Workroom/Storage	1	200	200	
.05 Quiet Alcoves	5	20	100	MUST be visible for supervision, could be furniture
.06 Digital Recording Area	1	200	200	broadcast, green screen, etc.
.07 Technology Lab	1	900	900	also for use during testing
.08 Literacy Specialist / Reading Coach	1	150	150	
.09 Instructional Technology Specialist	1	150	150	
.10 Technology Storage/Workroom	1	100	100	
.11 Shared Conference Room	1	200	200	
.12 Teacher Resources/Book Room	1	200	200	adj to shared conf & workroom/storage
.13 Outdoor Reading Plaza	TBD		outdoor area	
.14 Restrooms	TBD		gross area	
			7,000	

Adjacency Goals
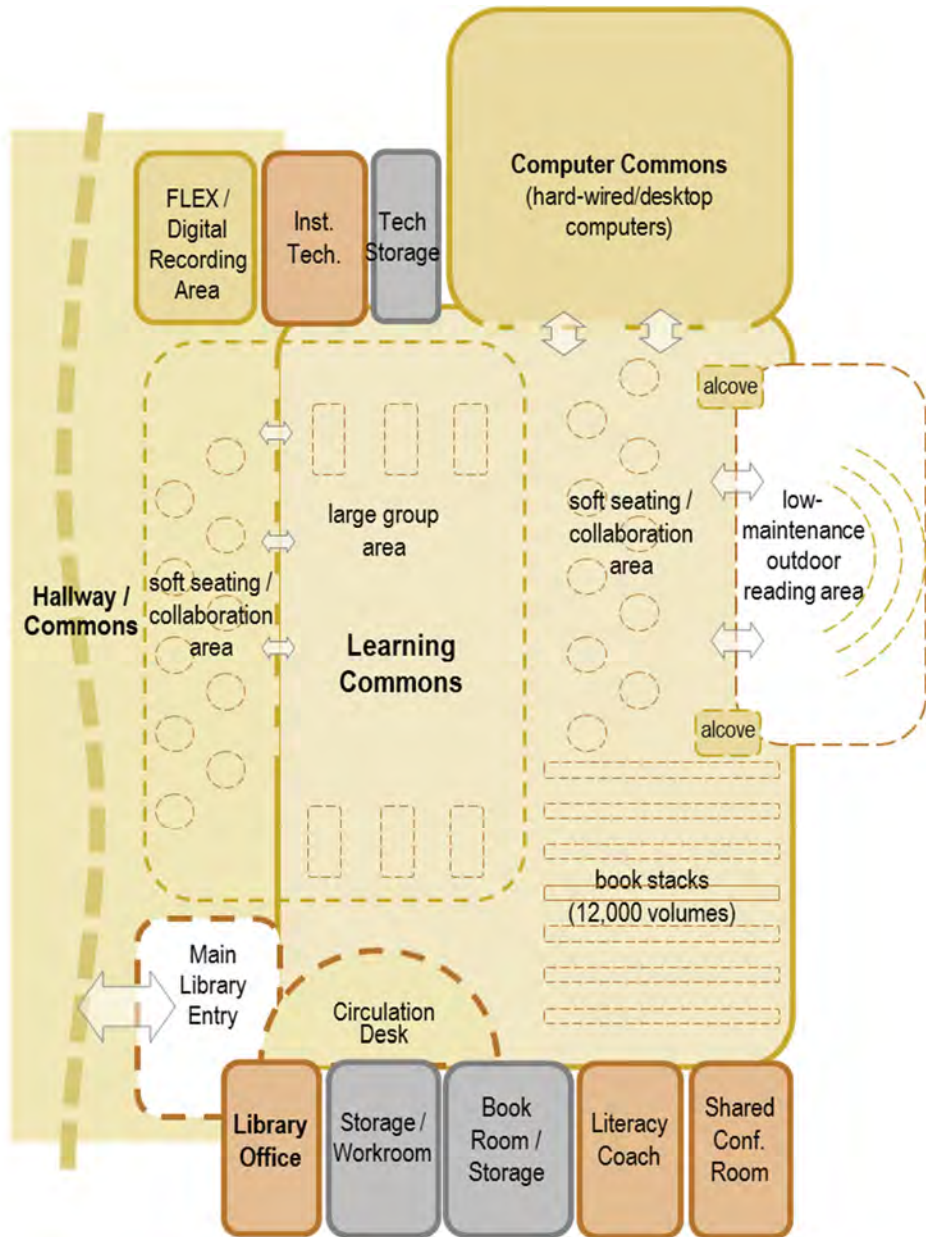
Spatial Attributes

In addition to all applicable codes and guidelines, general parameters which apply to all spaces (unless noted otherwise) are listed in an earlier section of this ed spec.

Images and photographs are offered as examples of similar spaces in other schools. They are not intended to be direct representations of the designs for MSDWT, but instead offer some insight into the intent of each space.

SPACE: MEDIA CENTER

Area/Department: Community Commons: Learning Commons

Occupants: Students plus library staff, teachers, IA's, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use Formal and informal learning, reading, topic-based explorations, circulation (physical and digital) of materials, storage of book collections, large and small group instruction, research help from librarians, homework help, individual work, meetings, connected learning, etc.

FURNITURE & CASEWORK

Furniture Bookshelves for approximately 12,000 volumes, Reading/collaboration tables, chairs, soft seating, movable book shelves, book carts, storage cabinets, book spinners, marker board easels, mobile room dividers, etc. Mobile "collaboration" counter, genius bar with stools

Fixtures Marker boards and tack boards, projection surfaces

Fixed Casework Display areas

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from commons, hallways, project lab	-	N

OTHER / SPECIAL CONSIDERATIONS

1. consider using varying types and heights of furniture for variety of uses and activities

2. locate bookshelves at room perimeter and/or low height for supervision (bookcases should be movable if in center of space)

3. Space should be easily accessible for both student and community use

4. space should be expandable into commons areas

5. variable controls for lighting, including dimmable

SPACE: Digital Recording Area

Area/Department:	Community Commons: Learning Commons
Occupants:	up to 10 students, easily supervised by staff

ACTIVITIES & SPACE USAGE

Activities/Use	Small area for production of digital media, green screen, broadcasts, etc.

FURNITURE & CASEWORK

Furniture	Workstation & task chairs, presentation table, mobile storage units, mobile marker boards, tripod, mobile lighting stands
Fixtures	Marker boards and tack boards
Fixed Casework	green screen (could be fabric track, painted wall surface, etc.)

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	-	-	-
Interior	Visibility to/from hallway or Media Center	N	N

OTHER / SPECIAL CONSIDERATIONS

1. additional power outlets per equipment & technology and for flexibility of room arrangements & activities

2. direct/indirect lighting, multiple zone controls for various activities/technologies

3. consider lighting and acoustics appropriate for audio and visual recordings

SPACE: **Technology Lab**

Area/Department: Community Commons: Learning Commons

Occupants: Students, plus staff as needed

ACTIVITIES & SPACE USAGE

Activities/Use   Open lab space with computers for whole group, small group and individual work. Also used for testing as needed.

FURNITURE & CASEWORK

Furniture   Workstations & task chairs, presentation station, mobile storage units, mobile marker boards, podium, equipment carts

Fixtures   Marker boards and tack boards, projection surface

Fixed Casework   -

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	-	-	-
Interior	Visibility to/from hallway and/or Media Center	N	Y

OTHER / SPECIAL CONSIDERATIONS

1.   acoustical considerations during use as testing area

2.   configuration to monitor all computer screens at once

3.   easily opened to media center space, could be via overhead door, operable wall, etc.

3.03 Performance Space

General Description

Powerful experiences create lasting memories when children perform and present their ideas and talents for authentic audiences. MSDWT middle schools support student performances through a variety of activities, including performances on a formal stage. The stage (performance platform) should be planned to accommodate student plays, concerts, shows, speakers, presentations, multi-media presentations and other activities of both in-school and community-based functions.

Program of Spaces

Performance Space	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 Performance Platform/Stage	1	3,000	3,000	to accommodate +/-100 performers
.02 Audience Seating / LGI (Optional)	1	5,000	5,000	Using dining commons for audience reduces need for this area
.03 Platform Storage Room	1	200	200	Piano, costumes, props, acoustical shell system, etc.
.04 Scene Shop (Optional)	1	600	600	Include if soace permits, otherwise use art/project rooms
.05 Costume/Prop Storage	2	250	500	can be combined into one space
.06 Dressing Rooms	2	150	300	easy access to nearby restrooms
.07 A/V Equipment Storage	1	100	100	
.08 Control Room	2	100	200	
.09 Concessions / Box Office	1	100	100	
			10,000	

Adjacency Parameters

The performance platform should open onto an audience seating area. Audience seating may be fixed or movable or a combination of fixed and movable. However, audience seating may be accommodated by connecting to and/or overlapping with the dining commons. This strategy is commonly used to increase the functionality of an often underutilized audience seating space by allowing it to also be used during lunches, and vice-versa. Thus the square footage for a stand-alone audience seating area is included in this educational specification as "optional" space. It is expected that these parameters may be adjusted when applied to existing facilities.

Two diagrams are included below to illustrate the stand-alone audience option and the use of dining commons for audience seating.

Diagram A illustrates a typical stand-alone audience area. Since it would not be used for cafeteria functions, it could be designed with a sloped floor and fixed seats. However, a flat floor with movable seats could allow this space to also support other activities (such as large group instruction, an additional PE space, etc.) when not in use by an audience.

Diagram B illustrates a "Cafetorium" idea, where a large space can be designed to accommodate both cafeteria seating and audience seating. In this diagram, retractable theater seating is shown, and it is recommended that this seating system includes motorized operation and upholstered and cushioned seating with backrests. The diagram shows an optional space divider that when closed could support smaller audiences if the cafeteria is in use. This idea would increase the flexible use of the spaces.

Diagram A:

Stand-alone Audience seating. (Seating can be fixed or movable)
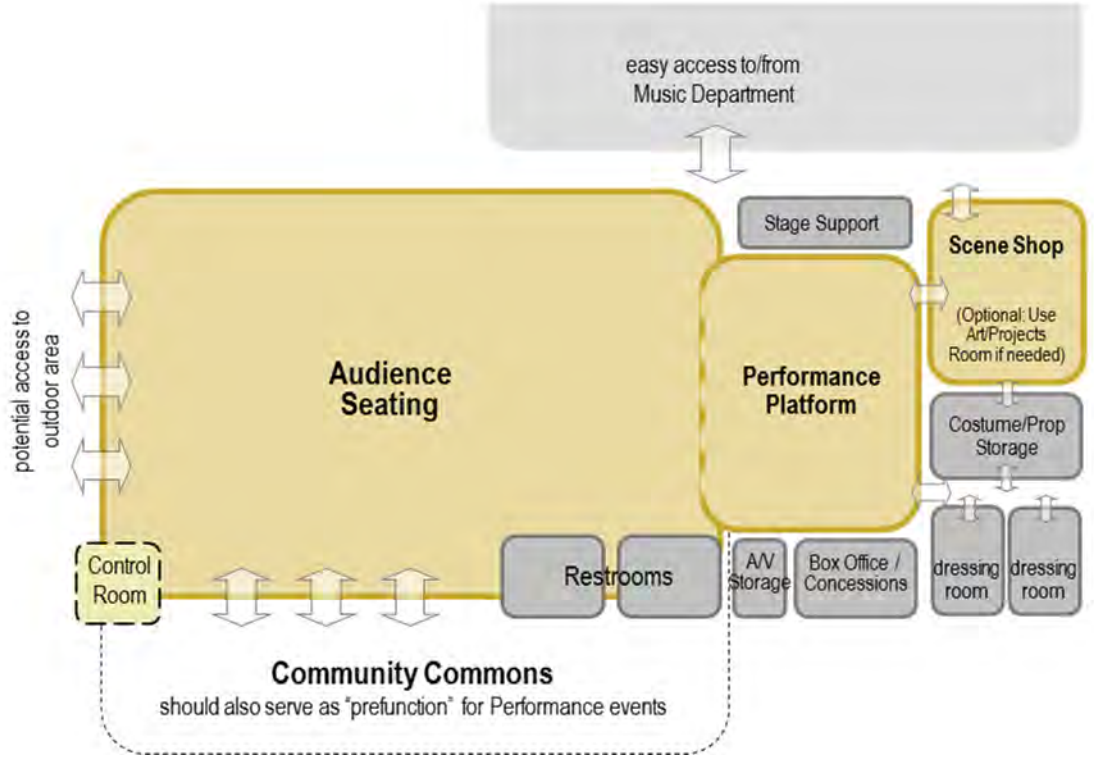
Diagram B:

Combined Dining Commons + Audience seating. (Seating must be movable)
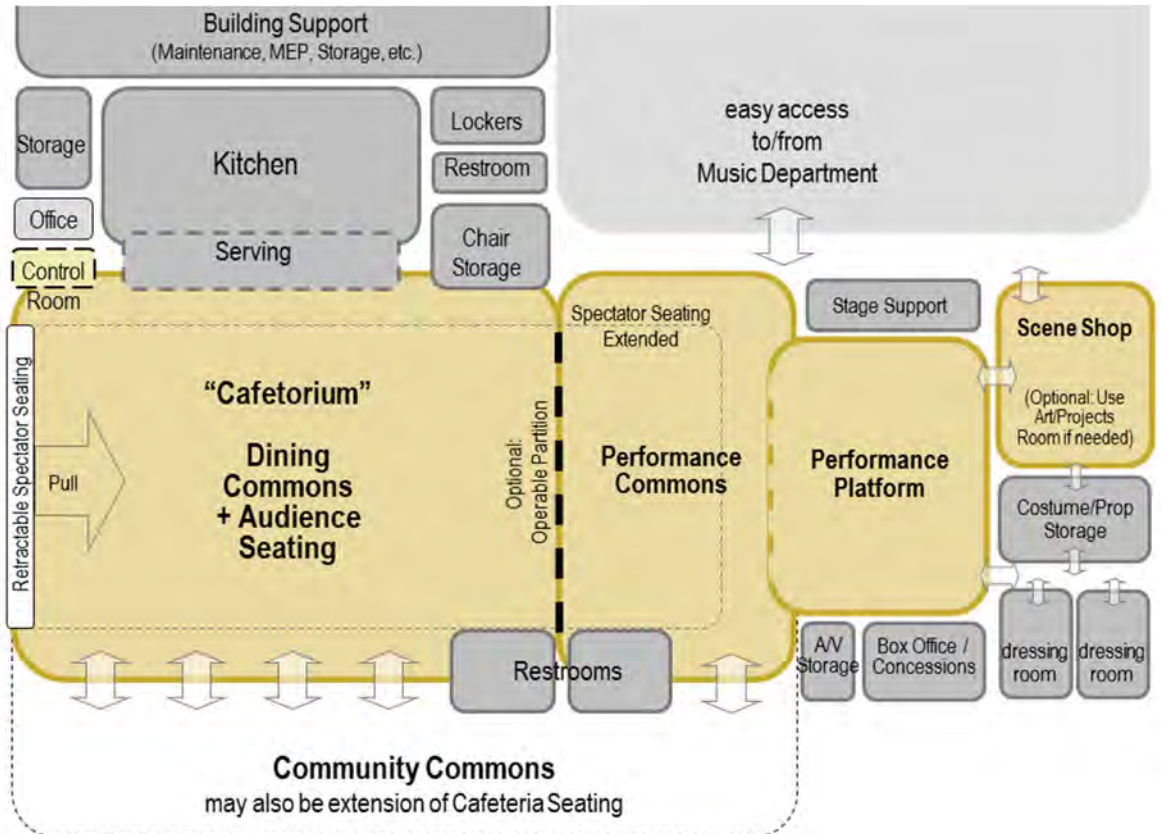
Photos

Show a school cafeteria with retractable audience seating, allowing the space to serve as both dining and performance venues.
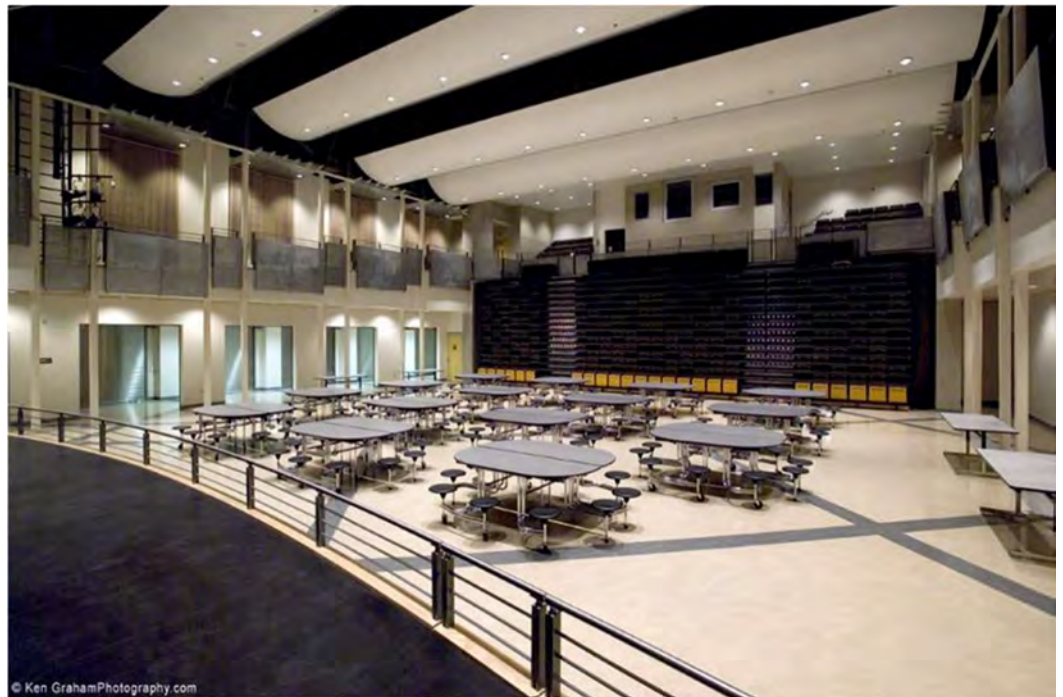
SPACE: PERFORMANCE PLATFORM

Area/Department: Community Commons: Performance Space

Occupants: up to 200 performers

ACTIVITIES & SPACE USAGE

Activities/Use   Stage area for various performances including music, drama, shows, lectures, presentations, community events, etc.

FURNITURE & CASEWORK

Furniture   movable risers

Fixtures/Equipment   projection screen, theater curtain, performance technology components

Fixed Casework   -

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	-	-	-
Interior	-	-	-

OTHER / SPECIAL CONSIDERATIONS

1.   theater stage flooring

2.   lighting and sound systems, motorized stage curtain, additional equipment per instructor(s)

3.   direct access to stage storage

4.   easy access from music rooms

3.04 Food Services & Nutrition

General Description

MSDWT middle schools support two or three student lunch periods (350-550 students). In middle schools running two lunches, the area needed for dining will logically be larger. The ed spec allows the larger capacity dining space to be created in several ways, depending on existing facilities conditions and design parameters. For example, additional dining area can be created by:

1) Enlarging the Dining Commons using the "optional additional" space included in the ed spec,
2) Allowing the Dining Commons to open onto another large space, such as the school commons and/or audience seating space, or
3) Combine the square-footages for the dining commons and performance/audience seating space into one single space, also known as a "cafetorium" or "auditeria"

Diagrams and photographs of these options are included below and with the performance space section above.

The dining area should have easy access to the school commons, and should be available for after-hours use. A connection to an outdoor picnic area is desired, if space allows. The kitchen should have easy access from the receiving area for deliveries and include support spaces as identified. Centralized controls for freezers and refrigerators are desired. The kitchen should be designed for efficiency and should be a pleasant space that promotes employee longevity.

Program of Spaces

Food Services / Nutrition	Qty.	Net S.F.	Total Net S.F.	NOTES
.01 Dining Commons (Cafeteria)	1	4,400	4,400	3 lunches (+/-350), can obe mult-use (i.e. audience seating)
Optional Additional Cafeteria Space	1	2,600	2,600	Increase size of cafeteria if 2 lunches (+/- 550 students)
.02 Food Services Kitchen & Serving Lines	1	2,200	2,200	storage, prep, clean-up, etc
.03 Storage Rooms	3	200	600	
.04 Staff Dining Area	1	600	600	near staff lounge
.05 Cafeteria Director Office	1	100	100	
.06 Kitchen Staff Lockers	1	100	100	
.07 Kitchen Staff Restroom	1	50	50	
.08 Table/Chair Storage	1	300	300	
.09 Custodial Room	1	50	50	
.10 Restrooms	2	gross area		visibility / supervision from dining area
			11,000	

Adjacency Parameters
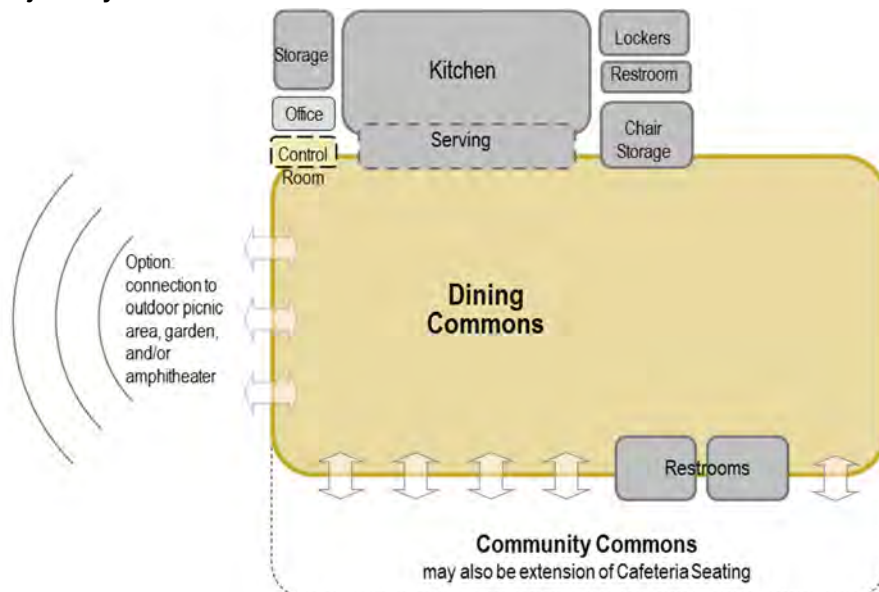
Spatial Attributes

SPACE: DINING COMMONS

Area/Department:	Community Commons: Food Services / Nutrition
Occupants:	approximately 1/3 of students at a time, plus teachers/staff, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Dining, plus various other large-group activities, Option: audience seating for performances, may serve as overflow PE space and/or indoor recess as needed

FURNITURE & CASEWORK

Furniture	include a variety of dining areas and seating types, easily maintained, and movable to facilitate clean-up and transitions among lunch periods
Fixtures/Equipment	Marker boards and tack boards, digital menu boards, other fixtures per kitchen/food services consultant
Fixed Casework	-

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	N	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1. connection to commons for additional seating, pre-function and/or overflow
2. easy access to chair/table storage
3. easy access to restrooms/handwashing
4. high volume space with color, kid-friendly graphics for school spirit
5. direct access to outside if possible
6. sound attenuation for noise control

4.00 School Offices & Student Services

General Description

MSDWT middle schools will include a main office for centralized spaces for welcoming visitors, operating and administering the school. The main entry will be easily recognizable from parking and drop-off areas, and all visitors will be welcomed and screened before entering the body of the school.

The main office is a hub of activity, addressing students, staff and visitors, particularly concentrated in the peak hours of the morning, lunch time and afternoon dismissal. The layout of the administration should be secure, efficient and professional, exhibiting confidence and friendliness to both occupants and visitors. Student work and creativity should be exhibited generously throughout the spaces in both digital and physical formats.

Access to the main entry should be clear and accessible. The security vestibule should direct visitors into the main office for screening before being allowed to enter the rest of the building during regular school hours.

Direct access through the vestibule and directly into the school may be allowed for students in the morning hours while students are arriving, and for visitors after hours during events such as performances, open houses, and sports activities. The Large Conference Room should be located to allow use without necessarily going through the main office.

The office should be directly connected to the school's lobby space which should also serve as a prefunction for events.

The Workroom should be located with easy access from (or open to) the office staff to enable them to accomplish tasks in the workroom while still monitoring the reception space visually. Parents and other volunteers should have easy access to the parent/volunteer room after obtaining clearance from the front receptionist.

During a student workshop, a 4th grader recommended that a "lost and found" alcove include movable clothing racks and bins to allow for items to be moved to public places when parents/guardians are expected to be around. The idea is to have items easily visible so that they have a better chance of being claimed. We think this is a terrific idea for the middle schools as well!

4.01 School Office

Program of Spaces

4.01	School Office	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Security Vestibule	1	150	150	air-lock & security functions
.02	Welcome Center/Waiting Area	1	250	250	
.03	Receptionst / "Front Desk"	1	150	150	sized for 2 workstations
.04	Principal's Office	1	200	200	Sized to support small meetings
.05	Principal's Restroom	1	60	60	
.06	Asst Princ Offices	2	150	300	May be located with/near grade level Pods
.07	Enclosed Offices	4	120	480	office mgr, data tech, bookkeeper, +1 flex office
.08	Open Office Workstations (attendance, discipline	1	200	200	privacy panel, files storage, lockable
.09	Large Conference Room	1	400	400	dividable?
.10	Small Conference Room	1	200	200	
.11	Workroom / Copier	1	200	200	near / connected to the reception area
.12	Supply Storage	1	100	100	
.13	Staff Restrooms	2	100	200	possibly share w/centralized teacher support restrooms (4.02.03)
.14	In-School Intervention	1	400	400	4-5 students max, individual focused workstations
.15	Security Resource Officer	1	100	100	
.16	Student Waiting Area	1	50	50	near attendance/discipline, visible for supervision
.17	PA Alcove	1	20	20	verify technology
.18	Lost and Found Alcove	1	20	20	
.19	Deliveries Alcove	1	20	20	
.20	Kitchenette / Breakroom			-	included in workroom
				3,500	

Adjacency Parameters

One possible arrangement of spaces included in the Main Office is shown below.
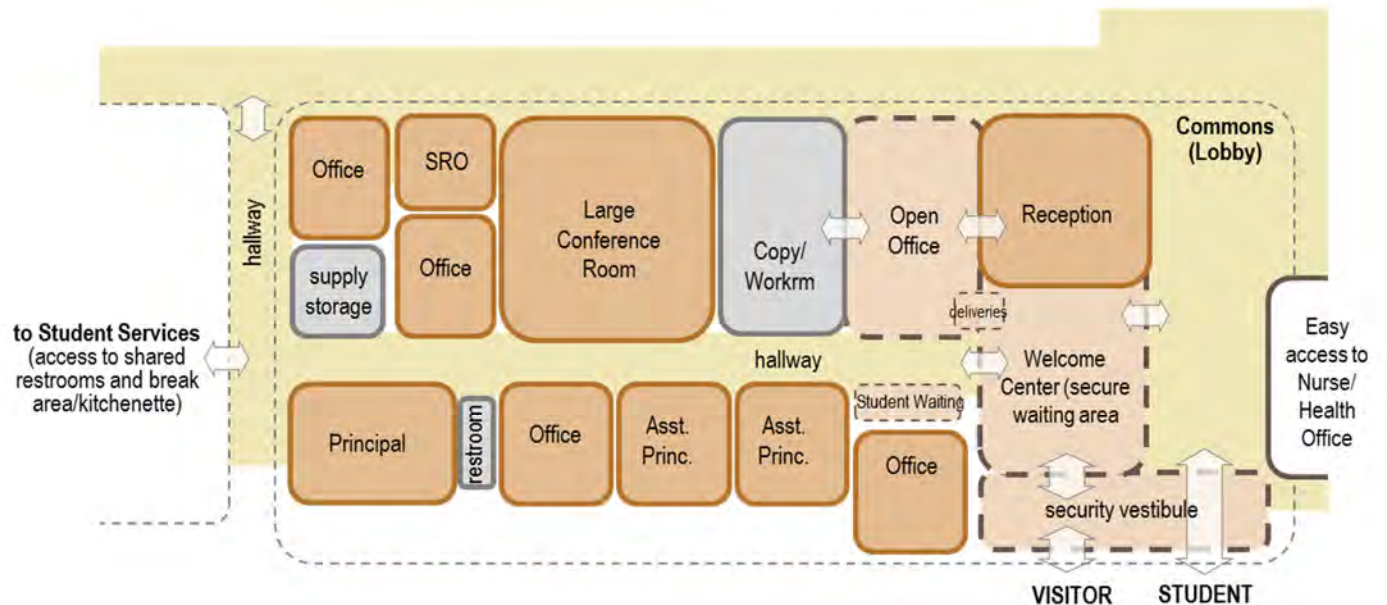
4.02 Teacher/Staff Support Areas

General Description

Teachers and staff should have a variety of supports located throughout the school building. This includes space to work, plan, collaborate, eat, socialize and use a restroom. A teacher's lounge and mailboxes should be centrally located with easy access for all teachers and staff.

In addition to the centralized staff support areas, "think-tanks" (included as "staff support spaces" within the academic teams) include space for team collaboration, work space, storage, technology, restrooms and kitchenettes, and they should be located with easy access to each team.

Program of Spaces

4.02	Centralized Teacher Support	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Workroom/Mailroom	1	400	400	near main office
.02	Staff Lounge	1	800	800	with kitchenette, centrally located
.03	Staff Lounge Restrooms	2	100	200	
				1,400	

Adjacency Parameters
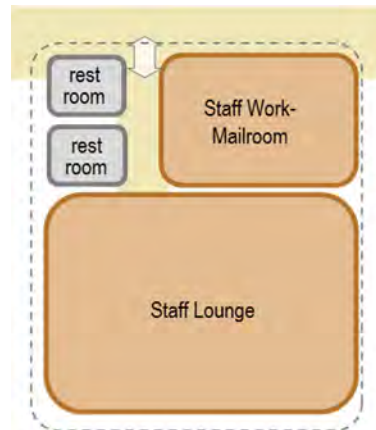
4.03 Student Services & Special Education

General Description

Student services include supports for the success of all students. Since some of the spaces listed in this category are shared between Student Services and Special Education, the list is combined as shown below. Staff and specialists working with students may choose to use office and conference spaces listed in this category, or to meet students within spaces located within academic teams, such as in learning studios, small group rooms, and/or activity commons areas.

It is preferred that special education support offices be located with very easy access to/from academic teams, and that student services offices be located also with easy access to the school's main office.

Note that the academic teams include full-size classroom spaces for Reading, Resource, Intervention, ENL and other Special Ed programs. Team areas also include small group spaces and reset/sensory rooms, so these spaces are included in lists and diagrams above sections of this ed spec so as to avoid redundancy.

Program of Spaces

4.03	Student Services + SpEd	Qty.	Net S.F.	Total Net S.F.	NOTES
Stud. Svcs	.01 Guidance Reception / Waiting Area	1	100	100	4-6 students, also families
	.02 Office - Guidance	3	150	450	
	.03 Office - Psych. / Soc.	1	200	200	include small area for observed testing
	.04 Office - Speech/Language	1	150	150	access to testing room (currently a shared position)
	.05 Secure Storage Room (Tests)	1	120	120	secure storage/prep for testing materials
	.06 Records/files Storage (Vault)	1	100	100	needs security
Special Ed					
Aux. T.S.	.07 Self-Contained Classroom	1	900	900	do not need to be located together, sinks in room
	.08 Restroom	1	80	80	
Aux. T.S.	.09 Lifeskills/Intensive Needs Classroom	1	1,200	1,200	
	.10 Lifeskills Toilet/Changing	1	100	100	no need to have shower if near nurse office
	.11 Lifeskills Storage Closet	1	100	100	
	.12 Office - Special Ed	1	150	150	
	.13 Office - Therapist	1	150	150	
	.14 Sensory Rooms			-	located with grade levels, for both regular ed and sped
	.15 OT/PT Equipment Storage	1	100	100	
Shared					
	.16 Classroom/Conference Room	1	350	350	12-15 students + 1-2 adults
	.17 Workroom / Copier	1	200	200	
	.18 Small Conference / Testing	2	100	200	
	.19 Open Office / Itinerant Home Base	1	250	250	
	.20 Storage Room	1	100	100	
				5,000	

Adjacency Parameters: Student Services & Shared Spaces

One possible arrangement of spaces in the student services area is shown below.
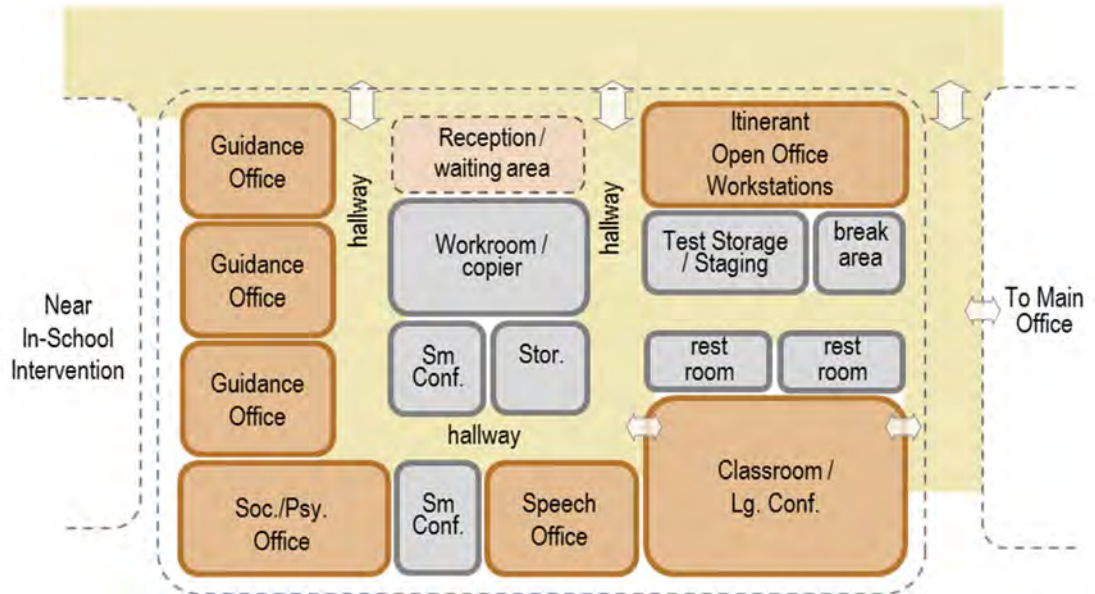
Adjacency Parameters: Special Education

Possible arrangements of learning environments for Special Education are shown below.
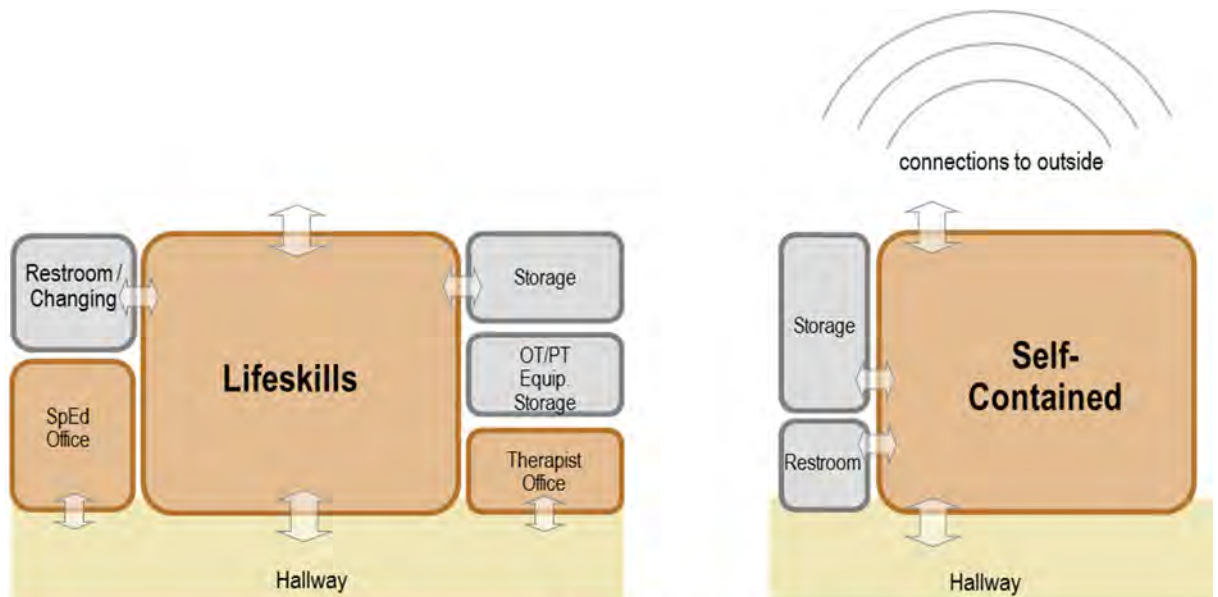
NOTE: These rooms do not necessarily need to be located adjacent to eachother.

SPACE: **SELF-CONTAINED SPED**

Area/Department:	Student Services & SpEd: Special Education
Occupants:	As SpEd: up to 12 students, plus teachers/staff IAs, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Learning environment for students who experience an adapted curriculum which may be difficult to accommodate in general academic team areas. Activities may include whole group, small group and one-to-one learning to improve auditory, tactile, visual, kinesthetic and academic skills - in general to meet the various needs of differently-abled students who require additional supports. In addition to daily learning activities, the room may be also used by any of the following specialists: speech therapists, physical therapists, occupational therapists, teachers of visually or hearing-impaired students, orientation/mobility specialists and audiologists.

FURNITURE & CASEWORK

Furniture	student tables and chairs, variety of learning areas and seating types, mobile storage units, 2 quiet alcoves within space
Fixtures/Equipment	Marker boards and tack boards, projection surface
Fixed Casework	-

WINDOWS & VISION PANELS		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1.   connection to restroom
2.   direct access to outside is preferred
3.   avoid use of fluorescent lighting

SPACE: LIFESKILLS / INTENSIVE NEEDS

Area/Department:	Student Services & SpEd: Special Education
Occupants:	up to 12 students, plus teachers/staff, IAs, volunteers as needed

ACTIVITIES & SPACE USAGE

Activities/Use	Learning environment for students who experience an adapted curriculum and/or with intensive needs which may be difficult to accommodate in general academic team areas. Activities may include whole group, small group and one-to-one learning to improve auditory, tactile, visual, kinesthetic and academic skills - in general to meet the various needs of differently-abled students who require additional supports. In addition to daily learning activities, the room may be simultaneously used by any of the following specialists: speech therapists, physical therapists, occupational therapists, teachers of visually or hearing-impaired students, orientation/mobility specialists and audiologists.

FURNITURE & CASEWORK

Furniture	student tables and chairs, variety of learning areas and seating types (tall and low, soft and hard), mobile storage units, student cubbies, 2 quiet alcoves within space
Fixtures/Equipment	Marker boards and tack boards, projection surface(s)
Fixed Casework	base cabinets with sink

WINDOWS & VISION PANELS

		Operable?	Shades?
Exterior	Windows to exterior	preferred	Y
Interior	Visibility to/from hallway	N	N

OTHER / SPECIAL CONSIDERATIONS

1. connection to restroom/changing room and storage room

2. easy access to OT/PT and/or Health Office

3. direct access to outside protected area is preferred

4. special considerations for accessibility and accommodating various assistive technologies

5. avoid use of fluorescent lighting

4.04 Clinic / Health Office

General Description

Every MSDWT middle school will include space to address student health needs. The school Nurse will have an office with secured storage, and direct access to a treatment area. The cot area should have controlled access to restroom facilities. Parent/guardian access to the Clinic should be clear and easy for pick up of students as needed.

The storage room is intended also for the storage of medications and should be a lockable room and have a locked medicine cabinet inside. The nurse needs easy access to an ice machine.

Program of Spaces

4.04	Health Office	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Waiting Alcove	1	50	50	visibility to adjacent rooms
.02	Office / Private Consultation Area	1	100	100	visibility to adjacent rooms, include blinds/shades
.03	Treatment Room	1	100	100	include sink, refrigerator & ice machine
.04	Cot Room	1	150	150	dividable for boys/girls if needed
.05	Restrooms	2	75	150	with shower, need water fountain outside restrooms
.06	Storage Closet	1	50	50	lockable medication room
				600	

Adjacency Parameters

One possible arrangement of spaces serving the Health Office is shown below.
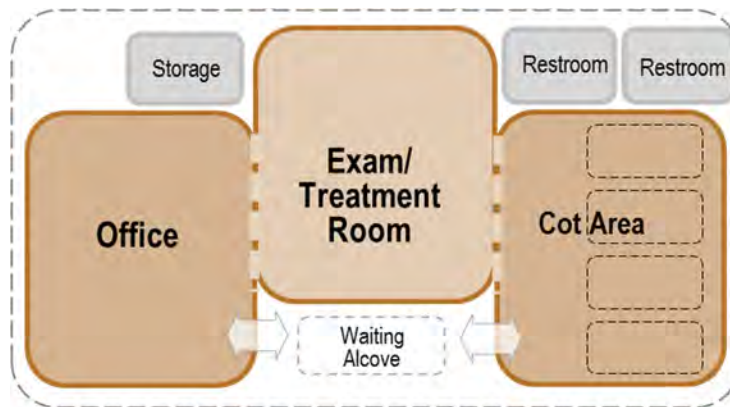
5.00 Building Support

General Description

All buildings require support systems to operate. The actual spaces required to house systems such and mechanical, electrical, plumbing and maintenance will be defined by the design team of architects and engineers who, together with the owner, will define the systems that best meet their collective needs. Several of the "back of the house" spaces are estimated below and will be further defined during the design and engineering of the building.

Program of Spaces

5.01	Maintenance/Custodial	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Maintenance Workroom/Equipment	1	1,000	1,000	
.02	Custodial Staff Lockers/Restroom	1	200	200	
.03	Custodial Closets	TBD	50	Gross area	located throughout building
.04	Custodial Office	1	100	100	
				1,300	

5.02	Mechanical/Electrical	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Main Mechanical Room	1		Gross area	
.02	Main Electrical/Telecom	1		Gross area	
.03	Data/Telecom Distribution	1		Gross area	
.04	Centralized Control Room	1		Gross area	
				0	

5.03	Building Support	Qty.	Net S.F.	Total Net S.F.	NOTES
.01	Deliveries/Receiving	1	400	400	can be combined with Storage
.02	Building Supply Storage	1	800	800	can be combined with Receiving
.03	Dumpster Yard	1		outdoor area	Open-air with security gate and visual screen
.04	Landscape/Maintenance Equipment	1		Gross area	
				1,200	

				(square feet)	NOTES
	Sub-Total NET Building Support			**2,500**	

Adjacency Parameters

Building support spaces are located in a school building during design phases to comply with applicable codes, specific equipment, and other technical parameters. However, the following functional adjacencies are suggested whenever possible:

- In a multi-story building, custodial closets should be located on all floors.

- Locate mechanical equipment rooms so they can be accessed for operations, maintenance and repairs without disrupting students and/or the normal functions of the school.

- Deliveries to the building should be screened or otherwise hidden from the buildings main public entry, and any drives leading to the deliveries should be separate from play areas and visitor parking.

- The receiving area should be located with easy access to the food services kitchen.

- Building supply storage should be located near the receiving area and with easy access to the rest of the building.

APPENDIX

Additional Planning and Design Ideas

Facility as a Teaching Tool

Every square foot of a school building and its grounds can be seen as an educational opportunity. Giving students an understanding of how the school building works and how it fits into their broader community can foster their sense of ownership and engagement with their learning environment.

The teaching tools listed here are suggested ideas. The intent is for the Design Team to develop a theme/brand that can tie the school, the community, and the educational mission together.

Exhibitry, Graphics & Signage

- The theme/brand for the school may be established through super graphics displayed at strategic locations such as the entrance, the commons, and access to individual neighborhoods. The use of vinyl graphics is a very economical way of producing the effect with ability for later modifications.

- The theme/brand should be built into all signage both inside and outside the school.

- Use exhibitry to highlight sustainability features, technology and utility systems (i.e. exposed structure/systems, occupancy lighting, LID Bio Swales, etc.).

- Exhibitry may be used to convey historical information, such as the history and traditions of the school, local heroes, or a timeline of significant events at the school or installation.

- Promote physical activity and health in schools and the use of the building as a public health instrument through exhibitry (how many calories do you burn when you climb the stairs, etc.).

- Plaques, signage and graphics should be visually appealing to the appropriate age group, relevant, educational, fun and encourage imagination.

Exposed Systems

- Include exposed structure or building systems, especially in gathering/assembly areas (i.e. interactive window opening into a mechanical room or building construction demonstration wall cut-out).

- Use appropriate exhibitry to relate systems to learning concepts (i.e. label/color code the piping and equipment and provide information on how these systems work with age appropriate concepts).

- When possible, provide dynamic components like digital flow meters or temperature sensors on chilled water piping to engage the students and provide information that can aid in learning.

- Engineering systems must be encouraged as a fun learning tool and promote students into STEM fields.

- The school can be presented as a "body"; consider an "Operation Game" in which the data/electrical wiring represents veins, HVAC represents lungs, and the building structure represents bones.

Water Harvesting

- Use rainwater harvesting (inexpensive rain barrels) to demonstrate the water cycle for a defined purpose (i.e. to water a student garden).

- Spillways or troughs may be used as water features when utilizing the harvested rainwater for irrigation in an outdoor classroom.
- Use exhibitry to highlight Low Impact Development (LID) features used at the school and their connection to the water cycle and responsible storm water management.

Energy Dashboard

- The Energy Dashboard collects the real time data from the school's building systems to provide for real world learning opportunities while also providing student awareness of the environmental impact of their school. The dashboard should collect data such as electrical, water, and natural gas usage and then display it in conventional units of measure and/or an age appropriate conversion. The data should be tracked to show how consumption/ production may change over time and between other schools.
- If an Energy Dashboard is provided for a school, consider locating it within a large gathering area such as the school entry or commons.
- Sub-meter different wings, or neighborhoods of the building separately. The design of the Dashboard can have the ability for different neighborhoods to compete and strive for energy savings. This can engage students with sustainability at a new level.
- The Dashboard can be connected to demonstration solar panels, wind turbines and weather stations on the school site and/or throughout the district.

Outdoor Learning

Learning Environments

School grounds can provide students with hands-on outdoor learning experiences and promote enhanced awareness of the interdependence of the natural and human environments. A school's grounds include potential educational spaces where concepts taught within the school building can come alive to students. Outdoor learning spaces can include pathways; play structures; amphitheaters, gardens; planters; seating areas; dramatic play areas; wooded and natural features; covered pavilions and porches; and of course, PE fields. School grounds should also include outdoor spaces that are adaptable to many types of activities. The purpose of these spaces is to connect and engage the learners with the natural environment, further their health and social skills, and increase awareness of natural resources.

- Environmental Learning: Consider incorporating natural habitats, wetlands, and areas of specific vegetation as outdoor learning areas for student instruction. For example, garden plots could be used for classroom instruction or by the community areas. Maintaining or reconstructing natural settings such as woodlands and wetlands can offer children opportunities to observe the natural world. These and other options for outdoor learning should be coordinated to support the educational objectives of the school, including S.T.E.M. programs and activities.
- Outdoor Classroom & Gathering Spaces: Consider including a large exterior space that includes open, maintained green space in combination with secondary hardscape (sidewalks). Outdoor classrooms and gathering spaces can provide some seating and natural shade for small gatherings. Possible solutions for seating could be built-in benches or raised planting beds.
- Art Patio: Considering including an Art Patio adjacent to the Art Room. Consider providing an exterior sink to accommodate clean up when the art patio is used. If sink is provided, winterize water supply to prevent maintenance issues.
- Outdoor Amphitheater: An amphitheater is an outdoor performance space for a small gathering (40-50 students). Often, the tiers are constructed as a combination of concrete and grass strips; wood or stone

could also be provided. The amphitheater should complement the natural features of the site and all amenities provided should be durable and weather resistant.

- Community/School Garden: Gardens provide great learning opportunities for students. The origin of food, plant care, lifecycle, and many other connections can be made with the curriculum. If a garden area is provided, it should be located/ oriented in an area conducive to the cultivation of plants. Connections with other outdoor learning areas will reinforce multiple educational opportunities. Provide an expandable, fenced area for cultivation and harvest by students and/or community members. Consider co-locating teaching tools such as inexpensive rain barrels near the garden.

- Walking/Running Path/Learning Trail: A flexible perimeter path may be provided that offers opportunities for outdoor movement. Consider providing training and obstacle equipment for the use of OT/PT and/or enhanced physical development. Provide connections to existing installation/base sidewalk or trail networks where possible.

- Other Possible Outdoor Learning Opportunities: Other low maintenance outdoor site features may be considered. Site features such as sundials, themed walkways, nature paths, bioswales, and other elements that make connections to the natural environment can be incorporated to complement the sustainable design features of the building and to provide educational opportunities for the students. Use age appropriate outdoor signage to highlight the site and sustainability features.

Play-Based Learning

Play is incredibly important to the development of children's social, emotional, cognitive and physical development, as well as creativity and imagination. A wide variety of experts agree that play is essential for a child's brain development. Studies have shown that free play affects neurological development and determines how the neural circuits of the brain are wired. In other words, free play affects a child's confidence, intelligence and ability to articulate. Our favorite neighbor, Fred Rogers, once said, "Play gives children a chance to practice what they are learning."

A widely used rule-of-thumb is to provide 50-75 square-feet of play area per student enrollment. However, urban areas accommodate children in as little as 15-25 square feet per student. This includes both hard and soft surfaces and can vary widely depending on factors such as available land, topography, safety, and the like. Playgrounds should be located short distance away from the building with an accessible path. It is preferable to locate play areas away from occupied classrooms to avoid distractions and noise issues.

Play helps children develop language and reasoning skills, encourages autonomous thinking and problem solving as well as helps improve their ability to focus and control their behavior. Play also aids children to learn discovery and develop verbal and manipulative skills, judgment and reasoning and creativity. Play experiences also teach children about consequences and risk, which helps them in decision making as they grow up. Children learn and practice many of the skills they will need as adults because of free play.

Playground areas should allow for differences in student ages, abilities and varying interests. According to research, swings help kids learn perceptual processes and body awareness through space; decorative barriers and activity panels improve children's perception of form and shape, spatial orientation, depth and size and their visual and tactile perception; and overhead hanging equipment, like hanging rings and monkey bars, helps kids learn scientific concepts such as force of gravity and spatial awareness. Accommodate play activities such as rocking, swinging, balancing, climbing and sliding and upper-body strengthening activities such as a parallel bar and overhead ladder play equipment. Playing games both alone and in groups can be an important learning tool for kids. Games teach kids to plan and make decisions; and make and understand strategy, rules and objectives. In addition, games encourage the ability to focus and lengthen their attention span.

Additional design considerations:

- For safety, it is a good idea to locate equipment with moving parts, such as swings, at the perimeter of the play area.

- Use fence or planting beds to prevent children from inadvertently stepping into path of moving equipment.

- Play apparatus should be accessible and adequately surrounded with safety surfacing.

- Provide tree-shaded areas for quiet activities, somewhat removed from the active play areas, i.e. play tables and activity panels.

- Consider prevailing sun angles and keep slides out of the heat of the sun by locating the slide surface facing north, where possible.

- Avoid rung ladders and climbing components as the sole means of access to play equipment.

- Conveniently locate secured benches to assure good visibility for supervision of all play areas.

Physical Education & Health Areas

Good personal health is essential to a student's readiness to learn. Through health education students will gain the knowledge, attitudes and behaviors that will prepare them to maintain a high level of physical, social, and mental health and safety.

Health education is taught in the school and supplemented with gymnasium and outdoor programs. Outdoor areas for physical education should include both hard surface and open turf areas for structured and unstructured activities. Soft space may include grass multi-purpose and sports fields while hard surface areas can include basketball, four-square, tetherball, hopscotch, etc.

A running track is desirable but can be difficult to accommodate on small urban sites. An alternative for middle schools may include running trails or nature trail that meanders through the campus. With the right controls and non-simultaneous use, paved play areas may overlap paved vehicular areas such as parking and bus areas if necessary.

When possible, provide naturally shaded areas or covered space for outdoor use during extreme weather.

Community Survey Results

During the planning process, participants offered insights in a variety of formats. Below is a summary of what was heard specifically relating to middle schools.
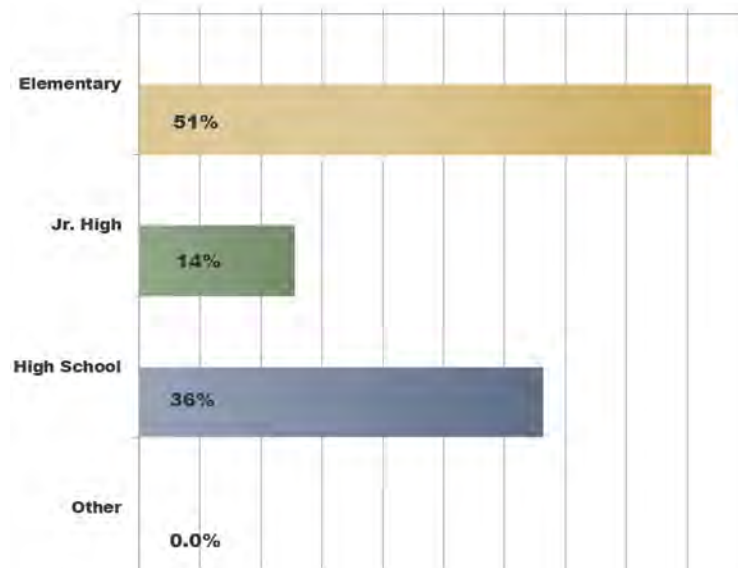
The chart above illustrates that 14% of survey respondents indicated familiarity with middle / junior high school buildings.

The chart below illustrates the demographics of respondents who indicated familiarity with middle school buildings.
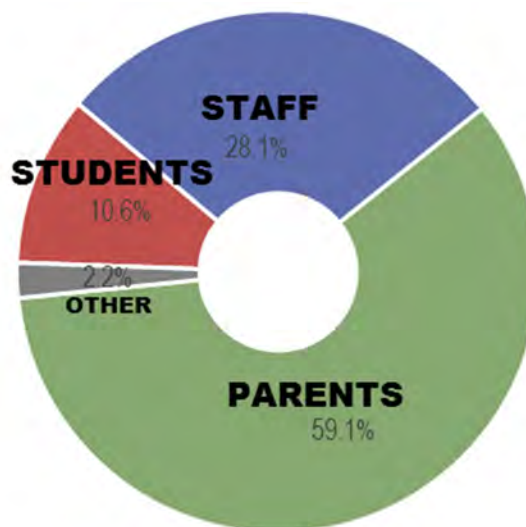
Image Survey Responses

Survey data in this section include respondents who indicated familiarity with one or more MSDWT middle schools. Photos and examples include elementary, middle and high school environments, therefore responses from middle school perspectives included below may indicate the applicability – or lack thereof - of these environments to middle school facilities.

Example Image #1: Hallway cubbies at entries to elementary school classrooms

QUESTION 1a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	8%
No, thankfully! :)	12%
Yes, unfortunately! :(	3%
No, unfortunately :(	74%
I'm not sure...	5%
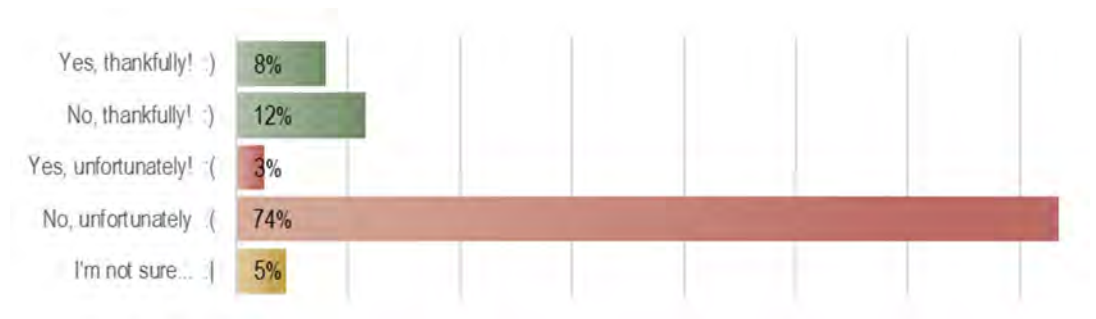
QUESTION 1b: Would you/students like this type of environment in your schools?

Yes	Maybe	No
61%	21%	19%
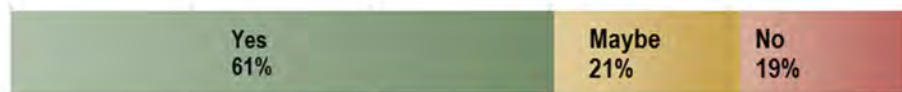
Example Image #2: a small amphitheater facing a stage (music classroom beyond)

Greenman Elementary / West Aurora, IL

QUESTION 2a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	8%
No, thankfully! :)	8%
Yes, unfortunately! :(	2%
No, unfortunately :(	70%
I'm not sure... :|	13%
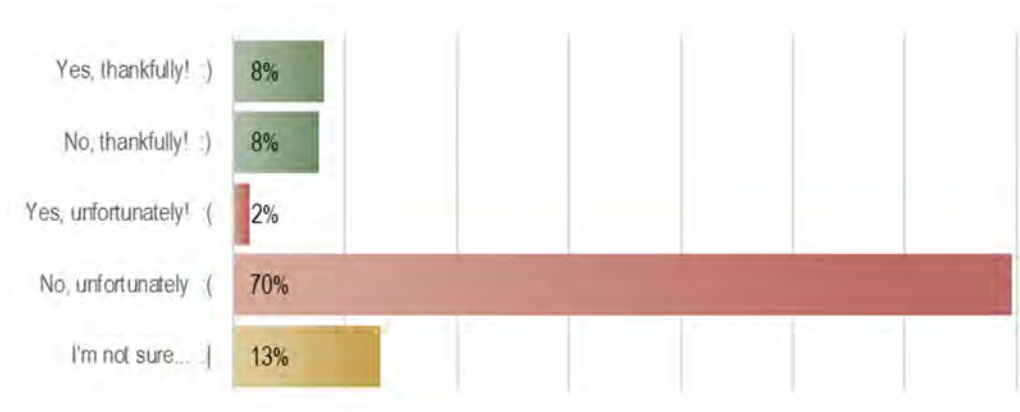
QUESTION 2b: Would you/students like this type of environment in your schools?

Yes 58%	Maybe 25%	No 17%

Example Image #3: part of an elementary classroom showing window nook / stage area

QUESTION 3a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	5%
No, thankfully! :)	10%
Yes, unfortunately! :(	1%
No, unfortunately :(	76%
I'm not sure...	9%

QUESTION 3b: Would you/students like this type of environment in your schools?

Yes 72%	Maybe 13%	No 14%

Example Image #4: a small group / casual reading area in an elementary school library

Trillium Creek Elementary / West Linn, OR

QUESTION 4a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	16%
No, thankfully! :)	10%
Yes, unfortunately! :(	2%
No, unfortunately :(	64%
I'm not sure... :|	8%

QUESTION 4b: Would you/students like this type of environment in your schools?

Yes 70%	Maybe 11%	No 19%

Example Image #5: a student commons space that also serves as a small stage

QUESTION 5a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	7%
No, thankfully! :)	11%
Yes, unfortunately! :(	1%
No, unfortunately :(	71%
I'm not sure... :|	11%
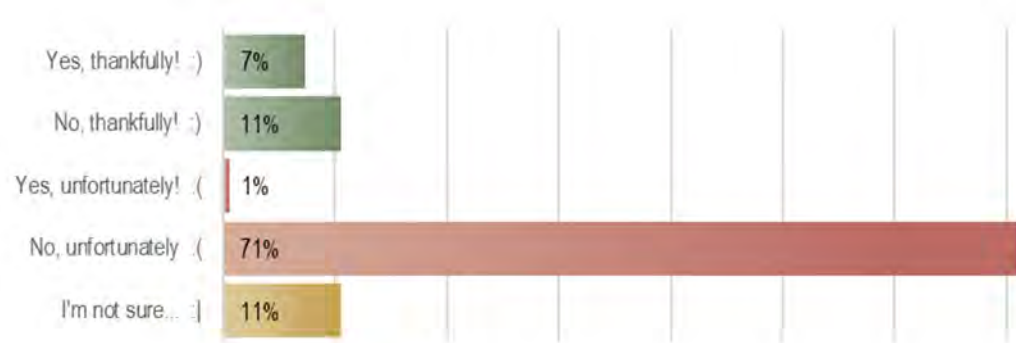
QUESTION 5b: Would you/students like this type of environment in your schools?

Yes 67%	Maybe 15%	No 18%

Example Image #6: a shared gathering space in an elementary school commons

QUESTION 6a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	4%
No, thankfully! :)	10%
Yes, unfortunately! :(	1%
No, unfortunately :(	75%
I'm not sure... :|	9%
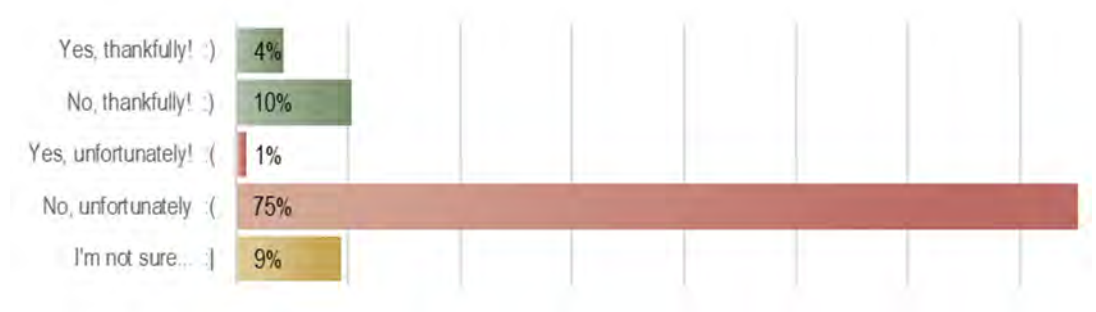
QUESTION 6b: Would you/students like this type of environment in your schools?

Yes 63%	Maybe 17%	No 19%

Example Image #7: a room for large motor skills and sensory learning

Errington Learning Center

QUESTION 7a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	11%
Yes, unfortunately! :(	1%
No, unfortunately :(	68%
I'm not sure...	18%

QUESTION 7b: Would you/students like this type of environment in your schools?

Yes 65%	Maybe 14%	No 20%

Example Image #8: a window seat / quiet reading area

QUESTION 8a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	6%
No, thankfully! :)	8%
Yes, unfortunately! :(	1%
No, unfortunately :(	74%
I'm not sure...	11%

QUESTION 8b: Would you/students like this type of environment in your schools?

Yes 78%	Maybe 14%	No 8%

Example Image #9: a multi-use space in an elementary school library

Trillium Creek Elementary
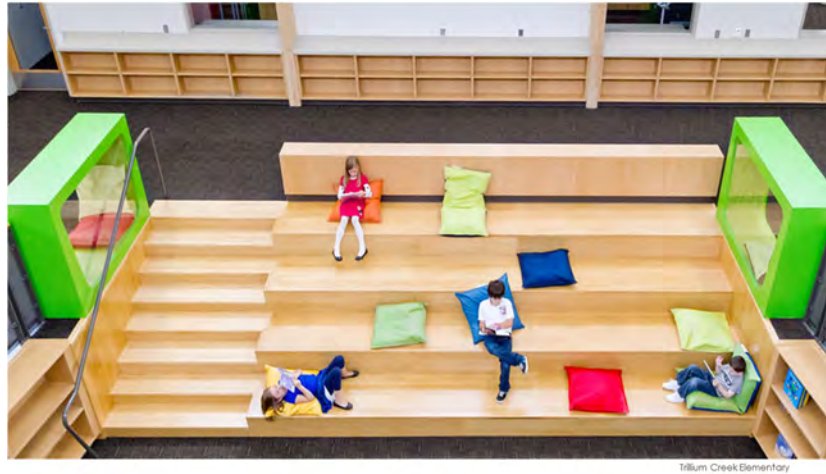
QUESTION 9a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	9%
No, thankfully! :)	8%
Yes, unfortunately! :(	0%
No, unfortunately :(	69%
I'm not sure... :|	14%

QUESTION 9b: Would you/students like this type of environment in your schools?

Yes 68%	Maybe 18%	No 14%

Example Image #10: the entrance to an elementary library showing interactive features

Trillium Creek Elementary

QUESTION 10a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	14%
Yes, unfortunately! :(	0%
No, unfortunately :(	74%
I'm not sure... :|	10%

QUESTION 10b: Would you/students like this type of environment in your schools?

Yes 61%	Maybe 13%	No 26%

Example Image #11: a colorful commons space in an elementary school

Watertown-Mayer Elementary School

QUESTION 11a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	6%
No, thankfully! :)	14%
Yes, unfortunately! :(	1%
No, unfortunately :(	66%
I'm not sure...	14%
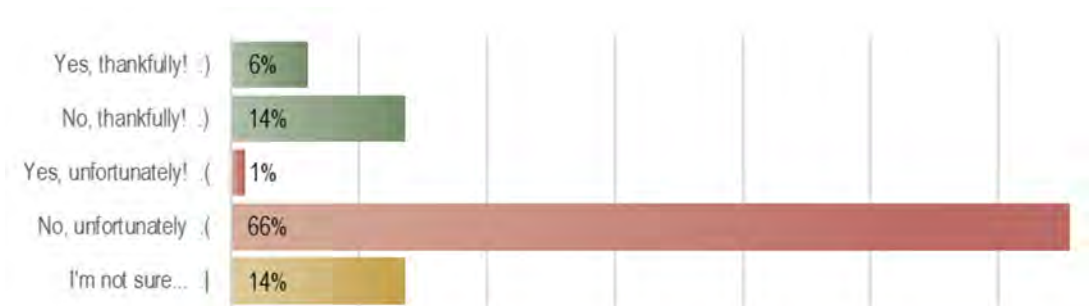
QUESTION 11b: Would you/students like this type of environment in your schools?

Yes 54%	Maybe 18%	No 29%

Example Image #12: space between elementary classrooms used as alternative learning area and activities

QUESTION 12a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	1%
No, thankfully! :)	12%
Yes, unfortunately! :(	0%
No, unfortunately :(	72%
I'm not sure... :|	15%
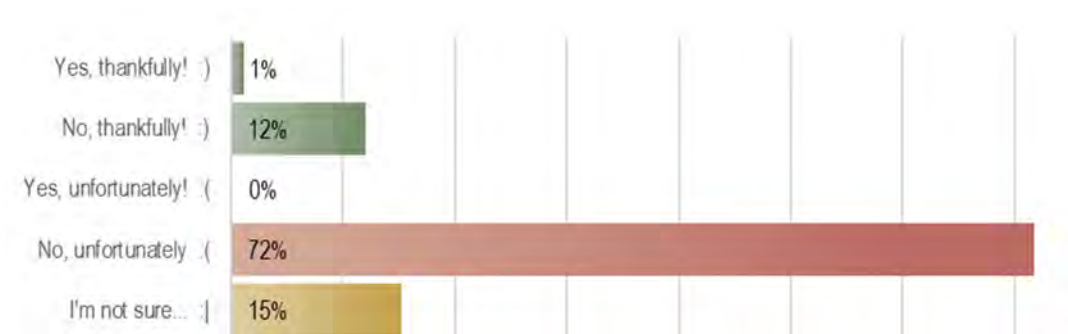
QUESTION 12b: Would you/students like this type of environment in your schools?

Yes 63%	Maybe 17%	No 20%

Example Image #13: a library space in an elementary school

QUESTION 13a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	10%
No, thankfully! :)	6%
Yes, unfortunately! :(	0%
No, unfortunately :(	74%
I'm not sure... :|	11%
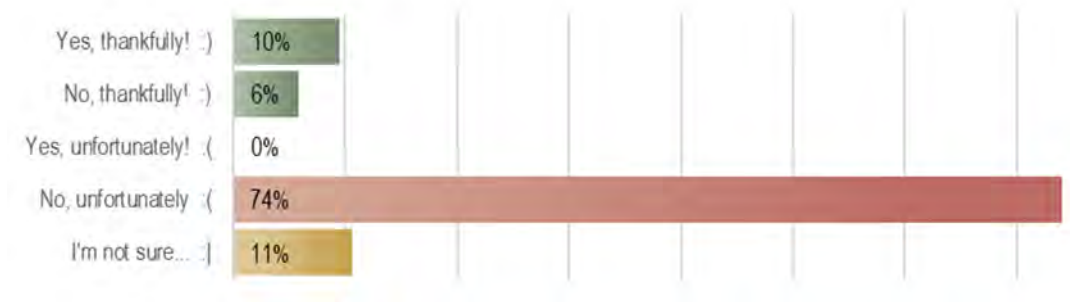
QUESTION 13b: Would you/students like this type of environment in your schools?

Yes 83%	Maybe 11%	No 6%

Example Image #14: a multi-purpose space in an elementary school

QUESTION 14a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	13%
No, thankfully! :)	7%
Yes, unfortunately! :(	4%
No, unfortunately :(	65%
I'm not sure... :|	12%
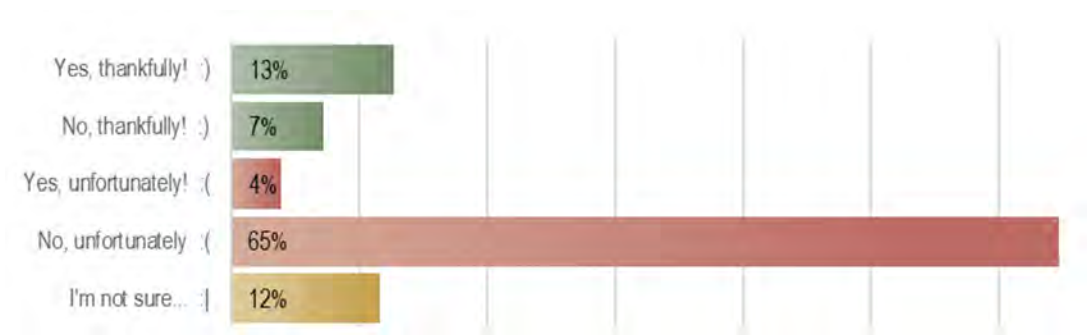
QUESTION 14b: Would you/students like this type of environment in your schools?

Yes 67%	Maybe 11%	No 23%

Example Image #15: an auxiliary gym in a middle school

QUESTION 15a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	9%
No, thankfully! :)	3%
Yes, unfortunately! :(	0%
No, unfortunately :(	80%
I'm not sure...	8%

QUESTION 15b: Would you/students like this type of environment in your schools?

Yes	Maybe	No
77%	13%	10%

Example Image #16: collaboration space just outside a middle school classroom, making use of hallway space

QUESTION 16a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	1%
No, thankfully! :)	10%
Yes, unfortunately! :(	1%
No, unfortunately :(	77%
I'm not sure...		12%
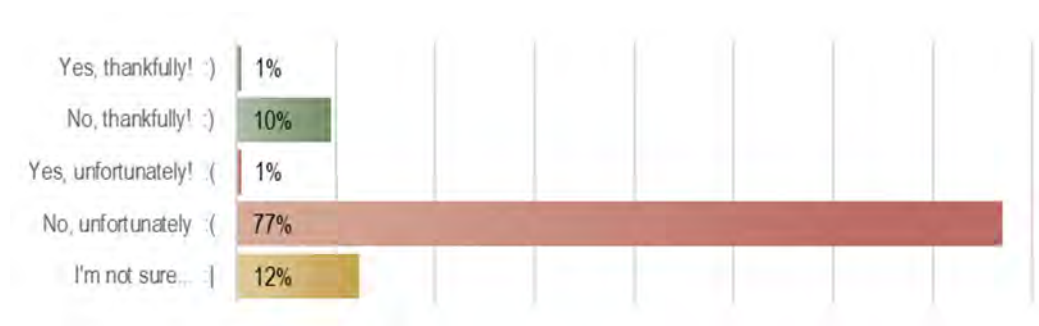
QUESTION 16b: Would you/students like this type of environment in your schools?

Yes 69%	Maybe 12%	No 19%

Example Image #17: a gathering space also for presentations

QUESTION 17a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	4%
No, thankfully! :)	11%
Yes, unfortunately! :(	0%
No, unfortunately :(	71%
I'm not sure...	14%

QUESTION 17b: Would you/students like this type of environment in your schools?

Yes 64%	Maybe 20%	No 16%

Example Image #18: small group spaces with whiteboard walls and glass fronts for supervision

QUESTION 18a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	13%
Yes, unfortunately! :(	1%
No, unfortunately :(	72%
I'm not sure...	13%

QUESTION 18b: Would you/students like this type of environment in your schools?

Yes 55%	Maybe 18%	No 27%

Example Image #19: quiet reading areas in a library

QUESTION 19a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	3%
No, thankfully! :)	13%
Yes, unfortunately! :(	0%
No, unfortunately :(	74%
I'm not sure... :|	9%

QUESTION 19b: Would you/students like this type of environment in your schools?

Yes 69%	Maybe 15%	No 16%

Example Image #20: a middle school maker lab

QUESTION 20a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	6%
No, thankfully! :)	4%
Yes, unfortunately! :(	1%
No, unfortunately :(	74%
I'm not sure...	16%

QUESTION 20b: Would you/students like this type of environment in your schools?

Yes 79%	Maybe 9%	No 13%
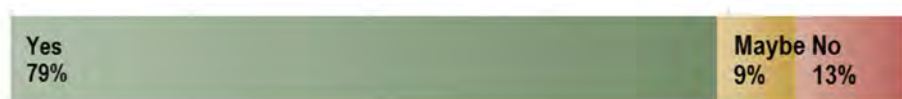
Example Image #21: a stairwell that can also serve as a large group gathering space

QUESTION 21a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	19%
Yes, unfortunately! :(	1%
No, unfortunately :(	64%
I'm not sure...	14%

QUESTION 21b: Would you/students like this type of environment in your schools?

Yes 48%	Maybe 20%	No 33%
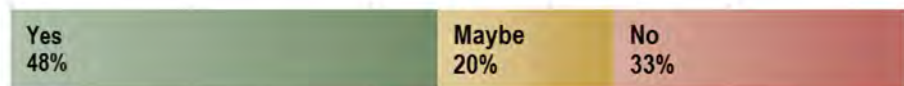
Example Image #22: a student commons that also serves as a overflow dining area

Hazen High School

QUESTION 22a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	1%
No, thankfully! :)	10%
Yes, unfortunately! :(	1%
No, unfortunately :(	71%
I'm not sure...		17%

QUESTION 22b: Would you/students like this type of environment in your schools?

Yes 61%	Maybe 20%	No 19%

Example Image #23: a multi-use cafeteria / meeting space

QUESTION 23a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	6%
Yes, unfortunately! :(	1%
No, unfortunately :(	75%
I'm not sure... :|	15%

QUESTION 23b: Would you/students like this type of environment in your schools?

Yes 71%	Maybe 11%	No 18%
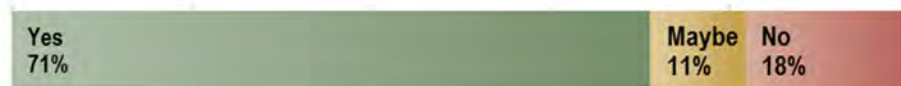
Example Image #24: collaborative technology

QUESTION 24a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	3%
No, thankfully! :)	6%
Yes, unfortunately! :(	1%
No, unfortunately :(	73%
I'm not sure...		16%

QUESTION 24b: Would you/students like this type of environment in your schools?

Yes 78%	Maybe 11%	No 12%

Example Image #25: a double classroom for middle school science

QUESTION 25a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	1%
No, thankfully! :)	11%
Yes, unfortunately! :(	1%
No, unfortunately :(	65%
I'm not sure...	22%
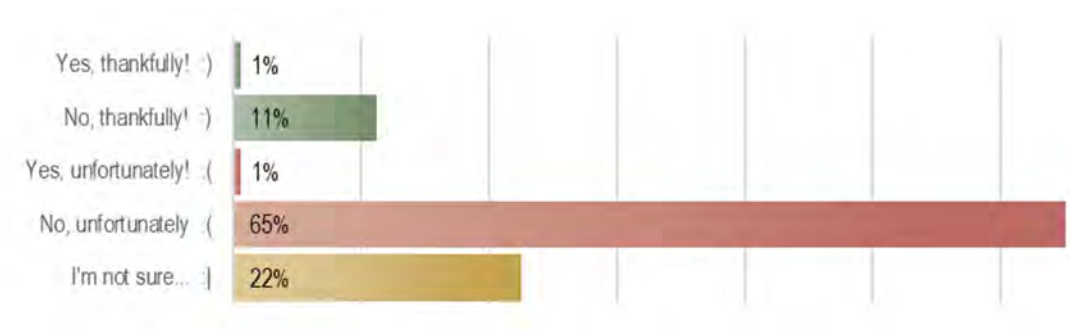
QUESTION 25b: Would you/students like this type of environment in your schools?

Yes 63%	Maybe 16%	No 21%

Example Image #26: a business partnership classroom in a high school

QUESTION 26a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	1%
No, thankfully! :)	11%
Yes, unfortunately! :(	1%
No, unfortunately :(	64%
I'm not sure... :|	22%

QUESTION 26b: Would you/students like this type of environment in your schools?

Yes 69%	Maybe 5%	No 27%

Example Image #27: a high school student commons

QUESTION 27a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	4%
No, thankfully! :)	8%
Yes, unfortunately! :(	0%
No, unfortunately :(	74%
I'm not sure...	15%
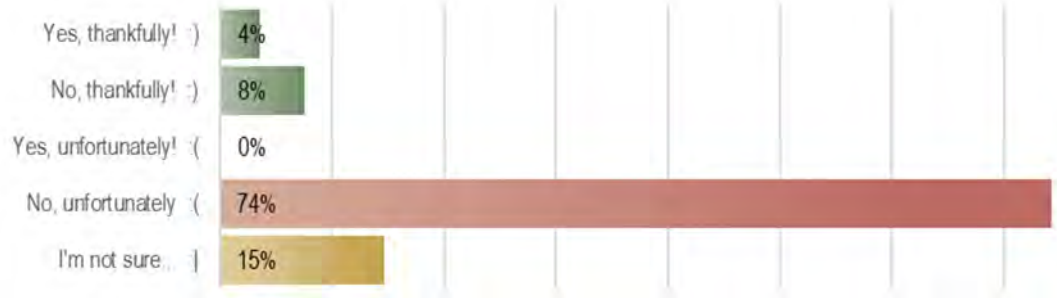
QUESTION 27b: Would you/students like this type of environment in your schools?

Yes 70%   Maybe 14%   No 16%

Example Image #28: a high school student commons with small group collaboration areas

Ørestad High School
Student Commons
Copenhagen
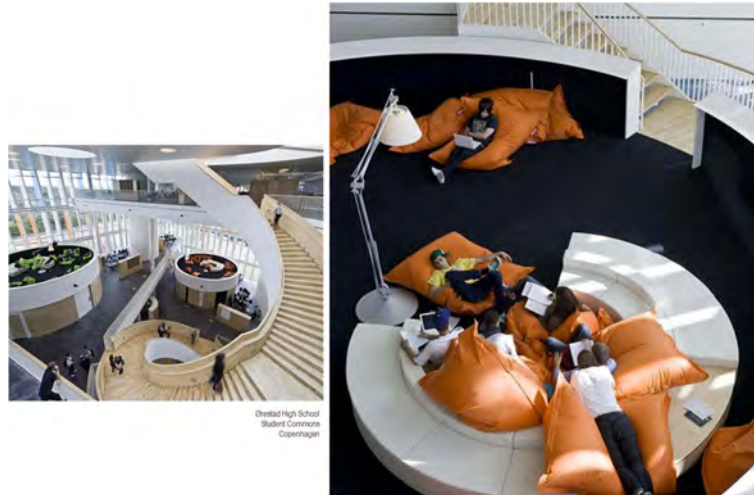
QUESTION 28a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	4%
No, thankfully! :)	23%
Yes, unfortunately! :(	0%
No, unfortunately :(	55%
I'm not sure... :|	18%

QUESTION 28b: Would you/students like this type of environment in your schools?

Yes	Maybe	No
47%	15%	39%

Example Image #29: a brainstorming / collaboration area with operable whiteboard walls

QUESTION 29a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	2%
No, thankfully! :)	15%
Yes, unfortunately! :(	0%
No, unfortunately :(	65%
I'm not sure... :|	19%

QUESTION 29b: Would you/students like this type of environment in your schools?

Yes 62%	Maybe 17%	No 20%

Example Image #30: an outdoor area that can also be used for community gatherings

QUESTION 30a: Do teachers/learners have this type of environment in your schools now?

Yes, thankfully! :)	0%
No, thankfully! :)	10%
Yes, unfortunately! :(	1%
No, unfortunately :(	78%
I'm not sure... :|	11%

QUESTION 30b: Would you/students like this type of environment in your schools?

Yes 63%	Maybe 18%	No 19%

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Additional Resources

There are many resources available for diving deeper into the topic of education. A few of our favorites are listed here:

THE FUTURE OF EDUCATION:

Center for Educational Leadership: https://www.k-12leadership.org/

Government-2020: Trends in Education: http://government-2020.dupress.com/category/education/

The Future of Education: http://www.futureofeducation.com/

MindShift - How We Will Learn: http://ww2.kqed.org/mindshift/category/big-ideas/

2Revolutions: www.2revolutions.net

VIDEO: The Global One Room Schoolhouse: John Seely Brown
https://www.youtube.com/watch?v=fiGabUBQEnM

An animated highlight of John Seely Brown's Keynote Presentation, "Cultivating the Entrepreneurial Learner in the 21st Century," at the 2012 Digital Media and Learning Conference.

VIDEO: The Future of Learning https://www.youtube.com/watch?v=xoSJ3_dZcm8

Published on Mar 1, 2012

At 2Revolutions, we are partnering with forward-thinking governments, funders, nonprofits and entrepreneurs to innovate across the human capital continuum - to ensure that each learner can be successful on the path he or she chooses. We design and launch Future of Learning models, and help catalyze the conditions within which they can thrive.

VIDEO: Future Learning: A Mini Documentary
https://www.youtube.com/watch?v=qC_T9ePzANg

Published on May 30, 2012 (Khan Academy)

Students are the future, but what's the future for students? To arm them with the relevant, timeless skills for our rapidly changing world, we need to revolutionize what it means to learn. Education innovators like Dr. Sugata Mitra, visiting professor at MIT; Sal Khan, founder of Khan Academy; and Dr. Catherine Lucey, Vice Dean of Education at UCSF, are redefining how we engage young minds for a creatively and technologically-advanced future. Which of these educators holds the key for unlocking the learning potential inside every student?

VISUAL DEPICTIONS OF LIFE IN THE FUTURE:

VIDEO: Future vision 2020 (Microsoft)

https://www.youtube.com/watch?v=ozLakIIFWUI

VIDEO: A Day Made of Glass, 2015 (Corning)
https://www.youtube.com/watch?v=RHOX8cu-loY

VIDEO: Top 5 Future Technology Inventions, 2019-2050 (Generation Challenge)
https://www.youtube.com/watch?v=vbNHCn2gHQ4

ARCHITECTURE FOR EDUCATION WEBSITES:

Association for Learning Environments: www.a4le.org (formerly CEFPI)

AIA Committee on Architecture for Education:
http://network.aia.org/committeeonarchitectureforeducation/home

DesignShare: http://www.designshare.com/

The Third Teacher: http://thethirdteacherplus.com/

BOOKS & OTHER RESOURCES

A New Culture of Learning: Cultivating the Imagination for a World of Constant Change

by Douglas Thomas and John Seely Brown

By exploring play, innovation, and the cultivation of the imagination as cornerstones of learning, the authors create a vision of learning for the future that is achievable, scalable and that grows along with the technology that fosters it and the people who engage with it.

Cultivating the Imagination: Building Learning Environments for Innovation

by Douglas Thomas and John Seely Brown

Article that focuses in on the key principles outlined in A New Culture of Learning (published 2011 in Teachers College Record, www.tcrecord.org)

Thinking, Fast and Slow by Daniel Kahneman (recipient of the Nobel Memorial Prize winner in Economics).

→ System 1: fast, instinctive, is biased to believe and confirm, infers and invents causes and intentions, exaggerates emotional consistency (halo effect)

→ System 2: slow, deliberate, rational, logical, relies on facts and knowledge

Deeper Learning (Hewlett Foundation or funded research by Hewlett Foundation)
- Overall: http://www.hewlett.org/programs/education/deeper-learning
- Resources: http://www.hewlett.org/programs/education/deeper-learning/more-resources
- Video: Alliance for Excellence Education's What Does Deeper Learning Look Like? - https://www.youtube.com/watch?v=6kRpQAocWWs
- Publication: Getting Smart & Digital Promise's Preparing Leaders for Deeper Learning - http://gettingsmart.com/publication/preparing-leaders-for-deeper-learning/
- Publication: Preparing Teacher for Deeper Learning - http://cdno.gettingsmart.com/wp-content/uploads/2014/06/FINAL-Printable-DeeperLearningTeacherPrep.pdf

Vulcan's 25 Impact Opportunities in US K-12 Education - http://cdno3.gettingsmart.com/wp-content/uploads/2015/06/Impact-Investing-Final-.pdf; infographic - http://cdno4.gettingsmart.com/wp-content/uploads/2015/06/Impact-Investing-Infographic-Final2.jpg

- Anderson, K. M., (2007). *Differentiating instruction to include all students. Preventing School Failure*, 51(3), 49–54.

- Jensen, E. (2005). *Teaching With the Brain in Mind* (2nd ed). Alexandria, VA: ASCD

- Oblinger, D. G. (2006). Learning Spaces, Educause, e-Book downloadable at www.educause.edu/learningspaces

- Tomlinson, C. A., (2004) *The Differentiated Classroom: Responding to the Needs of All Learners*. (2nd ed.). ASCD.

- Vaughn, S., Bos, C., & Schumm, J. (2000). T*eaching exceptional, diverse, and at-risk students in the general education classroom* (2nd ed.). Boston: Allyn and Bacon.

On-Line resources:

- Vulcan's 25 Impact Opportunities in US K-12 Education - http://cdno3.gettingsmart.com/wp-content/uploads/2015/06/Impact-Investing-Final-.pdf; infographic - http://cdno4.gettingsmart.com/wp-content/uploads/2015/06/Impact-Investing-Infographic-Final2.jpg

- *Preparing Teacher for Deeper Learning* - http://cdno.gettingsmart.com/wp-content/uploads/2014/06/FINAL-Printable-DeeperLearningTeacherPrep.pdf

- Getting Smart & Digital Promise's Preparing Leaders for Deeper Learning - http://gettingsmart.com/publication/preparing-leaders-for-deeper-learning/

- Video – Alliance for Excellence Education's What Does Deeper Learning Look Like? - https://www.youtube.com/watch?v=6kRpQAocWWs

- Global Silicon Valley's (GSV) 2020 Vision – A History of the Future - http://gsv.com/2020-vision/?utm_source=Smart+Update&utm_campaign=b8970ea36d-Supporting_Learners_10_22_2015&utm_medium=email&utm_term=0_17bb008ec3-b8970ea36d-290053337.

- Maine Department of Education. (2014). Twenty Simple Strategies to Safer and More Effective Schools (Dorn, M.S., Nguyen, P., Nguyen, C., Shepherd, S., Bentley, R., Satterly, S., Jr., Ellis, R., Wilson, R., Authors). Atlanta, GA: Safe Havens International.